## VIPARSPECTRA PAR450

# VIPARSPECTRA PAR450 Dimmable LED Grow Light User Manual

Model: PAR450

## 1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your VIPARSPECTRA PAR450 Dimmable LED Grow Light. This advanced lighting system is designed to provide a full spectrum of light for optimal indoor plant growth, featuring individual dimmers for precise control over red, white, and blue light channels.

## 2. SAFETY INFORMATION

**Please read all safety warnings and instructions carefully before operating the device.**

- **Indoor Use Only:** This grow light is designed for indoor use in a controlled environment. Do not expose to water or high humidity.
- **Electrical Safety:** Ensure the power supply voltage matches the requirements of the light (110 Volts). Always connect the light to a properly grounded outlet.
- **Eye Protection:** Do not look directly at the operating LED lights. Prolonged exposure can cause eye strain or damage. Protective eyewear is recommended.
- **Ventilation:** Ensure adequate ventilation around the light to prevent overheating. Do not block the cooling fans or vents.
- **Handling:** Do not touch the light when it is operating or immediately after it has been turned off, as it may be hot.
- **Installation:** Ensure the light is securely hung using the provided hanging kit. Do not hang the light by its power cord.
- **Maintenance:** Do not attempt to open or modify the light. Refer all servicing to qualified personnel.

## 3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1 x PAR450 LED Lighting Unit
- 1 x User Instructions (This Manual)
- 1 x 6ft Power Cord
- 1 x Hanging Kit

- 2 x 1/8" Adjustable Rope Hanger



## Package Includes:

· 1 x PAR450 LED Lighting

· 1 x User Instructions

· 1 x 6ft Power Cord

· 1 x Hanging Kit

· 2 x 1/8" Adjustable Rope Hanger

**VIPARSPECTRA**
**PAR 450**
DIMMABLE FULL SPECTRUM LED LIGHTING

Model:PAR 450
Spectrum: 12 bands full spectrum
LED Power: 450W
Total Harmonic: <15%
Input Voltage: AC100-240V
Frequency: 50-60Hz
Designed and made by VIPARSPECTRA. Learn more at www.viparspectra.com

CE RoHS
MADE IN CHINA

**VIPAR SPECTRA**

Height 3.3"

Dimmer R

Dimmer W

Dimmer B

Power Inlet

14.1"

11.4"

Item Weight: 12.1 lbs

Image: Contents of the VIPARSPECTRA PAR450 package, including the light unit, power cord, hanging kit, and adjustable rope hangers. The image also displays the product dimensions: 14.1 inches length, 11.4 inches width, and 3.3 inches height.

## 4. SETUP

### 4.1 Unpacking

Carefully remove all components from the packaging. Inspect the light and accessories for any signs of damage. If any damage is found, do not proceed with installation and contact customer support.

### 4.2 Hanging the Light

1. Attach the provided hanging kit to the four mounting points on the top of the grow light.
2. Use the adjustable rope hangers to suspend the light from a sturdy support structure in your grow area.
3. Ensure the light is level and securely fastened to prevent accidental falls.

Image: The VIPARSPECTRA PAR450 LED Grow Light suspended inside a grow tent using the included hanging hardware, demonstrating a typical installation.

## 4.3 Power Connection

1. Connect the 6ft power cord to the power inlet on the side of the grow light.

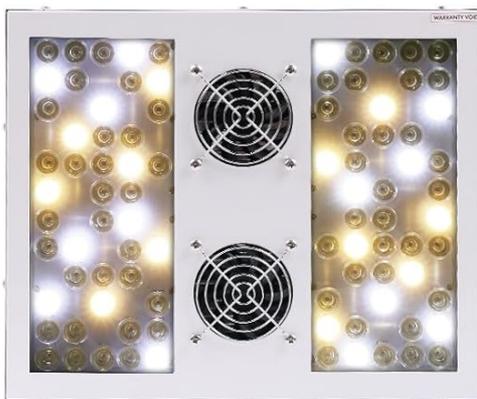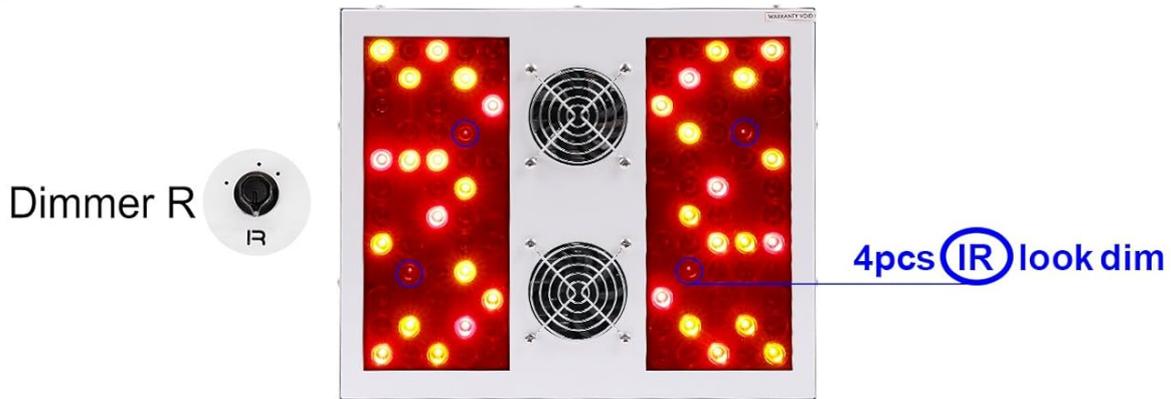2. Plug the other end of the power cord into a standard 110V AC grounded electrical outlet.

Image: A close-up view of the VIPARSPECTRA PAR450 LED Grow Light, showing the three dimmer knobs labeled R, W, B, and the power inlet for the electrical cord.

## 5. OPERATING INSTRUCTIONS

### 5.1 Powering On/Off

Once connected to power, the light can be turned on or off using the main power switch, if present, or by plugging/unplugging the unit. For daily operation, it is recommended to use an external timer (not included) for consistent light cycles.

### 5.2 Dimmable Spectrum Control

The PAR450 features three independent dimmer knobs: Red (R), White (W), and Blue (B). These allow you to adjust the intensity of each spectral band from 0% to 100% to customize the light output for different plant growth stages.

- **Dimmer R (Red):** Controls the red spectrum LEDs (including IR 730nm, 660nm, 630nm, 615nm, 595nm, 580nm). Essential for flowering and fruiting stages.

- **Dimmer W (White):** Controls the white spectrum LEDs (including 3000K, 7500K). Provides broad-spectrum light for overall plant health and growth.
- **Dimmer B (Blue):** Controls the blue spectrum LEDs (including 475nm, 460nm, 445nm, 440nm). Crucial for vegetative growth and plant structure.
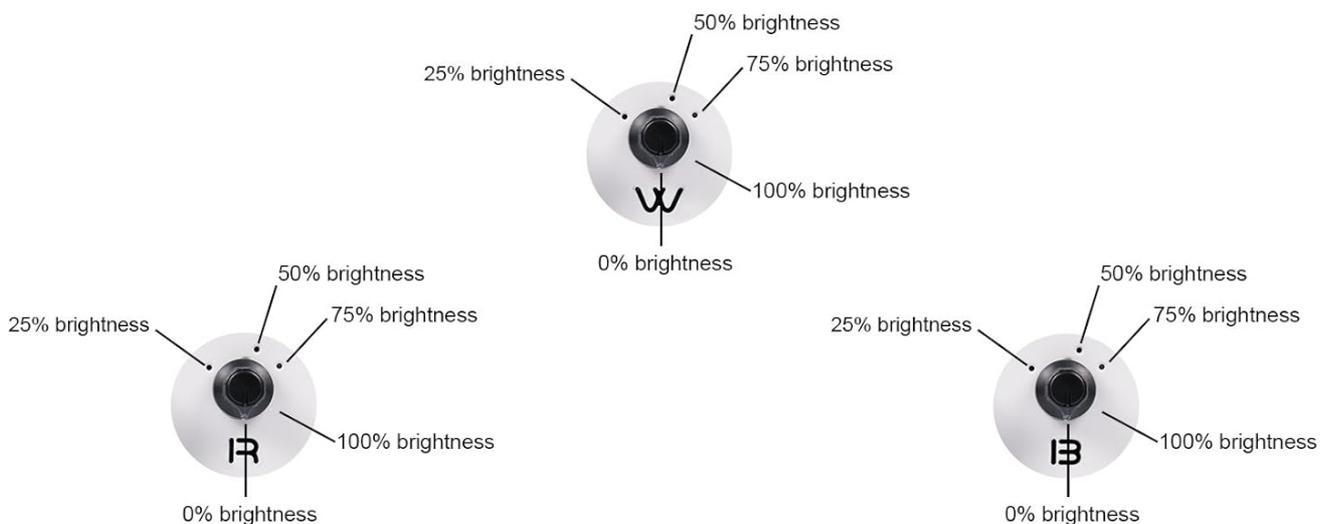


Image: Diagram illustrating the adjustable brightness feature of the VIPARSPECTRA PAR450 LED Grow Light, showing the R, W, and B dimmer knobs and their corresponding percentage brightness levels from 0% to 100%.
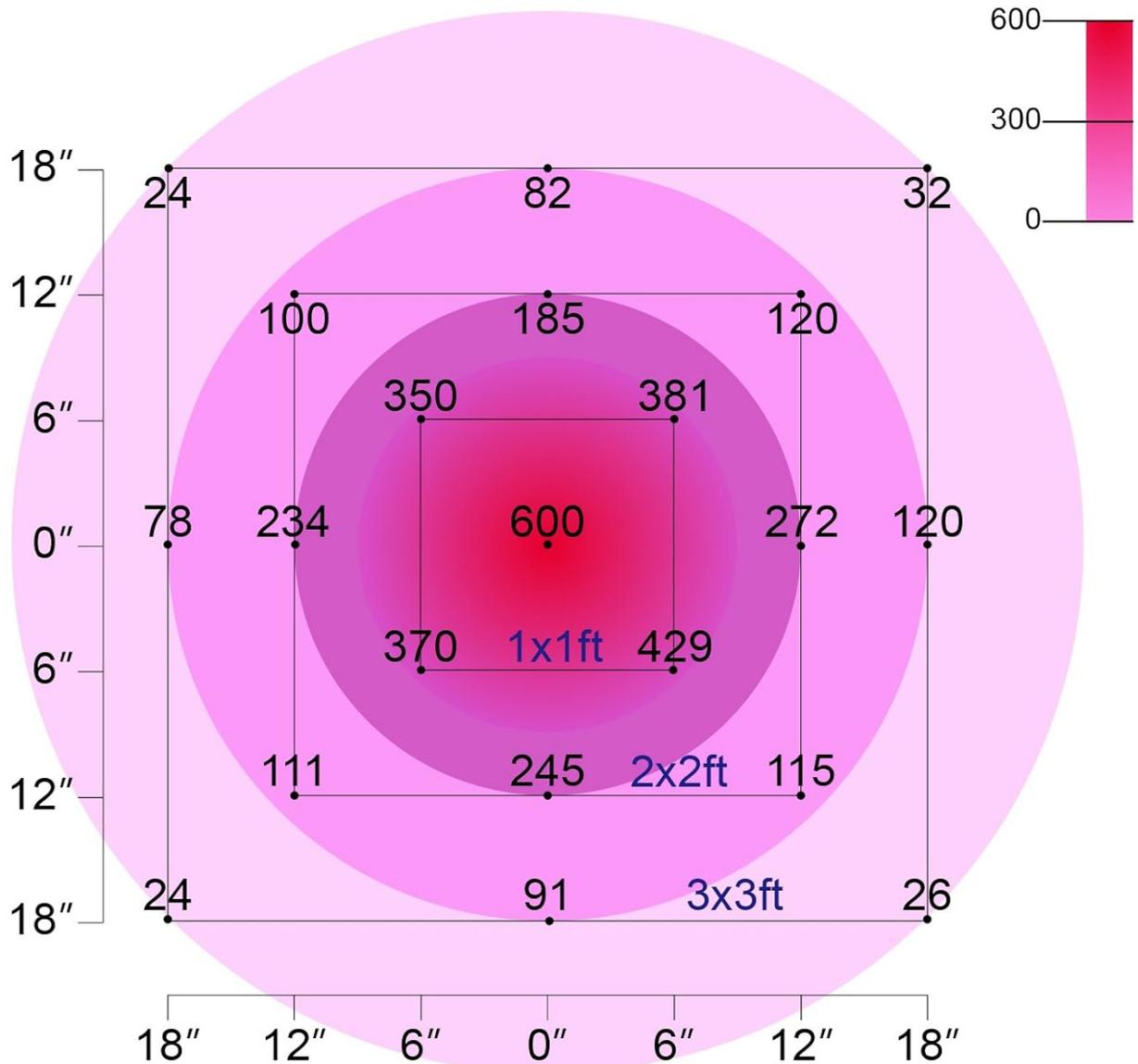
Image: Visual representation of the VIPARSPECTRA PAR450's 12-band full spectrum, detailing the various wavelengths (e.g., IR 730nm, 660nm, 475nm, 3000K) and how the Red, White, and Blue dimmers control different LED groups.

## 5.3 Recommended Usage

The PAR450 is engineered to provide balanced PAR/Lumen output and coverage. Optimal coverage areas and hanging heights are:

- **Vegetative Coverage:** Approximately 2.5 x 2.5 feet at a hanging height of 32 inches.
- **Flowering Coverage:** Approximately 2 x 2 feet at a hanging height of 24 inches.
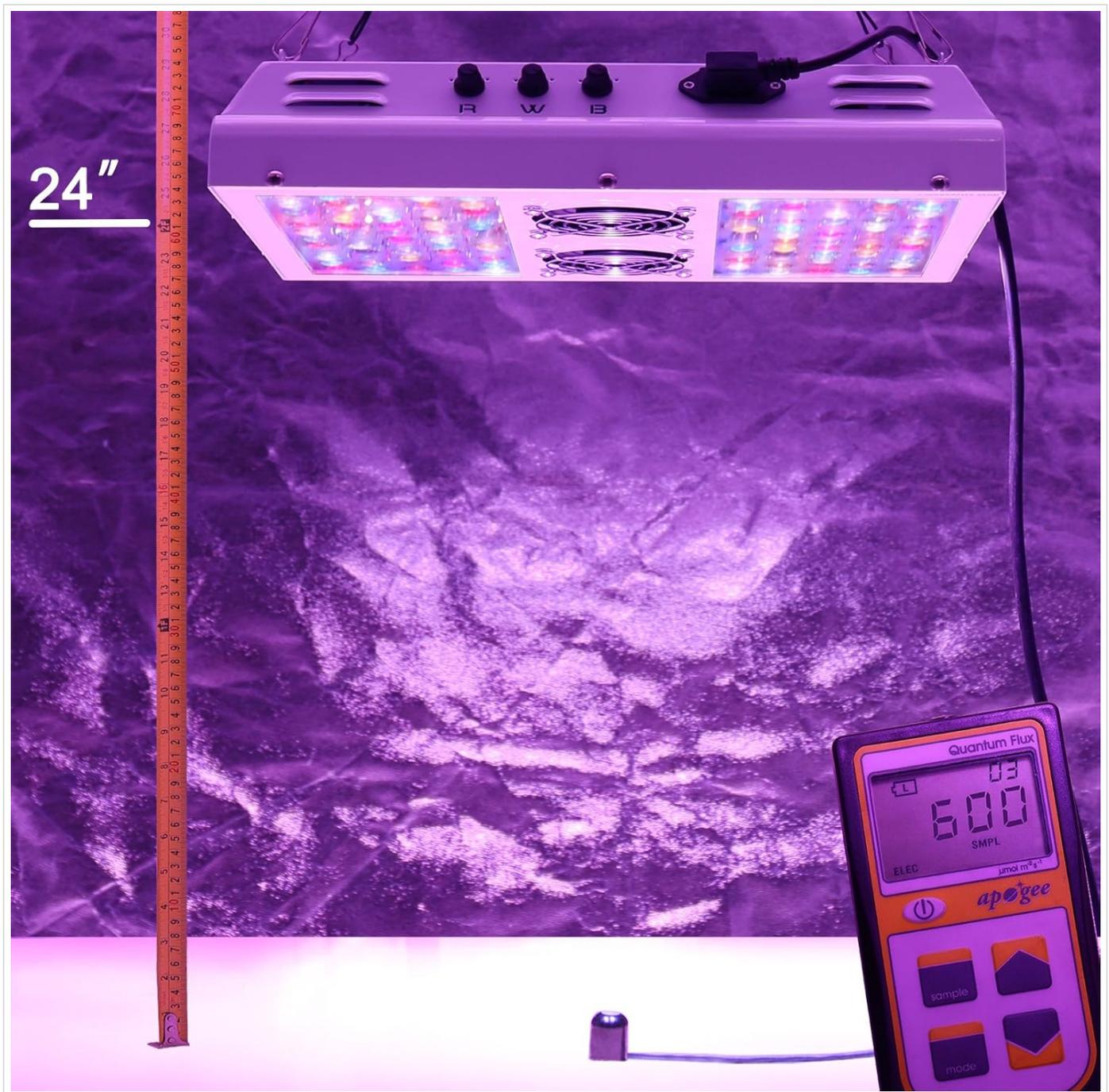
Image: A PAR value coverage map for the VIPARSPECTRA PAR450 LED Grow Light, measured at a 24-inch height, showing light intensity distribution across a 3x3 foot area with peak PAR values in the center.
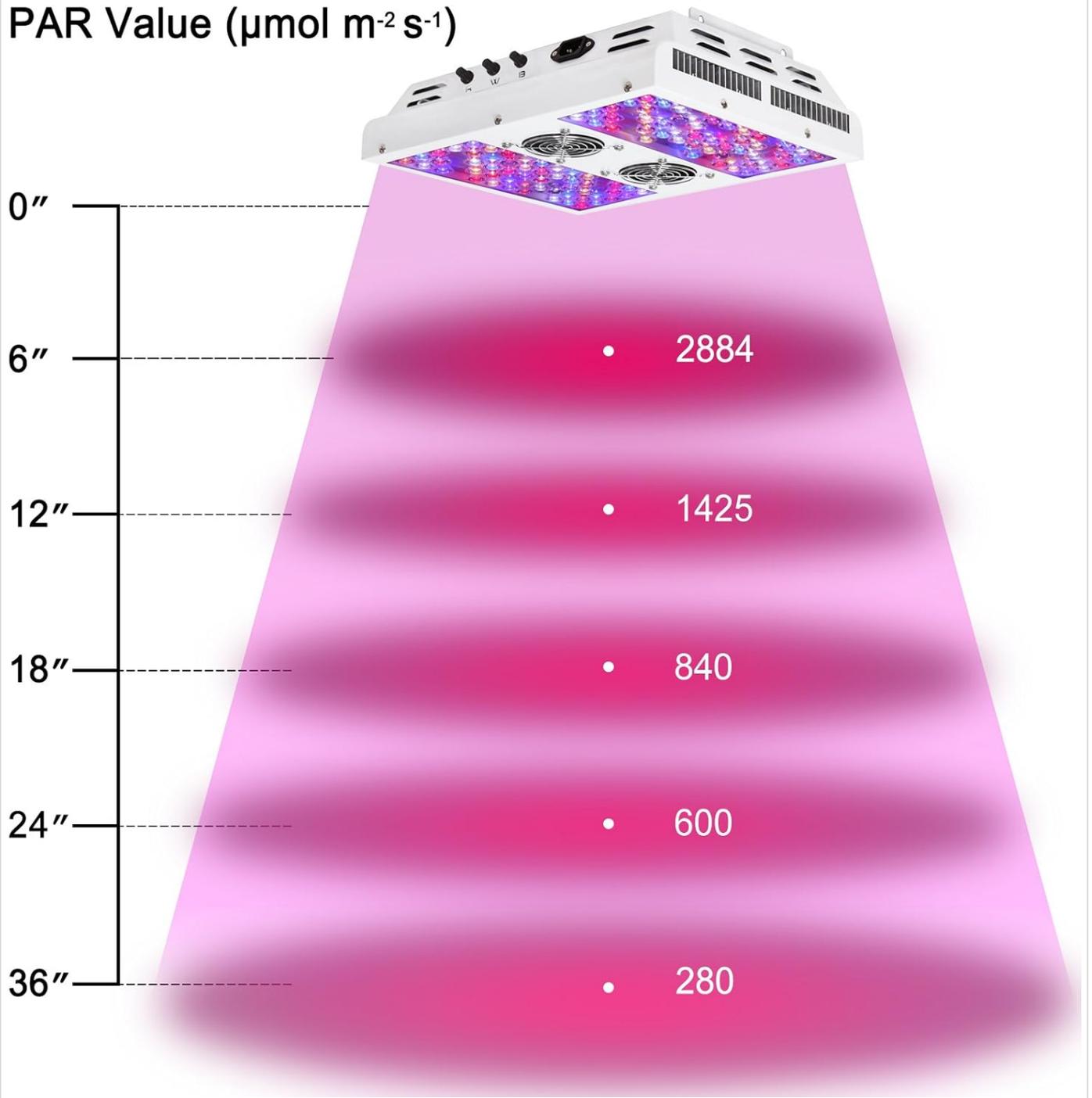
Image: A diagram illustrating the Photosynthetically Active Radiation (PAR) values of the VIPARSPECTRA PAR450 LED Grow Light at various hanging heights, from 0 inches to 36 inches, demonstrating how light intensity decreases with distance.

Image: The VIPARSPECTRA PAR450 LED Grow Light illuminating the interior of a 60x60x80 inch grow tent, showcasing its coverage within a typical cultivation setup.

## 6. MAINTENANCE

### 6.1 Cleaning

Periodically clean the light fixture to ensure optimal performance. Disconnect the power before cleaning.

- Gently wipe the LED lenses and housing with a soft, dry cloth to remove dust and debris.
- Ensure cooling fan vents are clear of obstructions. If necessary, use compressed air to clear dust from the fans.

### 6.2 Inspection

Regularly inspect the power cord and hanging hardware for any signs of wear or damage. Replace any damaged components immediately to ensure safe operation.

# 7. TROUBLESHOOTING

If you encounter issues with your VIPARSPECTRA PAR450 LED Grow Light, refer to the following common problems and solutions:

| Problem | Possible Cause | Solution |
|---------|----------------|----------|
| Light does not turn on | No power supply; loose connection; faulty power cord/outlet. | Check if the power cord is securely plugged into both the light and the outlet. Test the outlet with another device. Ensure the main power switch (if applicable) is in the 'ON' position. |
| One or more dimmers not working | Dimmer knob set to 0%; internal wiring issue. | Rotate the dimmer knob to increase brightness. If the issue persists, contact customer support. |
| Light is overheating | Poor ventilation; blocked cooling fans. | Ensure the grow area has adequate airflow. Check that the cooling fans are operating and not obstructed by dust or other materials. |
| Light output is dim | Dimmers set too low; dirty lenses. | Adjust the dimmer knobs to the desired brightness. Clean the LED lenses as described in the Maintenance section. |

If the problem persists after attempting these solutions, please contact VIPARSPECTRA customer support for further assistance.

# 8. SPECIFICATIONS

Detailed technical specifications for the VIPARSPECTRA PAR450 Dimmable LED Grow Light:

| Feature | Specification |
|---------|---------------|
| Brand | VIPARSPECTRA |
| Model Number | PAR450 |
| Wattage | 450 watts (Nominal) |
| Actual Power Consumption | Approximately 213 watts |
| Voltage | 110 Volts (AC100-240V) |
| Light Source Type | LED |
| Number of Light Sources | 90 |
| Special Feature | Red, Blue, White Dimmers; Dimmable; 12-Band Full Spectrum |
| Material | Aluminum, Resin |
| Product Dimensions | 14.1 x 11.4 x 3.3 inches |
| Item Weight | 14.08 pounds (approx. 6.4 Kilograms) |
| Indoor/Outdoor Usage | Indoor |
| Manufacturer | VIPARSPECTRA |

# 9. WARRANTY AND SUPPORT

VIPARSPECTRA products are designed for reliability and performance. This product comes with a manufacturer's warranty. For specific warranty terms, registration, or to obtain technical support, please refer to the warranty card included with your product or visit the official VIPARSPECTRA website.

For customer service inquiries, please contact VIPARSPECTRA support through their official channels.