KURTZON
SPECIFICATION GRADE LIGHTING
ILLUMINATING YOUR WORLD

Circadian Medical **Patient Room Troffers**

6"x24" & 6"x48" Recessed BIOS® LED Luminaire

- **For Patient Rooms**

- **2-Way Switching for Exam/Ambient Modes**

- **Available with Low Voltage Controller Setup**

- **Frosted Acrylic Lens for glare reduction**

- **Made in the USA by a Family Owned US Corporation**

- **This Kurtzon product is illuminated by BIOS® to provide healthy, low energy lighting that promotes improved sleep, better health and well-being**

ORDERING GUIDE

Series	Installation Type	Material	Size	Row Qty.	LED Type	CCT/Dim Type	Voltage	Options
ML								

Series	Installation Type	Material	Size	Light Source			Voltage	Options
				Row Qty.	**LED Type**	**CCT/Dim Type**		
ML	**F/PR:** Flange **G/PR:** Grid	**1:** White CRS Hsg.	**6x48:** 6" x 48" Housing **6x24:** 6" x 24" Housing	2 3	LED-XBL1	835BIOS-DY 840BIOS-DY 835BIOS-ST 840BIOS-ST	**120V** **277V** **UNV**	**FC:** Fuse & Holder (One Supplied Per Circuit) **RFI:** Providing with RF Filter for each circuit **EM10:** 10W Integral LED EM **LVC:** Low Voltage Controller **10KV:** 10KV Surge protection (1 per circuit) **Note: Two circuits, ambient and exam, are provided as standard.**

Notes:
BIOS-DY - Dynamic dimming module   **BIOS-ST** - Static dimming module

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SPECIFICATIONS

HOUSING: Formed and Welded 20Ga Steel housing. Flange housing is provided with factory installed flange kit.

REFLECTOR: Full reflector panel designed to enhance asymmetric distribution. High reflectance white powder coat finished (minimum reflectivity 92%).

LEDS: Provided with BIOS® LED modules that are available in both Static or Dynamic dimming. When Dynamic dimming is specified a bio dimmer is included with each driver inside the fixture. BIOS® LEDs have been expertly crafted to perform as advertised. Engineered to only include the highest quality components, the LEDs are backed by a limited 5 year warranty. See last page for more information on how BIOS® works.

DRIVERS: Standard Universal Voltage Class 2 drivers are 0-10v Dimmable to 1%. They come with at least 2.5Kv surge protection, have less than 10% THD at max load, Ballast Factor Greater than .95 and are programmable to match specific lumen or wattage requirements. Drivers with higher input voltage ratings are available, consult factory for driver specifications.

INSTALL GRID: Adjustable Zee-brackets provide even support. See options for integrated seismic support brackets. Wireway access is through a removable plate containing two silicone sealed knockouts. Note: This fixture is not for plaster or drywall ceilings.
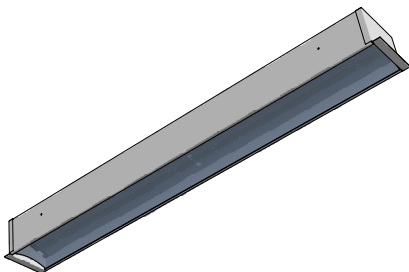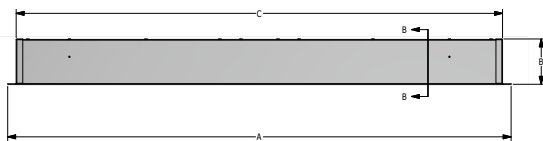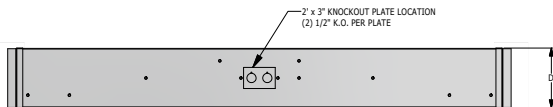
INSTALL FLANGE: Two adjustable yoke mounting brackets provide even support. Wireway access is through a removable plate containing two silicone sealed knockouts. Note: This fixture is not for T-Bar Grid ceilings.

FINISH: White polyester powder coated over multi-stage pretreatment. See options for DuPont Alesta™ using Agion® silver ion antimicrobial powder coat finished housings.
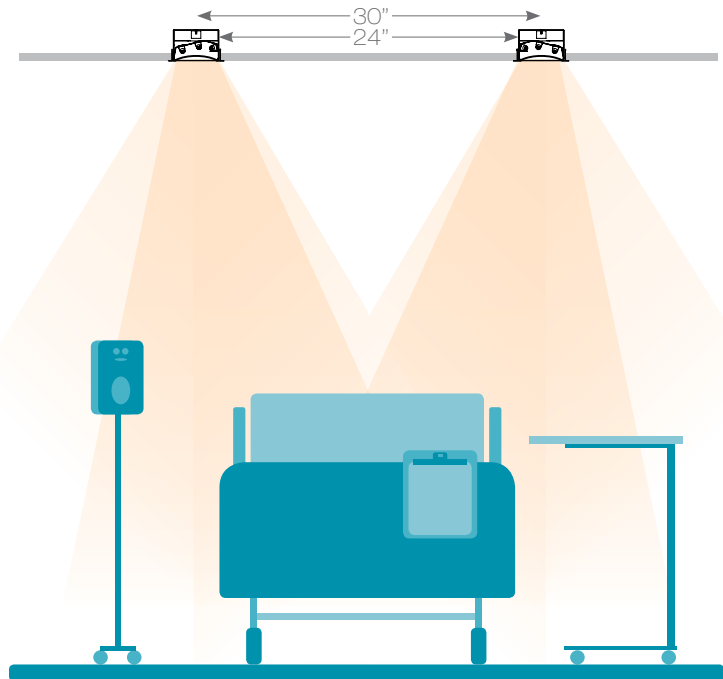
LISTINGS: ETL listed per UL_1598 for damp locations. Drivers and LEDs are covered by a 5 year warranty, the remaining fixture is covered by a 10 year warranty.

PRODUCT DRAWINGS

6x48 PATIENT ROOM				
SIZE	DIM A	DIM B	DIM C	DIM D
6 x 48	47.68"	4.30"	46.06"	5.68"
6 x 24	23.68"	4.30"	22.50"	5.68"

2' x 3" KNOCKOUT PLATE LOCATION
(2) 1/2" K.O. PER PLATE

14-AA-L-6x48 PATIENT ROOM DWG DATE: 12/20/2018

Two recessed asymmetric distribution luminaires installed at 30 inches on center provide examination level illumination across the full bed surface.
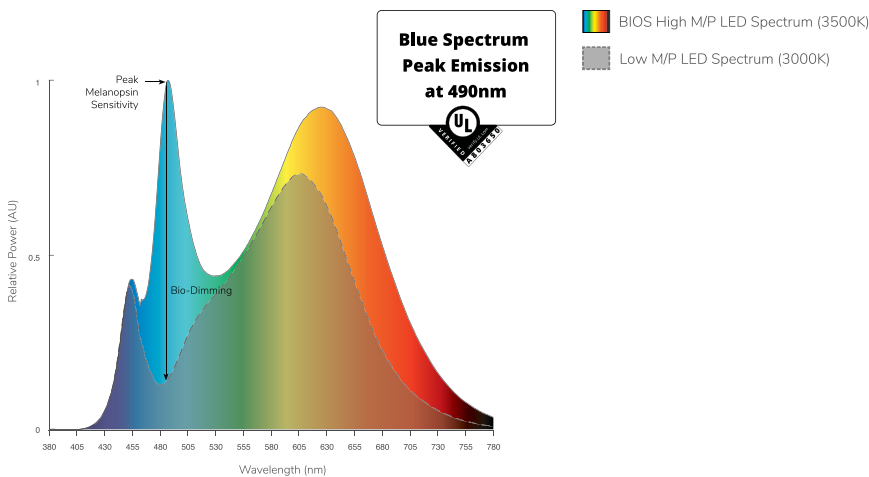
Circadian Medical **Patient Room Troffers**
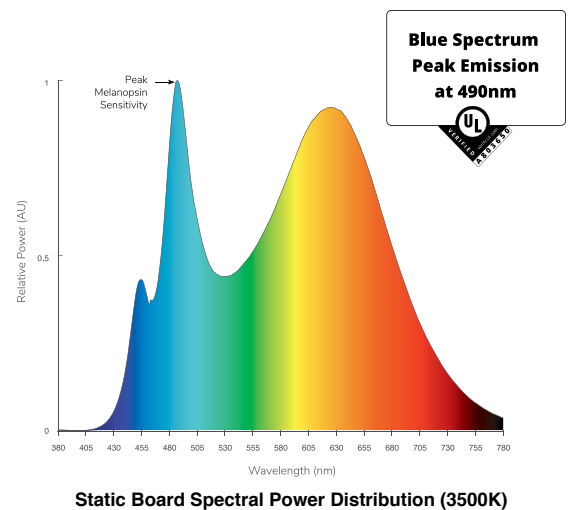
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ENERGY DATA

Energy Data Pending

PHOTOMETRICS - DYNAMIC

Peak Melanopsin Sensitivity

Bio-Dimming

Blue Spectrum Peak Emission at 490nm

■ BIOS High M/P LED Spectrum (3500K)
▨ Low M/P LED Spectrum (3000K)

Relative Power (AU)

Wavelength (nm)

Dynamic Board Spectral Power Distribution (3500K)

PHOTOMETRICS - STATIC

Peak Melanopsin Sensitivity

Blue Spectrum Peak Emission at 490nm

Relative Power (AU)

Wavelength (nm)

Static Board Spectral Power Distribution (3500K)

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HOW BIOS® WORKS

Production of melatonin, the hormone that helps us to sleep, is regulated by the ipRGC, a non-visual photoreceptor in the human eye. The wavelength of blue sky light at 490nm, present in sunlight, prevents melatonin production during the day. These signals are crucial in allowing humans to distinguish between day and night, promoting better sleep, health and well-being.

Blue Spectrum Peak Emission at 490nm

DYNAMIC LIGHT ENGINE

The SkyBlue® Dynamic Light Engine automatically calibrates the light level, reducing melanopic lux while keeping photopic lux at a constant. Dynamic light engines are paired with the current sensing smart BIOS® Bio-Dimming module allowing it operate using any single channel CC LED driver, using any dimming interface. Available in 3500K (dim to 3000K), and 4000K (dim to 3500K).

STATIC LIGHT ENGINE

The SkyBlue® Static Spectrum Light Engine delivers the industry's best melanopic-to-photopic (m/p) ratio, with R9 greater than 90 at each color temperature. Easily integrated into existing LED fixtures and compatible with all LED drivers, the SkyBlue® Static Spectrum Light Engine is the ideal replacement for static color light fixtures. Static light engines have the full output of BIOS® SkyBlue® all the time and the peak cannot be adjusted.

DIMMER SETTINGS WITH BIOS® DYNAMIC DIMMING TECHNOLOGY

	DIMMER SETTING	BIOS® SKYBLUE®	LIGHT OUTPUT	
	100% (full on)	100%	100%	BIOS® SkyBlue® operates at 100% when the light output is at 100%, for maximum circadian impact. As the light is dimmed, BIOS® SkyBlue® dims until 50% is reached when the BIOS® SkyBlue® is no longer present.
	99%-51%	100%-0%	100%-90%	
	50%	No BIOS®	~90%	
	49%-0%	No BIOS®	Linear Dimming	