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hipargero HG-2500

HIPAR HG-2500 LED Grow Light Instruction Manual

Model: HG-2500 | Brand: hipargero

1. IMPORTANT SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the HIPAR HG-2500 LED Grow Light. Failure to follow these instructions may result in electric shock, fire, or other hazards.

- Ensure the power supply is disconnected before installation, maintenance, or moving the light.
- This product is designed for indoor use only. Do not expose to water or high humidity environments.
- Do not look directly at the operating LED lights. This can cause eye damage.
- Ensure proper ventilation around the fixture to prevent overheating.
- Do not modify the product in any way. Unauthorized modifications may void the warranty and create safety risks.
- Keep out of reach of children and pets.
- Use only with the provided power cord and accessories.

2. PRODUCT OVERVIEW

The HIPAR HG-2500 is a 250-watt foldable LED grow light designed for efficient plant cultivation. It features a 4-bar design for uniform light distribution and includes dimming capabilities for various growth stages.

Foldable Bar Light Fast and Easy Installation

- Foldable Bar Light
- 0-10V Dimming
- Master/Slave Control
- Good Heat Dissipation
- Saving Electric Bill



MORE DIODES, LOWER CURRENT AND HEAT

2.85 $\mu\text{MOL}/\text{J}$
HIGH EFFICACY

HIGH OUTPUT
FOR HIGH INTENSITY

STRONGER
LIGHT PENETRATION

Figure 2.1: Front view of the HIPAR HG-2500 LED Grow Light, showcasing its 4-bar foldable design.

HG2500 250W LED GROW LIGHT

4-Bar Style Design for Maximum
Light Uniformity and Efficiency

2.85 $\mu\text{mol}/\text{J}$ | Photon Efficacy

3 YEAR | Local Service

100,000 | Hours Lifespan



Figure 2.2: The HG-2500 LED Grow Light, illustrating its 4-bar style for maximum light uniformity and efficiency.

3. FEATURES

- **High Efficacy:** Achieves a PPE of $2.85 \mu\text{mol/j}$ with 900 diodes, consuming 250W.
- **Uniform Coverage:** 4-LED bars provide even canopy coverage, minimizing hotspots.
- **Foldable Design:** Folds up to 180° for easy transport and installation.
- **0-10V Control:** Manual dimming or external 0-10V controller compatibility (0-100% dimming).
- **Master/Slave Functionality:** Allows control of multiple lights from a single unit.
- **Daisy Chain Capability:** RJ12 port supports connecting up to 100 lights simultaneously.
- **Wide Input Voltage:** Compatible with 100-277V power systems.
- **Enhanced Heat Dissipation:** Light bar and aluminum material design promote better airflow and lower LED temperatures for extended lifespan.
- **Full Spectrum:** Includes Warm White (3000K), Blue (460nm), and Red (660nm) lights to support all plant growth stages.

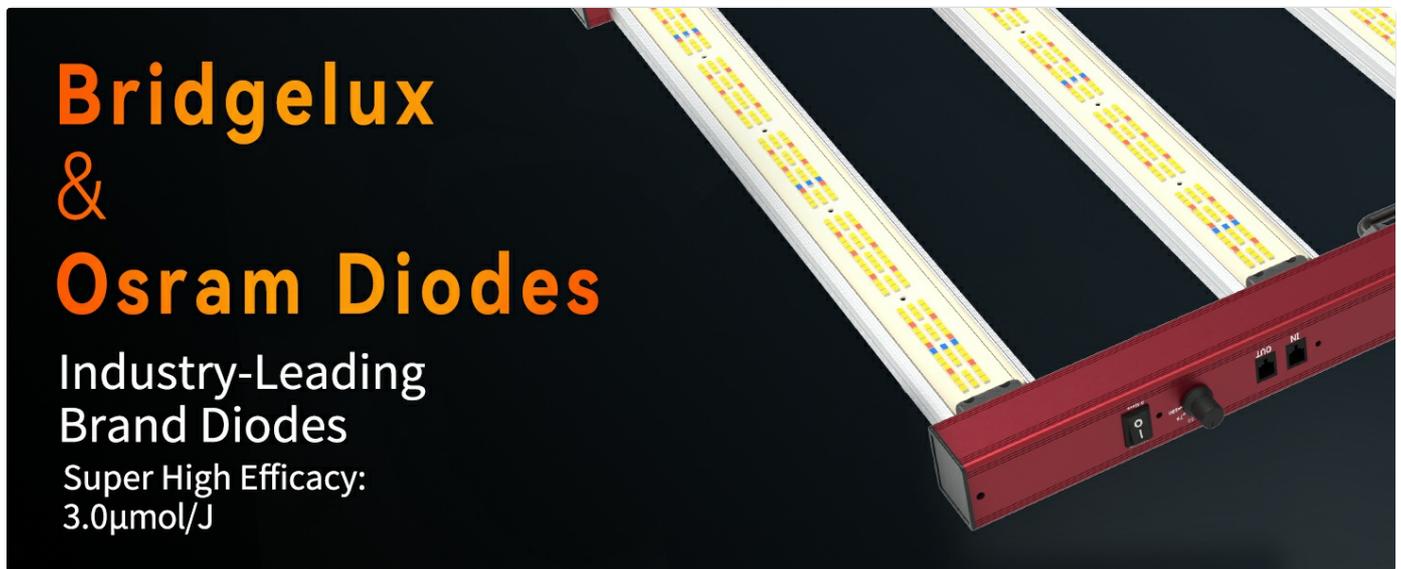


Figure 3.1: The HG-2500 utilizes industry-leading Bridgelux and Osram diodes for high efficacy.

FULL SPECTRUM



Warm White Light (3000K):

Boosts plants blooms
makes flower bigger and vivid



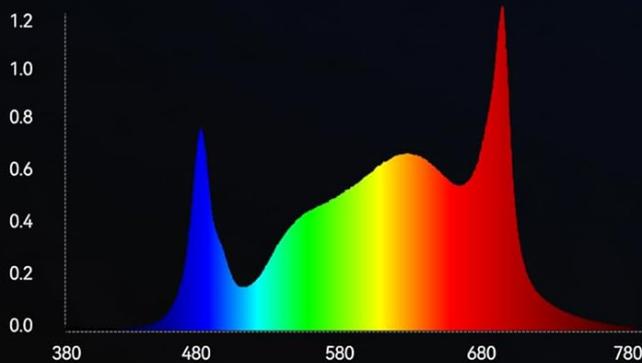
Blue Light (460nm):

Promotes plants germination
increase growthrate of plants



RED Light(660nm):

Yields more leaves and crops
combined with blue light



More red light than other lights
to promote faster plant growth



Figure 3.2: Full spectrum light distribution, including warm white, blue, and red light for optimal plant growth.

4. SETUP AND INSTALLATION

The HIPAR HG-2500 LED Grow Light is designed for quick and easy installation. Follow these steps:

1. **Unpack:** Carefully remove the grow light from its packaging.
2. **Unfold:** Unfold the light fixture to its full operational position (up to 180°).
3. **Hang:** Attach the provided hanging hardware to the fixture and suspend it securely in your grow area. Ensure the hanging system is robust enough to support the light's weight.
4. **Connect Power:** Plug the AC power cord into the light fixture, then into a suitable power outlet (100-277V).

Easy Installation (3min)



Step 1: Take out lamp from box



Step 2: Unfold the lamp



Step 3: fix the hanger



Step 4: Connect AC cord

Figure 4.1: Visual guide for the 3-minute easy installation process: unpack, unfold, fix hanger, connect AC cord.



5. OPERATING INSTRUCTIONS

5.1 Dimming Control

The HG-2500 features a built-in dimmer knob for adjusting light intensity from 0% to 100%. This allows you to customize the light output to suit different plant growth stages.

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Video 5.1: Demonstration of the dimming and Master/Slave control features on the HIPAR HG-2500 LED Grow Light.

For external control, the light is compatible with 0-10V controllers. Connect the external controller to the designated 0-10V input port on the fixture.

5.2 Master/Slave and Daisy Chain Functionality

The HG-2500 supports Master/Slave operation and daisy-chaining for controlling multiple lights simultaneously. This is ideal for large cultivation areas.

- **Master Mode:** Set one light as the "Master" using the switch on the fixture. This light's dimmer setting will control all connected "Slave" lights.
- **Slave Mode:** Set other lights as "Slave" units. Connect them to the Master light using RJ12 cables (up to 100 units).
- **Daisy Chain:** Use the RJ12 IN and OUT ports to link multiple fixtures. Adjusting the Master unit will synchronize the dimming across all connected lights.

UPTO 100 SETS

Dimming Daisy Chain

- Perfect for Commercial Growing
- Easily Control Light Intensity
- Main Light Dimming Control
- Compatible 0-10V external control
- Support Up to 100 Lights

1-100
SETS

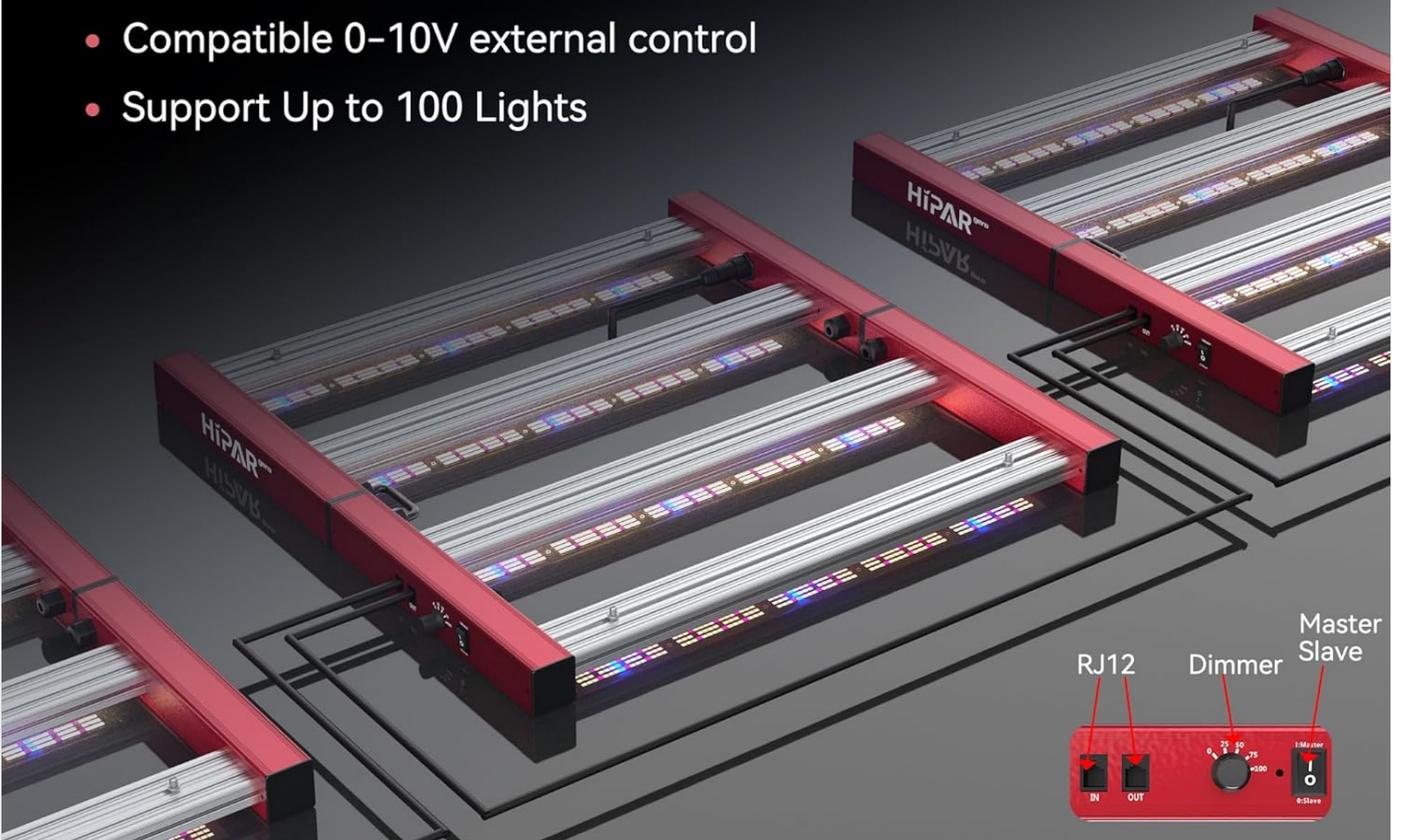


Figure 5.2: Illustration of multiple HG-2500 units connected via daisy chain for synchronized control.

Customize Light intensity Support up to 100 Lights

1. Multi-Light Dimming

2. Master/Slave Control

3. 0-10V External Control



Figure 5.3: Visual representation of multi-light dimming and Master/Slave control for up to 100 lights.

5.3 Recommended Usage for Growth Stages

Adjusting the light intensity and hanging height is crucial for optimal plant development. Refer to the following guidelines:



Figure 5.4: Recommended hanging distances, PPFD levels, and light cycles for various plant growth stages (Veg, Early Flower, Mid Flower, Late Flower).

HG2500 PPFD MAP

Test in a 3x3FT(90x90cm)Grow Tent



Height:30cm/12in

352	700	732	703	728	358
599	984	1000	988	976	597
680	988	1005	1001	979	682
658	1082	1097	1108	1084	689
602	1802	1095	1089	1087	600
338	695	729	753	698	399

Cover Area: 4x4 square feet
Average PPFD: 823 $\mu\text{mol}/\text{m}^2/\text{s}$

Height:45cm/18in

338	603	608	610	596	345
568	950	968	965	946	554
610	958	986	963	950	600
596	990	995	1025	986	590
561	965	950	946	960	562
385	601	605	600	599	344

Cover Area: 4x4 square feet
Average PPFD: 732 $\mu\text{mol}/\text{m}^2/\text{s}$

Figure 5.5: PPFD distribution map for the HG-2500 in a 3x3FT (90x90cm) grow tent at 30cm/12in and 45cm/18in heights.

Uniform Photon Distribution

Height:30cm/12in

352	700	732	703	728	358
599	984	1000	988	976	597
680	988	1005	1001	979	682
658	1082	1097	1108	1084	689
602	1802	1095	1089	1087	600
338	695	729	753	698	399

Cover Area: 4x4 square feet
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610	958	986	963	950	600
596	990	995	1025	986	590
561	965	950	946	960	562
385	601	605	600	599	344

Cover Area: 4x4 square feet
Average PPFD: 732 $\mu\text{mol}/\text{m}^2/\text{s}$

Height:60cm/24in

272	506	512	503	480	299
468	799	802	800	780	460
500	900	915	930	892	482
498	899	934	918	879	490
460	770	815	803	790	456
285	483	493	499	487	286

Cover Area: 4x4 square feet
Average PPFD: 626 $\mu\text{mol}/\text{m}^2/\text{s}$

Figure 5.6: Photon distribution maps at various heights (30cm, 45cm, 60cm) demonstrating uniform coverage over a 4x4 square feet area.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your grow light.

- **Cleaning:** Periodically clean the LED bars and housing with a soft, dry cloth to remove dust and debris. Ensure the light is unplugged before cleaning.
- **Inspection:** Regularly inspect the power cord, hanging hardware, and connections for any signs of wear or damage. Replace any damaged components immediately.
- **Ventilation:** Ensure that the ventilation openings on the fixture are not obstructed to maintain proper heat dissipation.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Light does not turn on	No power supply; loose connection; faulty power cord.	Check power outlet, ensure all connections are secure, test with a different power cord if available.
Light output is dim or inconsistent	Dimmer setting too low; external controller issue; daisy chain connection problem.	Adjust dimmer knob, check external controller settings, verify RJ12 connections in daisy chain setup.
Overheating	Poor ventilation; obstructed cooling fins.	Ensure adequate airflow around the fixture, clear any obstructions from cooling fins.

8. SPECIFICATIONS

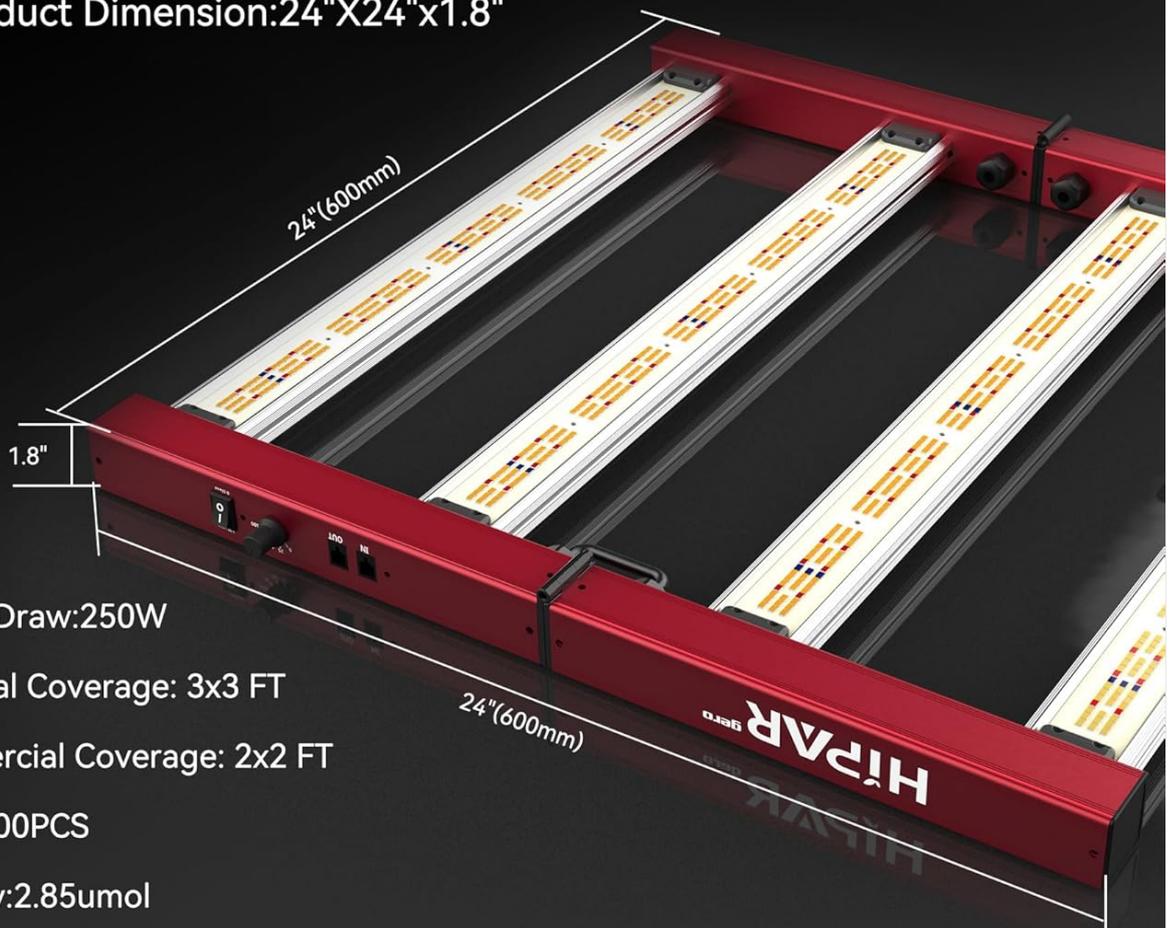
Attribute	Detail
Brand	hipargero
Model Name	HG2500
Part Number	HG-2500
Wattage	250 watts
Number of Light Sources	900
Efficacy	2.85 $\mu\text{mol}/\text{j}$
Product Dimensions	25.1"L x 16.1"W x 4.3"H
Material	Aluminum
Light Source Type	LED
Control Method	Remote (0-10V compatible)
Connectivity Protocol	RJ12 Daisy Chain
Indoor/Outdoor Usage	Indoor

Attribute	Detail
Water Resistance Level	Not Water Resistant
Item Weight	8.38 pounds
Included Components	LED light

HG-2500 SPECIFICATIONS

Warranty: 3-Year Local Standard Warranty

Product Dimension: 24" X 24" x 1.8"



- Power Draw: 250W
- Personal Coverage: 3x3 FT
- Commercial Coverage: 2x2 FT
- LEDs: 900PCS
- Efficacy: 2.85umol
- PPF: 712.5umol/s

Figure 8.1: Detailed specifications and dimensions of the HG-2500 LED Grow Light.

9. WARRANTY AND SUPPORT

The HIPAR HG-2500 LED Grow Light comes with a **3-year warranty**. This warranty covers manufacturing defects and ensures lifetime professional technical support.

For any questions, concerns, or technical assistance, please contact our customer service team. Your satisfaction is our priority.

Contact information can typically be found on the product packaging or the official hipargero website.