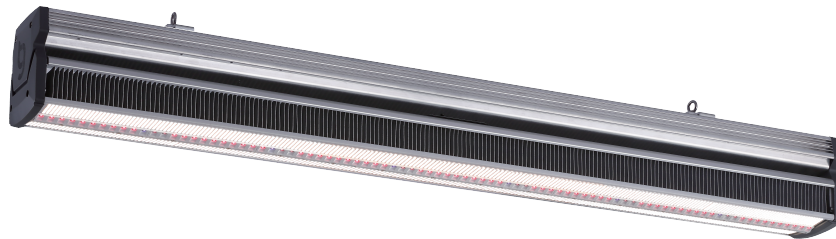


# Horticulture LED Grow Light User Manual



Horticulture LED Grow Light - Model-I Plus (480V)

## • SAFETY PRECAUTIONS

Read the installation and operation instructions carefully before installing and operating this device. Proper adherence to these instructions is essential.

## • WARNING

- Users are responsible for the connection and safe installation and usage of the devices.
- Before installing, servicing, or performing routine maintenance, follow these general precautions.
- It is highly recommended to have a certified personnel or licensed electrician to install your grow light.
- If you are unsure about the installation or maintenance of the fixture, consult certified personnel, licensed electrician and check your local electrical code.

- Tightly secure the light fixtures using appropriate mounting hardware to ensure the fixtures are safe to work under. Please read and follow the instructions.
- Ensure the building structure, mounting solutions and components being used are rated to support the weight of the light fixtures.
- DO NOT make or alter the enclosure of internal wiring or the electrical components during light fixture installation.
- Turn off the power and unplug the fixture when you perform any maintenance.
- Verify if the electrical system can support the voltage and current requirements correctly by referring to the information on the specification labels.
- Avoid hitting, bending or causing mechanical stress to the fixture.
- DO NOT cover or block any part of the fixture during operation.
- To clean the LED bar, use a mild soap or detergent (e.g. common dishwashing liquid) and lukewarm water by gently using a clean soft damp cloth.
- Always provide a well-ventilated environment where ambient temperatures do not exceed 104°F (40°C) regardless of whether the fixtures are in operation or not. Excessive temperatures can inhibit performance and may cause damage or shorten the life of the fixtures and void the warranty.

## • CAUTION

Read all instructions carefully before installation.

This product is not intended for use by any persons and children with reduced physical, sensory or mental capabilities or lack of experience and product knowledge.

The device is designed to be installed INDOORS IN A SPACE THAT IS PROTECTED FROM RAIN AND FLOODING.

General maintenance is not required. DO NOT clean the interior, with any chemicals that might cause damage. To clean the light fixture, use a damp cloth only.

## • PACKAGE CONTENT

- 1 x Horticulture LED Grow Light (Model-I Plus 480V)
  - 1 x 12' 240V Power Cord
  - 1 x ThinkGrow 12' Daisy Chain Control Cable (ECS-7)
-

## • SPECIFICATION

PPF:	>1944 $\mu\text{mol/s}$
Efficacy:	>2.7 $\mu\text{mol/J}$
Input Power:	720 W
Input Voltage:	Autosensing 1347-480V~, 50/60Hz
Power Factor:	$\geq 96\%$
Amperage Draw:	2.09A @347V, 1.55A@480V
BTU:	2456.74 btw/h
LED LM Rating and Lifetime:	L90: >54,000 hours
Ingress Protection (IP Rating)	IP66
Working Environments:	Temperature 32-104°F (0-40°C) Humidity $\leq 90\%$
Mounting Height:	>2.5ft Above Canopy
Product Dimensions:	1449mm(L) x 110.9mm(W) x 160.6mm(H) 45.24"(L) x 4.37"(W) x 6.32"(H)
Package Dimensions:	1165mm(L) x 203mm(W) x 157mm(H) 45.87"(L) x 8.00"(W) x 6.18"(H)
Product Weight:	33.07lbs / 15.00kg



CONFORMS TO UL  
STD.8800  
CERTIFIED TO UL  
STD.8800

## • 5 YEARS LIMITED WARRANTY

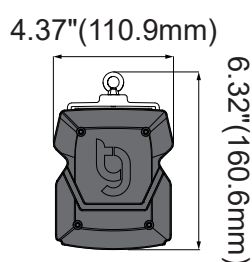
ThinkGrow warrants its LEDs to be free from defects in materials and workmanship. The product is warranted 5 years from the date of purchase. Misuse, abuse, or failure to follow instructions is not covered under this warranty. The warranty liability extends only to the replacement cost of the product. ThinkGrow will not be liable for any consequential, indirect, or incidental damages of any kind, including lost revenues, lost profits, or other losses in connection with the product. Some states do not allow limitation on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitation or exclusions may not apply to you. ThinkGrow will, at our discretion, repair or replace its products covered under this warranty if it is returned to the original place of purchase.

## • OVERVIEW

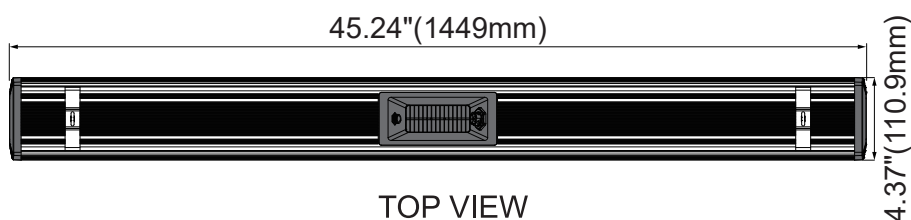
The Model-I Plus (480V) is a high-performance LED grow light for horticulture cultivation. The compact design with a built-in driver balances the energy efficiency and human work environment. It is ideal for greenhouse and single-tier level indoor cultivation. The innovative V-shape design on the LED panel improves light distribution, resulting in reducing energy loss, allowing the LED to be placed closer to the canopy. Four spectrum channels including UV, White, Deep Red and Far Red are fully controllable to dial in the exact recipe of light your plants need (only available on TrolMaster HCS-2/3 controller).

- Outstanding Efficiency at  $>2.7 \text{ umol/J}$
- Slim design with built-in driver
- Innovative V-shape design on LED panel for better light distribution
- Ultimate controllability on UV, White, Deep Red and FAR Red channels
- External controllability (up to 256 fixtures per channel)

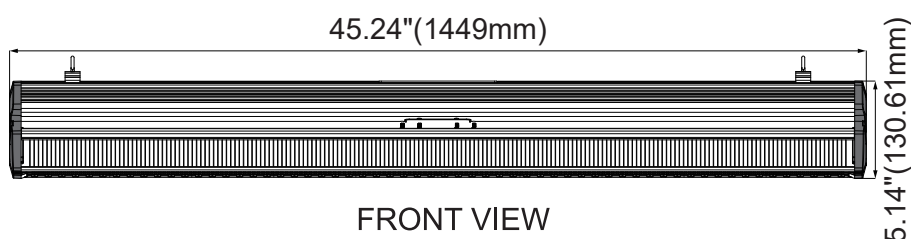
## • PRODUCT DIMENSIONS



SIDE VIEW



TOP VIEW

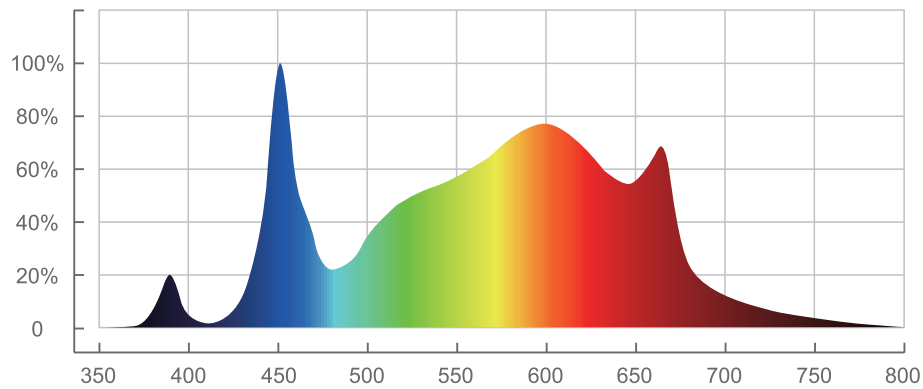


FRONT VIEW



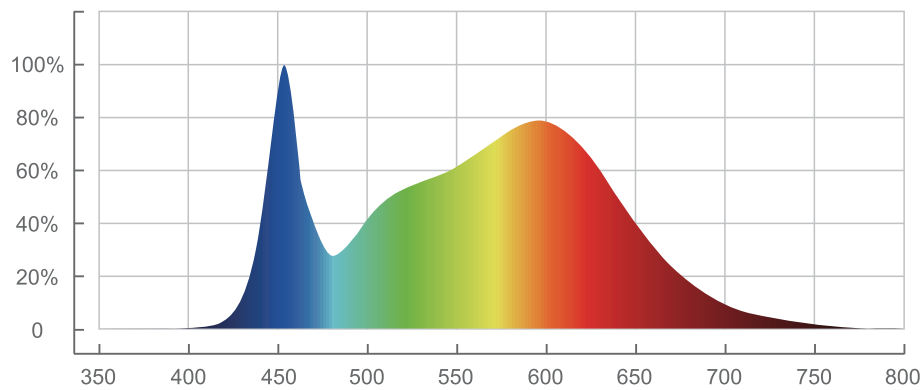
# • LIGHT SPECTRUM

## Primary Spectrum

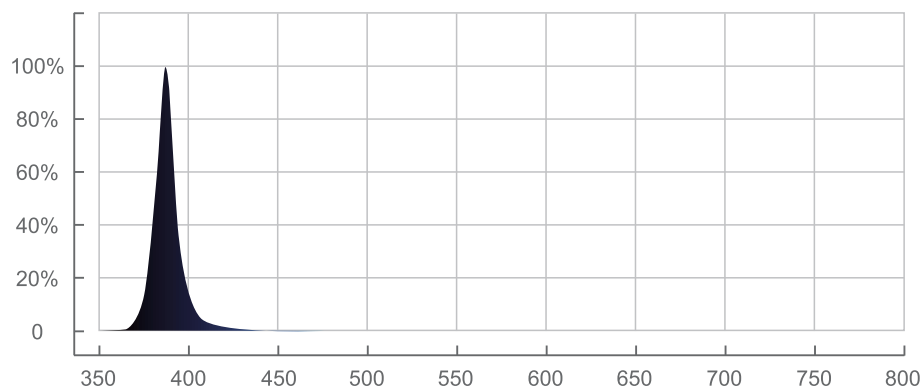


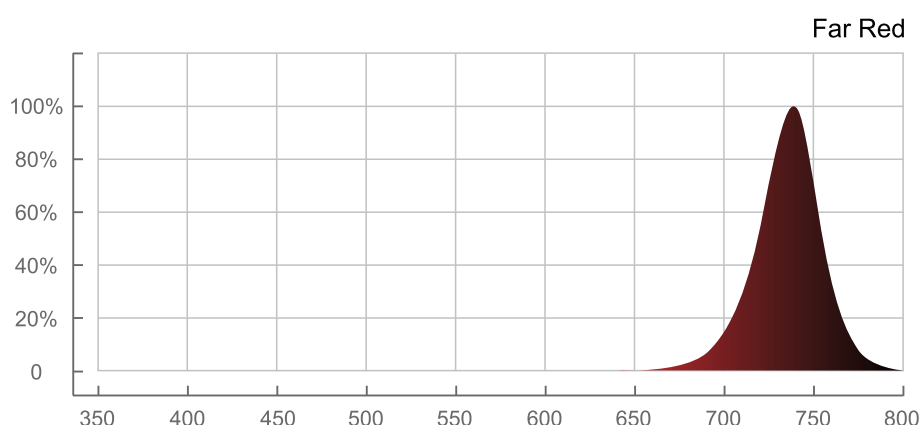
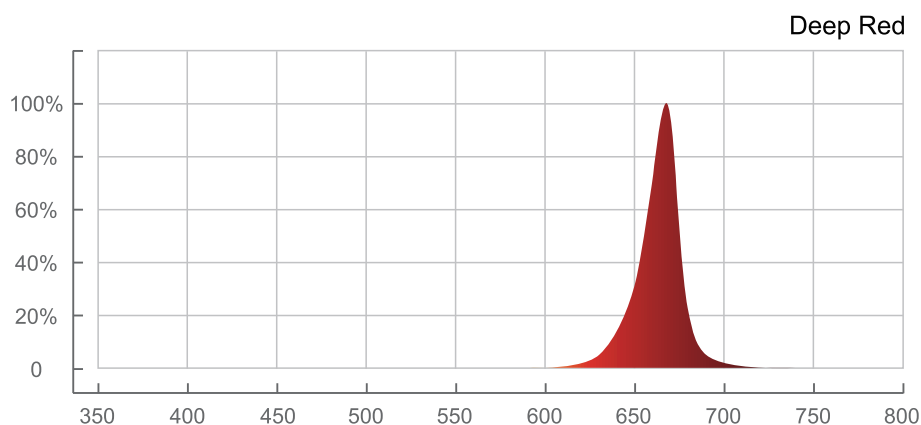
## Individual Spectrum Channels

White



UV

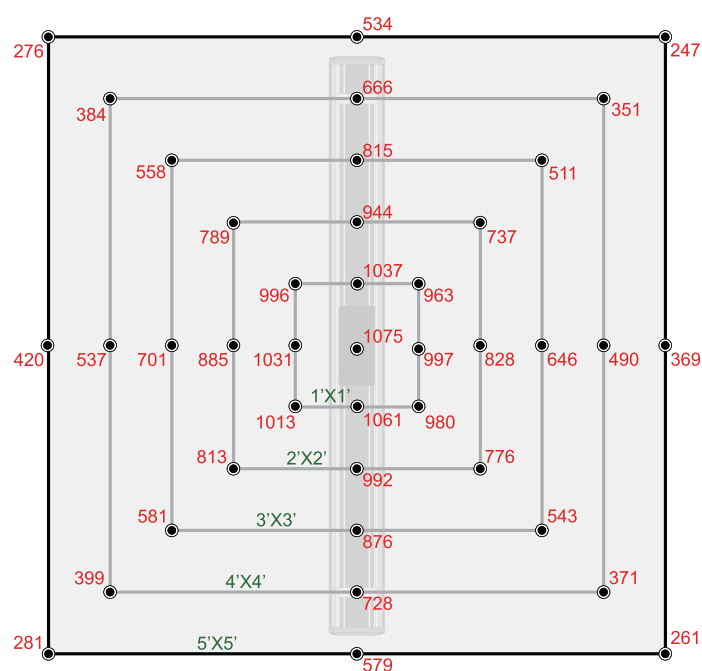




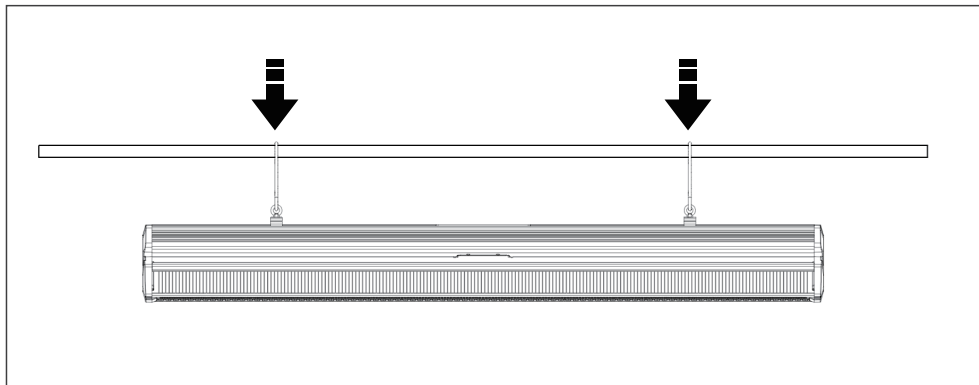
## • AVERAGE PPFD

MODEL-I PLUS (480V) ( Tested at 2.5 Feet )

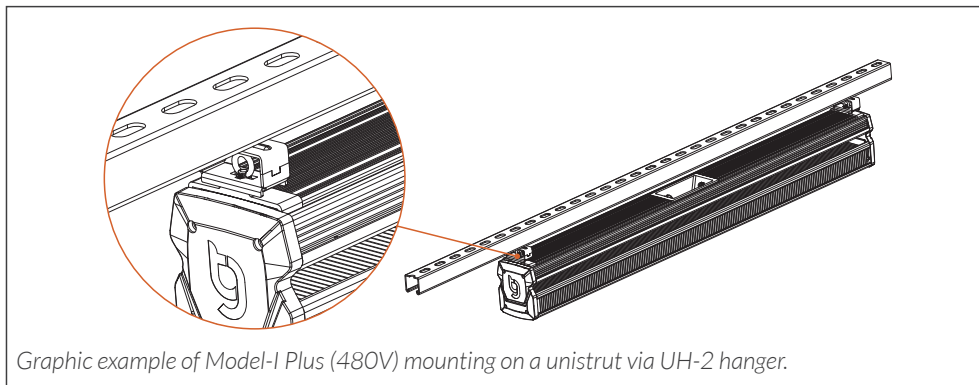
Average PPFD **684**



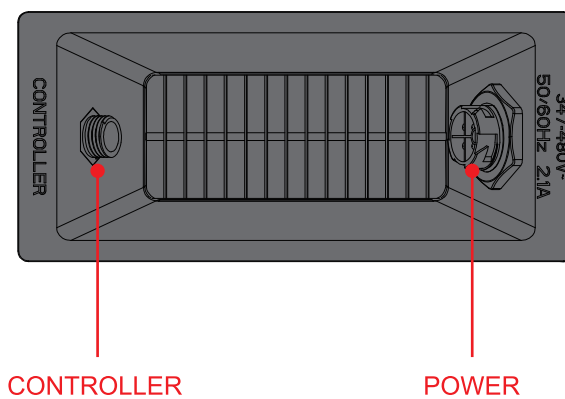
## • INSTALLATION



**\*Note:** The ThinkGrow UH-2 Unistrut Hanger (sold separately) can also be used with the Model-I Plus (480V), utilizing its quick release design to achieve a fast and easy installation and maintenance.



## • POWER

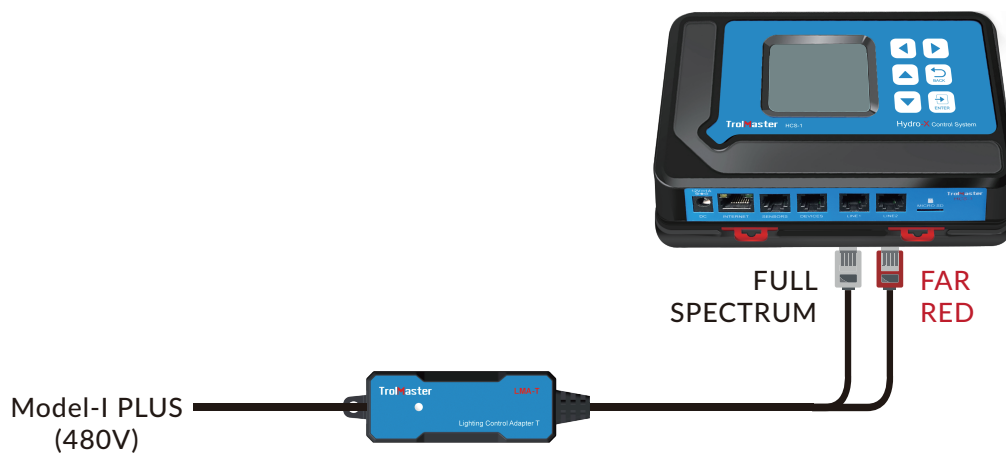


Use the 480V power cord with a Push-lock water proof connector to connect power to the fixture input power port.

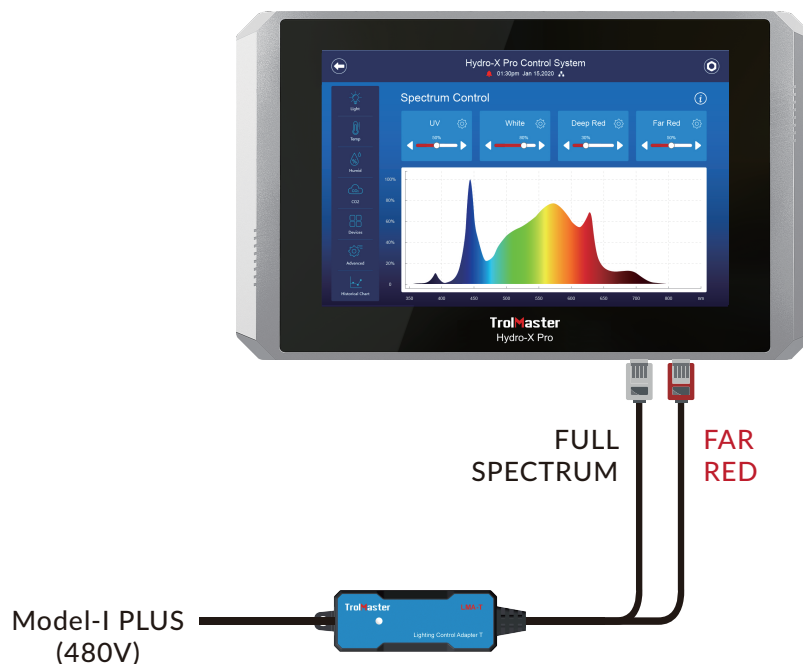
## • DATA WIRING

The Model-I Plus (480V) LED is compatible with all of TrolMaster's Hydro-X control systems which includes the HCS-1, HCS-2 and HCS-3. Up to 256 light fixtures can be controlled by using a single LMA-T adaptor connected to your Hydro-X controller.

In order to use the Hydro-X main controller to control the Model-I Plus (480V) Grow Lights, connect the first Model-I Plus (480V) LEDs input jack to the LMA-T using the included ECS-9 data cable. Then to connect more of the Model-I Plus (480V) to the initially installed Model-I Plus (480V) LED, use the ECS-7 Y-cable to daisy chain from one LED to the next LED fixture.



While connecting to the HCS-2 controller, same function can be achieved and an advanced spectrum tuning function is available for creating special light recipes.





**WARNING : DO NOT** allow the grow light to be exposed to water or excessive heat. DO NOT open or attempt to repair or disassemble the LED, as there are no user-serviceable parts inside. Opening the controller will void the warranty.

If the surface of the grow light is dirty, wipe it with a dry or slightly damp towel. The grow light operates under natural ventilation conditions.



**AVERTISSEMENT : NE laissez PAS** la lampe de croissance être exposée à de l'eau ou à une chaleur excessive. NE PAS ouvrir ni tenter de réparer ou de démonter le LED, car il ne contient aucune pièce réparable par l'utilisateur. L'ouverture du contrôleur annulera la garantie.

Si la surface de la lampe de culture est sale, essuyez-la avec une serviette sèche. La lampe de culture fonctionne dans des conditions de ventilation naturelle.

For any issues or concerns with our products, DO NOT return them to the store. Please contact our tech support department at **support@thinkgrow.com** or call **877-420-9876**.

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