

AC Infinity AC-IBS24

AC Infinity IONBOARD S24 LED Grow Light

Model: AC-IBS24 | Brand: AC Infinity

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1. INTRODUCTION

The AC Infinity IONBOARD S24 is an advanced LED grow light system designed for indoor plant cultivation. It features full-spectrum Samsung LM301H diodes and an optimized design for deeper canopy penetration and maximum plant yields across all growth stages. This manual provides essential information for the safe and effective use of your IONBOARD S24.

LED GROW LIGHT SYSTEM

A dimmable grow lamp designed with an optimized spectrum and diode positioning, to maximize plant yields.



Image: The AC Infinity IONBOARD S24 LED Grow Light mounted inside a grow tent, demonstrating its application for indoor plant cultivation.

2. SAFETY INFORMATION

Please read all safety instructions before operating the AC Infinity IONBOARD S24. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Electrical Safety:** Ensure the power supply matches the voltage requirements of the light. Do not operate with damaged cords or plugs. Disconnect power before installation or maintenance.
- **Eye Protection:** The LED light is very bright. Avoid direct eye exposure to the light source when it is operating. Wear appropriate eye protection if prolonged exposure is necessary.
- **Heat Management:** While designed for efficient heat dissipation, the light fixture can become warm during operation. Ensure adequate ventilation around the unit. Do not cover the light.
- **Water and Humidity:** The light is IP-65 rated for grow environments with higher humidity. However, avoid direct water spray or submersion. Ensure all connections are dry before powering on.

- **Installation:** Mount the light securely using the provided hanging hardware. Ensure the mounting surface can support the weight of the fixture.
- **Children and Pets:** Keep the device out of reach of children and pets.

3. SETUP

3.1 Package Contents

Verify that all components are present in the package:

- IONBOARD S24 LED Grow Light Fixture
- Dimmable Controller
- Hanging Kit (Rope Hangers, Carabiners)
- Power Cord

3.2 Mounting the Grow Light

1. Attach the carabiners to the mounting points on the top of the IONBOARD S24 fixture.
2. Connect the rope hangers to the carabiners.
3. Hang the light fixture from a sturdy support structure (e.g., grow tent crossbars) using the rope hangers. Adjust the height as needed for your specific growth stage.

3.3 Connecting the Dimmable Controller

The IONBOARD S24 includes a dimmable controller for adjusting light intensity.

1. Locate the dimmer port on the light fixture.
2. Connect the cable from the dimmable controller to this port.
3. Ensure the connection is secure.

DIMMABLE CONTROLLER

Custom Light Intensity
For All Grow Stages

Precise Digital Dimming
PWM From 0% to 100%



Aluminum Body
with IP-65 Rating

Certified by ETL,
CE, and RoHS

Connects with
Smart Controllers

Image: The dimmable controller with percentage markings (0-100%) and connection points, highlighting its robust aluminum body and certifications.

3.4 Power Connection

1. Connect the power cord to the light fixture.
2. Plug the power cord into a standard electrical outlet.

3.5 AC Infinity Ecosystem Integration (Optional)

The IONBOARD S24 can be integrated with AC Infinity UIS controllers for advanced climate and time-based programming via an app.

- Connect the light's dimmer cable to a UIS controller (sold separately).
- Refer to your UIS controller's manual for specific connection and app setup instructions.

AC INFINITY ECOSYSTEM

Connect this device to a UIS controller to access dynamic climate and time-based programming with app control.

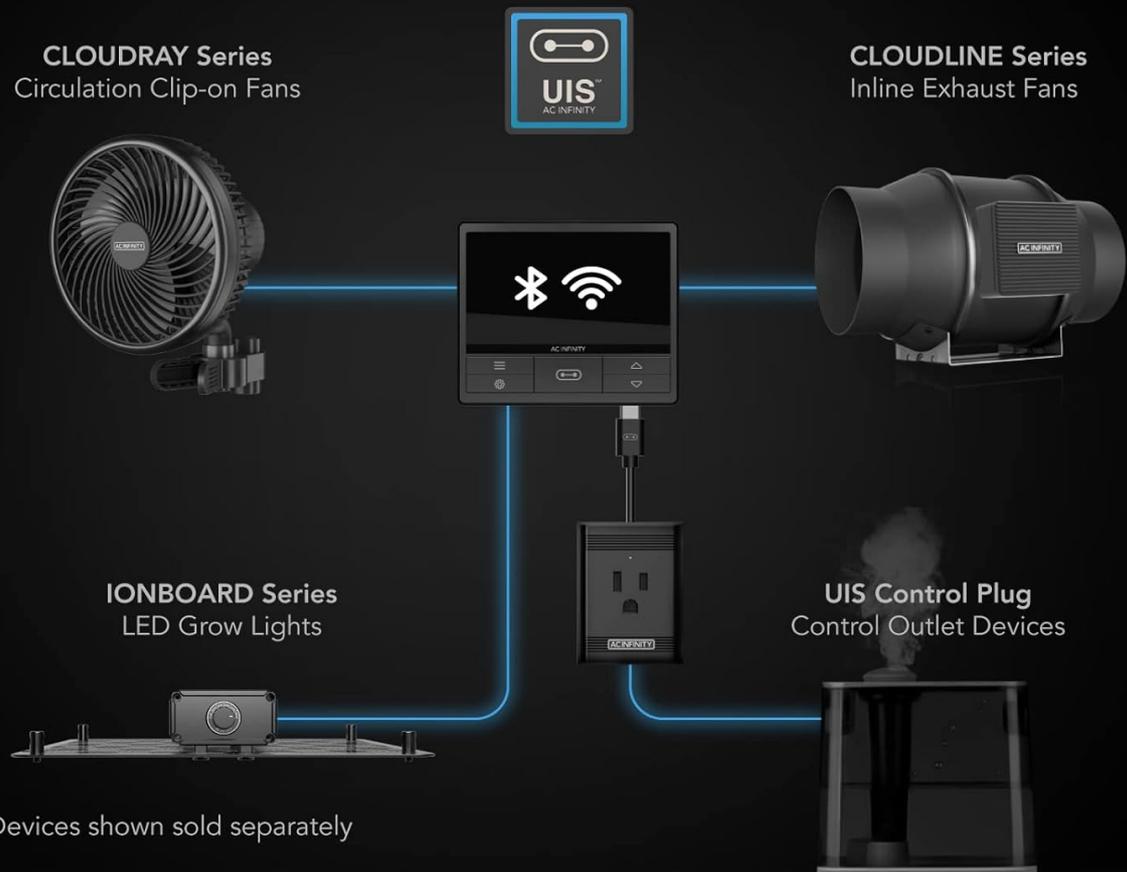


Image: A diagram illustrating how the IONBOARD Series LED Grow Lights connect to a UIS controller, alongside other AC Infinity devices like CLOUDRAY fans and CLOUDLINE exhaust fans, for integrated environmental control.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

Once connected to power, the light will turn on. To turn off, unplug the power cord or use a connected smart controller.

4.2 Using the Dimmable Controller

The included dimmer allows for precise control of light intensity from 0% to 100%.

- Rotate the knob on the dimmer to increase or decrease brightness.
- Adjust the intensity according to your plants' specific growth stage and light requirements.

4.3 Understanding the Optimized Spectrum

The IONBOARD S24 utilizes full-spectrum Samsung LM301H LEDs with specific ratios of white, red, and IR diodes to optimize growth.

- **3000K:** Promotes plant germination.
- **5000K:** Boosts plant vegetative growth.
- **730nm (IR):** Improves yields.
- **660nm (DR):** Promotes plant flowering.

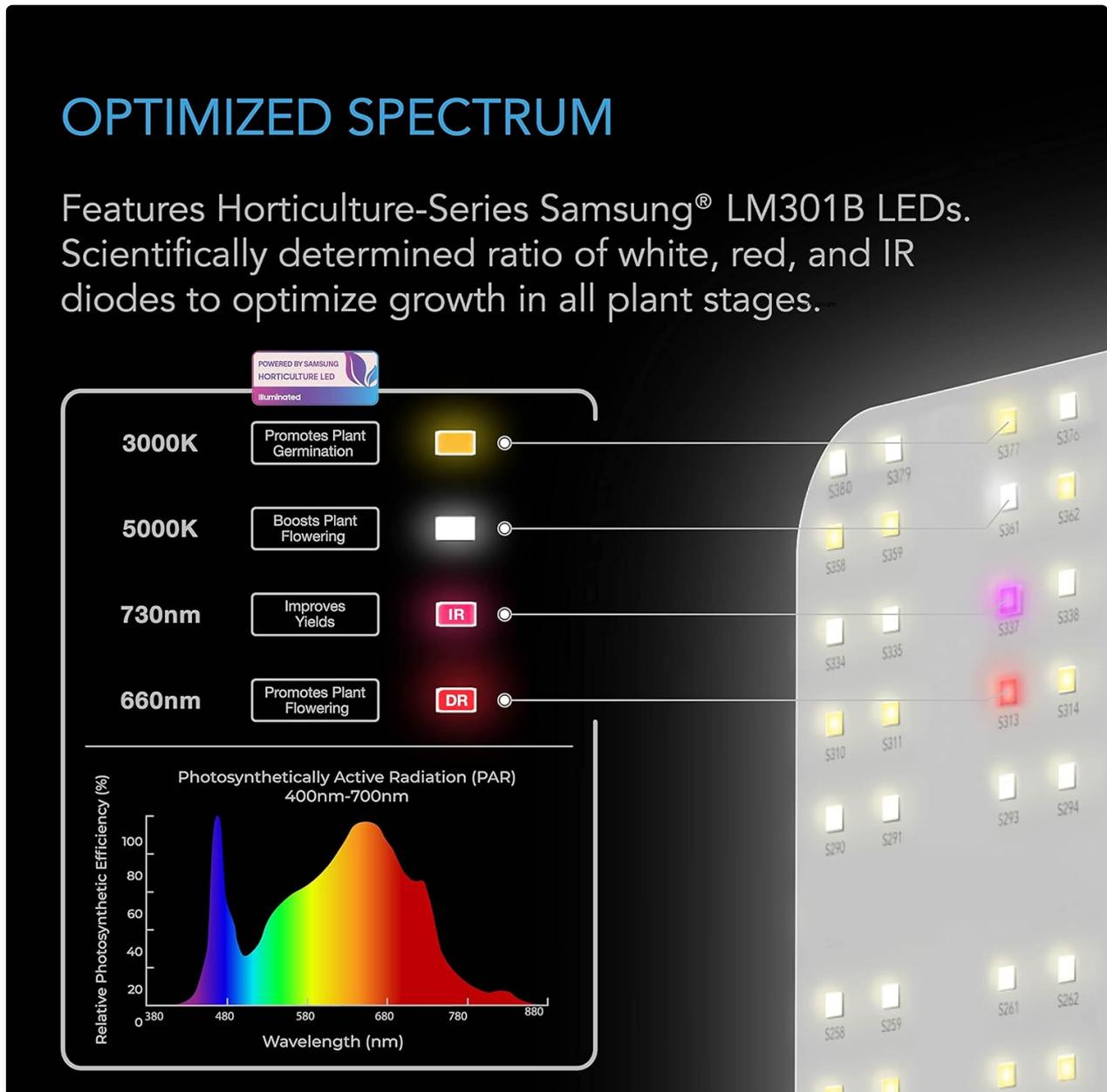


Image: A visual representation of the optimized light spectrum, showing different color temperatures and wavelengths (3000K, 5000K, 730nm, 660nm) and their effects on plant growth stages, along with a PAR distribution graph.

4.4 Recommended Hanging Heights and Coverage

The IONBOARD S24 is designed for uniform PAR distribution and deep canopy penetration. Adjust the hanging height based on the plant's growth stage and desired light intensity.

- **Vegetative Stage:** Typically higher hanging height, lower intensity.
- **Flowering Stage:** Typically lower hanging height, higher intensity.

DEEPER, UNIFORM PENETRATION

Each diode is algorithmically positioned to create the most uniform PAR map and the deepest canopy penetration.

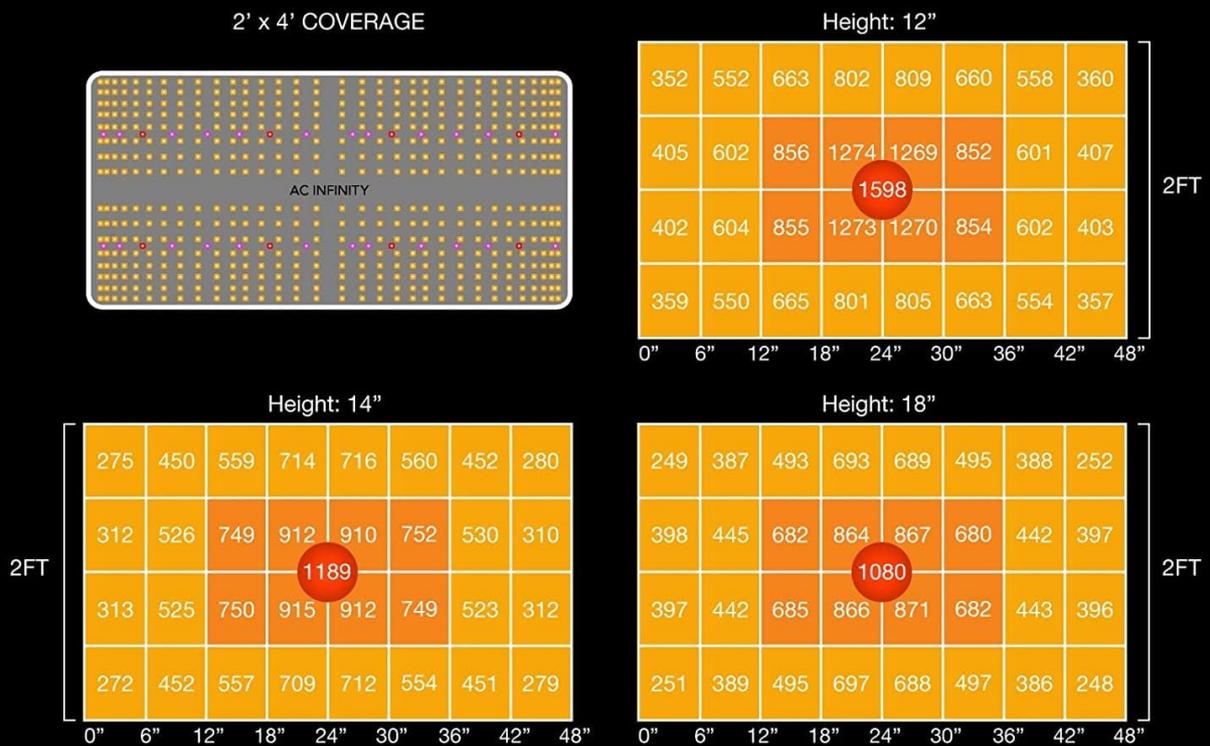


Image: PAR (Photosynthetically Active Radiation) maps illustrating the light distribution and intensity at various hanging heights (12", 14", 18") over a 2' x 4' coverage area, demonstrating uniform penetration.

5. MAINTENANCE

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

- **Cleaning:** Periodically wipe the light fixture with a soft, dry cloth to remove dust and debris. Ensure the light is unplugged and cool before cleaning. Do not use harsh chemicals or abrasive materials.
- **Inspection:** Regularly check the power cord and connections for any signs of damage.
- **Environmental Conditions:** Maintain appropriate temperature and humidity levels in your grow environment to prevent stress on the light fixture and ensure efficient operation.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Light does not turn on	No power, loose connection, faulty outlet	Check power cord connection, try a different outlet, ensure dimmer is not set to 0%.
Light flickers	Unstable power, loose dimmer connection, internal issue	Ensure stable power supply, check dimmer connection. If problem persists, contact support.
Dimmer not responding	Loose connection, faulty dimmer	Check dimmer cable connection to the light.
Light is too hot	Insufficient ventilation, ambient temperature too high	Ensure proper airflow in the grow space. Consider using exhaust fans.

7. SPECIFICATIONS

Feature	Detail
Model	AC-IBS24
Coverage Area	2 x 4 ft
Power Usage	200 Watts
Efficiency	2.65 $\mu\text{mol}/\text{J}$
Diodes	Samsung LM301B
LED Count	544 Diodes
Brightness Levels	5 (via dimmer)
Voltage	15.7 Volts
Amperage	1.84 Amps
Material	Aluminum
IP Rating	IP 65
Product Dimensions	26"L x 14"W x 4"H (66cm L x 35.5cm W x 10cm H)
Item Weight	12.27 pounds (5.57 kg)

SPECIFICATIONS

MODEL | IONBOARD S24
COVERAGE | 2 x 4 ft
POWER USAGE | 200W
CONTROLLER | DIMMABLE

EFFICIENCY | 2.65 $\mu\text{mol}/\text{j}$
DIODES | Samsung LM301B
LED COUNT | 544 Diodes
BRIGHTNESS | 5 Levels

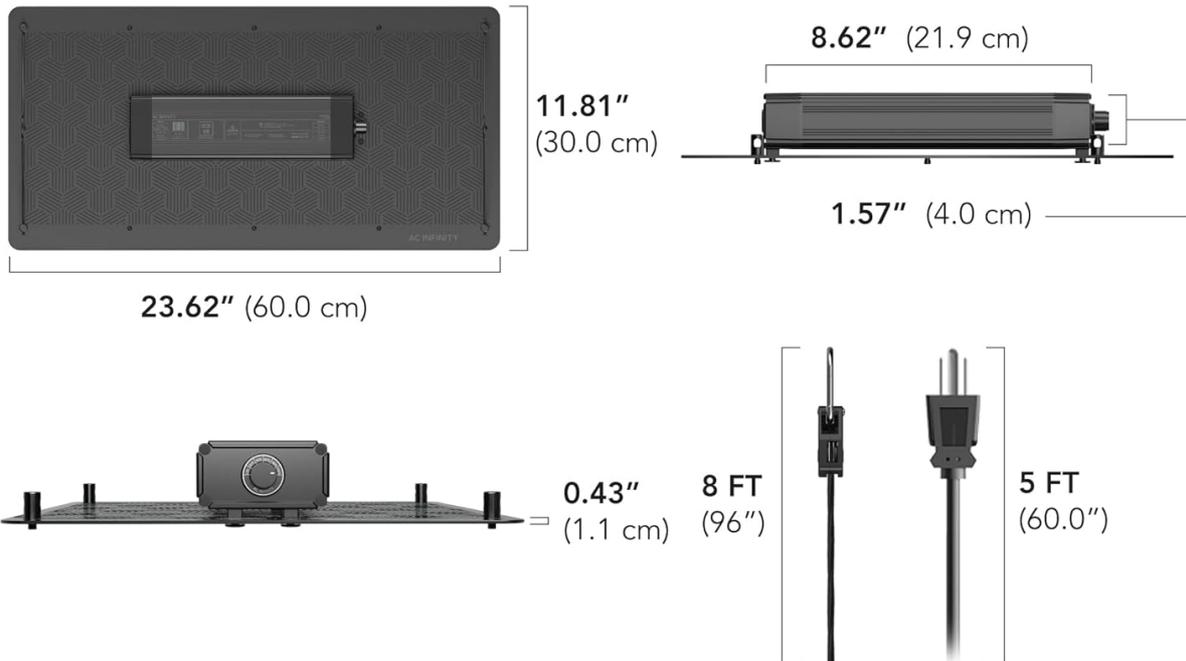


Image: A graphic displaying the key specifications and physical dimensions of the IONBOARD S24, including length, width, height, and cable lengths.

7.1 Energy Label



Image: EU Energy Label for the AC Infinity AC-IBS24, indicating an energy efficiency class of D and 220 kWh/1000h consumption. For more details, visit <https://eprel.ec.europa.eu/qr/1879938>.

8. WARRANTY AND SUPPORT

AC Infinity products are designed for quality and durability. This product comes with a manufacturer's warranty. Please refer to the official AC Infinity website or your purchase documentation for detailed warranty terms and conditions.

8.1 Customer Support

If you encounter any issues or have questions regarding your IONBOARD S24, please contact AC Infinity customer support:

- **Website:** Visit the official AC Infinity website for FAQs, troubleshooting guides, and contact information.
- **Email/Phone:** Specific contact details can be found on the AC Infinity support page.

Please have your model number (AC-IBS24) and purchase date ready when contacting support.