

# PHOTONTEK

HORTICULTURAL LIGHTING

## SQ300W PRO LED FULL-SPECTRUM LED

The **P-TEK SQ300W PRO** Only the highest-grade materials and components are used in PHOTONTEK's LED fixtures. PHOTONTEK fixtures have industry-leading performance, delivering safe, dependable light.

**2.7**  
 $\mu\text{mol}$

/ J EFFICACY

**816**  
 $\mu\text{mol}$

/ s PPF



**3**

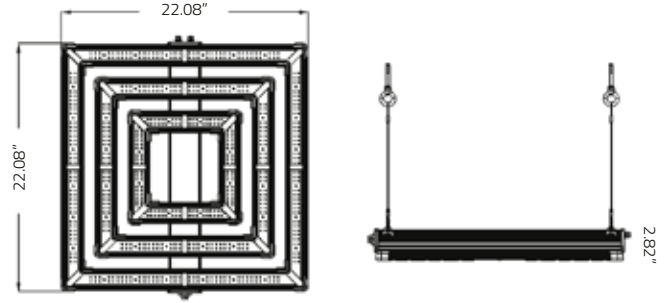
YEAR

WARRANTY

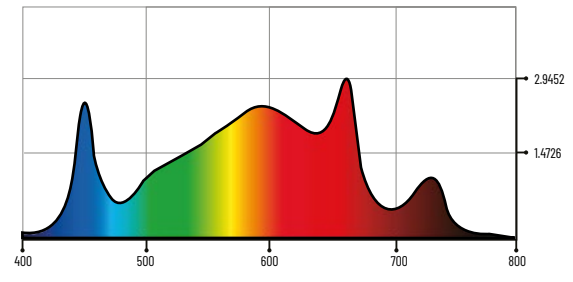
# SQ300W PRO LED

## FULL-SPECTRUM LED

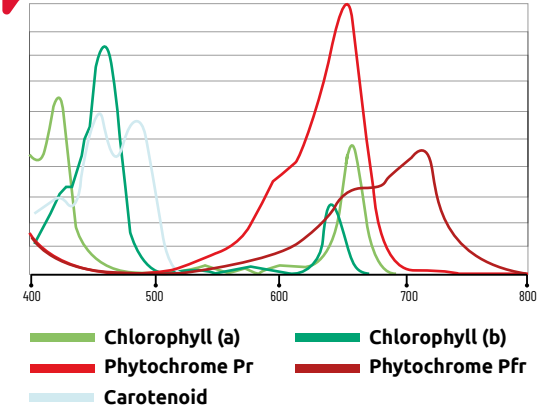
- Product Code: PTEKLED024
- Efficacy: 2.7  $\mu\text{mol}/\text{J}$
- PPF: 816  $\mu\text{mol}/\text{s}$
- Input Voltage: 120-277V, 50-60Hz
- Input Power: 310W (100%)
- Input Current (100%): 2.72A (120V); 1.4A (230V); 1.16A (277V)
- Footprint: Up to 3.3'x3.3'
- Application: Multi-layer, Room, Tent
- Waterproof & Dustproof: IP65
- Lifetime: 60 000 Hrs
- Light Distribution: 120°
- Light Source: Higher Spec 4000K White, 660nm Red & 730nm Far Red Diodes
- CCT: 4000K
- Quantity of Diodes Total: White 576; Red 24; 24 Far Red
- Diodes Power Proportion: White 74%; Red 14%; Far Red 12%
- Diodes Efficiency: White 2.8  $\mu\text{mol}/\text{J}$ ; Red 3.2  $\mu\text{mol}/\text{J}$ ; Far Red 2.2  $\mu\text{mol}/\text{J}$
- Dimmable: OFF-25%-50%-75%-100% with 0-10V Light Dimmer (Included)
- External Control: With P-Tek Digital Controller or Universal Controller 0-10V
- Weight: 11.46 Lbs
- Dimensions: 22.08"x22.08"x2.82"
- Spectrum: Full Spectrum
- Thermal Management: Passive Cooling
- Power Factor: 0.95
- BTU: 1051 BTUs/h
- Warranty: 3 Years
- Certifications: IP65, Rohs Directive
- CSA: ANSI/CAN/UL 8800:2019
- FCC: FCC PART15 SUBPART B:2017
- IC: ICES-005 Issue 5:2018



### SQD SPECTRUM GRAPH



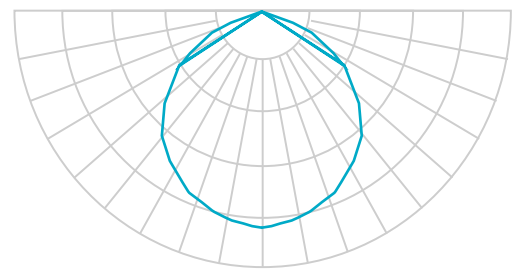
### ABSORPTION CURVES OF PLANTS



### DISTRIBUTION CURVE FLUX

AVERAGE BEAM ANGLE (50%) : 117.9 DEG

**C90/270, 117.9**



### INPUT CURRENT (A/W) PER DIMMING RANGE

Conditions	Dimming Ratio	Input Power (W)	Current (A)
Vmains=120VAC	100%	315	2.64
	75%	237	1.98
	50%	153	1.29
	25%	80	0.69
Vmains=240VAC	100%	308	1.36
	75%	232	1.03
	50%	152	0.71
	25%	79.5	0.41
Vmains=277VAC	100%	307	1.14
	75%	231	0.87
	50%	151.5	0.61
	25%	79	0.4

## FULL CONTROL

PhotonTek Pro LED Fixtures can be fully controlled with either the P-Tek Digital Controller or with any other Control System that utilises 0-10V output signal.



## WHAT'S IN THE BOX:

- 1 x SQ300W Pro LED Fixture with Driver
- 1 x Power Cable 120V
- 1 x 0.10V Light Dimmer + Velcro
- 2 x Metal Cable Hangers
- 1 x Manual

## PPFD: PHOTOSYNTHETIC PHOTON FLUX DENSITY ( $\mu\text{mol}/\text{m}^2/\text{s}$ )

ALL TESTS CONDUCTED WITH 100% DRIVER POWER

### FACTORS THAT CAN INFLUENCE PPFD TESTS

- TEST EQUIPMENT.
- LAMP BEADS DEVIATION
- AMBIENT TEMPERATURE DEVIATION
- PC COVER TRANSMITTANCE DEVIATION
- POWER SOURCE EFFICIENCY DEVIATION
- REFLECTION CONSIDERED OR NOT

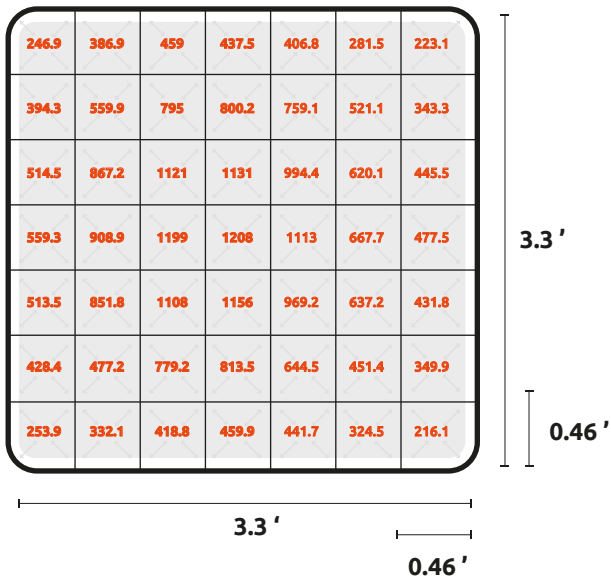
### RECOMMENDED PPFD ( $\mu\text{mol}/\text{m}^2/\text{s}$ )

PLANT	SEED	CLONES	VEGETATIVE	FLOWERING
CANNABIS	100-300	75-150	300-550	650+
TOMATOES	150-350	75-150	350-550	650+
CUCUMBERS	100-300	--	300-550	650+
PEPPERS	150-350	--	300-550	650+

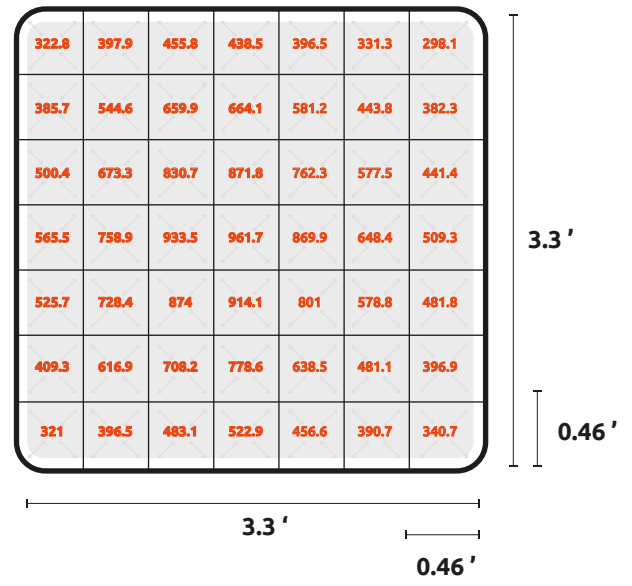
### PHOTONTEK SQ300W PRO PPFD MAPS

TEST AREA	3.3' X 3.3'
TEST POINTS	49
TEST EQUIPMENT	INTEGRATING 2 METER SPHERE & LI-COR 180
AMBIENT TEMPERATURE	25°C / 77°F
HEIGHT FROM CANOPY	12", 16", 20", 40"
REFLECTION	0%

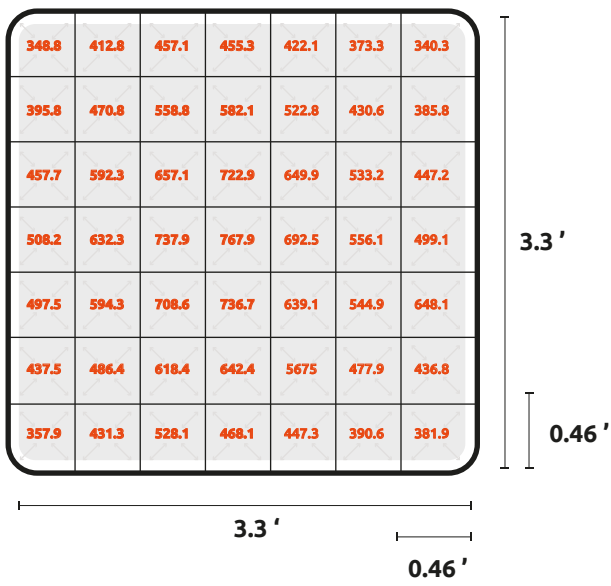
HEIGHT TO TEST POINT 12"  
 CANOPY AVERAGE PPFD 622.46  $\mu\text{mol/s/m}^2$



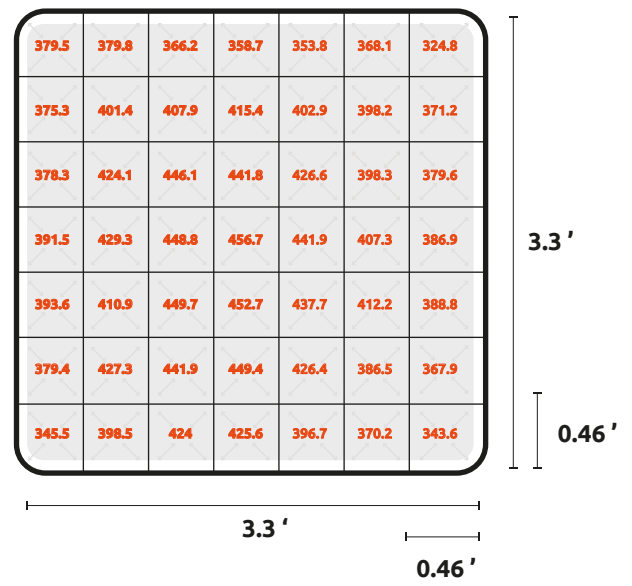
HEIGHT TO TEST POINT 16"  
 CANOPY AVERAGE PPFD 572.45  $\mu\text{mol/s/m}^2$



HEIGHT TO TEST POINT 20"  
 CANOPY AVERAGE PPFD 524.06  $\mu\text{mol/s/m}^2$



HEIGHT TO TEST POINT 40"  
 CANOPY AVERAGE PPFD 401.80  $\mu\text{mol/s/m}^2$



General contact:  
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FOR MORE INFORMATION ON LUMATEK PRODUCTS  
 VISIT [WWW.PHOTONTEK-LIGHTING.COM](http://WWW.PHOTONTEK-LIGHTING.COM)