



Led flower growlights

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Spectrabox Professional

Technical Specification

Release Version: V2.0

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Main advantages SB150SB-Pro LED grow light

1. High efficiency and Energy saving

The SB150SB-Pro is a high efficiency Full-Spectrum 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 30% to 50% of the electricity.

2. Long life span

The SB150SB-Pro 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 SB150SB-Pro 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 SB150SB-Pro 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 SB150SB-Pro 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 the SB150SB-Pro very stable and safe to use.

6. Flower Booster technology

The SB150SB-Pro is provided with 2 pieces switchable Flower Boosters. 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 three 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 SB150SB-Pro uses LED chips with an amperage of 600mA. These high quality and High Power LED's have the highest luminescent efficiency and produce less heat.

9. Environment friendly

The SB150SB-Pro 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.

Thermal test of SB150SB-Pro 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
8th March	13:30	95	35	104	40	122	50	80.6	27	36	20
	14:00	95	35	104	40	123.8	51	82.4	28	31.5	17.5
	14:30	95	35	105.8	41	122	50	80.6	27	36	20
	15:00	96.8	36	105.8	41	122	50	80.6	27	36	20
	15:30	95	35	105.8	41	123.8	51	82.4	28	39.6	22
	16:00	98.6	37	105.8	41	122	50	80.6	27	36	20
	16:20	96.8	36	104	40	122	50	80.6	27	32.4	18
	16:40	98.6	37	105.8	41	123.8	51	82.4	28	39.6	22
	17:00	96.8	36	104	40	122	50	80.6	27	36	20
	17:20	98.6	37	104	40	123.8	51	82.4	28	37.8	21

Note:

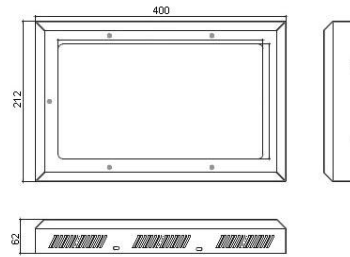
1. The temperature test was done from 13:30 to 17:20 on the 8th of March 2011.
2. In the whole LED light, the highest temperature area is located in LED's.
3. The temperature rising between LED to Air variety from 17.5 to 22°C.
4. Conclusion Thermal Test: LED chips work under good condition.
5. Under real circumstances the outcome may be slightly different to the above results.

Application SB150SB-Pro LED grow light



1. The Full-Spectrum SB150SB-Pro is suitable for greenhouse and indoor "darkroom" lighting.
2. The SB150SB-Pro LED grow light replaces a 250W to 400W 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 of blue, white, (far)red, IR and UV required for plants photosynthesis.
5. OEM/ODM or customized integrated grow lighting solutions are available on request.

Pictures of SB150SB-Pro LED grow light



Technical specification SB150SB-Pro LED grow light

Item	Value	Item	Value
LED chips	600 mA	Led power output	153,2W typical
Number of LED's	90 pieces	Power factor	> 90% - 97%
LED wavelength	10 band multi-spectra	THD	< 15%
LED beam angle	Multi angle	Power consumption	~ 180 Watt
Estimate lifespan	> 30.000 hours	Voltage	230V – 110V
Height above plants	0.2 up to 3.0 meters	Work frequency	50Hz / 60Hz
Lighting area	Max. 30 m ²	Switches	2 Flower Boosters
Working environment	-20 ~ +40°C	Relative humidity air	< 85%
Photon flux density	~ 250 $\mu\text{mol s/m}^2$	Ventilations fans	3 pieces
Size Spectrabox	400x212x62 mm	N.W.	3.4 KG / pc
Package size	450x280x115 mm	G.W.	4.0 KG / pc

Certification and Warranty of SB150SB-Pro LED grow light



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%.