



HEALTHCARE LIGHTING GUIDE

A photograph of a modern healthcare hallway with large windows and a reflective floor. Two healthcare professionals, a woman and a man, are walking and talking. The woman is holding a clipboard. The man is wearing a stethoscope and holding a clipboard. The hallway is brightly lit, and the floor reflects the people and the windows.

**LIGHTING &
CONTROLS
SOLUTIONS FOR
THE HEALTHCARE
SPECIFIER.**

412-854-3200
www.laface-mcgovern.com

PATIENT ROOMS
OR & SURGICAL SUITES
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CLEAN ROOM
EXAM
UNDER CABINET
GRAPHIC ATMOSPHERE PANELS
DECORATIVE & FEATURED SPACES
WINDOW SHADE SOLUTIONS
CONTROLS SOLUTIONS
IoT



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Designing in the healthcare sector can often mean a balance between aesthetic comfort and technological acuity. With lighting innovation and product developing at a rapid pace it is easy to become overwhelmed with the range of solutions on the market.

Here at L&M we strive to be a partner to you so that you can specify with confidence and know that there is always someone there to help you deliver a package your firm and clients can take pride in. With 40 years of experience, and a trusted team of factories in place, we are poised to help you navigate whatever lighting questions come your way.

This guide has been developed to provide a resource at your fingertips... a starting place for your next healthcare project.

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412-854-3200



Lighting Specification Sales Contacts:

Craig Lockwood
clockwood@laface-mcgovern.com
C. 412-760-8710

Tim Leonard
tleonard@laface-mcgovern.com
C. 412-760-8712

Andy Fiscante
afiscante@laface-mcgovern.com
C. 412-760-4083

Mike Miller
mmiller@laface-mcgovern.com
C. 412-916-3993

Tara Pakler
tpakler@laface-mcgovern.com
C. 412-600-8364

Barry Hostetler (Altoona office)
bhostetler@laface-mcgovern.com
C. 814-418-0727

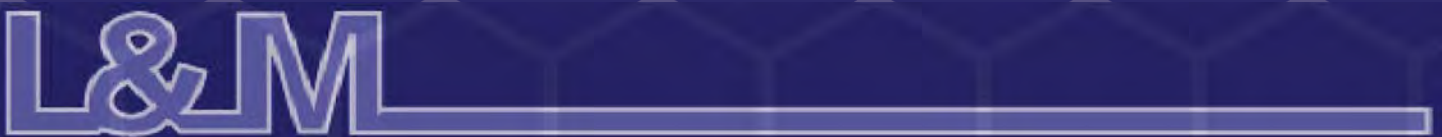


Controls Sales Contacts:

Brian Miedel
bmiedel@laface-mcgovern.com
C. 412-760-8715

Valerie McKee (Controls/Daylighting)
vmckee@laface-mcgovern.com
C. 412-671-6160

Ken Lager (Controls/ Specialty lighting)
klager@laface-mcgovern.com
C. 412-760-8221

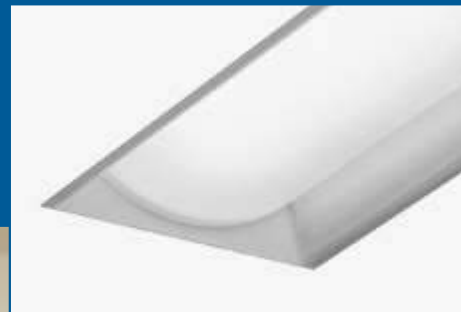




PATIENT ROOMS

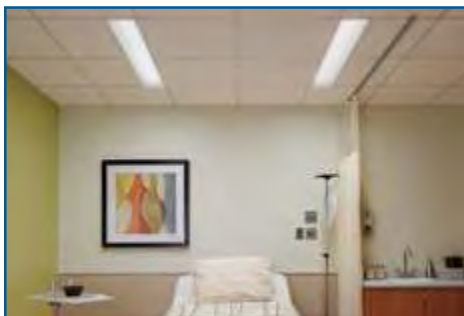
APOLLO 8 LED

Multi-Function Healthcare Luminaire

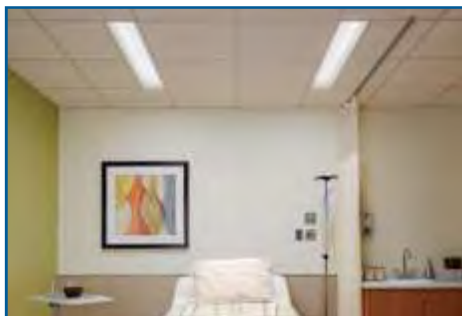


Supporting Healthcare Professionals While Enhancing the Patient Experience

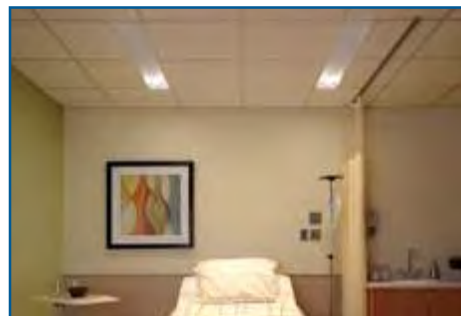
A multi-functional LED luminaire that supports the demands of healthcare environments by improving patient comfort and well-being while accommodating the needs of healthcare professionals. Apollo 8 LED is designed to support diverse areas of healthcare facilities, from corridors to examination rooms. The powerful luminaire is offered in three configurations: Ambient only, Ambient with Exam, and Ambient with Exam and Reading Light. Its glare-free illumination meets the required light levels of the Illuminating Engineering Society (IES) Lighting for Hospitals and Healthcare Facilities (ANSI/IES RP-29-16) standards.



AMBIENT



EXAM



READING LIGHT

APOLLO 8 LED



Apollo 8 LED combines architectural aesthetic with superior performance. It supports the common considerations for healthcare design: comfort, function, safety, sustainability, and health and wellness, enhancing the patient experience while meeting clinical requirements in healthcare applications.

- 8" x 4' linear recessed LED luminaire
- Three functions: exam, ambient and reading light
- Ideal for patient rooms and examination areas
- Custom Curbell dimmable low voltage controller (LVC) used for LVC options
- LVC dimming modes offered: on/off, step, and smooth
- Asymmetric light distribution in exam function
- Six standard lumen output options and three reading light options
- Available in several color temperatures with 80 and 90 CRI offered as standard
- Average LPW > 100 for both 80 and 90 CRI



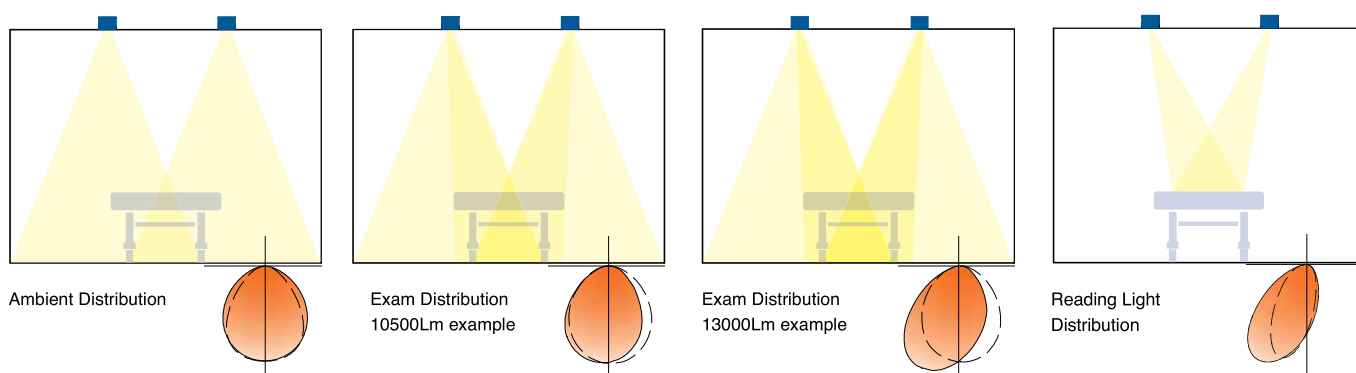
- Right Light, independently select Ambient and Exam light levels for factory custom programming of wattages and lumen outputs within the range in order to meet total footcandle (fc) requirements
- Designed to deliver 75fc/100fc for examination. Meets IES ANSI/RP-29-16 requirements for general, exam and reading illumination levels in patient and examination rooms.

APOLLO 8 LED

Ambient + Exam + Reading Light (FMA8LR)

Designed to support patient comfort and physician tasks with three functions of illumination. The linear tandem luminaires free up valuable ceiling space to accommodate other critical healthcare equipment.

- Ambient and Reading functions are dimmable with a low voltage controller (LVC), the Exam function is on/off only
- Reading Light color temperature may be specified independently from Ambient and Exam
- Total delivered lumen output range 10300Lm - 13000Lm in exam function
- Available as tandem luminaires only

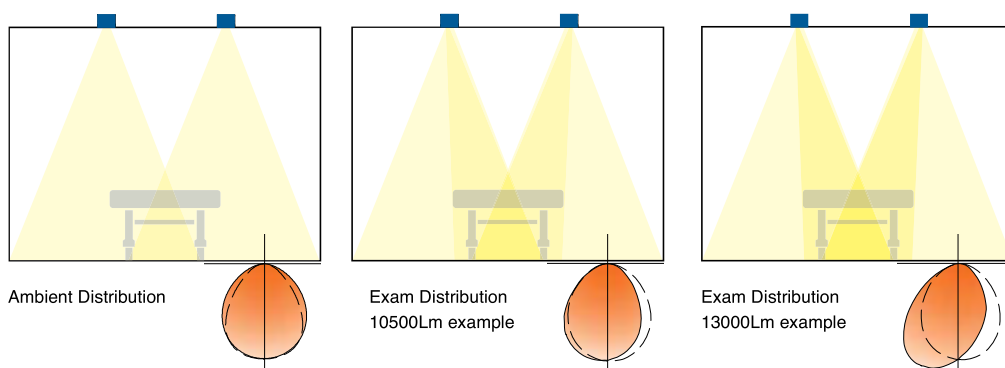


APOLLO 8 LED

Ambient + Exam (FMA8LE)

Designed to address clinical needs for simple procedures or complex operations by delivering general ambient and direct illumination onto patient beds. Its asymmetric beam distribution provides healthcare professionals shadow-free illumination during examinations while minimizing disruption to others in the room.

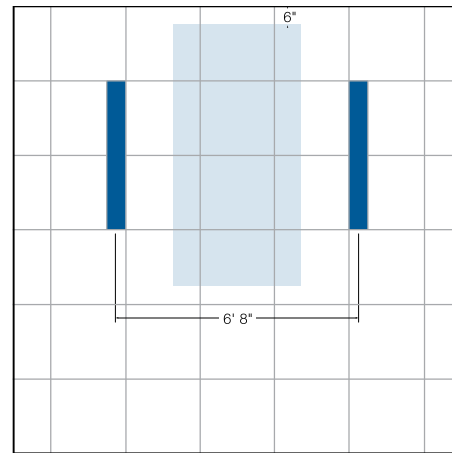
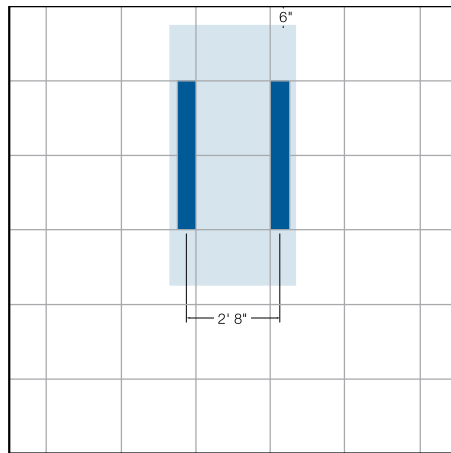
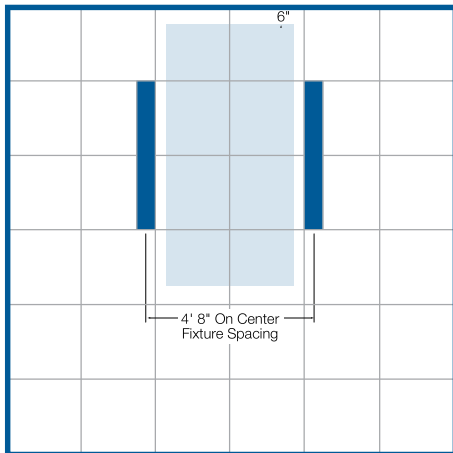
- Total delivered lumen output range 10300Lm - 13000Lm in exam function
- Available as tandem luminaires only



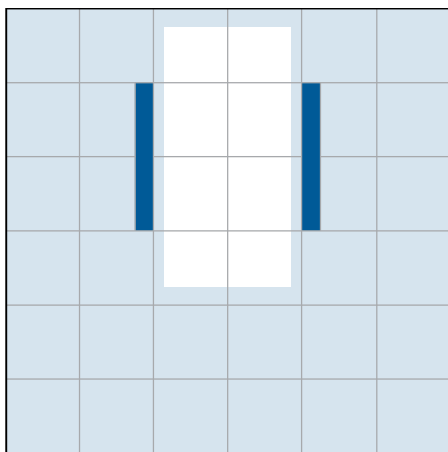
APOLLO 8 LED

IDEAL PATIENT ROOM (Indicated by blue and white boxes in illuminance charts)

12' x 12' Room | 9' Ceiling | 3' 5" x 7' Bed Spaced 6" from wall | 4' 8" On Center Fixture Spacing

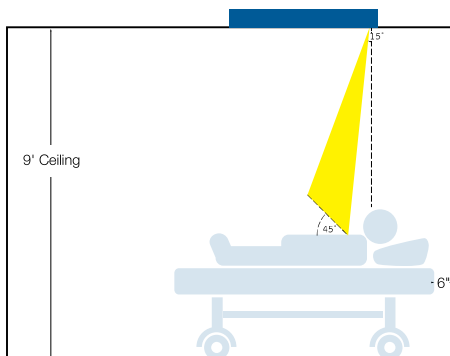


PATIENT ROOM AMBIENT ILLUMINANCE (AVERAGE FOOTCANDLES 80 & 90 CRI)



Ceiling Height	Total Pair Ambient Lumen Output	On Center Fixture Spacing		
		2' 8"	4' 8"	6' 8"
10'	2800	13	12	12
	4300	19	18	17
	5700	26	24	23
9'	2800	14	14	13
	4300	22	21	20
	5700	29	28	26
8'	2800	16	15	15
	4300	24	23	22
	5700	32	31	29

45° ANGLED READING PLANE ILLUMINANCE (AVERAGE FOOTCANDLES 80 & 90 CRI)

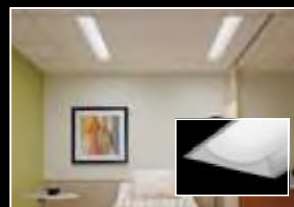
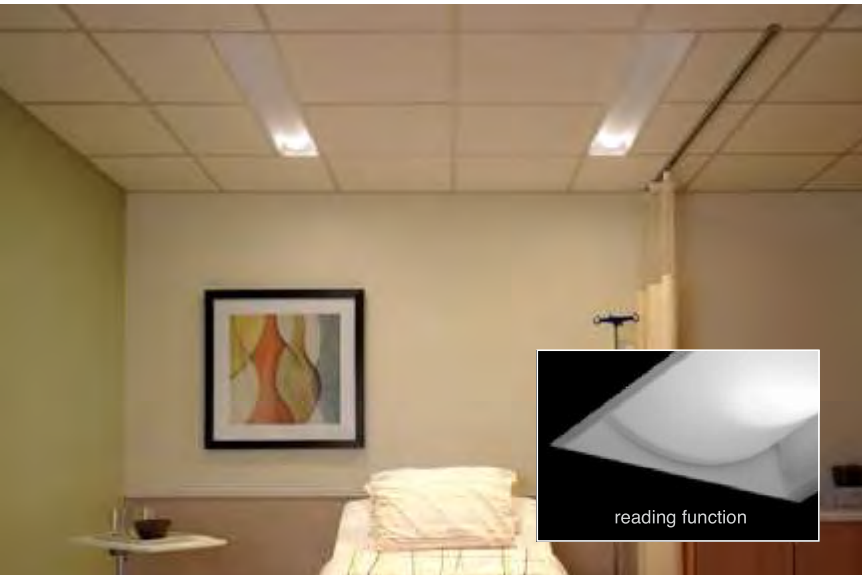


Ceiling Height	Reading Light Pair Lumen Output	On Center Fixture Spacing		
		2' 8"	4' 8"	6' 8"
10'	1700	24	20	16
	2100	30	25	20
	2500*	35	30	24
9'	1700	32	25	19
	2100	40	31	23
	2500*	47	37	27
8'	1700	43	31	20
	2100	53	39	25
	2500*	63	46	29

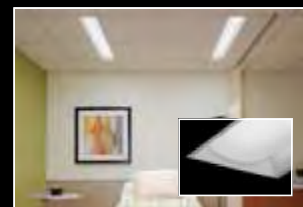
*2500 Lumens 80 CRI only.

Apollo 8 LED Ambient + Exam + Reading Light

LED



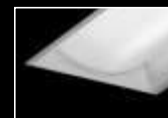
ambient function



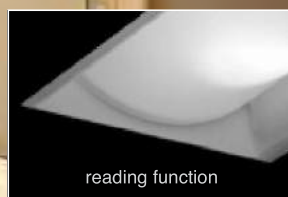
exam function



companion
ambient only

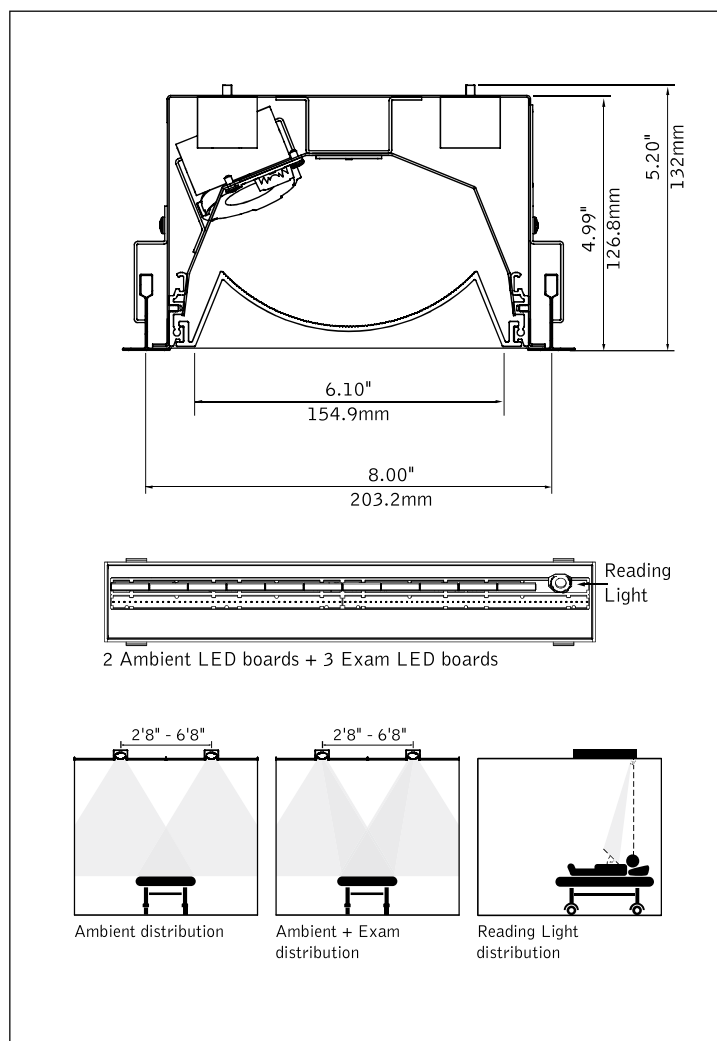


companion ambient
+ exam pair
(exam function shown)



reading function

DIMENSIONAL DATA



FEATURES

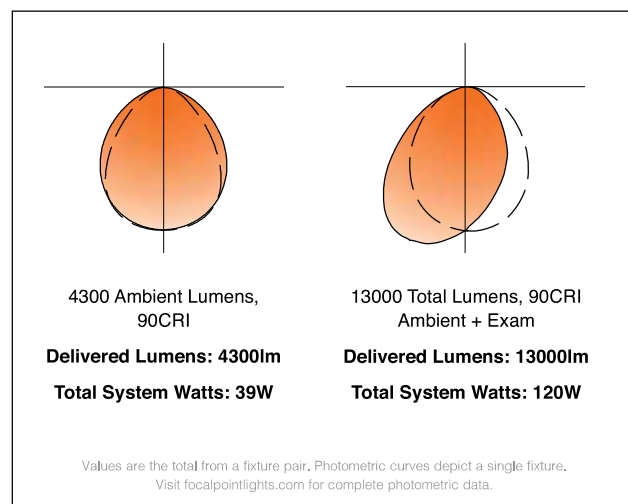
8" wide ambient recessed patient bed light pair with exam and reading light functions.

Radial extruded acrylic diffuser with internal ribs provides brightness control, even illumination, and easy wipe down for cleaning.

Sold as tandem luminaires with master and satellite connected by a low voltage whip. Single power feed allows for easy maintenance.

Custom Curbell dimmable low voltage controller option enables dimming capabilities from a bedside pillow speaker.

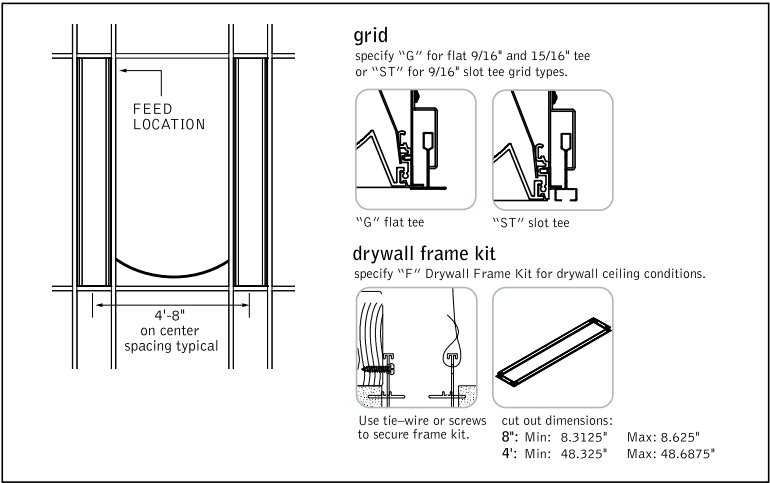
PERFORMANCE



fixture:

project:

MOUNTING INFORMATION



SPECIFICATIONS

LED System

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Ambient/Exam functions available in 3000K, 3500K, 4000K and 5000K. Reading Light available in 2700K, 3000K and 3500K. All functions available in both 80 and 90 CRI options. 0-10V dimming driver standard. LED modules and drivers are replaceable from below. Color accuracy <3 SDCM.

Construction

20 Ga. Steel housing. LEDs sealed and enclosed by detachable acrylic diffuser. End of lens sealed by silicone gasket. Side access plate for electrical connection. Positional clips standard. Fixture pair weight 42.0lbs

Optic

One piece 18 Ga. Aluminum reflector finished in matte white. Exam LEDs are asymmetrically angled to focus light on the center of the bed. An additional focusing optic is used on Exam LEDs for 11000L, 12000L, 13000L outputs. Reading lights are angled 15° for visual comfort.

Electrical

An optional Low Voltage Controller (LVC) allows control of the light sources from a pillow speaker, bed communication side rail device, or momentary dry contact switch. The LVC is configurable to operate with one to three switches, depending on the number of light sources in the fixture and the configuration of buttons on the pillow speaker. The controller also enables dimming of the light sources. It is FCC compliant and will not cause harmful interference.

Labels

UL and cUL listed.

Finish

Antimicrobial polyester powder coat applied over a multi-stage pre-treatment.

Lumen Maintenance

Ambient	Reported:	L70 > 61,000 hours	Calculated:	L70 at 480,000 hours
		L90 > 61,000 hours		L90 at 128,000 hours
Reading Light	Reported:	L70 > 55,000 hours	Calculated:	L70 at 422,000 hours
		L90 > 55,000 hours		L90 at 109,000 hours

Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

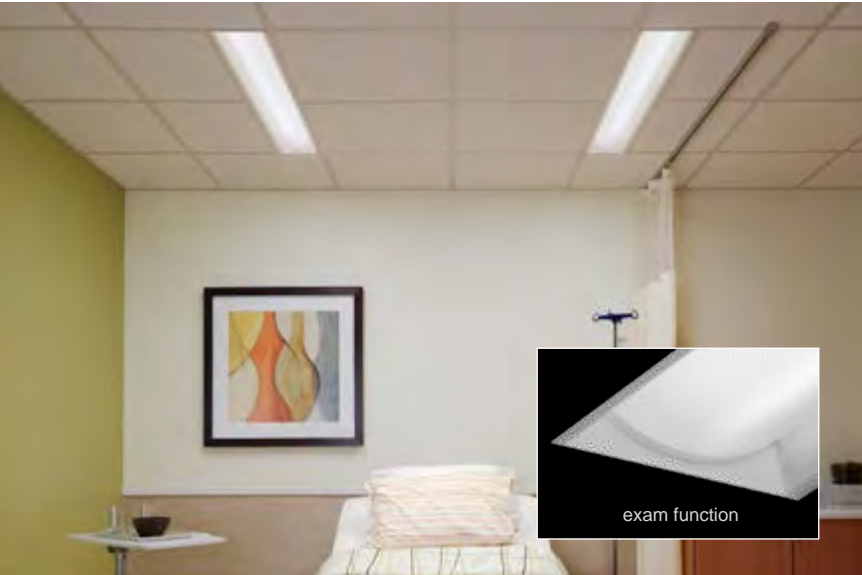
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

SEE PAGE 3 FOR PERFORMANCE CHART

ORDERING		FMA8LR
Luminaire Series (Always sold in pairs)		
Apollo 8 Ambient + Exam + Reading Light	FMA8LR	
Nominal Size 8" x 4'	84	84
Shielding	RA	RA
Radial Acrylic Lens		
Pair Total - Lumen Output		
2800 Lumens Ambient, 10300 total with Exam	10300L	
4300 Lumens Ambient, 10400 total with Exam	10400L	
5700 Lumens Ambient, 10500 total with Exam	10500L	
2800 Lumens Ambient, 11000 total with Exam	11000L	
4300 Lumens Ambient, 12000 total with Exam	12000L	
5700 Lumens Ambient, 13000 total with Exam	13000L	
(Consult factory for custom lumen options)		
Ambient/Exam Color Temperature		
3000K, 80CRI	30K	
3000K, 90CRI	930K	
3500K, 80CRI	35K	
3500K, 90CRI	935K	
4000K, 80CRI	40K	
4000K, 90CRI	940K	
5000K, 80CRI	50K	
5000K, 90CRI	950K	
Pair Total - Reading Light Lumen Output		
1700 Lumens	1700L	
2100 Lumens	2100L	
2500 Lumens (80 CRI only)	2500L	
Reading Light Color Temperature		
2700K, 80CRI	27K	
2700K, 90CRI	927K	
3000K, 80CRI	30K	
3000K, 90CRI	930K	
3500K, 80CRI	35K	
3500K, 90CRI	935K	
Circuit		3C
Three Circuit	3C	
Voltage		
120 Volt	120V	
277 Volt	277V	
347 Volt (L11 & all LVC options only. Transformer required for all LVC options.)	347V	
Control System & Dimming Level (3 drivers per fixture pair)		
0-10V - 1% Dimming	L11	
0-10V - 10% Dimming	LD1	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
Lutron 5-Series EcoSystem (LDE5) - 5% Dimming	LU5	
DALI - 1% Dimming	D11	
Step Dimming (Ambient & Reading Light dimming. Exam on/off only.)	SD5	
Low Voltage Controller - On/Off (2-button pillow speaker - Ambient & Reading Light control)	LVCB	
Low Voltage Controller - 1% Dimming (2-button pillow speaker - Ambient & Reading Light control)	LVC1B	
Low Voltage Controller - Step Dimming (2-button pillow speaker - Ambient & Reading Light control) (Consult factory for alternate LVC wiring configurations or Acuity nLight & Wattstopper DLM options)	LVCPB	
Mounting		
Drywall Frame Kit	F	
Grid	G	
Slot Tee	ST	
Factory Options		
Chicago Plenum (Consult factory for fixture spacing greater than 4'-8")	CP	
Emergency Circuit (Ambient only, consult factory for LVC options.)	EC	
Emergency Circuit with Generator Transfer Device (120 & 277 Volt only. Not available with EC. Ambient only, consult factory for LVC options.)	ECGT	
6' New York City Flex Whip	FNY	
6' Flex Whip	FW	
Finish		WHA
Matte Satin White Antimicrobial	WHA	

Apollo 8 LED Ambient + Exam

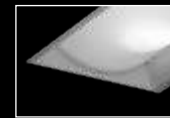
LED



ambient function

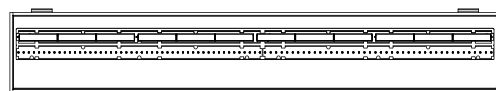
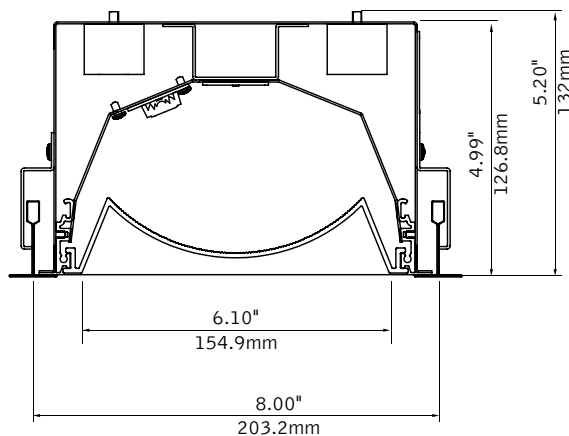


companion
ambient only

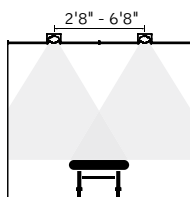


companion
ambient + exam +
reading light pair
(reading function shown)

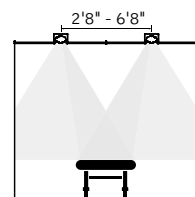
DIMENSIONAL DATA



2 Ambient LED boards + 2 Exam LED boards



Ambient distribution



Ambient + Exam distribution

FEATURES

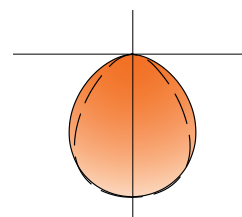
8" wide ambient recessed patient bed light pair with exam function.

Radial extruded acrylic diffuser with internal ribs provides brightness control, even illumination, and easy wipe down for cleaning.

Sold as tandem luminaires with master and satellite connected by a low voltage whip. Single power feed allows for easy maintenance.

Custom Curbell dimmable low voltage controller option enables dimming capabilities from a bedside pillow speaker.

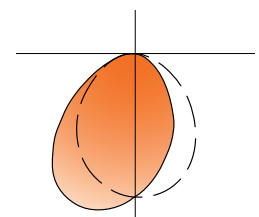
PERFORMANCE



4300 Ambient Lumens,
90CRI

Delivered Lumens: 4300lm

Total System Watts: 39W



13000 Total Lumens, 90CRI
Ambient + Exam

Delivered Lumens: 13000lm

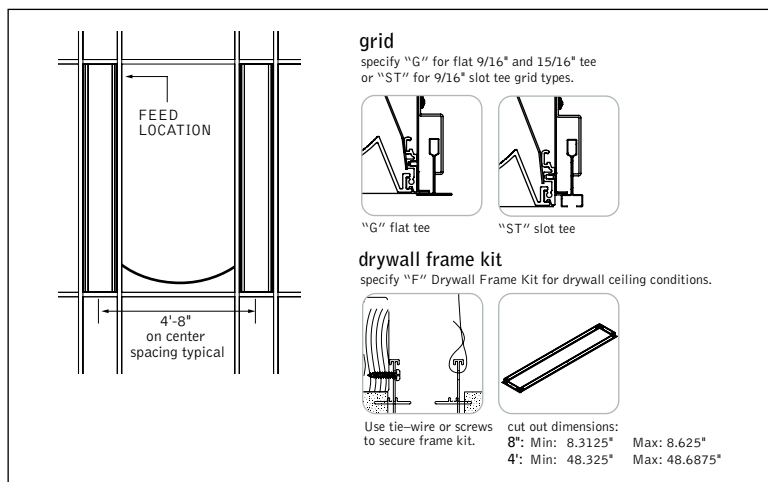
Total System Watts: 121W

Values are the total from a fixture pair. Photometric curves depict a single fixture.
Visit focalpointlights.com for complete photometric data.

fixture:

project:

MOUNTING INFORMATION



SPECIFICATIONS

LED System

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K, 4000K and 5000K with both 80 and 90 CRI options. 0-10V dimming driver standard. LED modules and drivers are replaceable from below. Color accuracy <3 SDCM.

Construction

20 Ga. Steel housing. LEDs sealed and enclosed by detachable acrylic diffuser. End of lens sealed by silicone gasket. Side access plate for electrical connection. Positional clips standard. Fixture pair weight 40.9lbs

Optic

One piece 18 Ga. Aluminum reflector finished in matte white. Exam LEDs are asymmetrically angled to focus light on the center of the bed. An additional focusing optic is used on Exam LEDs for 11000L, 12000L, 13000L outputs.

Electrical

An optional Low Voltage Controller (LVC) allows control of the light sources from a pillow speaker, bed communication side rail device, or momentary dry contact switch. The LVC is configurable to operate with one to three switches, depending on the number of light sources in the fixture and the configuration of buttons on the pillow speaker. The controller also enables dimming of the light sources. It is FCC compliant and will not cause harmful interference.

Labels

UL and cUL listed.

Finish

Antimicrobial polyester powder coat applied over a multi-stage pre-treatment.

Lumen Maintenance

Reported: L70 > 61,000 hours Calculated: L70 at 480,000 hours
L90 > 61,000 hours L90 at 128,000 hours

Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

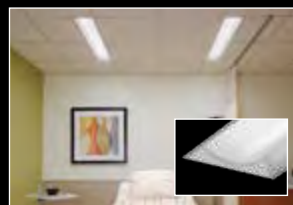
SEE PAGE 3 FOR PERFORMANCE CHART

ORDERING

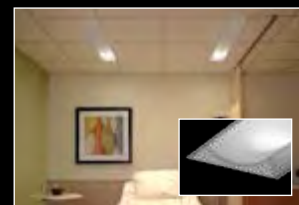
Luminaire Series	FMA8LE
(Always sold in pairs)	
Apollo 8 Ambient + Exam	FMA8LE
Nominal Size	84
8" x 4'	
Shielding	RA
Radial Acrylic Lens	
Pair Total - Lumen Output	
2800 Lumens Ambient,	
10300 total with Exam	10300L
4300 Lumens Ambient,	
10400 total with Exam	10400L
5700 Lumens Ambient,	
10500 total with Exam	10500L
2800 Lumens Ambient,	
11000 total with Exam	11000L
4300 Lumens Ambient,	
12000 total with Exam	12000L
5700 Lumens Ambient,	
13000 total with Exam	13000L
(Consult factory for custom lumen options)	
Color Temperature	
3000K, 80CRI	30K
3000K, 90CRI	930K
3500K, 80CRI	35K
3500K, 90CRI	935K
4000K, 80CRI	40K
4000K, 90CRI	940K
5000K, 80CRI	50K
5000K, 90CRI	950K
Circuit	2C
Two Circuit	2C
Voltage	
120 Volt	120V
277 Volt	277V
347 Volt	347V
(L11 & all LVC options only. Transformer required for all LVC options)	
Control System & Dimming Level	
(2 drivers per fixture pair)	
0-10V - 1% Dimming	L11
0-10V - 10% Dimming	LD1
Lutron Hi-Lume EcoSystem (LDE1)	
- 1% Dimming	LH1
Lutron 5-Series EcoSystem (LDE5)	
- 5% Dimming	LU5
DALI - 1% Dimming	D11
Step Dimming	SD5
(Ambient dimming. Exam on/off only.)	
Low Voltage Controller - On/Off	LVC
(1-button pillow speaker - Ambient control)	
Low Voltage Controller - 1% Dimming	LVC1
(1-button pillow speaker - Ambient control)	
Low Voltage Controller - Step Dimming	LVCPC
(1-button pillow speaker - Ambient control)	
(Consult factory for alternate LVC wiring configurations or Acuity nLight & Wattstopper DLM options)	
Mounting	
Drywall Frame Kit	F
Grid	G
Slot Tee	ST
Factory Options	
Chicago Plenum	CP
(Consult factory for fixture spacing greater than 4'-8")	
Emergency Circuit	EC
(Ambient only, consult factory for LVC options)	
Emergency Circuit with	
Generator Transfer Device	ECGT
(120 & 277 Volt only. Not available with EC. Ambient only, consult factory for LVC options)	
6' New York City Flex Whip	FNY
6' Flex Whip	FW
Finish	WHA
Matte Satin White Antimicrobial	WHA

Apollo 8 LED Ambient only

LED

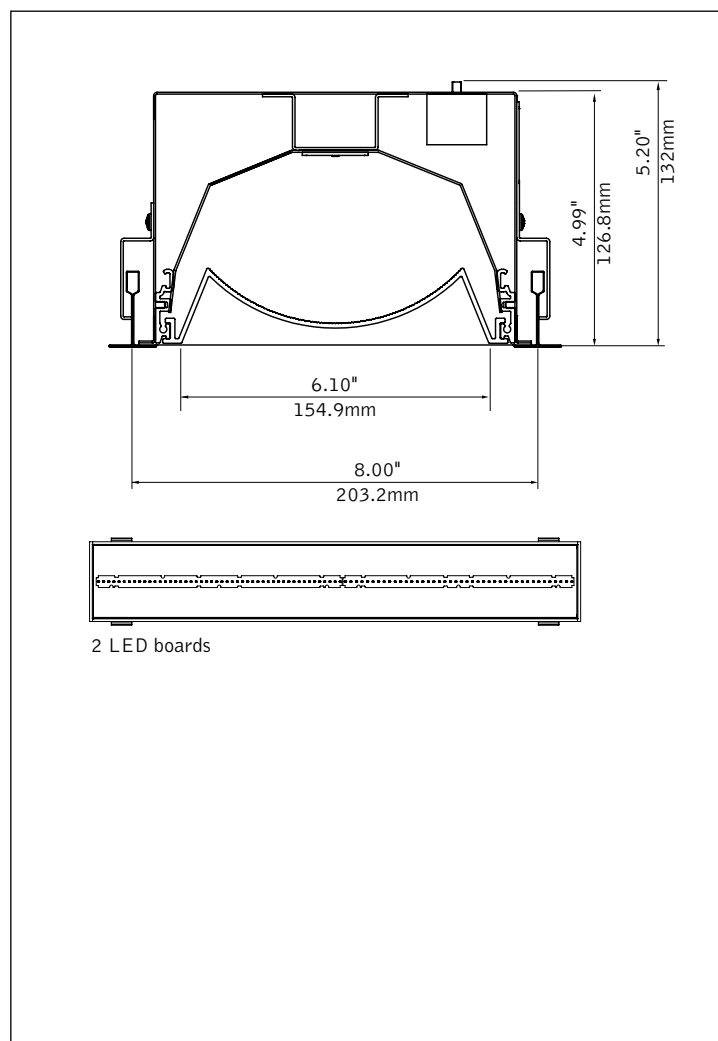


companion ambient + exam pair
(exam function shown)



companion ambient + exam
+ reading light pair
(reading function shown)

DIMENSIONAL DATA

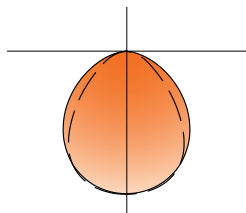


FEATURES

8" x 4' wide ambient recessed luminaire.

Radial extruded acrylic diffuser with internal ribs provides brightness control, even illumination, and easy wipe down for cleaning.

PERFORMANCE



PRODUCT OVERVIEW

Lumen Output:	2000 -4500lm
Wattage:	16-44W
LPW:	102-126
SDCM:	3

2500 Lumens, 80CRI

Delivered Lumens: 2500lm

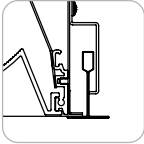
Total System Watts: 20W

Visit focalpointlights.com for complete photometric data.

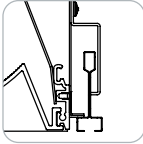
MOUNTING INFORMATION

grid

specify "G" for flat 9/16" and 15/16" tee or "ST" for 9/16" slot tee grid types.



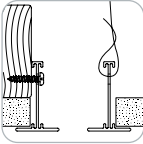
"G" flat tee



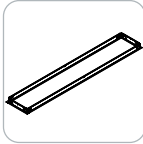
"ST" slot tee

drywall frame kit

specify "F" Drywall Frame Kit for drywall ceiling conditions.



Use tie-wire or screws to secure frame kit.



cut out dimensions:
8": Min: 8.3125"
Max: 8.625"
4": Min: 48.325"
Max: 48.6875"

SPECIFICATIONS

LED System

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 3000K, 3500K, 4000K and 5000K with both 80 and 90 CRI options. 0-10V dimming driver standard. LED modules and drivers are replaceable from below. Color accuracy <3 SDCM.

Construction

20 Ga. Steel housing. LEDs sealed and enclosed by detachable acrylic diffuser. End of lens sealed by silicone gasket. Side access plate for electrical connection. Positional clips standard. Weight 20.6lbs

Optic

One piece 18 Ga. Aluminum reflector finished in matte white.

Electrical

An optional Low Voltage Controller (LVC) allows control of the light sources from a pillow speaker, bed communication side rail device, or momentary dry contact switch. The LVC is configurable to operate with one to three switches, depending on the number of light sources in the fixture and the configuration of buttons on the pillow speaker. The controller also enables dimming of the light sources. It is FCC compliant and will not cause harmful interference.

Emergency Battery

Emergency output—10 watts for 90 minutes. Maximum mounting height: 24ft.

Labels

UL and cUL listed.

Finish

Antimicrobial polyester powder coat applied over a multi-stage pre-treatment.

Lumen Maintenance

Reported: L70 > 61,000 hours

Calculated: L70 at 480,000 hours

L90 > 61,000 hours

L90 at 128,000 hours

Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

Reliability

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

PERFORMANCE CHART

Delivered Lumens	80 CRI		90 CRI	
	Tested System Watts	LPW	Tested System Watts	LPW
2000	16	126	19	108
2500	20	123	24	106
3000	25	121	29	104
3500	29	120	34	103
4000	34	119	39	103
4500	38	118	44	102

Based on 3500k. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

ORDERING		FMA8L
Luminaire Series		
Apollo 8 Ambient Only		FMA8L
Nominal Size		84
8" x 4'		RA
Shielding		
Radial Acrylic Lens		RA
Lumen Output		
2000 Lumens		2000L
2500 Lumens		2500L
3000 Lumens		3000L
3500 Lumens		3500L
4000 Lumens		4000L
4500 Lumens		4500L
(Consult factory for custom lumen options)		
Color Temperature		
3000K, 80CRI		30K
3000K, 90CRI		930K
3500K, 80CRI		35K
3500K, 90CRI		935K
4000K, 80CRI		40K
4000K, 90CRI		940K
5000K, 80CRI		50K
5000K, 90CRI		950K
Circuit		1C
One Circuit		
Voltage		
120/277 UNV Volt		UNV
347 Volt		347V
(L11 & all LVC options only. Transformer required for all LVC options)		
Control System & Dimming Level		
0-10V - 1% Dimming		L11
0-10V - 10% Dimming		LD1
Lutron Hi-Lume EcoSystem (LDE1)		
- 1% Dimming		LH1
Lutron 5-Series EcoSystem (LDE5)		
- 5% Dimming		LU5
DALI - 1% Dimming		D11
Step Dimming		SD5
Low Voltage Controller - On/Off		LVC
(1-button pillow speaker)		
Low Voltage Controller - 1% Dimming		LVC1
(1-button pillow speaker)		
Low Voltage Controller - Step Dimming		LVCP
(1-button pillow speaker)		
(Consult factory for alternate LVC wiring configurations or Acuity nLight & Wattstopper DLM options)		
Mounting		
Drywall Frame Kit		F
Grid		G
Slot Tee		ST
Factory Options		
Chicago Plenum		CP
Emergency Circuit		EC
(Consult factory for LVC options)		
Emergency Circuit with Generator Transfer Device		ECGT
(120/277 Volt only. Not available with EC or EM. Consult factory for LVC options)		
Emergency Battery		EM
(120/277 Volt only. Consult factory for LVC options)		
6' New York City Flex Whip (120V)		FNY1
6' New York City Flex Whip (277V)		FNY2
6' Flex Whip		FW
Finish		WHA
Matte Satin White Antimicrobial		

Solar Series

Duo Med LED Light

Description:

Designed to provide you with optimal light that meets your general patient room requirements. The Solar Duo Med LED Light comes with up to three lighting functions: Ambient, Exam and Reading. With patient safety in mind, all of the LED's are fully enclosed. The lenses and reflectors used offer clean, glare-free light to ensure maximum light output for caregivers to perform their tasks.

Features:

- Antimicrobial finish
- Acrylic Diffuser
- Ambient Light and Exam Light
- Optional Reading Lights
- Optional Exam Lights
- Seam Welded Enclosure
- Long lasting LED's



Construction Material:

Housing: 20 Gauge CRS. Once piece, seam-welded construction.

Finish: White urethane powder coat finish – 5 step treatment; antimicrobial finish.

Lens: IP65 rated fully enclosed CRS cover, with acrylic diffuser.

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II)

Light Source: Samsung LEDs mounted on Aluminum Core PCB

Specifications:

Voltage: 120 - 277 Volts

Wattage: Total: 82 W Exam: 42 W, Ambient: 33 W, Reading: 7 W

Light Output: Total: 6,250 lm, Exam: 3,200 lm, Ambient: 2,600 lm, Reading: 450 lm

Dimming: 0 - 10 Volts and DALI options available

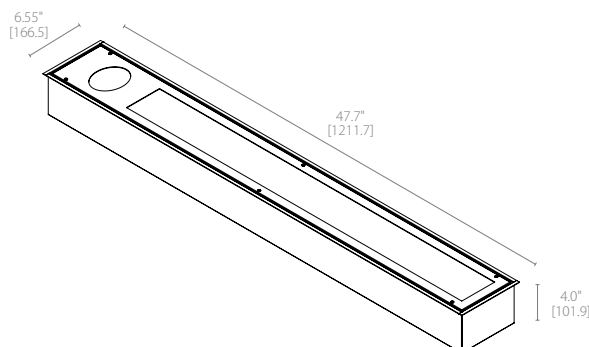
Color Quality: 80 CRI, 90 CRI

Color Temperature: 3000 K, 3500 K, 4000 K

Life of LEDs: L70 50,000 hours

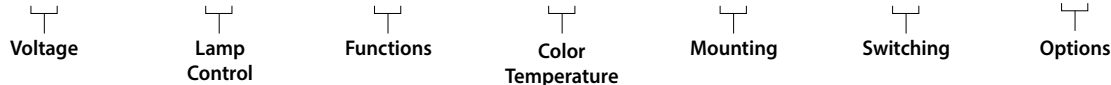
Warranty: Limited five (5) year warranty.

Dimensions:



Ordering Guide:

L-SDM



For Example: L-SDM-120-C-A1E1-LED30-80-G-LVC-VR

Solar Series Duo Med LED Light, 120 V, Common control, Ambient/Exam (standard lumens), 3000 Kelvin, Grid mount, Low voltage controller, Vandal resistant

Ordering Information:

Series	*Voltage	**Lamp Control	Functions	Color Temperature	Mounting	Switching	Options
L-SDM	120	C Common	A100 Ambient only (standard lms)	LED30 3000 Kelvin (standard)	F Flange mount	000 No switch (provided by others)	00 No options
	277	I Individual	A200 Ambient Only (high lms)	LED35 3500 Kelvin (optional)	G Grid mount	LVC Low voltage controller	VR Vandal resistant
			A1E1 Ambient/Exam (standard lms)	LED40 4000 Kelvin (optional)	S Surface mount	LVD Low voltage controller dimmable	Consult factory for VR specs
			A2E2 Ambient/Exam (high output)			LMS LightMaster controller	
			A1E2 Ambient/Exam (Ambient standard/Exam high)			LMD LightMaster with dimming	
			A2E1 Ambient/Exam (Ambient High/Exam standard)				
			E100 Exam only (standard lms)				
			E200 Exam only (high lms)				
			A1R1 Ambient Reading (standard lms)				
			A2R1 Ambient Reading (high lms)				
			E1R1 Exam Reading (standard lms)				
			E2R1 Exam Reading (high lms)				
			AL11 Reading/Ambient/Exam (standard lms)				
			AL12 Reading/Ambient/Exam (Ambient standard/Exam high)				
			AL21 Reading/Ambient/Exam (Ambient high/Exam standard)				
			AL22 Reading/Ambient/Exam (Ambient high/Exam high)				

Standard Lumens:

Ambient = 2,600 lms
Exam = 3,200 lms

High Lumens:

Ambient = 3,200 lms
Exam = 3,900 lms

R1 - Reading Light:

Chip on Board (COB)
2w LED Lamps x 2 (standard)

*Voltage - Consult factory for 347 requirement

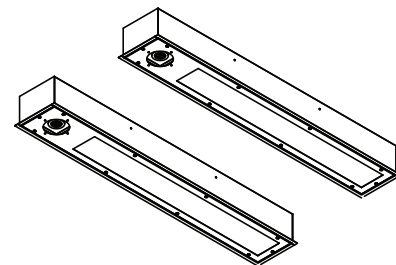
**Lamp Control - Consult factory for custom configurations.

COMPRO LED

CPPG2/CPPG4/CPPF2/CPPF4

SPECIFICATION FEATURES

HOUSING:	20 gauge formed cold rolled steel housing seam welded and ground smooth (standard). Stainless steel option available.
FRAME:	Inset and overlapping doorframe available in aluminum, cold rolled steel, and stainless steel.
LENS:	Ambient and Exam lens available in Prismatic Acrylic, Prismatic Polycarbonate and White Frosted Polycarbonate.
LED:	Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
FINISH:	White antimicrobial powder coat finish following iron phosphate pre-treatment.
GASKET:	Closed cell EPDM or extruded silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Patient Rooms, Exam Rooms, Recovery Areas, and more. *Fixture ordered as single unit. Typically used in pairs above patient bed; order (2) fixtures.

MOUNTING:

Grid or Flange installation. Flange fixtures are shipped with yoke and hardware to mount yoke to fixture.

LABEL:

*Pending c  us 

ORDERING INFORMATION

Ex: CPP4G-HC/OC-L135-L240-2C-A-RILN-12

PRODUCT FAMILY	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	MOUNTING	HOUSING	FRAME Inset (I) or Overlap (O)	AMBIENT LUMEN OUTPUT**	AMBIENT LAMP TYPE	EXAM LUMEN OUTPUT**
CPP	2 = 2ft. 4 = 4ft.	G = Grid F = Flange	HC= 20Ga. CRS (standard) HS= 20Ga. SS HP= 20Ga. SS (painted) HA= .050Ga. Alum. (painted)	IC=20Ga.CRS IA= .050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA= .050 Alum. (Painted)	CPP2: L1 = 1000lm CPP4: L1 = 2000lm	35 = 3500°K 40 = 4000°K 50 = 5000°K	CPP2: L2 = 2050lm CPP4: L2 = 4100lm
EXAM LAMP TYPE	CIRCUITS	EXAM/ AMBIENT LENS	READING LIGHT	NIGHT LIGHT	OPTIONS		
35 = 3500°K 40 = 4000°K 50 = 5000°K	2C = 2 Circuits 3C = 3 Circuits 4C = 4 Circuits	A = .125 Prismatic Acrylic B = .125 Prismatic Poly. C = .156 Prismatic Poly. D = .187 Prismatic Poly. E = .125 White Frosted Poly.	Blank = No Reading Light RI = LED Integral RM = MR16 Integral ✓	Blank = No Night Light LN = Night Light Integral	12 = 120V 27 = 277V	DM DM1 FZ EL1 RF	

KEY

DM = 0-10V dimming with 10-100% range

DM1 = 0-10V dimming with 1-100% range

FZ = Fuse

EL1 = Emerg. Bat. LED Low (10W) - Must be remote

RF = (RIF) Radio Interference Filter

LV2 = Low Voltage Controller

(controls reading and ambient unless otherwise specified)

LV3 = Low Voltage Controller (controls reading, ambient and night light unless otherwise specified)

90C = 90CRI. Note, lumen output will be effected

Notes:

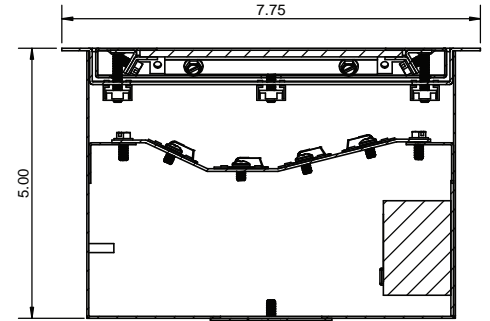
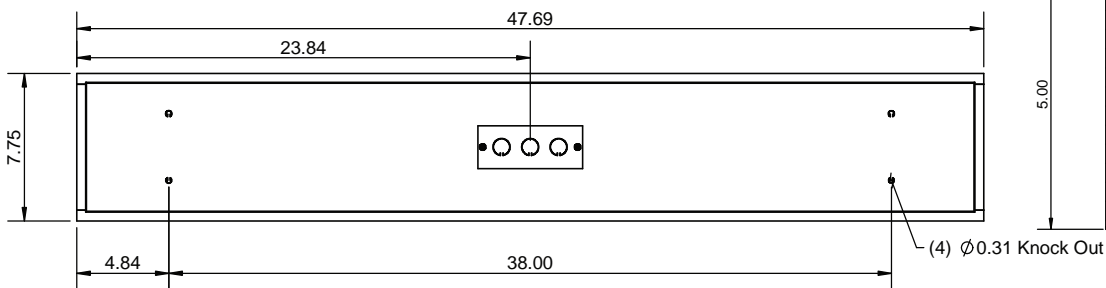
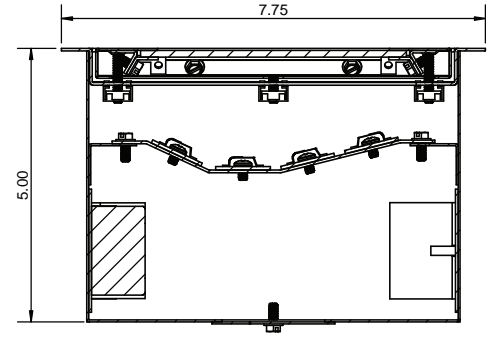
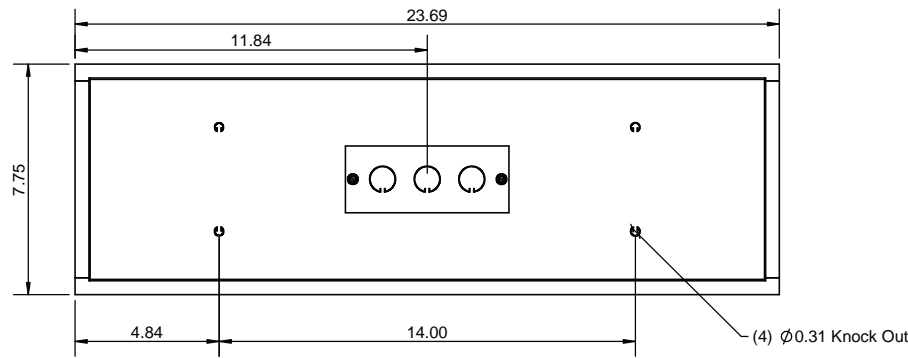
Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

✓ Not IP65

** Subject to change

DIMENSIONAL DATA



Solar Series

2 x 4 Eclipse LED Light

Description:

Designed to provide you with optimal light that meets your general lighting requirements, The Solar Eclipse Series fixture comes with up to three lighting functions. Ambient function is standard, Exam and Reading functions are optional and provide increased lumens to the bed for general examinations. With patient safety in mind, all of the LED's are fully enclosed. The lenses and reflectors used offer clean, glare-free light to ensure maximum light output for caregivers to perform their tasks while creating a comfortable lighting environment for the patient and caregiver.

Features:

- Hospital grade material and finish
- Glare-free reflectors
- Ambient Light
- Optional Reading Lights
- Optional Exam Lights
- Long lasting LED's



Construction Material:

Housing: 20 Gauge CRS. Once piece, seam-welded construction.

Finish: White urethane powder coat finish – 5 step treatment; hospital grade material and finish.

Lens: High impact, LED specific acrylic.

Drivers: High power factor constant current, 0.97 pf @ 120 Volts (Class 2, Class II).

Ingress Barrier: 3 mm clear acrylic barrier covers the entire fixture using a piano hinge. Door frame secured to the housing and a closed cell neoprene/EPDM/SBR gasket seals the door frame to the housing.

Specifications:

Voltage: 120 - 277 Volts

Wattage: Total: 145 W, Exam: 100 W, Ambient: 32.5 W, Reading: 12.6 W

Standard Lumen Output: Total: 13,161 lm, Exam: 8,280 lm, Ambient: 4,140 lm, Reading: 741 lm

Dimming: 0 - 10 Volts and DALI options available

Color Quality: 80 CRI, 90 CRI

Color Temperature: 3000 K, 3500 K, 4000 K

Life of LEDs: L70 50,000 hours

Warranty: Limited five (5) year warranty.

Ordering Guide:

L-SEC24



For Example: L-SEC24-120-AL11-LED30-G-LVC-IB

Solar Eclipse Series 2 x 4,120 V, Reading, Ambient 4,140 lms, Exam 8,280 lms , 3000 K, Grid Mount, Low Voltage Controller, Ingress Barrier

Ordering Information:

Series	Voltage	Functions	Color Temperature	Mounting	Switching	Options
L-SEC24	120	A1E1 Ambient/Exam (standard lms)	LED30 3000 K	F Flange Mount	000 No switch (provided by others)	IB Ingress barrier
	277	A1E2 Ambient/Exam (Ambient standard lms/ Exam high lms)	LED35 3500 K	G Grid Mount	LVC Low voltage controller	BP Battery pack
	Consult factory for 347 V requirement	A1R1 Ambient Reading (standard lms)	LED40 4000 K	S Surface Mount	LVD Low voltage controller dimming	BB Ingress barrier & battery pack
		A2E1 Ambient/Exam (Ambient high lms/ Exam standard lms)			LMS LightMaster controller	BV Battery pack & vandal resistant
		A2E2 Ambient/Exam (high lms)			LMD LightMaster with dimming	VR Vandal resistant
		A2R1 Ambient Reading (high lms)				00 No options
		E1R1 Exam Reading (standard lms)				
		E2R1 Exam Reading (high lms)				
		AL11 Reading/Ambient/Exam (standard lms)				
		AL12 Reading/Ambient/Exam (Ambient standard lms/ Exam high lms)				
		AL21 Reading/Ambient/Exam (Ambient high lms/ Exam standard lms)				
		AL22 Reading/Ambient/Exam (Ambient high lms/ Exam high lms)				

Standard Lumens (lms):

Ambient = 4,140 lms
Exam = 8,280 lms

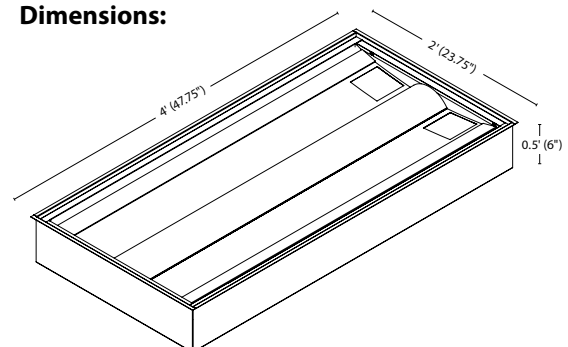
R1 - Reading Light:

Chip on Board (COB)
2w LED Lamps x 2 (standard)

High Lumens (lms):

Ambient = 5,820 lms
Exam = 11,640 lms

Dimensions:



Solar Series

2 x 2 Eclipse LED Light

Description:

The Solar Series 2 x 2 Eclipse LED Light offers all the functionality of the 2 x 4 version but in a smaller package. This is convenient where other elements in the ceiling can interfere with the light such as a patient lift or pendant system. Ambient function is standard, Exam and Reading functions are optional and provide increased lumens to the bed for general examinations.

Features:

- Antimicrobial finish
- Glare-free reflectors
- Ambient Light
- Optional Reading Lights
- Optional Exam Lights
- Long lasting LEDs



Construction Material:

Housing: 20 Gauge CRS. Once piece, seam-welded construction.

Finish: White urethane powder coat finish – 5 step treatment; antimicrobial finish.

Lens: High impact, LED specific acrylic.

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II).

Light Source: Samsung LED mounted to aluminum core linear boards.

Ingress Barrier: 3 mm clear acrylic barrier covers the entire fixture using a piano hinge. Door frame secured to the housing and a closed cell neoprene/EPDM/SBR gasket seals the door frame to the housing.

Specifications:

Voltage: 120 - 277 Volts

Wattage: Total: 70 W, Exam: 41 W, Ambient: 20 W, Reading: 9 W

Light Output: Total: 7,530 lm, Exam: 4,140 lm, Ambient: 2,650 lm, Reading: 740 lm

Dimming: 0 - 10 Volts and DALI options available

Color Quality: 80 CRI, 90 CRI

Color Temperature: 3000 K, 3500 K, 4000 K

Life of LEDs: L70 50,000 hours

Warranty: Limited five (5) year warranty

Ordering Guide:

L-SEC22 -



For Example: L-SEC22-120-A2E2-LED30-A1-G-LVC-IB

Solar Eclipse Series 2 x 2,120 V, Reading, Ambient, Exam, 3000 Kelvin, Grid Mount, Low Voltage Controller, Ingress Barrier

Ordering Information:

Series	Voltage	Functions	Color Temperature	Mounting	Switching	Options
L-SEC22	120	A1E1 Ambient/Exam (standard lms)	LED30 3000 K	F Flange Mount	NO No switch (provided by others)	00 No options
	277	A1E2 Ambient/Exam (Ambient standard lms/ Exam high lms)	LED35 3500 K	G Grid Mount	LVC Low voltage controller	IB Ingress barrier
	<i>Consult factory for 347 V requirement</i>	A1R1 Ambient Reading (standard lms)	LED40 4000 K	S Surface Mount	LMS LightMaster controller	BP Battery pack
		A2E1 Ambient/Exam (Ambient high lms/ Exam standard lms)	<i>Consult factory for other options</i>		LMD LightMaster with dimming	BB Ingress barrier & battery pack
		A2E2 Ambient/Exam (high lms)				BV Battery pack & vandal resistant
		A2R1 Ambient Reading (high lms)				VR Vandal resistant
		E1R1 Exam Reading (standard lms)				
		E2R1 Exam Reading (high lms)				
		AL11 Reading/Ambient/Exam (standard lms)				
		AL12 Reading/Ambient/Exam (Ambient high lms/ Exam standard lms)				
		AL21 Reading/Ambient/Exam (Ambient high lms/ Exam high lms)				
		AL22 Reading/Ambient/Exam (Ambient high lms/ Exam high lms)				

Standard Lumens (lms):

Ambient = 2,650 lms

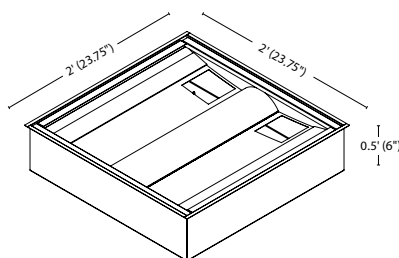
Exam = 4,140 lms

R1 - Reading Light:

Chip on Board (COB)

LED Lamps x 2 (standard)

Dimensions:



High Lumens (lms):

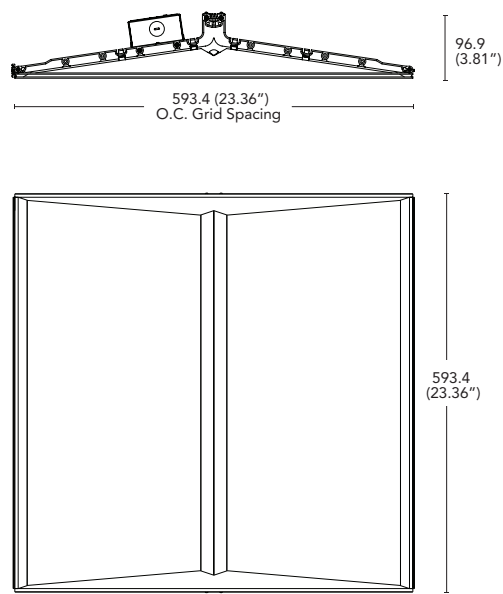
Ambient = 3,050 lms

Exam = 4,980 lms

Consult factory for custom configurations.

2' x 2' LED Troffer

Recessed LED troffer with a beautiful gable shaped luminous lens providing ambient illumination with 80 CRI.



Soraa LED

The highest possible quality ambient light is provided by Soraa LEDs, available in 3000K, 3500K, and 4000K with 80 CRI. Lumen maintenance is 50,000 hours at 70% lumen output.

Soraa Optics

Precision formed optical assembly provides beautiful, even light distribution.

Construction

Injection molded endplates and extruded aluminum frame provide strength, rigidity and tight tolerances. Gridlock features are built into the endplates for additional safety and convenience. Four suspension points and seismic clips are provided. Large access plate is designed in to enable supply connection. Drivers can be accessed via plenum.

Finish

Durable frame has high reflectance baked matte white enamel finish for luminous uniformity.

Weight

Luminaire: max. 7031gm; additional battery backup & hardware 1814gm.

Emergency Battery Pack

Optional 120V-277V integral emergency battery pack is available in 7 or 14 watts to meet critical life-safety lighting requirements. 90-minute batteries provide constant power to the LED system, ensuring code compliance.

Compliance

Luminaire cULus listed and IC rated. Rated for damp locations. Chicago plenum rated.

Operating Temperature

Minimum -40°C, 25°C typical.

Warranty

Five year warranty.



Build Your Luminaire Sample Part Number: GB22 - 35 - 835- UNV - DM1

Series	Delivered Lumens	CCT/CRI	Voltage	Driver	Options	Accessories (Order Separately)
GB22	25 2500 lm	830 3000K/80	UNV 120-277V Universal	DM1 0-10V (1% min)	Blank None	AMB-W3 3 wire whip for non-dimming option
	35 3500 lm	835 3500K/80		LU1 Lutron L3DAE Hi-lume 1% EcoSystem LED	EM7 7W Emergency Battery Pack Installed	AMB-W4 4 wire whip for non-dimming with emergency battery pack option
	45 4500 lm	840 4000K/80		LU2 Lutron L3DA3W Hi-lume 1% 3-wire LED	EM14 14W Emergency Battery Pack Installed	AMB-W5 5 wire whip for 0-10V dimming option
				EL1 eldoLED Solo-Drive 0% Dim		
				EL2 eldoLED Eco-Drive 1% Dim		

Photometrics: Soraa Gable 2 x 2

GB22-35 (3500 lm)

Coefficients Of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

rc	80				70				50				30				10				0
rw	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	0
RCR																					0
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	102	99	95	98	95	92	89	94	92	89	91	89	87	85	85	85
2	100	92	85	80	97	90	84	79	86	81	77	73	83	79	75	80	77	74	71	71	71
3	91	81	73	67	89	80	72	66	77	70	65	61	74	69	64	71	67	63	61	61	61
4	84	72	64	57	82	71	63	57	68	62	56	52	66	60	55	64	59	55	52	52	52
5	77	65	56	50	75	64	55	49	62	54	49	45	60	53	48	58	52	48	46	46	46
6	72	59	50	44	70	58	49	43	56	48	43	39	54	48	43	53	47	42	40	40	40
7	66	53	45	39	65	52	44	39	51	44	38	34	49	43	38	48	42	38	36	36	36
8	62	49	40	35	60	48	40	34	47	39	34	30	45	39	34	44	38	34	32	32	32
9	58	45	37	31	57	44	36	31	43	36	31	27	42	35	31	41	35	31	29	29	29
10	54	41	34	28	53	41	33	28	40	33	28	24	39	33	28	38	32	28	26	26	26

Spacing Criteria

(H) 1.36 x mounting height,
(L) 1.28 x mounting height

UGR

<19

Zonal Lumen Summary

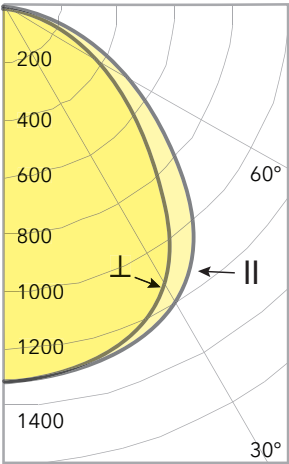
Zone	Lumens	% Fixt
0-30	1054	30.1
0-40	1725	49.2
0-60	2872	82.0
0-90	3500	100.0
0-180	3500	100.0

Base Configuration

Driver: LPL
CCT: 3500K

Scaling

3000K	0.95
4000K	1.03
EldoLed Driver	0.975
Lutron Driver	1.025
4500 lm	1.285



Candlepower

	Along H	45°	Across L
0°	1410	1410	1410
5°	1402	1402	1408
10°	1381	1385	1390
15°	1345	1351	1359
20°	1292	1302	1316
25°	1220	1233	1252
30°	1117	1137	1160
35°	990	1012	1036
40°	846	868	890
45°	704	716	725
50°	574	573	572
55°	460	453	446
60°	365	358	352
65°	288	281	278
70°	221	215	217
75°	159	155	161
80°	98	95	104
85°	46	38	42
90°	0	0	0

GB22-25 (2500 lm)

Coefficients Of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

rc	80				70				50				30				10				0
rw	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	0
RCR																					0
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100	100
1	109	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100	100
2	100	105	101	97	107	102	99	95	98	95	92	89	94	92	89	91	89	87	85	85	85
3	91	92	85	80	97	90	84	79	86	81	77	73	83	79	75	80	77	74	71	71	71
4	84	81	73	67	89	80	72	66	77	70	65	61	74	69	64	71	67	63	61	61	61
5	77	72	64	57	82	71	63	57	68	62	56	52	66	60	55	64	59	55	52	52	52
6	72	65	56	50	75	64	55	49	62	54	49	45	60	53	48	58	52	48	46	46	46
7	66	59	50	44	70	58	49	43	56	48	43	39	54	48	43	53	47	42	40	40	40
8	62	53	45	39	65	52	44	39	51	44	38	34	49	43	38	48	42	38	36	36	36
9	58	49	40	35	60	48	40	34	47	39	34	30	45	39	34	44	38	34	32	32	32
10	54	41	34	28	57	44	36	31	43	36	31	27	42	35	31	41	35	31	29	29	29
					53	41	33	28	40	33	28	24	39	33	28	38	32	28	26	26	26

Spacing Criteria

(H) 1.36 x mounting height,
(L) 1.28 x mounting height

UGR

<19

Zonal Lumen Summary

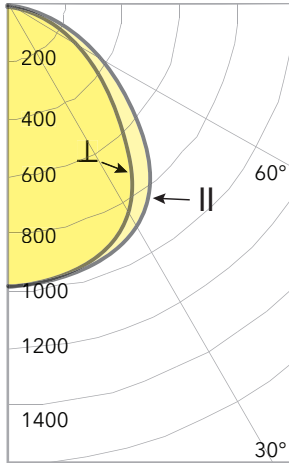
Zone	Lumens	% Fixt
0-30	753	30.1
0-40	1232	49.2
0-60	2052	82.0
0-90	2500	100.0
0-180	2500	100.0

Base Configuration

Driver: LPL
CCT: 3500K

Scaling

3000K	0.95
4000K	1.03
EldoLed Driver	0.975
Lutron Driver	1.025
4500 lm	1.285



Candlepower

	Along H	45°	Across L
0°	1101	1101	1101
5°	1095	1095	1100
10°	1079	1082	1086
15°	1051	1055	1062
20°	1010	1017	1028
25°	953	963	978
30°	873	888	906
35°	773	790	809
40°	661	678	695
45°	550	560	566
50°	448	448	447
55°	359	354	349
60°	286	279	275
65°	225	219	217
70°	173	168	170
75°	124	121	126
80°	76	74	81
85°	36	30	33
90°	0	0	0

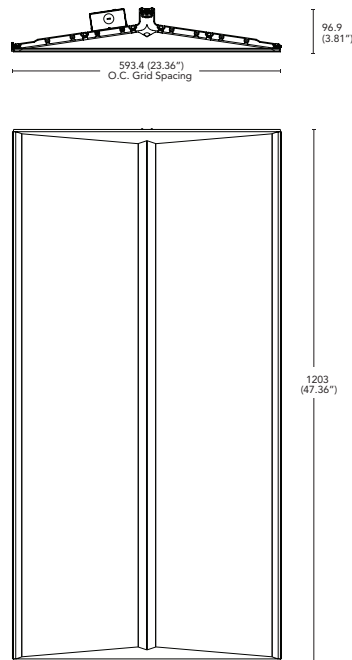
Efficacy

SKU	CCT	Driver	Delivered Lumens	Power (W)	Lm/W
GB22-25-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	2500	21	119
GB22-35-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	3500	31	116
GB22-45-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	4500	39	114

2' x 4' LED Troffer

SORAA® gable

Recessed LED troffer with a beautiful gable shaped luminous lens providing ambient illumination with 80 CRI.



Soraa LED

The highest possible quality ambient light is provided by Soraa LEDs, available in 3000K, 3500K, and 4000K with 80 CRI. Lumen maintenance is 50,000 hours at 70% lumen output.

Soraa Optics

Precision formed optical assembly provides beautiful, even light distribution.

Construction

Injection molded endplates and extruded aluminum frame provide strength, rigidity and tight tolerances. Gridlock features are built into the endplates for additional safety and convenience. Four suspension points and seismic clips are provided. Large access plate is designed in to enable supply connection. Drivers can be accessed via plenum.

Finish

Durable frame has high reflectance baked matte white enamel finish for luminous uniformity.

Weight

Luminaire: max. 11567gm; additional battery backup & hardware 1814gm.

Emergency Battery Pack

Optional 120V-277V integral emergency battery pack is available in 7 or 14 watts to meet critical life-safety lighting requirements. 90-minute batteries provide constant power to the LED system, ensuring code compliance.

Compliance

Luminaire cULus listed and IC rated. Rated for damp locations. Chicago plenum rated.

Operating Temperature

Minimum -40°C, 25°C typical.

Warranty

Five year warranty.



Build Your Luminaire Sample Part Number: GB24 - 58 - 835 - UNV - DM1

Series	Delivered Lumens	CCT/CRI	Voltage	Driver	Options	Accessories (Order Separately)
GB24	58 5800 lm	830 3000K/80	UNV 120-277V Universal	DM1 0-10V (1% min)	Blank None	AMB-W3 3 wire whip for non-dimming option
	48 4800 lm	835 3500K/80		LU1 Lutron L3DAE Hi-lume 1% EcoSystem LED	EM7 7W Emergency Battery Pack Installed	AMB-W4 4 wire whip for non-dimming with emergency battery pack option
	40 4000 lm	840 4000K/80		LU2 Lutron L3DA3W Hi-lume 1% 3-wire LED EL1 eldoLED Solo-Drive 0% Dim EL2 eldoLED Eco-Drive 1% Dim	EM14 14W Emergency Battery Pack Installed	AMB-W5 5 wire whip for 0-10V dimming option

Photometrics: Soraa Gable 2 x 4

GB24-58 (5800 lm)

Coefficients Of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

fc rw RCR	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

Spacing Criteria

(H) 1.36 x mounting height,
(L) 1.28 x mounting height

UGR

<19

Zonal Lumen Summary

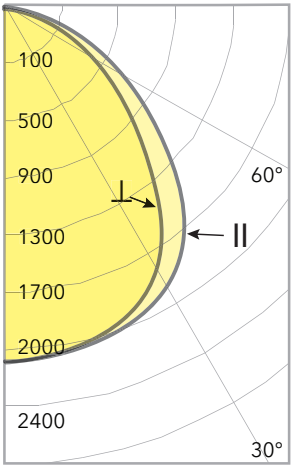
Zone	Lumens	% Fixt
0-30	1716	30.1
0-40	2809	49.2
0-60	4678	82.0
0-90	5700	100.0
0-180	5700	100.0

Base Configuration

Driver: LPL
CCT: 3500K

Scaling

3000K	0.95
4000K	1.03
EldoLed Driver	0.975
Lutron Driver	1.025
4800 lm	0.83
4000 lm	0.69



Candlepower

	Along H	45°	Across L
0	2140	2140	2140
5	2135	2136	2135
10	2132	2126	2115
15	2120	2104	2084
20	2086	2066	2040
25	2037	2000	1963
30	1955	1904	1851
35	1842	1766	1684
40	1694	1583	1463
45	1505	1365	1217
50	1303	1133	979
55	1082	915	783
60	875	729	625
65	691	572	497
70	530	440	382
75	392	321	277
80	260	203	166
85	138	86	52
90	0	0	0

Efficacy

SKU	CCT	Driver	Delivered Lumens	Power (W)	Lm/W
GB24-40-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	4000	35	115
GB24-48-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	4800	42	114
GB24-58-835-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	5800	52	114



Entera™

Patient Room Recessed Lighting



Project:

Type:

Qty:

SPECIFICATIONS

Interior

ENTERA

SPECIFICATIONS

The Entera 2x4 and 2x2 is a LED alternative for recessed patient room lighting with integrated controls. The fixture will interface with the existing bed controls as well as with the more advanced nLight system from Sensor Switch. With up to 105 input watts in the exam mode, the fixture replaces a comparable fluorescent fixture (with 200 watts in exam mode) for the patient room. In the ambient mode, the patient has the option to control the output through 4 pre-set light levels in increasing intensity.

Construction

Extruded aluminum and cold rolled steel with acrylic lens. Sanitary Door with 0.125" Acrylic Lens option available.

Source

Panel and linear LED boards with Nichia LED 757 chipsets. Available in 2700K optional, 3000K, 3500K, and 4000K standard.

Driver

elidoLED EC0drive

Finish

Painted powder coat with Anti-Microbial White option.

Weight

2x4 fixture weight approximately 70 lbs.
2x2 fixture weight approximately 35 lbs.

Color Quality

CRI > 80
R9 Value 19

Voltage

120V or 277V

Input Watts for 2x4

105W (2x4 Model All On)
75W (2x2 Model All On)

Light Output for 2x4

2x4 Ambient Only 4400 lumens
2x4 Ambient + Exam 7100 lumens
2x2 Ambient Only 2600 lumens
2x2 Ambient + Exam 4700 lumens

Dimming

Smooth dimming to 1% for 0-10V

Life Estimate

>50,000 hours according to component LM80 testing

Certifications

CSA Certified Damp Location

Warranty

Five-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C.



A+ Capable options indicated by this color background.

CATALOG NUMBER

Example: HPT624 G 120 WAV LED35 FC100 LVD 1C LCH NIO SL MW AM

Series	Mounting	Voltage	Exam Insert Options	LED Type	Exam Level	Ambient Control	Circuits
HPT622 2ft x 2ft HPT6	G Grid	120 120 Volt	PAI Perforated Acrylic Insert (Recommended for Patient Room)	LED27 2700K LED (extended lead time)	NX No Exam Mode	LVD Low Voltage Digital Controller	1C 1 Switchleg
HPT624 2ft x 4ft HPT6	F Flange	277 277 Volt	WAV Acrylic wave Pattern insert (only available with ALB option)	LED30 3000K LED	FC70 Low Exam Mode	LV3 LVD with J-box, Receptacle and Pillow Switch with Cord	
			(Blank) No Pattern insert	LED35 3500K LED (standard)	FC100 High Exam Mode	SX No Switch	
				LED40 4000K LED			

Other Options	Finish
LCH Chart Light (120V Only)	MW Matte White (standard)
NIO nLight nIO	AM Anti-Microbial
DIM 0-10V Dimming	
SL Sanitary Lens with Door ²	

Certifications

CSA Certified Damp Location

Notes

- 347V not available (i.e. no LED Drivers).
- Sealed design only available with Sanitary Lens option.
- Flange Option: Use DGA flange kit from Lithonia (purchased separately).
- Chart Light available in 120V option only.

Entera

Patient Room Recessed Lighting

Project:

Type:

Qty:

SPECIFICATIONS

Interior

ENTERA

PERFORMANCE DATA

Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

For 2ft x 4ft Fixture (CCT=3500) (with Sanitary Door)		
Light Mode	Lumen Output (lm)	Max Candela
Ambient Only	4,400 Lumens	1650 Cd
Exam Mode	7,100 Lumens	2650 Cd

For 2ft x 2ft Fixture (CCT=3500K) (without Sanitary Door)		
Light Mode	Lumen Output (lm)	Max Candela
Ambient Only	2,600 Lumens	950 Cd
Exam Mode	4,700 Lumens	1650 Cd

Note: Sanitary Door results in 10% to 15% lumen loss.
PAI option results in 7-10% lumen loss.

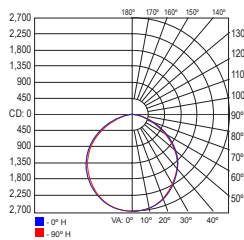
Electrical Load

For One (1) 2ft x 4ft Fixture	
Light Mode	Input Watts
Ambient Only	60 Watts
Exam Mode	105 Watts

For One (1) 2ft x 2ft Fixture	
Light Mode	Input Watts
Ambient Only	35 Watts
Exam Mode	75 Watts

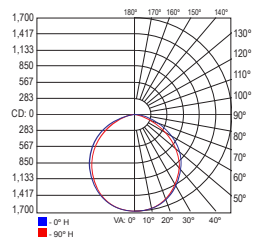
PHOTOMETRICS

Test Report: LTL25839
IES LM 79-08
HPT624 G 120 PAI LED35 FC100
with Sanitary Door
Lumens: 7101.5
Wattage: 103.5W
Efficacy: 68.6 lm/W
Max. Candela: 2682.0 @ H: 67.5°; V: 2.5°



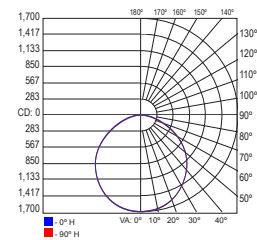
Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	670.0fc
4.0	167.5fc
6.0	74.4fc
8.0	41.9fc
10.0	26.8fc

Test Report: LTL25841
IES LM 79-08
HPT624 G 120 PAI LED35 FC100
with Sanitary Door
Lumens: 4434.2
Wattage: 60.5W
Efficacy: 73.3 lm/W
Max. Candela: 1693.0 @ H: 0°; V: 0°



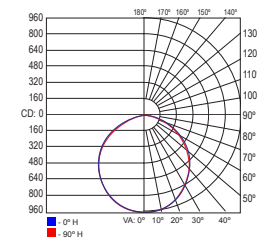
Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	423.3fc
4.0	105.8fc
6.0	47.0fc
8.0	26.5fc
10.0	16.9fc

Test Report: LTL25836
IES LM 79-08
HPT622 G 120 PAI LED35 FC100
without Sanitary Door
Lumens: 4732.5
Wattage: 75.2W
Efficacy: 62.9 lm/W
Max. Candela: 1691 @ H: 90°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	422.0fc
4.0	105.5fc
6.0	46.9fc
8.0	26.4fc
10.0	16.9fc

Test Report: LTL25837
IES LM 79-08
HPT622 G 120 PAI LED35 FC100
without Sanitary Door
Lumens: 2658
Wattage: 33.9W
Efficacy: 78.4 lm/W
Max. Candela: 958.0 @ H: 0°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	238.8fc
4.0	59.7fc
6.0	26.5fc
8.0	14.9fc
10.0	9.6fc

Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a **shaded background***
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background***

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details



Trilume PCX

Patient Room Recessed Lighting



Project:

Type:

Qty:

SPECIFICATIONS

Interior Patient Room

HPT8

SPECIFICATIONS

The Trilume LED product provides facility managers with a clean look and efficient fixture option for LED patient room lighting. The Trilume LED provides the light output of a traditional fluorescent patient room fixture but with reduced energy. Ambient mode can be specified for side or center illumination. The Trilume LED combines the advanced digital control technology of nLight with the legacy technology of existing bedside controls. Includes 1/8" thick Sanitary Lens to help seal the fixture within the patient room.

CONSTRUCTION

20 GA cold rolled steel housing
Nominal 2' and 4' lengths available

FINISH

Polyester powder coat painted after fabrication
Antimicrobial and Custom Color are optional

SHIELDING

1/8" clear acrylic lens standard

SOURCE

LED - 3000K, 3500K, 4000K & 5000K available

Voltage

120V or 277V

Input Watts

Max Input Watts for 2x4
Center Only: 87W
Side Only: 89W
All on (Exam Mode): 176W

Dimming

0-10v smooth, flicker-free dimming minimal level
1% standard
Dim to dark option available

Color Quality

CRI >80
R9 Value 19

Life Estimate

L80 at 65,000 hours

Light Output

See table on page 2

LISTINGS

CSA Certified to meet US and Canadian standards

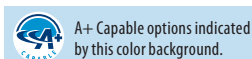
Warranty

5-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25°C.

Specifications subject to change without notice.



CATALOG NUMBER

Example: HPT824 F 120 CAHI NFI LED40 CRI80 NFI SX ZT MIN1 SL MWAM

Series	Mounting	Voltage	Output	Center Lens Insert	Led Color	Color Rendering
HPT822 2x2 fixture	F ¹ Flange	120 120V	CALOW Center basket ambient, low output	NFI No insert	LED30 3000K	CRI80 80+ CRI
HPT824 2x4 fixture	G Grid	277 277V	CAMED Center basket ambient, medium output	PAI Perforated acrylic insert	LED35 3500K	CRI90 90+ CRI
			CAHI Center basket ambient, high output	WAV Wave pattern acrylic insert	LED40 4000K	
			SALOW Side lights ambient, low output		LED50 5000K	
			SAMED Side lights ambient, medium output			
			SAHI Side lights ambient, high output			
			CALNS Center basket ambient, low output, no side lights			
			CAMNS Center basket ambient, medium output, no side lights			
			CAHNS Center basket ambient, high output, no side lights			

Patient Controls	Controls	Minimum Dimming Level	Door Options	Finish ⁷
SX No patient control	ZT 0-10V control	MIN1 Minimum dimming level 1%	SL Door with sanitary lens (standard)	MW Matte white
LVD ² Low voltage digital controller, 4 position sequential switching	NIOAM ³ nLight enabled ambient mode	DARK ⁶ Minimum dimming level <1%		MWAM Matte white antimicrobial
	NIOEX ⁴ nLight enabled exam mode			
	NIOAE ⁵ nLight enabled ambient and exam mode			

Notes

- Flange construction ships standard with Lithonia DGA adapter.
- When LVD is selected, factory provides only wire leads exiting the fixture.
- When ordered nLight enabled in ambient mode, nLO comes programmed to channel 1.
- When ordered nLight enabled in exam mode, nLO comes programmed to channel 2.
- When ordered nLight enabled in ambient and exam mode, nLOs are daisy-chained within the fixture. Ambient mode will be programmed to channel 1 and exam mode programmed to channel 2.
- If 2x2 fixture (HPT822) is ordered with minimum dimming level "DARK", fixture must be ordered without patient control (SX), with 0-10V control only (ZT), and may not include night light (LNL) due to spatial limitations.
- NSF listing applies to MWAM finish only.

Trilume PCX

Patient Room Recessed Lighting

Project:

Type:

Qty:

ORDERING NOTES

Interior Patient Room

HPT8

PERFORMANCE DATA

Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

			2 x 4								2 x 2							
	Nomenclature	Setting	Lumen Output in Ambient Mode	Input Watts	LPW	Footcandles from 6 feet Above Bed (Ambient Mode)	Lumen Output in Exam Mode (All On)	Input Watts	LPW	Footcandles from 6 feet Above Bed (Exam Mode)	Lumen Output in Ambient Mode	Input Watts	LPW	Footcandles from 6 feet Above Bed (Ambient Mode)	Lumen Output in Exam Mode (All On)	Input Watts	LPW	Footcandles from 6 feet Above Bed (Exam Mode)
Center Ambient	CALOW	Low	3671	37.8	97	38 FC	10255	124.2	83	92 FC	1585	16.5	96	16 FC	4390	55.9	79	40 FC
	CAMED	Medium	6859	68.7	100	71 FC	13499	155.1	87	121 FC	2962	27.6	107	31 FC	5779	66.9	86	52 FC
	CAHI	High	8954	91.9	97	93 FC	15631	178.3	88	140 FC	3867	46.7	83	40 FC	6691	86.1	78	60 FC
Side Ambient	SALOW	Low	2642	37.6	70	21 FC	11753	123.8	95	116 FC	1141	16.3	70	9 FC	5031	55.8	90	50 FC
	SAMED	Medium	4937	68.8	72	41 FC	14034	155.0	91	139 FC	2132	28.8	74	17 FC	6008	68.3	88	60 FC
	SAHI	High	6445	92.1	70	53 FC	15533	178.3	87	154 FC	2783	38.2	73	23 FC	6649	77.6	86	66 FC
Center Ambient No Sides	CALNS	Low	3658	37.8	97	38 FC	-	-	-	-	1580	16.5	96	16 FC	-	-	-	-
	CAMNS	Medium	6834	71.7	95	71 FC	-	-	-	-	2952	27.6	107	31 FC	-	-	-	-
	CAHNS	High	8922	94.9	94	93 FC	-	-	-	-	3853	46.7	82	40 FC	-	-	-	-

*Nominal values, typical at 3000K, 80 CRI

CONTROLS

nLight® Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight .			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

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To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

AURAmed CLASSIC 22-24

HEALTHCARE SERIES

GLAREFREE LUMINAIRE
FLUORESCENT/LED
GRID & FLANGE



Made in America

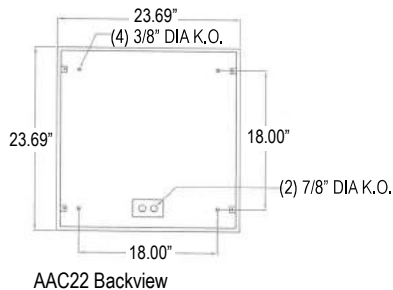


DIMENSIONAL DATA

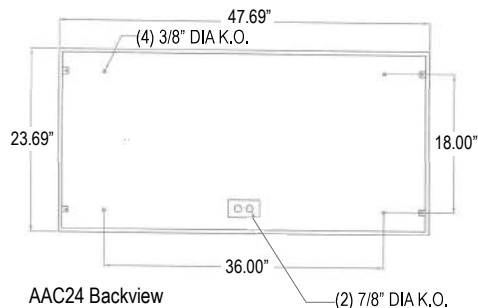


Cross Section Without Door

Cross Section With Door



AAC22 Backview



AAC24 Backview

ORDERING INFORMATION

Product Family	Housing Material	Frame/Lens		# of Lamps/Lumen Output
AAC_				
AAC22 GRID/FLANGE 23-11/16" x 23-11/16" x 3-1/2" AAC24 GRID/FLANGE 23-11/16" x 47-11/16" x 3-1/2" (Flange version supplied w/mounting kit)	HC = 20Ga. CRS (Standard) HA = Alum. (Painted)	Fluorescent/LED: Overlap Frame Options: Blank = No Lens OCA = 18Ga. CRS .125 Clr. Poly.lens OAA = Alum.(Painted).125 Clr. Poly.lens OC1 = 18Ga. CRS .187 Clr. Poly. lens OA1 = Alum.(Painted).187 Clear Poly.lens	Fluorescent/LED: Inset Frame Options: Blank = No Lens ICA = 18Ga. CRS .125 Clr. Poly.lens ICT = 18Ga. CRS .125 Clr. Acrylic lens ICG = 18Ga. CRS .140 Clr. Acrylic lens IC1 = 18Ga. CRS .187 Clr. Poly. lens IAA = Alum.(Painted).125 Clr. Poly.lens IA1 = Alum.(Painted).187 Clr. Poly.lens	Fluorescent AAC22/AAC24: 1 = 1 Lamp 2 = 2 Lamp 3 = 3 Lamp LED AAC22: L1 = 1200 Lumens (12.5W) L2 = 2400 Lumens (25W) L3 = 3600 Lumens (37.5W) LED AAC24: L1 = 2400 Lumens (25W) L2 = 4800 Lumens (50W) L3 = 7200 Lumens (75W)
Lamp Type	# of Ballst/Drivers	Lens	Voltage	Options
Fluorescent: AAC22: 17 = Linear 17W T8 14 = Linear 14W T5 24 = Linear 24W T5 HO AAC24: 32 = Linear 32W T8 factory 28 = Linear 28W T5 54 = Linear 54W T5 HO	Fluorescent/LED: 1 = Ballast 1 = Driver 2 = Ballast 2 = Driver	RW = Ribbed White Polycarbonate RC = Ribbed Clear Polycarbonate	12 = 120V 27 = 277V 34 = 347V ■ UN = Universal (120V-277V)	DB = Dimming Ballast (0-10V) * PR = Program Rapid Start FZ = Fuse * E1 = Emerg. Bat. Pack(450 Lumens) * E2 = Emerg. Bat. Pack (1100 Lumens) * AH = Allen Head Screws (center pin) TH = Torx Head Screws(center pin) CC = Custom Color (specify RAL number)

* Cannot use with universal voltage option

■ Consult factory for lamp-ballast opt. (Fluorescent Lamp only)

* Cannot use with universal voltage option
 ■ Consult factory for lamp-ballast opt. (Fluorescent Lamp only)



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "AuraMed Classic" glare-free direct lighting fixture is designed to deliver ambient lighting. Unique clip design allows for tool-free lens removal for ease of maintenance.

- Recessed Mount
- Grid/Flange Mount
- Glare free ambient lighting
- Tool free maintenance

APPLICATION

- Hotels
- Corridors
- Hospitals
- Offices
- Universities

SPECIFICATION FEATURES

HOUSING:

20 gauge formed cold rolled steel housing with continuous seam welds.

FRAME:

Optional die formed CRS or aluminum frame

LENS:

Clear or white polycarbonate ribbed lens.

LENS RETENTION:

Unique clip design allows for tool-free lens removal.

ELECTRONICS:

Fluorescent:

Electronic Ballast <10% THD standard. Lamps by others.

LED:

Available in three standard color temperatures 3500°K, 4000°K & 5000°K. Other color temperatures available, consult factory.

FASTENERS:

Flat head screws with captive cage.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

MAINTENANCE:

Tool-free lens removal for ease lamp replacement and maintenance

LABEL:

• Damp Location



AACG24-HC-L3402-RW-UN-WH



ONLY FIXTURE LISTED MEETS "LIGHTING FACTS"



www.newstarlighting.com

Notes:
 Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

STARMED DOS +1 22-24 LED

SMDOSG22/SMDOSG24/SMDOSF22/SMDOSF24

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing seam welded and ground smooth (standard). Stainless steel option available.
- FRAME:** Optional inset frame available in cold rolled steel and aluminum. Frame fastened to housing via hinge (standard).
- LENS:** Optional frame lens in clear polycarbonate. Ambient lens is white polycarbonate. Exam lens is available in clear ribbed acrylic or white frosted ribbed acrylic.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- LED NIGHT LIGHT:** Integrated switch allows light selection at 100%, 70%, 40%, and 10%.
- FINISH:** White antimicrobial powder coat finish following iron phosphate pre-treatment.



APPLICATION:
Patient Room 3 Compartment Fixture, Hospitals, Examination Rooms, and more.

MOUNTING:
Grid and Flange mounting available. Flange fixtures supplied with yokes for installation.

LABEL:
Fixture is certified to UL standards by Intertek Testing Laboratories.



AMBIENT LUMEN OUTPUT**
(Performance Data Pg. 2)

ORDERING INFORMATION

Ex: SMDOSG22-HC/ICA-L240-L140-RL-CA-UN

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE *Dimensional Data Pg. 2	HOUSING	INSET (I) FRAME	FRAME LENS	AMBIENT LUMEN OUTPUT** (Performance Data Pg. 2)	
SMDOS	G = Grid F = Flange	22 = 2x2 24 = 2x4	HC= 20Ga. CRS (standard) HS= 20Ga. SS (Brushed) HP= 20Ga. SS (painted) HA= .050Ga. Alum. (painted)	Blank = No Frame IC= 18Ga.CRS IA= .050 Alum. (Painted)	Blank = No Lens A = .125 Clear Poly. 1 = .187 Clear Poly.	L1 = Standard L2 = Medium L3 = High	
AMBIENT LAMP TYPE	EXAM LUMEN OUTPUT** (Performance Data Pg. 2)	EXAM LAMP TYPE	READING LIGHT	EXAM LENS	VOLTAGE	OPTIONS	
35 = 3500°K 40 = 4000°K 50 = 5000°K TW = Tunable White≈ (2700°K-5700°K)	L1 = Medium L2 = High	35 = 3500°K 40 = 4000°K 50 = 5000°K	B = None RL = 2 LED Lights (3000°K)	CA=Clear Rib. Acrylic FA=Frosted Rib. Acrylic	12 = 120V 27 = 277V UN = Universal (120V-277V)	DM LV2 DM1 LV3 EL1 RF* EL2 AML FZ* 90C LN	

KEY

DM = 0-10V dimming with 10-100% range
DM1 = 0-10V dimming with 1-100% range
EL1 = Emerg. Bat. LED Low (10W)
EL2 = Emerg. Bat. LED High (20W)
FZ = Fuse*
LN = LED Night Light (3500°K standard)
(Not available with High Ambient Output)

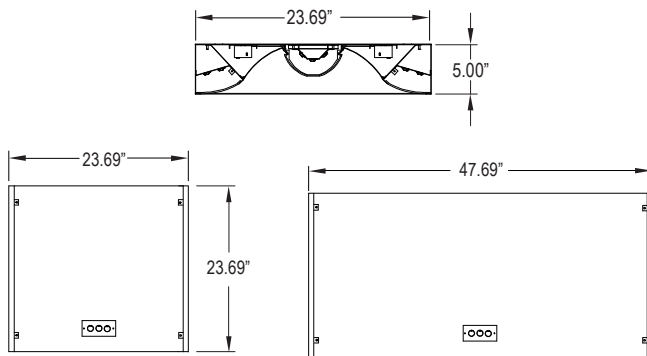
LV2 = Low Voltage Controller
(controls reading and ambient unless otherwise specified)
LV3 = Low Voltage Controller
(controls reading, ambient and night light unless otherwise specified)
RF = (RIF) Radio Interference Filter*
AML = Antimicrobial Lens
(Exam only. Not applicable when using IC or IA)
90C = 90CRI (Ambient and Exam only)

≈ Compatible with DMX
* Cannot use with UN voltage
** Subject to change

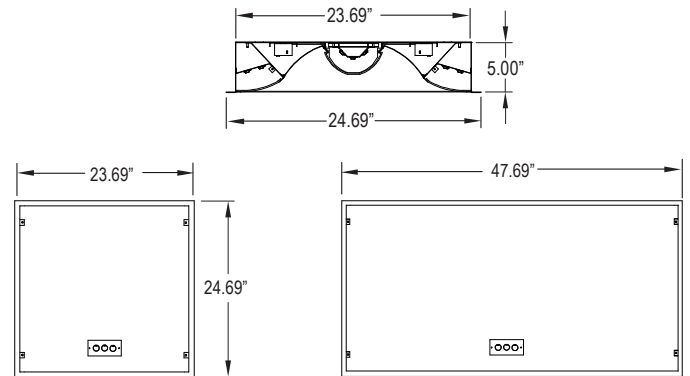
Notes:
Specifications and Dimensions are subject to change without notice.
If circuit is not specified at time of quote or order, fixture will have single circuit.

DIMENSIONAL DATA

GRID MOUNTING



FLANGE MOUNTING



Flange Recommended Opening:

22: 24 1/16" x 23 1/8"

24: 47 1/8" x 24 1/16"

PERFORMANCE DATA

MODEL	OUTPUT	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
SMDOS22 Ambient	Standard	4000°K	1265	101	12.5
	Medium	4000°K	2525	101	25
	High	4000°K	3790	101	37.5
SMDOS22 Exam	Medium	4000°K	2750	110	25
	High	4000°K	5500	110	50
SMDOS24 Ambient	Standard	4000°K	2525	101	25
	Medium	4000°K	5050	101	50
	High	4000°K	7575	101	75
SMDOS24 Exam	Medium	4000°K	5500	110	50
	High	4000°K	11000	110	100
Reading Light	-	3000°K	461	76	6.1

Notes:

Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

SUNTRAC® TROFFER*

MULTI-SPECTRUM | CIRCADIAN LED LUMINAIRE



FEATURES

- Provides the flexibility to have the proper, healthy light at any time of day
- Easily changes from the warm, sleep-enhancing spectrum of GoodNight® to the alertness and focus-enhancing spectrum of GoodDay®
- Easily brings energy-efficient, circadian lighting in any area of your facility
- Engineered spectrum supports the natural wake-sleep cycle to improve general well-being
- Control via a standard wall switch or via approved SunTrac® Wireless Switch (LSH SW2CH)
- Delivers high quality light throughout all settings for peak visual performance and biological benefits
- Lightweight and rated for damp environments

** Product formerly known as Good Day&Night.*

SPECIFICATIONS

	2 X 2 FT	2 X 4 FT
Correlated Color Temperature (CCT)	2300K to 5000K	2300K to 5000K
Lumen Output	2600 lm @ GoodDay® Mode	5200 lm @ GoodDay® Mode
Melanopic/Photopic Ratio (M/P)	0.34 - 0.91	0.34 - 0.91
Color Rendering Index	90 Nominal	90 Nominal
Input Voltage (V)	100-277 VAC, 50/60Hz	100-277 VAC, 50/60Hz
Max. Power Consumption	30W	60W
Power Factor	>0.9	>0.9
THD	<20%	<20%
Control	2 Options: Standard Wall Switch or Wireless Control Devices	2 Options: Standard Wall Switch or Wireless Control Devices
Product Dimensions (LxWxH in/mm)	23.74 x 23.74 x 4.50 in (603 x 603 x 115 mm)	23.74 x 47.76 x 4.50 in (603 x 1213 x 115 mm)
Weight (lbs/g)	7.7 lbs (3.5 kg)	13.1 lbs (5.9 kg)
Installation Methods	Drop Ceiling Installation	Drop Ceiling Installation
Warranty	5 Years Limited	5 Years Limited
Environment	Damp	Damp
Certifications	ETL, FCC, CE, RoHS	ETL, FCC, CE, RoHS



**5 YEAR LIMITED
WARRANTY**



ORDERING

EXAMPLE: LSH TR2CH22 GDGN 30 FR MVOLT / LSH TR2CH24 GDGN 60 FR MVOLT

Family	Model	Color Temperature	Equivalent Wattage	Color	Voltage
LSH	TR2CH22 2'X2'	GDGN GoodDay/GoodNight	30WE	FR Frosted White	MVOLT Multi Volt
	TR2CH24 2'X4		60WE		

WIRELESS SWITCH ORDERING

LSH	SW Switch	2CH 2 Channel
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SUNTRAC® DOWNLIGHT*

2-CHANNEL | MULTI-SPECTRUM | CIRCADIAN LED LUMINAIRE



FEATURES

- Provides the flexibility to have the proper, healthy light at any time of day
- Easily changes from the warm, sleep-enhancing spectrum of GoodNight® to the alertness and focus-enhancing spectrum of GoodDay®
- Easily brings energy-efficient, circadian lighting in any area of your home, office or commercial installation
- Engineered spectrum supports the natural wake-sleep cycle to improve general well-being
- Control via a standard wall switch or via approved SunTrac® Wireless Switch (LSH SW2CH)
- Delivers high quality light throughout all settings for peak visual performance and biological benefits
- Low-profile luminaire rated for wet and dry environments
- Retrofit mounting options for recessed can, 4" junction box, and drywall

** Product formerly known as Good Day&Night.*

SPECIFICATIONS

Correlated Color Temperature (CCT)	2100K to 5000K*
Lumen Output	GoodDay 950 lm; GoodNight 700 lm
Melanopic/Photopic Ratio (M/P)	0.3 – 0.9
Color Rendering Index	≥90
Equivalent Source Standard	60 WE
Input Voltage (V)	110-120 V
Power Consumption	13 W
Power Factor	≥ 0.9
Control	2 Options: Standard Wall Switch or SunTrac™ Wireless Switch (LSH SW2CH)
Product Dimensions (LxWxH in/mm)	7.24 x 7.24 x 0.51 in (below ceiling) + 1.02 in (above ceiling) / 184 x 184 x 13 mm (below ceiling) + 26 mm (above ceiling)
Weight (lbs/g)	1.25 lbs / 567 g
Base	E26 Adapter (Retrofit Installation)
Supported Installation Methods	Recessed Can; 4" Ceiling/Junction Box; Drywall.
Warranty	3 Year Limited
Environment	Suitable for Wet Location; Insulation Contact Rated; Airtight
Certifications	Energy Star, ETL, RoHS, FCC



ORDERING

EXAMPLE: LSH DL2CH GDGN 13W ID SH

Family	Model	Color Temperature	Wattage
LSH	DL2CH	GDGN 2100–5000K	13W
Optic	Voltage	Mounting Kit	GEN
	(blank) 120VAC	(blank)	SH
		R Retrofit Kit	



Gotham Architectural Downlighting
LED Downlights

4" PTR Patient Room Downlight

Solid-State Lighting



FEATURES

INTENDED USE

Recessed downlight suitable for use in patient room applications.

OPTICS

- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- Polycarbonate lens integral to light engine
- Wipe down flush ore regressed lensed trims with antimicrobial finish

CONSTRUCTION

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS

- Fixtures are UL and CSA certified to meet US and Canadian standards; wet location, covered ceiling.
- IP66 rated room-side
- NSF2 Splash/Non-food Zone

WARRANTY

- 5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application.



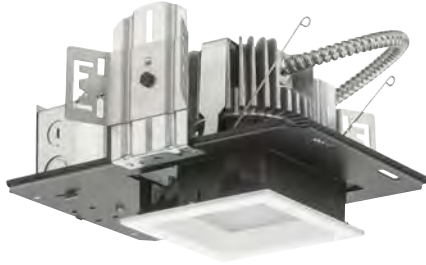
A+ Capable options indicated
by this color background.

EXAMPLE: EVO PTR 35/20 4DFFAMF SOL MVOLT EZ10

Series	Color temperature		Nominal lumen values		Aperture/Trim color		Lens	Voltage	
EVO PTR	27/	2700 K	10	1000 lumens	4DFR	Regressed lensed trim	SOL	Textured Lens	MVOLT
	30/	3000 K	15	1500 lumens	4DFF	Flush lensed trim	SMO	Smooth Lens	120
	35/	3500 K	20	2000 lumens	4DFRAMF	Regressed lensed trim with antimicrobial finish			277
	40/	4000 K	25	2500 lumens					
			30	3000 lumens					
					4DFFAMF	Flush lensed trim with antimicrobial finish			

Driver ¹	Options
EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	SF Single fuse. Specify 120V or 277V.
EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	ELR ² Emergency battery pack with remote test switch.
EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NPS80EZ ³ nLight® dimming pack controls 0-10V eldoLED drivers.
EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NPS80EZER ^{3,4} nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.
	BGTD Bodine generator transfer device. Specify 120V or 277V.
	CR190 High CRI (90+). Specify 120V or 277V.
	CP Chicago plenum

ORDERING INFORMATION



Gotham Architectural Downlighting
LED Downlights

4" EVO SQPTR Square Patient Room Downlight

Solid-State Lighting



FEATURES

INTENDED USE:

Recessed downlight suitable for use in patient room applications.

OPTICS

- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- Polycarbonate lens integral to light engine
- Wipe down flush or regressed lensed trims with antimicrobial finish

CONSTRUCTION

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture
- Suitable for use in surgical suites. Antimicrobial coating.

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS

- Fixtures are UL and CSA certified to meet US and Canadian standards; wet location, covered ceiling.
- IP66 rated room-side
- NSF2 Splash/Non-food Zone

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx
- Note: Actual performance may differ as a result of end user environment and application.
- All values are design or typical values, measured under laboratory conditions at 25° C.

ORDERING INFORMATION



A+ Capable options indicated
by this color background.

EXAMPLE: EVO SQPTR SQ 35/20 4DFFAMF SOL MVOLT EZ10

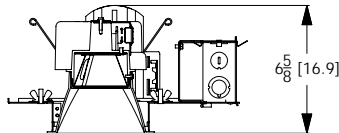
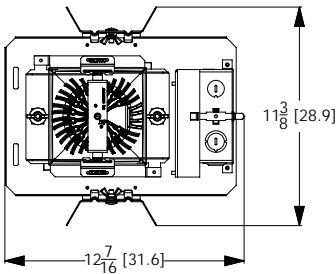
Series	Color temperature	Nominal lumen values	Aperture/Trim color	Lens	Voltage
EVO SQPTR SQ	27/ 2700 K	07 750 lumens	4DFR Regressed lensed trim	SOL Textured Lens SMO Smooth Lens	MVOLT 120 277
	30/ 3000 K	10 1000 lumens	4DFF Flush lensed trim		
	35/ 3500 K	15 1500 lumens	4DFFAMF Regressed lensed trim with antimicrobial finish		
	40/ 4000 K	20 2000 lumens	4DFFAMF Flush lensed trim with antimicrobial finish		
		25 2500 lumens			
		30 3000 lumens			

Driver ¹	Options
EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	SF Single fuse. Specify 120V or 277V.
EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	ELR² Emergency battery pack with remote test switch.
EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NPS80EZ³ nLight® dimming pack controls 0-10V eldoLED drivers.
EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NPS80EZER^{3,4} nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.
	BGTD Bodine generator transfer device. Specify 120V or 277V.
	CP Chicago plenum. Specify 120V or 277V.
	CRI90 High CRI (90+)

ACCESSORIES order as separate catalog numbers (shipped separately)

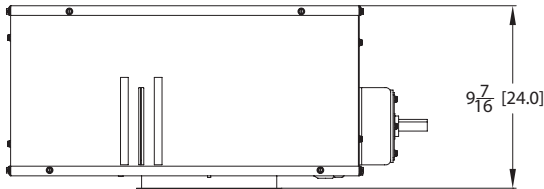
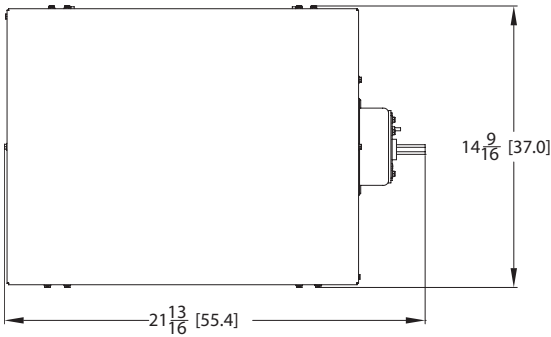
ISD BC 0-10V wallbox dimmer. Refer to [ISD-BC](#).

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 4-1/2" (11.4)
Ceiling Opening: 5-1/8" (13) self-flanged
5-1/4" (13.3) flangeless
Overlap trim: 5-1/2" (14) self-flanged

DIMENSIONS FOR CHICAGO PLENUM



ORDERING NOTES

1. Refer to [TECH-240](#) for compatible dimmers.
2. For dimensional changes, refer to [TECH-140](#).
3. Specify voltage. ECOS2 not available in 277V.
4. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.



Gotham Architectural Downlighting
LED Downlights

6" EVO PTR Patient Room Downlight

Solid-State Lighting



FEATURES

INTENDED USE

Recessed downlight suitable for use in patient room applications.

OPTICS

- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- Polycarbonate lens integral to light engine
- Wipe down flush or regressed lensed trims with antimicrobial finish

CONSTRUCTION

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS

- Fixtures are UL and CSA certified to meet US and Canadian standards; wet location, covered ceiling.
- IP66 rated room-side
- NSF2 Splash/Non-food Zone

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application.

ORDERING INFORMATION



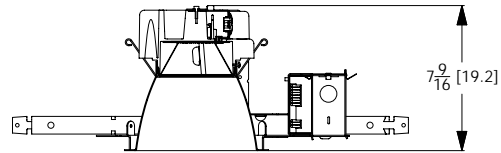
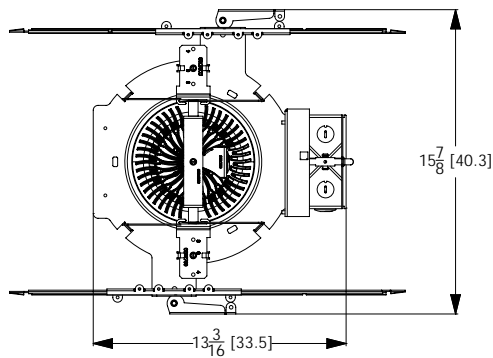
A+ Capable options indicated
by this color background.

EXAMPLE: EVO PTR 35/20 6DFF SOL MVOLT EZ10

Series	Color temperature	Nominal lumen values	Aperture/Trim color	Lens	Voltage
EVO PTR	27/ 2700 K	10 1000 lumens	6DFFR Regressed lensed trim	SOL Textured Lens SMO Smooth Lens	MVOLT 120 277
	30/ 3000 K	15 1500 lumens	6DFF Flush lensed trim		
	35/ 3500 K	20 2000 lumens	6DFFAMF Regressed lensed trim with antimicrobial finish		
	40/ 4000 K	25 2500 lumens	6DFFAMF Flush lensed trim with antimicrobial finish		
		30 3000 lumens			
		35 3500 lumens			
		40 4000 lumens			
		45 4500 lumens			

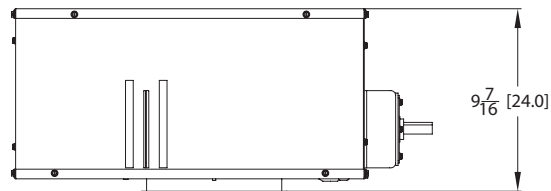
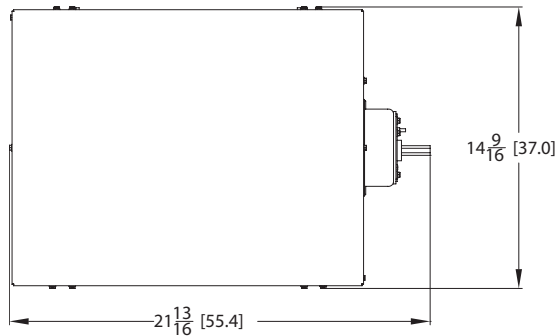
Driver ¹	Options
EZ10 eldoLED 0-10V EC0drive. Linear dimming to 10% min.	SF Single fuse. Specify 120V or 277V.
EZ1 eldoLED 0-10V EC0drive. Linear dimming to 1% min.	ELR ² Emergency battery pack with remote test switch.
EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NPS80EZ ³ nLight® dimming pack controls 0-10V eldoLED drivers.
EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NPS80EZER ^{3,4} nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.
	BGTD Bodine generator transfer device. Specify 120V or 277V.
	CRI90 High CRI (90+). Specify 120V or 277V.
	CP Chicago plenum. Specify 120V or 277V.

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1) self-flanged
7-1/4" (18.4) flangeless
Overlap trim: 7-1/2" (19.1)

DIMENSIONS FOR CHICAGO PLENUM

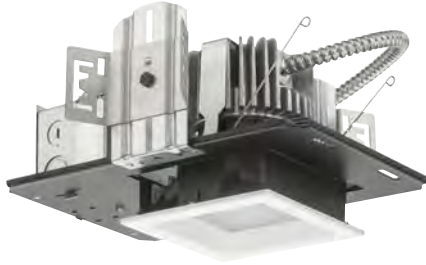


ACCESSORIES order as separate catalog numbers (shipped separately)

SCA6	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D. Refer to TECH-190 .
CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). Adds ~4" to fixture height.
GVRT	Vandal-resistant trim accessory. Refer to TECH-200 .
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC .

ORDERING NOTES

1. Refer to [TECH-240](#) for compatible dimmers.
2. For dimensional changes, refer to [TECH-140](#).
3. Specify voltage. ECOS2 not available in 277V.
4. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.



Gotham Architectural Downlighting
LED Downlights

6" EVO SQPTR Square Patient Room Downlight

Solid-State Lighting



FEATURES

INTENDED USE:

Recessed downlight suitable for use in patient rooms applications.

OPTICS

- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- Polycarbonate lens integral to light engine
- Wipe down flush or regressed lensed trim with antimicrobial finish

CONSTRUCTION

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS

- Fixtures are UL and CSA certified to meet US and Canadian standards; wet location, covered ceiling.
- IP66 rated room-side
- NSF2 Splash/Non-food Zone

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx
- Note: Actual performance may differ as a result of end user environment and application.
- All values are design or typical values, measured under laboratory conditions at 25° C.

ORDERING INFORMATION



A+ Capable options indicated
by this color background.

EXAMPLE: EVO SQPTR SQ 35/20 6DFFAMF SOL MVOLT EZ10

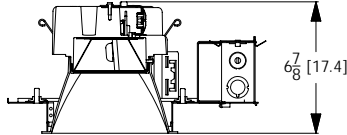
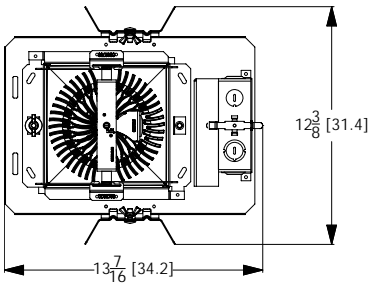
Series	Color temperature	Nominal lumen values		Aperture/Trim color		Lens	Voltage
EVO SQPTR SQ	27/ 2700 K	10	1000 lumens	30	3000 lumens	SOL Textured Lens SMO Smooth Lens	MVOLT 120 277
	30/ 3000 K	15	1500 lumens	35	3500 lumens		
	35/ 3500 K	20	2000 lumens	40	4000 lumens		
	40/ 4000 K	25	2500 lumens	45	4500 lumens		
				6DFFAMF	Regressed lensed trim with antimicrobial finish		
				6DFFAMF	Flush lensed trim with antimicrobial finish		

Driver ¹	Options
EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	SF Single fuse. Specify 120V or 277V.
EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	ELR ² Emergency battery pack with remote test switch.
EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NPS80EZ ³ nLight® dimming pack controls 0-10V eldoLED drivers.
EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NPS80EZER ^{3,4} nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.
	BGTD Bodine generator transfer device. Specify 120V or 277V.
	CP Chicago plenum. Specify 120V or 277V.
	CRI90 High CRI (90+)

ACCESSORIES order as separate catalog numbers (shipped separately)

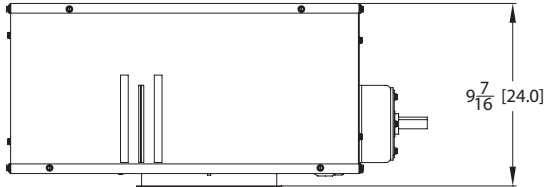
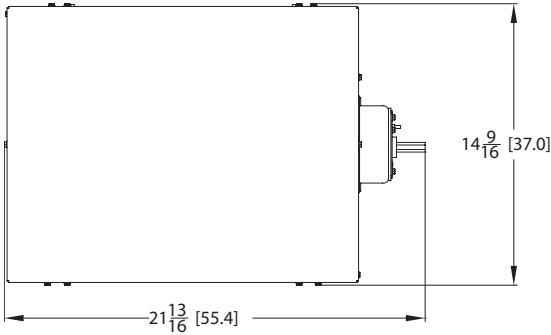
ISD BC

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6" (15.2)
Ceiling Opening: 6-5/8" (16.8) self-flanged
6-3/4" (17.1) flangeless
Overlap trim: 7" (17.8) self-flanged

DIMENSIONS FOR CHICAGO PLENUM



ORDERING NOTES

1. Refer to [TECH-240](#) for compatible dimmers.
2. For dimensional changes, refer to [TECH-140](#).
3. Specify voltage. ECOS2 not available in 277V.
4. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.

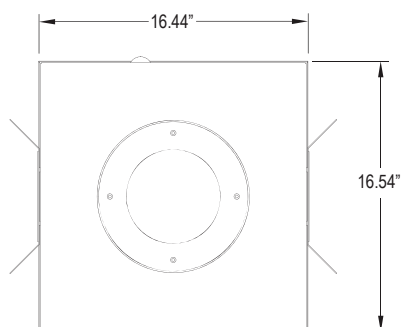
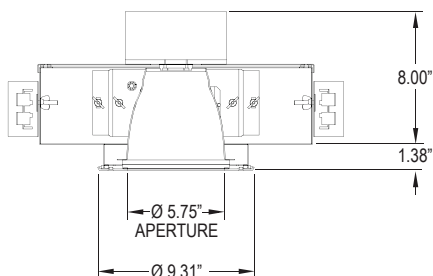
STARMed 6 LED ROUND

CLEANROOM SERIES

LED



DIMENSIONAL DATA



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 6 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Dimming(0-10v) standard
- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 6" aperture
- Enclosure box available for remote applications. 50ft. maximum
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- CleanRoom
- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM6	-	-	-	-	-
DLM6 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000° K* 35 = White 3500° K 40 = White 4000° K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) MS = MIL-STD-461F NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

StarMed 6 LED ROUND



StarMed 6 (82 CRI)

4000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	744	905	11	149,000 HRS.
L2	CLEAR SPECULAR	1,332	1,621	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,536	25	149,000 HRS.
L5	CLEAR SPECULAR	1,934	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,980	2,409	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,270	3,979	52	149,000 HRS.

StarMed 6 (82 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	696	847	11	149,000 HRS.
L2	CLEAR SPECULAR	1,266	1,540	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,562	25	149,000 HRS.
L5	CLEAR SPECULAR	1,936	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,896	2,307	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,000	3,650	52	149,000 HRS.

StarMed 6 (90 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L2	CLEAR SPECULAR	1,200	1,460	29	149,000 HRS.
L6C	CLEAR SPECULAR	1,800	2,190	34	149,000 HRS.
L7C	CLEAR SPECULAR	3,000	3,450	52	149,000 HRS.

StarMed 6 MRI

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L3	CLEAR SPECULAR	535	741	9	149,000 HRS.
L4	CLEAR SPECULAR	976	1,189	19	149,000 HRS.

Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.



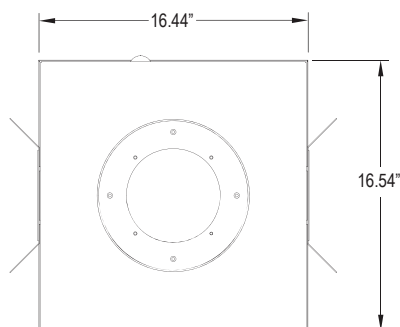
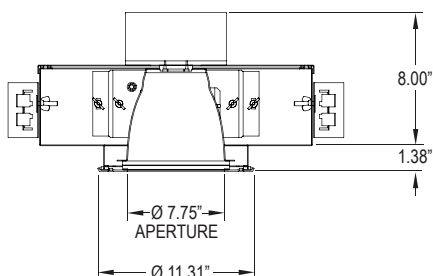
STARMed 8 LED Round

CLEANROOM SERIES

LED



DIMENSIONAL DATA



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 8 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 8" aperture
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM8	-	-	-	-	-
DLM8 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000* K* 35 = White 3500* K 40 = White 4000* K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Super Shallow "Dead Front" Shower • 4"

Up to 90,000 Hour Life • Type IC • Wet Location
LM-80 Qualified • LM-79 Certified Photometry

MRR-04720-1500L
MRR-04720-1000L
MRR-04720-500L



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 1500L: 1500 nominal lumens (20W).
 - 1000L: 1000 nominal lumens (11W)
 - 500L: 500 nominal lumens (5W).
- Distribution: MFL standard.
Optional: -NFL or -WFL.
- Color temperature: 3500°K standard.
Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use:
-30°C (-22°F) to 60°C (140°F).

- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**
- Trim Assembly - Fully Gasketed**
- Electrically isolated "dead front" gasketed trim.
- Seamless tapered aluminum self-flanged trim with white finish.
- Regressed tempered prismatic spread lens.

Acrylic Enameled Aluminum Housing: Super Shallow Depth

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with 1/2" and 3/4" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1 1/4" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-04720-1500L-120-30K-NFL
Product Number	Voltage	Options	
MRR-04720-1500L MRR-04720-1000L MRR-04720-500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input.
- 277 277V (50-60Hz) input.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- EI REMOTE emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage.

Color (CCT and CRI)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

- NFL Narrow flood distribution.
- WFL Wide flood distribution.

Lens and Trim

- 23 Frosted microprismatic lens instead.
- 32 White oversize trim ring. Specify O.D.
- 62 Clear specular self-flanged trim.
- 70 SoftTex clear self-flanged trim.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) trim finish.
- CF Custom color filter (Rosco). Specify.
- WA White acrylic (flat) diffuser instead.

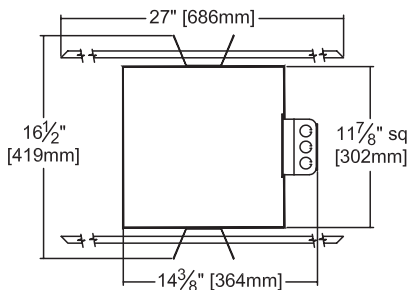
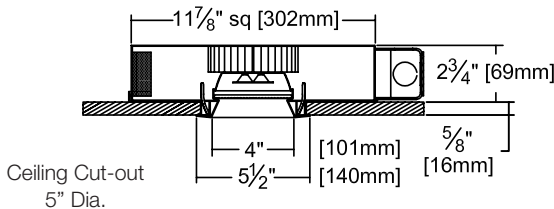
Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance

Dimensions



Detailed Photometry - Installed Fixture

Photometry from I.T.L., Boulder, CO

Photometric testing done in accordance with IESNA LM-79-08

-1500L STANDARD (MFL)

Lumens: 1685
Beam: ~38°
SC: 0.7
LPW: 80
Efficiency: 83.3%
ITL Test: 87208



Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2758	2758	2758	2758	2758
5	2684	2693	2702	2691	2679
15	1936	2045	2143	2067	1956
25	866	965	1087	1025	932
35	311	347	392	379	352
45	123	129	139	140	131
55	50	52	55	51	50
65	20	20	21	21	21
75	4	4	5	5	5
85	0	0	0	0	0
90	0	0	0	0	0

-1500L Option -NFL

Lumens: 1800
Beam: ~21°
SC: 0.4
LPW: 86
Efficiency: 89.0%
ITL Test: 87207



Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	9207	9207	9207	9207	9207
5	8070	8084	8047	8039	8032
15	2399	2410	2328	2300	2292
25	535	487	448	474	517
35	173	155	147	154	164
45	76	76	76	76	76
55	39	39	38	40	40
65	17	17	17	17	17
75	6	6	6	6	6
85	1	1	1	1	1
90	0	0	0	0	0

-1500L Option -WFL

Lumens: 1363
Beam: ~45°
SC: 0.8
LPW: 65
Efficiency: 67.4%
ITL Test: 87235



Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	1105	1105	1105	1105	1105
5	1074	1075	1076	1077	1077
15	891	890	889	900	905
25	646	649	649	653	651
35	477	477	478	478	476
45	302	300	296	293	289
55	148	142	135	137	139
65	50	50	50	48	47
75	9	10	10	8	8
85	0	0	0	0	0
90	0	0	0	0	0

LUMEN SERIES	LUMEN FACTOR	WATTAGE FACTOR	LPW FACTOR
-1000L	0.579	0.495	1.17
-500L	0.306	0.245	1.28

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

APPROVAL STAMP



JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

CATALOG #	TYPE
JOB NAME	VOLTAGE

LRR-04403-2500L

Lensed 4" Downlight • White Flare • LED

Up to 60,000 Hour Life • Wet Location
LM-80 Qualified • LM-79 Certified Photometry



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
-2500L: 2500 nominal lumens (35W).
- Distribution: MFL standard.
Optional: -NFL.
- Color temperature: 3500°K standard.
Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use:
-30°C (-22°F) to 60°C (140°F).

- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim and Optical Assembly

- Seamless tapered aluminum self-flanged trim with white finish.
- Regressed tempered prismatic spread lens.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: LRR-04403-2500L-120-30K-NFL
Product Number	Voltage	Options	
LRR-04403-2500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).
- D1 0-10V 1.0% dimming instead.
- D2 0-10V 0.1% dimming instead.
- D3 DALI 1.0% dimming instead.
- D4 DALI 0.1% dimming instead.
- D5 DMX512A 0% dimming instead.
- EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60Hz input only. Specify voltage. Not for use with Options -29 or -FS.

- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 2700° or 3000°K only.

Optics

- NFL Narrow flood distribution.

Trim

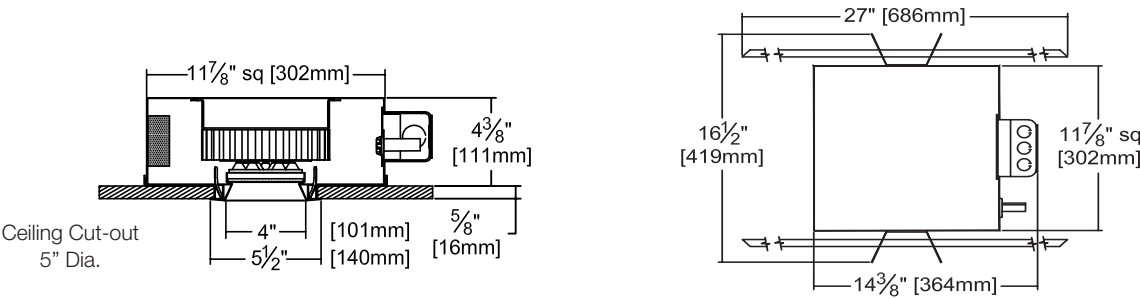
- 13 Clear poly lens below lens. Photometric distribution is unaffected.
- 23 Frosted microprismatic lens instead.
- 32 White oversize trim ring. Specify O.D.
- 33 Decorative Glow Ring suspended trim assembly. Consult factory.
- 35T Silver (natural aluminum) acrylic enameled trim.

- 37T Dark bronze acrylic enameled trim.
- 38T Black acrylic enameled trim.
- 45 Gasket between trim flange and ceiling.
- 62 Specular clear self-flanged trim.
- 70 SoftTex™ clear self-flanged trim.
- 94 Custom color/finish. Specify. Consult factory.
- CF Custom color filter (Rosco). Specify.
- WA White acrylic (flat) diffuser instead.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.
- RH Residential mounting hardware instead. Suitable for wood joist ceilings with spacing from 14⅞" to 25⅞" with ⅝" vertical adjustability.

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

Photometry from UL Verification Services, Allentown, PA

-2500L STANDARD (MFL)

Lumens: 2800
Beam: ~45°
SC: 0.8
LPW: 77
Efficiency: 75.3%
UL Test: 1259175

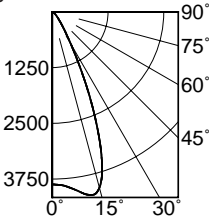


Total System Watts 36.4

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3869	3869	3869	3869	3869
5	3939	3939	3939	3939	3939
15	4083	4083	4083	4083	4083
25	1765	1765	1765	1765	1765
35	418	418	418	418	418
45	147	147	147	147	147
55	65	65	65	65	65
65	32	32	32	32	32
75	14	14	14	14	14
85	3	3	3	3	3
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	107.0	5.0
8	60.5	6.6
10	38.7	8.3
12	26.9	9.9
14	19.7	11.6
16	15.1	13.2



-2500L Option -NFL

Lumens: 2390
Beam: ~29°
SC: 0.5
LPW: 65
Efficiency: 64.3%
UL Test: 12591761

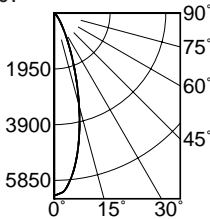


Total System Watts 36.6

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	6384	6384	6384	6384	6384
5	5947	5947	5947	5947	5947
15	3342	3342	3342	3342	3342
25	1146	1146	1146	1146	1146
35	344	344	344	344	344
45	114	114	114	114	114
55	46	46	46	46	46
65	30	30	30	30	30
75	15	15	15	15	15
85	4	4	4	4	4
90	2	2	2	2	2

Cone of Light ▲

Dist.	FC	Dia.
6	177.0	3.1
8	99.8	4.1
10	63.8	5.1
12	44.3	6.2
14	32.6	7.2
16	24.9	8.2



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from UL Verification Services (UL) where photometry was measured from 3717 lumen (-2500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

JOB NAME

TYPE

CATALOG NUMBER

VOLTAGE

APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the replacement and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Shallow Lensed 4" Downlight • LED

Up to 90,000 Hour Life • Type IC • Air Tight Optional
LM-80 Qualified • LM-79 Certified Photometry • Wet Location

LRR-04005-1500L
LRR-04005-1000L
LRR-04005-500L



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 1500L: 1500 nominal lumens (20W).
 - 1000L: 1000 nominal lumens (11W).
 - 500L: 500 nominal lumens (5W).
- Distribution: MFL standard. Optional: -NFL or -WFL.
- Color temperature: 3500°K standard. Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.

0-10V CCR dimming standard. (100-10%)

Trim Assembly

- Seamless tapered aluminum self-flanged trim with white finish.
- Regressed tempered prismatic spread lens.

Acrylic Enameled Aluminum Housing:

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with 1/2" and 3/4" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1 1/4" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.



UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: LRR-04005-1500L-120-30K-NFL
Product Number	Voltage	Options	
LRR-04005-1500L LRR-04005-1000L LRR-04005-500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input.
- 277 277V (50-60Hz) input.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).
- D1 0-10V 1.0% dimming instead.
- D2 0-10V 0.1% dimming instead.
- D3 DALI 1.0% dimming instead.
- D4 DALI 0.1% dimming instead.
- D5 DMX512A 0% dimming instead.
- EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage. Not for use with Options -29 or -FS.
- EM INTERNAL emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.

- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color (CCT and CRI)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 2700° or 3000°K only.

Optics

- NFL Narrow flood distribution.
- WFL Wide flood distribution.

Lens and Trim

- 13 Clear poly lens below lens. Photometric distribution is unaffected.
- 23 Frosted micropismatic lens instead.
- 32 White oversize trim ring. Specify O.D.
- 33 Decorative Glow Ring suspended trim assembly. Consult factory.
- 35T Silver (natural aluminum) acrylic enameled trim.
- 37T Dark bronze acrylic enameled trim.
- 38T Black acrylic enameled trim.
- 45 Gasket between trim flange and ceiling.

- 46 Gasket between trim and lens.
- 62 Specular clear self-flanged trim.
- 70 SoffTex clear self-flanged trim.
- 94 Custom color/finish. Specify. Consult factory.
- CF Custom color filter (Rosco). Specify.
- DF Electrically isolated "dead front" gasketed trim.
- WA White acrylic (flat) diffuser instead.

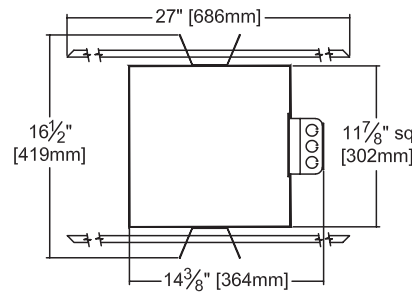
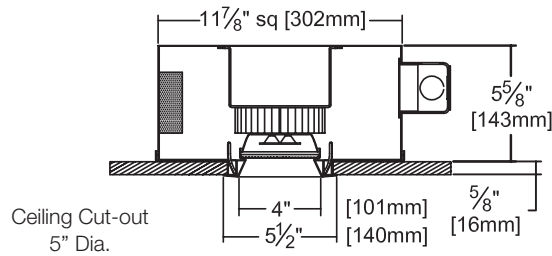
Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.
- AT Air tight version. Meets ASTM E283 restricted airflow of 2 CFM maximum. Option -RH required.
- RH Residential mounting hardware instead. Suitable for wood joist ceilings with spacing from 14 1/8" to 25 1/8" with 5/8" vertical adjustability.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

Photometry from I.T.L., Boulder, CO

-1500L STANDARD (MFL)

Lumens: 1685
Beam: ~38°
SC: 0.7
LPW: 80
Efficiency: 83.3%
ITL Test: 87208

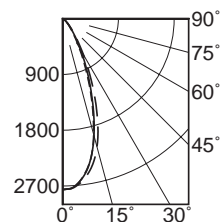


Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2758	2758	2758	2758	2758
5	2684	2693	2702	2691	2679
15	1936	2045	2143	2067	1956
25	866	965	1087	1025	932
35	311	347	392	379	352
45	123	129	139	140	131
55	50	52	55	51	50
65	20	20	21	21	21
75	4	4	5	5	5
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	76.6	4.1
8	43.1	5.5
10	27.6	6.8
12	19.2	8.2
14	14.1	9.6
16	10.8	11.0



-1500L Option -NFL

Lumens: 1800
Beam: ~21°
SC: 0.4
LPW: 86
Efficiency: 89.0%
ITL Test: 87207

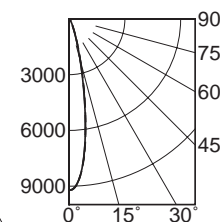


Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	9207	9207	9207	9207	9207
5	8070	8084	8047	8039	8032
15	2399	2410	2328	2300	2292
25	535	487	448	474	517
35	173	155	147	154	164
45	76	76	76	76	76
55	39	39	38	40	40
65	17	17	17	17	17
75	6	6	6	6	6
85	1	1	1	1	1
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	255.8	2.2
8	143.9	2.9
10	92.1	3.6
12	63.9	4.3
14	47.0	5.0
16	36.0	5.8



-1500L Option -WFL

Lumens: 1363
Beam: ~45°
SC: 0.8
LPW: 65
Efficiency: 67.4%
ITL Test: 87235

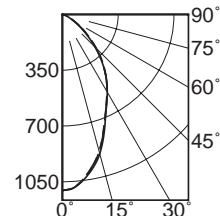


Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	1105	1105	1105	1105	1105
5	1074	1075	1076	1077	1077
15	891	890	889	900	905
25	646	649	649	653	651
35	477	477	478	478	476
45	302	300	296	293	289
55	148	142	135	137	139
65	50	50	50	48	47
75	9	10	10	8	8
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	30.7	5.0
8	17.3	6.7
10	11.1	8.3
12	7.7	10.0
14	5.6	11.6
16	4.3	13.3



LUMEN SERIES	LUMEN FACTOR	WATTAGE FACTOR	LPW FACTOR
-1000L	0.579	0.495	1.17
-500L	0.306	0.245	1.28



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)

Fl. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP



Skyline Series

Overbed LED Light



Lighting Solutions

Description:

Inspired by the aerodynamic shape of an Airplane Wing, the Amico Skyline Series overbed light offers a sleek and elegant design that meets the needs of both the patient and caregiver. Incorporating the latest in LED technology the Skyline light is designed to provide high quality illumination while meeting the aesthetic requirements of the patient room.

The Skyline Series light is designed with seam-free surfaces and clean edges that eliminate dust traps and make cleaning easy.

Features:

- Reading light
- Ambient light
- Examination light
- Night light
- Antimicrobial finish
- Impact resistant polycarbonate lens
- Slim design
- Seamless end caps



Construction Material:

Housing: Marine Grade Aluminum Extrusion. Housing attaches to mounting plate provided and secured to PEM studs. Unique hinge design on mounting plate for single man install.

Finish: Antimicrobial finish on all exposed aluminum surfaces.

Lens: High Impact, frosted polycarbonate. Extruded to frame for tight fit and infection control.

Light Source: Samsung LED mounted to aluminum core linear boards

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II)

Color Options: Antique white and Silver aluminum finishes

Length Options: Nominal 2' Actual: 26.75" (679.5 mm), Nominal 3' Actual: 38.75" (984.3 mm), Nominal 4' Actual: 50.75" (1289.1 mm)

Specifications:

Voltage: 120 - 277 Volts

Wattage: Total: 112.3 W. Exam: 48.2 W, Ambient: 32.3 W, Reading: 30.0 W

Light Output (4' version): Total: 9,964 lm. Exam: 3,950 lm, Ambient: 3,321 lm, Reading: 2,739 lm

Dimming: 0 - 10 Volts and DALI options available

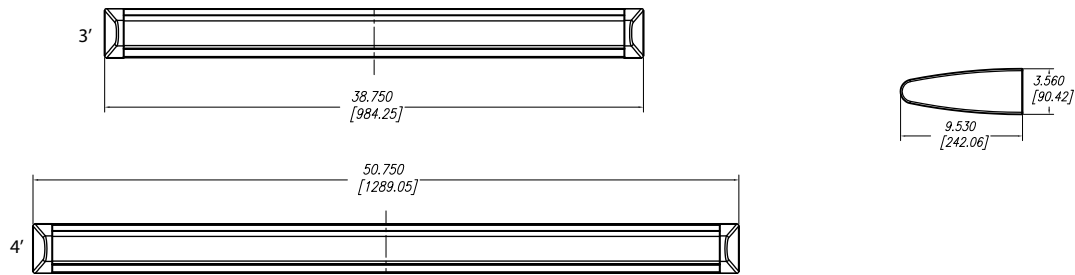
Color Quality: 80 CRI, 90 CRI

Color Temperature: 3000K, 3500K, 4000K

Life of LEDs: L70 50,000 hours

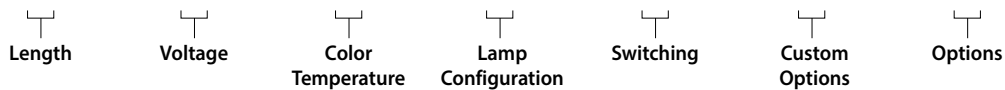
Warranty: Limited five (5) year warranty

Dimensions:



Ordering Guide:

L-SKY -



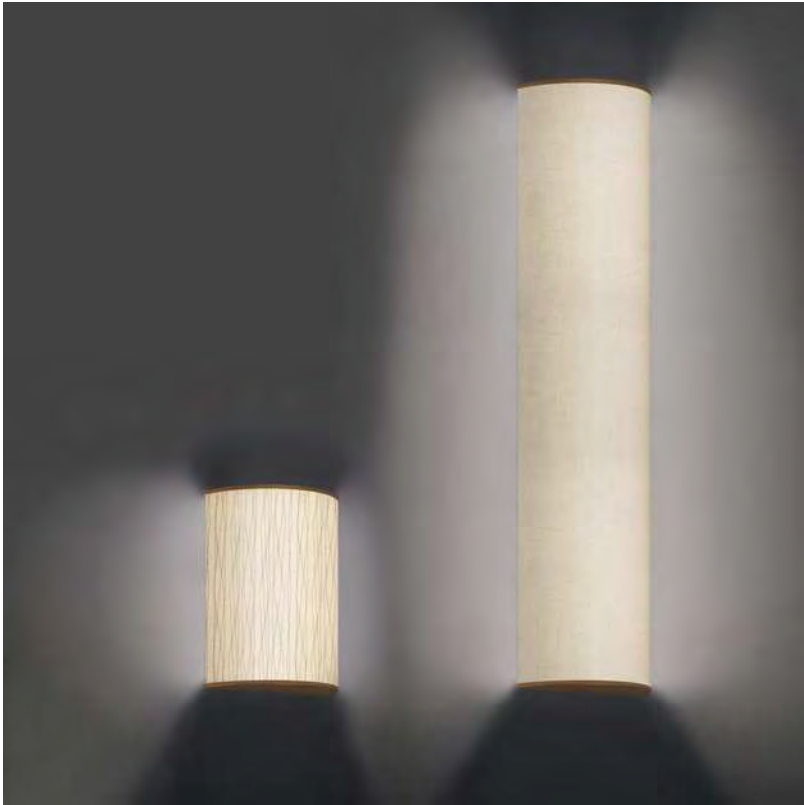
Example: L-SKY-2-120-LED30-1/2-LVC-SLV-BS

Skyline Series, 2', 120 V, 3000 Kelvin, 1 up / 2 down (standard), Low voltage controller, Silver finish, Bed stop

Ordering Information:

Series	Length	Voltage	Colour Temperature	Lamp Configuration	Switching	Custom Options	Options
L-SKY	2	120	LED 30 3000 K	1/2 1 up / 2 down (standard)	000 No switch	000 No custom options	00 No options
	3	277	LED 35 3500 K	1/1 1 up / 1 down	LVC Low voltage controller	SLV Silver finish (min quantity of 25)	BS Bed stop
	4	347	LED 40 4000 K	2/1 2 up / 1 down	LMS LightMaster relay	consult factory for other options	BP Emergency battery pack (consult factory)
			consult factory for other options	2/2 2 up / 2 down	LVD Low voltage controller & dimming		NL Night light
				consult factory for custom configurations	LMD LightMaster control & dimming		BN Bed stop & night light
					1PC Single pull chain		BB Bed stop & battery pack
					2PC Dual pull chain		NB Night light & battery pack
					1PR One pull chain & rocker switch		AL Bed stop, battery pack & night light
					2PR Two pull chain & rocker switch		
					1RS Single rocker switch		
					2RS Two rocker switches		
					LVR Low voltage controller and rocker switch		
					LVP Low voltage controller and pull chain		
					LDR Low voltage controller, Dimming, Rocker Switch		
					LDP Low voltage controller, dimming & pull chain		

NOTE: Minimum of 100 units required for custom color option



SPECIFICATIONS

- 120-277V Input
- ETL Damp Listed (Wet Listed, IP66 Rated available (option, C.F.))
- 10 Year Limited Warranty (excludes shade)
- Title 24 Compliant for Non-Residential
- ADA Compliant
- Tamper Resistant (option)

LAMPING

- 2700K, 3000K, 3500K, 4000K CCT
- CRI 85 Typical, 80 Min, Min 90 CRI available in Q1 2018
- 85 LM/W Performance (module)
- High Efficiency, fully integrated proprietary LED Module
- 12": 12.6 W, 1000+ lumens (module without shade)
- 45.5": 50.5 W, 4250+ lumens (module without shade)
- Internal power supply
- Modular design, LED Module and power supply easily replaced
- CCT consistency within 3-Step McAdam Ellipse

CONSTRUCTION

- Shade: Durable Architectural Resin by ALVA
- Trim: Metal Finish Powder Coat

APPLICATIONS

- Healthcare:
Patient room wall sconce (12"L)
Above patient bed (45.5"L)
- Multi-Family residential:
Corridors, elevator lobbies, hotel or corporate lobbies

SIZES

- 12"L x 9"W x 4" D
- 45.5"L x 9"W x 4" D

WEIGHT

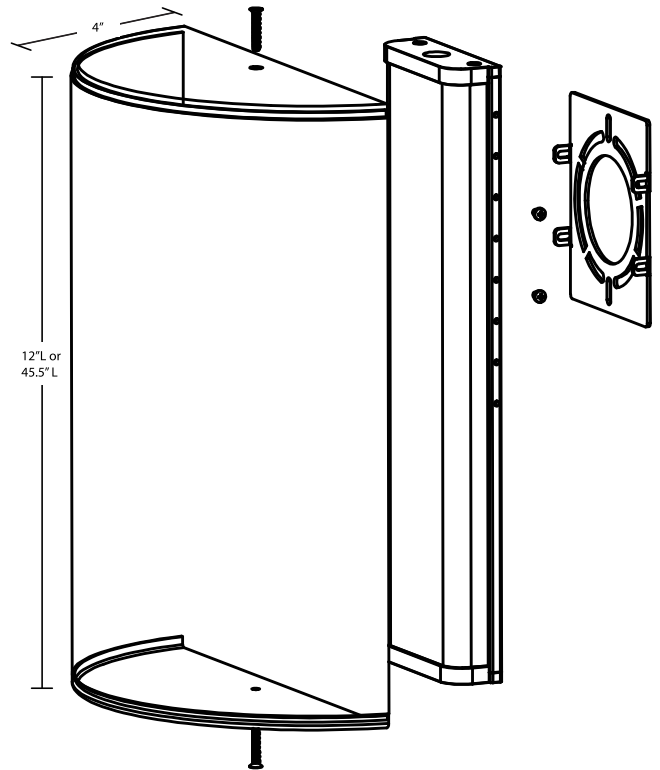
- 12"- 3 lbs
- 45.5"- 9 lbs

MOUNTING

- J-Box 3.0 or 4.0 compatible
- Can be mounted vertically or horizontally or ceiling.
Refer to installation instructions for details.

Two Dimming Methods Included

- LUMENSELECT® 4-level light output dial (100%, 75%, 50%, 25%)
- 0-10V Dimming (100-10%)



SPECIFICATIONS

SUBJECT TO CHANGE

alva™

LED-BASED ARCHITECTURAL LIGHTING

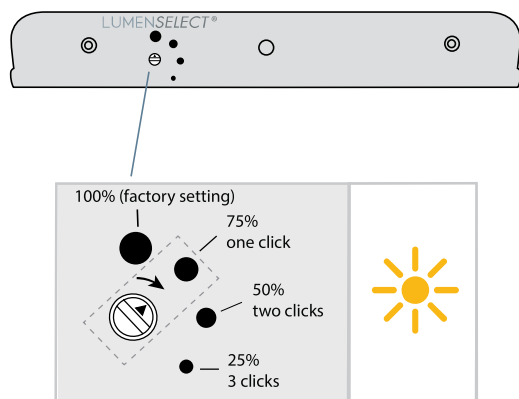
918 PARKER STREET, SUITE A14, BERKELEY, CA 94710

P: 408.394.3054 WWW.ALVALIGHT.COM

LUMENSELECT®

LUMENSELECT®, a dimming control panel on all ALVA luminaires, allows you to customize light output to create the desired atmosphere and to limit the consumption of electricity.

LUMENSELECT® control panel on the end cap of ALVA luminaires

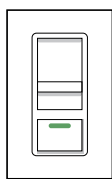


The LUMENSELECT® rotary switch should be turned gently clockwise with a small flathead screwdriver with a 1/8" or 3mm wide tip, one click at a time from factory setting to get desired output level.

SETTING LUMENSELECT® LEVELS

ALVA luminaires come factory set at 100% light output. You may choose from four output settings, typically performed at the time of installation:

- 100% light output & energy consumption
- 75% light output & energy consumption
- 50% light output & energy consumption
- 25% light output & energy consumption

REMOTE DIMMING OPTION
0 -10V (100 -10%)

0-10V dimming may be used with compatible dimmer controls

Please refer to ALVALIGHT.COM for a listing of compatible dimmers

RESIN SHADE OPTIONS



IB - Island Breeze



LC - Linear Cross



R - Rain



B - Burano



GS - Gold Shimmer



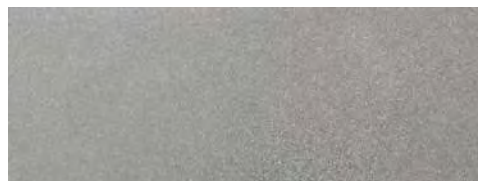
A - Autumn

METAL TRIM OPTIONS



EOB

Enviro Oil-Rubbed Bronze (Powder Coat)



ESN

Enviro Satin Nickel (Powder Coat)

EVA ORDER CODE

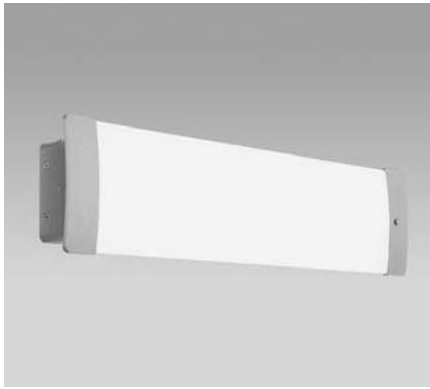
EVA

MODEL
EvaLENGTH
12 - 12"
46 - 45.5"SHADE MATERIAL
R - ResinSHADE PATTERN
IB - Island Breeze
R - Rain
LC - Linear Cross
B - Burano
GS - Gold Shimmer
A - AutumnMETAL TRIM
Powder Coat
Finish Options
ESN -
Enviro Satin Nickel
EOB -
Enviro Oil-Rubbed BronzeCCT
2700 - 2700K
3000 - 3000K
3500 - 3500K
4000 - 4000K



ALVA EVA™
10 Year Limited Warranty
on complete fixture.

HANDMADE DESIGN
The resin shade and end caps are
crafted in our California factory.



Entera™

Sconce and Wall System



Project:

Type:

Qty:

SPECIFICATIONS

Interior

ENTERA SCONCE

SPECIFICATIONS

The Entera Sconce is an elegant LED option for hospital patient rooms, hospital corridor lighting, or assisted living facilities. The Entera Sconce incorporates nLight technology that will integrate with the Entera 2x4 / 2x2 recessed patient room fixture creating a system that can be programmed for various scenes. The Entera Sconce is offered vertically or horizontally in 4 different lengths: 16", 28", 40", 52". Symmetric and Asymmetric optics are available as options.

Construction

Die cast and extruded aluminum with acrylic lens.
Horizontal and vertical mounting possible.

Source

Linear LED boards with Nichia LED 757 chipsets.
Available in 2700K optional, 3000K, 3500K and 4000K standard.

Driver

eldoLED ECOdrive

Finish

Painted powder coat with Anti Microbial option.

Weight

HPS114 approximately 9 lbs.
HPS326 approximately 10 lbs.
HPS338 approximately 14 lbs.

Color Quality

CRI > 80
R9 Value 44

Voltage

120V or 277V

Input Watts

HPS114 13 watts
HPS326 25 watts
HPS338 38 watts
HPS350 50 watts

Light Output

HPS114 480 lumens
HPS326 1100 lumens
HPS338 1650 lumens
HPS350 2100 lumens

Dimming

Smooth dimming to 1% for 0-10V

Life Estimate

> 50,000 hrs according to component LM80 testing.

Certifications

ADA
CSA Certified Damp Location

Warranty

Five-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C.



A+ Capable options indicated by this color background.

CATALOG NUMBER

Example: HPS114 120 SYD PCM WAV LED35 N100 MW AM

Series	Voltage	Distribution	Lens Material	Lens Insert Option	LED Type	Options
HPS114 ¹ 8" x 14" Nominal Sconce	120 120 Volt	SYD Symmetrical Distribution	PCM Polycarbonate Lens Material	WAV Triple Wave Insert	LED27 2700K LED (extended lead time)	LVD ³ Digital Low Voltage Controller
HPS214 ^{1,2} (2) 8" x 14" Sconces (paired)	277 277 Volt	ASD Asymmetrical Distribution		CIR Circle Print Insert	LED30 3000K LED	TRS Tamper Resistant Screws
HPS326 6" x 26" Nominal Sconce				WTR White Translucent (standard)	LED35 3500K LED (standard)	
HPS338 6" x 38" Nominal Sconce				(Blank) No Insert	LED40 4000K LED	
HPS350 6" x 50" Nominal Sconce						

nLight Option ³	Finish
N80 nLight Lumen	MW Matte White (standard)
N100 Maintenance	SI HCL Silver
DIM nLight Dimming	LGW Low Gloss White
0-10V Dimming	BZM Bronze Anti-Microbial
	AM Anti-Microbial

Notes

- 1 14" Sconce has limited space. (LVD, n80 and n100 cannot all fit. Consult factory for options.)
- 2 HPS214 (paired) has one driver for two fixtures.
- 3 LVD and nLight components cannot be combined.

Entera

Sconce and Wall System

Project:

Type:

Qty:

SPECIFICATIONS

Interior

ENTERA SCONCE

PERFORMANCE DATA

Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

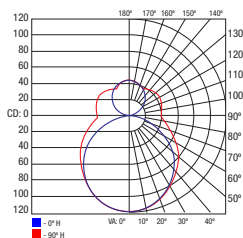
Light Mode	Lumen Output (lm)	Max Candela
HPS114	480 Lumens	100 Cd
HPS326	1,100 Lumens	180 Cd
HPS338	1,650 Lumens	300 Cd
HPS350	2,100 Lumens	400 Cd

Electrical Load

Fixture Type	Input Watts
HPS114	13 Watts
HPS326	25 Watts
HPS338	38 Watts
HPS350	50 Watts

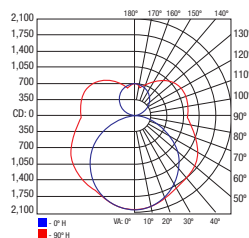
PHOTOMETRICS

Test Report: 1406011405-001
IES LM 79-08
HPS114 LED35 Symmetric Distribution
Lumens: 481.5
Wattage: 13.1W
Efficacy: 36.7 lm/W
Max. Candela: 98.9 @ H: 0°, V: 0°



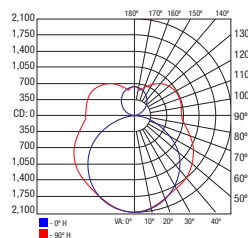
Height	Center Beam Footcandle
1.0	98.9fc
2.0	24.7fc
3.0	11.0fc
4.0	6.2fc
5.0	4.0fc
6.0	2.7fc

Test Report: 1406021405-003
IES LM 79-08
HPS326 LED35 Symmetric Distribution
Lumens: 1110.8
Wattage: 25.4W
Efficacy: 43.7 lm/W
Max. Candela: 183.7 @ H: 0°, V: 2.5°



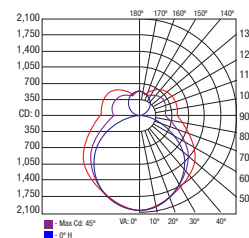
Height	Center Beam Footcandle
1.0	183.0fc
2.0	45.8fc
3.0	20.3fc
4.0	11.4fc
5.0	7.3fc
6.0	5.1fc

Test Report: 1406021405-004
IES LM 79-08
HPS338 LED35 Symmetric Distribution
Lumens: 1679.9
Wattage: 38.0W
Efficacy: 44.2 lm/W
Max. Candela: 297.5 @ H: 0°, V: 2.5°



Height	Center Beam Footcandle
1.0	296.2fc
2.0	74.1fc
3.0	32.9fc
4.0	18.5fc
5.0	11.8fc
6.0	8.2fc

Test Report: 1406021405-002
IES LM 79-08
HPS350 LED35 Symmetric Distribution
Lumens: 2127.7
Wattage: 50.3W
Efficacy: 42.3 lm/W
Max. Candela: 410.1 @ H: 45°, V: 2.5°



Height	Center Beam Footcandle
1.0	409.8fc
2.0	102.5fc
3.0	45.5fc
4.0	25.6fc
5.0	16.4fc
6.0	11.4fc

Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a **shaded background***
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background***

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details



Archer LED

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior

ARCHER LED

SPECIFICATIONS

The Archer bed light provides versatility with optional sequential switching for patient room ambient and task lighting. The sleek housing profile echoes the Chrysalite and can be used together to create a complementary look in a lighting design. Multiple lamping and switching options allow this fixture to be used in a wide array of applications. As a bed light, placement above the patient on the headwall delivers optimal distribution of light for reading and also comfortable ambient illumination. If a low voltage controller is included (optional), light levels can be adjusted via the nurse call system or using a separate pendant pillow switch (optional). This fixture is also a good choice for guest lighting.

- Delivers multiple light levels for patient: indirect, direct, both
- Separate mounting plate makes installation easy; mount rigid but lightweight plate to wall and then install fixture
- Low voltage controller (option) allows patient control from nurse call system or separate pillow switch (option)
- Tool-free access to ballast compartment while fixture remains on wall
- Single-piece extruded aluminum body for extreme durability
- Entirely serviceable without removal from wall

Construction

Extruded aluminum housing

Die-cast aluminum handles

High impact acrylic lenses, UV treated to prevent yellowing with age

Polyester powder coat finish; anti-microbial powder coat finish available

Wall mount brackets included. Packaged separately.

Source

Nichia LED chips (or equivalent) mounted on linear boards

Driver

Roal Strato RSL035-09 or equivalent

Weight

HPW336 – approximate shipping weight 20 lbs.

HPW348 – approximate shipping weight 30 lbs.

Voltage

120V

Switching

Line voltage switching (by others)

Low voltage controller (optional) for patient control of up and down light sequentially from nurse call system or pillow switch (optional)

2-position pull chain for on/off control or 4-position pull chain for sequential control of up and down light (optional, 120V only)

Input Watts (As Tested)

Top and bottom mode 2U2D configuration, 4ft fixture – 102 WATTS

Top mode 2U2D configuration, 4ft fixture - 51 WATTS

Light Output (As Tested)

Top and bottom mode 2U2D configuration, 4ft fixture - 10860 lumens

Top mode 2U2D configuration, 4ft fixture - 5490 lumens

Dimming

0-10V dimming standard

Color Quality

>80 CRI

Life Estimate

50,000 hours*

*LED life projection based on IES TM-21 and IES LM-80

Listings

CSA certified to meet US and Canadian standards. Damp location listed.

Warranty

5-year limited warranty. Complete warranty terms located at:

www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

CATALOG NUMBER

Example: HPW348 120 LED35 2U2D LV LCR AM

Series		Voltage		Lamping Type		Lamping								
HPW336	Archer 3ft in Length	120	120V	LED27	2700K LED		2U1D	2 Rows LEDs Up, 1 Row LEDs Down		OU1DMT	Only 1 Row LEDs Down with Top Plate			
HPW348	Archer 4ft in Length			LED30	3000K LED		2U2D	2 Rows LEDs Up, 2 Rows LEDs Down		OU2DMT	2 Rows LEDs Down with Top Plate			
				LED35	3500K LED		1U1D	1 Row LEDs Up, 1 Row LEDs Down		1U0DMB	Only 1 Row LEDs Up with Bottom Plate			
				LED40	4000K LED		1U2D	1 Row LEDs Up, 2 Rows LEDs Down		2U0DMB	2 Rows LEDs Up with Bottom plate			
Switching Config								Option				Finish		
LV	Low Voltage Controller - Sequential Switching			S2LDL ^{1,2}	On/Off Pull Chain on Left (bottom only)			LCL ³	3W LED Chart Light with Switch on Left			FW	Flat White (standard)	
LV1L ¹	LVC with Pillow Switch for Down Light on Left			S2RDL ^{1,2}	On/Off Pull Chain on Right (bottom only)			LCR ³	3W LED Chart Light with Switch on Right			AM	Anti-Microbial White	
LV1R ¹	LVC with Pillow Switch for Down Light on Right			S2CDL ^{1,2}	On/Off Pull Chain on Center (bottom only)			LCLHW ³	3W LED Chart Light "Hard Wired" Left					
LV2L ¹	LVC with Pillow Switch on Left - Sequencing Up + Down Light			S4L ^{1,2}	4-Position Pull Chain on Left			LCRHW ³	3W LED Chart Light "Hard Wired" Right					
LV2R ¹	LVC with Pillow Switch on Right - Sequencing Up + Down Light			S4R ^{1,2}	4-Position Pull Chain on Right			BD	Bed-Stop Switch			CC ⁴	Custom Color	
S2L ²	On/Off Pull Chain on Left (top & bottom)			S4C ^{1,2}	4-Position Pull Chain on Center									
S2R ²	On/Off Pull Chain on Right (top & bottom)			SX	No Switch									
S2C ²	On/Off Pull Chain on Center (top & bottom)													

Notes are on following page.

Archer LED

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

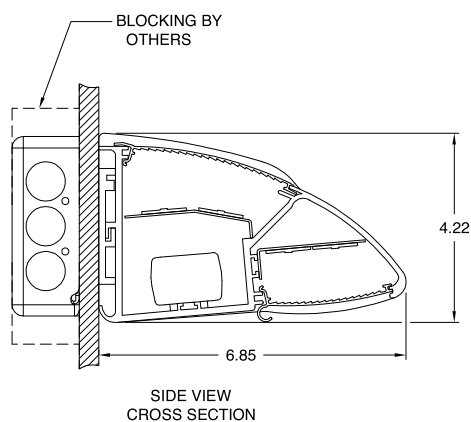
Interior

ARCHER LED

Notes

- 1 Switching: S2 and S4 options are compatible with 120V only
- 2 For pull chain and pillow switch, specify "left" or "right" as viewed facing the head wall
- 3 3W LED chart light (option) always installed opposite end from pull chain or pillow switch
- 4 Custom color requires factory pricing

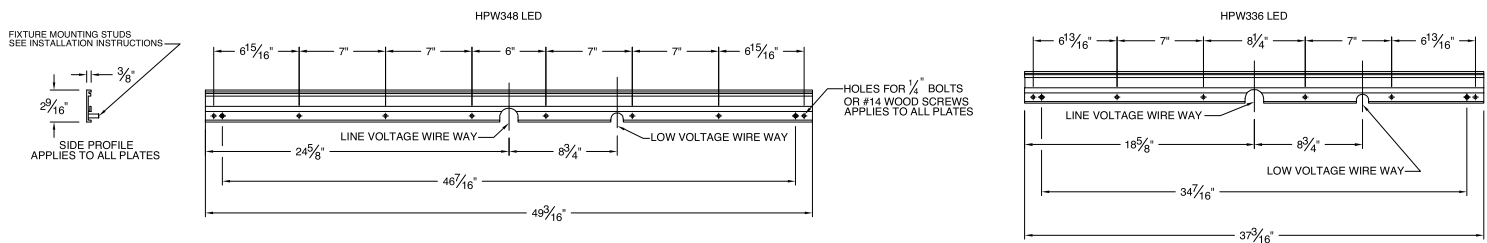
DIMENSIONS



Fixture	NOMINAL LENGTH	ACTUAL LENGTH
HPW348 LED	48"	49.56"
HPW336 LED	36"	37.56"

MOUNTING INFORMATION

- Installation is made easy by the incorporation of a separate mounting plate (blocking by others).
- After the plate is mounted to the wall the fixture can be quickly connected and hung.
- It is the responsibility of the party installing the fixture to select appropriate fasteners that are suitable for the wall material and construction.
- It is the responsibility of the person installing the light fixture to ensure that the materials, hardware and building structural members that are selected will support the light fixture(s) and that they meet all applicable building and safety codes.
- Complete electrical connections according to the wiring diagram on ballast tray, following all applicable building codes and regulations.





Chrysalite LED

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior

CHRYSLITE LED

SPECIFICATIONS

The Chrysalite is a stylish solution for wall-mounted patient bed lighting. Photometric testing shows that placement above and behind the patient delivers optimal distribution of light for reading. If a low voltage controller is included (optional), light levels can be adjusted via the nurse call system or using a separate pendant pillow switch (optional).

- Delivers multiple light levels for patient and caregiver: indirect, direct, both, as well as flip-top examination section
- Unique convenience switch (option) allows exam lighting to illuminate automatically when exam head is flipped open
- Automatically returns to previous light mode when exam head is closed
- Top and bottom lenses are fully supported in grooves to prevent sagging
- Separate mounting plate makes installation easy; mount rigid but lightweight plate to wall and then install fixture
- Low voltage controller (optional) allows patient control from nurse call system or separate pillow switch (optional)
- Single-piece extruded aluminum body with die-cast handles for extreme durability
- Entirely serviceable without removal from wall

Construction

Extruded aluminum housing

Die-cast aluminum handles

High impact acrylic lenses, UV treated to prevent yellowing with age
Polyester powder coat finish; anti-microbial powder coat finish available

Wall mount brackets included. Packaged separately.

Source

Nichia LED chips (or equivalent) mounted on linear boards

Driver

Roal Strato RSL035-09 or equivalent

Weight

25 lbs (3ft); 35 lbs (4ft)

Voltage

120V

Input Watts

101 watts (top and bottom mode 2U2D configuration 4ft fixture)

51 watts (top mode 2U2D configuration 4ft fixture)

Switching

Line voltage switching (by others)

Low voltage controller (optional) for patient control of up and down light sequentially from nurse call system or pillow switch (optional)

2-position pull chain for on/off control or 4-position pull chain for sequential control of up and down light (optional, 120V only)

Light Output

10860 lumens (top and bottom mode 2U2D configuration 4ft fixture)

5490 lumens (top mode 2U2D configuration 4ft fixture)

Dimming

0-10V dimming standard

Color Quality

>80 CRI

Life Estimate

50,000 hours*

*LED life projection based on IES TM-21 and IES LM-80

Listings

CSA certified to meet US and Canadian standards. Damp location listed.

Warranty

5-year limited warranty. Complete warranty terms located at:

www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

CATALOG NUMBER

Example: HPW248 120 LED35 2U2D LV LCR AM

Series		Voltage		Lamping Type	Lamping		
HPW236	Chrysalite 3ft length	120	120V	LED27	2700K LED	2U1D	2 rows LEDs up, 1 row LEDs down
HPW248	Chrysalite 4ft length			LED30	3000K LED	2U2D	2 rows LEDs up, 2 rows LEDs down
				LED35	3500K LED	1U1D	1 row LEDs up, 1 row LEDs down
				LED40	4000K LED	1U2D	1 row LEDs up, 2 rows LEDs down
Switching Config				Option		Finish	
LV	Low Voltage Controller - Sequential Switching	S2LDL ^{1,2}	On/Off Pull Chain on Left (bottom only)	LCL ³	3w LED Chart Light with Switch on Left	FW	Flat White (standard)
LV1L ¹	LVC with Pillow Switch for Down Light on Left	S2RDL ^{1,2}	On/Off Pull Chain on Right (bottom only)	LCR ³	3w LED Chart Light with Switch on Right	AM	Anti-Microbial White
LV1R ¹	LVC with Pillow Switch for Down Light on Right	S2CDL ^{1,2}	On/Off Pull Chain on Center (bottom only)	LCLHW ³	3w LED Chart Light "Hard Wired" Left	CC ⁴	Custom Color
LV2L ¹	LVC with Pillow Switch on Left - Sequencing Up + Down Light	S4L ^{1,2}	4-Position Pull Chain on Left	LCRHW ³	3w LED Chart Light "Hard Wired" Right		
LV2R ¹	LVC with Pillow Switch on Right - Sequencing Up + Down Light	S4R ^{1,2}	4-Position Pull Chain on Right	BD	Bed-Stop Switch		
S2L ²	On/Off Pull Chain on Left (top & bottom)	S4C ^{1,2}	4-Position Pull Chain on Center	CS	Convenience Switch		
S2R ²	On/Off Pull Chain on Right (top & bottom)	SX	No Switch				
S2C ²	On/Off Pull Chain on Center (top & bottom)						

Notes are on following page.

Chrysalite LED

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

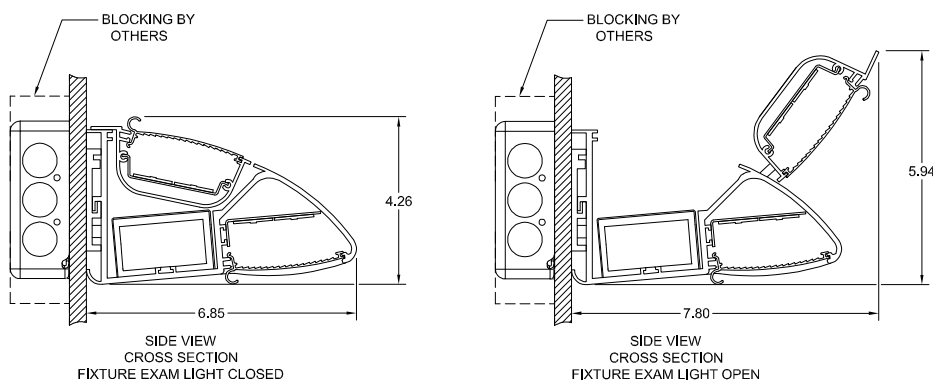
Interior

CHRYSLITE LED

Notes

- 1 For pull chain and pillow switch, specify "left" or "right" as viewed facing the head wall
- 2 Switching: S2 and S4 options are compatible with 120V only
- 3 3W LED chart light (option) always installed opposite end from pull chain or pillow switch
- 4 Custom color requires factory pricing

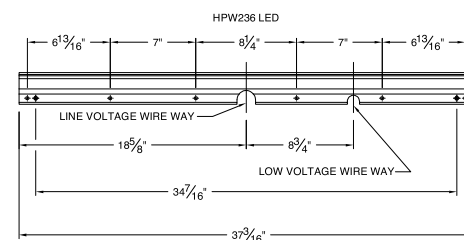
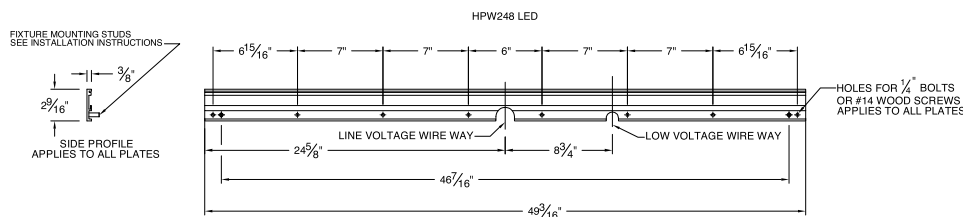
DIMENSIONS



Fixture	NOMINAL LENGTH	ACTUAL LENGTH (including handles)
HPW248 LED	48"	53.29"
HPW236 LED	36"	41.29"

MOUNTING INFORMATION

- Installation is made easy by the incorporation of a separate mounting plate (blocking by others).
- After the plate is mounted to the wall the fixture can be quickly connected and hung.
- It is the responsibility of the party installing the fixture to select appropriate fasteners that are suitable for the wall material and construction.
- It is the responsibility of the person installing the light fixture to ensure that the materials, hardware and building structural members that are selected will support the light fixture(s) and that they meet all applicable building and safety codes.
- Complete electrical connections according to the wiring diagram on ballast tray, following all applicable building codes and regulations





Sierra

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior Patient Room Wall

HPW500

SPECIFICATIONS

The Sierra combines beauty and function in a fixture that is also ADA compliant. Its low profile design is a perfect choice for patient rooms, corridors, and stairways. The sleep, sloping design shields lamp silhouettes while providing forwards distribution of light. When a low voltage controller is included (optional), light levels can be adjusted via the nurse call system or using a separate pendant pillow switch. The grounded convenience outlet option is popular when the fixture is installed in bathrooms or long-term care patient rooms.

Housing

Extruded aluminum housing

Die-cast aluminum end caps

High impact acrylic lenses, UV treated to prevent yellowing with age

94% specular aluminum reflectors with proprietary asymmetric design

Polyester powder coat finish; anti-microbial powder coat finish available

Source

T8, T5, or T5HO

Ballast

T8 – Electronic instant start standard, programmed rapid start optional

T5 & T5HO – Electronic programmed rapid start

Switching

Line voltage switching (by others)

Low voltage controller (optional) for patient control of up and down light sequentially from nurse call system or pillow switch (optional)

2-position pull chain for on/off control or 4-position pull chain for sequential control of up and down light

Weight

HPW548 – approximate shipping weight 21 lbs.

HPW536 approximate shipping weight 16 lbs.

HPW524 approximate shipping weight 11 lbs.

Voltage

120V, 277V, MVOLT

Input Watts (As Tested)

HPW548 T8 1U1D 64

HPW548 T5 1U1D 56

HPW536 T8 1U1D 50

HPW536 T5 1U1D 42

HPW524 T8 1U1D 34

HPW524 T5 1U1D 28

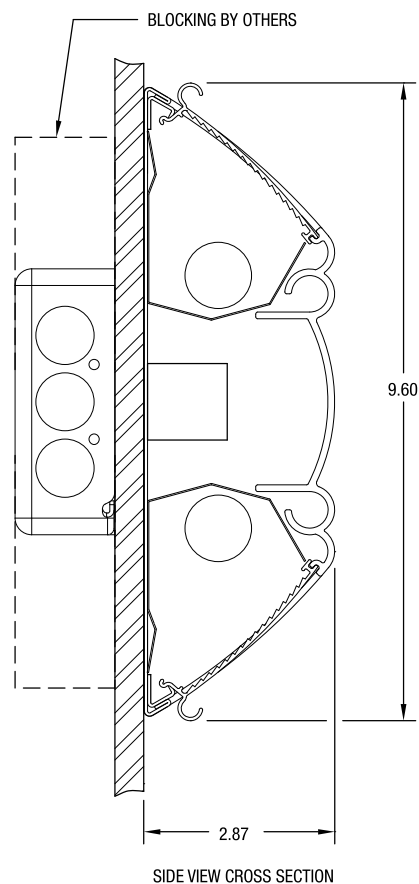
Life Estimate

For lamp life, see Lamp Manufacturer's information.

Warranty

One-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.



Fixture	Nominal Length	Actual Length
HPW548 T8	4 FT	52.2
HPW548 T5	4 FT	50.2
HPW536 T8	3 FT	40.2
HPW536 T5	3 FT	38.4
HPW525 T8	2 FT	28.2
HPW524 T5	2 FT	26.6

HPW500

Patient Room Wall Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior Patient Room Wall

HPW500

CATALOG NUMBER

Example: HPW548 120 T5 2U2D LV LNR AM

Series	Voltage	Lamping Type	Lamp Configuration	Switching Options	Options	Finish
HPW548 4 FT HPW536 3 FT HPW524 2 FT	120 120 Volt 277 277 Volt MVOLT Multi Volt	T8 32W (4ft), 25W (3ft), 17W (2ft) T5 28W (4ft), 21W (3ft), 14W (2ft) T5H0 54W (4ft), 39W (3ft), 24W (2ft)	2U1D 2 Up, 1 Down (T5 only) 2U2D 2 Up, 2 Down (T5 only) 1U2D 1 Up, 2 Down (T5 only) 1U1D 1 Up, 1 Down	LV Low voltage controller – sequential switching LV1L LVC with pillow switch for down light on left LV1R LVC with pillow switch for down light on right LV2L LVC with pillow switch on left – sequencing up + down light LV2R LVC with pillow switch on left – sequencing up + down light S2L On/off pull chain on left S2LDL On/off pull chain on left, down lights only S2R On/off pull chain on right S2RDL On/off pull chain on right, down lights only S4L 4 position pull chain on left S4R 4 position pull chain on right S4CDL 4 position pull chain center, down lights only SX No switching	COR Grounded convenience outlet on right COL Grounded convenience outlet on left LNR LED night light and switch on the right LNL LED night light and switch on the left GLR Fast blow fuse GMF Slow blow fuse	(blank) Flat white AM Anti-microbial white CC Custom Color

Notes

- 1 Switching: S2 & S4 (pull chain) option is compatible with 120V only
- 2 Two lamps up or down only with T5, not T8 or T5H0
- 3 Custom color requires factory pricing
- 4 MVOLT not available with switching or CO, must specify voltage
- 5 Convenience outlet option only with 120V
- 6 LED night light options only with 120V

PERFORMANCE DATA

Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

For One Fixture		
Configuration	Lumen Output (lm)	Max Candela
All-On	XXXXX Lumens	XXXXX Cd
Bottom On Only	XXXXX Lumens	XXXXX Cd
Top On Only	XXXXX Lumens	XXXXX Cd

Electrical Load For One Fixture	
Configuration	Input Watts
All-On	XXX Watts
Bottom On Only	XXX Watts
Top On Only	XXX Watts

For One Fixture		
Configuration	Lumen Output (lm)	Max Candela
All-On	XXXXX Lumens	XXXXX Cd
Bottom On Only	XXXXX Lumens	XXXXX Cd
Top On Only	XXXXX Lumens	XXXXX Cd

Electrical Load For One Fixture	
Configuration	Input Watts
All-On	XXX Watts
Bottom On Only	XXX Watts
Top On Only	XXX Watts

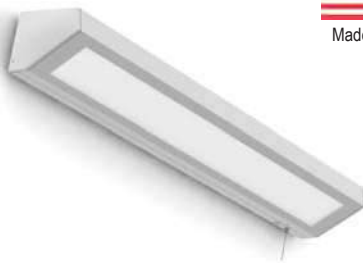
STARMed MHS 2-4

HEALTHCARE SERIES

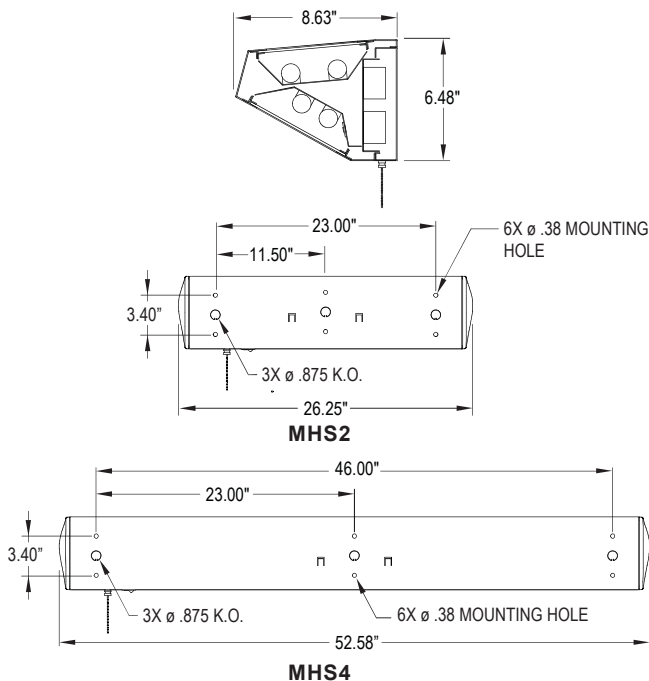
PATIENT ROOM HEAD WALL LUMINAIRE

WALL MOUNT

FLUORESCENT/LED



DIMENSION DATA



PROJECT:

TYPE:

PRODUCT:

APPROVED:

DATE:

FEATURES

The New Star "Star Med MHS4" Healthcare fixture is designed for use in patient room, surgical suites, and medical settings

- Task, Ambient and Reading light in one fixture
- Low profile design
- Durable seam welded aluminum construction
- Decorative rounded end caps
- Easy to clean & maintain
- Removable electrical chassis for easy installation & maintenance
- Dimming Driver (0-10V) standard
- Dimming 1% available
- Available with several switching options
- LED night light available

APPLICATION

- Hospital
- Patient Rooms
- Dental Procedure Rooms

SPECIFICATION

HOUSING:

16 gauge formed Aluminium seamed welded & ground smooth

LENS:

.125 thk. Prismatic Acrylic

ELECTRONICS:

Fluorescent:

Electronic Ballast <10% THD standard. RIF available. Lamps by others.

LED:

Available in three standard color temperatures 3500°K, 4000°K & 5000°K. Other color temperatures available, consult factory.

LED NIGHT LIGHT:

Integrated switch allows light selection at 100%, 70%, 40% and 10% levels

GASKET:

Lens gasketed with closed cell neoprene

FASTENERS:

Phillips flat head screws with captive cage

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment

LABEL:



ORDERING INFORMATION

Product Family

MHS4

Housing

HA

HA = Housing 16G Aluminium

of Lamps

Fluorescent:

A = 1 Up / 1 Down
B = 1 Up / 2 Down
C = 2 Up / 2 Down
D = 2 Up / 1 Down

LED MHS2:

LA = 1Up/1Dn(25.0W)
LB = 1Up/2Dn(37.5W)
LC = 2Up/2Dn(50.0W)
LD = 2Up/1Dn(37.5W)

LED MHS4:

LA = 1Up/1Dn(50W)
LB = 1Up/2Dn(75W)
LC = 2Up/2Dn(100W)
LD = 2Up/1Dn(75W)
LF = 3Up/3Dn(150W)
LG = 1Up/3Dn(100W)
LH = 3Up/2Dn(125W)

Lamp Type

Fluorescent:

32 = Linear 32W T8
28 = Linear 28W T5
54 = Linear 54W T5

LED:

35 = White 3500°K
40 = White 4000°K
50 = White 5000°K

Ballasts/Drivers

Fluorescent:

1 = Ballast
2 = Ballast

LED:

1 = Driver
2 = Driver

Lens

A = .125 Prismatic Acrylic
LC3 = .125 White Frosted Polycarbonate

Voltage

12 = 120V
27 = 277V
34 = 347V
UN = Universal (120V-277V)

Options

DM1 = Dimming driver 1%
SD2 = Step Dim. Module(50-100%)
SD3 = Step Dim. Module(25-50-100%)
SD3A=Step Dim. Module(33-66-100%)
FZ = Fuse *
DB = Dimming Ballast (0-10V) *Δ
E1 = Emergency Battery Pack *Δ
TH = Torx Head screws (w/center pin) Stainless Steel
RF = Radio Interference Filter Δ (one per circuit or ballast)

LV = Low Voltage Controller Δ, # *(consult factory) for wiring option
PW = Pull Chain Switch 4-position (120V Only) #
SPB = 6ft. SaniPull Vinyl Ribbon for Pull Switch (Blue)
SPR = 6ft. SaniPull Vinyl Ribbon for Pull Switch (Red)
LNR = LED Night Light w/ Rocker Switch (120V only)
LN = LED Night Light. Consult Δ factory for available color / temperatures.
RS = Rocker Switch

PW and LV Cannot be used together
■ Consult factory for lamp-ballast options
◆ Not available in LED

3-10-16



Notes:

Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

# LED BOARDS	# ROWS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS
MHS2:				
LA	1UP/1DN	(25W)	110	2,750 LMS
LB	1UP/2DN	(37.5W)	110	4,125 LMS
LC	2UP/2DN	(50.0W)	110	5,500 LMS
LD	2UP/1DN	(37.5W)	110	4,125 LMS
MHS4:				
LA	1UP/1DN	(50W)	110	5,500 LMS
LB	1UP/2DN	(75W)	110	8,250 LMS
LC	2UP/2DN	(100.0W)	110	11,000 LMS
LD	2UP/1DN	(75.0W)	110	8,250 LMS
LE	0UP/2DN	(50W)	110	5,500 LMS
LF	3UP/3DN	(150.0W)	110	16,500 LMS
LG	1UP/3DN	(100.0W)	110	11,000 LMS
LH	3UP/2DN	(125.0W)	110	13,750 LMS
LI	3UP/1DN	(100.0W)	110	11,000 LMS
LJ	0UP/1DN	(25.0W)	110	2,750 LMS
LK	0UP/2DN	(50.0W)	110	5,500 LMS
LL	3UP/0DN	(75.0W)	110	8,250 LMS
* TAKE AN ADDITIONAL 20% OFF DELIVERED LUMENS WHEN SPECIFYING THE LC3 LENS				

Mounted luminaire

VANERA LED 60 D15605000

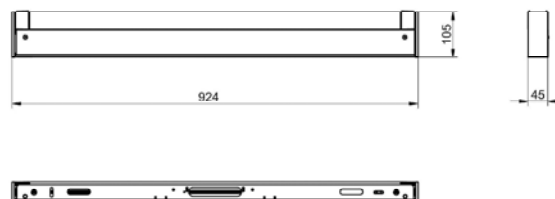
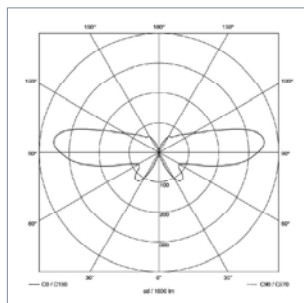
Waldmann **W**

ENGINEER OF LIGHT.



fitted with	6 x LED module
light distribution	general lighting indirect/direct, single circuit
Color Rendering Index (CRI)	> 80
color temperature	3000 K
work equipment	electronic converter, on/off, 0-10V dimmable
connected load	120-277V; 50/60Hz
mains lead	direct power supply
luminaire body	aluminium
weight (net)	3.0 kg (6.6 lbs)
power consumption	61 W
luminous flux	4100 lm
light yield	68 lm/W
lamp cover	prismatic profile, PMMA
class of protection	I
norms	EN 60598-1, EN 60598-2-25, ETL/cETL
fastening	ceiling mount, wall mount
glare-free	special wide beam and glare-free technique
system of protection	IP 20
order number	D15605000 - aluminium (anodized)

light distribution



TECHNICAL DATA

ROOM LIGHTS

FITTED WITH	3 x LED Circuits
LIGHT DISTRIBUTION	general lighting; indirect 33.5 W, 4000 lumens examination lighting; indirect/direct 33.5 W, 4000 lumens lighting for reading; direct 16.75 W, 2000 lumens
WORK EQUIPMENT	Low voltage controller, 3 x LED Drivers
CONNECTED LOAD	120 - 277 V; 50-60 Hz
MAINS LEAD	direct power supplies
LUMINAIRE BODY	aluminium powder-coated, Silver
WEIGHT (NET)	approx. 8,16 kg (18 lbs)
POWER CONSUMPTION	approx. 90 W
USAGE	remote switch, supplied by other, internal LVC
LAMP COVER	acrylic satine
TECHNOLOGY	single switchable, 2 circuit LVC
CLASS OF PROTECTION	I
NORMS	ETL/cETL
SPECIAL FEATURES	forward assymetric light distribution
FASTENING	wall mount

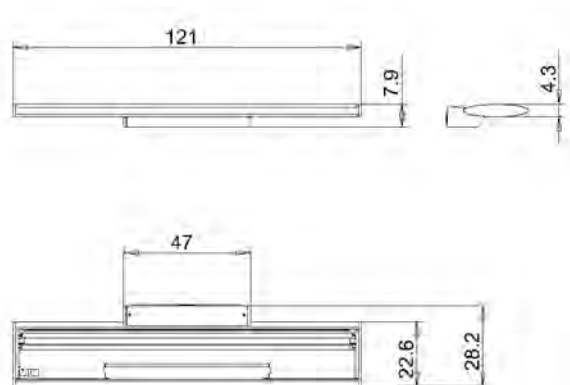
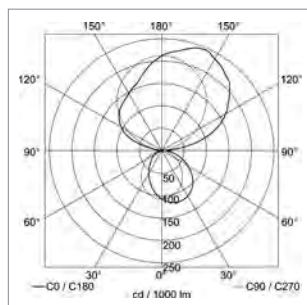


Low voltage controller is compatible with most nurse call systems and is set to the following default settings.

- single button operations
- dual button controls available by request
- general light to be controlled by remote wall switch (supplied by other).
- reading and examination lamps are sequenced with the pillow speaker lamp button (supplied by other).

LIGHT DISTRIBUTION

TECHNICAL DRAWING



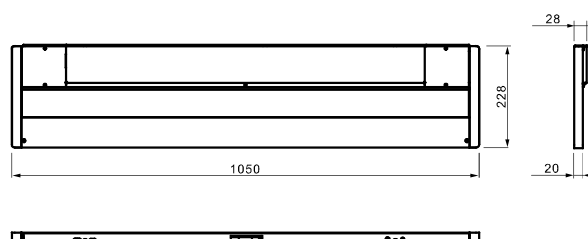
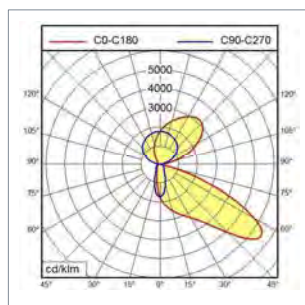


fitted with	3 x LED modules
light distribution	general lighting indirect 3750lm, lighting for reading direct 1000lm, examination lighting direct 2450lm
color rendering index (CRI)	> 80 / examination lighting > 90
color temperature	examination light: 4000 K / ambient and night light: 3000K reading light: 2700 K
work equipment	electronic converter, low voltage control
connected load	120-277V; 50/60Hz
mains lead	direct power supply
luminaire	aluminium
body weight (net)	6.9 kg (15.3 lbs)
power consumption	approximately 82W
luminous flux	7200lm
lamp cover	PMMA clear, PMMA satined
class of protection	I
norms	EN 60598-1, EN 60598-2-25, ETL/cETL
special features	3 color shades, general lighting, reading light, examination light
fastening	wall mount
glare-free	freeform optic
system of protection	IP 20
order number	D15-751-003 aluminium (anodized)

The LVC can control lights with multiple modes of operation:

- Three loads independently
- Two loads sequentially and a third Load independently
- One load independently with 0-10V dimming control and second and third load independently
- Two loads independently with 0-10V dimming control and a third load independently

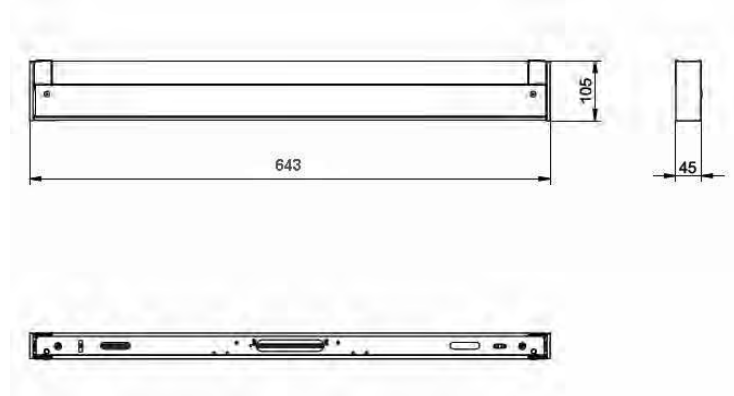
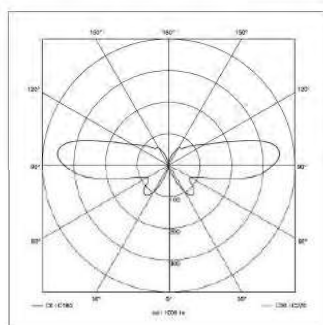
light distribution





fitted with	4 x LED module
light distribution	general lighting indirect/direct, single circuit
Color Rendering	> 80
Index (CRI)	3000 K
color temperature	electronic converter
work equipment	120-277V; 50/60Hz
connected load	direct power supply
mains lead luminaire	aluminium
body weight (net)	2.1 kg (4.6 lbs)
power consumption	46 W
luminous flux	2750 lm
light yield	60 lm/W
lamp cover	prismatic profile, PMMA
class of protection	I
norms	EN 60598-1, EN 60598-2-25, ETL/cETL
fastening	ceiling mount, wall mount
glare-free	special wide beam and glare-free
system of protection	technique IP 44
order number	D15608000 - aluminium (anodized)

light distribution





Avonia Vanity LED

Patient Room

Project:

Type:

Qty:

SPECIFICATIONS

Patient Room

HAV2

SPECIFICATIONS

The Avonia vanity fixture provides a stylish way to light small but important spaces like hand-wash sinks for patients, caregivers and hospital staff. The curved extruded aluminum housing is both appealing and rugged. Longer, 3 ft. and 4 ft., versions are available to address multi-station hand sinks or provide complementary fixtures for other applications in the room. Consider mounting the Avonia upside down for indirect lighting or as a wall wash.

Housing

Extruded aluminum housing.
Welded aluminum end caps.
Polyester powder coat finish; anti-microbial powder coat finish is available.

Source

High efficiency LED light source.

Switching

Line voltage switching (by others)

Weight

Approximate shipping weights
HAV248 – 10 pounds
HAV236 – 8.0 pounds
HAV224 – 5.5 pounds

Voltage

120, 277, MVOLT

Light Output (As Tested)

HAV224 LED35 – 920

HAV236 LED35 – 1460

HAV248 LED35 – 1840

Input Watts (As Tested)

HAV224 LED35 – 12

HAV236 LED35 – 19

HAV248 LED35 – 24

Dimming

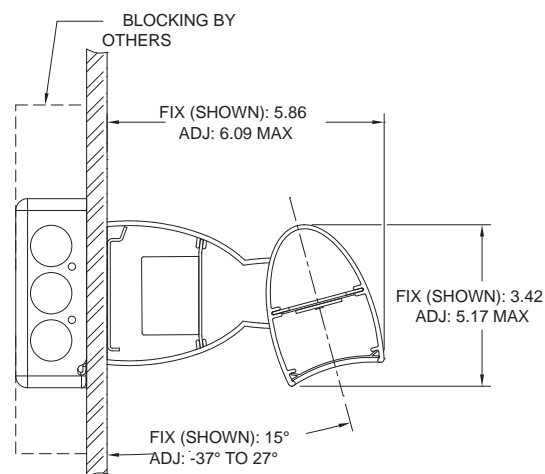
0-10V dimming available

Warranty

5-year limited warranty. Complete warranty terms located at www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.



SIDE VIEW
CROSS SECTION

	Nominal Length	Actual Length
HAV224	2 FT	23.13 IN
HAV236	3 FT	34.63 IN
HAV248	4 FT	46.44 IN

CATALOG NUMBER

Example: HAV124 ADJ 120 LED30 DIM AM

Series	Bracket	Voltage	Color Temperature	Options	Finish
HAV224 24-in.	FIX Fixed Bracket	120 120V	LED30 3000K	OS Occupancy Sensor	FW Textured Flat White (Standard)
HAV236 36-in.	ADJ Adjustable Bracket	277 277V	LED35 3500K	DIM 0-10V Dimming	AM Anti-Microbial White
HAV248 48-in.		MVOLT 120 – 277V	LED40 4000K		

Notes

1 Occupancy sensor not available on HAV224.

Avonia Vanity LED

Patient Room

Project:

Type:

Qty:

SPECIFICATIONS

Patient Room

HAV2

PERFORMANCE DATA

Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

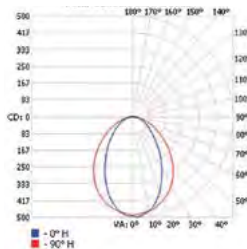
Fixture	Lumen Output (lm)	Max Candela	Input Watts
HAV2 LED 2FT 3500K	920	490	12
HAV2 LED 3FT 3500K	1460	780	19
HAV2 LED 4FT 3500K	1840	990	24

PHOTOMETRICS

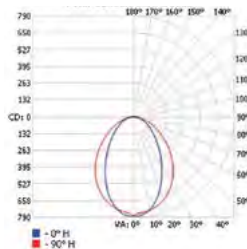
Test Report: LTL28425
Avonia LED 2FT 3500K
Lumens: 921.5
Wattage: 12.32 W
Efficacy: 74.8 Lm/W
Max. Candela: 498 @ H: 0°, V: 2.5°

Test Report: LTL28427
Avonia LED 3FT 3500K
Lumens: 1465
Wattage: 19.87 W
Efficacy: 73.7 Lm/W
Max. Candela: 787 @ H: 135°, V: 2.5°

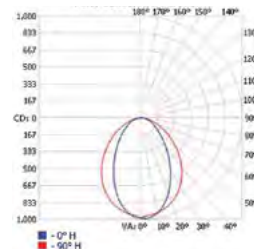
Test Report: LTL28426
Avonia LED 4FT 3500K
Lumens: 1841.6
Wattage: 24.8 W
Efficacy: 74.3 Lm/W
Max. Candela: 995 @ H: 0°, V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	122.8 fc
4.0	30.7 fc
6.0	13.6 fc
8.0	7.7 fc
10.0	4.9 fc



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	194.5 fc
4.0	48.6 fc
6.0	21.6 fc
8.0	12.2 fc
10.0	7.8 fc

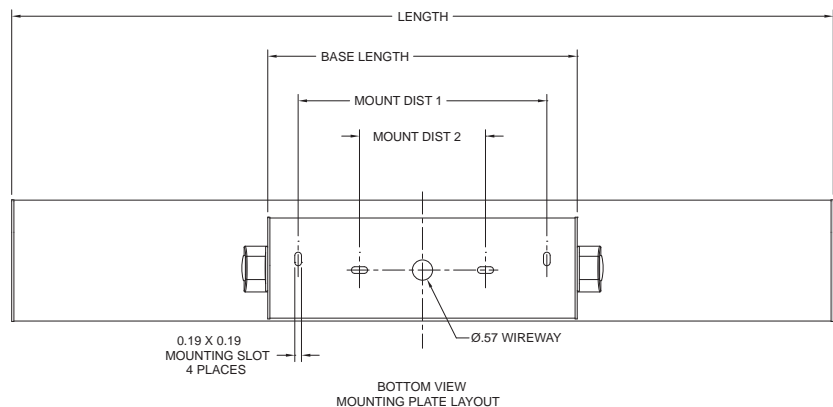


Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	246.3 fc
4.0	61.6 fc
6.0	27.4 fc
8.0	15.4 fc
10.0	9.9 fc

MOUNTING

Notes

- It is the responsibility of the party installing the fixture to select appropriate fasteners that are suitable for the wall material and construction.
- It is the responsibility of the person installing the light fixture to ensure that the materials, hardware and building structural members that are selected will support the light fixture(s) and that they meet all applicable building and safety codes.
- Complete electrical connections according to the wiring diagram on ballast tray, following all applicable building codes and regulations. Replace low voltage wiring enclosure, if applicable.



MOUNTING DIMENSIONS				
FIXTURE	NOMINAL LENGTH	LENGTH	BASE LENGTH	MOUNT DIST 1
HAV224	2 FT	23.13 IN	8.71	7.00
HAV236	3 FT	34.63 IN	17.37	16.00
HAV248	4 FT	46.44 IN	17.37	16.00



Pathfinder

Patient Room LED Night Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior Patient Room LED Night Light

HNL600

SPECIFICATIONS

The low-profile recessed design of the Pathfinder makes it a popular choice for night lighting when the intent is to blend the fixture into the wall. The louver design is engineered to maximize light output with clean cut-off, delivering sufficient light to navigate a darkened room but minimizing disruption of a sleeping patient. Dependable LED lighting will provide years of energy-efficient and maintenance-free operation. Choose from standard warm white or optional amber LEDs. An integral photocell (option) may be specified for additional energy efficiency. Also available with through wall option where second pathfinder (satellite) can be mounted on reverse side of wall and powered by master pathfinder box via low voltage wire. Satellite pathfinder can be installed up to two feet away from master pathfinder.

Faceplate

Heavy gauge steel.
Available in multiple colors and materials.

Backbox

Galvanized with folded, welded corners and mounting tabs.

Source

High output LED board

Switching

Line voltage switching (by others)

Weight

HNL610 2 lbs
HNL612 3 lbs

Mounting

Installed in rectangular cutout in wall for both HNL610 and HNL612

Voltage

MVOLT – 120-277V

Light Output (As Tested)

HNL610 LED 30 62 L
HNL610 LED 50 52 L

Input Watts (As Tested)

HNL610 LED 30 2 Watts
HNL610 LED 50 2 Watts

Color Temperature Options

CCT: 3000K, 4000K, 5000K
Color: Amber, Blue (470nm), Red (625nm)

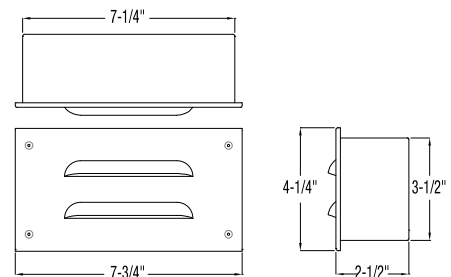
LED Life Estimate

50,000 hours
LED Life projection is based on IES TM-21 and IES LM-80

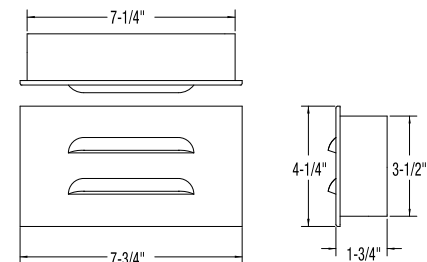
Warranty

5-year limited warranty. Complete warranty terms located at www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25°C.



HNL610 / HNL612 Master



HNL612

Fixture	Width (in.)	Height (in.)	Depth (in.)
FACEPLATE	7 3/4"	4 1/4"	NA
HNL610 BACKBOX	7 1/4"	3 1/2"	2 1/2"
HNL612 BACKBOX (2nd fixture)	7 1/4"	3 1/2"	1 3/4"

CATALOG NUMBER

Example: HNL610 MVOLT LED40 PC AM

Series	Voltage	LED Color	Options	Finish
HNL610 Single Face HNL612 Double Face	MVOLT 120-277 Volt	LED30 3000k Warm White LED40 4000k Neutral White LED50 5000k Cool White LEDAMB Amber LEDBL Blue 470nm LEDRD Red 625nm	PC Integrated Photocell TR Tamper Resistant Screws	(blank) Flat White AM Anti-Microbial White MB Matte Black SS Stainless Steel CC Custom Color

Notes

- Custom finish required factor pricing.
- Other LED colors- contact factory; 25 pc min order.

Pathfinder

Patient Room LED Night Light

Project:

Type:

Qty:

SPECIFICATIONS

Interior Patient Room LED Night Light

HNL600

PERFORMANCE DATA

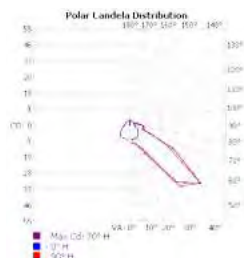
Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

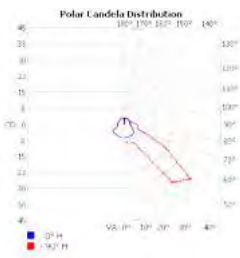
Fixture	Lumen Output (lm)	Max Candela	Input Watts
HNL610 LED 50	62	52	2
HNL610 LED 30	52	40	2

PHOTOMETRICS

Test Report: 20150528
HNL610 LED 50
Lumens: 62.8
Wattage: 2 W
Efficacy: 31.4 L/W
Max. Candela: 52.9 @ H: 70°, V: 50.6 °



Test Report: 2015052
HNL610 LED 30
Lumens: 51.8
Wattage: 2 W
Efficacy: 25.9
Max. Candela: 40.2 @ H: 90°, V: 50.6 °

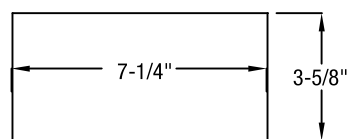


Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.

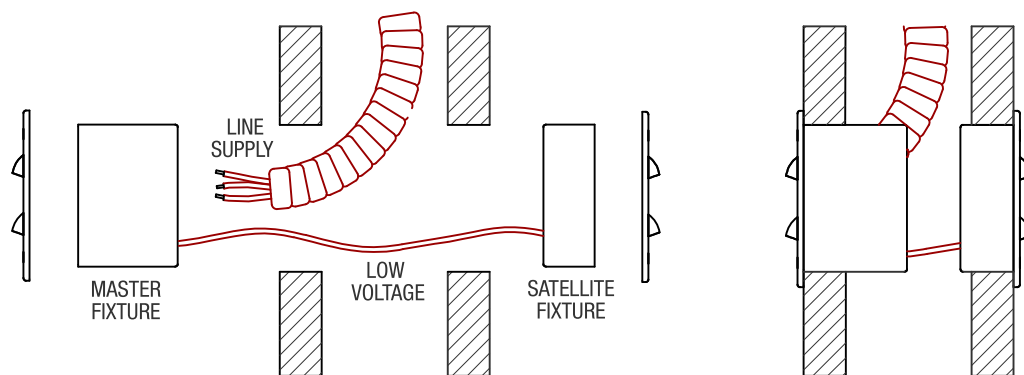
MOUNTING

NOTES

- Ensure power is off before wiring fixture.
- Use sheet rock screws (4) to secure backbox to wall.
- All wiring must be in accordance with all local, state, and federal electrical codes.
- Recommend that a trained and certified electrician install product.



WALL CUTOUT



HNL612 MOUNTING

CATALOG #	TYPE
JOB NAME	VOLTAGE

MNT-03928

Lensed StepLight • 3" x 7" • LED

Super Shallow • Type IC

Optional Color Filters Available



Specifications

LED

- White module (colored filters optional).
- 3500°K standard.
- 5.5 system watts - energy efficient, uniform, cool.

LED Power Supply / Driver

- Max 13 volt DC and 4 watt fixed output. Electronically stabilized.
- Minimum operating temperature -4°F (-20°C).
- 120-277 volt standard. Load insensitive.

Lens

- Translucent white 1/8" polycarbonate sealed to trim.

Trim Assembly

- Gasketed aluminum frame pulls tight to wall.
- White finish standard. Optional colors.

- Optional (white only) antimicrobial Kirlin BioGuard™ finish, see Option-BG.
- Tamper resistant available. See Options.
- **Housing: Super Shallow 2½" Depth**
- Cool. Acrylic enameled aluminum. Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Dissipates heat across entire surface area.
- Frame removable for servicing.

Installation

- Recesses in wall indoor or outdoor, covered locations.
- Mounting holes provided on housing ends.

UL, C-UL (Canada) Listings

- Damp or dry locations.
- Type IC. Approved for direct contact with insulation.



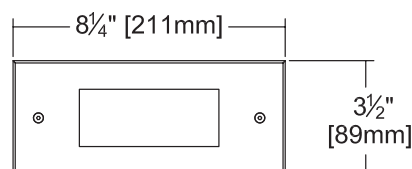
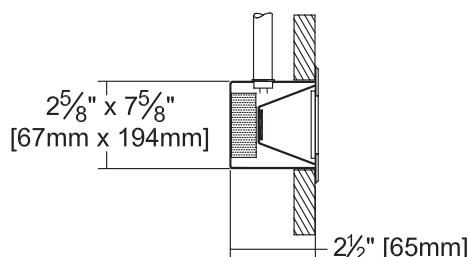
**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

For Vandal
Resistant version
see Option -26

For Louvered
version see
MNT-03908

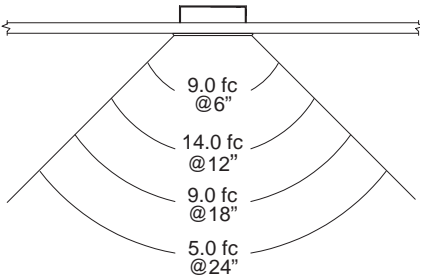
Dimensions



Performance

Footcandle Performance On the Floor - Top View
Photometry from I.T.L., Boulder, CO

MNT-03928
ITL Test: 89228



Options

Voltage / Battery Pack

- 97 Other voltage input. Consult factory.
- EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage.

LED Filter Colors

- BL Blue filter.
- GE Green filter.
- OR Orange filter.
- RA Red/Amber filter.
- YE Yellow filter.
- CF Custom color filter (Rosco). Specify.

Faceplate Finishes

- 35 Silver (natural aluminum) acrylic enamel.
- 37 Dark Bronze acrylic enamel.
- 38 Black acrylic enamel.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) faceplate finish.

Other

- 26 Faceplate secured to housing with two center pin tamperproof screws. Tamperproof tool included.
- 99 Special modification. Consult factory.

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLATION TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within five years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE

MNR-05920

Round StepLight • 5" • LED

Mounts in Standard Octagon Outlet Box (Provided)
Fastener Free Available • Type IC



Specifications

LED

- White module (colored filters optional).
- 3500°K standard.
- 4 system watts - energy efficient, uniform, cool.

LED Power Supply / Driver

- Max 13 volt DC and 4 watt fixed output. Electronically stabilized.
- Minimum operating temperature -4°F (-20°C).
- 120-277 volt standard. Load insensitive.

Lens (Gasketed)

- 2" diameter translucent white 1/8" polycarbonate.

Faceplate (Gasketed)

- Gasketed rustproof aluminum trim.
- White finish standard. Optional colors.
- Secured to housing with two screws and captive nuts.

- Optional (white only) antimicrobial Kirlin BioGard™ finish, see Option-BG.
- For fastener free faceplate, see Option -FF.
- Removable for servicing.

Housing: Shallow 2 1/4" Depth

- 4" x 2-1/4" standard U. L. listed octagon galvanized steel outlet box.

Installation

- Recesses indoor or outdoor, covered locations.
- Mounting holes on top, bottom and ends.

UL, C-UL (Canada) Listings

- Damp or dry locations.
- Type IC. Approved for direct contact with insulation.

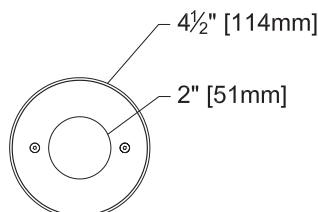
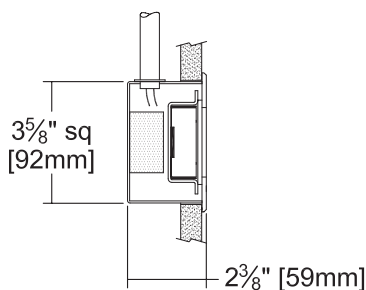
5
Year

FIVE YEAR
Limited Warranty

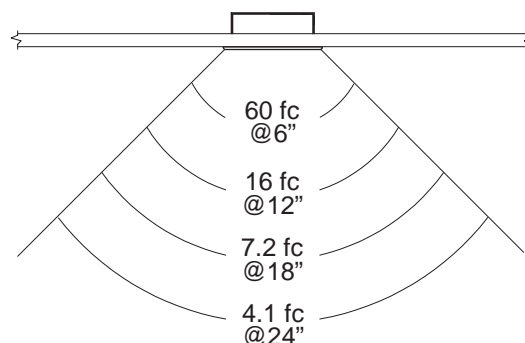
- Complete standard fixture.

For Vandal
Resistant version
see Option -26

Performance at a Glance



Footcandle Performance Opposite Fixture
Installed Top View



KIRLIN
Lighting Since 1895

The Kirlin Company

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com

MEDICAL
LED LIGHTING

*See note next page

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within five years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair, or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

Options

Voltage / Battery Pack

- 97 Other voltage input. Consult factory.
- EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage.

LED Filter Colors

- BL Blue filter.
- GE Green filter.
- OR Orange filter.
- RA Red/Amber filter.
- YE Yellow filter.
- CF Custom color filter (Rosco). Specify.

Faceplate Finishes

- 35 Silver (natural aluminum) acrylic enamel.
- 37 Dark Bronze acrylic enamel.
- 38 Black acrylic enamel.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) faceplate finish.

Other

- 26 Faceplate secured to housing with two center pin tamperproof screws. Tamperproof tool included.
- 99 Special modification. Consult factory.
- FF Fastener free faceplate / trim. No visible hardware. (UL Damp listed only)

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

CATALOG NUMBER

VOLTAGE

CATALOG #	TYPE
JOB NAME	VOLTAGE

MNS-05924

Square StepLight • 5" x 5" • LED

Mounts in Standard Octagon Outlet Box (Provided)
Fastener Free Available • Type IC



Specifications

LED

- White module (colored filters optional).
- 3500°K standard.
- 4 system watts - energy efficient, uniform, cool.

LED Power Supply / Driver

- Max 13 volt DC and 4 watt fixed output. Electronically stabilized.
- Minimum operating temperature -4°F (-20°C).
- 120-277 volt standard. Load insensitive.

Lens (Gasketed)

- 2" diameter translucent white 1/8" polycarbonate.

Faceplate (Gasketed)

- Gasketed rustproof aluminum trim.
- White finish standard. Optional colors.
- Secured to housing with two screws and captive nuts.

- Optional (white only) antimicrobial Kirlin BioGard™ finish, see Option-BG.
- For fastener free faceplate see Option -FF.
- Removable for servicing.

Housing: Shallow 2 1/4" Depth

- 4" x 2-1/4" standard U. L. listed octagon galvanized steel outlet box.

Installation

- Recesses indoor or outdoor, covered locations. Versatile 2-1/4" depth.
- Mounting holes on top, bottom and ends.

UL, C-UL (Canada) Listings

- Damp or dry locations.
- Type IC. Approved for direct contact with insulation.

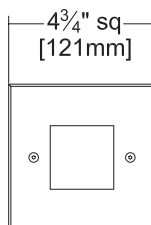
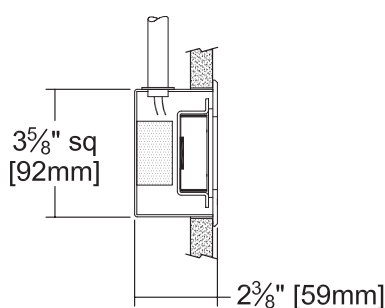


**FIVE YEAR
Limited Warranty**

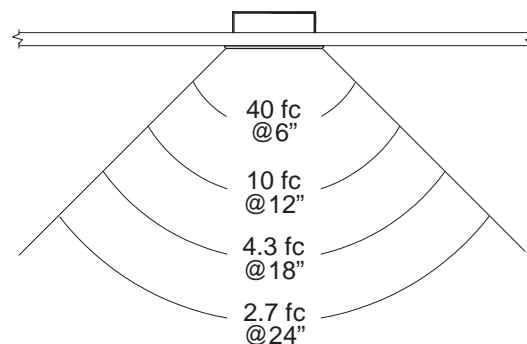
- Complete standard fixture.

For Vandal
Resistant version
see Option -26

Performance at a Glance



Footcandle Performance Opposite Fixture
Installed Top View



KIRLIN
Lighting Since 1895

The Kirlin Company

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com

**MEDICAL
LED LIGHTING**

*See note next page

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.



Options

Voltage / Battery Pack

- 97 Other voltage input. Consult factory.
- EI Remote emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage.

LED Filter Colors

- BL Blue filter.
- GE Green filter.
- OR Orange filter.
- RA Red/Amber filter.
- YE Yellow filter.
- CF Custom color filter (Rosco). Specify.

Faceplate Finishes

- 35 Silver (natural aluminum) acrylic enamel.
- 37 Dark Bronze acrylic enamel.
- 38 Black acrylic enamel.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) faceplate finish.

Other

- 26 Faceplate secured to housing with two center pin tamperproof screws. Tamperproof tool included.
- 99 Special modification. Consult factory.
- FF Fastener free faceplate / trim. No visible hardware. (UL Damp listed only)

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

CATALOG NUMBER

VOLTAGE

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within five years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair, or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

HEALTHCARE NIGHT LIGHT LED

HNLHH/HNLHL/HNLOF/HNLVH/HNLVL

SPECIFICATION FEATURES

FACEPLATE: Durable die cast aluminum material. Available with five different faceplates: Horizontal Hood, Horizontal Louver, Open Frame (can be installed vertically or horizontally), Vertical Hood and Vertical Louver.

LED: Available in 3 white color temperatures 3000°K, 4000°K and 5000°K. Amber LED's available. Consult factory for additional LED colors.

ELECTRONICS: Integrated embedded Driver (3W).

FINISH: Antimicrobial White (Standard) or Custom Color.



APPLICATION:

Patient Rooms, Surgical Suites, Medical Settings, Hallways, Foyers, Lobbies, and more.

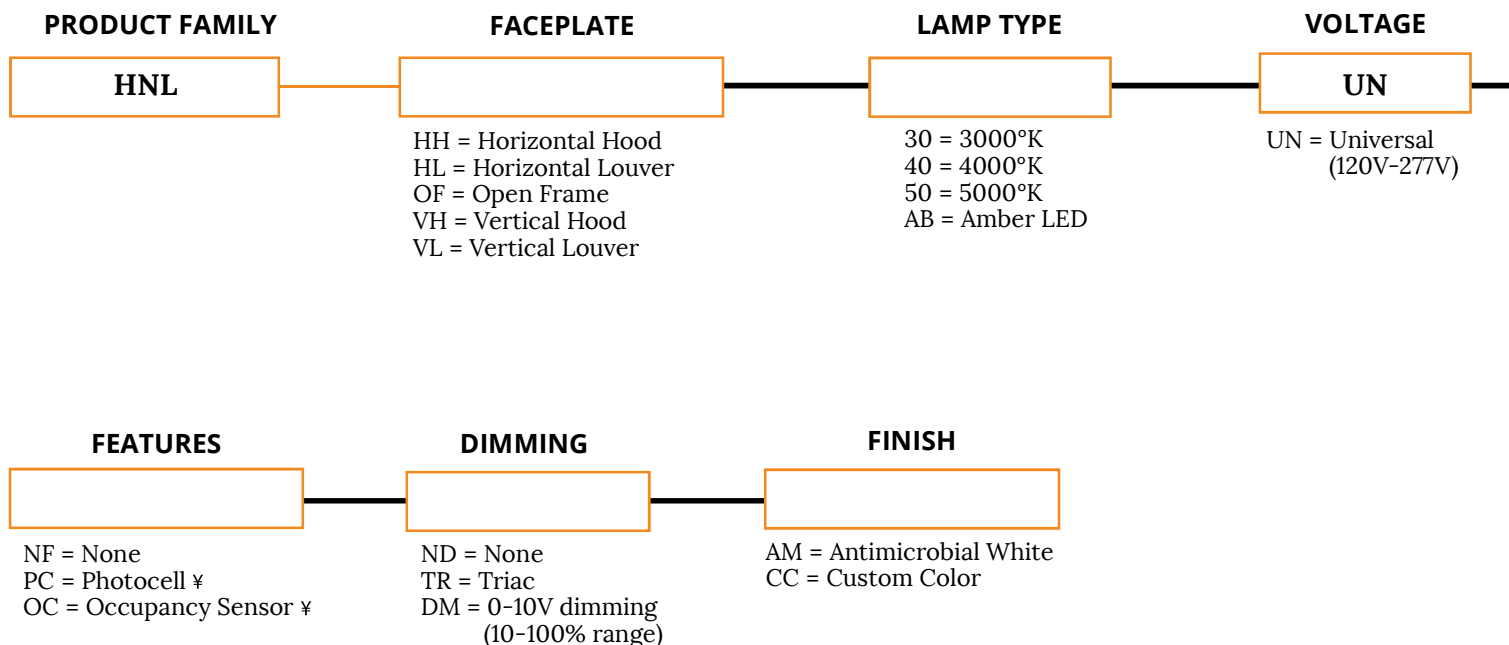
LABEL:

Fixture is certified to UL standards.



ORDERING INFORMATION

Ex: HNLHH-30-UN-OC-DM-AM



KEY

‡ Can only be used with HH
Cannot select Photocell and Occ Sensor together

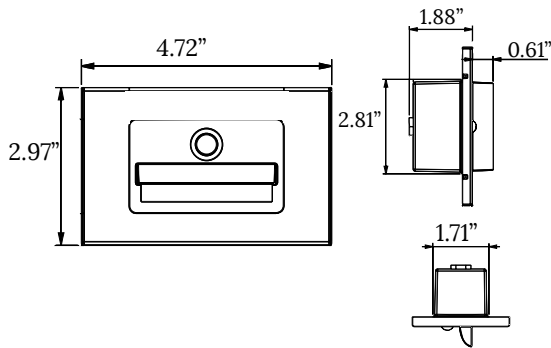
HEALTHCARE NIGHT LIGHT LED

HNLHH/HNLHL/HNLOF/HNLVH/HNLVL

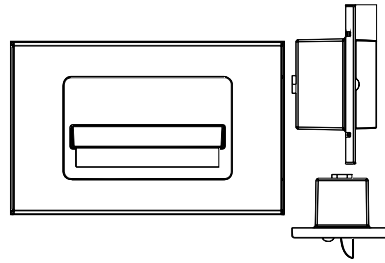


DIMENSIONAL DATA

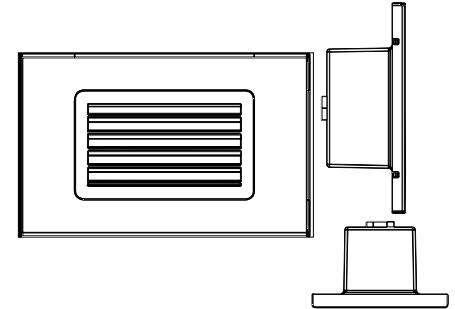
HORIZONTAL HOOD WITH PH / OC



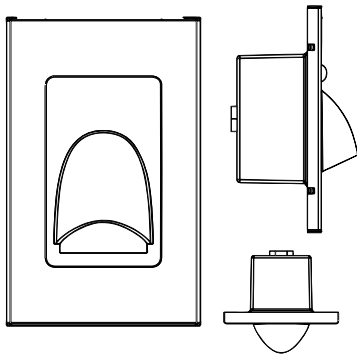
HORIZONTAL HOOD WITHOUT PH / OC



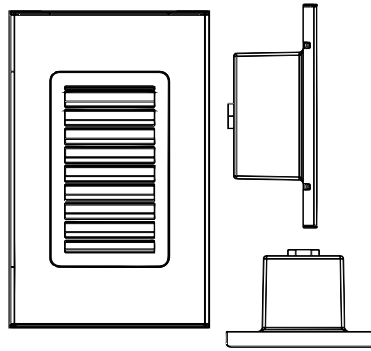
HORIZONTAL LOUVER



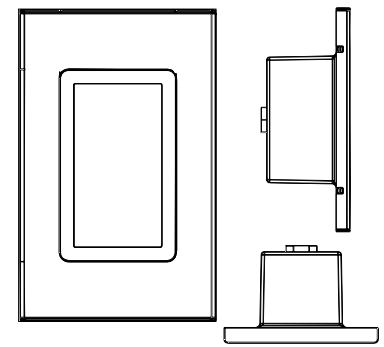
VERTICAL HOOD



VERTICAL LOUVER



**OPEN FRAME
(VERTICAL OR HORIZONTAL)**



PERFORMANCE DATA**

MODEL	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
HNL-OF	3000°K	250	66	3.8
	4000°K	240	63	3.8
	5000°K	253	67	3.8
HNL-VH	3000°K	92	24	3.8
	4000°K	82	22	3.8
	5000°K	95	25	3.8
HNL-VL	3000°K	124	33	3.8
	4000°K	114	30	3.8
	5000°K	127	33	3.8
HNL-HH	3000°K	130	34	3.8
	4000°K	120	32	3.8
	5000°K	133	35	3.8
HNL-HL	3000°K	124	33	3.8
	4000°K	114	30	3.8
	5000°K	127	33	3.8

Notes:

Healthcare Night Lights have same dimensions regardless of faceplate

**Subject to change without notice

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

STARSTEP SNL3

SPECIALTY SERIES

STEP LIGHT

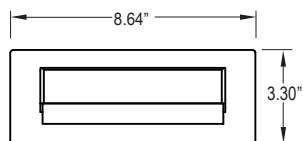
LED

8-11/16" x 3-3/8"

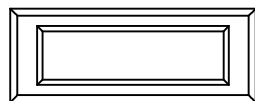
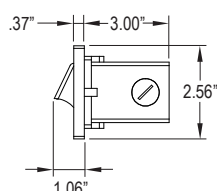


PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

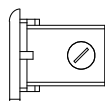
DIMENSIONAL DATA



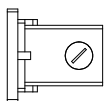
HORIZONTAL HOOD



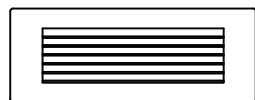
OPEN FRAME WITH
DIFFUSED OPAL LENS



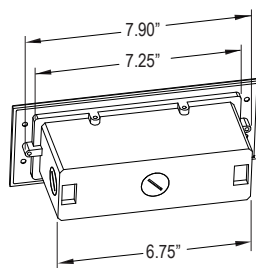
OPEN FRAME WITH
DIFFUSED OPAL LENS



HORIZONTAL LOUVER



HORIZONTAL LOUVER



FEATURES

The New Star "Star Step SNL3" Healthcare step light fixture is designed for use in patient rooms, surgical suites, medical settings and other applications for low level lighting

- Long Lasting, energy efficient LED's
- 3 face plates styles: horizontal louver, horizontal hood and smooth lens
- Wet location UL Listing in USA and Canada
- 50k hour rated life
- 110° beam angle
- Integral back box

APPLICATION

- Step areas
- Balcony areas
- Walkway areas
- Hospital
- Patient Rooms
- Dental Procedure Rooms

SPECIFICATION FEATURES

Face Plate :

Durable cast zinc-magnesium

FINISH:

White (standard), Dark bronze, and Brushed nickel.

LENS:

White acrylic lens

LABEL:



ELECTRONICS:

Integrated, embedded Driver
Max @ 5 watt 3.6 watt normal

ORDERING INFORMATION

Product Family	Faceplate	#Lamp	Lamp Type	Voltage	Finish	Options
SNL3 8-11/16" x 3-3/8"	-	L	-	-	-	-
SNL3 8-11/16" x 3-3/8"	OF = Frame with diffused opal lens HL = Horizontal Louver HH = Horizontal Hood	L = Light Emitting Diode	32 = 3200°K A = Amber B = Blue	12 = 120V 27 = 277V	W = White DB = Dark Bronze BN = Brushed Nickel	HB = Hanger Bars TH = Torx Head screws (with center pin)

Notes:

Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

Radiance™ Lighted Mirror

Product Specifications: Hospitality

ELECTRIC MIRROR®



PRODUCT DESCRIPTION

Unmatched task lighting finds a home in a new slim design to create a spectacular Radiance™. Boasting brilliant inward-facing directional lighting and a sublimely sleek look, this lighted mirror can serve flawlessly in virtually any room.

SPECIFICATION STATEMENT

Solution shall consist of a lighted mirror with LEDs mounted in a 45-degree channel in the frame of the mirror, with inward-facing directional lighting on the front face of the mirror. LEDs shall have an L70 calculated life of 140,000 hours, with a greater than or equal to 90 CRI (color rendering index) and will be covered by an integrated diffuser. Product shall incorporate a remote mounted driver enclosure that is to be recessed into the wall. Product will be made in USA and have a 7-year limited warranty.

THE ELECTRIC MIRROR ADVANTAGE

- ☑ Global mirror technology leader for over 20 years
- ☑ More installations than all competitors combined
- ☑ Realistic warranty you can believe in and trust
- ☑ Lowest total cost of ownership
- ☑ U.S. based customer service support
- ☑ 125,000 square foot American manufacturing facility

FEATURES AND BENEFITS

- Copper-free, corrosion-resistant DuraMirror™ glass
- Inward-facing lighting for brilliant facial illumination
- Greater illuminance with half the power consumption of traditional LED mirrors
- Sleek and modern profile
- Forward-facing task lighting
- Environmentally sustainable
- Energy efficient
- Fast lead times
- Easy installation
- Title 24 Compliant
- 7-year limited warranty
- Proudly made in the USA

AVAILABLE OPTIONS

- Keen™ SmartDim™ Technology¹
- Seamless™ SmartTime™ Technology^{1, 2}
- Defogger¹
- Top-only lighting²
- Custom mirror sizes²

LIGHTING SPECIFICATIONS

- Natural-looking LED light color
- 0-10V, dimmable, replaceable LEDs
- CRI: 90+
- CCT: 3,000 Kelvin (appears as 2,700K after diffusion)
- 241 lumens per foot
- Calculated L70 140,000-hour LED lifespan
- Built-in EMX diffusers
- Maximum 100 lumens per watt efficacy

SAFETY SPECIFICATIONS

- Entire assembly meets UL/cUL standards
- International certifications
- Safety-backed mirror

¹ See technology specification sheets for more information.

² Minimum order quantity required.

INSTALLATION SPECIFICATIONS

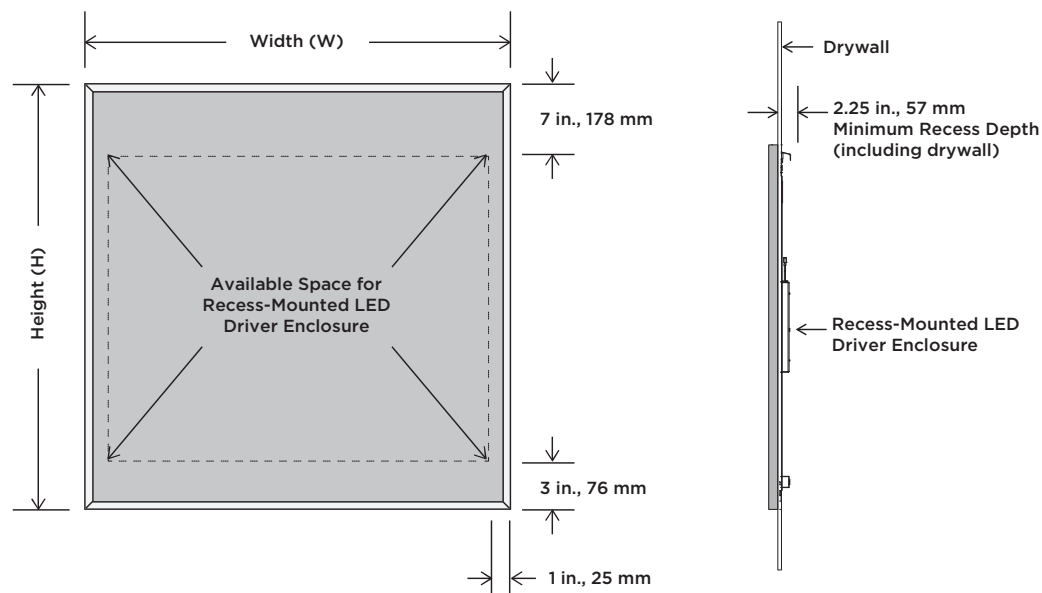
- 120V-240V hardwire electrical connection; provide 12" whip; junction box not required
- Device enclosure should be mounted to wall studs; wall cleat provided
- Driver enclosure box requires recess for mounting
- Fixture can be controlled by an on/off switch or 0-10V dimming switch
- Installation wiring may be different on mirrors equipped with additional options

MODELS

Base Model with Perimeter Lights*	Base Model with Top Light Only*	Dimensions	Power Requirements
RADP-23.00x34.75-03A-RM-30K	--	23"W x 34.75"H x 1.88"D (584mm x 883mm x 48mm)	120/240 VAC, 30W
--	RADHT-23.00x34.75-03A-RM-30K	23"W x 34.75"H x 1.88"D (584mm x 883mm x 48mm)	120/240 VAC, 6W
RADP-34.75x34.75-03A-RM-30K	--	34.75"W x 34.75"H x 1.88"D (883mm x 883mm x 48mm)	120/240 VAC, 37W
--	RADHT-34.75x34.75-03A-RM-30K	34.75"W x 34.75"H x 1.88"D (883mm x 883mm x 48mm)	120/240 VAC, 10W
RADP-46.75x34.75-03A-RM-30K	--	46.75"W x 34.75"H x 1.88"D (1,187mm x 883mm x 48mm)	120/240 VAC, 43W
--	RADHT-46.75x34.75-03A-RM-30K	46.75"W x 34.75"H x 1.88"D (1,187mm x 883mm x 48mm)	120/240 VAC, 13W
RADP-58.50x34.75-03A-RM-30K	--	58.50"W x 34.75"H x 1.88"D (1,486mm x 883mm x 48mm)	120/240 VAC, 50W
--	RADHT-58.50x34.75-03A-RM-30K	58.50"W x 34.75"H x 1.88"D (1,486mm x 883mm x 48mm)	120/240 VAC, 16W

*Base model numbers shown only. To specify additional options, contact Electric Mirror at sales@electricmirror.com.

DIMENSIONAL DRAWING (Not to scale.)





OR & SURGICAL

PURO™



Protection from Above

Helo F2

UV DISINFECTING FIXTURE

The Helo F2 disinfects a whole room, delivering protection from above. It is installed simply by positioning it in a drop ceiling or can be recessed in a hard ceiling, suspended or wall mounted. It emits broad spectrum UV light to eliminate up to 99.9% of the bacteria, viruses, and fungi in a space¹. In rooms that have been cleaned of mold, the unit will help control return growth if used routinely².

The unit can be ordered for manual commissioning or integration into the facility Building Automation System (BAS). Manual commissioning can be done with the assistance of a local rep using a Setup Wizard. Units integrated into BACnet are programmed through the BAS dashboard.



Ceiling, suspended, or wall mounted installation to disinfect a whole room without staff requirements to relocate.



Broad Spectrum UV-C, UV-B and UV-A light to kill bacteria and viruses.



Programmed manually or integrated into building automation systems through BACnet.



Two UV Light Engines with pulsed Xenon lamp for a 12' x 12' ft coverage area.

1. Study Report August 2017, "Antimicrobial Effectiveness of Puro Device", using modified ASTM International Standard Test Method E1153.
2. Research Journal of Microbiology, 2 (1), 42-49, 2007; Mycological Research, Vol. 92, Issue 3, 1989

PROJECT	CONTACT	ORDERING SKU
REFERENCE NO.	QUANTITY	DATE

Product Specifications

Illumination

Light Source	Proprietary Pulsed Xenon Lamp	
Pulse Interval	1 UV Flash every 6 seconds	
Wavelengths	UV-C (200-280nm)	Germicidal
	UV-B (280-320nm)	Germicidal
	UV-A (320-400nm)	Antibacterial
Range	12' x 12' typical (144 sq feet)	
UV Bulb Rated Life	> 2 Million UV Flashes 2	

Electrical System

Input Voltage	110V AC
Max Current	7 Amps
Total Power	60W per standard, 30 minute cycle
Power Connection	3-prong grounded plug

Physical

Weight	8.4 lbs
Housing/Finish	Brushed Aluminum
Optics	Two patented UV Light Engines with transmissive UV lens and pulsed Xenon UV lamp
Beam Angle	170°

Environment

Ambient Operating Temperature	41°F to 104°F
Ambient Operating Humidity	<80%RH non-condensing

Certifications and Qualifications

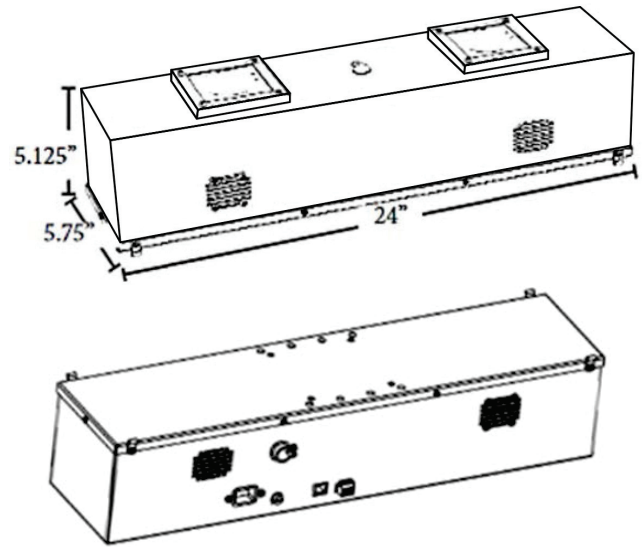
Safety	TUV Certified, tested to UL 61010-1:2012
FCC	Compliant with Part 15 Class A
RoHS	Compliant
FDA	Materials are cleared for use in food and medical areas
EPA	Registered

Warranty

Warranty	1 year
----------	--------

Dimensions

24" x 5.125" x 5.75"



Notes

- 1 Disinfection is a function of device run time and the distance to the UV light source.
- 2 Operating Life is dependent on frequency and duration of disinfection cycles.

Cycle	Time	Aprox. Bulb Life
Standard	30 min/day	18.3 years
Deep	1 hr/day	9.1 years
Terminal	2 hr/day	4.6 years

Certifications



This device is TUV Certified, tested to UL 61010-1:2012 specifications.



Tested to be compliant with FCC Part 15 Class A.

Internal components of this device are UL Listed or UL Recognized.

The manufacturer is registered with the US Environmental Protection Agency (EPA). Clinical laboratory testing has been performed at independent labs.

Solar Series

Surgical Luminaires LED Light

Description:

The Amico Surgical Luminaires use high quality LEDs that come in 80 and 90 CRI options. The lenses used are Symmetrical/Asymmetrical and designed to reduce glare. By using a one piece sealed housing and smooth door frame and lens the luminaire is ideal for easy cleaning and infection control. The housing is designed for either flange or grid ceiling installations.

Features:

- Hospital grade material and finish
- Glare-free reflectors
- Seam welded
- Long lasting LEDs



Construction Material:

Housing: 20 Gauge CRS. One piece, seam-welded construction.

Lenses: Once piece design; asymmetrical/symmetrical; see options for alternate lens.

Finish: White urethane powder coat finish – 5 step treatment; hospital grade material and finish.

Lght Source: Samsung LEDs mounted on Aluminum Core PCB.

Optics: Symmetric/asymmetric reflectors diffused for glare free operation.

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II).

Specifications:

Voltage: 120 Volts, 277 Volts, 347 Volts

Dimming: 0 - 10 Volts and DALI options available

Color Quality: 80 CRI, 90 CRI

Color Temperature: 3500K, 4000K, 5000K

Size Options: 1' x 4' x 4" / 2' x 2' x 4" / 2' x 4' x 4" fits into a standard ceiling grid layout

Listings: Luminaire is certified to UL standards by Intertek. UL certified IP65 per IEC 60598. Conducted emissions controlled as per MIL-STD-461G.

Life of LEDs: L70 50,000 hours

Warranty: Limited five (5) year warranty

Surgical Troffer Lumen Output Table

2' x 4'

		Lumens	Watts	Lm/W			Lumens	Watts	Lm/W
3,500K / 80+ CRI	Low	11,106	101	110	3,500K / 90+ CRI	Low	9,109	97	93
3,500K / 80+ CRI	Medium	15,548	148	105	3,500K / 90+ CRI	Medium	12,731	143	89
3,500K / 80+ CRI	High	20,192	200	101	3,500K / 90+ CRI	High	17,164	200	86
4,000K / 80+ CRI	Low	11,449	101	113	4,000K / 90+ CRI	Low	9,399	98	96
4,000K / 80+ CRI	Medium	16,029	148	108	4,000K / 90+ CRI	Medium	13,138	143	92
4,000K / 80+ CRI	High	20,817	200	104	4,000K / 90+ CRI	High	17,694	200	88
5,000K / 80+ CRI	Low	11,793	101	117	5,000K / 90+ CRI	Low	10,089	100	101
5,000K / 80+ CRI	Medium	16,510	147	112	5,000K / 90+ CRI	Medium	14,019	146	96
5,000K / 80+ CRI	High	21,442	200	107	5,000K / 90+ CRI	High	18,225	200	91

2' x 2'

		Lumens	Watts	Lm/W			Lumens	Watts	Lm/W
3,500K / 80+ CRI	Low	4,979	48	105	3,500K / 90+ CRI	Low	4,077	46	89
3,500K / 80+ CRI	Medium	6,971	70	100	3,500K / 90+ CRI	Medium	5,697	67	85
3,500K / 80+ CRI	High	9,053	95	96	3,500K / 90+ CRI	High	7,695	95	81
4,000K / 80+ CRI	Low	5,133	48	108	4,000K / 90+ CRI	Low	4,207	46	92
4,000K / 80+ CRI	Medium	7,186	70	103	4,000K / 90+ CRI	Medium	5,879	67	87
4,000K / 80+ CRI	High	9,333	95	99	4,000K / 90+ CRI	High	7,932	95	84
5,000K / 80+ CRI	Low	5,287	48	111	5,000K / 90+ CRI	Low	4,430	47	94
5,000K / 80+ CRI	Medium	7,402	70	106	5,000K / 90+ CRI	Medium	6,188	69	90
5,000K / 80+ CRI	High	9,613	95	102	5,000K / 90+ CRI	High	8,171	95	86

1' x 4'

		Lumens	Watts	Lm/W			Lumens	Watts	Lm/W
3,500K / 80+ CRI	Low	4,311	47	92	3,500K / 90+ CRI	Low	3,512	45	78
3,500K / 80+ CRI	Medium	6,036	69	87	3,500K / 90+ CRI	Medium	4,905	66	74
3,500K / 80+ CRI	High	7,839	94	83	3,500K / 90+ CRI	High	6,663	94	71
4,000K / 80+ CRI	Low	4,445	45	99	4,000K / 90+ CRI	Low	3,778	45	84
4,000K / 80+ CRI	Medium	6,222	66	94	4,000K / 90+ CRI	Medium	5,289	66	80
4,000K / 80+ CRI	High	8,081	94	86	4,000K / 90+ CRI	High	6,867	94	73
5,000K / 80+ CRI	Low	4,578	47	97	5,000K / 90+ CRI	Low	3,738	45	83
5,000K / 80+ CRI	Medium	6,409	69	92	5,000K / 90+ CRI	Medium	5,222	66	79
5,000K / 80+ CRI	High	8,323	94	88	5,000K / 90+ CRI	High	7,075	94	75

Dimensions:



1 x 4



2 x 2



2 x 4

Ordering Guide:

L-SURGLED-

Size

Voltage

Color
Temperature

CRI

Output

Optics

Mounting
Options

Accessories

Example: L-SURGLED-14-120-L35-A-L-SYM-GM-EM

Solar Series Surgical Luminaire, 1' x 4', 120 V, 3500 Kelvin, 80 CRI, Low Output, Symmetrical Optics, Grid Mount, Emergency Battery Backup

Ordering Information:

Series	Size	Voltage*	Color Temperature**	CRI	Output	Optics	Mounting Options	Accessories
L-SURGLED	14 1 x 4	120	L35 3500 K	A 80	L Low	SYM Symmetrical	GM Grid mount	EM Emergency battery backup
	22 2 x 2	277	L40 4000 K	B 90	M Medium	ASY Asymmetrical	CM Continuous row mounting (drywall ceiling)	TC Two circuit wiring
	24 2 x 4		L50 5000 K		H High		HC Single drywall ceiling	RF Lens with RFI grid
					<i>refer to Lumen output table</i>			ET Emergency backup w/ two circuit wiring
								ER Emergency backup w/ RFI lens
								TR Two circuit wiring w/ RFI lens
								AL Emergency/two circuit wiring w/ RFI lens

*Consult factory for 347 V requirements

**Consult factory for custom configurations



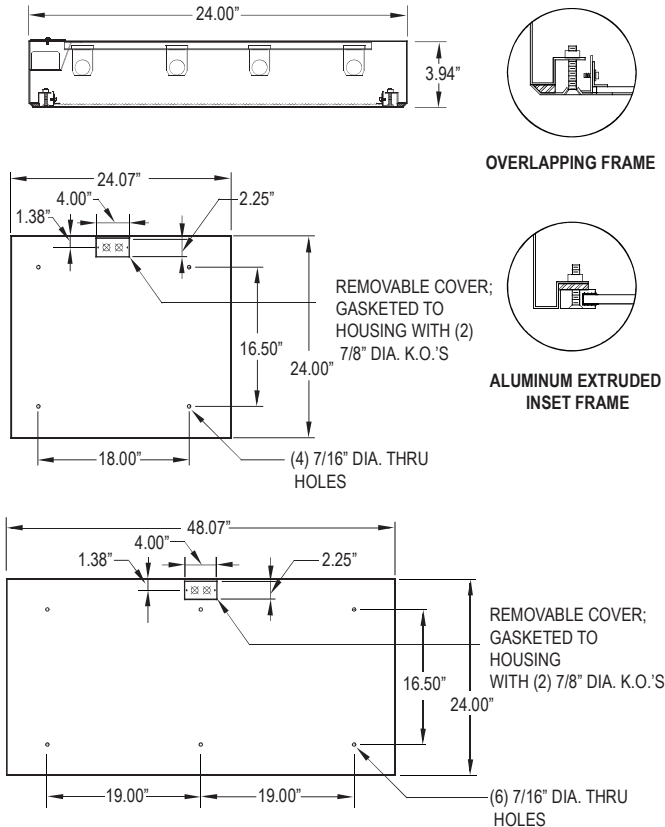
STAR SURGICAL 22-24 SURFACE

HEALTHCARE SERIES
SURGICAL FLANGE LUMINAIRE
FLUORESCENT/LED



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

DIMENSIONAL DATA



FEATURES

The New Star "Surgical S22-S24" Healthcare fixture is designed for use in surgical suites, medical settings which employ laminar or turbulent cleanroom airflow and areas where clean is critical.

- Enclosed design to insure ingress protection
- Standard overlapping frame made from single sheet CRS with beveled edges
- Inset frame fabricated from extruded aluminum
- Sealed, reinforced mitered corners
- Gasketed for contamination control
- 1% dimming available
- Lens options for different high tech medical needs
- Smooth surface for minimal maintenance
- Accommodates extreme cleaning protocols
- Dimming driver (0-10V) standard
- IP65 rated with overlap frame and inset CRS and aluminum painted only
- Patient Examination Rooms
- Laboratory

APPLICATION

- Operating Rooms
- Isolation Suites

SPECIFICATION FEATURES

HOUSING:

20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel option available. Manufactured in accordance with NSF standards.

FRAME:

Inset extruded door available in anodized aluminum or white painted aluminum. Overlapping door frame available in aluminum, CRS and stainless steel. Frame fastened to housing via aircraft cable.

LENS:

Acrylic lens with optional RFI and symmetric/asymmetric pattern, smooth side out. Overlapping frame uses a rail hold down system with silicone sealant.

ELECTRONICS:

Fluorescent:

Electronic Ballast <10% THD standard. RIF available. Lamps by others.

LED:

Available in three standard color temperatures 3500°K, 4000°K & 5000°K. Other color temperatures available, consult factory.

LED NIGHT LIGHT:

Integrated switch allows light selection at 100%, 70%, 40% and 10% levels

GASKET:

Closed cell PVC or extruded silicone gaskets prevent air contaminants from entering room.

FASTENERS:

Phillips flat head screws with captive cage

FINISH:

White Antimicrobial powdercoat finish following iron phosphate pre-treatment.

LABEL:



ORDERING INFORMATION

Product Family	Housing Matl.	Frame	# of Lamps	Lamp Type
SSS				
SSS22 24" x 24-1/16" x 3-15/16"	HC = 20Ga. CRS (Standard)	Overlap Frame Options: OC = 18Ga. CRS (Standard) OS = 18Ga. S.S (Brushed) OP = 18Ga. S.S (Painted)	Fluorescent: SSS22-SSS24: 2 = 2 Lamp 3 = 3 Lamp 4 = 4 Lamp 6 = 6 Lamp SSS22-SSS24: SYMMETRICAL / ASYMMETRICAL: 3A = 3 Lamp 6A = 6 Lamp	SSS22: 17 = Linear 17W T8 14 = Linear 14W T5 24 = Linear 24W T5 U6 = 32W U-Lamp SSS24: 32 = Linear 32W T8 28 = Linear 28W T5 54 = Linear 54W T5 HO LED: 35 = White 3500°K 40 = White 4000°K 50 = White 5000°K
SSS24 24" x 48-1/16" x 3-15/16"	HS = 20Ga. S.S (Painted) HP = 20Ga. S.S (Painted) HA = Alum. (Painted)	Inset Frame Options: IE = Extruded Alum. No IP65 IP = Extruded Alum. (Painted) No IP65 IC = 18Ga. CRS IA = Aluminum (Painted)	LED SSS22: L2 = LED 2 Rw (25W) LED SSS24: L3 = LED 3 Rw (37.5W) L4 = LED 4 Rw (50W) L5 = LED 5 Rw (62.5W) L6 = LED 6 Rw (75W) L7 = LED 7 Rw (87.5W) L8 = LED 8 Rw (100W)	
# Ballasts/Driver	Lens	Voltage	Options	
Fluorescent: 1 = Ballast 2 = Ballast	LED: 1 = Driver 2 = Driver 3 = Driver 4 = Driver	A = .125 Prismatic Acrylic S = Symmetric Asymmetric Lens R = .125 Prismatic Acrylic with RFI Grid 12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	DB = Dimming Ballast (0-10V) * DM1 = Dimming 1% SDM = Step Dimming Module PR = Program Rapid Start FZ = Fuse * NL = Fluorescent Night Light * LN = LED Night Light. Consult factory for available color/temperatures.	

- * Cannot use with universal voltage option
◀ Consult factory for T5 availability

- Consult factory for lamp-ballast options
◆ Not available in LED

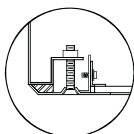


Based lense .250 Clear Polycarbonate/.125 Prismatic Acrylic - 4000K

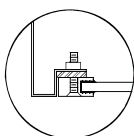
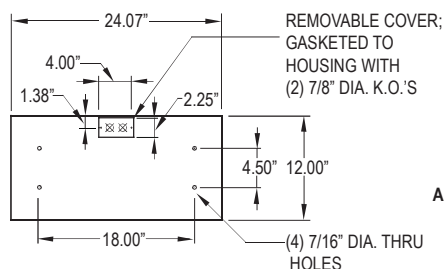
# LED BOARDS	# ROWS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS
SSG22-SSF22-SSS22 SCG22-SCF22-SCS22:				
L2	2 Rw	(25W)	120	3,000 LMS
L3	3 Rw	(37.5W)	120	4,500 LMS
L4	4 Rw	(50W)	120	6,000 LMS
L5	5 Rw	(62.5W)	120	7,000 LMS
L6	6 Rw	(75W)	120	9,000 LMS
L7	7 Rw	(87.5W)	120	10,500 LMS
L8	8 Rw	(100.0W)	120	12,000 LMS
SSG24-SSF24-SSS24 SCG24-SCF24-SCS24:				
L2	2 Rw	(50W)	120	6,000 LMS
L3	3 Rw	(75W)	120	9,000 LMS
L4	4 Rw	(100W)	120	12,000 LMS
L5	5 Rw	(125W)	120	15,000 LMS
L6	6 Rw	(150W)	120	18,000 LMS
L7	7 Rw	(175W)	120	21,000 LMS
L8	8 Rw	(200W)	120	24,000 LMS

* TAKE AN ADDITIONAL 20% OFF DELIVERED LUMENS WHEN SPECIFYING THE LC3 LENS

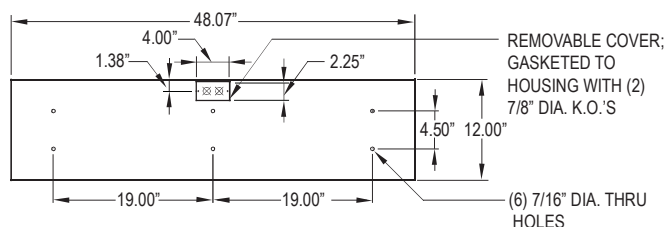
HEALTHCARE SERIES
SURGICAL SURFACE LUMINAIRE
FLUORESCENT/LED



OVERLAPPING FRAME



ALUMINUM EXTRUDED
INSET FRAME



Product Family	Housing Matl	Frame	# of Lamps	Lamp Type
SSS_ SSS12 12" x 24-1/16" x 3-15/16" SSS14 14" x 48-1/16" x 3-15/16"	HC = 20Ga. CRS (Standard) HS = 20Ga. S.S. HP = 20Ga. S.S. (Painted) HA = Alum. (Painted)	Overlap Frame Options IP65: OC =18Ga. CRS(Stand.) OS =18Ga. S.S (Brush.) OP =18Ga. S.S.(Paint.) OA =Aluminum (Paint.) Inset Frame Options: IE =Extruded Alum.No IP65 IP =Extruded Alum.(Paint.) No IP65 IC =20Ga. CRS IP65 IA =Alum.(Paint.) IP65 IB =20Ga. S.S.(Brush.) IP65 IS =20Ga. S.S.(Paint.) IP65	Fluorescent: SSS12-SSS14 2 = 2 Lamp 3 = 3 Lamp SSS12-SSS14: SYMMETRICAL / ASYMMETRICAL: 2A = 2 Lamp 3A = 3 Lamp LED SSS12: L2 = LED 2 Rw (25W) L3 = LED 3 Rw (37.5W) L4 = LED 4 Rw (50W) LED SSS14: L2 = LED 2 Rw (50W) L3 = LED 3 Rw (75W) L4 = LED 4 Rw (100W) L5 = LED 5 Rw (125W) L6 = LED 6 Rw (150W)	SSG12: 17 = Lin.17W T8 14 = Lin.14W T5 24 = Lin.24W T5 HO U6 = 32W U-Lamp (6 " leg spacing) SSG14: 32 = Lin.32W T8 28 = Lin.28W T5 54 = Lin.54W T5 HO LED: 35 = White 3500° K 40 = White 4000° K 50 = White 5000° K
# Ballasts/Driver	Lens	Voltage	Options	
Fluorescent: 1 = Ballast 2 = Ballast LED: 1 = Driver 2 = Driver 3 = Driver 4 = Driver	A = .125 Prismatic Acrylic S = .150 Sym Asymmetric w/RFI Grid Pris. Acrylic (2 or 3 Lamps only) R = .125 Sym. Pris. Acrylic w/ RFI Grid LC3 = .125 White Frosted Polycarbonate	12 = 120V 27 = 277V 34 = 347V ■ UN = Universal (120V-277V)	DM1 = Dimming driver 1% SD2 = Step Dim. Module(50-100%) SD3 = Step Dim. Module(25-50-100%) SD3A =Step Dim. Module(33-66-100%) PR = Program Rapid Start FZ = Fuse * NL = Fluorescent Night Light * LN = LED Night Light. Consult factory for available color/temperatures. E1 = Emerg. Bat. Pack (450 Lumens) * ◀♦ E2 = Emerg. Bat. Pack (1100 Lumens) * ◀♦ EL1 = Emerg. Bat. LED Low EL2 = Emerg. Bat. LED High RF = RIF (Radio Interference Filter)* TH = Torx Head screws (with center pin) TM = Tandem Mount	

* Cannot use with universal voltage option ■ Consult factory for lamp-ballast options ♦ Not available in LED
 ▲ Consult factory for T5 availability ● 2 lamp only



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "Surgical S12-S14" Healthcare fixture is designed for use in surgical suites, medical settings which employ laminar or turbulent cleanroom airflow and areas where clean is critical.

- Enclosed design to insure ingress protection
- Standard overlapping frame made from single sheet CRS with beveled edges
- Inset frame fabricated from extruded aluminum
- Sealed, reinforced mitered corners
- Gasketed for contamination control
- Smooth surface for minimal maintenance
- Dimming Driver (0-10V) standard
- Dimming 1% available
- Asymmetrical light distribution available
- Lens options for different high tech medical needs
- Accommodates extreme cleaning protocols
- IP65 rated with overlap frame and inset CRS stainless steel and aluminum painted

APPLICATION

- Operating Rooms
- Hospitals
- Isolation Suites
- Patient Examination Rooms
- Laboratory

SPECIFICATION FEATURES

HOUSING:

20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel option available. Manufactured in accordance with NSF standards.

FRAME:

Inset extruded door available in anodized aluminum or white painted aluminum. Overlapping door frame available in aluminum, CRS and stainless steel. Frame fastened to housing via aircraft cable.

LENS:

Acrylic lens with optional RFI and symmetric/asymmetric pattern, smooth side out.
Overlapping frame uses a rail hold down system.

ELECTRONICS:

Fluorescent:
Electronic Ballast <10% THD standard. RIF
available. Lamps by others.

LED:

Available in three standard color temperatures 3500°K, 4000°K & 5000°K. Other color temperatures available, consult factory.

LED NIGHT LIGHT:

Integrated switch allows light selection at 100%, 70%, 40% and 10% levels

GASKET:

Closed cell pvc or extruded silicone gaskets prevent air contaminants from entering room.

FASTENERS:

Phillips flat head screws with captive cage nuts

FINISH:

White Antimicrobial powdercoat finish following iron phosphate pre-treatment.

LABEL:



Based on a .125 Prismatic lens				
# LED BOARDS	# ROWS	WATTAGE	EFFICACY (lm/W)	DELIVERED LUMENS
SSS11:				
L1	1 Module	(6W)		2,500 LMS
SSS12:				
L2	2 Rw	(25W)	110	2,750 LMS
L3	3 Rw	(37.5W)	110	4,125 LMS
L4	4 Rw	(50W)	110	5,500 LMS
SSS14:				
L2	2 Rw	(50W)	110	5,550 LMS
L3	3 Rw	(75W)	110	8,250 LMS
L4	4 Rw	(100W)	110	11,000 LMS
TAKE AN ADDITIONAL 20% OFF DELEIVERED LUMENS WHEN SPECIFYING THE LC3 LENS				

Solar Series Surgical Luminaires

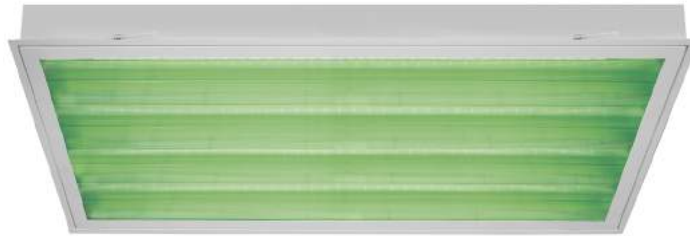
Green and White LED Light

Description:

The Amico Surgical Luminaires use high quality LEDs that come in 80 and 90 CRI options. The lenses used are Symmetrical/Asymmetrical and designed to reduce glare. By using a one piece sealed housing and smooth doorframe and lens the luminaire is ideal for easy cleaning and infection control. The housing is designed for either flange or grid ceiling installations. Green LED light is less stressful on the eyes and enhances video monitor image while eliminating glare that traditional overhead white lights cast on monitors.

Features:

- Anti-microbial finish
- Glare-free reflectors
- Seam welded
- Long lasting LEDs
- Independently powered and dimmed
Green and White LED circuits



Construction Material:

Housing: 20 Gauge CRS. One piece, seam-welded construction.

Lenses: Once piece design; asymmetrical/symmetrical; see options for alternate lens.

Finish: White urethane powder coat finish – 5 step treatment; antimicrobial finish.

Light Source: Samsung LEDs mounted on Aluminum Core PCB.

Optics: Symmetric/asymmetric reflectors diffused for glare free operation.

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II).

Specifications:

Voltage: 120 Volts, 277 Volts, 347 Volts

Dimming: 0 - 10 Volts and DALI options available

Color Quality: 80 CRI, 90 CRI

Color Temperature: Green LEDs: 530nm. White LEDs: 3500K, 4000K, 5000K.

Size Options: 1' x 4' x 4" / 2' x 2' x 4" / 2' x 4' x 4" fits into a standard ceiling grid layout

Listings: Luminaire is certified to UL standards by Intertek. UL certified IP65 per IEC 60598. Conducted emissions controlled as per MIL-STD-461G.

Life of LEDs: L70 50,000 hours

Warranty: Limited five (5) year warranty

Surgical Troffer Lumen Output Table

2' x 4'		Green LED Circuit		White LED Circuit				Green LED Circuit		White LED Circuit	
		Lumens	Watts	Lumens	Watts			Lumens	Watts	Lumens	Watts
3500K / 80+ CRI	Low	2832	21	8274	75	3500K / 90+ CRI	Low	2832	21	6277	67
3500K / 80+ CRI	Medium	2832	21	12716	121	3500K / 90+ CRI	Medium	2832	21	9899	111
3500K / 80+ CRI	High	2832	21	17360	172	3500K / 90+ CRI	High	2832	21	14332	167
4000K / 80+ CRI	Low	2832	21	8617	76	4000K / 90+ CRI	Low	2832	21	6567	68
4000K / 80+ CRI	Medium	2832	21	13197	122	4000K / 90+ CRI	Medium	2832	21	10306	112
4000K / 80+ CRI	High	2832	21	17985	173	4000K / 90+ CRI	High	2832	21	14862	168
5000K / 80+ CRI	Low	2832	21	8961	76	5000K / 90+ CRI	Low	2832	21	7257	72
5000K / 80+ CRI	Medium	2832	21	13678	122	5000K / 90+ CRI	Medium	2832	21	11187	116
5000K / 80+ CRI	High	2832	21	18610	174	5000K / 90+ CRI	High	2832	21	15393	169

2' x 2'		Green LED Circuit		White LED Circuit				Green LED Circuit		White LED Circuit	
		Lumens	Watts	Lumens	Watts			Lumens	Watts	Lumens	Watts
3500K / 80+ CRI	Low	2624	19	2355	22	3500K / 90+ CRI	Low	2624	19	1453	16
3500K / 80+ CRI	Medium	2624	19	4347	44	3500K / 90+ CRI	Medium	2624	19	3073	36
3500K / 80+ CRI	High	2624	19	6429	67	3500K / 90+ CRI	High	2624	19	5071	62
4000K / 80+ CRI	Low	2624	19	2509	23	4000K / 90+ CRI	Low	2624	19	1583	17
4000K / 80+ CRI	Medium	2624	19	4562	44	4000K / 90+ CRI	Medium	2624	19	3255	37
4000K / 80+ CRI	High	2624	19	6709	68	4000K / 90+ CRI	High	2624	19	5308	63
5000K / 80+ CRI	Low	2624	19	2663	24	5000K / 90+ CRI	Low	2624	19	1806	19
5000K / 80+ CRI	Medium	2624	19	4778	45	5000K / 90+ CRI	Medium	2624	19	3564	40
5000K / 80+ CRI	High	2624	19	6989	69	5000K / 90+ CRI	High	2624	19	5547	64

1' x 4'		Green LED Circuit		White LED Circuit				Green LED Circuit		White LED Circuit	
		Lumens	Watts	Lumens	Watts			Lumens	Watts	Lumens	Watts
3500K / 80+ CRI	Low	2598	19	1713	19	3500K / 90+ CRI	Low	2598	19	914	12
3500K / 80+ CRI	Medium	2598	19	3438	39	3500K / 90+ CRI	Medium	2598	19	2307	31
3500K / 80+ CRI	High	2598	19	5241	63	3500K / 90+ CRI	High	2598	19	4065	57
4000K / 80+ CRI	Low	2598	19	1847	19	4000K / 90+ CRI	Low	2598	19	1180	14
4000K / 80+ CRI	Medium	2598	19	3624	39	4000K / 90+ CRI	Medium	2598	19	2691	34
4000K / 80+ CRI	High	2598	19	5483	64	4000K / 90+ CRI	High	2598	19	4269	59
5000K / 80+ CRI	Low	2598	19	1980	20	5000K / 90+ CRI	Low	2598	19	1140	14
5000K / 80+ CRI	Medium	2598	19	3811	41	5000K / 90+ CRI	Medium	2598	19	2624	33
5000K / 80+ CRI	High	2598	19	5725	65	5000K / 90+ CRI	High	2598	19	4477	60

Full Green LED Circuit	Lumens	Watts
2' x 4'	8721	65
2' x 2'	6141	46
1' x 4'	5986	45

Dimensions:



1 x 4



2 x 2



2 x 4

Ordering Guide:

L-SURGLED -

Size

Voltage

Color
Temperature

CRI

Output

Optics

Mounting
Options

Accessories

Example: L-SURGLED-14-120-GW35-A-L-SYM-GM-EM

Solar Series Surgical Luminaire, 1' x 4', 120 V, Green & 3500 Kelvin White, 80 CRI, Low Output, Symmetrical Optics, Grid Mount, Emergency Battery Backup

Ordering Information:

Series	Size	Voltage*	Color Temperature**	CRI	Output	Optics	Mounting Options	Accessories
L-SURGLED	14 1 x 4	120	GW35 Green and 3500K White	A 80	L Low	SYM Symmetrical	GM Grid mount	EM Emergency battery backup
	22 2 x 2	277	GW40 Green and 4000K White	B 90	M Medium	ASY Asymmetrical	CM Continuous row mounting (drywall ceiling)	TC Two circuit wiring
	24 2 x 4		GW50 Green and 5000K White		H High		HC Single drywall ceiling	RF Lens with RFI grid
			GG00 Full green		<i>refer to Lumen output table</i>			ET Emergency backup w/ two circuit wiring
								ER Emergency backup w/ RFI lens
								TR Two circuit wiring w/ RFI lens
								AL Emergency/two circuit wiring w/ RFI lens

*Consult factory for 347 V requirements

**Consult factory for custom configurations

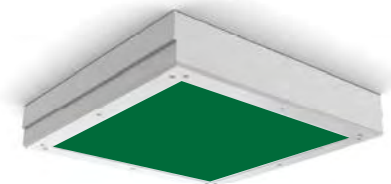


STARSURGICAL GREEN 22-24 LED

SSS22/SSS24/SSG22/SSG24/SSF22/SSF24

SPECIFICATION FEATURES

HOUSING:	20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel option available.
FRAME:	Inset extruded door available in anodized aluminum or white painted aluminum. Overlapping door frame available in aluminum, cold rolled steel, and stainless steel. Frame fastened to housing via aircraft cable.
LENS:	Acrylic lens smooth side out. Optional symmetric/asymmetric pattern with RFI Grid. Overlapping frame uses a rail hold down system.
LED:	Optional Green LED boards for surgical settings or a mix of White and Green LED boards available. White color temperatures available in 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. Standard 0-10V dimming with 10-100% range.
FASTENERS:	Philips flat head screws with captive cage nuts.
FINISH:	White antimicrobial powder coat finish following iron phosphate pre-treatment.
GASKET:	Closed cell PVC or extruded silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Operating Rooms, Examination Rooms, Isolation Suites, Laboratories, and more.

MOUNTING:

Flange fixtures come with adjustable 90° swing arm for easy installation. Optional Yoke Bracket would replace swing arm.

LABEL:

Fixture is certified to UL standards for Damp Location. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SSS24-HS/IB-GND2-A-UN

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	HOUSING	FRAME Inset (I) or Overlap (O)	CONFIGURATION <small>*See Pg. 2 for Options</small>
SS					
	S = Surface G = Grid F = Flange	22 = 2x2 24 = 2x4	HC= 20Ga. CRS (standard) HS= 20Ga. SS (painted) HP= 20Ga. SS (painted) HA= .050Ga. Alum. (painted)	IE=Extruded Alum. ✓ IP=Extruded Alum. ✓ (Painted) IP65: IC=20Ga.CRS IA= .050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA= .050 Alum. (Painted)	GNX = All Green LED's (X = Configuration) GWX = Green and White (X = Configuration)
LAMP TYPE <small>*For White LED's Only</small>	CIRCUITS	LENS	VOLTAGE	OPTIONS	
Blank = All Green LED's 35 = 3500°K 40 = 4000°K 50 = 5000°K	1 = 1 Circuit 2 = 2 Circuits	A = .125 Prismatic Acrylic R = .125 Symmetric Acrylic with RFI Grid S = .150 Symmetric Asymmetric Prismatic Acrylic with RFI Grid C = .156 Prismatic Polycarbonate Φ	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ*	EL1 EL2 SD2▲ SD3▲ SD3A▲ FY
				RF*	TH TM+ MS-

KEY

FZ = Fuse*
D1 = 0-10V dimming with 1-100% range
SD2 = Step Dim. Module (50-100%)▲
SD3 = Step Dim. Module (25-50-100%) ▲
SD3A = Step Dim. Module (33-66-100%)▲

FY = Yoke Bracket for Flange mount (Replace swing arm system)
EL1 = Emerg. Bat. LED Low
EL2 = Emerg. Bat. LED High
RF = (RIF) Radio Interference Filter*

TH = Torx Head screws (with center pin)
TM = Tandem Mount +
MS = MIL STD 461F-

✓ Not IP65
◆ Must use .156 Pris. Poly Lens
Φ Must be used with IE or IP
* Cannot use with UN voltage
+ Not available with Grid
▲ Not available in 277V
- Must use with S or C Lens

Notes:
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

STARSURGICAL GREEN 22-24 LED

SSS22/SSS24/SSG22/SSG24/SSF22/SSF24



CONFIGURATION OPTIONS

*Additional configurations available, consult factory.

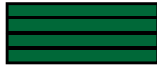
GNX = All Green LED's

X = Configuration



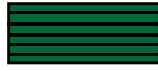
A

2 Rows of Green LED's



B

4 Rows of Green LED's



C

6 Rows of Green LED's

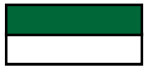


D

8 Rows of Green LED's

GWX = Green and White LED's

X = Configuration



A

(One Green Row,
One White Row)



B

(Every Other Row)



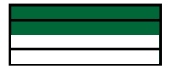
C

(2 White Rows Outer,
2 Green Rows Center)



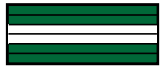
D

(2 Green Rows Outer,
2 White Rows Center)



E

(2 Green Rows,
2 White Rows)



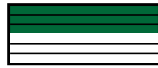
F

(4 Green Rows Outer,
2 White Rows Center)



G

(Every Other Row)



H

(3 Green Rows,
3 White Rows)



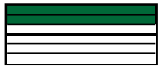
I

(4 White Rows Outer,
2 Green Rows Center)



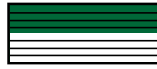
J

(2 Green Rows Outer,
4 White Rows Center)



K

(2 Green Rows,
4 White Rows)



L

(4 Green Rows,
4 White Rows)



M

(Every Other Row)



N

(4 White Rows Outer,
4 Green Rows Center)



O

(5 White Rows,
3 Green Rows)

DIMENSIONAL DATA

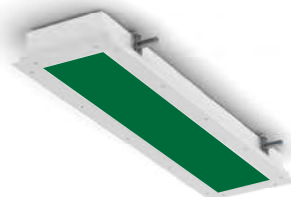
Updated Dimensional Drawings Coming Soon.

STARSURGICAL GREEN 12-14 LED

SSS12/SSS14/SSG12/SSG14/SSF12/SSF14

SPECIFICATION FEATURES

HOUSING:	20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel option available.
FRAME:	Inset extruded door available in anodized aluminum or white painted aluminum. Overlapping door frame available in aluminum, cold rolled steel, and stainless steel. Frame fastened to housing via aircraft cable.
LENS:	Acrylic lens smooth side out. Optional symmetric/asymmetric pattern with RFI Grid. Overlapping frame uses a rail hold down system.
LED:	Optional Green LED boards for surgical settings or a mix of White and Green LED boards available. White color temperatures available in 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. Standard 0-10V dimming with 10-100% range.
FASTENERS:	Philips flat head screws with captive cage nuts.
FINISH:	White antimicrobial powder coat finish following iron phosphate pre-treatment.
GASKET:	Closed cell PVC or extruded silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Operating Rooms, Examination Rooms, Isolation Suites, Laboratories, and more.

MOUNTING:

Flange fixtures come with adjustable 90° swing arm for easy installation. Optional Yoke Bracket would replace swing arm.

LABEL:

Fixture is certified to UL standards for Damp Location. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SSG12-HC/IA-GWG351-S-UN

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	HOUSING	FRAME Inset (I) or Overlap (O)	CONFIGURATION <small>*See Pg. 2 for Options</small>
SS					
	S = Surface G = Grid F = Flange	12 = 1x2 14 = 1x4	HC= 20Ga. CRS (standard) HS= 20Ga. SS HP= 20Ga. SS (painted) HA= .050Ga. Alum. (painted)	IE=Extruded Alum. ✓ IP=Extruded Alum. ✓ (Painted) IP65: IC=20Ga.CRS IA= .050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA= .050 Alum. (Painted)	GNX = All Green LED's (X = Configuration) GWX = Green and White (X = Configuration)
LAMP TYPE <small>*For White LED's Only</small>	CIRCUITS	LENS	VOLTAGE	OPTIONS	
Blank = All Green LED's 35 = 3500°K 40 = 4000°K 50 = 5000°K	1 = 1 Circuit 2 = 2 Circuits	A = .125 Prismatic Acrylic R = .125 Symmetric Acrylic with RFI Grid S = .150 Symmetric Asymmetric Prismatic Acrylic with RFI Grid C = .156 Prismatic Polycarbonate Φ	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* D1 SD2▲ SD3▲ SD3A▲ FY	EL1 EL2 RF* TH TM+ MS -

KEY

FZ = Fuse*
D1 = 0-10V dimming with 1-100% range
SD2 = Step Dim. Module (50-100%)▲
SD3 = Step Dim. Module (25-50-100%) ▲
SD3A = Step Dim. Module (33-66-100%)▲

FY = Yoke Bracket for Flange mount (Replace swing arm system)
EL1 = Emerg. Bat. LED Low
EL2 = Emerg. Bat. LED High
RF = (RFI) Radio Interference Filter*

TH = Torx Head screws (with center pin)
TM = Tandem Mount +
MS = MIL STD 461F-

✓ Not IP65
◆ Must use .156 Pris. Poly Lens
Φ Must be used with IE or IP
* Cannot use with UN voltage
+ Not available with Grid
▲ Not available in 277V
- Must use S or C Lens

Notes:
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

STARSURGICAL GREEN 12-14 LED

SSS12/SSS14/SSG12/SSG14/SSF12/SSF14



CONFIGURATION OPTIONS

*Additional configurations available, consult factory.

GNX = All Green LED's

X = Configuration



A

2 Rows of Green LED's



B

3 Rows of Green LED's



C

4 Rows of Green LED's

GWX = Green and White LED's

X = Configuration



A

(One Green Row,
One White Row)



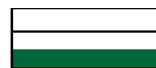
B

(2 White Rows Outer
1 Green Row Center)



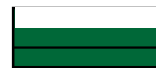
C

(2 Green Rows Outer,
1 White Row Center)



D

(2 White Rows,
1 Green Row)



E

(2 Green Rows,
1 White Rows)



F

(Every Other Row)



G

(2 White Rows Outer,
2 Green Rows Center)



H

(2 Green Rows Outer,
2 White Rows Center)



I

(2 Green Rows,
2 White Rows)

DIMENSIONAL DATA

Updated Dimensional Drawings Coming Soon.

Notes:

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.



HSTLED

OR/Surgical Suite



Project:

Type:

Qty:

SPECIFICATIONS

Interior

HSTLED

SPECIFICATIONS

The HSTLED provides an energy efficient alternative to fluorescent surgical troffers. Surgical troffers are designed to supplement the primary procedure lighting in the surgical theater. When grouped to surround the perimeter of the operating table, the symmetric/asymmetric lens distributes light both downward and toward the surgical field, diminishing shadows and reducing eyestrain of the surgical team. A gasketed steel or aluminum door with clean concealed hinge seals plenum contaminates from the surgical suite. Row-mounted flange options available (see installation instructions). Sealed door with clean concealed hinge is superior alternative to conventional piano hinge.

Housing

Welded construction; 16 GA Aluminum Housing and 18 GA CRS Door (16 GA Aluminum optional). Polyester powder coat finish; anti-microbial powder coat finish available. Detachable flanges for flange fixture option.

Door

Hinged door sealed with closed-cell silicone gasket.
1/8" Clear acrylic lens for easier cleaning.
Approximately 1/8" KSH12 lens for optical Asymmetric/Symmetric performance.

Source

High output linear LED.

LED Driver

EldoLED EC0Drive.
Radio frequency suppressors added to shield component emissions. MIL-STD-461F Compliant.

Switching

Multi switch legs available from single branch circuit.
Circuit options shown on second page.

Emergency Battery Pack (optional)

(1) 12" board illuminated for 90 minutes.
1350 Initial lumens (13 input watts).
Requires thermal switch per circuit
*EM1 option requires additional top box increasing overall housing height by 1.25"

Weight

2x4 – approximate shipping weight 44 lbs
2x2 – approximate shipping weight 28 lbs

Voltage

120V, 277V.

Light Output

2x4 LED40 17,320 lm All-On
2x2 LED40 7,880 lm All-On

Input Watts

2x4 LED40 186W All-On
2x2 LED40 97W All-On

Dimming (optional)

0-10V Dimming to 1%

Color Quality

>80 CRI for LED 35 and LED40
>90 CRI for LED50

LED Life Estimate

50,000 hours
LED Life projection is based on IES TM-21 and IES LM-80

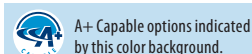
Listings

CSA certified to meet US and Canadian standards.
Certified to MIL-STD-461F.

Warranty

5-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.



CATALOG NUMBER

Example: HSTLED24 G 120 LED40 1C EM1 AM

Series	Mounting	Voltage	LED Color	Wiring Options	Options	Emergency	Finish
HSTLED24 2x4 FT HSTLED22 2x2 FT	G Grid F Flange	120 120V 277 277V MVOLT 120V-277V	LED35 3500K, 80CRI LED40 4000K, 80CRI LED50 5000K, 90CRI	1C 1 Circuit 2C 2 Circuits 1DIM 1 Dimming Circuit 2DIM 2 Dimming Circuit	PF ² Plaster Frame Kit RM ² Row Mount Adapter RMP ² Row Mount Pattern (specify pattern/consult factory) ALD Aluminum Door Painted NIO nLight nIO	EM1 Emergency Drive. Must specify voltage.	GW Gloss White (standard) AM Anti-Microbial White

Notes

- HSTLED22 with 2C requires additional top box increasing overall housing height by 1.25"
- PF, RM, and RMP only available with flanged mount

HSTLED

OR/Surgical Suite

Project:

Type:

Qty:

SPECIFICATIONS

Interior

HSTLED

SWITCHLEG OPTIONS

1C or 1DIM	2C or 2DIM
① ① ① ①	② ① ① ②

PERFORMANCE DATA

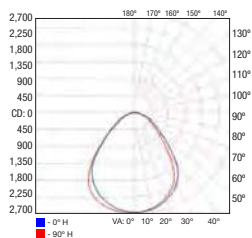
Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

Fixture	Lumen Output	Max Candela	Input Watts	Fixture	Lumen Output	Max Candela	Input Watts
HSTLED24 LED40 All-On	17,320 lm	8,530 Cd	186 W	HSTLED22 LED40 All-On	7,880 lm	3,980 Cd	97 W
HSTLED24 LED40 Outer Rows On	8,590 lm	4,310 Cd	89 W	HSTLED22 LED40 Outer Rows On	3,920 lm	2,020 Cd	46 W
HSTLED24 LED40 Center Rows On	8,830 lm	4,320 Cd	97 W	HSTLED22 LED40 Center Rows On	4,000 lm	2,020 Cd	53 W

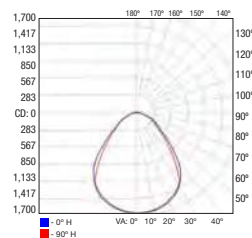
PHOTOMETRICS

Test Report: LTL27661
HSTLED24 LED40 All-On
Lumens: 17,324
Wattage: 186 W
Efficacy: 93 lm/W
Max. Candela: 8,533 @ H: 270°; V: 5°



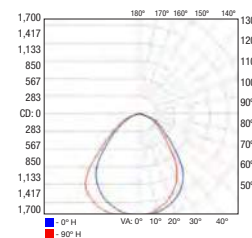
Height	Center Beam Footcandle
2.0	2,120.3fc
4.0	530.1fc
6.0	235.6fc
8.0	132.5fc
10.0	84.8fc

Test Report: LTL27662
HSTLED24 LED40 Outer Rows On
Lumens: 8,598
Wattage: 89 W
Efficacy: 96 lm/W
Max. Candela: 4,318 @ H: 22.5°; V: 2.5°



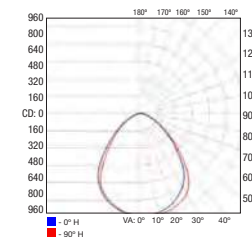
Height	Center Beam Footcandle
2.0	1,070.5fc
4.0	267.6fc
6.0	118.9fc
8.0	66.9fc
10.0	42.8fc

Test Report: LTL27663
HSTLED24 LED40 Center Rows On
Lumens: 8,832
Wattage: 97 W
Efficacy: 91 lm/W
Max. Candela: 4,323 @ H: 270°; V: 10°



Height	Center Beam Footcandle
2.0	1,061.5fc
4.0	265.4fc
6.0	117.9fc
8.0	66.3fc
10.0	42.5fc

Test Report: LTL27696
HSTLED22 LED40 All-On
Lumens: 7,880
Wattage: 97 W
Efficacy: 81.4 lm/W
Max. Candela: 3,988 @ H: 90°; V: 5°



Height	Center Beam Footcandle
2.0	988.5fc
4.0	247.1fc
6.0	109.8fc
8.0	61.8fc
10.0	39.5fc

Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a **shaded background***
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background***

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

CATALOG #	TYPE
JOB NAME	VOLTAGE

7" LED Exam Light • Antimicrobial Trim

Concentrated Beam for Optimal Patient Illumination
LM-80 Qualified • LM-79 Certified Photometry
Up to 60,000 Hour Life • Wet Location



MRR-07500-5000L
MRR-07500-3500L



LEVEL 1

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distributions: NFL standard.
Optional: -MFL.
- Color temperature: 3500°K standard.
Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).

- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim.
- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.
- Regressed tempered microprismatic glass lens.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with 1/2" and 3/4" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1 1/4" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-07500-5000L-120-30K-MFL
Product Number	Voltage	Options	
MRR-07500-5000L MRR-07500-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).
- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.

- EM INTERNAL emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

- MFL Medium flood distribution.

Trim

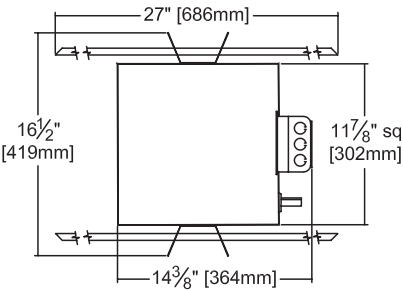
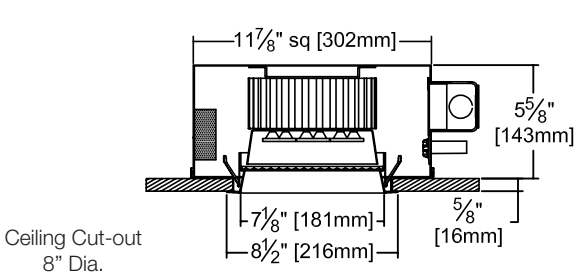
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

*Marked Spacings Caution: Install with minimum spacings as follows: 2 feet between centers of adjacent fixtures; 1/2" between fixture top and overhead building member; 1 foot between fixture center and side wall.

Dimensions



Footcandle Distribution Data

Photometry from UL Verification Services, Allentown, PA

- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

Photometric testing done
in accordance with IESNA
LM-79-08

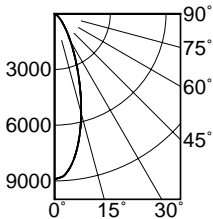
-5000L STANDARD (NFL)

Lumens: 4827
Beam: ~33°
SC: 0.6
LPW: 82
Efficiency: 81.2%
UL Test: 11356591.12

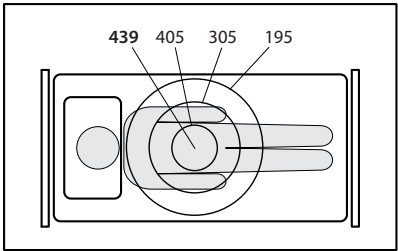


Cone of Light ▲

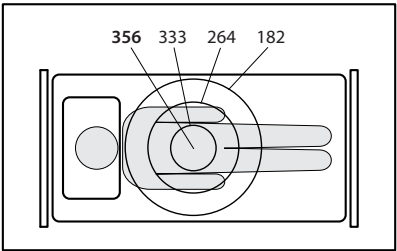
Dist.	FC	Dia.
6	247.0	3.5
8	139.0	4.7
10	89.1	5.9
12	61.9	7.1
14	45.5	8.3
16	34.8	9.4



Total System Watts 58.8



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

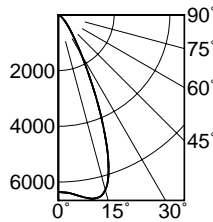
-5000L Option -MFL

Lumens: 4900
Beam: ~45°
SC: 0.8
LPW: 84
Efficiency: 82.4%
UL Test: 11356591.13

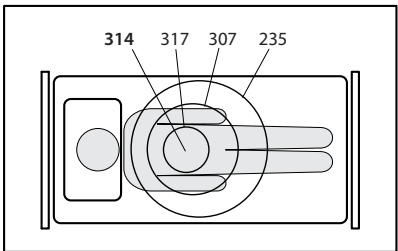


Cone of Light ▲

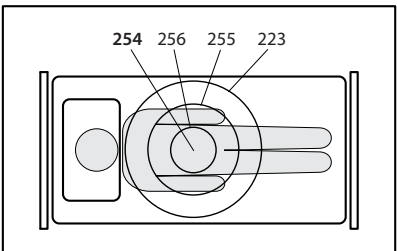
Dist.	FC	Dia.
6	177.0	5.0
8	99.3	6.7
10	63.6	8.3
12	44.1	10.0
14	32.4	11.6
16	24.8	13.3



Total System Watts 58.6



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

See following page for -3500L performance

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from UL Verification Services (UL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

WATTAGE

VOLTAGE

CATALOG NUMBER



CATALOG #	TYPE
JOB NAME	VOLTAGE

LED Adjustable 7" Exam Light

Concentrated Beam for Optimal Patient Illumination
LM-80 Qualified • LM-79 Certified Photometry
Up to 60,000 Hour Life • Wet Location • Antimicrobial Trim

MRR-07505-5000L
MRR-07505-3500L



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distribution: NFL standard.
- Color temperature: 3500°K standard.
Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

Center Beam Optics

- Self-aligns with trim for optimal performance.
- Hot aiming by hand.
- Tilts from 0° to 35° in 1° increments and locks in place.

- Rotates full 360° and locks in place.
- Accommodates sloped ceilings up to 35°.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim.
- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.
- Regressed tempered microprismatic glass lens.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

Outlet Box

- UL listed J-box with insulated removable

LEVEL 1

cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-07505-5000L-120-30K-45
Product Number	Voltage	Options	
MRR-07505-5000L MRR-07505-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120 **or** 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

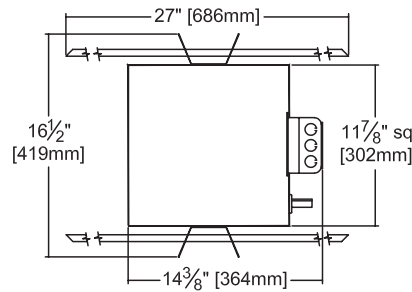
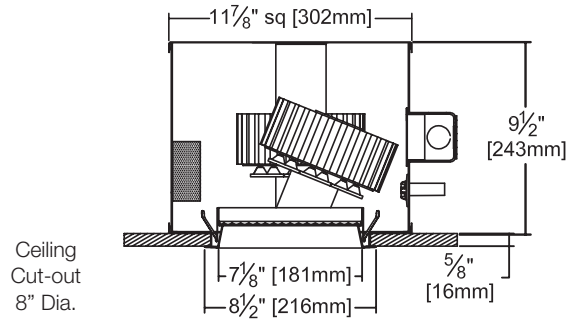
Trim

- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.

Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Dimensions



Footcandle Distribution Data

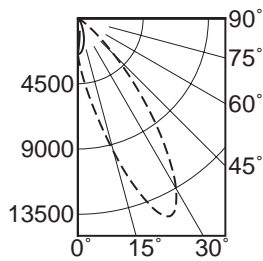
- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

Photometry from I.T.L., Boulder, CO

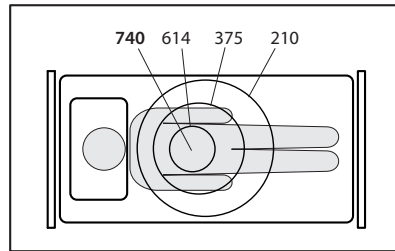
Photometric testing done
in accordance with IESNA
LM-79-08

-5000L STANDARD (NFL)

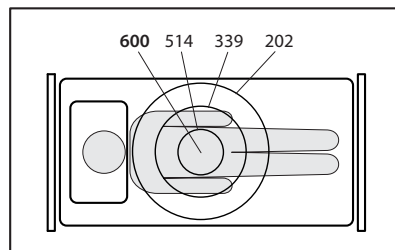
Lumens: 4623
Beam: ~27°
SC: 0.5
LPW: 81
Efficiency: 77.7%
ITL Test: 87780



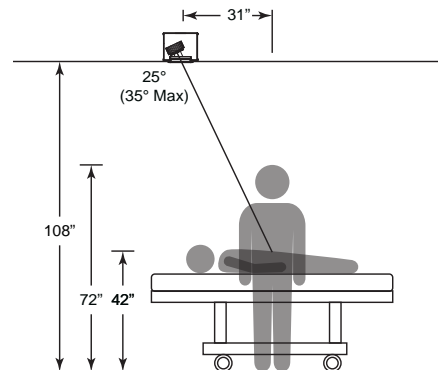
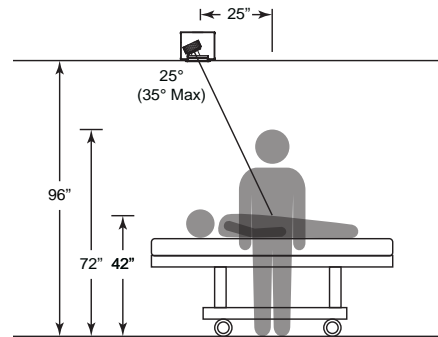
Total System Watts 57.3



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of $\pm 7\%$ on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

See following page for
-3500L performance

SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP



OR / Clean Room 7" Downlight • LED

Up to 90,000 Hour Life • Type IC

LM-80 Qualified • LM-79 Certified Photometry



MRR-07550-1500L



Sealed Housing & Trim

LEVEL 3

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
- 1500L: 1500 nominal lumens (15W).
- Distribution: NFL standard.
- Optional: -MFL.
- Color temperature: 3500°K standard.
- Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim / Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged white trim.
- Regressed tempered microprismatic glass lens.

- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.

5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.
- Meets ASTM E283 restricted airflow of 2 CFM maximum.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Air tight housing and junction box. Meets/ exceeds ASTM E283 restricted airflow of 2 CFM maximum. CCEA approved.

Outlet Box

- UL listed J-box with insulated removable cover. Rewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recesses indoor/outdoor in covered locations.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-07550-1500L-120-30K-MFL
Product Number	Voltage	Options	
MRR-07550-1500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage. Not for use with Option -29 or -FS.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color (CCT and CRI)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

- MFL Medium flood distribution.

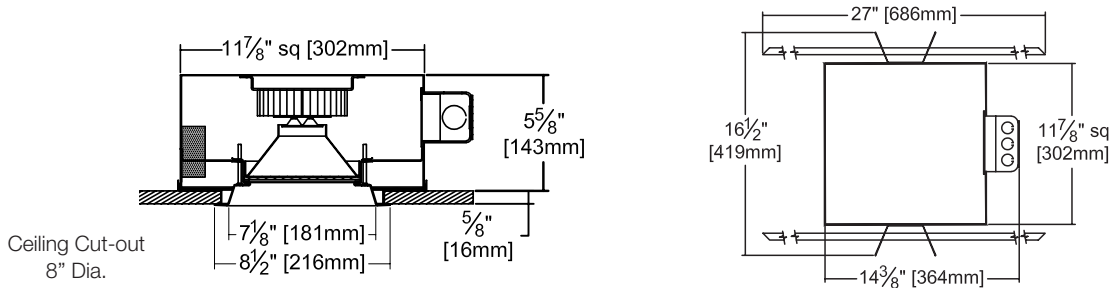
Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance

Dimensions

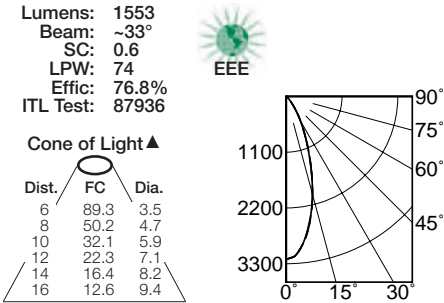


Footcandle Distribution Data

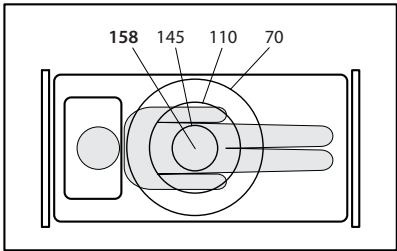
Photometry from I.T.L., Boulder, CO
Photometric testing done
in accordance with IESNA
LM-79-08

- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

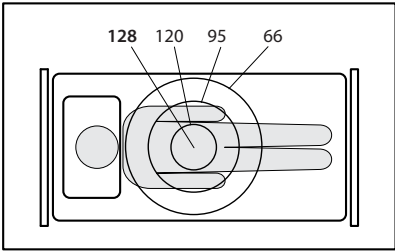
-1500L STANDARD (NFL)



Total System Watts 20.9

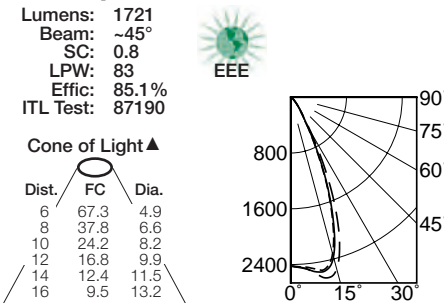


fc on Task: 8' Ceiling 3'6" Work Plane

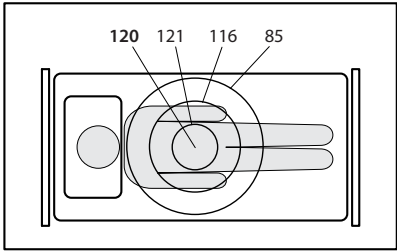


fc on Task: 8'6" Ceiling 3'6" Work Plane

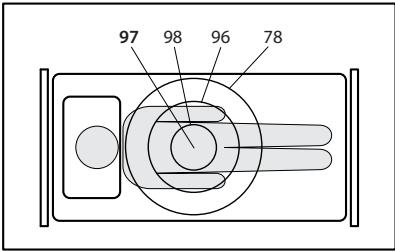
-1500L Option -MFL



Total System Watts 20.8



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

JOB NAME
TYPE
WATTAGE
VOLTAGE
CATALOG NUMBER

APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend the specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Sealed & Gasketed LED Adjustable 8" Exam Light

LM-80 Qualified • LM-79 Certified Photometry
Up to 60,000 Hour Life • Antimicrobial Trim



MRR-08535-5000L
MRR-08535-3500L

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distribution: NFL standard.
- Color temperature: 3500°K standard.
- Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

Center Beam Optics

- Self-aligns with trim for optimal performance.
- Hot aiming by hand.
- Tilts from 0° to 35° in 1° increments and locks in place.
- Rotates full 360° and locks in place.
- Accommodates sloped ceilings up to 35°.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).

- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim.
- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.
- Regressed tempered microprismatic glass lens. See Option -GE for green filter.

5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.
- Meets ASTM E283 restricted airflow of 2 CFM maximum.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.

"IP65 Rated"

LEVEL 2

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year **FIVE YEAR**
Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-08535-5000L-120-30K-EM
Product Number	Voltage	Options	
MRR-08535-5000L MRR-08535-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120 **or** 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.

- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC compliant.

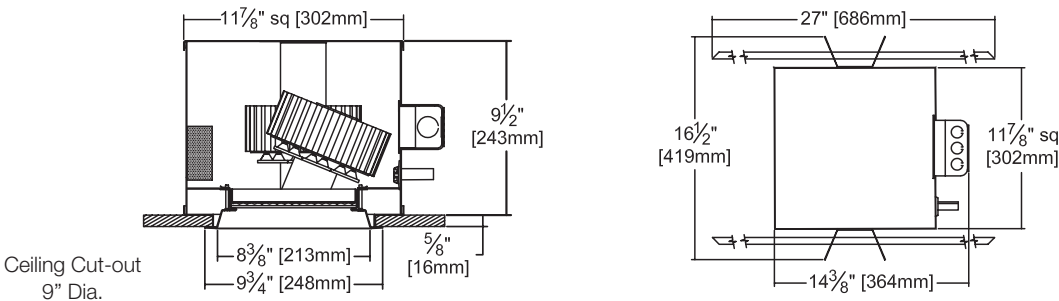
Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Dimensions



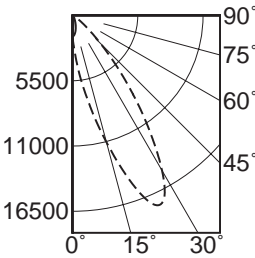
Footcandle Distribution Data

- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

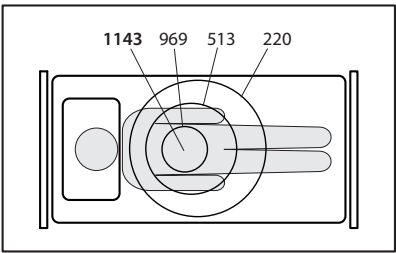
Photometry from I.T.L., Boulder, CO
Photometric testing done
in accordance with IESNA
LM-79-08

-5000L STANDARD (NFL)

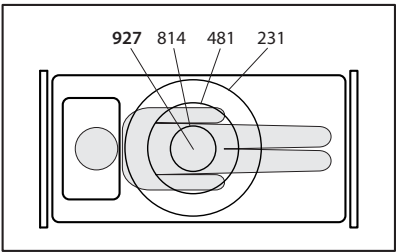
Lumens: 4796
Beam: ~25°
SC: 0.5
LPW: 84
Efficiency: 80.7%
ITL Test: 87781



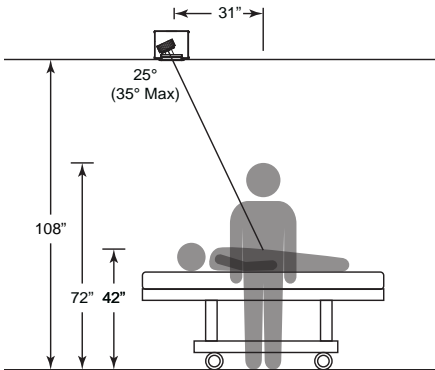
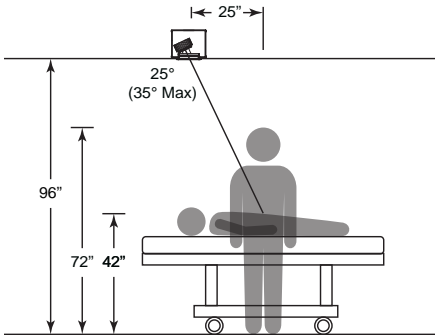
Total System Watts 57.3



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

SUBMITTAL DATA

JOB NAME

TYPE

CATALOG NUMBER

VOLTAGE

APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend the specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Cleanroom / Hybrid OR LED IP65 8" Downlight

MRR-08555-5000L

MRR-08555-3500L

LM-80 Qualified • LM-79 Certified Photometry
Up to 60,000 Hour Life • Antimicrobial Trim



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distributions: NFL standard.
- Optional: -MFL.
- Color temperature: 3500°K standard.
- Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim.

- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.
- Regressed tempered microprismatic glass lens.

Cleanroom, 5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Sealed housing and junction box. Meets/ exceeds ASTM E283 restricted airflow of 2 CFM maximum. CCEA approved.

Sealed Housing & Trim

LEVEL 3

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick or see Option -79.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-08555-5000L-120-30K-MFL
Product Number	Voltage	Options	
MRR-08555-5000L MRR-08555-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).
- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120

or 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.

- EM INTERNAL emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

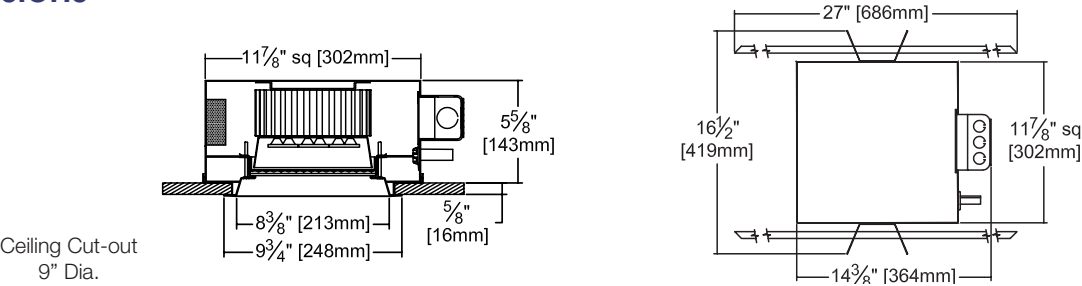
- MFL Medium flood distribution.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

¹ Marked Spacings Caution: Install with minimum spacings as follows: 2 feet between centers of adjacent fixtures; 1/2" between fixture top and overhead building member; 1 foot between fixture center and side wall.

Dimensions



Footcandle Distribution Data

Photometry from UL Verification Services, Allentown, PA

- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

Photometric testing done
in accordance with IESNA
LM-79-08

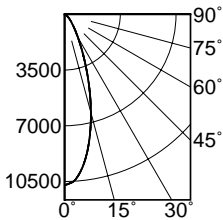
-5000L STANDARD (NFL)

Lumens: 5298
Beam: ~32°
SC: 0.5
LPW: 89
Efficiency: 89.1%
UL Test: 11356591.15

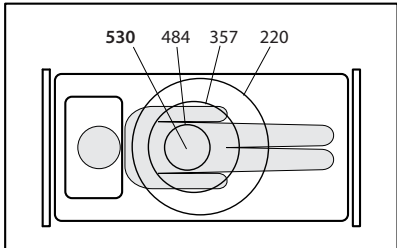


Cone of Light ▲

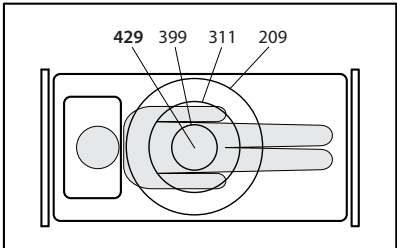
Dist.	FC	Dia.
6	298.0	3.4
8	168.0	4.5
10	107.0	5.7
12	74.6	6.8
14	54.8	7.9
16	42.0	9.1



Total System Watts 59.6



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

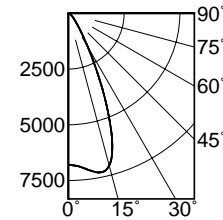
-5000L Option -MFL

Lumens: 5310
Beam: ~46°
SC: 0.8
LPW: 94
Efficiency: 89.3%
UL Test: 11356591.16

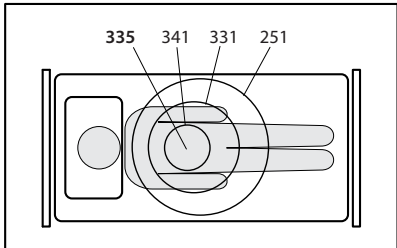


Cone of Light ▲

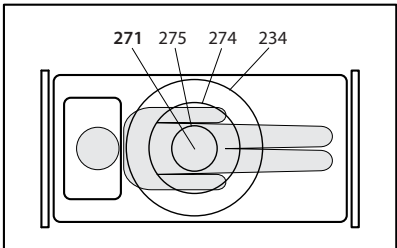
Dist.	FC	Dia.
6	188.0	5.1
8	106.0	6.7
10	67.8	8.4
12	47.1	10.1
14	34.6	11.8
16	26.5	13.5



Total System Watts 56.7



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

See following page for -3500L performance

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from UL Verification Services (UL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME
TYPE
WATTAGE
VOLTAGE
CATALOG NUMBER



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLATION TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Cleanroom / Hybrid OR LED 8" Adjustable

LM-80 Qualified • LM-79 Certified Photometry

Up to 60,000 Hour Life • Antimicrobial Trim

MRR-08558-5000L

MRR-08558-3500L

Specifications



Sealed Housing & Trim

LEVEL 3

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distribution: NFL standard.
- Color temperature: 3500°K standard. Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

Center Beam Optics

- Self-aligns with trim for optimal performance.
- Hot aiming by hand. Tilts from 0° to 35° in 1° increments and locks in place.
- Rotates full 360° and locks in place.
- Accommodates sloped ceilings up to 35°.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.

• 0-10V CCR dimming standard. (100-10%)

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim. Regressed tempered microprismatic glass lens.
- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.

Cleanroom, 5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Sealed housing and junction box. Meets/ exceeds ASTM E283 restricted airflow of 2 CFM maximum. CCEA approved.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Thru-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-08558-5000L-120-30K-EM
Product Number	Voltage	Options	
MRR-08558-5000L MRR-08558-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120 **or** 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC compliant.

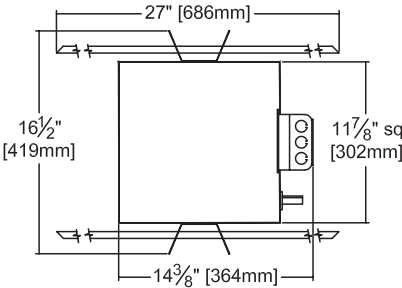
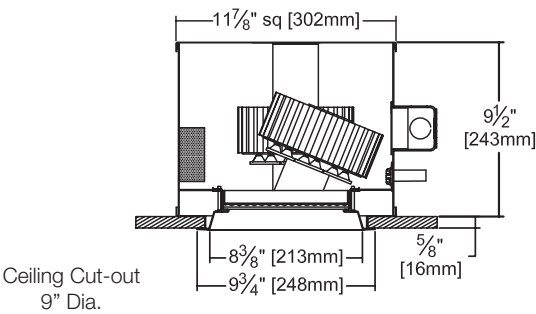
Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Dimensions



Footcandle Distribution Data

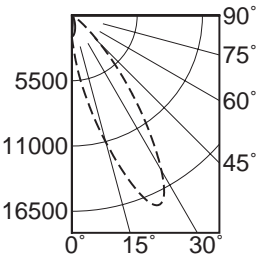
- Notes:
- 1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 - 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

Photometry from I.T.L., Boulder, CO

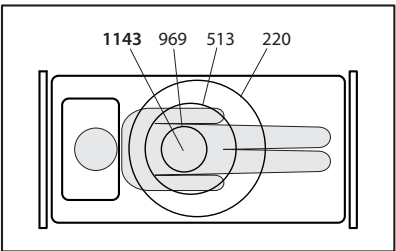
Photometric testing done
in accordance with IESNA
LM-79-08

-5000L STANDARD (NFL)

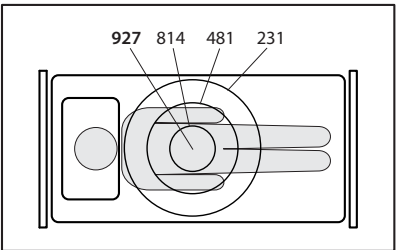
Lumens: 4796
Beam: ~25°
SC: 0.5
LPW: 84
Efficiency: 80.7%
ITL Test: 87781



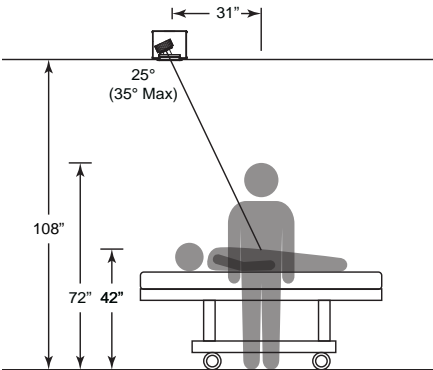
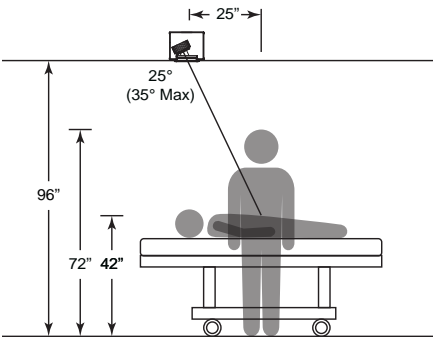
Total System Watts 57.3



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

See following page for
-3500L performance

SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP



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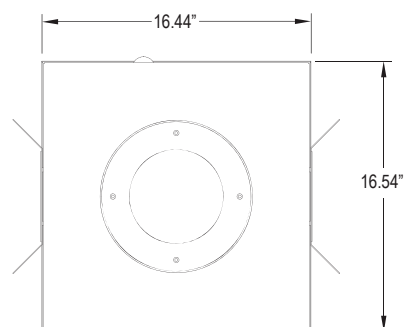
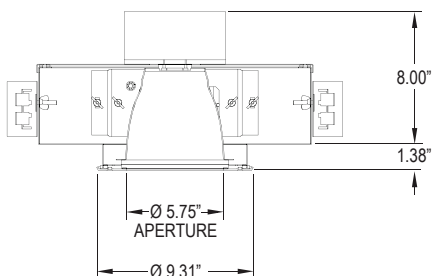
STARMed 6 LED ROUND

CLEANROOM SERIES

LED



DIMENSIONAL DATA



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 6 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Dimming(0-10v) standard
- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 6" aperture
- Enclosure box available for remote applications. 50ft. maximum
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- CleanRoom
- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM6	-	-	-	-	-
DLM6 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000° K* 35 = White 3500° K 40 = White 4000° K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) MS = MIL-STD-461F NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

StarMed 6 LED ROUND



StarMed 6 (82 CRI)

4000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	744	905	11	149,000 HRS.
L2	CLEAR SPECULAR	1,332	1,621	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,536	25	149,000 HRS.
L5	CLEAR SPECULAR	1,934	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,980	2,409	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,270	3,979	52	149,000 HRS.

StarMed 6 (82 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	696	847	11	149,000 HRS.
L2	CLEAR SPECULAR	1,266	1,540	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,562	25	149,000 HRS.
L5	CLEAR SPECULAR	1,936	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,896	2,307	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,000	3,650	52	149,000 HRS.

StarMed 6 (90 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L2	CLEAR SPECULAR	1,200	1,460	29	149,000 HRS.
L6C	CLEAR SPECULAR	1,800	2,190	34	149,000 HRS.
L7C	CLEAR SPECULAR	3,000	3,450	52	149,000 HRS.

StarMed 6 MRI

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L3	CLEAR SPECULAR	535	741	9	149,000 HRS.
L4	CLEAR SPECULAR	976	1,189	19	149,000 HRS.

Notes:

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STARMed 8 LED Round

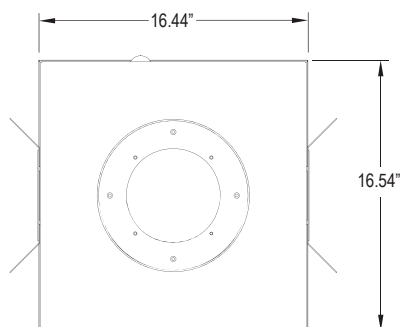
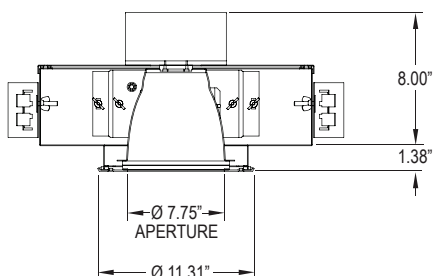
CLEANROOM SERIES

LED



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

DIMENSIONAL DATA



FEATURES

The New Star "StarMed 8 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 8" aperture
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM8	-	-	-	-	-
DLM8 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000* K* 35 = White 3500* K 40 = White 4000* K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

iCE LED Surgical Lighting System



ice 25^{LED}

ice 30^{LED}



iCE LED Surgical Lighting System



Two LED Lighthead Options

ice 30^{LED}

- 30" (762 mm) diameter
- 80 LEDs
- 160,000 lux
- 7.6"-12" (193 - 305 mm) light pattern
- Laminar flow openings

ice 25^{LED}

- 25" (635 mm) diameter
- 52 LEDs
- 160,000 lux or 130,000 lux
- 7.6"-11" (193 - 279 mm) light pattern

Application

The iCE LED Surgical Lighting System is designed to illuminate the surgical field with a cool, bright white light and an adjustable pattern size. The Amico ceiling mount plate is designed to allow for easy installation whether you are upgrading your current lighting or planning a brand new facility.

Description

The iCE LED Surgical Lighting System brings the newest LED technology to the Operating Room. The iCE LED Surgical Lights are designed for superior shadow control, increased depth of field and light intensity. They have a CRI of 95 and an R9 greater than 90, allowing surgeons to easily differentiate between tissues. The 4500K color temperature provides a crisp white light, without the color-fringing or color-shifting properties of multicolor LED's, providing natural color to ensure that the surgical field remains clearly illuminated.

The iCE Surgical Lighting System is upgradeable and customizable and can be ordered in a variety of configurations consisting of multiple lightheads, HD cameras, monitors and future-proof suspension systems. We also offer flush-mounted wall control panels that complement the standard control panels located on each lighthead.

Common Areas of Usage in a Clinical Environment Include:

- Operating Rooms
- Emergency Departments
- Procedure Rooms
- Intensive Care Units



Features

iCE Cool LED's: Not only do the iCE LED's produce a bright white light, but they are extremely COOL! Minimal power is required to illuminate the latest LED technology incorporated into the Amico iCE LED Surgical Lights. This allows surgeons to work comfortably under any combination or number of our lights.



iCE Cool LED's



Eco-Friendly and Long Lasting: Our iCE LED Surgical Lights last a minimum of 50,000 hours, translating into decades of energy cost savings. The ultra-efficient technology leaves a "Green Footprint" wherever it is installed.

Easy to Clean: Crafted with smooth surfaces, our lightheads are exceptionally easy to clean. Furthermore, the iCE lightheads are engineered from robust medical grade material resistant to most cleaning agents.



Easy to Clean

Emergency Bypass: This serves as protection should users experience a circuit board failure due to an electrical surge or malfunction. Simply press the push button located on the yoke and you will bypass the wall and lighthead controls. The light will turn on and off, at full power, until you switch off the emergency mode. This minimizes down time and enables the lighthead to be used even while repair parts are ordered.



Emergency Bypass

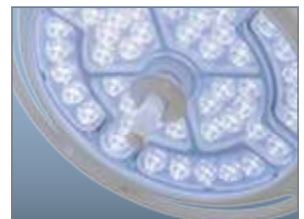
Shadow Reduction and Deep Cavity Illumination: This is created with multiple overlapping beams and adjustable by turning a centrally mounted handle to create a long, homogeneous column of light. This allows surgeons to effortlessly direct a precise light pattern into the surgical field while providing the ideal balance of shadow reduction and deep cavity illumination.

Focusable Light Pattern: The integrated manual focus handle allows clinicians to intuitively and comfortably focus the iCE LED Surgical Light or extend working distances (beyond 1 meter) in the surgical field. Just a short turn of the sterile focus handle will maximize light intensity without having to reposition the lightheads.



Control Panel

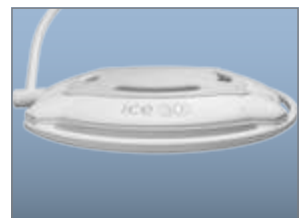
HD Video Camera: Each lighthead is offered with an HD Camera, camera ready or without camera depending on your needs. All cameras come network ready and offer functions such as focus, zoom, brightness, rotation, freeze and source select as standard features.



Endoscopy light

Lighthead and Wall Control Panels: Each lighthead comes with a yoke-mounted control panel which includes five dimming levels, depth mode for deeper light penetration, endo mode for low light during endoscopy procedures and a sync function that enables users to synchronize multiple lights. Our flush mounted wall control panels are another convenient way to control the lights outside the sterile field.

The Coolest Endoscopy Light: Four tiny LED's create an unparalleled, uniform glow in the room allowing surgeons to concentrate on the monitors during endoscopy procedures in darkened rooms.



Thin and Lightweight

Thin and Lightweight: The iCE LED Surgical Light boasts an extremely thin profile and is lightweight, making it very easy to maneuver to any desired position on our suspension arms.

Laminar Flow Design: The ultra thin design of the Amico iCE LED Surgical Lights allow for effective laminar flow in the Operating Room. For the iCE 30 specifically, we have engineered four stylish openings to aid in laminar flow movement.



Laminar Flow Design

Suspension System: Designed with the user in mind, the suspension system gives you unrestricted rotation of the lighthead around its own axis and allows greater movement.

Video Integration

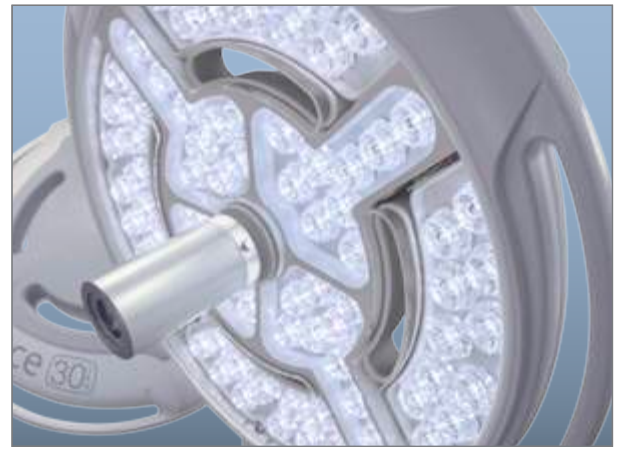
Amico's in-light HD camera offers users the ability to replace a centrally mounted focusing handle with an HD camera that doubles as a light focusing handle. With a 3,000,000 pixel resolution CMOS chip, up to 120x stable zoom, working distance from 10 mm to 1000 mm and a signal to noise ratio that exceeds 50 dB; Amico's HD camera is guaranteed to meet the demanding needs of the Operating Room.

The camera is encased in a sealed, impact-resistant aluminum housing with a tool-free quick disconnect system. A locking cable connector prevents accidental disengagement. The quick disconnect system also ensures a single camera can be shared amongst multiple lightheads. Adding an HD camera does not compromise lighthead functionality nor optical performance.

The camera coupled with an integration system enables users to document surgical procedures for both teaching and archival purposes. With the integration system, all functions of the camera can also be controlled remotely with the camera control box. Functions such as zoom, focus, brightness, freeze and camera rotation come standard.

Note:

- The lightheads must be purchased with the camera-ready adder to allow Amico's in-light HD camera to work
- Software modifications may need to be made if a non-certified integration company is used



Standard Accessories

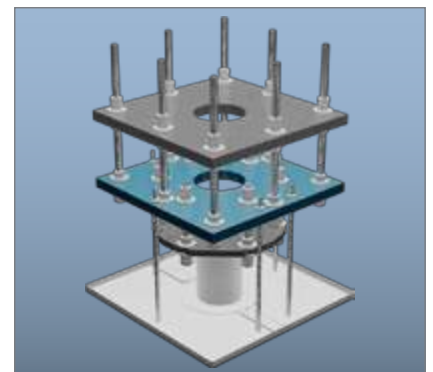
Amico offers a variety of standard accessories:

- Sterile disposable covers for the non-sterilizable handle used for adjusting the pattern of the light beam
- Sterile disposable covers for the in-light HD camera
- Sterilizable handles which allow the user to autoclave the handle before each use



Support Structure

The hospital or contractor supplied and installed ceiling structure must be level and meet all structural requirements. These requirements, as specified in the client-specific submittal package, must be met to ensure the best and safest results from the Amico supplied structure.



Installation

Amico provides a single or tandem mounting plate for installation to the hospital-provided ceiling structure. This mounting plate can be located anywhere in the room as designated by the architect: above the center of the surgical table or to the right, left, top or bottom of it. A ceiling cover is also provided to help close off and cover this opening to create a seamless Operating Room.

The standard wall control is provided with a 30' cable allowing it to be mounted anywhere in the vicinity of the lights. All required rough-ins are the hospital's responsibility. A drawing of the back box cut-out is provided at time of purchase.

Construction

Amico's iCE LED Surgical Lighting System was designed with the Surgeon and the Operating Room in mind. Robust and durable, the iCE LED Surgical Lights are made from the highest quality materials. The materials chosen are capable of withstanding most cleaning agents while the seamless design guarantees easy cleaning. The material strength also ensures that the iCE LED Surgical Lights are capable of withstanding impacts without getting damaged or shattering.

With over 95% light transmission, the single plastic front screen used on the Amico iCE LED Surgical Lights allows the maximum amount of light transmission. The drift-free suspension system available in both single and dual yokes enables the user to always have full freedom of movement regardless of room conditions.

Amico's confidence in the quality and durability of our iCE LED Surgical Lights is supported by our industry leading 5 year warranty.

Preventative Maintenance

All maintenance listed in our user manual must be completed within specified time periods to ensure the longevity of the product. All repairs must be completed either by Amico technicians or by Amico-certified technicians.

OR Lights and Booms... Innovating from Above



Specifications and Listings



Performance	Units	ice 30 ⁱ _B	ice 25 ⁱ _B	ice 25 ⁱ _B
		160,000	160,000	130,000
Lighthead Diameter	in (cm)	30 (76)	25 (64)	25 (64)
Light Intensity (Central Luminance)	lx (fc)	160,000 (14,870)	160,000 (14,870)	130,000 (12,080)
Brightness Control	%	5 - 100	5 - 100	5 - 100
Light Field Diameter	in (cm)	7.6 - 12 (19 - 31) ¹	7.6 - 11 (19 - 28) ¹	7.6 - 11 (19 - 28) ¹
Depth of Illumination (L1+L2) at 60%	in (cm)	27.25 - 48 (69 - 122)	28.5 - 48.25 (72 - 123)	28.5 - 48.25 (72 - 123)
Depth of Illumination (L1+L2) at 20%	in (cm)	42 (107)	46.20 (117)	46.20 (117)
Color Rendering Index (Ra)		95 ²	95 ²	95 ²
R9		>90	>90	>90
R13		97 ²	97 ²	97 ²
Color Temperature (Standard)	K	4,500 ³	4,500 ³	4,500 ³
Shadow Dilution				
Single Mask	%	44	41	41
Double Mask	%	41	41	41
Cavity	%	97	100	100
Single Mask with Cavity	%	41	39	39
Double Mask with Cavity	%	40	39	39
Number of LED's (main)		80	52	52
Number of Other LED's		320	208	208
LED Service Life	hours	50,000	50,000	50,000
Total Radiant Power at Max Intensity	W/m ²	415.3	519	421.7
Power Consumption at Lighthead	w @ 24 VDC	200	150	150
Electricity (VAC)		Universal VAC	Universal VAC	Universal VAC
Emergency Bypass		Yes	Yes	Yes
Mounting Options		Ceiling, Wall	Ceiling, Wall	Ceiling, Wall
Certificates		ETL, FDA	ETL, FDA	ETL, FDA

All tests conducted per 60601-2-41 standard • ¹LFD has a tolerance of 5% • ²CRI has a tolerance of 2.5% • ³CCT has a tolerance of 15%



Amico Clinical Solutions Corp. 85 Fulton Way, Richmond Hill, ON L4B 2N4, Canada
71 East Industry Court, Deer Park, NY 11729, USA

Toll Free Tel: 1.877.462.6426 | Toll Free Fax: 1.866.440.4986 | Tel: 905.764.0800 | Fax: 905.764.0862 | www.amico.com



MRI

SECTION I: SmartLED™ MRI - THE TURNKEY KIRLIN SYSTEM

SMARTLED™ NON FERROMAGNETIC LUMINAIRES

- Award winning **1500** lumen and **2500** lumen ambient downlights, adjustable task lighting and wall washes. Wall sconces and surface mount available.
- Up to 4 spacing criteria available: From 0.3 (SPT) for task lighting to 1.1 (WFL) for ambient lighting.



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Product Innovation Award



SMARTLED™ SCENIC PANELS

- Beautiful photography or custom art with soothing back lighting in 2x2 recessed panels with flared reveal.
- Creates a calming environment to reduce patient stress and assist in the healing process.
- Limitless configurations available to maximize impact and match the unique dimensions of each suite.



2011 IES Progress
Report Selections

SMARTSUPPLY™ REMOTE DRIVER

- Controls up to twelve fixtures (**1500L** Series) or twelve Scenic Panels or six fixtures (**2500L** Series).
- Dims to 0.2% permitting finely tuned light levels.
- 3 zones of dimming for luminaires.
- Conveniently mounted outside the shield
















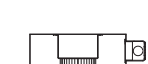






SMARTFILTER™ RFI/EMI FILTER

- **PROVEN** to work with MRI equipment (up to 7 Tesla) from all of the major manufacturers.
- Industry leading RFI/EMI protection.
- Superior insertion loss of 100dB (minimum)
- Easily installed on exterior surface of shield

SECTION I: SmartLED™ MRI LUMINAIRE SYSTEM






















		Design	Function	Aperture (Inches)	Product #	Performance		Page
						Lumens	Watts	
1500 LUMEN MRI DOWNLIGHT, ADJUSTABLE AND WALL WASH LUMINAIRES								10-11
		Open Appearance	Downlight	4	MRR-04200-1500L	1500	20	10
		Open Appearance	Downlight	6	MRR-06205-1500L	1500	20	
		Open Appearance	Adjustable	4	MRR-04220-1500L	1500	20	
		Open Appearance	Wall Wash	4	MRR-04225-1500L	1500	20	
		Flare with Regressed Lens	Downlight	6	MRR-06230-1500L	1500	20	11
		Flare with Regressed Lens	Downlight	6	MRR-06235-1500L	1500	20	
		IP65 Infection Control	Downlight	7	MRR-07240-1500L	1500	20	
		Square Flare with Regressed Lens	Downlight	4	MRS-04245-1500L	1500	20	
MRI SCONCES - ADA COMPLIANT - ONLY 2½" PROTRUSION FROM WALL								14
		Round Center Field Edge Glow	Sconce	14	MSR-14250		20	14
		Square Center Field Edge Glow	Sconce	10	MSS-10255		20	

SMARTLED™ MRI TABLE OF CONTENTS - CONTINUED ON PAGES 8-9

PLEASE VISIT www.kirlinlighting.com FOR KIRLIN INCANDESCENT MRI LIGHTING PRODUCTS IN KIRLIN'S PATIENT EXAM & HEALTHCARE LIGHTING CATALOG (BULLETIN 08HC).

SECTION I: SmartLED™ MRI LUMINAIRE SYSTEM


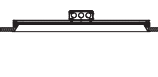




		Design	Function	Aperture (Inches)	Product #	Performance		Page
						Lumens	Watts	
2500 LUMEN MRI DOWNLIGHT, ADJUSTABLE AND WALL WASH LUMINAIRES								12-13
		Open Appearance Lensed	Downlight	6	MRR-06420-2500L	2500	35	12
		Open Appearance Lensed	Adjustable	6	MRR-06422-2500L	2500	35	
		Open Appearance Lensed	Wall Wash	6	MRR-06424-2500L	2500	35	
		Flare with Regressed Lens	Downlight	6	MRR-06426-2500L	2500	35	13
		Flare with Regressed Lens	Downlight	6	MRR-06427-2500L	2500	35	
		IP65 Infection Control	Downlight	8	MRR-08428-2500L	2500	35	
		Surface Mount Flat Trim	Downlight	12	MSR-12440-2500L	2500	35	
		K-Lens Recessed Square	Downlight	8	MRS-08470-2500L	2500	35	
LUMINAIRE AND SCONCE SYSTEM COMPONENTS								14
	Required For Luminaires	SmartSupply™ (1400mA)	Remote Driver		LPS-1220A			15
	Required For Luminaires	SmartFilter™	RFI/EMI Filter		RFI-3100D			
	Optional For Luminaires	SmartPower™ (Optional)	Emergency Power Supply		EMI-21220			
DOWNLIGHTING TYPICAL SYSTEM CONFIGURATION AND PHOTOMETRIC PERFORMANCE								16
TYPICAL SYSTEM CONFIGURATIONS FOR DOWNLIGHTING								17
TYPICAL WIRING OVERVIEW AND WIRING DIAGRAM FOR LUMINAIRES								18-19
DOWNLIGHTING LUMINAIRE SYSTEM DESIGN GUIDE AND CHECKLIST								20

PLEASE VISIT www.kirlinlighting.com FOR KIRLIN INCANDESCENT MRI LIGHTING PRODUCTS IN KIRLIN'S PATIENT EXAM & HEALTHCARE LIGHTING CATALOG (BULLETIN 08HC).

SECTION I: SmartLED™ MRI SCENIC PANEL SYSTEM



	Design	Function	Aperture (Inches)	Product #	Performance Watts	Page
		Scenic Panel: 2'x2' Building Block Configuration	24	MRP-22290	20	21
SCENIC PANEL IMAGES						22
SCENIC PANEL CONFIGURATIONS & PRODUCT SPECIFICATION GUIDE						23
	Required For Scenic Panels	SmartSupply™ (700mA)	Remote Driver	LPS-0700A		24
	Required For Scenic Panels	SmartFilter™	RFI/EMI Filter	RFI-3100D		
TYPICAL SYSTEM CONFIGURATION FOR SCENIC PANELS & SCENIC PANEL CHECKLIST						25
TYPICAL WIRING OVERVIEW AND WIRING DIAGRAM FOR SCENIC PANELS						26-27

SECTION I: SmartLED™ MRI SCENIC PANEL SYSTEM

SMARTLED™ SCENIC PANELS

- Beautiful photography or custom art with soothing back lighting in 2x2 recessed panels with flared reveal.
- Creates a soothing environment to reduce patient stress and assist in the healing process.
- Configurable overall size to suit the unique dimensions of each MRI suite.

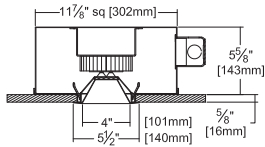


MRI LUMINAIRE SYSTEM: 1500 LUMEN SERIES (-1500L)



Downlights

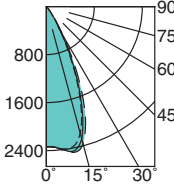
4"



1538 LUMENS
20W
MFL (STD)
SC: 0.8
LPW: 74

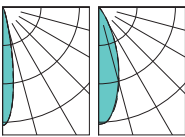
PERFORMANCE (-1500L SERIES)

Cone of Light ▲



Dist.	FC	Dia.
6	64.9	4.9
8	36.5	6.6
10	23.4	8.2
12	16.2	9.9
14	11.9	11.5
16	9.1	13.2

-SPT



Lm: 1629
SC: 0.3

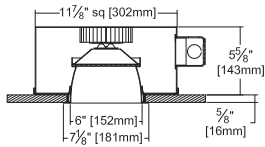
-NFL



Lm: 1428
SC: 0.6

MRR-04200-1500L

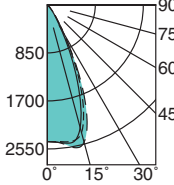
6"



1670 LUMENS
20W
MFL (STD)
SC: 0.8
LPW: 80

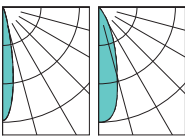
PERFORMANCE (-1500L SERIES)

Cone of Light ▲



Dist.	FC	Dia.
6	67.2	5.0
8	37.8	6.7
10	24.2	8.3
12	16.8	10.0
14	12.3	11.6
16	9.4	13.3

-SPT



Lm: 1706
SC: 0.3

-NFL

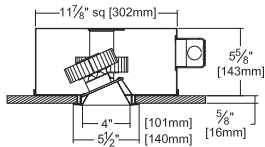


Lm: 1588
SC: 0.6

MRR-06205-1500L

Adjustable

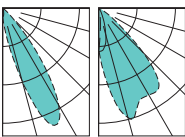
4"



1564 LUMENS
20W
NFL (STD)
SC: 0.5
LPW: 75

PERFORMANCE (-1500L SERIES)

-SPT



Lm: 1566
SC: 0.4

-MFL



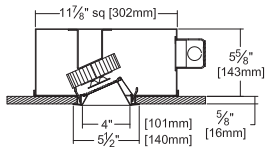
Lm: 1557
SC: 0.8

MRR-04220-1500L



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4"

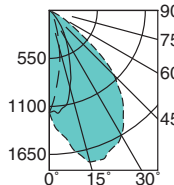


1375 LUMENS
20W
LPW: 66

PERFORMANCE (-1500L SERIES)

▲ Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC
Dia. (in ft.) shown is where FC value is half the FC at nadir.



MRR-04225-1500L

Use of both Kirlin SmartSupply™ LPS-1220A (1400mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

MRI LUMINAIRE SYSTEM: 1500 LUMEN SERIES (-1500L)

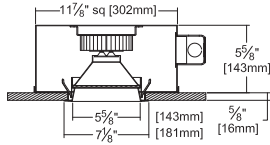


Lensed Downlights

6"



MRR-06230-1500L



1721 LUMENS

20W

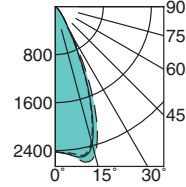
MFL (STD)

SC: 0.8

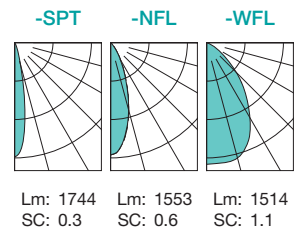
LPW: 83

PERFORMANCE (-1500L SERIES)

Cone of Light ▲



Dist.	FC	Dia.
6	67.3	4.9
8	37.8	6.6
10	24.2	8.2
12	16.8	9.9
14	12.4	11.5
16	9.5	13.2

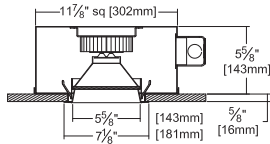


Lm: 1744 SC: 0.3 Lm: 1553 SC: 0.6 Lm: 1514 SC: 1.1

6"



MRR-06235-1500L



1721 LUMENS

20W

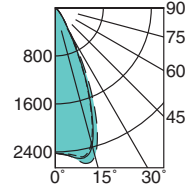
MFL (STD)

SC: 0.8

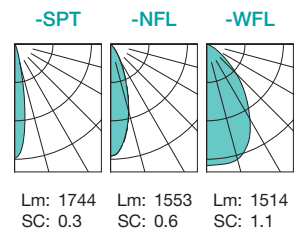
LPW: 83

PERFORMANCE (-1500L SERIES)

Cone of Light ▲



Dist.	FC	Dia.
6	67.3	4.9
8	37.8	6.6
10	24.2	8.2
12	16.8	9.9
14	12.4	11.5
16	9.5	13.2



Lm: 1744 SC: 0.3 Lm: 1553 SC: 0.6 Lm: 1514 SC: 1.1

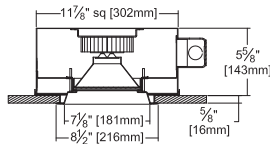
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Product Innovation Award



7"



MRR-07240-1500L



1721 LUMENS

20W

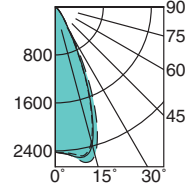
MFL (STD)

SC: 0.8

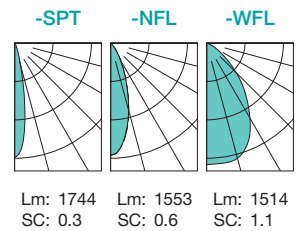
LPW: 83

PERFORMANCE (-1500L SERIES)

Cone of Light ▲



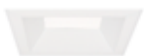
Dist.	FC	Dia.
6	67.3	4.9
8	37.8	6.6
10	24.2	8.2
12	16.8	9.9
14	12.4	11.5
16	9.5	13.2



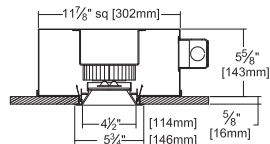
Lm: 1744 SC: 0.3 Lm: 1553 SC: 0.6 Lm: 1514 SC: 1.1



4"



MRS-04245-1500L



1606 LUMENS

20W

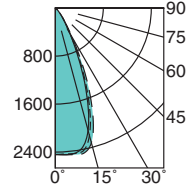
MFL (STD)

SC: 0.8

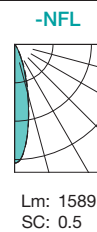
LPW: 76

PERFORMANCE (-1500L SERIES)

Cone of Light ▲



Dist.	FC	Dia.
6	67.8	4.7
8	38.1	6.3
10	24.4	7.8
12	16.9	9.4
14	12.4	11.0
16	9.5	12.5



Lm: 1589 SC: 0.5

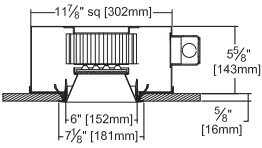
Use of both Kirlin SmartSupply™ LPS-1220A (1400mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

MRI LUMINAIRE SYSTEM: 2500 LUMEN SERIES (-2500L)

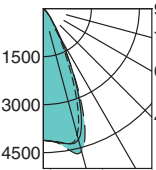


6"

Downlight



3058 LUMENS
35W
MFL (STD)
SC: 0.8
LPW: 87

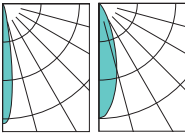


PERFORMANCE (-2500L SERIES)

Cone of Light ▲

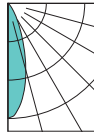
Dist.	FC	Dia.
6	114.3	5.1
8	64.3	6.8
10	41.2	8.5
12	28.6	10.2
14	21.0	11.9
16	16.1	13.6

-SPT



Lm: 3168
SC: 0.3

-NFL

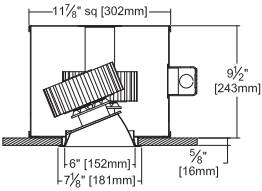


Lm: 2922
SC: 0.6

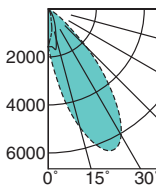
MRR-06420-2500L

6"

Adjustable

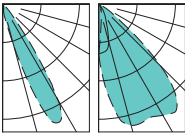


2732 LUMENS
35W
NFL (STD)
SC: 0.6
LPW: 78



PERFORMANCE (-2500L SERIES)

-SPT



Lm: 3008
SC: 0.3

-MFL

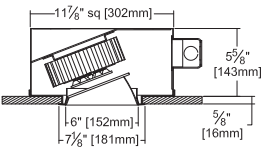


Lm: 2997
SC: 0.8

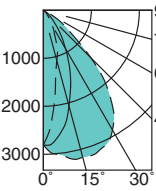
MRR-06422-2500L

6"

Wall Wash



2772 LUMENS
35W
LPW: 79



PERFORMANCE (-2500L SERIES)

▲ Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC
Dia. (in ft.) shown is where FC value is half the FC at nadir.

MRR-06424-2500L

Use of both Kirlin SmartSupply™ LPS-1220A (1400mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

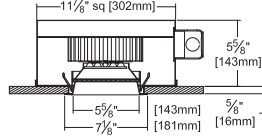
MRI LUMINAIRE SYSTEM: 2500 LUMEN SERIES (-2500L)



Lensed Downlights

6"

MRR-06426-2500L



2993 LUMENS

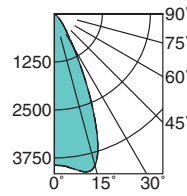
35W

MFL (STD)

SC: 0.8

LPW: 81

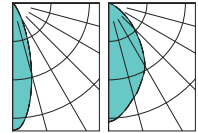
PERFORMANCE (-2500L SERIES)



Cone of Light ▲

Dist.	FC	Dia.
6	109.0	5.0
8	61.6	6.7
10	39.4	8.4
12	27.4	10.0
14	20.1	11.7
16	15.4	13.4

-NFL



Lm: 2888
SC: 0.5

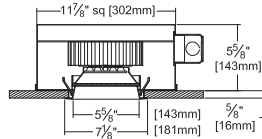
-WFL



Lm: 2379
SC: 1.0

6"

MRR-06427-2500L



2993 LUMENS

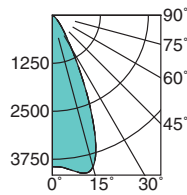
35W

MFL (STD)

SC: 0.8

LPW: 81

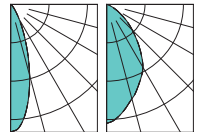
PERFORMANCE (-2500L SERIES)



Cone of Light ▲

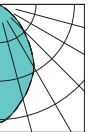
Dist.	FC	Dia.
6	109.0	5.0
8	61.6	6.7
10	39.4	8.4
12	27.4	10.0
14	20.1	11.7
16	15.4	13.4

-NFL



Lm: 2888
SC: 0.5

-WFL

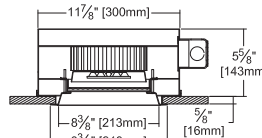


Lm: 2379
SC: 1.0

IP65 Downlight

8"

MRR-08428-2500L



3030 LUMENS

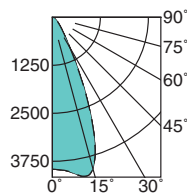
35W

MFL (STD)

SC: 0.8

LPW: 82

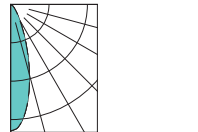
PERFORMANCE (-2500L SERIES)



Cone of Light ▲

Dist.	FC	Dia.
6	110.0	4.9
8	61.7	6.6
10	39.5	8.2
12	27.4	9.9
14	20.2	11.5
16	15.4	13.1

-NFL

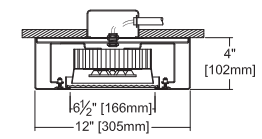


Lm: 3010
SC: 0.5

Surface Downlight

12"

MSR-12440-2500L



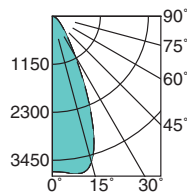
3147 LUMENS

35W

SC: 0.8

LPW: 89

PERFORMANCE (-2500L SERIES)



Cone of Light ▲

Dist.	FC	Dia.
6	103.0	4.9
8	58.1	6.6
10	37.2	8.2
12	25.8	9.7
14	19.0	11.5
16	14.5	13.2

-NFL

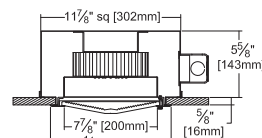


Lm: 3010
SC: 0.5

Lensed Downlight

8"

MRS-08470-2500L



2693 LUMENS

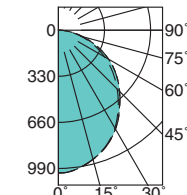
35W

WFL (STD)

SC: 1.2

LPW: 76

PERFORMANCE (-2500L SERIES)



Cone of Light ▲

Dist.	FC	Dia.
6	28.4	7.1
8	16.0	9.5
10	10.2	11.9
12	7.1	14.3
14	5.2	16.6
16	4.0	19.0

▲ Cone of Light Key

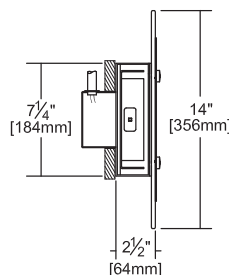
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC
Dia. (in ft.) shown is where FC value is half the FC at nadir.

Use of both Kirlin SmartSupply™ LPS-1220A (1400mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

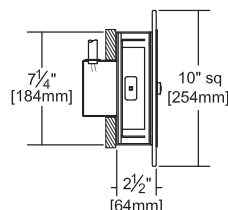
MRI SCONCE SYSTEM: ADA COMPLIANT - 2½" FROM THE WALL



MSR-14250



MSS-10255



LED Light Engine

- 1300 lumen, 20 watt LED array
- 3500°K CCT standard
- 90,000 hours (L70)
- Fully sustainable: Removable for servicing

Sconce Assembly

- Decorative brushed aluminum faceplate and housing with clear 1/4" acrylic diffuser
- Illuminated center field and edge glow.

Brushed Anodized Aluminum Housing

- 2 ½" depth meets all ADA requirements
- All aluminum construction maximizes cool operation and component life
- Optional housing and faceplate finishes

Installation

- Wall or ceiling mount
- Universal back plate mounts to any non-ferromagnetic octagon or 4" square J-box (provided by others).



Red Wing
Red
Option -RE



Circadian
Red / Amber
Option -RA



Tiger
Orange
Option -OR



Wolverine
Maize
Option -YE



Spartan
Green
Option -GN



Lion
Blue
Option -BL



Custom
Image / Logo
Option -CI

Use of both Kirlin SmartSupply™ LPS-1220A (1400mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

POPULAR LUMINAIRE AND SCONCE OPTIONS

DOWNLIGHTS

Input Power: SPECIFY

- 120 120V (50-60Hz) input.
- 277 277V (50-60Hz) input.
- 97 Specify other voltage. Consult factory.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. Use with Option -27K or -30K only. Reduces output by ~15%.

Optics

- NFL Narrow flood distribution.
- SPT Spot distribution.
- WFL Wide flood distribution.

Lenses & Trims

- 13 Vandal resistant dual lens system: prismatic high strength acrylic above, clear poly below, instead of standard lens.
- 17 .187" prismatic high strength acrylic lens instead. Also see Option -26.
- 21 White translucent flat poly diffuser instead.

- 23 Frosted microprismatic lens instead.
- 26 Tamper-resistant button head recessed hex screw with center pin and 1 key / 10 fixtures.
- 30 All white acrylic enameled cone.
- 31 White acrylic enameled flange (only) on cone.
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.
- 70 SofTex Clear self-flanged cone. (CP x .95)
- 94 Custom color/finish. Specify. Consult factory.
- BG Antimicrobial Kirlin BioGard™ white (only) trim finish.
- WA White acrylic (flat) diffuser instead.

Surface Housing Finishes (White Standard)

- 35 Natural aluminum (silver) acrylic enamel.
- 38 Black acrylic enamel.
- 94 Custom color. Specify. Consult factory.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.

SCONCES

Faceplate & Housing

- 30 White baked enamel finish instead.
- 38 Black baked enamel finish instead.
- 94 Custom color/finish. Specify. Consult factory.
- BG Antimicrobial Kirlin BioGard™ white (only) finish.

Colors: Center Field & Edge Glow

- BL Blue (filter).
- CF Custom (filter) color (Rosco). Specify.
- GN Green (filter).
- OR Orange (filter).
- RA Red amber (filter).
- RE Red (filter).
- YE Yellow (filter).

Other

- CI Custom image (color/logo) in center field of sconce.

(See specification sheets for availability and details.)

MRI SmartSupply™ REMOTE DIMMING DRIVER - REQUIRED



LPS-1220A



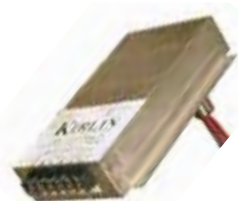
2011 IES Progress
Report Selection

- Full range 100% to 0.2% dimming and 3 dimming zones. See page 18 or consult factory for compatible controls.
- Over wattage, cross channel, and electrical fast transient (EFT) protection.
- Mounted outside MRI shield (not directly to shield).
- Input: 115-277VAC / 50-60Hz rated. Dedicated 120VAC input recommended. For 277VAC input, proper line filtering and surge protection must be provided (by others). **Maximum continuous input voltage is 290VAC.**
- **Requires 16 AWG (minimum) twisted pair shielded wire from SmartSupply™ to luminaires.**
- FIVE YEAR Limited Warranty.

	With 1500 Lumen Series (-1500L) SmartLED™ Luminaires	With 2500 Lumen Series (-2500L) SmartLED™ Luminaires
(6) Channels (Circuits)	Up to (2) luminaires / channel	(1) luminaire / channel
	Up to (12) luminaires / SmartSupply™	Up to (6) luminaires / SmartSupply™
Maximum Distance Per Channel	(1) luminaire / channel: 150 feet	(1) luminaire / channel: 150 feet
	(2) luminaires / channel: 50 feet *	

*Distance to the farthest fixture

SmartFilter™ DC RFI / EMI FILTER - REQUIRED



RFI-3100D



2011 IES Progress
Report Selection

- Industry leading RFI and EMI protection
- Superior insertion loss of 100 dB (min.)
- Fully protects 20 kHz to 1.0 GHz
- **One filter protects up to three SmartSupply™ channels**
- Up to two filters required per SmartSupply™
- Mounted on outside surface of MRI shield
- FIVE YEAR Limited Warranty

SmartPower™ EMERGENCY BACKUP SYSTEM - OPTIONAL



EMI-21220

- High efficiency pure sine wave inverter
- Operates up to two fully loaded SmartSupply™ drivers
- 100% light output for up to 2 hours
- 120 / 277V, 60Hz input
- May be mounted up to 1000 feet from load
- Less than 0.05 seconds transfer time
- UL 924 Listed. Meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements
- THREE YEAR Limited Warranty. SEVEN YEAR pro-rata battery warranty

MRI SYSTEM ORDERING EXAMPLE

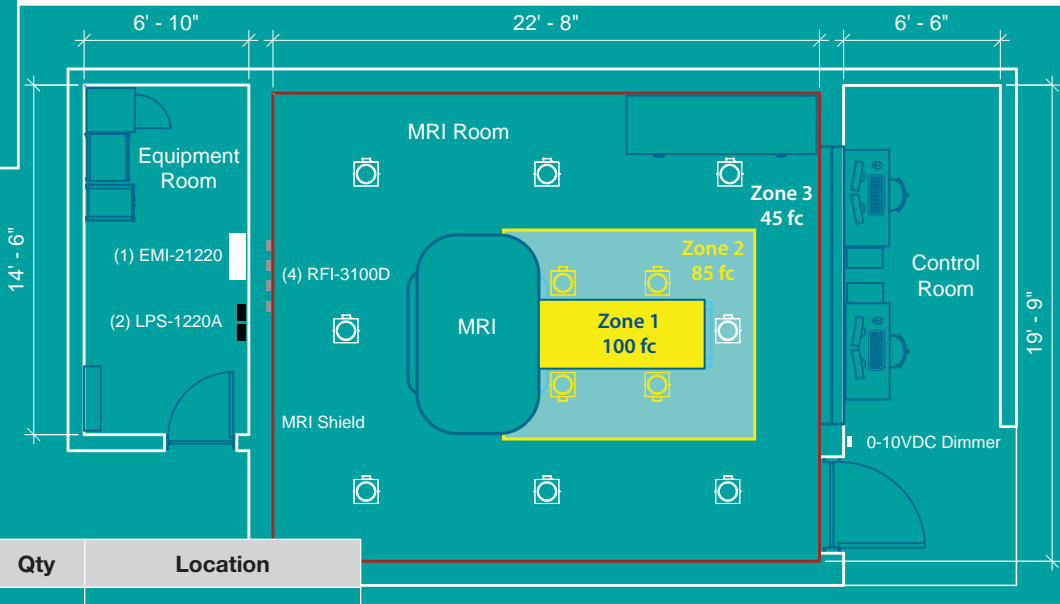
Quantity	Product	Description
12	MRR-06205-1500L-120V-41K-WFL	Luminaires
1	LPS-1220A	SmartSupply™ (1400mA) driver (required)
2	RFI-3100D	SmartFilter™ DC RFI/EMI filter (required)

MRI LUMINAIRE SYSTEM: TYPICAL CONFIGURATION



Photo courtesy of Haselden Construction

Typical MRI Suite Lighting Zones and Component Locations



PRODUCTS

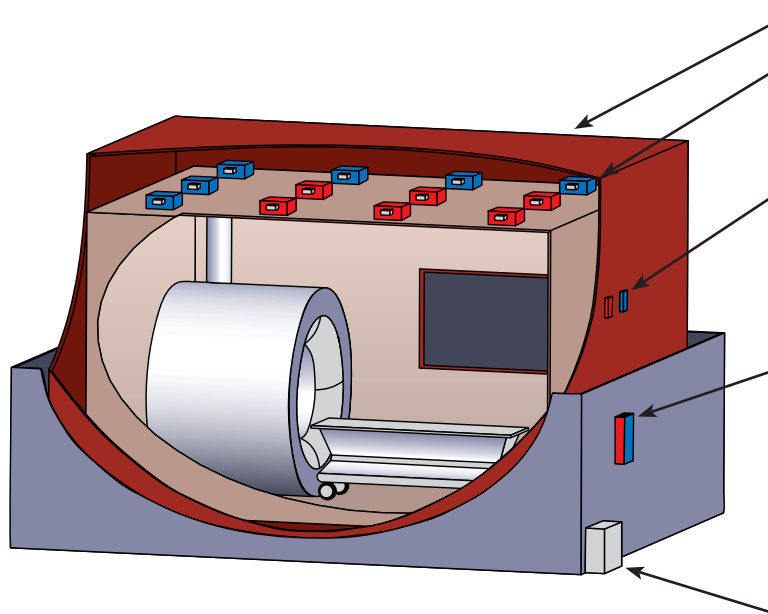
Product Type	Product #	Qty	Location
Adjustable Task Lighting	MRR-06424	4	Over the transfer table
Fixed Ambient Downlights	MRR-06426	8	Perimeter of MRI room
Remote Drivers	LPS-1220A	2	Outside the MRI shield
EMI/RFI Filters	RFI-3100D	4	On the MRI shield
Emergency Inverter	EMI-21220	1	Outside the MRI shield
0-10VDC Dimmers	See page 26	2	In the control room

PHOTOMETRIC PERFORMANCE

Zone	Location	fc	Luminaires	
			Product #	Qty
1	Transfer Table	100	MRR-06424	4
2	Near Transfer Table	85		
3	MRI Perimeter	45	MRR-06426	8

MRI LUMINAIRE SYSTEM: TYPICAL CONFIGURATIONS

1500 LUMEN (20W) LUMINAIRES



RFI / EMI Shield

Kirlin SmartLED™ Luminaire

- Up to (12) 20W luminaires per SmartSupply
- Up to (2) luminaires per SmartSupply channel (circuit).
- Each color represents (1) set of (3) channels

Kirlin SmartFilter™ **RFI-3100D** (Required)

- (1) filter protects up to (3) SmartSupply channels. Each color represents (1) set of (3) channels
- Up to (2) filters required per SmartSupply
- Mounted on outside surface of MRI shield

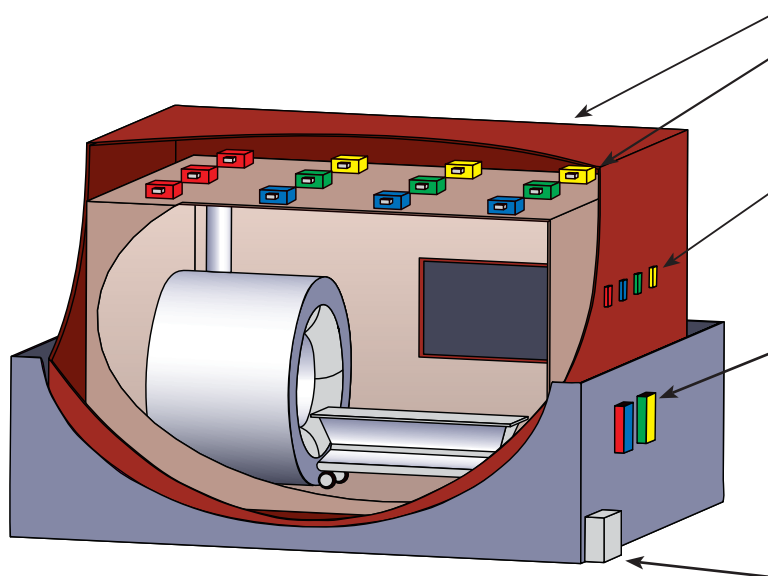
Kirlin SmartSupply™ **LPS-1220A** (Required)

- (6) channels
 - Up to (2) luminaires per channel
 - Up to (12) luminaires per SmartSupply
- Max distance per channel
 - 150' with (1) luminaire per channel
 - 50' with (2) luminaires per channel
- Mounted outside MRI shield (not directly to shield)

Kirlin SmartPower™ **EMI-21220** (Optional)

- Max distance from load: 1000'
- Mounted outside MRI shield (not directly to shield)

2500 LUMEN (35W) LUMINAIRES



RFI / EMI Shield

Kirlin SmartLED™ Luminaire

- Up to (6) 35W luminaires per SmartSupply
- (1) luminaire per SmartSupply channel (circuit).
- Each color represents (1) set of (3) channels

Kirlin SmartFilter™ **RFI-3100D** (Required)

- (1) filter protects up to (3) SmartSupply channels. Each color represents (1) set of (3) channels
- Up to (2) filters required per SmartSupply
- Mounted on outside surface of MRI shield

Kirlin SmartSupply™ **LPS-1220A** (Required)

- (6) channels
 - Up to (1) luminaire per channel
 - Up to (6) luminaires per SmartSupply
- Max distance per channel:
 - 100' with (1) luminaire per channel
- Mounted outside MRI shield (not directly to shield)

Kirlin SmartPower™ **EMI-21220** (Optional)

- Max distance from load: 1000'
- Mounted outside MRI shield (not directly to shield)

MRI LUMINAIRE SYSTEM: TYPICAL WIRING OVERVIEW

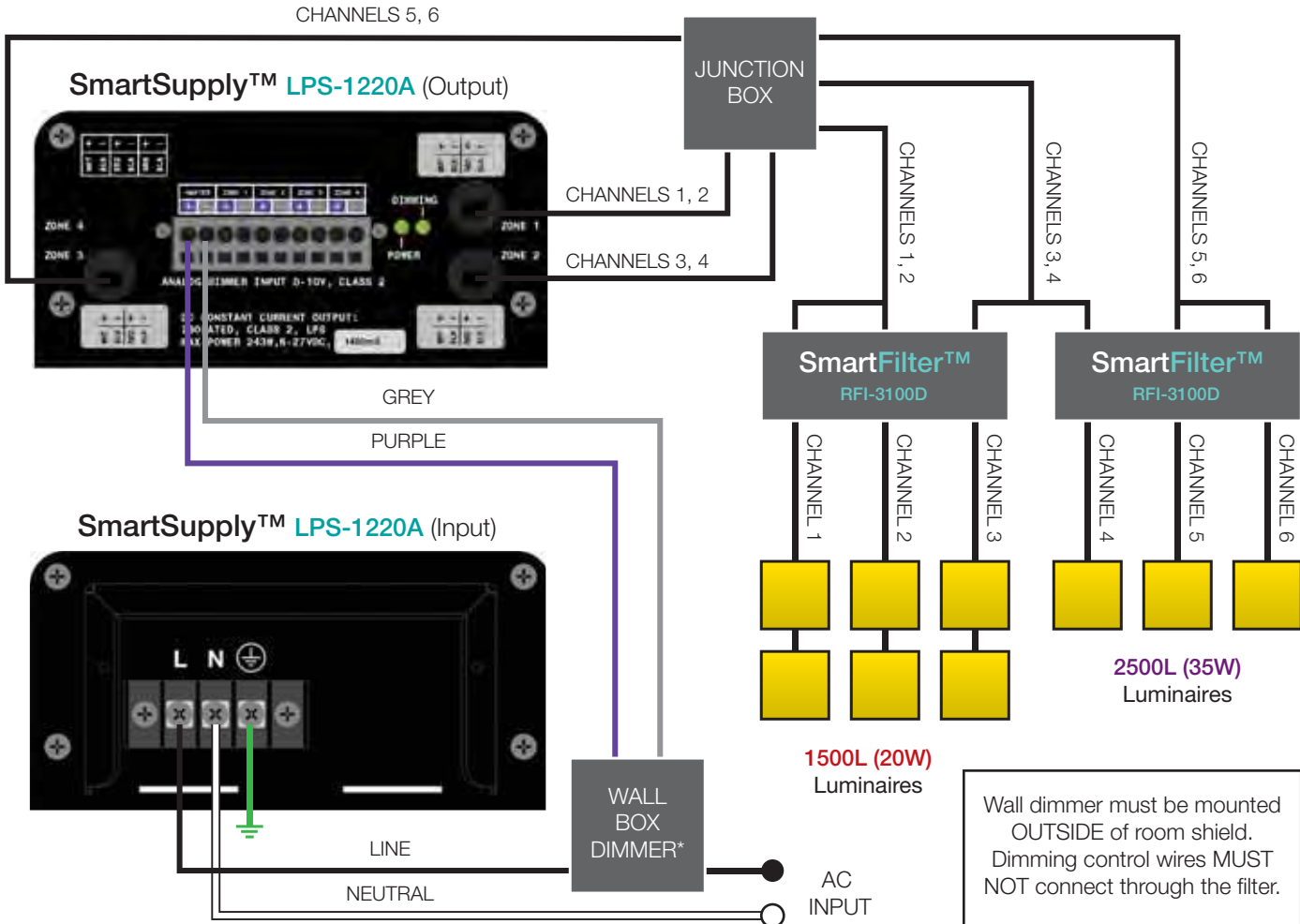
This wiring overview provides dimming control for zones 1, 2 and 3 simultaneously with a 0-10V DC dimmer* connected to the master 0-10V DC input of the SmartSupply™.

Shown with:

- (1) SmartSupply™ **LPS-1220A**
- (2) SmartFilters™ **RFI-3100D**
- (6) **1500** Lumen Series (20W) Luminaires
- (3) **2500** Lumen Series (35W) Luminaires
- (1) Wall Box Dimmer*

Use of both Kirlin SmartSupply (1400mA) and SmartFilter are required to maintain Kirlin warranty.

Requires 16 AWG (minimum) twisted pair shielded wire from SmartSupply (1400mA) to luminaires.



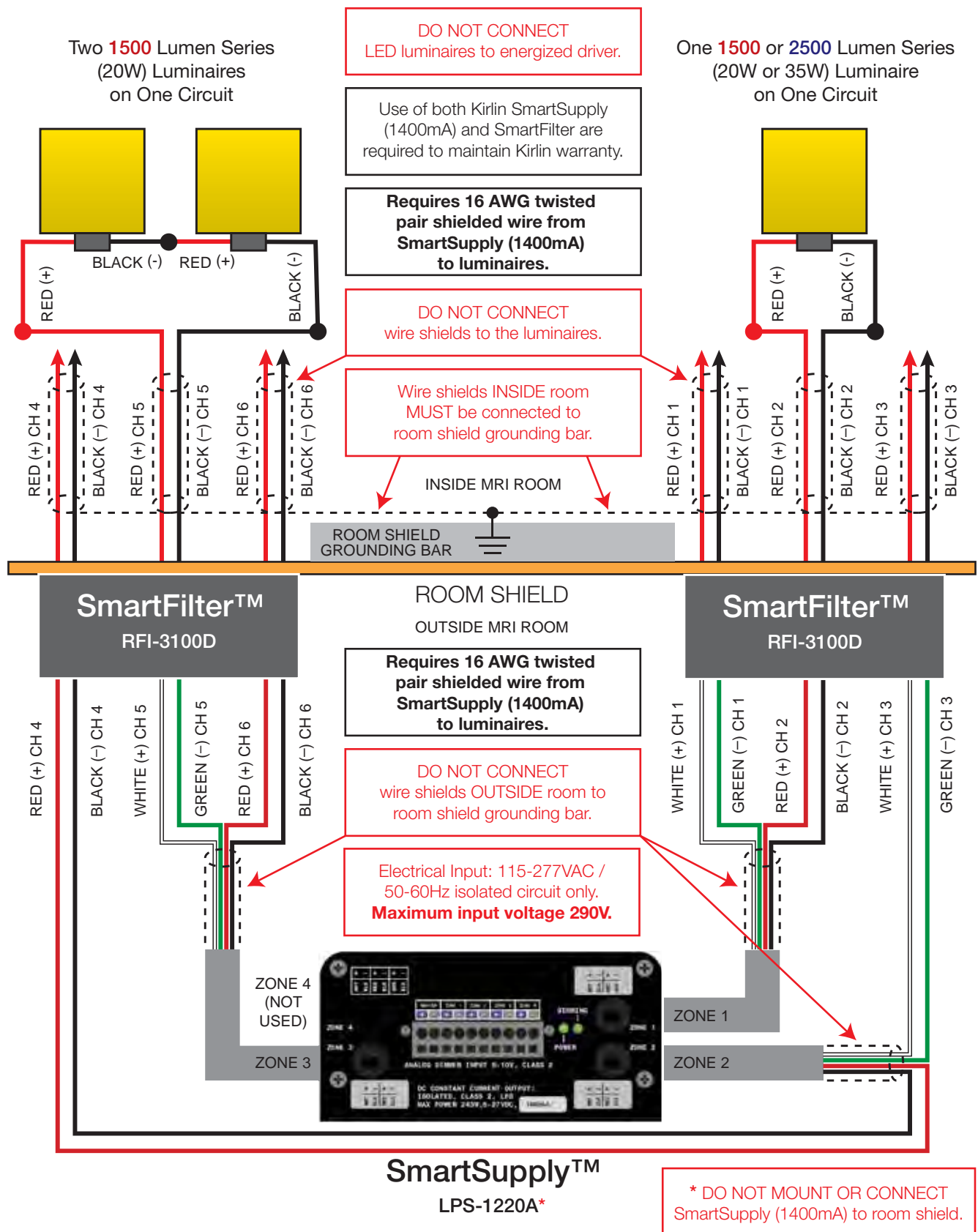
* Kirlin recommends using the following compatible 0-10V DC dimmers:

Leviton	IP710-DLX	
Lightolier	ZP600FAM-XXX	Sunrise
	MP1500FAM-XXX	Momentum
	V2000FAMU	Vega
Acuity	ISD BC	

Lutron	NFTV **		Nova
	NTSTV-DV **		Nova T
	DVTV		Divia
	DVSTV **		Divia
	V-600	w/GRX-TVI	Vareo

** WARNING! WHEN USING LUTRON NFTV OR NTSTV-DV LOW-VOLTAGE 0-10V DIMMERS, DO NOT SPECIFY OR INSTALL LUTRON PP-SERIES POWER PACKS. USE OF PP-SERIES POWER PACKS MAY CAUSE DAMAGE TO THE SMARTSUPPLY™ THAT IS NOT COVERED UNDER WARRANTY.

MRI LUMINAIRE SYSTEM: WIRING DIAGRAM



FOR MORE INFORMATION ON KIRLIN'S SMARTLED™ MRI LIGHTING SYSTEMS, INCLUDING SPECIFICATION SHEETS AND OWNER'S MANUALS (INCLUDING INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS), PLEASE VISIT www.kirlinlighting.com AND GO TO YOUR MYKIRLIN PORTAL.

MRI LUMINAIRE SYSTEM: DESIGN GUIDE

Recommended Luminaires		Ceiling Height		Recessed					Surface
				Ambient		Task	Accent	Infection Control *	Ambient
		Lower Ceilings (8'-9')	Higher Ceilings (8'-12')	Wide Distribution	Specifiable Distribution	Patient Table (Aimable)	Wall Wash		Wide Distribution
1500 Lumen Series (20W)	MRR-04200	■		■	■			○	
	MRR-06205	■		■	■			○	
	MRR-04220	■		■	■	■		○	
	MRR-04225	■					■	○	
	MRR-06230	■		■	■			○	
	MRR-06235	■		■	■			○	
	MRR-07240	■		■	■			■	
	MRS-04245	■		■	■			○	
2500 Lumen Series (35W)	MRR-06420		■	■	■			○	
	MRR-06422		■	■	■	■		○	
	MRR-06424		■				■	○	
	MRR-06426		■	■	■			○	
	MRR-06427		■	■	■			○	
	MRR-08428		■	■	■			■	
	MSR-12440		■	■				○	■
	MRS-08470		■	■				○	

* Infection Control Key

- BioGard™ antimicrobial white finish standard.
○ BioGard™ antimicrobial white finish (Option -BG) optional.

MRI LUMINAIRE / SCONCE SYSTEM: CHECK LIST

- ☐ 1. Select the type and quantity of SmartLED™ Luminaires. See pages 10-13 for available models.
- ☐ 2. Determine the quantity and remote location of the SmartSupply(s). See page 15.
- ☐ 3. Determine the quantity of SmartFilters™. See page 15.
- ☐ 4. Select dimming controls. See page 18.
- ☐ 5. Determine the quantity and remote location (outside MRI shield) of the dimming controls.

SEE THE LPS-1220A (MRI 1400mA SMARTSUPPLY™) AND RFI-3100D (MRI SMARTFILTER™) OWNER'S MANUALS FOR INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS AT www.kirlinlighting.com MYKIRLIN PORTAL.

MRI SCENIC PANEL SYSTEM: MRP-22290 SERIES



- Selection of beautiful smooth panel artwork attractively and uniformly illuminated
- Wave guide lens provides superior uniform illumination
- Driverless, 20 watt, low voltage, Class II, DC powered.
- Regressed trim provides architectural “skylight” effect
- Ultra-shallow (2”) recessed aluminum housing
- Lays into 2' x 2' grid ceiling
- 100-0.2% full range dimming
- 60,000 hours (L70) life
- Requires remote SmartSupply™ LPS-0700A and SmartFilter™ RFI-3100D. See page 25 for quantities required



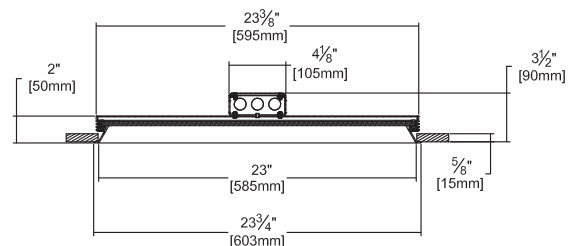
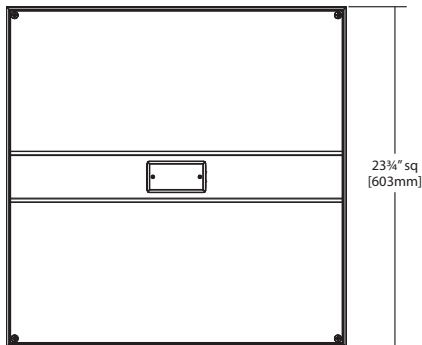
MRP-22290



Regressed bevel provides architectural “skylight” effect.



Use multiple 2' x 2' Scenic Panels to create a soothing and attractive luminous ceiling.



Ultra-shallow (2”) aluminum housing requires minimal plenum space.

Use of both Kirlin SmartSupply™ LPS-0700A (700mA) and SmartFilter™ RFI-3100D are required to maintain Kirlin warranty.

MRI SCENIC PANEL SYSTEM: IMAGES

ARTWORK

Select artwork by adding the option code (i.e., -A01) of the respective artwork. For custom artwork, use Option -A99.



-A01



-A02



-A03



-A04



-A05



-A06



-A99

Custom Artwork Preferred Image Resolution

1800 x 1800 pixels (or greater)
per 24" x 24" panel.

See "Overall Size and Orientation" table on page 23 for preferred image resolution for each configuration.

* For custom artwork, customer is responsible for supplying the artwork and obtaining the appropriate usage rights.

DIVIDING AND CROPPING ARTWORK

When specifying size, orientation and artwork, consider how the image will be divided and cropped.







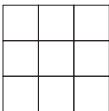
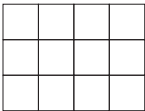
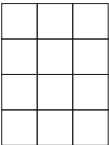
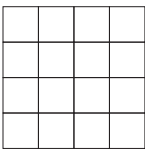
For example:

-4x4	-6x4	-4x6

To see how your artwork will divided and cropped, consult factory.

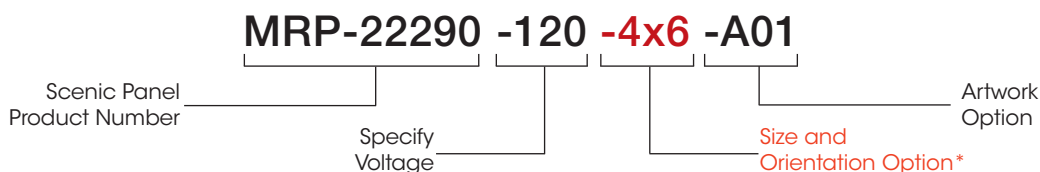
MRI SCENIC PANEL SYSTEM: PANEL CONFIGURATIONS

1. Use MRP-22290 as base catalog number, then add configurations and selections as follows.
2. Choose overall size and orientation of the display using the "Overall Size and Orientation" table below.
3. Select artwork with option codes (i.e., -A01). Consider how the artwork will be displayed. See "Dividing and Cropping Artwork".
4. Add appropriate quantity of SmartSupply™ LPS-0700A and SmartFilter™ RFI-3100D (details follow).
5. Following the submission of your order, and before production, you will receive a proof for your review and approval.

		Overall Size and Orientation					
		Landscape			Portrait		
Nominal Dimensions	Fixture Qty	Arrangement	Option	Preferred Resolution (Pixels)	Arrangement	Option	Preferred Resolution (Pixels)
2' x 2'	1		-2x2	1800 x 1800			
2' x 4'	2		-4x2	3600 x 1800		-2x4	1800 x 3600
4' x 4'	4		-4x4	3600 x 3600			
4' x 6'	6		-6x4	5400 x 3600		-4x6	3600 x 5400
6' x 6'	9		-6x6	5400 x 5400			
6' x 8'	12		-8x6	7200 x 5400		-6x8	5400 x 7200
8' x 8'	16		-8x8	7200 x 7200			
Custom Size		-9x9 Specify number of panels and orientation of artwork.					

SCENIC PANEL PRODUCT SPECIFICATION EXAMPLE

Example:



*-4x6 is not the same as -6x4, see above.

MRI SCENIC PANEL: SmartSupply™ DRIVER - REQUIRED

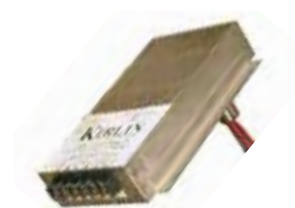


LPS-0700A

- Full range 100% to 0.2% dimming and 3 dimming zones. See page 26 or consult factory for compatible controls.
- Over wattage, cross channel, and electrical fast transient (EFT) protection.
- Mounted outside MRI shield (not directly to shield).
- Input: 115-277VAC / 50-60Hz rated. Dedicated 120VAC input recommended. For 277VAC input, proper line filtering and surge protection must be provided (by others). **Maximum continuous input voltage is 290VAC.**
- **Requires 16 AWG (minimum) twisted pair shielded wire from SmartSupply™ to luminaires.**
- FIVE YEAR Limited Warranty.

	With Scenic Panels (20W)
(12) Channels (Circuits)	(1) scenic panel / channel
	Up to (12) scenic panels / SmartSupply™
Maximum Distance Per Channel	150 feet

SmartFilter™ DC RFI / EMI FILTER - REQUIRED



RFI-3100D

- Industry leading RFI and EMI protection
- Superior insertion loss of 100 dB (min.)
- Fully protects 20 kHz to 1.0 GHz
- One filter protects up to three Scenic Panel SmartSupply™ channels
- Up to four filters required per Scenic Panel SmartSupply™
- Mounted on outside surface of MRI shield
- FIVE YEAR Limited Warranty



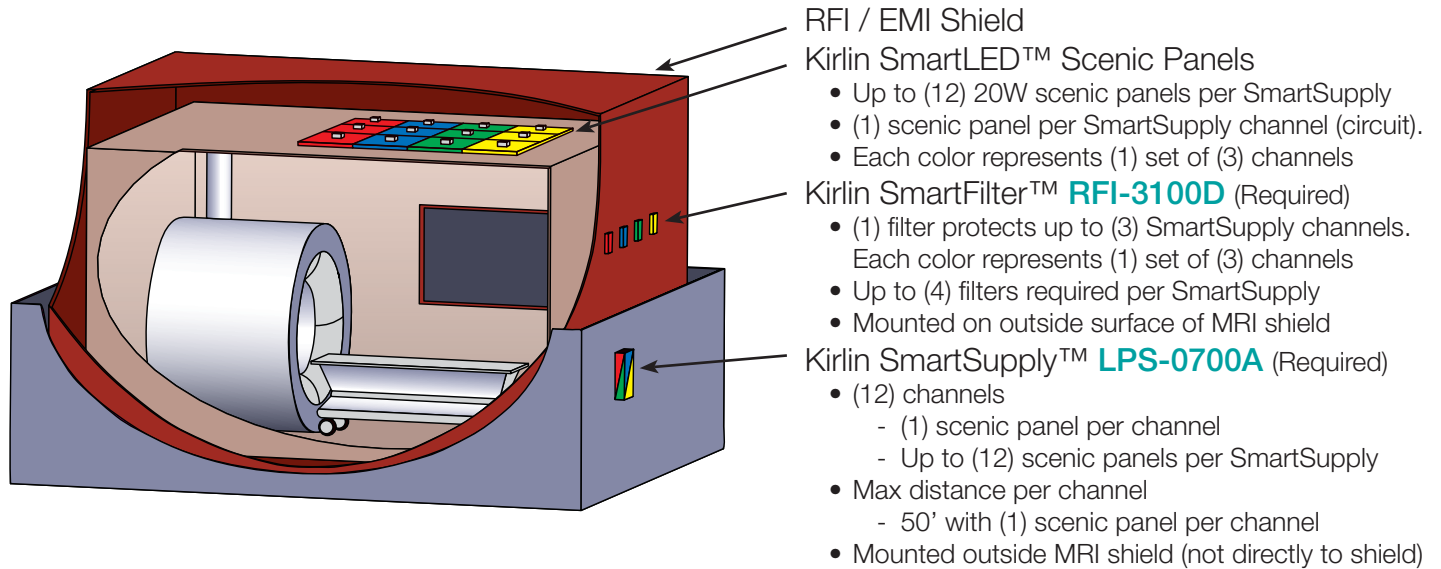
2011 IES Progress Report Selection

MRI SCENIC PANEL SYSTEM ORDERING EXAMPLE

Quantity	Product	Description
12	MRP-22290-120V-6x4-A03	Scenic Panels
1	LPS-0700A	Scenic Panel SmartSupply™ (700mA) driver (required)
4	RFI-3100D	SmartFilter™ DC RFI/EMI filter (required)

MRI SCENIC PANEL SYSTEM: TYPICAL CONFIGURATION

SCENIC PANELS (20W)



MRI SCENIC PANEL SYSTEM: CHECK LIST

- ☐ 1. Select the quantity and layout of SmartLED™ scenic panels. See page 23.
- ☐ 2. Select the image. Consider how the image will be oriented, cropped and divided. See page 22.
- ☐ 3. Determine the quantity and remote location of the SmartSupply(s). See page 24.
- ☐ 4. Determine the quantity of SmartFilters™. See page 24.
- ☐ 5. Select dimming controls. See page 26.
- ☐ 6. Determine the quantity and remote location (outside MRI shield) of the dimming controls.

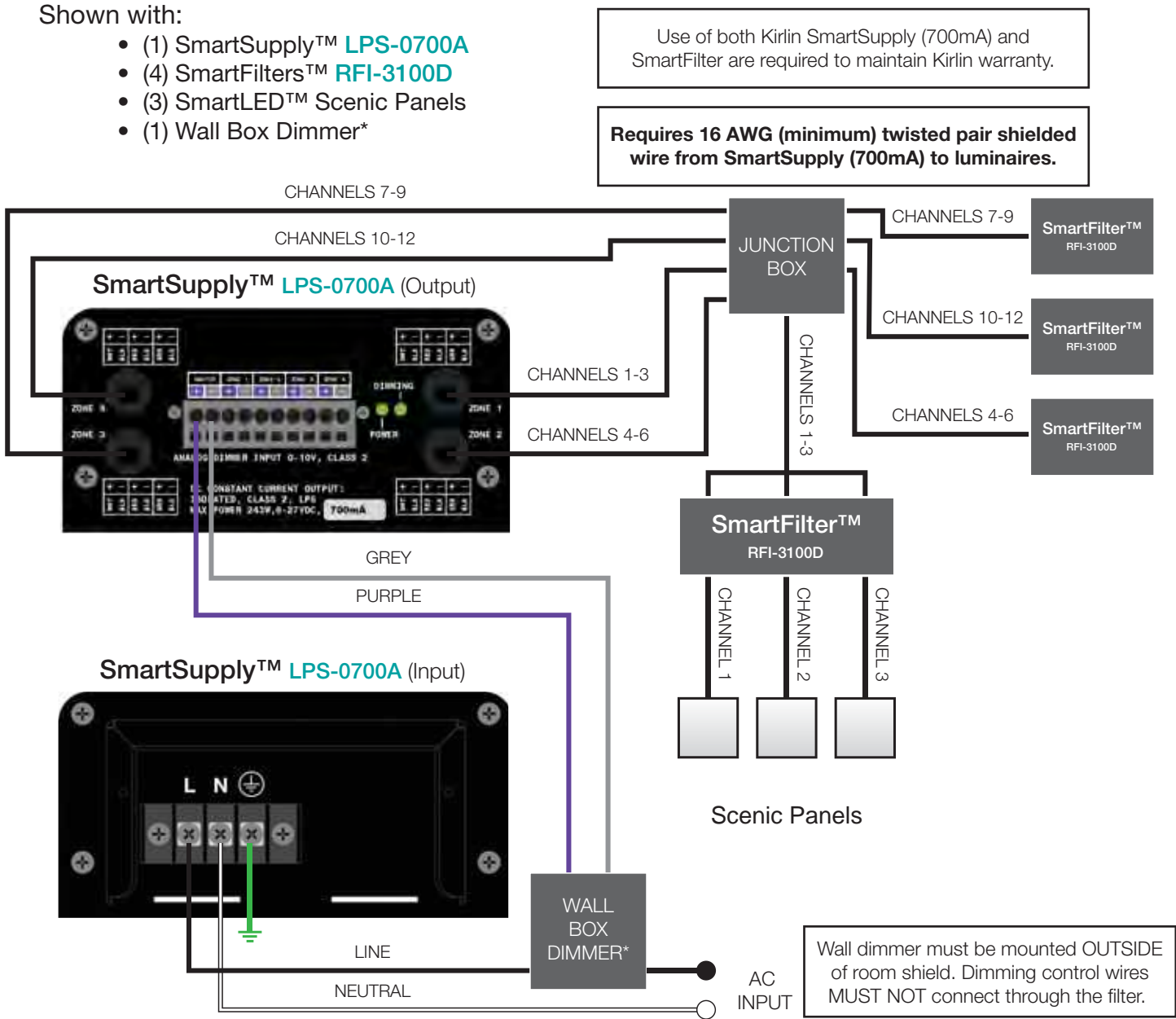
SEE THE LPS-0700A (MRI SCENIC PANEL SMARTSUPPLY™) AND RFI-3100D (MRI SMARTFILTER™) OWNER'S MANUALS FOR INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS AT www.kirlinlighting.com MYKIRLIN PORTAL.

MRI SCENIC PANEL SYSTEM: TYPICAL WIRING OVERVIEW

This wiring overview provides dimming control for zones 1, 2 and 3 simultaneously with a 0-10V DC dimmer* connected to the master 0-10V DC input of the SmartSupply™.

Shown with:

- (1) SmartSupply™ LPS-0700A
- (4) SmartFilters™ RFI-3100D
- (3) SmartLED™ Scenic Panels
- (1) Wall Box Dimmer*



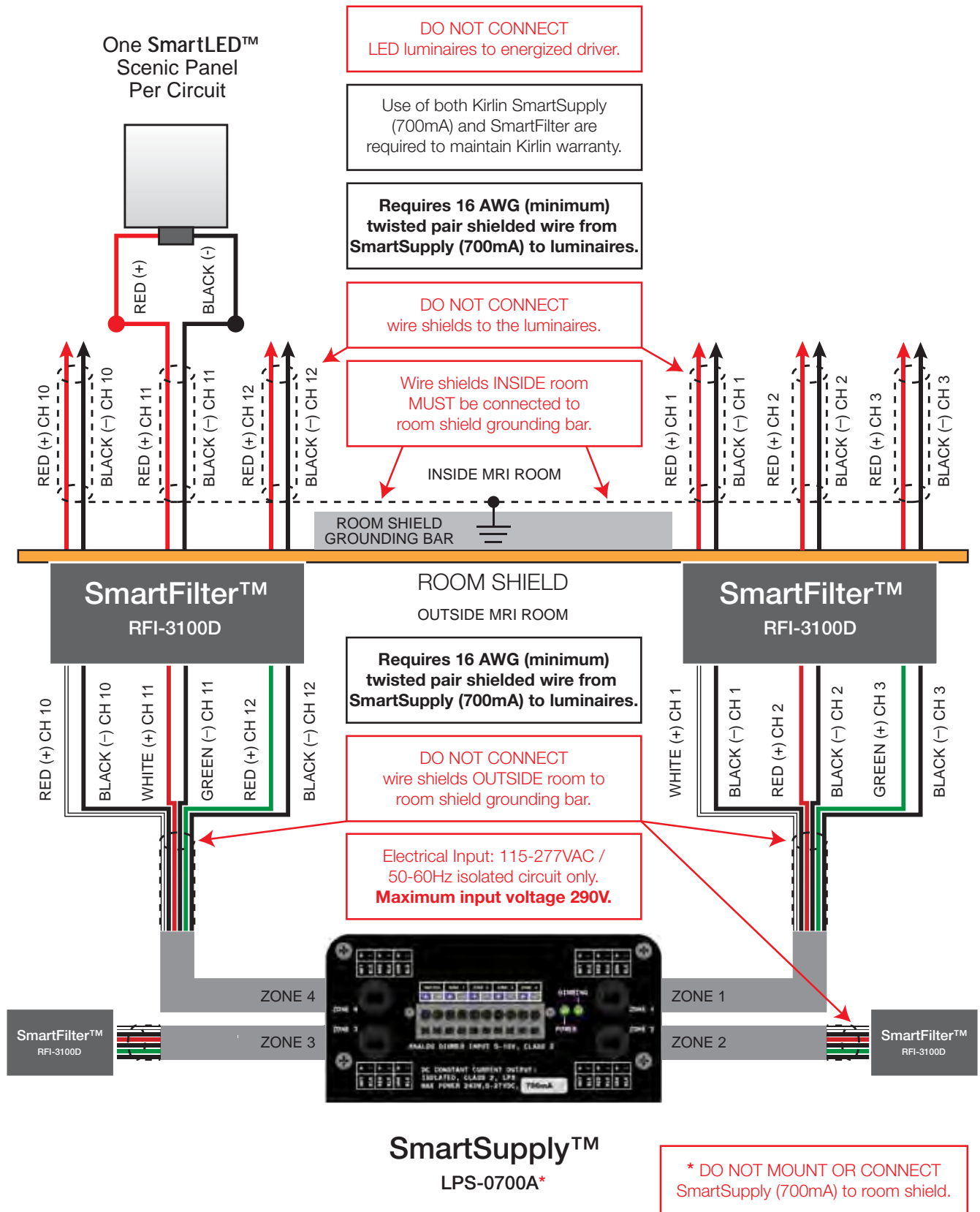
* Kirlin recommends using the following compatible 0-10V DC dimmers:

Leviton	IP710-DLX	
Lightolier	ZP600FAM-XXX	Sunrise
	MP1500FAM-XXX	Momentum
	V2000FAMU	Vega
Acuity	ISD BC	

Lutron	NFTV **		Nova
	NTSTV-DV **		Nova T
	DVTV		Diva
	DVSTV **		Diva
	V-600	w/GRX-TVI	Vareo

** WARNING! WHEN USING LUTRON NFTV OR NTSTV-DV LOW-VOLTAGE 0-10V DIMMERS, DO NOT SPECIFY OR INSTALL LUTRON PP-SERIES POWER PACKS. USE OF PP-SERIES POWER PACKS MAY CAUSE DAMAGE TO THE SMARTSUPPLY™ THAT IS NOT COVERED UNDER WARRANTY.

MRI SCENIC PANEL SYSTEM: WIRING DIAGRAM



FOR MORE INFORMATION ON KIRLIN'S SMARTLED™ MRI LIGHTING SYSTEMS, INCLUDING SPECIFICATION SHEETS AND OWNER'S MANUALS (INCLUDING INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS), PLEASE VISIT www.kirlinlighting.com AND GO TO YOUR MYKIRLIN PORTAL.

CATALOG #	TYPE
JOB NAME	VOLTAGE

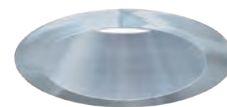
SmartLED™ MRI Lighting Systems

4" Open Appearance Downlight

Up to 90,000 Hour Life (L70) • Type IC

LM-80 Qualified • LM-79 Certified Photometry

MRR-04200-1500L



Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
- 1500L: 1500 nominal lumens (20W).
- Distribution: MFL standard.
- Optional: -SPT or -NFL.
- Color temperature: 3500°K standard.
- Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to (12) -1500L luminaires, with 6 configurable channels. Maximum 150 ft. cable length from SmartSupply™ to single fixture; 50 ft. to two.
- 100-0.2% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the Owner's Manual (760412-00-00).
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V isolated

circuit only; maximum input voltage 290V; 50-60 Hz.

- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply™ channels.
- Provides 100 db of RF signal attenuation, matching the most stringent MRI requirements.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet; order separately.

Trim

- Low brightness clear aluminum self-flanged downlight cone with tempered lens above.
- Optional colors and finishes available.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including light engine, is modular, easily visible, serviced through aperture. Built-in plaster flange.

Outlet Box

- Prewired. 100% aluminum. U.L. listed.
- Accessible. ½" knockouts.

Use With:

- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

Installation

- Requires minimum 16 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Recesses in ceilings up to 1-1/8" thick or see Option -79.
- Aluminum 27" hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp, dry locations, covered ceilings.
- Type IC: for direct contact with insulation.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY	OPTIONAL	Ordering Example:
Product Number	Options	
MRR-04200-1500L	See "Options" below	

Options

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

- NFL Narrow flood distribution.
- SPT Spot distribution.

Trim

- 30 All white acrylic enameled cone.
- 31 White acrylic enameled cone flange.
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 70 Softex™ clear self-flanged cone.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) trim finish.
- WA White acrylic (flat) diffuser instead.

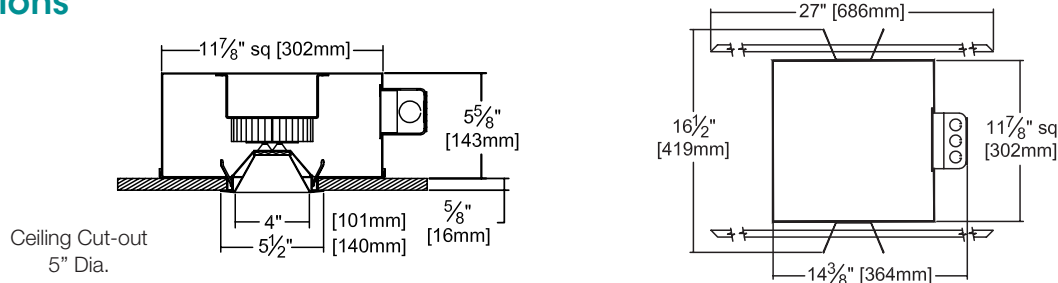
Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

Photometry from I.T.L., Boulder, CO

-1500L STANDARD (MFL)

Lumens: 1538
 Beam: ~45°
 SC: 0.8
 LPW: 74
 Effic: 76.1%
 ITL Test: 87226



Total System Watts 20.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2335	2335	2335	2335	2335
5	2371	2372	2376	2372	2367
10	2182	2273	2366	2316	2282
15	985	1089	1199	1126	1043
20	203	222	230	220	208
25	37	35	26	34	41
30	0	1	1	0	0
35	0	0	0	0	0
40	0	0	0	0	0
45	0	0	0	0	0
90	0	0	0	0	0

-1500L Option -SPT

Lumens: 1629
 Beam: ~20°
 SC: 0.3
 LPW: 78
 Effic: 80.6%
 ITL Test: 87179



Total System Watts 20.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	10779	10779	10779	10779	10779
5	9337	9349	9332	9270	9315
10	1950	1984	2104	2162	2155
15	436	373	331	380	465
20	79	69	65	70	92
25	12	12	12	12	13
30	0	0	0	0	0
35	0	0	0	0	0
40	0	0	0	0	0
45	0	0	0	0	0
90	0	0	0	0	0

-1500L Option -NFL

Lumens: 1428
 Beam: ~35°
 SC: 0.6
 LPW: 68
 Effic: 70.6%
 ITL Test: 87933



Total System Watts 20.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2902	2902	2902	2902	2902
5	2797	2794	2800	2793	2793
10	1903	1929	1949	1910	1893
15	937	943	952	950	932
20	259	268	266	266	268
25	51	45	42	45	53
30	0	1	1	1	1
35	0	0	0	0	0
40	0	0	0	0	0
45	0	0	0	0	0
90	0	0	0	0	0

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

▲ Cone of Light Key
 (Dia. (in ft.) shown is where FC value is half the FC at nadir.)

Ft. Distance from fixture
 FC Footcandles at nadir (0°)
 Dia. Circle of light at 50% of FC

3 Steps To "Artifact-Free" Imaging

1. Use complete Kirlin SmartLED™ MRI system: Luminaires, RFI-3100D SmartFilter™, LPS-1220A SmartSupply™
2. Use a minimum #16 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP



CATALOG #	TYPE
JOB NAME	VOLTAGE

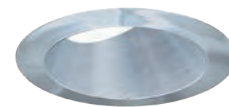
SmartLED™ MRI Lighting Systems

4" Lensed Wall Wash • Type IC

Up to 90,000 Hour Life (L70)

LM-80 Qualified • LM-79 Certified Photometry

MRR-04225-1500L



Use With:

- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
-1500L: 1500 nominal lumens (20W).
- Color temperature: 3500°K standard.
Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.
- Center beam optics positioned at 25°.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to (12) -1500L luminaires, with 6 configurable channels. Maximum 150 ft. cable length from SmartSupply™ to single fixture; 50 ft. to two.
- 100-0.2% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the Owner's Manual (760412-00-00).
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V isolated

circuit only; maximum input voltage 290V; 50-60 Hz.

- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply™ channels.
- Provides 100 db of RF signal attenuation, matching the most stringent MRI requirements.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet; order separately.

Trim Assembly

- Low brightness clear aluminum self-flanged angle-cut cone with prismatic tempered lens above.
- Optional colors and finishes available.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including light engine, is modular, easily visible, serviced through aperture. Built-in plaster flange.

Outlet Box

- Prewired. 100% aluminum. U.L. listed.
- Accessible. 1/2" knockouts.

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

Installation

- Requires minimum 16 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Recesses in ceilings up to 1-1/8" thick.
- Aluminum 27" hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp, dry locations, covered ceilings.
- Type IC: for direct contact with insulation.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY	OPTIONAL	Ordering Example:
Product Number	Options	
MRR-04225-1500L	See "Options" below	

Options

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Trim

- 30 All white acrylic enameled cone.
- 31 White acrylic enameled cone flange (only).
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 70 Softex™ clear self-flanged cone.
- 94 Custom color/finish. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) trim finish.

Other

- 99 Special modification. Consult factory.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

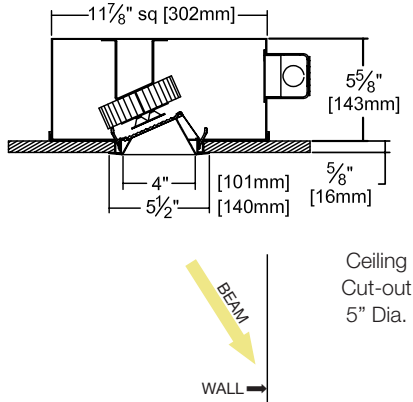
**Hours at 70% lumen maintenance

MRR-04225-1500L

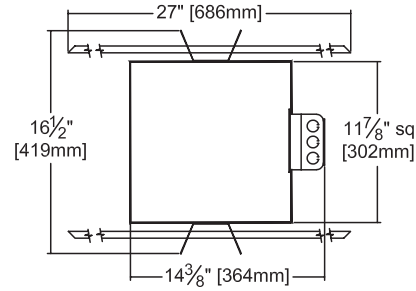
PERFORMANCE

KIRLIN
Since 1895

Dimensions



Ceiling
Cut-out
5" Dia.



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

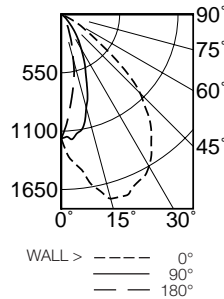
Photometry from I.T.L., Boulder, CO

-1500L STANDARD

Lumens: 1375
LPW: 66
Efficiency: 68.0%
ITL Test: 87229



Total System Watts 20.8



DISTANCE FROM CEILING IN FEET	SINGLE FIXTURE					MULTIPLE FIXTURES					
	1'	2'	3'	4'		2' CENTERS		3' CENTERS			
	FIXTURE INSTALLED 2' FROM WALL					Footcandle Distribution on Wall Surface					
1	18.0	3.9	0.8	0.6	0.4	21.9	22.0	22.0	20.2	4.0	20.1
2	93.6	45.9	8.2	1.4	0.5	112.0	112.0	112.0	95.7	43.3	95.7
3	66.3	45.8	16.5	4.3	1.1	102.0	102.0	102.0	75.9	60.3	75.9
4	39.2	31.0	15.7	6.1	2.1	76.3	76.4	76.4	52.4	49.3	52.4
5	23.3	19.7	12.1	6.1	2.7	54.7	54.7	54.7	36.6	36.3	36.6
6	14.9	13.2	9.0	5.3	2.8	40.8	40.8	40.8	27.5	27.1	27.5
7	10.0	9.2	6.8	4.5	2.7	31.8	31.9	31.9	21.1	21.1	21.1
8	7.1	6.7	5.3	3.8	2.5	26.0	26.1	26.0	17.1	17.2	17.1
9	5.5	5.3	4.5	3.4	2.3	22.7	22.8	22.8	14.7	15.1	14.7

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of $\pm 7\%$ on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

3 Steps To "Artifact-Free" Imaging

1. Use complete Kirlin SmartLED™ MRI system: Luminaires, RFI-3100D SmartFilter™, LPS-1220A SmartSupply™
2. Use a minimum #16 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

JOB NAME

TYPE

CATALOG NUMBER

VOLTAGE

APPROVAL STAMP



CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

SmartLED™ MRI Lighting Systems

MSR-14250

Round Surface Mount Decorative Sconce

Central Glow Panel • Edge Glow • 14" Diameter
White Standard • Colors Optional

Up to 90,000 Hour Life (L70) • LM-80 Qualified



Must Use:

- Kirlin MRI LED Luminaires
- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Specifications

LED Light Engine

- 15 watt LED array. 3500°K.
- CRI: 80+. Up to 90,000 hour life (L70**).
- Fully sustainable; removable for servicing.

Thermal Management System

- Aluminum components and housing maximize cool operation and long life while minimizing maintenance.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to 2 sconces per SmartSupply channel. Each SmartSupply has 6 configurable channels.
- 100-0.2% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the owner's manual.
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V; 50-60 Hz.
- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply channels.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup - Order Separately

- Battery backup for emergency power.
- For more information see specification sheet for EMI-21220.

Sconce Assembly

- Round decorative brushed aluminum ring (10.5" diameter) with clear 1/4" acrylic diffuser (14" diameter).
- Illuminated white center field and edge glow, or see Options for colors.
- Four contemporary button finials.

Brushed Anodized Aluminum Housing

- Shallow 2 1/2" inconspicuous depth meets all ADA requirements.
- Cool operation: Extends life of all components.
- Optional white, white BioGard™ anti-microbial, silver, black or custom color finishes available.

- Rustproof.
- Fully sustainable: Entire luminaire, including light engine, is modular and easily serviced.

Installation

- Requires minimum 18 AWG twisted pair shielded wire from SmartSupply™ to sconce.
- Universal back plate mounts to any ferromagnetic octagon or 4" square J-box (by others) in wall or ceiling.

UL, C-UL (Canada) Listings

- Damp or dry locations, covered ceilings / wall.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5
Year

**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

Use of SmartSupply™ and SmartFilter™
REQUIRED or Kirlin warranty
is null and void

L70 for Kirlin Luminaires**

In Open Space	90,000 hours
---------------	--------------

**Hours at 70% lumen maintenance

KIRLIN
Lighting Since 1895

The Kirlin Company

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com

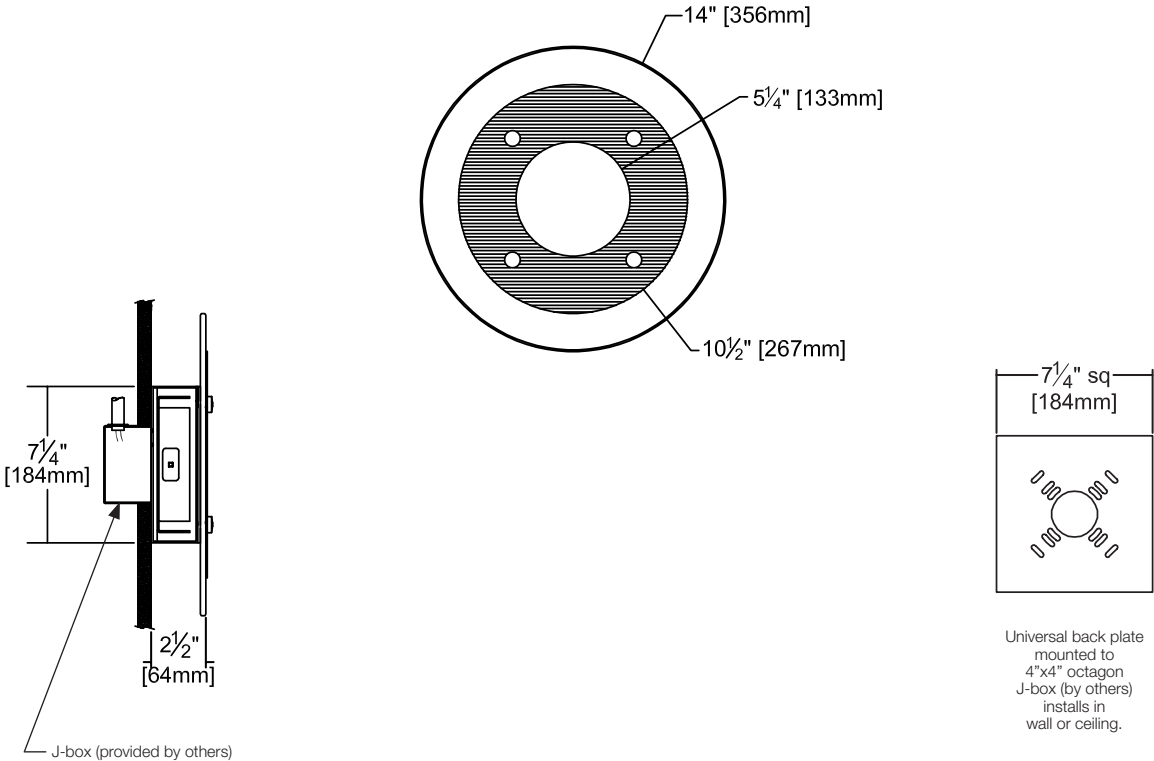
**MEDICAL
LED LIGHTING**



*See note next page

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.

Dimensions



Options

Ring and Surface Housing

- 30 White baked enamel finish instead for ring and housing.
- 35 Natural Aluminum baked enamel finish instead for ring and housing.
- 38 Black baked enamel finish instead for ring and housing.
- 94 Custom color/finish for ring and housing. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only) finish for ring and housing.

Inner Lens Color

- BL Blue filter.
- CF Custom filter color (Rosco). Specify.
- GE Green filter.
- OR Orange filter.
- RA Red amber filter.
- RE Red filter.
- YE Yellow filter.

Other

- CI Custom image (color / logo) added to center field of scone.

3 Steps To
"Artifact-Free"
Imaging

1. Use complete Kirlin SmartLED™ MRI system: luminaires, filters, drivers
2. Use a minimum #16 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

JOB NAME _____

TYPE _____

WATTAGE _____ VOLTAGE _____

CATALOG NUMBER _____

APPROVAL STAMP

LIMITED WARRANTY: CATALOGED KIRLIN PICTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such failure or defect the purchase price or presentation of proof of purchase and defective fixture at the offices of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

SmartLED™ MRI Lighting Systems

MSS-10255

Square Surface Mount Decorative Sconce

Central Glow Panel • Edge Glow • 10" Square
White Standard • Colors Optional

Up to 90,000 Hour Life (L70) • LM-80 Qualified



Must Use:

- Kirlin MRI LED Luminaires
- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Specifications

LED Light Engine

- 15 watt LED array. 4100°K.
- CRI: 80+. Up to 90,000 hour life (L70**).
- Fully sustainable; removable for servicing.

Thermal Management System

- Aluminum components and housing maximize cool operation and long life while minimizing maintenance.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to 2 sconces per SmartSupply channel. Each SmartSupply has 6 configurable channels.
- 100-0.2% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the owner's manual.
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V; 50-60 Hz.
- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply channels.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup - Order Separately

- Battery backup for emergency power.
- For more information see specification sheet for EMI-21220.

Sconce Assembly

- Decorative brushed aluminum square faceplate (7.5" square) with clear 1/4" acrylic diffuser (10" square).
- Illuminated white center field and edge glow, or see Options for colors.
- Two contemporary button finials.

Brushed Anodized Aluminum Housing

- Shallow 2 1/2" inconspicuous depth meets all ADA requirements.
- Cool operation: Extends life of all components.
- Optional white, white BioGard™ anti-microbial, silver, black or custom color finishes available.

- Rustproof.
- Fully sustainable: Entire luminaire, including light engine, is modular and easily serviced.

Installation

- Requires minimum 18 AWG twisted pair shielded wire from SmartSupply™ to sconce.
- Universal back plate. Mounts to any ferromagnetic octagon or 4" square J-box (by others) in wall or ceiling.

UL, C-UL (Canada) Listings

- Damp or dry locations, covered ceilings / wall.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

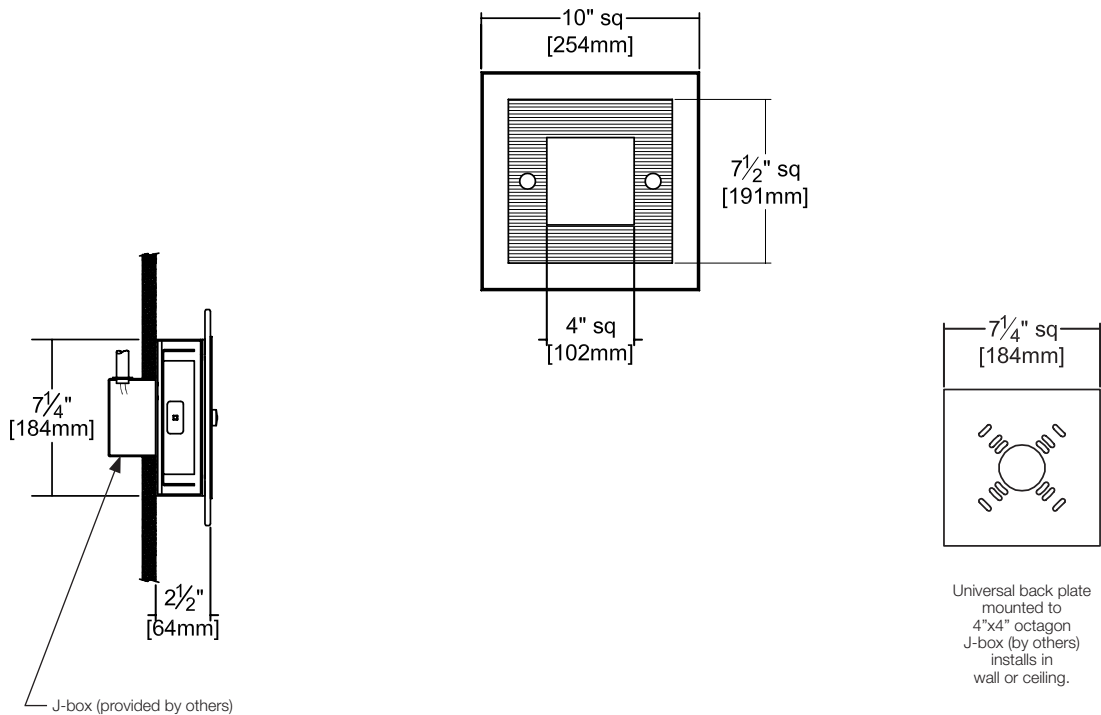
Use of SmartSupply™ and SmartFilter™
REQUIRED or Kirlin warranty
is null and void

L70** for Kirlin Luminaires

In Open Space	90,000 hours
---------------	--------------

**Hours at 70% lumen maintenance

Dimensions



Options

- | | | |
|--|---|--|
| Ring and Surface Housing | Inner Lens Color | Other |
| -30 White baked enamel finish instead for ring and housing. | -BL Blue filter. | -CI Custom image (color / logo) added to center field of sconce. |
| -35 Natural Aluminum baked enamel finish instead for ring and housing. | -CF Custom filter color (Rosco). Specify. | |
| -38 Black baked enamel finish instead for ring and housing. | -GE Green filter. | |
| -94 Custom color/finish for ring and housing. Specify. Consult factory. | -OR Orange filter. | |
| -BG Anti-microbial Kirlin BioGard™ white (only) finish for ring and housing. | -RA Red amber filter. | |
| | -RE Red filter. | |
| | -YE Yellow filter. | |

3 Steps To
"Artifact-Free"
Imaging

1. Use complete Kirlin SmartLED™ MRI system: luminaires, filters, drivers
2. Use a minimum #16 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

JOB NAME _____

TYPE _____

WATTAGE _____ VOLTAGE _____

CATALOG NUMBER _____

APPROVAL STAMP

LIMITED WARRANTY: CATALOGED KIRLIN PICTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or reflect the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE
JOB NAME	VOLTAGE



SmartLED™ MRI Lighting Systems

Surface 12" Downlight • 4" Shallow Depth

Up to 60,000 Hour Life • Wet Location

LM-80 Qualified • LM-79 Certified Photometry

MSR-12440-2500L



Use With:

- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
- 2500L: 2500 nominal lumens (35W).
- Color temperature: 3500°K standard. Optional: -27K, -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Management System

- All-aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to (6) -2500L LED fixtures, with 6 configurable channels. Maximum 100 ft. cable length from SmartSupply™ to single fixture
- 100-0.2% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the owner's manual.
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V isolated circuit only; maximum input voltage 290V; 50-60 Hz.

- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply channels.
- Provides 100 db of RF signal attenuation, matching the most stringent MRI requirements.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet; order separately.

Trim Assembly

- White flat seamless aluminum, one piece self-flanged.
- Tempered prismatic spread distribution lens.

Aluminum Housing

- Seamless white acrylic enameled finish. Optional colors available.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- No visible cylinder hardware.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, easily visible and serviced through aperture.
- Lightweight: minimizes ceiling load.

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

Installation

- Center point mounting for snug fit to ceiling. Mounting hardware furnished.
- Requires minimum 16 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Indoor or outdoor for covered ceiling use.

UL, C-UL (Canada) Listings

- Wet, damp, dry locations, covered ceilings.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY	OPTIONAL	Ordering Example:
Product Number	Options	
MSR-12440-2500L	See "Options" below	
		MSR-12440-2500L-30K-46

Options

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000° only.

Luminaire (Housing and Trim) Finishes

- 35 Silver (natural aluminum) acrylic enamel.
- 38 Black acrylic enamel.
- 94 Custom color. Specify. Consult factory.
- BG Anti-microbial Kirlin BioGard™ white (only).

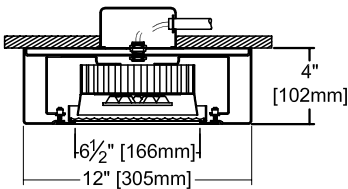
Lens and Trim

- 46 Gasket between trim and lens.
- WA White acrylic (flat) diffuser instead.

Other

- 99 Special modification. Consult factory.

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

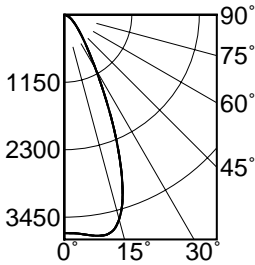
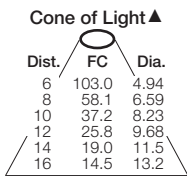
Photometry from UL Verification Services, Allentown, PA

-2500L

Lumens: 3147
Beam: ~45°
SC: 0.8
LPW: 89
Efficiency: 84.7%
UL Test: 1259216



Total System Watts 35.2



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3720	3720	3720	3720	3720
5	3757	3757	3757	3757	3757
15	3608	3608	3608	3608	3608
25	1825	1825	1825	1825	1825
35	666	666	666	666	666
45	314	314	314	314	314
55	167	167	167	167	167
65	88	88	88	88	88
75	38	38	38	38	38
85	7	7	7	7	7
90	0	0	0	0	0

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from UL Verification Services (UL) where photometry was measured from 3717 lumen (-2500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

3 Steps To
"Artifact-Free"
Imaging

1. Use complete Kirlin SmartLED™ MRI system: Luminaires, RFI-3100D SmartFilter™, LPS-1220A SmartSupply™
2. Use a minimum #16 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

APPROVAL STAMP



JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

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2' x 2' Scenic Panel Luminaire

Ultra-slim 20W LED Illuminated Artwork

Use Multiple luminaires to Create a Soothing and Attractive "SkyLight" Effect



Specifications

Luminaire Features

- Driverless, 20 watt, low voltage, Class II, DC powered.
- Must use in conjunction with SmartSupply™ LPS-0700A.
- Ultra-thin (2") extruded aluminum housing. White finish; for custom color see Option -94.
- Completely non-ferro magnetic.

Thermal Management

- Housing / heat sink provides maximum heat dissipation for side-fire LED technology.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- LPS-0700A: Digitally controlled. Drives up to 12 scenic panels. Maximum 100 ft. distance.
- 100-0.2% full range dimming in up to 4 zones.
- Compatible with 0-10V DC dimming controls. See vendor qualified list in the owner's manual.
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V isolated circuit only; maximum 290V; 50-60 Hz.
- For more information, see specification sheet for LPS-0700A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- RFI-3100D: Protects up to 3 luminaires (SmartSupply channels).
- Provides 100 db of RF signal attenuation, matching the most stringent MRI requirements.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet; order separately.

Trim / Lens

- Regressed trim provides a unique, architectural "skylight" effect when installed in grid ceiling.
- Extruded acrylic, wave guide lens provides unparalleled uniformity and even illumination of the image.
- See specification sheet; order separately.

Installation

- Requires minimum 18 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Drops into 2' x 2' ceiling grid.

Use With:

- SmartSupply™ LPS-0700A
- SmartFilter™ RFI-3100D

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

UL, C-UL (Canada) Listings

- Wet, damp, dry locations, covered ceilings.
- Type IC for direct contact with insulation.

CE & FCC Compliance

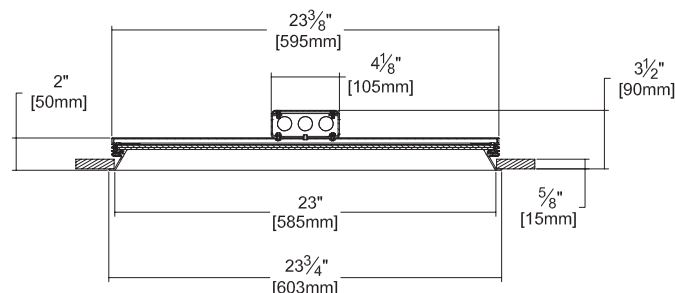
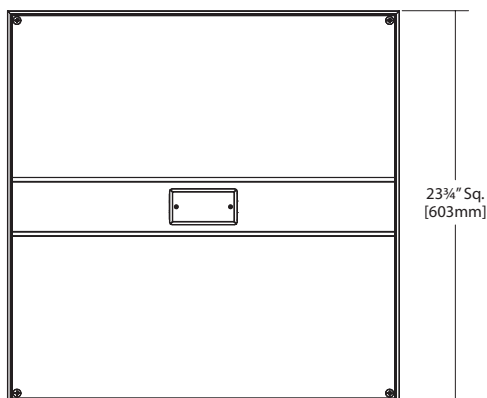
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5
Year

**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

Dimensions



Luminaire is available in nominal 2' x 2' size only.
Specify a scenic array as large as required.

See following pages for complete ordering & configuration information.

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SmartLED™ MRI Lighting Systems
Luminaires • SmartSupply • SmartFilter

CATALOG NUMBER

MRP-22290

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.

MRP-22290





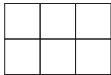

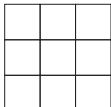
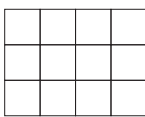
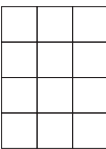
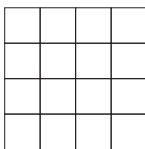
2' x 2'

SCENIC PANEL

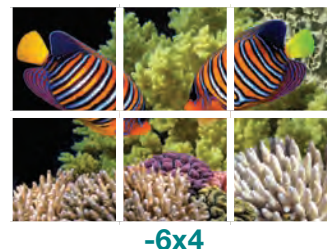
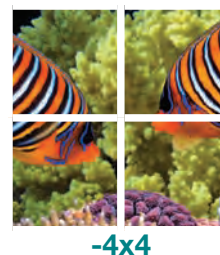
20 WATT

Step 1: Select Size and Artwork Orientation

- Specify overall size (panel quantity) and orientation using Size Option added to base catalog number MRP-22290
- See Product Numbering Guide below

		Overall Size and Orientation					
		Landscape			Portrait		
		Arrangement	Option	Preferred Resolution (Pixels)	Arrangement	Option	Preferred Resolution (Pixels)
Nominal Dimensions	Fixture Qty.						
2' x 2'	1		-2x2	1800 x 1800			
2' x 4'	2		-4x2	3600 x 1800		-2x4	1800 x 3600
4' x 4'	4		-4x4	3600 x 3600			
4' x 6'	6		-6x4	5400 x 3600		-4x6	3600 x 5400
6' x 6'	9		-6x6	5400 x 5400			
6' x 8'	12		-8x6	7200 x 5400		-6x8	5400 x 7200
8' x 8'	16		-8x8	7200 x 7200			
Custom Size		<div>-9x9</div> <div>Specify number of panels and orientation of artwork</div>					

When specifying size, orientation and artwork, consider how the image will be divided and cropped. For example:



To see how your artwork will appear in an arrangement, consult factory.

Product Numbering Guide

Example:
MRP-22290 -4x6 -A01 -94

Scenic Panel Base
Product Number

Size and
Orientation Option*

Artwork
Option

Custom Color Trim Option

*-4x6 is not the same as -6x4, see above.

SmartLED™ MRI Lighting Systems

LED SmartFilter™

For use with SmartSupply™
and Kirlin LED Luminaires



Specifications

"Smart" Filters

- Allows lighting power to be delivered into the MRI suite.
- Ensures clean, safe, RFI and EMI suppressed low voltage DC current.
- Fewer filters required. Each RFI-3100D filters three channels (circuits).
- Two SmartFilters™ required to fully protect all six output channels (circuits) of the SmartSupply™ (LPS-1220A or LPS-1220D).

"Smart" Operation

- 30 volt DC maximum.
- 2 amp maximum current.
- Indoor use, -20°C to 60°C (-4°F to 140°F).
- DC resistance .35 Ω (per channel).
- 416,616 hours calculated MTBF.
- Insertion loss: 100dB min (20kHz-1.0 GHz).

"Smart" Size

- At only 5.20" x 8.70", the small size of filter allows placement virtually anywhere through the MRI shield.

"Smart" Installation

- Each SmartFilter may have up to (6) 20 watt or (3) 38 or 42 watt luminaires connected.
- Each output circuit is clearly labeled and prewired through a standard 1/2" threaded hub.
- Input terminal allows for quick DC connection.

"Smart" Construction

- Totally enclosed nickel plated steel with (6) #18 leads, each 18" long.



**FIVE YEAR
Limited Warranty**

- Complete.

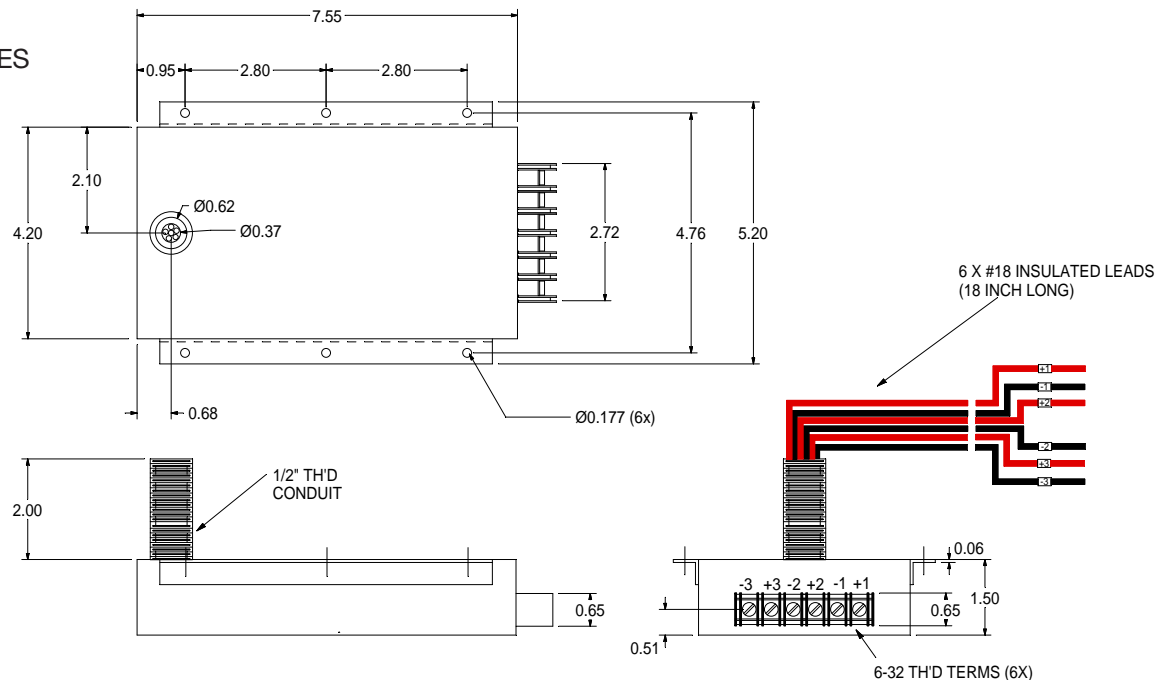
KIRLIN MRI System

- MRR Series Luminaires
- LPS Series SmartSupply
- RFI Series SmartFilter
- EMI Series SmartPower

Use of both SmartSupply™
and SmartFilter™ REQUIRED or
Kirlin warranty is null and void

Dimensions

SHOWN IN INCHES



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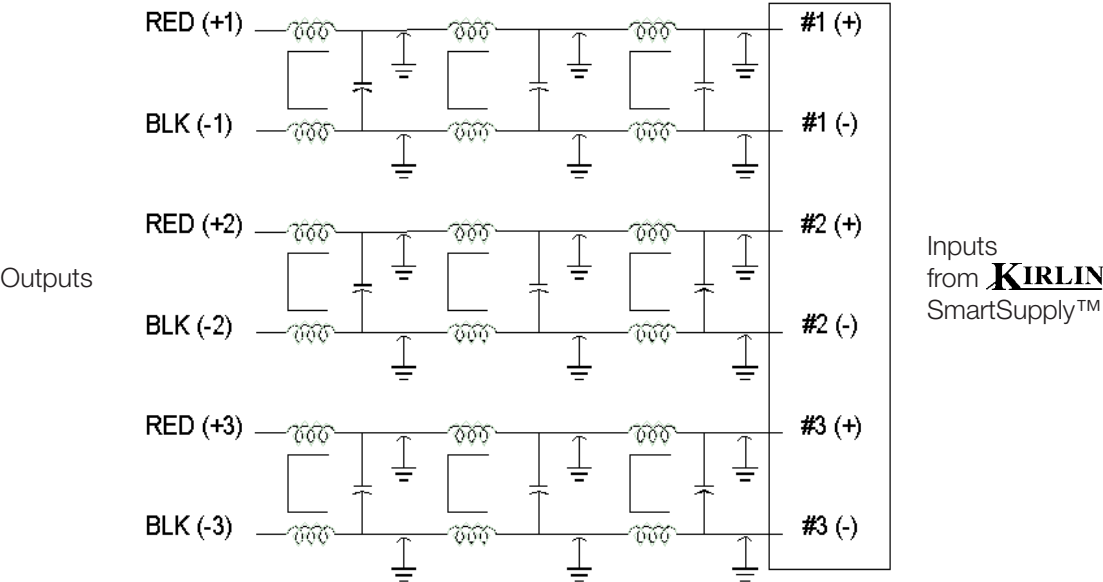
SmartLED™ MRI Lighting Systems
Luminaires • SmartSupply • SmartFilter

**DC MEDICAL
RFI FILTER**

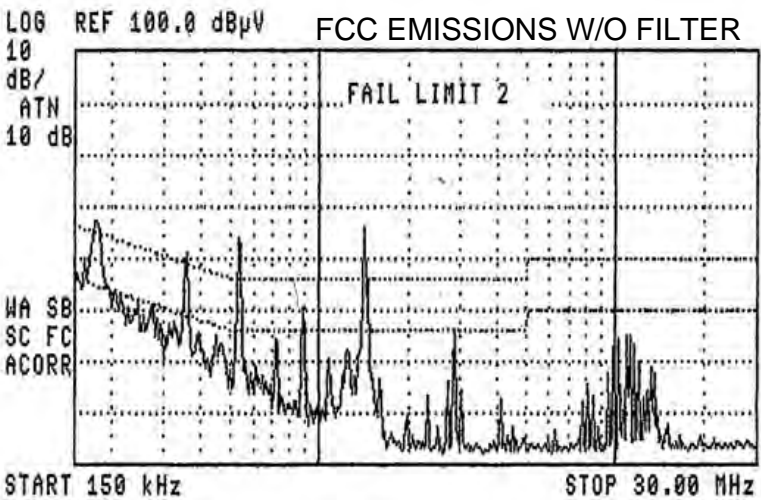
CATALOG NUMBER

RFI-3100D

Interface



Performance



SUBMITTAL DATA

APPROVAL STAMP

JOB NAME
TYPE
WATTAGE
CATALOG NUMBER

VOLTAGE

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CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

ANALOG 0-10 VOLT INTERFACE

LPS-1220A

LED SmartSupply™ with Analog Interface

Fully Digital Controlled Power Source for LED Luminaires

Capable of Driving and Dimming up to 12 (-1500L),
6 (-2500L) or 3 (-3500L or -5000L) Fixtures

- Drive up to two -1500L fixtures per channel maximum 50' away (one fixture per channel maximum 100' away)
- Drive one -2500L fixture per channel maximum 300' away
- Provides six output channels (with three dimming zones)
- Smooth 0.2 to 100% dimming and compatible with zone controls; consult factory for compatible controls
- Up to 243 watts of output power; consumes only 4 watts at 0% dimming
- 87% efficiency
- Input: 115 to 277 VAC isolated circuit only; **maximum input voltage 290V**; 50-60 Hz; load insensitive
- Convection cooled



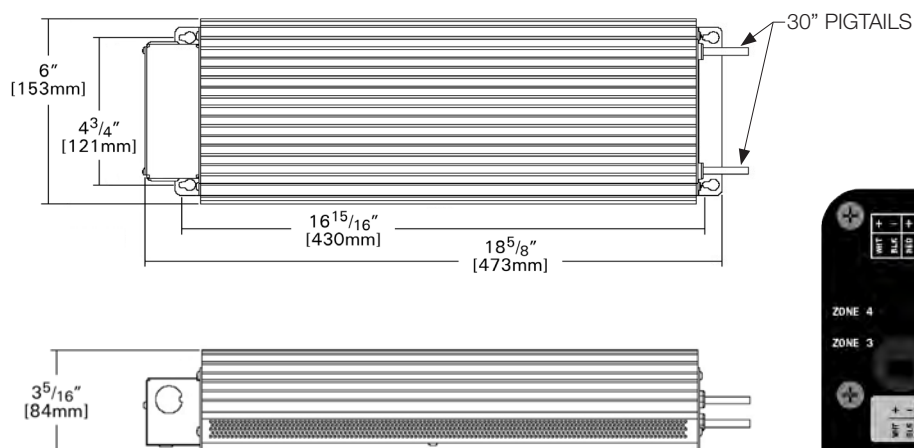
1400 mA

Analog Dimming Interface
with Master and Zonal
Dimming Capabilities



For Power Supply with DMX Interface
See: LPS-1220D

Dimensions and Interface



For MRI Installations, use of both
SmartSupply™ and SmartFilter™
REQUIRED or Kirlin warranty
is null and void

In MRI Installations, wall dimmers MUST be located
outside the MRI room shield and must NOT be filtered.

This power source must NOT be mounted to,
or be in contact with the MRI room shield



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arising out of the application or use of any product described herein; neither does
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LED LIGHTING

ANALOG INTERFACE

CATALOG NUMBER

LPS-1220A

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS,
TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Specifications

Input Specifications			
Rated Input Voltage and Frequency	115 to 277 VAC 50-60 Hz		
Maximum Input Voltage 290 VAC Power conditioning and/or TVSS protection STRONGLY advised for 277V input circuits. If not available, 120V supply is recommended.			
Rated Input Current	2.7 - 1.1 A		
Power Factor EN61000-3-2	@ 115 or 277 VAC 100% load	0.97	W/VA min
Input Current Total Harmonic Distortion	@ 115 or 277 VAC 100% load	13	% max

Environmental Specifications	
Location Rating	Dry
Operating Ambient Temperature	-20°C to + 40°C
Cold Start Temperature	-20°C
Storage Ambient Temperature	-40°C to 80°C
Relative Humidity	5% to 95% noncondensing
MTBF (12 channel)	>60,000 hours @ 40°C >97,000 hours @ 25°C

Safety and EMI / EMC Specifications		
Control Method	Analog 0-10 VDC IEC 60929 or ESTA E1.3-2001 Class 2 outputs	Master, Zone 1, Zone 2, Zone 3, Zone 4 outputs each source 0.5 mA maximum
Loss of Analog Input Signal	Outputs will go to 100% light intensity in less than 1 second	

Output Specifications			
Rated Output Power	@40°C ambient	243	W max
Output Voltage Dynamic Range	Under load conditions	6.0 to 27.0	VDC
Efficiency	100% load @ 277 VAC input	87	%
Turn on delay	Time required for stabilization of all outputs	2	sec typical
Output Current Tolerance	+/-5% of nominal		

Protection	
Output Protection	Over voltage, over current, short circuit protection
Over Temperature Protection	Power supply will shut down when external ambient temperature exceeds 43°C or case temperature reaches 85°C nominal
Output Interconnection Protection	Shutdown of module; requires recycling of AC input to restart

Safety and EMI / EMC Specifications		
Agency Approvals	UL60950-1 Subject 8750 SELV, LPS, Class 2 outputs	
Conducted & Radiated Emissions	EN55022 FCC Title 47, Part 15 ICES-003	Class A
RoHs Compliant		

For information on Wall Box Dimmer options, see next page

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SUBMITTAL DATA

JOB NAME

TYPE

WATTAGE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP

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Wallbox Analog 0-10V Dimming Options

Wallbox dimmers enable users to set the desired light level by manually increasing or decreasing the light levels by adjusting the slide. Slide and preset dimmers take the place of a switch.

Company	Part #	Power Booster Available	Website
Douglas Lighting Controls	WPC-5721		www.douglaslightingcontrol.com
Entertainment Technology	TG600FAM120 Tap Glide (120V) TGH1500FAM120 Tap Glide Heatsink (120V) 0A2000FAMJ (120/277V)		www.etdimming.com
Honeywell Inc.	EL7315A1019 EL7315A1009	EL7305A1010 EL7305A1010	www.honeywell.com
HUNT Dimming	PS-010-120V-WT PS-010-IV-120V Preset Slide PS-010-WH-120V Preset Slide PS-010-3W-IV-120V Preset Slide PS-010-3W-WH-120V Preset Slide PS-010-IV-277V Preset Slide PS-010-WH-277V Preset Slide PS-010-3W-IV-277V Preset Slide PS-010-3W-WH-277V Preset Slide FD-010: PS-IFC-010-IV and PS-IFC-010-WH-120/277V FD-010: PS-IFC-010-3W-IV and PS-IFC-010-3W-WT-120/277V FD-010-120V and FD-010-277V		www.huntldimming.com
Lehigh Electric Products Co.	Solitaire	PBX	www.lehighdim.com
Leviton Lighting Controls Div.	IP710-DLX Leviton Centura Fluorescent Control System IllumaTech 1P7 Series	CN100 PE300	www.leviton.com
Lightolier Controls	ZP600FAM-XXX Sunrise Preset Slider MP1500FAM-XXX Momentum Preset Slider V2000FAMU Vega Slider		www.lightolier.com
Lithonia Controls	ISD BC SLD LPCS Digital Equinox (DEQ BC)	RDM FC	www.lithonia.com
Lutron Electronics Co. Inc.	NFTV - Nova * NTSTV - Nova T * DVTV - Diva * DVSTV - Diva * V-600 w/GRX-TVI - Vareo		www.lutron.com
Starfield Controls	TR61 with DALI interface port	RT03 DALInet Router	www.starfieldcorp.com
The Watt Stopper, Inc	LS-4 used with LCD-101 and LCD-103		www.wattstopper.com

* **WARNING!** When using Lutron NSTV or NTSTV low-voltage 0-10V dimmers, do not specify or install Lutron PP-Series power packs. Use of PP-Series power packs may cause damage to the SmartSupply™ that is not covered under warranty.

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CATALOG #	TYPE
JOB NAME	WATTAGE VOLTAGE

ANALOG 0-10 VOLT INTERFACE

LPS-0700A

LED SmartSupply™ with Analog Interface

Fully Digital Controlled Power Source for LED Luminaires

Capable of Driving & Dimming up to 12 Kirlin Scenic Panel Luminaires



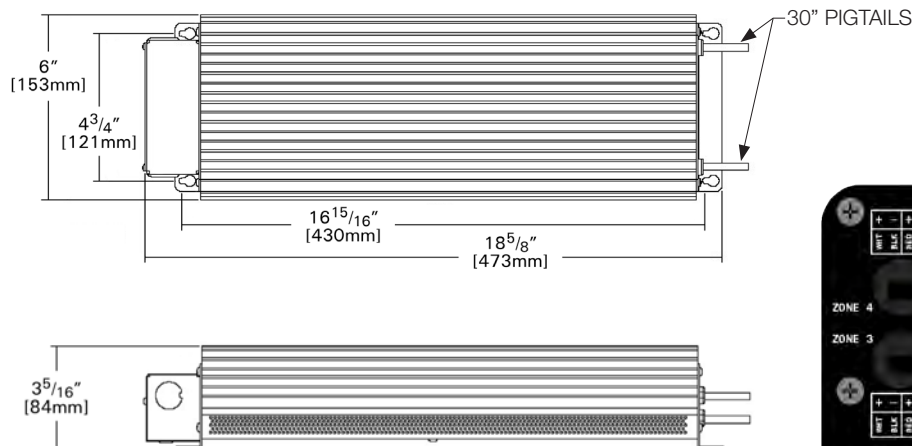
- Drive one -1500L fixture per channel maximum 100' away
- Provides twelve output channels (with 4 dimming zones)
- Smooth 0.2 to 100% dimming and compatible with zone controls; consult factory for compatible controls
- Up to 243 watts of output power; consumes only 4 watts at 0% dimming
- 87% efficiency
- Input: 115 to 277 VAC isolated circuit only; maximum input voltage 290V; 50-60 Hz; load insensitive
- Convection cooled

700 mA

Analog Dimming Interface
with Master and Zonal
Dimming Capabilities



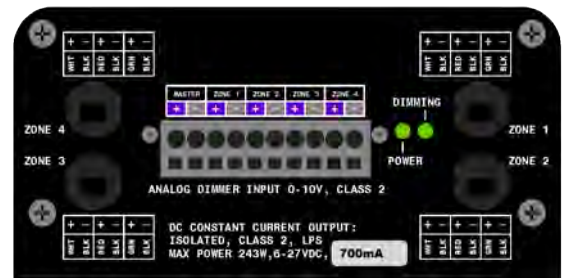
Dimensions and Interface



For MRI Installations, use of both
SmartSupply™ and SmartFilter™
REQUIRED or Kirlin warranty
is null and void

In MRI Installations, wall dimmers MUST be located
outside the MRI room shield and must NOT be filtered.

This power source must NOT be mounted to,
or be in contact with the MRI room shield



Kirlin reserves the right to make changes without further notice to any products
herein to improve reliability, function, or design. Kirlin does not assume any liability
arising out of the application or use of any product described herein; neither does
it convey any license under its patent rights, nor the rights of others.

THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

LED LIGHTING

ANALOG INTERFACE

CATALOG NUMBER

LPS-0700A

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS,
TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Specifications

Input Specifications			
Rated Input Voltage and Frequency	115 to 277 50-60	VAC Hz	
Maximum Input Voltage	290	VAC	
Rated Input Current	2.7 - 1.1	A	
Power Factor EN61000-3-2	@ 115 VAC 100% load	0.97	W/VA min
Input Current Total Harmonic Distortion	@ 115 VAC 100% load	13	% max

Output Specifications			
Rated Output Power	@40°C ambient	243	W max
Output Voltage Dynamic Range	Under load conditions	6.0 to 27.0	VDC
Efficiency	100% load @ 115 VAC input	87	%
Turn on delay	Time required for stabilization of all outputs	2	sec typical
Output Current Tolerance		+/-5% of nominal	

Environmental Specifications	
Location Rating	Dry
Operating Ambient Temperature	-20°C to + 40°C
Cold Start Temperature	-20°C
Storage Ambient Temperature	-40°C to 80°C
Relative Humidity	5% to 95% noncondensing
MTBF (12 channel)	>60,000 hours @ 40°C >97,000 hours @ 25°C

Protection	
Output Protection	Over voltage, over current, short circuit protection
Over Temperature Protection	Power supply will shut down when external ambient temperature exceeds 43°C or case temperature reaches 85°C nominal
Output Interconnection Protection	Shutdown of module; requires recycling of AC input to restart

Safety and EMI / EMC Specifications		
Control Method	Analog 0-10 VDC IEC 60929 or ESTA E1.3-2001 Class 2 outputs	Master, Zone 1, Zone 2, Zone 3, Zone 4 outputs each source 0.5 mA maximum
Loss of Analog Input Signal	Outputs will go to 100% light intensity in less than 1 second	

Safety and EMI / EMC Specifications		
Agency Approvals	UL60950-1 Subject 8750 SELV, LPS, Class 2 outputs	
Conducted & Radiated Emissions	EN55022 FCC Title 47, Part 15 ICES-003	Class A
RoHs Compliant		

For information on Wall Box Dimmer options, see next page

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SUBMITTAL DATA

JOB NAME _____

TYPE _____

WATTAGE _____ VOLTAGE _____

CATALOG NUMBER _____

APPROVAL STAMP

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALL TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

DMX INTERFACE

LPS-1220D

LED SmartSupply™ with DMX Interface

Fully Digital Controlled Power Source for LED Luminaires

Capable of Driving and Dimming up to 12-20W Fixtures

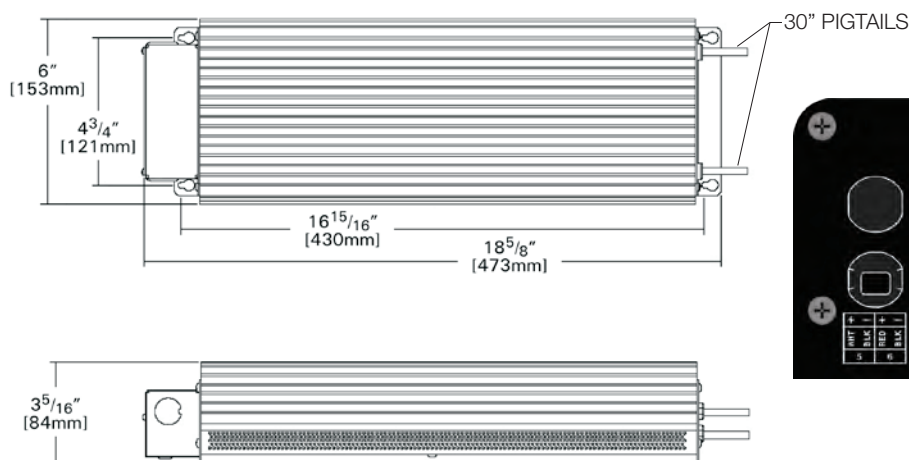
- Drive up to two 20 watt fixtures per channel up to 50' away (one fixture per channel up to 100' away)
- Up to six configurable output channels
- Smooth 0 to 100% dimming
- Up to 243 watts of output power; consumes only 4 watts at 0% dimming
- 87% efficiency
- USITT DMX512A compatible
- Input: 115 to 277 VAC / 50-60 Hz; load insensitive
- Convection cooled

USITT DMX512A Interface
with RJ45 Loop Thru Connections
and Rotary Dial
Addressing Function



For Power Supply with Analog Interface
See: LPS-1220A

Dimensions and Interface



For MRI Installations, use of both
SmartSupply™ and SmartFilter™
REQUIRED or Kirlin warranty
is null and void



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THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

LED LIGHTING

DMX INTERFACE

CATALOG NUMBER

LPS-1220D

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS,
TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Specifications

Input Specifications			
Rated Input Voltage and Frequency	115 to 277 VAC 50-60		
Rated Input Current	2.7 - 1.1	A	
Power Factor EN61000-3-2	@ 115 or 277 VAC 100% load	0.97	W/VA min
Input Current Total Harmonic Distortion	@ 115 or 277 VAC 100% load	13	% max

Output Specifications			
Rated Output Power	@40°C ambient	243	W max
Output Voltage Dynamic Range	Under load conditions	6.0 to 27.0	VDC
Efficiency	100% load @ 277 VAC input	87	%
Turn on delay	Time required for stabilization of all outputs	2	sec typical
Output Current Tolerance		+/-5% of nominal	

Environmental Specifications	
Location Rating	Dry
Operating Ambient Temperature	-20°C to + 40°C
Cold Start Temperature	-20°C
Storage Ambient Temperature	-40°C to 80°C
Relative Humidity	5% to 95% noncondensing
MTBF (12 channel)	>60,000 hours @ 40°C >97,000 hours @ 25°C

Protection	
Output Protection	Over voltage, over current, short circuit protection
Over Temperature Protection	Power supply will shut down when external ambient temperature exceeds 43°C or case temperature reaches 85°C nominal
Output Interconnection Protection	Shutdown of module; requires recycling of AC input to restart

Safety and EMI / EMC Specifications	
Control Method	DMX512-A
DMX Receiver Isolation	Isolated from earth ground
Start Codes	Will only respond to NULL START code
Loss of DMX Input Signal	Outputs will go to 100% light intensity in less than 1 second

Safety and EMI / EMC Specifications	
Agency Approvals	UL60950-1 Subject 8750 SELV, LPS, Class 2 outputs
Conducted & Radiated Emissions	EN55022 FCC Title 47, Part 15 Class A
RoHs Compliant	

Kirlin reserves the right to make changes without further notice to any products herein to improve reliability, function, or design. Kirlin does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.

SUBMITTAL DATA

JOB NAME _____

TYPE _____

WATTAGE _____ VOLTAGE _____

CATALOG NUMBER _____

APPROVAL STAMP

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALL TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

SmartPower™

For use with SmartSupply™
and Kirlin LED Luminaires

- Operates up to (2) full capacity SmartSupply™ Model #LPS-1220A or 375 watts at 100% light output for a minimum of 90 minutes
- 120 / 277 volt input, 60 Hz
- Less than 0.05 second transfer time
- Operating temperature range: 20° to 30°C (68° to 86°F)
- Up to 1000 feet remote distance from load
- High efficiency pure sine wave inverter
- UL 924 Listed. Meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements
- Includes momentary test switch, yellow ready indicator light, green inverter-on indicator, and red charging indicator
- Full three year warranty, seven year pro-rata battery warranty

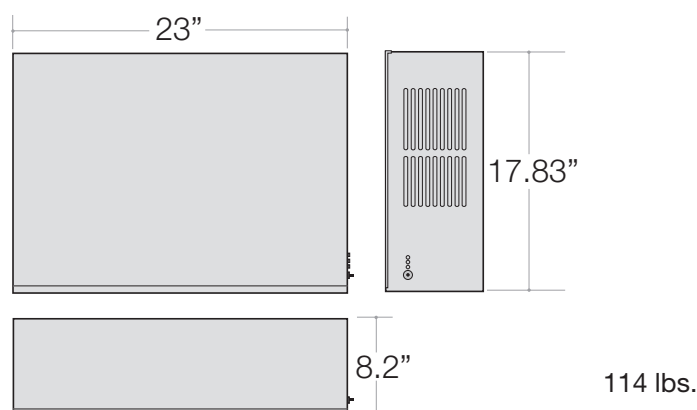


KIRLIN LED Systems

- Luminaires
- SmartSupply
- SmartFilter
- SmartPower

For MRI Installations, use of both SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

Dimensions and Weight



THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

LED Lighting Systems

Luminaires • SmartSupply • SmartFilter • SmartPower

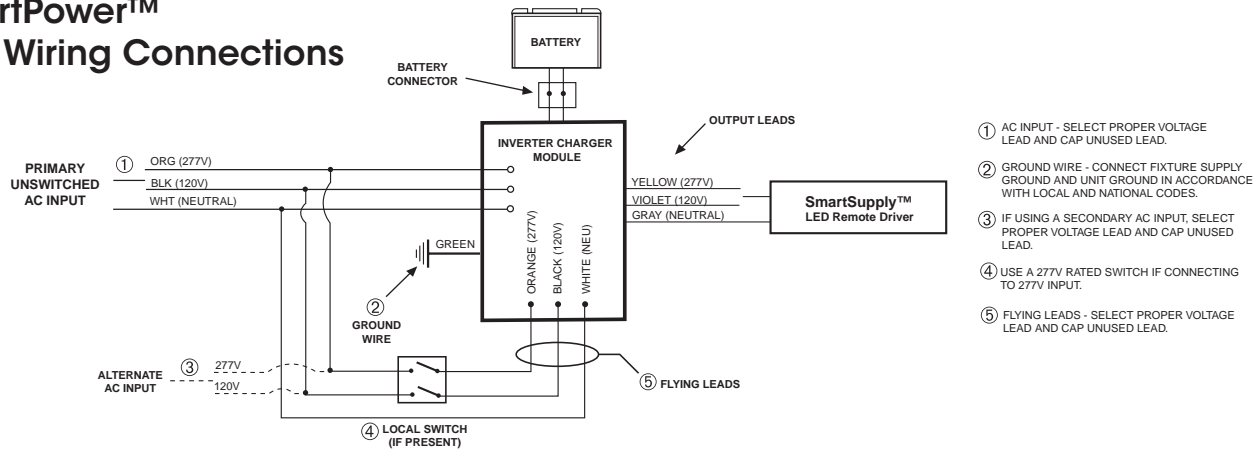
EMERGENCY BACKUP SYSTEM

CATALOG NUMBER

EMI-21220

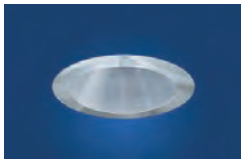
DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.

SmartPower™ Wiring Connections



SmartLED™ MRI Luminaires

MRR-04200



20W DOWNLIGHT

MRR-04220



20W ADJUSTABLE

MRR-06420



42W DOWNLIGHT

MRR-06424



42W WALL WASH

MRR-06427

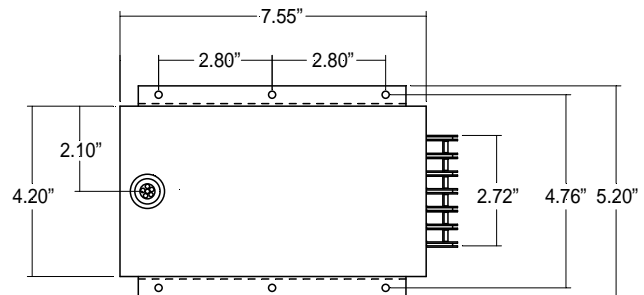


42W REGRESSED LENS

SmartFilter™

RFI-3100D

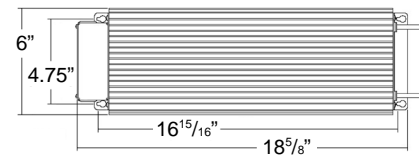
- Outstanding protection
- Small size
- Three filters in one



SmartSupply™

LPS-1220A

- Multivolt, multihertz
- 0-10V full range dimming
- Operates up to (12) 20 watt or (6) 42 watt luminaires
- Provides up to 3 zones of dimming control



SUBMITTAL DATA

JOB NAME

TYPE

WATTAGE

CATALOG NUMBER

VOLTAGE

APPROVAL STAMP

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

EVO® MRI DOWNLIGHT



EVO MRI DOWNLIGHT



EVO MRI SQUARE DOWNLIGHT

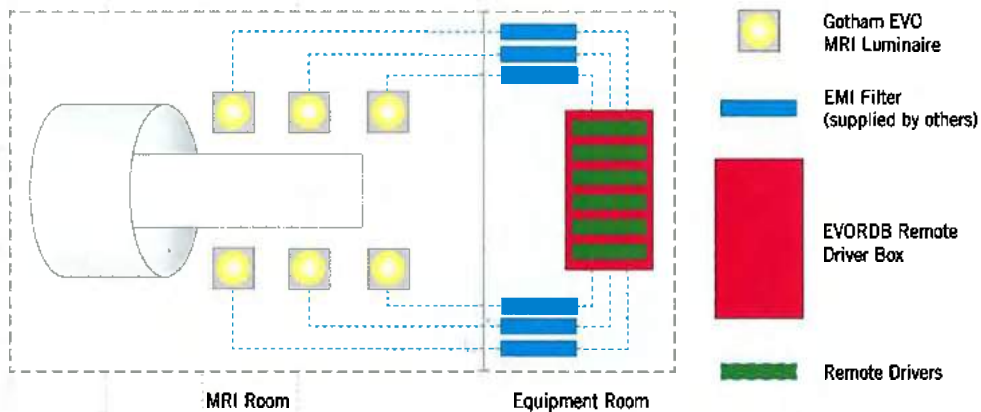


□ Special requirements don't have to limit your options.

Lighting for MRI rooms and surgical suites is even more complicated than other clinical applications: non-ferrous construction, electrical and EMI requirements, remote driver considerations, and MIL-STD compliance. And you still need to deliver lighting that does the job, while meeting the architect's aesthetic vision for the space. Worse yet, options for MRI-compatible downlighting have been limited. **Until now.**

The EVO MRI Downlight opens up a new world of possibilities for lighting that meets technical requirements without limiting options. We make it easier to find the exact solution you need with an array of lumen packages, beam angles, and controlled performance that is nothing short of remarkable.

EVO MRI SYSTEM OVERVIEW



**Performance tailored to patient *and* caregiver.
Options to fit any space – new or existing – beautifully:**

- 100% non-ferromagnetic construction enables safe installation and operation in MRI machine rooms. Remote driver systems power and control the system, while EMI filters support distortion and artifact-free scanning
- Smooth, flicker-free eldoLED® dimming enables patient comfort during imaging procedures
- Unsurpassed system efficacies exceed Energy Star® criteria
- System longevity results in minimal maintenance and zero clinical disruptions
- Lumen and distribution options optimize spacing for both lighting intensity and energy efficiency
- Round or square apertures, 4" or 6", with multiple reflector colors, finishes, and sealed lens options for infection control
- Simple, plug-and-play nLight® controls integration facilitates up to two zones of control in the MRI suites, allowing users to dial in the right light levels for patient, equipment and screen observation from the control room, as well as patient comfort within the imaging suite
- Configurations support A+ Certified Solutions

The EVO MRI Downlight from Gotham® brings performance and design options never before available for these complicated clinical spaces. Everything you expect from a Gotham downlight made compatible to the needs of MRI rooms and surgical suites.



A+ Certified solutions from Acuity Brands help you quickly and confidently select and implement lighting systems, for indoor or outdoor applications, that are both compatible and consistent.

Go to www.acuitybrands.com/solutions/a-certified or contact your local Acuity Brands representative for more information.



4" square



4" round



6" square



6" round



Driver Box



Driver Box with nLight



Round Flush*



Square Regressed*

*Additional lensed trim options, including wallwash, also available.



Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

**4" Evo MRI®
Downlight**

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

- Requires remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information
- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C.

ORDERING INFORMATION

EXAMPLE: EVOMRI 35/20 4AR MWD LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color
EVOMRI	(blank) Open downlight	27/ 2700K	10 1000 Lumens	4AR Clear
		30/ 3000K	15 1500 Lumens	4PR Pewter
		35/ 3500K	20 2000 Lumens	4WTR Wheat
		40/ 4000K	25 2500 Lumens	4GR Gold
		50/ 5000K (90+ CRI)		4WR ¹ White painted
				4BR ¹ Black painted
				4WRAMF ¹ White painted antimicrobial finish
				4DFR ¹ Regressed lensed trim
				4DFF ¹ Flush lensed trim
				4DFRAMF ¹ Regressed lensed trim with antimicrobial finish
				4DFFAMF ¹ Flush lensed trim with antimicrobial finish

Distribution	Aperture finish	Lens ²	Options
MD Medium (0.8 s/mh)	LSS Semi-specular	SOL Textured Lens	CR190 90+ CRI
MWD Medium-wide (1.0 s/mh)	LD Matte-diffuse	SMD Smooth Lens	TRW ³ White painted flange
WD Wide (1.2 s/mh)	LS Specular		TRBL ³ Black painted flange

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

- SCA4** Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to [TECH-190](#).
- EVORDB** Remote Driver Box required for system. Order separately. Consult [EVORDB](#) spec sheet for ordering information.

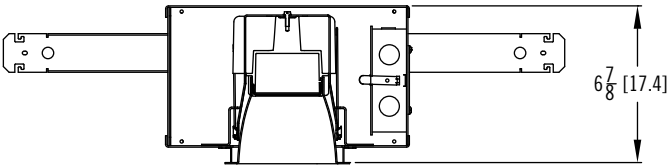
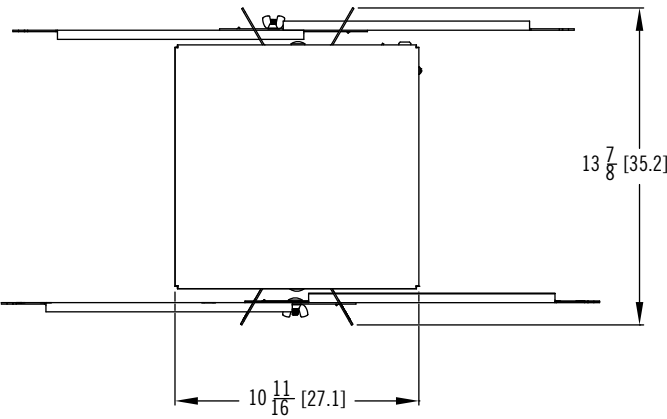
NOTES

ORDERING NOTES

1. Not available with finishes.
2. Only available with lensed trim options.
3. Not available with painted or lensed trim options.

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 4-5/16" (11)
Ceiling Opening: 5-1/8" (13)
Overlap Trim: 5-7/16" (13.8)

ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	1,189	12.8	92.9
1500	1,509	17.3	87.2
2000	2,109	23.5	89.6
2500	2,576	28.9	89.1

* Results typical of open downlight, 3500K



Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

**4" Evo MRI® Square
Downlight**

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 55° cutoff to source and source image
- Top-down flash characteristic
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/4" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 50,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Utilizes remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information

- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: EVOMRI SQ 35/20 4AR LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color
EVOMRI	SQ Square downlight	27/ 2700K	10 1000 Lumens	4AR Clear
		30/ 3000K	15 1500 Lumens	4PR Pewter
		35/ 3500K	20 2000 Lumens	4WTR Wheat
		40/ 4000K	25 2500 Lumens	4GR Gold
		50/ 5000K (90+ CRI)		4WR¹ White painted
				4BR¹ Black painted
				4WRAMF¹ White painted antimicrobial finish
				4DFR¹ Regressed lensed trim
				4DFF¹ Flush lensed trim
				4DFRAMF¹ Regressed lensed trim with antimicrobial finish
				4DFFAMF¹ Flush lensed trim with antimicrobial finish

Aperture finish	Lens²	Options
LSS Semi-specular	SOL Textured Lens	CRI90 90+ CRI
LD Matte-diffuse	SMD Smooth Lens	TRW³ White painted flange
		TRBL³ Black painted flange

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

EVORDB Remote Driver Box required for system. Order separately. Consult [EVORDB](#) spec sheet for ordering information.

NOTES

ORDERING NOTES

1. Not available with finishes.
2. Only available with lensed trim options.
3. Not available with painted or lensed trim options.

4" EVO MRI SQUARE

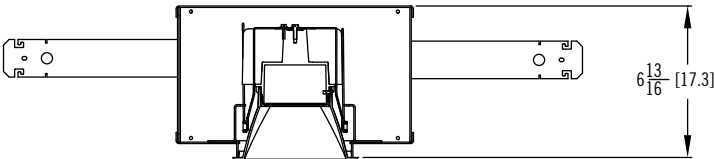
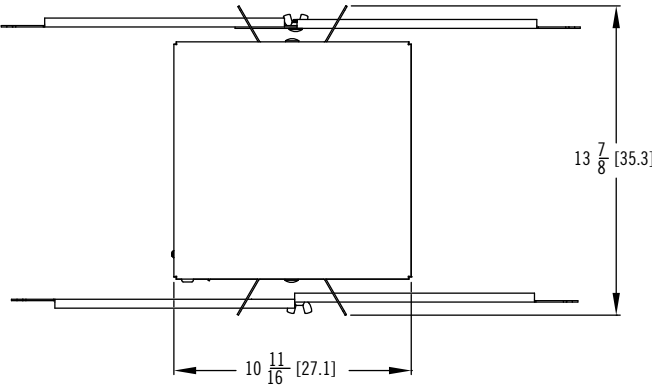
Downlight

Solid-State Lighting



DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 4-1/2" (11.4)
Ceiling Opening: 5-1/8" (13)
Overlap Trim: 5-1/2" (14)

ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	1,189	12.8	92.9
1500	1,509	17.3	87.2
2000	2,109	23.5	89.6
2500	2,576	28.9	89.1

* Results typical of open downlight, 3500K



Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

4" Evo MRI®
Wallwash

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic
- Anodized kicker reflector
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Requires remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information
- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C.

ORDERING INFORMATION

EXAMPLE: EVOMRI WW 35/20 4AR LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color	Aperture finish	Options
EVOMRI	WW Wallwash	27/ 2700K	10 1000 Lumens	4AR Clear	LSS Semi-specular	CRI90 90+ CRI
		30/ 3000K	15 1500 Lumens	4PR Pewter	LD Matte-diffuse	TRW ² White painted flange
		35/ 3500K	20 2000 Lumens	4WTR Wheat	LS Specular	TRBL ² Black painted flange
		40/ 4000K	25 2500 Lumens	4GR Gold		
		50/ 5000K		4WR ¹ White painted		
		(90+ CRI)		4BR ¹ Black painted		

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

- SCA4** Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to [TECH-190](#).
- EVORDB** Remote Driver Box required for system. Order separately. Consult [EVORDB](#) spec sheet for ordering information.

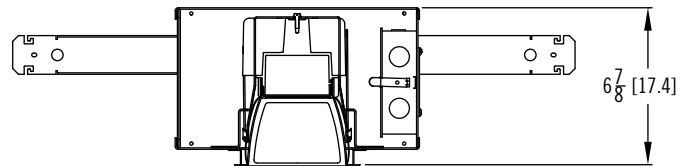
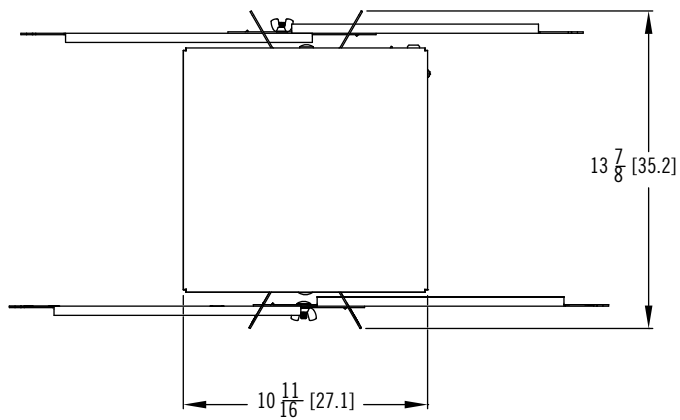
NOTES

ORDERING NOTES

1. Not available with finishes.
2. Not available with painted or lensed trim options.

DIMENSIONAL DATA

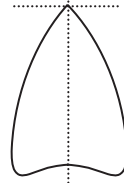
All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 4-5/16" (11)
Ceiling Opening: 5-1/8" (13)
Overlap Trim: 5-7/16" (13.8)

ELECTRICAL





Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

6" Evo MRI®
Downlight

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine and driver accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Utilizes remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information

- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product listed for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: EVOMRI 35/20 6AR MWD LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color
EVOMRI	(blank) Open downlight	27/ 2700K	10 1000 Lumens	6AR Clear
		30/ 3000K	15 1500 Lumens	6PR Pewter
		35/ 3500K	20 2000 Lumens	6WTR Wheat
		40/ 4000K	25 2500 Lumens	6GR Gold
		50/ 5000K (90+ CRI)		6WR ¹ White painted 6BR ¹ Black painted 6WRAMF ¹ White painted antimicrobial finish
				6DFR ¹ Regressed lensed trim 6DFF ¹ Flush lensed trim 6DFFAMF ¹ Regressed lensed trim with antimicrobial finish 6DFFAMF ¹ Flush lensed trim with antimicrobial finish

Distribution	Aperture finish	Lens ²	Options
VND Very Narrow (0.4 s/mh)	LSS Semi-specular	SOL Textured Lens	CR190 90+ CRI
ND Narrow (0.6 s/mh)	LD Matte-diffuse	SMD Smooth Lens	TRW ³ White painted flange
MD Medium (0.8 s/mh)	LS Specular		TRBL ³ Black painted flange
MWD Medium-wide (1.0 s/mh)			
WD Wide (1.2 s/mh)			

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

- SCA6** Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D. Refer to [TECH-190](#).
- EVORDB** Remote Driver Box required for system. Order separately. Consult [EVORDB](#) spec sheet for ordering information.

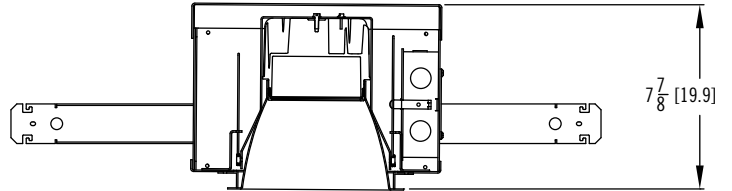
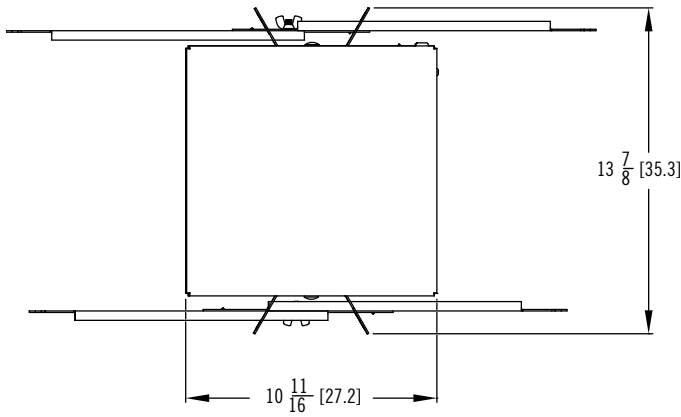
NOTES

ORDERING NOTES

1. Not available with finishes.
2. Only available with lensed trim options.
3. Not available with painted or lensed trim options.

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	1,059	11.8	90.1
1500	1,572	18.5	85.0
2000	2,058	23.2	88.9
2500	2,612	29.5	88.5

* Results typical of open downlight, 3500K



Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

6" Evo MRI® Square Downlight

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 55° cutoff to source and source image
- Top-down flash characteristic
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/4" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 50,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Utilizes remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information

- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: EVOMRI SQ 35/20 6AR LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color
EVOMRI	SQ Square downlight	27/ 2700K	10 1000 Lumens	6AR Clear
		30/ 3000K	15 1500 Lumens	6PR Pewter
		35/ 3500K	20 2000 Lumens	6WTR Wheat
		40/ 4000K	25 2500 Lumens	6GR Gold
		50/ 5000K (90+ CRI)		6WR ¹ White painted 6BR ¹ Black painted 6WRAMF ¹ White painted antimicrobial finish
				6DFR ¹ Regressed lensed trim 6DFF ¹ Flush lensed trim 6DFFAMF ¹ Regressed lensed trim with antimicrobial finish 6DFFAMF ¹ Flush lensed trim with antimicrobial finish

Aperture finish	Lens ²	Options
LSS Semi-specular	SOL Textured Lens	CRI90 90+ CRI
LD Matte-diffuse	SMD Smooth Lens	TRW ³ White painted flange
		TRBL ³ Black painted flange

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

EVORDB Remote Driver Box required for system. Order separately. Consult [EVORDB](#) spec sheet for ordering information.

NOTES

ORDERING NOTES

1. Not available with finishes.
2. Only available with lensed trim options.
3. Not available with painted or lensed trim options.

6" EVO MRI SQUARE

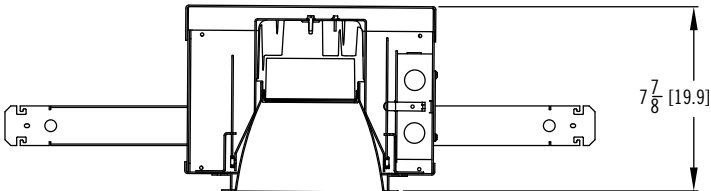
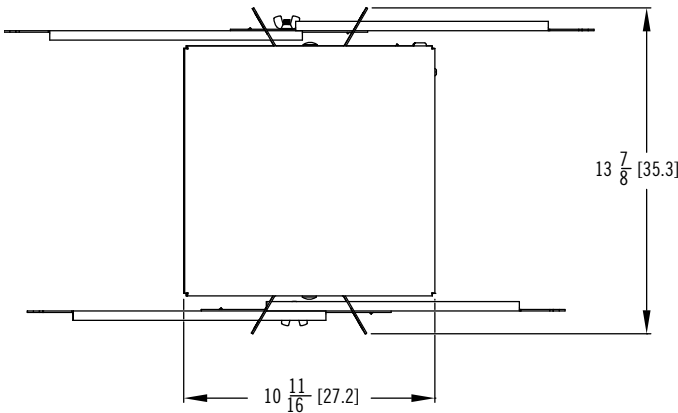
Downlight

Solid-State Lighting



DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6" (15.2)
Ceiling Opening: 6-5/8" (16.8)
Overlap Trim: 7" (17.8)

ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	1,059	11.8	90.1
1500	1,572	18.5	85.0
2000	2,058	23.2	88.9
2500	2,612	29.5	88.5

* Results typical of open downlight, 3500K



Gotham Architectural Downlighting
LED MRI/Imaging Suite Downlights

6" Evo MRI®
Wallwash

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic
- Anodized kicker reflector
- Polycarbonate lens integral to light engine
- Flush and regressed lensed trim options available
- Antimicrobial paint finishes available

MECHANICAL SYSTEM

- Maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 27-1/2" and minimum of 20-1/4"
- Light engine and driver accessible through aperture
- Suitable for use in rooms containing magnetic resonance equipment. Non-ferromagnetic construction

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Utilizes remote mounted driver system solution. Consult [EVORDB](#) spec sheet for ordering information
- EMI filter required - one per luminaire (supplied by others). See list of recommended filter providers on installation instruction sheet

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling
- IP64 rated with lensed trims. IP65 attainable with lensed trim and proper installation. Consult installation instructions for details
- MIL-STD-461F compliant
- ENERGY STAR® certified product listed for all configurations excluding lensed trims

WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: EVOMRI WW 35/20 6AR LSS

Series	Subseries	Color temperature	Nominal lumen values	Aperture/Trim color	Aperture finish	Options
EVOMRI	WW Wallwash	27/ 2700K	10 1000 Lumens	6AR Clear	LSS Semi-specular	CRI90 90+ CRI
		30/ 3000K	15 1500 Lumens	6PR Pewter	LD Matte-diffuse	TRW ² White painted flange
		35/ 3500K	20 2000 Lumens	6WTR Wheat	LS Specular	TRBL ² Black painted flange
		40/ 4000K	25 2500 Lumens	6GR Gold		
		50/ 5000K (90+ CRI)		6WR ¹ White painted 6BR ¹ Black painted		

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

SCA6	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D. Refer to TECH-190 .
EVORDB	Remote Driver Box required for system. Order separately. Consult EVORDB spec sheet for ordering information.

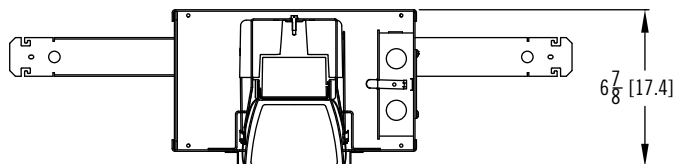
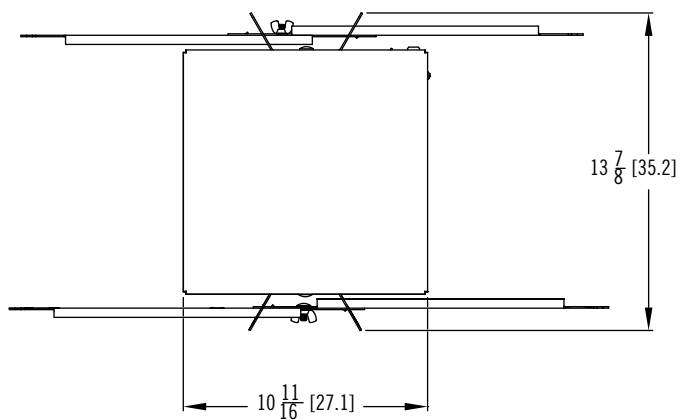
NOTES

ORDERING NOTES

1. Not available with finishes.
2. Not available with painted or lensed trim options.

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

ELECTRICAL



ComfortView LED/MRI

Recessed MRI Suite Fixture

Project:

Type:

Qty:

SPECIFICATIONS

MRI Suite

HCV3

SPECIFICATIONS

General lighting in radiology, oncology, and specialized treatment areas should create a calming atmosphere to ease patient tensions as much as possible. Ceiling fixtures with interesting graphics such as colorful landscape scenes can provide a pleasant distraction while patients are prone or recumbent for long periods of time. For MRI applications, the fixture is built with entirely non-ferrous construction and a remotely-mounted LED driver. Visit the image library on our website to choose from a wide array of high-quality graphics from renowned National Geographic® photographers. Our proprietary lens construction results in a high-definition effect with amazing color. Choose a single fixture to provide a backlit focal point, or spread the image across an arrangement of fixtures to create a panoramic view.

Housing

.050" Aluminum Housing and Door
Polyester powder coat finish; anti-microbial powder coat finish available.

Lens

.175" thick acrylic lens with National Geographic images.

Source

Low output linear LED boards with Nichia LED 757 chipsets.

LED Driver

Acuity Accudrive (standard)
Thomas Research (optional)

Switching

Line voltage switching (by others).

Weight

HCV322 – approximate shipping weight 15 lbs
HCV324 – approximate shipping weight 28 lbs

Voltage

Multi-Volt (120-277V)

Light Output (As Tested)

2x2 - 654 Lumens
2x4 - 327 Lumens

Input Watts (As Tested)

2x2 - 79 Watts
2x4 - 39 Watts

Dimming

0-10V Dimming to 1%

Color Quality

>80 CRI

Life Estimate

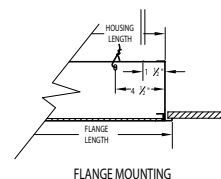
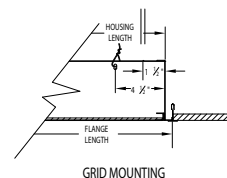
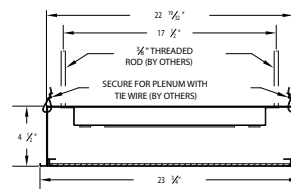
>50,000 hours according to component LM80 testing.

Warranty

5-year limited warranty. Complete warranty terms located at:
www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.



Fixture	Housing Length	Flange Length
HCV322	22 1/2"	23 3/4"
HCV324	46 1/2"	47 3/4"

CATALOG NUMBER

Example: HCV324 G MVOLT SP1 H1 GI1278 SX AM

Series	Mounting	Voltage	Fixture Spacing	Configurations	Image Number	Options	Finish
HCV322 2 ft x 2 ft MRI fixture	G Grid	MVOLT 120-277V	SP0 0-inch	For 2x2 FT	See image gallery on website www.healthcare-lighting.com (e.g. GI1278)	SX No Switch	GW Gloss White (Standard)
HCV324 2 ft x 4 ft MRI fixture	F Flange		SP1 1-inch (Standard Grid)	For 2x4 FT		DMTR2 0-10V Dimming (2x2)	AM Anti-Microbial White
			SP15 1.5-inch grid	A1 H1		DMTR4 0-10V Dimming (2x4)	
			SPN Non-standard	B2 I1			
				C2 J2			
				D4 K2			
				E6 L3			
				F6 M3			
				G9			

Notes

- 1 Non-standard configurations contact factory.
- 2 Contact factory for special dimming requirements.
- 3 Non-standard wiring contact factory.

ComfortView LED/MRI

MRI Suite

Project:

Type:

Qty:

SPECIFICATIONS

MRI Suite

HCV3

CEILING PATTERN CONFIGURATIONS

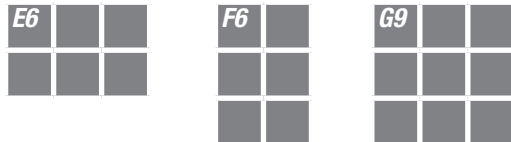
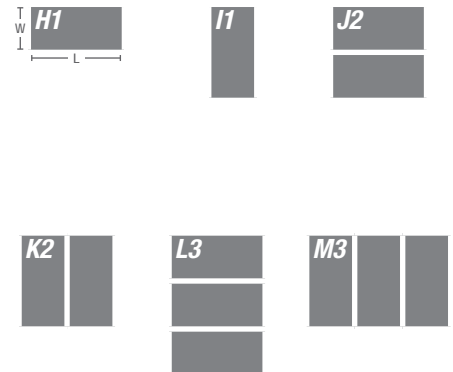
Fixture Configuration	
Configuration	Size (W x L)
A1	2' x 2'
B2	2' x 4'
C2	4' x 2'
D4	4' x 4'
E6	4' x 6'
F6	6' x 4'
G9	6' x 6'

Gallery Chart 2x2



Fixture Configuration	
Configuration	Size (W x L)
H1	2' x 4'
I1	4' x 2'
J2	4' x 4'
K2	4' x 4'
L3	6' x 4'
M3	4' x 6'

Gallery Chart 2x4



PERFORMANCE DATA

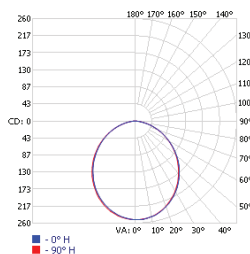
Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

Configuration	Lumen Output (lm)	Max Candela	Input Watts
HCV324 LED 35	654	252	79
HCV322 LED 35	327	126	39

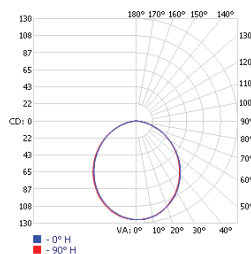
PHOTOMETRICS

Test Report: LTL28477P1
HCV324 LED 35
Lumens: 654.6
Wattage: 79.82 W
Efficacy: 8.2 Lm/W
Max. Candela: 252 @ H: 112.5°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	62.8 FC
4.0	15.7 FC
6.0	7.0 FC
8.0	3.9 FC
10.0	2.5 FC

Test Report: LTL28477P3
HCV322 LED 35
Lumens: 327.3
Wattage: 39.91 W
Efficacy: 8.2 Lm/W
Max. Candela: 126 @ H: 112.5°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	31.4 FC
4.0	7.8 FC
6.0	3.5 FC
8.0	2.0 FC
10.0	1.3 FC

Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.

MRI STARTILE VARA KAMIN'S IMPRESSIONS OF LIGHT®, INC. 22-24 LED

AGS22/AGS24/AGG22/AGG24/AGF22/AGF24

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Non-ferrous material. Surface fixtures have an aluminum back pan. Flange fixtures have an external frame in aluminum.
- LENS:** Images are from Vara Kamin's Impressions of Light® Inc. (VKI). VKI Images are rich in color, movement and texture. Kamin's artwork stimulates the active imagination and invites the viewer to a place of self-reflection. To find more information, visit www.newstarlighting.com. Configuration options on pages 3 and 4. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.
- LED:** Recommended color temperature for VKI Images is 4200°K. Other color temperatures available, consult factory. Standard 0-10V dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included. Driver must be remote mount outside of MRI room. MRI room EMI filter required (supplied by others).
Input Voltage: AC120V-277V
AG22: Input Power 40.0W (must order Power Supply separately. See page 2)
AG24: Input Power 75.0W (must order Power Supply separately. See page 2)



APPLICATION:

MRI Rooms.

LABEL:

Fixture is certified to UL standards for Damp Location.



ORDERING INFORMATION

Ex: AGS22-MRI-VMD-UN-42-A

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE <small>*Dimensional Data Pg. 3</small>	MRI	LENS/ IMAGE SELECTION <small>(See Image Options on Pg. 2)</small>
AG	S = Surface G = Grid F = Flange	22 = 2x2 24 = 2x4	MRI	VMD = Moon Drops© VBL = Bridge of Light© VSP = Sacred Passages - Balance© VIM = Infinite Moments© VSG = Sea Garden© VTP = Touching Petals©

VOLTAGE	LAMP TYPE	OPTIONS	CONFIGURATION <small>(See Options on Pg. 3 & 4)</small>
12 = 120V 27 = 277V UN = Universal (120V-277V)	42= White 4200°K	EQ ☐	<p>*Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for additional configuration options.</p> <p>AG22-24:</p> <p>A F B G C H D I E</p>

KEY

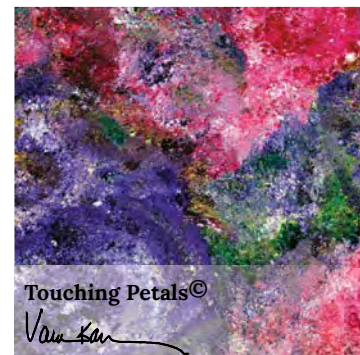
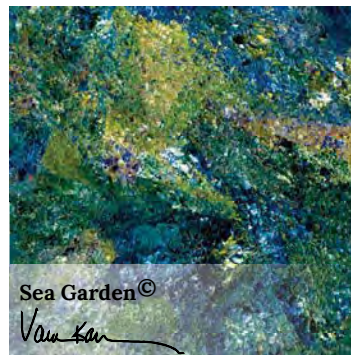
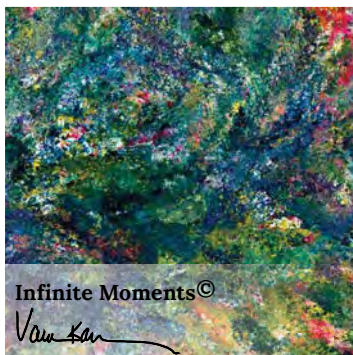
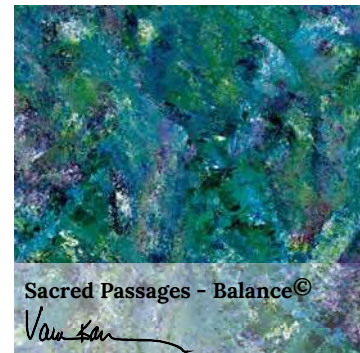
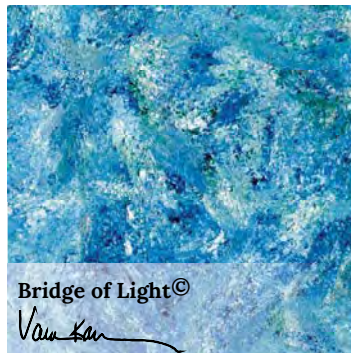
EQ = Earthquake Clips ☐ ☐ Can only be used with Grid

REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room.
 One Driver inside one Box to power one fixture (maximum).
 MRI room EMI filter required (supplied by others).
 Consult factory for additional Power Supply Box options.

PRODUCT FAMILY	STARTILE NOMINAL SIZE		OPTIONS	KEY
AG		PS-1/1-P		EL1 = Emerg. Batt. LED Low π D1 = Dimming Driver 1%
	22 = 2x1 24 = 2x4		EL1 π D1	π Remote battery distance equals half the remote driver distance. Consult factory for more information.

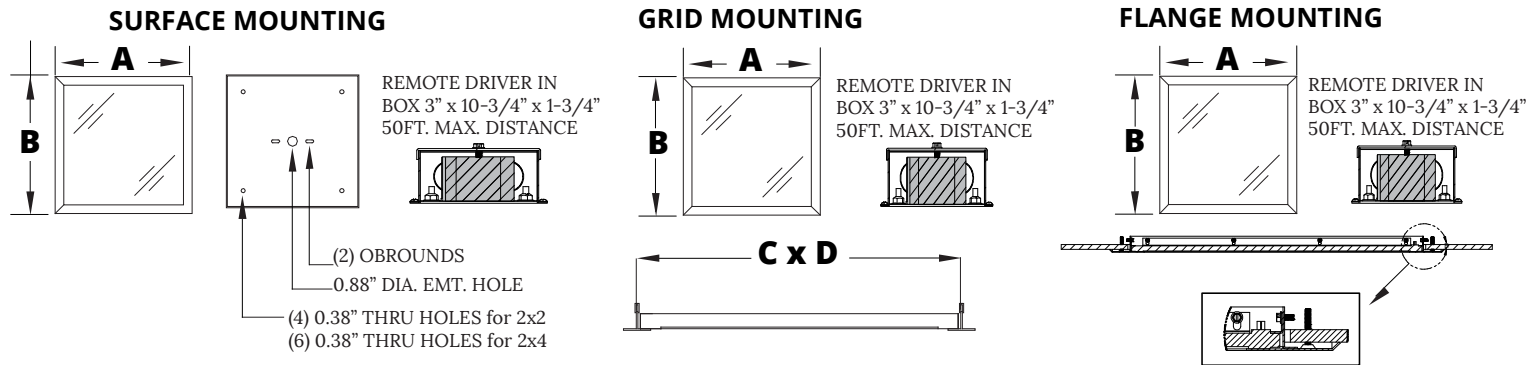
VKI IMAGE SELECTION



Notes:

VKI Images may vary by size and configuration. Consult your New Star Lighting Representative for more information.
 Specifications and Dimensions are subject to change without notice.
 For additional options and dimensional details please consult your New Star Lighting Representative.

DIMENSIONAL DATA



	A	B	C	D	Depth	Recommended Ceiling Cut-Out
AGS22	23.77"	23.77"	-	-	1.00"	N/A
AGS24	23.81"	47.93"	-	-	1.00"	N/A
AGG22	23.62"	23.62"	24"	24"	0.56"	N/A
AGG24	23.62"	47.62"	24"	48"	0.56"	N/A
AGF22	27.188"	27.188"	-	-	1.30"	24.188" x 24.188"
AGF24	50.813"	27.188"	-	-	1.30"	24.188" x 48.188"

CONFIGURATION OPTIONS

* Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for alternate configurations. Images may need to be edited based upon configuration and quantity.

2' x 2'		A		B			C			D			
		1		1	2		1	2		1			
				3	4					2			
	E												
	1	2	3	4		F			G				
						1	2		1	2	3	4	
						3	4		5	6	7	8	
	H												
	1	2	3	4		5	6		I				
	5	6	7	8		7	8		1	2	3		
	9	10	11	12					4	5	6		
	13	14	15	16					7	8	9		

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information.

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

CONFIGURATION OPTIONS

* Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns.
 Consult factory for alternate configurations. Images may need to be edited based upon configuration and quantity.

2' x 4'									
	A		B			C			
	1		1	2		1	2		
			3	4					
	D								
	1		E						
	2		1	2	3	4			
	F			G					
	1	2		1	2	3	4		
	3	4		5	6	7	8		
	5	6							
	7	8							
	H					I			
	1	2	3	4		1	2	3	
	5	6	7	8		4	5	6	
	9	10	11	12		7	8	9	
	13	14	15	16					

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information.

Specifications and Dimensions are subject to change without notice.

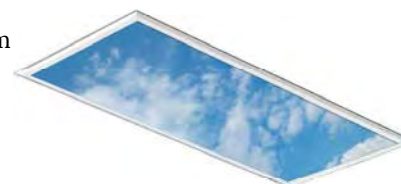
For additional options and dimensional details please consult your New Star Lighting Representative.

STARTILE IMAGE OVERLAY MRI 22-24 LED

AGS22/AGS24/AGG22/AGG24/AGF22/AGF24

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Non-ferrous material content. Surface fixtures have an aluminum back pan. Flange fixtures have an aluminum external frame.
- LENS:** Variety of image overlays to choose from. Optional custom image. Configurations on page 2. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.
- LED:** Available in four white color temperatures 3000°K, 3500°K, 4200°K and 5700°K. Other color temperatures available, consult factory. Standard 0-10V Meanwell dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included. Driver must be remote mount outside of MRI room (50ft. max). MRI room EMI filter required (supplied by others).
Input Voltage: AC120V-277V
AG22: Input Power 40.0W (must order Power Supply separately. See page 2)
AG24: Input Power 80.0W (must order Power Supply separately. See page 2)



APPLICATION:

MRI Rooms.

MOUNTING:

Mounting screws are not provided.

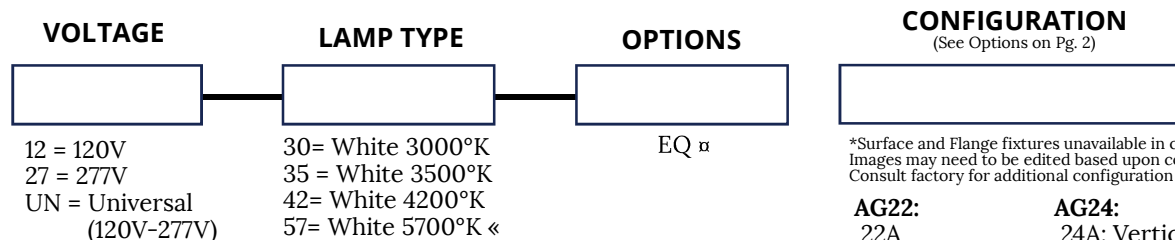
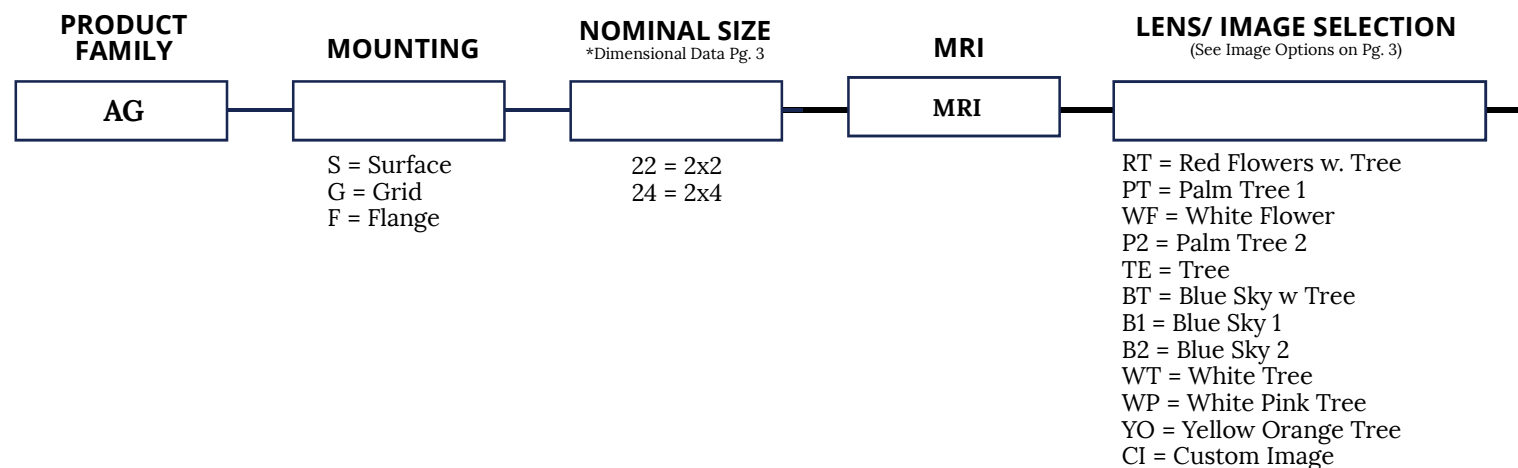
LABEL:

Fixture is listed for UL Damp Location.



ORDERING INFORMATION

Ex: AGG22-MRI-RT-UN-57 22B



KEY

EQ = Earthquake Clips/Suspended mounting bracket clips «
« Can only be used with Grid
« Recommended for Image Overlays

*Surface and Flange fixtures unavailable in certain configurations. Images may need to be edited based upon configuration. Consult factory for additional configuration options.

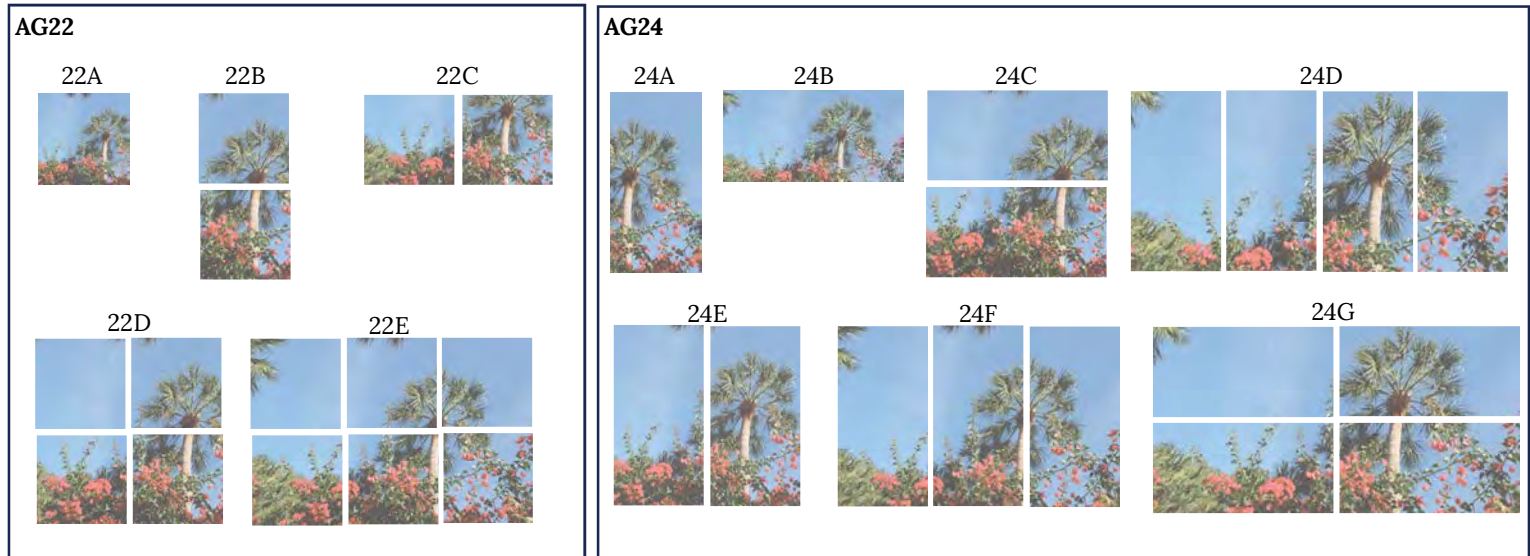
AG22:
22A: Vertical
22B: Vertical
22C: Horizontal
22D: Square
22E: Horizontal

AG24:
24A: Vertical
24B: Horizontal
24C: Horizontal
24D: Vertical
24E: Vertical
24F: Vertical
24G: Horizontal

CUC = Custom Configuration.
See factory for details.

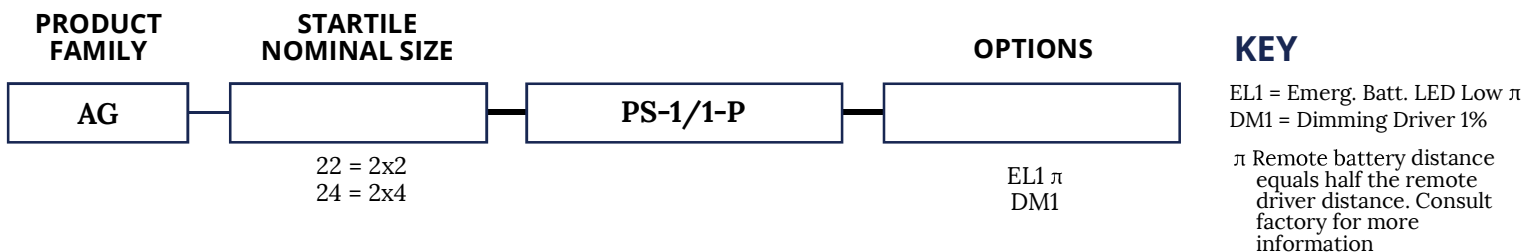
CONFIGURATION OPTIONS

*Consult factory for alternate configurations. Images may need to be edited based upon configuration.



REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room (50ft. max). One Driver inside one Box to power one fixture (maximum). Consult factory for additional options. MRI room EMI filter required (supplied by others). Note, each Power Supply requires individual Filter. Consult factory for additional Power Supply configurations.



STARTILE MRI 22-24 LED

AGS22/AGS24/AGG22/AGG24/AGF22/AGF24

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Non-ferrous material content. Surface fixtures have an aluminum back pan. Flange fixtures have an aluminum external frame.
- LENS:** Opal Polycarbonate lens standard.
- LED:** Available in four white color temperatures 3000°K, 3500°K, 4200°K and 5700°K. Other color temperatures available, consult factory. Standard 0-10V Meanwell dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included. Driver must be remote mount outside of MRI room (50ft. max). MRI room EMI filter required (supplied by others). Input Voltage: AC120V-277V
AG22: Input Power 40.0W (must order Power Supply separately)
AG24: Input Power 80.0W (must order Power Supply separately)



APPLICATION:

MRI Rooms.

MOUNTING:

Mounting screws are not provided.

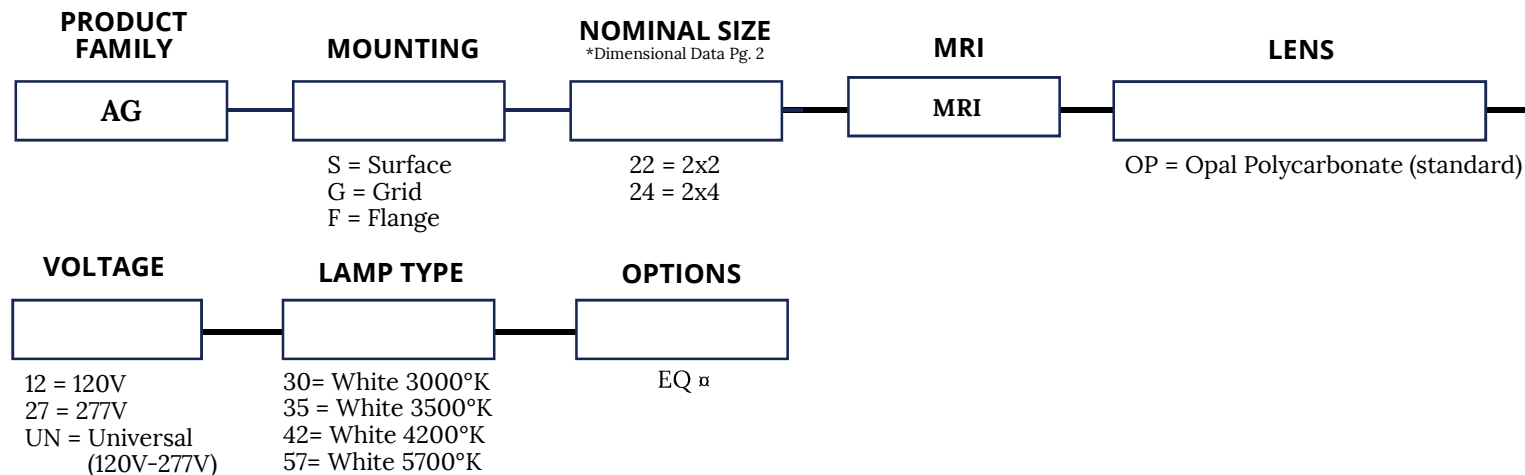
LABEL:

Fixture is listed for UL Damp Location.



STARTILE MRI ORDERING INFORMATION

Ex: AGS24-MRI-OP-UN-35

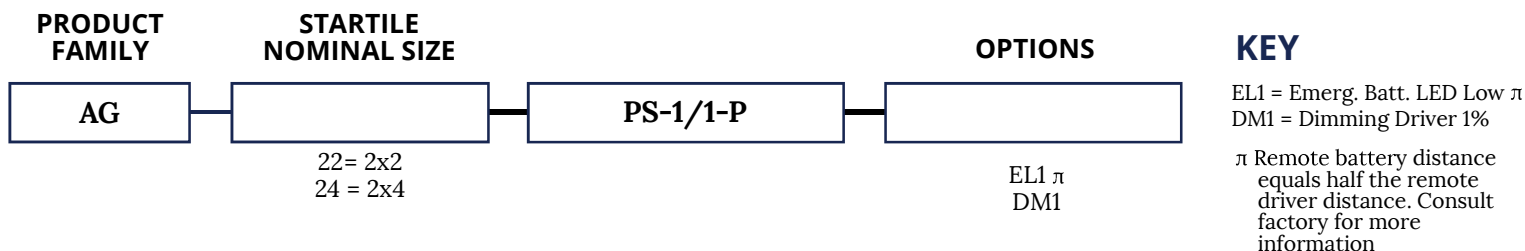


KEY

EQ = Earthquake Clips/Suspended mounting bracket clips α Can only be used with Grid

REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room (50ft. max). One Driver inside one Box to power one fixture (maximum). Consult factory for additional options. MRI room EMI filter required (supplied by others). Note, each Power Supply requires individual Filter. Consult factory for additional Power Supply configurations.



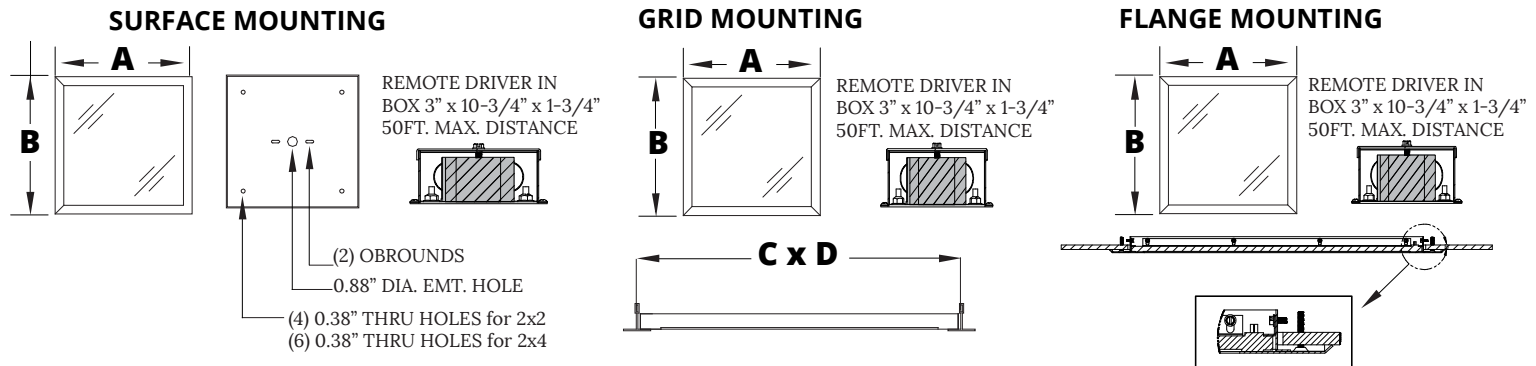
Notes:
Image is a 2x4 StarTile
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

STARTILE MRI 22-24 LED

AGS22/AGS24/AGG22/AGG24/AGF22/AGF24



DIMENSIONAL DATA



	A	B	C	D	Depth	Recommended Ceiling Cut-Out
AGS22	23.77"	23.77"	-	-	1.00"	N/A
AGS24	23.81"	47.93"	-	-	1.00"	N/A
AGG22	23.62"	23.62"	24"	24"	0.56"	N/A
AGG24	23.62"	47.62"	24"	48"	0.56"	N/A
AGF22	27.188"	27.188"	-	-	1.30"	24.188" x 24.188"
AGF24	50.813"	27.188"	-	-	1.30"	24.188" x 48.188"

PERFORMANCE DATA

Model	Lamp Type	Lumens (Delivered)	Efficacy (lm/W)	Input Power (W)
AG22	3000°K	3840	96.3	40
	3500°K	3900	98	40
	4200°K	4000	98.7	40
	5700°K	4532	111.5	40
AG24	3000°K	6700	80.7	80
	3500°K	6850	81.7	80
	4200°K	7000	82.7	80
	5700°K	7900	93.4	80

Notes:

Performance Data subject to change without notice.

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

MRI STARTILE VARA KAMIN'S IMPRESSIONS OF LIGHT®, INC. 11-14 LED AGS11/AGS14/AGG11/AGG14/AGF11/AGF14

SPECIFICATION FEATURES

HOUSING: Fixture Frame White Extruded Aluminum. Non-ferrous material.
Surface fixtures have an aluminum back pan. Flange fixtures have an external frame in aluminum.

LENS: Images are from Vara Kamin's Impressions of Light® Inc. (VKI).
VKI Images are rich in color, movement and texture. Kamin's artwork stimulates the active imagination and invites the viewer to a place of self-reflection. To find more information, visit www.newstarlighting.com.
Configuration options on pages 3 and 4. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.

LED: Recommended color temperature for VKI Images is 4200°K.
Other color temperatures available, consult factory.
Standard 0-10V dimming driver with 10-100% range.

POWER SUPPLY: LED Driver Included. Driver must be remote mount outside of MRI room. MRI room EMI filter required (supplied by others).
Input Voltage: AC120V-277V
AG11: Input Power 18.0W (must order Power Supply separately. See page 2)
AG14: Input Power 40.0W (must order Power Supply separately. See page 2)



Moon Drops®

Vara Kamin

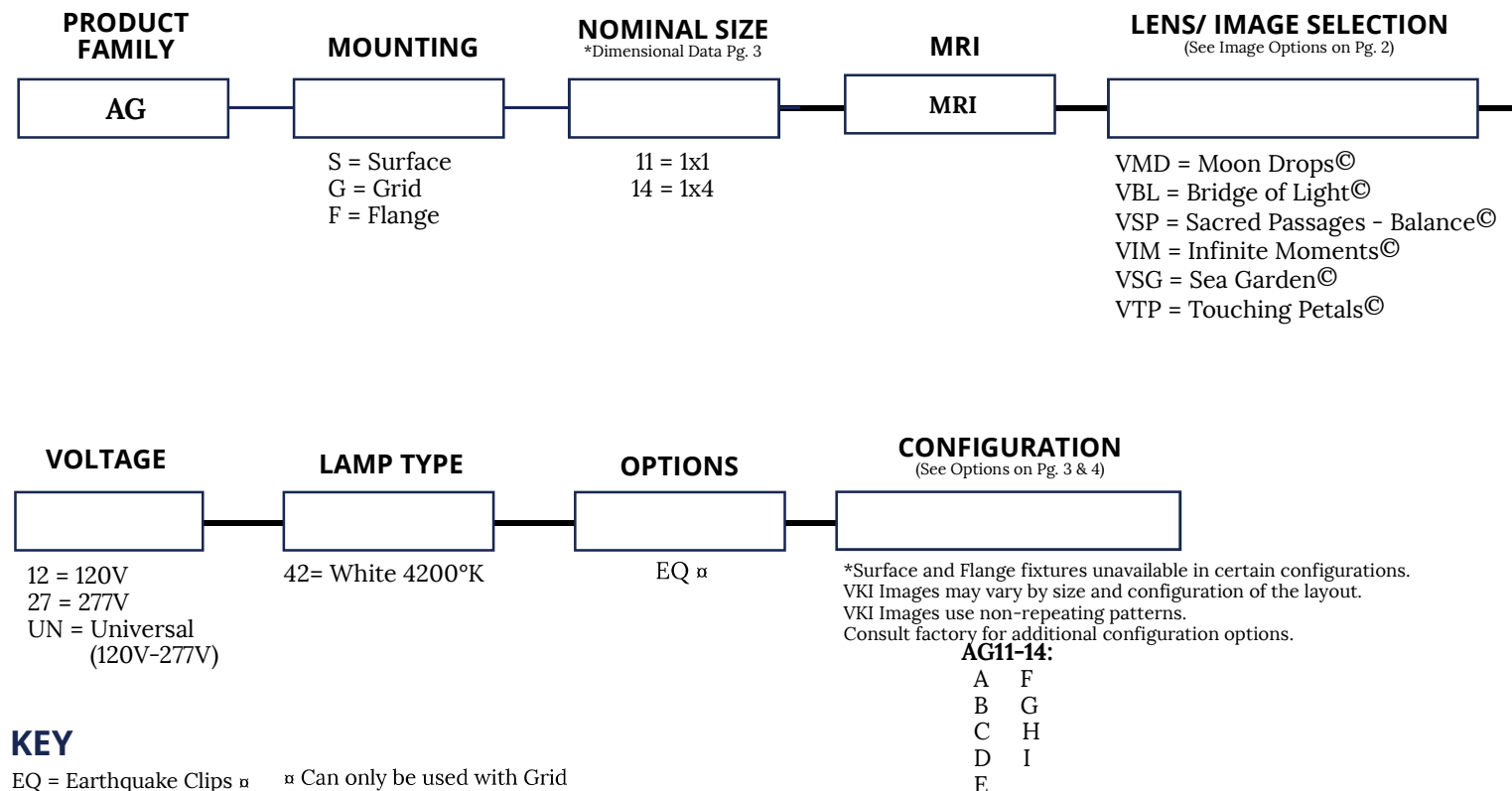
APPLICATION:
MRI Rooms.

LABEL:
Fixture is certified to UL standards for Damp Location.



ORDERING INFORMATION

Ex: AGS11-MRI-VMD-UN-42-A



KEY

EQ = Earthquake Clips □ □ Can only be used with Grid

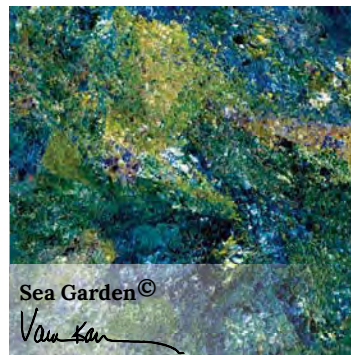
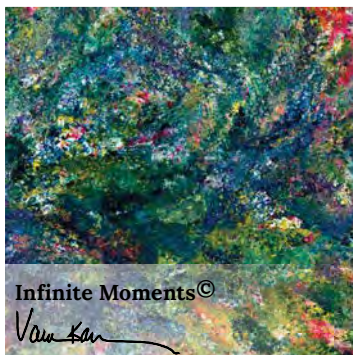
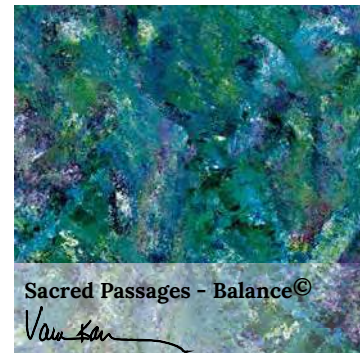
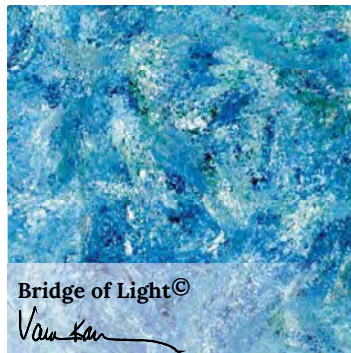
Notes:
Image is Vara Kamin's Impressions of Light®, Inc. Moon Drops® (VMD)
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room.
 One Driver inside one Box to power one fixture (maximum).
 MRI room EMI filter required (supplied by others).
 Consult factory for additional Power Supply Box options.

PRODUCT FAMILY	STARTILE NOMINAL SIZE		OPTIONS	KEY
AG		PS-1/1-P		EL1 = Emerg. Batt. LED Low π D1 = Dimming Driver 1%
	11 = 1x1 14 = 1x4		EL1 π D1	π Remote battery distance equals half the remote driver distance. Consult factory for more information.

VKI IMAGE SELECTION



Notes:

VKI Images may vary by size and configuration. Consult your New Star Lighting Representative for more information.
 Specifications and Dimensions are subject to change without notice.
 For additional options and dimensional details please consult your New Star Lighting Representative.

STARTILE IMAGE OVERLAY MRI 11-14 LED

AGS11/AGS14/AGG11/AGG14/AGF11/AGF14

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Non-ferrous material content. Surface fixtures have an aluminum back pan. Flange fixtures have an aluminum external frame.
- LENS:** Variety of image overlays to choose from. Optional custom image. Configurations on page 2. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.
- LED:** Available in four white color temperatures 3000°K, 3500°K, 4200°K and 5700°K. Other color temperatures available, consult factory. Standard 0-10V Meanwell dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included. Driver must be remote mount outside of MRI room. MRI room EMI filter required (supplied by others).
Input Voltage: AC120V-277V
AG11: Input Power 18.0W (must order Power Supply separately. See page 2)
AG14: Input Power 40.0W (must order Power Supply separately. See page 2)



APPLICATION:

MRI Rooms.

MOUNTING:

Mounting screws are not provided.

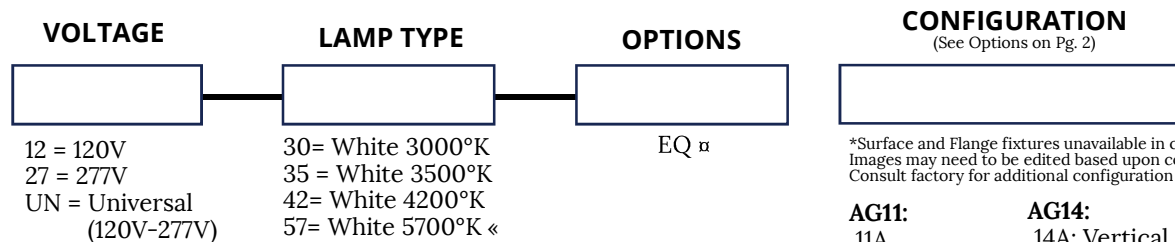
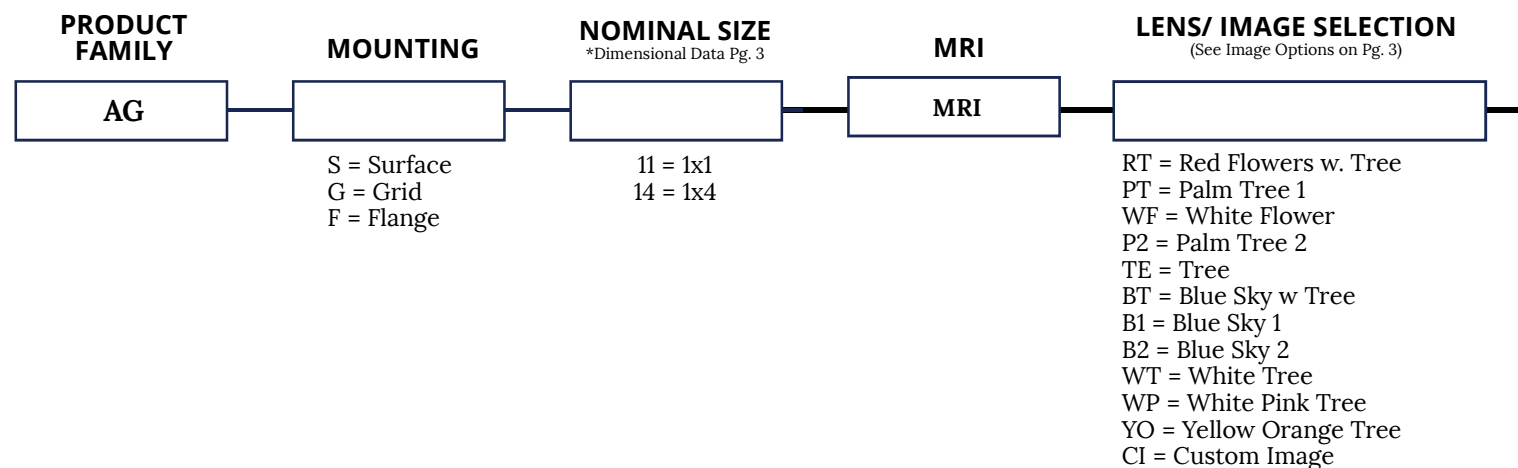
LABEL:

Fixture is listed for UL Damp Location.



ORDERING INFORMATION

Ex: AGG11-MRI-RT-UN-57 11B



*Surface and Flange fixtures unavailable in certain configurations. Images may need to be edited based upon configuration. Consult factory for additional configuration options.

KEY

EQ = Earthquake Clips/Suspended mounting bracket clips α
α Can only be used with Grid
« Recommended for Image Overlays

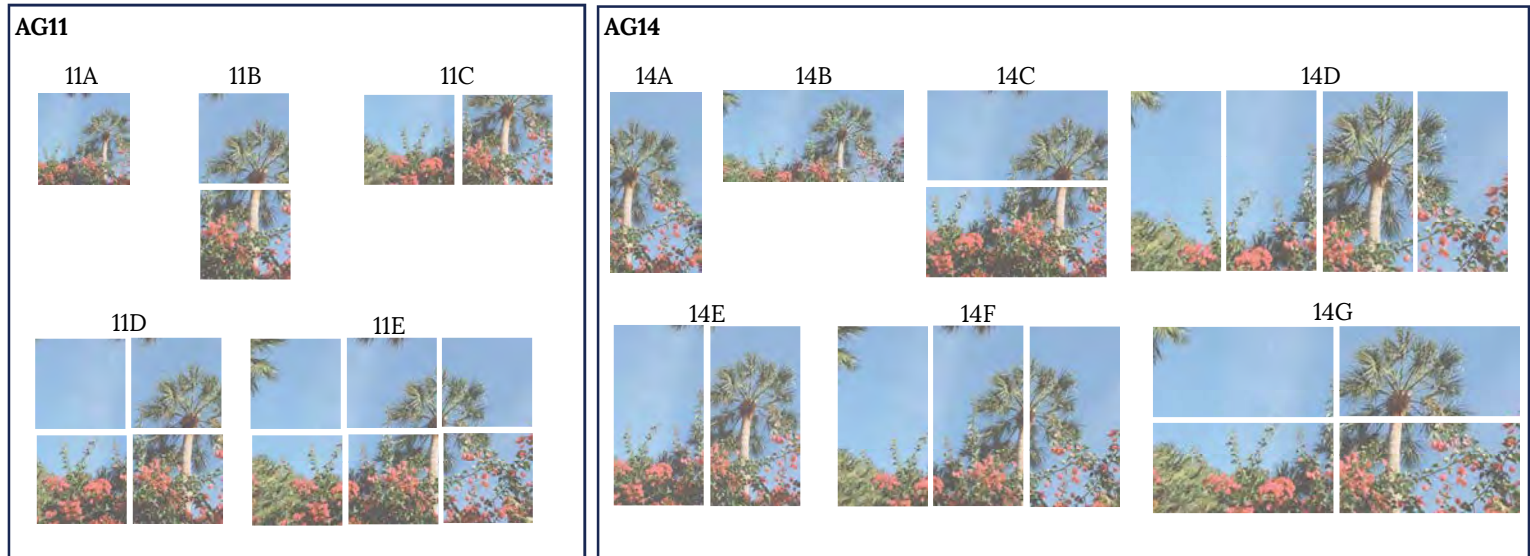
AG11:
11A
11B: Vertical
11C: Horizontal
11D: Square
11E: Horizontal

AG14:
14A: Vertical
14B: Horizontal
14C: Horizontal
14D: Vertical
14E: Vertical
14F: Vertical
14G: Horizontal

CUC = Custom Configuration.
See factory for details.

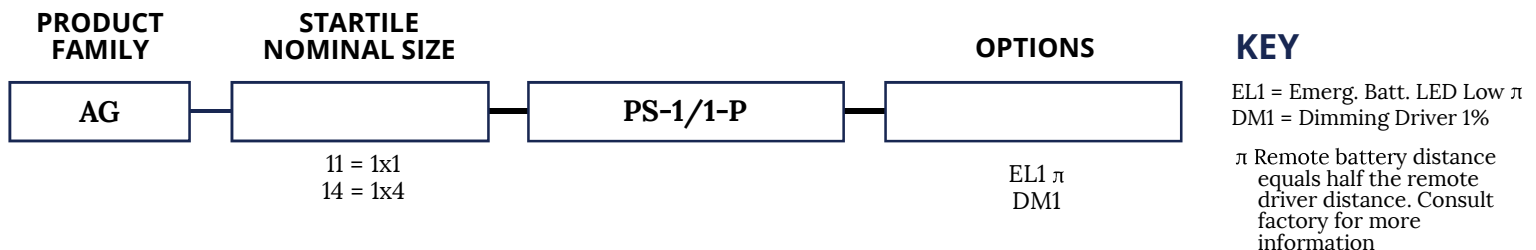
CONFIGURATION OPTIONS

*Consult factory for alternate configurations. Images may need to be edited based upon configuration.



REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room (50ft. max). One Driver inside one Box to power one fixture (maximum). Consult factory for additional options. MRI room EMI filter required (supplied by others). Note, each Power Supply requires individual Filter. Consult factory for additional Power Supply configurations.



STARTILE MRI 11-14 LED

AGS11/AGS14/AGG11/AGG14/AGF11/AGF14

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Non-ferrous material content. Surface fixtures have an aluminum back pan. Flange fixtures have an aluminum external frame.
- LENS:** Opal Polycarbonate lens standard.
- LED:** Available in four white color temperatures 3000°K, 3500°K, 4200°K and 5700°K. Other color temperatures available, consult factory. Standard 0-10V Meanwell dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included. Driver must be remote mount outside of MRI room. MRI room EMI filter required (supplied by others).
Input Voltage: AC120V-277V
AG11: Input Power 18.0W (must order Power Supply separately)
AG14: Input Power 40.0W (must order Power Supply separately)



APPLICATION:

MRI Rooms.

MOUNTING:

Mounting screws are not provided.

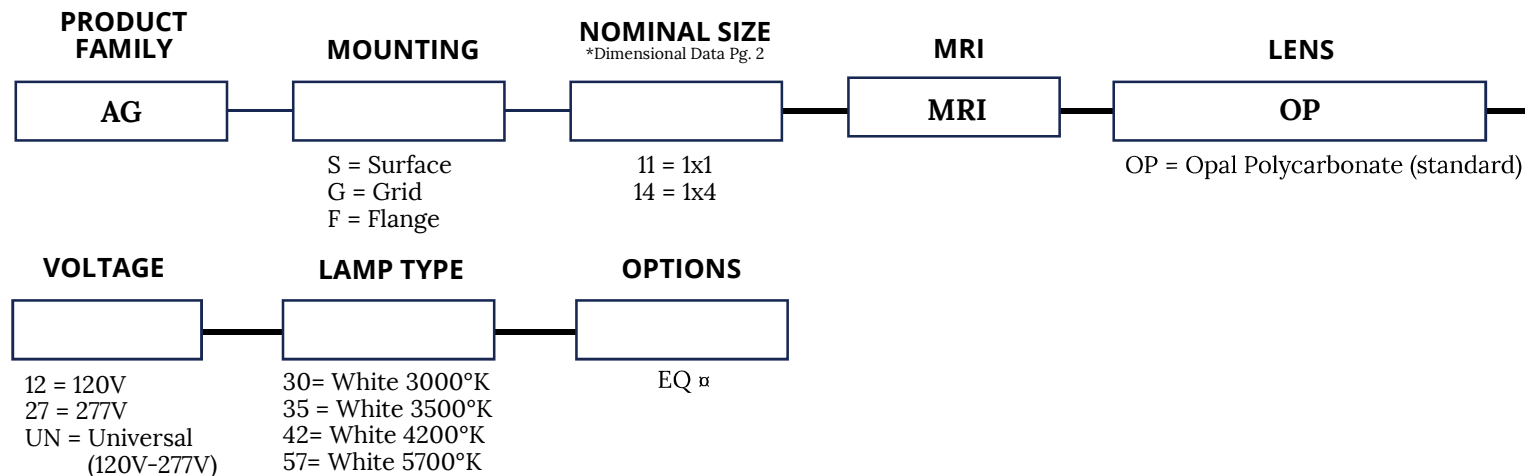
LABEL:

Fixture is listed for UL Damp Location.



STARTILE MRI ORDERING INFORMATION

Ex: AGS14-MRI-OP-UN-35

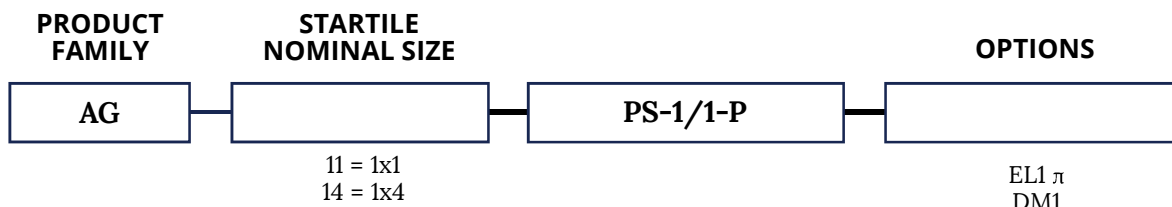


KEY

EQ = Earthquake Clips/Suspended mounting bracket clips π Can only be used with Grid

REMOTE POWER SUPPLY ORDERING INFORMATION

StarTile MRI fixtures supplied with LED Driver. Driver must be remote mount outside of MRI Room (50ft. max). One Driver inside one Box to power one fixture (maximum). Consult factory for additional options. MRI room EMI filter required (supplied by others). Note, each Power Supply requires individual Filter. Consult factory for additional Power Supply configurations.



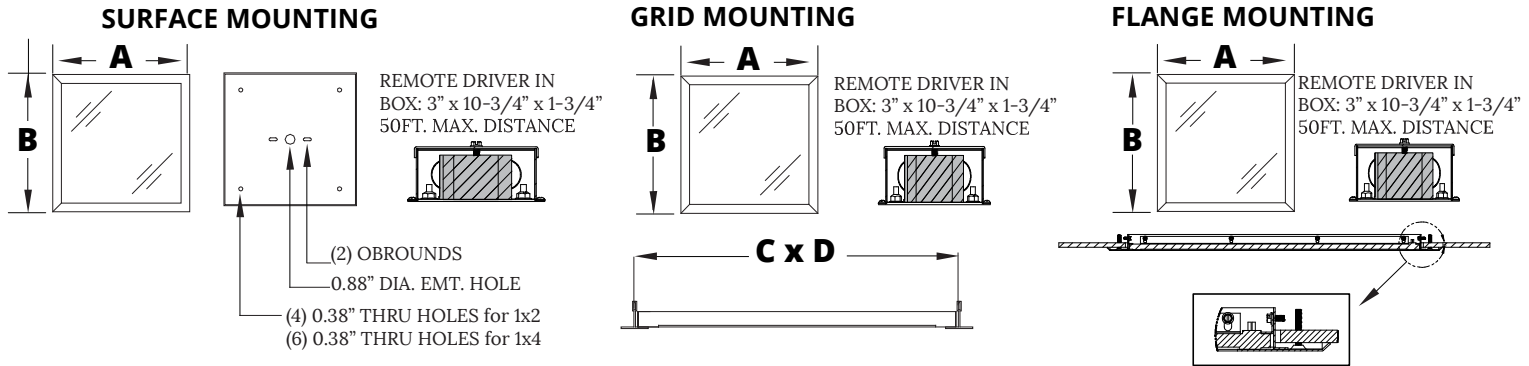
KEY

EL1 = Emerg. Batt. LED Low π
DM1 = Dimming Driver 1%

π Remote battery distance equals half the remote driver distance. Consult factory for more information

Notes:
Image is a 1x4 StarTile
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

DIMENSIONAL DATA



	A	B	C	D	Depth	Recommended Ceiling Cut-Out
AGS11	12.00"	12.00"	-	-	1.00"	N/A
AGS14	12.00"	47.375"	-	-	1.00"	N/A
AGG11	11.81"	11.81"	12"	12"	0.56"	N/A
AGG14	11.81"	47.75"	12"	48"	0.56"	N/A
AGF11	15.50"	15.50"	-	-	1.30"	12.438" x 12.438"
AGF14	15.38"	50.813"	-	-	1.30"	12.312" x 48.062"

PERFORMANCE DATA

Model	Lamp Type	Lumens (Delivered)	Efficacy (lm/W)	Input Power (W)
AG11	3000°K	1344	74.1	18
	3500°K	1350	75	18
	4200°K	1400	75.9	18
	5700°K	1586	85.7	18
AG14	3000°K	3648	93.5	40
	3500°K	3786	95	40
	4200°K	3800	95.8	40
	5700°K	4305	108.2	40

Notes:

Performance Data subject to change without notice.
 Specifications and Dimensions are subject to change without notice.
 For additional options and dimensional details please consult your New Star Lighting Representative.

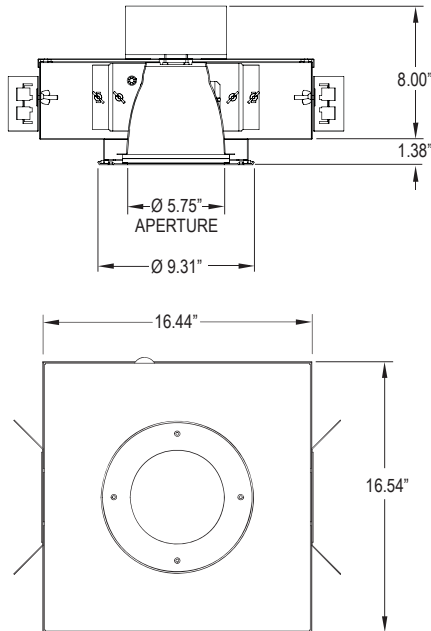
STARMed 6 LED ROUND

HEALTHCARE SERIES

MRI LUMINAIRE
LED



DIMENSIONAL DATA



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM6-MRI	HA				
DLM6-MRI 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum	L3= 9W 82 CRI L4= 19W 82 CRI	30 = White 3000° K 35 = White 3500° K 40 = White 4000° K	A = .125 Clear Acrylic B = .125 Clear Polycarb. C = .187 Clear Polycarb. D = .250 Clear Polycarb. E = .375 Clear Polycarb.	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarb. C = .156 Prismatic Polycarb. D = .125 White Frosted Polycarb. LC3
Trim	Reflector Finish	Voltage	Options		
A					
A = .080 Aluminium	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	DM = Dimming Driver (0-10V)• DM1 = Dimming Driver 1% FZ = Fuse TH = Torx Head screws (with center pins) NI = Non-IP65 Application	* 90 CRI only available in 3000K ◀ Also available in 82 CRI (Consult Factory) • Consult factory for dimming compatibility	



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 6 LED Round" Healthcare fixture is designed for use in MRI suites and medical settings.

- Non-ferrous construction
- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 6" aperture
- MRI safe
- Dimmable down to 1%
- Remote mounted power supply
- Available in a variety of wattages
- Easy maintenance finish
- Low glare

APPLICATION

- MRI Rooms
- Control Rooms
- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate and Acrylic lens

ELECTRONICS:

Remote mounted 36V DC 120V-277V power supply.
0-10v dimming RF/EM2 filter required by others.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



	COLOR TYPE	REFLECTOR FINISH POLYCARBONATE	LC3 (.125 THK.) WHITE FROSTED .125 THK.) LENS	CLEAR ACRYLIC	WATTAGE	ESTD. LED LIFE L70
L3	30 K	CLEAR SPECULAR	535 lms	741 lms	9 w	149,000 HRS.
L4	30 K	CLEAR SPECULAR	976 lms	1,189 lms	19 w	149,000 HRS.
L3	35 K	CLEAR SPECULAR	551 lms	763 lms	9 w	149,000 HRS.
L4	35 K	CLEAR SPECULAR	1,005 lms	1,225 lms	19 w	149,000 HRS.
L3	40 K	CLEAR SPECULAR	567 lms	786 lms	9 w	149,000 HRS.
L4	40 K	CLEAR SPECULAR	1,035 lms	260 lms	19 w	149,000 HRS.

Notes:

Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

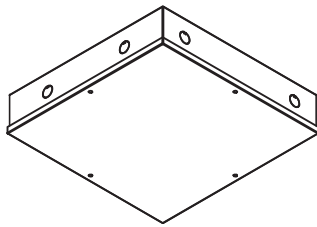


STARMed 6 LED POWER SUPPLY

HEALTHCARE SERIES

MRI

LED



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 6" LED MRI Round" Healthcare fixture is designed for use in MRI suites and other medical settings.

- Remote mounted outside EMI shielded room
- Compatible with 0-10 volt dimming control
- Dimmable down to 1%
- Remote mounted power supply

APPLICATION

- MRI / imaging suite
- Control rooms

SPECIFICATION FEATURES

HOUSING:

20 gauge CRS with seam welded construction

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

ELECTRONICS:

Input : 120/277V 50/60 HZ

Output : Max (3) 36Vdc constant current drivers

EMI FILTERS:

EMI filter required, sized to power supply (by others)

COVER:

20 Ga. CRS with seam welded construction

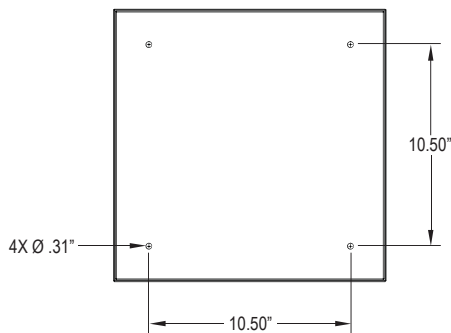
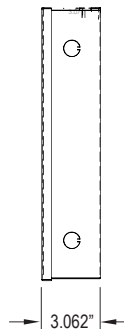
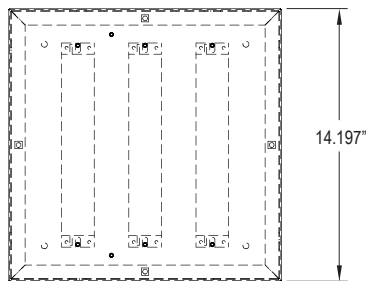
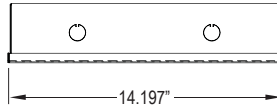
LABEL:



INSTALLATION:

Wiring / conduit : All power and dimming wiring must be completely shielded in grounded conduit. Min 18 AWG low voltage supply wire. Total run of wire (power supply to filter to fixture) must not exceed 50 ft.

DIMENSIONAL DATA



Mounting Detail

ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	* Number of Fixtures per Drivers	Options
DLM6-PS-MRI				
DLM6-MRI 14.20" x 14.20" x 3.06"	HC = Housing 20 Gauge CRS	M1 = 9W 82 CRI M2 = 19W 82 CRI	#1 #2 #3	DM = Dimming Driver (0-10V) • DM1 = Dimming Driver 1% ▲

19W : 1-4 Fixtures Per Driver
9W : 1-4 and 8 Fixtures Per Driver

▲ MRI only for 1% Dimming
19W : 1-4 Fixtures Per Driver
9W : 3 Fixtures Per Driver

10-27-17



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

LAMPA LED

LAM1/LAM2/LAM4

SPECIFICATION FEATURES

HOUSING:	Die formed, seam welded and ground smooth marine grade aluminum (standard).
FRAME:	Die formed, seam welded and ground smooth frame available in aluminum (standard), stainless steel and cold rolled steel. Custom band options available, consult factory.
LENS:	1/8" thick white frosted polycarbonate diffuser.
LED:	Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory.
REFLECTOR:	Die formed aluminum and removable for easy installation and maintenance.
FASTENERS:	Tamper resistant countersink flat head Torx screws with center pin reject.
FINISH:	Black PPG polyester textured paint or optional custom color.
GASKET:	Black neoprene gasket around interior door frame to prevent water and dust infiltration.



APPLICATION:

Public Areas, MRI Rooms, Corridors, Stairways, Underpasses, Parking Garages, Restrooms, Lobbies, Schools, and more.

MOUNTING:

Surface Wall Mount Installation.

LABEL:

Fixture is certified to UL standards by Intertek Testing Laboratories.



ORDERING INFORMATION

Ex: LAM1-AL-L2401-LC3-UN-BK

PRODUCT FAMILY	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	FRAME	LUMEN OUTPUT**	LAMP TYPE	CIRCUIT
LAM					1C
	1 = 1ft. 2 = 2ft. 4 = 4ft.	AL = Aluminum (standard) SS = Stainless Steel (brushed) SSP = Stainless Steel (painted) CR = Cold rolled steel CF = Custom Frame	LAM1: L2 = Standard L3 = Medium ≈ LAM2-4: L1 = Standard ≈ L2 = Medium L3 = High ≈	30 = 3000°K 35 = 3500°K 40 = 4000°K 50 = 5000°K	1C = 1 Circuit
LENS	VOLTAGE	FINISH	OPTIONS		
LC3					
LC3 = .125 White Frosted Poly.	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	BK = Black PPG Polyester Textured Paint CC = Custom Color	PC* OC SA AH EM1* CUS FZ* PM DM TM MRI		

KEY

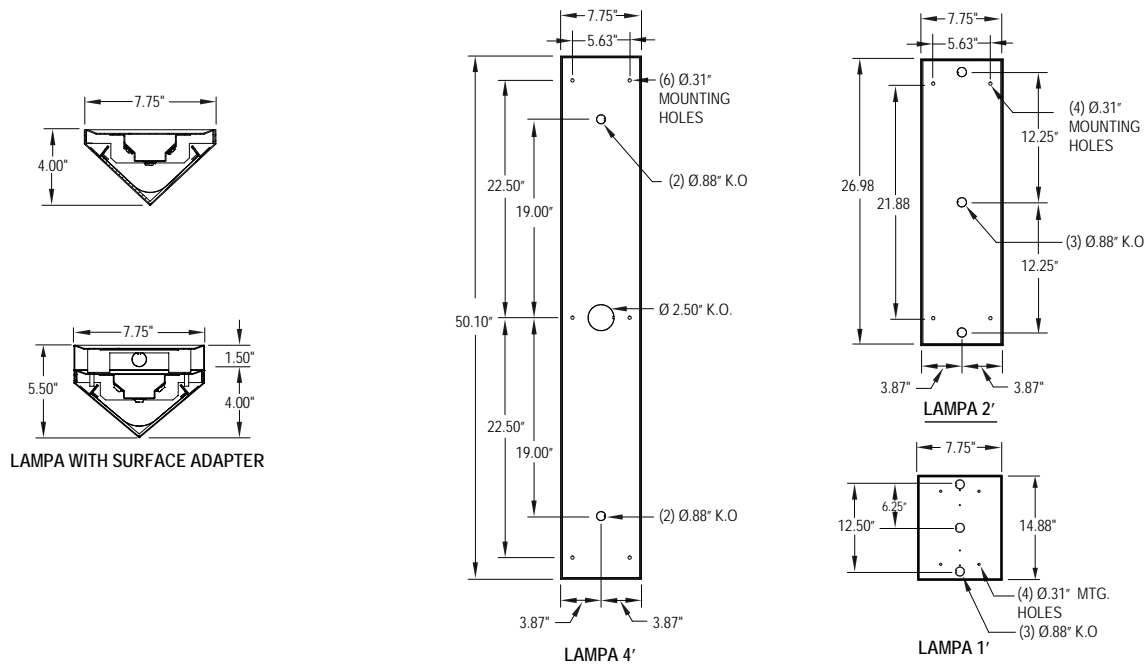
PC = Photocell (with SA only) *
SA = Surface Adapter (not ADA compliant)
EM1 = Emergency Battery LED *▲ (with SA only)
FZ = Fuse*
DM = 0-10V dimming with 10-100% range.
Dimming wires will be extended outside of fixture (with SA only or L3)

OC = Occupancy Sensor▲
AH = Allen head screws with center pin reject
CUS = Custom band option, consult factory
PM = Pendant Mount
TM = Tandem Mount
MRI = MRI Room Application (Aluminum frame only)

-- Subject to change
≈ Cannot use with OC
* Cannot use with UN voltage
▲ Cannot use EM1 & OC together for LAM1

Notes:
Specifications and Dimensions are subject to change without notice. If lamp type is not specified at time of quote or order, fixture will be set with 3500°K.
For additional options and dimensional details please consult your New Star Lighting Representative.

DIMENSIONAL DATA



PERFORMANCE DATA

MODEL	OUTPUT	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
LAM1	Standard	4000°K	650	58	12.5
	Medium	4000°K	975	58	18.75
LAM2	Standard	4000°K	650	58	12.5
	Medium	4000°K	1300	58	25
	High	4000°K	1950	58	37.5
LAM4	Standard	4000°K	1300	58	25
	Medium	4000°K	2600	58	50
	High	4000°K	3900	58	75

STARMED MUS UNDERCABINET LED

MUS2/MUS3/MUS4

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing with continuous seam welds and ground smooth. Aluminum option available.
- LENS:** Lens is .125 Prismatic Acrylic.
- LED:** Available in three color temperatures 3000°K, 3500°K and 4000°K. Other color temperatures available, consult factory. Standard 0-10V driver provided. Optional dimming function (DM) with 10-100% range.
- FINISH:** White antimicrobial powder coat finish following iron phosphate pre-treatment.
- MOUNTING:** Keyhole slots for easy installation. Mounting screws are not provided.



APPLICATION:

Patient Rooms, Nurse Stations, Desk Stations, Offices, Research Facilities, Laboratories, Display cases, and more.

LABEL:

Fixture is certified to UL standards by Intertek Testing Laboratories.



ORDERING INFORMATION

Ex: MUS2-HC-L1-35-A-UN

PRODUCT FAMILY	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	HOUSING	LUMEN OUTPUT**	LAMP TYPE
MUS	2 = 2ft. 3 = 3ft. 4 = 4ft.	HC= 20Ga. CRS (standard) HA= .050Ga. Alum. (painted)	MUS2: L1 = 1400 lm (12W) MUS3: L1 = 2100lm (18W) MUS4: L1 = 2800lm (25W)	30 = 3000°K 35 = 3500°K 40 = 4000°K

LENS	VOLTAGE	OPTIONS
A	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* OC Δ RW DM RS CPX CO

A = .125 Prismatic Acrylic

KEY

- FZ = Fuse*
RW = Row Mounting (consult factory for options)
RS = Rocker Switch (120V standard). Additional voltage options, consult factory.
CO = Convenience Outlet (120V only)
- OC = Motion Sensor (Integral)Δ
DM = 0-10V dimming with 10-100% range. Dimming wires will be extended outside of fixture.
CPX = 6ft. Cord with Plug (120V)
X = Specify location
(R = Right, L = Left, C = Center)

- ** Subject to change
* Cannot use with UN voltage
Δ Not available in 347V

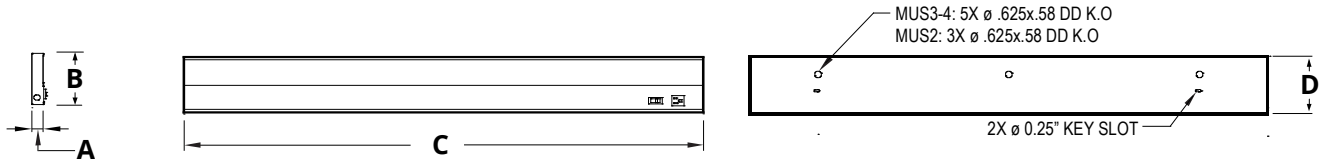
Notes:
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

STARMED MUS UNDERCABINET LED

MUS2/MUS3/MUS4



DIMENSIONAL DATA



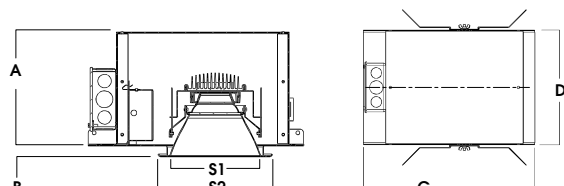
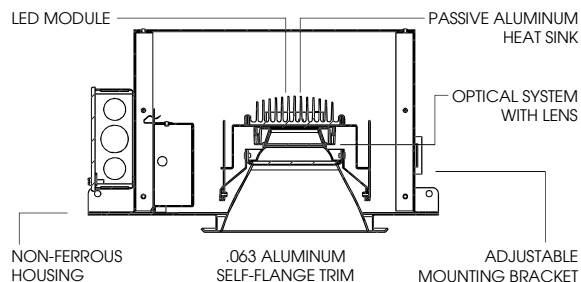
	A	B	C
MUS2	1.16"	5.00"	22.50"
MUS3	1.16"	5.00"	34.31"
MUS4	1.16"	5.00"	46.12"

Notes:
 Specifications and Dimensions are subject to change without notice.
 For additional options and dimensional details please consult your New Star Lighting Representative.

6" ROUND MRI LED DOWNLIGHT

OS SERIES / 2000 LUMENS MAX

recessed
fixtures



A	B	C	D	S1	S2
7.4 188.0 mm	0.63 15.9 mm	14.0 355.6 mm	9.38 238.3 mm	5.8 147.3 mm	7.5 190.5 mm

SGE6MRILEDOS - TRIM FLANGE / IC RATED

APPLICATION

Round OS series LED downlight designed for general illumination. Non-ferrous construction for MRI-Compatible operation.

FEATURES

Two-stage optical system for smooth light distribution. Tool-less LED module, driver, and J-Box access. Multi-Bar mounting brackets. BHMRI Standard aluminum mounting bars included. Post-lock trim retention torsion springs. Integral 0.625" collar.

TRIM FINISH

A variety of architectural powdercoat and anodized finishes are available. Matte white self-flange is standard.

ELECTRONICS

LED module features high brightness white Osram LEDs. 3-step MacAdam Ellipse binning and CRI 84 minimum. MRI rated remote 120V/277V 0-10V dimming driver.

CONSTRUCTION

Housing/frame constructed of non-ferrous material. Self-flanged one piece trim spun from 0.063" high purity aluminum and finished to specification. Extruded and machined 6063-H32 aluminum heatsink. Thermal gasket for optimal thermal management.

CODE COMPLIANCE

ARRA Compliant. IC rated. Manufactured and built to UL standards No. 1598/8750.

INSTALLATION

Remote driver must be mounted beyond the MRI barrier. Power line and control lines must be prepared with EMI/RFI filters (by others).

WATTAGE TO LUMENS UPDATE

CURRENT PART NUMBER EXAMPLE	PREVIOUS PART NUMBER EXAMPLE	SOURCE LUMENS ¹	DELIVERED LUMENS ²	SYSTEM WATTS	LPW
SGE6MRILEDOS10L	SGE6MRILEDOS14W	1100	1033	14.4	71.7
SGE6MRILEDOS20L	SGE6MRILEDOS25W	2000	1685	25.6	65.8

SERIES	LUMENS ¹	CCT	DRIVER / LUMENS ¹ / DIMMING / VOLTAGE ³	OPTIONS ⁴	TRIMS / FINISH	TRIM OPTIONS
SGE6MRI LEDOS	10L 1100 Lm 20L 2000 Lm	27K 2700K 30K 3000K 35K 3500K 40K 4000K	RMDMRI Remote MRI Rated Driver All Drivers Remote 10L 1100 Lm 20L 2000 Lm E Electronic Driver DS10 10%, 0-10V DO10 1%, 0-10V 1 120V 2 277V	BHMRI ⁵ 27" Aluminum Mounting Bars FS Fusing PR ⁶ Deep Ceiling Extension EB Black Housing AMB Anti-Microbial Finish	AR6223OSMRI MW ⁷ Matte White MB Matte Black SG Semi-Diffuse HZ Haze Full Diffuse AMB Anti-Microbial Finish CC ⁸ Custom Color WB White Micro Baffle BB Black Micro Baffle	SO ⁹ Micro Prism Solite™ Lens FG Frosted Glass Lens FO90 White Optical Acrylic Gasket GS Polished Flange PF ¹⁰

EXAMPLE: SGE6MRILEDOS10L30K/RMDMRI10LDS101/BHMRI/AR6223OSMRIMWSO

NOTES:

1 Nominal Source Lumens at 3500K 2 Nominal Delivered Lumens at 3500K with MW-SO 3 Contact Factory for Additional Options 4 See Product Options Page for Details 5 Standard Bar Hangers 6 Contact Factory 7 Standard Finish 8 Contact Factory for Special Finishes 9 Standard Lens 10 Flange and Reflector Same Finish

Dimensions and values shown are nominal. Spectrum Lighting continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.



PROJECT:

TYPE:

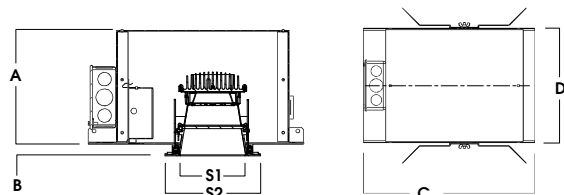
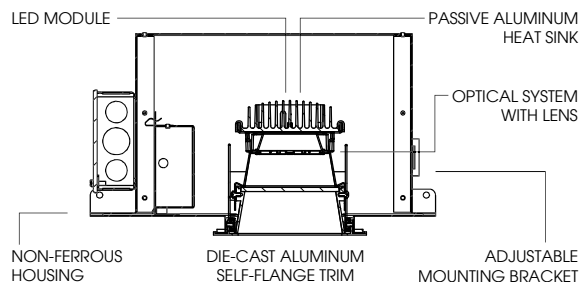
CAT. NO.:



6" SQUARE MRI LED DOWNLIGHT

OS SERIES / 2000 LUMENS MAX

recessed
fixtures



A	B	C	D	S1	S2
7.4 188.0 mm	0.63 15.9 mm	14.0 355.6 mm	9.38 238.3 mm	5.75 146.1 mm	7.5 190.5 mm

SGE6SQMRILEDOS - TRIM FLANGE / IC RATED

APPLICATION

Square OS series LED downlight designed for general illumination. Non-ferrous construction for MRI-Compatible operation.

FEATURES

Two-stage optical system for smooth light distribution. Tool-less LED module, driver, and J-Box access. Multi-Bar mounting brackets. BHMRI Standard aluminum mounting bars included. Post-lock trim retention torsion springs. Integral 0.625" collar.

TRIM FINISH

A variety of architectural powdercoat and anodized finishes are available. Matte white self-flange is standard.

ELECTRONICS

LED module features high brightness white Osram LEDs. 3-step MacAdam Ellipse binning and CRI 84 minimum. MRI rated remote 120V/277V 0-10V dimming driver.

CONSTRUCTION

Housing/frame constructed of non-ferrous material. Self-Flanged one piece trim die-cast high purity aluminum and finished to specification. Extruded and machined 6063-H32 aluminum heatsink. Thermal gasket for optimal thermal management.

CODE COMPLIANCE

ARRA Compliant. IC rated. Manufactured and built to UL standards No. 1598/8750.

INSTALLATION

Remote driver must be mounted beyond the MRI barrier. Power line and control lines must be prepared with EMI/RFI filters (by others).

WATTAGE TO LUMENS UPDATE

PART NUMBER	SOURCE LUMENS ¹	SYSTEM WATTS
SGE6SQMRILEDOS10L	1100	14.4
SGE6SQMRILEDOS20L	2000	25.6

SERIES	LUMENS ¹	CCT	DRIVER / LUMENS ¹ / DIMMING / VOLTAGE ³	OPTIONS ⁴	TRIMS / FINISH	TRIM OPTIONS
SGE6SQ MRILEDOS	10L	1100 Lm	RMDMRI Remote MRI Rated Driver All Drivers Remote	10L 1100 Lm 20L 2000 Lm E_ Electronic Driver 10%, 0-10V 1% 0-10V DS10_ DO10_	CA0366OSMRI	MW ⁵ Matte White MB Matte Black SG Semi-Diffuse HZ Haze Full Diffuse AMB Anti-Microbial Finish CC ⁶ Custom Color WB White Micro Baffle BB Black Micro Baffle
	20L	2000 Lm				
	27K	2700K				
	30K	3000K				
	35K	3500K				FO90 White Optical Acrylic Gasket
	40K	4000K				GS Polished Flange PF ¹⁰

EXAMPLE: SGE6SQMRILEDOS10L30K/RMDMRI10LDS101/BHMRI/CA0366OSMRIMWSO

NOTES:

1 Nominal Source Lumens at 3500K 2 Contact Factory for Additional Options 3 See Product Options Page for Details 4 Standard Bar Hangers
5 Contact Factory 6 Standard Finish 7 Contact Factory for Special Finishes 8 Standard Lens 9 Flange and Reflector Same Finish

Dimensions and values shown are nominal. Spectrum Lighting continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.



PROJECT:

TYPE:

CAT. NO.:



OSRAM
LED Technology included





Pendant Downlight



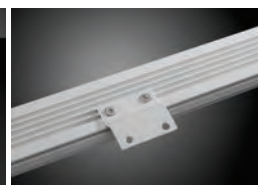
Aircraft Cable Uplight











Aircraft Cable Downlight



Hinge Mount



Fixed Mount

ITEM	SPECIFICATION	
LIGHT SOURCE	3.5W/FT, 7W/FT, 11W/FT, 15W/FT	
OPTICS	<div>RGB<div><div><div>30° X 60°</div></div><div><div>60° X 60°</div></div><div><div>120° X 120°</div></div></div></div> <div>RGB+W<div><div><div>120° X 120°</div></div></div></div> <div>RGBWWA<div><div><div>120° X 120°</div></div></div></div>	
COLOR TEMPERATURES	RGB, RGB+W, RGBWWA	
LUMEN MAINTENANCE	75,000 hrs L70	75,000 hrs L70
ELECTRICAL		Remote power supply for 120V OR 277V
CONTROL	DMX Ready	DMX Dimming (Delivered Output Ratio = .75)
PHYSICAL	HOUSING	Aluminum extrusion with aluminum end caps, powder-coated finish, Semi-Gloss White
	DIMENSIONS	With Flat Lens: 3/4" X 2-1/8" (mounting brackets not included) With White Direct View Dome Lens: 1-3/8" X 1-5/8" (mounting brackets not included)
	LENS	<ul style="list-style-type: none">• Flat Clear Lens is standard with Hinge Mount, Fixed Mount & Aircraft Cable Uplight• White Direct View Lens (DV) is standard with Aircraft Cable Downlight & Pendant Downlight (excluding RGBWWA products)• Optional "Flat White Lens" (not recommended for RGBWWA products)• Optional "White Direct View Lens" (DV) for direct view applications (not recommended for RGBWWA products)
	OPERATING TEMPERATURE	-20° C to 40° C
CERTIFICATION		ETL and cETL approved for Dry Location <div><div></div><div></div><div></div></div>
WARRANTY		5 YEAR LIMITED
All MEDLEY® products are tested to IES LM-79, LM-80 and ANSI C78.377A standards		

Insight lighting is constantly making improvements to fixture performance. Please contact factory for most current performance and photometric data.

ORDERING INFORMATION									
Prefix	Wattage Watts /Ft	LED Color/CCT	Optics	Mounting	Fixture Length	Voltage/ Wiring Method	Controls	Finish (Semi-Gloss)	Options
PLA Pilot Architectural Series	RGB			SINGLE FIXTURES HM = Hinge FM = Fixed ACSD = Aircraft Cable, Downlight ACSU = Aircraft Cable, Uplight PNSD = Pendant, Downlight	SINGLE FIXTURES 24" 36" 48"	REM1 = 120V Remote Power REM2 = 277V Remote Power Power supplies must be ordered separately. See below.	RGB & RGB+W Control Options DMXFX = Resolution per power supply RGBWWA Control Options DMXFX = Power Supply Resolution DMXFT = Foot-by-Foot Resolution DMXSY = System Resolution DMX Controls are required. Order separately Contact factory for Insight's Wireless Option	W = Semi-Gloss White Contact factory for additional finishes	WL = Flat diffusing lens DV = Direct view dome lens for direct view applications ⓘ ⓘ WL & DV lens options are not recommended with RGBWWA products Contact factory for MRI applications
	6	RGB	30° 60° 120°						
	6W RGB Tri-Chromatic red, green, blue								
	RGB+W								
	12	RGB+W	120°						
	12W RGB+W Tri-Chromatic red, green, blue + 40K white			MULTIPLE FIXTURE RUNS ACMD = Aircraft Cable, Downlight ACMU = Aircraft Cable, Uplight	MULTIPLE FIXTURE RUNS SPECIFY RUN LENGTH IN FEET				
	RGBWWA								
	12	RGBWWA	120°						
	RGBWWA red, green, blue (discreet), 4000K white, 6500K white & amber								
<ul style="list-style-type: none">• All Color Changing products require a DMX programmer for proper mixing. Must order separately.• One LPT is required for field re-addressing of factory DMX settings. See below.									

POWER SUPPLIES (SEE DIMENSIONS ON PAGE 7)	
RGB AND RGB+W (CONSTANT VOLTAGE)	
CATALOG NUMBER	DESCRIPTION
C1/RGB/120V	(1)-100W POWER SUPPLY, 120V FOR RGB,RGB+W, ACTIVE WHITE
C1/RGB/277V	(1)-100W POWER SUPPLY, 277V FOR RGB,RGB+W, ACTIVE WHITE
RGBWWA (CONSTANT VOLTAGE)	
CATALOG NUMBER	DESCRIPTION
C1/DAT/120V	(1)-100W POWER/DATA SUPPLY, 120V FOR RGBWWA
C1/DAT/277V	(1)-100W POWER/DATA SUPPLY, 277V FOR RGBWWA
<ul style="list-style-type: none"> C1/RGB & C1/DAT REMOTE POWER SUPPLIES ARE LIMITED TO THE FOLLOWING: <ul style="list-style-type: none"> 6W/FT: 12' or less of fixtures per power supply 12W/FT: 6' or less of fixtures per power supply REMOTE POWER SUPPLY DISTANCE NOT TO EXCEED 25 FEET FROM REMOTE POWER SUPPLY TO END OF FIXTURE RUN. 	
POWER SUPPLY OPTIONS	
PL-120V	<ul style="list-style-type: none"> 120V PLENUM RATED THERMAL PROTECTOR
PL-277V	<ul style="list-style-type: none"> 277V PLENUM RATED THERMAL PROTECTOR
<ul style="list-style-type: none"> If required, plenum rated cabling to be supplied by others CATALOG NUMBER EXAMPLE: C1 / PWR / CC / 24" / 10W / PL-120V 	

DMX PROGRAMMING KIT REQUIRED FOR ALL COLOR CHANGING INSTALLATIONS	
CATALOG NUMBER	DESCRIPTION
LPT	DMX PROGRAMMING TOOL One LPT is required for field re-addressing of factory DMX settings.
CDS-A	DMX DISTRIBUTION KIT ONLY (3 OUTPUTS) CDS-A consists of three outputs. Each output accommodates up to 32 fixtures in INT/REM wiring methods and unlimited fixtures in ACV wiring method. Four terminators are included for use as required.

Included for compatibility with Insight Pilot product

FEATURES:

- Filter models to match requirements for:
 - power and lighting
 - low leakage
- 100 dB insertion loss up to 40 GHz
- Voltage drop less than 1% of applied voltage
- Compliant with:
 - Low Voltage Directive 2006/95/EC
 - MIL-STD-220C
- UL 1283 listed, 5th edition



Medical RF Filters

ETS-Lindgren Medical RF Filters enable services for lighting, power, fire detection, switching and data signals to be utilized inside the MRI room.

DESCRIPTION

Facility filters allow specified frequencies to pass while suppressing or attenuating other frequencies. The filters listed as ELUL, EQ and LMF are our most common models utilized in medical applications. There are many other versions of RF filters also available for a wide variety of applications. Our complete line of RF filters incorporates a wide array of choices which provide effective EMI/RFI shielding to meet or exceed industry standards.

FEATURES

The LMF-4112 is a versatile filter that is utilized for standard lighting, switching and power circuits. This filter offers the advantage of an approximately 50% reduction in required surface area and weight. This means

the use of more circuits with substantially less space and weight than standard filters offering the same features. This filter has a 0-30 amp rating and operates at 250 VAC/VDC. It is c-UL rated and CE marked.

The EQ series are used for conventional thermostats, nurse calls, fire alarms, smoke detectors or any low leakage application requiring measurement of small variances in voltage to perform an application. This series of filters has an operating range of 1-30 amps and 250 VAC/VDC. It is also c-UL rated and CE marked.

The ELUL filters are utilized for standard lighting, switching and power circuits. They are able to run at higher voltage requirements with a 0-30 amp range and operating up to 277 VAC and 480 VDC. It is c-UL rated and CE marked.

APPLICATIONS

- ELUL, LMF and EQ filters are

utilized to allow electrical services within a Magnetic Resonance Imaging suite. All applications that require a conductor within the room interface with a filter. The most common services are lighting, power, smoke detectors and fire alarms.

STANDARD CONFIGURATION

- Single phase, two line filters
- Seam welded case with removable RF gasketed lid. Tin coated for long wear
- Feedthrough penetration pipe for electrical leads functions as a frequency waveguide cut-off
- Mounting tabs provide secure access

OPTIONS

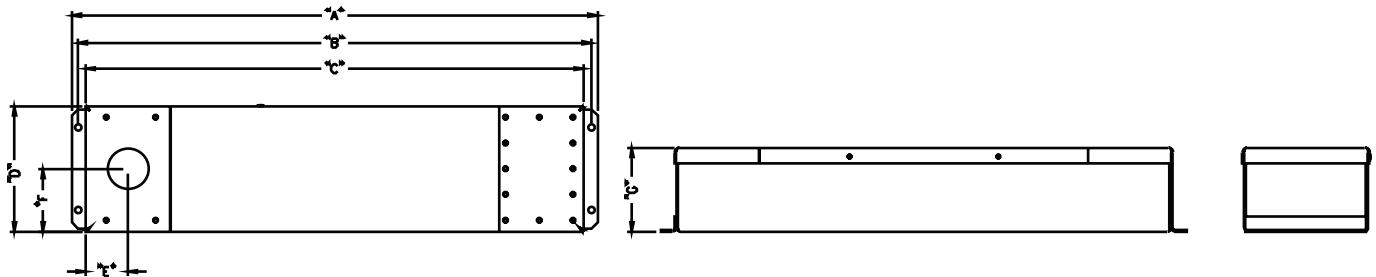
- ETS-Lindgren has a large variety of filters designed to meet almost any requirement. We have on-staff electrical engineers to custom design a filter for your application.

Electrical Specifications

PART #	Rated Currents	# of Lines	Max. Leakage Current @ 220V, 50Hz	Max. Leakage Current @ 120V, 60Hz	Rated Voltage	Insertion Loss	Voltage Drop	Safety	Passband Impedance
250902 ELUL-2030	0-30 A	2	700 mA	450 mA	0-277/480 VAC/VDC	100 dB min. from 150 kHz to 40 GHz per MIL-STD-220C	Not to exceed 1% of applied voltage at Unity Power Factor	Discharge resistors provided per UL-1283	N/A
254757 EQ-2001-NR	0-1.0 A	2	3 mA	1.5 mA	0-30/50 VAC/VDC	100 dB min. from 150 kHz to 40 GHz per MIL-STD-220C	Not to exceed 1% of applied voltage at Unity Power Factor	NR- no resistor	N/A
250891 EQ-2010-NR	0-10 A	2	3 mA	1.5 mA	0-30/50 VAC/VDC	100 dB min. from 150 kHz to 40 GHz per MIL-STD-220C	Not to exceed 1% of applied voltage at Unity Power Factor	NR- no resistor	N/A
250950 LMF-4112	0-30 A	2	5 mA	1.5 mA	0-250/250 VAC/VDC	100 dB min. from 10 MHz to 40 GHz per MIL-STD-220C	Not to exceed 1% of applied voltage at Unity Power Factor	Discharge resistors provided per UL-1283	N/A

Physical Specifications

PART #	Approx. Weight	A	B	C	D	E	F	G
250902 ELUL-2030	15 lbs (6.8 kg)	21.25" (539.75 mm)	20.75" (527.05 mm)	20.00" (508 mm)	3.00" (127 mm)	3.00" (76.2 mm)	1.56" (39.62 mm)	3.00" (76.2 mm)
254757 EQ-2001-NR	6 lbs (2.7 kg)	15.25" (387.35 mm)	14.75" (374.65 mm)	14.00" (355.6 mm)	3.00" (127 mm)	2.00" (50.8 mm)	1.50" (38.1 mm)	2.00" (50.8 mm)
250891 EQ-2010-NR	6 lbs (2.7 kg)	15.25" (387.35 mm)	14.75" (374.65 mm)	14.00" (355.6 mm)	3.00" (127 mm)	2.00" (50.8 mm)	1.50" (38.1 mm)	2.00" (50.8 mm)
250950 LMF-4112	6 lbs (2.7 kg)	11.25" (285.75 mm)	11.75" (298.45 mm)	10.50" (266.7 mm)	4.625" (117.47 mm)	1.00" (25.4 mm)	2.3125" (58.74 mm)	2.50" (63.5 mm)



ELUL-2030



EQ-2001



EQ-2010



LMF-4112

Phone +1.630.307.7200 • info@ets-lindgren.com • www.ets-lindgren.com
Offices in the US, Finland, UK, France, Germany, Singapore, India, Japan, China, Taiwan

[®]

LumaFilm

The New Generation

of LED Lighting Technology for Architectural Lighting Specifiers

Heilux is led by an experienced team with over 100 years of collective expertise in the development of innovative solutions to meet the ever-changing demands of today's lighting market. Whether you seek to design a world class backlighting solution or light up the largest sign on earth, our LumaFilm light sheets along with off-the-shelf LED drivers will meet your every need. The team at Heilux has worked exhaustively to bring you a lighting solution that channels their years of solid-state lighting experience into a true work of art and perfection.

LumaFilm is unlike traditional light emitters – its super thin and flexible form factor along with its surface light emission makes it unique. The light emitters (sheets) produce nominal heat and thus require NO heat sinks. LumaFilm is UL Listed and can be used in both dry and damp indoor and outdoor applications.

LumaFilm is now providing an innovative solution to the lighting specification community. Our disruptive technology produces an even light using low energy LEDs and can be mounted directly to almost any surface.

LumaFilm offers architects and designers a solution in custom lighting applications where space is at a premium, heat could be a problem and lighting perfection is paramount. Installations are faster due to ease of assembly and on-site size customization.

Specifying LumaFilm on your next project will expand your design parameters while providing your construction partners faster installations, quicker material availability, ease of use and a higher quality light output.



10200 Valley View Road
Suite 100
Eden Prairie, MN 55344

952-944-9859

heilux.com
quotes@heilux.com

Features and Benefits

- **Fully Customizable** – Standard LumaFilm sheets can be cut in both directions and tiled together allowing for simple installations; custom LumaFilm sheets can be developed quickly to meet almost any requirement.
- **Flexible** – Allows LumaFilm to be applied to any flat or curved surface creating innovative designs and unique lighting solutions.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **Indoor & Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Energy Efficient and Green** – High performance (typically 130 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **UL/cUL Listed and LM79 tested** – LumaFilm can meet/exceed most specifications with an expected life of over 77,000 hours @ 70% illumination.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete using a variety of different mounting materials.
- **Minimal Depth without Pixilation** – Many smaller LEDs allow LumaFilm to be mounted as close as 1¼" to the diffuser without hot/dark spots.
- **Power Source Options** – LumaFilm can be powered by off-the-shelf dimming, non-dimming and programmable constant current drivers allowing adjustments to brightness *after* installation.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.
- **Warranty** – 5-year limited warranty on all LumaFilm materials.

We completed one canopy. The installation went quite well! All sheets came up without any problem. It's a great product.



Maurice (Electrical Contractor) and coworker tiled and installed 330 panels in each canopy without any problems. They consulted with Heilux engineer David Doan with a few questions along the way.



LumaFilm

12" x 24" Light Sheet



The LumaFilm 12" x 24" Light Sheet (Emitter) is a perfect size for signage and architectural lighting use. The LumaFilm circuit has been specifically engineered to allow for on-site customization and immediate use in existing signs where conventional backlighting or edge lighting is not delivering the expected results. LumaFilm is ideally suited for backlighting images on fabrics and other translucent materials.

Sign designers are using LumaFilm as the centerpiece for their new product strategies. LumaFilm light sheet's unique attributes of being thin, flexible and requiring no heat sinks are revolutionizing sign box depths, materials and shapes.

Architects and lighting design professionals are innovating their interior and exterior spaces by providing building owners a wide range of exciting new lighting options.

LumaFilm on-site installation reduces contractor time and costs due to its ease of trimming and tiling together. LumaFilm, along with off-the-shelf dimming, non-dimming, and programmable constant-current drivers, represents a breakthrough in controlling the light output to meet virtually all lighting requirements.



Features and Benefits:

- **Fully Customizable** – Standard LumaFilm sheets can be cut in both directions and tiled together allowing for simple installations; custom LumaFilm sheets can be developed quickly to meet almost any requirement.
- **Flexible** – Allows LumaFilm to be applied to any flat or curved surface creating innovative designs and unique lighting solutions.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete.
- **Minimal Depth without Pixilation** – Many smaller LEDs allow LumaFilm to be mounted close to the diffuser without hot/dark spots.
- **UL/cUL Listed and LM79 tested** – LumaFilm is ready to be installed with your most demanding customer.
- **Indoor and Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Power Source Options** – LumaFilm can be powered by off-the-shelf dimming, non-dimming and programmable constant current drivers.
- **Energy Efficient and Green** – High performance (typically 150 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.

10200 Valley View Rd, Ste 100
Eden Prairie, MN 55344
952-944-9859

lumafilmLED.com
quotes@lumafilmLED.com

SPECIFICATIONS

12" X 24" 288 LED LIGHT SHEET
Product Code: 120240S-CCT

INTERIOR or EXTERIOR

LumaFilm® is a UL Listed Low Voltage Luminaire



Rep:

Project:

Type:

Product Code:

ORDERING CODES

Product Code: 120240S -

Color - CCT

27=2700k
30=3000k
35=3500k
40=4000k
50=5000k

Custom Flux per sq. ft.:
Range from 350 lm/sq. ft. to 5500 lm/sq. ft.

Example:
450 lm/sq. ft. = 0450
1400 lm/sq. ft. = 1400

EXAMPLE

12" x 24" 3500k @ 650 lm/sq. ft.
Product Code = 120240S35-0650

GENERAL

ENVIRONMENT UL Damp & Dry; -40°F to 158°F; IP65

LED DRIVER Class 2 Constant Current Driver

DIMMING 100% to 1% Available

LUMEN MAINTENANCE TM-21-11: L70 > 100,000 hrs. @ 112°F

PHOTOMETRY Viewing angle at 50% Iv: 116°

IES FILES Available upon request

SUBSTRATE PET
Flexible
Diffuse reflective surface
Flamability rated UL 94 VTM-0

REGULATORY

UL/cUL RECOGNIZED Component - light-emitting diode arrays, modules and controllers. File #E466344

UL/cUL LISTED LUMINAIRE Low-voltage lighting systems, power units, luminaires and fittings. File #E472231



OPERATING RANGE

Maximum:

2150

12.4

Lumens
per square
foot

Watts
per square
foot

Minimum:

350

1.9

* Output at Luminaire Level

EXAMPLES OF LIGHTING CONDITIONS

BACKLIGHTING 650 lm / sq. ft. 3.6 W / sq. ft.

SIGNAGE 1000 lm / sq. ft. 6.5 W / sq. ft.

GENERAL ILLUMINATION 1675 lm / sq. ft. 10.4 W / sq. ft.

CCT

COLOR RENDERING:
82 CRI Typical

	5000K	COLOR SCALE FACTORS	
	4000K	4000K	98%
	3500K	3500K	95%
	3000K	3000K	92%
	2700K	2700K	86%



SPECIFICATIONS

1.25" X 24" 96 LED LIGHT STRIP
Product Code: 012240H-CCT

INTERIOR or EXTERIOR

LumaFilm® is a UL Listed Low Voltage Luminaire



Rep:

Project:

Type:

Product Code:

ORDERING CODES

Product Code: 012240H

Color - CCT

27=2700k
30=3000k
35=3500k
40=4000k
50=5000k

Custom Flux per lin. ft.:
Range from 110 lm/lin. ft. to 750 lm/lin. ft.

Example:
300 lm/lin. ft. = 300
550 lm/lin. ft. = 550

EXAMPLE

1.25" x 24" 2700k @ 270 lm/lin. ft.
Product Code = 012240H27-270

GENERAL

ENVIRONMENT	UL Damp & Dry; -40°F to 158°F; IP65
LED DRIVER	Class 2 Constant Current Driver
DIMMING	100% to 1% Available
LUMEN MAINTENANCE	TM-21-11: L70 > 100,000 hrs. @ 112°F
PHOTOMETRY	Viewing angle at 50% Iv: 116°
IES FILES	Available upon request
SUBSTRATE	PET Flexible Diffuse reflective surface Flamability rated UL 94 VTM-0

OPERATING RANGE

Maximum:

700

4.1

Lumens
per linear
foot

Watts
per linear
foot

Minimum:

115

0.6

* Output at Luminaire Level

EXAMPLES OF LIGHTING CONDITIONS

COVE	230 lm / lin. ft.	1.3 W / lin. ft.
PERIMETER ILLUMINATION	460 lm / lin. ft.	2.5 W / lin. ft.

CCT
COLOR RENDERING:
82 CRI Typical

	5000K	COLOR SCALE FACTORS	
	4000K	4000K	98%
	3500K	3500K	95%
	3000K	3000K	92%
	2700K	2700K	86%



SPECIFICATIONS

2.5" X 24" 168 LED LIGHT STRIP
Product Code: 025240H-CCT

INTERIOR or EXTERIOR

LumaFilm® is a UL Listed Low Voltage Luminaire



Rep:

Project:

Type:

Product Code:

ORDERING CODES

Product Code: 025240H

Color - CCT

27=2700k
30=3000k
35=3500k
40=4000k
50=5000k

Custom Flux per lin. ft.:
Range from 200 lm/lin. ft. to 1500 lm/lin. ft.

Example:
400 lm/lin. ft. = 400
1250 lm/lin. ft. = 1250

EXAMPLE

2.5" x 24" 3000k @ 725 lm/lin. ft.
Product Code = 025240H30-725

GENERAL

ENVIRONMENT	UL Damp & Dry; -40°F to 158°F; IP65
LED DRIVER	Class 2 Constant Current Driver
DIMMING	100% to 1% Available
LUMEN MAINTENANCE	TM-21-11: L70 > 100,000 hrs. @ 112°F
PHOTOMETRY	Viewing angle at 50% Iv: 116°
IES FILES	Available upon request
SUBSTRATE	PET Flexible Diffuse reflective surface Flamability rated UL 94 VTM-0

OPERATING RANGE

Maximum:	1600	10
	Lumens per linear foot	Watts per linear foot
Minimum:	200	1.1

* Output at Luminaire Level

EXAMPLES OF LIGHTING CONDITIONS

REGULATORY

UL/cUL RECOGNIZED	Component - light-emitting diode arrays, modules and controllers. File #E466344
UL/cUL LISTED LUMINAIRE	Low-voltage lighting systems, power units, luminaires and fittings. File #E472231



CCT

COLOR RENDERING:
82 CRI Typical

COVE	400 lm / lin. ft.	2.3 W / lin. ft.
PERIMETER ILLUMINATION	800 lm / lin. ft.	4.8 W / lin. ft.

CCT	COLOR SCALE FACTORS	
5000K	4000K	98%
4000K	3500K	95%
3500K	3000K	92%
3000K	2700K	86%





LumaFilm

6" x 12" RGB-W4K



MADE IN U.S.A.

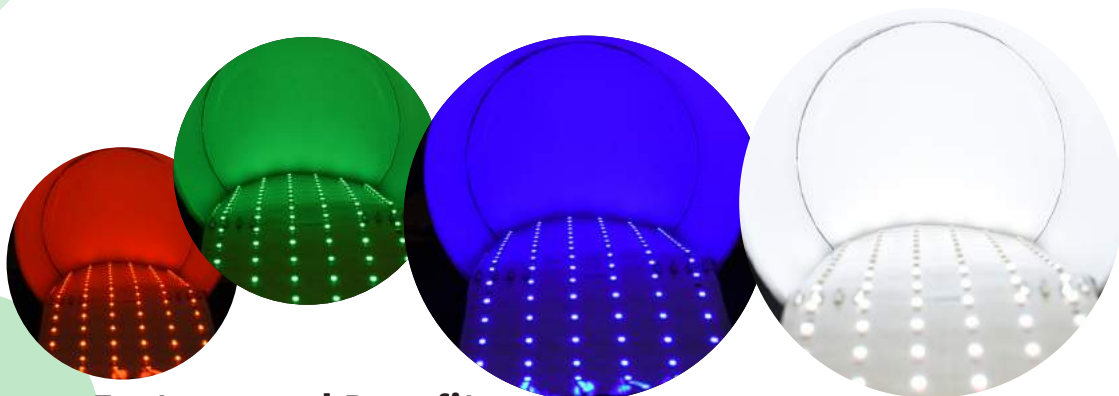
LumaFilm's 6x12 RGB-W4K is unique to the lighting industry. IP65 rated, flexible and DMX controlled allows for very unique designs.

LumaFilm also offers design assists in layout, programming, and selection of the right drivers for your specifications.

Our 6x12 RGB-W4K is rated for outdoor applications. This can add stunning features to columns, canopies, or egress areas.

Interior applications are limitless! Focal areas such as lobbies, elevator cabs, backlit logos, or dramatic focal areas in any building.

LumaFilm's industry-leading flexible RGB-W4K product allows for columns, installations around corners, serpentine or barrel vault ceilings.



Features and Benefits:

- **Customizable** – RGB-W4K 6x12 sheets can be cut in our factory to meet the dimensions of your specs and designs..
- **Ease of Install** – The RGB-W4K 6x12 sheets can be tiled together allowing for easy installation in your project.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete.
- **Minimal Depth Without Pixelation** – We only ask for 4 inches between diffuser and RGB-W4K sheets.
- **UL/cUL Listed and LM79 tested** – LumaFilm is ready to be installed with your most demanding customer.
- **Indoor and Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Power Source Options** – RGB-W4K 6x12 sheets are powered by ELDOLEDS drivers. Off-the-shelf 0-10 dimming..
- **Energy Efficient and Green** – High performance (typically 150 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.

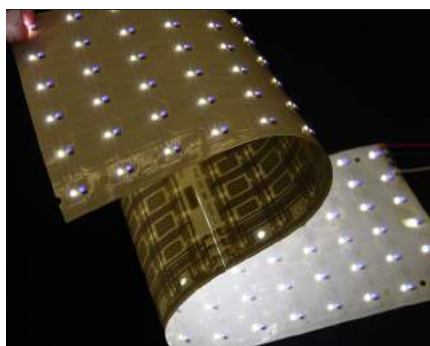
10200 Valley View Rd, Ste 100
Eden Prairie, MN 55344
952-944-9859

lumafilmLED.com
quotes@lumafilmLED.com

SPECIFICATIONS

6" X 12" 132 LED RGB-W4K LIGHT SHEET INTERIOR or EXTERIOR
Product Code: 060120RGBW40

LumaFilm® is a UL Listed Low Voltage Luminaire



PROJECT:

SPECIFIED BY:

REFERENCE TYPE:

DATE:

PRODUCT CODE: 060120RGBW40

OPERATING OUTPUT

	lm / sq. ft.	W / sq. ft.
RED	160	3.1
GREEN	360	4.8
BLUE	45	4.8
WHITE	1075	4.3
SHEET	1640	17.0

* Output at Luminaire Level

GENERAL

ENVIRONMENT	UL Damp & Dry; -40°F to 158°F
LED DRIVER & CONTROL	Class 2 Constant Current Driver DMX Controllable
WHITE LUMEN MAINTENANCE	TM-21-11: L70 > 100,000 hrs. @ 112°F
PHOTOMETRY	RGBW 120° @ 50% White 116° @ 50%
IES FILES	* TBD
SUBSTRATE	PET Flexible Diffuse reflective surface Flamability rated UL 94 VTM-0

BACKLIGHTING BETA PROJECT



REGULATORY

UL/cUL LISTED LUMINAIRE Low-voltage lighting systems, power units, luminaires and fittings. File #E472231



SPECIFICATIONS

UNIFORMITY	Excellent Color Consistency of Primary Colors At Full Output
DIFFUSION	Required Minimum of 4" Cavity Depth
DISTANCE	Maximum Run Length of 16'

CUSTOM CCT

STANDARD	4000K
CUSTOM	2700K, 3000K, 3500K, 5000K





ICU

INFRALED® Lighting for Intensive Care

MRR-12620
MRR-12622



C.S. Mott Children's Hospital, Ann Arbor, MI

MRR-12620 Shown



Palomar Medical Center, Escondido, CA

MRR-12622 Shown

Features:

- **Two** light (MRR-12620) or **one** light (MRR-12622) recessed, adjustable patient LED lighting systems.
- Full control of lighting system (direction, intensity, power) from both remote and wall controls. Light beams may be directed to 2 sites or superimposed on one target.
- Tactile membrane controls feature invisible and safe infrared signals.
- MRR-12620 (two light) delivers up to 10,000 fc and MRR-12622 (one light) provides up to 6400 fc, each with full range dimming to 10%.
- Recessed, inconspicuous fixtures with BioGard™ antimicrobial trims are easy to disinfect, providing a safe and clean environment.
- Kirlin's exclusive three year limited warranty (one year remote control).



Low CRI & Low R9
COMPETITION

High CRI & High R9
KIRLIN

OPTeCOLOR™



High CRI is only part of the color rendering story. CRI only measures a light source's ability to render pastel colors, excluding important saturated colors like red (R9). High R9 values are critical for accurate patient diagnosis and treatment. KIRLIN OPTeCOLOR™ LEDs deliver both ultra-high CRI (95+) and R9 (85) lighting.



THE KIRLIN COMPANY

3401 East Jefferson Avenue • Detroit, MI 48207-4232
313-259-6400 • FAX 313-259-3121 • info@kirlinlighting.com • www.kirlinlighting.com

INFRALED® Lighting for Intensive Care

For more information, including specification sheets, photometry and owner's manuals on these and other Kirlin products, please visit www.kirlinlighting.com or call your local Kirlin Sales Representative for catalogs.



MRR-12620
(two light system shown)

OPTeCOLOR™ LED light heads deliver up to 10,000 fc with no heat in the beam. Redundancy of controls, electronic components and circuitry ensures illumination at all times.

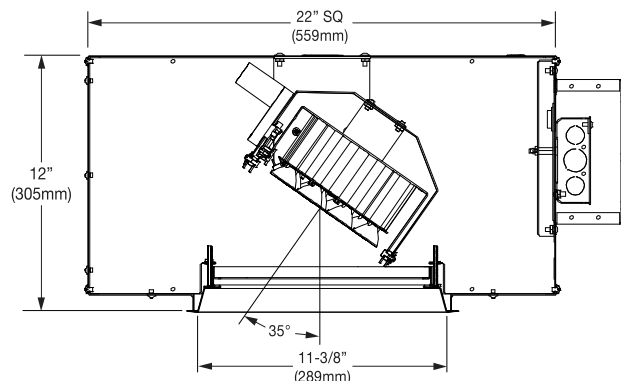
OPTeCOLOR™ LEDs provide 95+ CRI (with high R9, R13 and R15) for excellent color rendering of blood, red tissues and skin tones. 60,000 hour long life (L70) dramatically reduces maintenance frequency and cost.



Footcandle Distribution Data

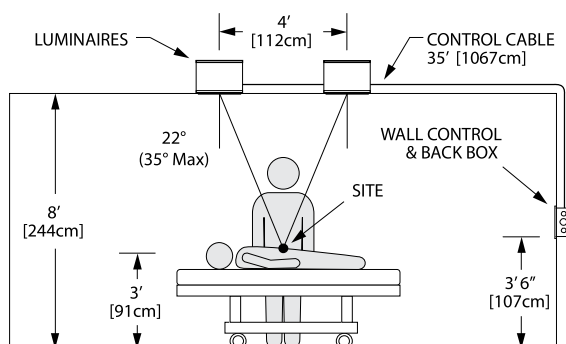
Ceiling Height	Task Height	Distance to Task	Footcandles on Task	
			MRR-12620* 2 Light System	MRR-12622 1 Light System
8'	3' 4"	4' 8"	10,000	6420
	3'	5'	8990	5610
9'	3' 4"	5' 8"	7330	4370
	3'	6'	6670	3900
10'	3' 4"	6' 8"	5570	3160
	3'	7'	5110	2870

* 4' spacing between fixtures.

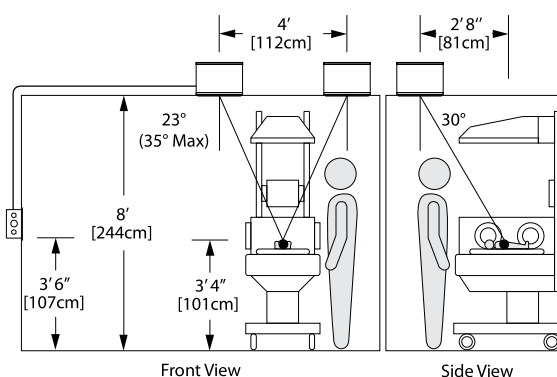


Full control of lighting system (direction, intensity, power) from both remote and wall controls, using invisible and safe infrared signals. Impact resistant design protects remote from common mishaps. Smooth tactile membrane switches do not trap pathogens and are easy to clean and disinfect. Loss deterring beeper reminds staff to return remote to wall control "home".

Typical Side View in Patient Room (see chart to left)



Typical Views in NICU (see chart to left)



Fully recessed fixtures are unobtrusive and inconspicuous, providing a safe and open work space for staff and a home-like atmosphere for patients. BioGuard™ antimicrobial smooth trims are easy to clean and disinfect.

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3401 East Jefferson Avenue • Detroit, MI 48207-4232
313-259-6400 • FAX 313-259-3121 • info@kirlinlighting.com • www.kirlinlighting.com

INFRALED®

2 LIGHT SYSTEM - 360°

MRR-12620

LED Remote Controlled Motorized Recessed Patient Lighting System


ICU • CCU • ED • NICU/PICU
PATIENT ROOM • CATH LAB



- Performance:** Cool LED beams with excellent color rendering of red tissue and skin tones: 95+ CRI (with high R9, R13 and R15). Up to 9300 footcandles delivered from the two light system.
- Function:** Precise adjustability of direction and brightness. Light beams may be superimposed or aimed separately.
- Design:** Inconspicuous, fully recessed luminaires. Redundant controls, components ensures light in case a component fails.
- Use:** Fast, single-hand adjustability using either infrared remote or wall control. Maintenance free 60,000 hour life LEDs.

This lighting system features **two** fully recessed **luminaires** plus a **wall control** and a **remote control**:

Each Luminaire Offers:

- Up to 3000 delivered lumens
- Exclusive OPTeCOLOR™ LEDs with 95+ CRI, high R9 value of 85, cool beam and 60,000 hour life (L70)
- Rotates 360° and tilts up to 35° either side of nadir; optional 15° bottom pan allows lighthouse to tilt up to 50° in one direction
- 0-10V CCR 100-10% dimming
- BioGard™ anti-microbial white regressed smooth flare architectural trim with tempered clear flat glass lens
- IP65 optional 
- Lightweight construction for easy installation in any ceiling (27 pounds)

- Completely serviceable through the aperture; convenient plug-in components for easy installation and service
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment. FCC Part 15 certified for EMI/RFI emissions

Wall Control / Remote Offers:

- Full control of each light from both wall control and remote control
- Tactile membrane controls for power, fixture selection, intensity (100-10%) and direction
- Independent aiming of each light; light

beams may be aimed at 2 sites or superimposed

- Smooth surfaces for easy cleaning with isopropyl alcohol

Wall Control Also Features:

- Magnetic docking station for remote control storage
- Non-conductive wall plate assembly

Remote Control Also Features:

- Infrared control signals are invisible and will not interfere with other medical equipment.
- Durable; withstands common mishaps (dropped on the floor)
- Exclusive loss deterring beeper

UL, C-UL (Canada) Listed • Type IC Rated • Exclusive Three Year Warranty • Designed and Produced in U.S.A.

Options

The following Options are available for MRR-12620. Add Option as suffix to catalog number. Example: MRR-12620-IP-SE.

Input Power

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120 volt stepdown transformer for 277 volt line input, prewired into each fixture; with 277 volt thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120 volt stepdown transformer for 347 volt line input, prewired into each fixture; with 120 volt thermal protector. Adds 10 watts to each fixture load.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

Trim

- 32 White oversize trim ring. Specify O.D.
- 94 Custom color self-flanged flare trim instead. Consult factory.
- IP IP65 rated trim and lens.

Other

- 81 15° bottom pan achieves 50° high angle

illumination in one direction. Maximum recessed depth 15-1/8".

- 87 Custom length (> 35 feet) plenum rated wall control cables (4). Specify length.
- 99 Special modification. Consult factory.
- BI Beeper (remote control) inactivated by factory.
- RC Extra remote control.
- RS Remote infrared sensor with 35' cable.
- SE Fixtures modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes.

KIRLIN

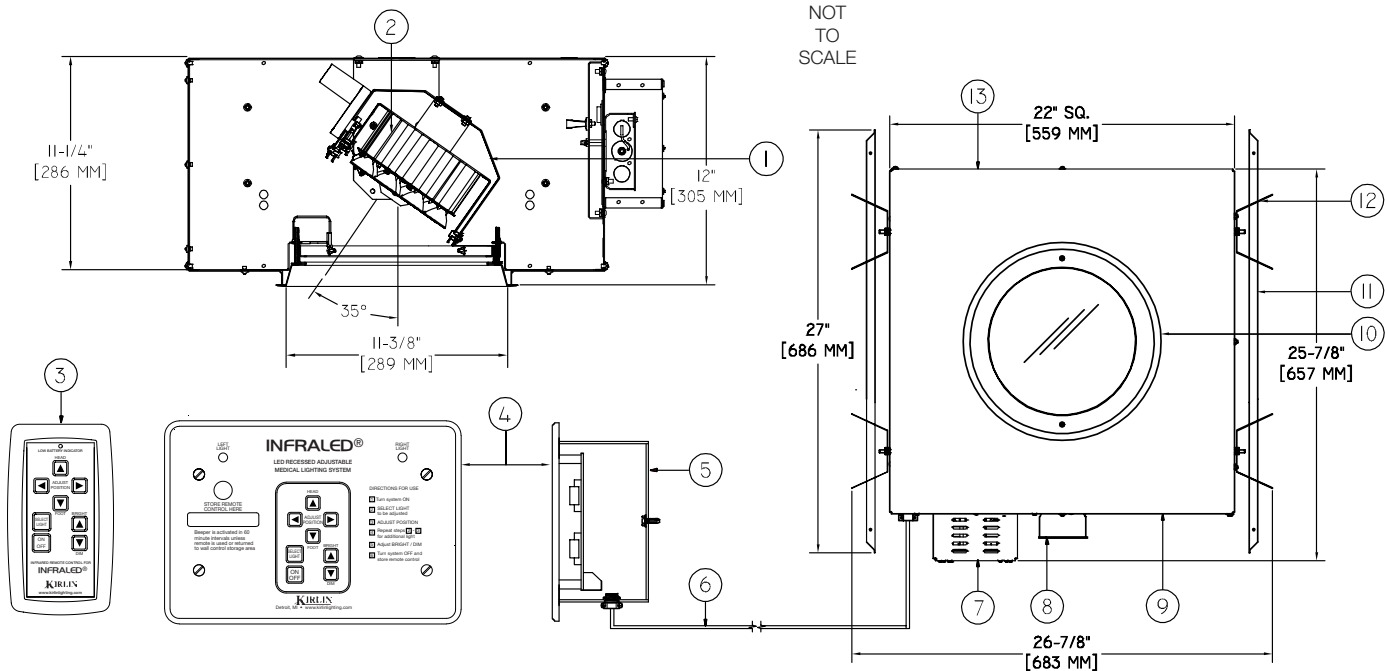
THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com • info@kirlinlighting.com

MRR-12620 INFRALED® 2 LIGHT SYSTEM - 360°

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM

DRAWING
NOT
TO
SCALE



Features PER Luminaire:

LED Module ①

- Up to 3000 delivered lumens, 80 total system watts.
- 3500°K. 95+ CRI. High R9 value of 85.
- 60,000 hour long life (L70).

Motors / Gimbal Assembly ②

- Two 12 volt permanently lubricated DC motors control motion. Quiet operation.
- Rotates 360° and tilts up to 35° from nadir.
- Plug-in modular electronics designed for easy maintenance.
- Visible and easily serviced through removable trim assembly.

Infrared Remote Control ③ (one per lighting system)

- Controls power, direction and brightness.
- Emits unique frequency to avoid interfering with other infrared emitting equipment.
- Loss deterring beeper reminds user to store remote on wall control module.

Wall Control ④

(one per lighting system)

- Includes all function controls (power, direction, brightness). (Detail page 4)
- Infrared receiver and magnetic docking station for the remote control.
- Remote sensor optional. May be placed elsewhere in the room. See Option -RS.
- **UL listed back box ⑤ provided. Must be used for proper fit of electronics.** 1/2" and 3/4" trade size knockouts.

Plenum Rated Cable ⑥

- Each luminaire provided with:
- 35' plenum rated, 10 conductor, twisted

- pair (24 AWG) control cable with RJ-45 connectors for connection to wall control.
- For longer cable length, see Option -87.

Motion and Dimming Controls / Power Supply ⑦

Junction Box (luminaire) ⑧

- Prewired 14 GA (NEC) galvanized steel, UL listed. Contains fuse and fuse holder.
- Removable insulated cover.
- 1/2" and 3/4" knockouts.

Thermal Protector ⑨

- Per current NEC.

LED Power Supplies (not shown) ⑩

- 120-277V 50/60 Hz standard. Load insensitive. See "Stepdown Transformer" for 347 volt Option -98.
- 0-10V dimming (100-10%).
- -30°C (-22°F) to 60°C (140°F).

Trim Assembly ⑪

- White regressed self-flanged flare with Kirlin BioGard™ anti-microbial finish.
- For IP65 rating, see Option -IP.
- 12" diameter. Smooth surface.
- Regressed tempered clear flat glass lens.

Installation

- Lightweight (27 lbs.) fixture recesses in all ceilings including suspended ceilings.
- For seismic anchorage, see Option -SE.
- May be installed (per NEC, mandatory) by any qualified electrician.
- Two 27" (69cm) galvanized channel bar hangers supplied. ⑫
- Four Kirlin fully adjustable universal ⑬ mounting brackets supplied.

Housing ⑭

- Acrylic enameled aluminum.
- Cool: Dissipates heat across entire surface area.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Entire luminaire serviced through removable trim assembly.
- Built-in plaster frame.

Stepdown Transformer (not shown)

• When Option -98 (347V) is selected:

- WhisperPack™ fully encapsulated 347/120 volt Class H transformer for 347 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).
- Cool, quiet, long life. Silicone leads.
- Visible and easily serviced in all ceilings, including dry wall.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation
- Through branch circuit conductors. (6#12)

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

State of California OSHPD Seismic Anchorage - consult factory

Warranty

- Complete standard fixture and wall control, three years.
- Remote control, one year.

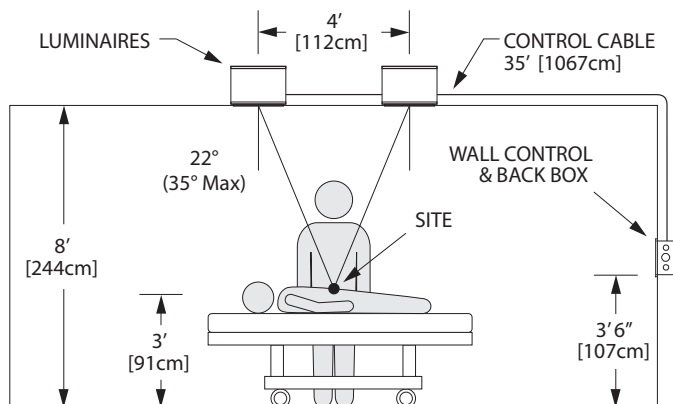
PER SINGLE LUMINAIRE OPERATING CURRENT .70A MAXIMUM DRAW .80A AT 120 VOLT LINE INPUT

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM

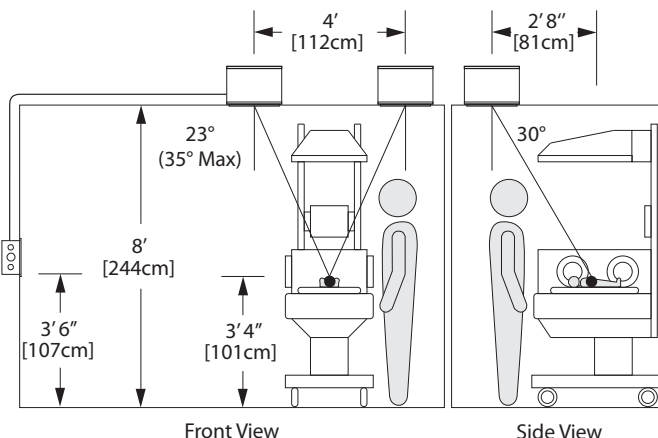
INFARED®
2 LIGHT SYSTEM - 360°

MRR-12620

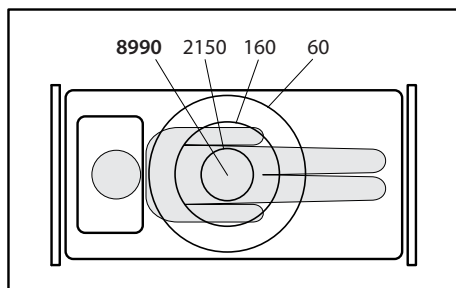
Typical Patient Room



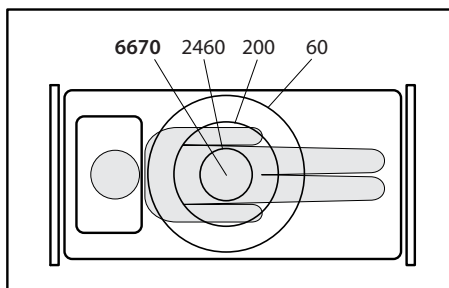
Typical NICU



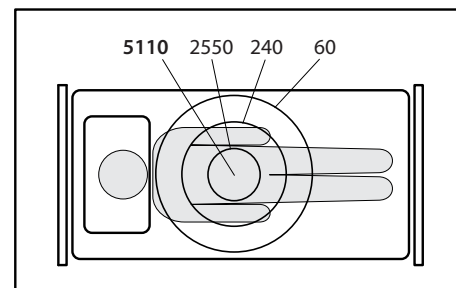
INFARED® Footcandle Performance - Two Luminaires 4' Spacing



8' Ceiling: 3' Work Plane 8990 fc
3' 4" Work Plane 10000 fc



9' Ceiling: 3' Work Plane 6670 fc
3' 4" Work Plane 7330 fc



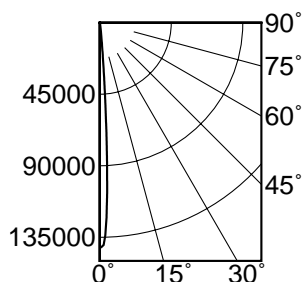
10' Ceiling: 3' Work Plane 5110 fc
3' 4" Work Plane 5570 fc

Performance at a Glance* - One Luminaire

Photometric testing by I.T.L. (Boulder, CO)
I.T.L. Test No. 83197

Lumens: 2720
Beam: ~7°
ITL Test: 83197

One luminaire -
photometry shown
straight down 0° tilt



Cone of Light*

Ft.	FC	Dia.
6.0	3939.1	0.7
8.0	2215.8	1.0
10.0	1418.1	1.2
12.0	984.8	1.4
14.0	723.5	1.7
16.0	553.9	1.9

Total System Watts (2 luminaires)

120V (Standard): 140W
277V (Option -58): 140W
347V (Option -98): 160W

Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

* Dia. (in ft.) shown is where FC value is half the FC at nadir.

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 3742 lumen (64W) light engines (within the established tolerance).

MRR-12620 INFRALED® 2 LIGHT SYSTEM - 360°

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM

The lighting system includes both an infrared remote control and a flush wall control panel. Both provide full control of the lighting system including on/off, direction, intensity and fixture selection. A designated magnetic docking station on the wall control panel has been provided for storage of the remote control when not in use.

Remote and Wall Control Features:

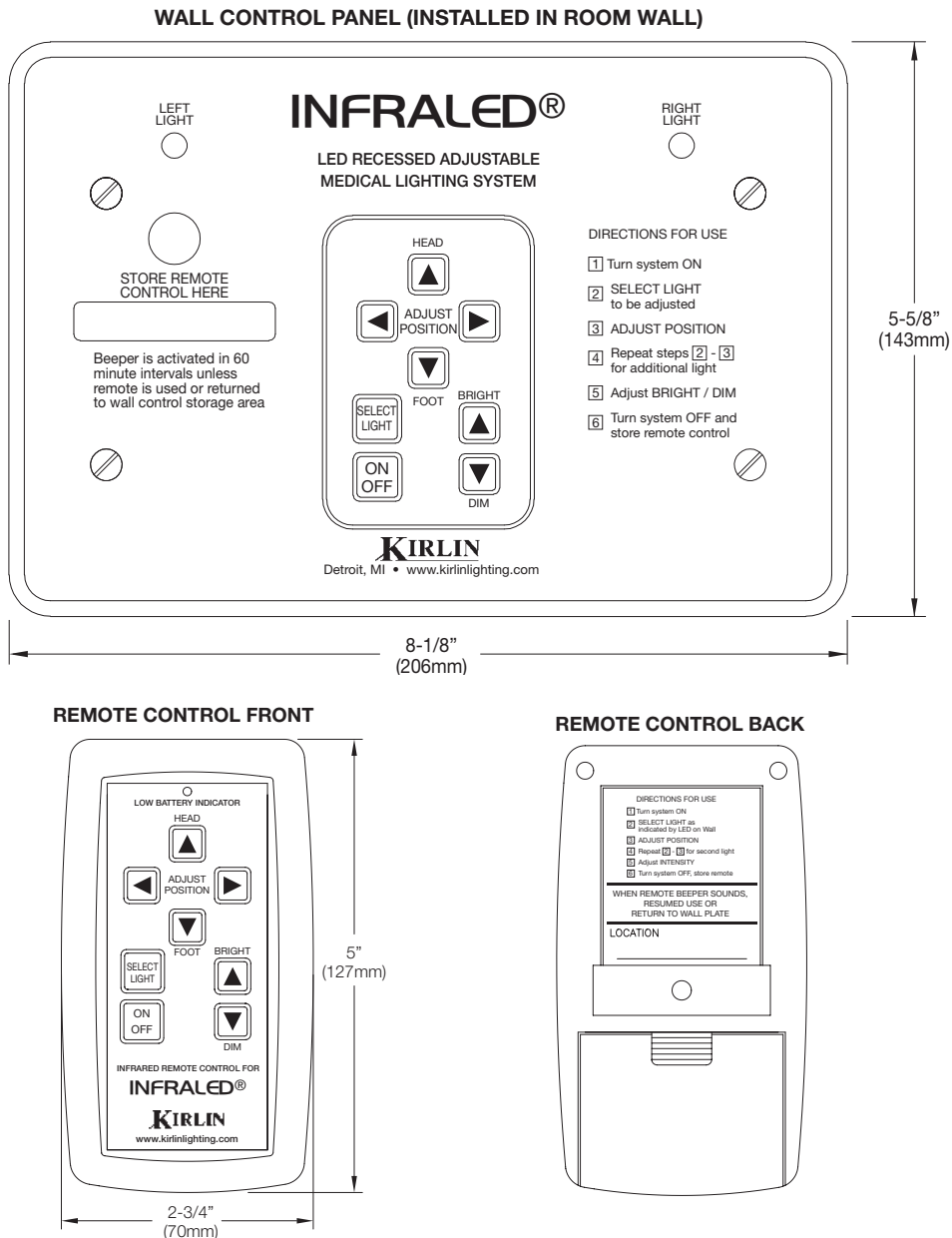
- Redundant full function controls for:
 - Power
 - Fixture selection
 - Intensity (dimmer or brighter)
 - Direction (rotates 360° with tilt up to 35° from either side of nadir.
- Convenient one hand operation.
- Tactile-membranes and smooth surfaces for easy cleaning.

Wall Control (only) Features:

- Includes infrared receiver.
- "Right" and "Left" fixture indicator lights.
- Magnetic docking station for remote control.
- Less than 1 microamp current leakage from front of wall control panel.
- Back box provided by Kirlin.

Remote Control (only) Features:

- Invisible infrared signal will not interfere with other equipment in the room.
- Impact resistant construction to withstand common mishaps (dropped on floor).
- Loss deterring beeper to remind user to return remote to docking station on wall control panel. Beeper is activated if remote control is not used for, nor returned to wall control panel within 1 hour.
- 9 volt standard battery provided.
- Low stand-by current assures long battery life.
- Back side has special "write-on" area for marking room location.



SUBMITTAL DATA

JOB NAME _____
 TYPE _____
 WATTAGE _____ VOLTAGE _____
 CATALOG NUMBER _____

APPROVAL STAMP



OPTeMED™

2 LIGHT SYSTEM - 360°

MRR-12640

LED Motorized
High CRI / R9
Recessed Patient
Lighting System

ICU • CCU • ED • NICU/PICU
PATIENT ROOM • CATH LAB



Performance: Cool LED beams with excellent color rendering of red tissue and skin tones: 95+ CRI (with high R9, R13 and R15). Up to 9300 footcandles delivered from the two light system.

Function: Precise adjustability of direction and brightness. Light beams may be superimposed or aimed separately.

Design: Inconspicuous, fully recessed lensed motorized luminaires with smooth white BioGard™ anti-microbial finish.

Use: Fast, single-hand adjustability using wall control. Each light independently controlled. Silent movement.

This lighting system features **two** fully recessed **luminaires** plus a **wall control**:

Each LED Luminaire Offers:

- 3000 delivered lumens
- Exclusive OPTeCOLOR™ LEDs with 95+ CRI, high R9 value of 85, cool beam and 60,000 hour life (L70); standard 3500°K, optional 5000°K
- Rotates 360° and tilts up to 35° either side of nadir; optional 15° bottom pan allows lighthouse to tilt up to 50° in one direction
- 0-10V CCR 100-10% dimming
- Architectural BioGard™ anti-microbial white regressed smooth flare trim with tempered clear flat glass lens

- IP65 optional
- Lightweight construction for easy installation in any ceiling (21 pounds)
- Completely serviceable through the aperture; convenient plug-in components for easy installation and service
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment. FCC Part 15 certified for EMI/RFI emissions

Wall Control Offers:

- One hand operation of controls: joystick for direction; slide dimmer for intensity (100-10%); pushbutton for power on-off
- Independent direction control of each light
- Light beams may be aimed at 2 sites or superimposed
- Smooth surfaces for easy cleaning with isopropyl alcohol

UL, C-UL (Canada) Listed • Exclusive Three Year Warranty • Designed and Produced in U.S.A.

Options

The following Options are available for MRR-12640. Add Option as suffix to catalog number. Example: MRR-12640-IP-SE.

Input Power

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120 volt stepdown transformer for 277 volt line input, prewired into each fixture; with 277 volt thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120 volt stepdown transformer for 347 volt line input, prewired into each fixture; with 120 volt thermal protector.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

Trim

- 32 White oversize trim ring. Specify O.D.
- 94 Custom color self-flanged flare trim instead.
- Consult factory.
- IP IP65 rated trim and lens.

Other

- 81 15° bottom pan achieves 50° high angle illumination in one direction. Maximum recessed depth 15-1/8".
- 87 Custom length (> 35 feet) plenum rated wall control cables (4). Specify length in feet.
- 99 Special modification. Consult factory.
- SE Fixtures modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes. Consult factory.

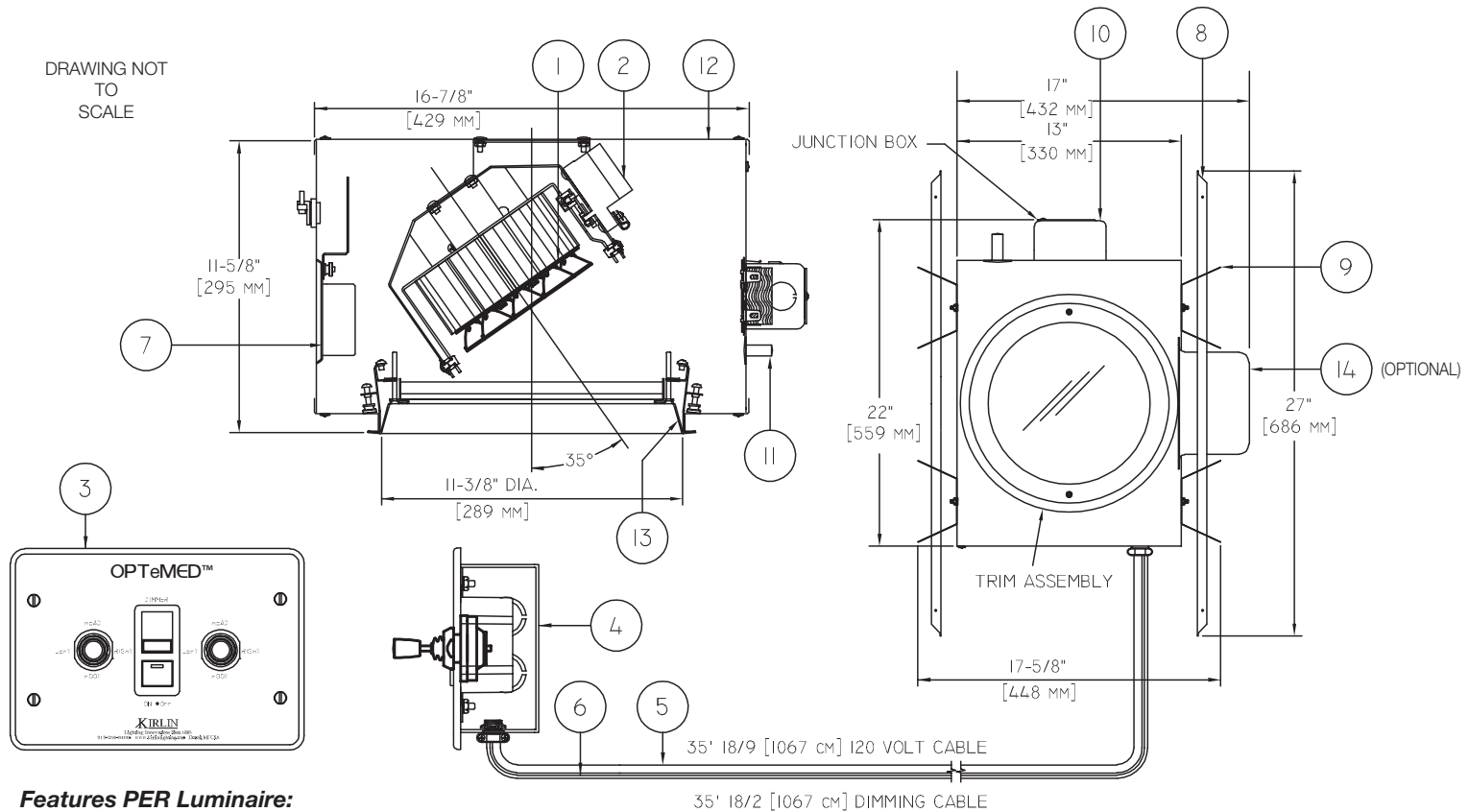
KIRLIN

THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com • info@kirlinlighting.com

MRR-12640 OPTeMED™ 2 LIGHT SYSTEM - 360°

LED MOTORIZED WALL CONTROLLED ADJUSTABLE LIGHTING SYSTEM



Features PER Luminaire:

LED Module (1)

- 2993 delivered lumens, 70 total system watts.
- 3500°K. 95+ CRI. High R9 value of 85.
- 60,000 hour long life (L70).

Motors / Gimbal Assembly (2)

- Two 120 volt permanently lubricated motors control motion. Quiet operation.
- Rotates 360° and tilts up to 35° from nadir.
- Plug-in modular electronics designed for easy maintenance.
- Visible and easily serviced through removable trim assembly.

Wall Control (3)

(one per lighting system)

- Includes all function controls (power, direction, brightness). (Detail page 4)
- **UL listed back box (4) provided must be used for proper fit of electronics.**
- 1/2" and 3/4" trade size knockouts.

Plenum Rated Cable

- Each luminaire provided with:
 - 35' 18/9 120 volt plenum rated cable (5) for color-coded connection to wall control.
 - 35' 18/2 plenum rated dimming cable. (6)
- For longer cable length, see Option -87.

LED Power Supply (7)

- 120-277V 50/60 Hz standard. Load insensitive. See "Stepdown Transformer" for input voltages other than 120V.
- 0-10V CCR dimming (100-10%).
- -30°C (-22°F) to 60°C (140°F).

Installation

- Lightweight (21 lbs.) fixture recesses in all ceilings including suspended ceilings.
- For seismic anchorage, see Option -SE.
- May be installed (per NEC, mandatory) by any qualified electrician. Factory representative need not be present.
- Two 27" (69cm) galvanized channel bar hangers supplied. (8)
- Four Kirlin fully adjustable universal (9) mounting brackets supplied.

Junction Box (luminaire) (10)

- Prewired 14 GA (NEC) galvanized steel, UL listed. Contains fuse and holder.
- Removable insulated cover.
- 1/2" and 3/4" knockouts.

Thermal Protection (11)

- Per current NEC. 120 volt.

Housing (12)

- Acrylic enameled aluminum.
- Cool: Dissipates heat across entire surface area.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Entire luminaire serviced through removable trim assembly.
- Built-in plaster frame.

Trim Assembly (13)

- White regressed self-flanged flare with Kirlin BioGard™ anti-microbial finish.

- For IP65 rating, see Option -IP.
- 12" diameter. Smooth surface.
- Regressed tempered clear flat glass lens.

Stepdown Transformer (14)

• When Option -58 is selected:

WhisperPack™ fully encapsulated 277/120 volt Class H transformer for 277 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).

• When Option -98 is selected:

WhisperPack™ fully encapsulated 347/120 volt Class H transformer for 347 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).

- Cool, quiet, long life. Silicone leads.
- Visible and easily serviced in all ceilings, including dry wall.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through branch circuit conductors. (6#12)

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

State of California OSHPD

Seismic Anchorage - consult factory

Warranty

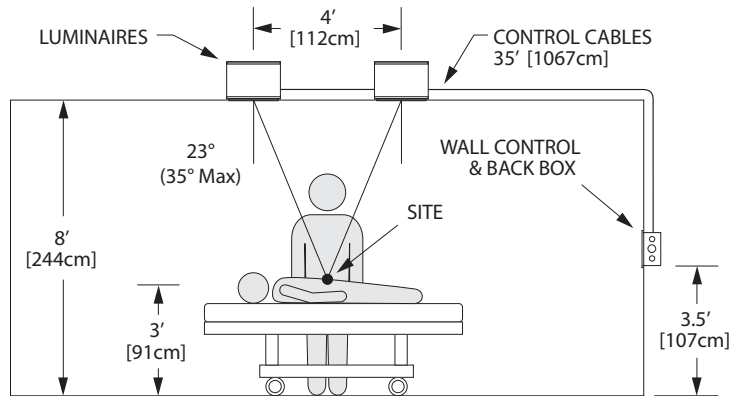
- Complete standard fixture and wall control, three years.

LED MOTORIZED WALL CONTROLLED ADJUSTABLE LIGHTING SYSTEM

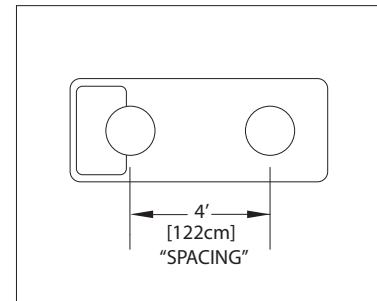
OPTeMED™
2 LIGHT SYSTEM - 360°

MRR-12640

Typical Side View

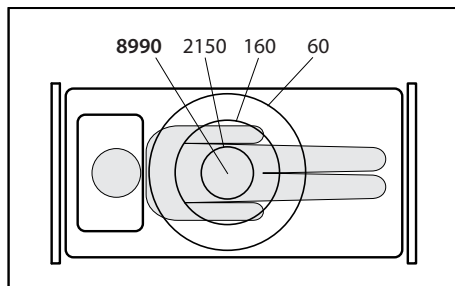


Typical Top View

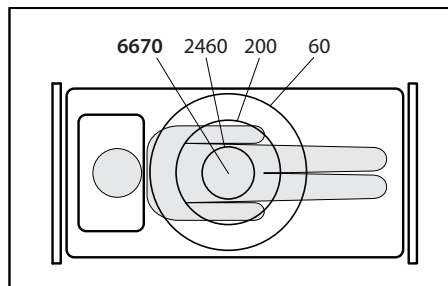


For optimal performance, fixtures should be placed 4' apart

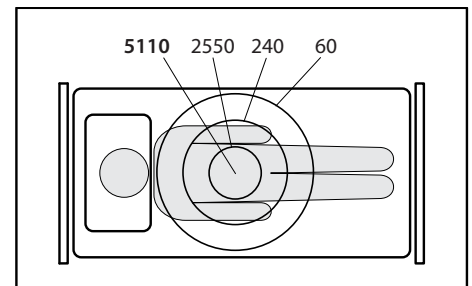
OPTeMED™ Footcandle Distribution Data - Two Luminaires 4' Spacing



8' Ceiling: 3' Work Plane 8990 fc
3'4" Work Plane 10000 fc



9' Ceiling: 3' Work Plane 6670 fc
3'4" Work Plane 7330 fc



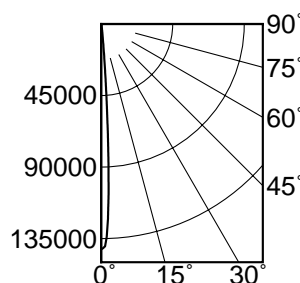
10' Ceiling: 3' Work Plane 5110 fc
3'4" Work Plane 5570 fc

Performance at a Glance* - One Luminaire

Photometric testing by I.T.L. (Boulder, CO)
I.T.L. Test No. 83197

Lumens: 2720
Beam: ~7°
ITL Test: 83197

One luminaire -
photometry shown
straight down 0° tilt



Cone of Light*

Ft.	FC	Dia.
6.0	3939.1	0.7
8.0	2215.8	1.0
10.0	1418.1	1.2
12.0	984.8	1.4
14.0	723.5	1.7
16.0	553.9	1.9

Total System Watts

120V (Standard): 140W
277V (Option -58): 140W
347V (Option -98): 150W

Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

* Dia. (in ft.) shown is where FC value is half the FC at nadir.

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 3742 lumen (64W) light engines (within the established tolerance).

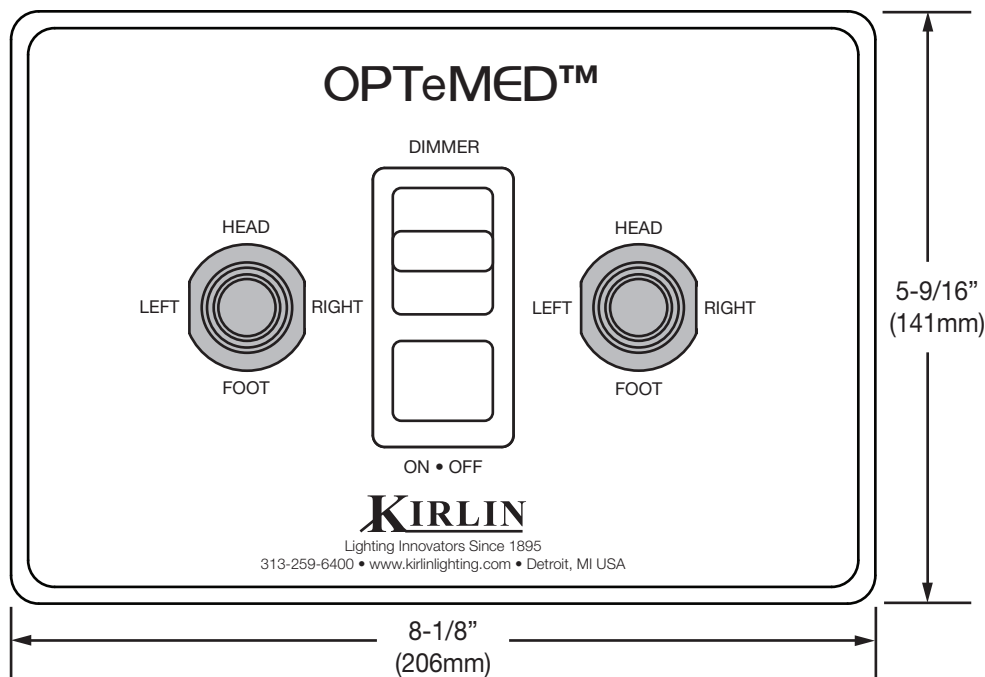
MRR-12640

OPTeMED™
2 LIGHT SYSTEM - 360°

LED MOTORIZED WALL CONTROLLED
ADJUSTABLE LIGHTING SYSTEM

WALL CONTROL PANEL

(INSTALLED IN ROOM WALL - NOT TO SCALE)



- **Switches for:**
 - Power
 - Intensity (dimmer or brighter); 100% to 10% range
- **Joystick (2) for:**
 - Directional control of each luminaire (rotates 360°; tilts up to 35°, or up to 50° with Option -81)
 - IP65 rated
- **Convenient one hand operation**
- **Smooth surfaces for easy cleaning**

SUBMITTAL DATA

JOB NAME
TYPE
WATTAGE
VOLTAGE
CATALOG NUMBER

APPROVAL STAMP



KIRLIN

THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com • info@kirlinlighting.com

OPTeMED™

1 LIGHT SYSTEM - 360°

MRR-12642

LED Motorized
High CRI / R9
Recessed Patient
Lighting System

ICU • CCU • ED • NICU/PICU
PATIENT ROOM • CATH LAB



Performance: Cool LED beam with excellent color rendering of red tissue and skin tones: 95+ CRI (with high R9, R13 and R15). Up to 5700 footcandles delivered from the one light system.


Function: Precise adjustability of direction and brightness.


Design: Inconspicuous, fully recessed lensed motorized luminaire with smooth white BioGard™ anti-microbial finish.

Use: Fast, single-hand adjustability using wall control. Silent movement.

This lighting system features **one** fully recessed **luminaire** plus a **wall control**:

LED Luminaire Offers:

- 3000 delivered lumens
-  Exclusive OPTeCOLOR™ LEDs with 95+ CRI, high R9 value of 85, cool beam and 60,000 hour life (L70); standard 3500°K, optional 5000°K
- Rotates 360° and tilts up to 35° either side of nadir; optional 15° bottom pan allows lighthouse to tilt up to 50° in one direction
- 0-10V CCR 100-10% dimming
- Architectural BioGard™ anti-microbial white regressed smooth flare trim with tempered clear flat glass lens

- IP65 optional 
- Lightweight construction for easy installation in any ceiling (21 pounds)
- Completely serviceable through the aperture; convenient plug-in components for easy installation and service
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment. FCC Part 15 certified for EMI/RFI emissions

Wall Control Offers:

- One hand operation of controls: joystick for direction; slide dimmer for intensity (100-10%); pushbutton for power on-off
- Smooth surfaces for easy cleaning with isopropyl alcohol

UL, C-UL (Canada) Listed • Exclusive Three Year Warranty • Designed and Produced in U.S.A.

Options

The following Options are available for MRR-12642. Add Option as suffix to catalog number. Example: MRR-12642-IP-SE.

Input Power

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120 volt stepdown transformer for 277 volt line input, prewired into fixture; with 277 volt thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120 volt stepdown transformer for 347 volt line input, prewired into fixture; with 120 volt thermal protector.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

Trim

- 32 White oversize trim ring. Specify O.D.
- 94 Custom color self-flanged flare trim instead. Consult factory.
- IP IP65 rated trim and lens.

Other

- 81 15° bottom pan achieves 50° high angle illumination in one direction. Maximum recessed depth 15-1/8".
- 87 Custom length (> 35 feet) plenum rated wall control cables (2). Specify length in feet.
- 99 Special modification. Consult factory.
- SE Fixture modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes. Consult factory.



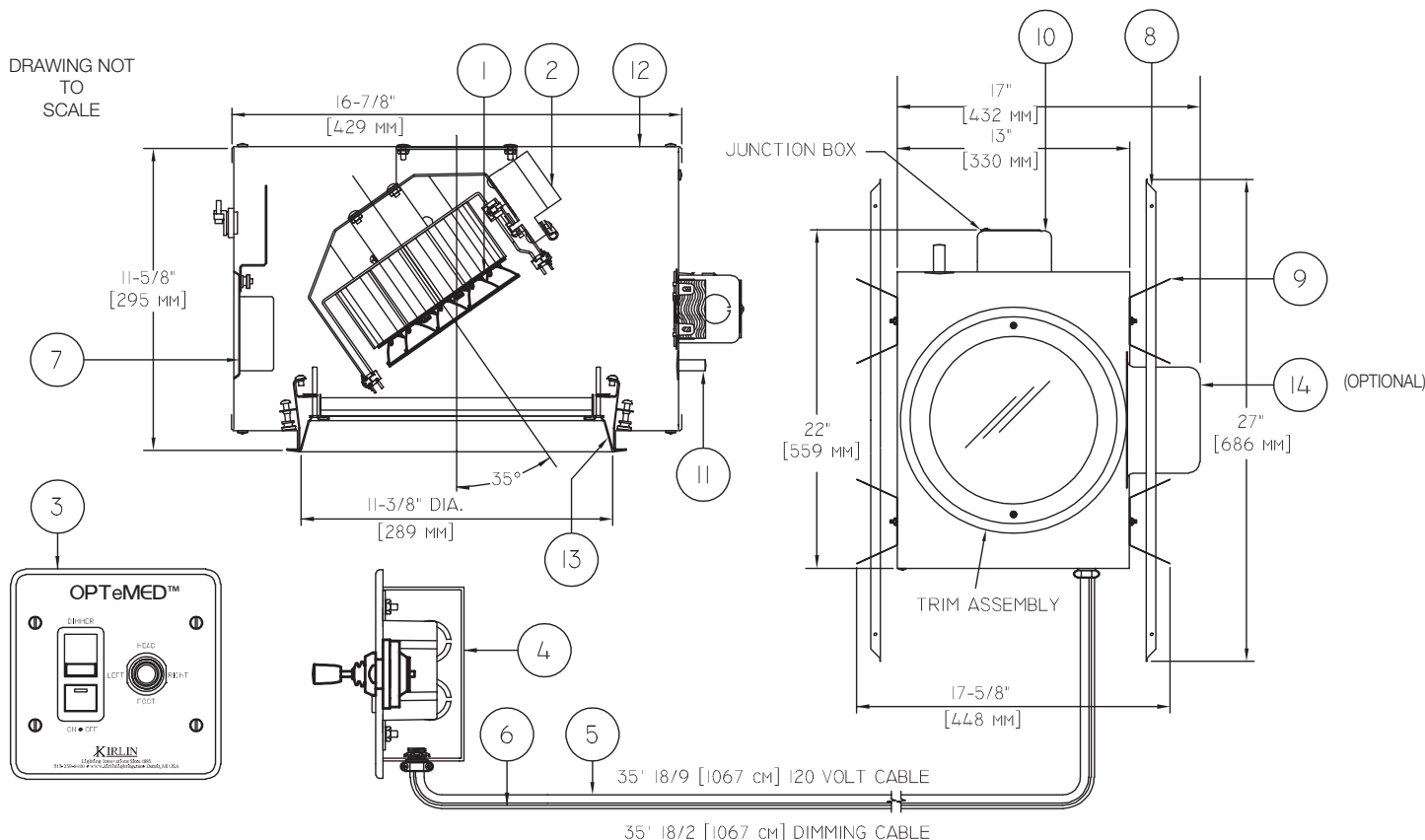
THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-3121 • www.kirlinlighting.com • info@kirlinlighting.com

MRR-12642

OPTeMED™
1 LIGHT SYSTEM - 360°

LED MOTORIZED WALL CONTROLLED
ADJUSTABLE LIGHTING SYSTEM



LED Module ①

- 2993 delivered lumens, 70 total system watts.
- 3500°K. 95+ CRI. High R9 value of 85.
- 60,000 hour long life (L70).

Motors / Gimbal Assembly ②

- Two 120 volt permanently lubricated motors control motion. Quiet operation.
- Rotates 360° and tilts up to 35° from nadir.
- Plug-in modular electronics designed for easy maintenance.
- Visible and easily serviced through removable trim assembly.

Wall Control ③

(one per lighting system)

- Includes all function controls (power, direction, brightness). (Detail next page.)
- **UL listed back box ④ provided must be used for proper fit of electronics.** 1/2" and 3/4" trade size knockouts.

Plenum Rated Cable

- Each luminaire provided with:
 - 35' 18/9 120 volt plenum rated cable ⑤ for color-coded connection to wall control.
 - 35' 18/2 plenum rated dimming cable. ⑥
- For longer cable length, see Option -87.

LED Power Supply ⑦

- 120-277V 50/60 Hz standard. Load insensitive. See "Stepdown Transformer" for input voltages other than 120V.
- 0-10V CCR dimming (100-10%).
- -30°C (-22°F) to 60°C (140°F).

Installation

- Lightweight (21 lbs.) fixture recesses in all ceilings including suspended ceilings.
- For seismic anchorage, see Option -SE.
- May be installed (per NEC, mandatory) by any qualified electrician. Factory representative need not be present.
- Two 27" (69cm) galvanized channel bar hangers supplied. ⑧
- Four Kirlin fully adjustable universal ⑨ mounting brackets supplied.

Junction Box (luminaire) ⑩

- Prewired 14 GA (NEC) galvanized steel, UL listed. Contains fuse and holder.
- Removable insulated cover.
- 1/2" and 3/4" knockouts.

Thermal Protection ⑪

- Per current NEC. 120 volt.

Housing ⑫

- Acrylic enameled aluminum.
- Cool: Dissipates heat across entire surface area.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Entire luminaire serviced through removable trim assembly.
- Built-in plaster frame.

Trim Assembly ⑬

- White regressed self-flanged flare with Kirlin BioGard™ anti-microbial finish.

- For IP65 rating, see Option -IP.
- 12" diameter. Smooth surface.
- Regressed tempered clear flat glass lens.

Stepdown Transformer ⑭

• When Option -58 is selected:

WhisperPack™ fully encapsulated 277/120 volt Class H transformer for 277 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).

• When Option -98 is selected:

WhisperPack™ fully encapsulated 347/120 volt Class H transformer for 347 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).

- Cool, quiet, long life. Silicone leads.
- Visible and easily serviced in all ceilings, including dry wall.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through branch circuit conductors. (6#12)

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

State of California OSHPD

Seismic Anchorage - consult factory

Warranty

- Complete standard fixture and wall control, three years.

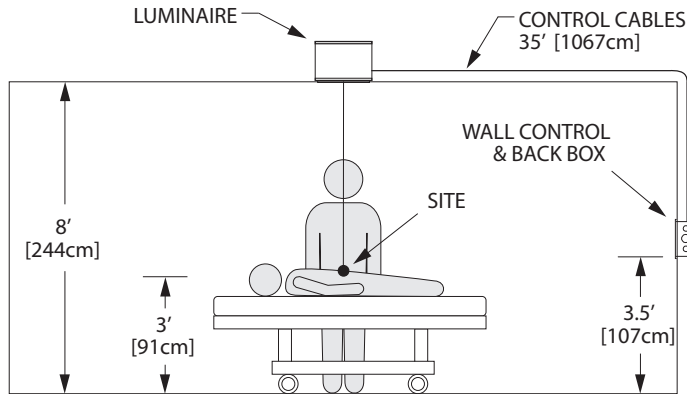
PER SINGLE LUMINAIRE OPERATING CURRENT 0.70A MAXIMUM DRAW 0.80A AT 120 VOLT LINE INPUT

LED MOTORIZED WALL CONTROLLED ADJUSTABLE LIGHTING SYSTEM

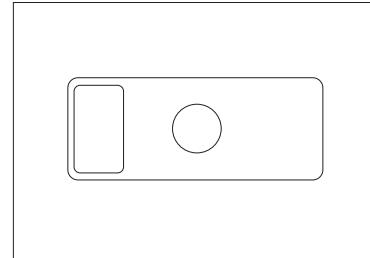
OPTeMED™
1 LIGHT SYSTEM - 360°

MRR-12642

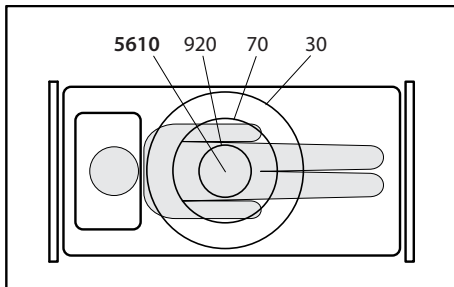
Typical Side View



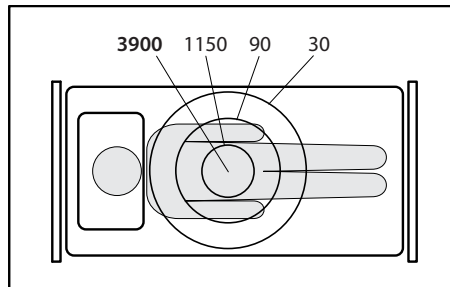
Typical Top View



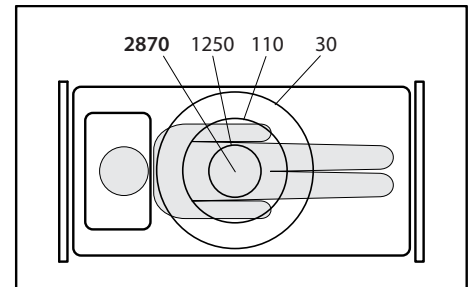
Footcandle Distribution Data



8' Ceiling: 3' Work Plane 5610 fc
3'4" Work Plane 6420 fc



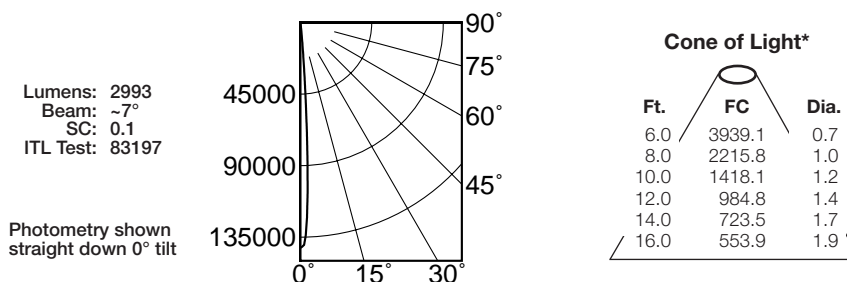
9' Ceiling: 3' Work Plane 3900 fc
3'4" Work Plane 4370 fc



10' Ceiling: 3' Work Plane 2870 fc
3'4" Work Plane 3160 fc

Performance at a Glance*

Photometric testing by I.T.L. (Boulder, CO)
I.T.L. Test No. 83197



Total System Watts
120V (Standard): 70W
277V (Option -58): 80W
347V (Option -98): 80W

Cone of Light Key
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

* Dia. (in ft.) shown is where FC value is half the FC at nadir.

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 3742 lumen (64W) light engines (within the established tolerance).

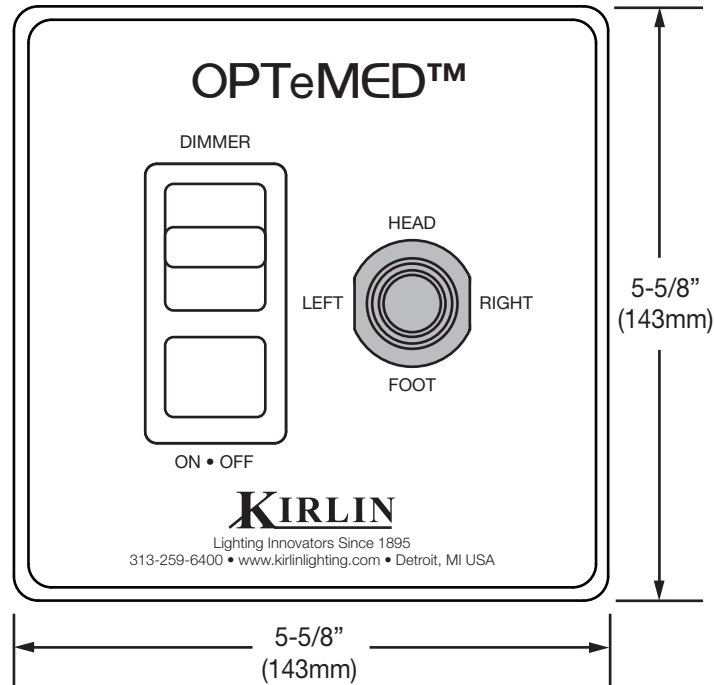
MRR-12642

OPTeMED™
1 LIGHT SYSTEM - 360°

**LED MOTORIZED WALL CONTROLLED
ADJUSTABLE LIGHTING SYSTEM**

WALL CONTROL PANEL

(INSTALLED IN ROOM WALL - NOT TO SCALE)



- **Switches for:**
 - Power
 - Intensity (dimmer or brighter); 100% to 10% range
- **Joystick for:**
 - Directional control of luminaire
(rotates 360°; tilts up to 35°, or up to 50° with Option -81)
 - IP65 rated
- **Convenient one hand operation**
- **Smooth surfaces for easy cleaning**

SUBMITTAL DATA

JOB NAME
TYPE
WATTAGE
VOLTAGE
CATALOG NUMBER

APPROVAL STAMP





Designed to provide you with optimal light that meets your general exam requirements, the Solar Duo Exam LED Light comes with two lighting functions: Ambient and Exam. With patient safety in mind, all of the LED's are shielded with our perforated basket and diffuser. The lenses and reflectors used offer clean, glare-free light to ensure maximum light output for caregivers to perform their tasks.

Construction Material:

Housing: 20 Gauge CRS. Once piece, seam-welded construction

Finish: White urethane powder coat finish – 5 step treatment; antimicrobial finish

Lamp Type:

- Metal core PCB on all light engines for excellent heat dissipation
- High efficacy, 160 lm/W @ 65 mA/LED, 145 lm/W @ 120 mA/LED
- CCT options ranging from 3500K – 5000K, 3-step MacAdam standard
- High fidelity with CRI 80+ standard and CRI 90+ available
- Continuous LED Pitch from board to board, eliminating dark spots
- LM-80 tested LEDs with calculated L70 longevity over 130,000 hours @55°C and over 90,000 hours @ 85°C
- All Amico light engines are UL recognized in U.S./Canada

Drivers: High power factor constant current, 0.97 pf @ 120 V (Class 2, Class II)

Lamp Shielding: Perforated steel (white TGIC polyester powder coat finish) with pearlescent diffuser

Specifications:

Length: 1' x 4' fits into standard ceiling grid layout

Weight: 22 lbs (10 kg)

Voltage: 120 - 277 V

Wattage: Ambient = 32.5 W
*per fixture Exam = 49 W

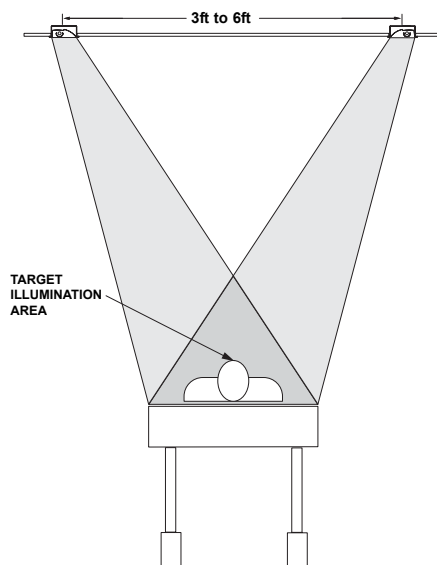
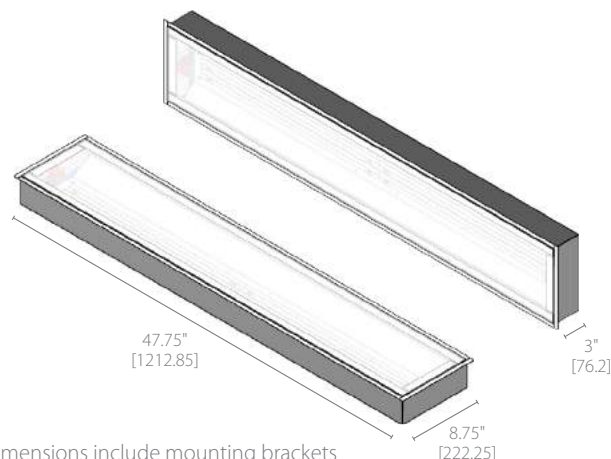
Light Output: Ambient = 4,140 lm
*per fixture Exam = 5,820 lm

Dimming: 0-10 and DALI options available

Color Quality: 80 or 90 CRI

Color Temperature: 3500K (standard)
4000K (optional)
5000K (optional)

Warranty: 5 years

Inch
[mm]

*Dimensions include mounting brackets

Series	Voltage	Lamp Control	Direction	Color Temperature	CRI	Mounting Options	Accessories
L-SDE	120	C Common Control	SYM Ambient Only	LED35 3500 Kelvin (Standard)	80	G Grid Tile Ceiling	LV Low Voltage Controller
	240	N Individual Control	ASYM Exam Only	LED40 4000 Kelvin (Optional)	90	S Surface Mount	LB Low Voltage Controller and Ingress Barrier
	277		SAYM Ambient & Exam	LED50 5000 Kelvin (Optional)		F Flange Mount	LM LightMaster Relay
							MB LightMaster & Ingress Barrier
							IB Ingress Barrier Only
							00 No Options

Ordering Guide

L-SDE -

Voltage

Lamp Control

Direction

Color Temperature

CRI

Mounting Options

Accessories

For Example: L-SDE-277-N-ASYM-LED35-8-80-G-LB

Solar Series Duo Exam LED Light, 277 V, Individual Control, Exam, LED 3,500 K, 8-80 CRI, Grid Tile Ceiling, Low Voltage Controller and Ingress Barrier

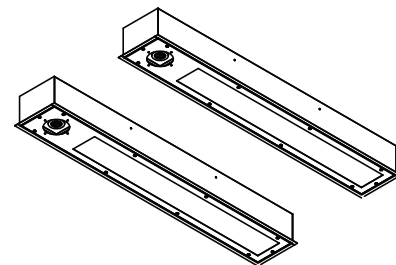


COMPRO LED

CPPG2/CPPG4/CPPF2/CPPF4

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing seam welded and ground smooth (standard). Stainless steel option available.
- FRAME:** Inset and overlapping doorframe available in aluminum, cold rolled steel, and stainless steel.
- LENS:** Ambient and Exam lens available in Prismatic Acrylic, Prismatic Polycarbonate and White Frosted Polycarbonate.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- FINISH:** White antimicrobial powder coat finish following iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM or extruded silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Patient Rooms, Exam Rooms, Recovery Areas, and more. *Fixture ordered as single unit. Typically used in pairs above patient bed; order (2) fixtures.

MOUNTING:

Grid or Flange installation. Flange fixtures are shipped with yoke and hardware to mount yoke to fixture.

LABEL:

*Pending c  us 

ORDERING INFORMATION

Ex: CPP4G-HC/OC-L135-L240-2C-A-RILN-12

PRODUCT FAMILY	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	MOUNTING	HOUSING	FRAME Inset (I) or Overlap (O)	AMBIENT LUMEN OUTPUT**	AMBIENT LAMP TYPE	EXAM LUMEN OUTPUT**
CPP	2 = 2ft. 4 = 4ft.	G = Grid F = Flange	HC= 20Ga. CRS (standard) HS= 20Ga. SS HP= 20Ga. SS (painted) HA= .050Ga. Alum. (painted)	IC=20Ga.CRS IA= .050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA= .050 Alum. (Painted)	CPP2: L1 = 1000lm CPP4: L1 = 2000lm	35 = 3500°K 40 = 4000°K 50 = 5000°K	CPP2: L2 = 2050lm CPP4: L2 = 4100lm
EXAM LAMP TYPE	CIRCUITS	EXAM/ AMBIENT LENS	READING LIGHT	NIGHT LIGHT	OPTIONS		
35 = 3500°K 40 = 4000°K 50 = 5000°K	2C = 2 Circuits 3C = 3 Circuits 4C = 4 Circuits	A = .125 Prismatic Acrylic B = .125 Prismatic Poly. C = .156 Prismatic Poly. D = .187 Prismatic Poly. E = .125 White Frosted Poly.	Blank = No Reading Light RI = LED Integral RM = MR16 Integral ✓	Blank = No Night Light LN = Night Light Integral	12 = 120V 27 = 277V	DM DM1 FZ EL1 RF LV2 LV3 90C	

KEY

DM = 0-10V dimming with 10-100% range

DM1 = 0-10V dimming with 1-100% range

FZ = Fuse

EL1 = Emerg. Bat. LED Low (10W) - Must be remote

RF = (RIF) Radio Interference Filter

LV2 = Low Voltage Controller

(controls reading and ambient unless otherwise specified)

LV3 = Low Voltage Controller (controls reading, ambient and night light unless otherwise specified)

90C = 90CRI. Note, lumen output will be effected

Notes:

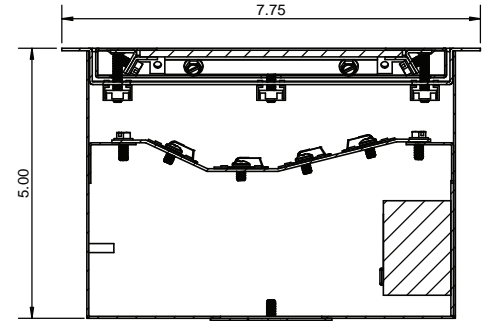
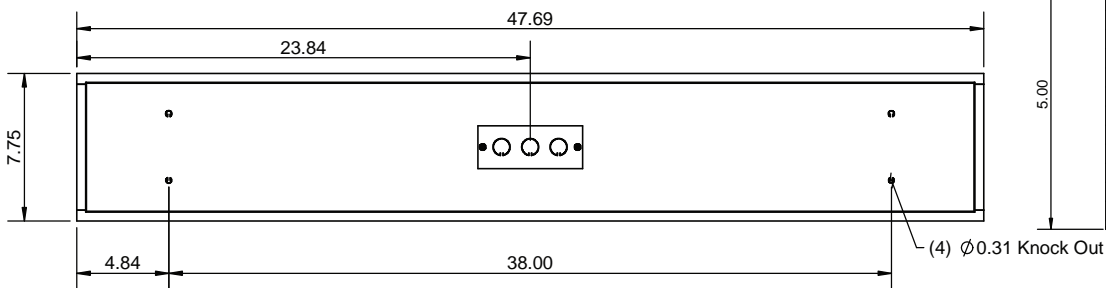
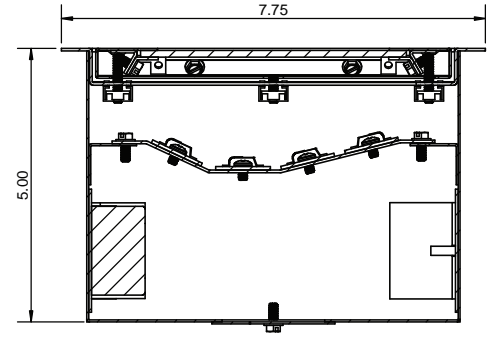
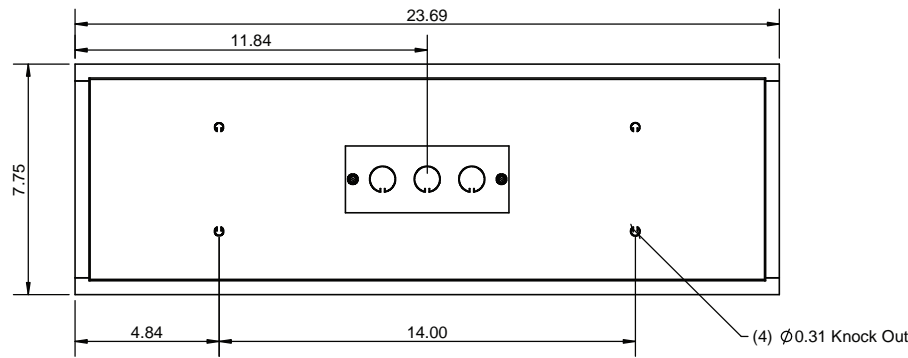
Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

✓ Not IP65

.. Subject to change

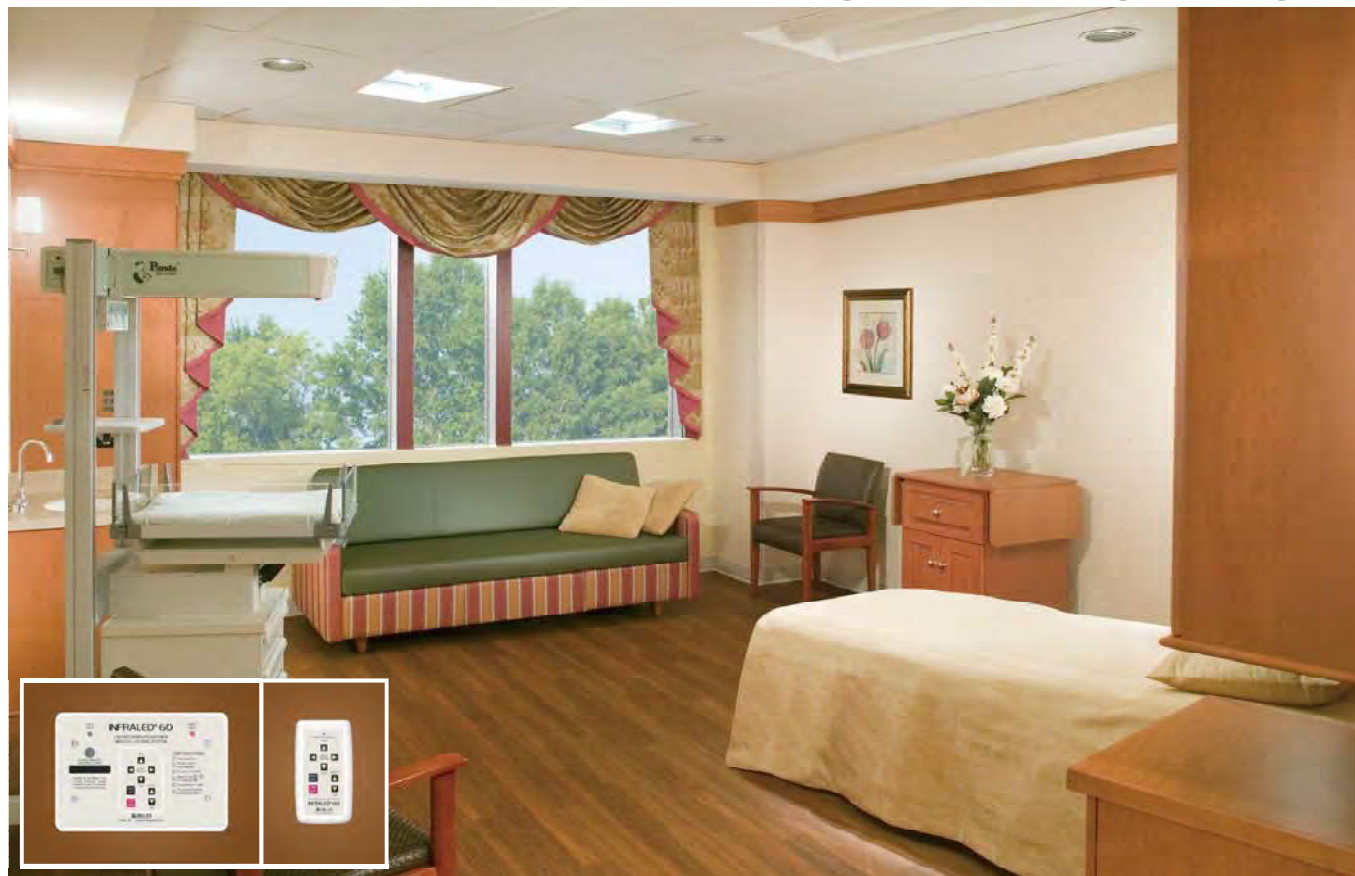
DIMENSIONAL DATA





LABOR & DELIVERY

INFRALED® 60: LED Birthing Suite Lighting



Piedmont Fayette Hospital, Fayetteville, GA

MRS-17600 Shown

MRS-17600 System Features:

- Two light recessed, adjustable LDRP LED lighting system with dual controls, delivers high CRI, deep cavity (60° angle) illumination.
- Full control of lighting system (direction, intensity, power) from both remote and wall controls. Light beams may be directed to 2 sites or superimposed on one target.
- Tactile membrane controls feature invisible and safe infrared signals.
- MRS-17600 delivers up to 6000 fc with full range dimming to 10%.
- Recessed, inconspicuous fixtures with BioGard™ antimicrobial trims are easy to disinfect, providing a safe and clean environment.
- Kirlin's exclusive three year limited warranty (one year remote control).



Low CRI & Low R9
COMPETITION

High CRI & High R9
KIRLIN

OPTeCOLOR™



High CRI is only part of the color rendering story. CRI only measures a light source's ability to render pastel colors, excluding important saturated colors like red (R9). High R9 values are critical for accurate patient diagnosis and treatment. KIRLIN OPTeCOLOR™ LEDs deliver both ultra-high CRI (95+) and R9 (85) lighting.



THE KIRLIN COMPANY

3401 East Jefferson Avenue • Detroit, MI 48207-4232
313-259-6400 • FAX 313-259-3121 • info@kirlinlighting.com • www.kirlinlighting.com

INFRALED® 60: Birthing Suite Lighting

For more information, including specification sheets, photometry and owner's manuals on these and other Kirlin products, please visit www.kirlinlighting.com or call your local Kirlin Sales Representative for catalogs.



Four OPTeCOLOR™ LED light heads per motorized lighting system deliver up to 6000 fc with no heat in the beam. Redundancy of controls, electronic components and circuitry ensures illumination at all times.



OPTeCOLOR™ LEDs provide 95+ CRI (with high R9, R13 and R15) for excellent color rendering of blood, red tissues and skin tones. 60,000 hour long life (L70) dramatically reduces maintenance frequency and cost.

Recommended Fixture Setback / Location with Angle of Illumination and Light Levels

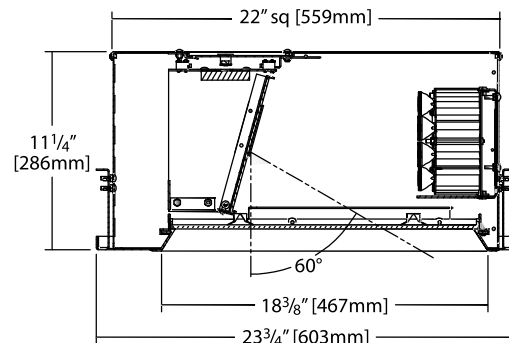
(Task Height: 3' - Spacing Between Lights: 4')

Ceiling Height	Setback from Break in Bed		Angle of Illumination	Footcandles on Task
8'	7.0'	Optimal	54.5	5105
	6.0'	Alternative	50.2	6052
8.5'	8.0'	Optimal	55.5	4080
	7.0'	Alternative	51.8	4851
9'	8.0'	Optimal	53.1	3850
	7.0'	Alternative	49.4	4515
9.5'	9.0'	Optimal	54.2	3163
	8.0'	Alternative	50.9	3622
10'	9.0'	Optimal	52.1	2997

For additional setback locations, please consult factory.

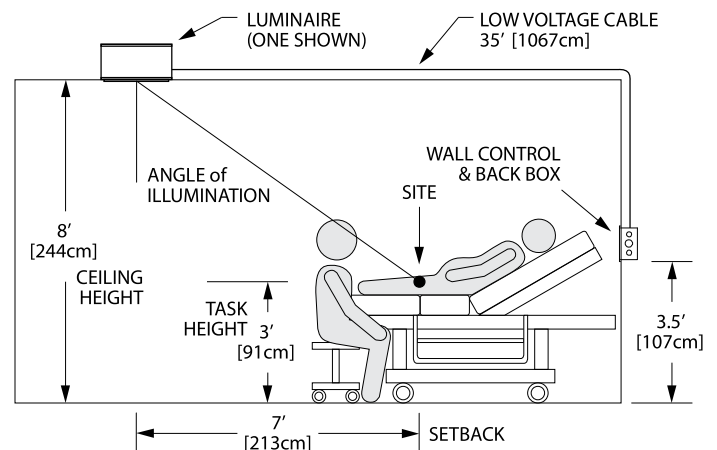


Full control of lighting system (direction, intensity, power) from both remote and wall controls, using invisible and safe infrared signals. Impact resistant design protects remote from common mishaps. Smooth tactile membrane switches do not trap pathogens and are easy to clean and disinfect. Loss deterring beeper reminds staff to return remote to wall control "home".



Fully recessed fixtures are unobtrusive and inconspicuous, providing a safe and open work space for staff and a home-like atmosphere for patients. BioGard™ antimicrobial smooth trims are easy to clean and disinfect.

Typical Side View



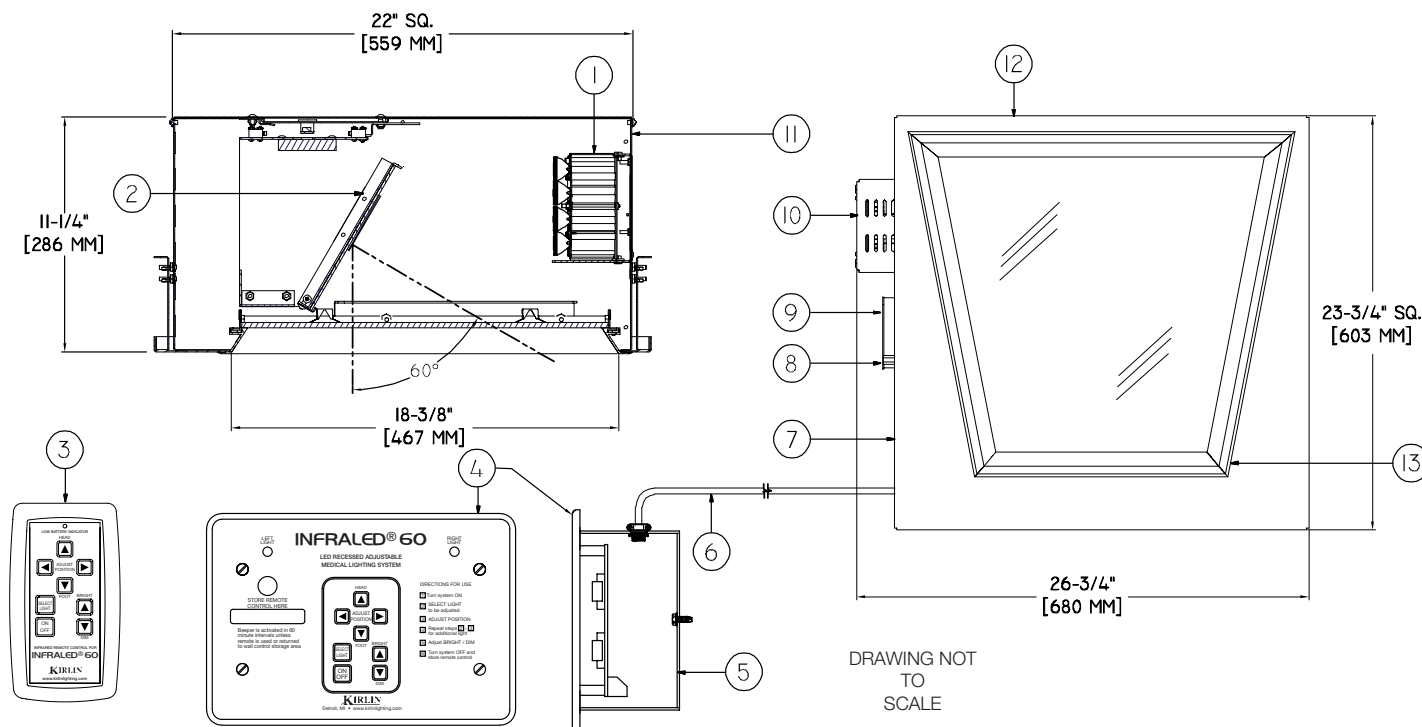
THE KIRLIN COMPANY

3401 East Jefferson Avenue • Detroit, MI 48207-4232
313-259-6400 • FAX 313-259-3121 • info@kirlinlighting.com • www.kirlinlighting.com

MRS-17600

INFRALED® 60 2 LIGHT SYSTEM

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM



Features PER Luminaire:

LED Modules (two) ①

- Up to 4000 delivered lumens, 150 total system watts.
- 3500°K. 95+ CRI. High R9 value of 72.
- 60,000 hour long life (L70).

Mirror Module Assembly ②

- Two 12 volt permanently lubricated DC motors control motion. Quiet operation.
- Plug-in modular electronics designed for easy maintenance.
- Visible and easily serviced through removable trim assembly.
- Tilts up to 60° (from nadir) with 50° sweep.

Infrared Remote Control ③

(one per lighting system)

- Controls power, direction and brightness.
- Emits unique frequency to avoid interfering with other infrared emitting equipment.
- Loss deterring beeper reminds user to store remote on wall control module.

Wall Control ④

(one per lighting system)

- Includes all function controls (power, direction, brightness). (Detail page 4.) Also contains infrared receiver and magnetic docking station for the remote control.
- Remote sensor optional. May be placed elsewhere in the room. See Option -RS.
- **UL listed back box ⑤ provided. Must be used for proper fit of electronics.** 1/2" and 3/4" trade size knockouts.

Plenum Rated Cable

- Each luminaire provided with:
- 35' plenum rated, 10 conductor, twisted

pair (24 AWG) control cable ⑥ with RJ-45 connectors for connection to wall control.

- For longer cable length, see Option -87.

LED Power Supplies (not shown) ⑦

- 120-277VAC nominal input voltage (108V min-305V max).
- 50/60 Hz standard. Load insensitive. See Option -58 "Stepdown Transformer" for 347V.
- 0-10V dimming (100-10%).
- -30°C (-22°F) to 60°C (140°F).

Thermal Protector ⑧

- Per current NEC.

Junction Box (luminaire) ⑨

- Prewired 14 GA (NEC) galvanized steel, UL listed. Contains fuse and fuse holder.
- Removable insulated cover.
- 1/2" and 3/4" knockouts.

Motion and Dimming Controls / Power Supply ⑩

Housing ⑪ and 2'x2' Lay-In Pan ⑫

- Acrylic enameled aluminum.
- Cool: Dissipates heat across entire surface area.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Entire luminaire serviced through removable trim assembly.
- Integral 2' x 2' grid lay-in pan. White.

Installation

- Lightweight fixture with integral 2' x 2' lay-in pan recesses in standard 2 x lay-in

grid ceilings. For installation in hard ceilings, see Option -47.

- For seismic anchorage, see Option -SE.
- See page 5 for typical luminaire placement.
- May be installed (per NEC, mandatory) by any qualified electrician.

Trim Assembly ⑬

- Smooth white self-flanged flare with Kirlin BioGard™ anti-microbial finish.
- Regressed tempered clear flat glass lens.

Stepdown Transformer (not shown)

• When Option -98 (347V) is selected:

- WhisperPack™ fully encapsulated 347/120 volt Class H transformer for 347 volt line input. Prewired into fixture; with 120 volt thermal protector. Fused (in J-box).
- Cool, quiet, long life. Silicone leads.
- Visible and easily serviced.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Through branch circuit conductors. (6#12)

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

State of California OSHPD Seismic Anchorage - consult factory

Warranty

- Complete standard fixture and wall control, three years.
- Remote control, one year.

PER SINGLE LUMINAIRE OPERATING CURRENT 1.2A AT 120 VOLT LINE INPUT

INFRALED® is a registered trademark of The Kirlin Company.

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM

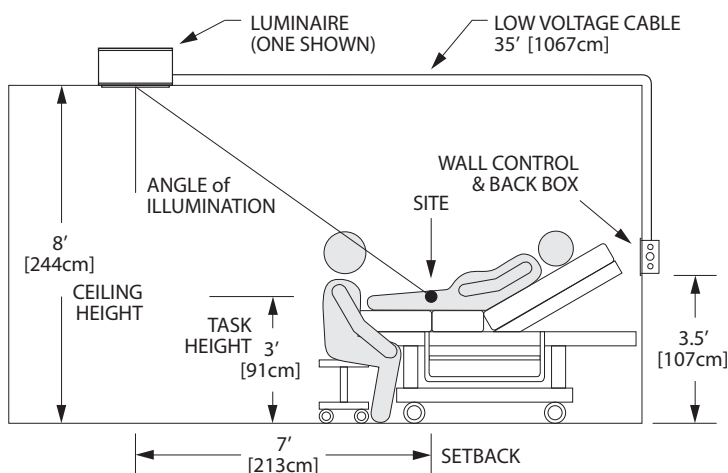
INFRARED® 60 2 LIGHT SYSTEM

MRS-17600

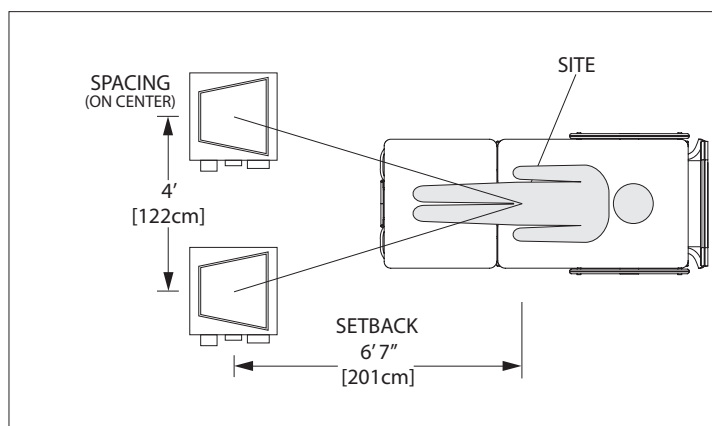
Recommendations for Typical Installation:

- Fixtures placed to project light on either side of practitioner's head and over practitioner's shoulders.
- Fixture setback from break in bed determined by ceiling height, and position and height of practitioners.
- Optimally, fixtures are placed 4' apart (on center) with angle of illumination typically between 50°-55° for sitting practitioners to provide future flexibility should task location change. Consult factory for assistance in determining ideal location of fixtures.
- Wall control placed in unobstructed location and within line of sight from practitioner's location.

Typical Side View - 8' Ceiling Height



Typical Top View - 8' Ceiling Height



Sitting Practitioners
4' Spacing • 3' Work Plane • 53° Angle of Illumination

Recommended Fixture Setback / Location with Angle of Illumination and Light Levels

Sitting Practitioners

Ceiling Height	Setback from Break in Bed	Angle of Illumination	Footcandles on Task
8	7.0 Optimal	54.5	5105
	6.0 Alternative	50.2	6052
8.5	8.0 Optimal	55.5	4080
	7.0 Alternative	51.8	4851
9	8.0 Optimal	53.1	3850
	7.0 Alternative	49.4	4515
9.5	9.0 Optimal	54.2	3163
	8.0 Alternative	50.9	3622
10	9.0 Optimal	52.1	2997

Alternative setback provided for room configurations that don't allow fixture placement in optimal setback location. For additional setback locations, consult factory.

Total System Watts (2 luminaires)

120V (Standard): 280W
277V (Option -58): 280W
347V (Option -98): 300W

Photometric testing by I.T.L. (Boulder, CO)
I.T.L. Test No. 84926

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of $\pm 7\%$ on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 3742 lumen (64W) light engines (2), within the established tolerance.

MRS-17600

INFRALED® 60 2 LIGHT SYSTEM

LED INFRARED REMOTE CONTROLLED ADJUSTABLE LIGHTING SYSTEM

The lighting system includes both an infrared remote control and a flush wall control panel. Both provide full control of the lighting system, including on/off, direction, intensity and fixture selection. A designated magnetic docking station on the wall control panel has been provided for storage of the remote control when not in use.

Remote and Wall Control Features:

- Redundant full function controls for:
 - Power
 - Fixture selection
 - Intensity (dimmer or brighter)
 - Direction (tilts up to 60° with 50° left / right sweep)
- Convenient one hand operation.
- Tactile-membranes and smooth surfaces for easy cleaning.

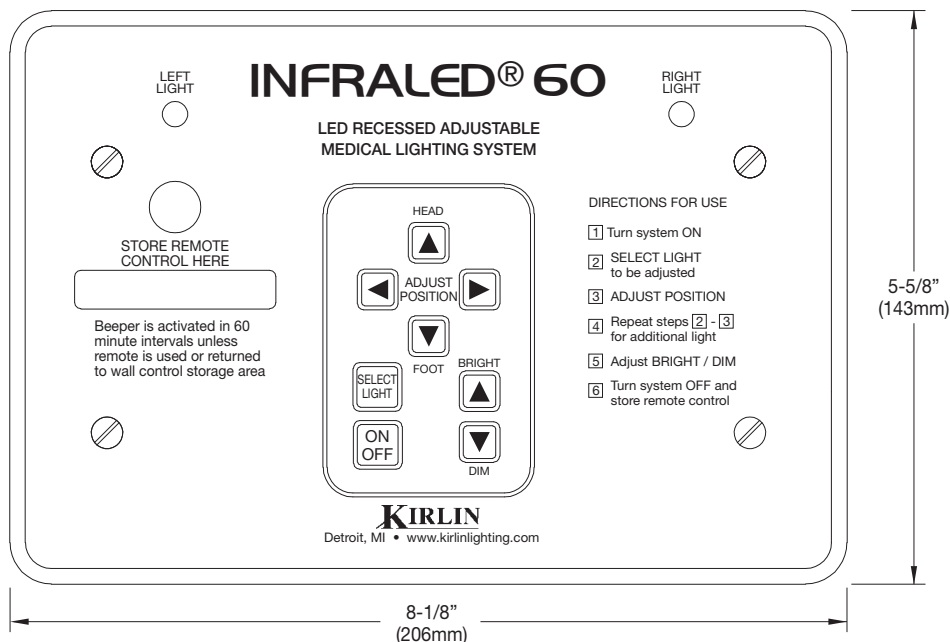
Wall Control (only) Features:

- Includes infrared receiver.
- "Right" and "Left" fixture indicator lights.
- Magnetic docking station for remote control.
- Less than 1 microamp current leakage from front of wall control panel.
- Back box provided by Kirlin.

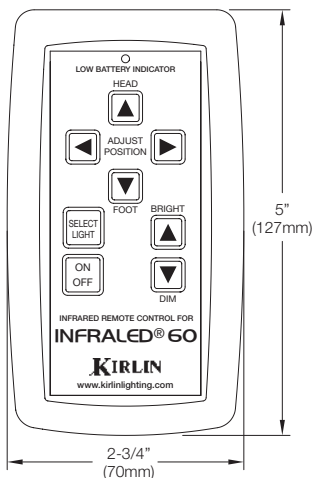
Remote Control (only) Features:

- Invisible infrared signal will not interfere with other equipment in the room.
- Impact resistant construction to withstand common mishaps (dropped on floor).
- Loss deterring beeper to remind user to return remote to docking station on wall control panel. Beeper is activated if remote control is not used for, nor returned to wall control panel within 1 hour.
- 9 volt standard battery provided.
- Low stand-by current assures long battery life.
- Back side has special "write-on" area for marking room location.

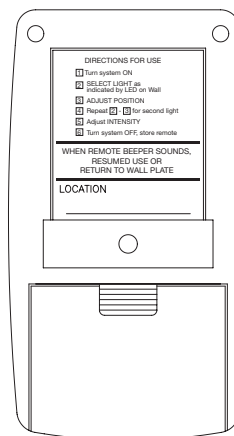
WALL CONTROL PANEL (INSTALLED IN ROOM WALL)



REMOTE CONTROL FRONT



REMOTE CONTROL BACK



SUBMITTAL DATA

JOB NAME _____

TYPE _____

WATTAGE _____ VOLTAGE _____

CATALOG NUMBER _____

APPROVAL STAMP





LDR LED

Labor & Delivery Room Exam Light

Project:

Type:

Qty:

SPECIFICATIONS

Labor & Delivery Room Exam Light

HMx2

SPECIFICATIONS

The LDR system offers an unobtrusive recessed design that blends into the ceiling until needed. When illuminated, the twin LED fixtures deliver 4500 foot candles uniformly across an 8" diameter spot without feathering of the edge. For labor and delivery the fixture may be dimmed for illumination during normal deliveries. However, the pair can be easily brought to full intensity if obstetric surgical procedures or emergency attention to the infant are needed. Along with the benefit of extended life, LEDs do not emit infrared heat into the room, eliminating a problem associated with commonly used halogen lamps. Each of the fixtures is independently adjustable in two planes from a single wall plate control for vertical and horizontal beam positioning.

Housing

.060" Aluminum Housing
Matte black powder coat finish

Door

.060" Aluminum Door
Matte texture white powder coat finish

Door Lens

.125" thick clear acrylic lens

Source

LED Sharp COB Zengatta,
CCT=4000K

Driver

Emerson LDS70-58-03 LED Driver

Color Quality

CRI >90

Weight

Approximate weight of single fixture 44 lbs.

Voltage

120V, 277V

Light Output (As Tested)

HMx2 – 1400 Lumens per single fixture

Input Watts (As Tested)

HMx2 – 71 Watts per single fixture

Dimming

Step Dimming as controlled from Wall Membrane unit or Infrared Remote.

Tilt & Pan Operation

Two speed operation: Press membrane button for "slow" movement. Press & hold button for "fast forward".

Life Estimate

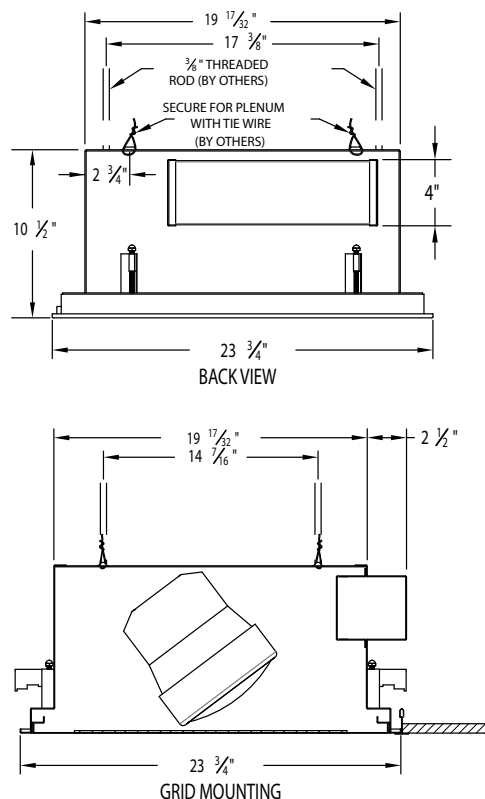
>50,000 hours according to component LM80 testing.

Warranty

5-year limited warranty. Complete warranty terms located at www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.



CATALOG NUMBER

Example: HMx2 120 WC1 SFO AM

Series	Voltage	Switching	Options	Finish
HMx2 Pair (2) of LDR Fixtures	120 120V 277 277V	WC1 Wall Control Scheme 1 WC2 Wall Control Scheme 2	SFO Single Fixture Option	[blank] Standard Finish (Textured Matte White Door) AM Anti-Microbial Finish (Textured Matte White Door)

Notes

- 1 Touch membrane control panel included (standard).
- 2 Universal housing is suitable for either grid or flange installation (standard).

LDR LED

Labor & Delivery Room Exam Light

Project:

Type:

Qty:

SPECIFICATIONS

Labor & Delivery Room Exam Light

HMx2

PERFORMANCE DATA

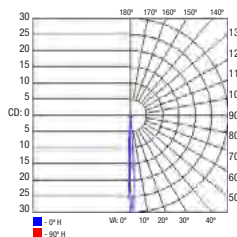
Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

Fixture	Lumen Output (lm)	Max Candela	Input Watts
HMx2	1400	156,000	71

PHOTOMETRICS

Test Report: LTL26587
IES LM 79-08
HMx2
Lumens: 1416
Wattage: 71 W Efficacy: 18.3
Max. Candela: 156022 @ H: 45°; V: 1.5°



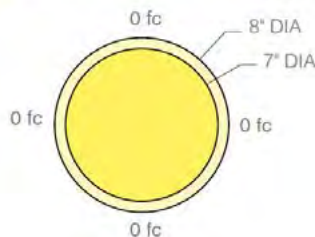
Measured at 6ft. Linear Distance

Single Fixture

2300 fc
2250 fc

Pair of Fixtures

4600 fc
4500 fc



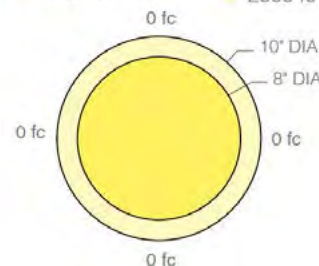
Measured at 8ft. Linear Distance

Single Fixture

1500 fc
1400 fc

Pair of Fixtures

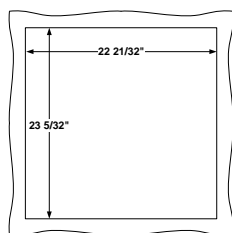
3000 fc
2800 fc



MOUNTING

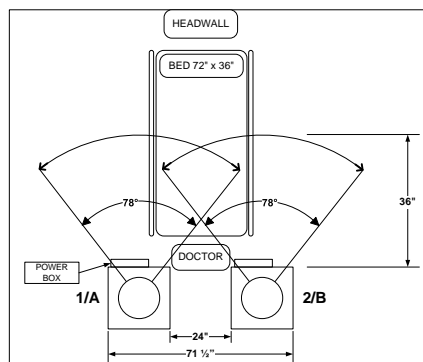
Sheet Rock Cutout Dimensions

HINGE SIDE

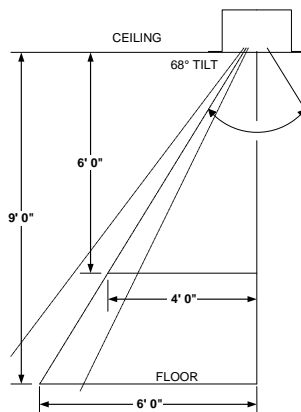


HMx2 FLANGE

Fixture Placement



Fixture Range of Motion



Notes

- 1 Fixtures should be mounted 2ft apart at the foot of the patient bed.
- 2 The power box on each fixture should be facing towards the head of the bed.
- 3 Grid fixture is designed for 15/16" flat-tee.
- 4 Secure fixture to the plenum (by others) [with tie wires or 3/8" threaded rod].
- 5 Fixture cannot be supported by ceiling system alone (must be secured to plenum).
- 6 Consult fixture Installation Instructions for more details.

LDR LED

Labor & Delivery Room Exam Light

Project:

Type:

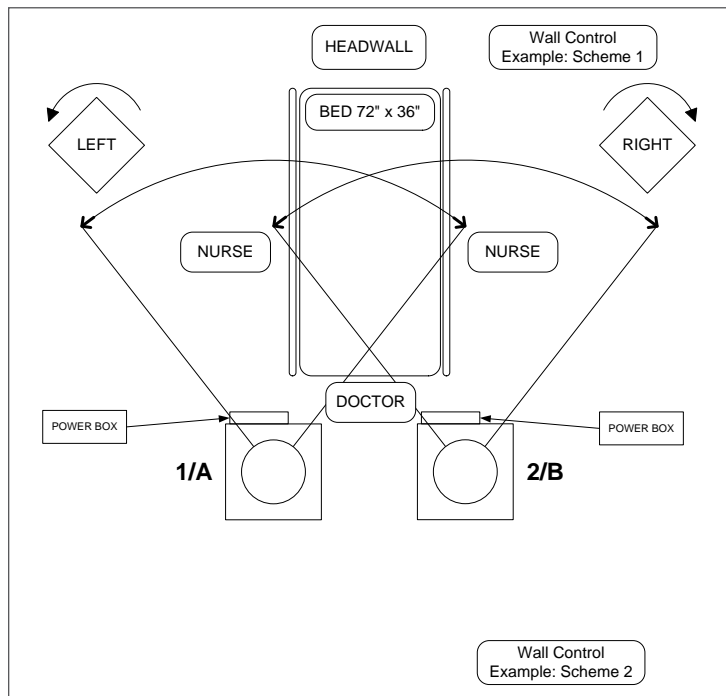
Qty:

SPECIFICATIONS

Labor & Delivery Room Exam Light

HMx2

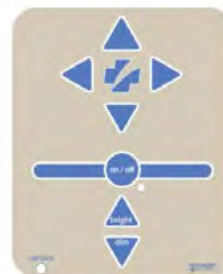
WALL CONTROL OPERATION AND SCHEME SELECTION



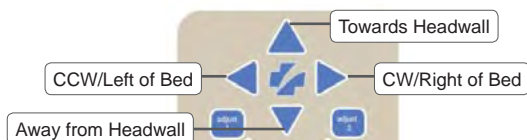
Wall Control — Dual Fixtures



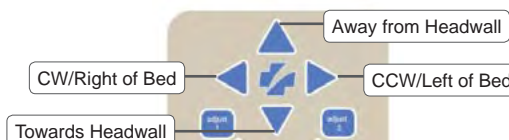
Wall Control — Single Fixture (optional)



Wall Control Scheme 1



Wall Control Scheme 2



Customer Choice



Scheme # (Check one) (1)___ (2)___

Name (Print) _____

Signature _____ Date ___/___/___



CLEAN ROOM

STARCLEAN 16-24 M SURFACE

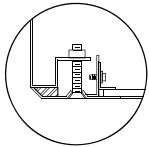
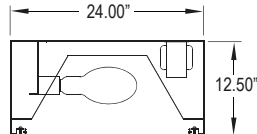
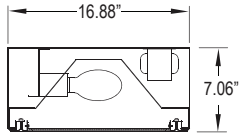
CLEANROOM SERIES

SURFACE LUMINAIRE

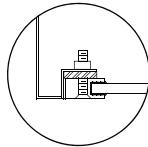
FLUORESCENT / LED / HID



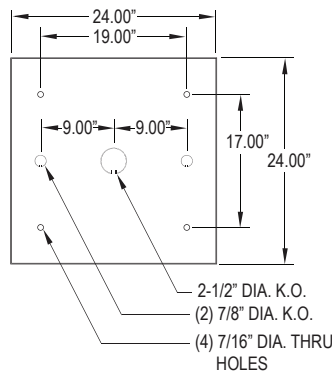
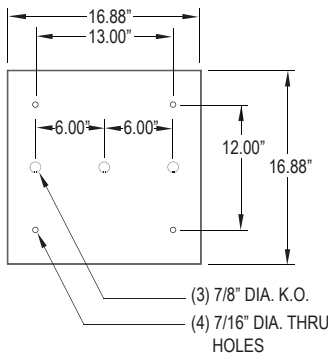
DIMENSIONAL DATA



OVERLAPPING FRAME



ALUMINUM EXTRUDED
INSET FRAME



ORDERING INFORMATION

Product Family	Housing Material	Frame	# of Lamps	Lamp Type
SCMS_				
SCMS16 16-7/8" x 16-7/8" x 7-1/16" SCMS24 24" x 24" x 12-1/4"	HC = 20Ga. CRS (Standard) HS = 20Ga. S.S. HP = 20Ga. S.S. (Painted) HA = Alum. (Painted)	Overlap Frame Options: OC = 18Ga. CRS (Standard) OS = 18Ga. S.S. (Brushed) OP = 18Ga. S.S. (Painted) Inset Frame Options: OA = Alum. (Painted) IE = Extruded Alum. (Painted) IP = Extruded Alum. (Painted)	FLUORESCENT: SCMS16-SCMS24 1 = 1 Lamp 2 = 2 Lamp HID: 1 = 1 Lamp	LED: SCMS16-SCMS24 L2 = LED 4 Boards (5000lms) L4 = LED 4Boards (10000lms)
				FLUORESCENT: SCMS16-SCMS24 42 = 42W Triple Gx24q-4 Bse 57 = 57W T4 4-Pin Gx24q-5 Bse 70 = 70W T4 4-Pin Gx24q-6 Bse LED: 35 = White 3500° K 40 = White 4000° K 50 = White 5000° K
				SCMS16 HID: 50 = 50W MH - HPS∞ 70 = 70W MH - HPS∞ 100 = 100W MH - HPS∞ 150 = 150W MH - HPS∞ SCMS24 HID: 150 = 150W MH - HPS∞ 250 = 250W MH - HPS∞ 400 = 400W MH - HPS∞
Lens	Voltage	Options		
A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .187 Prismatic Polycarbonate E = .156 Prismatic Tempered Glass	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	DB = Dimming Ballast (0-10v) ▶ PR = Program Rapid Start ▶ FZ = Fuse * NL = Fluorescent Night Light ♦ * LN = LED Night Light. Consult ♦ * factory for available color /temperatures.	TH = Torx Head screws (with center pin) E1 = Emergency Battery Pack * ▶ (450 Lumens) E2 = Emergency Battery Pack * ▶ (1100 Lumens) RF = RIF (Radio Interference Filter) ♦ *	

- * Cannot use with universal voltage option
 — Must be overlap door
 ■ Consult factory for lamp-ballast options

- Two lamps not available with Emergency Ballast
 ♦ Not available with HID
 ▶ Not available in LED

PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarClean MS16-MS24" Cleanroom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Surface housing utilizing enclosed design with seam welds to insure ingress protection
- Standard overlapping frame construction from a single sheet with beveled edges
- Inset frame fabrication from extruded aluminum with sealed, reinforced edges
- Specialized gasketing to provide contamination control
- Smooth surfaces for easy cleaning

APPLICATION

- Cleanroom
- Laboratory
- Hospital
- Food Processing Facilities
- Hi- Technology Manufacturing

SPECIFICATION FEATURES

HOUSING:

20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel option available. Manufactured in accordance with NSF standards.

FRAME:

Inset extruded door available in anodized aluminum or white painted aluminum. Overlapping door frame available in aluminum, CRS and stainless steel. Frame fastened to housing via aircraft cable.

LENS:

Acrylic lens with optional RFI and symmetric/asymmetric pattern, smooth side out. Overlapping frame uses a rail hold down system.

ELECTRONICS:

Fluorescent:
Electronic Ballast <10% THD standard. RIF available. Lamps by others.

ELECTRONICS:

LED
High power, class 2, LED module available in 3500K, 4000K, and 5000K. HPF LED driver, 120V-277V standard.

LED NIGHT LIGHT:

Integrated switch allows light selection at 100%,70%,40% and 10% levels

GASKET:

Closed cell pvc or extruded silicone gaskets prevent air contaminants from entering room.

FASTENERS:

Phillips flat head screws with captive cage nuts

FINISH:

White Antimicrobial powdercoat finish following iron phosphate pre-treatment.

LABEL:



Notes:

Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

STARCLEAN 12-14 LED

SCS12/SCS14/SCR12/SCR14

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel options available.
- FRAME:** Inset and overlapping doorframe available in aluminum, cold rolled steel, and stainless steel. Extruded inset door available in anodized aluminum or white painted aluminum. Frame held to housing via aircraft cable.
- LENS:** Acrylic lens with smooth side out. Alternate lens options available including Prismatic Polycarbonate and a White Frosted Polycarbonate. Inset (cold rolled steel, stainless steel and .050 alum) and Overlapping frame uses a rail hold down system.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- FASTENERS:** Stainless steel Philips flat head screws with captive cage nuts. Finish to match housing.
- FINISH:** White antimicrobial powder coat finish following multistage iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM and closed cell silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Cleanroom, Hospital, Hi-Tech Manufacturing, Laboratory, Food Processing Facilities, Commercial Kitchens, and more.

MOUNTING:

Surface (S) or Recessed (R) installation. Recessed mounting accommodates Grid and Flange installations. Recessed fixtures will be supplied with adjustable swing arms that can be used for Flange applications or taped to the side for Grid applications. Recessed install compatible with 1-1/2" and 15/16" Grid systems. Mounting for custom ceilings available, consult factory.

LABEL:

Fixture is certified to UL standards. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SCR14-HC/IE-L2351C-C-UN-EL1

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE (Dimensional Data Pg. 2)	HOUSING	FRAME Inset (I) or Overlap (O)	LUMEN OUTPUT** (Performance Data Pg. 3)
SC					
	S = Surface R = Recessed Housing (Grid/Flange installation)	12 = 1x2 14 = 1x4	HC = 20Ga. CRS (standard) HS = 20Ga. SS (Brushed) HP = 20Ga. SS (painted) HA = .050Ga. Alum. (painted)	IE=Extruded Alum. ✓ IP=Extruded Alum. ✓ (Painted) IP65: IC=20Ga.CRS IA=.050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA=.050 Alum. (Painted)	L2 = Standard L3 = Medium L4 = High
LAMP TYPE	CIRCUITS	LENS	VOLTAGE	OPTIONS	
35 = 3500°K 40 = 4000°K 50 = 5000°K	1C = 1 Circuit 2C = 2 Circuits	A=.125 Prismatic Acrylic B=.125 Prismatic Poly. C=.156 Prismatic Poly. D=.187 Prismatic Poly. Ø E=.125 White Frosted Poly. G=.140 DR Acrylic	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* FY DM EL1 DM1 EL2 SD2 RF* SD3 TH IP66 TM+	

KEY

FZ = Fuse*

DM = 0-10V dimming with 10-100% range

DM1 = 0-10V dimming with 1-100% range

SD2 = Step Dim. Module (50-100%)

SD3 = Step Dim. Module (25-50-100%)

IP66 = IP66 rating (only with Overlapping Frame)

Notes:

Specifications and Dimensions are subject to change without notice.

If circuit is not specified at time of quote or order, fixture will have single circuit.

FY = Yoke Bracket for Recessed mount
(Replaces swing arm system)

EL1 = Emerg. Bat. LED Low (1100-1250 lm)

EL2 = Emerg. Bat. LED High (2200-2500 lm)

RF = (RIF) Radio Interference Filter*

TH = Torx Head screws (with center pin)

TM = Tandem Mount+

✓ Not IP65

✦ Cannot be used with .187 Prismatic Poly

-- Subject to change

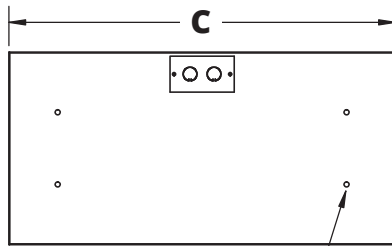
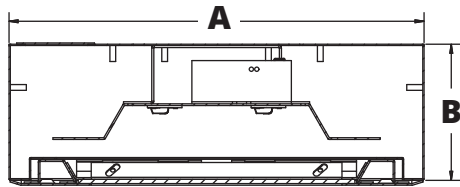
Ø Cannot be used with IE or IP

* Cannot use with UN voltage

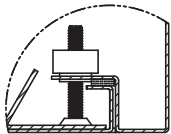
+ Requires joiner bracket. Supplied with fixture.

DIMENSIONAL DATA

SURFACE MOUNTING (S)



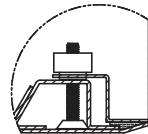
SCS12: (4) Ø.31" HOLE
SCS14: (6) Ø.31" HOLE



INSET FRAME

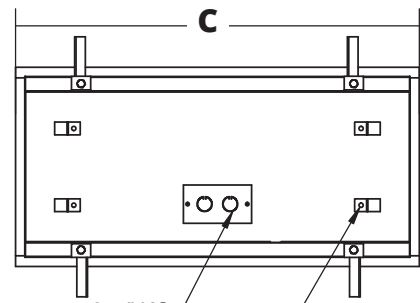
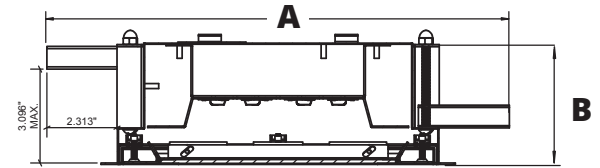


ALUMINUM EXTRUDED
INSET FRAME

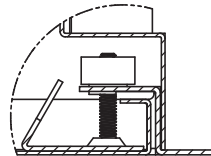


OVERLAPPING FRAME

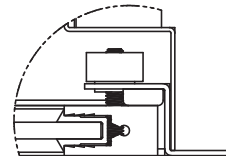
RECESSED MOUNTING (R): GRID & FLANGE



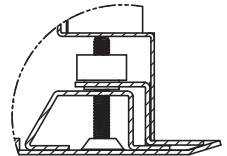
.875" KO
(4) Ø .250 "
HOLES FOR CEILING WIRE ATTACHMENT



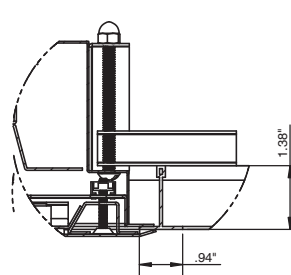
IC FRAME DETAIL



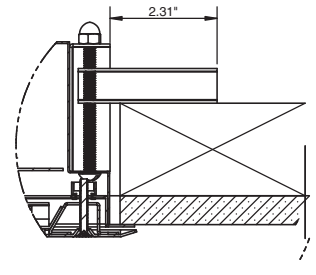
IE FRAME DETAIL



OC FRAME DETAIL



SCR (W/ OC FRAME) RECESSED GRID



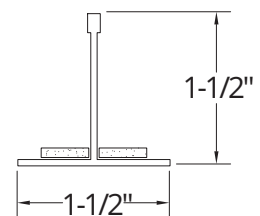
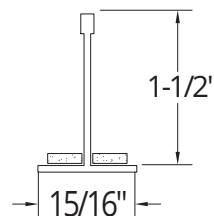
SCR (W/ OC FRAME) RECESSED FLANGE

RECOMMENDED CEILING CUT OUTS:

SCR12: 10.88" X 22.88"
SCR14: 10.88" X 46.88"

GRID COMPATIBILITY:

Spaced at 24" x 48" Centers



	A	B	C
SCS12	12.00"	3.94"	24.07"
SCS14	12.00"	3.94"	48.07"
SCR12	11.69"	4.00"	23.69"
SCR14	11.69"	4.00"	47.69"

STARCLEAN 22-24 LED

SCS22/SCS24/SCR22/SCR24

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel options available.
- FRAME:** Inset and overlapping doorframe available in aluminum, cold rolled steel, and stainless steel. Extruded inset door available in anodized aluminum or white painted aluminum. Frame held to housing via aircraft cable.
- LENS:** Acrylic lens with smooth side out. Alternate lens options available including Prismatic Polycarbonate and a White Frosted Polycarbonate. Inset (cold rolled steel, stainless steel and .050 alum) and Overlapping frame uses a rail hold down system.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- FASTENERS:** Stainless steel Philips flat head screws with captive cage nuts. Finish to match housing.
- FINISH:** White antimicrobial powder coat finish following multistage iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM and closed cell silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Cleanroom, Hospital, Hi-Tech Manufacturing, Laboratory, Food Processing Facilities, Commercial Kitchens, and more.

MOUNTING:

Surface (S) or Recessed (R) installation. Recessed mounting accommodates Grid and Flange installations. Recessed fixtures will be supplied with adjustable swing arms that can be used for Flange applications or taped to the side for Grid applications. Recessed install compatible with 1-1/2" and 15/16" Grid systems. Mounting for custom ceilings available, consult factory.

LABEL:

Fixture is certified to UL standards. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SCR24-HC/IE-L2351C-C-UN-EL1

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE (Dimensional Data Pg. 2)	HOUSING	FRAME Inset (I) or Overlap (O)	LUMEN OUTPUT** (Performance Data Pg. 3)
SC					
	S = Surface R = Recessed Housing (Grid/Flange installation)	22 = 2x2 24 = 2x4	HC = 20Ga. CRS (standard) HS = 20Ga. SS (Brushed) HP = 20Ga. SS (painted) HA = .050Ga. Alum. (painted)	IE=Extruded Alum. ✓ IP=Extruded Alum. ✓ (Painted) IP65: IC=20Ga.CRS IA=.050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA=.050 Alum. (Painted)	L2 = Low L4 = Standard L6 = Medium L8 = High
LAMP TYPE	CIRCUITS	LENS	VOLTAGE	OPTIONS	
35 = 3500°K 40 = 4000°K 50 = 5000°K	1C = 1 Circuit 2C = 2 Circuits	A=.125 Prismatic Acrylic B=.125 Prismatic Poly. C=.156 Prismatic Poly. D=.187 Prismatic Poly. Φ E=.125 White Frosted Poly. G=.140 DR Acrylic	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* FY DM EL1 DM1 EL2 SD2 RF* SD3 TH IP66 TM+	

KEY

FZ = Fuse*

DM = 0-10V dimming with 10-100% range

DM1 = 0-10V dimming with 1-100% range

SD2 = Step Dim. Module (50-100%)

SD3 = Step Dim. Module (25-50-100%)

IP66 = IP66 rating (only with Overlapping Frame)

Notes:

Specifications and Dimensions are subject to change without notice.

If circuit is not specified at time of quote or order, fixture will have single circuit.

FY = Yoke Bracket for Recessed mount
(Replaces swing arm system)

EL1 = Emerg. Bat. LED Low (1100-1250 lm)

EL2 = Emerg. Bat. LED High (2200-2500 lm)

RF = (RIF) Radio Interference Filter*

TH = Torx Head screws (with center pin)

TM = Tandem Mount+

✓ Not IP65

✦ Cannot be used with .187 Prismatic Poly

-- Subject to change

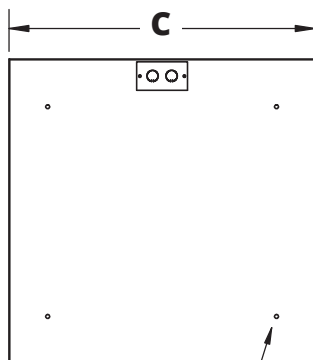
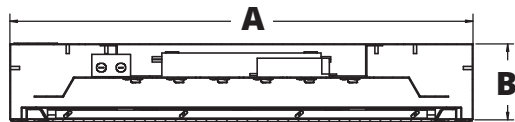
Φ Cannot be used with IE or IP

* Cannot use with UN voltage

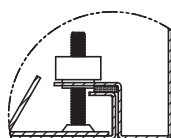
+ Requires joiner bracket. Supplied with fixture.

DIMENSIONAL DATA

SURFACE MOUNTING (S)



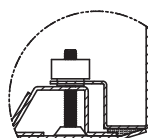
SC22: 4x Ø.31" HOLE
SC24: 6x Ø.31" HOLE



INSET FRAME

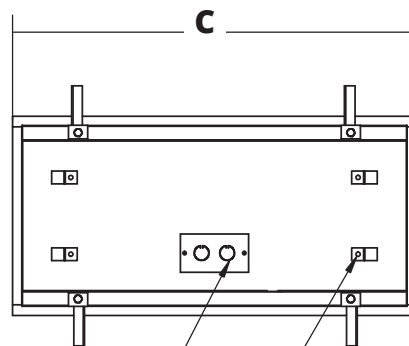
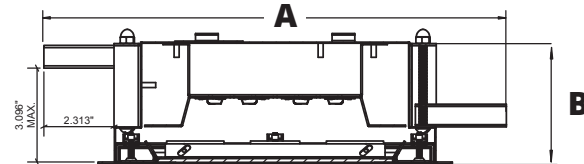


ALUMINUM EXTRUDED
INSET FRAME

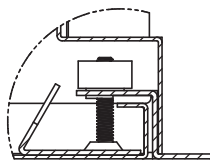


OVERLAPPING FRAME

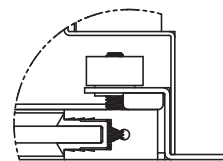
RECESSED MOUNTING (R): GRID & FLANGE



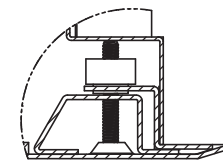
(4) Ø .250" HOLES FOR CEILING WIRE ATTACHMENT



IC FRAME DETAIL

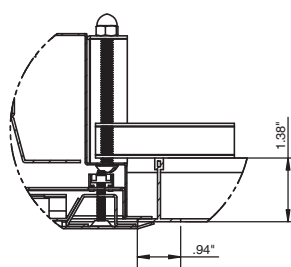


IE FRAME DETAIL

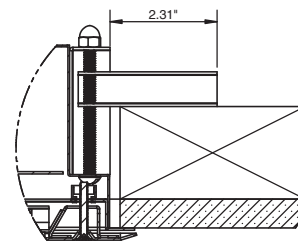


OC FRAME DETAIL

	A	B	C
SCS22	24.00"	3.94"	24.07"
SCS24	24.00"	3.94"	48.07"
SCR22	23.69"	4.00"	23.69"
SCR24	23.69"	4.00"	47.69"



SCR (W/ OC FRAME) RECESSED GRID



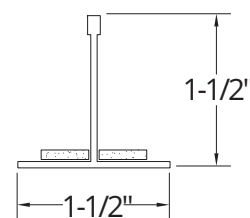
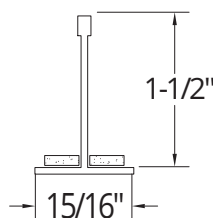
SCR (W/ OC FRAME) RECESSED FLANGE

RECOMMENDED CEILING CUT OUTS:

SCR22: 22.88" X 22.88"
SCR24: 22.88" X 46.88"

GRID COMPATIBILITY:

Spaced at 24" x 48" Centers



STARCLEAN V LED

SCV22/SCV24

SPECIFICATION FEATURES

- HOUSING/FRAME:** 20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and Stainless Steel option available. Overlapping frame to match housing material.
- LENS:** Inner lens is a .125 White Frosted Polycarbonate lens. Options for Outer Lens include Clear Acrylic or Polycarbonate.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options. Other color temperatures available, consult factory. Minimum 80 CRI standard.
- LED NIGHT LIGHT:** Integrated switch allows light selection at 100%, 70%, 40% and 10% levels.
- FINISH:** White antimicrobial powder coat finish following a multistage iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM and closed cell silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Cleanroom, Hospital, Hi-Tech Manufacturing, Laboratory, Food Processing Facilities, Commercial Kitchens, and more.

MOUNTING:

Recessed mounting accommodates Grid and Flange installations. Recessed fixtures will be supplied with adjustable swing arms that can be used for Flange applications or taped to the side for Grid applications. Recessed install compatible with 1-1/2" and 15/16" Grid systems. Mounting for custom ceilings available, consult factory.

LABEL:

Fixture is certified to UL standards. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SCVR22-HC-L2401C-A-UN

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE (Dimensional Data Pg. 2)	HOUSING/FRAME	LUMEN OUTPUT** (Performance Data Pg. 3)	LAMP TYPE
SCV	R				
	R = Recessed Housing (Grid/Flange installation)	22 = 2x2 24 = 2x4	HC = 20Ga. CRS (standard) HS = 20Ga. SS (Brushed) HP = 20Ga. SS (painted) HA = .050Ga. Alum. (painted)	L2 = Standard L4 = Medium L6 = High	35 = 3500°K 40 = 4000°K 50 = 5000°K
CIRCUITS	LENS	VOLTAGE	OPTIONS		
1C = 1 Circuit 2C = 2 Circuits	A = .125 Clear Acrylic B = .125 Clear Poly. C = .156 Clear Poly. D = .187 Clear Poly. E = .250 Clear Poly.	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ*	DM	DM1
			EL1	LN	

KEY

FZ = Fuse*
DM = 0-10V dimming with 10-100% range
DM1 = 0-10V dimming with 1-100% range
EL1 = Emerg. Bat. LED Low (1100-1250 lm)
LN = LED Night Light (3500°K standard)

-- Subject to change
* Cannot use with UN voltage

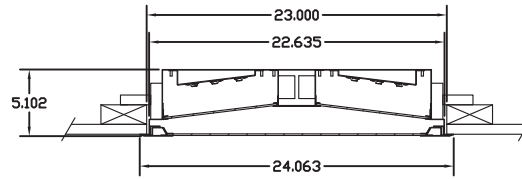
Notes:
Specifications and Dimensions are subject to change without notice.
If circuit is not specified at time of quote or order, fixture will have single circuit.

STARCLEAN V LED

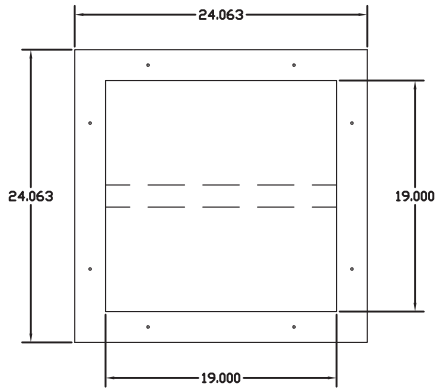
SCV22/SCV24



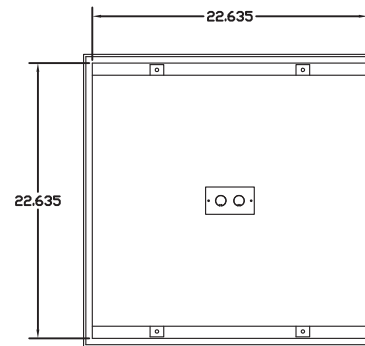
DIMENSIONAL DATA



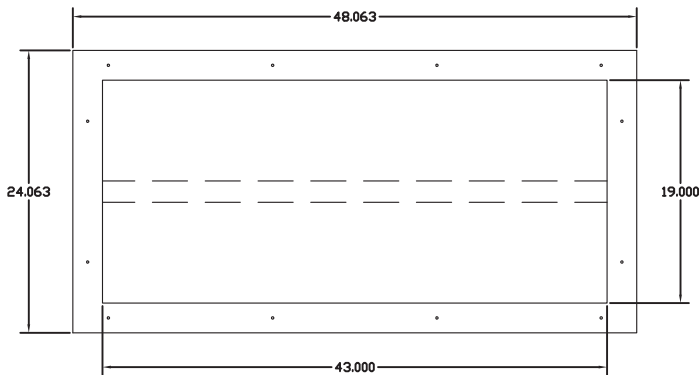
Cross-section View



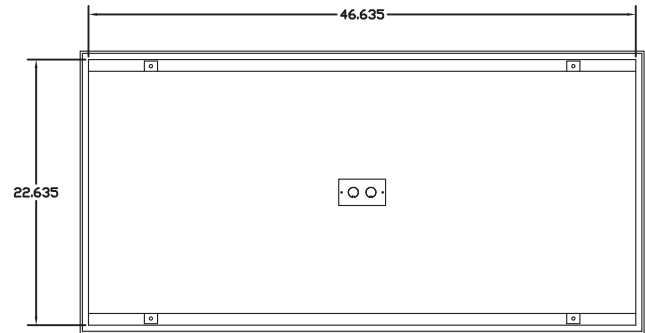
2x2 Front View



2x2 Back View



2x4 Front View



2x4 Back View

PERFORMANCE DATA **

MODEL	OUTPUT	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
SCV22	Standard	3500°K	2052	85	25
		4000°K	2172	90	25
		5000°K	2292	95	25
	Medium	3500°K	4018	85	50
		4000°K	4253	90	50
		5000°K	4488	95	50
	High	3500°K	6070	85	70
		4000°K	6425	90	70
		5000°K	6780	95	70
SCV24	Standard	3500°K	4018	85	50
		4000°K	4253	90	50
		5000°K	4488	95	50
	Medium	3500°K	8122	85	100
		4000°K	8597	90	100
		5000°K	9072	95	100
	High	3500°K	12141	85	150
		4000°K	12888	90	150
		5000°K	13561	95	150

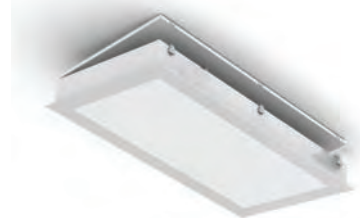
Notes:
 Specifications and Dimensions are subject to change without notice.
 For additional options and dimensional details please consult your New Star Lighting Representative.

STARCLEAN TOP ACCESS 22-24 LED

STG22/STG24/STF22/STF24

SPECIFICATION FEATURES

- HOUSING:** 18 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel options available.
- FRAME:** Overlapping doorframe available in aluminum, cold rolled steel, and stainless steel. Frame held to housing via aircraft cable.
- LENS:** Acrylic lens with smooth side out. Alternate lens options available including Prismatic Polycarbonate and a White Frosted Polycarbonate. Overlapping frame uses a rail hold down system.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- FASTENERS:** Stainless steel Philips flat head screws with captive cage nuts. Finish to match housing.
- FINISH:** White antimicrobial powder coat finish following multistage iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM and closed cell silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Cleanroom, Hospital, Hi-Tech Manufacturing, Laboratory, Food Processing Facilities, Commercial Kitchens, and more.

MOUNTING:

Grid and Flange installation. Flange fixtures come with adjustable 90° swing arm for easy installation. Mounting for custom ceilings available, consult factory.

LABEL:

Fixture is certified to UL standards. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: STG22-HC/OC-L4402C-B-UN

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE (Dimensional Data Pg. 2)	HOUSING	OVERLAPPING FRAME	LUMEN OUTPUT** (Performance Data Pg. 2)
ST	G = Grid F = Flange	22 = 2x2 24 = 2x4	HC= 18Ga. CRS (standard) HS = 18Ga. SS (Brushed) HP= 18Ga. SS (painted) HA= .050Ga. Alum. (painted)	IP65: OC=18Ga.CRS(Standard) OS=18Ga.S.S(Brushed) OP=18Ga.S.S.(Painted) OA= .050 Alum. (Painted)	L2 = Low L4 = Standard L6 = Medium L8 = High

LAMP TYPE	CIRCUITS	LENS	VOLTAGE	OPTIONS
35 = 3500°K 40 = 4000°K 50 = 5000°K	1C = 1 Circuit 2C = 2 Circuits	A = .125 Prismatic Acrylic B = .125 Prismatic Poly. C = .156 Prismatic Poly. D = .187 Prismatic Poly. E = .125 White Frosted Poly. G = .140 DR Acrylic	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* EL1 DM EL2 DM1 RF* SD2 TH SD3

KEY

FZ = Fuse*
DM = 0-10V dimming with 10-100% range
DM1 = 0-10V dimming with 1-100% range
SD2 = Step Dim. Module (50-100%)
SD3 = Step Dim. Module (25-50-100%)

EL1 = Emerg. Bat. LED Low (1100-1250 lm)
EL2 = Emerg. Bat. LED High (2200-2500 lm)
RF = (RIF) Radio Interference Filter*
TH = Torx Head screws (with center pin)

-- Subject to change
* Cannot use with UN voltage

Notes:
Specifications and Dimensions are subject to change without notice.
If circuit is not specified at time of quote or order, fixture will have single circuit.

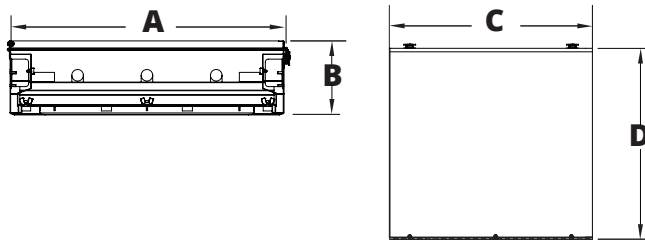
STARCLEAN TOP ACCESS 22-24 LED

STG22/STG24/STF22/STF24

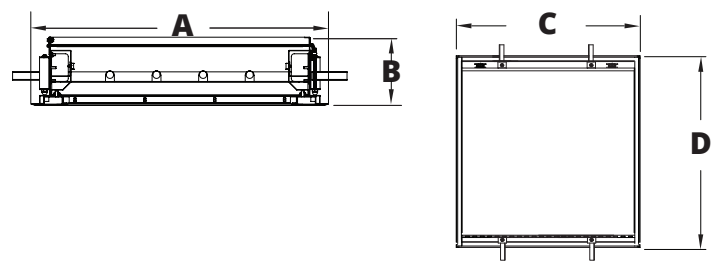


DIMENSIONAL DATA

GRID MOUNTING



FLANGE MOUNTING



	A	B	C	D	Rec. Ceiling Cut-Out
STG22	23.69"	6.41"	24.11"	23.69"	-
STG24	23.69"	6.41"	48.12"	23.69"	-
STF22	26.50"	6.75"	25.13"	26.13"	24.375" x 24.375"
STF24	26.50"	6.75"	50.13"	26.13"	24.375" x 48.375"

PERFORMANCE DATA**

MODEL	OUTPUT	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
ST22	Low	3500°K	3000	120	25
		4000°K	3125	125	25
		5000°K	3250	130	25
	Standard	3500°K	6000	120	50
		4000°K	6250	125	50
		5000°K	6500	130	50
	Medium	3500°K	8625	115	75
		4000°K	9000	120	75
		5000°K	9375	125	75
	High	3500°K	11500	115	100
		4000°K	12000	120	100
		5000°K	12500	125	100
ST24	Low	3500°K	6000	120	50
		4000°K	6250	125	50
		5000°K	6500	130	50
	Standard	3500°K	12000	120	100
		4000°K	12500	125	100
		5000°K	13000	130	100
	Medium	3500°K	17250	115	150
		4000°K	18000	120	150
		5000°K	18750	125	150
	High	3500°K	23000	115	200
		4000°K	24000	120	200
		5000°K	25000	125	200

Displayed information is with a .125 Prismatic Polycarbonate. Subject to change without notice. Visit www.newstarlighting.com for additional information and IES files.

STARCLEAN CORNER 12-14 LED

SCC12/SCC14

SPECIFICATION FEATURES

- HOUSING:** 20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless steel options available.
- FRAME:** Inset and overlapping doorframe available in aluminum, cold rolled steel, and stainless steel. Extruded inset door available in anodized aluminum or white painted aluminum. Frame held to housing via aircraft cable.
- LENS:** Acrylic lens with smooth side out. Alternate lens options available including Prismatic Polycarbonate and a White Frosted Polycarbonate. Inset (cold rolled steel, stainless steel and .050 alum) and Overlapping frame uses a rail hold down system.
- LED:** Available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.
- FASTENERS:** Stainless steel Philips flat head screws with captive cage nuts. Finish to match housing.
- FINISH:** White antimicrobial powder coat finish following multistage iron phosphate pre-treatment.
- GASKET:** Closed cell EPDM and closed cell silicone gaskets prevent air contaminations from entering the fixture.



APPLICATION:

Cleanroom, Hospital, Hi-Tech Manufacturing, Laboratory, Food Processing Facilities, Commercial Kitchens, and more.

MOUNTING:

Surface installation.

LABEL:

Fixture is certified to UL standards. Certified IP65, ISO4, and NSF.



ORDERING INFORMATION

Ex: SCC14-HC/IE-L3352C-C-UN

PRODUCT FAMILY	NOMINAL SIZE (Dimensional Data Pg. 2)	HOUSING	FRAME Inset (I) or Overlap (O)	LUMEN OUTPUT** (Performance Data Pg. 3)	LAMP TYPE
SCC	12 = 1x2 14 = 1x4	HC = 20Ga. CRS (standard) HS = 20Ga. SS (Brushed) HP = 20Ga. SS (painted) HA = .050Ga. Alum. (painted)	IE=Extruded Alum. ✓ IP=Extruded Alum. ✓ (Painted) IP65: IC=20Ga.CRS IA= .050 Alum. (Painted) IB=20Ga.S.S. (Brushed) IS=20Ga.S.S. (Painted) OC=18Ga.CRS (Standard) OS=18Ga.S.S (Brushed) OP=18Ga.S.S. (Painted) OA= .050 Alum. (Painted)	L2 = Standard L3 = Medium	35 = 3500°K 40 = 4000°K 50 = 5000°K
CIRCUITS	LENS	VOLTAGE	OPTIONS		
1C = 1 Circuit 2C = 2 Circuits	A=.125 Prismatic Acrylic B=.125 Prismatic Poly. C=.156 Prismatic Poly. D=.187 Prismatic Poly. Φ E=.125 White Frosted Poly. G=.140 DR Acrylic	12 = 120V 27 = 277V 34 = 347V UN = Universal (120V-277V)	FZ* DM DM1 SD2 SD3	EL1 EL2 RF* TH	

KEY

FZ = Fuse*
DM = 0-10V dimming with 10-100% range
DM1 = 0-10V dimming with 1-100% range
SD2 = Step Dim. Module (50-100%)
SD3 = Step Dim. Module (25-50-100%)

EL1 = Emerg. Bat. LED Low (1100-1250 lm)
EL2 = Emerg. Bat. LED High (2200-2500 lm)
RF = (RIF) Radio Interference Filter*
TH = Torx Head screws (with center pin)

✓ Not IP65
✦ Cannot be used with .187 Prismatic Poly
-- Subject to change
Φ Cannot be used with IE or IP
* Cannot use with UN voltage

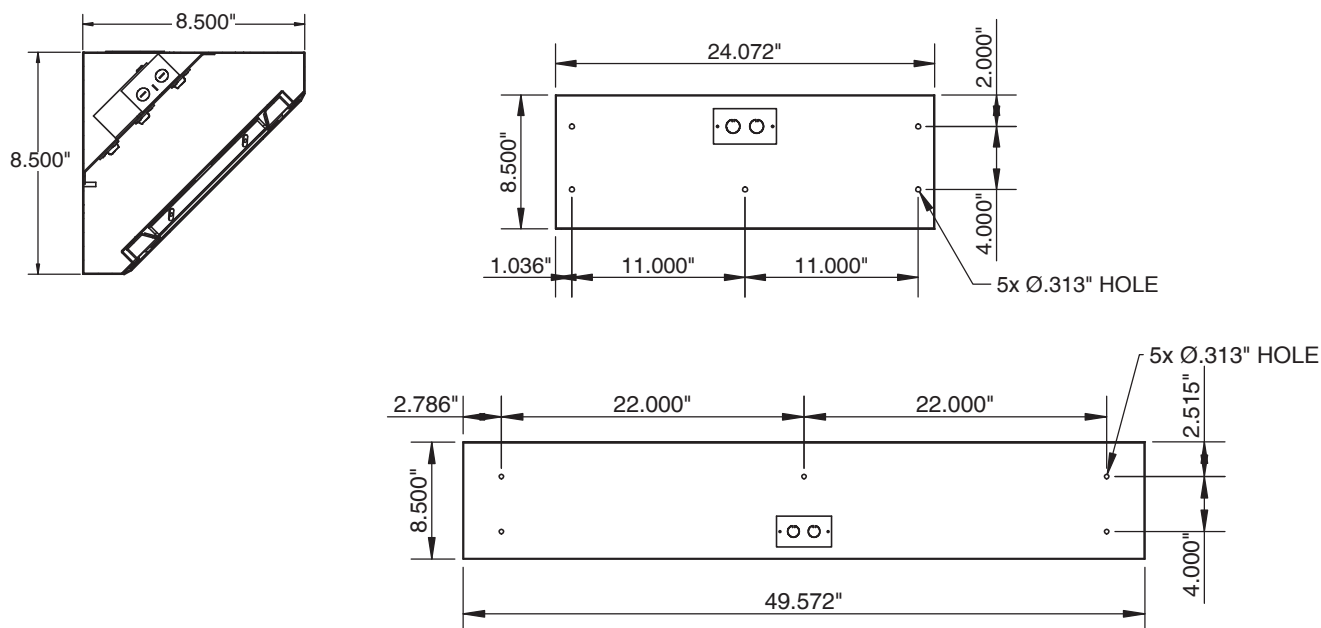
Notes:
Specifications and Dimensions are subject to change without notice.
If circuit is not specified at time of quote or order, fixture will have single circuit.

STARCLEAN CORNER 12-14 LED

SCC12/SCC14



DIMENSIONAL DATA



PERFORMANCE DATA**

MODEL	OUTPUT	LAMP TYPE	LUMENS DELIVERED	EFFICACY (lm/W)	INPUT POWER (W)
SCC12	Standard	3500°K	2875	115	25
		4000°K	3000	120	25
		5000°K	3125	125	25
	Medium	3500°K	4180	110	38
		4000°K	4370	115	38
		5000°K	4560	120	38
SCC14	Standard	3500°K	5750	115	50
		4000°K	6000	120	50
		5000°K	6250	125	50
	Medium	3500°K	8250	110	75
		4000°K	8625	115	75
		5000°K	9000	120	75

Displayed information is with a .125 Prismatic Polycarbonate. Subject to change without notice. Visit www.newstarlighting.com for additional information and IES files.

Notes:

**Performance Data subject to change without notice.

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

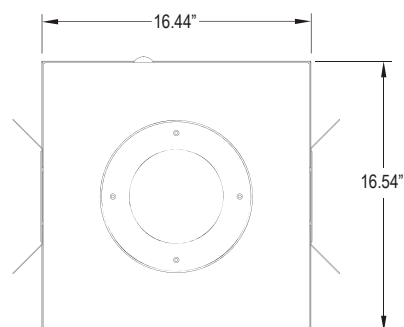
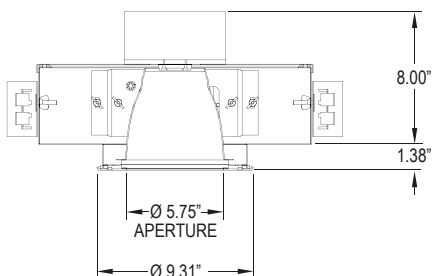
STARMed 6 LED ROUND

CLEANROOM SERIES

LED



DIMENSIONAL DATA



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

FEATURES

The New Star "StarMed 6 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Dimming(0-10v) standard
- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 6" aperture
- Enclosure box available for remote applications. 50ft. maximum
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- CleanRoom
- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM6	-	-	-	-	-
DLM6 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000° K* 35 = White 3500° K 40 = White 4000° K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) MS = MIL-STD-461F NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

StarMed 6 LED ROUND



StarMed 6 (82 CRI)

4000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	744	905	11	149,000 HRS.
L2	CLEAR SPECULAR	1,332	1,621	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,536	25	149,000 HRS.
L5	CLEAR SPECULAR	1,934	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,980	2,409	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,270	3,979	52	149,000 HRS.

StarMed 6 (82 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L1	CLEAR SPECULAR	696	847	11	149,000 HRS.
L2	CLEAR SPECULAR	1,266	1,540	29	149,000 HRS.
L3	CLEAR SPECULAR	636	774	13	149,000 HRS.
L4	CLEAR SPECULAR	1,284	1,562	25	149,000 HRS.
L5	CLEAR SPECULAR	1,936	2,354	37	149,000 HRS.
L6	CLEAR SPECULAR	1,896	2,307	45	149,000 HRS.
L6A	CLEAR SPECULAR	2,670	3,249	54	149,000 HRS.
L7	CLEAR SPECULAR	3,000	3,650	52	149,000 HRS.

StarMed 6 (90 CRI)

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L2	CLEAR SPECULAR	1,200	1,460	29	149,000 HRS.
L6C	CLEAR SPECULAR	1,800	2,190	34	149,000 HRS.
L7C	CLEAR SPECULAR	3,000	3,450	52	149,000 HRS.

StarMed 6 MRI

3000K	REFLECTOR FINISH	LC3 (.125 THK.) WHITE FROSTED POLYCARBONATE	CLEAR ACRYLIC .125 THK.) LENS	WATTAGE	ESTD. LED LIFE L70
L3	CLEAR SPECULAR	535	741	9	149,000 HRS.
L4	CLEAR SPECULAR	976	1,189	19	149,000 HRS.

Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.



STARMed 8 LED Round

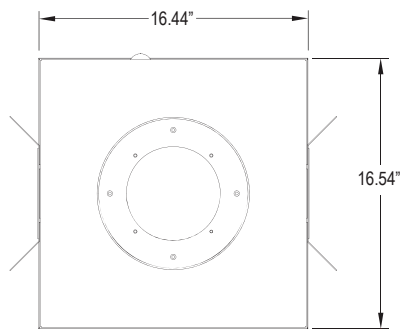
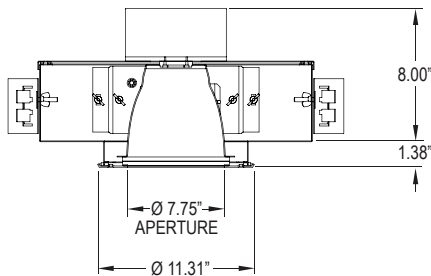
CLEANROOM SERIES

LED



PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

DIMENSIONAL DATA



FEATURES

The New Star "StarMed 8 LED Round" CleanRoom fixture is designed for use in medical settings, labs, high-tech production facilities, food processing and areas where clean is critical.

- Excellent vertical illumination
- Sealed and enclosed aluminium housing
- Durable construction
- Available in 8" aperture
- Available in a variety wattages
- Easy maintenance finish
- Low glare

APPLICATION

- Patient Rooms
- Nurse Stations
- Laboratories
- Research Facilities
- Psychiatric Ward
- Surgical Suites
- Administration areas
- Corridors

SPECIFICATION FEATURES

HOUSING:

16 gauge Aluminium (standard)

LENS:

Polycarbonate, acrylic, and glass lens

ELECTRONICS:

Constant current driver.

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment (standard)

LABEL:



ORDERING INFORMATION

Product Family	Housing Material	# of Lamps	Lamp Type	Outer Lens	Inner Lens
DLM8	-	-	-	-	-
DLM8 16-7/16" x 16-9/16" x 9-3/8"	HA = Housing 16 Ga. Aluminum D = 18 Ga. CRS	L1 = 11W 82 CRI L2 = 29W 82 CRI L2C = 29W 90 CRI L3 = 13W 82 CRI L4 = 25W 82 CRI L5 = 37W 82 CRI L6 = 45W 82 CRI L6C = 34W 90* CRI L6A = 54W 82 CRI L7 = 52W 82 CRI	30 = White 3000* K* 35 = White 3500* K 40 = White 4000* K	A = .125 Clear Acrylic B = .125 Clear Polycarbonate C = .187 Clear Polycarbonate D = .250 Clear Polycarbonate E = .375 Clear Polycarbonate F = .125 Clear Tempered Glass G = .187 Clear Tempered Glass H = .250 Clear Tempered Glass O = None	A = .125 Prismatic Acrylic B = .125 Prismatic Polycarbonate C = .156 Prismatic Polycarbonate D = .125 White Frosted Polycarbonate(LC3) E = .156 Prismatic Tempered Glass(C73)
Trim	Reflector Finish	Voltage	Options		
-	-	-	-		
A = .080 Aluminium B = 18 Ga. CRS C = 18 Ga. 304 Stainless Steel	1 = Clear Specular (standard) 2 = Clear Semi-Specular 3 = Antimicrobial Low Gloss White 4 = Champagne Gold	12 = 120V 27 = 277V UN = Universal (120V-277V)	EM = Emergency Battery must be remote FZ = Fuse TH = Torx Head screws (with center pins) NI = Non-IP65 Application		

* 90 CRI only available in 3000K

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

CATALOG #	TYPE
JOB NAME	VOLTAGE

Cleanroom / Hybrid OR LED 8" Adjustable

LM-80 Qualified • LM-79 Certified Photometry
Up to 60,000 Hour Life • Antimicrobial Trim

MRR-08558-5000L
MRR-08558-3500L

Specifications



Sealed Housing & Trim

LEVEL 3

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W).
- Distribution: NFL standard.
- Color temperature: 3500°K standard.
Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 60,000 hour life (L70).
- Fully sustainable: removable for servicing.

Thermal Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

Center Beam Optics

- Self-aligns with trim for optimal performance.
- Hot aiming by hand. Tilts from 0° to 35° in 1° increments and locks in place.
- Rotates full 360° and locks in place.
- Accommodates sloped ceilings up to 35°.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use:
 - 30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.

• 0-10V CCR dimming standard. (100-10%)

Trim and Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged trim. Regressed tempered microprismatic glass lens.
- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.

Cleanroom, 5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Sealed housing and junction box. Meets/ exceeds ASTM E283 restricted airflow of 2 CFM maximum. CCEA approved.

Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Thru-branch conductors (4 #12 AWG 90°C).

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5
Year

FIVE YEAR
Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-08558-5000L-120-30K-EM
Product Number	Voltage	Options	
MRR-08558-5000L MRR-08558-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 50% of rated lumens. Run time: 90+ minutes. 120 **or** 277V, 60Hz input only. Specify voltage. Not for use with Option -29 or -FS.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC compliant.

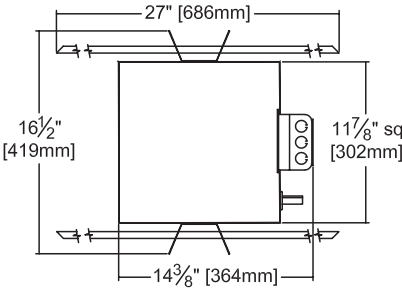
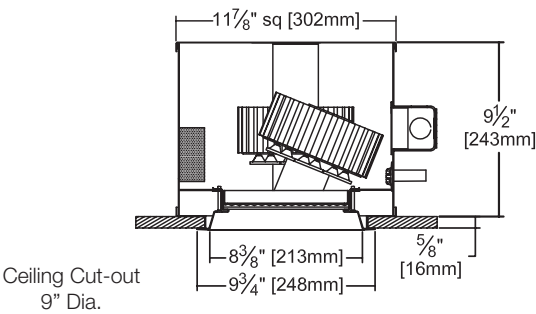
Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Dimensions



Footcandle Distribution Data

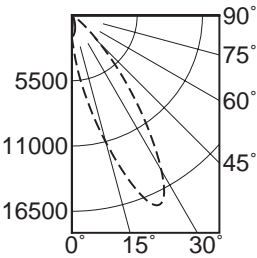
- Notes:
- 1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 - 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

Photometry from I.T.L., Boulder, CO

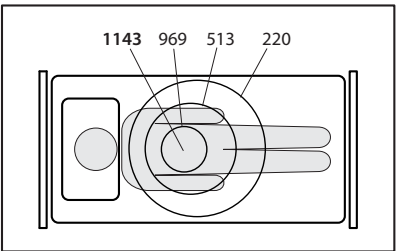
Photometric testing done
in accordance with IESNA
LM-79-08

-5000L STANDARD (NFL)

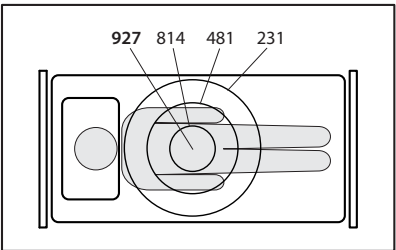
Lumens: 4796
Beam: ~25°
SC: 0.5
LPW: 84
Efficiency: 80.7%
ITL Test: 87781



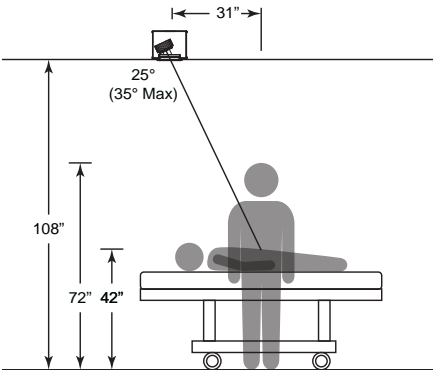
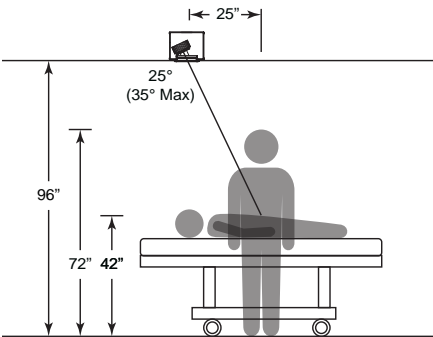
Total System Watts 57.3



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane



LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

See following page for
-3500L performance

SUBMITTAL DATA

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is subject to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend the specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

OR / Clean Room 7" Downlight • LED

Up to 90,000 Hour Life • Type IC

LM-80 Qualified • LM-79 Certified Photometry



MRR-07550-1500L



Sealed Housing & Trim

LEVEL 3

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
- 1500L: 1500 nominal lumens (15W).
- Distribution: NFL standard.
- Optional: -MFL.
- Color temperature: 3500°K standard.
- Optional: -30K or -41K.
- CRI: 80+ standard. Optional: -HC (90+).
- 90,000 hour life (L70**).
- Fully sustainable: removable for servicing.

Thermal Management System

- All aluminum proprietary heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**

Trim / Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged white trim.
- Regressed tempered microprismatic glass lens.

- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.

5X Sealed and Gasketed

- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.
- Meets ASTM E283 restricted airflow of 2 CFM maximum.

Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Air tight housing and junction box. Meets/ exceeds ASTM E283 restricted airflow of 2 CFM maximum. CCEA approved.

Outlet Box

- UL listed J-box with insulated removable cover. Rewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recesses indoor/outdoor in covered locations.
- Accommodates ceilings up to 1¼" thick.
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.

UL C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings.
- Type IC: for direct contact with insulation.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

CE & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.



**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: MRR-07550-1500L-120-30K-MFL
Product Number	Voltage	Options	
MRR-07550-1500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

Options

Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 **Two wire** full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 **Three wire** full range (100-1%) PWM dimming instead (Lutron).

- EI REMOTE emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage. Not for use with Option -29 or -FS.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color (CCT and CRI)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- HC 90+ CRI instead. 3000°K only.

Optics

- MFL Medium flood distribution.

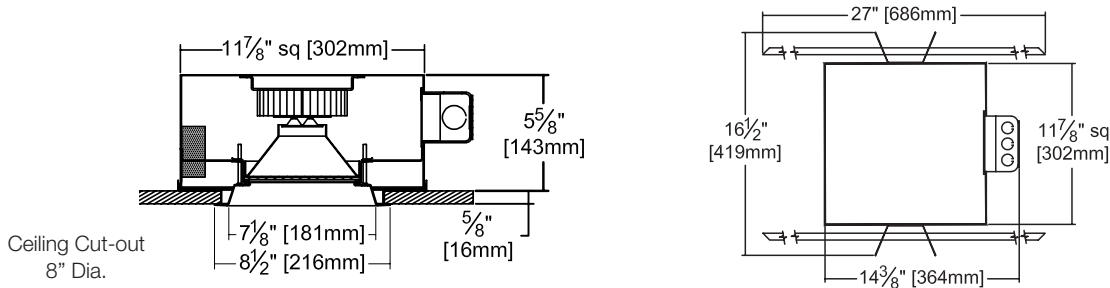
Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance

Dimensions

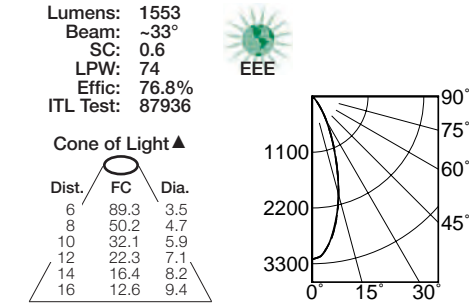


Footcandle Distribution Data

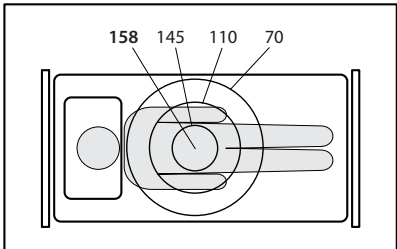
Photometry from I.T.L., Boulder, CO
Photometric testing done
in accordance with IESNA
LM-79-08

- Notes:
1. All lighting levels are expressed in average footcandles, with distances expressed in feet, as measured at the work plane (3'6").
 2. The work plane (3'6") is defined as: examination bed height, plus patient body depth.

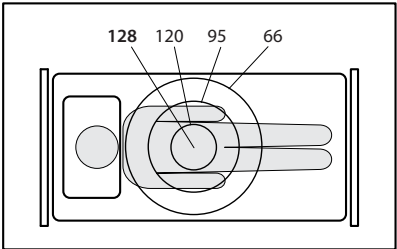
-1500L STANDARD (NFL)



Total System Watts 20.9

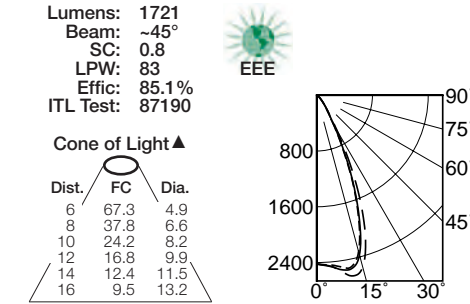


fc on Task: 8' Ceiling 3'6" Work Plane

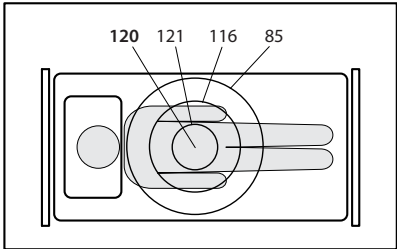


fc on Task: 8'6" Ceiling 3'6" Work Plane

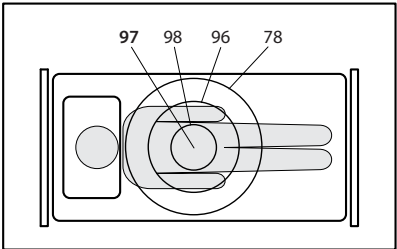
-1500L Option -MFL



Total System Watts 20.8



fc on Task: 8' Ceiling 3'6" Work Plane



fc on Task: 8'6" Ceiling 3'6" Work Plane

LM-80 Qualified • LM-79 Certified Photometry

* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

SUBMITTAL DATA

JOB NAME
TYPE
WATTAGE
VOLTAGE
CATALOG NUMBER

APPROVAL STAMP



LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within two years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend the specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.



EXAM

SECTION II: EXAM LIGHTING (RECESSED DOWNLIGHT / ADJUSTABLE)

THREE LEVELS OF INFECTION CONTROL PROTECTION

HIGHER QUALITY LIGHT

- Select delivered lumens from 1500-5000 in downlight or adjustable designs.
- Choose the color of your light: 2700K (very warm white), 3000K (warm white), 3500K (neutral white, standard), 4100K (cool white) or 5000K (daylight white).
- High CRI available (Option -HC) for accurate tissue color rendering: CRI 90+ with high R9 (Red), R13 and R15 (Skin Colors).

A SAFER ENVIRONMENT

- Fully recessed fixtures provide an open work space.
- Compact and smooth trim and lens are easy to clean and disinfect.
- BioGard™ antimicrobial finish inhibits the growth of pathogens.
- IP65 sealed trims minimize the likelihood of pathogens passing through the fixture.
- ISO 5 Class 100 sealed fixtures for “cleanroom” applications.
- Impact resistant lenses available (ideal for emergency departments and psychiatric units).

GREATER PERFORMANCE

- Dimming down to 10% permits staff to finely tune light levels for specific tasks, each clinician and time of day.
- Higher delivered lumens and 50% energy savings over fluorescent troffers.
- Multi-light system removes debilitating shadows.



LEVEL 1 PROTECTION

LENSED, BIOGARD™ ANTIMICROBIAL FINISH



LEVEL 2 PROTECTION

IP65 SEALED TRIM, BIOGARD™ ANTIMICROBIAL FINISH



LEVEL 2 + PROTECTION

IP65 SEALED TRIM, VANDAL RESISTANT, BIOGARD™ ANTIMICROBIAL FINISH



LEVEL 3 PROTECTION

ISO 5/CLASS 100 SEALED “CLEANROOM” FIXTURE, BIOGARD™ ANTIMICROBIAL FINISH








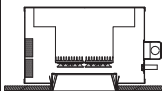

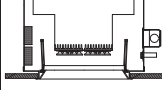

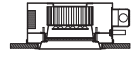

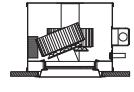

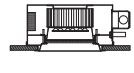

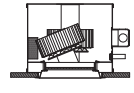

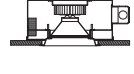





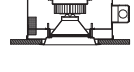


LEVEL 3 + PROTECTION

ISO 5/CLASS 100 SEALED FIXTURE, VANDAL RESISTANT, BIOGARD™ ANTIMICROBIAL FINISH



SECTION II: EXAM LIGHTING (RECESSED DOWNLIGHT / ADJUSTABLE)



		Infection Control	Application	Function	Aperture (Inches)	Product #	Performance		Page
							Lumens	Watts	
		Level 1 Protection	Antimicrobial BioGard™ Finish Regressed Lens	Downlight	7	MRR-07500-5000L	5000	55	30
						MRR-07500-3500L	3500	42	
		Level 1 Protection	Antimicrobial BioGard™ Finish Regressed Lens	Adjustable	7	MRR-07505-5000L	5000	55	
						MRR-07505-3500L	3500	42	
		Level 1 Protection	Antimicrobial BioGard™ Finish Regressed Lens	Downlight	4 x 9	MRT-04510-5000L	5000	70	
		Level 1 Protection	Antimicrobial BioGard™ Finish Regressed Lens	Downlight	5 x 11	MRT-05515-7000L	7000	84	
						MRT-05515-5000L	5000	70	
		Level 2 Protection	IP65 Rated BioGard™ Finish Regressed Lens	Downlight	8	MRR-08530-5000L	5000	55	31
						MRR-08530-3500L	3500	42	
		Level 2 Protection	IP65 Rated BioGard™ Finish Regressed Lens	Adjustable	8	MRR-08535-5000L	5000	55	
						MRR-08535-3500L	3500	42	
		Level 2+ Protection	IP65 Rated - BioGard™ Tamper Resistant Psychiatric/ED	Downlight	8	MRV-08540-5000L	5000	55	31
						MRV-08540-3500L	3500	42	
		Level 2+ Protection	IP65 Rated - BioGard™ Tamper Resistant Psychiatric/ED	Adjustable	8	MRV-08545-5000L	5000	55	
						MRV-08545-3500L	3500	42	
		Level 3 Protection	Class 100 Cleanroom BioGard™ Finish OR/Hybrid OR	Downlight	7	MRR-07550-1500L	1500	15	32
		Level 3 Protection	Class 100 Cleanroom BioGard™ Finish OR/Hybrid OR	Downlight	8	MRR-08555-5000L	5000	55	
						MRR-08555-3500L	3500	42	
		Level 3 Protection	Class 100 Cleanroom BioGard™ Finish OR/Hybrid OR	Adjustable	8	MRR-08558-5000L	5000	55	
						MRR-08558-3500L	3500	42	
		Level 3+ Protection	Class 100 Cleanroom Tamper Resistant BioGard™ Finish Psychiatric/OR	Downlight	7	MRV-07560-1500L	1500	15	
		Level 3+ Protection	Class 100 Cleanroom Tamper Resistant BioGard™ Finish Psychiatric/OR	Downlight	8	MRV-08565-5000L	5000	55	32
						MRV-08565-3500L	3500	42	
INSTALLATIONS, OPTIONS AND ORDERING									33-35

PLEASE VISIT www.kirlinlighting.com FOR KIRLIN TUNGSTEN HALOGEN EXAM LIGHTING PRODUCTS IN KIRLIN'S PATIENT EXAM & HEALTHCARE LIGHTING CATALOG (BULLETIN 08HC).

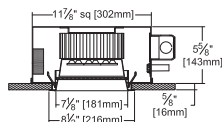
SECTION II: EXAM LIGHTING

LEVEL 1 PROTECTION
LENSED, BIOGARD™ ANTIMICROBIAL FINISH



7"

Downlight

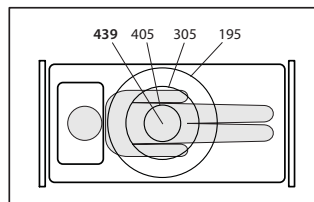


4827 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	247.0	3.5
8	139.0	4.7
10	89.1	5.9
12	61.9	7.1
14	45.5	8.3
16	34.8	9.4



fc on Task: 8' Ceiling 3'6" Work Plane

MRR-07500-5000L
MRR-07500-3500L

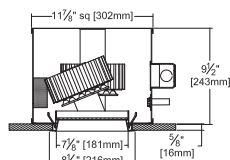
Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

Applications:

Patient Room
Cardiac Cath
Labor and Delivery
Radiology
PreOp / PostOp
Veterinary
Autopsy

7"

Adjustable

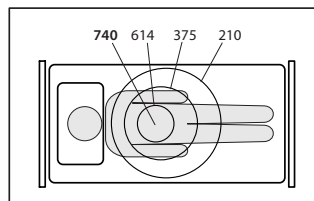


4623 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	247.0	3.5
8	139.0	4.7
10	89.1	5.9
12	61.9	7.1
14	45.5	8.3
16	34.8	9.4



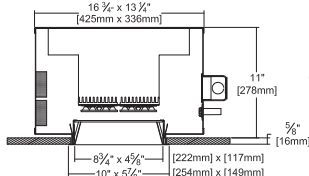
fc on Task: 8' Ceiling 3'6" Work Plane

MRR-07505-5000L
MRR-07505-3500L

Narrow Flood (Standard) Shown

4" x 9"

Downlights

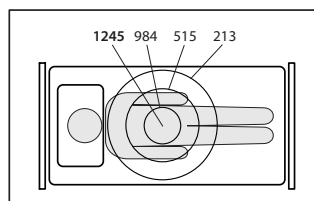


5249 LUMENS
2 x 35W

PERFORMANCE (-5000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	709.0	2.2
8	399.0	2.9
10	255.0	3.6
12	177.0	4.3
14	130.0	5.1
16	99.7	5.8



fc on Task: 8' Ceiling 3'6" Work Plane

MRT-04510-5000L

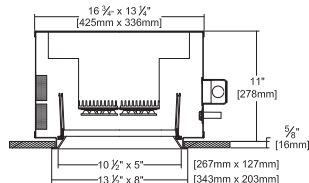
Narrow Flood (Standard) Shown

Applications:

Patient Room
ICU / NICU
Labor and Delivery
PreOp / PostOp
Veterinary
Autopsy

▲ Cone of Light Key
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC
Dia. (in ft.) shown is where FC value is half the FC at nadir.

5" x 11"

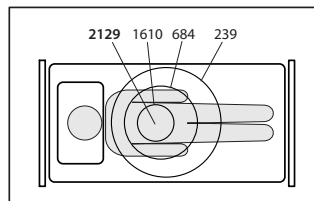


7089 LUMENS
2 x 42W

MAXIMUM PERFORMANCE (-7000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	1200.0	1.9
8	676.0	2.5
10	433.0	3.2
12	300.0	3.8
14	221.0	4.4
16	169.0	5.1



fc on Task: 8' Ceiling 3'6" Work Plane

MRT-05515-7000L
MRT-05515-5000L

Narrow Flood (Standard) Shown

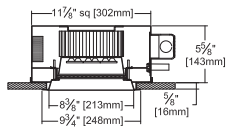
SECTION II: EXAM LIGHTING

LEVEL 2 PROTECTION
IP65 SEALED TRIM, BIOGARD™ ANTIMICROBIAL



8"

Downlight

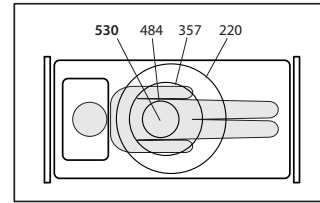


5298 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	298.0	3.4
8	168.0	4.5
10	107.0	5.7
12	74.6	6.8
14	54.8	7.9
16	42.0	9.1



fc on Task: 8' Ceiling 3'6" Work Plane

MRR-08530-5000L
MRR-08530-3500L

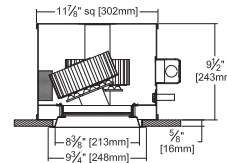
Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

Applications:

ICU / NICU
PreOp / PostOp
Autopsy
Veterinary
PT / CT Scan
Infection Control
Areas

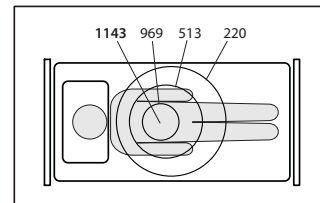
8"

Adjustable



4796 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)



fc on Task: 8' Ceiling 3'6" Work Plane

MRR-08535-5000L
MRR-08535-3500L

Narrow Flood (Standard) Shown

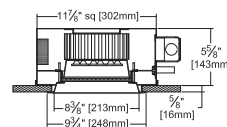
LEVEL 2 + PROTECTION

IP65 SEALED TRIM, VANDAL RESISTANT, BIOGARD™ ANTIMICROBIAL FINISH



8"

Downlight

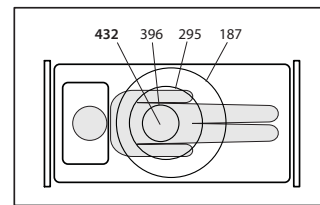


4749 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)

Cone of Light ▲

Dist.	FC	Dia.
6	243.0	3.5
8	137.0	4.7
10	87.6	5.8
12	60.8	7.0
14	44.7	8.1
16	34.2	9.3



fc on Task: 8' Ceiling 3'6" Work Plane

MRV-08540-5000L
MRV-08540-3500L

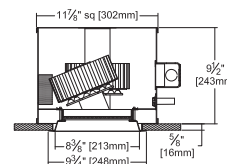
Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

Applications:

Emergency
Psychiatric
Prison / Jail
PreOp / PostOp
Veterinary
Patient Room

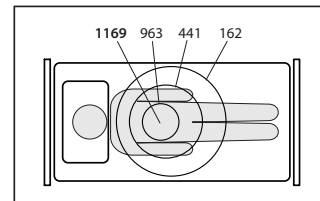
8"

Adjustable



4185 LUMENS
55W

MAXIMUM PERFORMANCE (-5000L SERIES)



fc on Task: 8' Ceiling 3'6" Work Plane

MRV-08545-5000L
MRV-08545-3500L

Narrow Flood (Standard) Shown

▲ Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

Dia. (in ft.) shown is where FC value is half the FC at nadir.

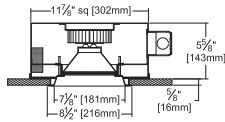
SECTION II: EXAM LIGHTING

LEVEL 3 PROTECTION
ISO 5/CLASS 100 SEALED FIXTURE



Downlights

7"



MRR-07550-1500L

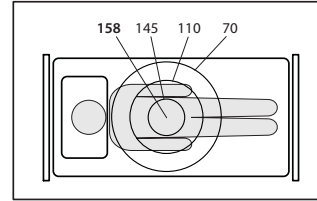


PERFORMANCE (-1500L SERIES)

1553 LUMENS
20W

Cone of Light ▲

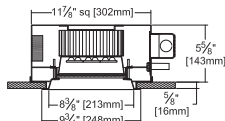
Dist.	FC	Dia.
6	89.3	3.5
8	50.2	4.7
10	32.1	5.9
12	22.3	7.1
14	16.4	8.2
16	12.6	9.4



fc on Task: 8' Ceiling 3'6" Work Plane

Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

8"



MRR-08555-5000L
MRR-08555-3500L



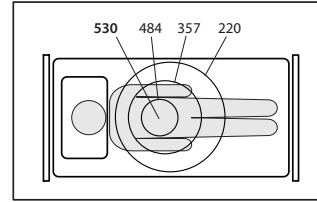
2013 IES Progress
Report Selection

MAXIMUM PERFORMANCE (-5000L SERIES)

5298 LUMENS
55W

Cone of Light ▲

Dist.	FC	Dia.
6	298.0	3.4
8	168.0	4.5
10	107.0	5.7
12	74.6	6.8
14	54.8	7.9
16	42.0	9.1



fc on Task: 8' Ceiling 3'6" Work Plane

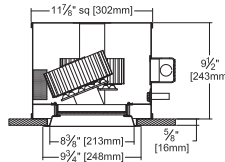
Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

Applications:

Operating Room
Hybrid OR
Intraoperative OR
CCU
Cleanroom
Cardiac Cath
Interventional
Radiology

Adjustable

8"



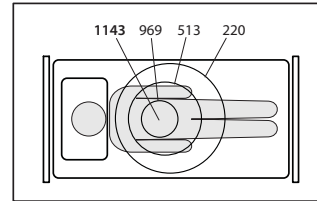
MRR-08558-5000L
MRR-08558-3500L

MAXIMUM PERFORMANCE (-5000L SERIES)

4796 LUMENS
55W

Cone of Light ▲

Dist.	FC	Dia.
6	298.0	3.4
8	168.0	4.5
10	107.0	5.7
12	74.6	6.8
14	54.8	7.9
16	42.0	9.1



fc on Task: 8' Ceiling 3'6" Work Plane

Narrow Flood (Standard) Shown

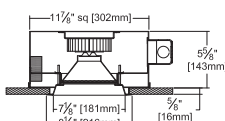
LEVEL 3 + PROTECTION

ISO 5/CLASS 100 SEALED FIXTURE, VANDAL RESISTANT, BIOGARD™ ANTIMICROBIAL FINISH



Downlights

7"



MRV-07560-1500L

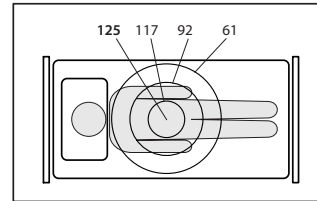


PERFORMANCE (-1500L SERIES)

1468 LUMENS
20W

Cone of Light ▲

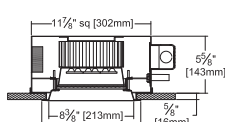
Dist.	FC	Dia.
6	70.8	3.8
8	39.8	5.0
10	25.5	6.3
12	17.7	7.5
14	13.0	8.8
16	10.0	10.0



fc on Task: 8' Ceiling 3'6" Work Plane

Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

8"



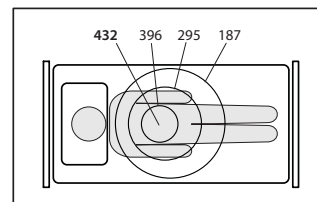
MRV-08565-5000L
MRV-08565-3500L

MAXIMUM PERFORMANCE (-5000L SERIES)

4749 LUMENS
55W

Cone of Light ▲

Dist.	FC	Dia.
6	243.0	3.5
8	137.0	4.7
10	87.6	5.8
12	60.8	7.0
14	44.7	8.1
16	34.2	9.3



fc on Task: 8' Ceiling 3'6" Work Plane

Narrow Flood (Standard) Shown. Medium Flood (-MFL) Optional

▲ Cone of Light Key

Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

Dia. (in ft.) shown is where FC value is half the FC at nadir.

Applications:

Emergency
Psychiatric
Prison / Jail
PreOp / PostOp
Veterinary
Patient Room

KIRLIN LED EXAM LIGHTING OUTPERFORMS ANTIQUATED TROFFERS

Performance

- Over 50% energy savings
- Higher delivered lumens
- Fewer luminaires, lower cost
- Exceeds IES recommended light levels
- Better illumination uniformity; no glare
- Instant on, reliable dimming

Infection Control

- BioGard™ antimicrobial finish
- Smaller lens and trim for faster cleaning
- Award winning cleanroom versions offered

Installation and Maintenance

- Maintenance-free LEDs
- Smaller size for easier installation
- Shallow depth housings fit anywhere

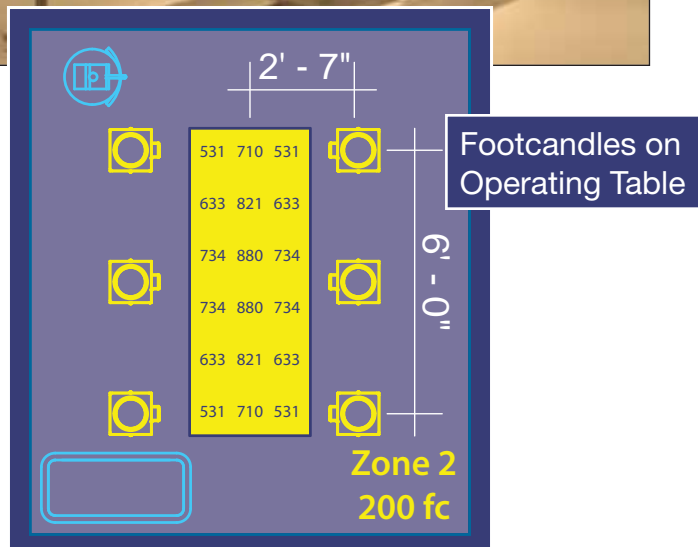
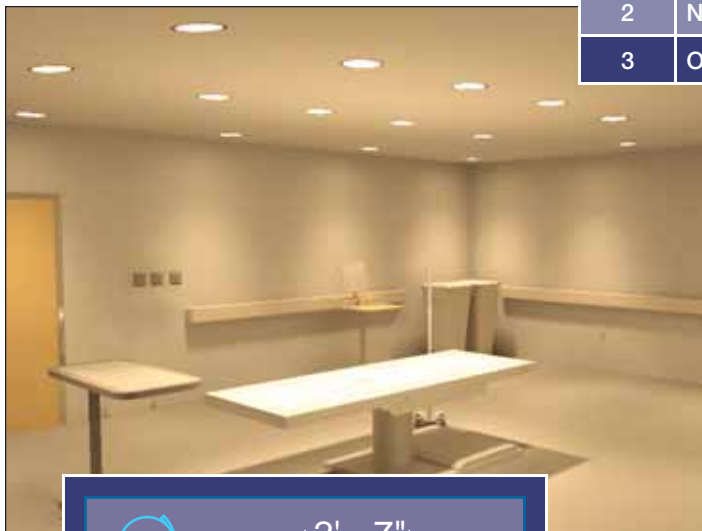
Reliability

- IEC/EN 60601-1-2 medical listing
- FCC Part 15 EMI/RFI emissions
- Internal emergency battery packs available. Deliver 500 or 1000 lumens. Run time 90+ minutes. See options -EM and -EMH.
- SmartSupply™ remote driver (LPS-1220A) available. Full range 100% to 0.2% dimming and 3 dimming zones. Drives up to (12) -1500L luminaires or (3) -5000L Level 3 luminaires. See Option -SS and page 35.
- SmartPower™ emergency inverter (EMI-21220) available. Provides 100% lumen output for up to two hours. See page 35.



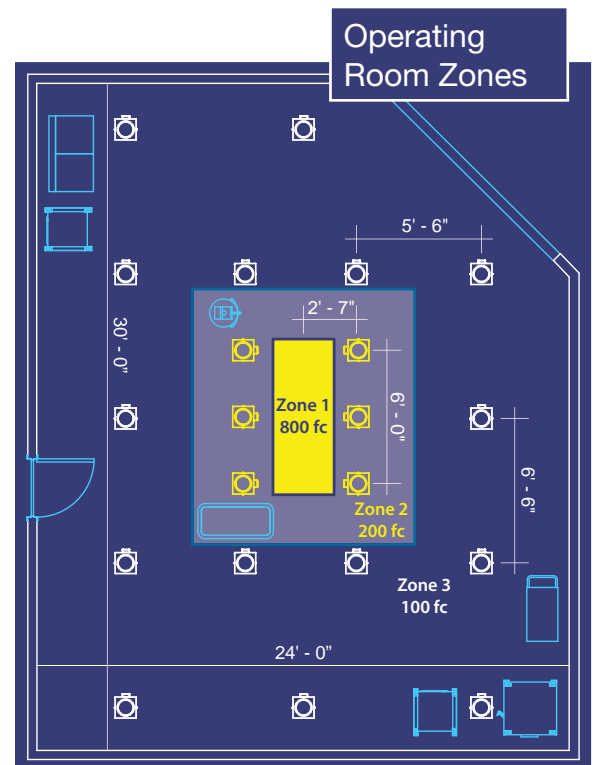
2013 IES Progress
Report Selection

LIGHTING PERFORMANCE



Zone	Location	fc	Luminaires*	Fixture Qty
1	OR Table	800	MRR-08558-5000L	6
2	Near OR Table	200		
3	OR Perimeter	100	MRR-08555-5000L	15

* See www.kirlinlighting.com for specification sheets.

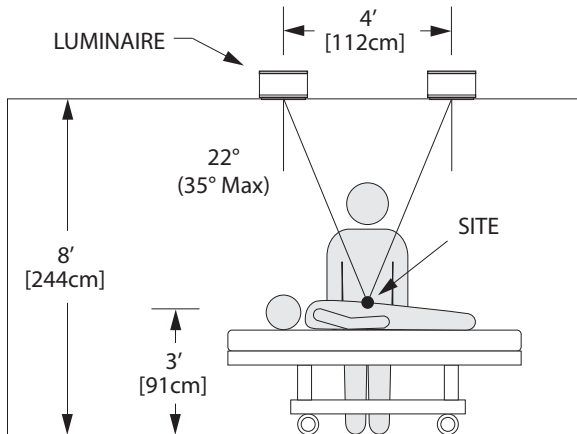


SECTION II: EXAM LIGHTING

TYPICAL INSTALLATIONS

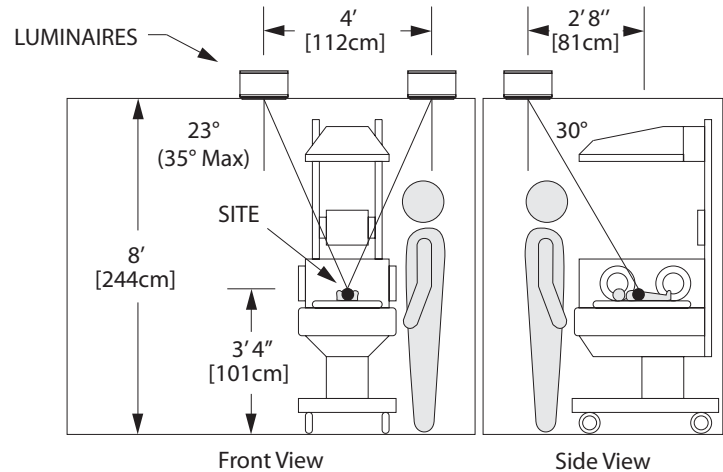
Two Adjustable Exam Lights

Placed 4' apart on centers over the head and foot of the bed.



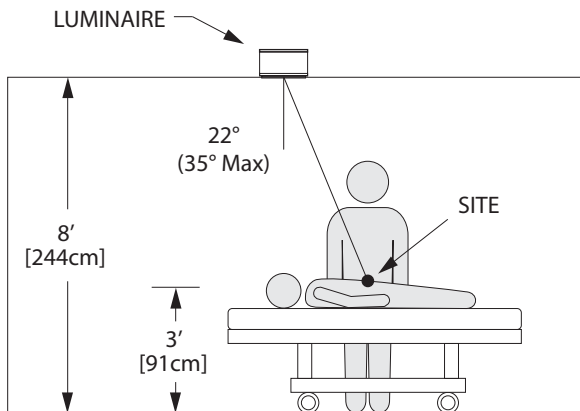
Two Adjustable Exam Lights in NICU

Placed over the foot corners of the bed.



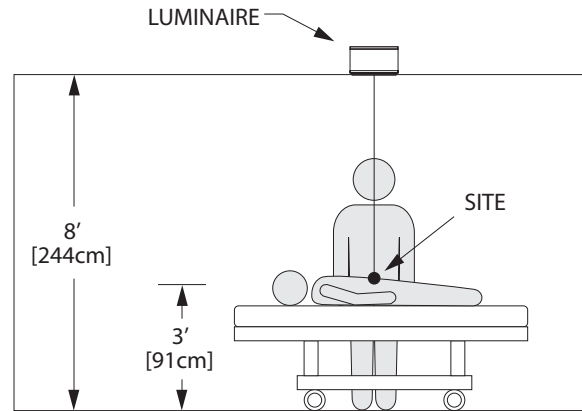
One Adjustable Exam Light

Placed over the head (or foot) of the bed to avoid obstructions in ceiling.



One Fixed Exam Light

Placed over center of the bed.



SECTION II: EXAM LIGHTING

POPULAR OPTIONS

Input Power: SPECIFY

- 120 120V (50-60Hz) input and thermal protector.
- 277 277V (50-60Hz) input and thermal protector.
- 97 Specify other voltage. Consult factory.

LED Power Supply

- 29 Two wire full range (100-1%) PWM dimming instead (Lutron). 120V only. Not available with Option -EI.
- 39 Three wire full range (100-1%) PWM dimming instead (Lutron).
- EI REMOTE emergency inverter for 45% of rated lumens for -5000L, 55% for -3500L or 100% for -1500L. Run time: 90+ minutes. 120 or 277V, 60 Hz input only. Specify voltage. Not for use with -SS SmartSupply™ driver or with Option -29.
- EM INTERNAL emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.

- EMH INTERNAL emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. Marked spacings installation may be required; refer to specification sheet.
- ER REMOTE emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes.
- SS Remote mounted Kirlin SmartSupply™ driver (instead of standard internal driver), sold separately. Order LPS-1220A (0-10V analog with 100-0.2% PWM dimming). Available for -1500L and -5000L lumen series luminaires only. Refer to page 35 and LPS-1220A specification sheet and owner's manual at www.kirlinlighting.com.

Color Temperature (CCT)

- 27K Color temperature 2700°K instead. 85 CRI.
- 30K Color temperature 3000°K instead. 85 CRI.

- 41K Color temperature 4100°K instead. 85 CRI.
- 50K Color temperature 5000°K instead. 85 CRI.
- HC 90+ CRI instead. 2700° or 3000°K only. Reduces output by ~15%.

Optics (-NFL Standard)

- MFL Medium flood distribution instead.

Trims

- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.

Other

- 99 Special modification. Consult factory.
- FD Dual circuit fusing. For use only with Option -EI and either -5000L or -3500L lumen series.
- FS In-line fusing. Not for use with Option -EI and either -5000L or -3500L lumen series: See -FD instead.

(See specification sheets for availability and details.)

SmartSupply™ REMOTE DIMMING DRIVER - OPTIONAL



LPS-1220A

- Full range 100% to 0.2% dimming and 3 dimming zones.
- Drives up to (12) -1500L, or up to (3) -5000L luminaires.
- Over wattage, cross channel, and electrical fast transient (EFT) protection.
- Input: 115-277VAC / 50-60Hz rated. Dedicated 120VAC input recommended. For 277VAC input, proper line filtering and surge protection must be provided. Maximum continuous input voltage is 290VAC.
- **Requires 16 AWG (minimum) twisted pair shielded wire from SmartSupply™ to luminaires.**
- FIVE YEAR Limited Warranty.

See LPS-1220A Owner's Manual for more information, including compatible controls and wiring diagrams, at www.kirlinlighting.com MyKirlin Portal.

SmartPower™ EMERGENCY BACKUP SYSTEM - OPTIONAL



EMI-21220

- High efficiency pure sine wave inverter
- Operates up to (6) -5000L series fixtures
- 100% light output for up to two hours
- 120 / 277V, 60Hz input
- Less than 50 milliseconds transfer time
- May be mounted up to 1000 feet from load
- UL 924 Listed. Meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements
- THREE YEAR Limited Warranty

LUMINAIRE ORDERING

EXAMPLE

MUST SPECIFY		OPTIONAL	Ordering Example: MRV-08565-5000L-120-30K-MFL
Product Number	Voltage	Options	
MRV-08565-5000L MRV-08565-3500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" on prior page	

LUMEN SERIES AVAILABLE

Lumen Series Code	Nominal Lumens
-5000L	5000 Lumens
-3500L	3500 Lumens
-1500L	1500 Lumens

SECTION III: MOTORIZED EXAM LIGHTING & CONTROLS

HIGHER QUALITY LIGHT WITH OPTeCOLOR™



- Choose the color of your light: 3500K (Neutral white: Standard), 4100K (Cool white: Option -41K) or 5000K (Daylight white: Option -50K)
- Ultra-high 95+ CRI with high R9 (Red), R13 and R15 (Skin Colors) for accurate tissue color rendering.
- High illuminance for deep cavities or challenging positions. Up to 9000 delivered footcandles from 5 feet, dimmable to 10%.



Common CRI

High CRI



GREATER CONTROL

- Independent control of each lighthead permits adjustable pattern of light and dual task illumination.
- Intuitive and responsive controls allow for quick and accurate adjustment of direction and intensity of the light.
- Angles of illumination up to 60° ensure the task is properly illuminated regardless of the task location or clinicians' position.
- Dimming down to 10% permits staff to finely tune levels, as needed.

A SAFER ENVIRONMENT

- Recessed fixtures provide an open work space. The light remains recessed, protecting the patient from contaminants near or above the ceiling.
- IP65 trims with BioGard™ antimicrobial finish protect against pathogens.



IES Progress
Report Selections



GREATER COMFORT

- Cool LED illumination does not project heat toward the room, assuring patient and practitioner comfort and avoiding tissue desiccation.
- Inconspicuous: Fully recessed fixtures provide a more residential atmosphere; Remote control does not need to be used near the patient.
- Remote control technology employs invisible infrared signal, preventing the triggering of photosensitive conditions (migraines, epileptic seizures, stress).

DEPENDABILITY

- Redundancy of LED circuits ensures illumination at all times. Redundancy of controls (wall or remote) ensures 24/7 adjustability of illumination intensity and position.
- Impact resistant design protects remote control.
- Loss deterring beeper feature on the remote control reminds staff to return the remote to its "home plate" on the wall control panel.













Exclusive Three Year Warranty • Designed and Produced in U.S.A. • UL, C-UL (Canada) Listed

SECTION III: MOTORIZED EXAM LIGHTING & CONTROLS



INFRALED® 60 • INFRALED® • OPTeMED™

		Name	Application	Design	Delivered Lumens	Total Watts	Aperture (Inches)	Product #	Page
REMOTE CONTROL AND WALL CONTROL WITH RECESSED MOTORIZED LUMINAIRE(S)									38-41
		INFRALED® 60	LDRP/OB	Pair	8000	280	17	MRS-17600	38-39
		INFRALED®	Intraoperative OR Hybrid OR ICU/CCU Cardiac Cath	Pair	6000	140	12	MRR-12620	40-41
		INFRALED®	ED Patient Room	Single	3000	70	12	MRR-12622	
WALL CONTROL WITH RECESSED MOTORIZED LUMINAIRE(S)									42-43
		OPTeMED™	PICU/NICU ED Trauma	Pair	6000	140	12	MRR-12640	42-43
		OPTeMED™	PICU/NICU Patient Room Autopsy	Single	3000	70	12	MRR-12642	

PLEASE VISIT www.kirlinlighting.com FOR KIRLIN TUNGSTEN HALOGEN MOTORIZED EXAM LIGHTING
IN KIRLIN'S PATIENT EXAM & HEALTHCARE LIGHTING CATALOG (BULLETIN 08HC).



THE BIRTHING LIGHTING SYSTEM / SOLUTION

LED Remote Controlled Motorized 60° High Angle Recessed Patient Low Voltage Lighting System

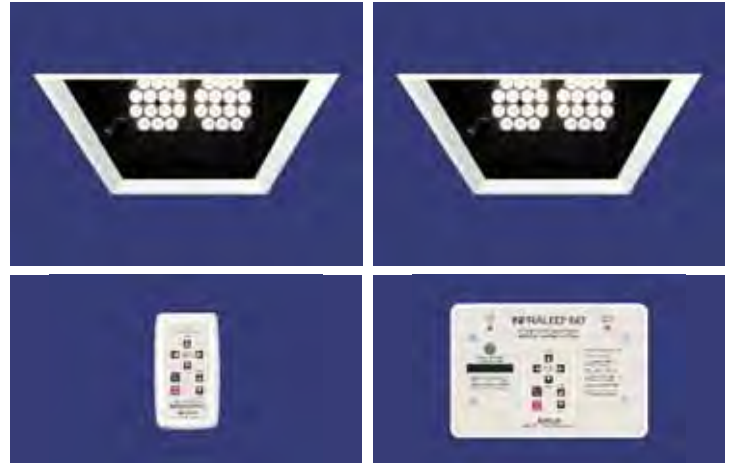
MRS-17600 (Two Light System)



2015 IES Progress Report Selection

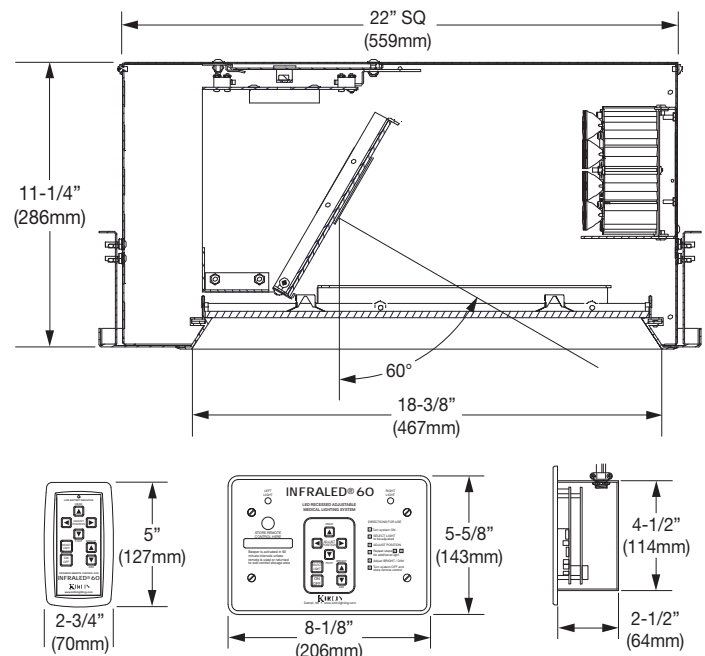
FEATURES

- Light delivered at angles up to 60° to match the clinician's line of site for superior illumination of the birthing canal.
- Four OPTeCOLOR™ LED light heads per system deliver up to 6000 fc with no heat in the beam.
- OPTeCOLOR™ LEDs provide 95+ CRI (with high R9, R13 and R15) for excellent color rendering of blood, tissue and skin tones. 60,000 hour life (L70) dramatically reduces maintenance frequency and cost.
- Redundancy of controls, electronic components and circuitry ensures control of fixtures and at least 75% illumination at all times.
- Fully recessed fixtures with BioGard™ antimicrobial trims are unobtrusive and inconspicuous, providing a safe and open space for staff and a home-like atmosphere for patients.
- Full control of lighting system (direction, intensity, power) from low voltage, Class 2 remote and wall controls.
- Remote control uses invisible and safe infrared signals. Impact resistant design protects remote from common mishaps. Loss deterring beeper reminds staff to return the remote to the wall control when finished.
- Smooth surfaces and minimal surface areas (both fixtures and controls) are easy to clean and disinfect.
- Kirlin's exclusive three year limited warranty (one year remote control).
- Includes 2' x 2' ceiling pan for easy installation in T-bar ceiling or see Option -47.



APPLICATIONS

- Birthing Suites
- Post-partum
- Labor & Delivery
- OB/GYN/LDRP



POPULAR OPTIONS

Input Power: SPECIFY

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120 volt stepdown transformer for 277 volt line input, prewired into each fixture; with 277 volt thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120 volt stepdown transformer for 347 volt line input, prewired into each fixture; with 120 volt thermal protector. Adds 10 watts to each fixture load.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

Trim and Other

- 47 Plaster frame bottom pan. For installation in hard ceilings.
- 87 Custom length (> 35 feet) plenum rated wall control cables (4). Consult factory.
- 94 Custom color self-flanged flare trim instead. Consult factory.



- 99 Special modification. Consult factory.
- BI Beeper (remote control) inactivated by factory.
- RC Extra remote control.
- RS Remote infrared sensor with 35' cable. Ceiling mount typical.
- SE Fixtures modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes.

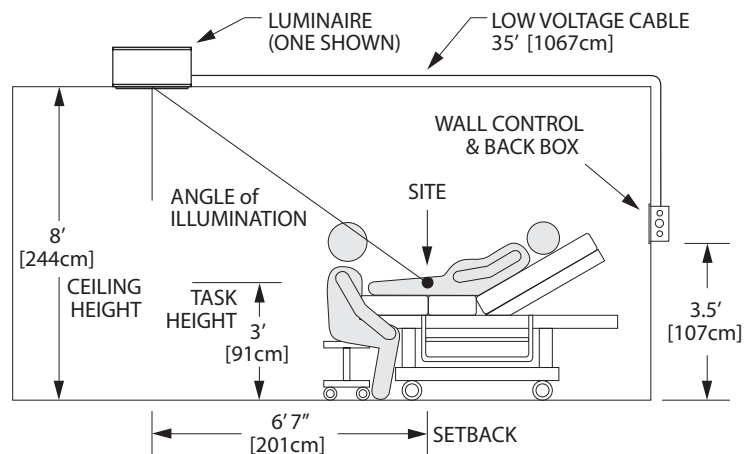
(See specification sheets for availability and details.)

THE BIRTHING LIGHTING SYSTEM / SOLUTION

Recommendations for Typical Installation

- Fixtures placed 4' apart (on centers) to project light on either side of practitioner's head and over practitioner's shoulders.
- Fixture setback from break in bed determined by ceiling height, and position and height of practitioners.
- Ideal angle of illumination should be between 50°-55° for sitting practitioners which provides future flexibility should task location change. Consult factory for assistance in determining ideal location of fixtures.
- Wall control placed in unobstructed location and within line of sight from practitioner's location.

Typical Side View: 8' Ceiling Height



Recommended Fixture Setback / Location

with Angle of Illumination and Light Levels

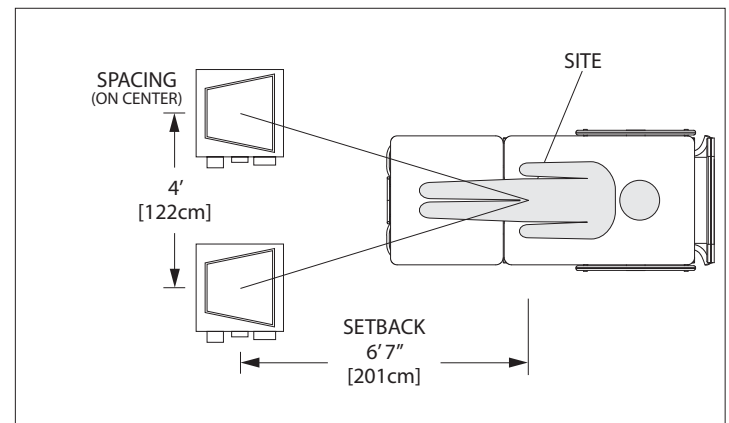
Sitting Practitioners

Photometric testing by ITL (Boulder, CO)
ITL Test No. 84926

Ceiling Height	Setback from Break in Bed		Angle of Illumination	Footcandles on Task
8	7.0	OPTIMAL	54.5	5105
	6.0	Alternative	50.2	6052
8.5	8.0	OPTIMAL	55.5	4080
	7.0	Alternative	51.8	4851
9	8.0	OPTIMAL	53.1	3850
	7.0	Alternative	49.4	4515
9.5	9.0	OPTIMAL	54.2	3163
	8.0	Alternative	50.9	3622
10	9.0	OPTIMAL	52.1	2997

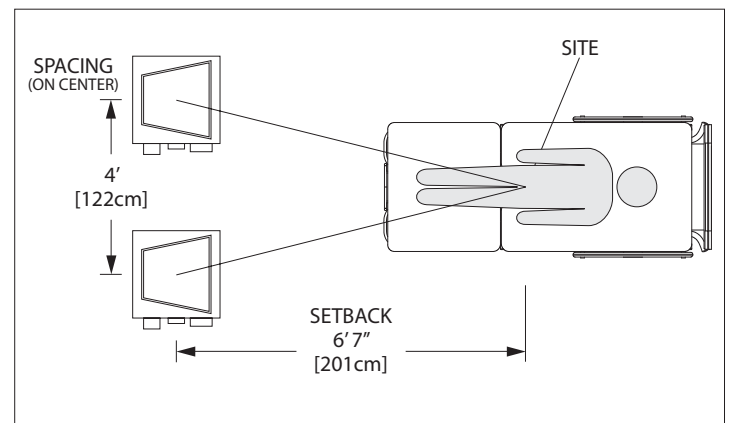
Alternative setback provided for room configurations that do not allow fixture placement in optimal setback location. For additional setback locations, consult factory.

Typical Top View: 8' Ceiling Height



Sitting Practitioners
4' Spacing • 3' Work Plane • 53° Angle of Illumination

Typical Top View: 9' Ceiling Height



Sitting Practitioners
4' Spacing • 3' Work Plane • 53° Angle of Illumination

LED Remote Controlled Motorized Recessed Patient Low Voltage Lighting System

MRR-12620 (Two Light System)

MRR-12622 (One Light System)

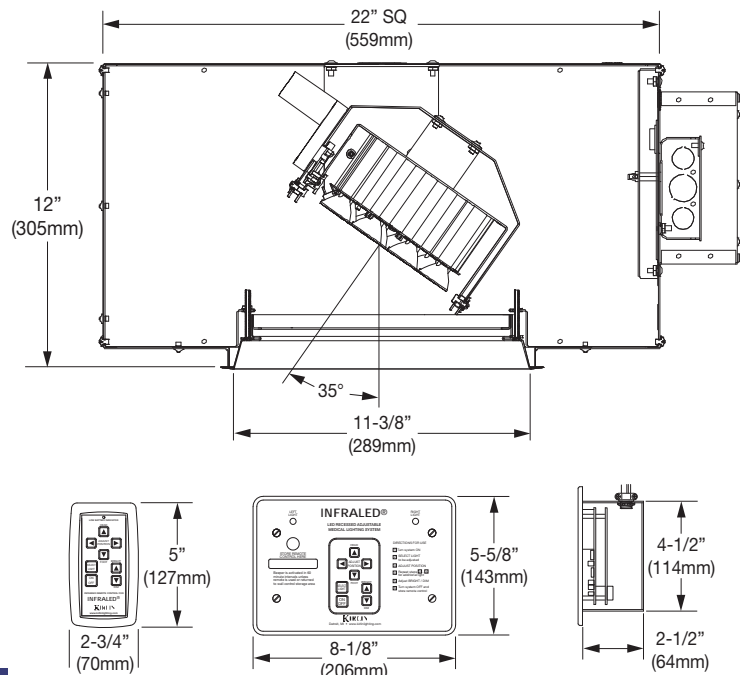
FEATURES

- OPTeCOLOR™ LEDs deliver up to 10,000 fc with no heat in the beam.
- OPTeCOLOR™ LEDs provide 95+ CRI (with high R9, R13 and R15) for excellent color rendering of blood, tissues and skin tones. 60,000 hour life (L70) dramatically reduces maintenance frequency and cost.
- Light delivered at angles up to 35° (50° with Option -81) with full 360° rotation to provide coverage of the patient.
- Redundancy of controls, electronic components and circuitry ensures control of lights and at least 75% (MRR-12620) illumination at all times.
- Fully recessed fixtures with BioGard™ antimicrobial trims are unobtrusive and inconspicuous, providing a safe and open space for staff and a home-like atmosphere for patients.
- Full control of lighting system (direction, intensity, power) from low voltage, Class 2 remote and wall controls. Independent direction control of each light. Light beams may be aimed at 2 separate sites or superimposed.
- Remote control uses invisible and safe infrared signals. Impact resistant design protects remote from common mishaps. Loss deterring beeper reminds staff to return the remote to the wall control when finished.
- Smooth surfaces and minimal surface areas (both fixtures and controls) are easy to clean and disinfect.
- Kirlin's exclusive three year limited warranty (one year remote control).
- Easily installs in T-bar or drywall ceiling with mounting hardware provided.



APPLICATIONS

- ICU/CCU
- ED
- NICU/PICU
- CATH LAB



POPULAR OPTIONS

Input Power: SPECIFY

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120V stepdown transformer for 277V line input, prewired into each fixture; with 277V thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120V stepdown transformer for 347V line input, prewired into each fixture; with 120V thermal protector. Adds 10 watts to each fixture load.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

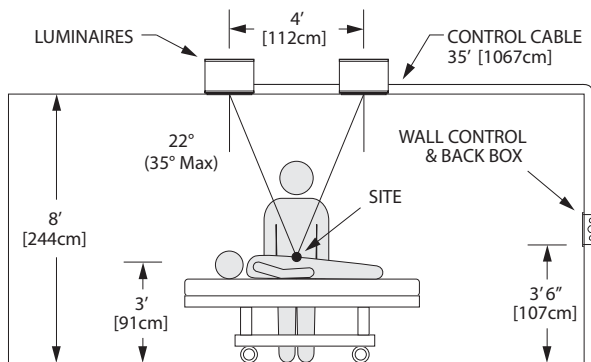
Trim and Other

- 32 White oversize trim ring. Specify O.D.
- 81 15° bottom pan achieves 50° high angle illumination in one direction. Maximum recessed depth 15-1/8".
- 87 Custom length (> 35 feet) plenum rated wall control cables (4 for MRR-12620; 2 for MRR-12622). Specify length.

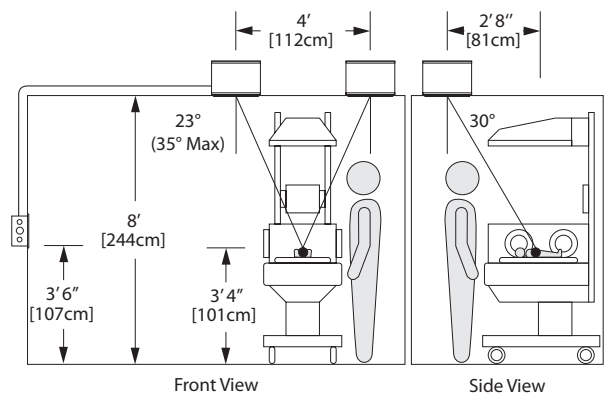
- 94 Custom color self-flanged flare trim instead. Consult factory.
- 99 Special modification. Consult factory.
- BI Beeper (remote control) inactivated by factory.
- IP IP65 rated trim and lens.
- RC Extra remote control.
- RS Remote infrared sensor with 35' cable. Ceiling mount typical.
- SE Fixtures modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes.

(See specification sheets for availability and details.)

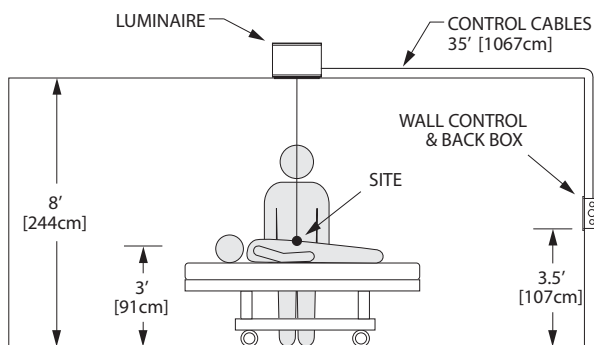
Typical Side View: MRR-12620 in Patient Room



Typical Side View: MRR-12620 in NICU



Typical Side View: MRR-12622 in Patient Room

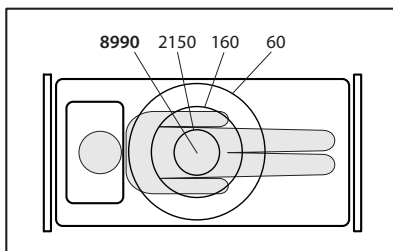


Optional 15° bottom pan (Option -81) allows lighthead to be **tilted up to 50° for high angle illumination** or to accommodate fixture location further from the bed.

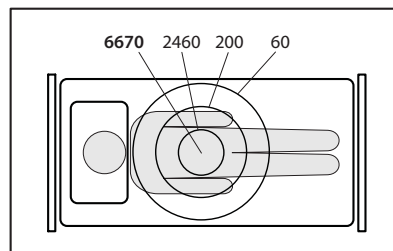


Footcandle Distribution Data: MRR-12620 (Two Light System) 4' Spacing

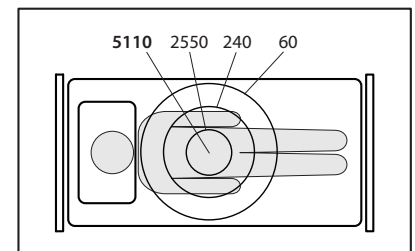
Photometric testing by ITL (Boulder, CO)
I.T.L. Test No. 83197



8' Ceiling: 3' Work Plane 8990 fc
3' 4" Work Plane 10000 fc

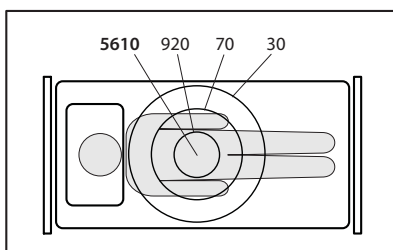


9' Ceiling: 3' Work Plane 6670 fc
3' 4" Work Plane 7330 fc

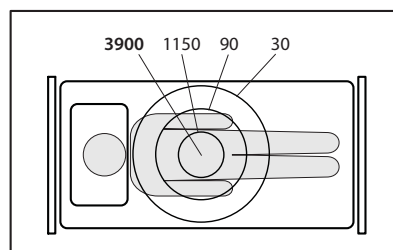


10' Ceiling: 3' Work Plane 5110 fc
3' 4" Work Plane 5570 fc

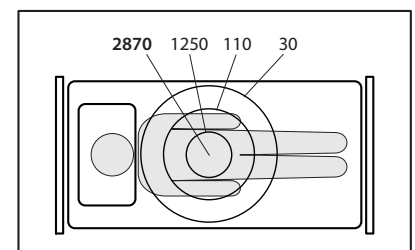
Footcandle Distribution Data: MRR-12622 (One Light System)



8' Ceiling: 3' Work Plane 5610 fc
3' 4" Work Plane 6420 fc



9' Ceiling: 3' Work Plane 3900 fc
3' 4" Work Plane 4370 fc



10' Ceiling: 3' Work Plane 2870 fc
3' 4" Work Plane 3160 fc

LED Motorized High CRI / R9 Recessed Patient Low Voltage Lighting System



MRR-12640 (Two Light System)
MRR-12642 (One Light System)

FEATURES

- OPTeCOLOR™ LEDs deliver up to 10,000 fc with no heat in the beam.
- OPTeCOLOR™ LEDs provide 95+ CRI (with high R9, R13 and R15) for excellent color rendering of blood, red tissues and skin tones. 60,000 hour life (L70) dramatically reduces maintenance frequency and cost.
- Light delivered at angles up to 35° (and 50° with Option -81) with full 360° rotation to provide coverage of the patient.
- One hand operation of wall control: joystick (360°) for direction; slide dimmer for intensity (100-10%); push button for power on-off.
- Independent direction control of each light. Light beams may be aimed at 2 separate sites or superimposed.
- Fully recessed fixtures with BioGard™ antimicrobial trims are unobtrusive and inconspicuous, providing a safe and open space for staff and a home-like atmosphere for patients. Easily installs in T-bar or drywall ceilings with mounting hardware provided.
- Smooth surfaces and minimal surface areas (both fixtures and controls) are easy to clean and disinfect.
- Redundancy of electronic components and circuitry ensures at least 75% (MRR-12640) illumination at all times.
- Kirlin's exclusive three year limited warranty.

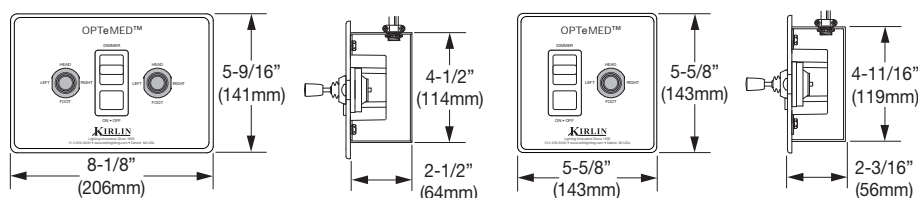
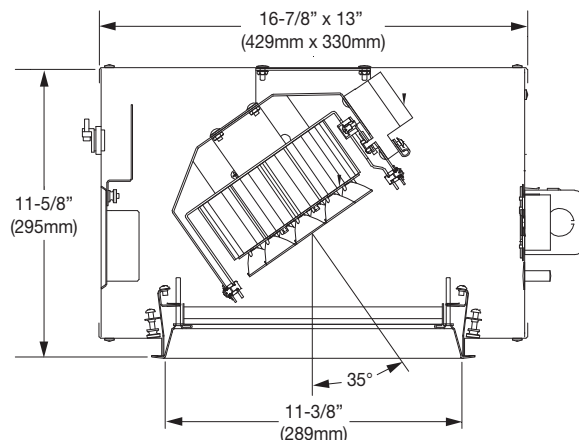


MRR-12640

MRR-12642

APPLICATIONS

- ICU/CCU
- ED
- NICU/PICU
- PATIENT ROOM



POPULAR OPTIONS

Input Power: SPECIFY

- 120 120V (50-60Hz) input and thermal protector.
- 58 277/120 volt stepdown transformer for 277 volt line input, prewired into each fixture; with 277 volt thermal protector.
- 97 For other input supply voltages, consult factory.
- 98 347/120 volt stepdown transformer for 347 volt line input, prewired into each fixture; with 120 volt thermal protector. Adds 10 watts to each fixture load.

Color Temperature (CCT)

- 41K 4100°K instead of 3500°K. 95+ CRI.
- 50K 5000°K instead of 3500°K. 95+ CRI.

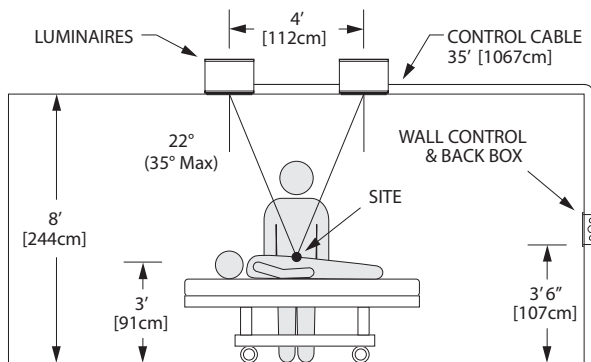
Trim and Other

- 32 White oversize trim ring. Specify O.D.
- 81 15° bottom pan achieves 50° high angle illumination in one direction. Maximum recessed depth 15-1/8".
- 87 Custom length (> 35 feet) plenum rated wall control cables (4 for MRR-12640; 2 for MRR-12642). Specify length in feet.

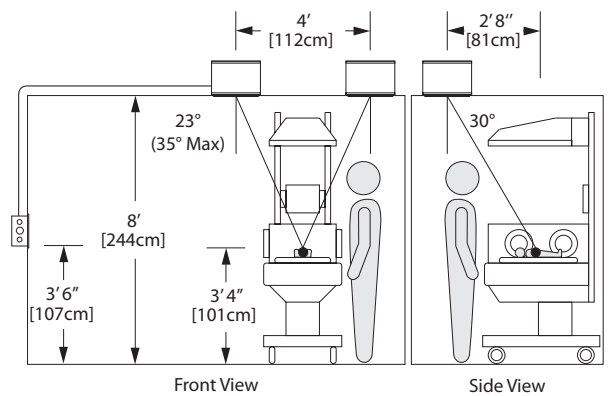
- 94 Custom color self-flanged flare trim instead. Consult factory.
- 99 Special modification. Consult factory.
- IP IP65 rated trim and lens.
- SE Fixtures modified for seismic anchorage (by others). Meets California OSHPD and International Building Codes. Consult factory.

(See specification sheets for availability and details.)

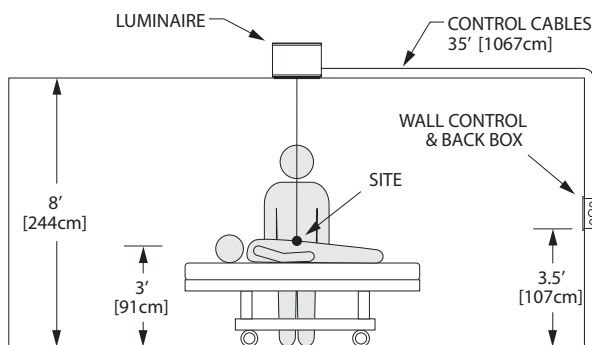
Typical Side View: MRR-12640 in Patient Room



Typical Side View: MRR-12640 in NICU



Typical Side View: MRR-12642 in Patient Room

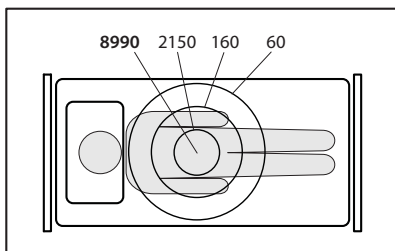


Optional 15° bottom pan (Option -81) allows lighthead to be **tilted up to 50° for high angle illumination** or to accommodate fixture location further from the bed.

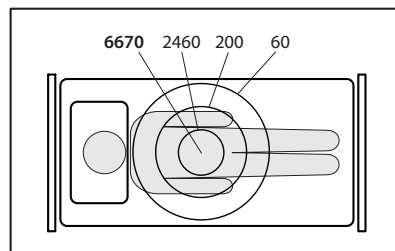


Footcandle Distribution Data: MRR-12640 (Two Light System) 4' Spacing

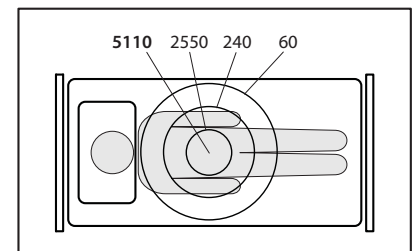
Photometric testing by I.T.L. (Boulder, CO)
I.T.L. Test No. 83197



8' Ceiling: 3' Work Plane 8990 fc
3' 4" Work Plane 10000 fc

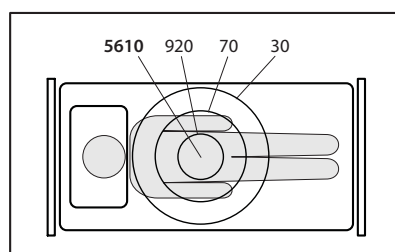


9' Ceiling: 3' Work Plane 6670 fc
3' 4" Work Plane 7330 fc

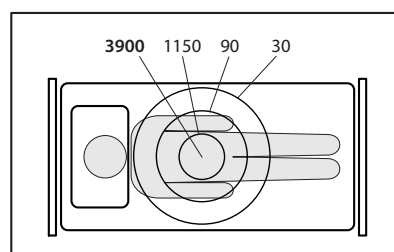


10' Ceiling: 3' Work Plane 5110 fc
3' 4" Work Plane 5570 fc

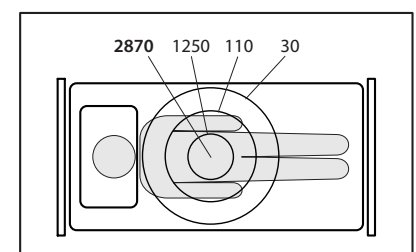
Footcandle Distribution Data: MRR-12642 (One Light System)



8' Ceiling: 3' Work Plane 5610 fc
3' 4" Work Plane 6420 fc



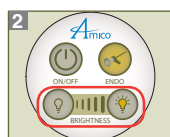
9' Ceiling: 3' Work Plane 3900 fc
3' 4" Work Plane 4370 fc



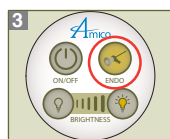
10' Ceiling: 3' Work Plane 2870 fc
3' 4" Work Plane 3160 fc



Switch on the light at light head.



Set the required luminosity with 5 dimming levels.



Endo mode available.

Amico introduces the latest advancement in Minor Surgery and Diagnostic Lighting technology with the Mira90 LED medical light. Precisely positioned LED's allow for superior shadow control, depth of field and light intensity. The Mira90 LED offers a CRI of 95 and a color temperature of 4500 K which produce excellent color accuracy for minor surgeries and examinations.

The Mira90 LED has an easy to use control pad for controlling light functions, including Five Dimming Levels and an Endo mode. The removable handle is ergonomically positioned off to the side to maximize the light field and can be rotated to electronically focus the beam to a concentrated 6.5" (16.51 cm) for surgical procedures or 12" (30.5 cm) for broader examinations.

The Mira90 LED shall provide you with unsurpassed performance and value backed with our 5 Year industry leading warranty.

Features:

Light Head Diameter: 18" (45.7 cm)

Light Intensity (Central Luminance):
90,000 Lux (8,361 fc) at 1 m (39.37")

Brightness Control: 50% - 100%

Light Field Diameter: 6.5" - 12" (16.5 cm - 30.5 cm)

Depth of Illumination: 94.5" (240 cm)

Color Rendering Index (Ra): 95

Weight of Light Head: 11 lbs (5 kg)

Color Temperature (standard): 4500 K

Shadow Dilution:

- Single Mask: 0.7%
- Double Mask: 55.5%
- Cavity: 100%
- Single Mask with cavity: 0.3%
- Double Mask with cavity: 55.3%

of LED's (main): 36

LED service life: 50,000 hours

Total radiant power at max intensity:
317 W/m²

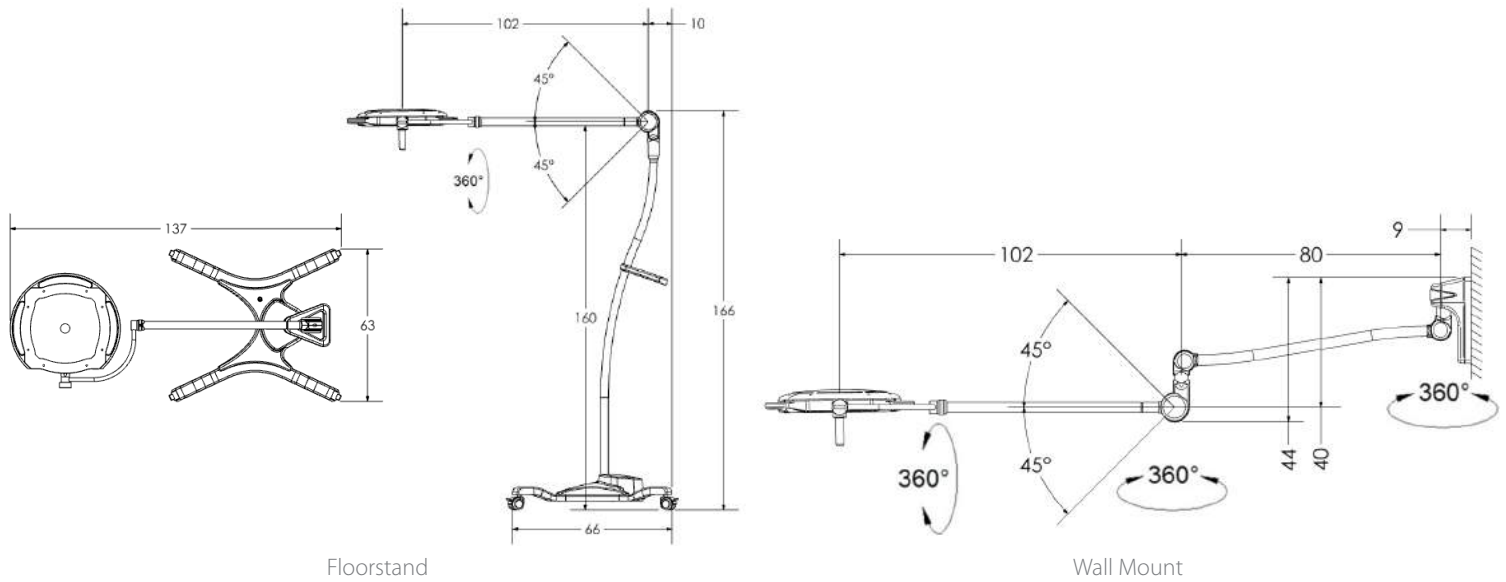
Electrical: 100-240 VAC, 50/60 Hz, 0.65 amps

Power Supply: direct power supply

Mounting Options: wall mounted, floorstand

Certificates: cETLus conform to UL60601-1; UL60601-2-41; UL certified IP54 per IEC 60598

Dimensions



Series	Mounting Options	Quantity of Lightheads	Spring Arm Size
L-MLED90	WM Wall Mount	XX Single Lighthead Only	ST Standard
	FS Floorstand		EX Extended*

NOTE: Extended Arm not available for Floorstand

Ordering Guide

L-MLED90- - -

└─┘ └─┘ └─┘
 Mounting Options Quantity of Lightheads Spring Arm Size

For Example: L-MLED90-FS-XX-ST
 Mira 90, Floorstand, Single Lighthead, Standard Arm

NOTE: North American: 120 V; International: 230 V

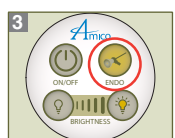




Switch on the light at light head.



Set the required luminosity with 5 dimming levels.



Endo mode available.

Amico introduces the latest advancement in Minor Surgery and Diagnostic Lighting technology with the Mira90 LED medical light. Precisely positioned LED's allow for superior shadow control, depth of field and light intensity. The Mira90 LED offers a CRI of 95 and a color temperature of 4500 K which produce excellent color accuracy for minor surgeries and examinations.

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Depth of Illumination: 94.5" (240 cm)

Color Rendering Index (Ra): 95

Weight of Light Head: 11 lbs (5 kg)

Color Temperature (standard): 4500 K

Shadow Dilution:

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- Double Mask: 55.5%
- Cavity: 100%
- Single Mask with cavity: 0.3%
- Double Mask with cavity: 55.3%

of LED's (main): 36

LED service life: 50,000 hours

Total radiant power at max intensity:
317 W/m²

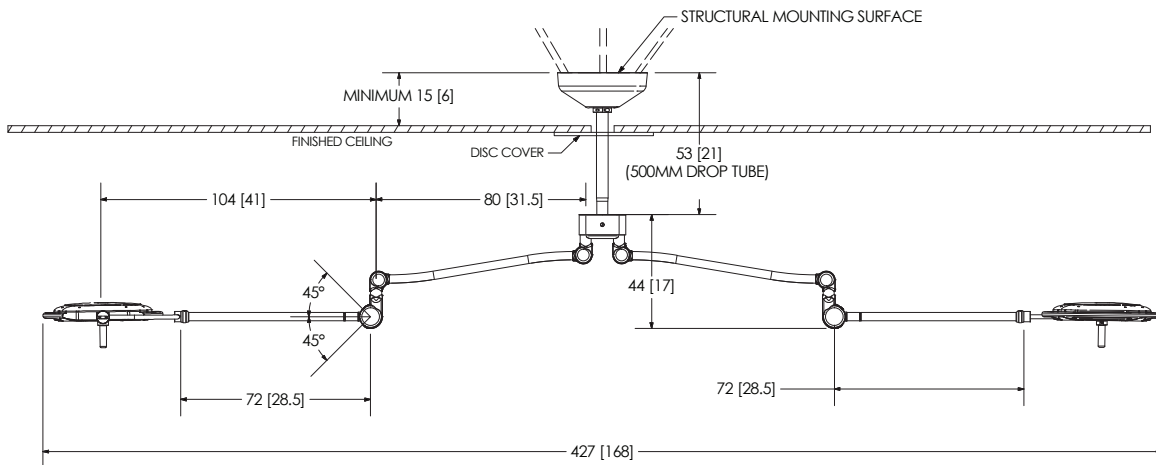
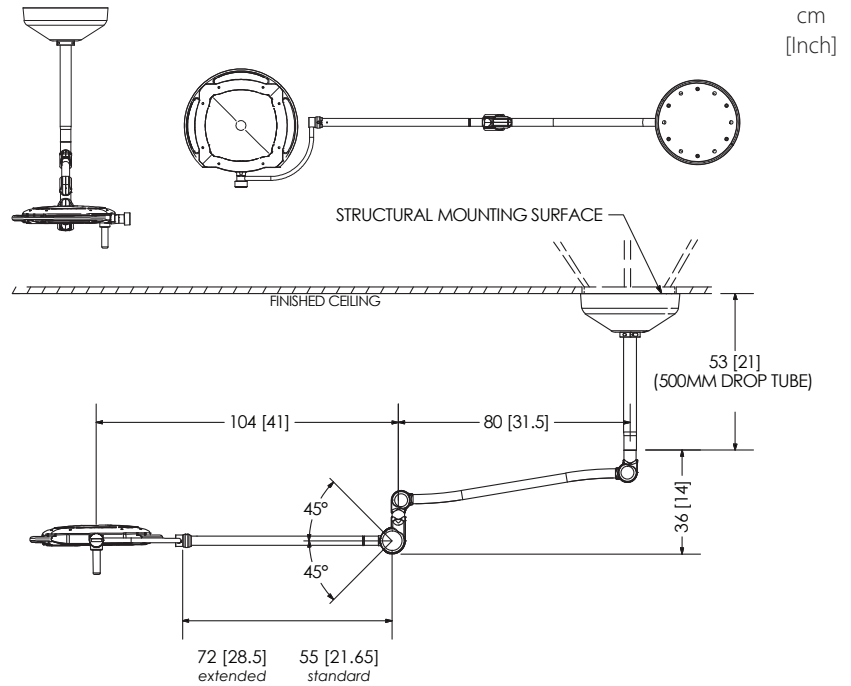
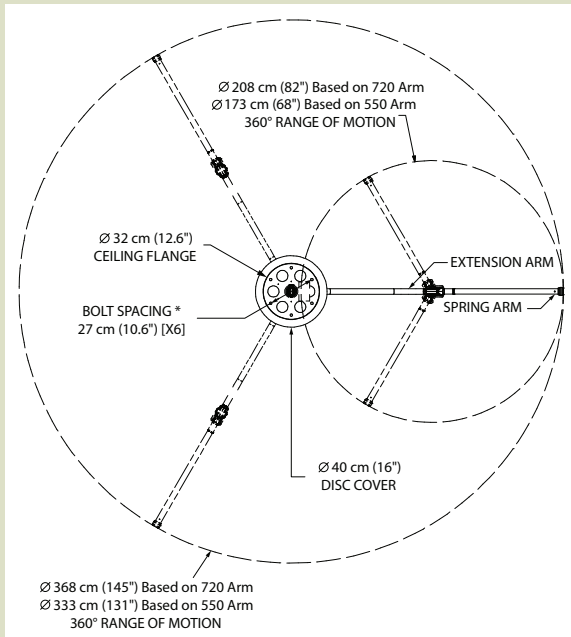
Electrical: 100-240 VAC, 50/60 Hz, 0.65 amps

Power Supply: direct power supply

Mounting Options: ceiling mounted

Certificates: cETLus conform to UL60601-1;
UL60601-2-41; UL certified IP54 per IEC 60598

Dimensions



Series	Mounting Options	Quantity of Lightheads	Spring Arm Size
L-MLED90	CM Ceiling Mount	SC Single Ceiling Mount	ST Standard
		DC Dual Ceiling Mount	EX Extended

Ordering Guide

L-MLED90- - -
 Mounting Options Quantity of Lightheads Spring Arm Size

For Example: L-MLED90-CM-D-ST
 Mira 90, Ceiling Mount, Dual Mount, Standard Arm

NOTE: North American: 120 V; International: 230 V

Amico Lights Corporation 85 Fulton Way, Richmond Hill, ON L4B 2N4, Canada
 Toll Free Tel: 1.877.462.6426 | Toll Free Fax: 1.866.440.4986 | Tel: 905.764.0800 | Fax: 905.764.0862

www.amico.com



RING LED LED MAGNIFIER



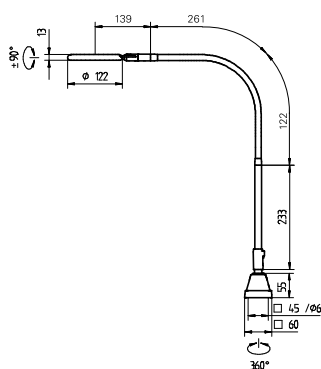
FEATURES:

- Optical-grade lens with 6 diopters
- 5 inches in diameter
- 63 high-output LEDs
- Maintenance-free
- Touch-switch for on/off operation
- Universal base or C-clamp mounting
- Plug-in transformer for 100-240V
- Ideal for assembly and QC inspection
- Wide light distribution
- Industrial-grade gooseneck arm is strong, even after 20,000 movements
- Sleek and robust design

SPECIFICATIONS:

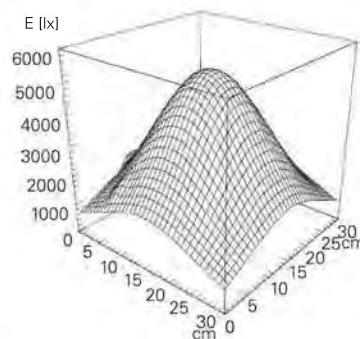
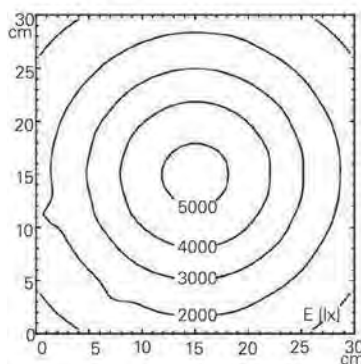
Voltage	100-240V, 50/60Hz
Lamping	LED
Operation	easy touch switch
Magnification	6 diopters
Color Temperature	4000K
Color Rendering Index (CRI)	80-89
Luminaire Material	anodized aluminum arm
Lens Material	hard-coated acrylic
Lens Dimension	2.8" diameter
Arm Reach	15.7"
Power Consumption	6W
Protection Rating	IP20
Cord/Plug	7.5' cord w/ plug
Weight	2.2 lbs

RING LED is the lighting solution for the precise examination of parts for a number of fields of application – from mechanical engineering to research and development. This workhorse of a light is all business. The sleek design is minimal and fits easily into any workspace. The luminaire head is less than ½" thick and a mere 5" in diameter. The specially coated, distortion-free magnifier lens is 2.8" in diameter and features a 6 diopter lens. Using innovative LEDs provides critical added value compared to conventional fluorescents: four times more light per watt, considerably lowering energy consumption. These LEDs offer a minimum of 50,000 hours of operating life at 100% brightness level.



Measurements in millimeters

distance 15 cm
Em: 2663 lx
Emax: 5282 lx
Emin: 813 lx



ORDERING INFORMATION

Version	Wattage	Magnification	Model	Part #
With universal base	6W	6 diopters	RLLQ 63	113 142 000 - 006 188 24
With mount clamp	6W	6 diopters	RLLQ 63	113 142 M10

Mounting Options	Item	Dimensions	Part #
	Universal base for table/wall (included)	2.4" x 2.4"	204 090 019
	Table clamp (included - see above)	0" - 2.75" span	ILL 001 00C - 000 504 72
	Wall bracket for universal base	2.4" x 2.8"	300 213 018 - 000 251 78
	Magnetic mount for universal base	3.3" diameter	190 057 019 - 000 150 56
	Table base, rectangular for pin mount	10.5" x 6.7" x 1"	190 037 019 - 000 149 68
	1/2" pin mount adapter	1.77" length	US0 209 022
	1/2" pin mount adapter	3.75" length	US0 209 012

Waldmann Lighting Company

9 W. Century Drive
Wheeling, Illinois 60090
www.waldmannlighting.com

Telephone (847) 520 1060
Fax (847) 520 1730
waldmann@waldmannlighting.com

Waldmann **W**
ENGINEER OF LIGHT.

TEVISIO
MAGNIFIER LUMINAIRE



ILLUMINATE. INTENSIFY. TEVISIO.



CUSTOMIZED LIGHTING

For precise visual acuity, TEVISIO's continuous dimming provides customization of the light output from 100% to 10%. The integrated segment-switching feature includes three switchable light intensities to select from enabling individual comfort and control.



48 premium LEDs have a color rendering index = 90, the highest level needed for the detailed inspection of color matching. The 3.5 diopter magnifier doubles the size of even the smallest detail and a 3.5d + 8d zoom version is also available for high precision work.



ERGONOMIC POSITIONING

The impressive reach of the TEVISIO arm, along with the multi-directional head joint, enables a wide range of positioning options. Six independent swivel joints turn up to 90 degrees in every direction, making it adaptable to any viewing need.

Innovative balanced-arm technology allows for easy adjustment and precise positioning. For maximum ergonomic comfort, TEVISIO offers a choice of two arm lengths.

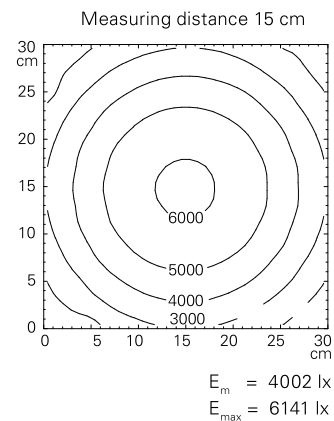
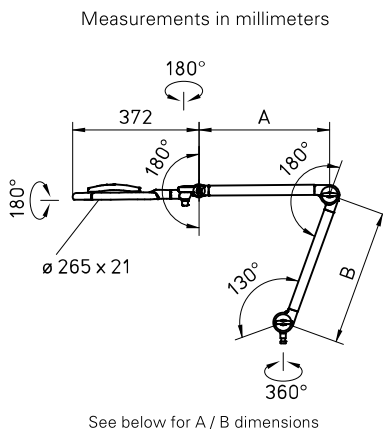


ENERGY EFFICIENCY AND DURABILITY

TEVISIO compares at 40% more efficient than conventional magnifier luminaires while maintaining its high illumination level of 6,000 lux with a power consumption of only 14 watts.

With a rated LED life of 50,000+ hours and a minimum of 20,000 arm movements, TEVISIO saves on maintenance and downtime costs while providing the durability that has become synonymous with the Waldmann brand.

TECHNICAL DATA



SPECIAL FEATURES

- 48 premium LEDs
- Power consumption: 14 watts
- Color temperature: neutral white 4000K
- Light guidance via reflector
- Glass lens 6in diameter with 3.5 diopter or 3.5d + 8d magnification options
- Housing made of anodized aluminum
- Multi-directional head joint for individual adjustment
- Spring-balanced arm for precise positioning
- Touch panel integrated in the luminaire head for on/off, dimming or segment switching
- IP20, double insulated housing (Class II)
- 100–240V, 50/60Hz operation
- 11-foot cord with US plug
- Optional mounting accessories (see below)



MOUNTING OPTIONS



Table Clamp
(included)



Wall Bracket



3.5d Add-X
Magnifier

MODEL	REACH	A	B	DIOPTER	DIMMING	SWITCHABLE	PART NUMBER
TEVISIO	31" (784mm)	384	400	3.5d+8d	Yes	Segment Switching	112919000-00587344
TEVISIO	31" (784mm)	384	400	3.5d	Yes	Segment Switching	112919000-00587341
TEVISIO	31" (784mm)	384	400	3.5d+8d	Yes	N/A	112919000-00587338
TEVISIO	31" (784mm)	384	400	3.5d	Yes	N/A	112919000-00587335
TEVISIO MAX	39" (988mm)	484	500	3.5d+8d	Yes	Segment Switching	112918000-00587332
TEVISIO MAX	39" (988mm)	484	500	3.5d	Yes	Segment Switching	112918000-00587329
TEVISIO MAX	39" (988mm)	484	500	3.5d+8d	Yes	N/A	112918000-00587326
TEVISIO MAX	39" (988mm)	484	500	3.5d	Yes	N/A	112918000-00587322

Accessories	DIOPTER	PART NUMBER
Table Clamp	n/a	19102506940
Wall Bracket	n/a	226108019-00610754
Add-x Magnifier	3.5d	190208019-00575924

TEVISIO ESD – PROBLEM SOLVED.

The industrial workplace deals with a variety of safety concerns, including implementing efficient and reliable lighting. Waldmann's original TEVISIO magnifier has tackled the issues of glare, shadows and stroboscopic effects characteristic to viewing areas where magnifiers are used.

In certain industrial workplaces, electrostatic discharges can be an issue,

damaging or even destroying electronic components, assemblies or complete electronic products.

Depending on the conditions in the immediate environment, extremely high static charges (volts) can build up. While these impulse discharges aren't noticeable to humans until a level of 3000 volts, a 100-volt level can easily damage an integrated circuit.

With this in mind, Waldmann has made a priority of ensuring that its components are ESD safe. The new TEVISIO ESD version boasts:

- double-sided ESD coated lens
- ESD-safe 100-240V plug-in converter with quick disconnect (included)
- ESD-safe table clamp (included)
- ESD painted surface
- dischargeable molded materials



HALUX LED-1
LED EXAMINATION LUMINAIRE



SEE THINGS DIFFERENTLY.
LED LIGHTING FOR HEALTHCARE FACILITIES.

HALUX LED-1 EXAMINATION LIGHT



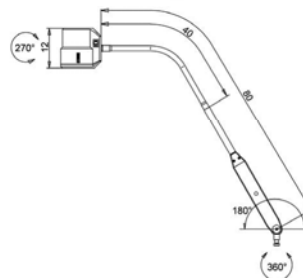
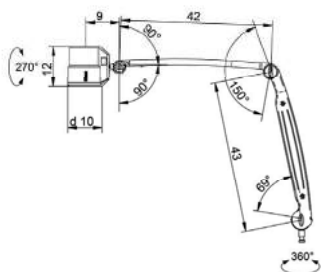
HALUX LED-1 examination light is a reliable partner for the care and treatment of patients in any type of healthcare facility. Whether it be an urgent care treatment center, a physician's exam room, or a hospital, HALUX LED is the ideal exam light for all medical examinations. Seven powerful LEDs work in tandem to provide 40,000 lux to light the exam area with clear, natural color rendering. The spring-balanced articulated arm system offers flexibility in movement, making the light easy to maneuver and a fixed position easy to maintain. A wide 7" illumination area ensures a clear, glare-free view of the task at hand. Available for mounting with table clamp, floor stand, wall bracket or rail systems.

FEATURES:

- 7 powerful LEDs deliver 40,000 lux at .5 meter
- Color Rendering Index >93 for true-color light for exams
- Comfortable 4400K color temperature
- Newly designed spring-balanced arm system for precise positioning
- Converter ergonomically integrated inside arm
- High-energy efficiency and maintenance-free operation
- Sealed construction keeps dust, liquids, etc. from permeating interior



TECHNICAL INFORMATION



ORDERING INFORMATION

Model	Mounting Type	Arm Type	Part No
HALUX LED-1 P FX	Clamp	32" reach articulating arm	D15502100
HALUX LED-1 P FX	Floor Stand	32" reach articulating arm	D15502110
HALUX LED-1 P FX	Wall Mount	32" reach articulating arm	D15502120
HALUX LED-1 P FX	Rail Mount*	32" reach articulating arm	D15502150
HALUX LED-1 P SX	Clamp	32" reach gooseneck arm	D15507100
HALUX LED-1 P SX	Floor Stand	32" reach gooseneck arm	D15507110
HALUX LED-1 P SX	Wall Mount	32" reach gooseneck arm	D15507120
HALUX LED 1-P SX	Rail Mount*	32" reach gooseneck arm	D15507150

Extension Arm

Material	Powder coated tubular steel
Length	15.7"
Weight	1.4 lbs
Load Capacity	5.5 lbs
Color	White
Part #	D13363000



Rolling Floor Stand

Material	Steel/plastic
Color	Gray
Dimensions	39" height X Ø 28"
Weight	16.5 lbs
Part #	D15595000



Rail Mount*

Material	Anodized aluminum
Span	0–2.75"
Part #	D13269000



Table Clamp

Material	Steel/polyresin
Span	0–2.75"
Weight	1 lb
Color	Black
Part #	D14228000



Wall Mount

Material	Polyamide
Weight	.5 lb
Color	White
Part #	D13269000



Mounting Rail*

1 meter length	D13505000
1.5 meter length	D13506000

*Rail sold separately

OMNIVUE LED MAGNIFICATION & INSPECTION LIGHT

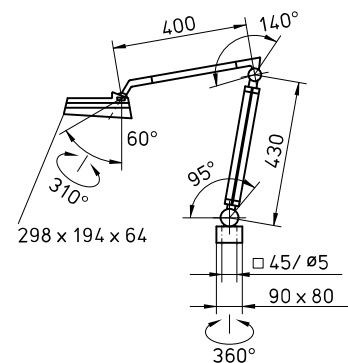


FEATURES:

- Glare-free – Three lighted sections with 3.5 watt LED modules. Interchangeable switching to allow two side sections for cross illumination.
- Magnifying lens tilts independently of the light source for optimum positioning
- 3-diopter (1.75X) magnifying lens is made from optical quality glass
- Solid one-piece robust arm construction allows OMNIVUE LED to stay in place
- Both OMNIVUEMAX LED with a 43" extended reach arm or OMNIVUE LED with a 35" reach are ideal for production benches and workstations
- Two optional Add-x lenses are available for additional magnification up to 15 diopters

SPECIFICATIONS:

Voltage	120V, 50/60Hz
Light Source	LED
Operation	multi-level switching
Lumens	1500
Magnification	3 diopters (1.75X)
Color Temperature	4000K
CRI	>80
Lens Dimension	4.2" x 6.4"
Arm Reach	35" or 43"
Power Consumption	13.2W
Protection Rating	IP20
Certification	ETL/cETL
Cord/Plug	10' cord with plug
Various mounting options and accessories available	



Measurements in millimeters

OMNIVUE LED features the same distinctive fully-rotational magnifier lens that has made the OMNIVUE so popular for many years. Now equipped with the latest LED technology - this design offers precise positioning, a choice of light outputs with a touch of a switch, and now with instant on and maintenance-free operation.



OMNIVUE LED



OMNIVUE LED ESD

ORDERING INFORMATION

Wattage	Arm Reach	Magnification	Lumens	Color Temp.	Model	Part #
13W	35" reach	3 diopters (1.75X)	1500	4000K	OMNIVUE LED	113 178 000 - 006 724 03
13W	43" reach	3 diopters (1.75X)	1500	4000K	OMNIVUEMAX LED	113 178 000 - 006 898 12
Mounting Options	Item		Dimensions		Part #	
	Table clamp - with pin mount (included)		0" - 3.5" span		191 025 069 40	
	Table clamp (universal base required)		2.5" - 5.4" span		190 033 019 - 000 149 50	
	Universal base for table/wall		2.4" x 2.4"		204 090 019	
	Wall bracket - heavy duty (universal base required)		3" x 3"		226 108 019 - 006 107 54	
	Table base, rectangular, for pin mount		10" x 6.7" x 1"		190 037 019 - 000 149 68	
	1/2" pin mount adapter		1.77" length		US0 209 022	
	1/2" pin mount adapter		3.75" length		US0 209 012	
Accessories	Item		Magnification		Part #	
	Add-x lens		4 diopters (2X)		190 080 019	
	Add-x lens		4d + 12d (2X + 4X)		190 080 029	
	Add-x ESD lens		4 diopters (2X)		190 080 049 - 000 612 80	

Waldmann Lighting Company

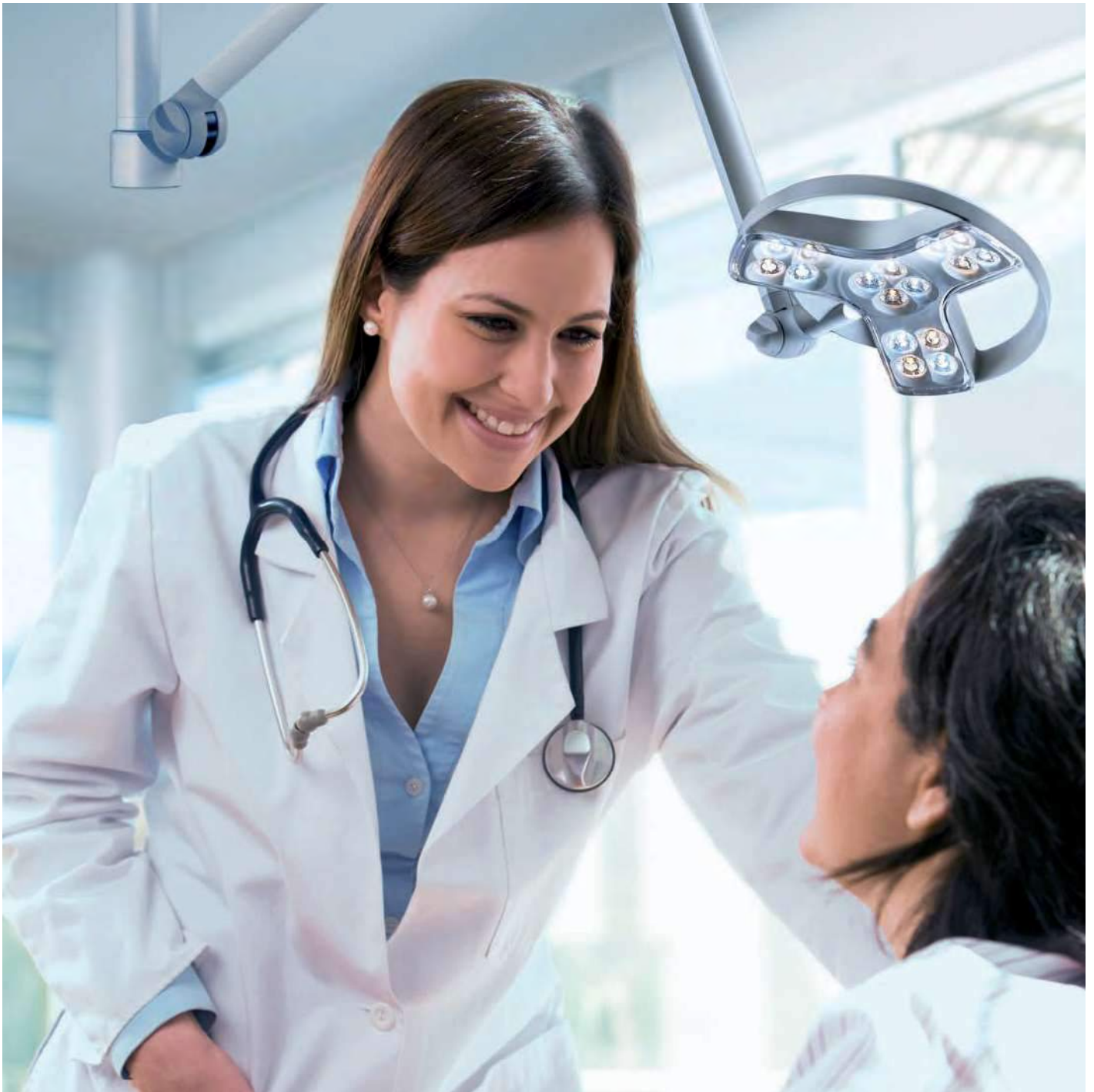
9 W. Century Drive
Wheeling, Illinois 60090
www.waldmannlighting.com

203-0317-IH

Telephone (847) 520 1060
Fax (847) 520 1730
waldmann@waldmannlighting.com

Waldmann **W**
ENGINEER OF LIGHT.

VISIANO
LED EXAMINATION LUMINAIRE



THE NEW Dmed® VISIANO SHINES THROUGH WITH INNOVATION AND DESIGN

Wherever the highest standards of vision apply, uncompromising lighting is essential. In a family practice or a specialist's office, neonatal unit or intensive care, VISIANO is a very helpful tool. With its unique design, state-of-the-art lighting technology and ergonomic controls, VISIANO provides optimal lighting conditions for exams and procedures.

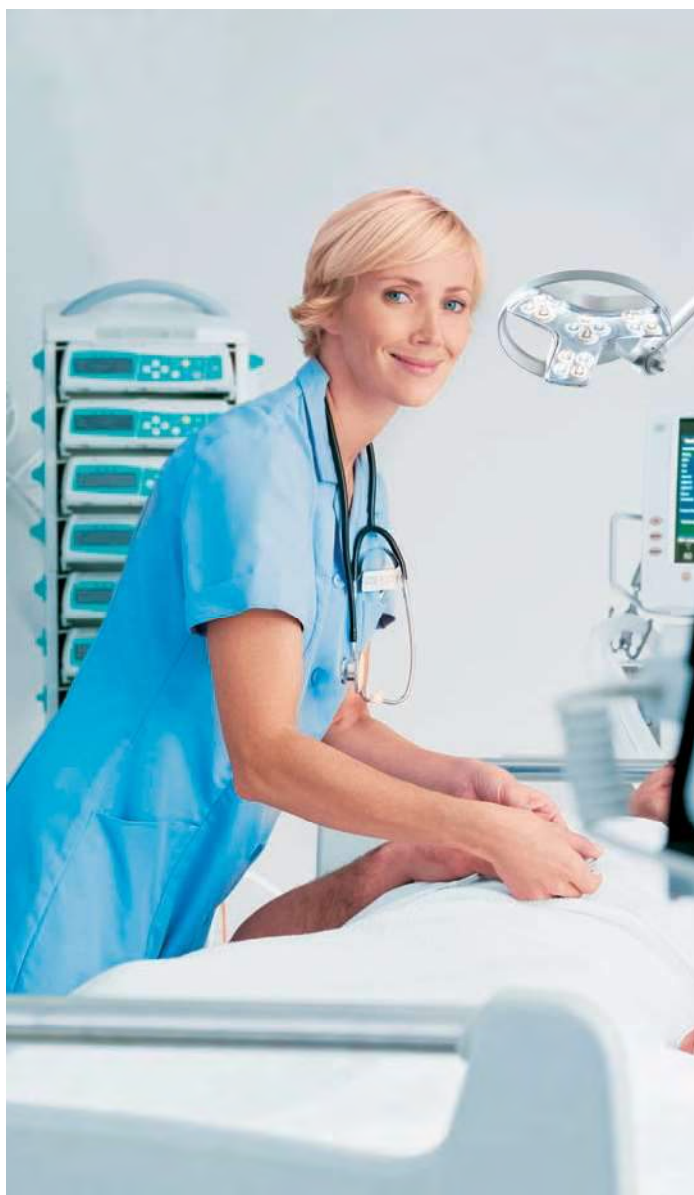
- **Highest lighting quality:**
The unique light head design, diamond optics and premium LEDs assure an evenly lit light field and high illuminance level (60,000 lx/0.5 m) as well as excellent color rendering (CRI>95)
- **Safety approval:**
Meets IEC 60601 3rd edition technical standards for the safety and effectiveness of medical electrical equipment. ETL/cETL approved
- **Maximum reach and ergonomics:**
360° rotational axis at the luminaire head, long 50-inch arm reach
- **Dimming and color control:**
Color temperatures can be switched from 3500K and 4500K and further personalized with four dimming levels
- **Easy cleaning:**
Completely enclosed system for safe and easy cleaning with disinfectant spray (IP43)
- **High quality components:**
Aluminum arm for strength and rigidity, friction joints for ease of motion
- **Integrated low voltage transformer:**
For maximum electrical safety and energy efficiency
- **Long service life and maintenance-free:**
Low power consumption with 16 premium LEDs and integrated converter, maintenance-free housing



DESIGNED FOR SIMPLICITY

EASY TO USE, EASY TO CLEAN

The available mounting options are as diverse as the applications for the new VISIANO, including ceiling installation or mounting on a wall, table, rail or floor stand. The ergonomic design makes VISIANO easy to maneuver and the enclosed design and antimicrobial sanitized® enhanced materials help to keep the fixture clean and maintenance-free.

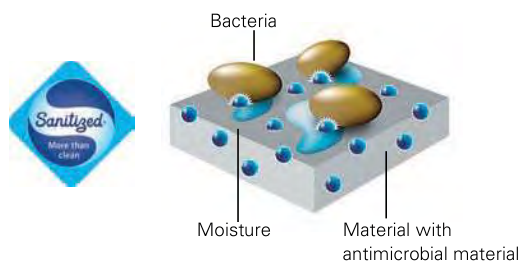


KEEPING HYGIENE A PRIORITY

Protection against the spread of bacteria

In a medical setting in particular, inhibiting the spread of harmful bacteria and germs is a critical task. VISIANO is manufactured with a biocidal incorporated into the luminaire material for the upper luminaire housing, the control panel and the hand wheels of the joints. Please note: This sanitizing component does not replace the need for regular cleaning.

The biocidally active component is integrated into the lamp head during the manufacturing process, inhibiting the growth and proliferation of microbes and bacteria. This prevents the cell from breathing and spreading to other areas. In laboratory testing, 99% of bacteria and germs were destroyed. It has also been established that this material is not hazardous to the health or safety of patient and staff.



MOUNTING OPTIONS

THE PERFECT OPTION FOR EVERY SITUATION

- Illumination intensity 60,000 lx/0.5 m
- Lighting field: 8.3 inches
- Color temperatures: 3500K and 4500K
- 4 dimming levels
- Diamond optic design reduces shadows
- Ergonomic controls allow for one-handed operation
- Spring-balanced arm joints lock in position
- Pure white / gray

Ceiling mount version



Ceiling pole max. 45 inches (can be cut to length)



Pin-mount version



16 mm pin mount for table, wall, rail
or rolling floor stand



VISIANO 10-1
EXAMINATION LIGHT





VISIANO 10-1

VISIANO 10-1 was designed to be used universally for exams and procedures in the clinical sector. Seven premium LEDs and unique diamond optic technology offer low energy consumption and glare-free, shadow-free and heat-free high illumination. The sealed construction protects against contamination from outside sources. And the ergonomic handle and intuitive on/off switch allow for precise, reliable positioning and easy handling.

- Neutral daylight color rendering index of >93
- 34" reach with flexible arm
- 280° rotation of the light head
- 4400K color temperature
- Unique diamond optics and Premium LEDs for professional-grade light quality
- 7-inch illuminated field with 50,000 lux at .5 meter
- Various mounting options available for wall, rail or table mounting as well as for use with a rolling floor stand
- Electronics integrated for maximum safety and energy efficiency
- Sealed construction for contaminant- and maintenance-free operation
- Robust arm and friction joints ensure accurate positioning and durability

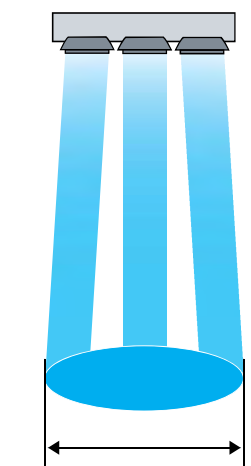


Timeless, slimline design
with ergonomic handle

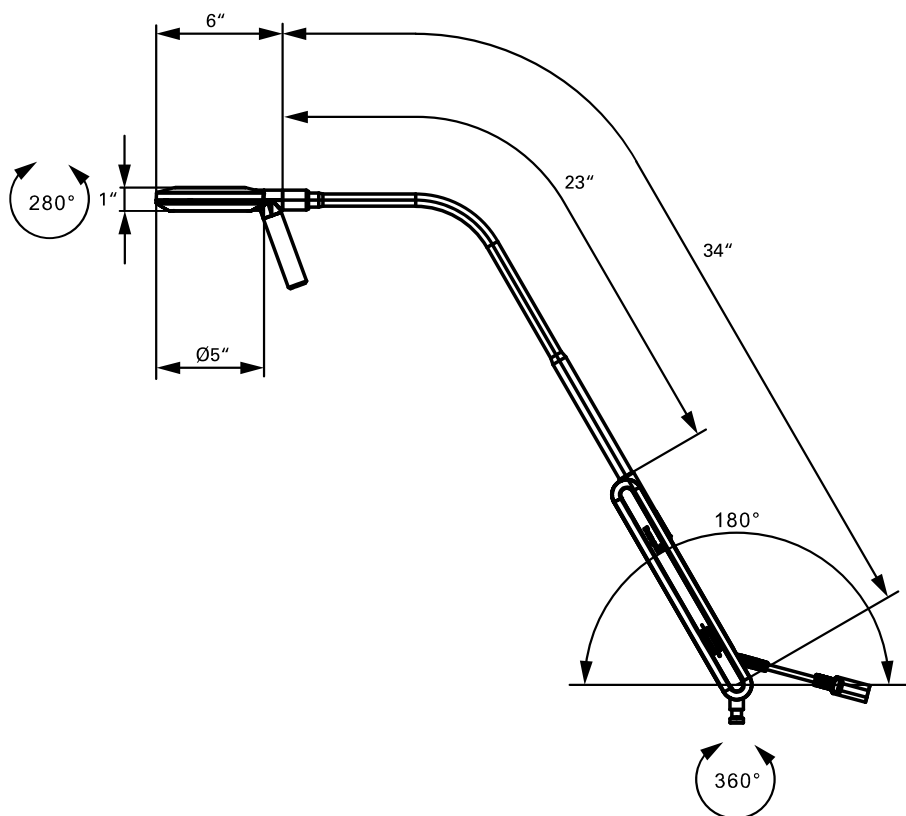
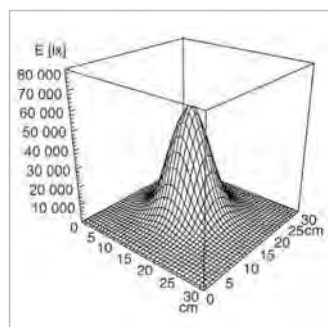


Diamond cluster optics for bright, consistent light





7 inches
 \varnothing 180mm
 approx. 50,000 lx/0.5 m



TECHNICAL

Illumination intensity	approx. 50,000 lx / 0.5m
Color rendering	Ra > 93
Color temperature	4400K
Illumination field 0.5m	\varnothing 7 inches
Operation	I/O switch on the arm
Standards	IEC 60601-1

PRODUCT NUMBER

DESCRIPTION

D15757100	VISIANO 10-1 P S10, gooseneck arm - clamp
D15757110	VISIANO 10-1 P S10, gooseneck arm - floor stand
D15757120	VISIANO 10-1 P S10, gooseneck arm - wall mount
D15757150	VISIANO 10-1 P S10, gooseneck arm - rail mount

ACCESSORIES

ROLLER STAND

Material	steel/plastic
Dimensions	39" pole, \varnothing 27.6" base
Weight (net)	16.5 lbs
for stud \varnothing	16mm-W with removal protection with cable suspension device

PRODUCT NO. D15595000 - gray/white



EXTENSION ARM

Material	steel
Weight (net)	1 lbs
for stud \varnothing	16mm

PRODUCT NO. D13363000 - white



TABLE CLAMP

Material	steel/polyresin
Weight (net)	1 lb
for stud \varnothing	16mm

PRODUCT NO. D14228000 - black



RAIL MOUNTING

Material	anodized aluminum
Weight (net)	0.4 lbs
for stud \varnothing	16mm

PRODUCT NO. D13269000 - silver



WALL BRACKET

Material	polyamide GF
Weight (net)	0.3 lbs
for stud \varnothing	16mm

PRODUCT NO. D13231000 - white





UNDER CABINET LIGHTING



Spectra-SF LED

Under-Cabinet Task Lighting

Project:

Type:

Qty:

SPECIFICATIONS

Interior

SPECTRA-SF LED

SPECIFICATIONS

Localized task lighting is essential in many areas of a healthcare facility. This is especially important where work areas lay beneath cabinets or counters, as commonly found in pharmacies, laboratories, and nurse stations. Properly lighting these dim task areas reduces workers' eye strain and fatigue. The custom lens design of the Spectra-SF LED under-cabinet fixture effectively diffuses the point sources of light to eliminate dark bands and multiple shadowing sometimes associated with LEDs. The result is uniform distribution of light across the work surface without bothersome striations and distortions. A solid front housing creates clean cut-off and eliminates forward glare.

Construction

20 GA steel housing
Nominal 1', 1.5', 2', 3' and 4' lengths available
2 Keyhole slots for mounting

Finish

Polyester powder coat painted after fabrication
Antimicrobial or Custom Color are optional

Shielding

High impact acrylic lens

Source

LED - 3000K, 3500K, 4000K
L80 at 65,000 hours
CRI >80

Electrical

0-10v dimmable driver dims to 10%
120v, 277, or Multi-Volt

Switching

On-Off rocker switch (optional)
Occupancy Sensor (optional)

Linking Connectors (optional)

Linking power connectors simplify installation
Only the first fixture in a run needs to be hardwired
Up to 25 fixtures in a run (9 fixtures with CO option)
Rated to 277V
Locking tabs keep connectors secured in place
See ordering tree for all available options



Listings

CSA Certified to meet US and Canadian standards

Warranty

5-year limited warranty. Complete warranty terms located at: www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

CATALOG NUMBER

Example: HUC523 120 LED35 S1 LX6

Series	Voltage	LED White Color	Switching	Options	Linking Options	Finish
HUC512 ¹ Spectra-SF LED 12"	120 120 Volt	LED30 3000K LED	S1 On-Off Rocker Switch	CO ² Single Gang Convenience Outlet	LX Linking Power Connector for end-to-end	GW Gloss White (standard)
HUC519 Spectra-SF LED 19"	277 277 Volt	LED35 3500K LED	OS Occupancy Sensor	BW Batwing Diffuser	LX6 6" Linking Extension with Connectors	AM Anti-Microbial White
HUC523 Spectra-SF LED 23"	MVOLT 120-277 Volt	LED40 4000K LED			LX12 12" Linking Extension with Connectors	CC ³ Custom Color
HUC535 Spectra-SF LED 35"					LX24 24" Linking Extension with Connectors	
HUC546 Spectra-SF LED 46"						

Notes

- For HUC512: Neither OS nor S1 options are available when specified with linking options due to fixture space constraints.
- CO option limited to 50 watts per outlet.
- Custom color requires factory pricing.

Spectra-SF LED

Under-Cabinet Task Lighting

Project:

Type:

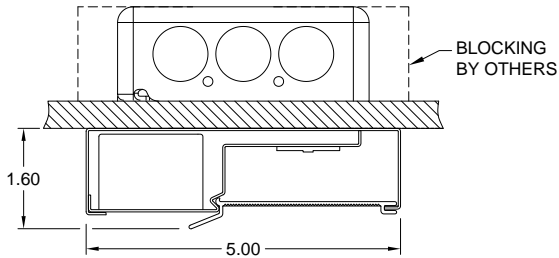
Qty:

SPECIFICATIONS

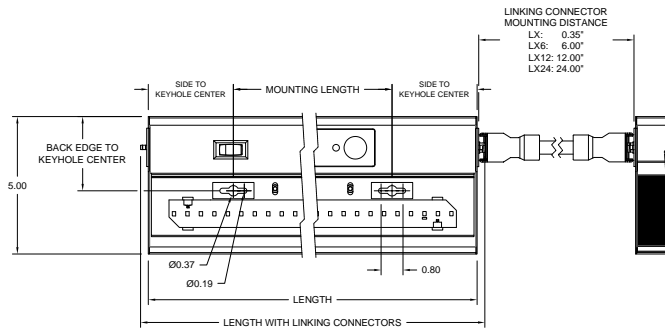
Interior

SPECTRA-SF LED

TECHNICAL DRAWINGS



MOUNTING INFORMATION



FIXTURE	NOMINAL LENGTH (FT)	ACTUAL LENGTH (IN)	LENGTH WITH LINKING CONNECTORS (IN)	MOUNTING LENGTH (IN)	SIDE EDGE TO KEYHOLE CENTER (IN)	BACK EDGE TO KEYHOLE CENTER (IN)	FIXTURE WEIGHT
HUC512	1	12.07	12.63	9	1.54	2.61	2.1 LBS
HUC519	1.5	19	19.56	12.92	3.04	2.62	3.2 LBS
HUC523	2	23.15	23.71	17	3.08	2.63	3.7 LBS
HUC535	3	34.9	35.46	28	3.45	2.63	5.7 LBS
HUC546	4	46.19	46.75	40	3.09	2.7	7.3 LBS

Notes:

- It is the responsibility of the party installing the fixture to select appropriate fasteners that are suitable for the wall material and construction.
- It is the responsibility of the person installing the light fixture to ensure that the materials, hardware and building structural members that are selected will support the light fixture(s) and that they meet all applicable building and safety codes.
- Complete electrical connections according to the wiring diagram on ballast tray, following all applicable building codes and regulations. Replace low voltage wiring enclosure, if applicable.

STARMed MUS MRI 2-3-4

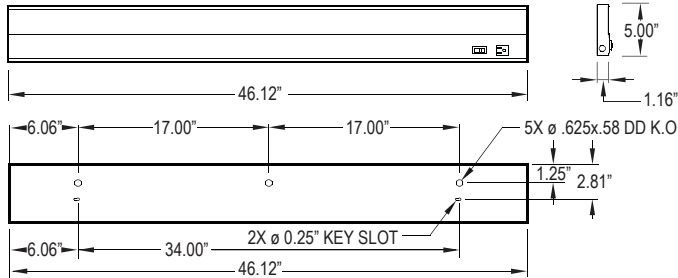
HEALTHCARE SERIES

UNDER CABINET LUMINAIRE
LED

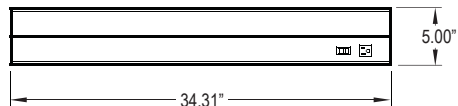


PROJECT:
TYPE:
PRODUCT:
APPROVED:
DATE:

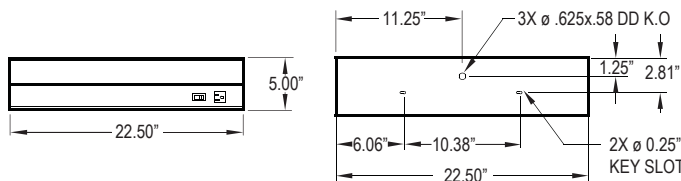
DIMENSION DATA



MUS4



MUS3



MUS2

FEATURES

The New Star "Star Med MUS 2-3-4" Healthcare fixture is designed for use in MRI, patient rooms, surgical suites, and medical settings

- Excellent task lighting
- Available in 2', 3' and 4' lengths
- Solid front integrates with casework & reduces glare
- Remote Driver (max. distance 20 ft.)
- Easy access to electrical compartment
- Can be continuous row mounted

APPLICATION

- Patient Rooms
- Nurse Stations
- Desk Lighting
- Office Cabinet Lighting
- Laboratories
- MRI Facilities
- Research Facilities
- Kitchens
- Backlighting
- Cove Lighting
- Shelf Lighting
- Display Cases

SPECIFICATION

HOUSING:

16 gauge Aluminium housing seamed welded & ground smooth (standard)

FINISH:

White Antimicrobial powdercoat finish following an iron phosphate pre-treatment

LENS:

.125 thk. Prismatic Acrylic

LABEL:



ELECTRONICS:

Constant Current Driver (standard)

ORDERING INFORMATION

Product Family	Housing	#Lamps	Lamp Type	Lens
MUS_MRI	HA			A
MUS2 22.50" x 5.00" x 1.16" MUS3 34.32" x 5.00" x 1.16" MUS4 46.12" x 5.00" x 1.16"	HA = Housing 16 Gauge Aluminum	2FT. Fixture L1 = LED 1 Rw(8.0W) (766 LMS) 3FT. Fixture L1 = LED 1 Rw(12.0W) (1,150 LMS) 4FT. Fixture L1 = LED 1 Rw(15.0 W) (1,389 LMS)	2-3-4: 30 = White 3000° K 35 = White 3500° K 40 = White 4000° K	A = .125 Prismatic Acrylic
Voltage	Options			
12 = 120V 27 = 277V UN = Universal (120V-277V)	FZ = Fuse * RW = Row Mounting ** DM = Dimming LED Driver •			

- * Cannot use with Universal Voltage
- ** Consult factory for row mounting configurations
- MUS2 uses CV Driver

3-10-16



Notes:
Specifications and Dimensions are subject to change without notice. For additional options and dimensional details please consult your New Star Lighting Representative. For specific electronic ballast, specify brand and catalog number.

Unilume LED Slimline

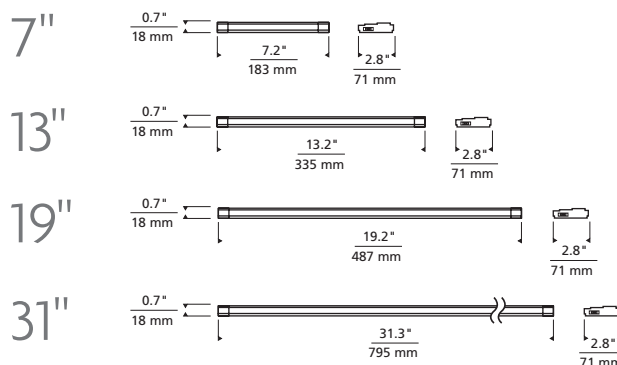
title
24



WHITE
(SHOWN OFF)



BLACK
(SHOWN ON)



DESCRIPTION

Utilizing tightly clustered blue LEDs, a 98% reflective mixing chamber and an Intematix ChromaLit™ remote phosphor lens, the result is consistent illumination with ultra high efficiency – all in a housing that is less than 3/4 of an inch deep. An integrated LED driver makes installation easy and allows smooth dimming down to 15% using a standard or ELV dimmer. Available in three color temperatures: 2700, 3000 and 3500K, and choice of black or white housing.

INTEGRATED DRIVER AND SMOOTH DIMMING

120 volt input makes installation easy. Smooth dimming down to 15% using ELV dimmer. Jumper cables make it easy to link one unit to another (sold separately). Each unit has an integrated on-off switch.

TECHNICAL SPECIFICATIONS

	7" Length	13" Length	19" Length	31" Length
System Power:	4.0 watts	8.5 watts	10.5 watts	18.0 watts
System Lumens:	240	527	693	1224
System Efficacy:	60 lms/watt	62 lms/watt	66 lms/watt	68 lms/watt
Color Temperatures:	2700K, 3000K, 3500K	2700K, 3000K, 3500K	2700K, 3000K, 3500K	2700K, 3000K, 3500K
Color Rendering Index:	90+	90+	90+	90+
Rated Average Life:	50,000 hours to 70%	50,000 hours to 70%	50,000 hours to 70%	50,000 hours to 70%
Power Factor:	0.94	0.94	0.94	0.94
Dimming:	To 15% with ELV Dimmer	To 15% with ELV Dimmer	To 15% with ELV Dimmer	To 15% with ELV Dimmer
Warranty:	5 years	5 years	5 years	5 years

ORDERING INFORMATION

700UCF	LENGTH	CRI	COLOR TEMPERATURE	FINISH	LAMP TYPE
07	7.2"	9	2700K	B BLACK	-LED LED
13	13.2"	3	3000K	W WHITE	
19	19.2"	5	3500K		
31	31.3"				



TECH LIGHTING®

7400 Linder Avenue T 847.410.4400
Skokie, Illinois 60077 F 847.410.4500

www.techlighting.com

700UCF ____ 9 ____ -LED

FIXTURE TYPE: _____

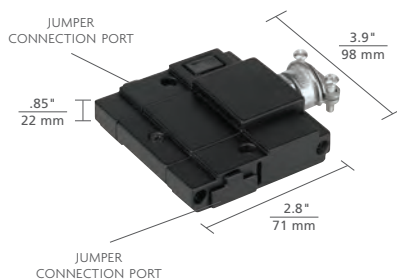
JOB NAME: _____



Unilume LED Slimline Accessories

SPLICE BOX

Required for hardwire applications. A connection port is located on each side to feed runs in both directions. The 1" Jumper Connector can be used to place the Splice Box next to the Undercabinet Housing or a longer Jumper Connector can be used to place the Splice Box in a more convenient or remote location. Includes Romex 3/8" conduit connector.



700UCSB	FINISH
	B BLACK
	W WHITE

* REQUIRES JUMPER CABLE, TO BE ORDERED SEPARATELY

JUMPER CONNECTORS

Can be used to link one Undercabinet Housing to another or to a Splice Box. The maximum wattage for a single run is 600 watts. Use Female to Female Connector to create longer lengths or contact us for custom lengths. Nominal length.



700UCJC	LENGTH*	COLOR
01	1'	B BLACK
03	3'	W WHITE
06	6'	
12	12'	
24	24'	

* FOR CUSTOM LENGTHS, CONTACT OUR FACTORY

FEMALE TO FEMALE CONNECTOR

Joins two Jumper Connectors together.

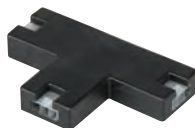
700UCFFC	COLOR
	B BLACK
	W WHITE



"T" CONNECTOR

Used to join three male connectors together.

700UCTC	COLOR
	B BLACK
	W WHITE



PLUG-IN WALL FEED

Can be used to plug one Undercabinet Housing directly into an outlet.

700UCPL	LENGTH*	COLOR
24	24"	B BLACK
72	72"	W WHITE

* FOR CUSTOM LENGTHS, CONTACT OUR FACTORY



UNILUME LED SLIMLINE AWARDS



TECH LIGHTING®

7400 Linder Avenue
Skokie, Illinois 60077

T 847.410.4400
F 847.410.4500

www.techlighting.com

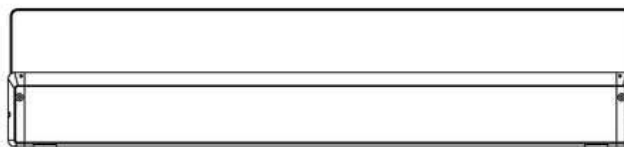


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Job Name:		Item Number:	
Specifier Name:		Sales Agency:	
Specifier Contact:		Agency Contact:	
Fixture Type:		Comments:	
Quantity:		Approval:	

24in 120V LED Self-Contained Glyde 3000K White



L: 23 7/16" W: 5 1/4" H: 15/16"

Description

Specifications

Item Number	98877S-15
Finish	White
Dimensions	L: 23 7/16" W: 5 1/4" H: 15/16"
Voltage	120V
Lamp Type	Modules
Lamp Base	Integrated
Light Source	LED
Color Temperature	3000°K
Lumens	1,200
Watts Consumed	20.3 watts
Efficacy	59.1 lm/w
Color Rendering	>90 CRI
Rated Average Life	50,000 hours to 70%
Warranty	5-Year Limited Warranty

Instruction Sheets

- Trilingual (English, Spanish, and French) (990GLYDESC)

Shipping Information:

Package Type	Product #	Quantity	UPC	Length	Width	Height	Cube	Weight	UPS Ship
Individual	98877S-15	1	785652112638	25	5.75	1.5	0.125	2.9	Yes
Master Pack	98877S-15	6	10785652112635	25.5	9.5	6.5	0.911	18	Yes



GRAPHIC ATMOSPHERE PANELS



Cultivate Restorative Spaces

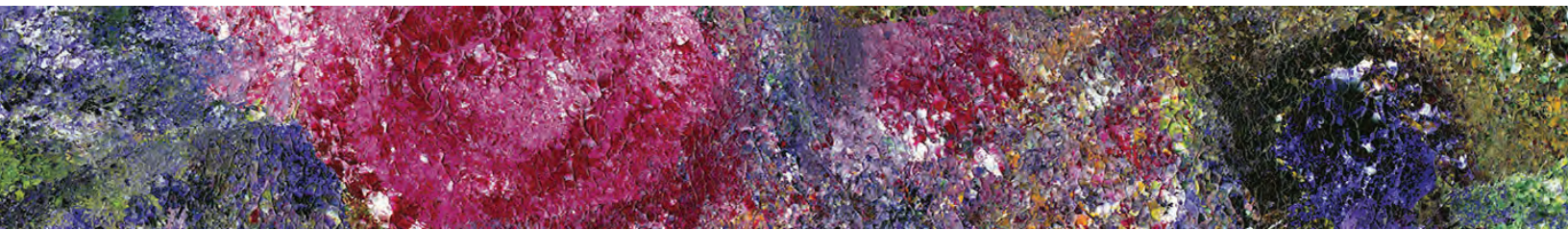
New Star Lighting offers Images from Vara Kamin's Impressions of Light®, Inc (VKI).

New Star Lighting is proud to announce their newest alliance with VKI. This collaboration will combine Kamin's unique therapeutic works of art with New Star Lighting's market leading luminaires to deliver integrative healing solutions for healthcare settings, and beyond.

Vara Kamin's background as an artist, author, and former public health nurse combined with her years of experience in meditation and mindfulness-based practice, has led her to become a respected thought leader in the field of art and healing.

VKI Images:

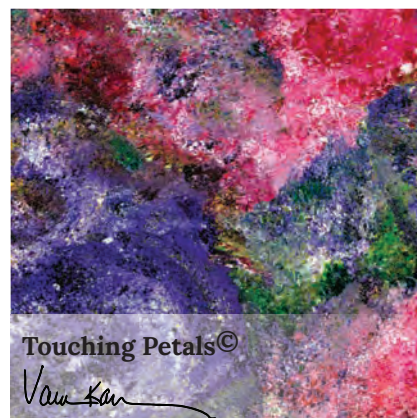
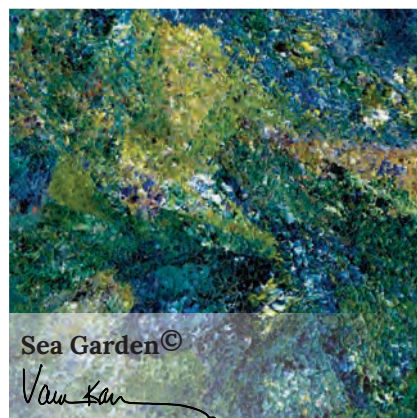
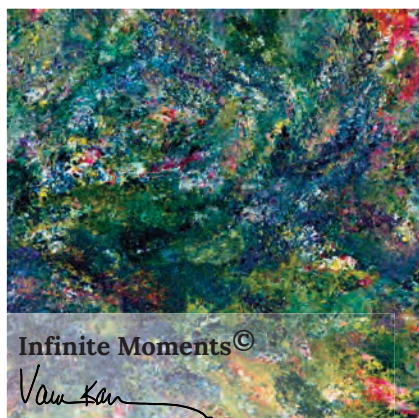
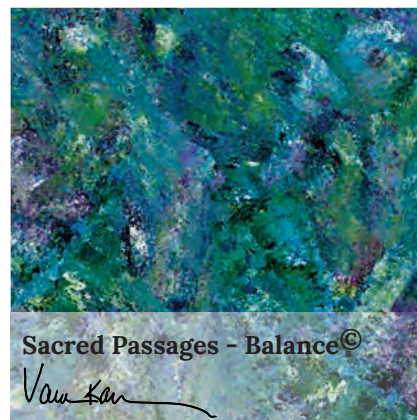
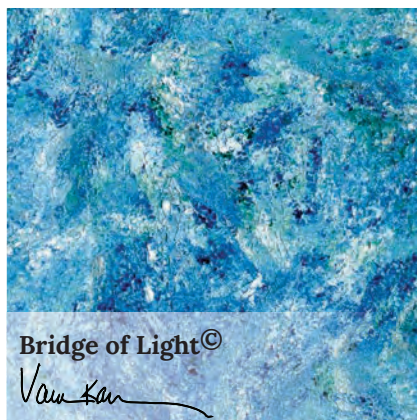
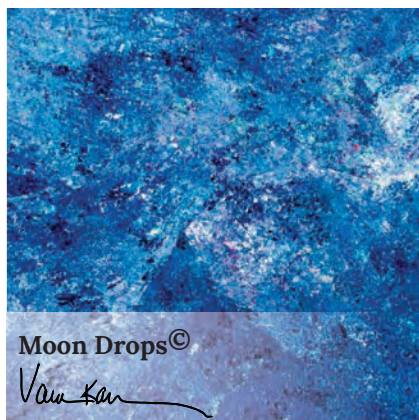
- Provide a positive point of focus
- Stimulate active imagination
- Arouse curiosity
- Engage the relaxation response
- Connect with the body's innate healing capacities



Various Applications:

Diagnostic and Treatment Radiology
Oncology Treatment Care Centers
Adult & Pediatric Intensive Care Units
Emergency Departments
Burn Units
Pediatric Sedation Units
Patient Care Rooms
Labor and Delivery Suites

Palliative Care / Hospice Rooms
Psychiatric Facilities
Meditation chapels
Medical wellness and medi spas
Corporate quiet rooms
Hospitality and private residences
Educational settings
Health spas



VKI Images are replicated from Vara Kamin's original works of art. New Star Lighting offers six Images with additional Images available upon request. Contact your New Star Lighting representative for more information.

STARTILE VARA KAMIN'S IMPRESSIONS OF LIGHT®, INC. 11-14 LED

AGS11/AGS14/AGG11/AGG14/AGF11/AGF14

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Surface fixtures have a cold rolled steel back pan. Flange fixtures have an external frame in cold rolled steel.
- LENS:** Images are from Vara Kamin's Impressions of Light®, Inc. (VKI). VKI Images are rich in color, movement and texture. Kamin's artwork stimulates active imagination and invites the viewer to a place of self-reflection. To find more information, visit www.newstarlighting.com. Configuration options on pages 3 and 4. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.
- LED:** Recommended color temperature for VKI Images is 4200°K. Other color temperatures available, consult factory. Standard 0-10V dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included.
Surface Mount has remote driver.
Grid/Flange Mount has an integral driver.
Input Voltage: AC120V-277V
AG11: Input Power 18.0W
AG14: Input Power 40.0W



Moon Drops®
Vara Kamin

APPLICATIONS:

Adult and Pediatric Patient Inpatient and Outpatient Clinical Care Settings, Pre and Post Sedation Rooms, Emergency Department Patient Exam and Holding Rooms, Diagnostic and Treatment Radiology Suites, Family Grief Rooms, Meditation Chapels, Wellness Centers and Medi-Spas, Specialty Dental Operatory, and more.

LABEL:

Fixture is certified to UL standards for Damp Location.



ORDERING INFORMATION

Ex: AGS11-VMD-UN-42-A

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	IMAGE SELECTION <small>(See Image Options on Pg. 2)</small>
AG	S = Surface G = Grid F = Flange	11 = 1x1 14 = 1x4	VMD = Moon Drops® VBL = Bridge of Light® VSP = Sacred Passages - Balance® VIM = Infinite Moments® VSG = Sea Garden® VTP = Touching Petals®

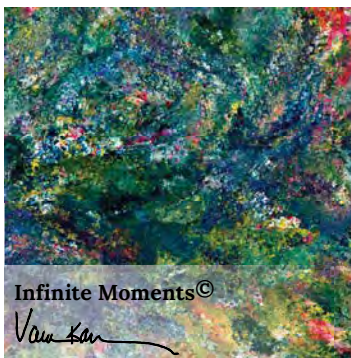
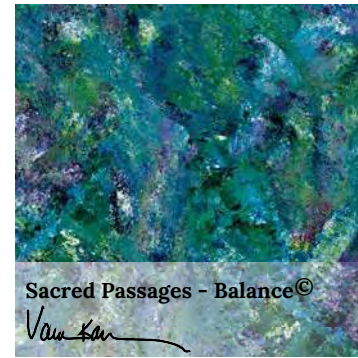
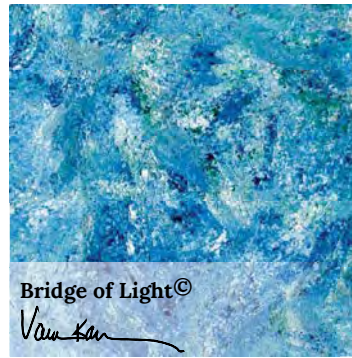
VOLTAGE	LAMP TYPE	OPTIONS	CONFIGURATION* <small>(See Options on Pg. 3 and 4)</small>
12 = 120V 27 = 277V UN = Universal (120V-277V)	42 42 = 4200°K	EQ ☐ EL1 D1	<p>*Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for additional configuration options.</p> <p>AG11-14:</p> <p>A F B G C H D I E</p>

KEY

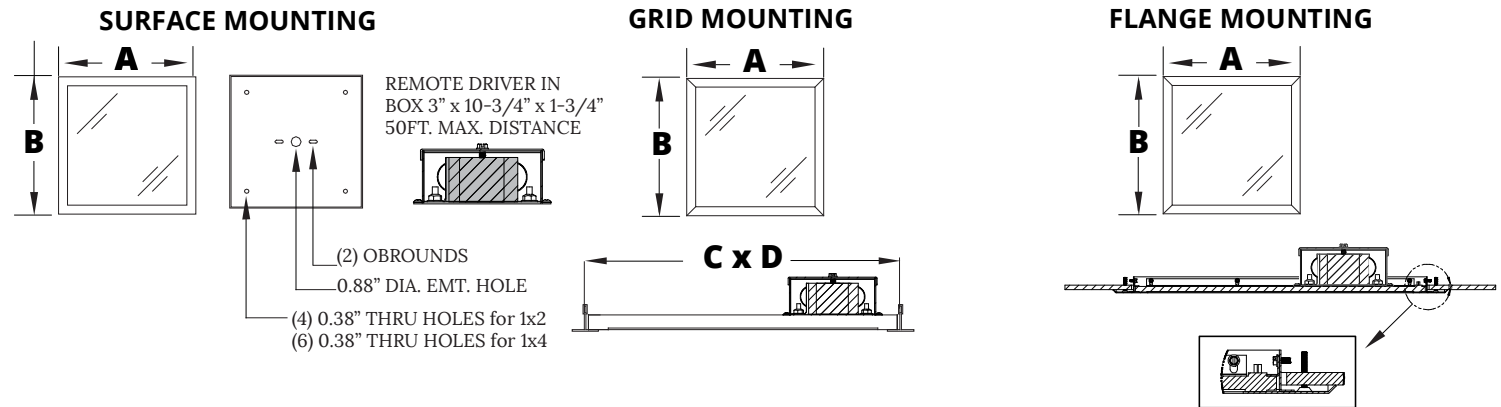
EQ = Earthquake Clips ☐ ☐ Can only be used with Grid
EL1 = Emerg. Batt. LED Low
D1 = 0-10V dimming with 1-100% range

Notes:
Image is Vara Kamin's Impressions of Light®, Inc. Moon Drops® (VMD)
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

VKI IMAGE SELECTION



DIMENSIONAL DATA



	A	B	C	D	Depth	Recommended Ceiling Cut-Out
AGS11	12.00"	12.00"	-	-	1.00"	N/A
AGS14	12.00"	47.375"	-	-	1.00"	N/A
AGG11	11.81"	11.81"	12"	12"	0.56"	N/A
AGG14	11.81"	47.75"	12"	48"	0.56"	N/A
AGF11	15.50"	15.50"	-	-	1.30"	12.438" x 12.438"
AGF14	15.38"	50.813"	-	-	1.30"	12.312" x 48.062"

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information.

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

CONFIGURATION OPTIONS

* Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for alternate configurations. Images may need to be edited based upon configuration and quantity.

1' x 1'		A		B			C			D			
		1		1	2		1	2		1			
				3	4					2			
	E												
	1	2	3	4		F			G				
						1	2		1	2	3	4	
	H					3	4		5	6	7	8	
	1	2	3	4		5	6		I				
	5	6	7	8		7	8		1	2	3		
	9	10	11	12					4	5	6		
	13	14	15	16					7	8	9		

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information. Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

CONFIGURATION OPTIONS

* Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for alternate configurations. Images may need to be edited based upon configuration and quantity.

1' x 4'									
	A		B			C			
	1		1	2		1	2		
			3	4					
	D								
	1		E						
	2		1	2	3	4			
	F			G					
	1	2		1	2	3	4		
	3	4		5	6	7	8		
	5	6							
	7	8							
	H					I			
	1	2	3	4		1	2	3	
	5	6	7	8		4	5	6	
	9	10	11	12		7	8	9	
	13	14	15	16					

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information. Specifications and Dimensions are subject to change without notice.

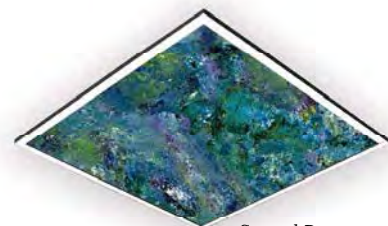
For additional options and dimensional details please consult your New Star Lighting Representative.

STARTILE VARA KAMIN'S IMPRESSIONS OF LIGHT®, INC. 22-24 LED

AGS22/AGS24/AGG22/AGG24/AGF22/AGF24

SPECIFICATION FEATURES

- HOUSING:** Fixture Frame White Extruded Aluminum. Surface fixtures have a cold rolled steel back pan. Flange fixtures have an external frame in cold rolled steel.
- LENS:** Images are from Vara Kamin's Impressions of Light®, Inc. (VKI). VKI Images are rich in color, movement and texture. Kamin's artwork stimulates active imagination and invites the viewer to a place of self-reflection. To find more information, visit www.newstarlighting.com. Configuration options on pages 3 and 4. Surface and Flange fixtures are unavailable in certain configurations, consult factory for options.
- LED:** Recommended color temperature for VKI Images is 4200°K. Other color temperatures available, consult factory. Standard 0-10V dimming driver with 10-100% range.
- POWER SUPPLY:** LED Driver Included.
Surface Mount has remote driver.
Grid/Flange Mount has an integral driver.
Input Voltage: AC120V-277V
AG22: Input Power 40.0W
AG24: Input Power 75.0W



Sacred Passages - Balance®

APPLICATIONS:

Adult and Pediatric Patient Inpatient and Outpatient Clinical Care Settings, Pre and Post Sedation Rooms, Emergency Department Patient Exam and Holding Rooms, Diagnostic and Treatment Radiology Suites, Family Grief Rooms, Meditation Chapels, Wellness Centers and Medi-Spas, Specialty Dental Operatory, and more.

LABEL:

Fixture is certified to UL standards for Damp Location.



ORDERING INFORMATION

Ex: AGS22-VMD-UN-42-A

PRODUCT FAMILY	MOUNTING	NOMINAL SIZE <small>*Dimensional Data Pg. 2</small>	IMAGE SELECTION <small>(See Image Options on Pg. 2)</small>
AG	S = Surface G = Grid F = Flange	22 = 2x2 24 = 2x4	VMD = Moon Drops® VBL = Bridge of Light® VSP = Sacred Passages - Balance® VIM = Infinite Moments® VSG = Sea Garden® VTP = Touching Petals®

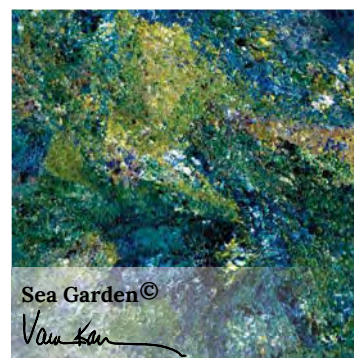
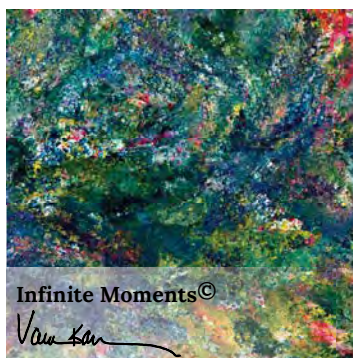
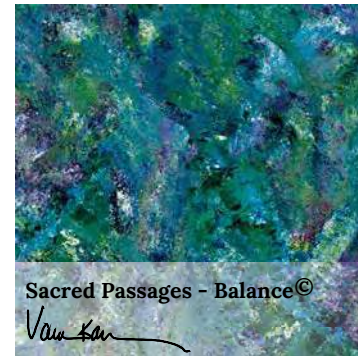
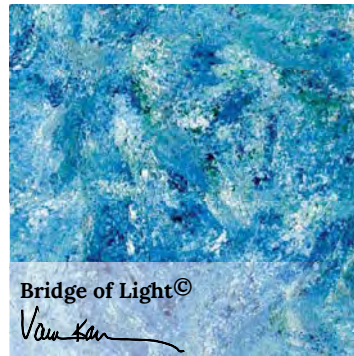
VOLTAGE	LAMP TYPE	OPTIONS	CONFIGURATION* <small>(See Options on Pg. 3 and 4)</small>
12 = 120V 27 = 277V UN = Universal (120V-277V)	42 42 = 4200°K	EQ ☐ EL1 D1	<p>*Surface and Flange fixtures unavailable in certain configurations. VKI Images may vary by size and configuration of the layout. VKI Images use non-repeating patterns. Consult factory for additional configuration options.</p> <p>AG22-24:</p> <p>A F B G C H D I E</p>

KEY

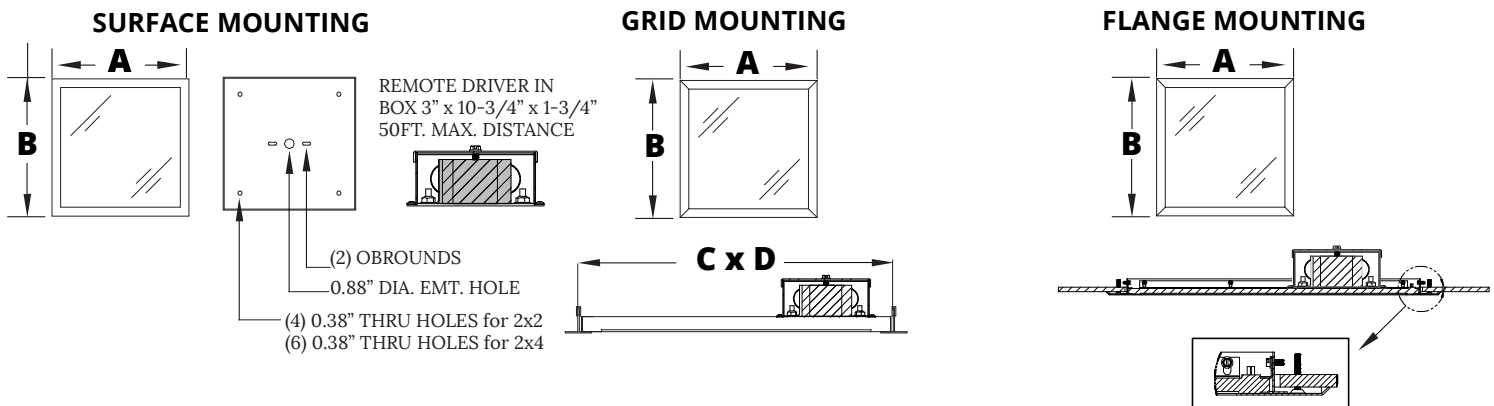
EQ = Earthquake Clips ☐ ☐ Can only be used with Grid
EL1 = Emerg. Batt. LED Low
D1 = 0-10V dimming with 1-100% range

Notes:
Image is Vara Kamin's Impressions of Light®, Inc. Sacred Passages-Balance® (VSP)
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.

VKI IMAGE SELECTION



DIMENSIONAL DATA



	A	B	C	D	Depth	Recommended Ceiling Cut-Out
AGS22	23.77"	23.77"	-	-	1.00"	N/A
AGS24	23.81"	47.93"	-	-	1.00"	N/A
AGG22	23.62"	23.62"	24"	24"	0.56"	N/A
AGG24	23.62"	47.62"	24"	48"	0.56"	N/A
AGF22	27.188"	27.188"	-	-	1.30"	24.188" x 24.188"
AGF24	50.813"	27.188"	-	-	1.30"	24.188" x 48.188"

Notes:

VKI Images may vary by size and configuration of the layout. Consult your New Star Lighting Representative for more information.

Specifications and Dimensions are subject to change without notice.

For additional options and dimensional details please consult your New Star Lighting Representative.

STARTILE 22-DL LED

AGG22-DL

SPECIFICATION FEATURES

- HOUSING/FRAME:** 20 gauge formed cold rolled steel fixture frame.
- LENS:** Outer lens comes in White Acrylic and the Inner lens is Opal Polycarbonate.
- LED:** Available in four color temperatures 3000°K, 3500°K, 4200°K, and 5700°K. Other color temperatures available, consult factory.
- POWER SUPPLY:** LED Driver included (integral).
Input Voltage: AC120V-277V.
Input Power 40.0W.
- MOUNTING:** Grid units allow for quick and easy installation.
Earthquake clips standard.



APPLICATION:

Hotels, Medical Offices, Schools, Lobbies, Offices, and more.

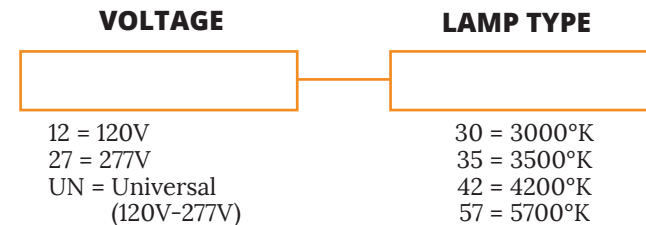
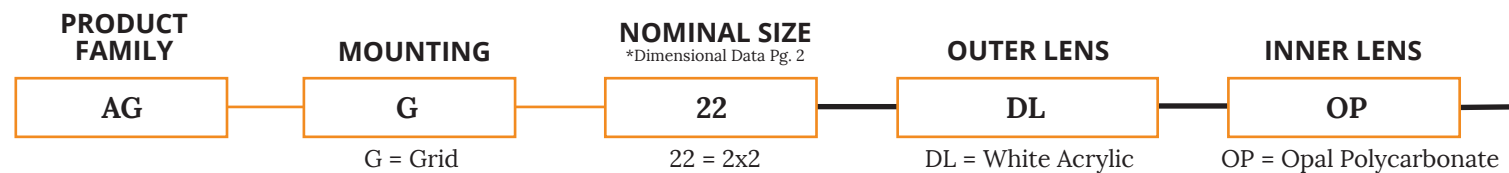
LABEL:

Fixture is certified to UL standards for Damp Location.



ORDERING INFORMATION

Ex: AGG22-DL-OP-UN-35

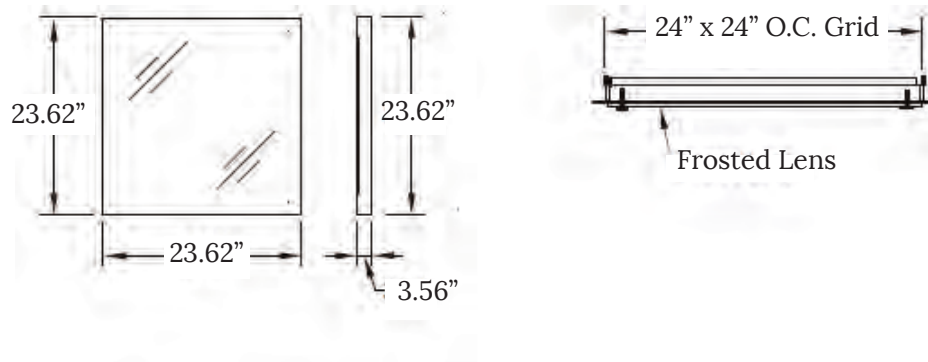


STARTILE 22-DL LED

AGG22-DL



DIMENSIONAL DATA



Notes:
Specifications and Dimensions are subject to change without notice.
For additional options and dimensional details please consult your New Star Lighting Representative.



ComfortView LED

Patient Room

Project:

Type:

Qty:

SPECIFICATIONS

Patient Room

HCV2

SPECIFICATIONS

General lighting in radiology, oncology, and specialized treatment areas should create a calming atmosphere to ease patient tensions as much as possible. Ceiling fixtures with interesting graphics such as colorful landscape scenes can provide a pleasant distraction while patients are prone or recumbent for long periods of time. We offer a library of impressive images to choose from; visit the image library on our website. Our proprietary lens construction results in a high-definition effect with amazing color. Choose a single fixture to provide a backlit focal point, or spread the image across an arrangement of fixtures to create a panoramic view.

Housing

.050" Aluminum Housing and Door
Polyester powder coat finish; anti-microbial powder coat finish available.

Lens

.175" thick acrylic lens with National Geographic images.

Source

Low output linear LED boards with Nichia LED 757 chipsets.

LED Driver

Acuity Accudrive (standard)
Thomas Research (optional)

Switching

Line voltage switching (by others).

Weight

HCV222 – approximate shipping weight 18 lbs
HCV224 – approximate shipping weight 31 lbs

Voltage

Multi-Volt (120-277V)

Light Output (As Tested)

2x4 - 650 Lumens
2x2 - 320 Lumens

Input Watts (As Tested)

2x4 Accudrive - 79 Watts
2x2 - 39 Watts

Dimming

0-10V Dimming to 1%

Color Quality

>80 CRI

Life Estimate

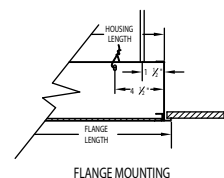
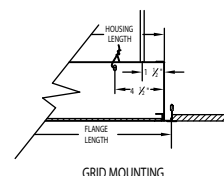
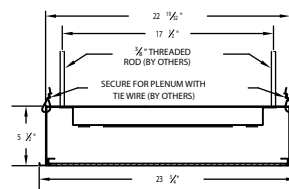
>50,000 hours according to component LM80 testing.

Warranty

5-year limited warranty. Complete warranty terms located at:
www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.



Fixture	Housing Length	Flange Length
HCV222	22 1/2"	23 3/4"
HCV224	46 1/2"	47 3/4"

CATALOG NUMBER

Example: HCV124 G MVOLT SP1 H1 G1278 T8 AM

Series	Mounting	Voltage	Fixture Spacing	Lamping Type	Configurations	Image Number	Options	Finish
HCV222 2 ft x 2 ft fixture	G Grid F Flange	MVOLT 120-277V	SP0 0-inch SP1 1-inch (Standard Grid) SP15 1.5-inch grid SPN Non-standard	LED 3500K LED	For 2x2 FT A1 H1 B2 I1 C2 J2 D4 K2 E6 L3 F6 M3 G9	See image gallery on website www.healthcare-lighting.com (e.g. G1278)	SX No Switch GMF Slow-Blo Fuse GLR Fast-Blo Fuse	GW Gloss White (Standard) AM Anti-Microbial White
HCV224 2 ft x 4 ft fixture								

Notes

- 1 Non-standard configurations contact factory.
- 2 Contact factory for special dimming requirements.
- 3 Non-standard wiring contact factory.

ComfortView LED

Patient Room

Project:

Type:

Qty:

SPECIFICATIONS

Patient Room

HCV2

CEILING PATTERN CONFIGURATIONS

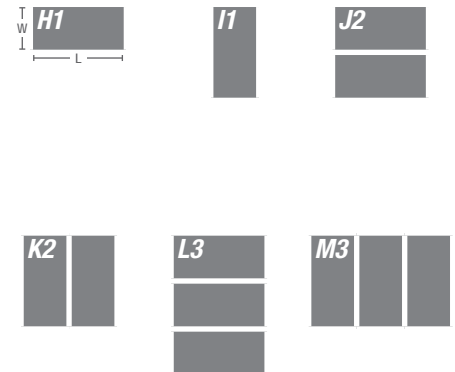
Fixture Configuration	
Configuration	Size (W x L)
A1	2' x 2'
B2	2' x 4'
C2	4' x 2'
D4	4' x 4'
E6	4' x 6'
F6	6' x 4'
G9	6' x 6'

Gallery Chart 2x2



Fixture Configuration	
Configuration	Size (W x L)
H1	2' x 4'
I1	4' x 2'
J2	4' x 4'
K2	4' x 4'
L3	6' x 4'
M3	4' x 6'

Gallery Chart 2x4



PERFORMANCE DATA

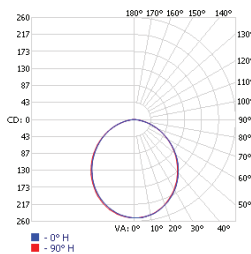
Lumen Output

Lumen values are from photometric tests from an accredited laboratory. Data is considered to be representative of the configurations shown, within generally accepted industry tolerances. Contact factory for performance data on any configurations not shown here.

Configuration	Lumen Output (lm)	Max Candela	Input Watts
HCV224 LED 35 Accudrive	650	250	79
HCV222 LED35 Accudrive	320	120	39

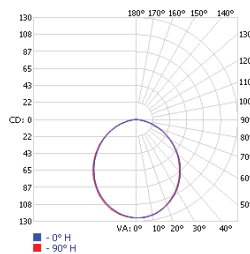
PHOTOMETRICS

Test Report: LTL28477
HCV224 LED 35 Accudrive
Lumens: 654.6
Wattage: 79.82 W
Efficacy: 8.2 Lm/W
Max. Candela: 252.2 @ H: 112.5°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	62.8 FC
4.0	15.7 FC
6.0	7.0 FC
8.0	3.9 FC
10.0	2.5 FC

Test Report: LTL28477P2
HCV222 LED 35
Lumens: 327.3
Wattage: 39.91 W
Efficacy: 8.2 Lm/W
Max. Candela: 126 @ H: 112.5°; V: 2.5°



Illuminance at a Distance	
Height	Center Beam Footcandle
2.0	31.4 FC
4.0	7.8 FC
6.0	3.5 FC
8.0	2.0 FC
10.0	1.3 FC

Photometric data based on test results from an independent NIST traceable testing lab. IES data is available at www.healthcare-lighting.com. Always refer to our website for the latest IES file updates.



CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

2' x 2' Scenic Panel Luminaire

Ultra-slim 20W LED Illuminated Artwork

Use Multiple Luminaires to Create a Soothing and Attractive "SkyLight" Effect



Specifications

Luminaire Features

- Driverless, 20 watt, low voltage, Class II, DC powered.
- Must use in conjunction with SmartSupply™ LPS-0700A.
- Ultra-thin (2") extruded aluminum housing. White finish; for custom color see Option -94.
- Completely non-ferro magnetic.

Thermal Management

- Housing / heat sink provides maximum heat dissipation for side-fire LED technology.

SmartSupply™ (Remote Power Supply) Required - Order Separately

- LPS-0700A: Digitally controlled. Drives up to 12 scenic panels. Maximum 100 ft. distance.
- 100-0.2% full range dimming in up to 4 zones.
- Compatible with 0-10V DC dimming controls. See vendor qualified list in the owner's manual.
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C (-4°F) to 40°C (104°F). 115 - 277V isolated circuit only; maximum 290V; 50-60 Hz.
- For more information, see specification sheet for LPS-0700A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- RFI-3100D: Protects up to 3 luminaires (SmartSupply channels).
- Provides 100 db of RF signal attenuation, matching the most stringent MRI requirements.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet; order separately.

Trim / Lens

- Regressed trim provides a unique, architectural "skylight" effect when installed in grid ceiling.
- Extruded acrylic, wave guide lens provides unparalleled uniformity and even illumination of the image.
- See specification sheet; order separately.

Installation

- Requires minimum 18 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Drops into 2' x 2' ceiling grid.

Use With:

- SmartSupply™ LPS-0700A
- SmartFilter™ RFI-3100D

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

UL, C-UL (Canada) Listings

- Wet, damp, dry locations, covered ceilings.
- Type IC for direct contact with insulation.

CE & FCC Compliance

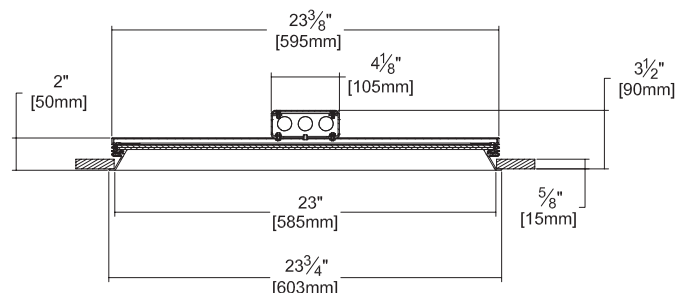
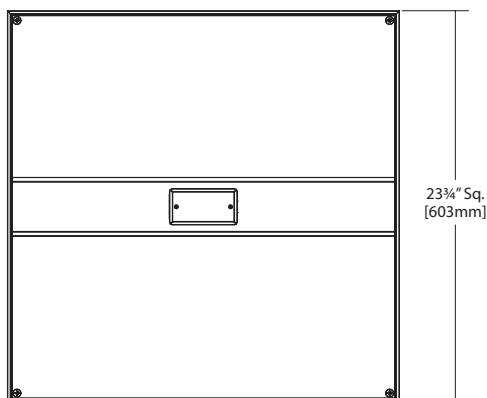
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5
Year

**FIVE YEAR
Limited Warranty**

- Complete standard fixture.

Dimensions



Luminaire is available in nominal 2' x 2' size only.
Specify a scenic array as large as required.

See following pages for complete ordering & configuration information.

THE KIRLIN COMPANY



3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

SmartLED™ MRI Lighting Systems
Luminaires • SmartSupply • SmartFilter

CATALOG NUMBER

MRP-22290

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.

MRP-22290







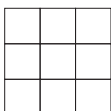
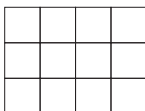
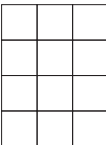
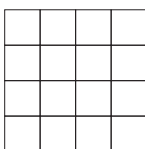
2' x 2'

SCENIC PANEL

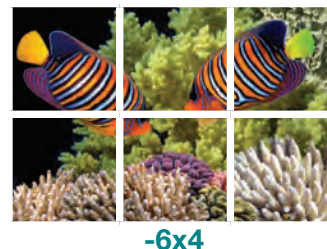
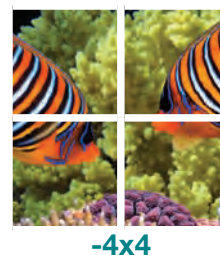
20 WATT

Step 1: Select Size and Artwork Orientation

- Specify overall size (panel quantity) and orientation using Size Option added to base catalog number MRP-22290
- See Product Numbering Guide below

		Overall Size and Orientation					
		Landscape			Portrait		
		Arrangement	Option	Preferred Resolution (Pixels)	Arrangement	Option	Preferred Resolution (Pixels)
Nominal Dimensions	Fixture Qty.						
2' x 2'	1		-2x2	1800 x 1800			
2' x 4'	2		-4x2	3600 x 1800		-2x4	1800 x 3600
4' x 4'	4		-4x4	3600 x 3600			
4' x 6'	6		-6x4	5400 x 3600		-4x6	3600 x 5400
6' x 6'	9		-6x6	5400 x 5400			
6' x 8'	12		-8x6	7200 x 5400		-6x8	5400 x 7200
8' x 8'	16		-8x8	7200 x 7200			
Custom Size		<div>-9x9</div> <div>Specify number of panels and orientation of artwork</div>					

When specifying size, orientation and artwork, consider how the image will be divided and cropped. For example:



To see how your artwork will appear in an arrangement, consult factory.

Product Numbering Guide

Example:
MRP-22290 -4x6 -A01 -94

Scenic Panel Base
Product Number

Size and
Orientation Option*

Artwork
Option

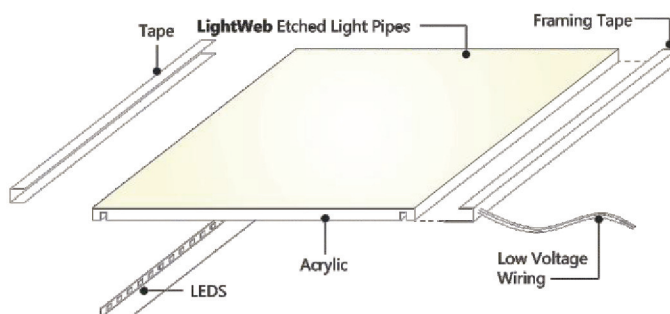
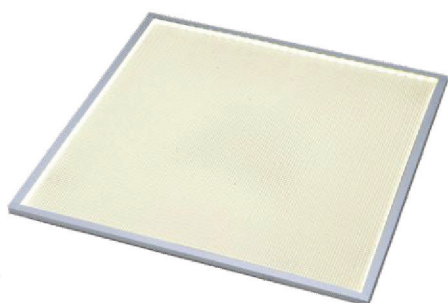
Custom Color Trim Option

*-4x6 is not the same as -6x4, see above.



BASIC LightPanel SYSTEM

The BASIC LightPanel is built for optimal design integration with a thin profile starting at 1/4" thin to provide an ultra-slim sheet of light. Low voltage LEDs are integrated with an optical grade etched acrylic to provide evenly distributed lighting. The BASIC Light Panel is a versatile light source available in customizable shapes and sizes to give every project even, uniform illumination.



The unique design of The BASIC LightPanel allows use in a large number of applications:



Hospitality



Retail



Healthcare



Residential



Accent Lighting



Branding



Commercial Interior



Millwork



Cove Lighting



Task Lighting



Custom Fixtures



Logos and Signage



Commercial Exterior

General Specifications

LIGHT WEB TECHNOLOGY™ :

3D etched patterns to evenly distribute light throughout the panel. Patterns available are GRID, DOT and MICRODOT™

MAXIMUM SIZE :

120" x 80" (consult with eos specialist for recommendations with oversize panels)

MINIMUM SIZE :

1" X 2" (Ideal for Cove and Accent Lighting)

THICKNESS:

1/4"-1/2"

*Thickness is determined by panel shape, size and color temperature.

LONG LIFE :

Over 50,000 hours = Nearly 12 years based on 12 hours a day. Once installed, the LightPanel System is virtually maintenance free.

POWER OPTIONS:

24VDC Standard and 24VDC High Power, 12VDC Available upon request

DRIVER INPUT VOLTAGE :

100V TO 480V

WATTAGE :

4.3 W/Ft. - 24V Standard Power (Optional: 12V)
8.6 W/Ft. 24V High Power Double Strand (HPDS)
5 W/ Ft. - 24V - High Power
*ask eos specialist for information on RGB, RGBW and Color Tuning options.

DIMMABLE :

The system is dimmable to <10% when matched with Dimmable Power Supplies

LEDs :

ANSI Binned LEDs from Tier 1 Suppliers
LED CRI > 80
LED CRT - 1800K - 7500K

WIRE GAUGE:

20GA Wiring for White and Color Tuning Panels, 24GA for Color

DAMP LOCATION :

All Panels are Damp Location Rated when driven with a Class 2 Power Supply

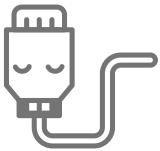
HOSPITAL AND MRI SAFE :

The system contains non ferrous materials, making the LightPanel safe for MRI suites. The LightPanel Power supply must be installed remotely, up to 30 feet from the application.

SERVICE AND INSTALLATION :

The LightPanel is field serviceable, typically LEDs can be replaced in the field. The LightPanel System can be predrilled by our production team with customer's specifications.

Optional Specifications



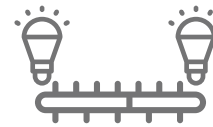
USB COMPATIBLE :

* Max. Size 40" X 40"
(wattage permitting)



COMPATIBLE POWER SUPPLIES :

- 0-10V dimming • DMX/DALI
- Magnetic low voltage (MLV)
- Electronic low voltage (ELV)
- Remote control plug-in • Inline plug-in



COLOR TEMPERATURES :

- 1800K • **2400K** • **2700K** • **3000K**
- 3500K • **4000K** • 5000K • **6000K***
- **6500K** • 7500K • UV (Ultraviolet)

*formerly 5300K

Bolded colors are commonly available in stock.



MULTIPLE PANEL MOUNTING OPTIONS:

- Z-Profiles • Stand Offs • Key-Hole Frames • Mirror Clips
- Aircraft Cable Mounts • Pre-Drilled holes by factory
- Panels are drillable on site* (use only eos suggested method in brochure)



APPROVALS AND CERTIFICATIONS:

The LightPanel System is UL listed for Architectural applications and UL recognized for signage. All power supplies are UL / ETL listed.

<https://eoslight.com/user-guide/>



DOWNLOAD OUR
USER GUIDE FOR WIRING &
INSTALLATION INSTRUCTIONS





Product Specification Ordering Form

NAME:

PROJECT NAME:

ADDRESS:

PHONE:

PROJECT LOCATION:

CITY:

EMAIL:

ANTICIPATED DELIVERY DATE:

ZIP CODE:

COMPANY NAME:

PROJECT SPECIFIER:

RUSH PROJECT: ☐ Yes ☐ No

	A	B	C1	C2	D	E	F	G	H	I	J	K	L
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
QTY	PANEL TYPE	VOLTAGE	DIMENSIONS (INCHES) TOP SIDE		LED SIDES	COLOR TEMP	LED POWER	DIFFUSER	CORD LENGTH	CORD LOCATION	CORD COLOR	POWER SUPPLY	IF CURVED PANEL SPECIFY RADIUS (INCHES)
5	LP	24V	48	50	4SL	2700	SP	DIF	CC6	TL	BC	010V	20

A PANEL TYPE

LP - BASIC

Lightpanel (use For Curved Panel As Well)

LF - FRAMED

Lightpanel With C Channel 7/16"

Lightpanel With J1 Channel 1/4"

Lightpanel With J2 Channel 5/16"

CP - CRYSTAL

Lightpanel

CF - CRYSTAL FRAMED

Lightpanel With C Channel 7/16"

WP - WATERPROOF

Lightpanel - Wet Location

AM - ARCHITECTURAL MILLWORK

Lightpanel

AU - AURA

Lightpanel

B VOLTAGE

24V - 24V (Standard)

12V - 12V (Optional)

C DIMENSIONS

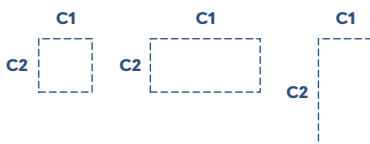
(Generated by Client)

C1 - Top Dimension

C2 - Side Dimension

*For custom shapes, please provide:

- Longest Outside Dimensions
- Drawing



D LED SIDES

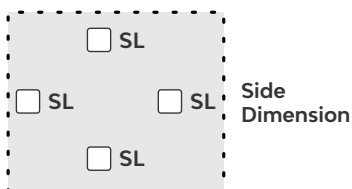
1SL - One Side

2SL - Two Sides

3SL - Three Sides

4SL - Four Sides

Top Dimension



*Please note, the longest length is typically the LED side when selecting 1SL or 2SL

E COLOR TEMP

1800 - 1800K

2400 - 2400K

2700 - 2700K

3000 - 3000K

3500 - 3500K

4000 - 4000K

5000 - 5000K

6000 - 6000K

6500 - 6500K

7500 - 7500K

UV - Ultraviolet

RGB - Color Changing

RGBW - Color Changing

+ White (6000K, 4000K, 2700K)

CT - Color Tuning (2400K to 6000K)

F LED POWER

SP - Standard Power

HP - High Power

G OPTIONAL 2MM DIFFUSION OPAL

YES - DIF NO - ND

H POWER CORD LENGTH

SC - Standard - 9.8 ft.

CC - Custom Length ____ ft

I POWER CORD EXIT

TL - Top Left Corner

TR - Top Right Corner

STL - Side Top Left Corner

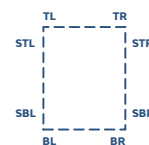
STR - Side Top Right Corner

BL - Bottom Left Corner

BR - Bottom Right Corner

SBL - Side Bottom Left Corner

SBR - Side Bottom Right Corner



J POWER CORD COLOR

BC - Black WC - White

K POWER SUPPLY INFO

010V - 010V Dimmable Hardwire

MLV - Magnetic Low Voltage Dimmable Hardwire

ELV - Electronic Low Voltage Dimmable Hardwire

DMX - DMX / DALI

PI - Plug In, DC Jack

DPI - Dimmable Plug in w/ remote

PROJECT NAME:

PROJECT LOCATION:

Please fill out the form

[illegible]

1. What is the Application the panels will be used for?

E.g.: Hospitality, Retail, Signage Etc.

2. What are the LightPanels backlighting?

E.g.: Stone, Graphic, Glass, Acrylic Etc.

3. Will the LightPanels be installed adjacent to one another?

☐ Yes ☐ No

If Yes, Please Provide Drawing of Panel Layout

4. Will the LightPanels be powered individually (1:1) or would you like to connect Multiple LightPanels to a single driver?

5. Are there any installation details to review?

5. Is there an existing Dimming or Lighting Control System?

If so, please provide Representative with information of the Control system (specs, manufacturer, etc.)

Additional information:

[®]

LumaFilm

The New Generation

of LED Lighting Technology for Architectural Lighting Specifiers

Heilux is led by an experienced team with over 100 years of collective expertise in the development of innovative solutions to meet the ever-changing demands of today's lighting market. Whether you seek to design a world class backlighting solution or light up the largest sign on earth, our LumaFilm light sheets along with off-the-shelf LED drivers will meet your every need. The team at Heilux has worked exhaustively to bring you a lighting solution that channels their years of solid-state lighting experience into a true work of art and perfection.

LumaFilm is unlike traditional light emitters – its super thin and flexible form factor along with its surface light emission makes it unique. The light emitters (sheets) produce nominal heat and thus require NO heat sinks. LumaFilm is UL Listed and can be used in both dry and damp indoor and outdoor applications.

LumaFilm is now providing an innovative solution to the lighting specification community. Our disruptive technology produces an even light using low energy LEDs and can be mounted directly to almost any surface.

LumaFilm offers architects and designers a solution in custom lighting applications where space is at a premium, heat could be a problem and lighting perfection is paramount. Installations are faster due to ease of assembly and on-site size customization.

Specifying LumaFilm on your next project will expand your design parameters while providing your construction partners faster installations, quicker material availability, ease of use and a higher quality light output.



10200 Valley View Road
Suite 100
Eden Prairie, MN 55344

952-944-9859

heilux.com
quotes@heilux.com



®

LumaFilm

Features and Benefits

- **Fully Customizable** – Standard LumaFilm sheets can be cut in both directions and tiled together allowing for simple installations; custom LumaFilm sheets can be developed quickly to meet almost any requirement.
- **Flexible** – Allows LumaFilm to be applied to any flat or curved surface creating innovative designs and unique lighting solutions.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **Indoor & Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Energy Efficient and Green** – High performance (typically 130 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **UL/cUL Listed and LM79 tested** – LumaFilm can meet/exceed most specifications with an expected life of over 77,000 hours @ 70% illumination.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete using a variety of different mounting materials.
- **Minimal Depth without Pixilation** – Many smaller LEDs allow LumaFilm to be mounted as close as 1¼" to the diffuser without hot/dark spots.
- **Power Source Options** – LumaFilm can be powered by off-the-shelf dimming, non-dimming and programmable constant current drivers allowing adjustments to brightness *after* installation.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.
- **Warranty** – 5-year limited warranty on all LumaFilm materials.

We completed one canopy. The installation went quite well! All sheets came up without any problem. It's a great product.



Maurice (Electrical Contractor) and coworker tiled and installed 330 panels in each canopy without any problems. They consulted with Heilux engineer David Doan with a few questions along the way.



LumaFilm

12" x 24" Light Sheet



The LumaFilm 12" x 24" Light Sheet (Emitter) is a perfect size for signage and architectural lighting use. The LumaFilm circuit has been specifically engineered to allow for on-site customization and immediate use in existing signs where conventional backlighting or edge lighting is not delivering the expected results. LumaFilm is ideally suited for backlighting images on fabrics and other translucent materials.

Sign designers are using LumaFilm as the centerpiece for their new product strategies. LumaFilm light sheet's unique attributes of being thin, flexible and requiring no heat sinks are revolutionizing sign box depths, materials and shapes.

Architects and lighting design professionals are innovating their interior and exterior spaces by providing building owners a wide range of exciting new lighting options.

LumaFilm on-site installation reduces contractor time and costs due to its ease of trimming and tiling together. LumaFilm, along with off-the-shelf dimming, non-dimming, and programmable constant-current drivers, represents a breakthrough in controlling the light output to meet virtually all lighting requirements.



Features and Benefits:

- **Fully Customizable** – Standard LumaFilm sheets can be cut in both directions and tiled together allowing for simple installations; custom LumaFilm sheets can be developed quickly to meet almost any requirement.
- **Flexible** – Allows LumaFilm to be applied to any flat or curved surface creating innovative designs and unique lighting solutions.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete.
- **Minimal Depth without Pixilation** – Many smaller LEDs allow LumaFilm to be mounted close to the diffuser without hot/dark spots.
- **UL/cUL Listed and LM79 tested** – LumaFilm is ready to be installed with your most demanding customer.
- **Indoor and Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Power Source Options** – LumaFilm can be powered by off-the-shelf dimming, non-dimming and programmable constant current drivers.
- **Energy Efficient and Green** – High performance (typically 150 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.

10200 Valley View Rd, Ste 100
Eden Prairie, MN 55344
952-944-9859

lumafilmLED.com
quotes@lumafilmLED.com

SPECIFICATIONS

12" X 24" 288 LED LIGHT SHEET
Product Code: 120240S-CCT

INTERIOR or EXTERIOR

LumaFilm® is a UL Listed Low Voltage Luminaire



Rep:

Project:

Type:

Product Code:

ORDERING CODES

Product Code: 120240S -

Color - CCT

27=2700k
30=3000k
35=3500k
40=4000k
50=5000k

Custom Flux per sq. ft.:
Range from 350 lm/sq. ft. to 5500 lm/sq. ft.

Example:
450 lm/sq. ft. = 0450
1400 lm/sq. ft. = 1400

EXAMPLE

12" x 24" 3500k @ 650 lm/sq. ft.
Product Code = 120240S35-0650

GENERAL

ENVIRONMENT UL Damp & Dry; -40°F to 158°F; IP65

LED DRIVER Class 2 Constant Current Driver

DIMMING 100% to 1% Available

LUMEN MAINTENANCE TM-21-11: L70 > 100,000 hrs. @ 112°F

PHOTOMETRY Viewing angle at 50% Iv: 116°

IES FILES Available upon request

SUBSTRATE PET
Flexible
Diffuse reflective surface
Flamability rated UL 94 VTM-0

REGULATORY

UL/cUL RECOGNIZED Component - light-emitting diode arrays, modules and controllers. File #E466344

UL/cUL LISTED LUMINAIRE Low-voltage lighting systems, power units, luminaires and fittings. File #E472231



OPERATING RANGE

Maximum:

2150

12.4

Lumens
per square
foot

Watts
per square
foot

Minimum:

350

1.9

* Output at Luminaire Level

EXAMPLES OF LIGHTING CONDITIONS

BACKLIGHTING 650 lm / sq. ft. 3.6 W / sq. ft.

SIGNAGE 1000 lm / sq. ft. 6.5 W / sq. ft.

GENERAL ILLUMINATION 1675 lm / sq. ft. 10.4 W / sq. ft.

CCT

COLOR RENDERING:
82 CRI Typical

	5000K	COLOR SCALE FACTORS	
	4000K	4000K	98%
	3500K	3500K	95%
	3000K	3000K	92%
	2700K	2700K	86%



10200 Valley View Road Suite 100, Eden Prairie, MN 55344 • 952-944-9859

lumafilmLED.com



LumaFilm

6" x 12" RGB-W4K



MADE IN U.S.A.

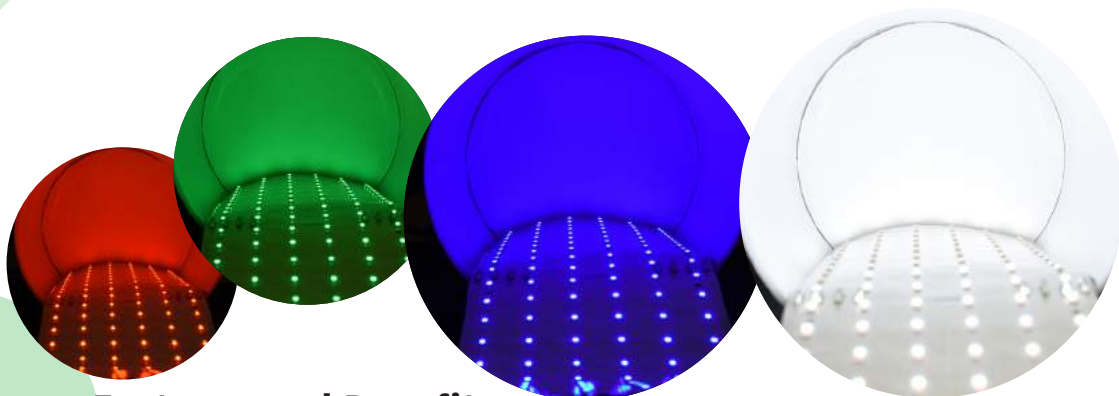
LumaFilm's 6x12 RGB-W4K is unique to the lighting industry. IP65 rated, flexible and DMX controlled allows for very unique designs.

LumaFilm also offers design assists in layout, programming, and selection of the right drivers for your specifications.

Our 6x12 RGB-W4K is rated for outdoor applications. This can add stunning features to columns, canopies, or egress areas.

Interior applications are limitless! Focal areas such as lobbies, elevator cabs, backlighting logos, or dramatic focal areas in any building.

LumaFilm's industry-leading flexible RGB-W4K product allows for columns, installations around corners, serpentine or barrel vault ceilings.



Features and Benefits:

- **Customizable** – RGB-W4K 6x12 sheets can be cut in our factory to meet the dimensions of your specs and designs..
- **Ease of Install** – The RGB-W4K 6x12 sheets can be tiled together allowing for easy installation in your project.
- **Thin** – Can be used in even the most constrained spaces allowing for illumination in places not previously possible.
- **No Heat Sink Required** – Unique circuit designs result in minimal heat generation allowing it to be mounted directly on almost any surface from dry wall to concrete.
- **Minimal Depth Without Pixelation** – We only ask for 4 inches between diffuser and RGB-W4K sheets.
- **UL/cUL Listed and LM79 tested** – LumaFilm is ready to be installed with your most demanding customer.
- **Indoor and Outdoor** – LumaFilm is rated for dry and damp locations both indoors and outdoors; IP65 rated.
- **Power Source Options** – RGB-W4K 6x12 sheets are powered by ELDOLEDS drivers. Off-the-shelf 0-10 dimming..
- **Energy Efficient and Green** – High performance (typically 150 lm/W) saves energy and reduces carbon emissions resulting in a shorter payback period.
- **Durable** – Proven to withstand harsh installation and usage for long life and dependable service.

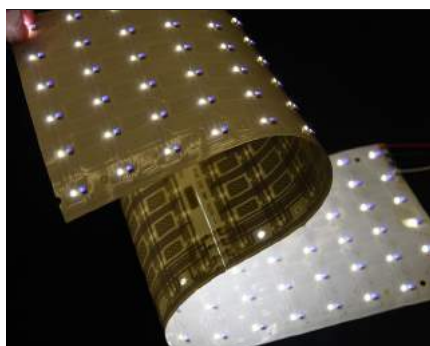
10200 Valley View Rd, Ste 100
Eden Prairie, MN 55344
952-944-9859

lumafilmLED.com
quotes@lumafilmLED.com

SPECIFICATIONS

6" X 12" 132 LED RGB-W4K LIGHT SHEET INTERIOR or EXTERIOR
Product Code: 060120RGBW40

LumaFilm® is a UL Listed Low Voltage Luminaire



PROJECT:

SPECIFIED BY:

REFERENCE TYPE:

DATE:

PRODUCT CODE: 060120RGBW40

OPERATING OUTPUT

	lm / sq. ft.	W / sq. ft.
RED	160	3.1
GREEN	360	4.8
BLUE	45	4.8
WHITE	1075	4.3
SHEET	1640	17.0

* Output at Luminaire Level

GENERAL

ENVIRONMENT	UL Damp & Dry; -40°F to 158°F
LED DRIVER & CONTROL	Class 2 Constant Current Driver DMX Controllable
WHITE LUMEN MAINTENANCE	TM-21-11: L70 > 100,000 hrs. @ 112°F
PHOTOMETRY	RGBW 120° @ 50% White 116° @ 50%
IES FILES	* TBD
SUBSTRATE	PET Flexible Diffuse reflective surface Flamability rated UL 94 VTM-0

BACKLIGHTING BETA PROJECT



REGULATORY

UL/cUL LISTED LUMINAIRE Low-voltage lighting systems, power units, luminaires and fittings. File #E472231



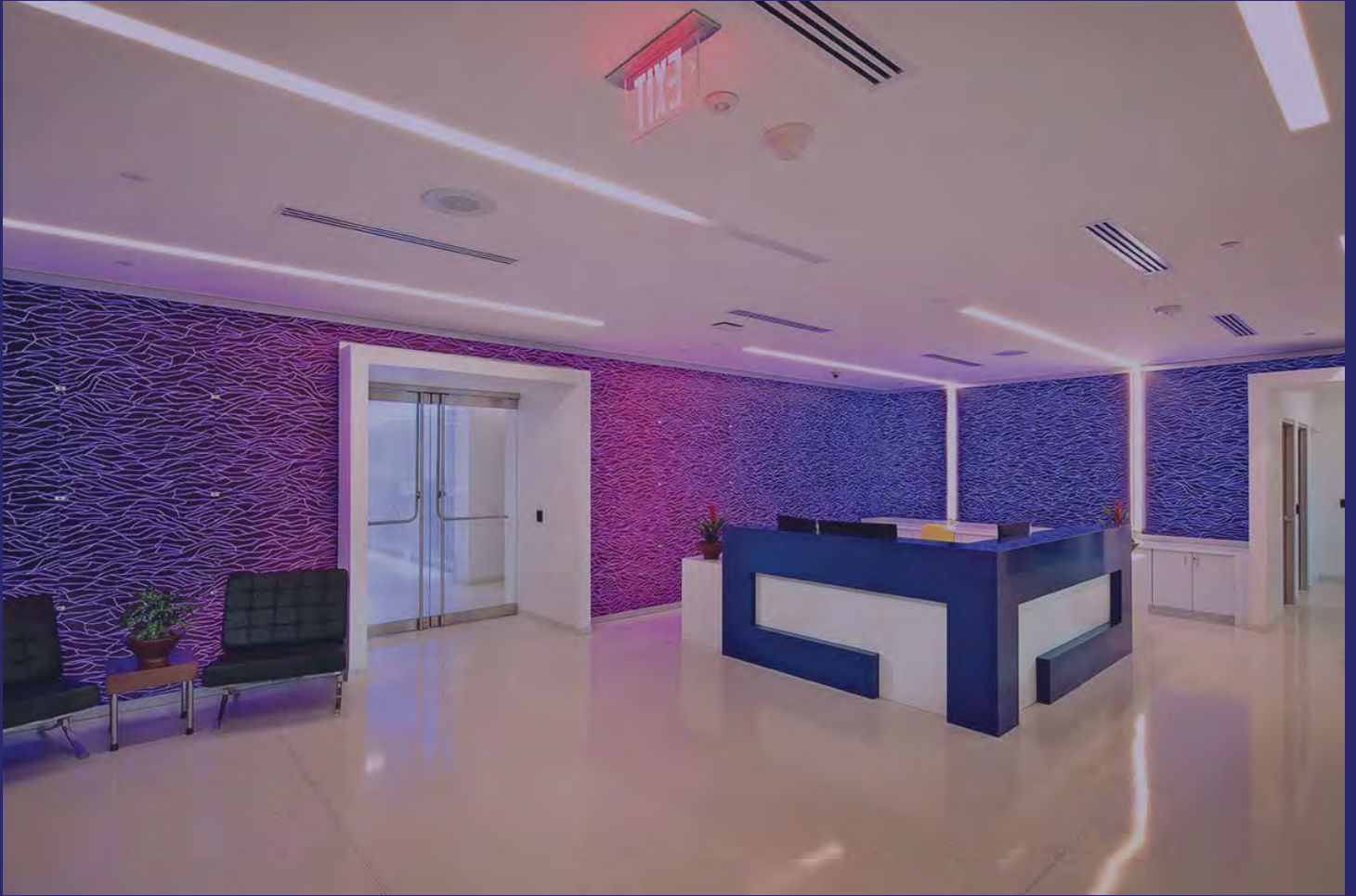
SPECIFICATIONS

UNIFORMITY	Excellent Color Consistency of Primary Colors At Full Output
DIFFUSION	Required Minimum of 4" Cavity Depth
DISTANCE	Maximum Run Length of 16'

CUSTOM CCT

STANDARD	4000K
CUSTOM	2700K, 3000K, 3500K, 5000K





DECORATIVE & FEATURED SPACES

Decorative Lighting at a glance:

Alva Lighting - www.alvalight.com
Barbican Architectural Products- www.barican.ca
Bega- www.bega-us.com
Beta-Calco - www.betacalco.com
Edge Lighting - www.edgelighting.com
Elan - www.elan-lighting.com
Eureka - www.eurekalighting.com
Justice Design Group - www.jdg.com
LBL lighting - www.lblighting.com
Louis Poulsen - www.louispoulsen.com
Lumetta - www.lumetta.com
OCL - www.ocl.com
Tech - www.techlighting.com
Vibia - www.vibia.com
Winona - www.acuitybrands.com/brands/lighting/winona

Specialty Lighting at a glance:

Heilux LumaFilm - www.heilux.com/Products/LumaFilm
Structura- www.structura.com
iLight - www.ilight-tech.com
SGM Light - www.sgmlight.com
Reel Tech Lifters - www.reeltech.eu



LUMENATE® is robust and very durable

LUMENATE® *is washable, including any Bleach or Ammonia Based Cleaners*

LUMENATE® is a proprietary and exclusive Diffuser material available only for Lumetta, Inc. Luminaires

LUMENATE® is UV Stable, will NOT fade

LUMENATE® IS ASTM and UL listed for smoke and Burn, Class B rating for self-extinguishing material

LUMENATE® provides an unequal Quality of Aesthetic with regard to light Source Diffusion, insuring Lamp image, hot spot, and socket shadow free illumination.

LUMENATE® is available in over 100 standard Finishes, custom color, graphics, and even text





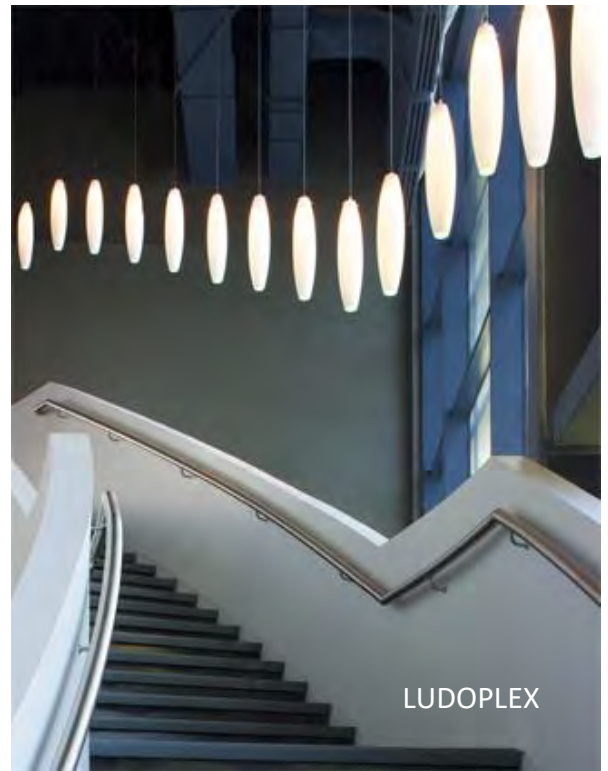
www.betacalco.com

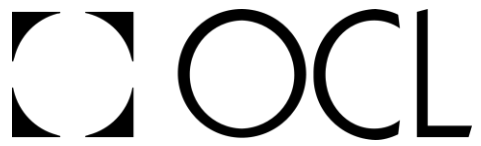


FEATURING THE **WEB PIN™** SEARCH SYSTEM ON BETACALCO.COM



EUREKA





www.ocl.com







WINDOW SHADES & DAYLIGHTING



Our collections utilize fabrics that are as durable as they are beautiful. All fabrics have been tested and certified by independent laboratories.



Certified Environmentally Safe



Recyclable/Eco-Friendly



Mold and Bacteria Resistant



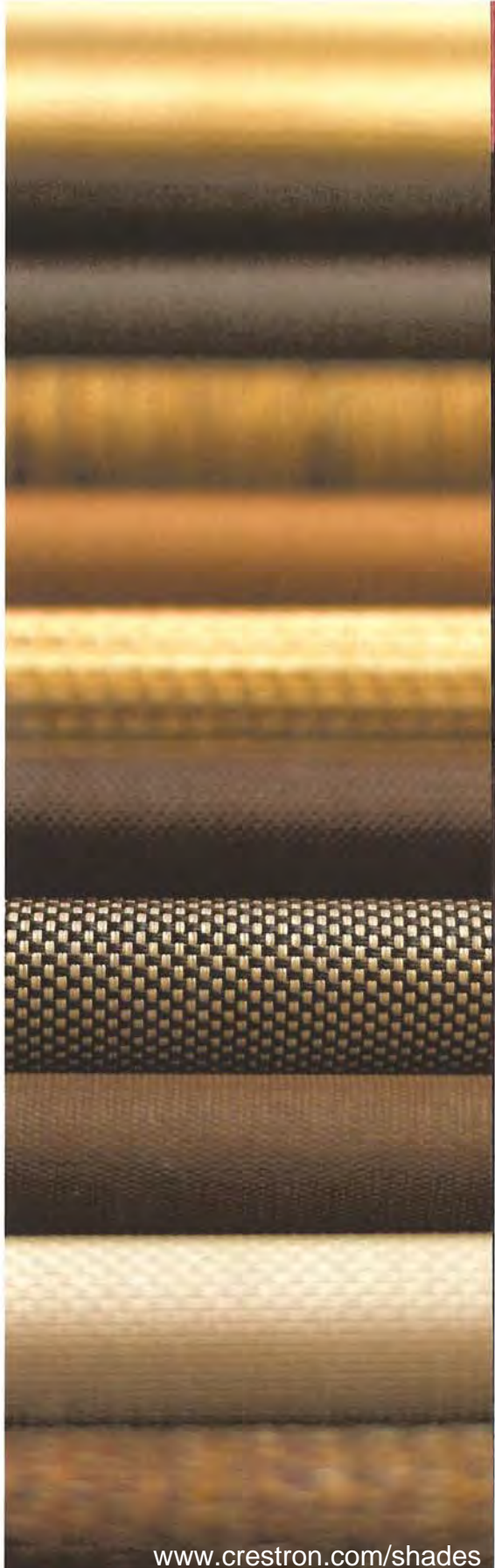
PVC-Free



Lead-Free

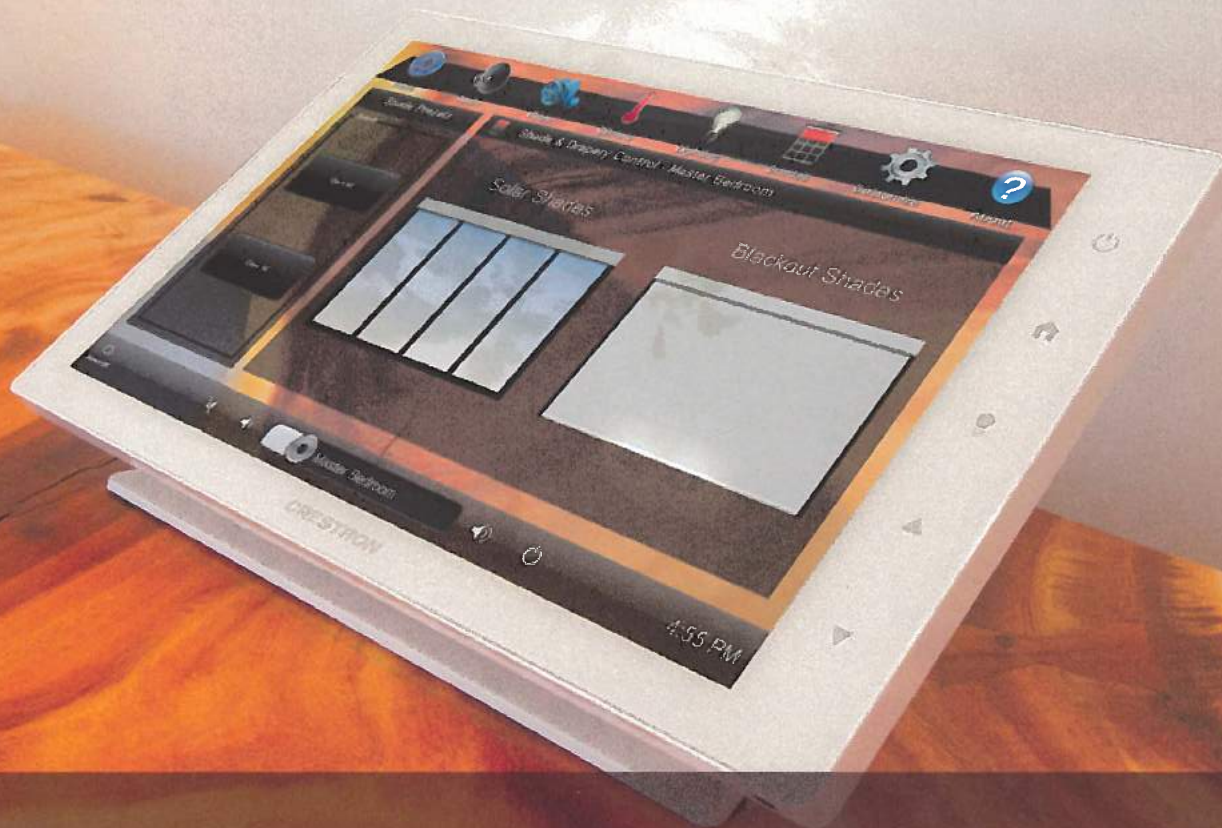


Fire Retardant



www.creston.com/shades





Crestron Touch Screens

Sleek, multi-touch capacitive touch screens with spectacular Smart Graphics™ technology make a bold statement in any room. Featuring streaming H.264 video, web browsing, Ethernet power and communication, and much more, Crestron capacitive touch screens combine exceptional performance with head-turning style.

www.crestron.com/shades



CSM-QMTDC-250-4-CN

Digital QMT® Shade Motor for QMT5 Series, 4 Nm, Cresnet®

- > For Crestron® QMT®5 Series Architectural or QMT5 Series Décor System shades 21 inches (534 mm) and larger^[1]
- > Long-life brushless motor featuring Digital Quiet Motor Technology™ for nearly imperceptible operation
- > Built-in Cresnet® wired communications
- > Fully integrated design, with no external modules required
- > 24 Volt low-voltage power
- > Real-time activity monitoring and status feedback
- > Local pushbutton interface for testing shades and setting shade limits
- > Local diagnostic LEDs to indicate shade status
- > Smooth starts and stops with programmable stop points
- > Protective features that detect and react to obstructions in the shade path to avoid motor damage
- > Limited Lifetime Warranty

NOTE: The CSM-QMTDC-250-4-CN is only available as part of a Crestron® shade system and cannot be ordered on its own. To configure shades or order shading parts and accessories, please use the Crestron Design Tool for Crestron Shading Solutions or call 1-855-53-S-H-A-D-E (537-4233) for support.

Featuring Digital Quiet Motor Technology™, the CSM-QMTDC-250-4-CN motor provides quiet yet robust operation for Crestron® roller shades 21 inches (534 mm) and larger.^[1] Fully integrated electronics eliminate the need for bulky add-on interface modules, allowing for a clean, streamlined installation. The CSM-QMTDC-250-4-CN uses the dependable Cresnet® wired network for communications. An infiNET EX® wireless version of the motor is also available (model [CSM-QMTDC-250-4-EX](#)).

The CSM-QMTDC-250-4-CN can integrate seamlessly into a Crestron control system, allowing it to be operated from keypads, wireless remotes, and touch screens. For easy setup, a local three-button interface lets users test shades after installation and also set shade limits. Power is supplied to the CSM-QMTDC-250-4-CN via dedicated Crestron power supplies, such as the [CSA-PWS40](#) or [CSA-PWS10S-HUB](#). The CSA-PWS10S-HUB is capable of distributing power to multiple shade motors from one unit, consolidating shade wiring to a central location.

Quiet Motor Technology

The shade motor utilizes the quiet, precision-controlled Quiet Motor Technology to control the movement of the shade, keep track of the shade's position, and adjust the shade to the user's desired preset positions.

Cresnet

The CSM-QMTDC-250-4-CN uses the dependable Cresnet wired network for communication between devices. The Cresnet bus offers easy wiring and configuration, carrying bidirectional communication and 24VDC power to each device over a simple four-conductor cable.



SPECIFICATIONS

Motor Specifications

Torque: 4 Nm

Motor Speed: 10-30 rpm

Duty Cycle: 8 min on/40 min off at 4 Nm

Shade Widths Supported: 21 in to 180 in (534 mm to 4572 mm), depending on fabric

Insulation Class: III

Power Requirements

Cresnet® Power Usage: 42.5 Watts (1.8 Amps at 24 Volts DC); Requires a CSA-PWS Series power supply, see Available Accessories for model numbers

Communications

Cresnet

Connectors

NET: (1) 4-conductor pigtail with inline detachable terminal block

Controls & Indicators

LED: (1) Multicolor LED, indicates motor status

Buttons: (3) Pushbuttons (Close, Configure, Open), allows for testing and setting up shade

Environmental

Temperature: 32° to 104° F (0° to 40° C)

Humidity: 10% to 90% RH (non-condensing)

Dimensions

Height: 2.50 in (64 mm)

Width: 2.50 in (64 mm)

Depth: 13.30 in (338 mm)

Weight (Without Cables)

1.95 lb (0.89 kg)

MODELS & ACCESSORIES

Available Models

CSM-QMTDC-250-4-CN: Digital QMT® Shade Motor for QMT5 Series, 4 Nm, Cresnet®

CSM-QMTDC-250-4-EX: Digital QMT® Drapery Motor for QMT5 Series, 4 Nm, infiNET EX®

Available Accessories

CSA-PWS40: Power Pack for Crestron® Shade Interfaces & Motors

CSA-PWS10S-HUB: 10-Motor Power Supply and Cresnet® Hub

CSA-PWS10S-HUB-CAEN-1X1: 10-Motor Power Supply and Cresnet® Hub w/ CAEN 1X1 Enclosure

Notes:

1. The maximum shade width supported by the motor is dependent on the shade fabric selected.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

Crestron, the Crestron logo, Cresnet, infiNET EX, QMT, and Quiet Motor Technology are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. Specifications are subject to change without notice. ©2016 Crestron Electronics, Inc.

The background is a photograph of an office interior. A large window on the right side of the frame allows bright natural light to enter, creating a high-contrast scene. The office desk in the foreground is cluttered with various items: a computer monitor, a keyboard, a mouse, a pen holder with several pens, a stapler, and some papers. The walls are a neutral, light-colored tone. Overlaid on the image are several white geometric shapes, including a large triangle pointing downwards and several intersecting lines that create a modern, architectural feel.

WT
SHADE®

NATURAL LIGHT
MADE
RIGHT®

MICROBAN®

Antimicrobial Product Protection: An Overview



What is Microban antimicrobial product protection?

Microban technology is built-in antimicrobial protection that gives products an added level of protection against microbes such as stain and odor causing bacteria, mold and mildew.

How do products with Microban antimicrobial protection work?

Microban protection inhibits the growth of microorganisms. When microbes come in contact with the product surface, Microban protection penetrates the cell wall of the microorganism and disrupts cell functions, making the microorganism unable to function, grow and reproduce.

What benefit do I get from products with Microban antimicrobial protection?

Microban protection continuously fights the growth of microbes such as odor and stain causing bacteria, mold and mildew. Microban protection makes products easier to clean and keeps them cleaner between cleanings.

What types of microorganisms does Microban protection work against?

Microban antimicrobial protection is effective

against most common bacteria, yeasts, molds and fungi that cause stains, odors and product degradation. Microban technology is not designed to protect users from disease-causing microorganisms.

How do I know that Microban antimicrobial product protection is safe?

Microban technology has undergone extensive independent laboratory testing and has a long history of safe use. It is registered with the EPA for all applications in which it is used. Microban additives can be found in leading consumer and industrial products around the world.

Does this mean I don't have to clean my products as much or as carefully?

No. Microban protection provides continuous antimicrobial protection that protects the products, making them easier to clean and keeping them cleaner between cleanings. However, normal cleaning practices should be maintained.

Does Microban protection begin working immediately?

Microban protection begins to work as soon as the microorganism comes into contact with the product surface. Under the right conditions,

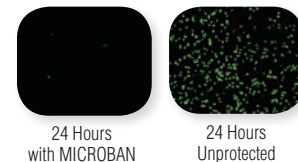
microbes on an untreated surface can double every 20 minutes! Microban technology is not a disinfectant and is not a substitute for normal cleaning practices.

How long does Microban antimicrobial protection work?

Microban protection is built-in during the manufacturing process and will not wash off or wear away. Microban protection is engineered to provide continuous antimicrobial product protection for the useful lifetime of the product.

Which Phifer products contain Microban antimicrobial product protection?

Most SheerWeave® interior shading fabrics; SunTex® exterior shading fabrics; Phifertex® outdoor furniture fabrics; and BetterVue®, UltraVue®, PetScreen® and TuffScreen® insect screening products contain MICROBAN antimicrobial protection. For the most current list of products, please contact your Phifer customer service representative.

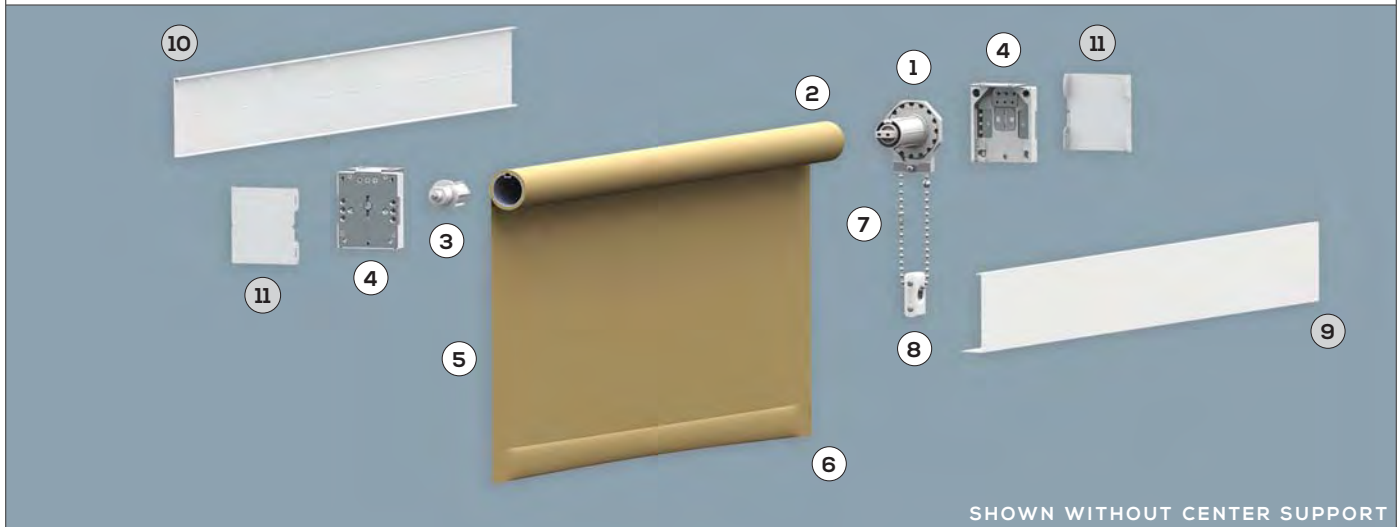


HeliaRISE® H200 SoloMount™ SYSTEM

MANUAL ROLLER SHADE • FASCIA COMPATIBLE • SMALL-LARGE SIZE SHADES



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SHOWN WITHOUT CENTER SUPPORT

The above system is shown Model H200SM-1.5 Drive Right, Regular Roll with Front Fascia and Rear Fascia. Brackets shown in Ceiling Mount position.

			PART #	
ADDITIONAL INFORMATION			MODEL: H200SM-1.5	MODEL: H200SM-2.0
STANDARD COMPONENTS	① CLUTCH	Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	WT215-XX*	WT220-XX*
	② ROLLER TUBE	Content: Aluminum Alloy 6061-T5	RS15-99	RS20-99
	③ IDLER	Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	D15W-XX*	D20W-XX*
	④ SoloMount™ BRACKETS	Can be Ceiling/Jamb (C) or Wall (W) Mounted. Drive Right (R) or Drive Left (L). Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	BH200SM-C-XX* BH200SM-WL-XX* BH200SM-WR-XX*	
	⑤ FABRIC	Available in the full EcoFabrix collection.	SEE FABRICS	
	⑥ SEALED HEMBAR	Alternative styles available.	SSP	
	⑦ STAINLESS STEEL DRIVE CHAIN	Includes matching Bead Stops and Chain Connector. Alternative materials and colors available.	CH10SS-125	
	⑧ CHILD SAFETY TENSION DEVICE	Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	TCHD10-XX*	
OPTIONAL	⑨ FRONT/ REGULAR ROLL FASCIA	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	FH35-XX*	
	⑩ REAR/ REVERSE ROLL FASCIA	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	RH35-XX*	
	⑪ END CAPS	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	BVH200SM-XX*	
	⑫ CENTER SUPPORT INCLUDES CENTER SUPPORT BRACKET, TANGS AND FORKS.	Multibanded option available up to 3 bands. Can be Ceiling (C) or Wall (W) Mounted. Drive Right (R) or Drive Left (L). Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	CONTACT WT SHADE FOR PART NUMBERS	
<p>SHOWN WITH CENTER SUPPORT</p>			SAM	SA15W-L SA15W-R
			N/A SPRING ASSIST MECHANISM MIN SHADE WIDTH: 37½"	SA20W-L SA20W-R
			N/A WALL MOUNT ANGLE	AH3.5-49
			N/A TANDEM JOINER PLATE	PJ200-49
			(Not Shown) May be added to any system to decrease the pulling force necessary to operate the shade. Drive Right (R) or Drive Left (L)	
			(Not Shown) Required for Wall Mount applications with Rear Fascia. Size: 3½" x 3½" x 1¼"	
			(Not Shown) Use to join two SoloMount Brackets together to create a tandem style system.	

*Replace "XX" with desired color number when ordering.

**See Color Coordination Guide for more information.





SYSTEM FEATURES

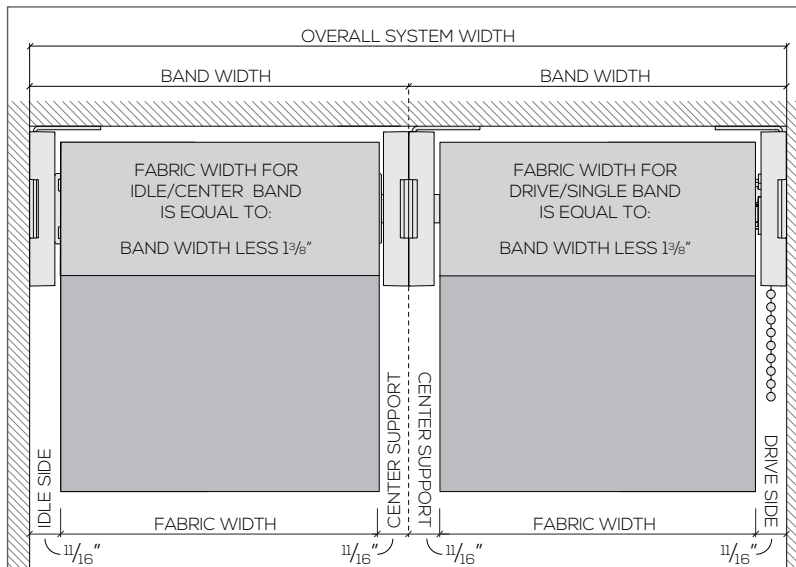
- ◆ Featuring our proprietary, all-in-one **SoloMount Brackets**: Ceiling, Wall or Jamb mount capable allowing easy, on-the-fly adjustments. Mounting flange is extendable up to 3/8" for Wall Mount applications.
- ◆ Available with Front Fascia, Rear Fascia or Both! Regular and Reverse Roll available. Clutch may be Drive Right or Drive Left.
- ◆ **SoloMount Brackets** are designed to accept fascia at the time of order or at any point in the future.
- ◆ HeliaRise Clutches feature an integrated stainless steel reinforced Chain Diverter and Set-Screw for maximum stability and durability.
- ◆ Metal to metal contact points on both the Drive and Idle sides of the shade ensure a sturdy and reliable connection to the brackets.
- ◆ Some HeliaRise components are available in White (-10) and Black (-90). WT Shade will color coordinate based on the selected fabric color. Refer to the *Color Coordination Guide* for more information.
- ◆ HeliaRise Shading Systems offer multiple options and accessories, including various Hembar styles and Drive Chain colors.
- ◆ All WT Shade roller shades are available in the *exclusive* line of sustainable solar protection fabrics by EcoFabrix. To view all available fabrics, visit EcoFabrix.com.
- ◆ In compliance with ANSI/WCMA Child Safety Standards. See *HeliaRise Child Safety* for more information.
- ◆ Construction Documents for this system and others available at WTShade.com.

SYSTEM CAPABILITIES

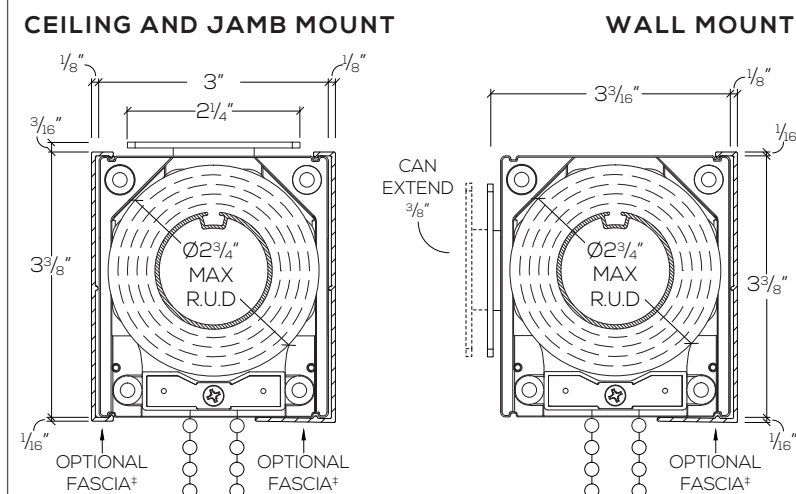
WIDTH	60"	72"	84"	96"	108"	120"	132"
LENGTH	162"	162"	162"	150"	102"	102"	90"

Width and Length may vary depending on the selected shade fabric. The measurements given above are based on Ecofabrix 253. These measurements are for guideline purposes only and in no way guarantee that a shade with any other fabric can be made to these dimensions.

EDGE CLEARANCES



SECTION VIEW



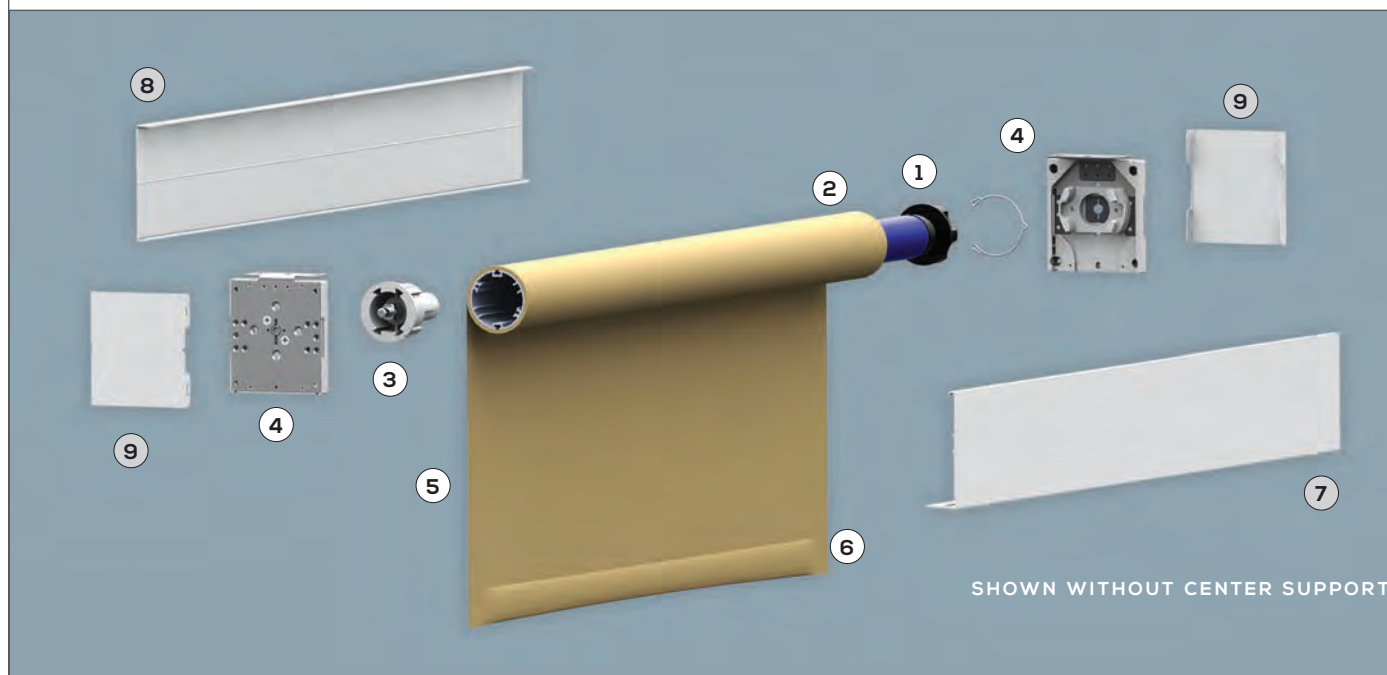
‡ Front and Rear Fascia is able to be used in Ceiling or Jamb Mount applications. Wall Mount applications with Rear Fascia require the use of Wall Mount Angles (Not Shown).

MotoRISE® MR250 SoloMount™ SYSTEM

MOTORIZED ROLLER SHADE • FASCIA COMPATIBLE • LINE VOLTAGE • MEDIUM-LARGE SIZE SHADES



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The above system is shown Drive Right, Regular Roll with Front Fascia and Rear Fascia. Brackets shown in Ceiling Mount position.

ADDITIONAL INFORMATION			PART #
			MODEL: MR250SM-2.38
STANDARD COMPONENTS	① MOTOR WITH ADAPTERS	See Motor Reference Guide for available motors.	SEE MOTOR REFERENCE GUIDE
	② ROLLER TUBE	Content: Aluminum Alloy 6061-T5	RS23W-99
	③ IDLER	Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	D23W-XX*
	④ SoloMount™ BRACKETS WITH RETAINER RING	Can be Ceiling/Jamb (C) or Wall (W) Mounted. Drive Right (R) or Drive Left (L). Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	BMR250SM-C-XX* BMR250SM-WL-XX* BMR250SM-WR-XX*
	⑤ FABRIC	Available in the full EcoFabrix collection.	SEE FABRICS
	⑥ SEALED HEMBAR	Alternative styles available.	SSP
OPTIONAL	⑦ FRONT/ REGULAR ROLL FASCIA	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	FH45-XX*
	⑧ REAR/ REVERSE ROLL FASCIA	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	RH45-XX*
	⑨ END CAPS	Available in White (-10) as shown, Ivory (-04), Silver (-20), Bronze (-50) or Black (-90).	BVH300SM-XX*
	⑩ CENTER SUPPORT INCLUDES CENTER SUPPORT BRACKET, TANGS AND FORKS.	Multibanded option available up to 6 bands. Can be Ceiling (C) or Wall (W) Mounted. Drive Right (R) or Drive Left (L). Available in White (-10) as shown, or Black (-90) and will be color coordinated based on fabric color.**	CONTACT WT SHADE FOR PART NUMBERS
<p>SHOWN WITH CENTER SUPPORT</p>			AH4.75-49
			(Not Shown) Required for wall mount applications with rear fascia. Size: 4¾" x 4¾" x 1¼"
OPTIONAL	N/A	WALL MOUNT ANGLE	(Not Shown) SOLD SEPARATELY See Communication Guides for available control options.
	N/A	MOTOR CONTROL	(Not Shown) SOLD SEPARATELY See Communication Guides for available control options.

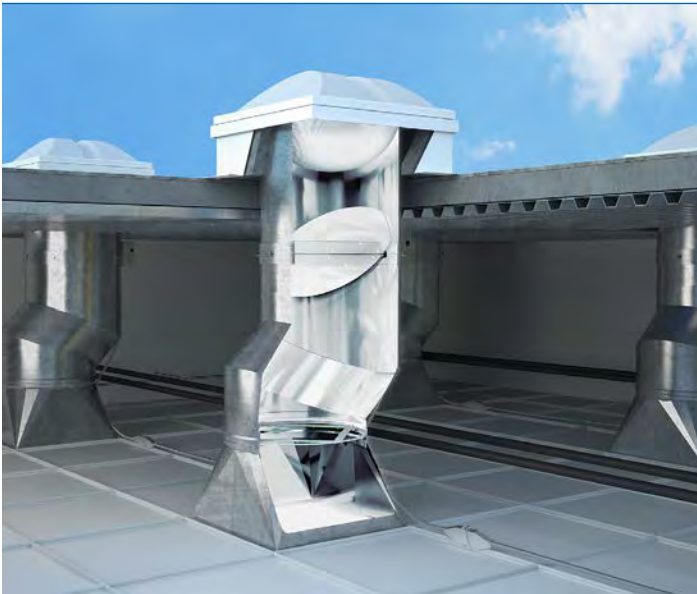
*Replace "XX" with desired color number when ordering.

**See Color Coordination Guide for more information.



◆ Featuring our proprietary, all-in-one **SoloMount Brackets**: Ceiling, Wall or Jamb mount capable allowing easy, on-the-fly adjustments. Mounting flange is extendable up to 3/8" for Wall Mount applications.

- LIMITATIONS MAY APPLY. SEE TERMS AND CONDITIONS AT WTSHADE.COM



OVERVIEW

LightFlex™ LED is the industry's first commercial daylighting system with integrated tunable-white LED and lighting controls. It provides electric light, natural light, or a combination of both via the same lighting fixture.

The integrated daylighting sensor works in conjunction with the nLight® controls system so the LEDs can supplement daylight coming through the tubular system when more light is needed which optimizes energy savings and maximizes occupant access.

Lightflex™ LED tunable-white is perfect in indoor applications such as classrooms, offices and conference rooms as it allows the LED light color temperature to be adjusted by the occupant to support various application-based tasks such as reading, meeting, teaching, or other uses.



eldoLED



DIFFUSER/LENS OPTIONS



OPTICS

Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces – rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Five diffuser choices available – curved and square designs with linear prisms or a smooth frosted finish.

A+ CAPABLE LUMINAIRE

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

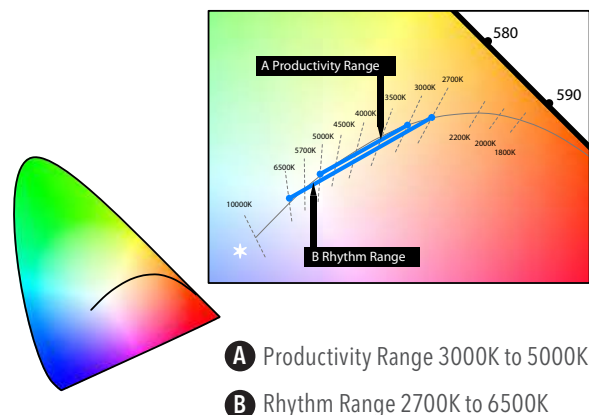
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

HIGHLIGHTS

- Simplifies design to implement daylight harvesting
- Provides color uniformity while providing the benefit of natural light throughout the day
- Reduces clutter in the ceiling and redundant lighting systems
- Provides the benefit of tunable-white lighting from 2700k-6500k during "LED-On" mode

RHYTHM and PRODUCTIVITY RANGE



LIGHTFLEX™ LED (SLFTL) tunable-white LED

CONSTRUCTION

LightFlex™ LED shall be Sunoptics® model SLFTL as manufactured by Sunoptics, an Acuity Brands Company, 6201 27th Street, Sacramento Ca. 95822 916/395-4700.

Signature™ Series Prismatic Skylight frame shall be fabricated from 6063-T5 aluminum, finish to be natural mill. Frames shall have integral condensation and weepage gutters which drain interior moisture to the outside. Corners shall be mitered and welded. The acrylic glazing shall be separated from the skylight frame with a Silicon Seal.

The integral curb shall be fabricated from .063" sheet aluminum on the exterior, corners heli-arc welded, and include a rigid insulation. The -21" (533mm) diameter light well shall be fabricated from 98% reflective MIRO-SILVER® with greater than 99% specular quality.

Round-to-square transition fabricated from 98% reflective MIRO-SILVER® with greater than 99% specular quality with integrated diffuser door frame. Multiple lens options available with differentiating luminous patterns and designs.

LED boards are accessible from below; driver is accessible from the plenum.

ELECTRICAL

Mainstream Dynamic Tunable White using nTune™ Technology:

nLight® enabled luminaires with nTune™ technology allow for all digital light color temperature control. This brings tunable white lighting control into the mainstream with repeatable, consistent results in an economical luminaire form and system already familiar to schools. Designers and facility operators are granted the freedom to tie scenes to specific activities or to complement colors or materials within a visual environment. nTune™ allows color temperature settings through the Rhythm Range of 2700K-6500K. The LightFlex LED also includes a digital nIO to control the Tunable White light allowing manual digital light color temperature control.

Refer to the Programming User's Guide for instructions on customizing to your application with SensorView™.

Integrated Sensor (nLight® Wired Networking): This sensor is nLight® enabled, meaning it has the ability to communicate over the nLight® network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. The integrated sensor controls daylight harvesting and will close the louvers at night to help increase the performance of the LED's as well as diminish any light pollution.

Manual Louver Control: The LightFlex LED system includes manual control for the integrated louver giving the ability to effectively turn off the daylight.

Driver: eldoLED® constant current driver option delivers choice of dimming range for ultra-smooth dimming resolution from 100% to less than 1%, and choices for control, while assuring flicker free, low current inrush, 89% efficiency and low EMI.

LISTINGS

HVHZ Approved. FM Approved. AAMA Certified. NFRC Certified. UL Certified to meet U.S. and Canadian standards,

CLEANING ACRYLIC LENSES

Frequency of cleaning is determined by site conditions. When cleaning acrylic lenses, use only water or water with a mild soap. Use a soft rag to minimize scratching the acrylic. A pressure washer is acceptable to use as well. Never use ammonia, aromatic or petroleum based products to clean acrylic lenses. This will cause deterioration and cracking of the lens and will void the warranty.

Skylights should not be installed in locations with an operating temperature in excess of -75°F (-59.4°C) or 180°F (82°C).

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE

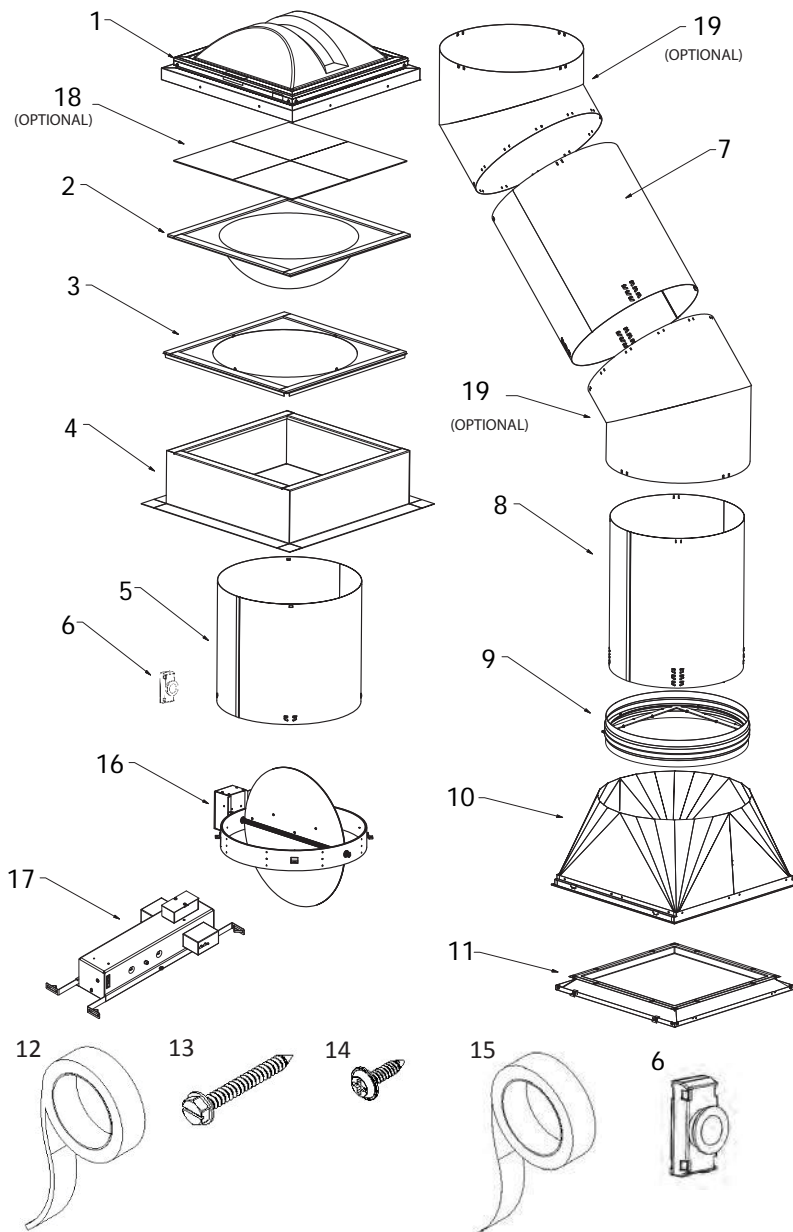
Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 77°F (25°C).

Specifications subject to change without notice.

LIGHTFLEX™ LED (SLFTL) tunable-white LED

CLOSED CEILING INSTALLATION ONLY

The Sunoptics LightFlex™ LED system is design to be installed in suspended ceilings with T-Bar supports.



PARTS LIST

ITEM	DESCRIPTION	QTY
1	SIGNATURE SERIES SKYLIGHT ASSEMBLY	1
2	OPTICS SPHERE	1
3	CURB TRANSITION	1
4	CURB	1
5	18" ROOF CURB TOP TUBE ¹	1
6	nES ADCX LFT	1
7	24" LIGHT WELL TUBE #1 ^{1,2}	X
8	24" LIGHT WELL TUBE #2 ^{1,2}	1
9	LIGHTFLEX LED	1
10	ROUND-TO-SQUARE TRANSITION ¹	1
11	TROFFER LENS	X
12	WEATHER STRIPPING (ROLLS)	X
13	#10 DRILL TIP SCREWS	X
14	#8 DRILL TIP SCREWS	X
15	FOIL TAPE (ROLLS)	1
16	SINGLE BLADE LOUVER ^{1,2}	1
17	REMOTE DRIVER ENCLOSURE	1

OPTIONAL ITEMS

18	CCT Lens (Color Changing Lens)	1
19	ELBOWS ^{1,2}	1

NOTES:

X – Quantity Required is based on application and Customer Order.

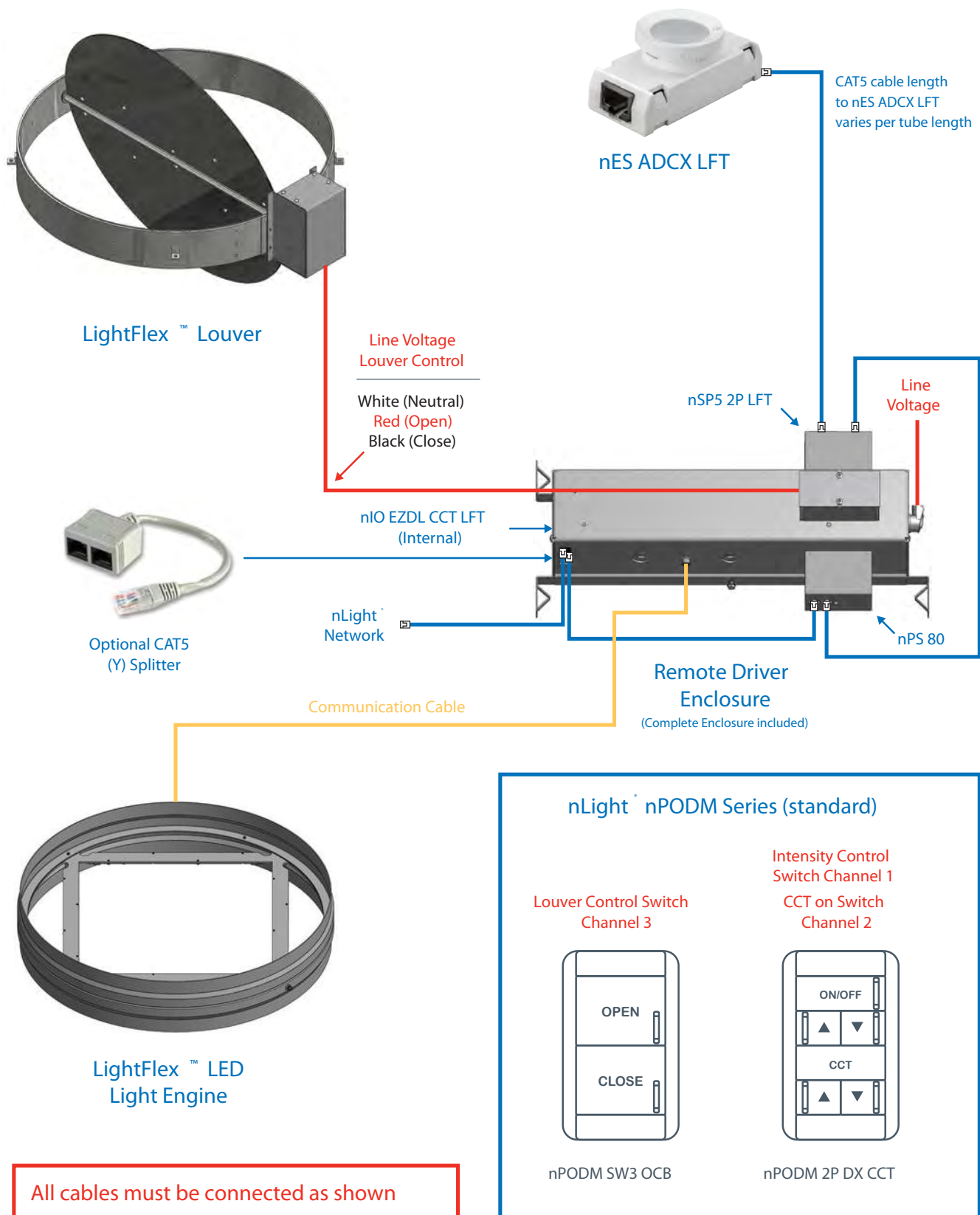
1) CAUTION: Handle Reflective Material with Care.

2) Components shown not included in all kits. See label on box.

*All Tubes & Elbows are fabricated from 98% Spectrally Reflective Material.

**Verify all materials are on site, and available for installation.

LIGHTFLEX™ LED (SLFTL) tunable-white LED



LIGHTFLEX™ LED (SLFTL) tunable-white LED



A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: SLFTL TUWH RHYR NLT 80CRI 2108 SGZ CC2CL1 ALLED 6FT

SLFTL						
Series	Dynamic feature	Dynamic range	Control Interface Type	LED Color Rendering	Emergency Option	Curb Height
SLFTL LightFlex Tubular LED	TUWH Tunable white	RHYR 2700K-6500K	NLT nLight nTune Interface	80CRI 80+CRI (Default) 90CRI 90+CRI	blank Remote Driver Enclosure without Battery Pack (Default) E10W Remote Driver Enclosure with Battery Pack	2108 8 inch (203mm) (Default) 2114 14 inch (356mm)

Skylight Glazing	Skylight Lens Material	Diffuser Lens Style	Light Well Length	Option Group
SGZ Single Glaze (Default)	CC1 Polycarbonate	TLSBOX TLED Shadowbox Lens Assembly	4FT 4-Foot (1219mm) Shaft	ELBOWS Elbows for Obstructions (1 set)
DGZ Double Glaze	CC1CC2 Polycarbonate/Acrylic	TLA19 A19 Lens Assembly	6FT 6-Foot (1829mm) Shaft (Default)	ELBOWS2 Double Elbows for Obstructions (2 sets)
	CC2CL1 Acrylic Class 1 (Default)	TLMICPRIS TLED Microprism Lens Assembly	8FT 8-Foot (2438mm) Shaft	SUSKIT Suspension Wire Kit
	CC2CL3 Acrylic Class 3	TLSATIN TLED Satin Lens Assembly	10FT 10-Foot (3048mm) Shaft	SBAR Security Bar
		ACL ACLED Troffer Lens Assembly	12FT 12-Foot (3658mm) Shaft	
		ALLED ALLED Troffer (Default)	14FT 14-Foot (4267mm) Shaft	
			16FT 16-Foot (4877mm) Shaft	
			18FT 18-Foot (5486mm) Shaft	

nLight® Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

WallPod stations¹	Model number	Occupancy sensors	Model number
Louver Control	nPODM SW3 LFT	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off, Intensity Adjustment & CCT Control	nPODM 2P DX CCT	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
		Cat-5 cable (plenum rated)	Model number
		10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

Notes

1 Both WallPod Stations needed for operation.

LIGHTLOUVER CONCEPT

Using a patented, passive optical design, the LightLouver Daylighting System redirects daylight deep into the space onto the ceiling while eliminating glare and all direct sunlight penetration onto work surfaces. With LightLouver units integrated into the building fenestration design, uniform ambient lighting is provided, so that electric lights can be turned off or dimmed and energy saved.

The LightLouver Daylighting System is the perfect choice for integrating daylighting into your new construction projects, supporting compliance with today's more stringent energy codes.

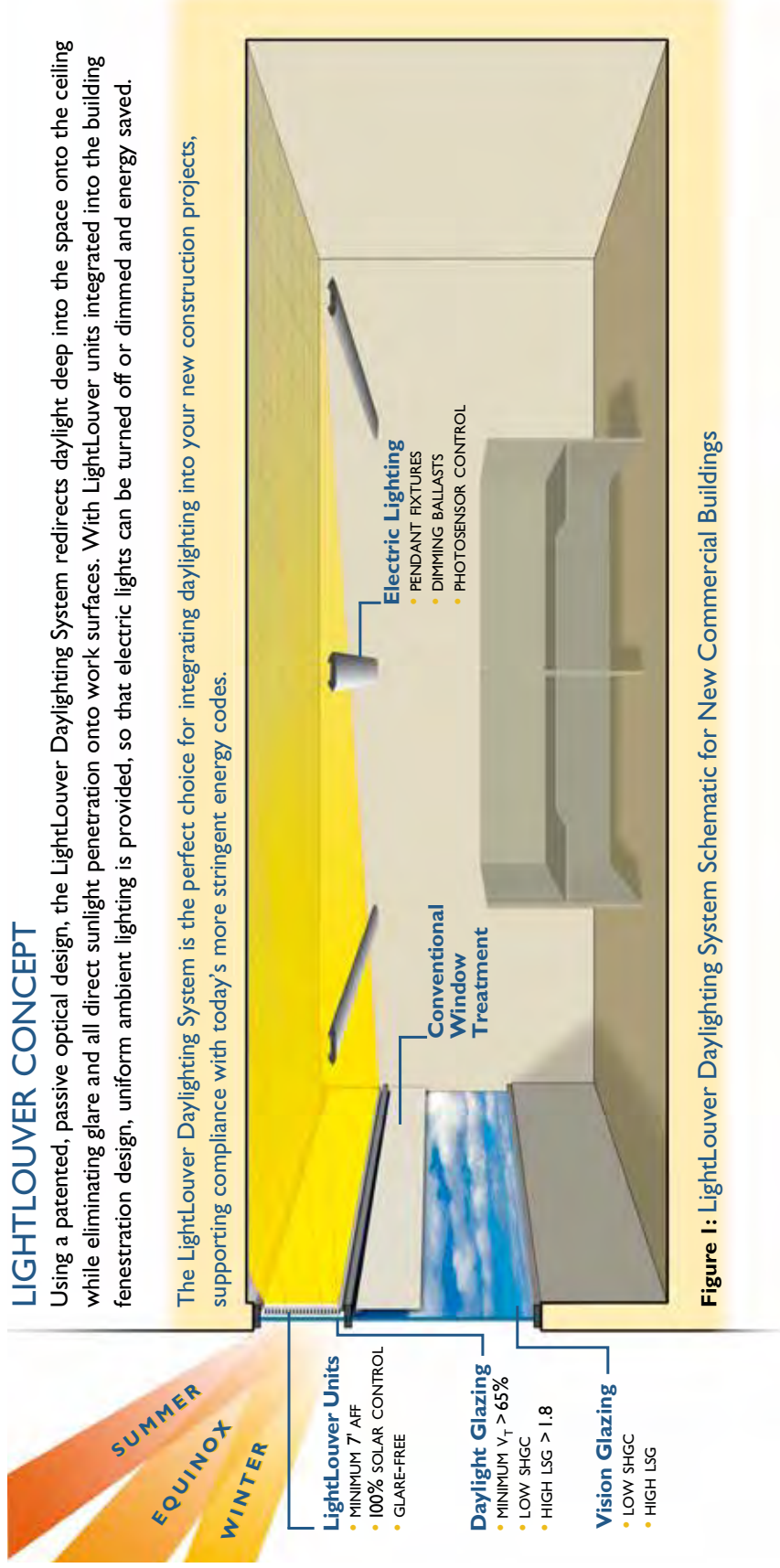
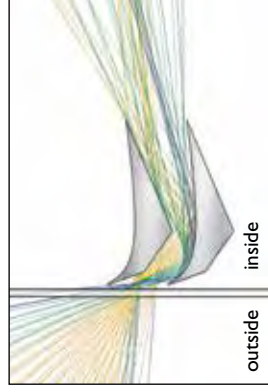


Figure 1: LightLouver Daylighting System Schematic for New Commercial Buildings

The patented LightLouver reflective slat design redirects daylight deep into the daylight space while providing complete solar control. For all solar altitude angles, as shown in the diagram (left), the LightLouver reflective slats redirect daylight up and back onto the ceiling to provide uniform, glare-free daylight.



LightLouver Unit Location (refer to Figure 1):

- Locate in “daylight” windows on east, west and south facing facades with unobstructed access to sunlight
- Bottom of the unit should not be lower than 7' (AFF)
- Preferred use in long and continuous daylight windows

Daylit Space Type:

- Optimal performance in large open spaces with minimal interior obstructions above 7' (AFF)
- Good eastern, southern or western exposure to sun with minimal shading from neighboring objects (trees, buildings, etc.) or architectural features

LightLouver Unit Sizing (refer to Figure 2):

- One vertical foot of LightLouver reflective slats provides uniform ambient light for a 14' daylight zone
- Minimum “daylight” window opening height = 12"
- Window opening heights should ideally be divisible by 1"
- Recommended Visible Light Transmission (V_L) > 65% and Light to Solar Gain ratio > 1.8
- Interior window frame width > 1.5"
- Recommended maximum LightLouver unit area = 16 sf. However, larger window areas can incorporate multiple LightLouver units

Electric Lighting System Integration:

- LightLouver units integrate best with indirect lighting, both of which work best with a smooth and reflective ceiling surface (ceiling reflectance > 80%). Lensed lighting fixtures are acceptable; louvered troffer lighting fixtures do not provide a good reflective surface
- Open- or closed-loop lighting controls and dimming ballasts to “harvest” daylight and energy savings
- LightLouver units provide an ambient (~25fc) level of illuminance and integrate best with an ambient/task electric lighting design scheme providing the same ambient illuminance level

Window Treatment

- Select “view” window treatment that effectively blocks blocks direct sunlight, but allows filtered daylight and views. Fabric shade system preferred with 3–5% openness factor

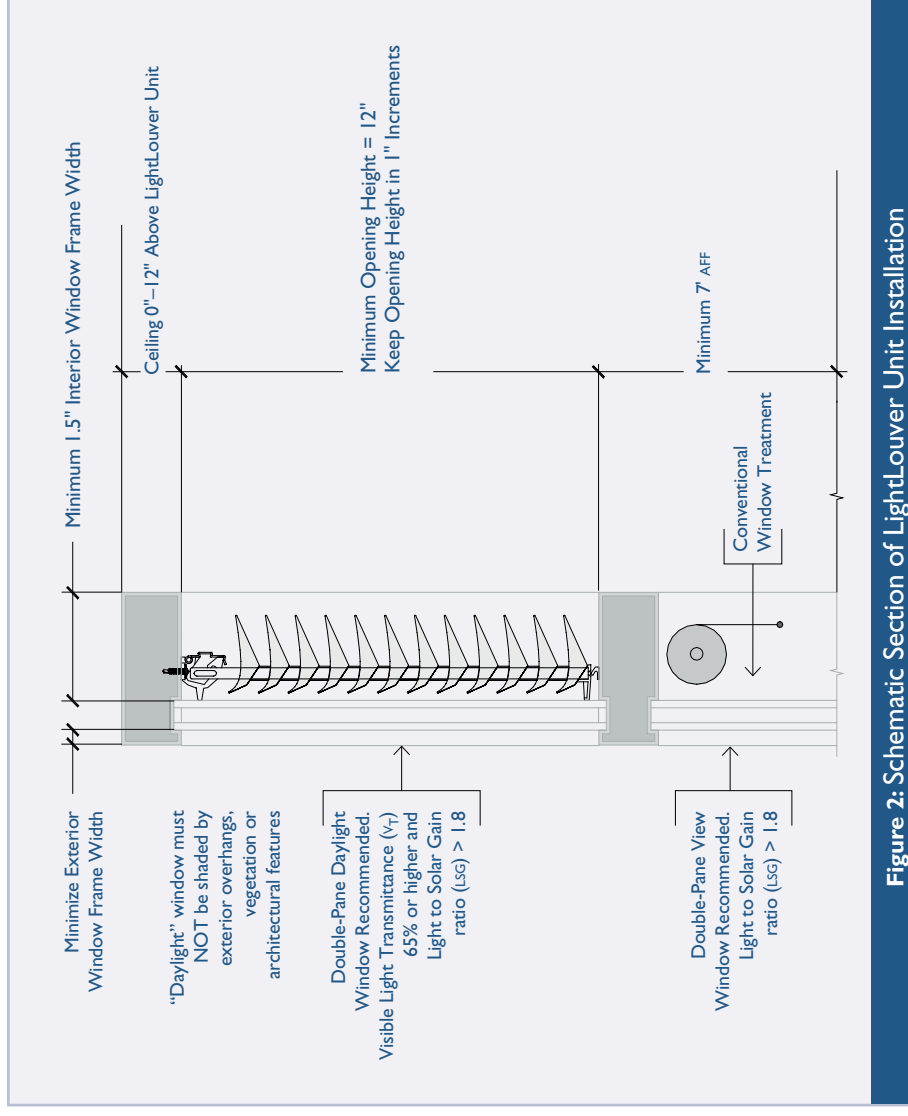


Figure 2: Schematic Section of LightLouver Unit Installation

For complete daylighting system performance specifications, see Design Information section at www.lightlouver.com.

We can help you integrate LightLouver units into your project.

For design integration assistance:

303.444.8773 • info@lightlouver.com • www.lightlouver.com



CONTROLS SOLUTIONS

Healing Environments

Healthcare Lighting & Controls Solutions



 **Acuity**Brands.

A Focus on Outcomes

Lighting makes a difference in the lives of people. It's an important premise — and one that drives us every day at Acuity Brands.

In healthcare, urgent decisions and life-changing actions happen every day. A healthcare campus is a hub of activity. Hundreds, if not thousands, of people coexist, working together to keep patients on positive, healing paths. It's a place brimming with emotion — anxiety and hope. A patient's state of mind can be a turbulent one. A nurse, doctor or technician must keep a sense of resolve, remain determined and hopeful.

Environments have a big impact on mood and outlook. The question becomes: How do we create an experience for patients, for visitors, for medical staff that is as uplifting and pleasant as possible? Lighting is a crucial (and often undervalued) component of the equation.

The medical profession has always sought out the latest technologies. The same is true of lighting. At Acuity Brands, we propose that advanced lighting technologies can foster deeper connections to the places where people live, work, and learn. With the ability to fine tune — with precision and control — the light levels and color temperature, we adjust seamlessly to accommodate the needs of the people in them.

For Acuity Brands, it starts with a keen understanding of the people who work at or visit a healthcare campus. Only through careful research and first-hand research can we confidently design systems truly informed by the people who will use them every day.

In a perfect world, well-designed lighting is something that patients, caregivers, or visitors will pay very little attention to. Because it works unobtrusively in the background to create a sense of calm and comfort in the environment. Caregivers are more productive, patients are more comfortable. Visitors find their way more easily, and as a consequence, feel more at ease.

All in all, healthcare is about outcomes. Advanced, thoughtful lighting solutions from Acuity Brands provide a clear path to unlocking these important benefits.

A Typical Healthcare Campus

Acuity Brands designs and manufactures a complete range of integrated luminaire and control systems tailored to the requirements of healthcare facilities. Employing state-of-the-art technology, these systems offer a seamless blend of performance, efficiency, and reliability suitable for use in virtually any application found on a typical healthcare campus.



Covered Parking and Walkways

Walkways and parking areas integrated seamlessly with the landscape and architecture make for a secure and safe journey.



Nursing Station

Nursing stations are places to exchange information and perform administrative tasks, but they also present an opportunity to become a more secure and safe journey.



Patient Room

In spaces where an element of rest of free time, room lighting systems must balance comfort, task-oriented efficiency and infection control.



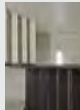
Lobby

Lobby lighting serves to establish a positive impression of the facility and provide a safe and secure environment for patients and visitors.



Parking/Site

Often the first impression at any facility, uniformity in parking lots or structures even in the most remote areas is an important factor for visitors.



Stairwells

Appropriate stairwell illumination helps ensure safety and security as they navigate through the facility.



Waiting Room

Good lighting in waiting rooms and elegant forms contribute to more calming environments for waiting rooms.



Surgical

In operating rooms, visual precision makes the difference between success and failure. That's why surgical lighting systems that deliver effective illumination are easy to maintain and require minimal maintenance activity for these settings.



Procedures

In radiology suites, the focus is on tailored, ambient, and task lighting, carefully balanced with attention to patient comfort.

CRESTRON + ALEXA VOICE COMMAND

Crestron + Alexa for Business

Crestron has always simplified conference rooms by making it easy to start meetings and control the devices in the room. Now with Alexa for Business, you can simply use your voice.



Crestron + Alexa let you start meetings and control your conference room by simply telling Alexa what you want to do. You can simply say "Alexa, start my meeting." From launching a web conference to pulling up presentation materials on-screen, the power of Crestron and Amazon Alexa will help ensure meetings are timely and productive.



OVERVIEW

The nPODM Series WallPods are nLight-enabled toggle and/or raise/lower switches that provide a user with local control of a lighting zone. These single gang decorator style devices have soft-click buttons and have a green LED indicator for each button. WallPods communicate with other nLight devices via a CAT-5e cable that connects to one of its two RJ-45 connectors. A basic low voltage WallPod can work with an nLight power pack or nLight enabled fixture to provide toggle switch operation. WallPods with the DX option have the added ability to adjust the level of any nLight controlled dimmable lighting.

FEATURES

- Communicates with nLight network
- Remotely configurable/upgradeable
- Soft-click push-button control
- Custom button engraving at no charge (WH, IV, AL GY units only)
- 1, 2, or 4 channel on/off
- 1, 2, or 4 channel raise/lower

SPECIFICATIONS

Size: (not including ground strap) 2.74" H x 1.68" W x 1.63" D
(6.96 cm x 4.27 cm x 4.14 cm)

Weight: 2 oz

Mounting: Single Gang Switch Box or Low Voltage Ring

Color: White, Ivory, Lt. Almond, Gray, Black

nLight Network Ports: 2 RJ-45

Power Consumption: < 5 mA

Wires: None

RoHS Compliant, Title 24 System Component

Warranty

Three-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

AcuityControls

nLight®

nPODM

Wallpod: On/Off & On/
Off+Raise/Lower



ORDERING INFORMATION

nPODM											Example: nPODM 2P WH	
Series	Preset Type		Dimming Control		Tunable White		Color		Temp/ Humidity		Point of Manufacture	
nPODM	[blank]	Single channel	[blank]	On/off control	[blank]	Standard	WH	White	[blank]	Normal	[blank]	Standard
	2P	Two channels	DX	On/off + raise/ lower control	CCT ¹	Correlated color temperature	IV	Ivory	LT	Low temp	USPOM ^{2,3}	Manufactured in the USA
	4P	Four channels					GY	Gray				
							AL	Almond				
							BK	Black				
							RD	Red				

CUSTOM BUTTON ENGRAVING

- Standard button labeling is shown on back.
- Custom lettering for WH, IV, AL, and GY units can be specified and ordered at no charge at:
<http://www.acuitybrands.com/products/-/media/Files/Acuity/Brands/Controls/nLight/NGRAVE.PDF>
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons not recommended.
- Buttons may ship separately and require field installation.

Notes

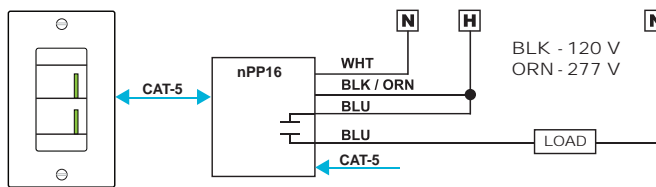
1. Only available on 2P DX configurations
2. Not available with LT or CCT.
3. Only available with WH

WIRING

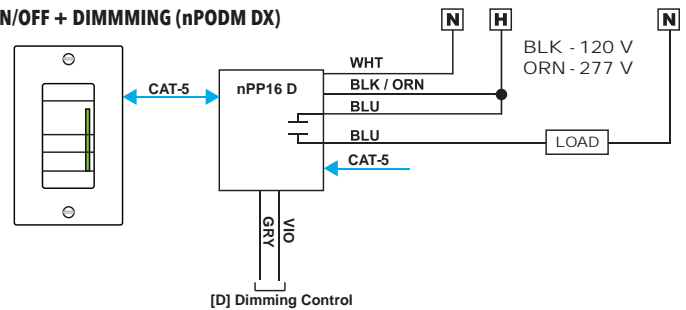
TYPICAL WIRING

Power to WallPod device is provided via the CAT-5e connection to an nLight enabled fixture, nLight power pack (e.g. **nPP16**), power supply (**nPS80**), or Bridge (**nBRG 8**).

ON/OFF

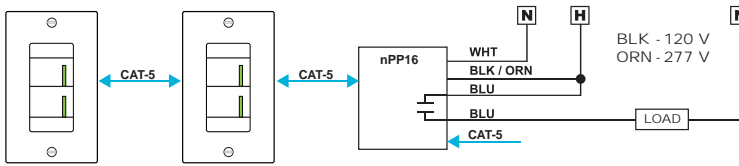


ON/OFF + DIMMING (nPODM DX)

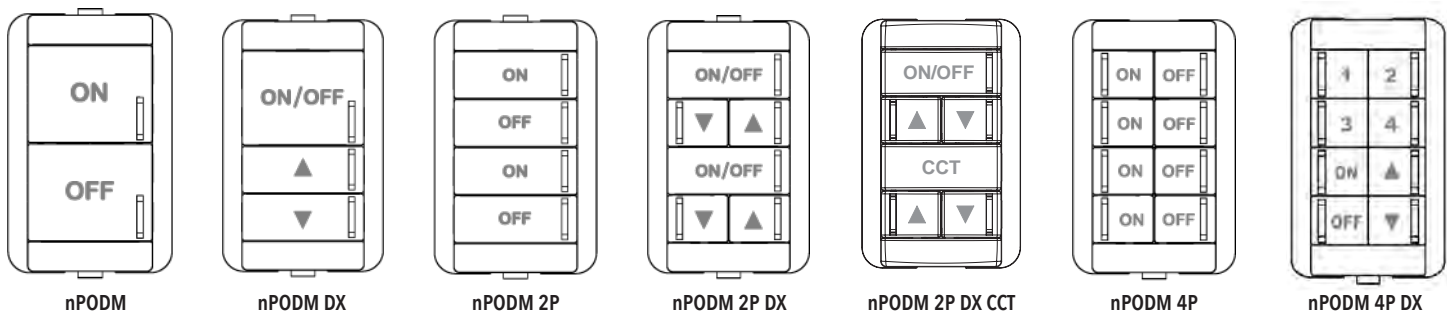


3-WAY CONFIGURATION WIRING

WallPods and/or nLight wall switch sensors can be configured together to create zones with multiple switching locations.



DEFAULT LABELING

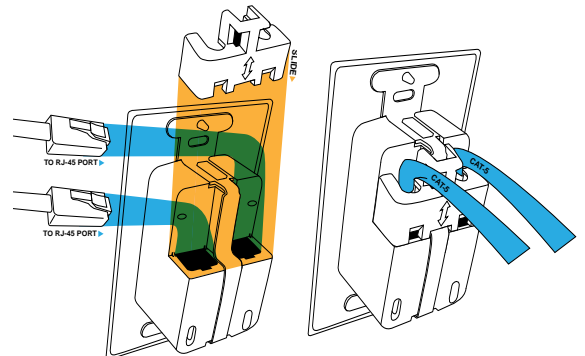


Custom lettering for WH, IV, AL, and GY units can be specified and ordered at no charge at:
<http://www.acuitybrands.com/products/-/media/Files/AcuityBrands/Controls/nLight/NGRAVE.PDF>

INSTALLATION

- Mount WallPod using holes that align with standard single gang switch box or low voltage ring
- Access RJ-45 ports by sliding plastic guard up
- Insert CAT-5e cable(s), T568B wiring convention recommended
- Slide guard back onto metal strap
- Interconnect unit with other nLight devices in lighting zone using CAT-5e cables
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to respective device's defaults

Attention! Only use non-booted CAT5e cables.



PROGRAMMING

Refer to instruction card IN-11.3 for directions on programming the sensor via the upper-most left push-button. All buttons are factory set to the matching switch channel (button 1 - channel 1, button 2 - channel 2, etc). For nPODM 4P DX, channels to be controlled are selected first, then the control button (on/off or raise/lower).

OVERVIEW

The nWSX LV / nWSX PDT LV series nLight wall switch occupancy sensor provides a simple control solution for a small room, in particular one utilizing nLight enabled digital luminaires. Capable of detecting small motion up to 20 ft (6.10 m), this sensor is perfect for private offices, private rest rooms, copy rooms, closets or any small enclosed space. The nWSX LV uses Passive Infrared (PIR) detection while the nWSX PDT LV utilizes PIR/Microphonics Dual Technology (PDT). This stylish sensor can be programmed locally, via the front push-button(s), or remotely via the nLight SensorView software. The nWSX LV/nWSX PDT LV includes an integrated photocell (inhibit only – disabled by default).

FEATURES

- 100% digital PIR detection, vandal resistant lens standard, includes wall plate (screwless sold separate)
- Push-button programmable, adjustable time delays, multiple operating modes
- Multiple nWSX sensors or WallPods can be used in 3 way(or greater) configurations w/o traveler wires
- Photocell standard (inhibit only – disabled by default) – Not available in night light versions
- Broadcasts occupancy, photocell, and switch information over a local and/or global nLight channel
- Remotely firmware upgradeable

CONTROL MODES

A control zone with an nWSX LV / nWSX PDT LV can operate in several modes:

1. Auto On / Auto Off (i.e. Fully Automatic)
2. Manual On (initial state) to Override On (with expiration timer)
3. Auto On (initial state) to Override On (with expiration timer)
4. Manual On / Automatic Off (i.e. Semi-Automatic)
5. Manual On (initial state) to Fully Automatic
6. Predictive Off Switch (returns zone to auto-on unless person remained in room after an off switch press)

*See MLO operation chart on page 2.

SPECIFICATIONS

Size:	2.74" H x 1.68" W x 1.63" D
Weight:	5 oz
Mounting:	Single gang switch box or low voltage ring
Bus power consumption:	< 3mA
Wires:	None
Temperature Rating:	0°C-60°C
RoHS Compliant, Title 24 component	

Warranty

Five-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.



nWSX LV nWSX PDT LV Low Voltage Wall Switch Occupancy Sensor



nWSX LV
nWSX PDT LV



nWSX LV NL
nWSX PDT LV NL



nWSX LV DX
nWSX PDT LV DX

A+ Capable

This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit
www.acuitybrands.com/aplus.



ORDERING INFORMATION

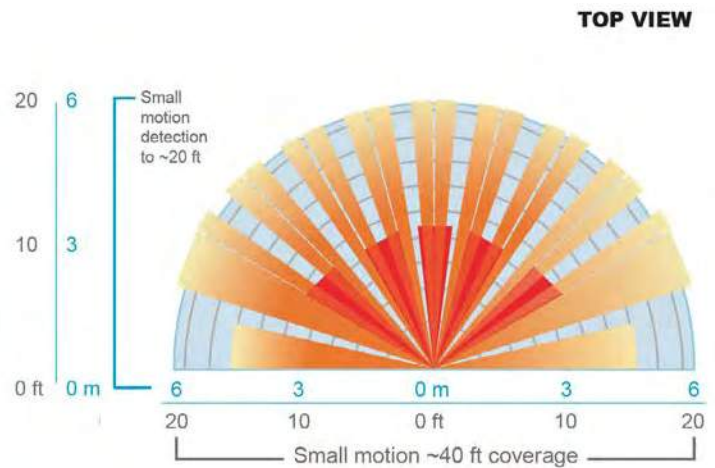
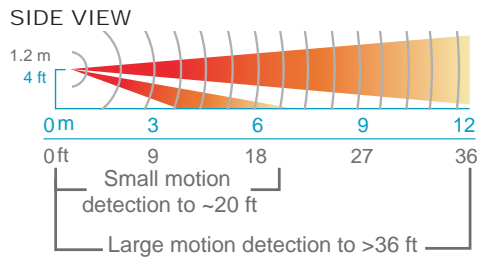
nWSX						Example: nWSX LV WH LT	
Series		Night Light or Dimming		Color		Temp/Humidity	
nWSX LV	Passive Infrared	[blank]	None	WH	White	AL	Lt. Almond
nWSX PDT LV	Dual Technology	NL ¹	Integrated night light	IV	Ivory	BK	Black
		DX	Raise/Lower dim control	GY	Gray	RD	Red
						[blank]	Standard
						LT	Low temp

Note:

1. Integrated night light option not available in Black.

COVERAGE PATTERN

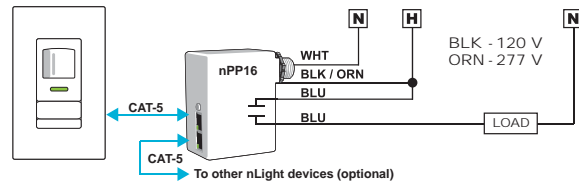
- Small Motion (e.g. hand movements) detection up to 20 ft (6.10 m)
- Large motion (e.g. walking) detection greater than 36 ft (10.97 m)
- Wall to Wall Coverage
- Passive Dual Technology (Microphonics) provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.



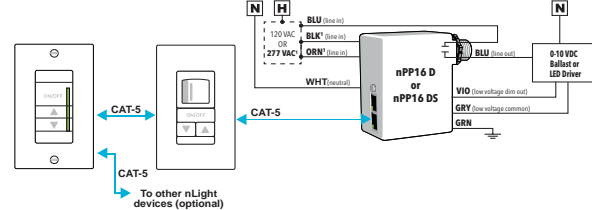
TYPICAL WIRING DIAGRAMS

Sensor power is provided via the CAI-5e connection to an nLight power pack/supply, nLight enabled digital luminaire, or nLight Bridge. T568B pin/pair assignments is recommended for CAT-5e cables.

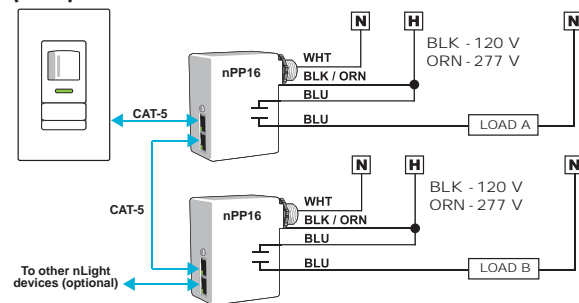
SINGLE LOAD SWITCHING



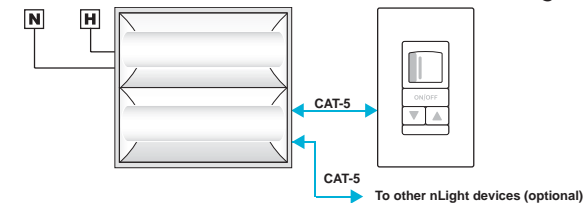
3-WAY SWITCHING AND DIMMING CONTROL



BI-LEVEL SWITCHING USING MULTI-LEVEL OPERATING MODE (MLO)



WIRING to nLIGHT ENABLED DIGITAL LUMINAIRE (e.g. RTLED)



NOTES:

- nLight enabled fixture must have **nIO LEDG/nIO EZ PH** for standalone operation
- Luminaires with **nIO LEDG ER/nIO EZ PH ER** require bus power from another device
- Provides on/off and continuous raise/lower dimming operation by default. For bi-level operation only program **nWSX LV / nWSX PDT LV** for Multi-Level Operating Mode (**MLO**)

MLO OPERATIONAL MODES

Additionally, an **nWSX LV / nWSX PDT LV** can be set to function in Multi-Level Operating Mode (**MLO**) which enables the user to select from multiple on/off lighting states using just the unit's single on/off button. This mode is designed specifically for bi-level applications and eliminates user confusion created when wall stations have multiple buttons. Several different transition sequences are available in order to comply with energy codes or user preference. Depending on the sequence selected and initial lighting state, every subsequent button push steps through states according to below table. **MLO** sequences are also available that enable high/low or low/high step operation via any nLight dimming output.

	2 State (Bi-Level) Sequence		2 State - Alternating Sequence		3 State Sequence	
Button Press #	Load A	Load B	Load A	Load B	Load A	Load B
1	On	Off	On	Off	On	Off
2	On	On	Off	On	Off	On
3	Off	Off	Off	Off	On	On
4					Off	Off

nWSX (PDT) LV - TN-408-01

OVERVIEW

Fresco is a touchscreen lighting control for dynamic spaces such as hotel ballrooms, conference rooms, museums, retail stores, houses of worship and restaurants. Each Fresco provides control and programming for a maximum of 36 zones. Up to 8 Fresco stations can be networked for 288 zones of control. Fresco's thin profile and clean design enhances many commercial settings. Its glass-to-the-edge refinement and aluminum frame are a robust and modern improvement to architectural lighting control. Fresco delivers seamless control of traditional line-voltage dimming, switching, 0-10 V, DALI, nLight® and DMX for RGB and tunable white fixtures.

FEATURES

- Create and edit 36 lighting scenes including intensity, color, and color temperature
- 36 zones of control
- 288 maximum zones for a Fresco network
- Integral astronomic timeclock with battery backup for system scheduling
- Direct DMX control for 1 universe (512 slots)
- Automatic wake-up with proximity sensor
- Internal Bluetooth® radio for wireless App control
- Partition status control (Roomlink)
- Lighting Control: forward and reverse phase dimming, 0-10 V, DMX (RGB/Tunable White), nLight® enabled luminaires, nLight power packs, and DALI
- Digital motion sensor, daylight harvesting, RS-232, contact closure and wallstation input from nLight devices
- Compatible with Fresco LMP dimming and switching cabinets
- All device settings are stored on-board in non-volatile memory

Warranty

Two-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

AcuityControls

Fresco™

FCS Architectural Lighting Scene Control



Fresco Greeting Screen (7" diagonal viewing area)

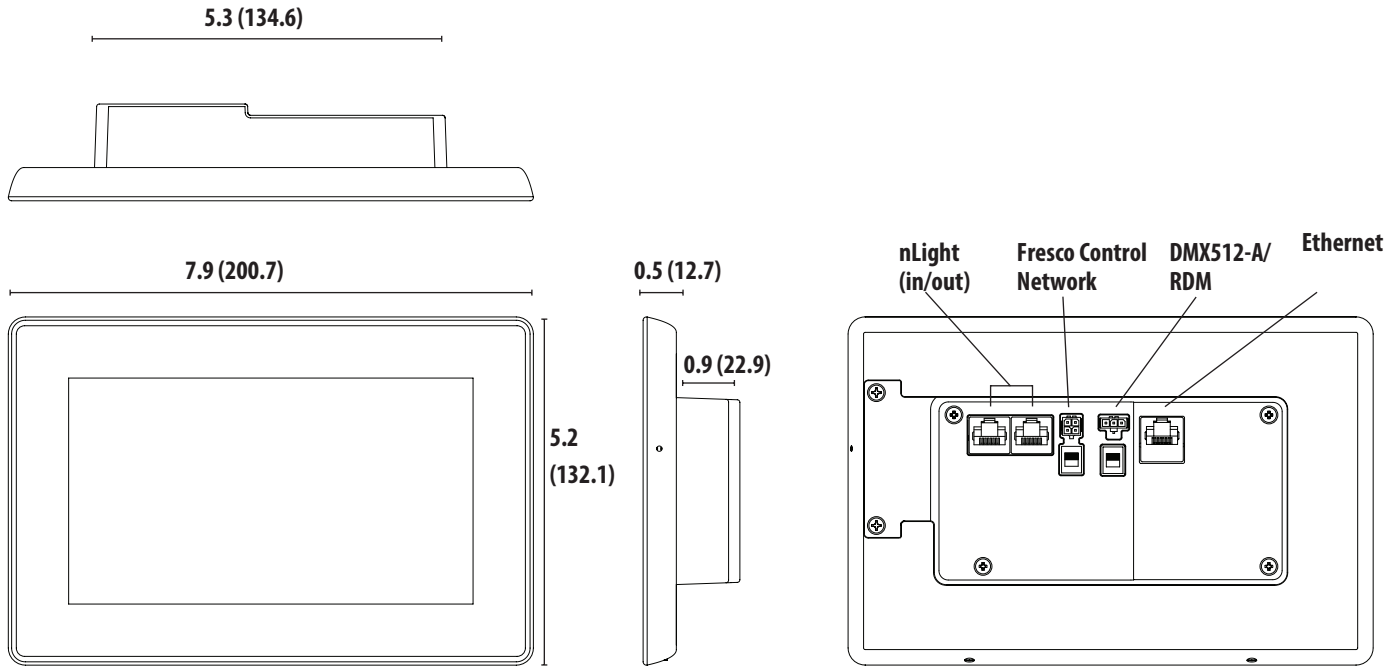


Fresco Homescreen

ORDERING INFORMATION

FCS				Example: FCS 7TSN XE DBL	
Series	Model	Options		Finish	
FCS Fresco Control System	7TSN 7" touchscreen with nLight port	[blank]	nLight only	DBL	Black
		X	DMX/RDM control	DWH	White
		E	Ethernet	DNA	Natural Aluminum
		XE	DMX/RDM control with Ethernet		

DIMENSIONS



dimensions: in (mm)

SPECIFICATIONS

Electrical

Power: 6W max @ 24 VDC Class 2 Input
(Class 2 power supply provided with
Fresco station)

Mechanical

- Width: 7.9 in (200 mm)
- Height: 5.3 in (135 mm)
- Depth: 0.5 in (13 mm)
- Viewable Area: 7.0 in (178 mm) diagonal
- Weight: 2.5 lbs (1.1 kg)

Installation

- Enclosure: 3 gang back box
- Fresco steel mounting ring provided with all required hardware
- Remote power supply included

Environment

- Ambient: 15 to 105 °F (-10 to 40 °C)
- Storage: -10 to 145 °F (-20 to 65 °C)
- Relative Humidity: 90% non-condensing
- Designed for permanent interior installation

Standards

- FCC Part 15
- IEC61000-4-2, +/-16kV air discharge
- ANSI E1.11-2008 DMX, ANSI E1.20-2006 RDM
- IEEE 802.15 Bluetooth
- IEEE 802.3 Ethernet
- RoHS compliant

Performance

- Capacitive LCD backlit touchscreen
- Multi-touch control
- Proximity sensor wake-up
- 10 year battery backup for astronomic clock
- nLight link for 128 nLight devices
- One universe of DMX-512A/RDM (512 channels)
- Screen lockout pass code
- Adjustable backlight settings
- Full alpha-numeric scene and zone naming

Legal

- US Patent Nos. 6,118,230, D729,793, D729,797
- Canada CA 154120

OVERVIEW

The Graphic WallPod (nPOD GFX) provides an elegant and sophisticated user control to any nLight controlled space. Its 3.5", high resolution touch screen is easy to view and simple to use.

FEATURES

- 3.5" Full-color Touch Screen (Diagonal)
- Provides up to 16 On/Off/Dim Controls
- Provides up to 16 Scene Controls
- Enables User Customization of all Presets and On/Off/Dim Controls
- Enables Programming of Switch Tracking Channels of Devices in Zone
- Mounts to a Single Gang Switch Box
- Front Accessible Micro-USB Connector for Simple Laptop Connectivity
- Optional Password Protection for Controls and Setup Screens
- Customizable Screen Saver Image
 - Supported file formats: JPG, PNG, GIF, BMP, TIF
 - Optimal resolution: 320x240, 16bit color
- Onboard Help Screens

SPECIFICATIONS

Size: 5.06"H x 3.50"W x 0.69"D (12.85 cm x 8.89 cm x 1.75 cm)

Weight: 6 oz

Mounting: Single gang switch box or low voltage ring

Mounting Height: 60" (152 cm) - recommended

Color: White, Ivory, Black, Light Almond, Gray

Network connection: (2) RJ45 ports

Input Voltage: 15-24VDC

Power Consumption: 60mA

Wires: None

Temperature Rating: -10° C to 60° C

Power Supply: PS-150 (347) via terminal connections - included

RoHS Compliant, Title 24 Component

Warranty

Five-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.



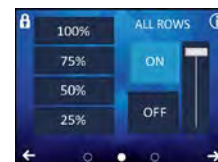
This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

AcuityControls™

nLight®

nPOD GFX



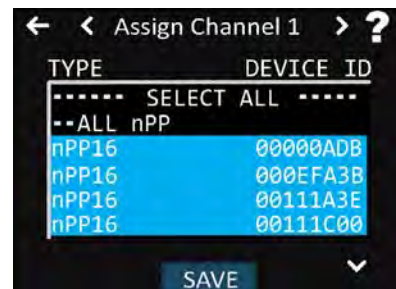
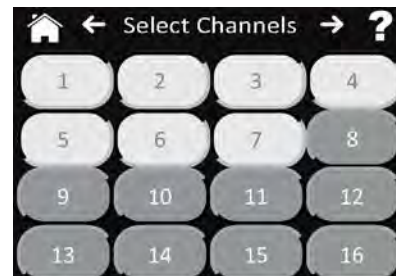
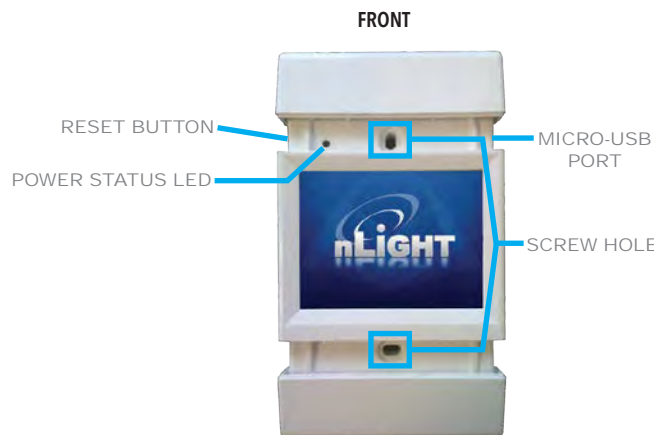
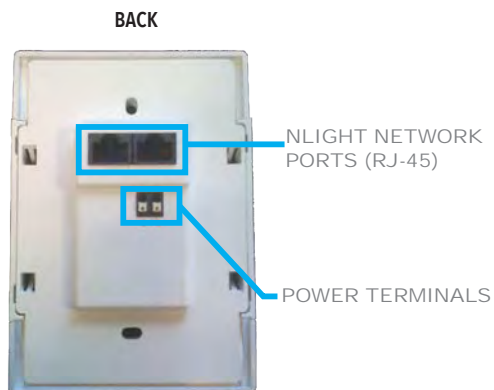
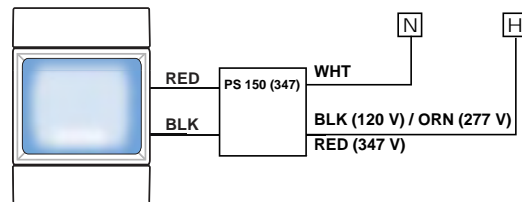
ORDERING INFORMATION

nPOD GFX		Example: nPOD GFX WH			
Series	Voltage	Color			
nPOD GFX	[blank] 120/277VAC	WH	White	AL	Almond
	347 347VAC	IV	Ivory	BK	Black
		GY	Gray		

OVERVIEW

There are two RJ-45 ports on the rear of the Graphic WallPod for CAT5e connection to other nLight-enabled devices. Additionally, there is a set of power terminals where low voltage power (from the provided PS 150 power supply module) is connected.

The Graphic WallPod flush mounts to a single-gang switch box. The housing has two sliding panels that cover the mounting screws, an indicator LED, a reset button, and a micro-USB style port. This port is provided as a convenient location for which to connect a laptop running the nLight SensorView software. While not needed for setup and configuration of the Graphic WallPod, SensorView is required to perform advanced configuration and firmware upgrades of devices within the Graphic WallPod's local zone. Remote access and control is available via SensorView if the zone is connected to an nLight backbone with a Gateway. Note: no power is used/supplied from/to the nLight bus.



- Before mounting, connect Class 2 low voltage wires from power supply to power terminal connections (polarity insensitive)
- Verify unit has power by observing screen and/or LED
- Connect CAT-5e cable(s) from local zone of nLight-enabled devices to RJ-45 port(s)
- Unit will begin discovering connected devices (indicated by on-screen message box)
- Mount unit to standard single gang switch box (screws provided)
- To access configuration screens, touch lock icon in upper left. Default password is "1234"
- Pressing reset button twice is equivalent to repowering unit
- Press reset button three times to restart unit in screen-calibration mode

OVERVIEW

The *SwitchBolt Digital* Switch controls any relay, dimmer, group or zone in any GR 2400 panel with the push of a single button.

A stainless steel bolt is mounted on a face plate or in a panel exposing only the head of the bolt, creating a virtually indestructible switch. This durability makes the *SwitchBolt* an ideal solution for security, high abuse and food preparation applications.

The *SwitchBolt* sits directly on the digital bus and can be mounted onto any single gang plate up to 1/4" thick and requires a box that is a minimum of 3" deep.

FEATURES

- Available hose down version
- Available multi-gang version
- Ability to be digitally enabled/disabled over the bus

SPECIFICATIONS

Bolt Dimensions:	5/16" (#20 thread) x 1.75" long
Mounting Hole Diameter:	0.5"
Bolt Material:	Stainless steel
Switch Plate:	Stainless steel 1 gang plate
Switch Addresses Available:	1-119
Addresses Per Switch:	(1)
Function:	Positive ON, Positive OFF, Group Control, Toggle, Bypass, Raise, Lower or Scene Control
Power Supply Inputs:	Accepts 12VDC from bus
Programming:	Via DTC or with GX2 lighting control software
Horsepower:	1 hp at 120 VAC, 2 hp at 277 VAC
Ambient Temperature:	32 to 104° F (0 to 40° C)

Title 24 System Component

Warranty

Three-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

AcuityControls™

LC&D™

GR 2400™
SwitchBolt



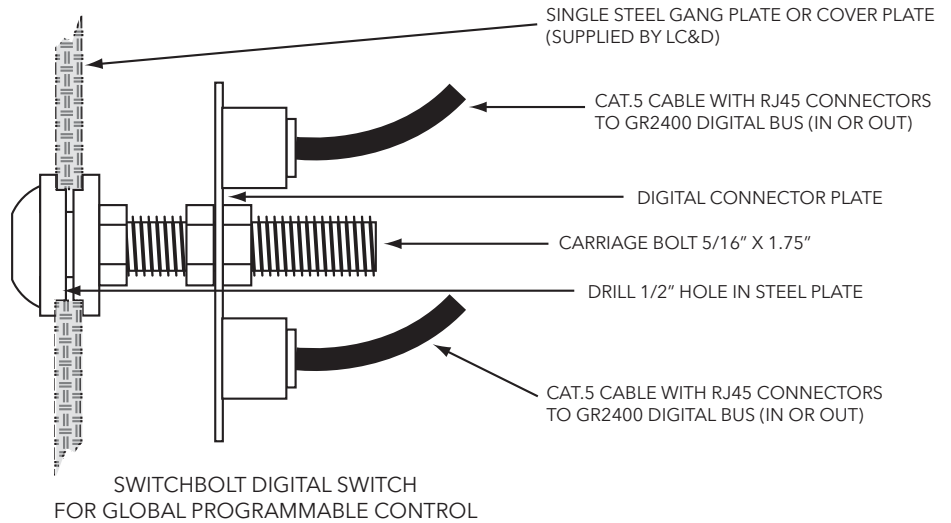
ORDERING INFORMATION

SBOLT		Example: SBOLT 1DGS PST	
Series	Hose Down	# of SwitchBolts and Digital	Plate Color
SBOLT <i>SwitchBolt Digital</i> Switch	[blank] No Hose Down Option	1DGS 1 bolt per 1-gang digital switch	PSS Stainless Steel Plate
	HD Hose Down Option	2DGS 2 bolt per 1-gang digital switch	PBO Plate by Others
		4DGS 4 bolts per 2-gang digital switch	
		6DGS 6 bolts per 3-gang digital switch	

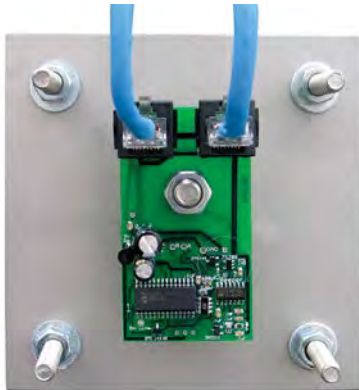
OVERVIEW



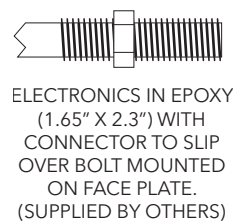
CIRCUIT BOARD FRONT VIEW



SWITCHBOLT DIGITAL SWITCH
FOR GLOBAL PROGRAMMABLE CONTROL

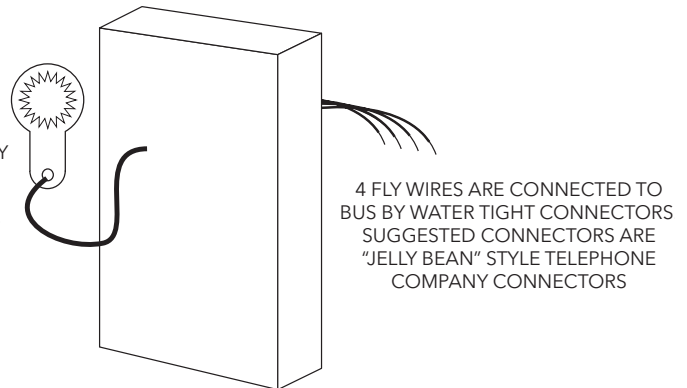


BACK VIEW
(FACEPLATE AND BACK
BOX SUPPLIED
BY OTHERS)



ELECTRONICS IN EPOXY
(1.65" X 2.3") WITH
CONNECTOR TO SLIP
OVER BOLT MOUNTED
ON FACE PLATE.
(SUPPLIED BY OTHERS)

HOSE DOWN VERSION





Catalog Number	
Notes	Type

PRODUCT OVERVIEW

The nLight **nPP16** family of power packs is the workhorse of an nLight system, delivering robust system performance and design versatility for commercial and industrial lighting control applications. The **nPP16** family is capable of switching loads up to 16 Amps via an internal latching relay designed with robust protection from the harsh switching requirements of T5 fluorescent and LED loads. These power packs also provide nLight system bus power - up to 40mA from each of its two RJ-45 ports - by transforming Class 1 line voltage (120/277 VAC or 347 VAC) to Class 2 15 VDC. This power is typically utilized by other nLight devices within the power pack's local control zone; however, remaining power is also made available over the network for Bridges and devices in other zones to utilize.

Besides switching, the **nPP16** family has an optional 0-10V dimming output. This output can be directly wired to 0-10 VDC dimmable ballasts or LED drivers, and is fully isolated internally from ingress noise or line voltage faults. Models are available with dimming wires running through the chase nipple (**nPP16 D**) or out the side of the enclosure (**nPP16 DS**).

The **nPP16 ER** and **nPP16 D ER** version relay packs provide a UL 924 compliant solution for controlling luminaires powered via an emergency circuit. Packs are wired to both normal and emergency power feeds. A unit only monitors the normal feed, while the emergency feed is connected to the line side of its relay. The power feed to emergency lighting is connected to the load side of the unit's relay. When normal power is present the relay is free to switch the emergency power feed as directed by sensors, switches, and schedules. However, if the normal power feed is lost the **nPP16 (D) ER** will override its relay closed and set its dimming output to full bright, thus ensuring emergency lighting is on. During this emergency operation period, the unit will not allow any switching or dimming to take place regardless of the presence of an occupancy, daylight, or other control signal. Emergency units power themselves from the emergency feed they are controlling, but they do not supply bus power out of the RJ-45 ports, and are often complemented with standard nPP16 power/relay packs that control a zone's normal-powered lighting.

To simplify installation, all **nPP16** family power packs are designed with an elongated chase nipple that allows them to be attached directly through a ½" knockout into a junction box or luminaire.

nLIGHT OPERATION

All **nPP16** family power/relay packs are native nLight devices, meaning they are individually addressable and communicate digitally over an nLight network to integrate with other nLight enabled devices, such as wall switches, sensors, and photocells. Creation of a local nLight control zone is done by simply wiring together nLight devices using CAT-5e cabling. When an nLight zone is linked to an nLight Gateway (nGWY2) - either directly via an nLight network backbone (nBRG 8) or wirelessly via nWiFi - the zone becomes capable of remote status monitoring and control with nLight SensorView software.

All nLight switches and sensors can be configured to output on one of 16 local channels or 128 global channels. **nPP16** family power/relay packs are configured to follow one or more of these channels via their tracking channel settings. By default, a standard **nPP16** is configured to follow all occupancy, photocell, and switch commands on Channel 1.

Once powered, units close their relay. If an nLight occupancy sensor is connected, the pack will automatically start following the occupancy status of the sensor. The factory default sequence of operation of standard units is Auto On/Auto Off. Via the **-SA** option, Manual On / Auto Off is also available as the factory default operational sequence. Several other operational sequences are selectable via the unit's push-button or SensorView software. If communication is lost between an **nPP16** family power/relay pack and all other nLight devices, the unit will revert back to its default state of relay closed (lights on). All factory defaults can be changed by using the unit's push-button or via SensorView software.

Note: For information on current monitoring relay packs, see the nPP16 IM series datasheet.

nPP16 FAMILY

POWER / RELAY PACK w/
OPTIONAL DIMMING and EMERGENCY OPERATION



Model #: nPP16 (D)



Model #: nPP16 (D) ER

KEY OPTIONS

DIMMING CONTROL (D, DS)

- Provides dimming outputs to control 0-10 VDC dimmable ballasts or LED drivers
- Follows dimming commands from nLight dimming WallPods, Photocells, Scene Controllers, and/or SensorView software
- Adds 20 AWG (600V rated) violet & gray wires through chase nipple (**D** option) or via a separate side output (**DS** option)
- Isolated dimming circuitry provides robust network protection from ingress noise or line voltage faults

EMERGENCY OPERATION (ER)

- Controls luminaires powered via an emergency circuit
- UL924 Listed
- Monitors normal power and overrides relay closed and sets dimming output (if present) to full bright if normal feed is lost regardless of current state or sensor status

DEFAULT MODE (SA, SA2, SW2, PL T24)

- **SA** option changes default operating mode to Manual On/Auto Off
- **SA2** and **SW2** change default switch tracking channel to 2
- **PA** (Partial On) mode changes default operation of dimming units to be Auto On to 50%
- **PL T24** option for 120 VAC plug load control. Changes default operation to track only occupancy sensors (not switches or photocells)

347 VAC (347)

- Allows unit to be powered from and switch 347 VAC.

LOW TEMP/HIGH HUMIDITY (LT)

- Device electronics are coated for corrosion resistance - required for cold storage or humid areas
- Unit operates down to -40° F/C

OPERATIONAL SETTINGS

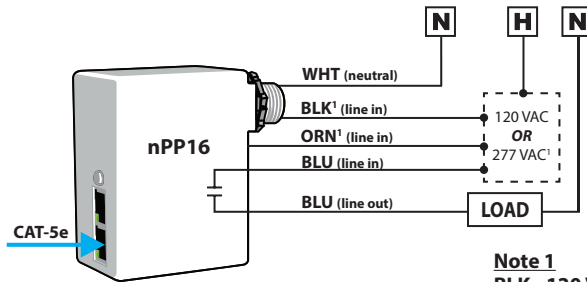
Several operational settings for the **nPP16** family are available, including:

- Override (On/Off/Normal) & Relay Test Mode (Enable/Disable)
- Occupancy, Photocell, & Switch Tracking (Enable/Disable)
- Occupancy, Photocell, & Switch Tracking Channel (1-16 each)
- Idle Time to Dim
- Special Operating Modes:
 - Manual On to Auto Off (Semi-Auto), Auto to (Timed) Override On, Manual to (Timed) Override On, Manual On to Full Auto, Predictive Off
- Occupancy Expiration of Manual Off / Timed Expiration of Manual Off
- Maintain Dim Level When Vacant
- Occupied Bright Level & Unoccupied Dim Level
- High End & Low End Trim

WIRING FOR STANDARD (NON-EMERGENCY) UNITS

T568B pin/pair assignment is recommended for all CAT-5e cables. For Supply Connections, use 14 AWG or larger wires rated for at least 75° C.

Diagram for non-dimming units

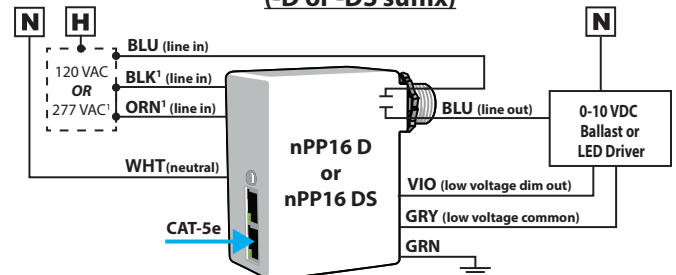


Note 1

BLK - 120 VAC

ORN - 277 VAC (or 347 VAC if unit has 347 option)

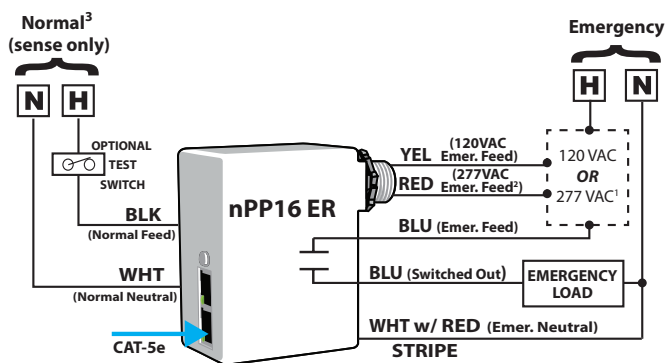
Diagram for units with a dimming option (-D or -DS suffix)



WIRING FOR EMERGENCY (-ER) UNITS

T568B pin/pair assignment is recommended for all CAT-5e cables. Unit powers itself but does not provide any bus power to other connected nLight devices. For Supply Connections, use 14 AWG or larger wires rated for at least 75° C.

Diagram for non-dimming units



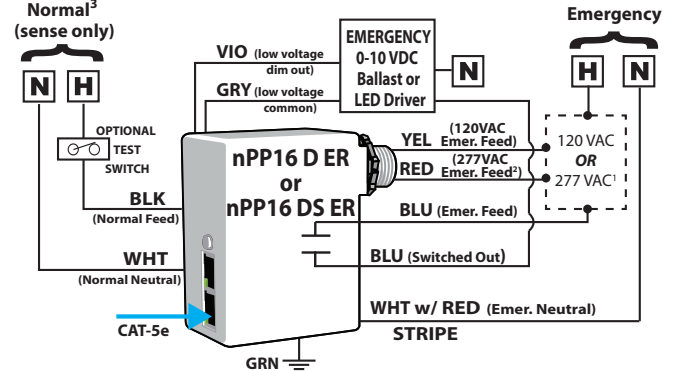
Notes

1) Connect to 120VAC or 277VAC feed ONLY. Cap off unused wire.

2) For 347V product, Red wire is 347VAC Emer. Feed

3) Normal Sense input: 120-277VAC. For 347V product: 120-347VAC

Diagram for units with a dimming option (-D or -DS suffix)



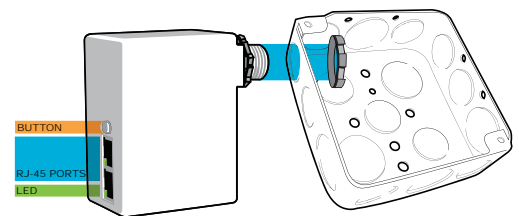
GENERAL INSTALLATION INSTRUCTIONS

- Mount through a ½" knockout in any junction box or luminaire. Secure with lock nut.
- Following above wiring diagram, connect wires to line voltage feed(s), neutral(s), and load.
- If applicable, connect low voltage violet and gray dimming wires to 0-10 VDC ballast/driver and green wire to an approved ground connection. Note wires have 600V rated insulation.
- Interconnect unit (via RJ-45 ports) with other nLight devices in lighting zone using CAT-5e cables.

ADDITIONAL EMERGENCY (-ER) INSTRUCTIONS

PUSH-BUTTON TESTING: As long as the relay is in the open (lights off) position and normal power is present, you are able to simulate normal power being lost by pressing and releasing the unit's push-button one time. After a few seconds the relay will close for 4 seconds, then open back up and return to normal operation. A separate push-button test switch (not included) can also be wired in as shown in above diagrams.

INTERFACING WITH A FIRE ALARM PANEL: To interface unit to a fire alarm system such that the relay is overridden upon activation of the fire alarm system, the fire alarm system must provide a normally closed relay which opens when the fire alarm system is activated. This relay must be put in series with the Black power sense line on the nPP16 ER. When the normally closed relay opens, the nPP16 ER will close its relay to provide egress lighting when the fire alarm system is activated.



TSW-760

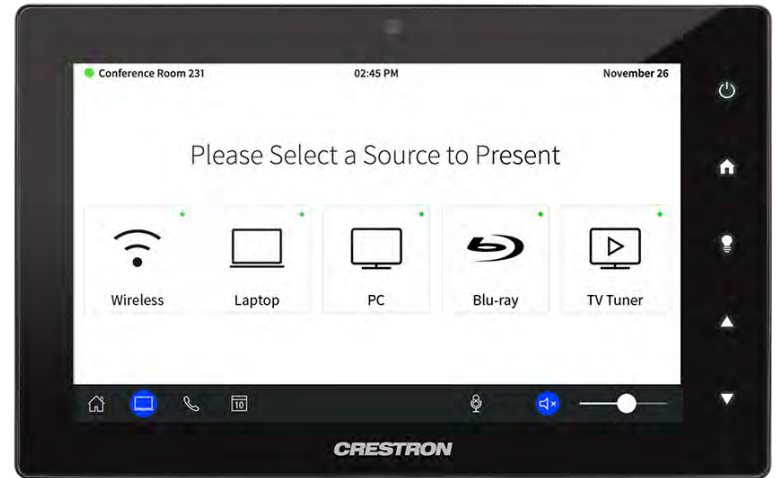
7" Touch Screen

- > Ultra clean, modern appearance
- > Thin profile and compact footprint
- > Affordable and easy to install
- > 7" widescreen active-matrix color display
- > 1024 x 600 WSVGA display resolution
- > Capacitive touch screen technology
- > Multi-touch capable
- > Smart Graphics® performance
- > Backlit soft-touch capacitive buttons
- > Any/all button hide feature
- > Auto-brightness control
- > Voice recognition capability^[1,2]
- > H.264 or MJPEG streaming video display
- > Built-in 5 MP H.264 IP camera^[2]
- > Built-in microphone and speakers^[2]
- > Rava® SIP intercom and phone technology^[2]
- > Native Sonos® app
- > Crestron Fusion® room scheduling^[4]
- > Built-in PinPoint™ beacon^[2,5]
- > Customizable audio feedback
- > Built-in web browsing^[1]
- > On-screen multi-language keyboard
- > Customizable screensaver
- > Single-wire Ethernet connectivity
- > PoE or PoE+ network powered (refer to specifications)
- > US, UK, or European electrical wall box mounting
- > Lectern mount over a rectangular cutout
- > Retrofit and masonry mounting options available^[6]
- > Multi-surface and ADA compliance mounting options available^[3]
- > Tabletop and swivel mount options available^[3]
- > 3 RU rack mount option available^[3]
- > Available in smooth black or white finish

Advanced Touch Screen Control

A Crestron® touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens simplify and enhance the way you use technology, doing away with those piles of remote controls, cluttered wall switches, disparate smartphone apps, and cryptic computer screens. For controlling audio, video, lighting, shades, HVAC, security, and other systems, Crestron touch screens are fully-customizable with easy-to-use controls and icons, true feedback and real-time status display, live streaming video, voice recognition, web browsing, and a full-featured media player for an enhanced multiroom entertainment experience.

With its clean, contemporary design highlighted by edge-to-edge glass and stunning color graphics, the Crestron TSW-760 touch screen makes an elegant statement on any wall, tabletop, lectern, or equipment rack.



Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility.

The TSW-760 delivers the ultimate touch screen experience in an unobtrusive, space-saving design. It features a brilliant 7 inch capacitive touch screen display with Smart Graphics® and 5 soft-touch buttons. PoE connectivity and a range of mounting options make installation a breeze for both new and retrofit applications. Additional advanced features include the abilities to control any function using voice commands, view security cameras and other video sources, communicate using built-in video intercom and phone capabilities, manage meeting room scheduling, browse the Internet, and enjoy full access to your Sonos® Home Sound System.^[1]

Smart Graphics®

Crestron touch screens use Smart Graphics to deliver the ultimate user experience *and* the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip
- Drag-and-drop objects that snap into place, offering an easy way to switch sources
- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information^[1]
- A power-saving screensaver that allows display of time, temperature, and other text content at a reduced brightness level

TSW-760 7" Touch Screen



TSW-760-W-S – Shown in White

- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming
- A consistent look and feel across multiple touch screens of varying sizes

Soft-Touch Buttons

The TSW-760 includes five backlit, soft-touch capacitive buttons for quick access to commonly used functions. These buttons are pre-labeled with icons for “Power”, “Home”, “Lights”, “Up”, and “Down” functions. Each button is programmable via the [control system](#) for custom functionality, and any unused button can be hidden by simply turning off its backlight.

Auto-Brightness Control

To ensure optimal visibility under varying lighting conditions, the TSW-760 includes a built-in light sensor, which regulates the brightness of the display and button backlighting according to the ambient light level in the room. Separate auto-brightness settings are provided for the display and buttons to allow each to be adjusted or defeated as needed.

Voice Recognition

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TSW-760 provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting scene, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest.^[1,2]

Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TSW-760 to display live streaming video from an IP camera, a streaming encoder (Crestron [CEN-NVS200](#), [DM-TXRX-100-STR](#), or similar^[3]), or a [DigitalMedia™ switcher](#). Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.



TSW-760-B-S with TSW-760-TTK-B-S Tabletop Kit

Rava® SIP Intercom

[Rava](#) SIP Intercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom, video intercom, and paging without requiring any special wiring. VoIP phone capability is also possible through integration with a SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication using the TSW-760's integrated microphone and speakers.^[2]

Built-in Camera

A 5 megapixel camera is built into the TSW-760 to support video intercom and room monitoring capabilities. This feature allows individuals to communicate both verbally and visually between two touch screens, or between one touch screen and a Rava-compatible video door station. It can also be used to visually monitor any room securely using an H.264 compatible decoder (Crestron [DM-TXRX-100-STR](#), [DM-RMC-100-STR](#), or similar^[3]) or a third-party video monitoring system. When not needed, the camera feature can be turned off programmatically through the control system. A “no-camera” model is also available.^[2]

Sonos® App

Merging technologies from [Sonos](#) and Crestron brings a whole-house music experience like no other. From any touch screen in the house, a family can effortlessly browse for tracks, artists, or playlists using all the services available from Sonos and instantly play them in any room using Sonos wireless speakers or a Crestron [Sonnex®](#) Multiroom Audio System. The Sonos app runs natively on the TSW-760, enabling enhanced control of Sonos products as part of a complete Crestron system. The app checks for updates nightly so it's always current.^[1]

Room Scheduling

The TSW-760 can provide an invaluable productivity tool for corporate enterprises and other organizations that use [Crestron Fusion®](#), Microsoft® Outlook®, Google Calendar™, or another calendaring application to schedule meetings and manage rooms. Mounted on the wall outside each room, the TSW-760 allows anyone to see at-a-glance if the room is

TSW-760 7" Touch Screen

available or in use, and to view details about the current meeting. A swipe of the finger reveals the room's entire schedule for the day, displaying upcoming meetings and open time slots, and allowing the room to be reserved right on the spot.

Room scheduling functionality is enabled on the TSW-760 using the built-in room scheduling application, which syncs directly over the network with Crestron Fusion, Microsoft Exchange, Office 365®, Google Calendar, or G Suite™. A Room Availability Hallway Sign (model [SSC](#) or [SSW](#)^[3]) can be added for enhanced visibility.^[4]

PinPoint™ Beacon (Coming Soon)

The built-in PinPoint proximity detection beacon enhances the intelligence and personalization of a Crestron system by enabling a smartphone or tablet device to always know what room it's in. It works with the [Crestron App](#) or [Crestron PinPoint App](#), using Bluetooth® technology to determine when the mobile device is in or near the same room as the beacon, and signals the mobile app to automatically display the appropriate controls and information for that location.^[2,5]

Web Browsing

Using its built-in web browser, the TSW-760 provides quick access to online program guides and other web-based services at the touch of a button, allowing enhanced touch screen control of DVRs and other appliances without having to pick up a separate tablet or smartphone. If a device can be controlled or managed through a web browser, it can be integrated into the Crestron system through the TSW-760. Of course, the web browser may also be used to simply browse the Internet, check traffic conditions, or look up a recipe.^[1]

On-Screen Keyboard

Typing in passwords, URLs, and text searches is facilitated using the on-screen multi-language keyboard.

Multi-Touch Support

The TSW-760's capacitive touch screen affords enhanced capabilities for browsing web pages using multi-touch gestures.

Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

Single-Wire Connectivity

A simple Ethernet LAN connection is all that is required to wire the TSW-760, containing all control, video, intercom, and power signals within a single wire.

Power over Ethernet

Using PoE technology, the TSW-760 gets its operating power right through the LAN wiring. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector ([PWE-4803RU](#)^[3]) simply connects in line with the LAN cable at a convenient location. Crestron PoE switches ([CEN-SW-POE-5](#) or [CEN-SWPOE-16](#)^[3]) may also be used to provide a total networking solution with built-in PoE.

Note: Refer to the "Power" specifications for additional details.



Room scheduling application

Wall or Lectern Mounting Options

Using the bracket provided, the TSW-760 is easily installed over a 2-gang or 3-gang electrical box, or a 2-gang European or UK electrical box. The same bracket allows for installation in a wooden lectern or podium over a rectangular cutout. When installed, the touch screen protrudes just 1/2 inch from the mounting surface and latches firmly into its mounting bracket leaving no visible screws for an ultra clean appearance. A security latch option is included to deter unauthorized removal of the touch screen.

Additional mounting options are afforded using the [TSW-UMB-60](#) Universal Mounting Bracket. By itself, the TSW-UMB-60 provides a post-construction solution for retrofitting the TSW-760 into existing drywall. For pre-construction applications that don't require a back box, the TSW-UMB-60 can be used along with a [TSW-UMB-60-PMK](#) Pre-Construction Mounting Kit. Masonry and concrete applications are accommodated using the TSW-UMB-60 along with a [TSW-UMB-60-BBI](#) back box. The TSW-UMB-60 is compatible with [TSW-560](#), -760, and -1060 model touch screens, making it easy to change devices at any time.^[6]

When installing the TSW-760 in place of an older Crestron touch screen (APAD, CT-1000, LC-1000, TPS-4L, or TPS-2000L), Crestron offers Retrofit Mounting Brackets ([TSW-60-RMB](#) series^[3]), which facilitate replacement without having to tear out the old mounting hardware or patch the wall.^[6]

For impenetrable surfaces, such as glass, granite, or marble, or for applications requiring ADA compliance, Crestron offers the Multi-Surface Mount Kit ([TSW-760/1060-MSMK](#)^[3]). This option allows for attaching securely to virtually any smooth, flat surface without screws, providing an ideal solution for modern offices with glass walls or historically significant spaces where cutting and drilling is prohibited. It can also be mounted over a conventional electrical box. When installed, the touch screen is angled upwards at a 20° tilt to allow for mounting at an ADA approved height.

Tabletop Option

Using the optional Tabletop Kit ([TSW-760-TTK](#)^[3]), the TSW-760 becomes a stylish, freestanding touch screen that fits perfectly on a table, desk, or countertop. It can even be permanently attached to the surface using the optional Swivel Mount Kit ([TSW-560/760/1060-SMK](#)^[3]).

Rack Mount Option

The TSW-760 can be mounted in a 19" EIA equipment rack using the optional Rack Mount Kit ([TSW-560/760-RMK-1](#)^[3]). When rack mounted, the touch screen occupies three rack spaces.

TSW-760 7" Touch Screen

SPECIFICATIONS

Touch Screen Display

Display Type: TFT active matrix color LCD
Size: 7 inch (178 mm) diagonal
Aspect Ratio: 17:10 WSVGA
Resolution: 1024 x 600 pixels
Brightness: 350 nits (cd/m²)
Contrast: 1100:1
Color Depth: 24-bit, 16.7M colors
Illumination: Edgelit LED w/auto-brightness control
Viewing Angle: ±80° horizontal, ±80° vertical
Touch Screen: Projected capacitive, 5-point multi-touch capable

Buttons

Hard Keys: (5) Projected capacitive pushbuttons, backlit w/auto-brightness control, per-button show/hide (backlight enable/disable), pre-labeled with icons for "Power", "Home", "Lights", "Up", and "Down"
Reset: (1) Miniature pushbutton on rear panel for hardware reset

Graphics Engine

Crestron Smart Graphics, multi-language web browser^[1], multi-language on-screen keyboard, screensaver, single scalable streaming video window, native Sonos app^[1], native room scheduling application^[4], setup and diagnostics via web browser or onscreen UI

Languages

Smart Graphics: Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch, English (UK), English (US), Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Portuguese (Brazilian), Romanian, Russian, Slovak, Spanish, Swedish, Thai
On-Screen Keyboard: Arabic, Chinese (Simplified), Croatian, Czech, Danish, Dutch, English (UK), English (US), Finnish, French (Canada), French (Switzerland), German, Hebrew, Hungarian, Italian, Japanese, Norwegian Bokmal, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Turkish
Voice Recognition: Afrikaans (South Africa); Chinese, Mandarin (China, Simplified); Chinese, Mandarin (Hong Kong, Simplified); Chinese, Mandarin (Taiwan, Traditional); Chinese, Yue (Hong Kong, Traditional); Czech (Czech Republic); Dutch (Netherlands); English (Australia); English (Canada); English (Generic); English (India); English (New Zealand); English (South Africa); English (UK); English (US); French (France); German (Germany); isiZulu (South Africa); Italian (Italy); Japanese (Japan); Korean (South Korea); Polish (Poland); Portuguese (Brazil); Russian (Russia); Spanish (Spain); Turkish (Turkey)
Web Browser: Arabic, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian Bokmal, Pashto, Persian, Polish, Portuguese, Romanian, Romansh, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese
Room Scheduling^[4]: Chinese (Simplified), Chinese (Traditional), Danish, Dutch (Netherlands), English (US), English (UK), French, German, Hebrew,

Italian, Japanese, Korean, Norwegian, Portuguese (Brazil), Portuguese (Portugal), Russian, Spanish, Swedish

Memory

RAM: 2 GB DDR3L
Storage: Firmware/Application: 4 GB Class 10 microSD card;
System: 4 GB eMMC
Maximum Project Size: 600 MB

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, SNMP, IPv4 or IPv6, IEEE 802.3at compliant
USB: USB 2.0 host for room availability hallway sign^[3,4]
Bluetooth: Crestron PinPoint proximity detection beacon^[2,5]

Streaming Decoder

Video Formats: H.264 (MPEG-4 part 10 AVC), MJPEG
Audio Formats: AAC stereo
Bitrates: Up to 25 Mbps (20 Mbps maximum recommended)
Streaming Input Resolutions: Up to 1920x1080@30fps
Streaming Protocol: RTSP

Streaming Encoder & Camera^[2]

Camera Resolution: 5.0 MP
Field of View: 50° horizontal
Video Format: H.264 (MPEG-4 part 10 AVC)
Streaming Output Resolution: 1280x720
Streaming Protocol: RTSP, ONVIF discovery

Audio

Features: Built-in microphone and speakers, Rava SIP Intercom, multi-language voice recognition^[1,2]
Audio Feedback Formats: MP3

Connectors

LAN PoE: (1) 8-pin RJ45 connector, female, with 2 LED indicators; 10Base-T/100Base-TX Ethernet port & PoE+ PD port; Green and yellow LEDs indicate Ethernet port status
USB: (1) USB Type A connector, female; USB 2.0 host port; For optional room availability hallway sign^[3,4]

Power

Power over Ethernet:
IEEE 802.3at Type 2 compliant PoE+ PD (Powered Device);
- Requests 15 Watts from an 802.3at Type 2 PSE with LLDP advanced power management;
- Requests 30 Watts (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP;

TSW-560P

5" Touch Screen, Portrait

- > Ultra clean, modern appearance
- > Thin profile and small footprint
- > Affordable and easy to install
- > Portrait-oriented 5" active-matrix color display
- > 540 x 960 qHD display resolution
- > Capacitive touch screen technology
- > Multi-touch capable
- > Smart Graphics® performance
- > Backlit soft-touch capacitive buttons
- > Any/all button hide feature
- > Auto-brightness control
- > Voice recognition capability^[1]
- > H.264 or MJPEG streaming video display
- > Built-in microphone and speakers
- > Rava® SIP intercom and phone technology
- > Native Sonos® app
- > Built-in PinPoint™ beacon^[3]
- > Customizable audio feedback
- > Built-in web browsing^[1]
- > On-screen multi-language keyboard
- > Customizable screensaver
- > Single-wire Ethernet connectivity
- > PoE or PoE+ network powered (refer to specifications)
- > Pre or post-construction wall mounting
- > Lectern mount over a rectangular cutout
- > TSW-UMB-60 Universal Mounting Bracket included
- > TSW-UMB-560P-PMK Pre-Construction Mounting Kit included
- > Masonry compatible back box available^[2]
- > Available in smooth black or white finish

Advanced Touch Screen Control

A Crestron® touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens simplify and enhance the way you use technology, doing away with those piles of remote controls, cluttered wall switches, disparate smartphone apps, and cryptic computer screens. For controlling audio, video, lighting, shades, HVAC, security, and other systems, Crestron touch screens are fully-customizable with easy-to-use controls and icons, true feedback and real-time status display, live streaming video, voice recognition, web browsing, and a full-featured media player for an enhanced multiroom entertainment experience.

With its clean, contemporary design highlighted by edge-to-edge glass and stunning color graphics, the Crestron TSW-560P touch screen makes an elegant statement on any wall or lectern. Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility.



The TSW-560P delivers the ultimate touch screen experience in an unobtrusive, space-saving design featuring a brilliant portrait-oriented 5 inch capacitive touch screen display with Smart Graphics® and 5 soft-touch buttons. PoE connectivity and a range of mounting options make installation a breeze for both new and retrofit applications. Additional advanced features include the abilities to control any function using voice commands, view security cameras and other video sources, communicate using built-in intercom and phone capabilities, browse the Internet, and enjoy full access to your Sonos® Home Sound System.^[1]

Smart Graphics®

Crestron touch screens use Smart Graphics to deliver the ultimate user experience *and* the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip
- Drag-and-drop objects that snap into place, offering an easy way to switch sources
- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information^[1]

TSW-560P 5" Touch Screen, Portrait

- A power-saving screensaver that allows display of time, temperature, and other text content at a reduced brightness level
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming
- A consistent look and feel across multiple touch screens of varying sizes

Soft-Touch Buttons

The TSW-560P includes five backlit, soft-touch capacitive buttons for quick access to commonly used functions. These buttons are pre-labeled with icons for “Power”, “Home”, “Lights”, “Up”, and “Down” functions. Each button is programmable via the control system for custom functionality, and any unused button can be hidden by simply turning off its backlight.

Auto-Brightness Control

To ensure optimal visibility under varying lighting conditions, the TSW-560P includes a built-in light sensor, which regulates the brightness of the display and button backlighting according to the ambient light level in the room. Separate auto-brightness settings are provided for the display and buttons to allow each to be adjusted or defeated as needed.

Voice Recognition

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TSW-560P provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting scene, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest.^[1]

Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TSW-560P to display live streaming video from an IP camera, a streaming encoder (Crestron [CEN-NVS200](#), [DM-TXRX-100-STR](#), or similar ^[2]), or a [DigitalMedia™](#) switcher. Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

Rava® SIP Intercom

[Rava SIP Intercom Technology](#) enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom and paging without requiring any special wiring. VoIP phone capability is also possible through integration with a SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication using the TSW-560P's integrated microphone and speakers.

Sonos® App

Merging technologies from Sonos and Crestron brings a whole-house music experience like no other. From any touch screen in the house, a family can effortlessly browse for tracks, artists, or playlists using all the



TSW-560P-W-S — Shown in white

services available from Sonos and instantly play them in any room using Sonos wireless speakers or a Crestron Sonnex® Multiroom Audio System. The Sonos app runs natively on the TSW-560P, enabling enhanced control of Sonos products as part of a complete Crestron system. The app checks for updates nightly so it's always current.^[1]

PinPoint™ Beacon (Coming Soon)

The built-in PinPoint proximity detection beacon enhances the intelligence and personalization of a Crestron system by enabling a smartphone or tablet device to always know what room it's in. It works with the [Crestron App](#) or [Crestron PinPoint App](#), using Bluetooth® technology to determine when the mobile device is in or near the same room as the beacon, and signals the mobile app to automatically display the appropriate controls and information for that location.^[3]

Web Browsing

Using its built-in web browser, the TSW-560P provides quick access to online program guides and other web-based services at the touch of a button, allowing enhanced touch screen control of DVRs and other appliances without having to pick up a separate tablet or smartphone. If a device can be controlled or managed through a web browser, it can be integrated into the Crestron system through the TSW-560P. Of course, the web browser may also be used to simply browse the Internet, check traffic conditions, or look up a recipe.^[1]

On-Screen Keyboard

Typing in passwords, URLs, and text searches is facilitated using the on-screen multi-language keyboard.

Multi-Touch Support

The TSW-560P's capacitive touch screen affords enhanced capabilities for browsing web pages using multi-touch gestures.

TSW-560

5" Touch Screen

- > Ultra clean, modern appearance
- > Thin profile and small footprint
- > Affordable and easy to install
- > 5" widescreen active-matrix color display
- > 960 x 540 qHD display resolution
- > Capacitive touch screen technology
- > Multi-touch capable
- > Smart Graphics® performance
- > Backlit soft-touch capacitive buttons
- > Any/all button hide feature
- > Auto-brightness control
- > Voice recognition capability^[1,2]
- > H.264 or MJPEG streaming video display
- > Built-in 5 MP H.264 IP camera^[2]
- > Built-in microphone and speakers^[2]
- > Rava® SIP intercom and phone technology^[2]
- > Native Sonos® app
- > Built-in PinPoint™ beacon^[2,4]
- > Customizable audio feedback
- > Built-in web browsing^[1]
- > On-screen multi-language keyboard
- > Customizable screensaver
- > Single-wire Ethernet connectivity
- > PoE or PoE+ network powered (refer to specifications)
- > Pre or post-construction wall mounting
- > Lectern mount over a rectangular cutout
- > TSW-UMB-60 Universal Mounting Bracket included
- > TSW-UMB-60-PMK Pre-Construction Mounting Kit included^[5]
- > Masonry compatible back box available^[3,5]
- > Tabletop and swivel mount options available^[3]
- > 3 RU rack mount option available^[3]
- > Available in smooth black or white finish

Advanced Touch Screen Control

A Crestron® touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens simplify and enhance the way you use technology, doing away with those piles of remote controls, cluttered wall switches, disparate smartphone apps, and cryptic computer screens. For controlling audio, video, lighting, shades, HVAC, security, and other systems, Crestron touch screens are fully-customizable with easy-to-use controls and icons, true feedback and real-time status display, live streaming video, voice recognition, web browsing, and a full-featured media player for an enhanced multiroom entertainment experience.



With its clean, contemporary design highlighted by edge-to-edge glass and stunning color graphics, the Crestron TSW-560 touch screen makes an elegant statement on any wall, tabletop, lectern, or equipment rack. Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility.

The TSW-560 delivers the ultimate touch screen experience in an unobtrusive, space-saving design. It features a brilliant 5 inch capacitive touch screen display with Smart Graphics® and 5 soft-touch buttons. PoE connectivity and a range of mounting options make installation a breeze for both new and retrofit applications. Additional advanced features include the abilities to control any function using voice commands, view security cameras and other video sources, communicate using built-in video intercom and phone capabilities, browse the Internet, and enjoy full access to your Sonos® Home Sound System.^[1]

Smart Graphics®

Crestron touch screens use Smart Graphics to deliver the ultimate user experience *and* the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip
- Drag-and-drop objects that snap into place, offering an easy way to switch sources

TSW-560 5" Touch Screen



TSW-560-W-S – Shown in White

- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information ^[1]
- A power-saving screensaver that allows display of time, temperature, and other text content at a reduced brightness level
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming
- A consistent look and feel across multiple touch screens of varying sizes

Soft-Touch Buttons

The TSW-560 includes five backlit, soft-touch capacitive buttons for quick access to commonly used functions. These buttons are pre-labeled with icons for “Power”, “Home”, “Lights”, “Up”, and “Down” functions. Each button is programmable via the [control system](#) for custom functionality, and any unused button can be hidden by simply turning off its backlight.

Auto-Brightness Control

To ensure optimal visibility under varying lighting conditions, the TSW-560 includes a built-in light sensor, which regulates the brightness of the display and button backlighting according to the ambient light level in the room. Separate auto-brightness settings are provided for the display and buttons to allow each to be adjusted or defeated as needed.

Voice Recognition

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TSW-560 provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting scene, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest. ^[1,2]



TSW-560-B-S with TSW-560-TTK-B-S Tabletop Kit

Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TSW-560 to display live streaming video from an IP camera, a streaming encoder (Crestron [CEN-NVS200](#), [DM-TXRX-100-STR](#), or similar ^[3]), or a [DigitalMedia™ switcher](#). Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

Rava® SIP Intercom

[Rava](#) SIP Intercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom, video intercom, and paging without requiring any special wiring. VoIP phone capability is also possible through integration with a SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication using the TSW-560's integrated microphone and speakers. ^[2]

Built-in Camera

A 5 megapixel camera is built into the TSW-560 to support video intercom and room monitoring capabilities. This feature allows individuals to communicate both verbally and visually between two touch screens, or between one touch screen and a Rava-compatible video door station. It can also be used to visually monitor any room securely using an H.264 compatible decoder (Crestron [DM-TXRX-100-STR](#), [DM-RMC-100-STR](#), or similar ^[3]) or a third-party video monitoring system. When not needed, the camera feature can be turned off programmatically through the control system. A “no-camera” model is also available. ^[2]

Cameo® Keypad, Standard Mount



- > Stylish and versatile wall-mount keypad
- > Standard electrical box installation
- > 12 color-matched smooth and textured finishes
- > Ascent® solid metal faceplates available separately^[2]
- > Versatile combinations of 2 to 8 pushbuttons
- > Installer-configurable with choice of 4 button sizes
- > "Split" buttons for "up/down" and "on/off" functions^[3]
- > "Button Events" enable tap, double-tap, and press and hold functionality
- > Customizable backlit button engraving^[1]
- > White LED feedback indicators
- > Built-in LED blinking and bar graph logic
- > Auto-dimmable backlight and LED intensity
- > Ambient light sensor
- > Dual digital/analog input ports for external sensors
- > Quick and easy installation
- > Cresnet® wired communications

The Cameo® Standard Mount Keypad (C2N-CBD-P) from Crestron® presents a fresh, innovative concept in keypad design, featuring a highly configurable one-gang wall mount form factor that is at once inviting to the touch and appealing to the eye. The C2N-CBD-P easily installs alongside other low-voltage in-wall devices to deliver an advanced custom keypad control solution as part of a complete Crestron control system.

Customizable Buttons

Exquisitely simple yet highly customizable, a single Cameo Keypad can be configured easily by the installer to provide from two to eight buttons. Each keypad is actually furnished with an assortment of button caps in four different sizes to support a variety of physical layouts. Button caps may also be ordered with custom backlit laser engraving to clearly designate each button's function.^[1]

Through programming, each button can be configured to use "button events," affording up to three separate functions per button by tapping, double-tapping, or pressing and holding the button. "Shift key" functionality, in which the user presses and holds one button while simultaneously tapping another, provides further customization for this versatile keypad.

Auto-dimming Backlight

High-quality backlit laser engraving^[1] provides customizable button text that's easy to read under any lighting condition. A built-in light sensor controls the backlight intensity automatically to achieve crisp, legible text in both darkened and fully lit rooms.



Actual colors may vary.

C2N-CBD-P Cameo® Keypad, Standard Mount

Enhanced LED Feedback

Six pinhead-sized white LEDs afford fully customizable feedback to show the status of each button. Ten blink patterns are built in, enabling blinking LED feedback with simplified programming and reduced traffic on the Cresnet® network. Onboard bar graph logic allows the feedback LEDs to function as a 6-segment bar graph display, providing clear level indication while adjusting lighting and audio settings. Auto-dimming LED intensity ensures optimal visibility under varying lighting conditions.

Ambient Light Sensor

In addition to controlling the backlight and LED intensity, the built-in light sensor can also be utilized by the control system to support basic daylight harvesting and other programmatic functions.

Control Ports

Dual digital/analog input ports onboard the C2N-CBD-P provide a local interface for a range of devices including the Crestron [GLS Series](#) Occupancy Sensors and Photosensors or any device providing a contact closure, DC logic, or 0-10 Volts DC analog voltage. Using the control ports, it's possible to add monitoring of room occupancy, ambient light level, door closures, and other conditions without having to home run extra wiring to the central equipment location.

Cresnet

The Cresnet bus is the communications backbone for many Crestron keypads, lighting controllers, shade motors, sensors, and other devices. Cresnet is a simple, yet flexible 4-wire network that provides bidirectional communication and 24VDC power for Cresnet devices. Cresnet supports up to 252 keypads and other devices.

Standard Wall Mount

Cameo Standard Mount Keypads are designed for installation in a standard electrical wall box, making them perfect for installation in a multi-gang box alongside other low-voltage devices. Available in a selection of 12 colors with "smooth" or "textured" finishes, Cameo Keypads match perfectly with popular off-the-shelf decorator-style faceplates.

Ascent® Metal Faceplates

For the ultimate in style and elegance, Crestron offers the Ascent collection of solid metal faceplates ([CBD-FP-ASCENT^{\(2\)}](#)), providing Cameo keypads with a contemporary appearance in a range of luxurious designer finishes.

SPECIFICATIONS

Buttons

Keypad Buttons: Configurable for 2 to 8 single-action pushbuttons

Button Events: Programmable for Normal, Tap, Double-Tap, and Press and Hold

Button Caps: Includes (2) large, (3) medium, (5) small, and (2 pair) split small button caps;^[3]

All button caps are blank; Custom-engraved, backlit button caps are available separately

Backlight: White LED backlight for button engraving; Software-adjustable intensity, auto-dimmable

LED Indicators

Feedback: (6) White LEDs, one per each of 6 small button positions; Programmable, auto-dimmable, software-adjustable intensity, 10 blinking patterns

Bar Graph: (1) 6-segment bar graph display utilizing the 6 feedback LEDs

Light Sensor

Photosensor for control of auto-dimming function;

Can be configured to report ambient light level to control system

Connectors

NET: 4-pin 3.5mm detachable terminal block; Cresnet® slave port, connects to Cresnet control network

INPUT 1 – 2: (1) 3-pin 3.5mm detachable terminal block comprising (2) digital/analog input ports (referenced to GND);

Digital Input: Rated for 0-24 Volts DC, input impedance 200k Ohms, logic threshold 1.24 Volts DC;

Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 200k Ohms;

Programmable 5 Volts, 2k Ohms pull-up resistor per pin

Power Requirements

Cresnet Power Usage: 1 Watt (0.05 Amps at 24 Volts DC)

Environmental

Temperature: 32° to 113° F (0° to 45° C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 3.4 BTU/Hr

Construction

Chassis: Plastic

Mounting: Mounts in a 1-gang or larger electrical box or mud ring

Faceplates: Requires a decorator style faceplate (not included) or Crestron CBD-FP-ASCENT series faceplate^[2]

GLPAC-DIMFLV

Crestron Green Light® Integrated Lighting System

- > Up to 8 channels of 0-10 Volt dimming control
- > Works in 100 to 277 VAC systems
- > 16-Amp load rating per channel
- > Built-in Control System with Cresnet® and Ethernet port
- > UL924 compliant emergency configuration in GLPAC-DIMFLV8-4E Series models
- > Programmable astronomical time clock for scheduled events
- > Preloaded program for quick setup
- > Optional real-time power monitoring per channel
- > Supports keypad control, occupancy sensing, and daylight harvesting for up to 4 rooms
- > Positive air gap at each output
- > Phase-independent channels
- > Local controls for setup, testing and verification
- > Local and remote override capability
- > Non-volatile power failure memory
- > High-speed Ethernet LAN port
- > CEC Title 24 2013 Compliant

The GLPAC-DIMFLV is a Crestron Green Light® integrated lighting system designed for use as a standalone lighting controller in classrooms, conference rooms, and offices. While able to deliver four or eight channels of 0-10 Volt dimming control, each GLPAC-DIMFLV also provides a link to a centralized Crestron® lighting control system. Add optional real-time power monitoring and **Fusion EM®** Energy Management Software to help track and minimize energy usage throughout a facility. Cresnet® and Ethernet connectivity afford extensive system configuration when using keypads, touch screens, shade controllers, and more.

Flexibility

Each GLPAC-DIMFLV can be used to control a single room or up to four independent rooms. Single-room control is available right out of the box, with no additional configuration required. Multi-room control and other system adjustments are accomplished using local controls on the GLPAC-DIMFLV or via the built-in web interface. And because the GLPAC-DIMFLV is a Crestron 2-Series control processor, limitless customization is possible for specialized applications.

Astronomical Time Clock Feature

Scheduled events may be programmed on the GLPAC-DIMFLV according to an astronomical time clock. As a result, events can be set to occur at specific times or at an offset from sunrise or sunset.

Save Energy

Built-in support for occupancy sensors and photosensors helps to reduce energy costs. Automatically turn off lights in unoccupied areas and maintain balanced bulb brightness with the natural light level in the room. Crestron GLS Series sensors can be placed strategically in each space to maximize the benefits of energy management.



Emergency Configuration

Each GLPAC-DIMFLV8-4E Series model features built-in voltage barriers that isolate four of its eight output channels. This configuration allows loads such as emergency lighting and exit signs to be supplied from two asynchronous sources.

Built-in Power Monitoring

Optional power monitoring tracks the real time energy usage of each load and delivers energy consumption statistics to the user to help control energy costs. By analyzing real data, organizations can make more educated decisions regarding energy resources, which will have greater impact on the bottom line.

Easy Deployment

Packaged in one metal enclosure, the GLPAC-DIMFLV can be deployed in small spaces, including plenum ceilings. The surface-mount GLPAC-DIMFLV can be affixed to a wall or ceiling rafter, cleanly out of sight. Standard wire-entry knockouts are provided.

For more information on Crestron Green Light commercial lighting products, please contact Crestron [Sales Support Services](#).

SPECIFICATIONS

Load Ratings

Dimmer Channels: GLPAC-DIMFLV4 Series: 4

GLPAC-DIMFLV8 Series: 8

GLPAC-DIMFLV8-4E Series: 4 and 4, isolated

Per Channel: 16 Amps @ 100 to 277 Volts AC, 50/60 Hz

Dim Load Types: 0-10 Volt fluorescent ballast or LED driver (4-wire); 60 mA max current sink

Switch Load Types: Fluorescent Ballast, incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, high-intensity discharge, LED, motor

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

Relay Lifetime: Resistive rating: 100,000 on/off operations, 50 Amps @ 277 Volts AC

General rating: 50,000 on/off operations, 16 Amps @ 120/277 Volts AC

Power Requirements

Main Power: 100-277 Volts AC, 50/60Hz, supplied via channel 1 (LINE 1, NEUT)

Available Cresnet Power: 10 Watts at 24 Volts DC, shared with occupancy and photosensor ports

Connectors (Class 1) - 4-Channel Models Only

NEUT: (2) Terminal blocks, paralleled, line input neutral

LINE 1 - LINE 4: (8) Terminal blocks, paralleled, line power inputs

SW1 - SW4: (4) Terminal blocks, switch channel outputs

0-10V DIM (+,-) 1-4: (1) 8-position terminal block, dim channel output, galvanically isolated; May be wired as Class 1 or Class 2

Connectors (Class 1) - 8-Channel Models Only

NEUT: (2) Terminal blocks, paralleled, line input neutral

LINE 1 - LINE 8: (16) Terminal blocks; 2 connections per channel, paralleled, allows for easy daisy chaining; line power inputs

SW1 - SW8: (8) Terminal blocks, switch channel outputs

0-10V DIM (+,-) 1-8: (2) 8-position terminal block, dim channel output, galvanically isolated; may be wired as Class 1 or Class 2

Connectors (Class 2)

NET SLAVE: (1) 4-pin 3.5mm detachable terminal block; Cresnet ports for connection to main control processor or other GLPAC-DIMFLVs, does not output 24 Volts DC

OVR: (1) 2-pin 3.5mm detachable terminal block, comprising (2) inputs for external contact closures to trigger the preset Override state

NET LOCAL: (1) 4-pin 3.5mm detachable terminal block; Cresnet ports for connection to local devices such as keypads, shade controllers, and touch screens; outputs 24 Volts DC

RELAY 1-4 (-PM models only): (1) 8-pin 3.5mm detachable terminal blocks comprising (4) normally open, isolated relays; Programmable or used for interfacing to local Variable Air Volume box to indicate room occupancy; Rated 1 Amp, 30 Volts DC

INPUT 1-8: (1) 9-pin 3.5mm detachable terminal block comprising (8) digital input ports, referenced to ground

OCCUPANCY SENSOR INPUT 1-4: (1) 6-pin 3.5mm detachable terminal block comprising (4) occupancy sensor inputs, (1) +24VDC, and (1) GND port (provides sensors with power)

PHOTOCELL 1-4: (1) 6-pin 3.5mm detachable terminal block comprising (4) photocell sensor inputs, (1) +24VDC, and (1) GND port (provides sensors with power); Min-change setting can be adjusted to control how often sensor reports changes in values

USB: (1) USB Type B console port, for communication with Crestron Toolbox™

LAN: (1) 8-wire RJ45 with 2 LED indicators; 10/100BaseT Ethernet port; Green LED indicates link status; Yellow LED indicates Ethernet activity

Controls & Indicators

MODE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting mode during setup or local control

VALUE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting value

SAVE: (1) Red LED and (1) miniature pushbutton for saving settings

CANCEL: (1) Red LED and (1) miniature pushbutton for cancelling current operation

PWR: (1) Green LED; solid illumination indicates line power is applied to NEUT and LINE1

HW-R: (1) Recessed miniature pushbutton for hardware reset (reboots the processor)

SW-R: (1) Recessed miniature pushbutton for software reset (restarts the SIMPL program)

NET-C: (1) Yellow LED; indicates communication with main control processor (if being used)

NET-L: (1) Yellow LED; indicates communication with local devices

MSG: (1) Red LED; indicates control system has generated an error message

OVR: (1) Red LED and (1) miniature pushbutton for enabling override mode

ON/OFF: (8) Red LEDs and (8) miniature pushbuttons for individual manual channel activation and dimming

Enclosure

Surface mount metal box enclosure, suitable for mounting in plenum airspace

Environmental

Temperature: 32° to 104° F (0° to 40° C)

Humidity: 10% to 90% RH (non-condensing)

Dimensions

Height: 12.13 in (308 mm)

Width: 14.13 in (359 mm)

Depth: 4.06 in (103 mm)

Electrical Regulatory Certifications

Relays tested and certified for Electronic Ballasts according to UL508, Section 41 (Endurance Test) and Section 61C (Electronic Ballasts) IEC60669-2-1, Section 19.102 (Contact mechanisms incorporated in electronic switches, intended for fluorescent lamp circuits or other capacitive loads)

CE

UL924 Listed upon request

CEC Title 24 2013 Compliant

MODELS & ACCESSORIES

Available Models

GLPAC-DIMFLV4: Green Light Integrated Lighting System, 4-Channel

GLPAC-DIMFLV4-CP: Green Light Integrated Lighting System, 4-Channel, Chicago Plenum Enclosure

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

GLPAC-DIMFLV4-PM: Green Light Integrated Lighting System, 4-Channel, Power Monitoring

GLPAC-DIMFLV4-PM-CP: Green Light Integrated Lighting System, 4-Channel, Power Monitoring, Chicago Plenum Enclosure

GLPAC-DIMFLV8: Green Light Integrated Lighting System, 8-Channel

GLPAC-DIMFLV8-CP: Green Light Integrated Lighting System, 8-Channel, Chicago Plenum Enclosure

GLPAC-DIMFLV8-PM: Green Light Integrated Lighting System, 8-Channel, Power Monitoring

GLPAC-DIMFLV8-PM-CP: Green Light Integrated Lighting System, 8-Channel, Power Monitoring, Chicago Plenum Enclosure

GLPAC-DIMFLV8-4E: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed

GLPAC-DIMFLV8-4E-CP: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Chicago Plenum Enclosure

GLPAC-DIMFLV8-4E-PM: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Power Monitoring

GLPAC-DIMFLV8-4E-PM-CP: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Chicago Plenum Enclosure, Power Monitoring

Available Accessories

CNX-B2B Series: Designer Keypads

C2N-CBD-E Series: Cameo® Express Keypads

C2N-CBD-P Series: Cameo® Keypads, Standard Mount

C2N-CBF-P Series: Cameo® Keypads, Flush Mount

GLS-SIM: Crestron Green Light® Sensor Integration Module

GLS-LEXT: Crestron Green Light® Photocell, Exterior

GLS-LOL: Crestron Green Light® Photocell, Open-Loop

GLS-LCL: Crestron Green Light® Photocell, Closed-Loop

GLS-ODT-C-CN: Dual-Technology Occupancy Sensor with Cresnet®, 2000 Sq. Ft.

GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor

GLS-ODT-C-2000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 2000 Sq. Ft.

GLS-ODT-W-1200: Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.

GLS-OIR-C-CN: Passive Infrared Occupancy Sensor with Cresnet®

GLS-OIR-C-NS: Passive Infrared Ceiling Mount Occupancy Sensor

GLS-OIR-W-2500: Crestron Green Light® Passive Infrared Wall Mount Occupancy Sensor, 2500 Sq. Ft.

GLS-PLS-120/277: Power Loss Sensor, 3-Phase, 120 or 277 Volts

DIN-PWS50: DIN Rail 50 Watt Cresnet Power Supply

GLA-PWS50: Wall Mount 50 Watt Cresnet® Power Supply

Notes:

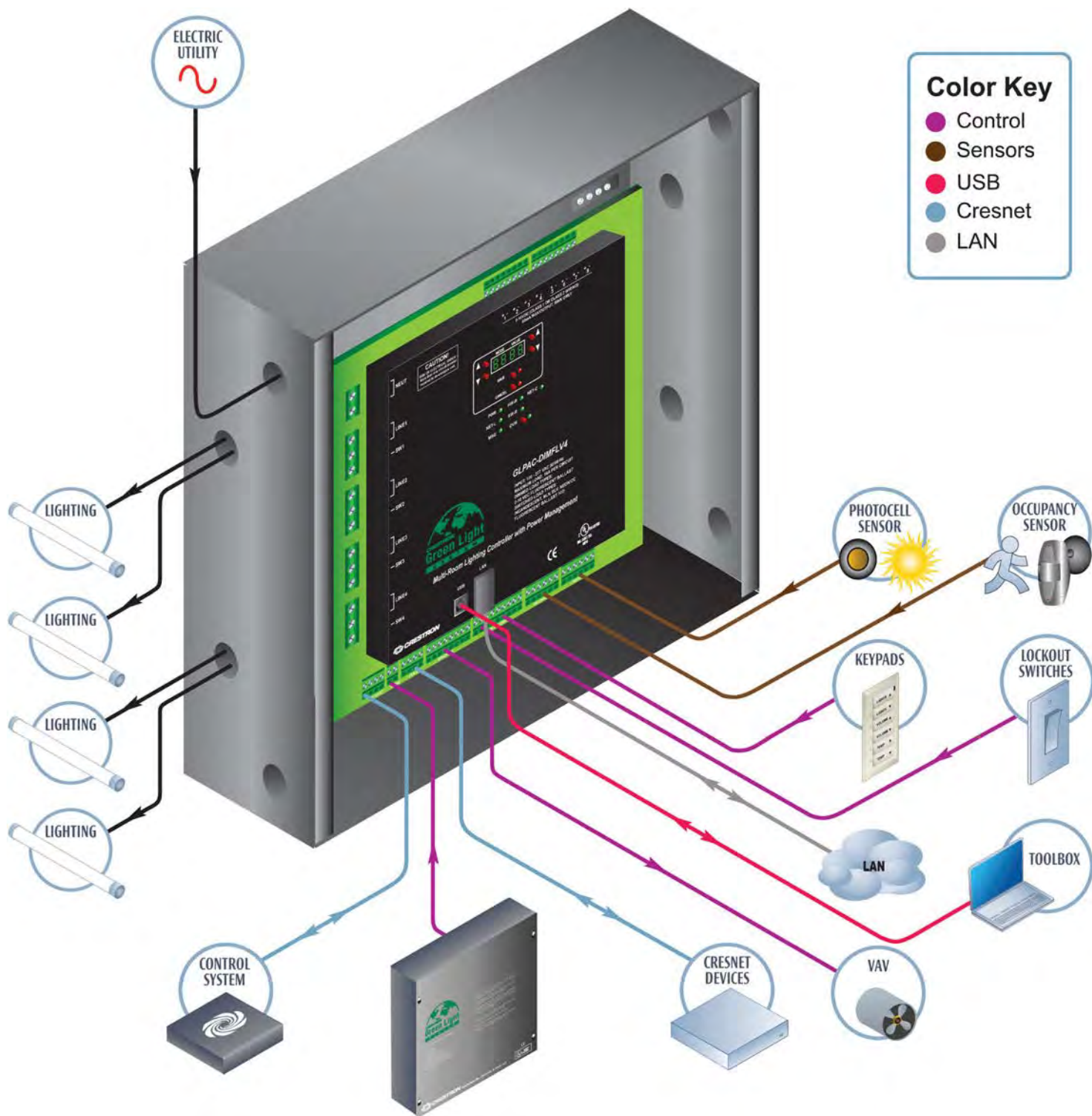
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

APPLICATION DIAGRAM



Crestron Green Light® Power Pack

- > Lighting control for 100-277 Volt AC loads
- > Ideal for new construction or retrofits
- > Quick and easy commissioning via optional handheld remote (GLPPA-REMOTE-PROG)
- > Wired or wireless link to central Crestron® system
- > 1-, 2-, and 3-channel models available
- > Switched and 0-10V dimming models available
- > Occupancy sensor and photosensor integration
- > Support for up to three remote keypads
- > Easy keypad wiring using existing switch-loop wiring
- > Optional handheld remote for daily use (GLPPA-REMOTE-USER)
- > Real-time energy monitoring on select models
- > Adaptive zero-cross switching for extended life
- > Seamless integration with Crestron AV systems
- > CEC Title 24 2013 Compliant
- > UL 2043 Listed

The Crestron Green Light® Power Pack (GLPP) family delivers affordable room lighting control with essential features for reducing energy usage. Available with up to three channels of switching or 0-10V dimming, each GLPP model includes inputs for a photosensor and for an occupancy sensor for intelligent lighting control based on the amount of natural light and the presence of people in a space. The GLPP Series offers a cost-effective and powerful lighting control solution for classrooms, small offices, and open-plan offices.

Ideal for new construction as well as retrofitting existing buildings, GLPPs are designed to install and commission quickly and without hassle. Additionally, the GLPP can be connected to a central control system, enabling it to become an integral part of the building energy management system. The dimming models also include built-in power monitoring to track energy usage in real time, providing accurate metrics to assess real power savings. When installed as a standalone lighting system, the GLPP can be easily commissioned via an optional, wireless IR remote (the [GLPPA-REMOTE-PROG](#)).

Easy Installation

Designed to mount directly over a pair of adjacent 4" square electrical boxes, the GLPP is easy to prepare for and install. High- and low-voltage connections are made using the labeled, color-coded flying-lead wires. Once installed, each unit is instantly operational with out-of-the-box default settings adequate for many applications.

Further commissioning tweaks to the GLPP are a snap with the optional [GLPPA-REMOTE-PROG](#) remote. For added convenience, this remote can use the IR receiver on a [GLS-ODT-C-NS](#) or [GLS-OIR-C-NS](#) occupancy sensor that is connected to the GLPP to send commissioning and setup commands. If occupancy sensors are not present, the optional [GLPPA-IRGW-F](#) flush-mount, external IR receiver facilitates the smooth operation of a GLPP remote in any size room.



Energy Efficiency

Occupancy sensor and photosensor inputs drive the potential for significant energy savings. Lights will turn off automatically when the room is vacated, and rooms with adequate daylight will dim automatically. During the simple commissioning process, these cost-saving techniques can be made permanent to prevent users from overriding them.

Built-in Power Monitoring

Power monitoring, included on all dimming models,^[1] tracks the real time energy usage of each GLPP to help control energy costs. By analyzing real data, organizations can make more educated decisions regarding energy resources, which will have greater impact on the bottom line.

User Interface Options

Recall specific scenes or manually adjust lighting in a space with up to three, 4-button [GLPPA-KP](#) keypads or the optional handheld [GLPPA-REMOTE-USER](#) user remote. To help promote installation in existing spaces, these discrete keypads can be installed in place of standard toggle switches by utilizing existing switch-loop wiring.^[2]

Adaptive Zero-Cross Switching

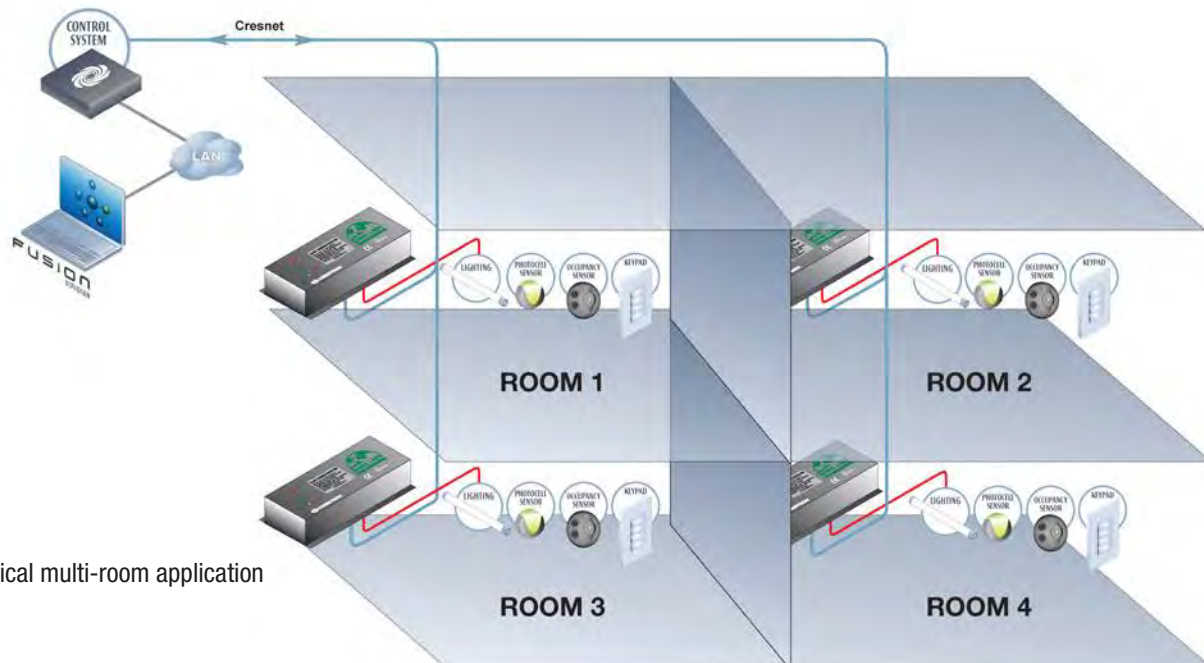
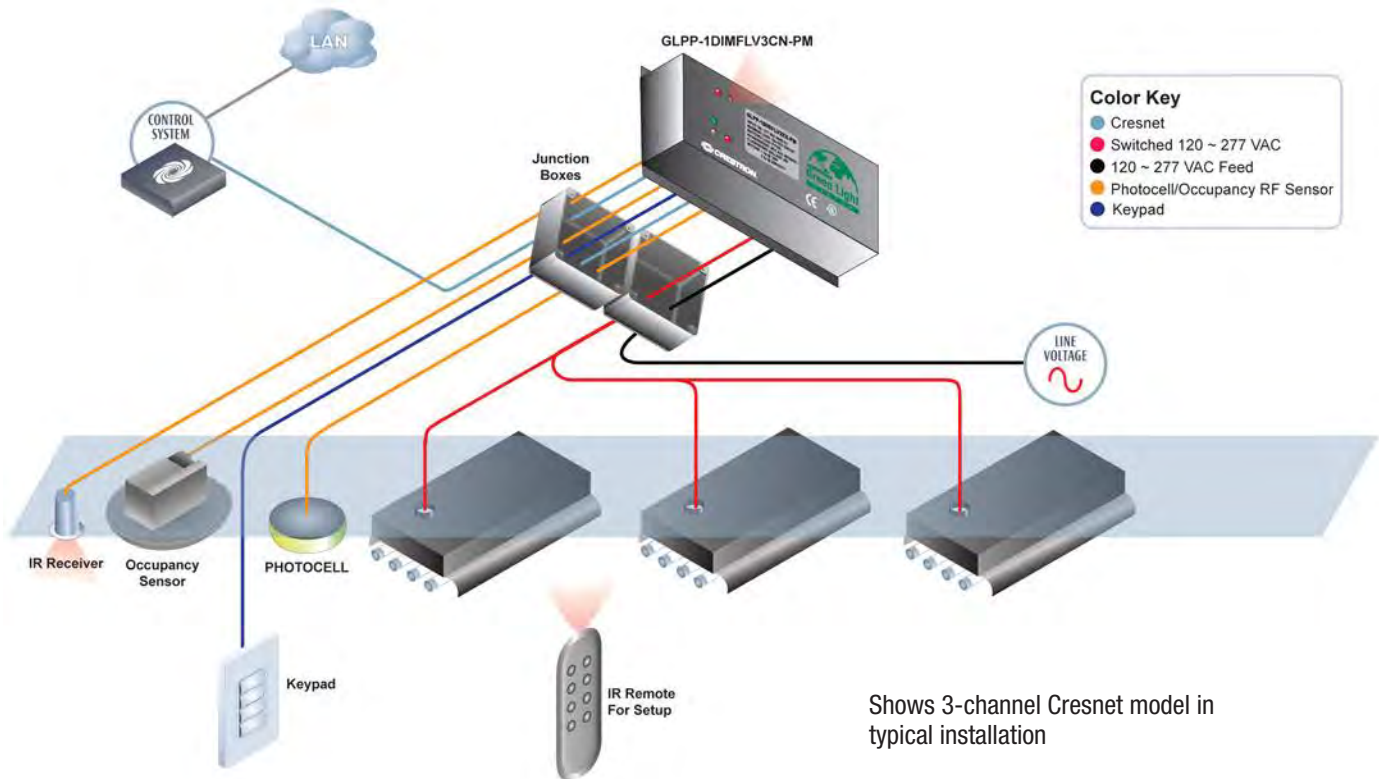
The GLPP is built to last and to extend the life of the connected ballasts and lamps. By using a proprietary, closed-loop zero-cross switching scheme, the GLPP ensures that relay contacts close under no load.

Crestron® Integrated Building Control System

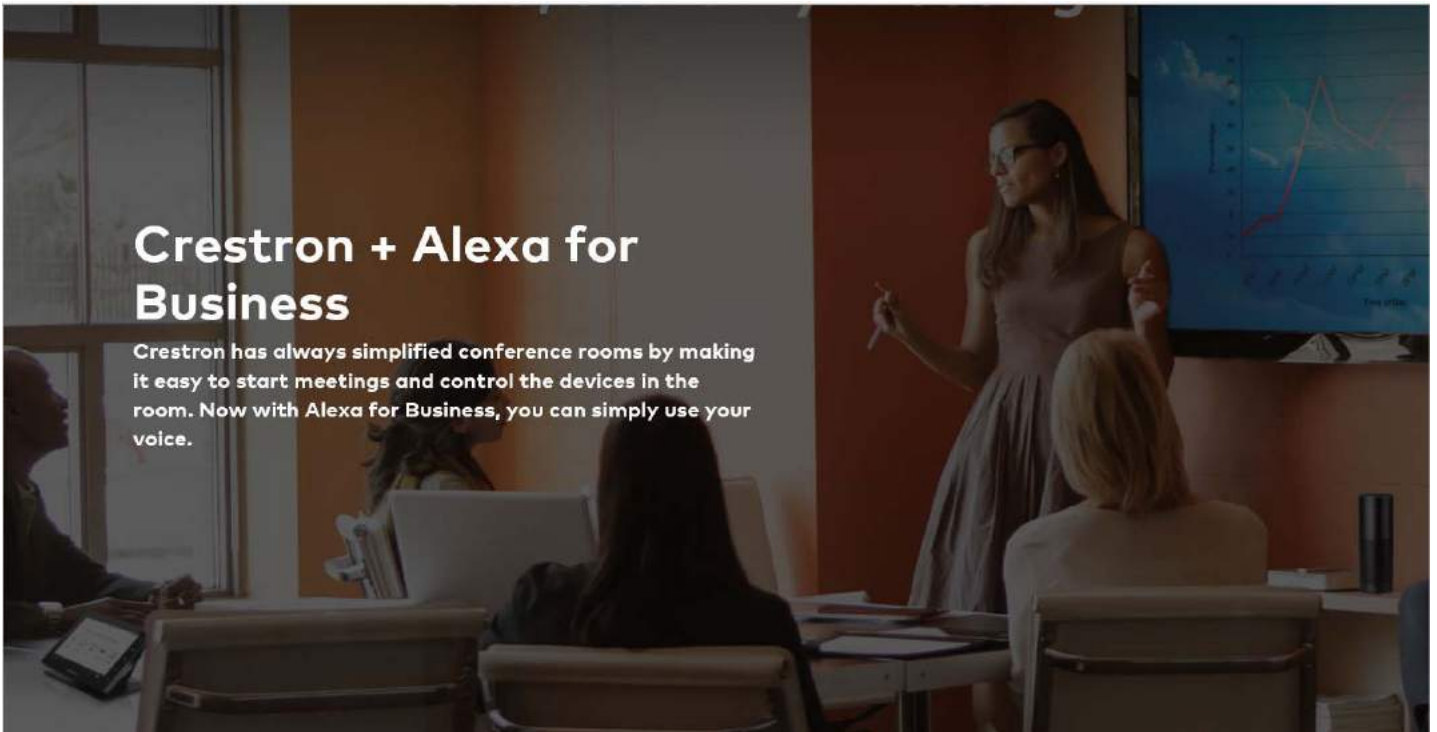
As with all Crestron products, control goes beyond just a single room. While the GLPP is a great single room solution, it is designed to be part of a larger Crestron integrated building system, linked via wired or wireless communication to the central control system. With Crestron Fusion® software, building managers have total energy monitoring, management, and control capabilities over all GLPPs and other installed Crestron equipment.

GLPP Crestron Green Light® Power Pack

APPLICATION DIAGRAMS



CRESTRON + ALEXA VOICE COMMAND



Crestron + Alexa let you start meetings and control your conference room by simply telling Alexa what you want to do. You can simply say "Alexa, start my meeting." From launching a web conference to pulling up presentation materials on-screen, the power of Crestron and Amazon Alexa will help ensure meetings are timely and productive.



Light Master Multifunction Switch

The Amico LightMaster Multifunction Switch is designed to improve the day to day experience of caregivers, patients and visitors alike. With all the advancements in patient room lighting, Amico has made it easy to control the various types of lights required in the patient room. In a single gang space, the LightMaster controls Reading, Ambient, Exam, Night and Chart Lights within one or multiple light fixtures in the patient room.

The LightMaster keypad is designed as a hospital grade low voltage device to ensure that the highest level of safety measures are met. A mylar overlay is used on each keypad for durability and ease of cleaning to minimize infection control issues.



Description:

The LightMaster switching system comes complete with a master control unit and two keypads.

The master control unit is a programmed interface device capable of individual controls of up to five circuit loads. The unit is ultra-compact and requires only two wires from each keypad to control up to five light functions within one or multiple light fixtures.

Microprocessor technology allows the LightMaster to communicate between two keypads and the pillow speaker. This high level of intelligence allows you to turn on/off the light at the head of the bed and turn it on/off at the door.

The Reading and Ambient light controlled via the pillow speaker communicates with the LightMaster keypad. It can be turned on/off at any location in the patient room. This system is compatible with all nurse call manufacturers.

LED indicators on keypads in all locations illuminate to show you which light is in use.

Key Features of the Keypad:

- Controls up to 5 light functions in the patient room
- LED indicators identify which light function is in use
- Keypads are low voltage for patient safety
- Compact design fits into a single gang opening
- Mylar overlay for ease of cleaning and infection control
- Compatible with all manufactured nurse call products
- 5 year warranty

Key Features of the Master Controller:

- Capable of individual control of up to 5 circuit loads
- Universal input voltage of 120-277 V
- Terminal blocks allow for ease of connection
- Compact design fits inside most light fixtures

Specifications:

Input Voltage: 120 V / 277 V, 50/60Hz

Output Voltage: 120 V / 277 V, 50/60Hz

Maximum Load:

1.5 Amps resistive, 1.2 amps ballast at 120 V

0.65 Amps resistive, 0.6 amps ballast at 277 V

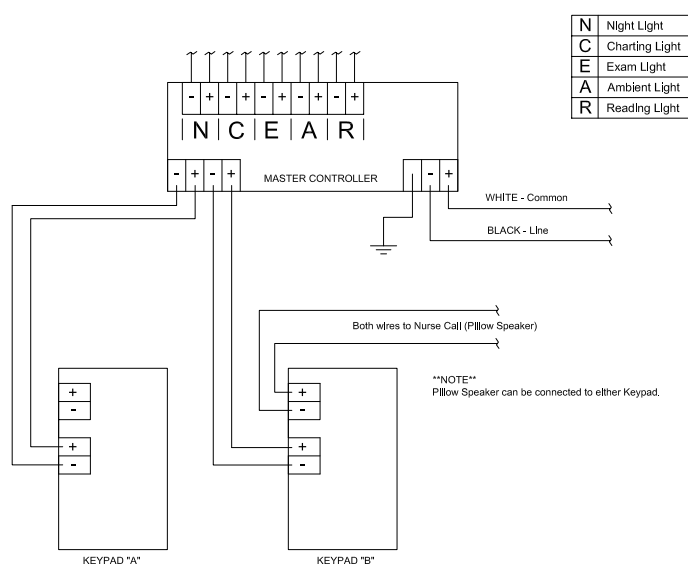
Low Voltage Circuit: 5 VDC, 150 mA

Operating Temperature: 32-176°F / 0-80°C

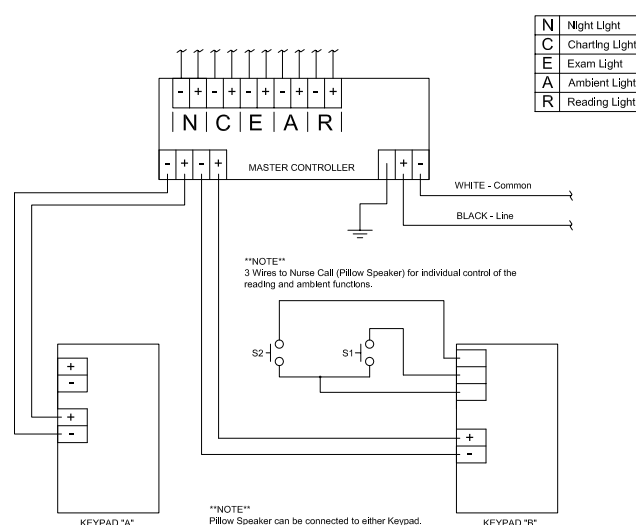
Master Control Dimensions: L 6.5" x W 2.5" x H 1.25"

Keypad Dimensions: Single gang

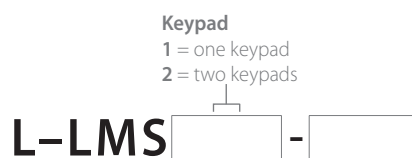
Wiring Diagram A



Wiring Diagram B



Configure Your Light Switch



For Example: L-LMS2-4C

LightMaster, Dual Keypad, 4 Function Switch,
Reading, Ambient, Exam, Chart Light

Light Functions

3Z = Three function switch (reading, ambient, exam)

4N = Four function switch (reading, ambient, exam, night)

4C = Four function switch (reading, ambient, exam, chart)

5B = Five function switch (reading, ambient, exam, night & chart)

LightMaster Multifunction Dimming Switch

Description:

Whether it be a single fixture or multiple fixtures, the LightMaster Multifunction Switch has made it easy to control the various types of lights that are required in the patient room. Using only a single gang space, the LightMaster keypad is low voltage and uses a mylar overlay for durability, patient safety and infection control.

Features of the Keypad:

- Controls up to five (5) light functions in the patient room
- Backlit icons identify which light function is in use
- Dimming indicator allows you to set the light at the desired level
- Keypads are low voltage for patient safety
- Compact design fits into a single gang opening
- Mylar overlay for ease of cleaning and infection control
- Compatible with all manufactured nurse call products

Features of the Master Controller:

- Capable of individual control of up to five (5) circuit loads
- Universal input voltage of 120 – 277 Volts
- Terminal blocks allow for ease of connection
- Compact design fits inside most light fixtures
- 0 - 10 dimming capability when used with dimming drivers/ballasts
- Available with secondary power control unit



Specifications:

Input Voltage: 120 - 277 Volts, 50/60Hz

Output Voltage: 120 - 277 Volts, 50/60Hz

Maximum Load: 2.5 Amps Resistive, 1.8 Amps Ballast at 120 Volts, 0.975 Amps Resistive, 1.0 Amp Ballast at 277 Volts

Low Voltage Circuit: 5VDC, 200 mA

Operating Temperature: 32 - 176°F / 0 - 80°C

Master Control Dimensions: L 8" x W 2.6" x H 1.25"

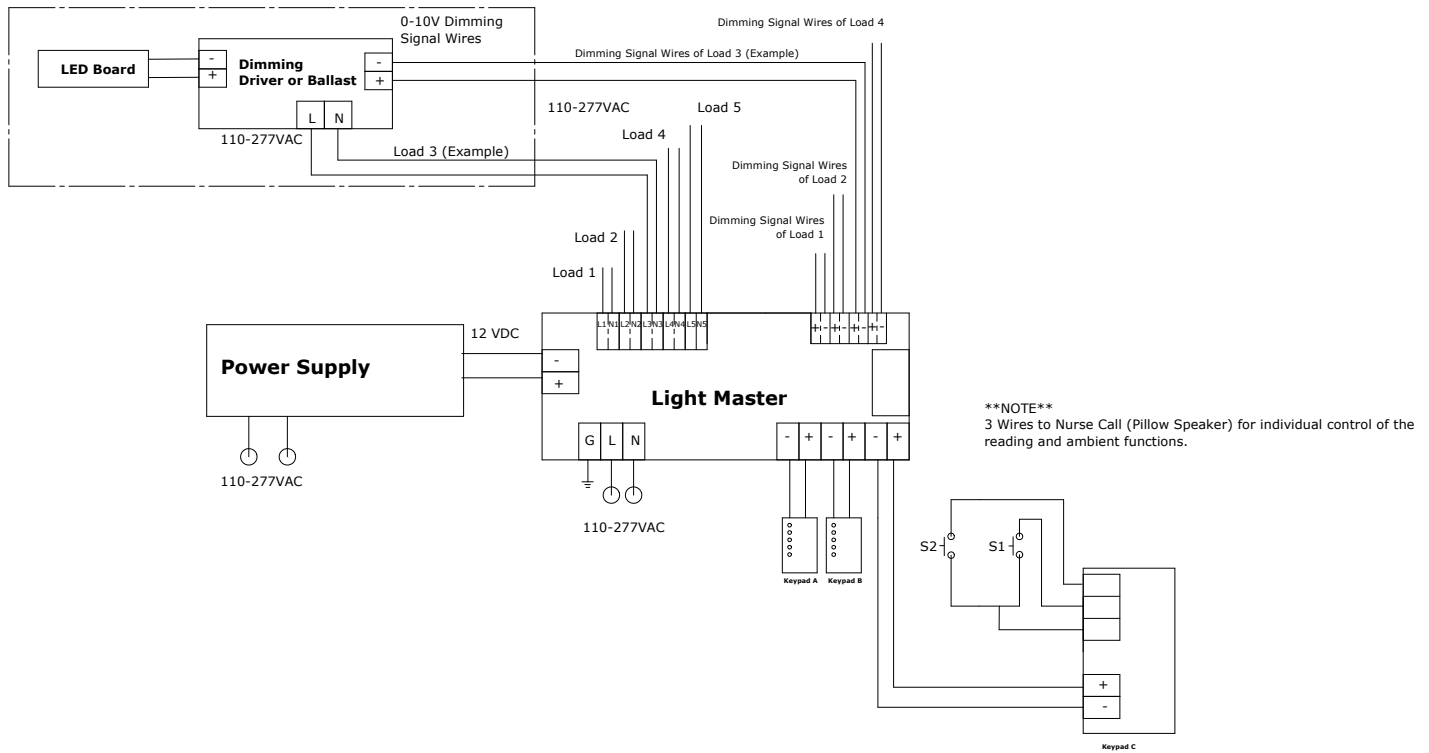
Secondary Control Dimensions: L 4.5" x W 2.6" x H 1.25"

Keypad Dimensions: One (1) Gang

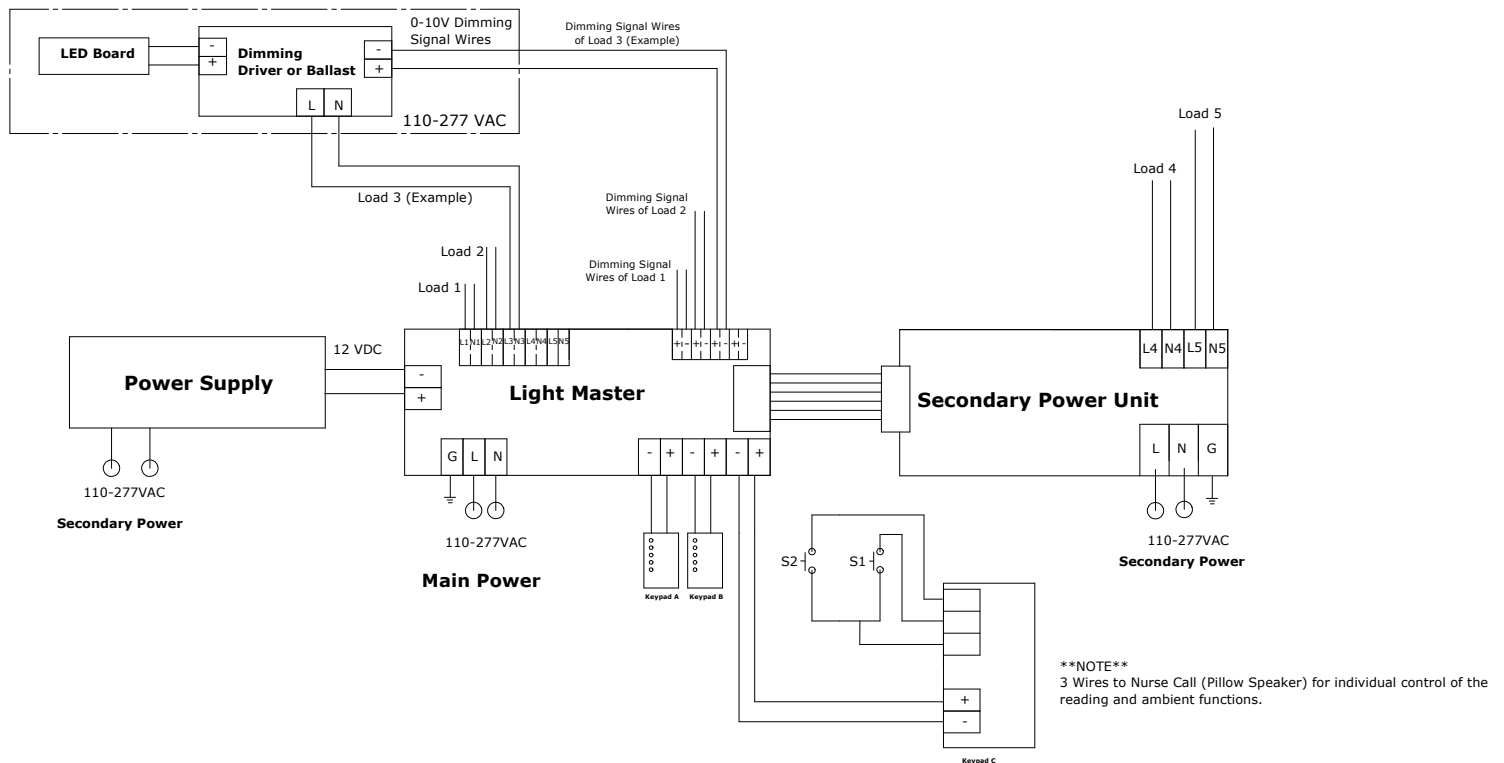
Warranty: Limited five (5) year warranty.

Diagrams:

Wiring Diagram A - LightMaster System



Wiring Diagram B - LightMaster System with Secondary Power Unit



Ordering Guide:

L-LMGEN2 -



For Example: L-LMGEN2-S2-4C-D-SU

Gen 2 LightMaster, Dual Keypad, 4 Function, Reading, Ambient, Exam, Chart Light, Dimming, Secondary power unit.

Ordering Information:

Series	Keypad		Light Functions		Dimming		Options	
L-LMGEN2	S1	One keypad	3Z	Three function switch (reading, ambient, exam)	D	Dimming	SU	Secondary power unit
	S2	Two keypads	4N	Four function switch (reading, ambient, exam, night)	X	Non-dimming	XX	No extras
	S3	Three keypads	4C	Four function switch (reading, ambient, exam, chart)				
			5B	Five function switch (reading, ambient, exam, night & chart)				

Low Voltage Controller



Features:

Capable of sequential or individual control of (2) circuit loads

Low voltage control for patient safety

Ultra-compact design allows for installation within almost any fixture

Compatible with all manufactured nurse-call products

Relay switching for two light outputs (up and down)

Removable cabinet enclosure made easy for installation and service

Available Voltage: 120 Vac = 5 amp resistive
2 amp ballast

240 Vac = 5 amp resistive
0.5 amp ballast

277 Vac = 3 amp resistive
0.5 amp ballast
(50/60Hz)

General Specifications:

The LVC (Low Voltage Controller) shall be an Amico Alert-2 Series.

When an over bed light is controlled through a nurse call handset, bed rail or pendant switch, an Amico LVC is required.

The Amico LVC housing shall be made of 16 gauge aluminum with an 18 gauge galvanized steel mounting plate.

The LVC can be controlled **Sequential** or **Individual**.

For **Sequential** control, a momentary single pole switch is used to control both lights (can be installed at multiple locations and are wired in parallel) as follows:

1. Up light on
2. Up light off and down light on
3. Both on
4. Both off

For **Individual control** (each load is controlled independently), a momentary 3-way switch is used for control (can be installed at multiple locations and are wired in parallel) as follows:

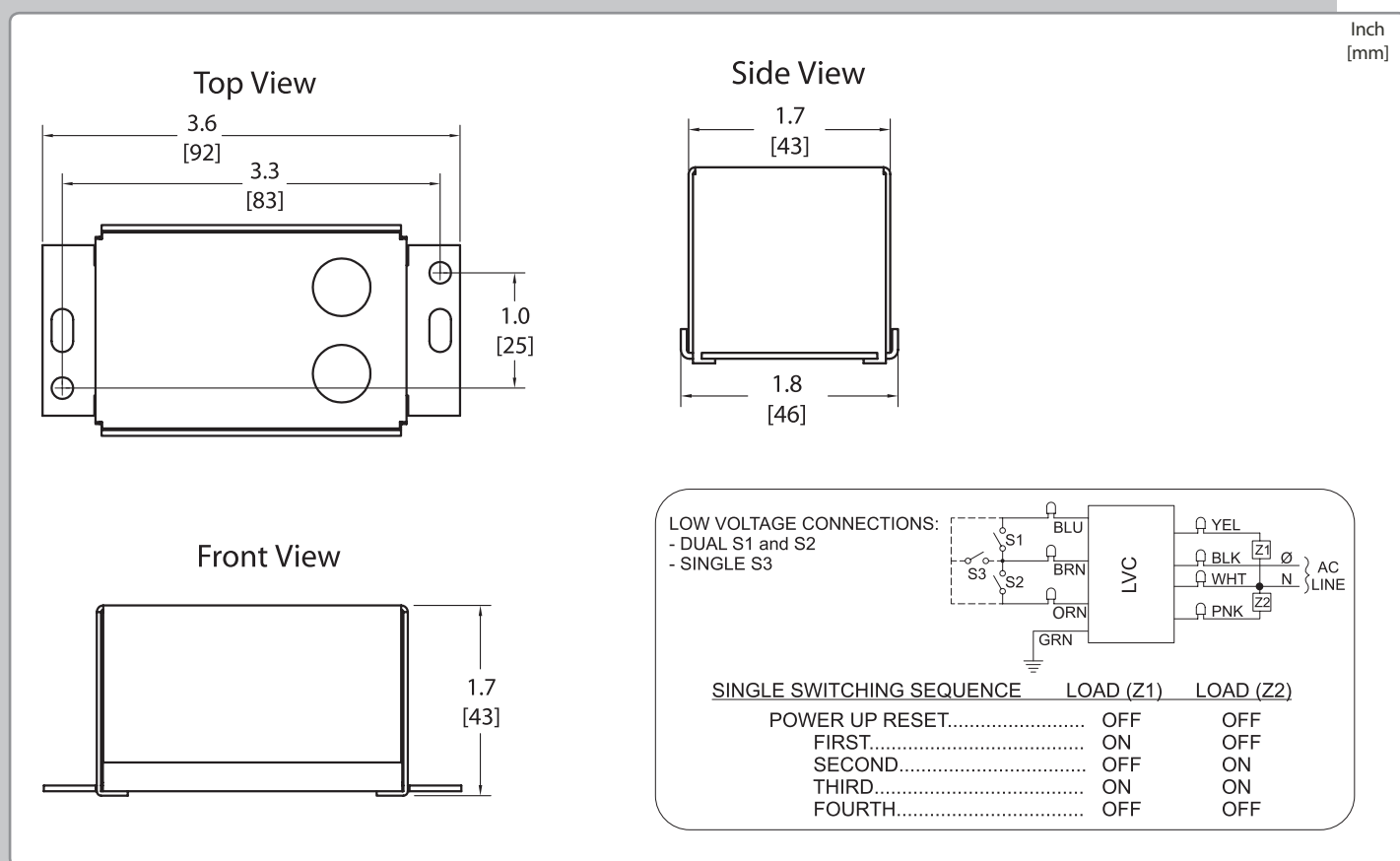
Up: Up light on and off cycles with each push of the button.

Down: Down light on and off cycles with each push of the button.

The LVC is a UL Recognized Component.

Project

Technical Specifications



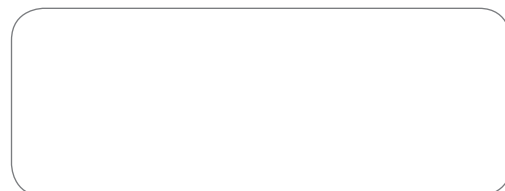
Model Numbers

Low Voltage Controller (120 Vac): **W-LVC-120**

Low Voltage Controller (240 Vac): **W-LVC-240**

Low Voltage Controller (277 Vac): **W-LVC-277**

Distributed By:





IoT



IoT for Business and People

Imagine your space transformed — a place where IoT lighting unlocks data, connecting us all on a human level. Beyond better management, the Atrius framework becomes a business builder.

Reveal Brilliant Experiences

We believe the internet of things (IoT) is not just about the things in your spaces, it's about the people who use your space, revealing the "internet of us." Unlocking data such as occupancy and location, the Atrius IoT framework connects your users to meeting room reservations, in-store personal assistance, asset management and so much more. Moreover, the Atrius IoT Platform unlocks a solution for your business and a development environment for partners.

The Atrius Framework Is Brilliant

Over the next few years, millions of lights will be converted to LED technology, and with an average lifespan of more than 10 years, your choice of luminaires carries a long-lasting impact. Luminaires and devices enabled with Atrius from Acuity Brands lay the track for a powerful, connected infrastructure, making it the ideal platform to enable the “internet of us.”

Right Location



Everywhere there are people, there are lights, indoor and outdoor, creating a consistent grid placement and a sensory network.

Right Connection



Luminaires enabled with Atrius provide the ubiquity for constant power and continuous connectivity to people in your space.

Right Time



Luminaires enabled with Atrius deliver scalable, future-proof value for your business now and in the future.

Acuity Brands

Illuminating the IoT

The Internet of things (IoT) has the potential to redefine business. It is a pivotal technology inflection point that some call "the perfect storm of change." While many companies are riding the IoT wave without much to show, one has earned a seat at the table in IoT business discussions: Atlanta-based Acuity Brands, Inc. (NYSE: AYI). The company is in-market with an ingenious new technology platform that marries solid-state LED lighting, controls, with platform software services and analytics to advance smart buildings, smart cities, smart campuses...in short...smart spaces.

An established leader in commercial indoor and outdoor lighting solutions, Acuity Brands has committed to build on its strength as a lighting innovator to develop and deliver disruptive technologies that aim to 'transform the IoT and smart lighting landscape.' This strategy has led the company to achieving net sales of \$3.3 billion in fiscal year 2016.

A Brilliant IoT Solution: Atrius™

Last May, Acuity Brands introduced Atrius™, which bundles its IoT framework - software and cloud platform services - under one flagship brand. Atrius delivers connectivity and intelligence to a space via a network of smart LED lighting and controls, and a software platform that gathers, unlocks and transforms raw data into meaningful information and business applications.

LED lighting is at the heart of the Atrius Framework. It is an optimal infrastructure for delivering a sensory network feeding a sophisticated IoT platform. Lights are essential building and streetscape functions, and with the onset of digital lighting, LED lights are powered and connected, and they can feature onboard intelligence. In the coming years, millions of lights will be converted to LED technology due to its enhanced lighting quality and economic advantages. So it makes financial sense for businesses to choose luminaires today that will enable the greatest impact and ROI, enhanced with a

powerful, connected infrastructure that extends beyond lighting and into the IoT.

The Atrius Framework

Atrius is poised to transform LED lighting into the most reliable and scalable IoT technology infrastructure to connect systems, spaces and people. Atrius offers technologies, services and tools to build IoT solutions on top of the data collected from LED lighting and building management systems:

Atrius Sensory Network

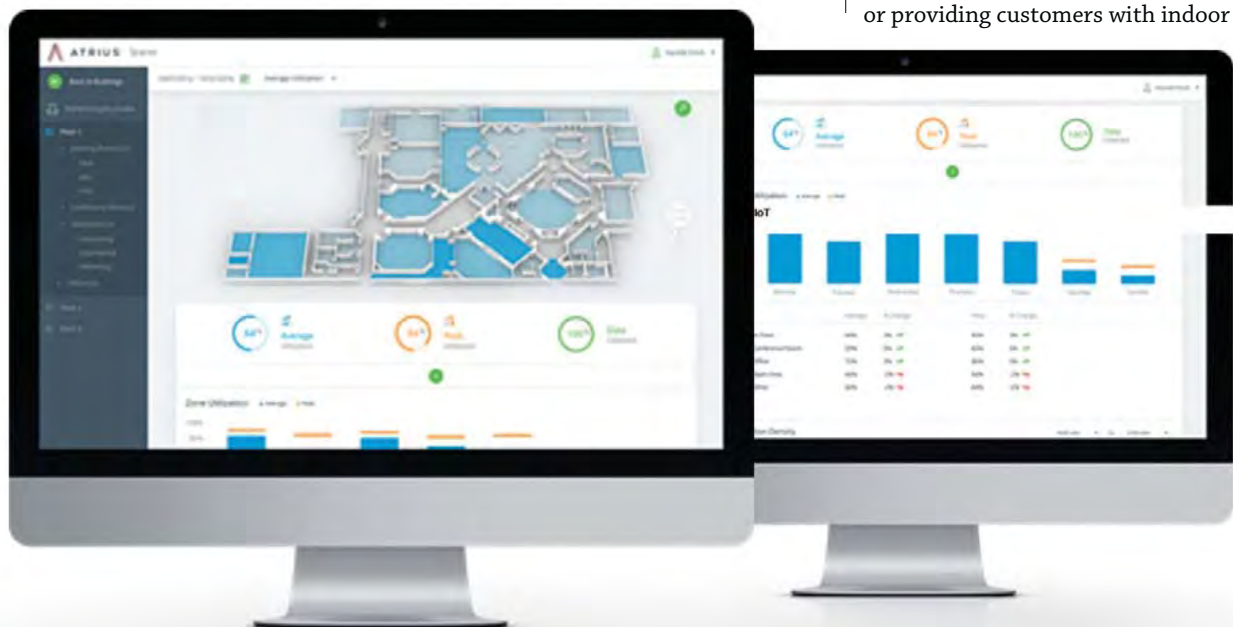
LED lighting systems and controls (edge devices) are ubiquitous and optimally arrayed in a space. As such, they are the perfect infrastructure to support and manage a dense and scalable network of sensors that gather data in real-time about the environment, energy consumption, occupancy and activity in a space. The Atrius Sensory Network --- i.e., luminaires to entire lighting systems enabled by Atrius -- collects this data and pushes it to the cloud. An installed base of Acuity Brands networked lighting systems,

encompassing more than one billion square feet, can now be upgraded to a more multifunctional Atrius Sensory Network that can supply IoT data to the Atrius Platform.

Atrius Platform

Utilizing data unlocked from the Atrius Sensory Network, building operators can leverage data analytics to optimize building operation, while deploying new, value-added building and business applications. Being a fully connected IP infrastructure, the Atrius Platform can distribute software services throughout the IoT infrastructure, from any endpoint, from the edge and to the cloud. The Atrius Platform currently comprises the following services:

- Atrius Navigator leverages two types of highly-accurate beaconing technologies built into the luminaires' components -- Visual Light Communications (VLC) and Bluetooth® Low Energy (BLE) -- to enable pinpoint indoor positioning, within four inches of accuracy. Think of the benefits -- making customer care more efficient by deploying sales help where needed, locating products on shelves to ensure they are fully stocked, or providing customers with indoor





ACUITY BRANDS HAS COMMITTED TO BUILD ON ITS STRENGTH AS A LIGHTING INNOVATOR TO DEVELOP AND DELIVER DISRUPTIVE TECHNOLOGIES THAT AIM TO ‘TRANSFORM THE IOT AND SMART LIGHTING LANDSCAPE.’

directions within a vast department store via their mobile devices.

- Atrius Spaces leverages occupancy data captured via lighting control networks to determine exactly how buildings are being used. It offers insights into tenant or employee occupancy and space usage within a physical room, floor or building. That information can be used to optimize space layout and resources, real time- and cost-savers for rapidly-changing businesses.

- Atrius Insights is a set of rich geospatial analytics and visualization tools for quicker, actionable decision-making based on the aforementioned data. It has particular relevance in retailing, providing dwell time analysis, path analysis and heat mapping to optimize roots, reduce checkout lines and improve workflow.

The company, committed to continuous innovation, is working on additional platform offerings, including an asset tracking service, for real-time location and status monitoring of critical equipment and resources.

The Atrius Platform comprises an ecosystem of technologies including in-house-developed, acquired and partnered solutions. Acuity Brands works with industry-leading tech partners like Qualcomm, ESRI, and Microsoft among others.

Atrius Solution Builder

Atrius Solution Builder caters to clients who want turnkey solutions with a platform for partners and developers to build custom web applications. The

Atrius Solution Builder provides a “drag-and-drop” IoT application development and visualization platform, which partners can use to design custom real-time, data applications and dashboards through the data unlocked from the Atrius Sensory Network and Atrius Platform.

The Atrius Solution Builder also presents modern tool sets ensuring every user interface can be automatically optimized for enhanced user experience on any smart device. Further, it leverages visual programming technology within it to rapidly build fully responsive interfaces.

Atrius Integrated Solutions

Working together, the three Atrius Framework components comprise the core for custom solutions that address critical business challenges in a variety of industries, including:

- Atrius Retail, which allows retailers to enhance shoppers' experiences, improve store operations, and gain remarkable business intelligence.
- Atrius Office, which allows facility managers and business professionals to gain valuable insight into real-time and historical space usage to enhance space planning, building renovation, and employee productivity.
- Atrius Airport, which utilizes location-based data to improve traveler and passenger experiences, optimize staff and asset management, and enhance parking and security.
- Atrius Healthcare, which leverages location-based data to improve patient

experiences in hospital campuses, and will also integrate additional asset tracking features.

IoT for Business and People

Atrius IoT offers businesses, and business technology developers, endless possibilities to connect systems, spaces and people to enhance business performance and human experience.

Today, Atrius has moved well beyond the ‘proof of concept’ stage to deploying full-scale IoT applications in more than 60 million square feet of indoor spaces. With Atrius, building managers can reduce energy costs, boost comfort and security, and optimize space utilization. Employees can find an available meeting room quickly. Travelers can navigate busy airports with confidence. Shoppers can get blue dot directions to a specific product on a store shelf.

Greg Carter, Senior Vice President, Software Products Business Unit, describes a recent project at a large airport that truly brings the power of Atrius to life. During new construction and renovation, luminaires enabled by Atrius were installed to collect data and monitor three functions: waiting time at TSA lines, availability of wheelchairs and scheduling of wheelchair pushers, and locating staff for redeployment. Atrius is truly solving real world problems.

Like so many Acuity Brands innovations, Atrius began with lighting. It's what makes the company's approach to IoT unique. Acuity Brand sees a brilliant future in lighting-based IoT deployment...and for good reason. **CA**

Atrius Insights



WHAT IS ATRIUS INSIGHTS?

Atrius Insights is a cloud-based software product which provides geospatial analytics based on position data collected from Atrius Navigator or other third-party indoor positioning systems. Atrius Insights provides map-based location analysis of facilities for building owners, facility managers, and business analysts to understand movement of location enabled devices. Atrius Insights uses historical data to allow users to compare locations and analyze human interaction in space over time.

FEATURES

- Map-view visuals with analytics on people in a space
- Access to both web applications and APIs
- Historical and near real-time metrics
- Site groupings to roll-up metrics across multi-site organizations
- Easily links to other sources of spatial data
- Heatmap aggregations
- Comparisons – across metrics, sites, groupings, and time periods
- Zone-to-zone path analysis
- Custom chart creator
- Day, week, month, quarter, and year data selections
- Live device visualization
- Third-party positioning system metrics and visualization
- Integrate with current BI systems

HOW DOES IT WORK?

Atrius Insights relies on either the Atrius Navigator platform service or a Third-party positioning system, in addition to the Atrius Sensory Network. Indoor position locations are collected through Atrius Navigator, and that data is processed, aggregated, and stored in the cloud. From there, metrics are collected and can be visualized through our Atrius Insights web application or APIs.

DEPLOYMENT REQUIREMENTS

- Atrius Sensory Network
 - Enabled with Atrius luminaires (commissioned by the Atrius Deployment Team)
- Atrius Navigator platform service – mobile SDK and admin web application
 - OR 3rd party positioning data system¹
- Cloud hosted Map Service and floorplan²
- Microsoft Azure Active Directory authentication³

APPLICATION CUSTOMIZATION TOOLS

Atrius Insights includes an administration tool, Atrius Admin, for users to customize zones, metrics, sites, and organization parameters.

- Zone location information⁴
- Atrius Admin web application
 - Site
 - Groups
 - Zones
 - Metric customization

Notes:

- ¹ If you are using a third-party positioning system, the Atrius Sensory Network is not a deployment requirement
- ² This service is required to deliver the zoomable background image and the underlying meta-data about the site. Users can provide their own map service if capable, or we can coordinate the map service to be completed by one of our partners.
- ³ Users of Microsoft Office 365 will automatically have Microsoft Azure Active Directory. Microsoft Azure is used for simplicity and security reasons. No new user accounts or passwords will need to be created or maintained. In addition, users can develop their own trusted authorization policies to create, update, and deactivate accounts.
- ⁴ Site zone locations are not included and are to be provided by the customer

HOW DO I DEPLOY?

The developer will have access to Atrius Admin web application – a configuration tool – that is used for loading the map service, creating zones, adding multiple users, updating maps, and more.

SOFTWARE SPECIFICATIONS

Browser Support and Devices:

- Windows OS
 - Runs on the latest version of Chrome
- MacOS
 - Runs on the latest version of Chrome and Safari
- iOS (iPad) v10.2 or greater
 - Mini
 - Runs on the latest version of Chrome and Safari
 - Air 2
 - Runs on the latest version of Chrome and Safari
 - Pro
 - Runs on the latest version of Chrome and Safari

ORDERING INFORMATION

EXAMPLE: INSIGHTS WEBAPP 12M					
Series		Platform Service		Service Period	
INSIGHTS	Atrius Insights spatial analytics application	WEBAPP	Web-based application viewer and API access	12M	1 year
				24M	2 years
				36M	3 years

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

We have had the privilege of working on the following healthcare projects:

AHN Allegheny Valley Hospital
AHN Canonsburg
AHN Westmoreland MOB
AHN WPH Mother & Baby Center
AHN Peters Township
AHN Suburban General
Highmark Allegheny Center
Highmark 5th Avenue Place Headquarters
Highmark Wexford Medical Mall
Mario Lemieux Center for Blood Cancers
DuBois Regional Medical Center
DuBois Hospital
VA Butler Healthcare Center
Mount Nittany Medical Facilities
Geisinger Hospital
Grove City Hospital
UPMC Children's Hospital of Pittsburgh
UPMC Children's Hospital South Fayette
UPMC Presbyterian
UPMC Mercy
UPMC Passavant
UPMC Shadyside
UPMC Altoona
UPMC Bedford
UPMC Cranberry
UPMC Hillman
UPMC Scaiffe Hall
UPMC Magee Womens Hospital
UPMC Montefiore
UPMC Hampton ACC
UPMC USX Towers Headquarters



