Led Flower Growlights

Technical Specification

Spectrabox Professional (5)

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Main advantages of Spectrabox Professional LED grow lights

1. High efficiency and Energy saving

The Spectrabox Pro 5 series are high efficient LED grow lights. Tests have shown that LED grow lights give plants greater light intensity and grow rates than standard HPS grow lights, yet using only 50% of the electricity.

2. Long lifespan due to Ceramic LED's

LED grow lights do have a long lifespan. The led diodes of the Spectrabox Pro 5 are ceramic 3535 package leds mounted by SMT technology. This guaranties high light-output, high quality and high reliability, with a lifespan up to 30.000 hours. The unique and patented Full-spectrum leds are designed by LFG and partners.

3. Plug and Play

No setup required; no reflector and ballast are needed. A Spectrabox is a plug- and play grow light. Just plug directly into a grounded AC230 Volts power socket, which makes the installation safe and simple.

4. Aluminum frame

The Spectrabox Pro 5 is provided with an extreme rigid aluminum lightweight frame. All metal parts are rust free to ensure longevity.

5. SPC technology for excellent performance

SPC technology guarantees the Spectrabox Professional will work stable, even if any of the LED´s does fail, it will not affect other LED's.

6. Flower Booster technology

The Spectrabox Pro 5 is a no-nonsense LED Grow Light with only a switchable Flower Booster to create an ideal growing and flowering environment to optimize yield.

7. Smart fan drive

The LED chips are SMT mounted to an aluminum PCB for excellent heat dissipation. To optimize cooling and heat dissipation, a heatsink with fan is directly attached to the PCB.

8. Full-spectrum LED's for best light coverage

The Spectrabox Pro 5 drives the high power Ceramic led diodes with a safe amperage of 620mA. Leds powered at 620mA provide the highest PAR light output and a long lifespan. The patented LFG full-spectrum led diodes with dual-beam lenses do already attain a complete plant-spectrum coverage at 2 inches distance.

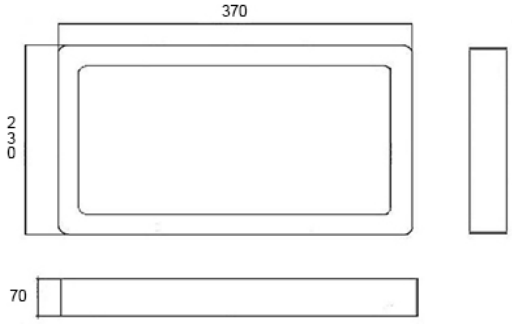
9. Easy maintenance

The Spectrabox Pro 5 is modular build with only two electrical parts; the led driver and the led light unit. Both parts are easily unscrewed and removed for an update or for maintenance. Also when the warranty is expired, the maintenance and updates can easily be done by customer.

10. Environment friendly

A Spectrabox doesn't contain harmful substances such as mercury, iodine and lead like HPS & MH bulbs. LED's are superior in comparison to other lighting technologies in terms of negative environmental and health effects during the manufacturing process. Producing LED's consumes far less energy than manufacturing other lighting and it was noted the LED's contain no mercury and few if any toxins such as iodine and lead.

Application 180W Spectrabox Pro 5



1. *The Spectrabox Professional LED grow light is suitable for greenhouse and indoor "darkroom" lighting.*
2. *The 180W Spectrabox Pro 5 LED grow light replaces a 150W - 250W HPS grow light.*
3. *Ideal for all phases of plant growth and works well in any garden, either hydroponics or soil based.*
4. *Using SCS to create optimal spectrum for plants photosynthesis and photo morphogenesis.*
5. *OEM/ODM or customized integrated grow lighting solutions are available on request.*

Thermal Test for Spectrabox Professional LED grow lights

Thermal test results for LED driver at 620mA											
Date	Time	Heat Sink		AL-PCB		Leg of LED		Air		LED to Air	
		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
20th September	13:30	107.6	42	109.4	43	118.4	48	82.4	28	36	20
	14:00	105.8	41	113	45	122	50	90.5	32.5	31.5	17.5
	14:30	107.6	42	114.8	46	120.2	49	89.6	32	30.6	17
	15:00	109.4	43	113	45	120.2	49	89.6	32	30.6	17
	15:30	111.2	44	113	45	123.8	51	84.2	29	39.6	22
	16:00	114.8	44	114.8	46	122	50	86	30	36	20
	16:30	114.8	44	114.8	46	120.2	49	87.8	31	32.4	18
	17:00	114.8	44	116.6	47	125.6	52	86	30	39.6	22
	17:30	114.8	44	114.8	46	122	50	86	30	36	20
21th September	08:30	104	40	109.4	43	116.6	47	78.8	26	37.8	21
	09:00	102.2	39	104	40	114.8	46	77	25	37.8	21

Note:

1. *The temperature test is done with max fan output at 20th and 21th of September from 13.30 to 09:00.*
2. *In the whole LED light, the highest temperature area is located in LED's.*
3. *The temperature rising between LED to Air vary from 17°C to 22 °C.*
4. *Conclusion Thermal Test: LED chip output is stable within range under test conditions.*
5. *Under real circumstances the outcome may be slightly different to the above results.*

Pictures 180W Spectrabox Pro 5

Technical specification 180W Spectrabox Pro 5

Item	Value	Item	Value
Led diode	Ceramic 3 / 6 Watt	Led value	180 Watt
Number of led's	60 pieces	Power factor	> 92%
Wavelength	Full-spectrum	THD	< 13%
Optic lenses	Dual-beam	Power consumption	~ 116 Watt
Frame color	Yellow & black	Power consumption grow	~ 54 Watt
Estimate lifespan	Up to 30.000 hours	Ventilations fans	2 pieces
Height above plants	0.05 up to 1.5 meters	Switch	Flower Booster
Working environment	-20 ~ + 40°C	Voltage	230 Volts
Photon flux density	~ 200 µmol s/m²	Relative humidity air	< 85%
Size Spectrabox	370x230x70 mm	N.W.	2.6 KG / pc
Package size	430x290x115 mm	G.W.	3.0 KG / pc

Certification and Warranty of Spectrabox Professional LED grow lights

CE

RoHS Compliant

Note:

1. *Indoor use only.*
2. *To avoid damage, don't use in dripping water environment or with dripping irrigation.*
3. *Select different lighting time depending on growing phase and species.*
4. *Use LED grow light in ventilated environment to ensure the light works at highest performance.*
5. *Don't look into the LED light directly without wearing sunglasses.*
6. *Power socket should be connected to the ground/earth.*
7. *After sales service; 2 years full warranty.*

