




GROWER'S CHOICE
HORTICULTURAL LIGHTING



TSL-800

LED USER MANUAL

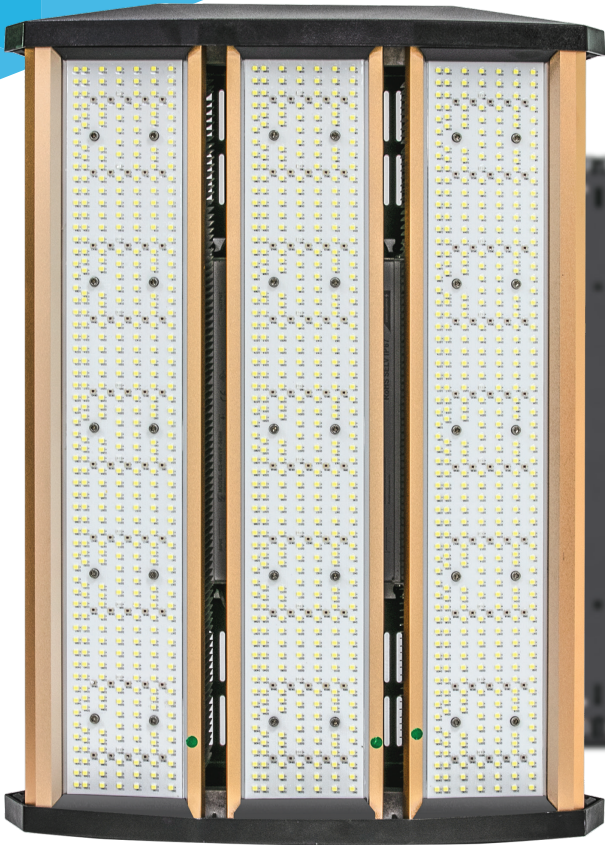
Installation and Operating Instructions



**PLEASE READ
THESE INSTRUCTIONS
BEFORE USING
THE PRODUCT**

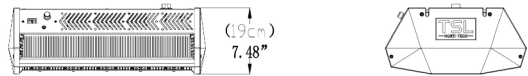
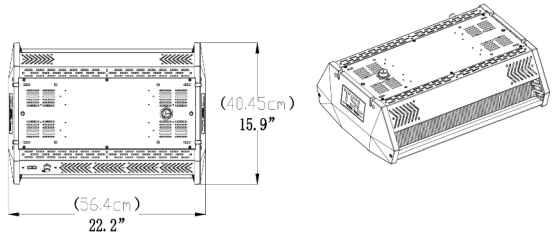
INTRODUCTIONS:

The TSL-800 is far more than a direct 1:1 replacement for traditional 1000w SE & DE HPS fixtures, it is an UPGRADE! We have thought ahead and future proofed this fixture, and also eliminated any need for diode lenses which will yellow and deteriorate the diodes more quickly. Utilizing our patented diode deployment allows us to achieve the desired angles of light distribution and an upgraded PAR output resulting in up to a 30% PAR increase using our new GC 3KF Bloom Phase spectrum. We have also further upgraded the Cooling capabilities by up to 40% with our new patented passive thermal management design. To make replacement of existing HID fixtures even more stress free, we will also be providing multiple mounting options for existing popular set-ups. Compatible with the Growers Choice Master Controller or CPS (Central Power Solution) this revolutionary new LED fixture can be operated by almost any level grower and is scalable for all cultivations, with the greatest yield potential in the industry.



		Specifications			
Item	Model	TSL800A			
Light Source		LED			
Spectrum		GC-3KF Bloom Phase			
PPF (umol/J)		1900-2080 umol/s			
Input Power		800W			
PPE (umol/s)		2.6 umol/J			
Color Render Index/weight		≥86			
Fixture Dimension (L*W*H)		21.2"L x 16.1"W x 11"H / 54cm x 41cm x 28cm			
Fixture Weight		32lbs / 14.5kg			
Mounting Height		6" - 24" (15.2 - 61cm) depending on application			
Thermal Management		Passive			
Power Driver		Isolated Driver			
Driver Efficiency		≥90% (220 Vac Input)			
Dimming		0-10V & Step Dimming			
Dimming Range		10%~100%			
Light Distribution		120°			
Maximum Ambient Temperature		104°F / 40°C			
Power Factor		>0.9			
Standards		UL8800, UL1598, EN60598-2-1			
Certifications		UL, CE, DLC			
Lifetime		Q90>54,000 hrs			
Warranty		5 Years Standard Warranty			

Model	Voltage	120V	208V	230V	240V	277V
TSL-800A		6.7A	3.8A	3.5A	3.3A	2.9A



* PPF calculations complied using our in-house integrating sphere measurements and typical spectroradiometric data for each LED to determine the fixture performance. Actual photometric results may vary within the LED's manufacturer's bin tolerance.

* Wattage values are typical expected values. TSL Horti Tech maintains a tolerance of +/- 10% range on flux and power consumption. Target light level can vary from projected levels depending on ambient temperature, room reflections values, and other conditions.





SAFETY WARNINGS:

The TSL-800 is a passively cooled system with no moving components. Do not try to open or disassemble the fixture, it contains no service parts inside. Doing so may cause harm to the fixture and void warranty.

- Always adhere to the local rules and regulations when installing or using the fixture.
- Wearing protective gloves and glasses is recommended during installation.
- Always disconnect from power source before performing any maintenance to the fixture.
- The fixture will get hot during operation. Do not touch while the light is on. Keep this product away from children.
- Always allow at least 10 minutes for the fixture to cool down before handling.
- Do not touch the LED diodes.
- Keep the power cord away from hot surfaces.
- Do not plug this system into a supply voltage other than what is instructed on the fixture.
- Do not use the fixture when the power cord is damaged.
- Do not use the fixtures if the unit has been dropped, and there is damage to the enclosure or bars.
- Only for damp location



WARNING

Risk of electrical shock. To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before moving or cleaning.



CAUTION

To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.

CAUTION

LED and heat sink surfaces may be hot. Allow sufficient cooling time before handling.

CAUTION

To prevent eye damage, avoid looking directly at the unshielded LEDs.

CAUTION – RISK OF PERSONAL INJURY

Disconnect power before servicing or installing fixture. Lighted fixture may be hot. To reduce risk of injury, turn off or disconnect power and allow to cool before handling. Fixture must be grounded in accordance with appropriate codes. Failure to do so may result in serious injury or death. Be sure all power is off prior to installing fixture.

WARNING - POSSIBLE RISK OF INJURY TO EYES AND SKIN

- Hazardous optical radiation may be emitted from the light source. Do not stare at operating lamp. May be harmful to the eyes.
- UV may be emitted from the light source. Eye or skin irritation may result from exposure. Use appropriate shielding.
- IR may be emitted from the light source. Do not stare at operating lamp.

AVERTISSEMENT - RISQUE POSSIBLE DE BLESSURE AUX YEUX ET À LA PEAU

- Un rayonnement optique dangereux peut être émis par la source lumineuse. Ne regardez pas la lampe opératoire. Peut être nocif pour les yeux.
- Des UV peuvent être émis par la source lumineuse. Une irritation des yeux ou de la peau peut résulter de l'exposition. Utilisez un blindage approprié.
- Des infrarouges peuvent être émis par la source lumineuse. Ne regardez pas la lampe opératoire



CONTENTS:

- TSL-800 LED System
- Metal Hanging Chain
- Metal side hangers
- Power Cord
- RJ Data Cord
- 240v/120v adaptor

Not Included:

- Lighting Controller
- Metal Hangers
- Screw Hangers

INSTALLATION:

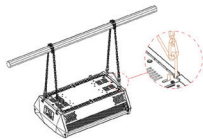
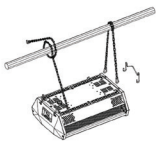


- Switch off main power
- We always recommend using a certified or qual professional to ensure optimal performance and safety.

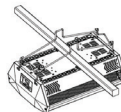
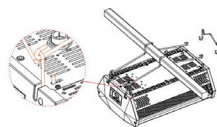
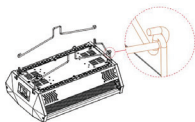


- Remove your TSL-800 from its packaging. (Do not remove the diode strip protective plastic).
 - Insert the metal side hangers into the mounting holes at both ends of the unit.
- ⚠ (Do not remove the diode strip protective plastic until the installation process is finished.)

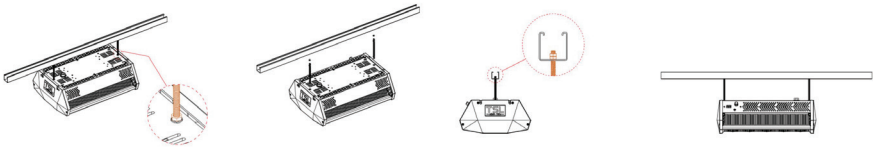
- Place the included metal chains around the desired beam and clip on to the metal side hangers.



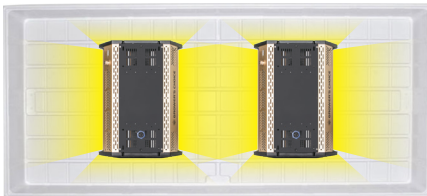
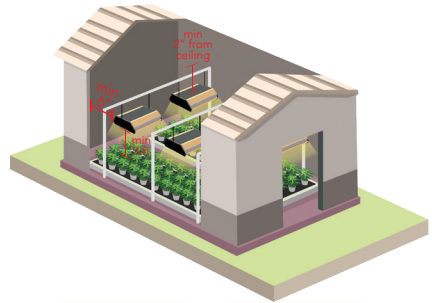
- For beam mounting with metal hangers, place the metal hangers over the beams and hook on to the side metal hangers.



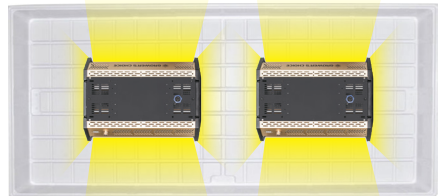
- For threaded hanging brackets screw them into the unit and then secure it onto the mount with the hex nut.



- After the beam installation plug in the power cord with M25 adapter.
- The TSL 800 is designed to directly replace HPS fixtures and can be mounted in the exact same location.
- Grower's Choice recommends hanging at least 3 feet from your canopy.
- From the machine to the ceiling, leave at least 2 inches of clearance.
- From the machine to the wall, leave at least 6 inches of clearance.
- From the machine to the other machines, leave at least 3 to 4 feet of clearance.



✓ Recommended



✗ Not Recommended

CONTROLLABILITY:


The TSL-800 are fully controllable with a controller or through a Central Power System (CPS). If using a controller you will need RJ14 data cords.





WARRANTY:

TSL Horti Tech and Grower's Choice warrants the mechanical and electronic components of their product to be free from defects in material and workmanship if used under normal operation conditions for a period of 1 year from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use, TSL Horti Tech and Grower's Choice shall, at its direction, either replace or repair the product using suitable new or reconditioned products or parts. TSL Horti Tech and Grower's Choice warranty liability extends only to the replacement cost of the product. In case TSL Horti Tech and Grower's Choice decides to replace the entire product, the limited warranty shall apply to the replacement product for the remaining initial warranty period.



TSL Horti Tech and Growers Choice shall not be held responsible for any damage caused by the operation of the unit, be it incidental or consequential or any type including, without limitation, damage or injury caused to other products or machinery or buildings. Nor will responsibility be accepted for loss of time or profit, or for any inconvenience caused in any way whatsoever.



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