

# Horti Lightsystems

# Specification Hortilight Sunfactor 2.0 Series

Sunfactor Smart Series LED Grow light

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# Sunfactor 2.0 Smart Series LED Grow light



# PATENT No.

ZL2012 30401151.X ZL2012 20419157.4



# Advantages characteristics of Sunfactor 2.0 Smart Series

#### ♦ Combination of super power and high power LEDs:

High efficient and high reliable SMD package Ceramic LED's. Combination of 63W COB LED and 3W LED's for advanced power light output and penetration.

#### **♦** Combination of 3 independent channels:

Smart programmable 3 channels design for *growing*, *vegetation* and *flowering* independently.

#### **♦** Programmable auto-dimmed control:

Each channel can be separately auto-dimmed by Smart programmable controller.

#### ♦ Energy saving:

Low power consumption with programmable Smart Controller and automatic brightness control.

#### **♦ OEM climate lighting cycle:**

Easy to use preprogrammed all-day climate light cycle with sunset, sunrise, cloudy, sunny and moon light which plants enjoy like natural sunlight cycle.

#### **♦ Special Lenses:**

Special lenses designed by advanced optical lens company to bring higher light penetration and better light coverage.

#### **♦ NIDEC Fans:**

Made in Japan NIDEC fans are high quality and ultra-silent with a longer lifespan then most fans. The low noise operation ensure stress free usage.

#### **♦** Serial control for multi lamps:

The Sunfactor 2.0 Smart Series can be interconnected and easily controlled by one external controller; Plant breeders praise this Smart function, which also operates when growing in different rooms.

#### **♦** Aluminum housing:

The Sunfactor housing is made of high quality anodic aluminum oxide, which is free of corrosion even in high humidity environment. Aluminum alloy makes the housing much stronger as standard iron and does have a lower total weight.

#### **♦** Advanced heat dissipation design:

The advanced heat dissipation design of the Smart Sunfactor 2.0 Series does link the inner heat sink and outer aluminum frame for faster heat dissipation, so the temperature of LED junction is much lower than in standard LED design.

#### ♦ Elegant shape:

The aluminum surface is brushed, which has elegant black or metal gloss appearance.



# > Sunfactor Smart Series



# **♦ Material list and Advantages**

| Par | rt Name       | Material                | Advantages                                     |
|-----|---------------|-------------------------|--|
| 1.  | AC input      | Stainless steel, Copper | 100% rust free, >2000 Volt RMS isolation       |
| 2.  | Signal input  | Stainless steel, Copper | 100% rust free                                 |
| 3.  | Optical lens  | Optical Polycarbonate   | Designed by advanced Optical Company,          |
|     |               |                         | beam angle 78°                                 |
| 4.  | Optical lens  | Optical Polycarbonate   | Designed by advanced Optical Company,          |
|     |               |                         | beam angle 105°                                |
| 5.  | Housing frame | Aircraft aluminum       | Sand blasting and anodic oxidation craft,      |
|     |               |                         | high corrosion resistance, elegant metal gloss |
| 6.  | Screws        | Stainless steel         | 100% rust free                                 |
| 7.  | Housing front | Aircraft aluminum       | Brushed and anodic oxidation craft,            |
|     |               |                         | high corrosion resistance, elegant metal gloss |
| 8.  | AC output     | Stainless steel         | 100% rust free,                                |
|     |               |                         | >2000 Volt RMS isolation, anti-electric shock  |
| 9.  | Signal output | Stainless steel         | 100% rust free                                 |
| 10. | Silence fans  | NIDEC                   | Famous longer lifespan Japanese Silence fans,  |
|     |               |                         | widely used in DELL/HP Computer Servers        |
| 11. | Housing back  | Aircraft aluminum       | Brushed and anodic oxidation craft,            |
|     |               |                         | high corrosion resistance, elegant metal gloss |
| 12. | Hanger        | Stainless steel         | 100% rust free                                 |

# **♦** Size and weight

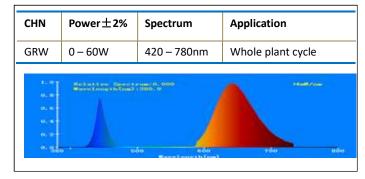
| Models | Products Size | Products Weight | Package Size  | Gross Weight |
|--------|---------------|-----------------|---------------|--------------|
| 135WI  | 220*220*70mm  | 1.68 Kg         | 351*256*106mm | 2.44 Kg      |
| 270WI  | 370*220*70mm  | 2.98 Kg         | 501*256*106mm | 3.78 Kg      |
| 400W   | 530*220*70mm  | 4.30 Kg         | 661*256*106mm | 5.20 Kg      |
| 540W   | 370*370*70mm  | 5.26 Kg         | 501*406*106mm | 6.28 Kg      |
| 800W   | 530*370*70mm  | 7.24 Kg         | 661*406*106mm | 8.76 Kg      |



# > LED Channels Distribution

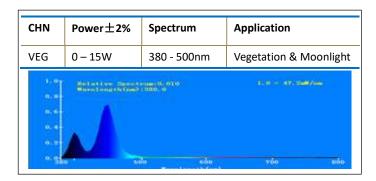
# **♦ GRW Channel Power and Spectrum**





# **♦ VEG Channel Power and Spectrum**





# **♦ BLM Channel Power and Spectrum**



| CHN   | Power±2% | Spectrum    | Application       |  |
|---|----------|-------------|-------------------|--|
| BLM   | 0 - 15W  | 590 – 760nm | Buds and blooming |  |
| Hall at Low Hammer to the Cost Water Entry St Comp (1990), 31 |          |             | M                 |  |
|   |          |             |                   |  |

# ♦ GRW+VEG+BLM total Power and Spectrum



| CHN  | Power±2%                         | Spectrum    | Application                |
|--|----------------------------------|-------------|----------------------------|
| All  | 0-90W                            | 380 – 780nm | Flowering period           |
| 1. 0 7<br>0. 8 -<br>0. 6 -<br>0. 4 -<br>0. 2 -<br>0. 0 3 | Relative Spect<br>Wavelength(um) |             | 1. 0 = 111mm/nm<br>700 800 |



# > Multi lamps interconnection



#### **♦** Power interconnection:

Maximum current for one Power cords is 15A with a maximum Wattage of 2000W@220VAC or 1000W@110VAC;



#### **♦** Power interconnection cord:

For power interconnection an Interconnection Power cord is available in different lengths.

# Smart wireless Controller

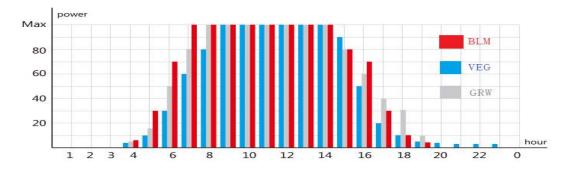


#### Note:

- 1) One Smart Wireless Controller can control 22 groups of maximum 99 pieces Sunfactor 2.0 lights;
- 2) The distance between the Wireless Controller and lamps should not exceed 30 meters for having reliable RF signal transferring.
- 3) The Remote Controller does control the Smart Controller by IR signal transferring.



# > Custom program settings



- Users can preprogram a preferred light climate cycle with the Smart Controller.
- The Smart Controller is also programmed with multiple standard climate setting, like a 12 hours Flowering setting and a 18 hours Grow setting.

# > Parameters 135W Module

| Item                | Parameter   | Item                     | Parameter |
|---------------------|-------------|--------------------------|-----------|
| Voltage AC          | 86 - 265VAC | Temp arise LED-air       | <45 °C    |
| Power consumption   | 90W ±2%     | Temp arise heat sink-air | <30 ℃     |
| Efficiency          | > 90%       | Life span                | > 5 years |
| Standby consumption | < 2.5W      | Temp environment         | <30 ℃     |
| Power factor        | > 90%       | Humidity environment     | < 85%     |
| Harmonic wave       | < 10%       | Warranty                 | 2 years   |

# > Accessories of Products





> Dealer information