

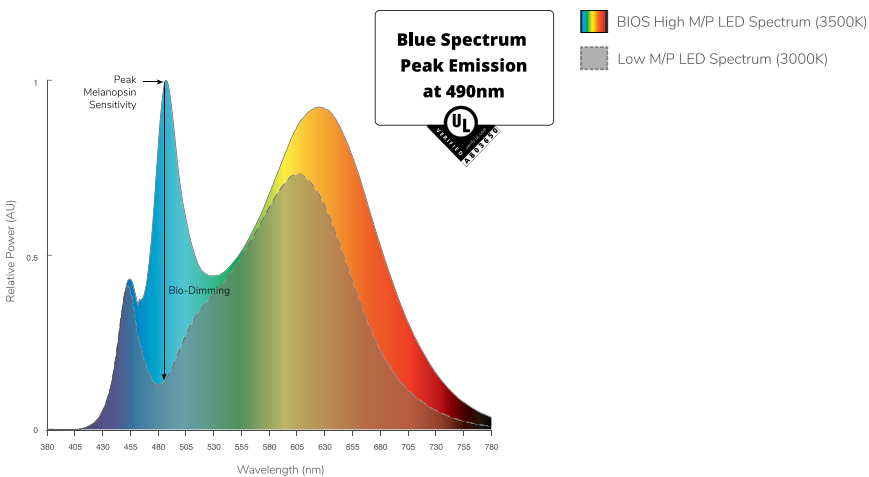
Circadian Cleanroom **KL Amber Troffers**

1x4, 2x2 and 2x4 Amber/BIOS® LED Luminaires

ENERGY DATA - WHITE LED

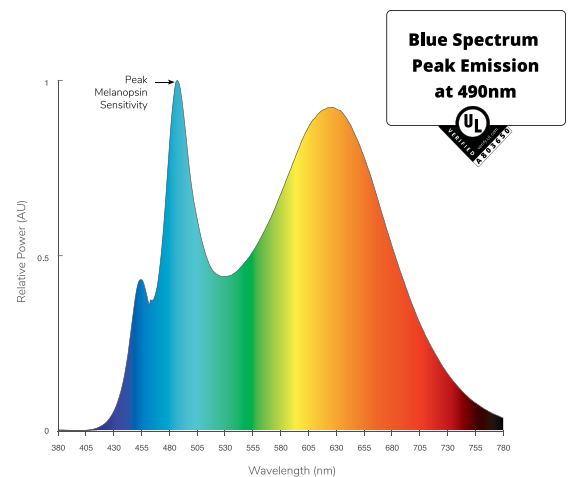
Energy Data Pending

PHOTOMETRICS - DYNAMIC



Dynamic Board Spectral Power Distribution (3500K)

PHOTOMETRICS - STATIC



Static Board Spectral Power Distribution (3500K)

Circadian Cleanroom **KL Amber Troffers**

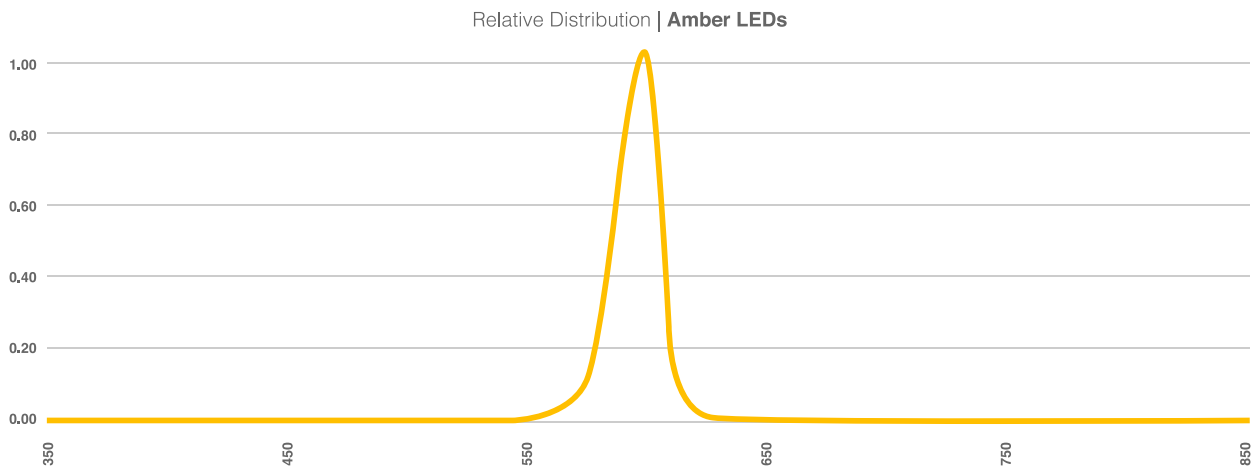
1x4, 2x2 and 2x4 Amber/BIOS® LED Luminaires

ENERGY DATA - COLOR LED

OVERLAP-FGRS-AMBER LED TROFFER						
ENCLOSURE SIZE	LED SELECTION	590nm (Amber)			MAX AMBIENT TEMP ³	
		LUMENS	WATTS	EFFICACY		
1X4	1YLED	1,972	43	46	40°C (104°F)	
1X4	2YLED	3,945	86	46	40°C (104°F)	
2X2	1YLED	1,132	22	51	40°C (104°F)	
2X2	2YLED	2,264	43	53	40°C (104°F)	
2X2	3YLED	3,396	65	52	40°C (104°F)	
2X2	4YLED	4,528	86	53	40°C (104°F)	
2X4	1YLED	2,428	44	55	40°C (104°F)	
2X4	2YLED	4,856	87	56	40°C (104°F)	
2X4	3YLED	7,283	130	56	40°C (104°F)	
2X4	4YLED	9,711	173	56	40°C (104°F)	

* View previous page for energy data notes.

COLOR LED RELATIVE DISTRIBUTION



Circadian Cleanroom KL Amber Troffers

1x4, 2x2 and 2x4 Amber/BIOS® LED Luminaires

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%
	99%-51%	100%-0%	100%-90%
	50%	No BIOS®	~90%
	49%-0%	No BIOS®	Linear Dimming

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.