



Led Flower Growlights

Technical Specification

Spectrabox Professional

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Spectrabox

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Main advantages of Spectrabox Pro-III LED grow lights

1. High efficiency and Energy saving

The SB300-Pro-III is a high efficiency LED grow light. 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 life span

The SB300-Pro-III has an estimated life span of at least 30.000 hours. The life span of the LED's reaches up to 50,000 hours. The used LED chips are mainly purchased from American chip manufacturer Bridgelux. LED chip wavelengths which are not available at Bridgelux are purchased from quality chip manufacturers like Edison or Epistar.

3. Plug and Play

No setup required; no reflector and ballast are needed. The SB300-Pro-III is a plug- and play grow light. Just plug directly into AC110 or AC230 Volts power socket, which makes the installation safe and simple.

4. SSP technology and electrical protection

The SB300-Pro-III uses the unique SSP technology. The SSP technology restricts the DC output voltage to never be higher than the LED chips voltage. It avoids the LED's from higher voltage shocking. The power design is also lightning- and surge-proof.

5. SPC technology for excellent performance

SPC technology guarantees the SB300-Pro-III works more stable. If any of the LED chips does fail, it will not affect other LED's, as it does with standard LED grow lights. The high quality SSP and SPC design makes it very stable and safe to use.

6. Flower Booster technology

The SB300-Pro-III is provided with a switchable Flower Booster. This creates an ideal growing and flowering environment, which increases yield and saves energy.

7. Advanced thermal design

The LED chips are directly welded onto an aluminum PCB instead of normal PCB. Aluminum PCB's have excellent passive heat dissipation. The six built-in fans are used for active heat dissipation. Combined passive and active heat dissipation keep the LED chips at the ideal temperature for best light intensity.

8. High powerful chips to attain higher luminescence

The SB300-Pro-III drives the high quality, high power led's with an amperage of 600mA. At 600mA these 3W led's have the highest luminescent efficiency and produce less heat.

9. Environment friendly

The SB300-Pro-III doesn't contain the harmful substance HPS & MH have; no hazardous waste to deal with which makes our earth cleaner and greener. 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.

10. Easy maintenance

All electrical parts are wired with standard connectors, which make maintenance simple. When the warranty is expired, the maintenance can easily be done by customer.

Application 300W Spectrabox Pro-III LED grow light



1. The Spectrabox Pro-III LED grow light is suitable for greenhouse and indoor "darkroom" lighting.
2. The 300W Spectrabox Pro-III LED grow light replaces a 400W to 600W HPS grow light.
3. Ideal for all phases of plant growth and works well in any garden, either hydroponics or soil based.
4. Uses only the exact spectrum required for plants photosynthesis and photo morphogenesis.
5. OEM/ODM or customized integrated grow lighting solutions are available on request.

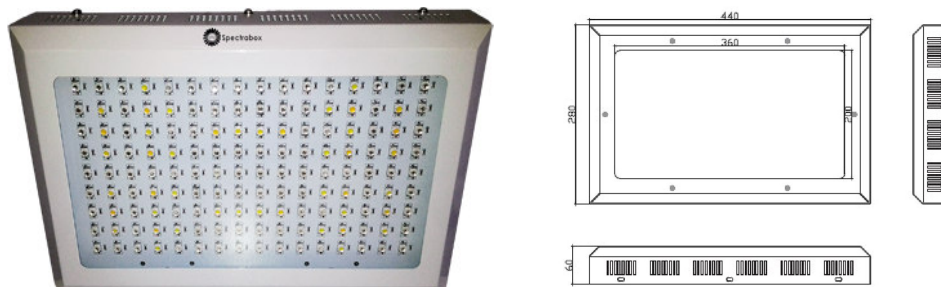
Thermal Test of 300W Spectrabox Pro-III LED grow light

Thermal test results for LED driver at 600mA											
Date	Time	Heat Sink		AL-PCB		Leg of LED		Air		LED to Air	
		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
25 th July	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
26 th July	08:30	104	40	109.4	43	116.6	47	78.8	26	37.8	21
July	09:00	102.2	39	104	40	114.8	46	77	25	37.8	21

Note:

1. The temperature test was done with maximum fan output at 25th and 26th July 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 of 300W Spectrabox Pro-III LED grow light



Technical specification 300W Spectrabox Pro-III LED grow light

Item	Value	Item	Value
Driver led chips	600 mA	Led power output	266,5W typical
Number of led's	144 pieces	Power factor	> 90%
Led wavelength	Full-spectrum	THD	< 15%
Led beam angle	Multi angle	Power consumption	~ 308 Watt
Estimate lifespan	> 30.000 hours	Voltage	230 Volt
Height above plants	0.1 up to 2.5 meters	Work frequency	50 Hertz
Lighting area	Max. 25 m ²	Switches	Flower boosters
Working environment	-20 ~ + 40°C	Relative humidity air	< 85%
Photon flux density	~ 500 μmol s/m ²	Ventilations fans	6 pieces
Size Spectrabox	440*280*70mm	N.W.	6.3 KG / pc
Package size	495*382*150mm	G.W.	7.0 KG / pc

Certification and Warranty of Spectrabox Pro-III LED grow lights



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 warranty; first year 100%, second year 50%.