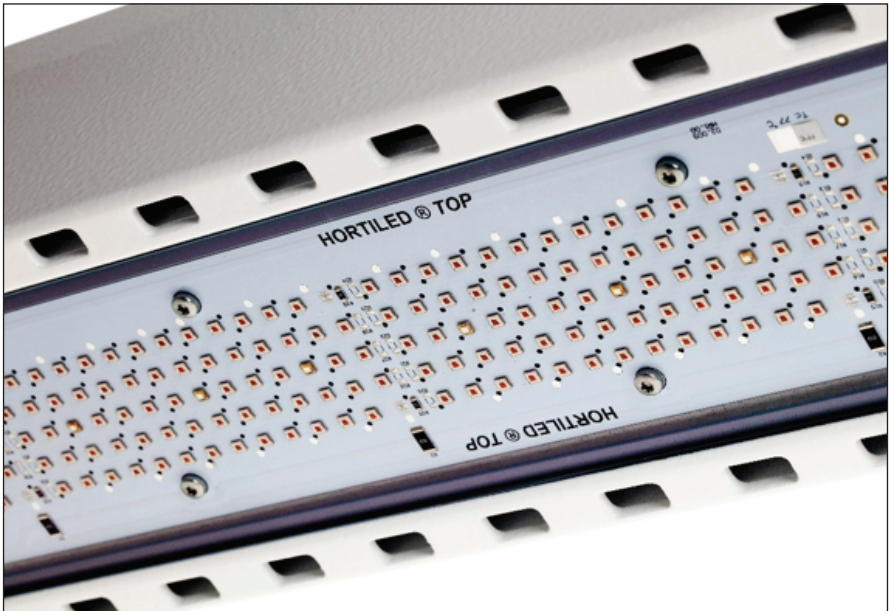


HORTILED® Top

EN User and installation manual



P.L. LIGHT SYSTEMS

THE LIGHTING KNOWLEDGE COMPANY

MANUAL FOR END USER AND INSTALLER

Thank you for purchasing the HortiLED® Top. This manual contains all the information needed to quickly familiarize yourself with the product. Please review this information carefully, before installing and/or operating the product.

We recommend you keep this manual on hand for future reference.

For further information please contact:

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I INTRODUCTION

1.1 PRODUCT DESCRIPTION

Intended use




The HortiLED® Top is a fixture intended for overhead illumination of horticultural crops. For other applications in professional horticulture, please contact P.L. Light Systems.

Any use other than the approved intended use described above is considered unintended use. P.L. Light Systems cannot be held responsible for possible consequential damage caused by improper, incorrect or inadvisable use.

The HortiLED Top is referred to as the "fixture" in this manual. The fixture is available in a number of versions which vary in terms of distribution pattern, colour spectrum and dimmability. This manual includes all versions of the fixture.

1.2 SYMBOLS USED

The following symbols are used in this manual to draw attention to specific topics or actions.

 WARNING	A warning indicates the possibility of injury to the user and/or damage to the product should the user not perform the procedures as described.
ATTENTION!	A note with additional information for the user. A note alerts the user to potential problems which may occur if a procedure is not carried out as described.
	This is the UL certified logo, which indicates that the product meets UL's stringent standards for product safety within the USA and Canada.
	The WEEE logo indicates that this product cannot be discarded or disposed of together with household waste.

2 TECHNICAL SPECIFICATIONS

2.1 GENERAL PRODUCT SPECIFICATIONS

Product description	
Name:	HortiLED®Top
Market Introduction:	2016

TECHNICAL SPECIFICATIONS

Mechanical

Product Dimensions (L x W x H):	38.039 in. (966.2 mm) x 4.681 in. (118.9 mm) x 3.740 in. (95.0 mm)
Product Weight:	18.08 lb. (8.20 kg)
Housing:	Aluminum and glass
Ingress Protection Rating**:	IP65

Electrical

Mains Voltage +/- 10% (see type sticker):	120 - 277 V AC, 50/60 Hz (grey connector) 347 - 480 V AC, 50/60 Hz (green connector)
Power Draw:	Max. 320 W
Power Factor:	> 0.95
Flux with R/B (LB):	860 µmol/s
Efficiency with R/B (LB):	2.7 µmol/J
Colour Spectra*:	Red/Blue (low blue/medium blue/high blue) Red/White (low blue/medium blue) Full Spectrum Custom*
Dimmable (optional):	Manual

Other

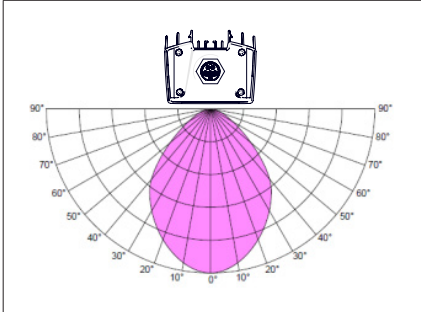
Ambient Operating Temperature:	0 ~ 30°C
Relative Air Humidity:	5% ~ 85%, non-condensing
Certification:	UL Certified
Warranty:	Visit www.pllight.com for warranty conditions.

* Can be tailored on a project-specific basis. Minimum quantities apply. **
Applies only with assembled connectors.

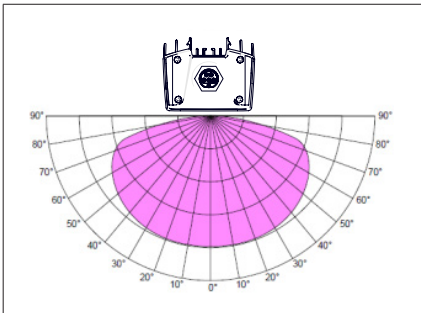
Light Distribution

The HortiLED Top is available in two distribution options.

- 1 An 80° distribution angle for effective penetration of light into the crop.
- 2 A 150° distribution angle for exceptional uniformity of the light onto the crop.

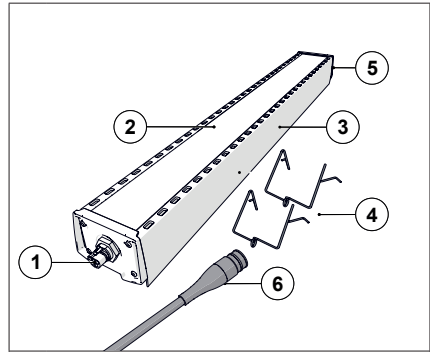


80° distribution



150° distribution

2.2 MAIN COMPONENTS

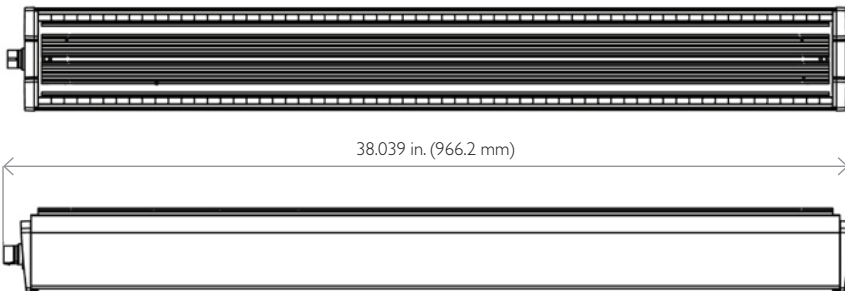
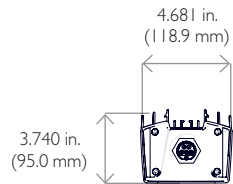


Parts list

1	Wieland Connector (Male)
2	Glass Lens
3	Housing
4	Mounting Brackets (x2)
5	Gore Vent
6	Wieland Connector (Female)

2.3 PRODUCT DIMENSIONS

38.039 in. x 4.681 in. x 3.740 in.
(966.2 mm) x (118.9 mm) x (95.0 mm)



3 PRECAUTIONARY MEASURES AND SAFETY INSTRUCTIONS

⚠ WARNING

- Always adhere to the local and national building and electrical codes when installing or using the fixture.
- Switch off the mains voltage before commencing installation or maintenance work.
- Do not open or disassemble the fixture, it contains no serviceable parts inside. Opening the fixture can be dangerous and will void the warranty.
- Never look directly into the light source whilst fixture is turned on. Doing so can cause damage to the eyes.

ATTENTION

- The end user is responsible for ensuring correct installation and use of the product. Incorrect installation can cause damage or defects to the product. The warranty shall become void if the product and/or electronic components are damaged due to incorrect installation.
- The performance of the fixture may be compromised if operated outside of the recommended ambient temperature guidelines.

4 INSTALLATION

4.1 PREPARATIONS FOR INSTALLATION

1	Switch off the mains voltage.
2	Refer to your light plan. Arrange boxed light fixtures on floor in specified mounting locations.
3	Remove the fixture from the packaging and check the contents (see section 2.2).
<h4>⚠ WARNING</h4> <p>Set the fixture down with the glass lens facing down on a cushioned surface to prevent damage.</p>	
4	Gather any additional tools and/or hardware that may be required to mount the fixture.

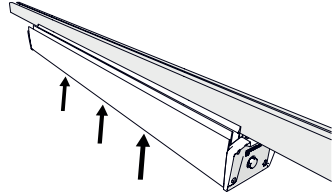
4.2 INSTALLING THE FIXTURE

STEP 1: MOUNT FIXTURE

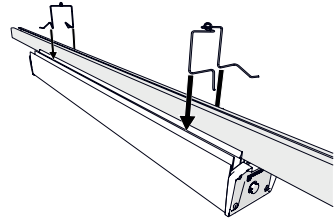
The fixture can be mounted to the roof structure in one of three possible ways:

OPTION A

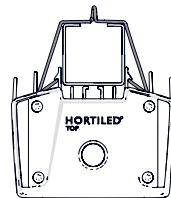
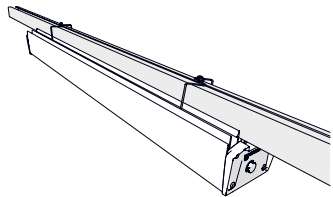
- 1 With one person supporting the fixture on either end, raise the fixture so that it sits flush beneath the track/truss.

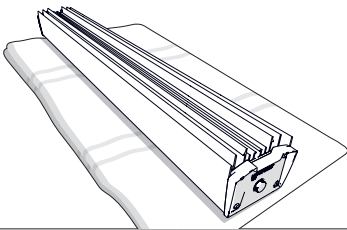
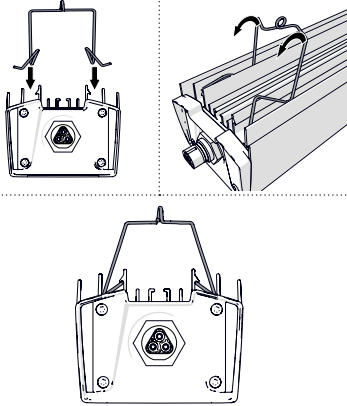
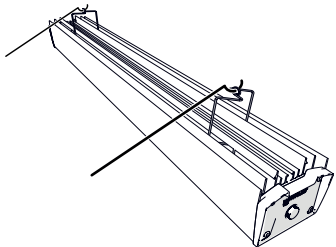


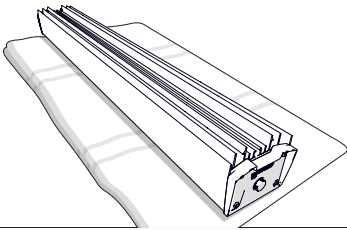
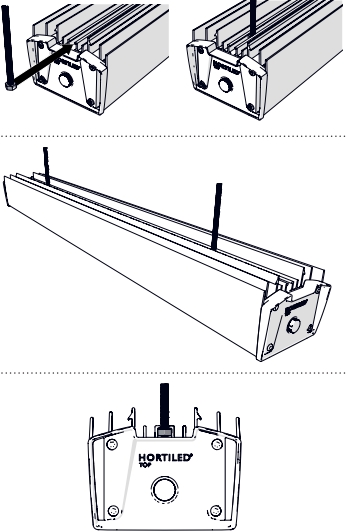
- 2 Lower one of the supplied mounting brackets over the top of the track/truss at either end of the fixture. Insert the open ends of the bracket into the mounting channel.



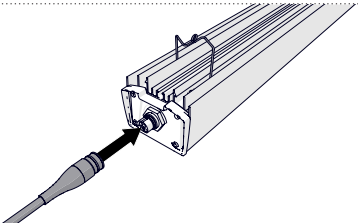
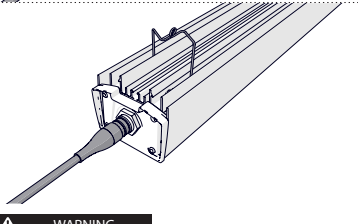
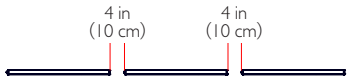
- 3 While still supporting the fixture from below, push down on brackets until they clip firmly in place.



OPTION B	
1	Place the fixture (with the glass lens facing down) on a cushioned surface to prevent damage. 
2	Insert the open ends of the supplied mounting brackets into the mounting channel on either end of the fixture at a 45° angle, then tilt the brackets upright until they clip firmly in place. 
3	Raise the fixture and secure the attached mounting brackets to previously installed side brackets (not supplied) as shown below. 

OPTION C	
1	Place the fixture (with the glass lens facing down) on a cushioned surface to prevent damage. 
2	Secure two M6 thread fasteners (not supplied) directly to the roof structure in desired mounting location. Thread an M6 hex nut (not supplied) onto the end of each of the fasteners. Raise fixture to ceiling and slide onto the fasteners, so that the nuts sit securely on the inside of the channel, on either end of the fixture (as shown below). ATTENTION Fasteners should be positioned approx. 5 in. (12cm) from either end of the fixture when mounted. 

STEP 2: COMPLETE ELECTRICAL CONNECTION

1	Install female connector (supplied) to end of power cable (refer to section 6.1)
2	<p>Once connection is complete, push the female connector into the male connector on the end of the fixture until firmly engaged.</p>   <p>⚠ WARNING Ensure that the strain relief is properly fitted. The contact can become damaged and water ingress problems may arise if this is not the case.</p>
3	<p>Switch on the mains voltage.</p> <p>⚠ ATTENTION In the event that multiple fixtures are mounted consecutively, the distance between each fixture must be a minimum of 4 in. (10 cm)</p> 

5 INITIAL STARTING

Switch on the mains voltage as a function test. See Section 7 Troubleshooting if the fixture fails to light up.

6 MAINTENANCE, ENVIRONMENT AND DISPOSAL

⚠ WARNING

- Switch off the mains voltage before commencing maintenance work.
- Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.

⚠ ATTENTION!

In the event that the product is defective or damaged, contact the dealer from whom you purchased the fixtures, or PL Light Systems directly. Never switch on a defective or damaged fixture.

- Check the product at regular intervals for build-up of dust and dirt. Clean the product if necessary. Contamination can lead to overheating and reduced performance.
- Clean the fixture with a dry or slightly damp cloth. Ensure that the glass lens (section 2.2, #2) is always clean.

⚠ ATTENTION!

- Never clean the product with corrosive cleaning agents, abrasives or other aggressive liquids.
- Protect the male end of the Wieland connector (section 2.2, #1) against the ingress of water when no female connector (section 2.2, #6) is attached.
- Only use a vinegar and water solution (1:100 ratio) to remove build-up of limescale on the lens.
- In the event that the product is stored, it must be kept in a dry, clean environment with an ambient temperature of -20 ~ 50°C



• This symbol on the material, accessories or packaging indicates that this product may not be discarded as household waste. Dispose of the equipment through a recycling centre that handles electronics and electrical appliances within Canada and the United States of America which use separate collection systems for used electronics and electrical appliances. By disposing of the equipment in the proper way, you will be helping to prevent possible risks to the environment and public health, which might otherwise be caused by improper handling of the discarded equipment. Recycling of materials contributes to the conservation of natural resources. Therefore, please do not dispose of your old electronics and electrical appliances via household waste.


6.1 REPAIRING OR SHORTENING A CABLE

WARNING

The work in this manual should only be performed by a qualified individual.

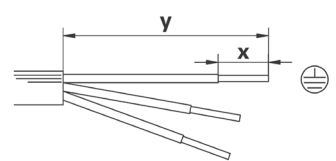
1 Switch off the mains voltage.

2 Push the wire through the first part of the female connector and strip the wire to the correct length:


		N,L
Y:	40	35
X:	8	8

ATTENTION

- The wire should have a diameter of 0.5 to 1.5 mm².



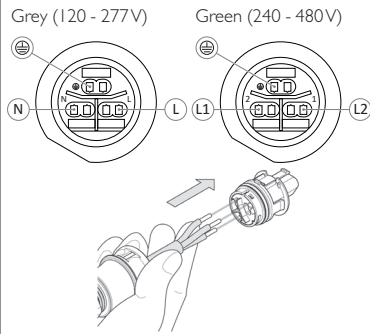
3 Push the wire into the correct connection.

Green/yellow	
Blue	N (L/N), L (L/L)
Brown	L

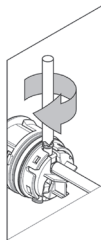
ATTENTION

- In the event that a plug-in connector is used, only use a wire with a hard core.

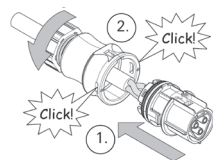
Grey (120 - 277 V) Green (240 - 480 V)



4 Secure the wire with the aid of a screwdriver, if needed.



5 Push the female connector together and tighten the cable gland.



6 Switch on the mains voltage.

7 TROUBLESHOOTING

WARNING

- Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.

ATTENTION!

In the event that the product is defective or damaged, contact the dealer you purchased the fixtures from, or PL Light Systems directly. Never switch on a defective or damaged fixture.

What can you see?	What does it mean?	What is the cause?	What should I do?
The fixture does not emit any light	<ul style="list-style-type: none"> • The fixture is switched off 	<ul style="list-style-type: none"> • No mains voltage is present • The fixture temperature is too high • The mains voltage is too high • The mains voltage is too low 	Check the mains voltage and ensure that it is within the specified value range. Reset the fixture by disconnecting the mains voltage from the fixture for more than 5 seconds and then reconnecting. In the event that the fixture switches off again, lower the ambient temperature.
	<ul style="list-style-type: none"> • Fault in one of the fixtures 	<ul style="list-style-type: none"> • Assembly fault 	Return the fixture for repair.
The fixture only half lights up or flashes	Defect in the electrical circuit	<ul style="list-style-type: none"> • Defective driver • Defective circuit board 	Reset the fixture by disconnecting the mains voltage from the fixture for more than 5 seconds and then reconnecting. If the problem persists, return the fixture for repair.
The fixture emits too little light when compared to the other fixture(s)	Defect in the electrical circuit	<ul style="list-style-type: none"> • Fixture is defective 	Contact the installer and have the wiring checked. If the problem persists, return the fixture for repair.
	Dimmer activated	Check the dimming setting	



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