

# DIMLUX

XTREME SERIES LED  
XTREME SERIES LED +NIR



**DIMLUX**

## USER MANUAL

Engineered & Designed in Holland

[www.theclimatefactory.com](http://www.theclimatefactory.com)

Manual version 0621 2022

# INTRODUCING THE MOST POWERFUL AND SMART LED GROW LIGHT ON THE MARKET!

## THE DIMLUX XTREME SERIES LED.

12 Years ago, Dimlux introduced the first ever groundbreaking remote controlled HPS ballast in combination with the Maxi Controller; The Dimlux Extreme Series. Today, Dimlux introduces the smartest, most efficient and most powerful grow light on the market, the Dimlux Xtreme Series LED!

**Again we are in the forefront of innovation.**

### **DIMLUX XTREME SERIES 500W LED**

Adjustable PhytoVegSpec® (+NIR) Indoor



#### *Spectrum Adjustable PhytoVegSpec® Indoor*

Light Output (PPF)	1500 µmol/s
Light Output Total (PPF 350-800nm)	1571 µmol/s
PAR Photon Efficacy (400-700nm)	2.81 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.91 µmol/J @ 230-240V AC
AC Input Power	540W @ 230-240V AC

#### *Spectrum Adjustable PhytoVegSpec® +NIR Indoor*

Light Output (PPF)	1420 µmol/s
Light Output Total (PPF 350-800nm)	1550 µmol/s
PAR Photon Efficacy (400-700nm)	2.67 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.87 µmol/J @ 230-240V AC
AC Input Power	540W @ 230-240V AC

AC Input Voltage	120-277V AC, 50/60Hz
Beam Angle	90° × 120°

Optics	<b>Patented</b> Deep Penetration Ultra High Transmittance Lens
Auxiliary Light	<b>Patented</b> Light Pipe Multi Color 65k
Proximity sensor	Doppler Radar
Mounting Height Above Canopy	20-50 cm / 7.8-19.7 in
Thermal Management	Passive
Max. Ambient Temperature	40°C / 105°F

## DIMLUX XTREME SERIES 750W LED

Adjustable PhytoVegSpec® (+NIR) Indoor



### Spectrum Adjustable PhytoVegSpec® Indoor

Light Output (PPF)	2276 µmol/s
Light Output Total (PPF 350-800nm)	2357 µmol/s
PAR Photon Efficacy (400-700nm)	2.85 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.95 µmol/J @ 230-240V AC
AC Input Power	799W @ 230-240V AC

### Spectrum Adjustable PhytoVegSpec® +NIR Indoor

Light Output (PPF)	2159 µmol/s
Light Output Total (PPF 350-800nm)	2317 µmol/s
PAR Photon Efficacy (400-700nm)	2.7 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.9 µmol/J @ 230-240V AC
AC Input Power	799W @ 230-240V AC

AC Input Voltage	120-277V AC, 50/60Hz
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Beam Angle	90° × 120°
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Optics	<b>Patented</b> Deep Penetration Ultra High Transmittance Lens
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Auxiliary Light	<b>Patented</b> Light Pipe Multi Color 65k
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Proximity sensor	Doppler Radar
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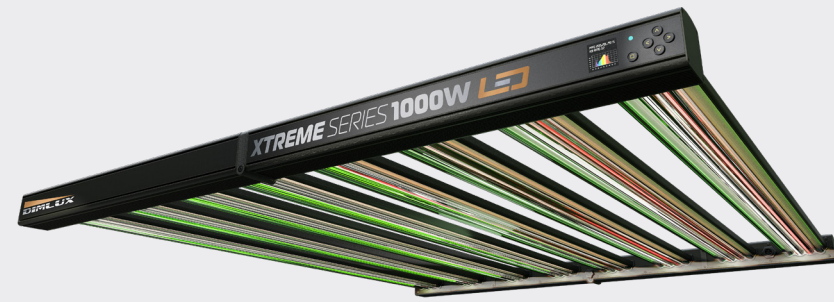
Mounting Height Above Canopy	30-65 cm / 11.8-25.5 in
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Thermal Management	Passive
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Max. Ambient Temperature	40°C / 105°F
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## DIMLUX XTREME SERIES 1000W LED

Adjustable PhytoVegSpec® (+NIR) Indoor



### Spectrum Adjustable PhytoVegSpec® Indoor

Light Output (PPF)	3035 µmol/s
Light Output Total (PPF 350-800nm)	3142 µmol/s
PAR Photon Efficacy (400-700nm)	2.85 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.95 µmol/J @ 230-240V AC
AC Input Power	1065 @ 230-240V AC

### Spectrum Adjustable PhytoVegSpec® +NIR Indoor

Light Output (PPF)	2879 µmol/s
Light Output Total (PPF 350-800nm)	3059 µmol/s
PAR Photon Efficacy (400-700nm)	2.7 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.9 µmol/J @ 230-240V AC
AC Input Power	1065W @ 230-240V AC

AC Input Voltage	120-277V AC, 50/60Hz
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Beam Angle	90° × 120°
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Optics	<b>Patented</b> Deep Penetration Ultra High Transmittance Lens
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Auxiliary Light	<b>Patented</b> Light Pipe Multi Color 65k
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Proximity sensor	Doppler Radar
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Mounting Height Above Canopy	40-85 cm / 15.7-31.4 in
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Thermal Management	Passive
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Max. Ambient Temperature	40°C / 105°F
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## IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS

- Please read this manual thoroughly before attempting to install or operate any Dimlux Xtreme Series LED system.
- After successful installation and configuration of the system, be sure to retain this manual in a safe place for future reference. Safety is a key component to a long lasting and trouble-free installation.
- It is important you read, fully understand, and observe the subsequent safety precautions. If you are not comfortable with the installation of high performance lighting systems, you should seek the services of a qualified installation professional.
- **NOTICE:** Do not touch the fixture besides the control buttons near the display while in operation.
- Connect the system only to the power sources of the appropriate voltage using the AC plug type received. Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet and the unit. Only connect the system to an electrical outlet or extension cord of appropriate type and rating. Connect the system only to the power sources of the correct voltage using the plug received.
- **DO NOT** defeat the safety purpose of a grounding or polarized plug by removing ground pins or using unsafe adapters. A polarized plug has two blades –one wider than the other. A grounding plug has a third ground prong in addition to the two main conductors. The wide blade or third grounding prong is provided for your safety.

If the provided plug does not fit your outlet, consult an electrician to replace your obsolete outlet. If you replace the power cord, only use one of similar type and equal or greater current rating.

- The system should only be cleaned as directed in the manual. You should seek service for your system by qualified service personnel if any of the following occur:
  1. The power-supply cord or the plug has been damaged
  2. The unit has been exposed to rain
  3. The unit exhibits a marked change in performance
  4. The unit has been dropped, or its enclosure or chassis is damaged

## CULTIVATION BEST PRACTICES

- Check the growth and health of your plants regularly. Dimlux lighting systems deliver high PPF levels, typically more than experienced in nature. Adjustments to H<sub>2</sub>O, CO<sub>2</sub>, RH, nutrients and temperature are usually required. Because the LED fixture does not give off radiant heat towards the plants, it is recommended to work with the Dimlux Plant temperature camera to determine the correct plant temperature.
- The Xtreme Series LED is designed to provide a uniform light distribution in the shape of a square. How high?

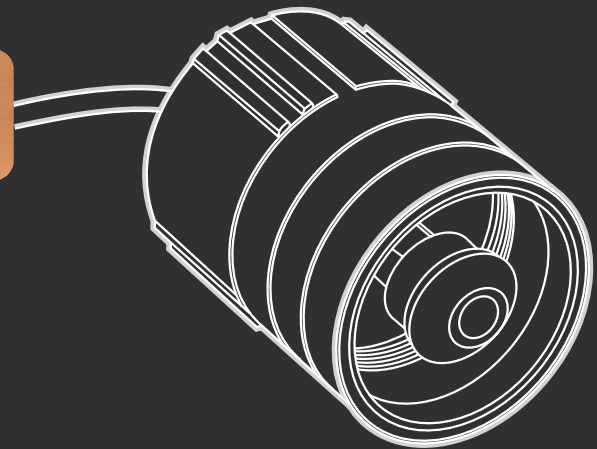
There is a very simple and unique way to determine the minimum height of the luminaire. The rule of thumb is that the shortest distance from armature to crop is half the distance between the armatures (centre size) in a multi-luminaire set-up. It doesn't matter whether the LED is 500 Watt or 1000 Watt. A 1000 Watt fixture should illuminate a larger area than a 500 Watt fixture, which automatically increases the distance between reflector and crop.
- Due to the lack of radiant heat with LED, the plant temperature will be considerably lower than with HPS. As a result, the temperature of the plant and the ambient temperature in the room vary enormously, so controlling for ambient temperature is no longer sufficient. For accurate results, you can measure the temperature of the leaf surface using the Dimlux plant temperature camera that can be connected directly to the LED fixture.
- Many plants prefer higher temperatures when exposed to high PPF. Experiment with higher temperatures to achieve higher yields. Canopy temperature and room ambient temperature often vary for accurate results, test at the canopy level to gauge leaf surface temperature.

## WE AT DIMLUX ADVISE TO USE THE DIMLUX PLANT TEMPERATURE CAMERA

With this DimLux plant temperature camera, the DimLux Xtreme Series LED can indicate whether the crop is in the ideal temperature range. If it is outside this range it will be indicated on the display and by the auxiliary lighting. When connected to the Maxi Controller, the lighting dims based on the plant temperature if it gets too high due to, for example, a water shortage. If the set value is exceeded, it is dimmed first to keep the temperature under control. If the temperature rises despite dimming, half of the dimmed lamps will switch off, if the temperature continues to rise, all lamps will switch off for at least 20 minutes.

## GENERAL CARE

- Natural convection removes heat away from the heatsink. In order for the system to properly cool itself, at least 5cm (two inch) of space is required between the fixture and the ceiling of your grow area. Failure to do so may shorten the fixture's lifespan.
- To achieve the optimal lifespan and performance of your fixtures, routinely check for and remove excess dust, debris, and mineral build up from heatsink and LED array.
- Cleaning should always be done with the fixture disconnected from the power source using compressed air to the frame and heatsink or a damp cloth to wipe debris from light bars.



**WARNING:**  
**THESE PRODUCTS MAY REPRESENT A POSSIBLE SHOCK OR FIRE HAZARD IF IMPROPERLY INSTALLED OR ATTACHED IN ANY WAY. PRODUCTS SHOULD BE INSTALLED IN ACCORDANCE WITH THE OWNERS MANUAL, CURRENT ELECTRICAL CODES AND/OR THE CURRENT NATIONAL ELECTRIC CODE (NEC).**



**DIMLUX XTREME SERIES LED ARE HIGH-PERFORMANCE LIGHTING SYSTEMS DO NOT TOUCH WHILE IN OPERATION.**



**LAST AND MOST IMPORTANT, PLEASE RECYCLE ALL PACKAGING MATERIAL. FUTURE GENERATIONS WILL THANK YOU.**

## SYSTEM HARDWARE & ACCESSORIES

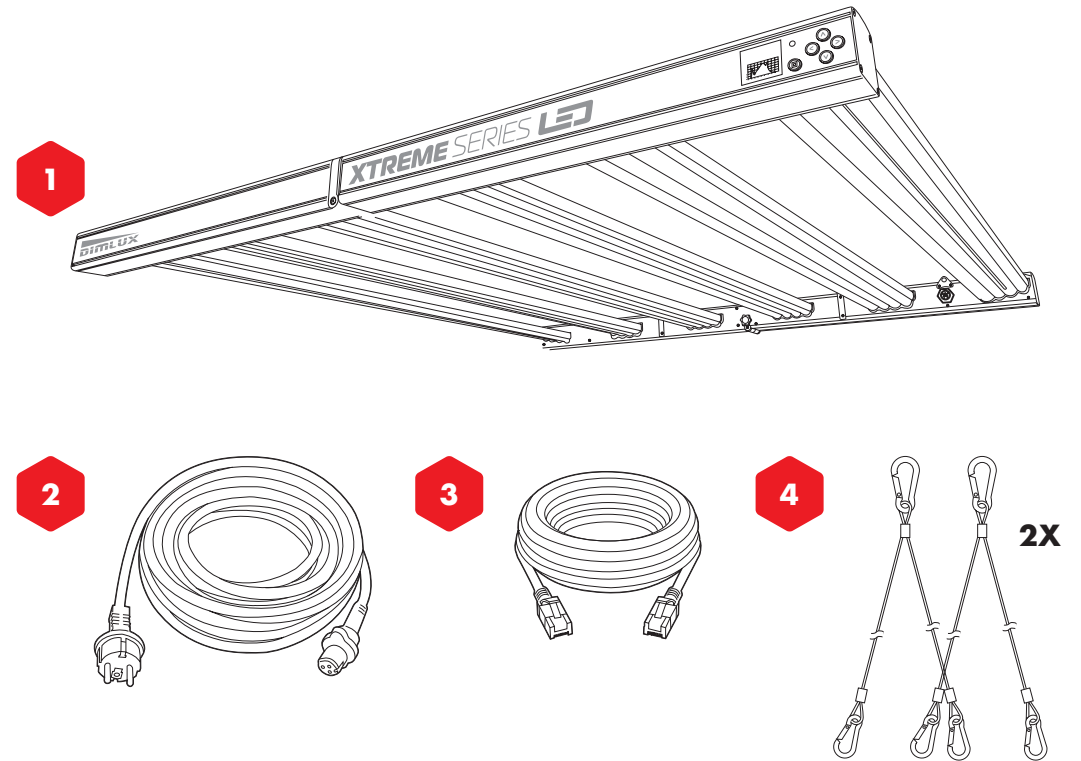
### SYSTEM HARDWARE

(Depending on your product selection at the time of purchase)

- 1 Xtreme 500W LED (+), Xtreme 750W LED (+) or Xtreme 1000W LED (+) fixture pre-configured with:
- 2 **Standard DC Cable** (EU/UK/USA) (based on the continent of purchase)
- 3 **Digital Interlink Cable** (based on the LED fixture of purchase)  
Dimlux Xtreme Series 500W LED (+) > 2 m / 80 in - Digital Interlink Cable  
Dimlux Xtreme Series 750W LED (+) > 2.5 m / 100 in - Digital Interlink Cable  
Dimlux Xtreme Series 1000W LED (+) > 3 m / 120 in - Digital Interlink Cable

### MOUNTING HARDWARE OPTIONS

- 4 2x bayonet mounting cables

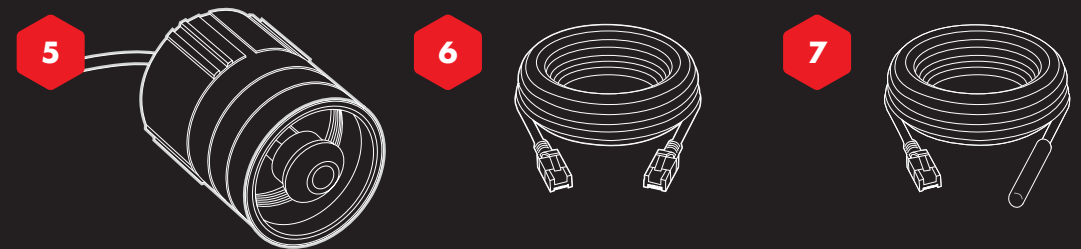


### AVAILABLE ACCESSORIES

- 5 **Dimlux** Digital Plant Temperature Camera
- 6 Digital Interlink Cables available in different lengths:

0.6 m (24 in.)	1.0 m (40 in.)	1.5 m (60 in.)	2.0 m (80 in.)
2.5 m (100 in.)	3.5 m (140 in.)	5.0 m (200 in.)	10.0 m (400 in.)
- 7 Digital Smartport Temperature sensor

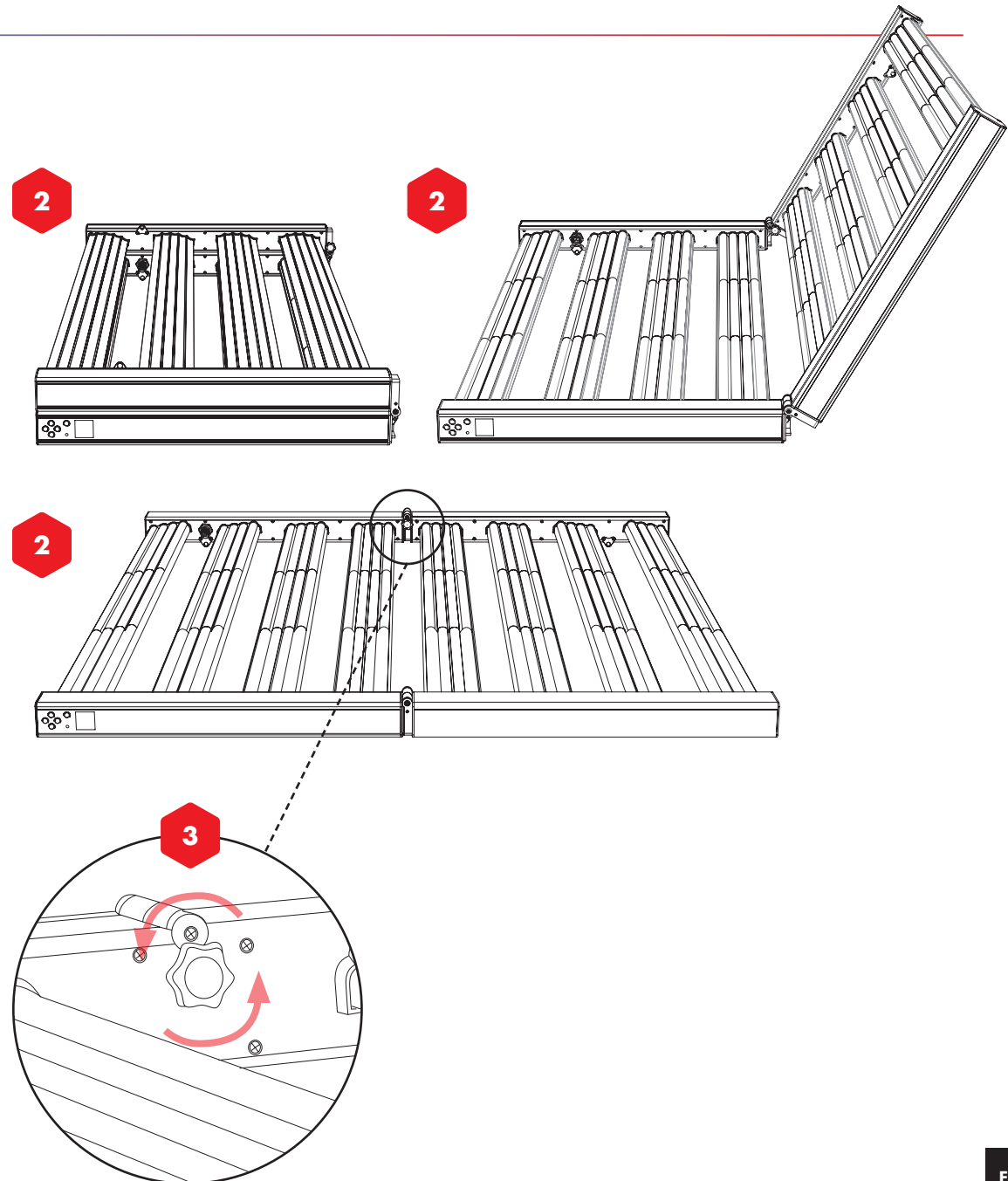
1.0 m (40 in.)	5.0 m (200 in.)	10.0 m (400 in.)
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## ASSEMBLY INSTRUCTIONS

**TAKE CAUTION WHEN HANDLING LIGHT BARS. ENSURE THE LED/LENSES DO NOT COME IN CONTACT WITH SHARP OBJECTS OR FORCE THAT MAY DAMAGE THE LENSES**

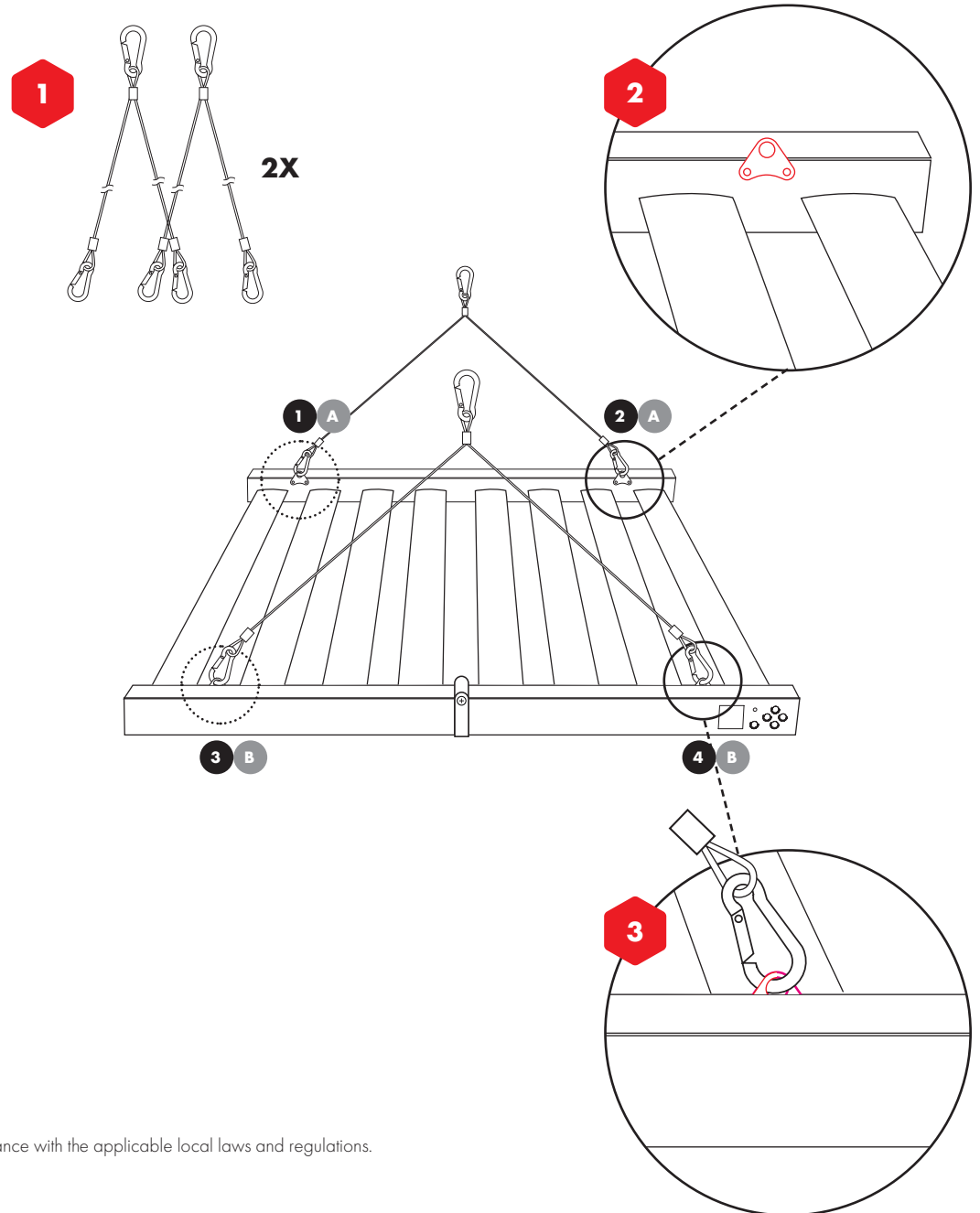
- 1** Unbox The Dimlux Xtreme LED and check that all in the indicated system and mounting hardware are present in the box.
- 2** Unfold module and place on flush, stable surface then carefully turnaround the fixture so the lenses are facing downwards.
- 3** When unfolded use the tighten knob on both insides of the hinge and turn counter clockwise to fixate the Xtreme LED fixture.
- 4** Always check whether hinge is tightly fixated.
- 5** The Dimlux Xtreme LED Fixture is ready to be mounted.



## MOUNTING INSTRUCTIONS

Make sure the fixture still is on a flush, stable surface with the lenses facing downwards and follow the next steps;

- 1** Take the supplied mounting cables.
- 2** The Dimlux Xtreme LED fixture has 4 hang tails in each corner of the fixture.
- 3** Mount the mounting cable to the hang tails 1A and 2A and the other mounting cable to 3B and 4B.



**⚠ Warning!** Mounting and installing of the LED fixture may only be executed by certified service personnel, in accordance with the applicable local laws and regulations.

**⚠ Warning!** Mount the system to something that can hold the weight of the LED fixture.



## SETTING UP INTERLINK CONNECTION

### SET UP YOUR LED FIXTURE INTERLINK CONFIGURATION BEFORE CONNECTING THE DIMLUX XTREME LED FIXTURES TO A POWER SUPPLY

Make sure the fixture still is on a flush, stable surface with the lenses facing downwards and follow the next steps;

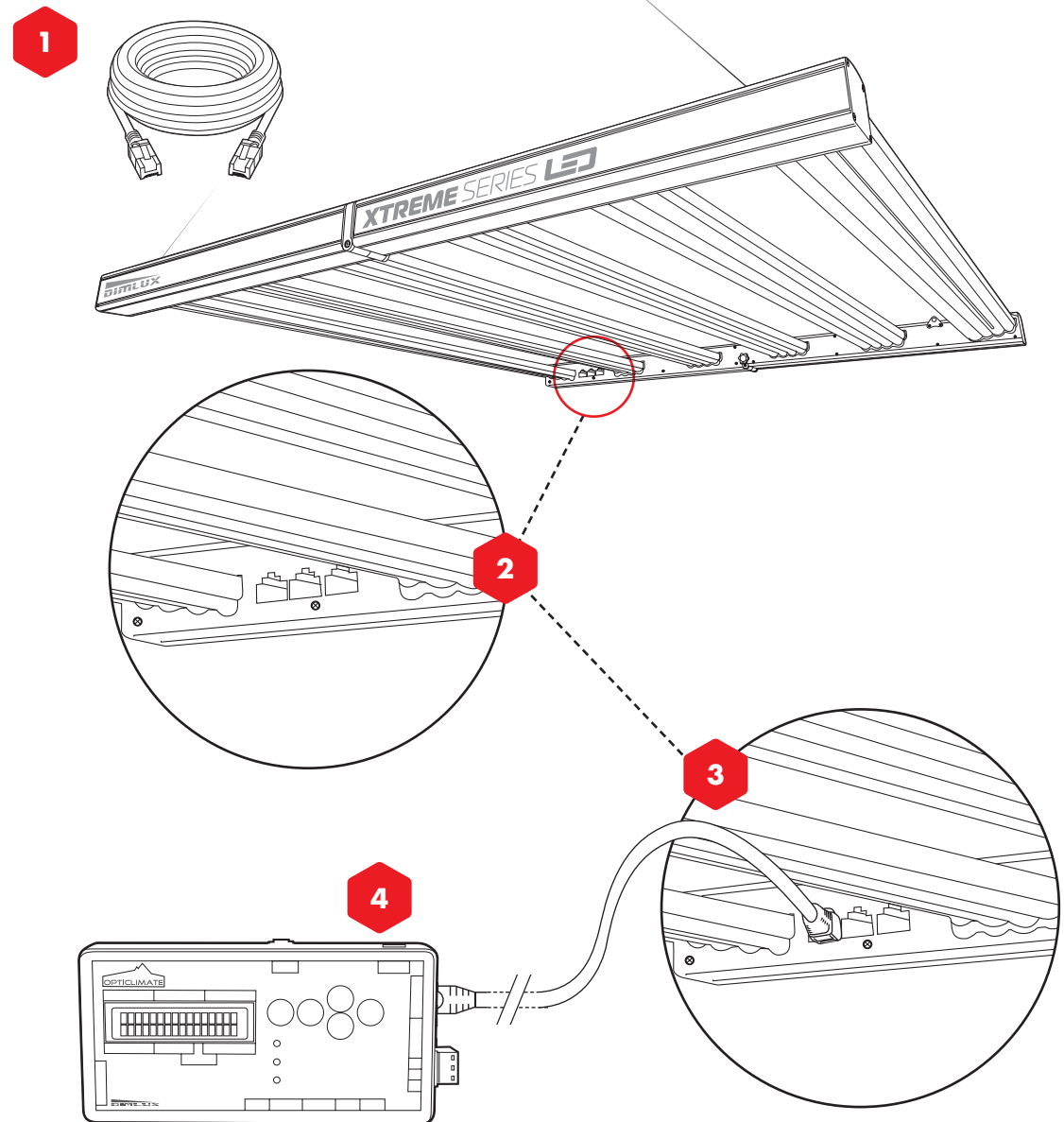
- 1** Take the supplied Interlink Communication Cable.
- 2** Search for the 3 Interlink sockets on the Dimlux Xtreme LED fixture.
- 3** Insert the plug of the interlink cable from the Maxi controller into the 1st of the 3 interlink sockets on the Dimlux Xtreme LED fixture.
- 4** You can use the Dimlux Maxi Controller to control the Dimlux Xtreme LED (or 160 Dimlux Xtreme LEDs connected in series).

**NOTE** Do not forget to set the Dimlux Maxi Controller to LED modus

### CONNECT UP TO 160 DIMLUX XTREME LED FIXTURES

The Maxi Controller sends a signal to the fixtures to switch them on or off. There are 2 out ports on the Maxi Controller. Each port can switch up to 80 fixtures using the oem interlink cables and splitters. Interlink cables are available in different lengths. That is 160 Dimlux Xtreme LED fixtures in total.

**More information on page 15.**

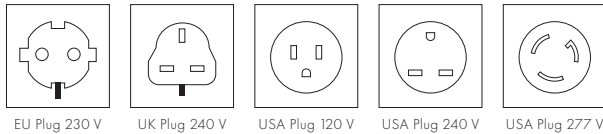


## CONNECTING THE LED FIXTURE TO THE MAINS

**SET UP YOUR LED FIXTURE INTERLINK CONFIGURATION BEFORE CONNECTING THE DIMLUX XTREME LED FIXTURES TO A POWER SUPPLY.**

**⚠ Warning!** Make sure mains power is switched off.

**1** Take the supplied Power Cable. (EU/UK/USA)

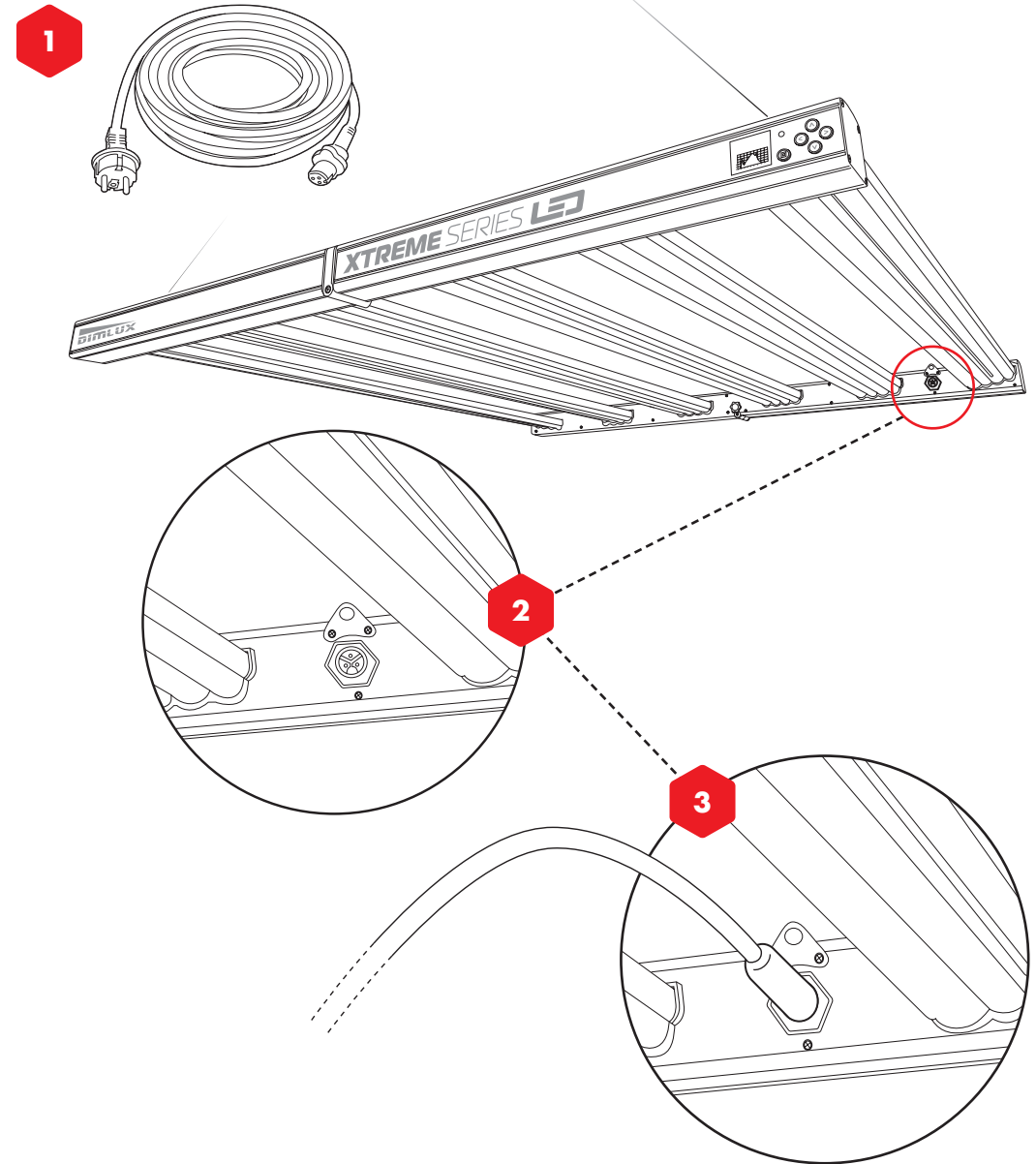


**2** Search for the round power sockets on the Dimlux Xtreme LED fixture.

**3** Insert the round waterproof powerplug in to the power socket on the Dimlux Xtreme LED fixture and make sure it is firmly and fully plugged in.

We advise you to route the cables through the top of the fixture.

**NOTE** make sure that power and all other electrical wiring is done by a certified electrician.



**⚠ Warning!** Make sure mains power is switched off. **⚠ Warning!** Ensure the cord is not coiled and does not touch any hot surfaces. **⚠ Warning!** Connect the cables according to local rules, safety regulations and electrical code. **⚠ Warning!** Ensure external switching gear can cope with the inrush current of the LED fixture. Always use a double pole contactor suitable for switching a capacitive load. Never use household timers to switch the LED fixture!

## LCD DISPLAY NAVIGATION

### ALL SETTINGS, STATUS, ERRORS AND SPECTRA ARE SHOWN ON 1.54" 65K COLOR IPS LCD DISPLAY

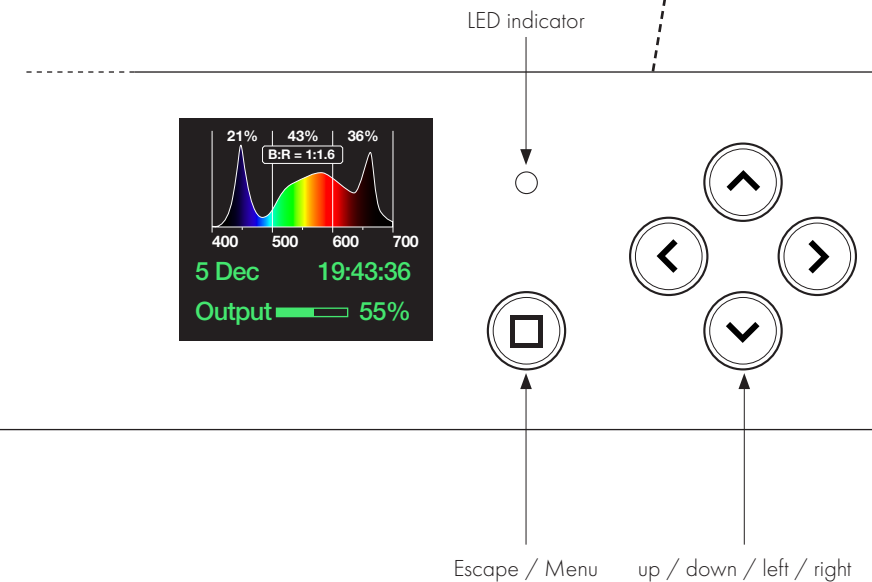
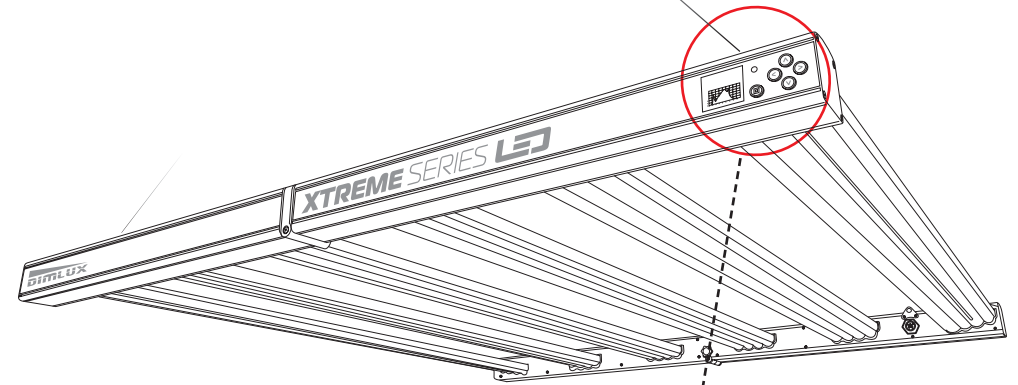
With the 5 buttons on the fixture you can easily navigate through the setting, status, errors and spectra. Below you will find the function of each button.

You need to use the display to adjust the functionalities/settings of the fixture.

By pressing the button with the square you activate the display. Use the up/down arrows to navigate through the settings. If you are on a setting and use the right arrow you go to the subsettings / functionalities.

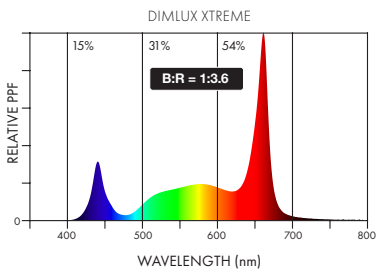
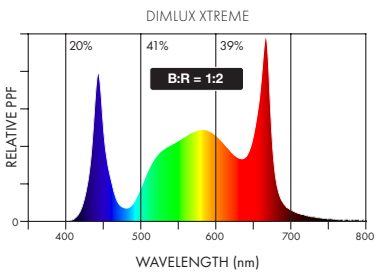
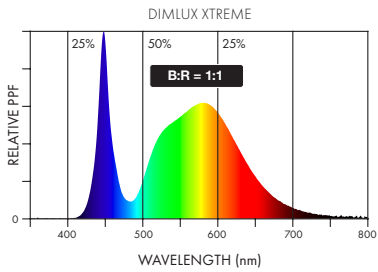
Any adjustment in setting must be confirmed with the button with square.

If the LCD display is not operated for 2 minutes, it will jump back to home and the display will go to 50%, 25% or 10% brightness.

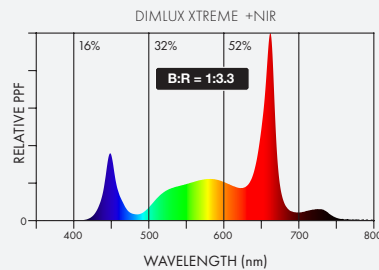
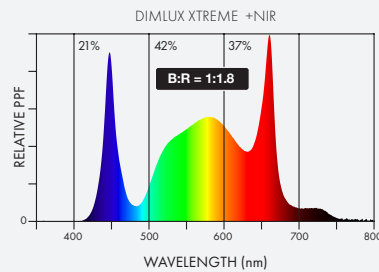
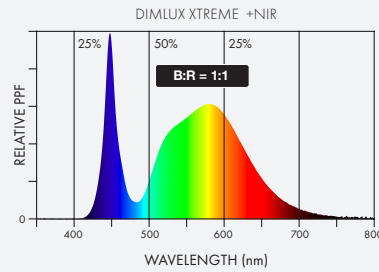


Depending on your choice of LED fixture it has been equipped with an **Adjustable PhytoVegSpec® Indoor** or **Adjustable PhytoVegSpec® +NIR Indoor** spectrum. Please check your fixture for your specific configuration.

## PhytoVegSpec® Indoor



## PhytoVegSpec® +NIR Indoor



## LIGHT SOURCE

### 500W LED (+NIR)

### 750W LED (+NIR)

### 1000W LED (+NIR)

#### Spectrum Adjustable PhytoVegSpec® Indoor

Light Output (PPF)	1500 µmol/s	2276 µmol/s	3035 µmol/s
<b>Light Output Total (PPF 350-800nm)</b>	<b>1571 µmol/s</b>	<b>2357 µmol/s</b>	<b>3142 µmol/s</b>
PAR Photon Efficacy (400-700nm)	2.81 µmol/J @ 230-240V AC	2.85 µmol/J @ 230-240V AC	2.85 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.91 µmol/J @ 230-240V AC	2.95 µmol/J @ 230-240V AC	2.95 µmol/J @ 230-240V AC
AC Input Power	540W @ 230-240V AC	799W @ 230-240V AC	1065W @ 230-240V AC

#### Spectrum Adjustable PhytoVegSpec® +NIR Indoor

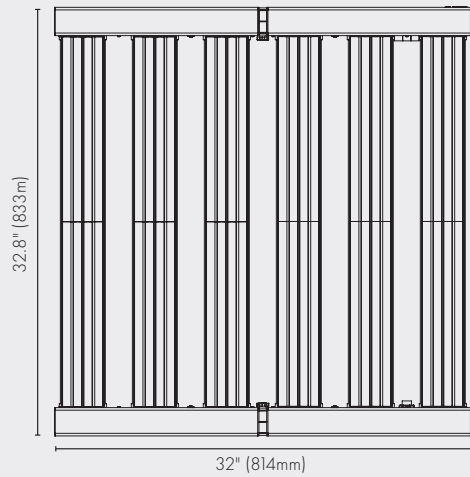
Light Output (PPF)	1420 µmol/s	2159 µmol/s	2879 µmol/s
<b>Light Output Total (PPF 350-800nm)</b>	<b>1550 µmol/s</b>	<b>2317 µmol/s</b>	<b>3089 µmol/s</b>
PAR Photon Efficacy (400-700nm)	2.67 µmol/J @ 230-240V AC	2.7 µmol/J @ 230-240V AC	2.7 µmol/J @ 230-240V AC
Total Photon Efficacy (350-800nm)	2.87 µmol/J @ 230-240V AC	2.9 µmol/J @ 230-240V AC	2.9 µmol/J @ 230-240V AC
AC Input Power	540W @ 230-240V AC	799W @ 230-240V AC	1065W @ 230-240V AC

AC Input Voltage	120-277V AC, 50/60Hz		
Beam Angle	90° × 120°		
Optics	Patented Deep Penetration Ultra High Transmittance Lens		
Auxiliary Light	Patented Light Pipe Multi Color 65k		
Proximity sensor	Doppler Radar		
Mounting Height Above Canopy	20-50 cm / 7.8-19.7 in	30-65 cm / 11.8-25.5 in	40-85 cm / 15.7-31.4 in
Thermal Management	Passive		
Max. Ambient Temperature	40°C / 105°F		
Control	By Maxi Controller or Internal Controller		
Smartports (3x)	Interlink, Plant Temperature Sensor, Light Sensor		
Display For Spectrum and GUI	1.54" 65k Color IPS		
Total Harmonic Distortion (THD)	< 10%		
Lifetime L90	> 50,000h		
IP Rating	IP65		

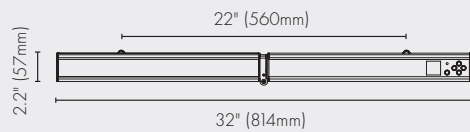
## XTREME SERIES **500W LED**

Adjustable PhytoVegSpec<sup>®</sup> (+NIR) Indoor

### TOP VIEW



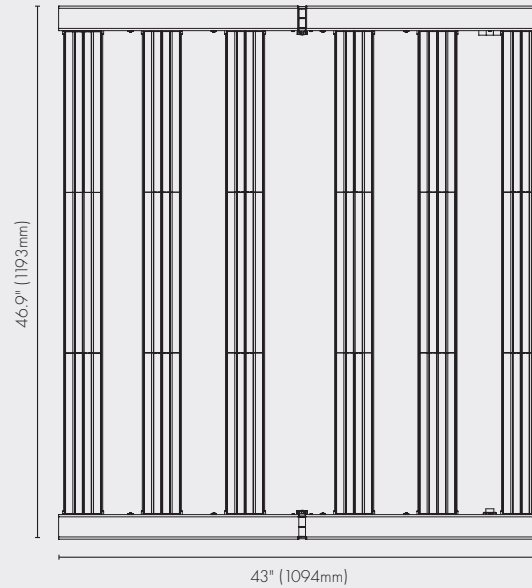
### SIDE VIEW



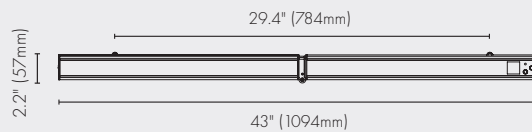
## XTREME SERIES **750W LED**

Adjustable PhytoVegSpec<sup>®</sup> (+NIR) Indoor

### TOP VIEW



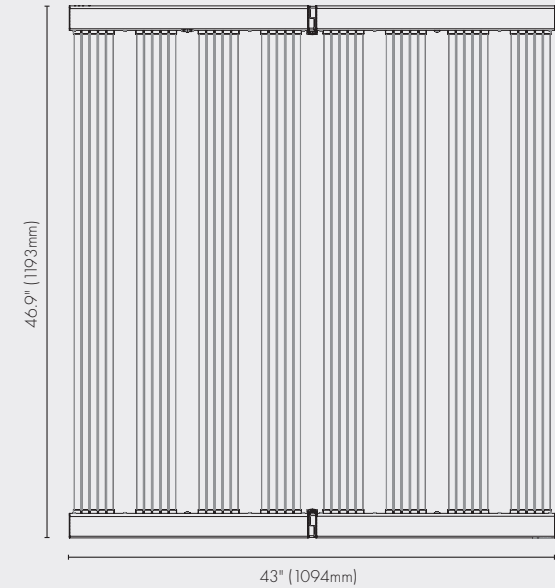
### SIDE VIEW



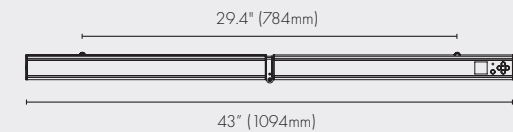
## XTREME SERIES **1000W LED**

Adjustable PhytoVegSpec<sup>®</sup> (+NIR) Indoor

### TOP VIEW



### SIDE VIEW



## SAFETY RECOMMENDATIONS AND WARNINGS

- Always adhere to the local rules and regulations when installing or using the LED fixture.
- Do not open or disassemble the LED fixture, it contains no serviceable parts inside. Opening or modifying the LED fixture can be dangerous and will void the warranty.
- This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45 - 30 MHz.
- Do not use the LED fixture when either the LED fixture or its power cord are damaged. Replace the power cord only with original certified cords.
- Modifications to the cords can lead to unwanted electromagnetic effects, which makes the product not comply with legal requirements.
- Do not expose the LED fixture to:
  - (ambient) temperatures outside the specified range;
  - dust and contamination;
  - direct sunlight during use or HID light that could heat up the ballast.
- Always disconnect the LED fixture from mains before performing any maintenance.
- Always allow for a cool down period of at least 30 minutes before touching the LED rails. Touching the LED rails when the fixture is lit or immediately afterwards can result in severe burns!
- Do not use the LED fixture near flammable, explosive or reactive substances. Do not use sulfur vaporizers or water misters.
- The installation and use of the LED fixture is the responsibility of the end user. Incorrect use or installation can lead to failure and damage to the LED fixture. Damage to the LED fixture and electronic circuitry as a result of incorrect installation and use revokes the warranty.



### WARNING:

Risk of electrical shock To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before performing any maintenance, repairs, moving or cleaning. LED fixture surfaces may be hot. Allow sufficient cooling time before handling Always allow for a cool down period of at least 30 minutes before touching the LED fixture.

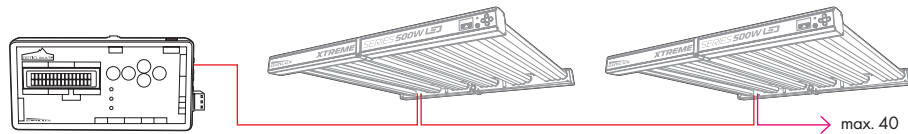
### WARNING:

Fixture and power supply are UL 1598 Wet Location rated but are not designed to be submerged in water In the event that the module or power supply enclosure becomes submersed, first disengage the circuit breaker, then unplug submersed components before proceeding to remove from water.

## CONNECTING UP TO 160 FIXTURES TO A MAXI CONTROLLER

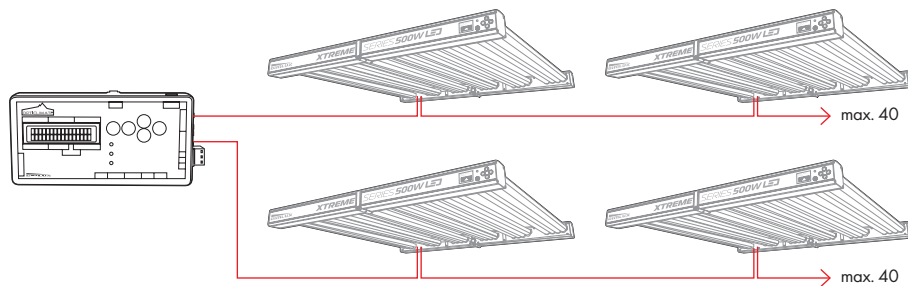
### FOR UP TO 40 FIXTURES

Connect OUT-1 to IN of the fixture



### FOR MORE THAN 20 FIXTURES

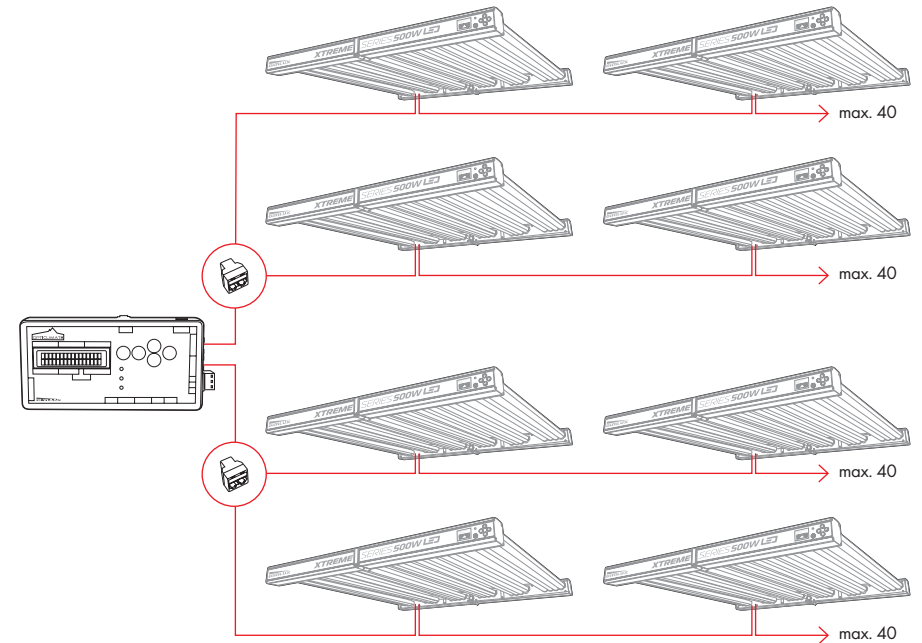
It is recommended to divide equally between ports OUT-1 and OUT-2 (up to 80 fixtures)



Please refer to the Maxi Controller manual for specific settings information.

### FROM 80 UP TO 160 FIXTURES.

Use a splitter and divide equally between OUT-1 and OUT-2



ART 2-366 Dimlux Splitter Interlink Cable

### CAUTION:

Regularly check the LED fixture for dust or dirt buildup. Clean if necessary. Contamination may cause overheating and decreased performance. Clean the outside of the LED fixture using a dry or damp cloth.

### CAUTION:

To prevent eye damage, avoid looking directly at the unshielded LEDs

### CAUTION:

To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.

# DIMLUX

XTREME SERIES LED  
XTREME SERIES LED +NIR

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## USER MANUAL

Engineered & Designed in Holland

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