



Horticulture LED Top Light

Product Specifications



The TCP LED HT Series Horticulture Top Light features a lightweight, customizable design to support both the flowering and growth stages of plant development. This durable, 50° C rated, fixture efficiently delivers up to 916 $\mu\text{mol/s}$ of photosynthetic photon flux while maximizing energy savings due to an efficacy of up to 3.56 $\mu\text{mol/J}$. The long 50,000 hour rated life significantly decreases maintenance, labor, and material costs over the life of the fixture. SmartBox Bluetooth mesh technology accessories are also available for complete lighting system control.

Reasons to choose the LED HT Series Horticulture Top Light from TCP

- Modular design allows for limitless customization
- Industry leading efficacy: up to 3.56 $\mu\text{mol/J}$
- Powerful 916 $\mu\text{mol/s}$ photosynthetic photon flux
- SmartBox technology accessories
- Instant on, no warm up time for full light
- Long life: 50,000 hours
- Durable light weight aluminum housing
- IP66 rating prevents dirt and grime build up behind fixture lens

Ideal Applications

- Greenhouses
- Indoor Grow Facilities
- Grow Tents
- Metal Halide Replacements
- High Pressure Sodium Replacements

Specifications

Input Line Voltage	120-277 VAC
Input Line Frequency (Hz).....	50/60HZ
Wattage (W).....	250W
Photosynthetic Photon Efficacy.....	>3.56 $\mu\text{mol}/\text{J}$
Rated Life.....	50,000 hours
Minimum Starting Temperature	-40°C (-40°F)
Maximum Operating Temperature.....	50°C (122°F*)
Power Factor	>0.90
THD.....	<20%
Ratings	cULus wet location rated, IP66
Controls.....	0-10V dimming (standard)



*Maximum Operating Temperature decreases when additional units are assembled together

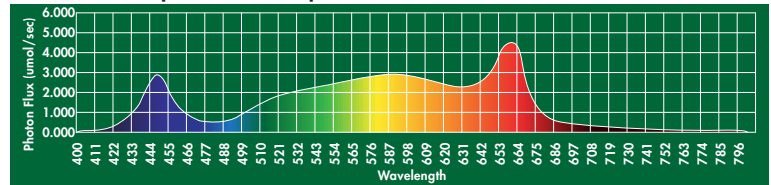
The Power of TCP SmartStuff

- Easily schedule day and night cycles.
- Save multiple scenes to your account to provide the optimum PPFD levels for each plant type. No need to adjust your light mounting height.
- Factory installed, no need for expensive building control wiring.
- Bluetooth controlled, no WIFI required.
- Safe and secure. Lights are locked into your account once programmed.



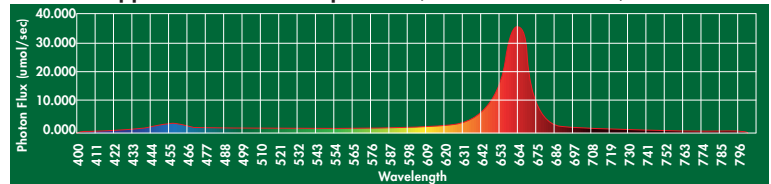
Available Spectrums:

All Purpose Growth Spectrum (Item #: HTUZDA4VG)



ITEMS	MEASURED VALUE	UNIT
PPF (400-700nm)	516.56	$\mu\text{mol}/\text{s}$
PPF (400-500nm)	85.41	$\mu\text{mol}/\text{s}$
PPF (500-600nm)	218.82	$\mu\text{mol}/\text{s}$
PPF (600-700nm)	215.89	$\mu\text{mol}/\text{s}$
PPE	2.09	$\mu\text{mol}/\text{J}$
PF _{rr}	7.10	$\mu\text{mol}/\text{s}$
YPF	457.85	$\mu\text{mol}/\text{s}$

Supplemental Growth Spectrum (Item #: HTUZDA4FL)



ITEMS	MEASURED VALUE	UNIT
PPF (400-700nm)	916.51	$\mu\text{mol}/\text{s}$
PPF (400-500nm)	50.03	$\mu\text{mol}/\text{s}$
PPF (500-600nm)	13.88	$\mu\text{mol}/\text{s}$
PPF (600-700nm)	852.92	$\mu\text{mol}/\text{s}$
PPE	3.56	$\mu\text{mol}/\text{J}$
PF _{rr}	2.33	$\mu\text{mol}/\text{s}$
YPF	844.56	$\mu\text{mol}/\text{s}$

Applications

The TCP LED HT Series Horticulture Top Light is ideal for replacing traditional metal halide high bay systems in commercial horticulture applications. Benefits include high efficiency, up to 916 $\mu\text{mol/s}$ of photosynthetic photon flux, long life, instant on, and a modular design that will satisfy the most complex of horticulture lighting applications.

Construction

- Durable, light weight aluminum body
- Finish: powder coated, post-painted white
- Modular design: unlimited lighting design solutions
- Lightweight, low-profile design

Electrical

- cULus wet location rated
- 0-10V dimming driver (standard)
- Easy-to-access wiring compartment
- System rated for long 50,000 hour life
- Efficiently delivers $>3.56 \mu\text{mol/J}$

Optics

- High impact, clear acrylic lens comes standard to protect the LEDs and minimize glare

Replacement Strategy

Light Source:	TCP Item:	Modular Assembly	Energy Savings:
400W HPS/MH - 500 PPF	HTUZDA4VG or HTUZDA4FL (516 PPF) (916 PPF)	1 - unit, no assembly required	38%
600W HPS/MH - 1000 PPF		2 - units	20%
1000W HPS/MH - 1700 PPF		3 - units	33%



Listings

UL/cUL Listed
RoHS Compliant

Warranty

Five year limited warranty against defects in manufacturing.*

*Warranty is valid when operating in ambient temperatures below 122°F/50°C for one single fixture. Warrantied maximum operating temp drops when 2 or 3 three fixtures are assembled together.

Catalog Ordering Matrix Example: HTUZDA4VG

HT		ZD	A4		
FAMILY	VOLTAGE	CONTROLS/DIMMING	WATTAGE ¹	SPECTRUM	OPTIONS
HT - Horticultural Top Light	U - 120-277V	ZD - 0-10V Dimming	A4 - 250W	VG - All Purpose Growth FL - Supplemental Growth	SM - TCP SmartBox

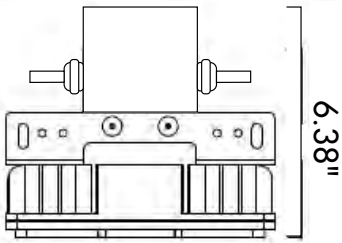
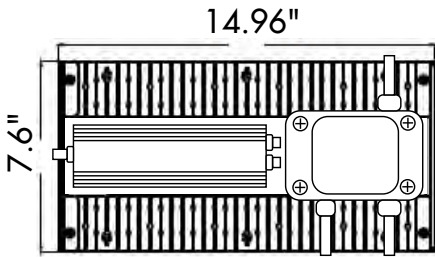
¹ Actual wattage may differ by +/- 10%

Field Installed Accessories:

Item Number	Description
HPTBAG	Parts bag for modular assembly
EXPYHANGKIT10FT	100lb rated cable Y-hook hanging kit (1 kit needed per fixture)

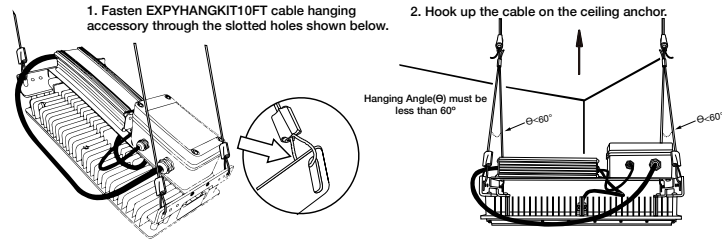
For the most up-to-date specs and warranty information, please visit www.tcp.com

Product Dimensions:

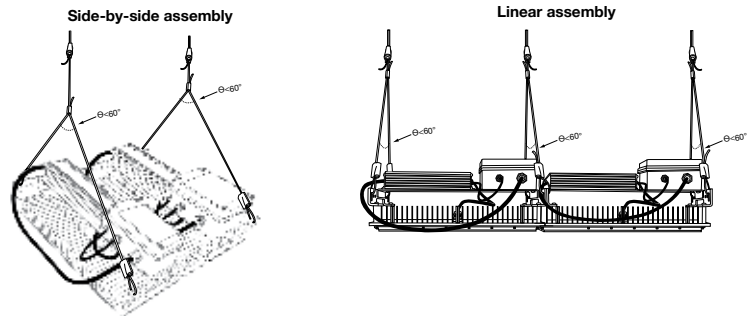


Weight: 9.8lbs

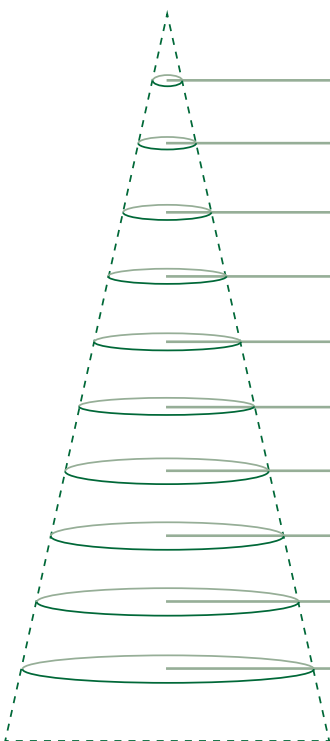
Mounting Details



Modular Assembly



Photosynthetic Photon Flux Density



MOUNTING HEIGHT (FT)	HTUZDA4VG			HTUZDA4FL		
	Coverage Diameter (Ft)	Average PPFD ($\mu\text{mol}/\text{s}/\text{m}^2$)	Nadir PPFD ($\mu\text{mol}/\text{s}/\text{m}^2$)	COVERAGE DIAMETER (FT)	Average PPFD ($\mu\text{mol}/\text{s}/\text{m}^2$)	Nadir PPFD ($\mu\text{mol}/\text{s}/\text{m}^2$)
0.5	0.7	7687	14530	0.9	11141	24050
1.0	1.4	1922	3633	1.7	2785	6013
1.5	2.1	854	1614	2.6	1238	2672
2.0	2.8	480	908	3.4	696	1503
2.5	3.5	307	581	4.3	446	962
3.0	4.2	214	404	5.2	309	668
3.5	5.0	157	297	6.0	227	491
4.0	5.6	120	227	6.9	174	376
4.5	6.4	95	179	7.7	138	297
5.0	7.1	77	145	8.6	108	241