

Led Flower Growlights

Technical Specification

Spectrabox Gold Series(4S)

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Spectrabox

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Main advantages of Spectrabox Gold LED grow lights

1. High efficiency and Energy saving

The Spectrabox Gold 4S 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

LED grow lights do have a long lifespan. The Spectrabox Gold 4S is provided with 3W and 5W high power leds, mounted by SMT technology. This guarantees a high light-output, a high quality and a high reliability, with a lifespan up to 35.000 hours.

3. Plug and Play

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

4. Aluminum frame

The Spectrabox Gold 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 Gold will work stable, even if any of the LED's does fail, it will not affect other LED's.

6. Spectrum Control System (SCS)

The Spectrabox Gold is provided with two Spectrum Controllers. The GROWHT controller does adjust the growing section of the light spectrum. The YIELD controller does adjust the flowering section of the light spectrum. The Spectrum Control System enables to create an ideal environment, which helps to increase yield and save energy.

7. Smart fan drive

The LED diodes 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 Gold is provided with unique and patented 5W Full-spectrum Hybrid COB leds, designed by LFG and partners. The top-end 3W OSRAM leds have the highest light-output with lowest decline during lifespan. All leds are provided with high-beam lenses, so the light radiation does penetrate to the lowest buds.

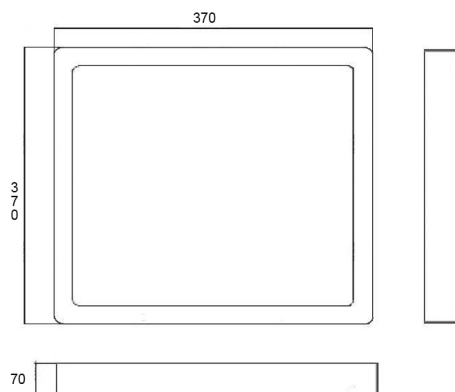
9. Easy maintenance

The Spectrabox Gold 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 520W Spectrabox Gold



1. The Spectrabox Gold LED grow lights are suitable for greenhouse and indoor "darkroom" lighting.
2. The 520W Spectrabox Gold LED grow light replaces a 400 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. 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 Gold LED grow lights

Thermal test results for LED driver at 650mA											
Date	Time	Heat Sink		AL-PCB		Leg of LED		Air		LED to Air	
		°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
20 th August	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
21 th	08:30	104	40	109.4	43	116.6	47	78.8	26	37.8	21
August	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 August 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 520W Spectrabox Gold



Technical specification 520W Spectrabox Gold 4S

Item	Value	Item	Value
Led diode	3W & 5W COB	Led value	528 Watt
Number of led's	144 pieces	Power factor	> 92%
Wavelength	Full-spectrum	THD	< 13%
Optic lenses	High-beam	Power consumption	~ 275 Watt
Frame color	Yellow & black	Ventilations fans	4 pieces
Estimate lifespan	Up to 35.000 hours	Spectrum Control	Yield & Growth
Height above plants	0.15 up to 1.5 meters	Relative humidity air	< 85%
Working environment	-20 ~ + 40°C	Voltage	230 Volts
Photon flux density	~ 500 $\mu\text{mol s/m}^2$	Frequency	50/60 Hz
Size Spectrabox	370x370x70 mm	N.W.	5.8 KG / pc
Package size	450x430x115 mm	G.W.	6.3 KG / pc

Certification and Warranty of Spectrabox Gold 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 full warranty.