

# PTBZ1000768S4X

PHOTOBIO•MX2 LED, 680W, 120–277V

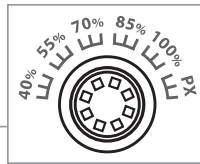
## S4 SPECTRUM

PHOTOBIO•MX2 high efficiency LED is designed for horticultural professionals looking to increase performance and yields while maximizing ROI. Robust commercial design utilizes wide bars to deliver high light levels while allowing air circulation. The high efficiency S4 spectrum provides more red, far-red, and blue wavelengths to deliver vigorous growth and optimize flower development. Multilayer usage can be utilized to maximize canopy square footage within existing structure footprint.



### System Overview

Model	PTBZ1000768S4X
Fixture Type	Multibar Horticultural LED
Spectrum	S4
Photon Flux (PAR 400-700 nm)	1870 $\mu\text{mol/s}$
Photon Flux (PBAR 280-800 nm)	1906 $\mu\text{mol/s}$
Input Power (W)	680
Efficacy (280-800 nm)	2.8 $\mu\text{mol/J}$
Input Voltage Range	120-277 VAC Auto Recognition
Lifetime	L90: > 50,000hr
Optics	Conformal Coating
Dimmable	0-10 VDC / On-board Knob
Driver	Attached driver - remotely mountable
Operating Environment	Wet Location
Ingress Protection Rating	IP65
Warranty Period	5 Year Limited
Manual output adjustment	iLOC Integrated Light Output Control



### iLOC Manual Output Adjustment Settings

Voltage		40%	55%	70%	85%	100%
120V	Power (W)	266.8	369.4	472.9	583.4	699.2
	Amperage (A)	2.239	3.118	4.001	4.937	5.914
208V	Power (W)	264.6	364.1	464.9	571	681.2
	Amperage (A)	1.343	1.801	2.293	2.792	3.318
230V	Power (W)	264.3	364.1	464.1	569.9	678.9
	Amperage (A)	1.236	1.649	2.067	2.525	3.007
240V	Power (W)	264.5	363.4	463.4	569.1	678.7
	Amperage (A)	1.193	1.581	1.987	2.427	2.878
277V	Power (W)	264.5	363.6	463.2	568.4	676.2
	Amperage (A)	1.099	1.423	1.764	2.130	2.511

### Driver Electrical Specifications

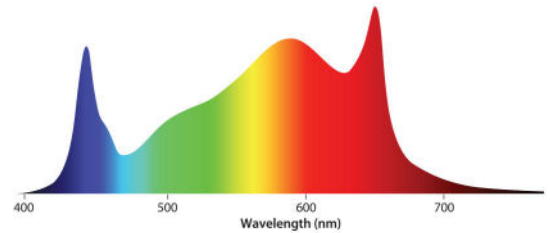
Model	PTBZ1000768S4X	Frequency	50/60Hz
Fixture Power (W)	680	THD	<10%
Input Voltage Range	120-277 VAC	ta	-40
Max Voltage Range	108-305 VAC	tc	90
Max Input Power	714	Daisy-chain	Yes
Power Factor	0.97		

### Driver Input Amperage Reference

Voltage Input	120V	240V	277V
Typical Amperage	5.67	2.83	2.45
Max Amperage	5.95	2.98	2.58

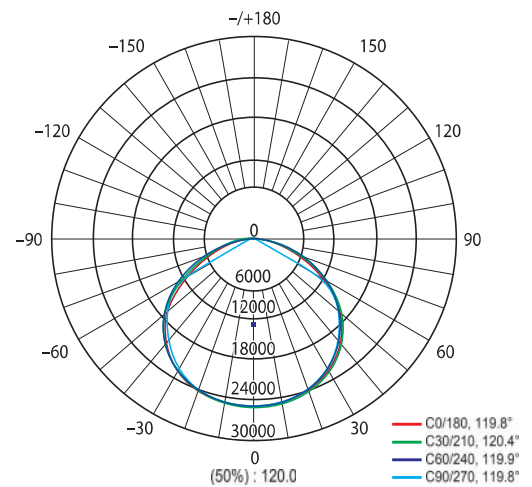
### S4 Spectrum

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.

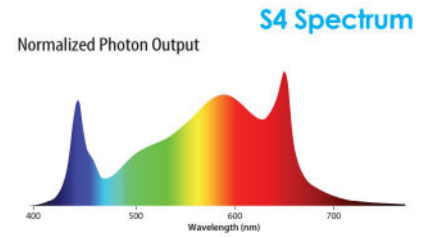
### Photosynthetic Photon Intensity Distribution



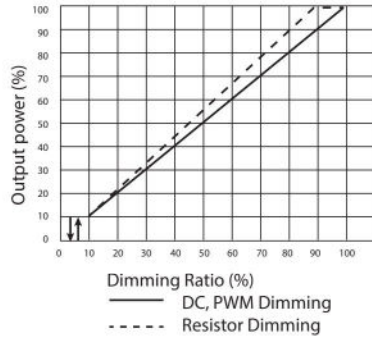
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S4 SPECTRUM



## Dimming Ratio



## 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	IP65
Material	N/A

## Optical Specifications

Optics	120 degrees
Total Diode Quantity	2584
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 Daisy Chain Connector	Yes
Internal EMI Suppression	Yes

## Safety Certifications

Certification Mark	cETLus
Certified to UL 8800	Yes
Certified to CSA C22.2 # 250.0	Yes
Compliant to OOI UL 8800	Yes
IEC 62471 Photobiology	
Safety Rating	Risk Group 2
FCC Commercial	Yes
FCC Residential	Yes

## Power Harness Options

- Specific cable harnesses based on facility requirements.
- CHE1063000W** 10' F 16AWG WT w/leads, Harness
- CHE1063010W** 10' F 16AWG WT 110-120V Plug, 5-15P, Harness
- CHE1063015W** 10' F 16AWG WT 208-240V Plug, 5-15P, Harness
- CHE1083020W** 10' F 18AWG WT 277V, L7-15P, Harness

## PHOTOBIO AC Power Distribution Tree Cabling Options

Plug and play power cables that allow interconnectivity of multiple fixtures on a single circuit.

- PTBAC40APM** PHOTOBIO AC Female Panel Mount, 40A M25, Pigtail 6" 10AWG
- PTBAC40AJ10** PHOTOBIO AC Power Link Cable, 40A M25 Connector, 10'
- PTBAC40A1T4** PHOTOBIO AC Power T Cable, 40A M25 to EN100, 1-T, Ferrite, 4.5'
- PTBAC40A1T6** PHOTOBIO AC Power T Cable, 40A M25 to EN100, 1-T, Ferrite, 6.0'

## PHOTOBIO Communication Tree Cabling System & Accessories

Plug and play communications cables that allow interconnectivity from a centralized controller.

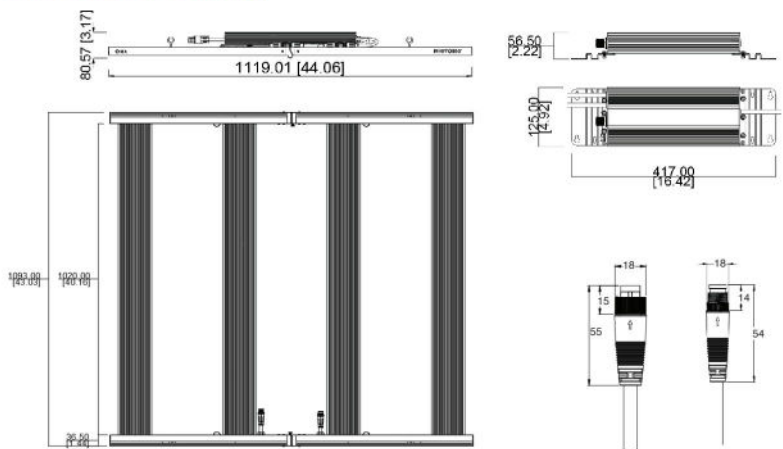
### TREE CABLING SYSTEM

- PTBCC8850W** PHOTO LOC 0-10V Control Cable 8' Trunk + 5' Branch
- PTBCCJ16W** PHOTO LOC 0-10V Control Cable 16' Jumper
- PTBCC8300** PHOTO LOC 0-10V Control Cable, 300' 3P-2P
- PTBAC4RJ112P20** PHOTO LOC 0-10V TM Adapter Cable, RJ11-2P 20'
- PTBXXRC** PHOTO LOC 0-10V Signal Repeater

## Mechanical Specification

Dimensions (L x W x H)	1093 x 1119 x 80.6 mm / 43.03 x 44.06 x 3.17 in
Net Weight	11.2 kg / 24.6 Lb
Thermal Management	Passive
Material	Aluminum, PC, Anodized

## Dimensional Drawing



## Operation Notes

For use with a generator, line conditioning equipment to control input voltage must be used in order to avoid damage to fixture. Failure to observe this warning will result in void of warranty. Contact us for more information. Clean overspray from lens with a damp microfiber cloth. Product is not designed to use with residential power strip.



**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.