

DIMLUX

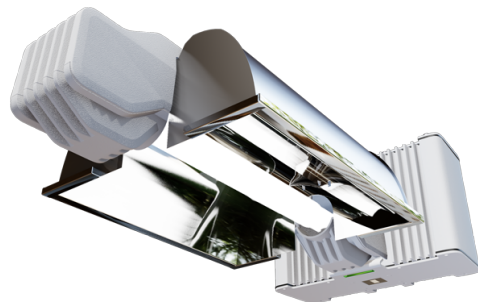
**EXPERT SERIES
& MKII**



**DIMLUX
XTREME SERIES
LED**



**DIMLUX
PRO SERIES**



DIMLUX MAXICONTROLLER

THIS REVOLUTIONARY CONTROLLER CAN CONTROL
UP TO 160 DIMLUX FIXTURES AND IS EXPANDABLE
WITH VARIOUS SENSORS.



The Maxi Controller is a modular control system that allows you to manage the Dimlux lighting system. The Maxi Controller controls and monitors the CO₂, vapor pressure deficit (VPD) and the plant temperature depending on the sensors chosen and connected.

The Maxi Controller has the capacity to control up to 160 Dimlux fixtures. By means of a built-in timer, the Maxi Controller can switch the lighting system on or off automatically. Furthermore, the light intensity can be continuously adjusted to the desired value.

Using Dimlux the Dimlux Fixtures combined with the Dimlux Maxi Controller has several great advantages:

- Sunrise and sunset simulation
- Measurement of ambient temperature by sensor
- Measurement of relative air humidity by RH sensor
- Plant temperature measurement using a plant temperature
- Indication of evaporation pressure (VPD) when using above sensors
- CO₂ control by CO₂ sensor
- settings for minimum and maximum values of all sensors
- Control of extra fans, heaters, humidifiers or de-humidifiers (with the Smart Box)



OPTICLIMATE CO₂ SENSOR

The OptiClimate CO₂ sensor can be connected to the Dimlux Controller and also controls the CO₂ generator or CO₂ pressure reducing valve. The sensors use NDIR Dual Beam technology that provides unprecedented calibration precision and stability. Other CO₂ sensors are single beam and need to be calibrated regularly. Dual Beam sensors are two sensors in one where the measurement sensor is periodically adjusted by the second sensor. Because the second sensor is active for only 5 minutes per month, it does not age or drift.



TEMPERATURE SENSOR

The temperature sensor allows the Maxi Controller to dim the lights based on a grow environment's ambient temperature. If the set value is exceeded, the lights will dim to keep the temperature under control. If the temperature rises despite dimming, half of the dimmed lights will be switched off in a checkered board pattern. If the temperature still continues to rise all lights will be switched off for at least 20 minutes.



HUMIDITY (RH) SENSOR

The RH sensor displays the ambient humidity on the Maxi Controller. If the RH sensor is connected, a humidifier can also be switched on with the Maxi Controller. If the VPD is to be displayed, the plant temperature camera and the ambient temperature sensor will also be required.



PLANT TEMPERATURE CAMERA

Plant temperature is more important than ambient temperature. When the camera is connected, climate can be controlled based on the plant temperature. If plant temperature gets too high, the Maxi Controller will dim the lights to keep the stomata open. In case of water shortage (e.g. due to a faulty pump) the lights are also dimmed or turned off to prevent crop damage.



SMART BOX

The Smartbox box has 3 outputs so that a heater, humidifier, dehumidifier and fan can be connected to the Dimlux Maxi Controller. All outputs are 15A. The fan control is electronic and quiet in use (no hum). The fan controller has a temperature and RH control that are individually adjustable. The temperature controller works through SmartLogic, this is an algorithm that ensures that the current temperature is actually equal to the set temperature.

DIMLUX MKII

EXPERT SERIES



The MKII upgrade is a more efficient, functional, and smart light fixture. The electronics produce less loss heat, the ballast housing is up to 30% shorter. Thus, the Dimlux Expert 1000W MKII has the same length as the Dimlux Expert 600W.

The MKII is equipped with the Ultra Optics Hybrid 98 reflector as standard. This reflector ensures both a deep light penetration into the crop, and for a large overlap with other fixtures for better uniformity. The Hybrid reflector is the ideal reflector for most applications.

The Ultra Optics Hybrid 98 is easily removed, cleaned or replaced with another type of reflector from the Ultra Optics range to achieve the most efficient configuration for your crop.

The old rotary switch has been replaced with a push button that allows the status to be set on the new 4-digit display. The status and error codes are now fully displayed instead of a code.

The Dimlux Expert MKII is equipped with an extra interconnect port (Smartport) that can be used universally. Another ballast can be connected to it, but also for example a plant temperature camera or humidity sensor.

DIMLUX MKII

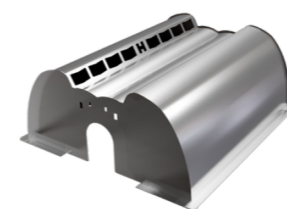
EXPERT SERIES

ULTRA OPTICS REFLECTORS



The type of reflector is determined by the type of crop, the canopy, and the length of the plant. Room dimensions, such as floor length to width ratio, perimeter to floor area ratio, ceiling height and paths, also contribute to reflector selection.

Our new range of Ultra Optics Reflectors are easy to remove, clean or replace with another type of Ultra Optics reflector to achieve the most efficient configuration for your crop.



ULTRA OPTICS HYBRID 98%

The **Hybrid reflector** provides both deep light penetration into the crop, and a large overlap with other fixtures for better uniformity. The length to width ratio of the light image is 1:1.3 (rectangular). The Hybrid reflector is the ideal reflector for most applications because it combines the advantages of the Wide and Deep reflectors. This reflector can be used with all types of crops. For a fixture distance of 1.2 by 1.6m (1.92m²), the recommended height is 80cm.



ULTRA OPTICS DEEP 98%

The **Deep reflector** provides extremely deep light penetration into the crop. Because the Deep reflector radiates downwards instead of sideways, the losses through walls and paths are minimal. The length to width ratio of the light image is 1:1 (square). This reflector can be used with plants that are taller than about 75 cm or have dense foliage (plants further apart or very dense plants). It is also ideal when used in a grow tent, where there are otherwise more losses from reflections through the walls than in a larger space.



ULTRA OPTICS WIDE 98%

The **Wide reflector** ensures an extremely wide beam pattern so that only a small distance is required between the crop and the reflector. Thanks to the wider beam angle the distance to the crop with a 1000W fixture is comparable to a regular 600W system. The length/width ratio of the light image is 1:2 (rectangular). The long side of the rectangle is perpendicular to the lamp. This reflector can be used with crops that are lower than about 75 cm or have an open canopy (more space between the plants or less dense plants). It is also ideal when used in rooms with low ceilings or that have a rectangular cultivation area. With a fixture distance of 1 by 2m (2m²) the advised height is 60cm. The Wide reflector is also ideal for combining HID fixtures with LED fixtures.

EXPERT SERIES 600W MKII



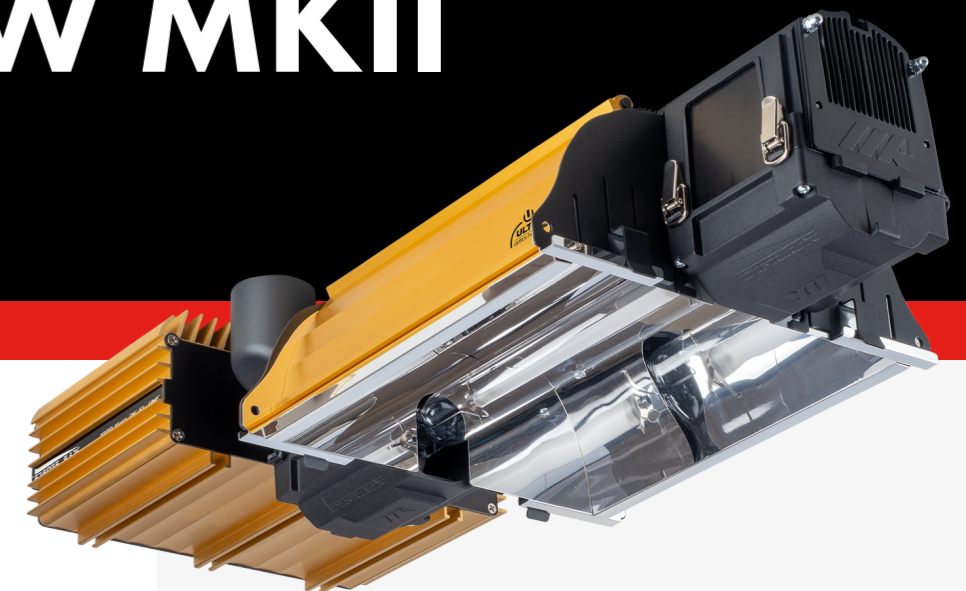
FEATURES

- Unparalleled and highly efficient ballast driver: 97% efficient, 30% less losses, lighter and up to 30% more compact.
- Standard equipped with the Ultra Optics Hybrid 98 reflector. This reflector has the highest reflector efficiency in the market with 98% total efficiency, achieved through Miro 98 (99.99% silver) and the SBCS (Single Bounce Clear Sight) principle.
- Easy to replace with the Ultra Optics Wide 98 reflector or Ultra Optics Deep 98 reflector. Both reflectors have a 98% efficiency just like the Ultra Optics Hybrid 98.
- Single push button for setting the power output.
- 4-Character status display with scrolling text. Status and error codes are fully displayed on this display.
- Closed ballast design, for better protection of the electronics.
- Controllable with current Maxi Controller and ready for the future digital controller platform.

SPECIFICATIONS DIMLUX EXPERT SERIES 600W MKII

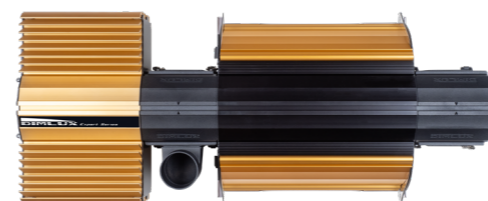
Voltage:	230V ±10V
Input Power @100%:	621W
Input Current @100%:	2,7A
Input Power @boost:	758W
Input Current @boost:	3,27A
Input Frequency:	50/60Hz
Power Factor:	0,99
System PPF:	1408µmol/s @720W
Ultra high freq. (UHF):	Yes
Controller:	Maxi Controller
Dimensions:	550 × 275 × 130mm
Weight:	5.1kg
Lamp:	Philips Greenpower 600W 400V EL

EXPERT SERIES 1000W MKII



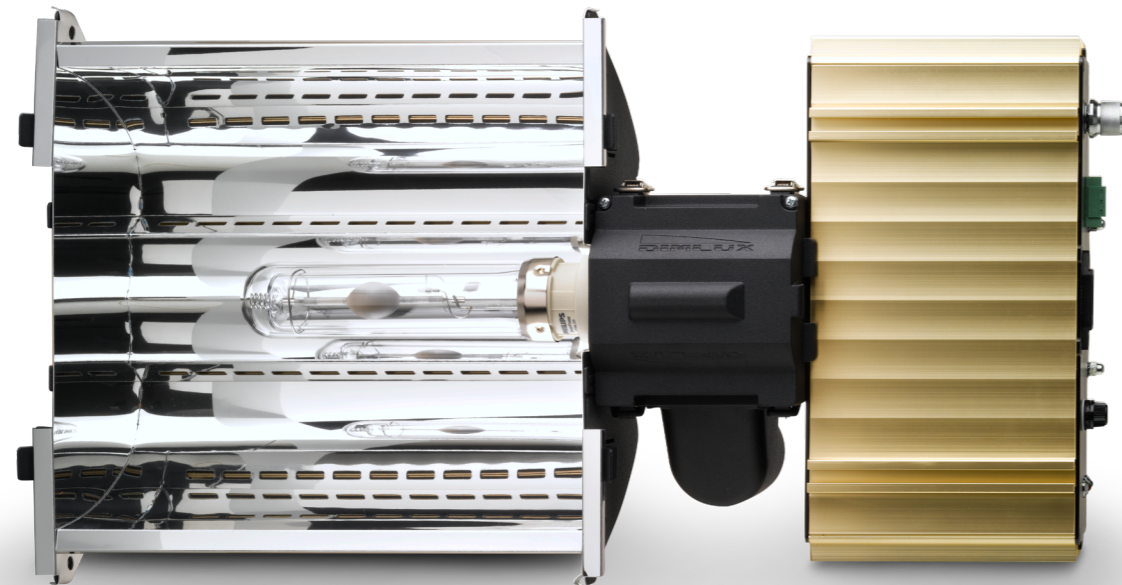
SPECIFICATIONS DIMLUX EXPERT SERIES 1000W MKII

Voltage:	230V ±10V
Input Power @100%:	1035W
Input Current @100%:	4,5A
Input Power @boost:	1242W
Input Current @boost:	5,4A
Input Frequency:	50/60Hz
Power Factor:	0,99
System PPF:	2528µmol/s @1200W
Ultra high freq. (UHF):	Yes
Controller:	Maxi Controller
Dimensions:	675 × 275 × 130mm
Weight:	6.3kg
Lamp:	Philips Greenpower Extra 1000W DE 400V



DIMLUX EXPERT SERIES

FULL SPECTRUM
315W



ALPHA OPTICS 98 REFLECTOR

This Alpha Optics 98 reflector was designed according to the Single Bounce Clear Sight (SBCS) principle and is equipped with Miro Silver mirrors. This achieves the highest possible level of efficiency (98%) of any commercially available horticultural reflector. The reflector is fitted with adjustable side reflectors for better overlapping and minimizing wall losses.

Complete fixture with 315W Xtreme ballast, 315W Full Spectrum Dimlux bulb and Alpha Optics 98 Reflector

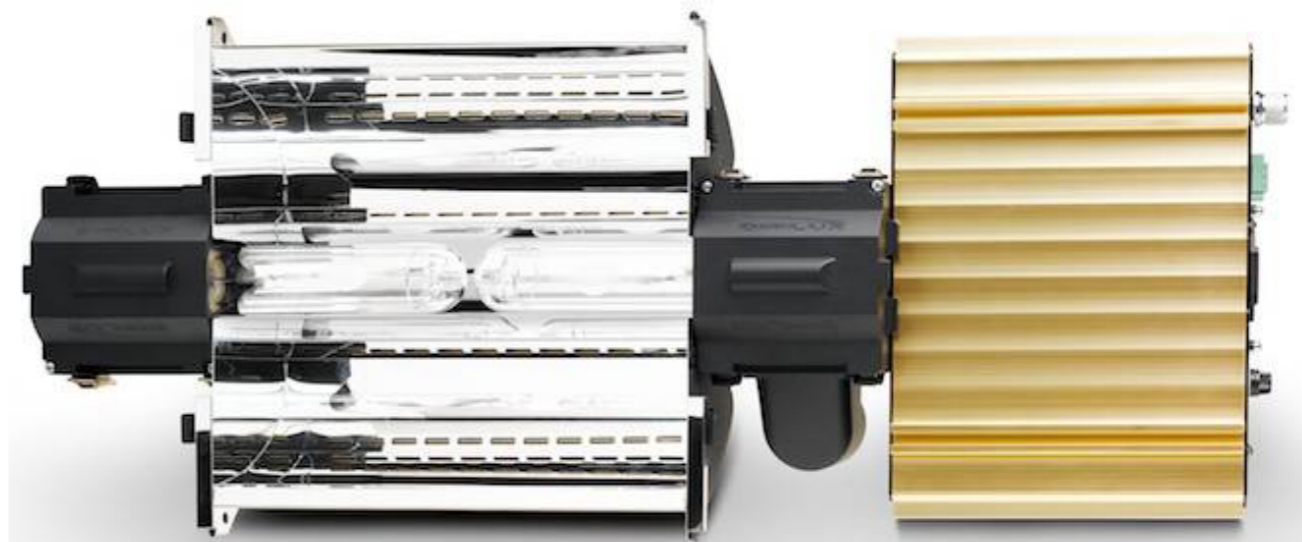
DIMLUX EXPERT SERIES FIXTURES AND XTREME BALLASTS

- The highest output (light) due to the overdrive boost) and 400V technology
- The broadest dimming range of all digital ballasts
- Soft-Start, Soft-Dim, Soft-Off function
- Can be dimmed manually in 8 levels including the "off" position.
- Can be variably dimmed via the Maxi Controller
- Extensive diagnostic LEDs
- EOL function (indication to replace lamps)

Dim levels:	Soft-Off, 165W, 205W, 245W, 280W, 315W, 345W, 380W
Power consumption at 315W	331W 1,4A a 230V
Power consumption at boost 380W =	399W 1,7A a 230V
System PPF at 380W =	706umol
Illumination surface:	α 315W = mín. 0,42m ² / máx. 1m ² α 380W = mín. 0,5m ² / máx. 1,2 m ²
Conection	ø50mm (2") connection for active extraction
Dimensions:	530x275x130mm
Weight:	4,9kg

DIMLUX EXPERT SERIES

FULL SPECTRUM
630W



ALPHA OPTICS 98 REFLECTOR

This Alpha Optics 98 reflector was designed according to the Single Bounce Clear Sight (SBCS) principle and is equipped with Miro Silver mirrors. This achieves the highest possible level of efficiency (98%) of any commercially available horticultural reflector. The reflector is fitted with adjustable side reflectors for better overlapping and minimizing wall losses.

Complete fixture with 630W Xtreme ballast, 2x315W Full Spectrum Dimlux bulb and Alpha Optics 98 Reflector

DIMLUX EXPERT SERIES FIXTURES AND XTREME BALLASTS

- The highest output (light) due to the overdrive boost) and 400V technology
- The broadest dimming range of all digital ballasts
- Soft-Start, Soft-Dim, Soft-Off function
- Can be dimmed manually in 8 levels including the "off" position.
- Can be variably dimmed via the Maxi Controller
- Extensive diagnostic LEDs
- EOL function (indication to replace lamps)

Dim levels:	Soft-Off, 330W, 410W, 490W, 560W, 630W, 690W, 760W
Power consumption at 630W	662W, 2.7A at 230V
Power consumption at boost 760W =	799W, 3.5A at 230V
System PPF at 760W =	1411 umol
Illumination surface:	at 630W= min 0.84m ² (9.04ft ²), max 2m ² at 760W= min 1m ² (10.76ft ²), max. 2.4m ²
Conection	ø50mm (2") connection for active extraction
Dimensions:	675x275x130mm
Weight:	6,3 kg

DIMLUX PRO SERIES



The reflector with maximum horticultural efficiency
+96%

System PPF @ 1150W
2339µmol/s

The Dimlux Pro has a passively cooled Ultra Optics reflector in order to get the optimum lamp temperature and highest light output. By using Miro 95 (99,99 aluminium) instead of Miro Silver for the reflector, we prevent deterioration in high humidity when scratched. The Ultra Optics reflector is available in 3 different styles of reflectors, Hybrid (default), Deep and Wide and can be changed quickly and easily, even at high heights.

The ballast is ready for the new digital controller platform, and is upgradable. The Pro series has a closed ballast instead of an open ballast. This protects the ballast from moisture. The Geo Membrane equalizes the pressure inside and outside the ballast, while still preventing condensation on the electronics.

The vertically mounted ballast will decrease the amount of daylight which is blocked by the fixture. We have done daylight simulations in CAD and this design had the least light interception during a full daylight cycle.

The output of the Dimlux Pro Series can be controlled up to 115%, both by using the dim button and by remote control. With the manual power settings 500, 600, 700, 800, 900, 1000, 1075 and 1150W you have a wide range of settings available.

Status and alarms are displayed on a four-character display making your Dimlux Pro even more easy to use (except for the analogue version).

CLOSED & VERTICAL BALLAST

The Pro series has a closed ballast instead of an open ballast. This protects the ballast from moisture. The ballast is mounted vertically to decrease the amount of daylight which is blocked by the fixture. We have done daylight simulations in CAD and this design had the least light interception during a full daylight cycle.

EASY REMOVABLE & PASSIVELY COOLED ULTRA OPTICS REFLECTOR

Because the easier it gets the better and quicker it is especially when the reflector will be changed at high heights for replacement or cleaning. Available with 3 different styles of reflectors, Hybrid (default), Deep and Wide. The reflector is passively cooled in order to get the optimum lamp temperature and highest light output.

DIMLUX PRO SPECIFICATIONS

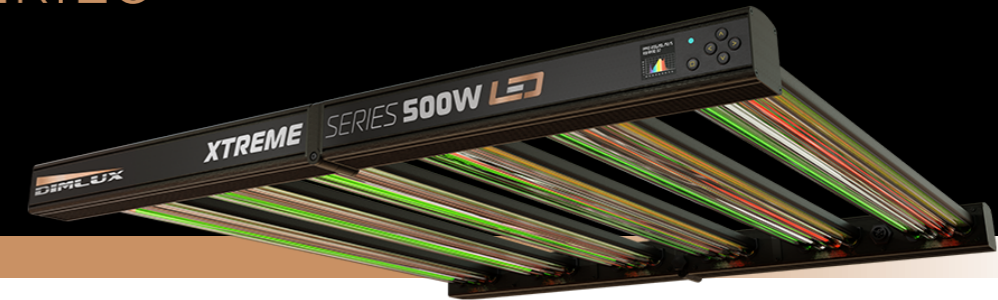


Dimlux Pro Series 1000W	230V	400V
AC	2-734	2-733
Ultra High Frequency (UHF)	Yes	Yes
Controller	Maxi Controller / By WIFI	Maxi Controller / By WIFI
Measurements (L *W*H)	538 x 248 x 115 mm	538 x 248 x 115 mm
Weight	4,1 kg	4,1 kg
Boost	15%	15%
Power Inlet	230V Power plug 2m	Ep 3 PINS 400V F
Reflector	Single Bounce Clear Sight	Single Bounce Clear Sight
Light Source	HPS 1000W HPS 2K 2100µmol/s	HPS 1000W HPS 2K 2100µmol/s
Certifications	CE	CE
System PPF@ 1000W	2016µmol/	2016µmol/
System PPE@ 1000W	1,955µmol/J	1,955µmol/J
System PPF@ 1150W	2339µmol/s	2339µmol/s
System PPE@ 1150W	1,97µmol/J	1,97µmol/J
Power Factor	<0,95	<0,95
Voltage	230V	400V
Input power @ 100%	1035W	1032W
Input current @ 100%	4,55A	2,6A
Input power @ boost	5,2A	3,0A
Input frequency	50/60 Hz	50/60 Hz



DIMLUX XTREME SERIES LED

DIMLUX XTREME SERIES 500W LED



INTRODUCING THE MOST POWERFUL AND SMART LED GROWLIGHT ON THE MARKET! THE DIMLUX XTREME SERIES LED.

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

With this innovative LED fixture, Dimlux sets a benchmark for horticultural lighting.

With patented technology, advances in LED technology, and optimal thermal design, the **Dimlux Xtreme Series LED** will be the preferred option offering significant return on investment to cultivators. Our adjustable PhytoVegSpec® grow spectrum combines full control over light quality (spectral flexibility) and quantity (intensity and DLI) ensuring a uniform spread and even light distribution with extreme penetration into the canopy.

The **Dimlux Xtreme Series LED** produces ultra-high levels of PPF, evenly spread over a 1.2x1.2m grow area (500W) or a 1.5x1.5 m grow area (750W and 1000W), with a full grow spectrum, producing consistently high quality & high yield indoor crops.

The **Dimlux Xtreme Series LED** can be dimmed without losing efficiency. The spectrum and output power can be programmed depending on the time of day and the growing stage of the crop.

Auxiliary RGB LEDs with over 65k colors can be used as supplemental light and can be used as green work light in the dark phase. The work light can automatically be switched on by the internal radar proximity sensor.

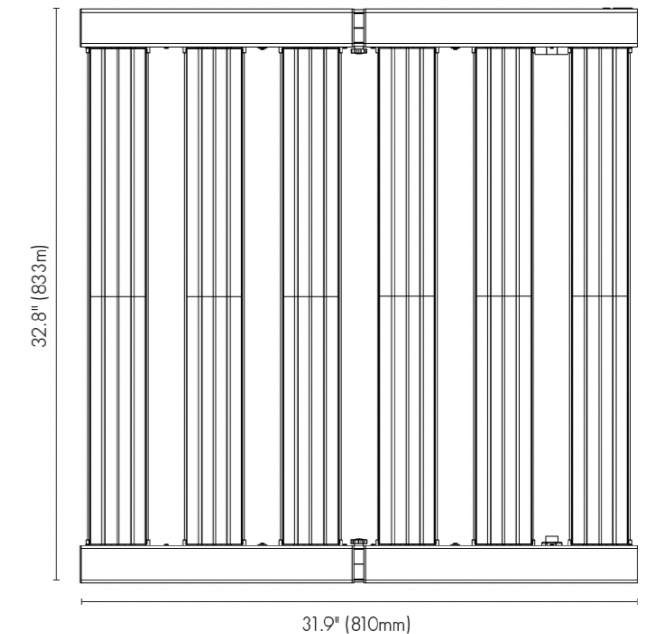
Dimlux Xtreme Series LED – NIR
NIR means Near InfraRed. NIR is red light that becomes visible with a thermo graphic camera. It is therefore not directly visible to the naked eye, but is useful for the crop.

The theory that this part of the color-spectrum would not contribute to photosynthesis is outdated. New studies have shown that when the red spectrum and NIR are combined, the sum is equal to or even greater than the individual parts. So the colours Red and Near-InfraRed must be combined to work properly.

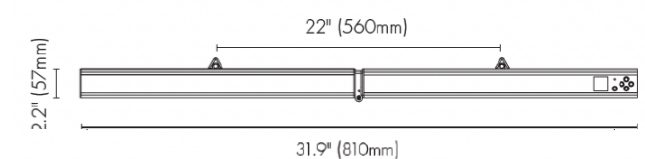
In this combination, NIR also provides extra stretching and gives a fuller crop. DIMLUX LED with morphological properties ensures that the crop grows better in a broader spectrum.

Light Source	LED
Spectrum	Adjustable PhytoVegSpec® Indoor
Light Output (PPF)	1500 µmol/s
System Efficacy	2.85 µmol/J @ 230V AC
AC Input Power	540W @ 230V 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
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
Certifications	CE, UL 8800, UL 1598 Wet Location, DLC
Warranty	5 Year Standard

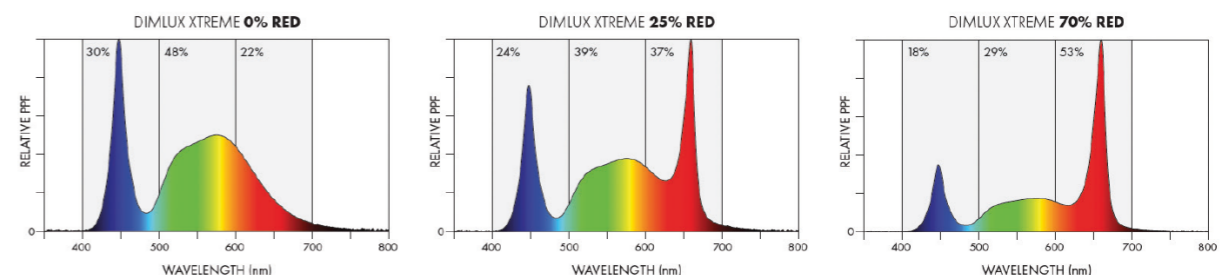
TOP VIEW



SIDE VIEW

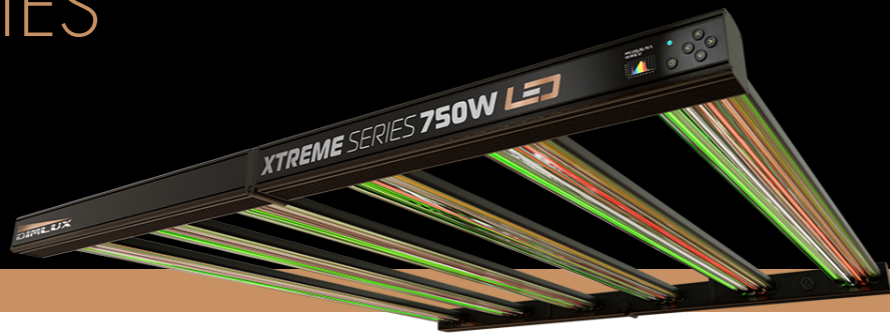


SPECTRA Adjustable PhytoVegSpec® Indoor



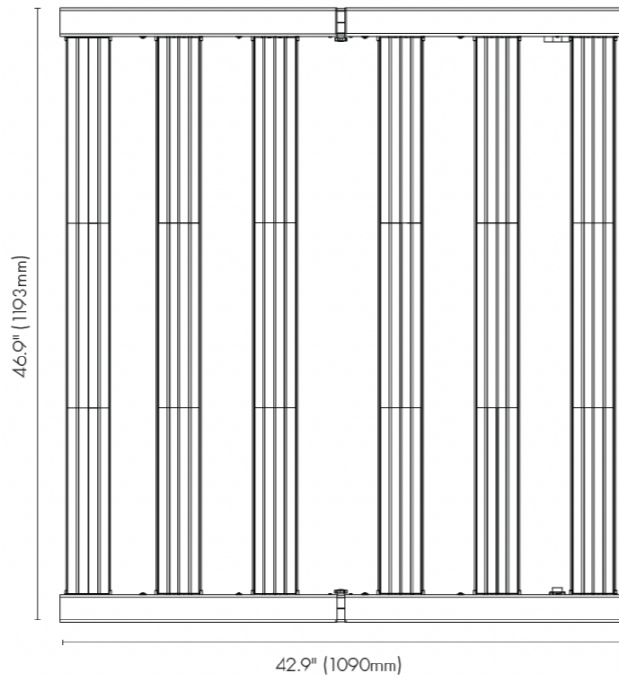
DIMLUX

XTREME SERIES 750W LED

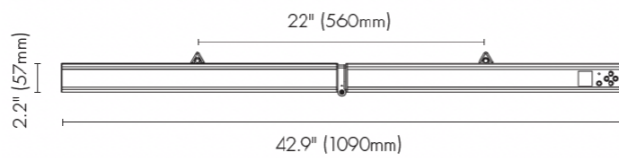


Light Source	LED
Spectrum	Adjustable PhytoVegSpec® Indoor
Light Output (PPF)	2276 $\mu\text{mol/s}$
System Efficacy	2.85 $\mu\text{mol/J}$ @ 230V AC
AC Input Power	799W @ 230V AC
AC Input Voltage	120-277V AC, 50/60Hz
Beam Angle	90° × 120°
Optics	Patented Deep Penetration Ultra High Transmittance Lens
Auxiliary Light	Patented Light Pipe Multi Color 65k
Proximity sensor	Doppler Radar
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
Certifications	CE, UL 8800, UL 1598 Wet Location, DLC
Warranty	5 Year Standard

TOP VIEW

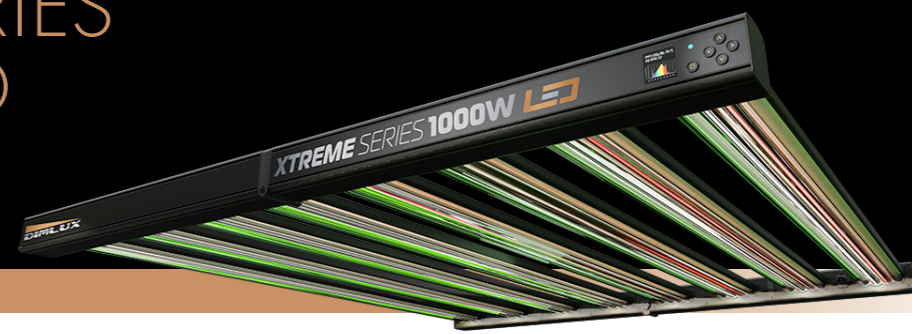


SIDE VIEW



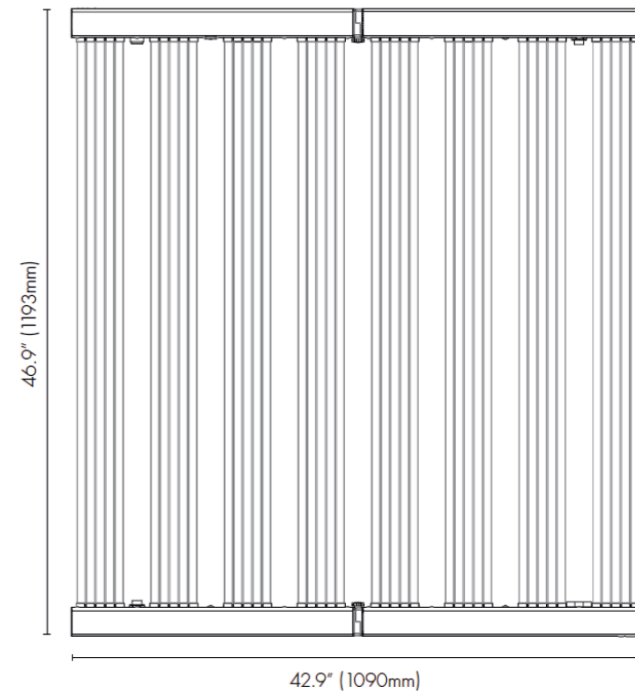
DIMLUX

XTREME SERIES 1000W LED

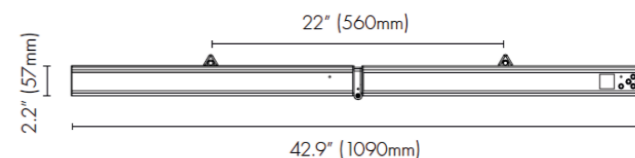


Light Source	LED
Spectrum	Adjustable PhytoVegSpec® Indoor
Light Output (PPF)	3035 $\mu\text{mol/s}$
System Efficacy	2.85 $\mu\text{mol/J}$ @ 230V AC
AC Input Power	1065W @ 230V AC
AC Input Voltage	120-277V AC, 50/60Hz
Beam Angle	90° × 120°
Optics	Patented Deep Penetration Ultra High Transmittance Lens
Auxiliary Light	Patented Light Pipe Multi Color 65k
Proximity sensor	Doppler Radar
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:	> 50,000hrs
IP Rating	IP65
Certifications	CE, UL 8800, UL 1598 Wet Location, DLC
Warranty	5 Year Standard

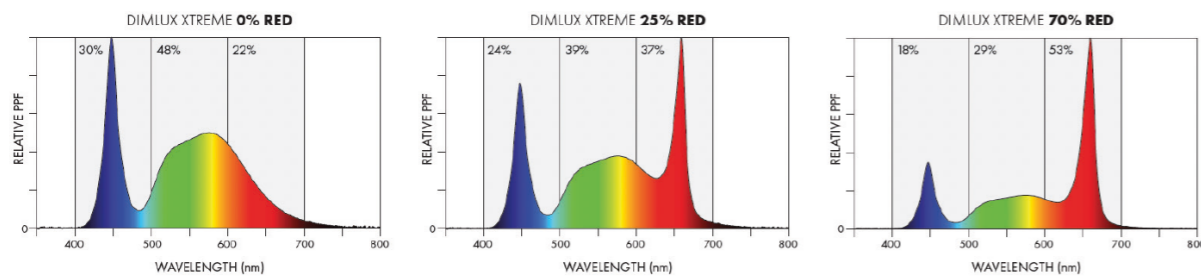
TOP VIEW



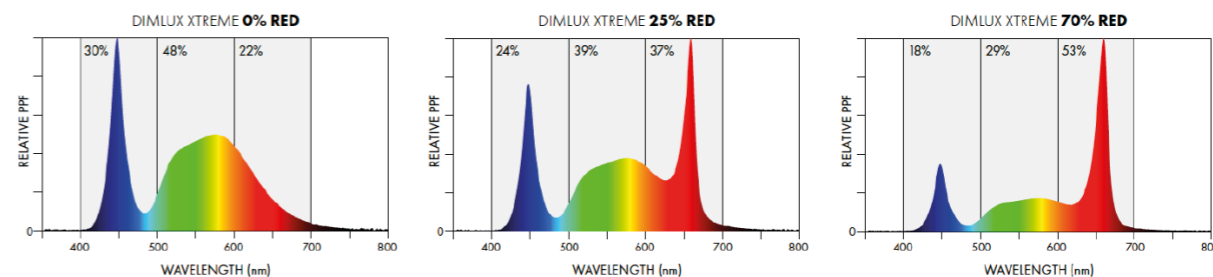
SIDE VIEW



SPECTRA Adjustable PhytoVegSpec® Indoor



SPECTRA Adjustable PhytoVegSpec® Indoor





The Climate Factory SWE SLU

Calle Castellar 5
08540 Centelles, Barcelona
Spain

www.theclimatefactory.es
info@theclimatefactory.es
+34 932 20 28 85

The Climate Factory GmbH

Daimlerstraße 50a
47574 Goch
Germany

www.theclimatefactory.de
info@theclimatefactory.de
+49 2823 945 3001

The Climate Factory BV

Steenweg op Hoogstraten 72 Unit 6
2330 Merksplas
Belgium

www.theclimatefactory.be
info@theclimatefactory.be
+32 144 80 224

The Climate Factory LTD

134-146 Curtain Road - Studio 210
EC2A 3AR London
The United Kingdom

www.theclimatefactory.co.uk
info@theclimatefactory.co.uk
+44 20 360 852 23

