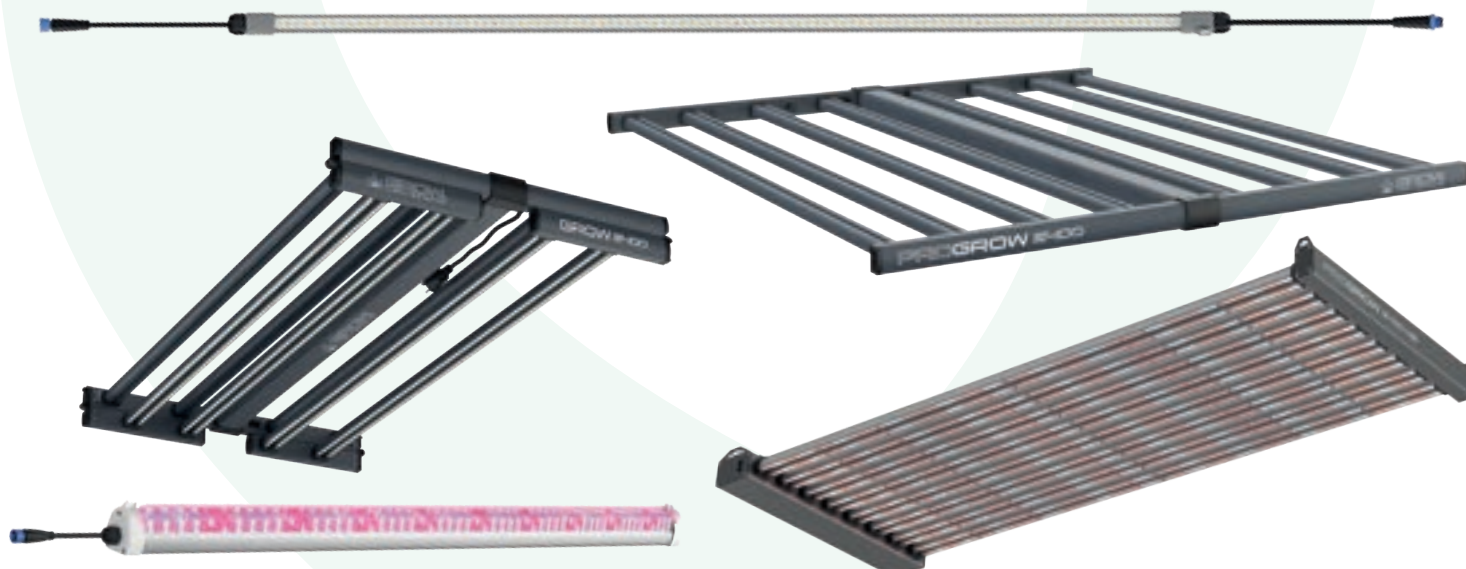


GROW[®]
LIGHT SCIENCE

**Available Now:
Exclusively at**

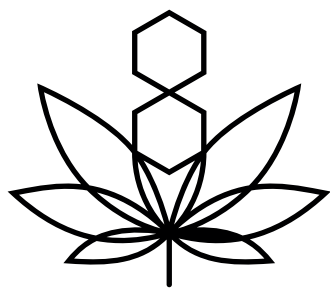
BIOFLORAL[®]
 **WEST**

**THE MOST ADVANCED
LED TECHNOLOGY FOR YOUR GROW**



Precision Lighting. Proven Science.

Contact a BioFloral sales representative to discuss your project today.



GROW[®]

L I G H T S C I E N C E

Table of Contents

PROGROW Under Canopy Light

Deep Red Dominant Spectrum 120 / 240v (code # 24254)	3
Deep Red Dominant Spectrum 347v (code # 24255)	5
Full Spectrum 120 / 240v (SPECIAL ORDER)	7
Full Spectrum 347v (SPECIAL ORDER)	9
Installation instructions	11

PROGROW LED Clone Light

13

Installation instructions (code # 24258)	15
--	----

GROW 2400 LED Clone Light (code # 24262)

19

PROGROW 2400 (Close Proximity) LED light

2400 - 207-288v (code # 24240)	22
2400 - 347v (code # 24242)	24
Installation instructions	26

PROGROW 2400 (High Bay) LED light

2400 - 207-288v (code # 24241)	30
2400 - 347v (code # 24243)	32
Installation instructions	34

PROGROW 4800 (High Bay) LED light

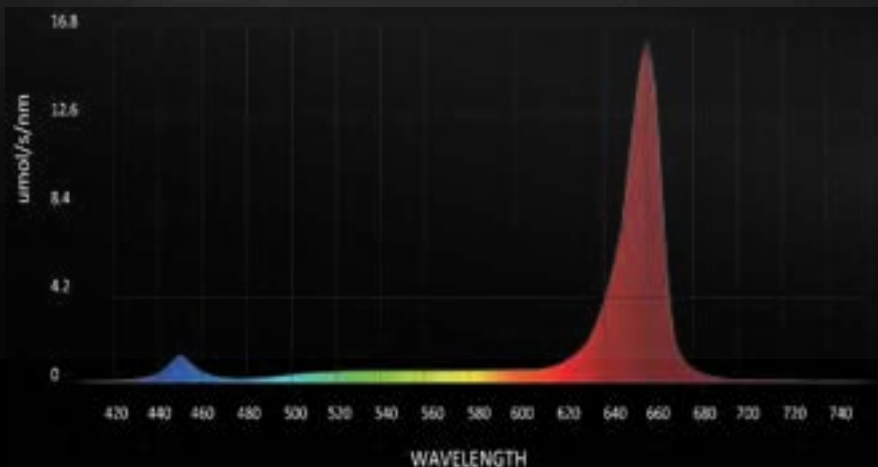
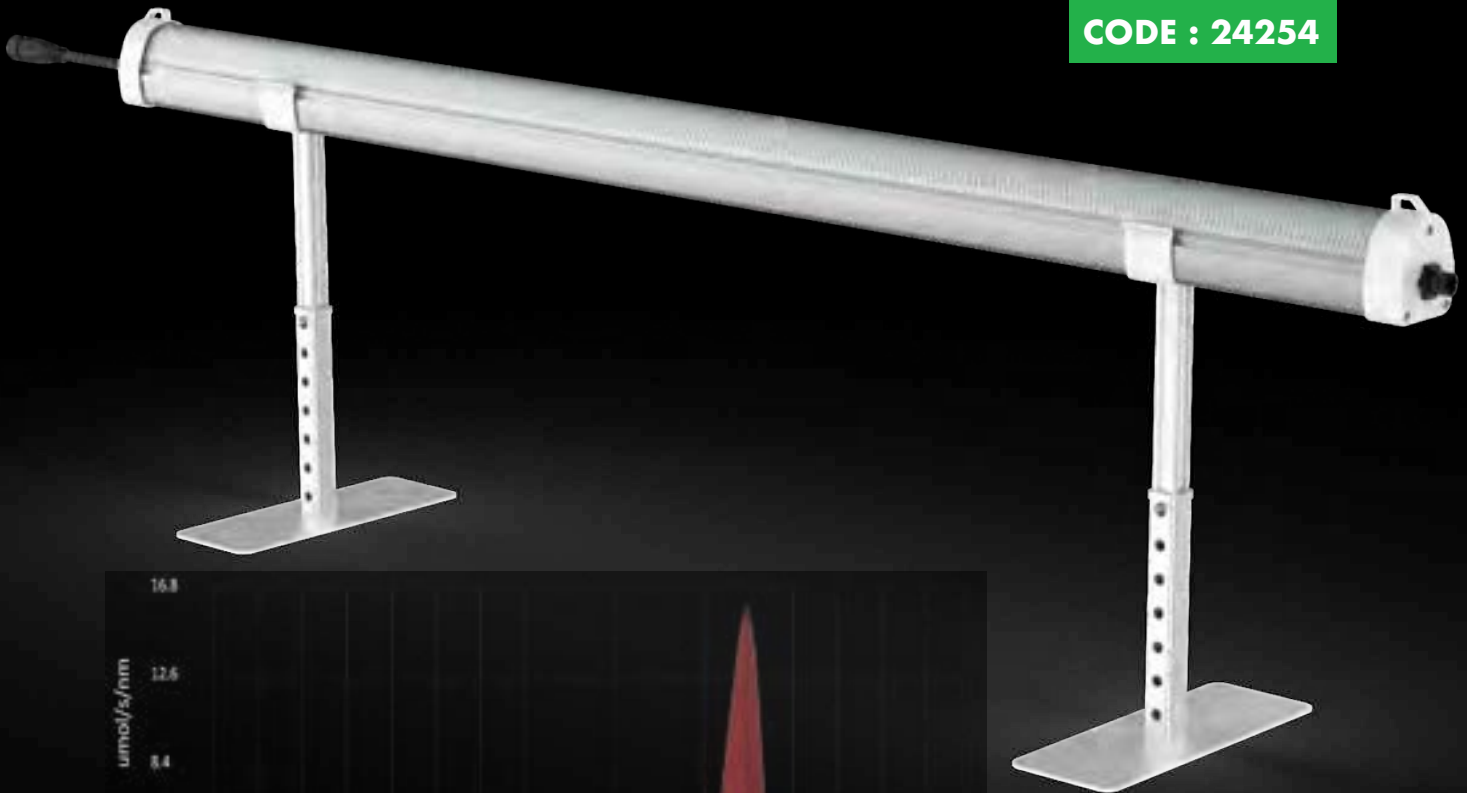
2400 - 207-288v (SPECIAL ORDER)	38
2400 - 347v (SPECIAL ORDER)	40
Installation instructions	42

PROGROW

UNDER CANOPY LIGHT

High-Yield Indoor Cannabis LED Under-Canopy Lighting Solution

CODE : 24254



353 $\mu\text{mol/s}$ – [Deep Red Dominant DI Spectrum]

The PROGROW Under Canopy Light is a high-efficacy under-canopy lighting solution for indoor commercial cannabis cultivation. It is designed to produce more consistent flower mass throughout the canopy.



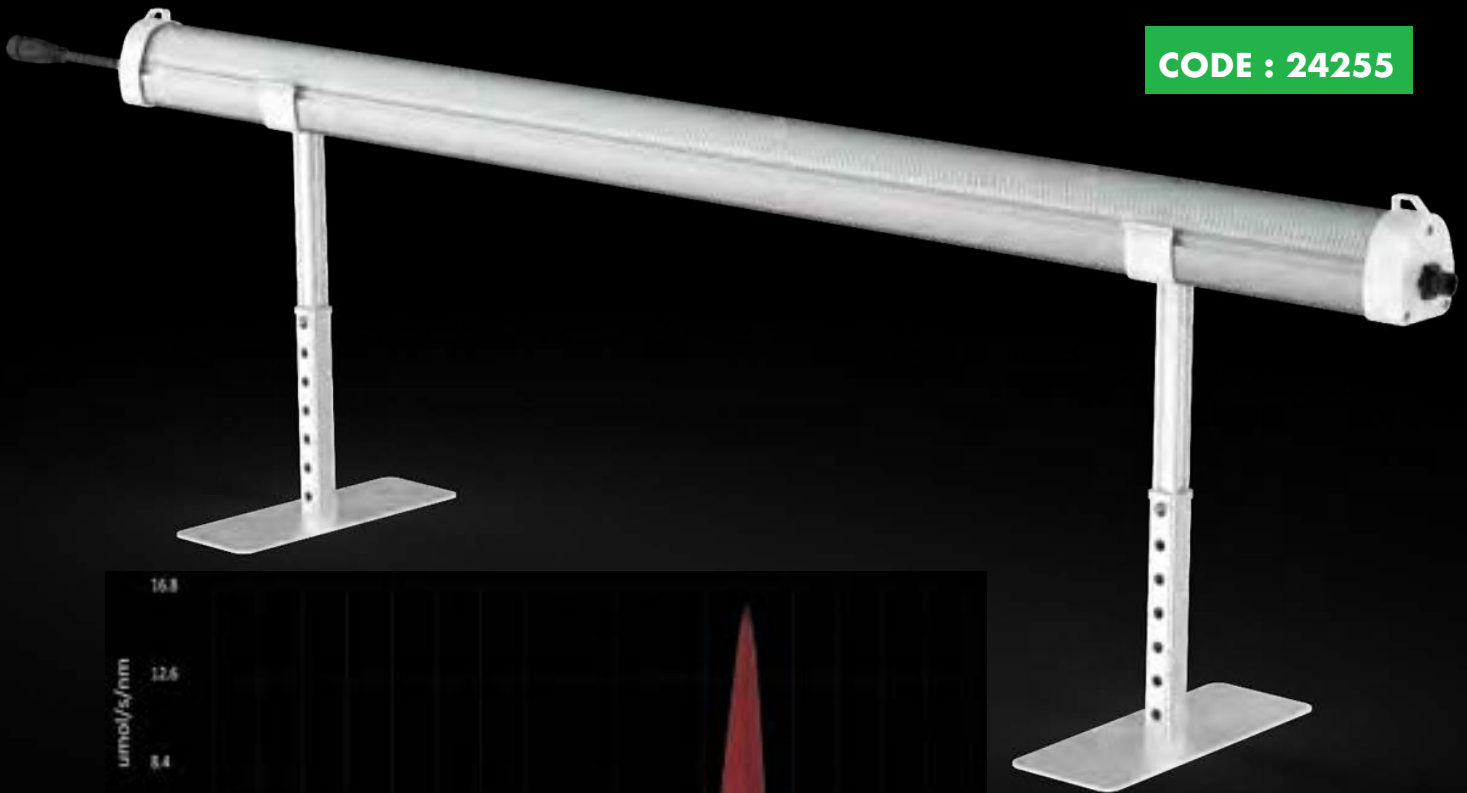
SPECIFICATION

MODEL NUMBER	GLS-UC-360-120W-01
PPF	353 (umol/s)
PPE	3.0 (umol/j)
INPUT POWER	116 W
INPUT VOLTAGE	120-277 V
INPUT CURRENT	1.00 A @ 120 V, 0.43A @ 277 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	51.25" X 3.00" X 2.25"
WEIGHT	3.73 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

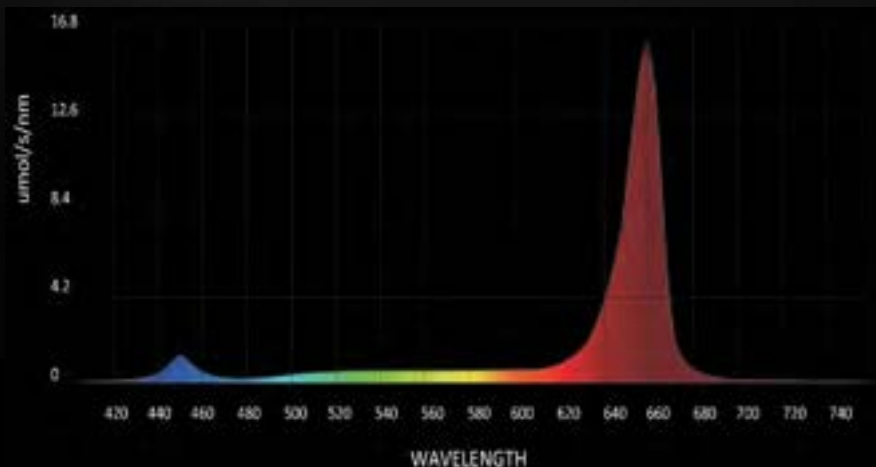
PROGROW

UNDER CANOPY LIGHT

High-Yield Indoor Cannabis LED Under-Canopy Lighting Solution



CODE : 24255



353 $\mu\text{mol/s}$ – [Deep Red Dominant Spectrum]

The PROGROW Under Canopy Light is a high-efficacy under-canopy lighting solution for indoor commercial cannabis cultivation. It is designed to produce more consistent flower mass throughout the canopy.



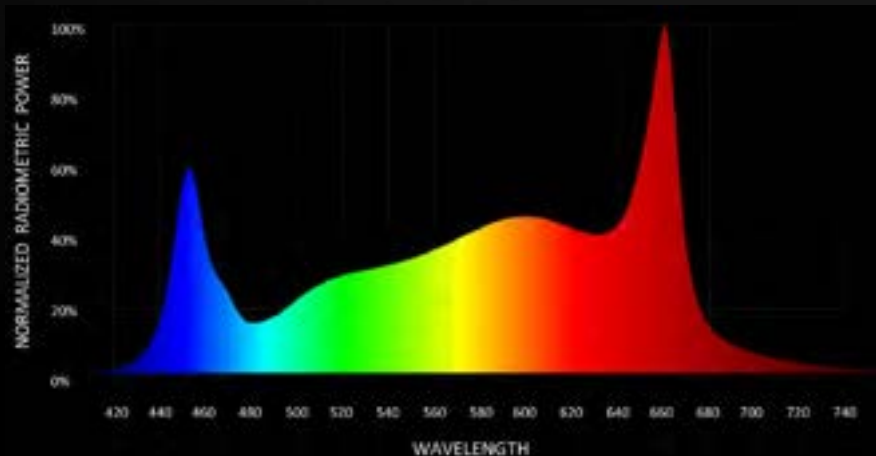
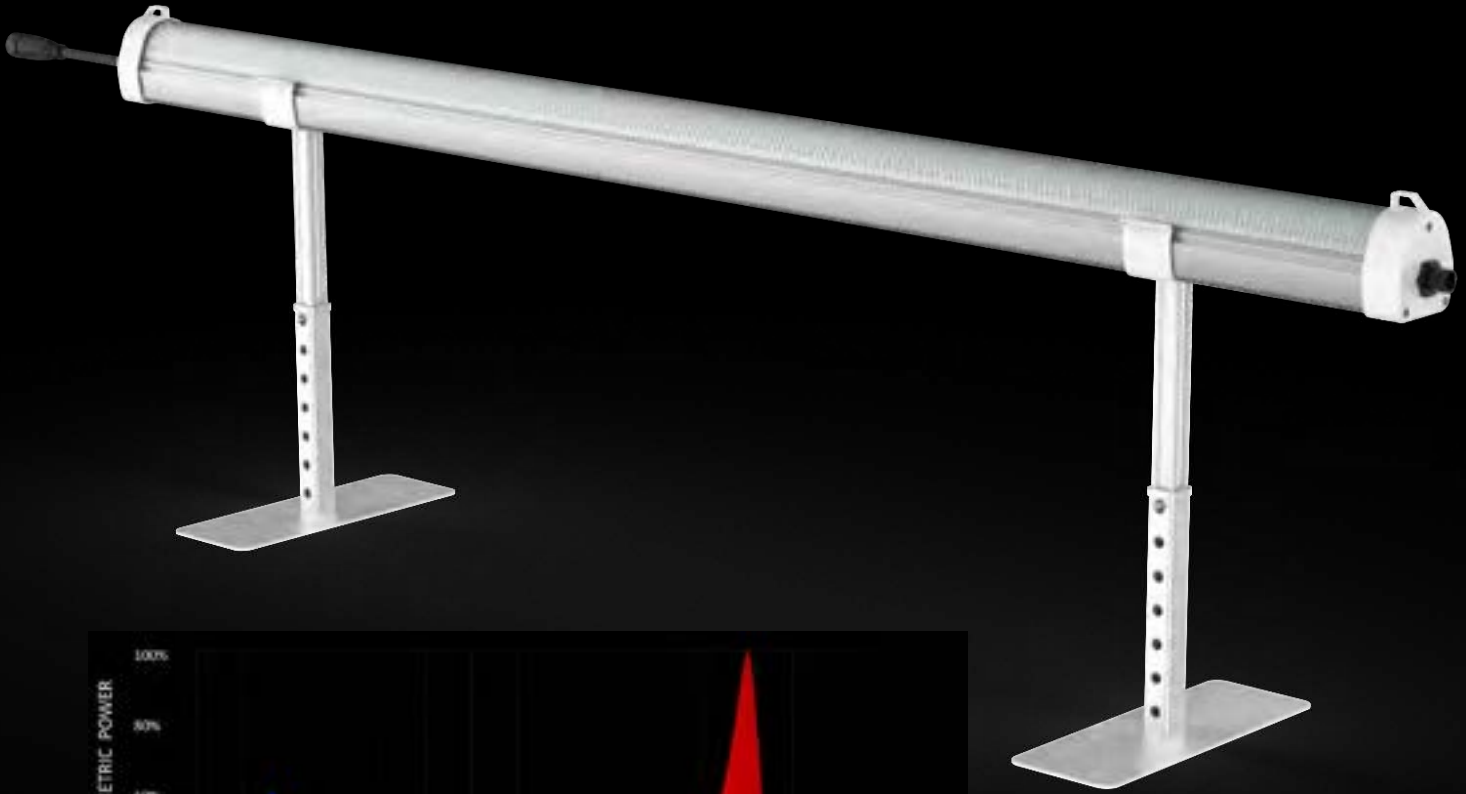
SPECIFICATION

MODEL NUMBER	GLS-UC-360-120W-10
PPF	353 (umol/s)
PPE	3.0 (umol/j)
INPUT POWER	116 W
INPUT VOLTAGE	347 V
INPUT CURRENT	0.33 @ 347 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	51.25" X 3.00" X 2.25"
WEIGHT	3.73 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

SPECIAL ORDER

PROGROW UNDER CANOPY LIGHT

High-Yield Indoor Cannabis LED Under-Canopy Lighting Solution



302 $\mu\text{mol/s}$ – [05 Full Spectrum]

The PROGROW UCL is a high-efficacy under-canopy lighting solution for indoor commercial cannabis cultivation. It is designed to produce more consistent flower mass throughout the canopy.



SPECIFICATION

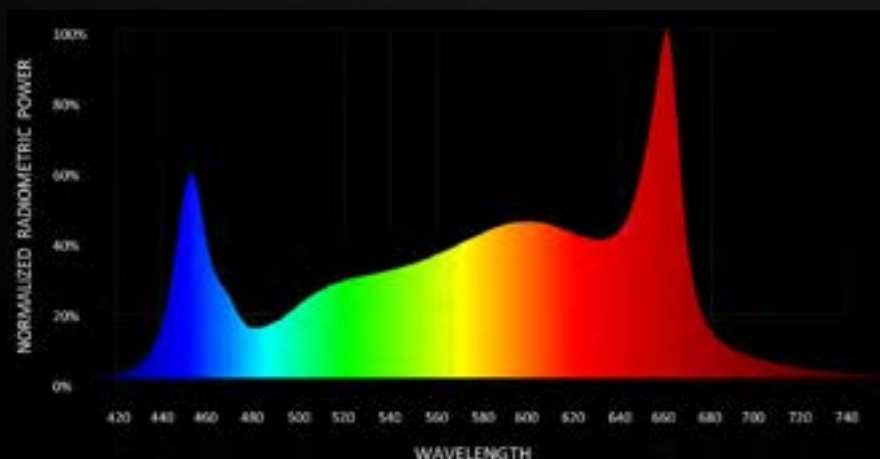
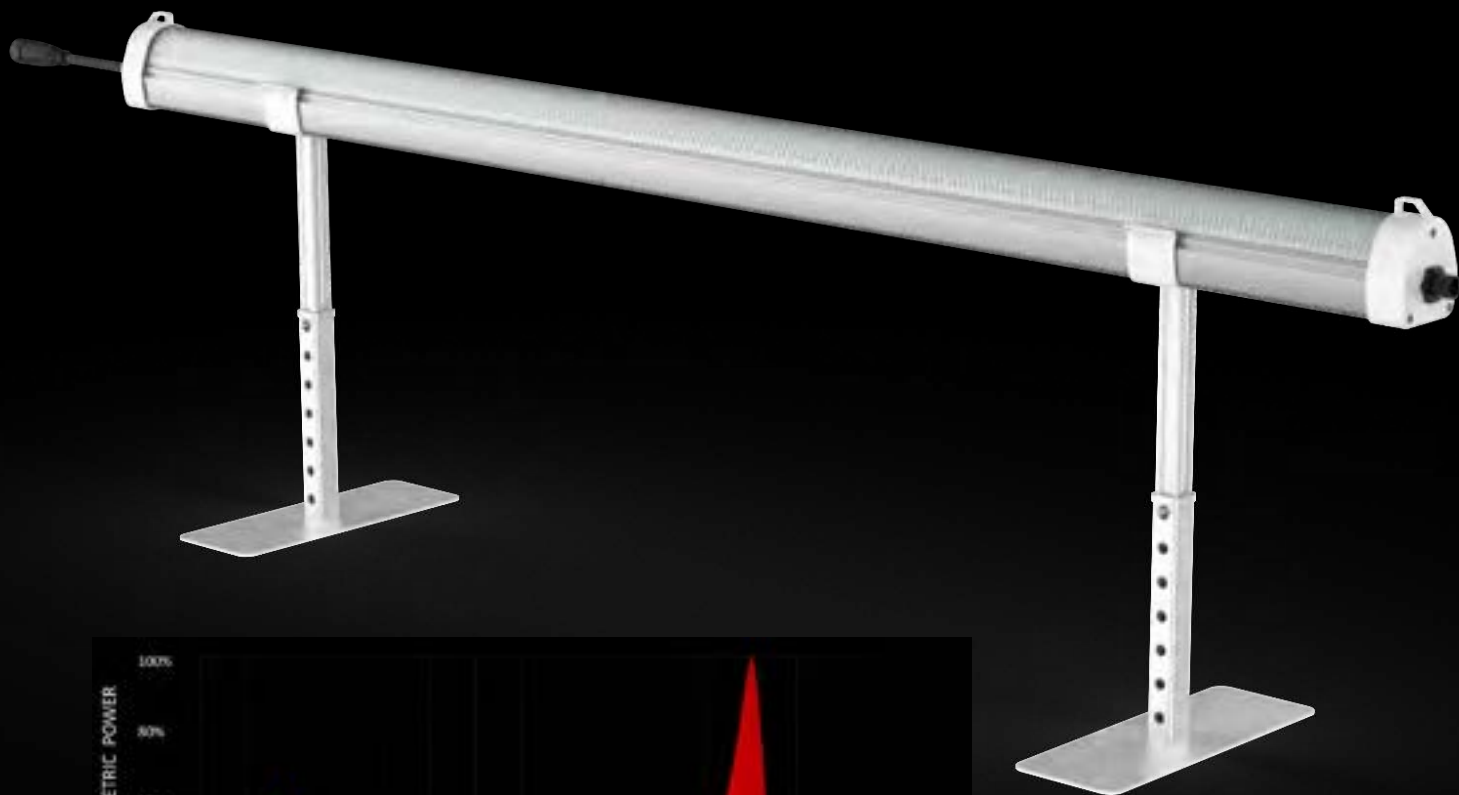
SPECIAL ORDER

MODEL NUMBER	GLS-UC-324-120W-05
PPF	302 (umol/s)
PPE	2.6 (umol/j)
INPUT POWER	117 W
INPUT VOLTAGE	120-277 V
INPUT CURRENT	1.00 A @ 120 V, 0.43A @ 277 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	51.25" X 3.00" X 2.25"
WEIGHT	3.73 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

SPECIAL ORDER

PROGROW UNDER CANOPY LIGHT

High-Yield Indoor Cannabis LED Under-Canopy Lighting Solution



302 $\mu\text{mol/s}$ – [Full Spectrum]

The PROGROW UCL is a high-efficacy under-canopy lighting solution for indoor commercial cannabis cultivation. It is designed to produce more consistent flower mass throughout the canopy.



SPECIFICATION

SPECIAL ORDER

MODEL NUMBER	GLS-UC-324-120W-08
PPF	302 (umol/s)
PPE	2.6 (umol/j)
INPUT POWER	117 W
INPUT VOLTAGE	347 V
INPUT CURRENT	0.33A @ 347 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	51.25" X 3.00" X 2.25"
WEIGHT	3.73 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

Installation Instructions

Please read carefully before installing the light fixture and keep these manuals for future reference.

The light fixture must be wired in accordance with the national electrical code and all applicable local codes, with proper grounding safety required. This product must be installed by a person who is familiar with the construction and operation of the product and the hazards involved in accordance with applicable installation codes.

Warning: Before installing or maintaining the light fixture, please make sure the power is off. There is no user repairable parts inside the light fixture. This product is suitable for wet places, with dust and waterproof rating IP65.



SPECIFICATIONS:

Model Number	Input	Watt	Input	Linkable	Lamp Dimension	Network Port Type	Operating
GLS-UC-360-120W-01	120-277VAC	120W	120V	9 PCS	1330x61x73mm	RJ12	-10°C ~ +40°C
GLS-UC-324-120W-05			240V	19 PCS			
GLS-UC-360-120W-10	347VAC		277V	22 PCS			
GLS-UC-324-120W-08			347V	30 PCS			

Rope mounting (Standard Accessory)

Mount the light fixture on the ceiling, as described below:

1. Drill two fixing holes at 1113mm/43.82" intervals ceiling(as shown in Figure 1), and tap the hook (self-provided) into the fixing holes with a tool (as shown in Figure 2)
2. Hang the two grow light ropes (standard accessory) on the hooks of the ceiling(as shown in Figure 3).
3. Hang the light fixture on the two hooks (standard accessory) below the rope (as shown in Figure 4)
4. After installation, adjust the pulley (standard accessory) to keep the light fixture parallel with the ceiling so that to make the light fixture optimal force.

Figure 1

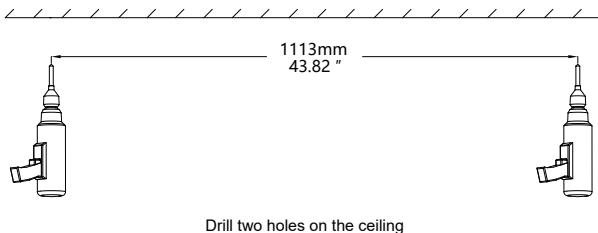


Figure 2

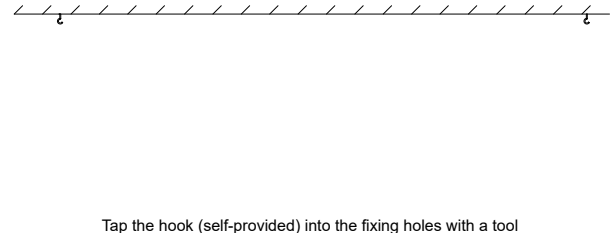


Figure 3

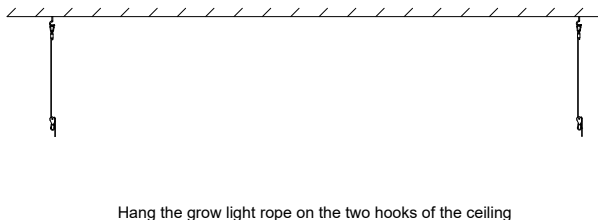
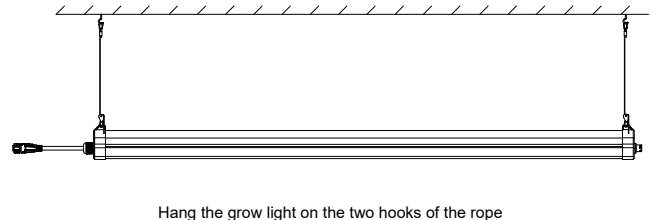


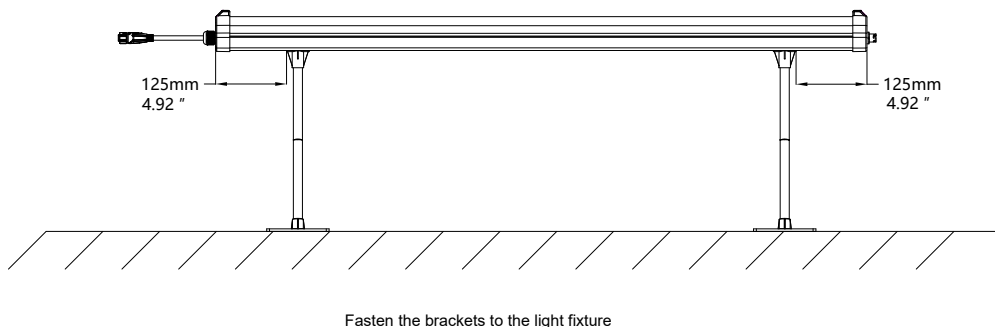
Figure 4



Bracket installation (Accessory sold separately, accessory model L22-09)

1. Assemble the parts of bracket (as shown in Figure 5).
2. Fasten the two assembled brackets to the light fixture at a distance of 125mm/4.92" from each end of the fixture respectively (distance can be adjusted according to specific needs) (as shown in Figure 6).

Figure 5



Assemble the parts of lifting bracket (Accessory sold separately, accessory model L22-10)

1. Fasten the two lifting brackets to the light fixture at a distance of 125mm/4.92" from each end of the fixture respectively (distance can be adjusted according to specific needs) (as shown in Figure 6)
2. Press the button on the lifting brackets to adjust the height(as shown in Figure 7)

Figure 6

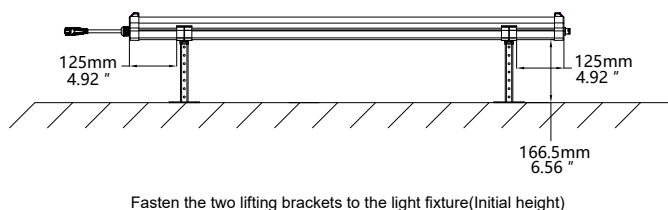
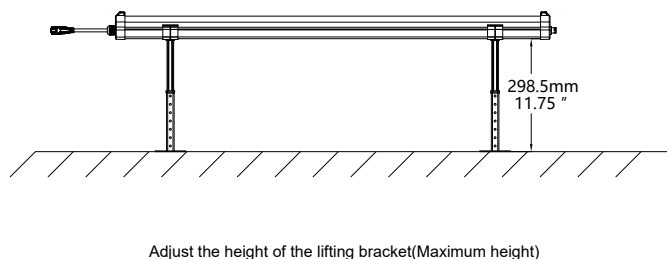


Figure 7



Power input wire assembly (Accessory sold separately, accessory model L79-05)

1. Power input wire (sold separately) is used to connect light fixture for power supply, please make sure that the threads are twisted into place (as shown in Figure 8)

Note: when using the extension wire, please disconnect the power to avoid the risk of electric shock.

Figure 8



Light fixture instruction manual

Clean and maintenance

Notice: please ensure that the light fixture is used within 45 C; when the light fixture is powered on, please do not connect extension wires and power input wires, and do not clean or maintain the light fixture.

Please power off the light fixture before wiping it. Please wear gloves and use a dry dust free cloth to gently wipe the light fixture, do not use chemicals and corrosive solutions.

Troubleshooting

1. Check whether the wire voltage on the light fixture is correct.
2. Check whether the waterproof connector is properly installed.

WARRANTY

From the date of purchase, the whole product has 5 years warranty. Damaged caused by manufacturing process, technology, components and other product itself, free warranty service can be got.

Please check the product carefully after opening the package, if there is any damage, please keep the package and contact the local distributor.or.

Free warranty services are not available in the following cases:

- Exceeding the period of valid service or free repair.
- Human damage caused by improper use. For example, damage caused by improper installation, non-compliance with instructions, or incorrect use, damage caused by transportation or other accidents, and other causes of force majeure (e.g., natural disasters, voltage abnormalities, etc.).
- Normal product aging, wear and tear, rust, etc., but does not affect normal use of the product.

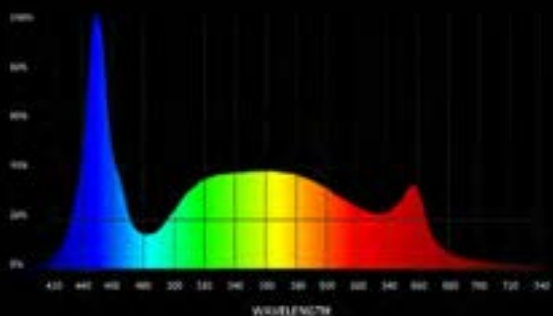
⚠ Note: these instructions do not include all details or variations of the equipment to provide for conditions that may arise during installation, operation, or maintenance.

PROGROW

LED CLONE LIGHT

High-Yield Indoor Cannabis LED Clone Lighting Solution

CODE : 24258



78 $\mu\text{mol/s}$ – 9000K CCT



The PROGROW LED Clone Light is a high-efficacy clone lighting solution for indoor commercial cannabis cultivation. It is the LED replacement for T5 fluorescents offering 60% more efficient. Adjustable power settings (18W/24W/30W) offer variable output flexibility (46.8/62.4/78.0 $\mu\text{mol/s}$) with or without a dimming controller.



SPECIFICATION

MODEL NUMBER	GLS-PG-CL-02
PPF	46.8/62.4/78.0 μ mol/s
PPE	2.6 μ mol/j
INPUT POWER	18W/24W/30W
INPUT VOLTAGE	120-277 V
DAISY-CHAIN POWER	120 V-10 PCS, 230 V-18 PCS, 277 V-20 PCS
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL - UL8800, CE, RoHS
DIMENSIONS/WEIGHT	64.2" L x 1.57" W x 1.19" H / 0.99lb
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS
QUANTITY PER CARTON	2 LAMPS

Optional Accessories



GLS-CL-A-01 Power input wire (basic),
accept to add 120V/240V/277V plug.
Length: 300mm/11.8inch



GLS-CL-A-02 Extension wire
Length: 1500mm/5ft



G25 Waterproof cover



GLS-CL-A-03 Sliding
rail (track) Length:
1220mm/4ft

Installation Instructions

Please read carefully before installing the light fixture and keep these manuals for future reference.

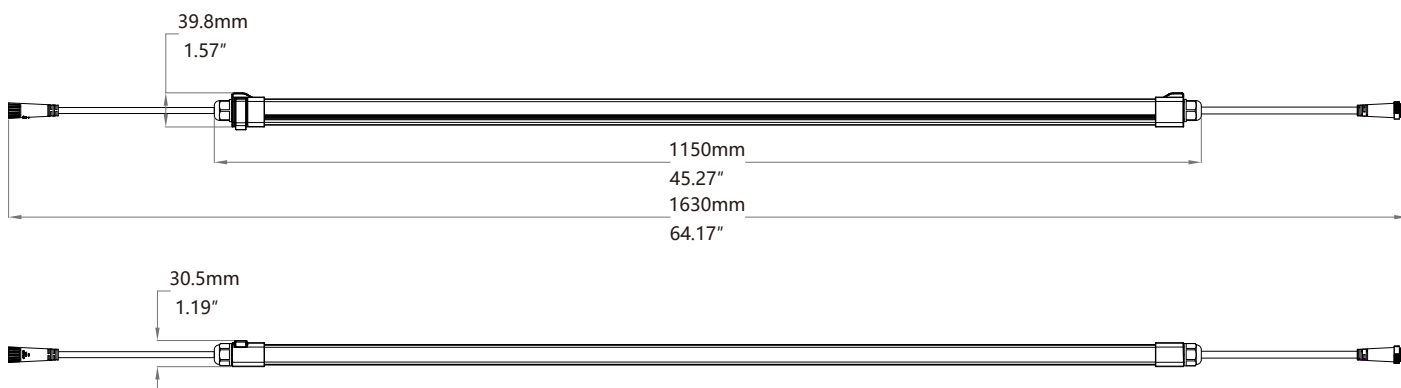
The light fixture must be wired in accordance with the national electrical code and all applicable local codes, with proper grounding safety required. This product must be installed by a person who is familiar with the construction and operation of the product and the hazards involved in accordance with applicable installation codes.

Warning: Before installing or maintaining the light fixture, please make sure the power is off. There is no user repairable parts inside the light fixture. This product is suitable for wet places, with dust and waterproof rating IP66.



SPECIFICATIONS:

Model	Input	Adjustable Wattage	PPF	PPE	Lamp Dimension	Network Port Type	Operating
G25	120-277VAC	18W	46.8 μ mol/s	2.6 μ mol/J	64.2" L x 1.57" W x 1.19"	RJ12	-10°C ~ +40°C
		24W	62.4 μ mol/s				
		30W	78.0 μ mol/s				



Ceiling mounting (standard accessory)

Mount the light fixture on the ceiling, as described below:

1. Drill two fixing holes at 750mm/29.53" intervals ceiling (as shown in Figure 1)
- Tap the plastic expansion tubes (self-provided) into the fixing hole with a tool (as shown in Figure 2)
2. Place the two hanging metal parts (standard accessories) on the fixing holes and lock them with self-tapping screws (self-provided) (as shown in Figure 3).
3. Fasten the light fixture to the hanging metal parts (standard accessories) from the bottom upwards (as shown in Figure 4).
4. After installation, check whether the hanging metal parts (standard accessories) are consistently centered, to maintain the flush will make the light fixture optimal force.

Figure 1

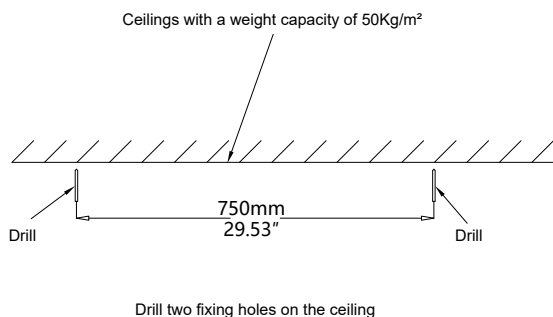


Figure 2

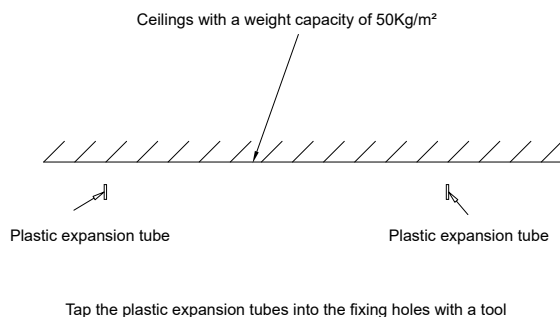


Figure 3

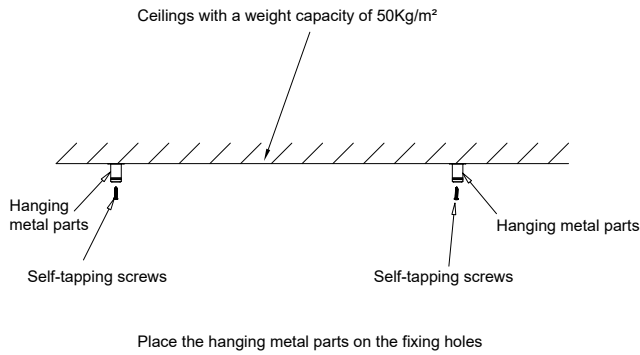
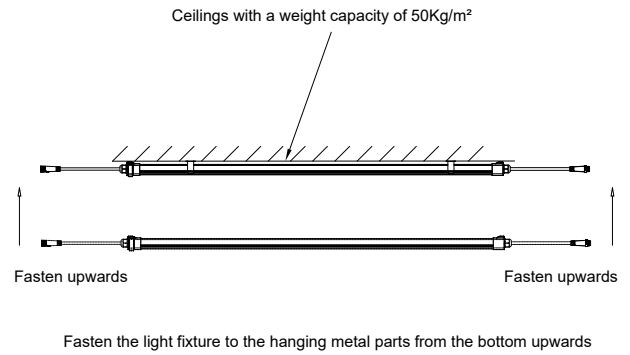


Figure 4



Cable tie installation (standard accessories)

Mount the light fixture on the ceiling as described below:

- 1.Pass the cable ties into the two fixing holes of the light fixture (standard accessories) (as shown in Figure 5)
- 2.Tighten the cable ties (standard accessories) after fixing them to the hooks (as shown in Figure 6).
- 3.Check whether the hooks are flush after installation, keeping them flush will optimize the force on the light fixture.

Figure 5

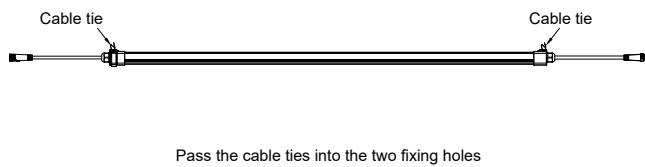
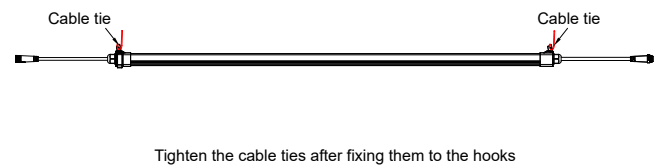


Figure 6

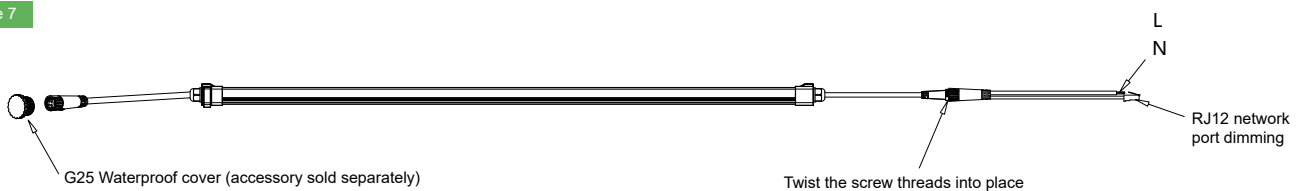


Power input wire assembly (accessory sold separately, accessory model L79-01)

- 1.Power input wire (sold separately) is used to connect light fixture for power supply, please make sure that the threads are twisted into place (as shown in Figure 7)

Note: when using the extension wire, please disconnect the power to avoid the risk of electric shock.

Figure 7



Extension wire assembly (accessory sold separately, accessory model L79-02)

- 1.The light fixtures at each end are bridging connected with extension wires (sold separately), please make sure the threads are twisted in place (as shown in Figure 8).

Note: when using the extension wires, please disconnect the power to avoid the risk of electric shock.

Figure 8



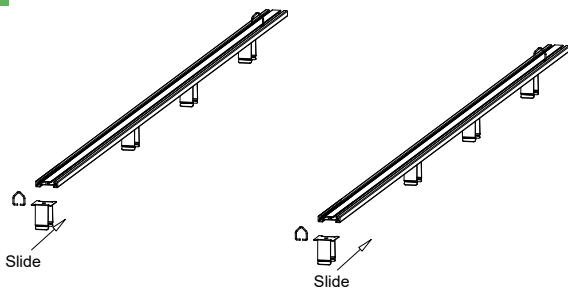
Warning: The waterproof connector of the series connection carries high voltage electricity, please do not use conductors or any other objects inserting into the hole or throw it into water, as there is a risk of electric shock. You can choose to plug the charged holes with glass glue, silicone or waterproof cap plug(sold separately) after assembly, which can avoid use risk.

Wall mounting (accessory sold separately, accessory model L79-03)

Mount the light fixture on the ceiling as described below:

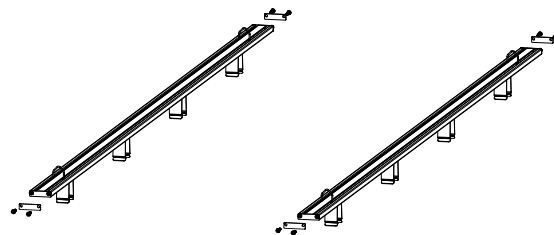
1. Slide the hooks (sold separately) and the hanging metal parts (standard accessory) into the mounting beam (sold separately) (as shown in Figure 9).
- Use self-tapping screws (included in the accessory bag) to fix the metal sheet parts (sold separately) to the mounting beam (sold separately) (as shown in Figure 10).
2. Fix the hooks (sold separately) in appropriate place (as shown in Figure 11)
3. Fasten the light fixture to the hanging metal parts (standard accessory) from the bottom upwards (as shown in Figure 12)
4. Check whether the hanging metal parts are flush after installation, keeping them flush will optimize the force on the light fixture.

Figure 9



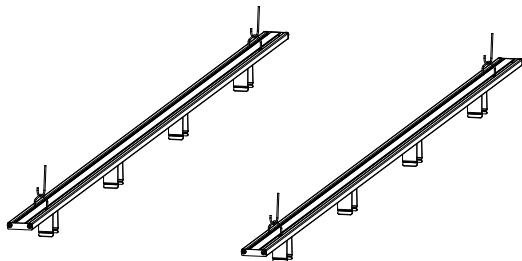
Slide the hooks and the hanging metal parts into the mounting beam

Figure 10



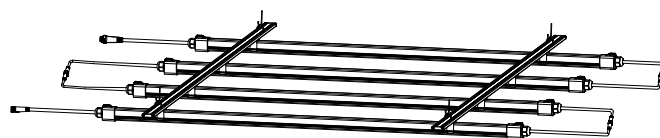
Fix the metal sheet parts to the mounting beam

Figure 11



Fix the hooks in appropriate place

Figure 12



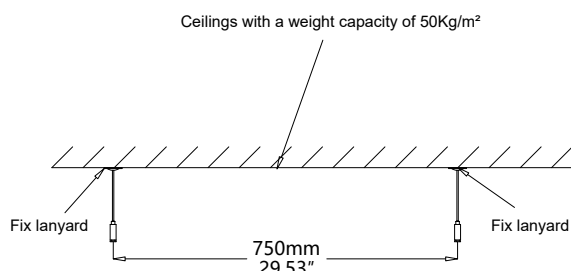
Buckle light fixtures upwards

Lanyard mounting (accessory sold separately, accessory model L83-07)

Mount the light fixture on the ceiling as described below:

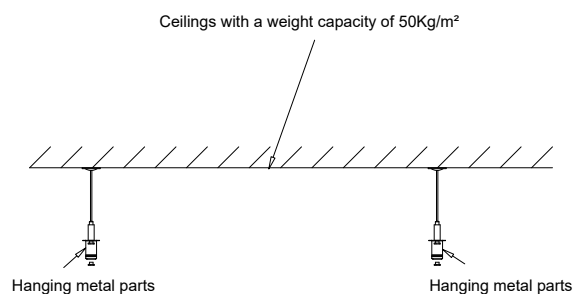
1. Fix two lanyards (sold separately) at 750mm/29.53" intervals at the horizontal position of the ceiling (as shown in Figure 13).
2. Remove the nut at the bottom of the lanyard and fix the hanging metal part (standard accessory) to the lanyard (sold separately) and then tighten it (as shown in Figure 14).
3. Fasten the light fixture to the hanging metal parts (standard accessory) from the bottom upwards (as shown in Figure 15).
4. After installation, check whether the hanging metal parts (standard accessories) are consistently centered, keeping them flush will make the light fixture optimal force.

Figure 13



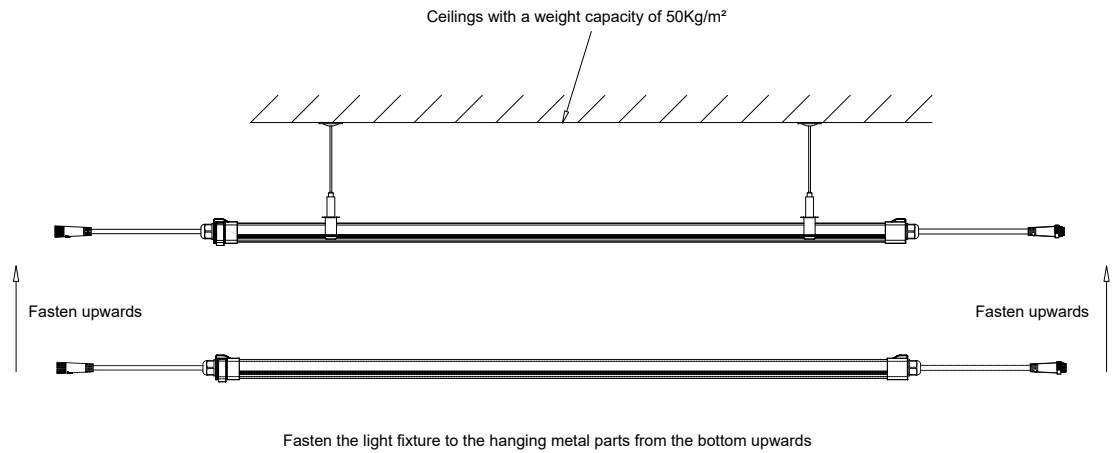
Fix lanyards on the ceiling

Figure 14



Fix hanging metal parts

Figure 15



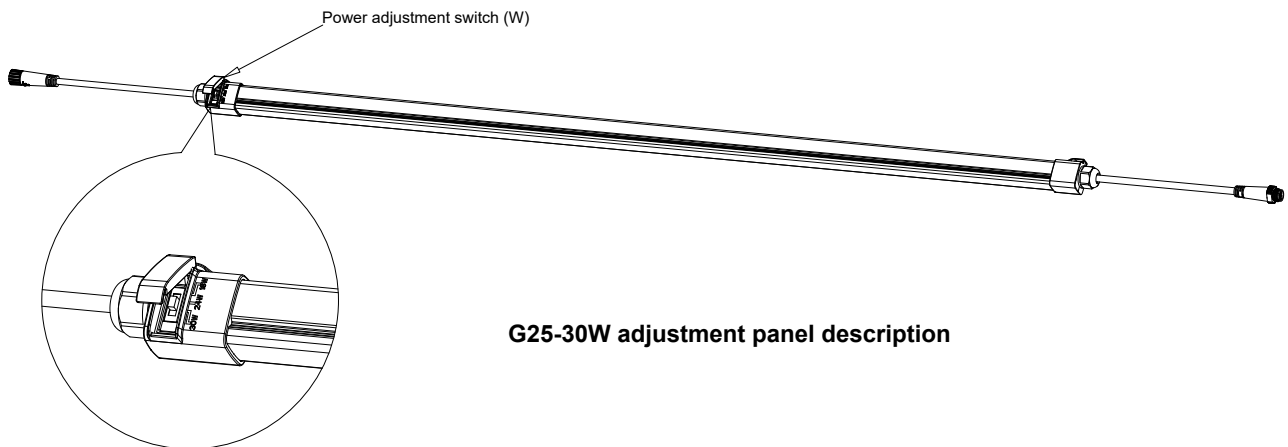
Power adjustment instruction

Follow the instructions below to change the light fixture power (W); or use the factory setting:

G25-30W 30W 24W 18W

- 1, Power (W) switch on the light fixture (as shown in Figure 16)
- 2, Select the power (W) slider to switch to the desired value

Figure 16



Warning: After adjusting power, please put down the silicone cap in place, which will prevent water from seeking into the lamp and the risk of circuit damage.

Light fixture instruction manual

Clean and maintenance

Notice: please ensure that the light fixture is used within 40 °C; when the light fixture is powered on, please do not connect extension wires and power input wires, and do not clean or maintain the light fixture.

Please power off the light fixture before wiping it. Please wear gloves and use a dry dust free cloth to gently wipe the light fixture, do not use chemicals and corrosive solutions.

Troubleshooting

1. Check whether the wire voltage on the light fixture is correct.
2. Check whether the waterproof connector is properly installed.

WARRANTY

From the date of purchase, the whole product has 5 years warranty. Damaged caused by manufacturing process, technology, components and other product itself, free warranty service can be got.

Please check the product carefully after opening the package, if there is any damage, please keep the package and contact the local distributor or.

Free warranty services are not available in the following cases:

- Exceeding the period of valid service or free repair.
- Human damage caused by improper use. For example, damage caused by improper installation, non-compliance with instructions, or incorrect use, damage caused by transportation or other accidents, and other causes of force majeure (e.g., natural disasters, voltage abnormalities, etc.).
- Normal product aging, wear and tear, rust, etc., but does not affect normal use of the product.

! Note: these instructions do not include all details or variations of the equipment to provide for conditions that may arise during installation, operation, or maintenance.

GROW 2400

High-Yield **Residential** Cannabis LED Lighting Solution

CODE : 24262

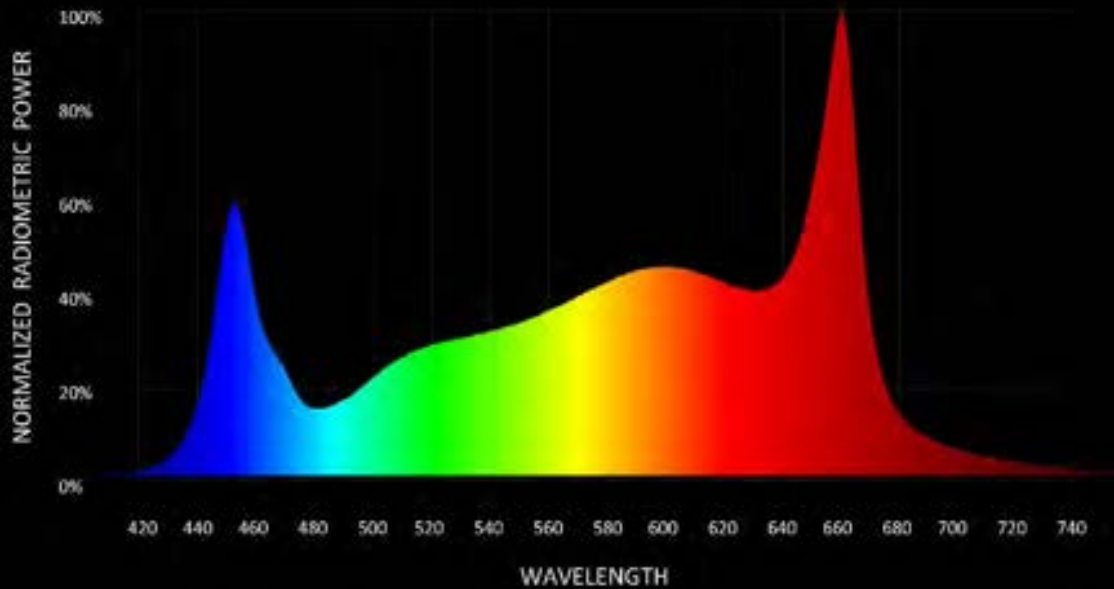


2,278 $\mu\text{mol/s}$

The GROW 2400 model is a high-output lighting solution for **residential** cannabis cultivation. It is designed to deliver high PPFD levels with excellent uniformity—identical to our commercial lights but with residential input power (120 - 220V) and folding design for compact storage.



SPECTRAL DISTRIBUTION

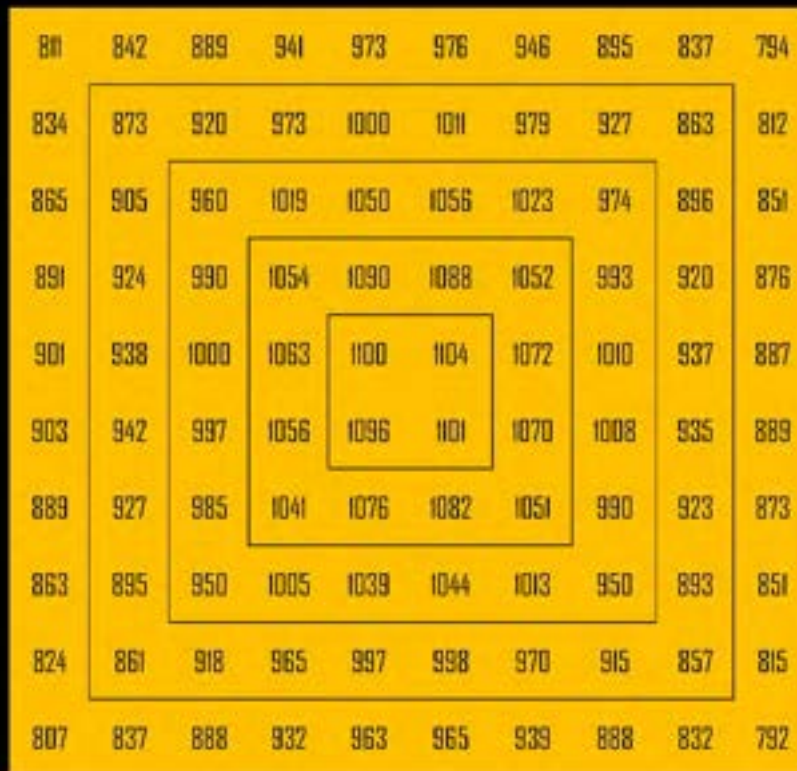


SPECIFICATION

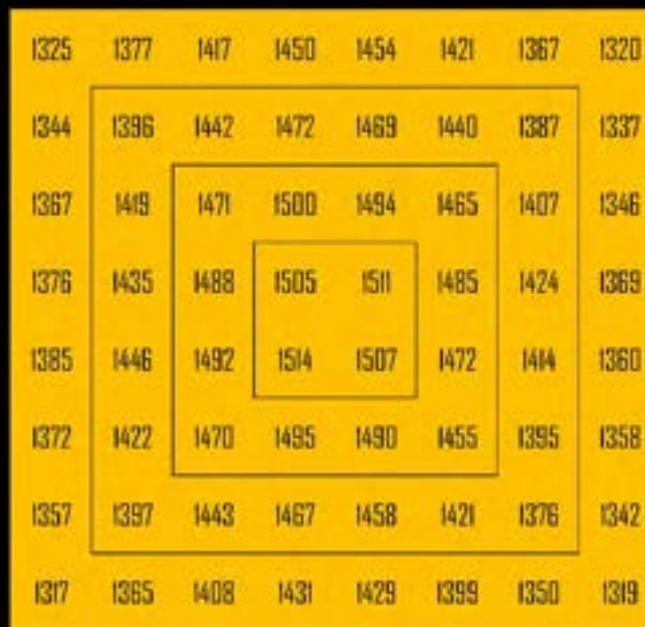
MODEL NUMBER	GLS-RES-2400-1
PPF	2,424 (umol/s)
PPE	2.9 (umol/j)
INPUT POWER	829 W
INPUT VOLTAGE	120-220 V
INPUT CURRENT	6.9 A @ 120 V, 3.8 A @ 220 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	ETL – UL1598, UL8800
DIMENSIONS	44.7" X 43.7" X 1.9"
WEIGHT	15.2 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	3 YEARS

PAR MAPS

5 X 5 Tent – 30" Mounting Height



4 X 4 Tent – 24" Mounting Height



PROGROW 2400

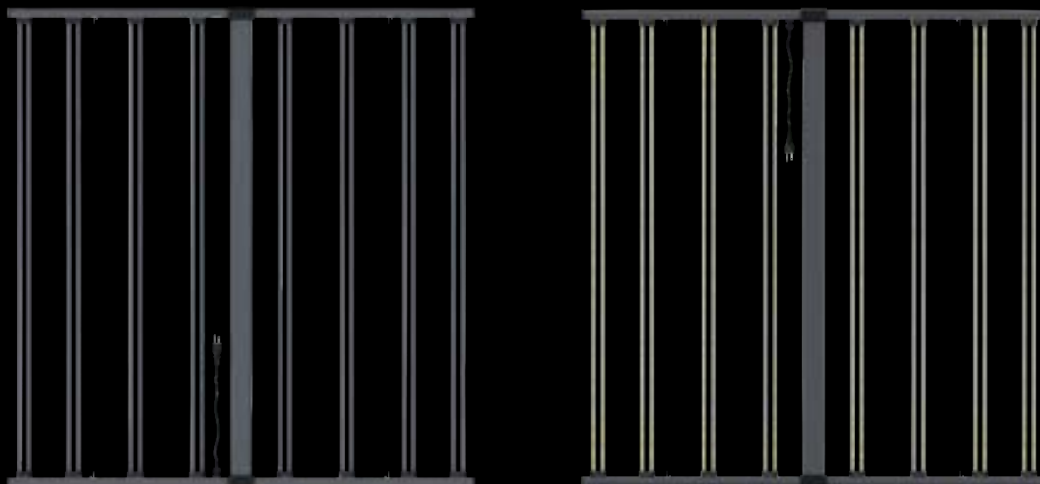
Close-Proximity High-Yield Indoor Cannabis LED Lighting Solution

CODE : 24240

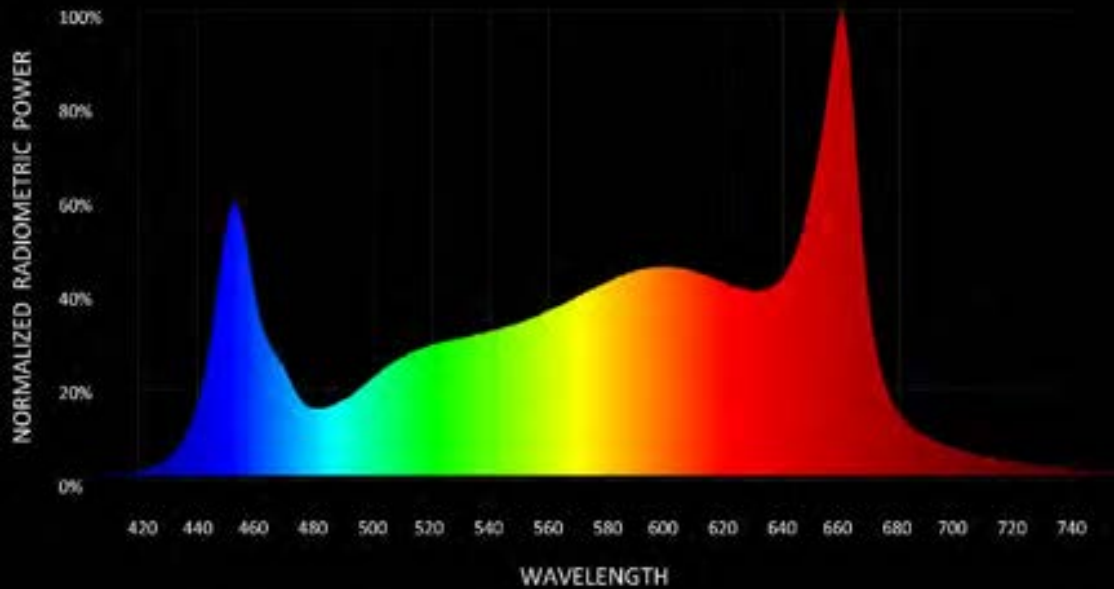


2,424 $\mu\text{mol/s}$

The PROGROW 2400 model is a high-output, close-proximity lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of 1,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



SPECIFICATION

MODEL NUMBER	GLS-PG-2400-CP-L-2
PPF	2,424 (umol/s)
PPE	2.9 (umol/j)
INPUT POWER	829 W
INPUT VOLTAGE	208-277 V
INPUT CURRENT	3.99 A @ 208 V, 2.99 A @ 277 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	44.7" X 43.7" X 1.9"
WEIGHT	15.2 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

PROGROW 2400

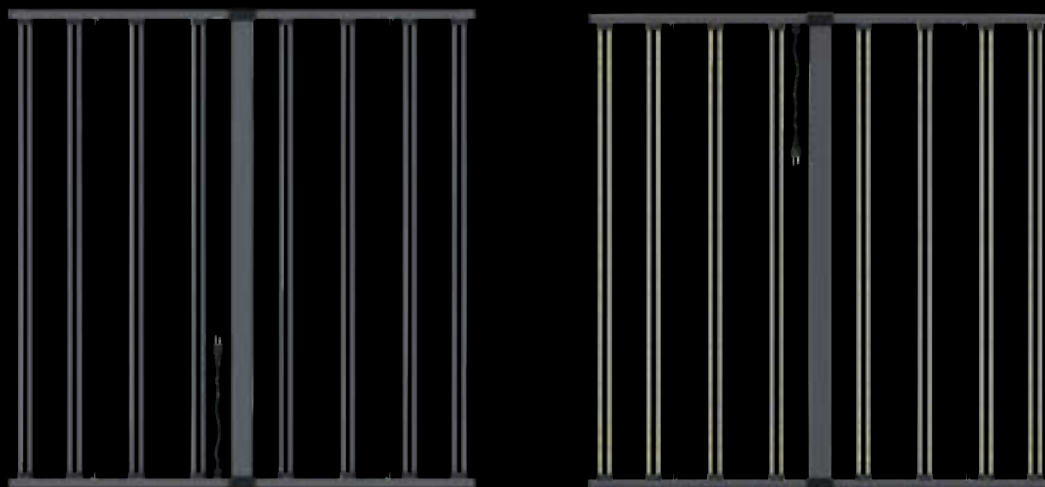
Close-Proximity High-Yield Indoor Cannabis LED Lighting Solution

CODE : 24242

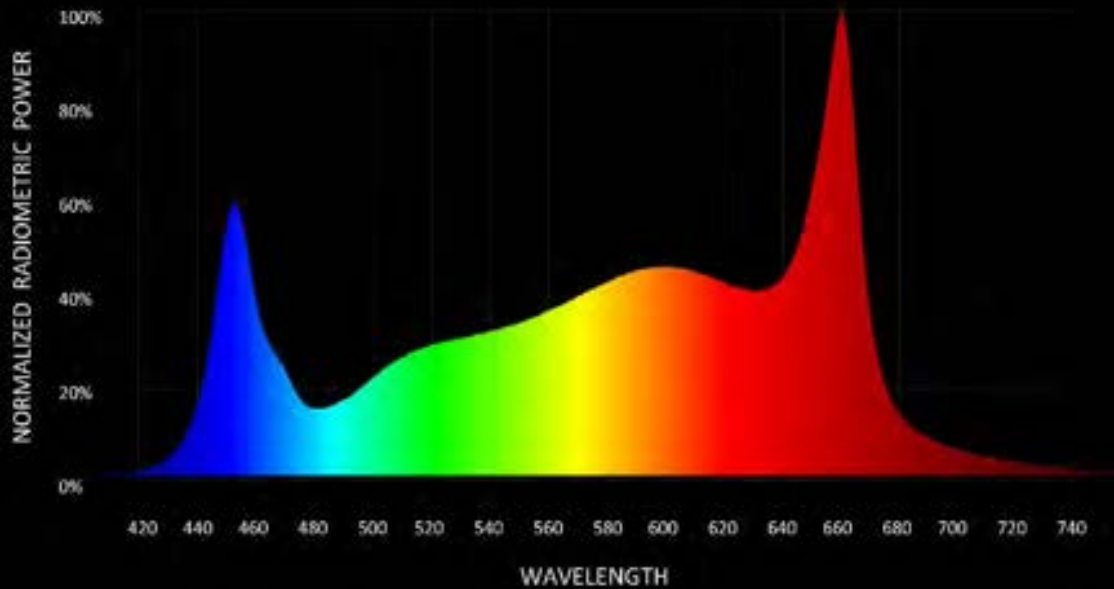


2,424 $\mu\text{mol/s}$

The PROGROW 2400 model is a high-output, close-proximity lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of 1,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



SPECIFICATION

MODEL NUMBER	GLS-PG-2400-CP-L-3
PPF	2,424 (umol/s)
PPE	2.9 (umol/j)
INPUT POWER	827 W
INPUT VOLTAGE	347 V
INPUT CURRENT	2.38 A
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	44.7" X 43.7" X 1.9"
WEIGHT	15.2 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

PROGROW 2400

GENERAL CARE OF YOUR FIXTURE

KEEP the minimum 15cm distances between adjacent lighting equipment and between the lighting equipment and combustible materials such as walls, ceilings, movable partitions, and the like; and between lighting equipment and other heat generating equipment (providing these installation limitations are needed to prevent overheating of lighting equipment, other equipment, or combustible materials within the installation environment);

ROUTINELY CHECK for and remove dust and debris buildup from LED modules, heat sink and LED driver. Cleaning shall be done using lower-pressure compressed air to rinse away dirt from LED modules.

NEVER touch individual LEDs with your fingers, which might lead to degradation or damage of the fixture.

KEEP the ambient temperature to be less than 40 °C. The users have to check the temperature by a thermometer before turning on power. If the ambient exceeds 40 °C within the growing space, the user needs to use a mechanical ventilation or cooling system before installation and this mechanical ventilation or cooling system is required to maintain the temperature within the growing space below 40 °C when the luminaire is in operation.

CULTIVATION GUIDE

ROUTINELY CHECK your plant's growth and health, adjust H₂O, CO₂, nutrients, temperature, RH (relative humidity) accordingly. Many plants prefer higher temperatures when exposed to high PPFD; experiment with higher temperature is recommended to achieve higher yields.

MAINTAIN a precise deployment of your fixture is very important to ensure optimal uniformity and consistent PPFD. The fixture shall be adjusted from time to time through the full cycle, at least 6 inch is recommended from top of your canopy.

ALWAYS test at the canopy level to gauge leaf surface temperature, since canopy temperature and room ambient temperature might vary.

TECHNICAL PARAMETERS

Input voltage: 220-277V AC; 50/60Hz

Dimensions: 43.8" L x 44.8" W x 1.89" H

Net Weight: 15.1lb

Operation Ambient temperature: 14 ~ 104 °F (-10 ~ 40 °C)

Beam Angle: 140°

Two mounted RJ12 ports, 0-10 dimming, daisy chain

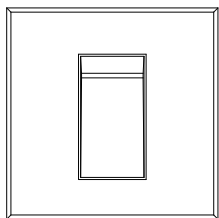
Mounting Height suggestion: ≥24" (60cm) Above Plant Canopy

ACCESSORY

1. One 2-meters RJ12 network
2. One NEMA power cord, 10ft/Daisy chain cable, main cord 10AWG 5' & branch cord 16AWG 18"
3. Two Metal hangers

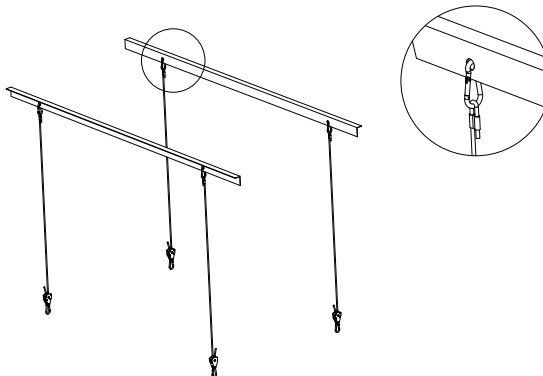
INSTALLATION (FOR 240V PLUG NEMA POWER CORD)

1



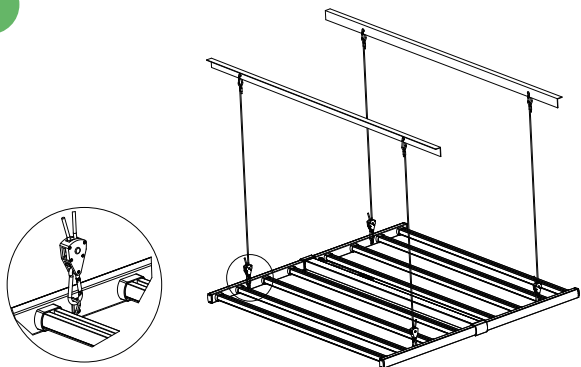
Step 1: Turn off the power

2



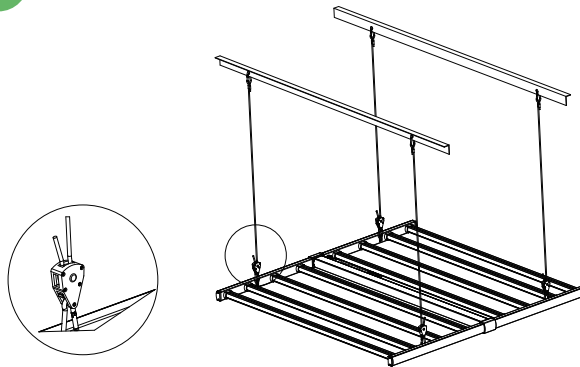
Step 2: Fix rope hanger

3



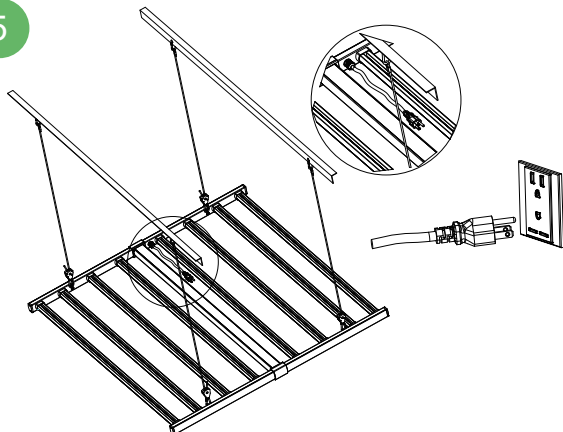
Step 3: Connect the light to the rope hanger

4



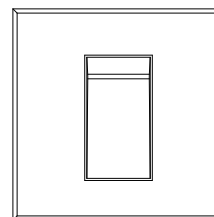
Step 4: Adjust the rope hanger to make the light balanced

5



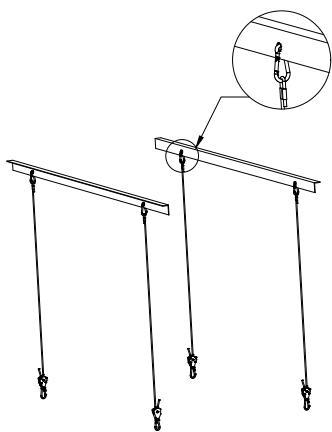
Step 5: Insert AC plug into socket

6

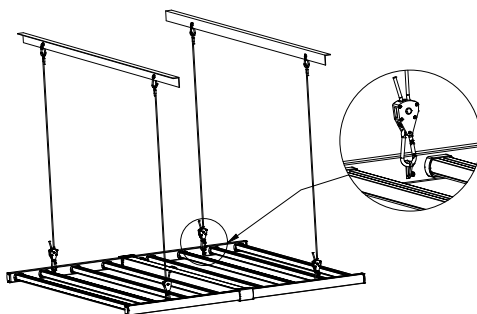


Step 6: Turn on the power

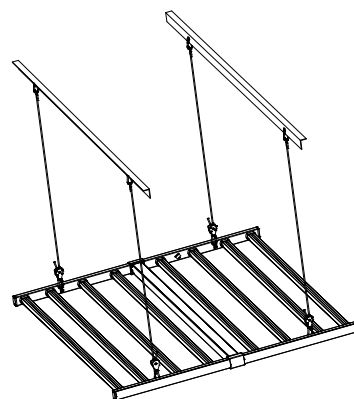
INSTALLATION (FOR DAISY CHAIN)



(A) Fix rope hangers

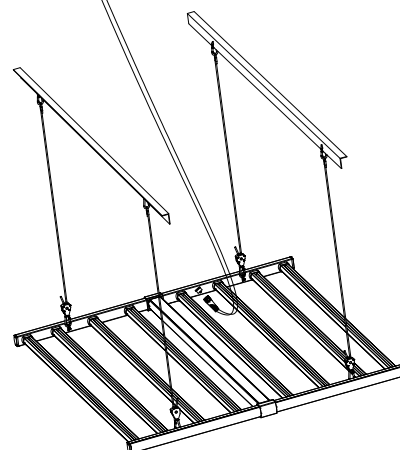
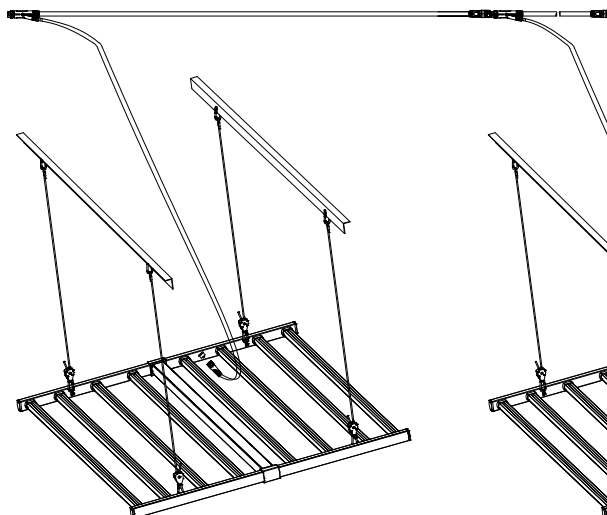


(B) Connect grow light to the rope hangers

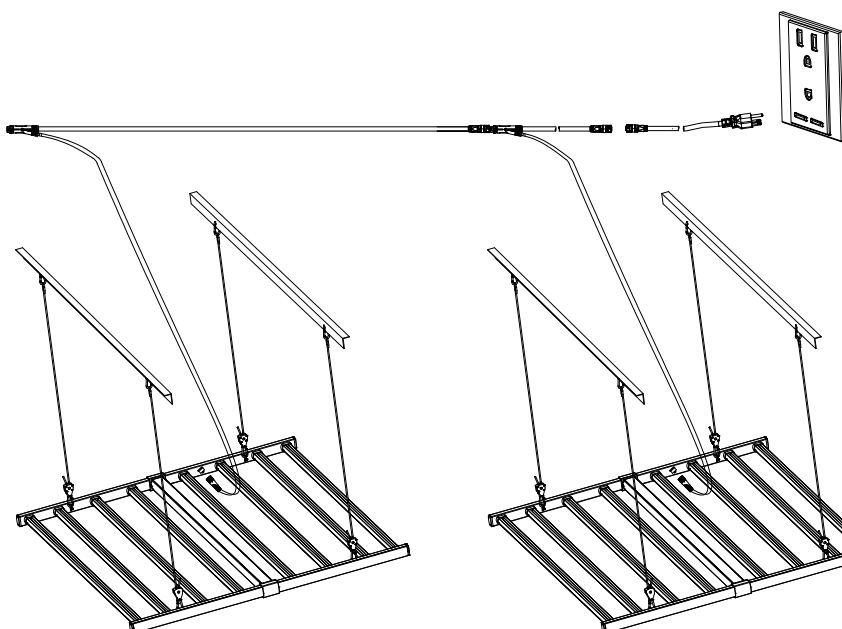


(C) Adjust rope hangers, make the light balanced

(D) Connect grow lights with daisy chain power cord (Max. Links up to 8 units)



(F) Connect grow light to the power source



IMPORTANT SAFETY PRECAUTIONS

READ CAREFULLY AND UNDERSTAND COMPLETELY BEFORE INSTALLING OR OPERATING THE FIXTURE.

RETAIN THIS INSTRUCTION FOR FUTURE REFERENCE.

To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards, please read all warnings and instructions, labels included with and on the fixture box and all fixtures. Installation of the fixture should be performed by a qualified licensed electrician.

Maintenance of the fixture should be performed by person(s) familiar with the fixture's construction and operation and any hazards involved. Regular maintenance programs are recommended.

Do not install damaged product! The fixture has been properly packed so that no parts should have been damaged during transit. Thoroughly inspect the fixture for any freight damages, freight damage should be reported to the delivery carrier.

WARNING: RISK OF ELECTRIC SHOCK

- The fixture must be wired in accordance with the national Electrical Code and all applicable local codes. Proper grounding is required for safety.
- All wiring connections should be capped with UL approved recognized wire connectors.
- Make sure power supply is OFF before installing or maintaining fixture.

WARNING: RISK OF FIRE

- DO NOT exceed maximum supply voltage or wattage marked on the fixture.
- DO NOT exceed fixture maximum ambient temperature or RH.
- DO NOT operate in close proximity to persons, combustible materials or substances affected by heat or drying.
- DO NOT place operating fixtures face down on a flush surface to avoid the risk of overheating or fire.

CAUTION: RISK OF INJURY

- These photobiological safety markings are based on testing of light output characteristic of single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.
- It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on, are aware of these risks and that appropriate safeguards are in place.

CAUTION: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

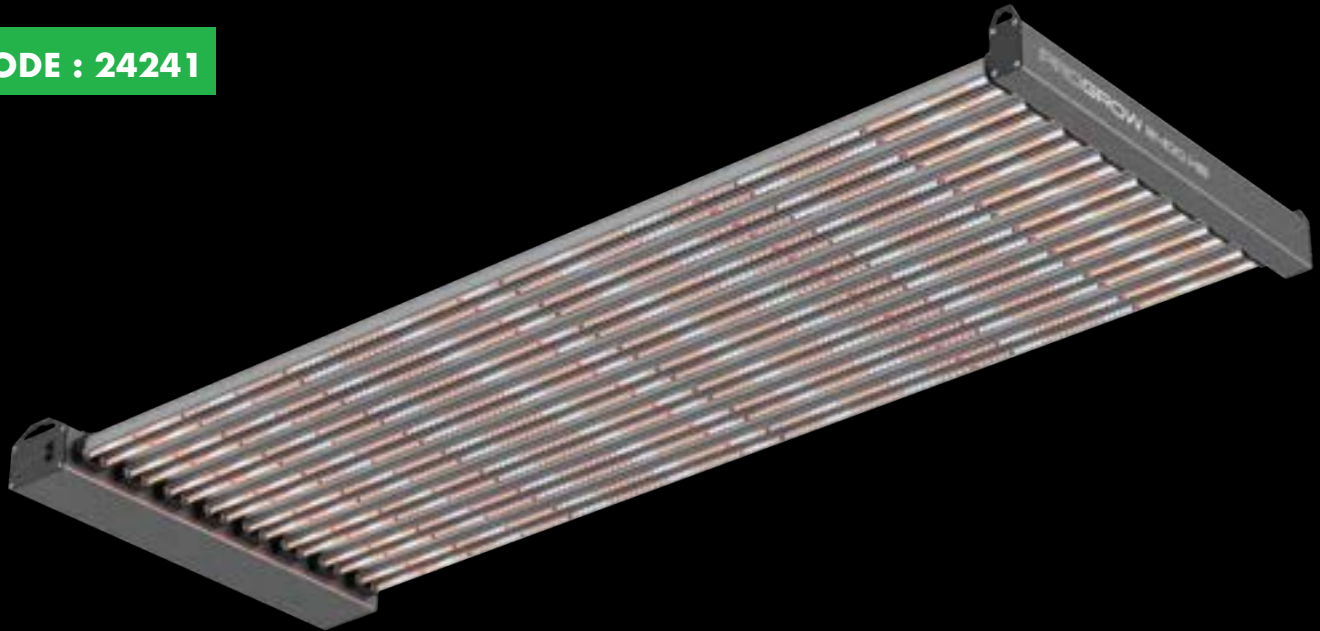
CAUTION: RISK OF PRODUCT DAMAGE

- **HANDLE WITH CARE!** Improper installing, operating and servicing might damage the product and void the warranty.
 - DO NOT mount or support this fixture in a manner that can cut the outer jacket or damage wire insulation.
 - DO NOT touch, handle, lift or adjust fixture using silver extrusions that LED modules are mounted to during all installation or servicing of the unit.
 - DO NOT touch or clean individual LEDs or other electrical components as this can cause Electrostatic Discharge (ESD), damage the fixture, shorten fixture's life, or alter performance. Personal grounding equipment must be worn during all installation or servicing of the unit.
 - REMOVE the protective film off LED modules before turning on the fixture.
- NEVER spray or wash the fixture with water or other liquids.
- CHECK for compatibility before wiring any control system for dimming, auto-sensing or remote control that are not factory-wired.
 - NEVER perform maintenance or cleaning while fixture is energized; allow fixture to cool before handling.
 - DO NOT conceal or extend power cord through a wall, floor, ceiling or other parts of the building structure.
 - DO NOT locate power cord above a suspended ceiling or dropped ceiling.
 - DO NOT permanently affix power cord to the building structure.
 - DO NOT route the power cord, which is subject to strain and protected.
 - KEEP the entire power supply cord to be visible after installation of the unit.
 - KEEP the maximum temperature of jacket shall be not more than 90°C.

PROGROW 2400 HB

High-Yield Indoor Cannabis LED Top-Lighting Solution

CODE : 24241

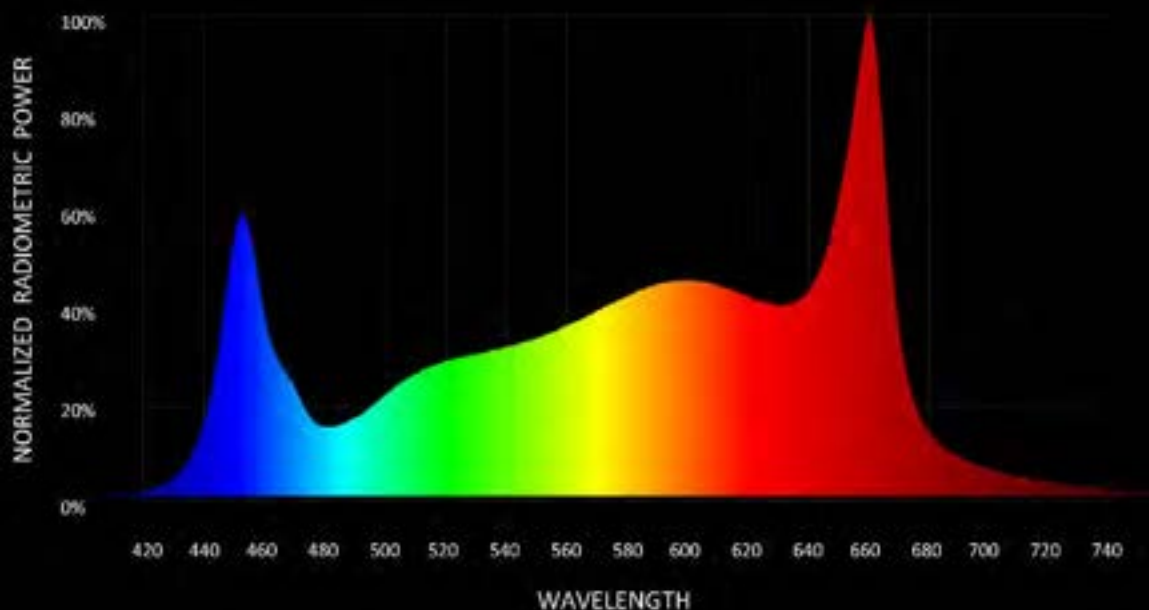


2,432 $\mu\text{mol/s}$

The PROGROW 2400 HB model is a high-output, remote-proximity, high-bay lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of up to 1,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



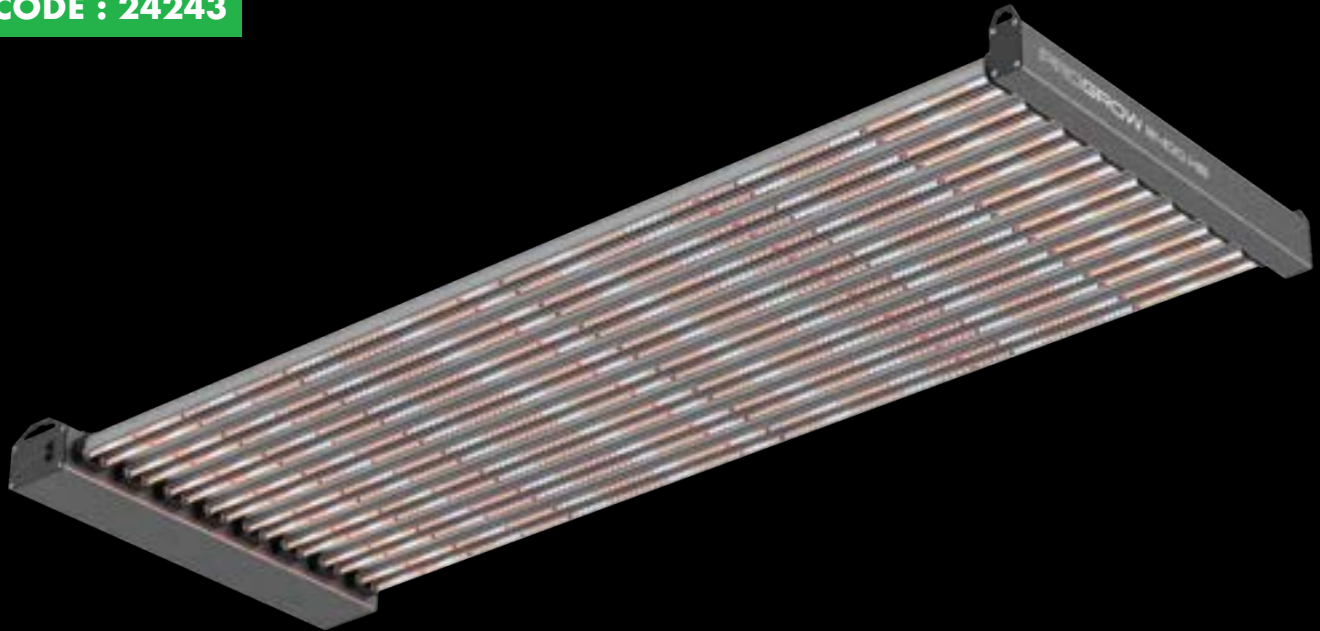
SPECIFICATION

MODEL NUMBER	GLS-PG-2400-HB-L-2
PPF	2,429 (umol/s)
PPE	2.93 (umol/j)
INPUT POWER	830 W
INPUT VOLTAGE	208-277 V
INPUT CURRENT	3.99 A @ 208 V, 2.99 A @ 277 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	DLC, ETL – UL1598, UL8800
DIMENSIONS	44.7" X 17.1" X 2.2"
WEIGHT	16.5 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

PROGROW 2400 HB

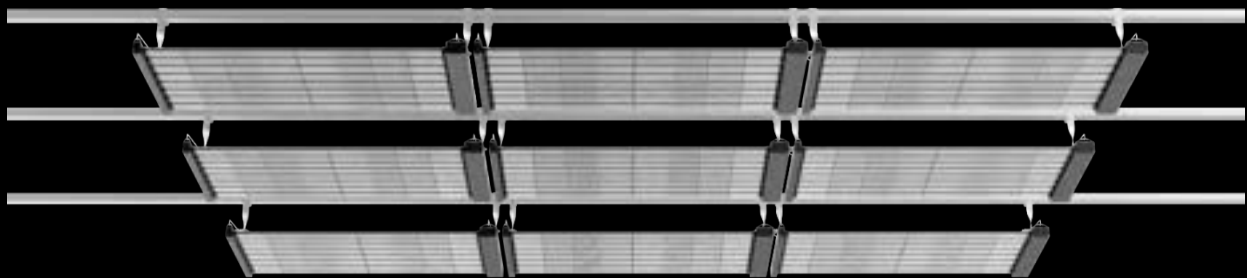
High-Yield Indoor Cannabis LED Top-Lighting Solution

CODE : 24243

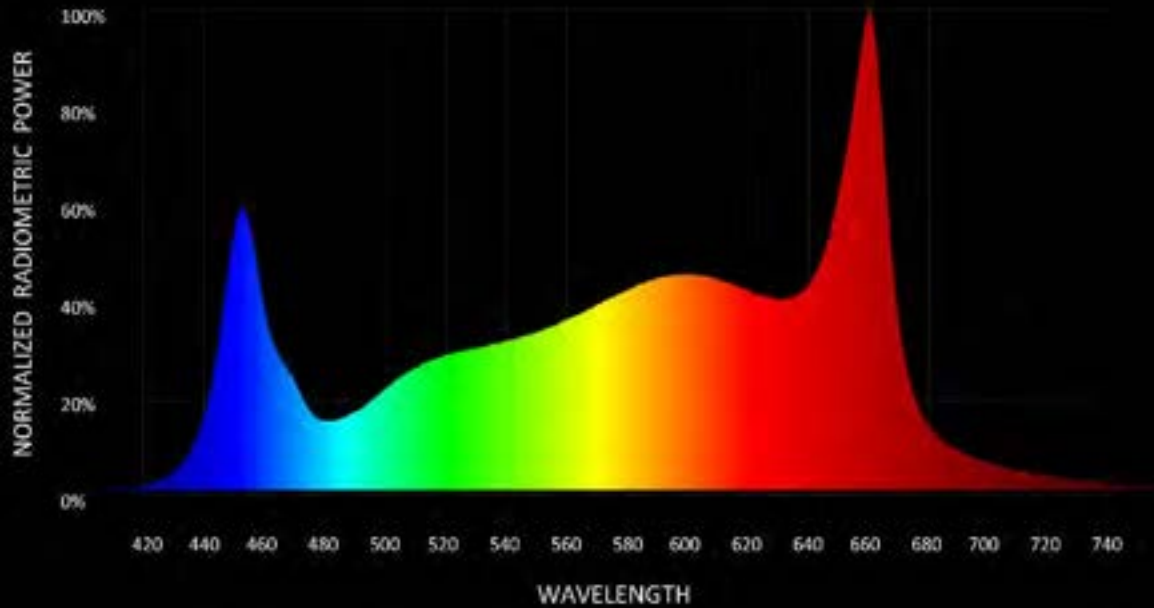


2,435 $\mu\text{mol/s}$

The PROGROW 2400 HB model is a high-output, remote-proximity, high-bay lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of up to 1,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



SPECIFICATION

MODEL NUMBER	GLS-PG-2400-HB-L-3
PPF	2,432 (umol/s)
PPE	2.94 (umol/j)
INPUT POWER	828 W
INPUT VOLTAGE	347 V
INPUT CURRENT	2.39 A
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	ETL – UL1598, UL8800
DIMENSIONS	44.7" X 17.1" X 2.2"
WEIGHT	16.5 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

PROGROW 2400 HB

GENERAL CARE OF YOUR FIXTURE

KEEP the minimum 15cm distances between adjacent lighting equipment and between the lighting equipment and combustible materials such as walls, ceilings, movable partitions, and the like; and between lighting equipment and other heat generating equipment (providing these installation limitations are needed to prevent overheating of lighting equipment, other equipment, or combustible materials within the installation environment);

ROUTINELY CHECK for and remove dust and debris buildup from LED modules, heat sink and LED driver. Cleaning shall be done using lower-pressure compressed air to rinse away dirt from LED modules.

NEVER touch individual LEDs with your fingers, which might lead to degradation or damage of the fixture.

KEEP the ambient temperature to be less than 40 °C. The users have to check the temperature by a thermometer before turning on power. If the ambient exceeds 40 °C within the growing space, the user needs to use a mechanical ventilation or cooling system before installation and this mechanical ventilation or cooling system is required to maintain the temperature within the growing space below 40 °C when the luminaire is in operation.

CULTIVATION GUIDE

ROUTINELY CHECK your plant's growth and health, adjust H₂O, CO₂, nutrients, temperature, RH (relative humidity) accordingly. Many plants prefer higher temperatures when exposed to high PPFD; experiment with higher temperature is recommended to achieve higher yields.

MAINTAIN a precise deployment of your fixture is very important to ensure optimal uniformity and consistent PPFD. The fixture shall be adjusted from time to time through the full cycle, at least 6 inch is recommended from top of your canopy.

ALWAYS test at the canopy level to gauge leaf surface temperature, since canopy temperature and room ambient temperature might vary.

TECHNICAL PARAMETERS

Input voltage: 220-277V AC; 50/60Hz

Dimensions: 47.0" L x 17.0" W x 2.8" H

Net Weight: 16.5lb

Operation Ambient temperature: 14 ~ 104 °F (-10 ~ 40 °C)

Beam Angle: 140°

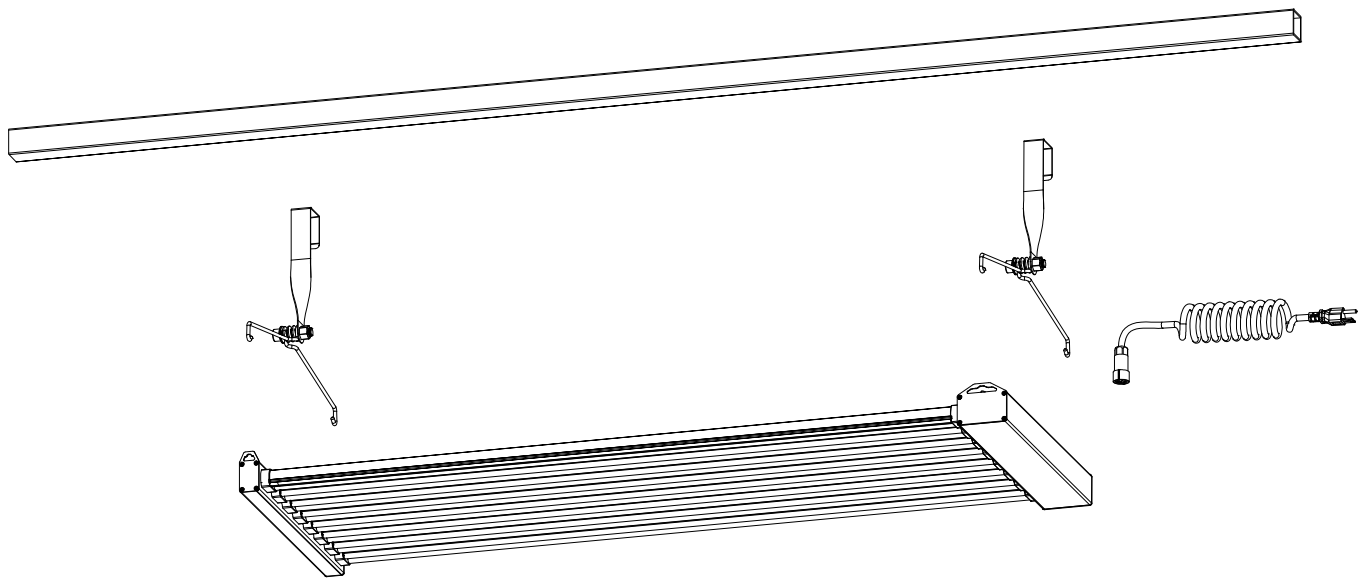
Two mounted RJ12 ports, 0-10 dimming, daisy chain

Mounting Height suggestion: ≥24" (60cm) Above Plant Canopy

ACCESSORY

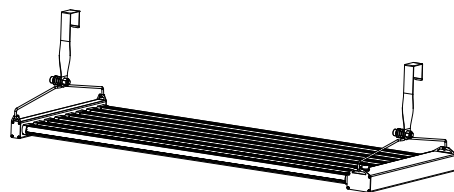
1. One 2-meters RJ12 network
2. One NEMA power cord, 10ft/Daisy chain cable, main cord 10AWG 5' & branch cord 16AWG 18"
3. Two Metal hangers

INSTALLATION (FOR 240V PLUG NEMA POWER CORD)



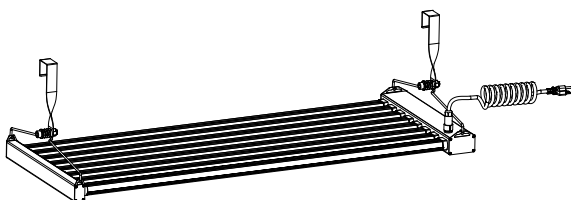
(A)

Check the metal hangers and adjust the right angle for installation



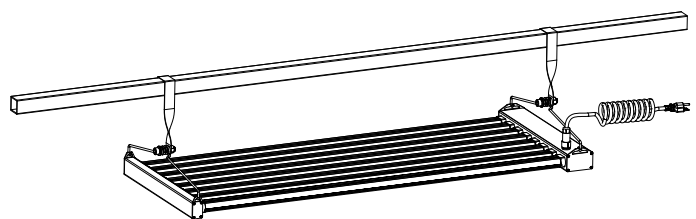
(B)

Connect the hangers with Grow light (LEDs facing downwards)



(C)

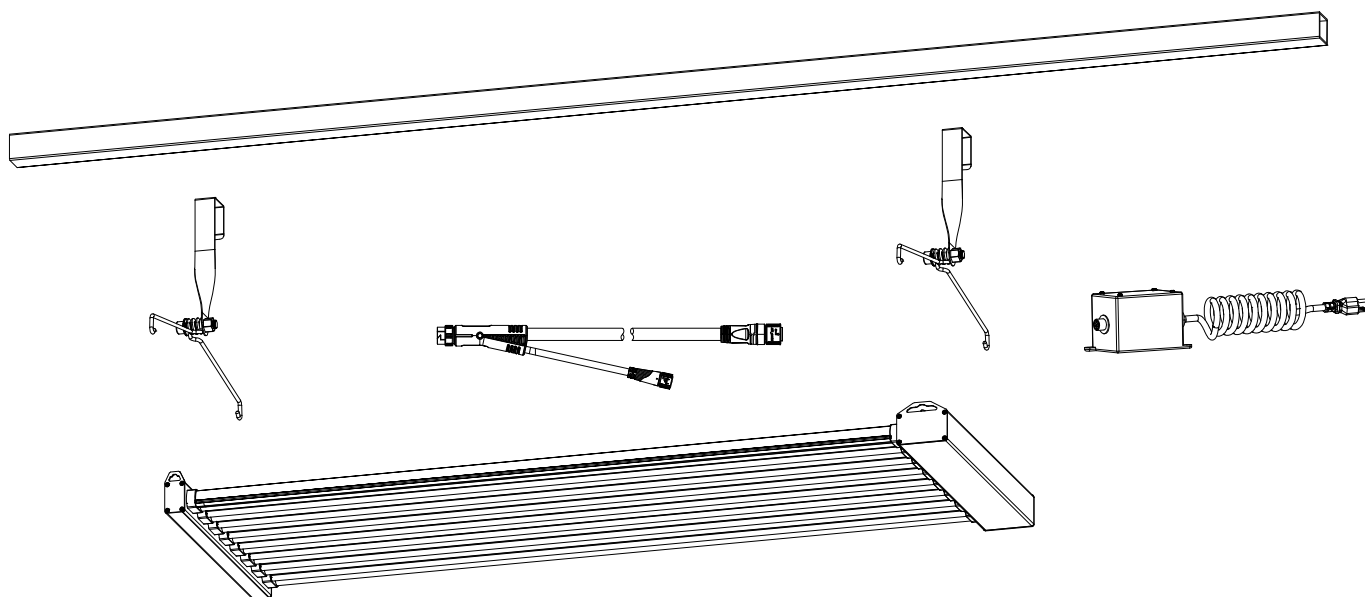
Plug the power cable to the connector



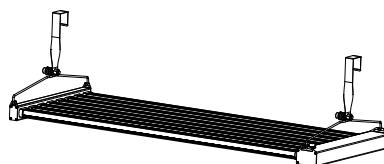
(D)

Hang on the grow light, connect to power source

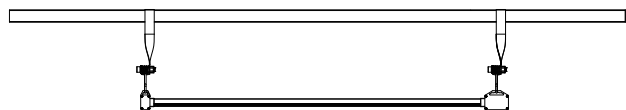
INSTALLATION (FOR DAISY CHAIN)



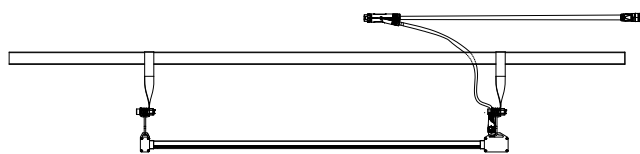
(A) Check the metal hangers and adjust the right angle for installation



(B) Connect the hangers with Grow light (LEDs facing downwards)



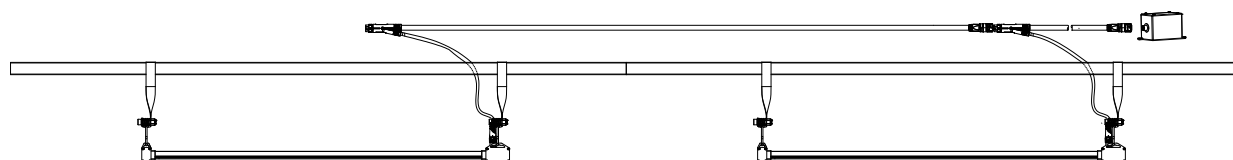
(C) Hang on the grow light



(D) Connect the branch cable of daisy chain cord to the grow light



(E) Repeat step A,B,C,D,connect one daisy chain cable with other
(1)for 820W grow light, the Max. links up to 8units
(2) for 1640W grow light, the Max. Links up to 4 units



(F) Plug the first daisy chain cable to the wire box,then connect to power source

IMPORTANT SAFETY PRECAUTIONS

READ CAREFULLY AND UNDERSTAND COMPLETELY BEFORE INSTALLING OR OPERATING THE FIXTURE.

RETAIN THIS INSTRUCTION FOR FUTURE REFERENCE.

To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards, please read all warnings and instructions, labels included with and on the fixture box and all fixtures. Installation of the fixture should be performed by a qualified licensed electrician.

Maintenance of the fixture should be performed by person(s) familiar with the fixture's construction and operation and any hazards involved. Regular maintenance programs are recommended.

Do not install damaged product! The fixture has been properly packed so that no parts should have been damaged during transit. Thoroughly inspect the fixture for any freight damages, freight damage should be reported to the delivery carrier.

WARNING: RISK OF ELECTRIC SHOCK

- The fixture must be wired in accordance with the national Electrical Code and all applicable local codes. Proper grounding is required for safety.
- All wiring connections should be capped with UL approved recognized wire connectors.
- Make sure power supply is OFF before installing or maintaining fixture.

WARNING: RISK OF FIRE

- DO NOT exceed maximum supply voltage or wattage marked on the fixture.
- DO NOT exceed fixture maximum ambient temperature or RH.
- DO NOT operate in close proximity to persons, combustible materials or substances affected by heat or drying.
- DO NOT place operating fixtures face down on a flush surface to avoid the risk of overheating or fire.

CAUTION: RISK OF INJURY

- These photobiological safety markings are based on testing of light output characteristic of single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.
- It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on, are aware of these risks and that appropriate safeguards are in place.

CAUTION: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

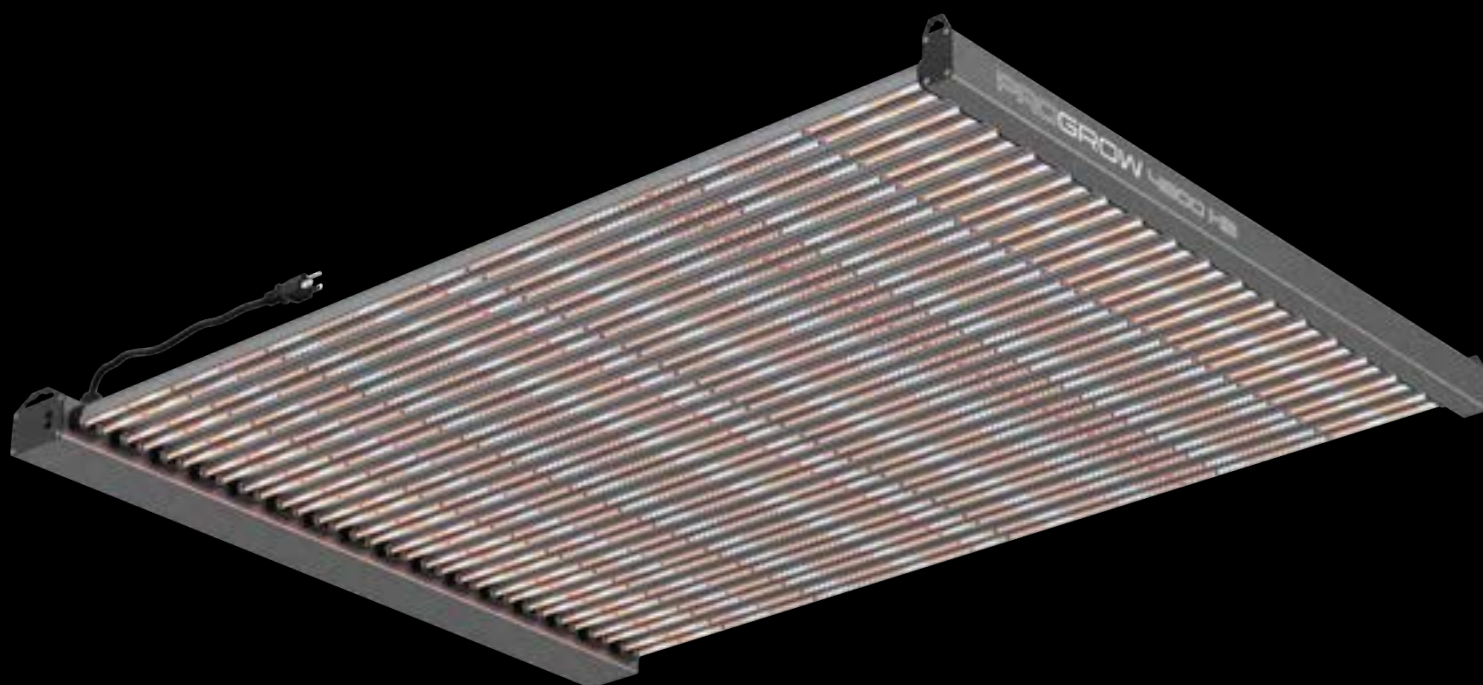
CAUTION: RISK OF PRODUCT DAMAGE

- **HANDLE WITH CARE!** Improper installing, operating and servicing might damage the product and void the warranty.
 - DO NOT mount or support this fixture in a manner that can cut the outer jacket or damage wire insulation.
 - DO NOT touch, handle, lift or adjust fixture using silver extrusions that LED modules are mounted to during all installation or servicing of the unit.
 - DO NOT touch or clean individual LEDs or other electrical components as this can cause Electrostatic Discharge (ESD), damage the fixture, shorten fixture's life, or alter performance. Personal grounding equipment must be worn during all installation or servicing of the unit.
 - REMOVE the protective film off LED modules before turning on the fixture.
- NEVER spray or wash the fixture with water or other liquids.
- CHECK for compatibility before wiring any control system for dimming, auto-sensing or remote control that are not factory-wired.
 - NEVER perform maintenance or cleaning while fixture is energized; allow fixture to cool before handling.
 - DO NOT conceal or extend power cord through a wall, floor, ceiling or other parts of the building structure.
 - DO NOT locate power cord above a suspended ceiling or dropped ceiling.
 - DO NOT permanently affix power cord to the building structure.
 - DO NOT route the power cord, which is subject to strain and protected.
 - KEEP the entire power supply cord to be visible after installation of the unit.
 - KEEP the maximum temperature of jacket shall be not more than 90°C.

SPECIAL ORDER

PROGROW 4800 HB

High-Intensity Indoor Cannabis LED Top-Lighting Solution

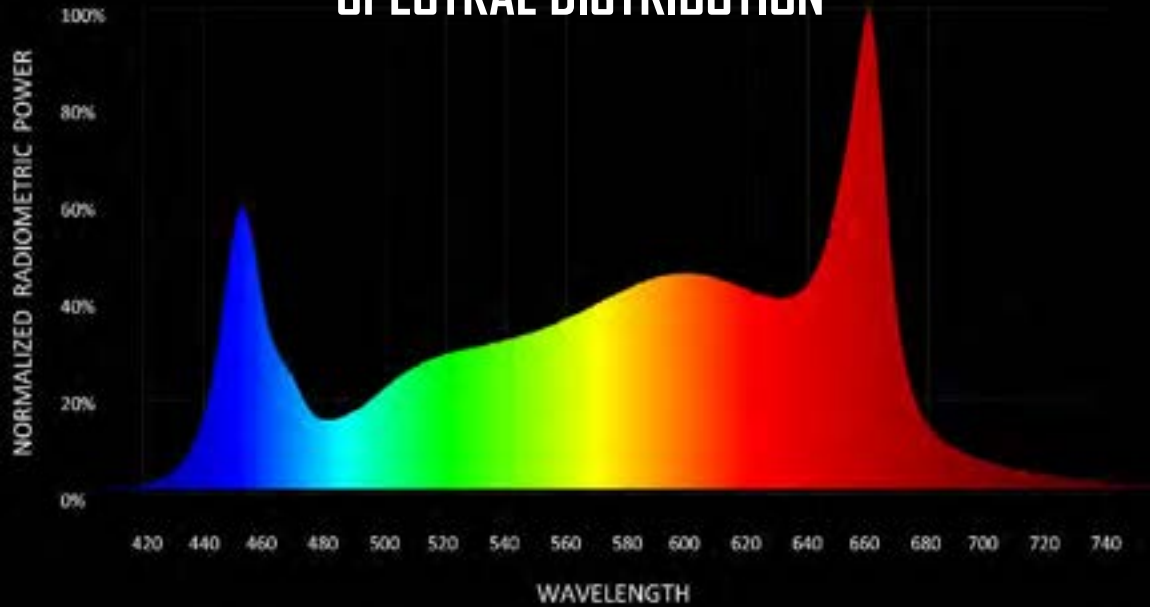


4,842 $\mu\text{mol/s}$

The PROGROW 4800 HB model is a super high-intensity, remote-proximity, high-bay lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of up to 2,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



SPECIFICATION

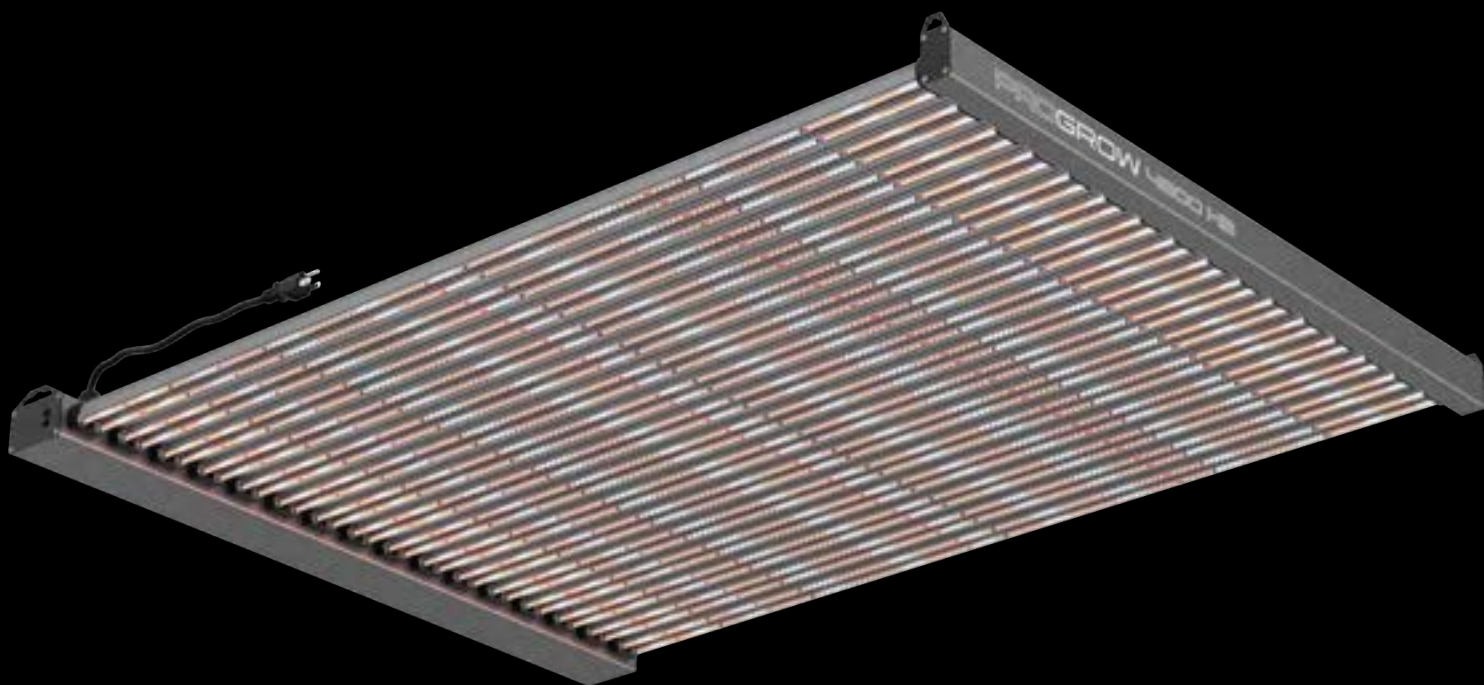
SPECIAL ORDER

MODEL NUMBER	GLS-PG-4800-HB-L-2
LIGHT SOURCE	LED
PPF	4,842 (umol/s)
PPE	2.9 (umol/j)
INPUT POWER	1,649 W
INPUT VOLTAGE	220-277V
INPUT CURRENT	7.50 A @ 220 V, 5.95 A @ 277 V
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	ETL – UL1598, UL8800
DIMENSIONS	44.7" X 33.8" X 2.8"
WEIGHT	20.9 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

SPECIAL ORDER

PROGROW 4800 HB

High-Intensity Indoor Cannabis LED Top-Lighting Solution

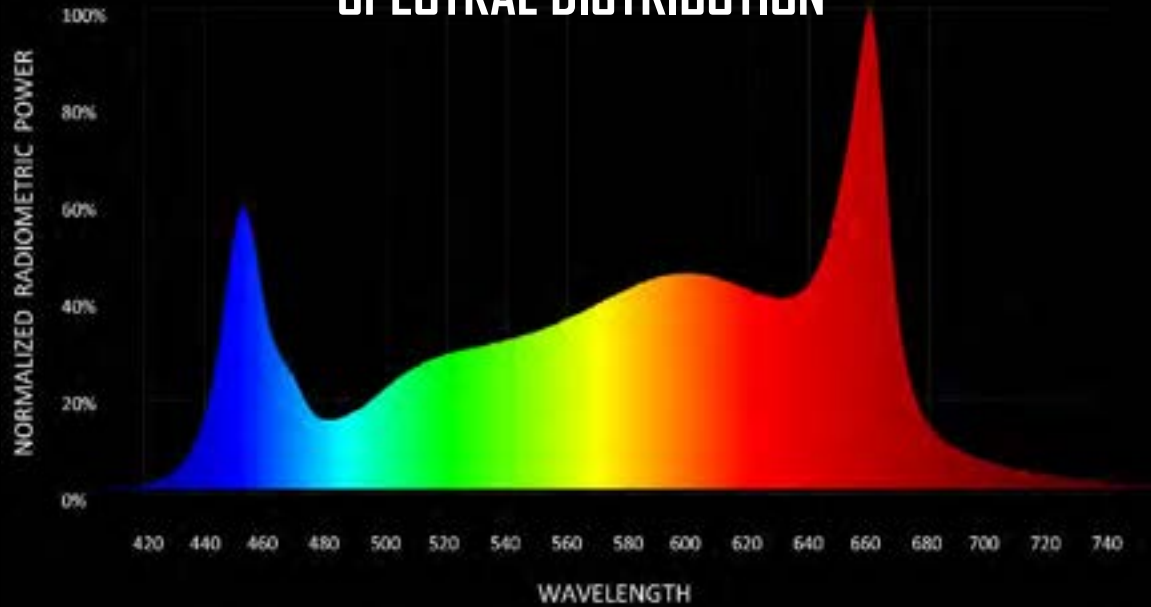


4,856 $\mu\text{mol/s}$

The PROGROW 4800 HB model is a super high-intensity, remote-proximity, high-bay lighting solution for indoor commercial cannabis cultivation. It is designed to deliver PPFD levels of up to 2,500 $\mu\text{mol/m}^2/\text{s}$ with excellent uniformity.



SPECTRAL DISTRIBUTION



SPECIFICATION

SPECIAL ORDER

MODEL NUMBER	GLS-PG-4800-HB-L-3
LIGHT SOURCE	LED
PPF	4,856 (umol/s)
PPE	2.9 (umol/j)
INPUT POWER	1,647 W
INPUT VOLTAGE	347 V
INPUT CURRENT	4.75 A
LIGHT DISTRIBUTION	120°
MAX AMBIENT TEMPERATURE	95°F / 35°C
DIMMING	0-10V, 10-100%
CERTIFICATION	ETL – UL1598, UL8800
DIMENSIONS	44.7" X 33.8" X 2.8"
WEIGHT	20.9 LBS
INGRESS PROTECTION	WET LOCATION RATED
WARRANTY	5 YEARS

PROGROW 4800 HB

GENERAL CARE OF YOUR FIXTURE

KEEP the minimum 15cm distances between adjacent lighting equipment and between the lighting equipment and combustible materials such as walls, ceilings, movable partitions, and the like; and between lighting equipment and other heat generating equipment (providing these installation limitations are needed to prevent overheating of lighting equipment, other equipment, or combustible materials within the installation environment);

ROUTINELY CHECK for and remove dust and debris buildup from LED modules, heat sink and LED driver. Cleaning shall be done using lower-pressure compressed air to rinse away dirt from LED modules.

NEVER touch individual LEDs with your fingers, which might lead to degradation or damage of the fixture.

KEEP the ambient temperature to be less than 40 °C. The users have to check the temperature by a thermometer before turning on power. If the ambient exceeds 40 °C within the growing space, the user needs to use a mechanical ventilation or cooling system before installation and this mechanical ventilation or cooling system is required to maintain the temperature within the growing space below 40 °C when the luminaire is in operation.

CULTIVATION GUIDE

ROUTINELY CHECK your plant's growth and health, adjust H₂O, CO₂, nutrients, temperature, RH (relative humidity) accordingly. Many plants prefer higher temperatures when exposed to high PPFD; experiment with higher temperature is recommended to achieve higher yields.

MAINTAIN a precise deployment of your fixture is very important to ensure optimal uniformity and consistent PPFD. The fixture shall be adjusted from time to time through the full cycle, at least 6 inch is recommended from top of your canopy.

ALWAYS test at the canopy level to gauge leaf surface temperature, since canopy temperature and room ambient temperature might vary.

TECHNICAL PARAMETERS

Input voltage: 220-277V AC; 50/60Hz

Dimensions: 47.0" L x 33.8" W x 2.8" H

Net Weight: 20.9lb

Operation Ambient temperature: 14 ~ 104 °F (-10 ~ 40 °C)

Beam Angle: 140°

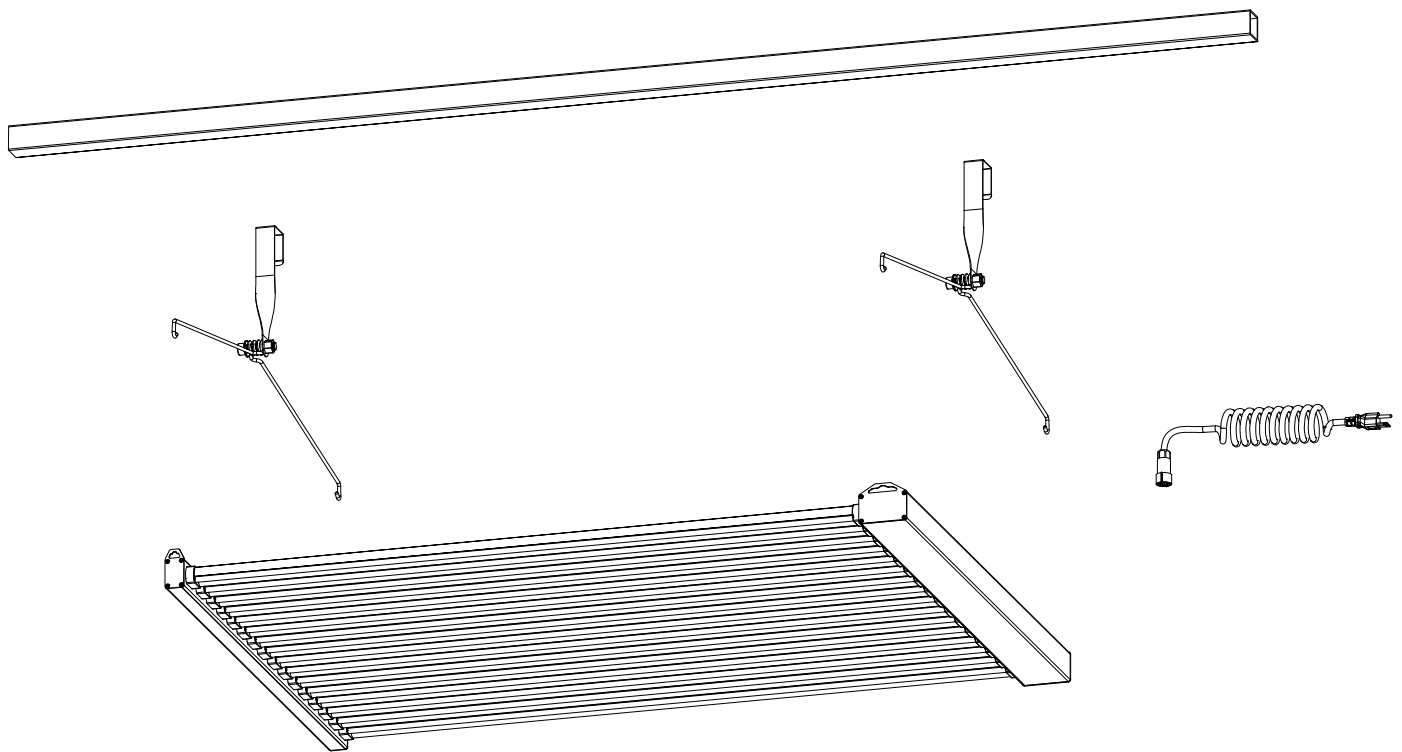
Two mounted RJ12 ports, 0-10 dimming, daisy chain

Mounting Height suggestion: ≥24" (60cm) Above Plant Canopy

ACCESSORY

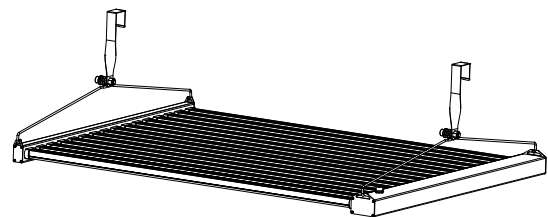
1. One 2-meters RJ12 network
2. One NEMA power cord, 10ft/Daisy chain cable, main cord 10AWG 5' & branch cord 16AWG 18"
3. Two Metal hangers

INSTALLATION (FOR 240V PLUG NEMA POWER CORD)



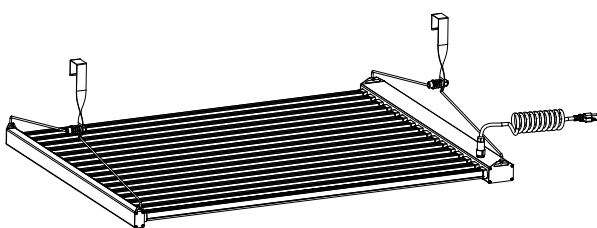
(A)

Check the metal hangers and adjust the right angle for installation



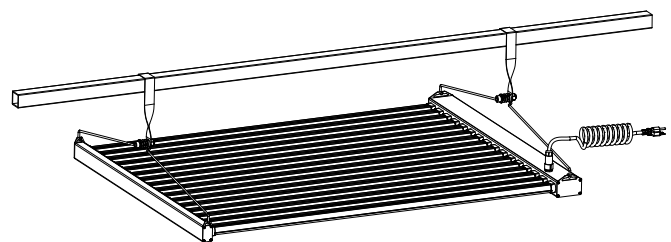
(B)

Connect the hangers with Grow light (LEDs facing downwards)



(C)

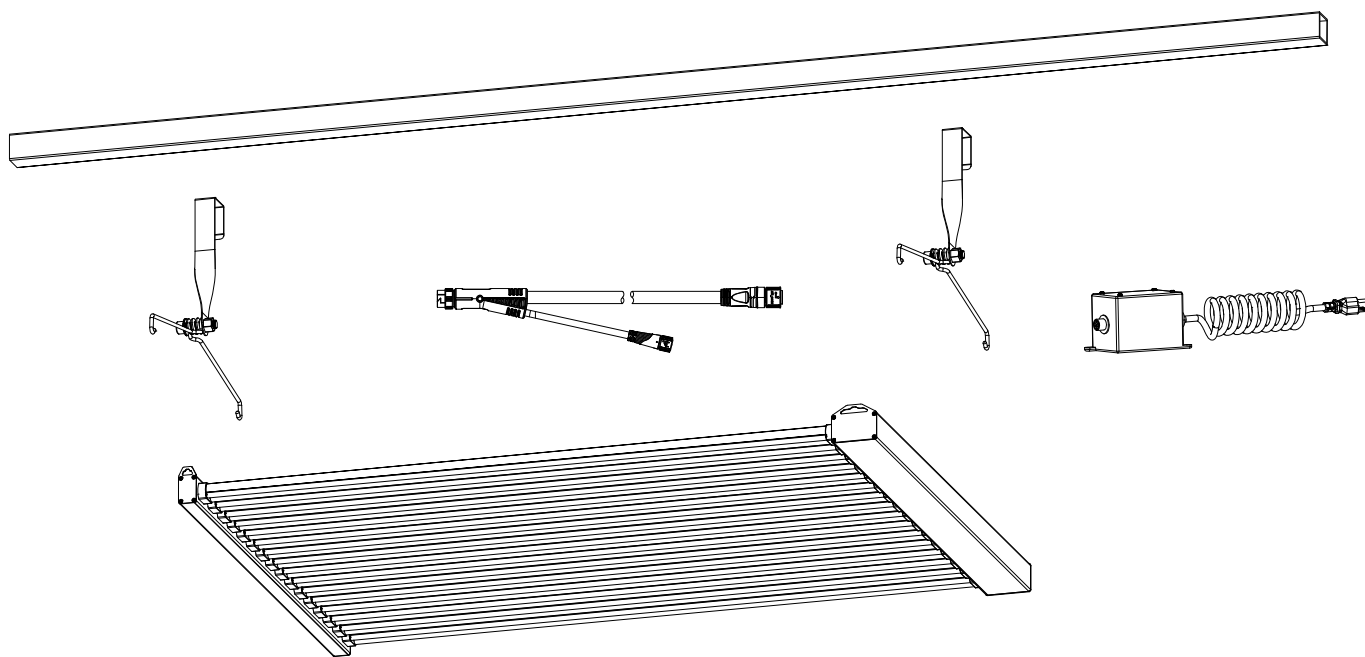
Plug the power cable to the connector



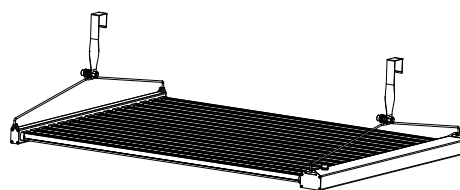
(D)

Hang on the grow light, connect to power source

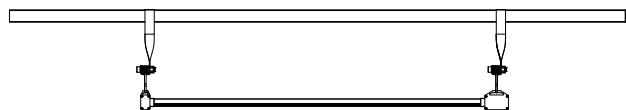
INSTALLATION (FOR DAISY CHAIN)



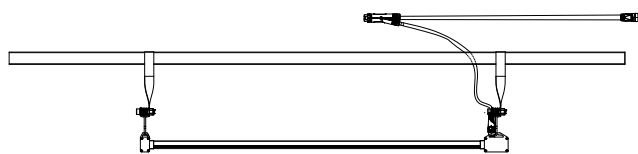
(A) Check the metal hangers and adjust the right angle for installation



(B) Connect the hangers with Grow light (LEDs facing downwards)



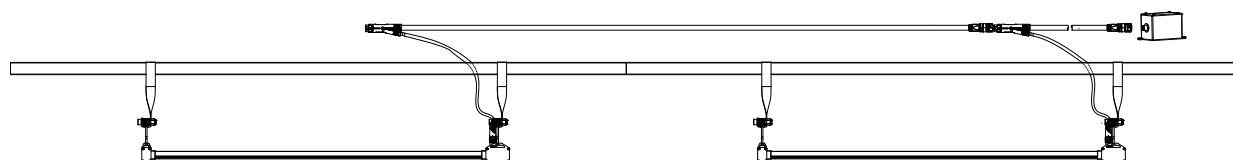
(C) Hang on the grow light



(D) Connect the branch cable of daisy chain cord to the grow light



(E) Repeat step A,B,C,D,connect one daisy chain cable with other
(1)for 820W grow light, the Max. links up to 8units
(2) for 1640W grow light, the Max. Links up to 4 units



(F) Plug the first daisy chain cable to the wire box,then connect to power source

IMPORTANT SAFETY PRECAUTIONS

READ CAREFULLY AND UNDERSTAND COMPLETELY BEFORE INSTALLING OR OPERATING THE FIXTURE.

RETAIN THIS INSTRUCTION FOR FUTURE REFERENCE.

To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards, please read all warnings and instructions, labels included with and on the fixture box and all fixtures. Installation of the fixture should be performed by a qualified licensed electrician.

Maintenance of the fixture should be performed by person(s) familiar with the fixture's construction and operation and any hazards involved. Regular maintenance programs are recommended.

Do not install damaged product! The fixture has been properly packed so that no parts should have been damaged during transit. Thoroughly inspect the fixture for any freight damages, freight damage should be reported to the delivery carrier.

WARNING: RISK OF ELECTRIC SHOCK

- The fixture must be wired in accordance with the national Electrical Code and all applicable local codes. Proper grounding is required for safety.
- All wiring connections should be capped with UL approved recognized wire connectors.
- Make sure power supply is OFF before installing or maintaining fixture.

WARNING: RISK OF FIRE

- DO NOT exceed maximum supply voltage or wattage marked on the fixture.
- DO NOT exceed fixture maximum ambient temperature or RH.
- DO NOT operate in close proximity to persons, combustible materials or substances affected by heat or drying.
- DO NOT place operating fixtures face down on a flush surface to avoid the risk of overheating or fire.

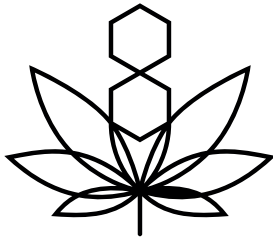
CAUTION: RISK OF INJURY

- These photobiological safety markings are based on testing of light output characteristic of single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.
- It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on, are aware of these risks and that appropriate safeguards are in place.

CAUTION: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

CAUTION: RISK OF PRODUCT DAMAGE

- **HANDLE WITH CARE!** Improper installing, operating and servicing might damage the product and void the warranty.
 - DO NOT mount or support this fixture in a manner that can cut the outer jacket or damage wire insulation.
 - DO NOT touch, handle, lift or adjust fixture using silver extrusions that LED modules are mounted to during all installation or servicing of the unit.
 - DO NOT touch or clean individual LEDs or other electrical components as this can cause Electrostatic Discharge (ESD), damage the fixture, shorten fixture's life, or alter performance. Personal grounding equipment must be worn during all installation or servicing of the unit.
 - REMOVE the protective film off LED modules before turning on the fixture.
- NEVER spray or wash the fixture with water or other liquids.
- CHECK for compatibility before wiring any control system for dimming, auto-sensing or remote control that are not factory-wired.
 - NEVER perform maintenance or cleaning while fixture is energized; allow fixture to cool before handling.
 - DO NOT conceal or extend power cord through a wall, floor, ceiling or other parts of the building structure.
 - DO NOT locate power cord above a suspended ceiling or dropped ceiling.
 - DO NOT permanently affix power cord to the building structure.
 - DO NOT route the power cord, which is subject to strain and protected.
 - KEEP the entire power supply cord to be visible after installation of the unit.
 - KEEP the maximum temperature of jacket shall be not more than 90°C.



GROW[®]
LIGHT SCIENCE

Precision Lighting. Proven Science.

Contact a BioFloral sales representative to discuss your project today.

Exclusively Distributed in
Canada by BioFloral



INFOWEST@BIOFLORAL.COM



www.growlightscience.com

BIOFLORAL WEST
604.438.4025
WEST.BIOFLORAL.COM

Scan for more information

