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Hortilight LED systems

## ScrogMaster 1200

Technical Specification

Release Version: V3.0

Release Date: 2019/08/01

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## Main advantages ScrogMaster 1200

### 1. High efficiency and Energy saving

The ScrogMaster 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 LEDs of the ScrogMaster 1200 are 3W Power LEDs combined with 10W Hybrid COB LEDs, mounted by SMT technology. This guarantees high light-output, high quality and high reliability with a lifespan up to 35.000 hours (50.00 hours under lab conditions)

### 3. Setup required

The ScrogMaster 1200 requires a simple setup. The LED bars need to be assembled to middle driver unit. After assembling the ScrogMaster can be plugged directly into AC100 to AC277 Volts power socket, which makes the installation safe and simple.

### 4. Waterproof

The LEDs of the LED bars are attached to the aluminum frame and sealed with an optical lens. This ensures the LED bars are waterproof and it also maximizes light penetration because of the focused led beam caused by the optical lens.

### 5. SSP technology and electrical protection

The ScrogMaster 1200 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 bars are more stable. If any of the LED chips does fault, it will not affect other LEDs, as it does with standard LED grow lights. The high quality SSP and SPC design makes the ScrogMaster 1200 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. Full Spectrum COB leds

The 10W Hybrid COB's have a broadband spectrum especially developed for plant photosynthesis. The optical lenses do give these power COB's a deep light penetration combined with a wide coverage.

### 9. Environment friendly

The ScrogMaster doesn't 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.

## Thermal test LED Bar

| Thermal test results LED Bar |       |           |    |        |    |            |    |      |    |            |    |
|------------------------------|-------|-----------|----|--------|----|------------|----|------|----|------------|----|
| Date                         | Time  | Heat Sink |    | AL-PCB |    | Leg of LED |    | Air  |    | LED to Air |    |
|                              |       | °F        | °C | °F     | °C | °F         | °C | °F   | °C | °F         | °C |
| 13th June                    | 12:30 | 123,8     | 51 | 127,4  | 53 | 136,4      | 58 | 77   | 25 | 91,4       | 33 |
|                              | 13:00 | 125,6     | 52 | 127,4  | 53 | 136,4      | 58 | 78,8 | 26 | 89,6       | 32 |
|                              | 13:30 | 125,6     | 52 | 129,2  | 54 | 138,2      | 59 | 80,6 | 27 | 89,6       | 32 |
|                              | 14:00 | 127,4     | 53 | 131    | 55 | 138,2      | 59 | 80,6 | 27 | 89,6       | 32 |
|                              | 14:30 | 127,4     | 53 | 131    | 55 | 138,2      | 59 | 80,6 | 27 | 89,6       | 32 |
|                              | 15:00 | 127,4     | 53 | 132,8  | 56 | 140        | 60 | 80,6 | 27 | 91,4       | 33 |
|                              | 15:30 | 127,4     | 53 | 131    | 55 | 140        | 60 | 82,4 | 28 | 89,6       | 32 |
|                              | 16:00 | 125,6     | 52 | 132,8  | 56 | 140        | 60 | 82,4 | 28 | 89,6       | 32 |
|                              | 16:30 | 125,6     | 52 | 131    | 55 | 138,2      | 59 | 80,6 | 27 | 89,6       | 32 |
| 14st June                    | 08:30 | 122       | 50 | 125,6  | 52 | 132,8      | 56 | 73,4 | 23 | 91,4       | 33 |
| June                         | 09:00 | 123,8     | 51 | 127,4  | 53 | 134,6      | 57 | 75,2 | 24 | 91,4       | 33 |

## Note:

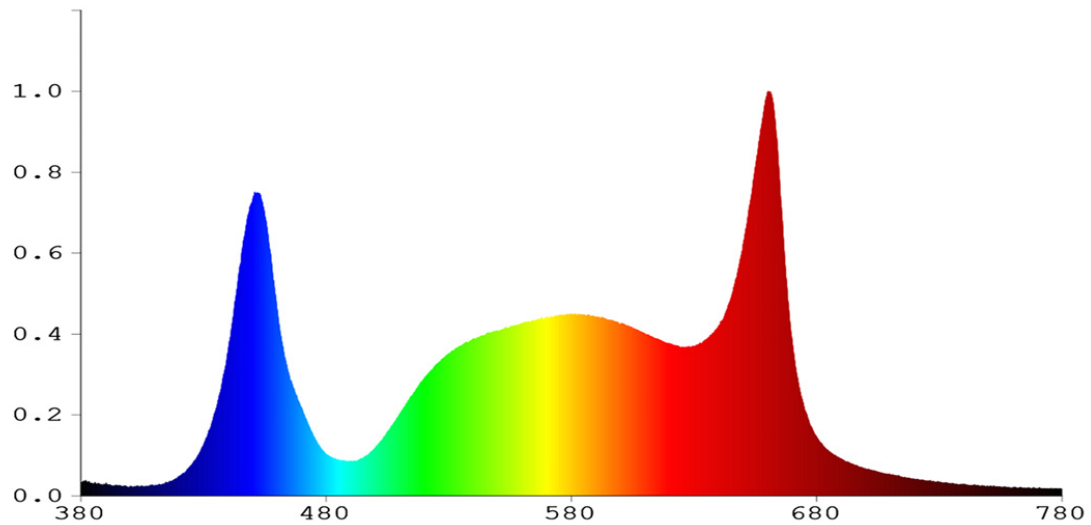
1. The temperature test was done from 13:30 13<sup>th</sup> June to 09:00 14<sup>th</sup> June 2019.
2. In the whole LED light, the highest temperature area is located in LEDs.
3. The temperature rising between LED to Air is within 33 °C.
4. Conclusion Thermal Test: LED chips work under good condition.
5. Under real circumstances the outcome may be slightly different to the above results.

## Picture of ScrogMaster 1200



1. A Hortilight ScrogMaster is suitable for indoor and greenhouse lighting.
2. The ScrogMaster 1200 replaces 2 pieces 600W to 750W HPS grow light.
3. Ideal for all phases of plant growth and works well in any garden, either hydroponics or soil based.
4. Uses below full-spectrum required for plants photosynthesis.
5. OEM/ODM or customized integrated grow lighting solutions are available on request.

## Spectrum ScrogMaster 1200



## Technical specification SM1200

| Item                | Value                           | Item                | Value        |
|---------------------|---------------------------------|---------------------|--------------|
| Led diodes          | 3W & 10W COB                    | Led value           | 1584 Watt    |
| Led amount          | 288 LEDs & 72COB                | Led drivers         | MeanWell     |
| Led bars            | 9 pieces                        | Power factor        | > 95%        |
| Led wavelength      | Full-spectrum                   | Power consumption   | ~ 720 Watt   |
| Optical lens        | 105° beam angle                 | Dim control         | Prepared     |
| Lifespan            | > 5 years                       | Voltage             | 100V – 277V  |
| Height above plants | > 10cm   optimal 15cm           | Work frequency      | 50Hz / 60Hz  |
| Lighting area       | 1,50 to 3,00 m2                 | Working environment | -20 ~ + 40°C |
| PAR Photon flux     | 2,70 $\mu\text{mol} / \text{J}$ | Waterproof level    | IP65         |
| ScrogMaster size    | 120*120*12 cm                   | Weight              | 22 Kg        |

## Certification and Warranty of ScrogMaster 1200



## 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 HortiLight ScrogMaster 1200 is CE, UL and RoHs compliant.
5. Good after sales service; 3 year warranty.