



HTM Series Horticulture Top Light

Product Specifications



The TCP HTM Series Horticulture Top Light features a lightweight design that supports flowering and growth stages of plant development. A single unit of this durable, 55° C rated fixture efficiently delivers up to 612 $\mu\text{mol/s}$ of photosynthetic photon flux while maximizing energy savings due to an efficacy of up to 2.60 $\mu\text{mol/J}$. The long 50,000 hour rated life significantly decreases maintenance, labor, and material costs over the life of the fixture.

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

- Industry-leading efficacy: up to 2.60 $\mu\text{mol/J}$
- Powerful 612 $\mu\text{mol/s}$ photosynthetic photon flux
- Instant on, no warm up time for full light
- Long life: 50,000 hours
- Durable, lightweight aluminum housing
- Power washer rated IP66 wet location rating

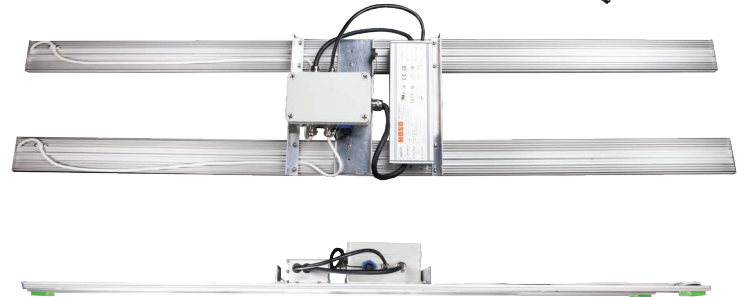
Ideal Applications

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

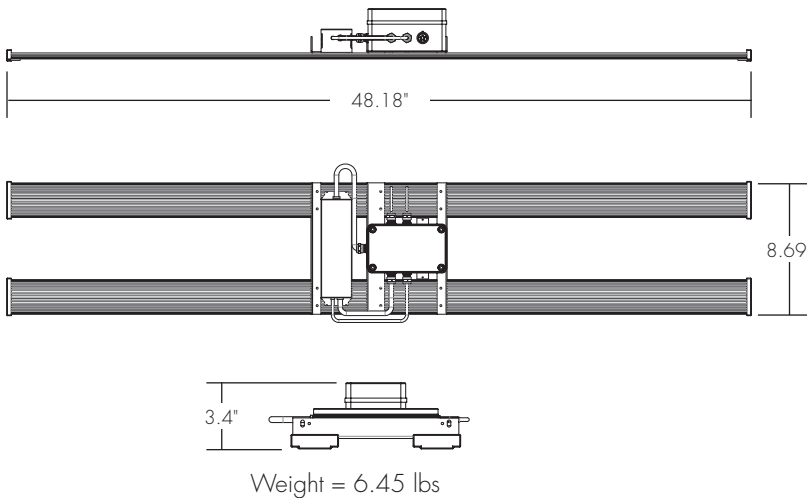
Specifications

Input Line Voltage	120-277 VAC
Input Line Frequency (Hz).....	50/60Hz
Wattage (W).....	236W
Photosynthetic Photon Flux (PPF).....	612 $\mu\text{mol/s}$
Photosynthetic Photon Efficacy (PPE).....	$\leq 2.60 \mu\text{mol/J}$
Fixture Heat Output*	805 BTU/hr
Rated Life.....	50,000 hours
Minimum Starting Temperature	-40°C (-40°F)
Maximum Operating Temperature.....	55°C (131°F)
Power Factor	>0.90
THD.....	<20%
Ratings	cETLus Rated, cULus wet location rated, IP66
Controls.....	0-10V dimming (standard)

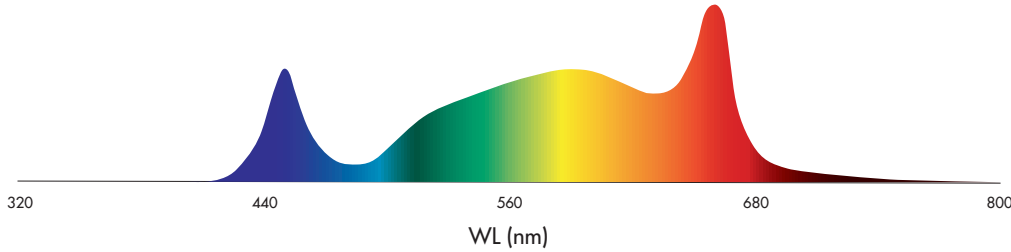
*Heat Output Calculation: Unit Wattage * 3.412



Dimensions



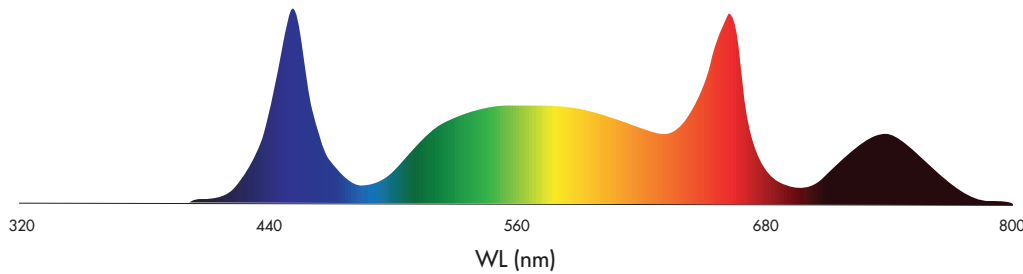
TCP Full Spectrum Technology



TCP's full spectrum technology provides a balanced blend of blue, green, and red light to ensure plants grow healthy and strong. The substantial red peak at 660nm results in a robust photosynthesis contribution. A blue peak shown at 440nm reduces unwanted stem elongation and leads to strong, healthy, and compact plants. Lastly, TCP's full spectrum includes a stable amount of green light, removing any need for green supplemental lighting when checking plant health.

ITEMS	MEASURED VALUE	UNIT
PPF (400-700nm)	611.92	μmol/s
PPF (400-500nm)	110.29	μmol/s
PPF (500-600nm)	236.96	μmol/s
PPF (600-700nm)	268.04	μmol/s
PPF (600-750nm)	278.25	μmol/s
Photon Flux (380-780nm)	624.65	μmol/s
PPFR (700-800nm)	12.62	μmol/s
PPE	2.60	μmol/J

TCP Far-Red Spectrum Technology



TCP's far-red full spectrum takes all the great qualities of our traditional full spectrum but adds far-red photons for some extra photosynthetic encouragement! Far-red photons have little to no effect on plants when they're used by themselves. However, when plants are grown underneath a full spectrum light that's paired with an additional, supplemental far-red spectrum, their photosynthetic rate is higher than when they are grown using just a full spectrum light.

ITEMS	MEASURED VALUE	UNIT
PPF (400-700nm)	526.90	μmol/s
PPF (400-500nm)	89.23	μmol/s
PPF (600-700nm)	233.90	μmol/s
PPF (600-750nm)	310.26	μmol/s
Photon Flux (380-780)	631.80	μmol/s
PPFR (700-800)	104.93	μmol/s

Photosynthetic Photon Flux Density

Test Conditions:

- 5.5' X 5' X 5.75' Grow Tent (L X W X H)
- Single HTMUZDA3S1 Unit hung at 4" and 6" above sensing surface

4" Mounting Height from Sensing Surface

6" Mounting Height from Sensing Surface

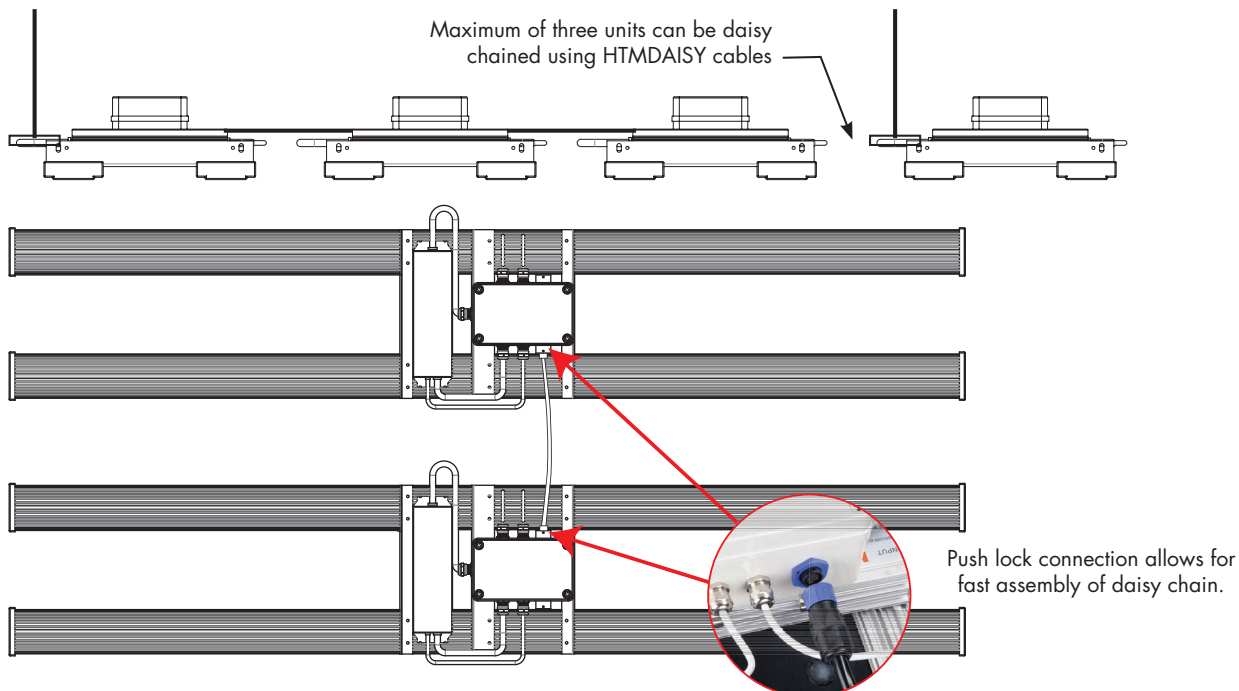
113	109	108	109	163	163	223	108	113	111	114
116	114	118	142	343	343	364	140	124	125	121
109	109	110	109	717	858	1230	118	114	115	115
115	119	117	180	755	1029	920	190	122	127	122
112	114	112	114	1305	1287	700	116	119	118	118
118	118	116	209	969	1207	757	220	121	122	121
118	114	114	114	1305	1287	700	116	128	119	118
122	122	125	269	1060	1348	766	193	259	124	127
112	112	110	114	993	1419	810	128	118	116	120
119	121	126	250	945	1446	1158	259	124	127	133
115	112	111	132	1214	1413	938	143	117	114	121
121	121	123	267	1143	1506	1039	245	124	124	130
114	116	113	143	1589	1496	1330	125	120	123	126
116	117	119	258	1417	1550	1271	237	123	123	123
113	114	112	114	1082	1445	1187	135	114	112	117
115	115	128	248	1037	1426	1144	207	222	119	116
115	116	116	116	309	471	976	130	118	122	120
114	113	123	194	438	522	1032	159	120	119	114
107	114	113	109	108	113	112	109	109	109	114
106	113	113	118	166	206	167	136	114	115	120

4" Average PPFD: 329 $\mu\text{mol}/\text{s}/\text{m}^2$

6" Average PPFD: 355 $\mu\text{mol}/\text{s}/\text{m}^2$

*data at other heights available upon request

TCP Quick Connect Daisy Chain System



Applications

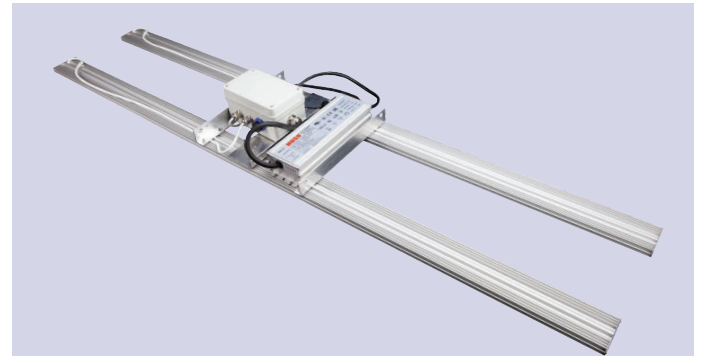
The TCP LED HTM Series Horticulture Top Light is ideal for replacing traditional metal halide high bay systems in commercial horticulture applications. Benefits include high efficiency, up to 612 $\mu\text{mol/s}$ of photosynthetic photon flux, long life, instant on, and a quick connect daisy chain ready design that will satisfy the most complex of horticulture lighting applications.

Construction

- Durable, lightweight aluminum body
- Corrosion-resistant material composition
- Quick connect daisy chain ready
- Lightweight, low-profile design
- 6FT 5-wire power cord comes standard

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 $\leq 2.60 \mu\text{mol/J}$



Listings

cETLus Listed
RoHS Compliant
DLC Hort 2.1

Wet Location Rated – IP66

Warranty

Five year limited warranty against defects in manufacturing.



Power washer rated TCP
IP66 clear coat allows for fast cleaning of LEDs.

Catalog Ordering Matrix Example: HTMUZDA3S1

HTM	U	ZD	A3	S1
FAMILY	VOLTAGE	CONTROLS	PHOTOSYNTHETIC FLUX (POWER) ^{1,2}	SPECTRUM
HTM – Horticulture Top Light	U – 120-277V	ZD – 0-10V Dimming	A3 – 612 $\mu\text{mol/s}$ (236W)	S1 – Full Spectrum SR1 – Full Spectrum + Far Red

¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

² Actual wattage may differ by +/- 10%

Field Installed Accessories:

Item Number	Description
HTMDAISY2FT	2FT daisy chain 5-wire power cord.
HTMDAISY6FT	6FT daisy chain 5-wire power cord.

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

TECHNOLOGY CAST IN A BEAUTIFUL LIGHT

For over 20 years, TCP has been designing, developing and delivering energy-efficient lighting into the market. Thanks to our cutting-edge technology and manufacturing expertise, we have shipped billions of high quality lighting products. With TCP, you can count on a lighting product that is designed to meet the needs of the market - that transforms your surroundings and envelopes you in warmth - lighting that generates beauty with every flip of the switch.

Sales:

Date:

Model:

Project:

Rep:

Catalog Number:

Type:

Notes:



For more information on the quality and care TCP can deliver, call us at **800.324.1496** or visit tcp.com

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