



P.L. LIGHT SYSTEMS

THE LIGHTING KNOWLEDGE COMPANY

HortiLED TOP 2.0

NEXT GENERATION GROW LIGHTING

HARNESSING THE FULL POTENTIAL OF LED TECHNOLOGY.

With the introduction of P.L. Light Systems' HortiLED TOP 2.0, growers no longer have to compromise on lighting quality. They can achieve the same lighting performance as traditional sources-with all the benefits of LEDs.

The LED optics have been engineered to deliver unrivalled lighting performance–offering the best possible combination of performance and efficiency. Robustly constructed from aluminum and only the highest quality LEDs, our HortiLED products deliver the industry-leading quality you've come to expect from P.L. Light Systems.





LIGHTING DESIGN FREEDOM

Designed for maximum flexibility, the HortiLED TOP 2.0 delivers optimal photometric performance either as a full LED solution, or in combination with HID luminaires as a hybrid lighting system. Optional remote dimming, based on variable crop requirements and/or light schedules, allows for exceptional control of light levels and energy consumption.

OPTIMAL SPECTRAL EFFICIENCY

The HortiLED TOP 2.0 offers color recipes designed for optimal spectral efficiencies in both supplementary and sole source lighting applications.

EXCEPTIONAL PHOTON EFFICIENCY

With it's industry leading efficacy of 3.3 µmol/J^{*}, the HortiLEDTOP 2.0 delivers exceptional energy efficacies, reducing energy consumption by as much as 40% versus traditional HPS systems to deliver the same light levels.

OPTIMAL LONG-TERM PERFORMANCE

Optimal drive currents to the LEDs, ensures that optimal performance is maintained over the lifetime of the luminaires. The robust construction and reduced maintenance requirements of the HortiLED TOP 2.0, makes it an ideal product for the harsh conditions of an indoor growing facility.

PLUG-AND-PLAY INSTALLATION

The easy-to-install HortiLED TOP 2.0 luminaires feature integrated drivers and can be daisy-chained to save on wiring and installation costs in both new and retrofit applications. Specially designed mounting brackets allow for quick and secure mounting of the luminaires on both track and truss systems.

Designed for optimum performance and exceptional efficacy, the HortiLED TOP 2.0 is a versatile top-lighting system that can be used for all types of crops.

HortiLED TOP 2.0^{SQ}

PERFORMANCE MEETS EFFICIENCY

Engineered to deliver a light output of 2200 $\mu mol/s^*$ and a system efficacy of 3.3 $\mu mol/J^*$, the HortiLED TOP 2.0^{SQ} delivers optimum performance and energy savings.

Optional 0-10V dimming allows for seamless integration with compatible control systems. Light output can be dimmed on a relative scale, based on lighting schedules and/or variable light requirements—enabling exceptional control of light levels and energy consumption. A simple plug-and-play platform, daisy-chaining, intuitive mounting and a wide voltage range, allows for quick and easy installation or retrofitting from traditional light sources in standalone LED or hybrid applications.

Available in two spectral options—optimized for supplementary and sole-source applications—the HortiLED TOP 2.0 offers unparalleled lighting design flexibility.



IDEAL BALANCE

The HortiLED TOP 2.0 offers the perfect balance between optimal light intensity and uniformity.

120° DISTRIBUTION

Delivers exceptional light penetration deep within the canopy, while still achieving excellent uniformity across the surface of the crop.



ENGINEERED FOR OPTIMAL THERMAL PERFORMANCE

The HortiLED TOP 2.0 is thermally and mechanically engineered to dissipate heat through conduction and convection paths—minimizing LED junction temperature and maximizing light output, lifetime and reliability.



- 1. Convection currents draw cool air into the slots along the bottom of the luminaire.
- 2. The air then passes through the channels along the sides of the luminaire, drawing heat away from the LEDs and electronics compartment.



3. The integrated fins on the top of the moulded aluminum housing are engineered to dissipate heat through conduction for optimal passive thermal management.

TECHNICAL SPECIFICATIONS[®]

Daylight	RW(MB)
2.6 µmol/J	3.3 µmol/J
860 µmol/s	00 µmol/
1720 µmol/s	00 µmol/
208-400V	
50-60HZ	
>0.98	
336W	
0-10V (source [†])	
40°C	
5 years	
	Daylight 2.6 μmol/J 860 μmol/s 1720 μmol/s 208-400V 50-60HZ >0.98 336W 0-10V (source [†]) 40°C 5 years





Dimensions	
x = length	38.780 in. (985.0 mm)
y = width	4.681 in. (118.9 mm)
z = height	3.740 in. (95 mm)

*Please visit our website for additional and most up-to-date technical information.

[†]This luminaire is designed as a 0-10V sourcing supply, to be controlled by the customer's 0-10V sinking controller.

HOW PLANTS PERCEIVE LIGHT

Plants and humans perceive light very differently.

The human eye responds most strongly to light in the green/yellow part of the spectrum. Plants, however, respond most strongly to the PAR region (blue and red wavelengths) for photoperiodic growth responses and germination control. Photosynthesis, flowering, climate response and photomorphogenesis are all affected by the intensity, duration, distribution and spectral quality of light.

OPTIMIZED COLOR RECIPES

Designed to deliver optimum color efficiencies, the HortiLED Top 2.0 is available in two spectral recipes which can be used in standalone LED applications, or in combination with HID luminaires for hybrid applications:





Daylight Spectrum

Broad spectrum white light, optimized for sole-source lighting applications

RW(MB) Spectrum

High efficiency spectrum with peaks in the red and blue wavelengths, optimized for supplementary lighting applications

	Blue Light (400-499 nm)	Red Light (600-700 nm)
	- Inhibits stem elongation	- Speeds up seed
Light Sensitivity	- Important for chlorophyll synthesis	- Encourages stem growth
— Plants	- Promotes greening of	- Essential for flowering
····· People	germinating seedlings	and fruit production
	Green Light	Far Red Light
	- Most visually comfortable	- Promotes stem elongation
	for human eye	- Inhibits branching
	- Best for visual assessment of plant health	

PEOPLE vs. PLANTS







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