

# PRO GROW

## INDUSTRY LEADING PERFORMANCE

PRO GROW LED grow lighting systems deliver powerful, full spectrum, high performance with long lifespan and energy savings for commercial & hobby growers.

# LED PRODUCT CATALOGUE

**SAMSUNG  
OSRAM**



**OPTIMUM**



# INTRODUCING

PRO GROW range of LEDs utilise industry leading diodes, coupled with reliable electronics to deliver horticultural LED lighting solutions that outperform the competition in quality light output, end product yield and purchase price.

## **The importance of PPFD:**

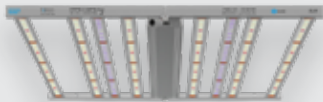
Photosynthetic Photon Flux Density (PPFD) is the measurement of light arriving at your plant canopy. PRO GROW LEDs produce more PPFD than HID lights and most competing LED brands. This higher PPFD rate can be overwhelming to small (and even large) plants. Growers are fast learning that PPFD levels are the most crucial factor when growing indoors under LEDs. PPFD at the canopy can be controlled via the dimming dial or by simply raising or lowering your LED.

## **PPFD User Guide:**

The PPFD User Guide tells you at what height to run each PRO GROW LED fixture on any given week of your grow / bloom cycle. When learning to use your new LED it is important to follow these recommendations. The correct fixture height above the plant canopy will ensure your plants aren't getting too much light, too soon. Always start with reduced light, slowly increasing to full light output at the middle of the flowering period.



# CONTENTS

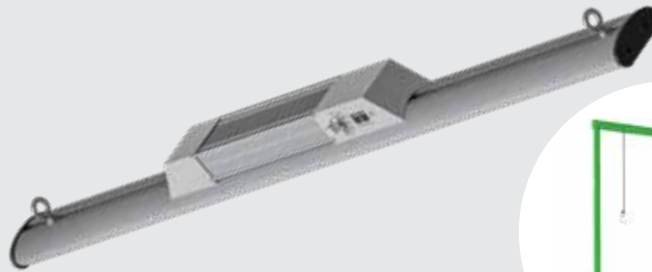


60 W Single Bar .....	04
100 W & 200 W UFO .....	06
300 W & 500 W UFO .....	08
630 W EVO 6 Bar .....	10
780 W EVO 8 Bar .....	12
800 W EVO 8 Bar .....	14
Eco Smart Controller .....	16
Smart Controller .....	18
780 W EVO Smart Controller .....	20
LED Growing Tips .....	22
PPFD User Guide .....	23

# 60 W Single Bar

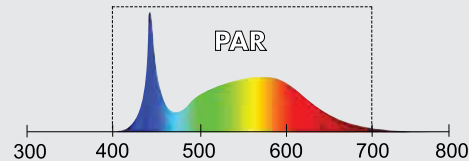
## LED Model X 60 W (0-10 V)

140  $\mu\text{mol/s}$  PPFD  
2.4  $\mu\text{mol/J}$   
Optimum 6,500 K Blue  
Optimum Driver  
Weight 1.3 kg  
Dimensions 58 x 6 x 6 cm



Optional Stand  
66 L x 46 W x 67 cm H

PAR SPECTRUM GRAPH



AMPERAGE @240 V	
60 W	0.25 A

# Vegetative Horticultural Light



LED - MODEL X

6K  
DAYLIGHT  
CRI:90

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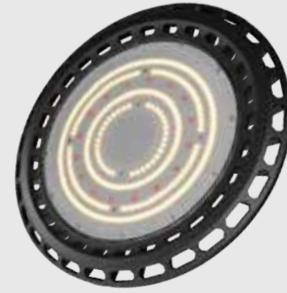
# 100 W & 200 W UFO

## 100 W UFO

250  $\mu\text{mol/s}$  PPFD  
2.5  $\mu\text{mol/J}$   
Input power: 100 W  
Weight: 2.1 kg  
Dimensions: 28  $\varnothing$  x 11.5 cm High

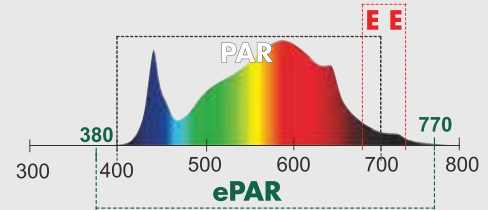
## 200 W UFO (0-10 V)

500  $\mu\text{mol/s}$  PPFD  
2.5  $\mu\text{mol/J}$   
Input power: 200 W  
Weight: 3.5 kg  
Dimensions: 40  $\varnothing$  x 12.5 cm High



AMPERAGE @240 V	
100 W	0.42 A
200 W	0.83 A

EXTENDED PAR SPECTRUM GRAPH (ePAR)



**Save**  
Energy-efficient LED technology  
lowers energy usage.



**Easy**  
- Plug & Play.  
- Set & Forget.



**Quiet**  
No cooling fan required



**Versatile**  
Full spectrum grow & bloom  
horticultural lighting from one fixture.

# Full Spectrum Horticultural Light



**4K**  
BALANCED  
CRI:90

**PRO GROW**  
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+730 nm  
FAR-RED DIODES



# 300 & 500 W UFO

## 300 W UFO (0-10 V)

750  $\mu\text{mol/s}$  PPFD  
2.5  $\mu\text{mol/J}$   
Input power: 300 W  
Weight: 6 kg  
Dimensions: 40  $\varnothing$  x 16.5 cm High

## 500 W UFO (0-10 V)

1250  $\mu\text{mol/s}$  PPFD  
2.5  $\mu\text{mol/J}$   
Input power: 500 W  
Weight: 8.6 kg  
Dimensions: 45  $\varnothing$  x 23 cm High



AMPERAGE @240 V	
300 W	1.25 A
500 W	2.08 A



**Save**  
Energy-efficient LED technology lowers energy usage.



**Easy**  
- Plug & Play.  
- Set & Forget.

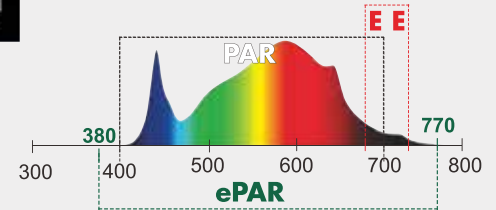


**Quiet**  
No cooling fan required



**Versatile**  
Full spectrum grow & bloom horticultural lighting from one fixture.

EXTENDED PAR SPECTRUM GRAPH (ePAR)





# Full Spectrum Horticultural Light



**4K**  
BALANCED  
CRI:90

**PRO GROW**  
INDUSTRY LEADING PERFORMANCE



**+730 nm**  
FAR-RED DIODES



# 630 W EVO 6 Bar

## LED Model S 630 W EVO 6 Bar

1,760  $\mu\text{mols/s}$  PPFD

2.8  $\mu\text{mols/J}$

Full Spectrum

Samsung LM301H EVO 4000 K

Samsung LM301H 4000 K

Osram 600 nm Hyper-red

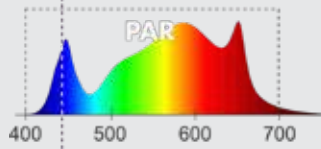
Sosen Driver

Weight 16.5 kg

Dimensions 116 x 106 x 11.5 cm  
(with ballast attached)



PAR SPECTRUM GRAPH  
EVO 4000 K (437 nm)



AMPERAGE @240 V	
630 W	2.62 A

**Dimmable Driver**  
250 W / 380 W / 500 W / 630 W.  
Remote ballast installation  
up to 1.8 m from unit with  
included extension cable.

# Full Spectrum Horticultural Light



## LED - MODEL S

4.3K  
BALANCED  
CRI:88

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# 780 W EVO 8 Bar

## LED Model Z 780 W EVO 8 Bar

1,920  $\mu\text{mol/s}$  PPF

2,000  $\mu\text{mol/s}$  BPF (ePar)

2.8  $\mu\text{mol/J}$

Full Spectrum

Samsung LM301H EVO 4000 K

Samsung LM301H 4000 K

Osram 660nm Hyper-Red

Optimum Blue 450 nm

Optimum Far red

Optimum Driver

Weight 13.7 kg

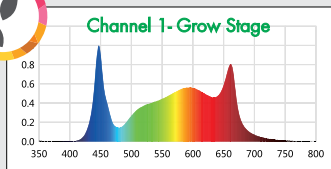
Dimensions 110 x 106 x 5 cm

### AMPERAGE @240 V

780 W

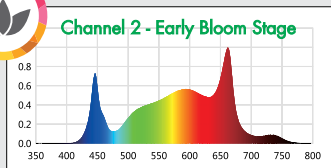
3.25 A

## 3 CHANNEL ADJUSTABLE SPECTRUM



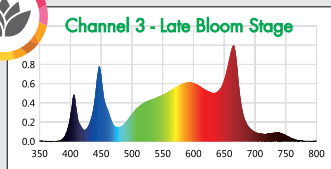
### Increased Blue

Deep blue (5K) targets peak chlorophyll & photosynthesis production for boosted vegetative growth & plant vigour.



### Increased Red & Far-red

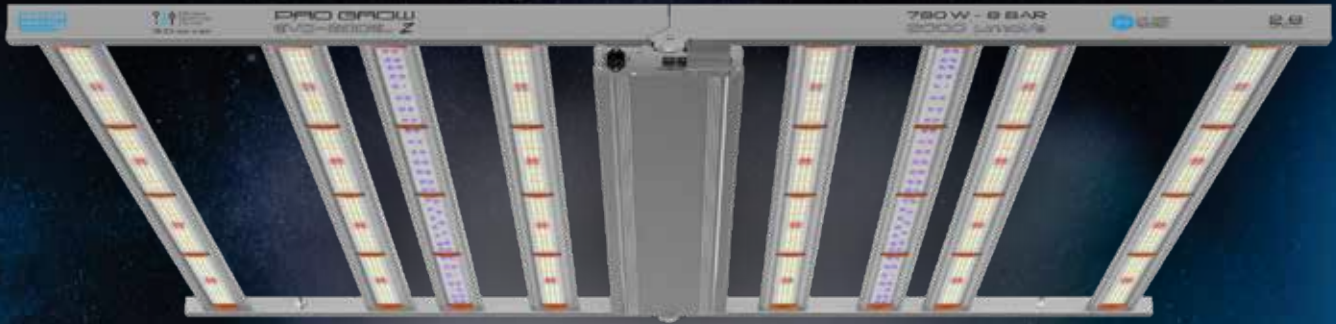
Higher Red and Far-red output (4K) for increased production in flowering plants. The right amount of Far-red light engages Emerson Effect, encourages early node staging and more flower sites.



### Increased Red, Far-red + UVA/UVB

UV & Red & Far-red offers maximum BPF (ePar). This encourages lateral branching, less stretching, enhanced flower size and improves essential oils, taste and aroma.

# Full Spectrum Horticultural Light



## LED - MODEL Z



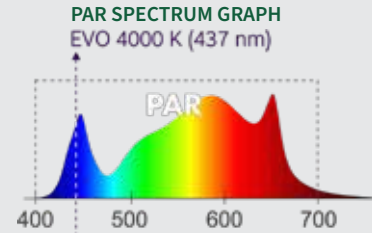
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# 800 W EVO 8 Bar

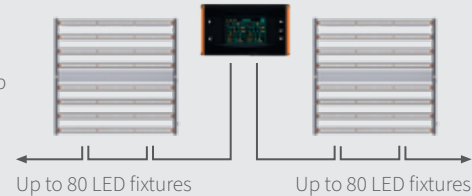
## LED Model E 800 W EVO 8 Bar

430 V 3 phase  
2,400  $\mu\text{mol/s PPF}$   
3.0  $\mu\text{mol/J}$   
Full Spectrum  
Samsung LM301H EVO 4000 K  
Samsung LM301H 4000 K  
Osram Hyper Red  
Inventronics Driver  
Weight 22 kg  
Dimensions 110.5 x 106 x 7 cm



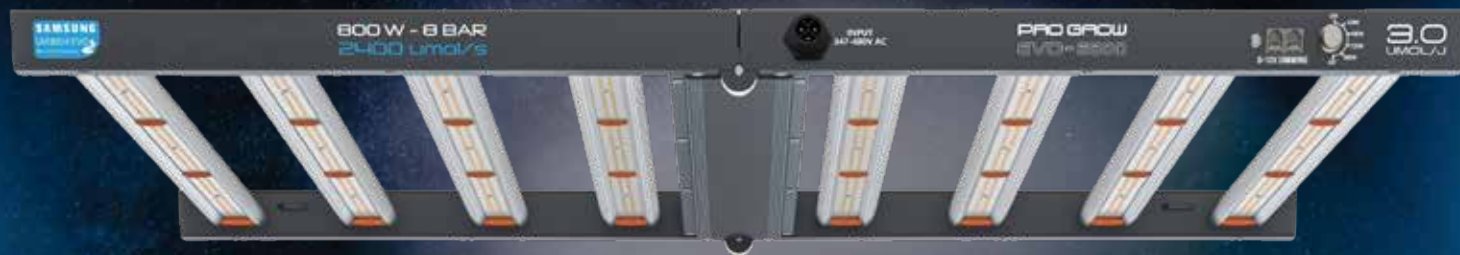
### Compatible with 0-10 V Controllers.

The E800 EVO 8 Bar is fitted with RJ-14 connection ports allowing the use of up to 160 fixtures per controller by daisy chaining the fixtures.



# Full Spectrum Horticultural Light

## Retrofit 1:1 1000 W HPS Replacement



# E800-430V

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**4.3K**  
BALANCED  
**CRI:88**



# Eco Smart Controller



Controls up to:  
30 x UFO LED (0-10 V)  
30 x 630 W EVO  
30 x 800 W EVO  
Via RJ14 connection



On/ Off Timing



Temperature  
& Humidity



Sunrise & Sunset



Temperature / humidity  
sensor included



# Eco Smart Controller

Multi Fixture Controller for 0-10 V LEDs



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# LED Smart Controller



Controls up to:  
160 x UFO LED (0-10 V)  
160 x 630 W EVO  
160 x 800 W EVO  
Via RJ14 connection  
(80 per room)



Temperature / humidity  
sensor included



On/ Off Timing



Sunrise & Sunset



Temperature  
& Humidity



Touch Screen



Simultaneous Dual  
Room Control

# Control Two Rooms Simultaneously



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# 780 W EVO Smart Controller



Controls up to:  
80 x 780 W EVO  
Via RS-485  
connection



Optional PPFD sensor  
(sold separately)

Temperature / humidity  
sensor included



On/ Off Timing



Sunrise & Sunset



Temperature  
& Humidity



Touch Screen



PPFD output  
control

# Smart Controller for 780 W EVO LED



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# LED Growing Tips

**PRO GROW LEDs offer full spectrum, high colour rendering index, horticultural lighting.**

- High light requirement plants need approximately 500 W / m<sup>2</sup> of LED light.
- 60 W Bars are suitable for seedlings and cuttings.
- 100 & 200 W UFOs are suitable for supplementary or under canopy lighting.
- 300 & 500 W UFOs and 630 W EVO LED & 780 W EVO LED Bars are all stand alone grow and bloom fixtures, dependent on the footprint of the grow area.
- 800 W EVO LEDs are suitable for commercial facilities.
- LED energy savings are achieved by reducing the heat load of indoor growing areas, requiring less air movement or HVAC.
- LED powered greenhouses may require additional heating in cold climates. The plant root zone may be warmed to 25°C in cool climates for increased growth rates.
- Plants grown under LEDs in lower ambient temperatures may require less watering than with HID lighting. The use of well drained plant growth media or soils is advised.
- The increased light intensity of LED light should be matched with increased nutrient strength. Nutrient strength may be increased by up to 30% more than the nutrient manufacturers recommended feed chart.
- LED lights provide the light energy for photosynthesis. Other environmental factors such as room temperature, airflow, circulation, media, nutrients, and plant genetics are just as important as the light source. Do not just focus on a single part of the growing process. Understanding all growth factors and their interconnection will further ensure your success. Grow like a pro with PRO GROW.



**PRO GROW LED - PPF User Guide ( $\mu\text{mol}/\text{m}^2/\text{s}$ ).**

LED Fixture	60 W 1 Bar	100 W UFO	200 W UFO	300 W UFO	500 W UFO	630 W 6 Bar	780 W 8 Bar	E800 8 Bar
Total PPF	140 $\mu\text{mol}/\text{s}$	250 $\mu\text{mol}/\text{s}$	500 $\mu\text{mol}/\text{s}$	750 $\mu\text{mol}/\text{s}$	1250 $\mu\text{mol}/\text{s}$	1760 $\mu\text{mol}/\text{s}$	2000 $\mu\text{mol}/\text{s}$	2400 $\mu\text{mol}/\text{s}$
PPF Efficacy	2.4 $\mu\text{mol}/\text{J}$	2.5 $\mu\text{mol}/\text{J}$	2.5 $\mu\text{mol}/\text{J}$	2.5 $\mu\text{mol}/\text{J}$	2.5 $\mu\text{mol}/\text{J}$	2.8 $\mu\text{mol}/\text{J}$	2.82 $\mu\text{mol}/\text{J}$	3.0 $\mu\text{mol}/\text{J}$
Kelvin	6.5K	4K	4K	4K	4K	4.3K	3.8 / 4.2K	4K
CRI	90	90	90	90	90	88.2	91	90
Effective Coverage	0.25 m <sup>2</sup>	0.25 m <sup>2</sup>	0.56 m <sup>2</sup>	1 m <sup>2</sup>	1.44 m <sup>2</sup>	1.44 m <sup>2</sup>	2.25 m <sup>2</sup>	2.25 m <sup>2</sup>
Output PPF ( $\mu\text{mol}/\text{m}^2/\text{s}$ ).	250 @ 30 cm	364 @ 30 cm	778 @ 30 cm	1325 @ 30 cm	1374 @ 40 cm	1220 @ 30 cm	1411 @ 30 cm	1870 @ 30 cm

STAGE	DLI	PPFD	Recommended Height Of LED Fixture Above The Canopy @ 100% Intensity							
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**Unrooted Clones & Seeds (18 hour Photoperiod)**

7-14 days	8	125	50 cm	70 cm	-	-	-	-	-	-
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**Rooted Clones & Seedlings (18 hour Photoperiod)**

Week 1	12	200	40 cm	55 cm	90 cm	105 cm	-	-	-	-
Week 2	16	250	30 cm	45 cm	80 cm	95 cm	115 cm	127 cm	-	-
Week 3	19	300	25 cm	30 cm	77 cm	85 cm	105 cm	125 cm	-	-
Mother Plants	35	550	-	18 cm	50 cm	67 cm	80 cm	80 cm	88 cm	140 cm

**Vegetative (18 hour Photoperiod)**

Week 1	25	400	15 cm	25 cm	70 cm	78 cm	95 cm	100 cm	110 cm	160 cm
Week 2	30	475	10 cm	22 cm	55 cm	76 cm	88 cm	90 cm	100 cm	150 cm
Week 3	35	550	-	18 cm	50 cm	74 cm	80 cm	80 cm	88 cm	140 mm
Week 4	40	625	-	15 cm	44 cm	61 cm	76 cm	70 cm	80 cm	130 mm
Week 5	43	675	-	10 cm	38 cm	58 cm	73 cm	66 cm	75 cm	125 mm

**Flowering (12 hour Photoperiod)**

Week 1	30	700	-	-	32 cm	55 cm	72 cm	62 cm	70 cm	122 cm
Week 2	35	825	-	-	28 cm	50 cm	66 cm	57 cm	62 cm	100 cm
Week 3	40	940	-	-	25 cm	47 cm	58 cm	48 cm	55 cm	87 cm
Week 4	45	1050	-	-	15 cm	42 cm	53 cm	39 cm	48 cm	71 cm
Week 5 - 6	50	1175	-	-	10 cm	33 cm	48 cm	34 cm	40 cm	64 cm
Week 7 - 9	45	1050	-	-	15 cm	42 cm	53 cm	39 cm	48 cm	71 cm



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**INDUSTRY LEADING PERFORMANCE**



WHOLESALE HORTICULTURAL GROUP Pty Ltd

[sales@whg.net.au](mailto:sales@whg.net.au)