SolarLUX Lighting Solutions

Quantum 100 [G2]

Technical Specification

Release Version: V1.0

Release Date: 2021/01/01

Main advantages Quantum 100

1. High efficiency and Energy saving

The Quantum 100 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 30% to 50% of the electricity.

2. Long lifespan

The Quantum 100 is provided with mainly high quality and high efficacy Samsung LM301B LEDs. Extra Red IR and UV light is provided with LEDs from Seoul & Osram. The LEDs are also computer SMT mounted to the PCB, which guaranties high quality and high reliability with a long lifespan.

3. Plug & Play

No setup required; reflector and ballast are not needed. The Quantum 100 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. Waterproof

The Quantum 100 is plash waterproof. The LEDs are attached to the aluminum frame and waterproof sealed.

5. SSP technology and electrical protection

The Quantum 100 uses SSP technology. SSP technology restricts the DC output voltage to never be higher than the LED chips Voltage. It avoids the LEDs from higher voltage shocking. The power design is also lighting- and surge-proof.

6. SPC technology for excellent performance

SPC technology guarantees the LED bar is more stable. If any of the LED chips does fault, it will not affect other LEDs. The high quality SSP and SPC design makes the LED Bar solid and safe.

7. Advanced thermal design

The LEDs are passively cooled by the aluminum frame of the Quantum G2 Series. The aluminum PCB is directly attached to the aluminum body of the Quantum G2 for excellent heat dissipation. Passive LED cooling is preferred above active cooling. No moving parts are needed, which is energy efficient and requires no maintenance.

8. Powerful full spectrum

The Quantum 100 is provided with mainly Samsung LM301B LEDs. These LEDs do have a very high PPF efficiency per Watt. The LEDs are (splash) waterproof sealed and not covered by glass, which does improve the efficiency. This is why the Quantum 100 does have an efficacy of 2,5 µmol/J, which is very high in this price range.

9. Environment friendly

A Quantum G2 LED light does not contain the harmful substance HPS & MH have; no hazardous waste to deal with which makes our earth cleaner and greener. LEDs are superior in comparison to other lighting technologies in terms of negative environmental and health effects during the manufacturing process. Producing LEDs consumes far less energy than manufacturing other lighting and it was noted the LEDs contain no mercury and few if any toxins such as iodine and lead.
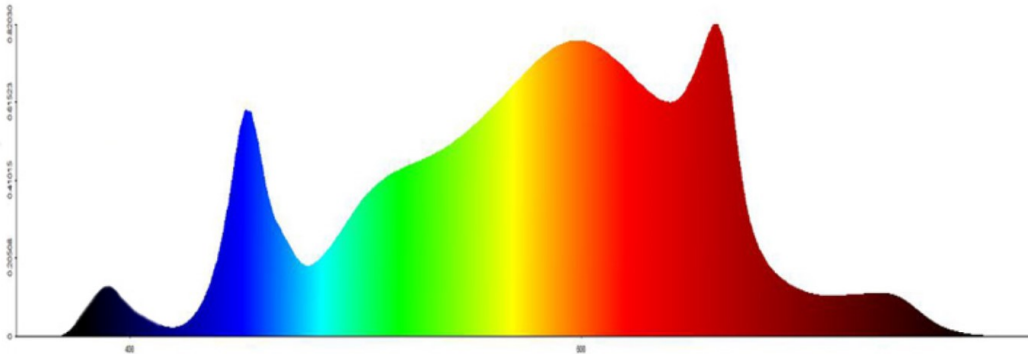
Picture Quantum 100

1. A Quantum G2 LED light is suitable for indoor and greenhouse lighting.
2. The Quantum 100 replaces a 150 – 250 Watt HPS grow light.
3. Ideal for all phases of plant growth and works well in any garden, either hydroponics or soil based.
4. Uses a broad light spectrum required for plants photosynthesis.
5. OEM/ODM or customized integrated grow lighting solutions are available on request.

Hanging system [included]

Spectrum Quantum 100

Technical specification Quantum 100

Item	Value	Item	Value
LED chips	Samsung LM301B	HPS equivalent	200 Watt
LED amount	250 pieces	Power factor	> 95%
LED wavelength	Full-spectrum	Power consumption	~ 100 Watt
Light distribution	120° beam angle	Dim control	No
Lifespan	> 35.000 hours	Voltage AC	100V – 277V
Height above plants	> 25 cm	Work frequency	50Hz / 60Hz
Ideal lighting area	< 80 x 80 cm	Working environment	-20 ~ + 40°C
Efficacy Q100	2,50 µmol / J	Waterproof level	Splash proof
Size Q100	250*250*90 mm	Weight	1,95 Kg

Certification and Warranty of Quantum G2 Series

Note:

1. *Select different lighting time depending on plant species.*
2. *Don't look into the LED light directly without wearing sunglasses.*
3. *Power socket should be connected to the ground/earth.*
4. *Good after sales service; 2 year warranty*.*

* Warranty according EU directive 2009/125/EG.