



# Grow Lighting

---

4Twenty Grow Lighting

## 180W LED Panel

Technical Specification

Release Version: V1.1

Release Date: 2019/09/20

## Main advantages 4Twenty LED Panel

### 1. High efficiency and Energy saving

The 4Twenty LED Panel 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 life span

LED grow lights do have a long lifespan. The LED Panel is provided with Samsung 3030 leds at 3500K and 660nm, mounted by SMT technology. This guarantees high light-output, high quality and high reliability with a lifespan up to 30.000 hours.

### 3. Setup requirement

The LED Panel is connected to the MeanWell LED Driver. The LED Driver can be plugged directly into power socket, which makes the installation safe and simple.

### 4. Waterproof

The led's of the LED Panel are waterproof glued to the PCB, which ensures a IP63 splash proof water resistance. The MeanWell LED Driver does have a full IP65 waterproof rate.

### 5. SSP technology and electrical protection

The LED Panel 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.

### 6. SPC technology for excellent performance

SPC technology guarantees the LED Panel are more stable. If any of the LED chips does fault, it will not affect other LED's, as it does with standard LED grow lights. The high quality SSP and SPC design makes the LED Panel solid and safe.

### 7. Advanced thermal design

The LED chips are directly welded onto an aluminum PCB instead of normal PCB. Aluminum PCB's have very good passive heat dissipation. The aluminum PCB is directly attached to the aluminum body of the LED bar for excellent heat dissipation.

### 8. Environment friendly

The LED Panel 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.

Picture LED Panel



Packing LED Panel



## Application LED Panel

1. The LED Panel is suitable for indoor and greenhouse lighting.
2. The 180W LED Panel 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 and white required for plants photosynthesis.
5. OEM/ODM or customized integrated grow lighting solutions are available on request.

## Technical specification 420-LP180

Item	Value	Item	Value
LED brand	Samsung	LED driver	MeanWell ELG-150
LED amount	312 pieces	Power factor	> 92%
LED type	SMD 3030	THD	< 15%
LED beam angle	120°	Power consumption	~ 150 Watt
LED wavelength	Full plant spectrum	Voltage	85V – 265V
PAR / photon flux	~ 2,30 $\mu\text{mol} / \text{J}$	Work frequency	50Hz / 60Hz
Height above plants	0.15 – 0.50 meters	Working environment	-20 ~ + 40°C
Lighting area	0,4 to 1,0 m <sup>2</sup>	Waterproof level	IP63
Lifespan	> 3 years	Ventilation fans	No
Size LED Panel	400*220*20mm	N.W.	3,8 Kg / pc
Packing size	465*370*80mm	G.W.	4,5 Kg / pc

## Certification and Warranty of LED Panel



### 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. The LED Panel is CE and RoHS compliant.
5. Good after sales service; 2 years, first year full warranty, second year 50%.