

PTB8850LS4X

PHOTOBIO•CX 2125 100–277V S4

S4 SPECTRUM

The PHOTOBIO•CX 2125 LED high-efficiency compact top light LED fixture is designed for horticultural professionals looking to increase performance and yields while maximizing ROI. The CX acts as a direct 1:1 replacement for HPS fixtures utilizing a similar footprint. Its 2.6" slim vertical design is optimal for low ceiling heights, while passive cooling fins keep the operating temperatures low. An onboard dimming control allows growers to control light output without the addition of an external controller. The high-efficiency S4 spectrum provides more red, far-red, and blue wavelengths to deliver vigorous growth and optimize flower development.



System Overview

Model	PTB8850LS4X
Fixture Type	Horticultural LED
Spectrum	S4 Spectrum
Typical Photon Flux Output	2125 $\mu\text{mol/s}$ @277V
Input Power	850W
Efficacy	2.5 $\mu\text{mol/joule}$ @277V
Input Voltage Range	100–277V
Lifetime	L90: > 50,000hr
Optics	Primary Optics 90°*105°
Dimmable	0–10V
Operating Environment	Wet Location
Ingress Protection Rating	IP66
Warranty Period	5 Years

Driver Electrical Specifications

Fixture Power	867W@120V, 850W@208V, 845W@277V
Input Voltage Range	100–277V
Max Voltage Range	100–305V
Max Input Power	901W
Power Factor	>0.97
Frequency	50/60Hz
THD	<10%

Driver Input Amperage Reference

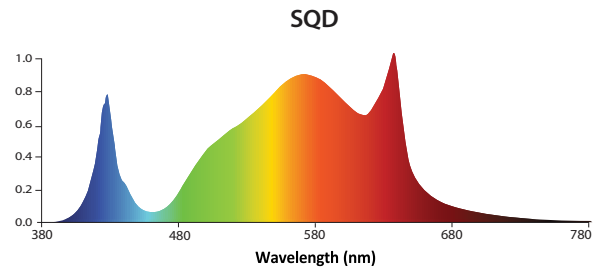
Voltage Input	100V	208V	240V	277V
Typical Amperage	7.25	4.11	3.56	3.07
Max Amperage	7.40	4.19	3.63	3.13

Operating Conditions

Rated Operating Temperature	77°F/25°C
Minimum Operating Temperature	4°F/-20°C
Maximum Operating Temperature	104°F/40°C
Operating Environment	Wet Location
Ingress Protection Rating	IP66
Material	N/A

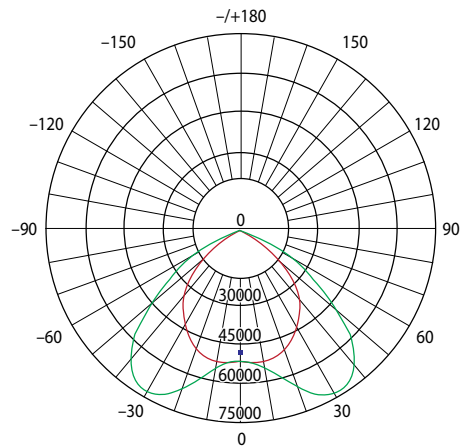
S4 Spectrum

Normalized Photon Output



S4 Spectrum: Provides highly efficient full spectrum with a healthy red-to-blue ratio to drive photosynthesis. Light energy between 500–599nm, previously thought wasted, penetrates deeper into the plant canopy promoting photomorphogenic responses. High color rendering "white" light aids to rapidly identify potential threats to your crop and provides superior working conditions and safety for personnel. Ideal for both flowering and vegetative production.

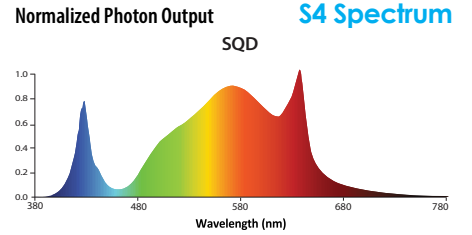
Photosynthetic Photon Intensity Distribution



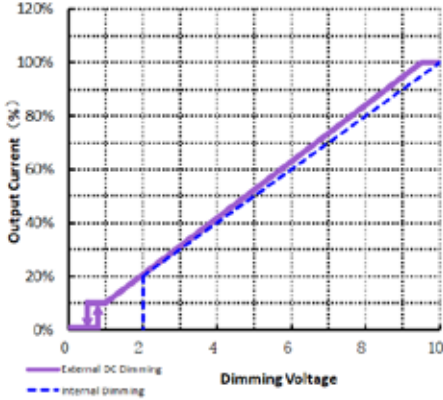
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S4 SPECTRUM



Dimming Ratio



Power Harnesses Options

Specific cable harness sold separately based on facility requirements.

Item Code	Image	Type	Description
CHE1063000W		w/leads	10' F 16AWG WT w/ leads, Harness
CHE1063010W		110–120V	10' F 16AWG WT 110–120V Plug, 5-15P, Harness
CHE1063015W		208–240V	10' F 16AWG WT 208–240V Plug, 6-15P, Harness
CHE1083020W		277V	10' F 18AWG WT 277V, L7-15P, Harness

Optical Specifications

Optics	90°x105°
Total Diode Quantity	608
Diode Brand	Osram, Seoul
Spectrum	S4
Lifetime	> 50,000hr

Driver Specifications

Microprocessor Control	Yes
Open Circuit Protection	Yes
Short Circuit Protection	Yes
Overtemperature Protection	Yes
Over/Undervoltage Protection	Yes
Over/Undervoltage Indicator	Yes
Output Compensation	Yes
IP Rated 0–10V	Yes
Internal EMI Suppression	Yes
AC Input	Yes

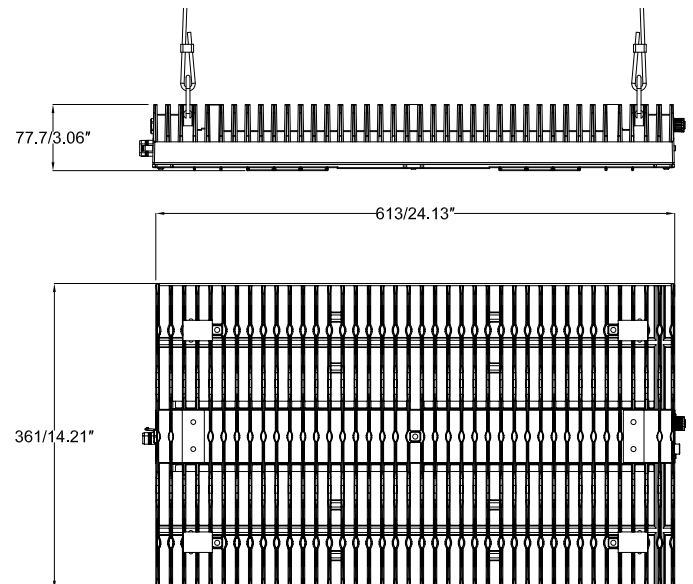
Safety Certifications

UL	N/A
CSA	Yes
CE	Yes
FCC Commercial	Yes
FCC Residential	Yes

Mechanical Specifications

Dimensions (L x W x H)	613 x 361 x 77.7mm / 24.13" x 14.21" x 3.06"
Net Weight	27.55 lbs / 12.50 kg
Thermal Management	Passive
Material	Aluminum

Dimensional Drawing



WARNING – POSSIBLE RISK OF INJURY TO EYES AND SKIN

Hazardous optical UV, HEV, and IR radiation may be emitted from the light source. Always wear personal protective equipment ensuring complete shielding of skin and eyes. Avoid prolonged exposure and looking directly at light source.