



**Panel grow light 【CK series】 - NO: T37.8- 9405500000PG08**  
**SPECIFICATION FOR APPROVALFOR APPROVAL**

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**PG--RGWA2(CK series) Panel grow light**



**Queendom Group Technology Co., Ltd.**

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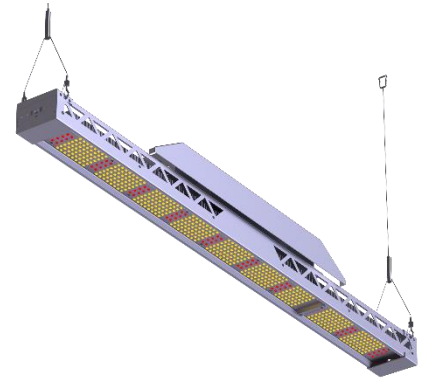
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## Features:

Light source type: SMD LED  
 Lamp diameter: 1030\*80.6\*55.2mm  
 Shell color: Silver Gray  
 Chip material: GaInn/GaN  
 Power: 240W & 480W  
 Voltage: 85V-180V/160-265V & 50-60Hz  
 Color  $\lambda$ d (nm): 6000K/3000K/red/blue 5:1/ 5:2/ 3:1/ 1:1  
 Light efficiency: 100LM/W  
 Protection level: IP65-IP68  
 Lighting angle: 120°  
 Power factor:  $\geq 0.9$   
 PPFD value: 5-8umol/J  
 Material: PC + (optical grade) acrylic  
 Lifespan: >50000H



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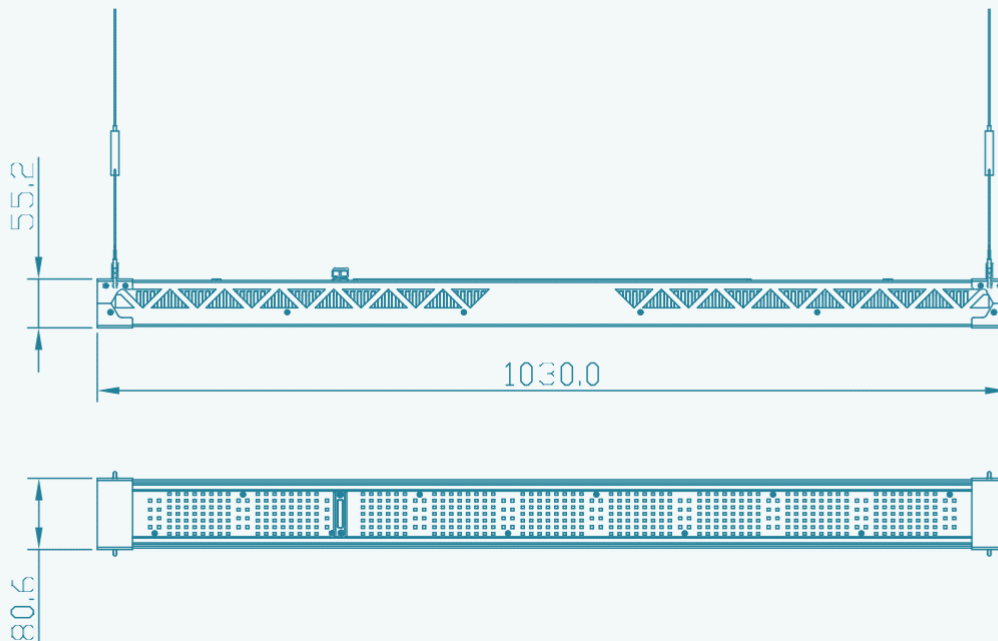
## Descriptions:

Queendom CK series LED grow light is an efficient plant light source specially designed for plant growth.  
 It uses LED light source with long life and low energy consumption.  
 This kind of planting tube can provide plants with the light they need to promote their growth and development.  
 Pure aluminum plate material  
 Long strip shape (small size, high power)  
 Rope installation  
 Kits can be combined and spliced (horizontally or vertically)

## Applications:

gardening  
 farm  
 plant cultivation  
 Greenhouse cultivation  
 Horticulture Research  
 Indoor cultivation, greenhouse, flower cultivation, vegetable cultivation and other fields.

## Package Dimension:



### Product Selection Guide & SKU

Table 1. Product performance of QUEENDOM plant light, Tj=25°C.

| PRODUCT     | RANK NO. | SIZE       | PART NUMBER      |
|-------------|----------|------------|------------------|
|             |          | (mm)       |                  |
| PG240RBA1   | PG0701   | 1030x81x56 | 9405500000PG0801 |
| PG480RBA1   | PG0702   | 1030x81x56 | 9405500000PG0802 |
| PG240WWRA1  | PG0703   | 1030x81x56 | 9405500000PG0803 |
| PG480WWRA1  | PG0704   | 1030x81x56 | 9405500000PG0804 |
| PG240WWRIA1 | PG0705   | 1030x81x56 | 9405500000PG0805 |
| PG480WWRIA1 | PG0706   | 1030x81x56 | 9405500000PG0806 |
| PG240RBA2   | PG0707   | 1030x81x56 | 9405500000PG0807 |
| PG480RBA2   | PG0708   | 1030x81x56 | 9405500000PG0808 |
| PG240WWRA2  | PG0709   | 1030x81x56 | 9405500000PG0809 |
| PG480WWRA2  | PG0710   | 1030x81x56 | 9405500000PG0810 |
| PG240WWRIA2 | PG0711   | 1030x81x56 | 9405500000PG0811 |
| PG480WWRIA2 | PG0712   | 1030x81x56 | 9405500000PG0812 |

### Electrical Characteristics

Table 2. Product performance of QUEENDOM plant light, Tj=25°C.

| PRODUCT     | RANK NO. | NOMINAL λ d(nm) |     | SIZE       | POWER | VOLTAGE |
|-------------|----------|-----------------|-----|------------|-------|---------|
|             |          | MIN             | MAX | (mm)       | (W)   | (V/FV)  |
| PG240RBA1   | PG0701   | 300             | 730 | 1030x81x56 | 240   | 110     |
| PG480RBA1   | PG0702   | 300             | 730 | 1030x81x56 | 480   | 110     |
| PG240WWRA1  | PG0703   | 300             | 730 | 1030x81x56 | 240   | 110     |
| PG480WWRA1  | PG0704   | 300             | 730 | 1030x81x56 | 480   | 110     |
| PG240WWRIA1 | PG0705   | 300             | 730 | 1030x81x56 | 240   | 110     |
| PG480WWRIA1 | PG0706   | 300             | 730 | 1030x81x56 | 480   | 110     |
| PG240RBA2   | PG0707   | 300             | 730 | 1030x81x56 | 240   | 220     |
| PG480RBA2   | PG0708   | 300             | 730 | 1030x81x56 | 480   | 220     |
| PG240WWRA2  | PG0709   | 300             | 730 | 1030x81x56 | 240   | 220     |
| PG480WWRA2  | PG0710   | 300             | 730 | 1030x81x56 | 480   | 220     |
| PG240WWRIA2 | PG0711   | 300             | 730 | 1030x81x56 | 240   | 220     |
| PG480WWRIA2 | PG0712   | 300             | 730 | 1030x81x56 | 480   | 220     |

Notes for Table 1:  
Correlated color temperature is cold-targeted at Tj=25°C.  
Luminous flux and CRI specs are based upon mounted package on highly reflective surface at Tj=25°C. Typical CRI is approximately 2 points higher than the minimum CRI specified, but this is not guaranteed.  
Queendom maintains a tolerance of ±2 on CRI and ±7.5% on luminous flux measurements.

### Electrical Characteristics

Table 3. Product performance of QUEENDOM plant light, Tj=25°C.

| PRODUCT     | RANK NO. | NOMINAL λ<br>d(nm) |     | TYPICAL (CCT/k) |      | TYPICAL WAVELENGTH<br>(nm) |     | TYPICAL FLUX     |             |
|-------------|----------|--------------------|-----|-----------------|------|----------------------------|-----|------------------|-------------|
|             |          | MIN                | MAX | MIN             | MAX  | MIN                        | MAX | EFFECT<br>(LM/W) | PPFD/UMOL/J |
| PG240RBA1   | PG0701   | 300                | 730 | N/A             | N/A  | 450                        | 660 | 120lm/w          | 2.6         |
| PG480RBA1   | PG0702   | 300                | 730 | N/A             | N/A  | 450                        | 660 | 120lm/w          | 2.6         |
| PG240WWRA1  | PG0703   | 300                | 730 | 3000            | 6000 | 660                        | 680 | 165lm/w          | 2.6         |
| PG480WWRA1  | PG0704   | 300                | 730 | 3000            | 6000 | 660                        | 680 | 165lm/w          | 2.6         |
| PG240WWRIA1 | PG0705   | 300                | 730 | 3000            | 6000 | 660                        | 730 | 165lm/w          | 2.6         |
| PG480WWRIA1 | PG0706   | 300                | 730 | 3000            | 6000 | 660                        | 730 | 165lm/w          | 2.6         |
| PG240RBA2   | PG0707   | 300                | 730 | N/A             | N/A  | 450                        | 660 | 120lm/w          | 2.6         |
| PG480RBA2   | PG0708   | 300                | 730 | N/A             | N/A  | 450                        | 660 | 120lm/w          | 2.6         |
| PG240WWRA2  | PG0709   | 300                | 730 | 3000            | 6000 | 660                        | 680 | 165lm/w          | 2.6         |
| PG480WWRA2  | PG0710   | 300                | 730 | 3000            | 6000 | 660                        | 680 | 165lm/w          | 2.6         |
| PG240WWRIA2 | PG0711   | 300                | 730 | 3000            | 6000 | 660                        | 730 | 165lm/w          | 2.6         |
| PG480WWRIA2 | PG0712   | 300                | 730 | 3000            | 6000 | 660                        | 730 | 165lm/w          | 2.6         |

### Electrical Characteristics & Optical ratio

Table 4. Product performance of QUEENDOM plant light, Tj=25°C.

| PRODUCT     | RANK NO. | NOMINAL λ<br>d(nm) |     | TYPICAL (CCT/k) |      | TYPICAL WAVELENGTH (nm) |     | RITIO          |
|-------------|----------|--------------------|-----|-----------------|------|-------------------------|-----|----------------|
|             |          | MIN                | MAX | MIN             | MAX  | MIN                     | MAX | (%)            |
| PG240RBA1   | PG0701   | 300                | 730 | N/A             | N/A  | 450                     | 660 | 2; 1           |
| PG480RBA1   | PG0702   | 300                | 730 | N/A             | N/A  | 450                     | 660 | 2; 1           |
| PG240WWRA1  | PG0703   | 300                | 730 | 3000            | 6000 | 660                     | 680 | 4.5; 4.5: 1    |
| PG480WWRA1  | PG0704   | 300                | 730 | 3000            | 6000 | 660                     | 680 | 4.5; 4.5: 1    |
| PG240WWRIA1 | PG0705   | 300                | 730 | 3000            | 6000 | 660                     | 730 | 4.0: 4.0: 1: 1 |
| PG480WWRIA1 | PG0706   | 300                | 730 | 3000            | 6000 | 660                     | 730 | 4.0: 4.0: 1: 1 |
| PG240RBA2   | PG0707   | 300                | 730 | N/A             | N/A  | 450                     | 660 | 2; 1           |
| PG480RBA2   | PG0708   | 300                | 730 | N/A             | N/A  | 450                     | 660 | 2; 1           |
| PG240WWRA2  | PG0709   | 300                | 730 | 3000            | 6000 | 660                     | 680 | 4.5; 4.5: 1    |
| PG480WWRA2  | PG0710   | 300                | 730 | 3000            | 6000 | 660                     | 680 | 4.5; 4.5: 1    |
| PG240WWRIA2 | PG0711   | 300                | 730 | 3000            | 6000 | 660                     | 730 | 4.0: 4.0: 1: 1 |
| PG480WWRIA2 | PG0712   | 300                | 730 | 3000            | 6000 | 660                     | 730 | 4.0: 4.0: 1: 1 |

Notes for Table 1:  
Correlated color temperature is cold-targeted at Tj=25°C.  
Luminous flux and CRI specs are based upon mounted package on highly reflective surface at Tj=25°C. Typical CRI is approximately 2 points higher than the minimum CRI specified, but this is not guaranteed.  
Queendom maintains a tolerance of ±2 on CRI and ±7.5% on luminous flux measurements.

Absolute Maximum Ratings

Table 5. Absolute maximum ratings for Queendom plant light, Tj=25°C.

| PRODUCT     | RANK NO. | POWER | Operating Temperature Range | Storage Temperature Range | ESD Sensitivity HBM |
|-------------|----------|-------|-----------------------------|---------------------------|---------------------|
|             |          | (W)   |                             |                           |                     |
| PG240RBA1   | PG0701   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480RBA1   | PG0702   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG240WWRA1  | PG0703   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480WWRA1  | PG0704   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG240WWRIA1 | PG0705   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480WWRIA1 | PG0706   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG240RBA2   | PG0707   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480RBA2   | PG0708   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG240WWRA2  | PG0709   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480WWRA2  | PG0710   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG240WWRIA2 | PG0711   | 240   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |
| PG480WWRIA2 | PG0712   | 480   | Minus 40°C To plus 80°C     | Minus 45°C To plus 85°C   | 2000V               |

Notes:Derate linearly as shown in derating curve.Duty Factor = 10%, Frequency = 1 kHz

Narrow Spectrum



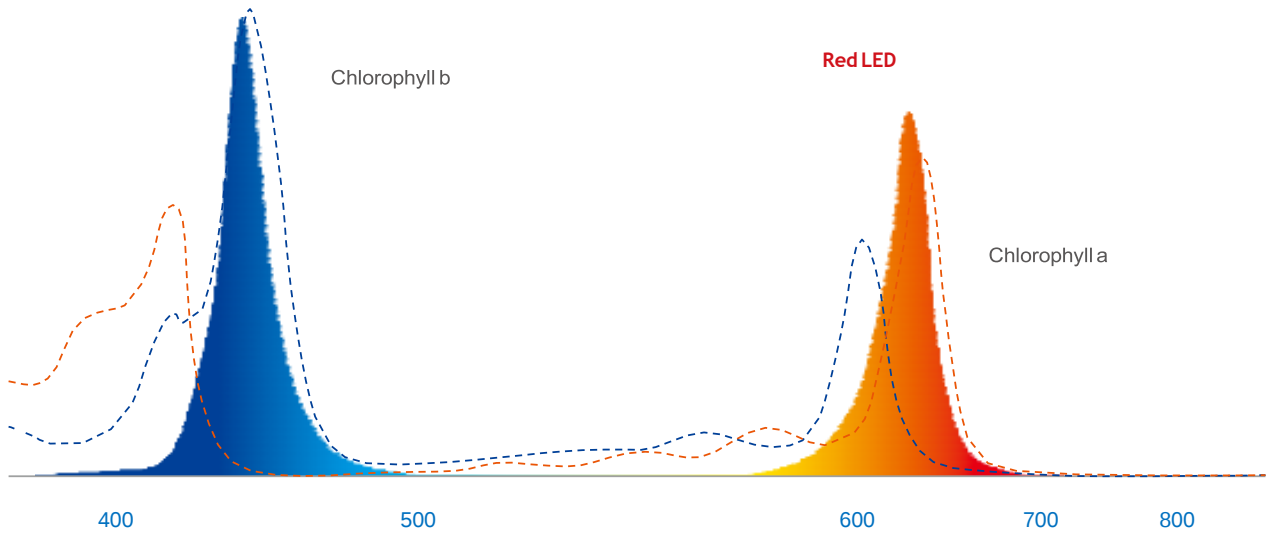
Full Spectrum



## Characteristic Curves

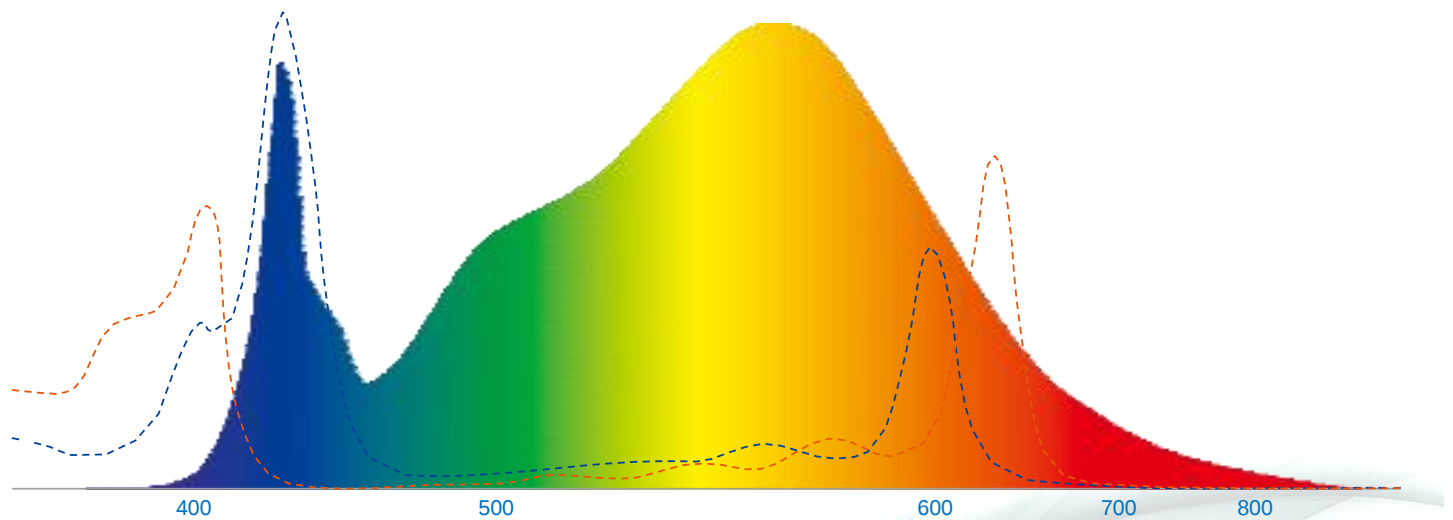
### Spectral Power Distribution Characteristics

#### Narrow Spectrum

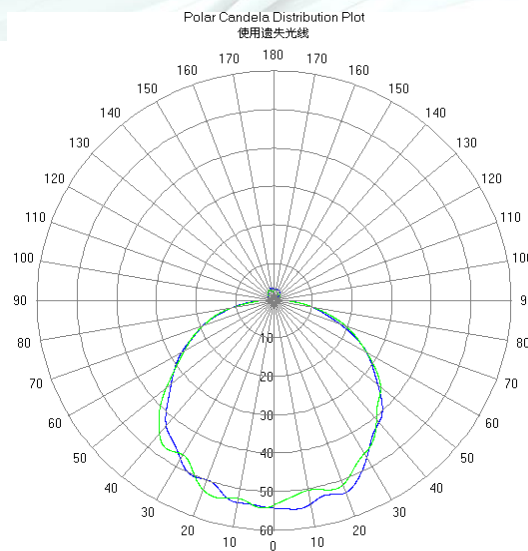


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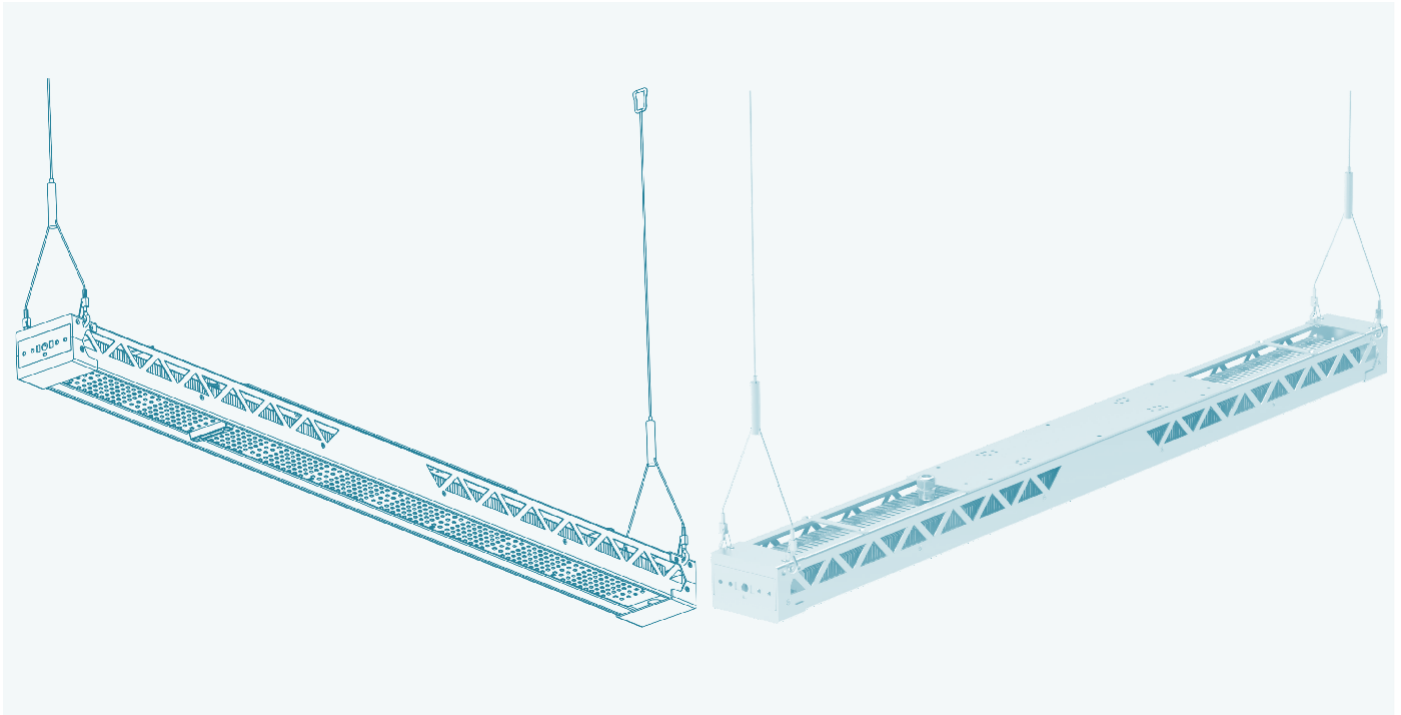
## Full Spectrum



## Luminous Intensity Distribution

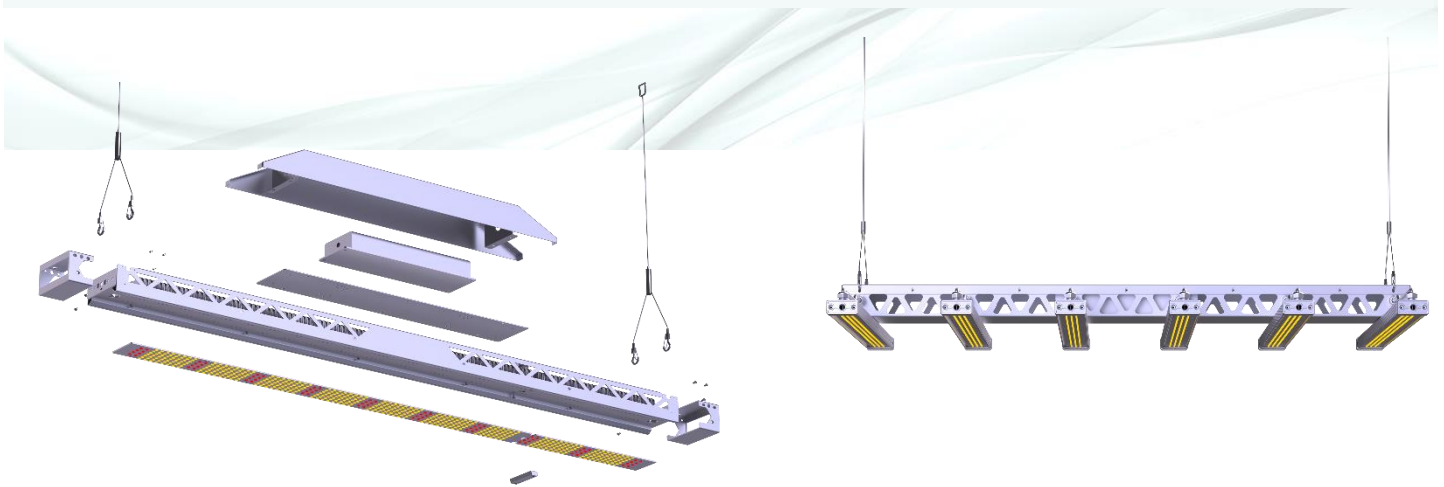
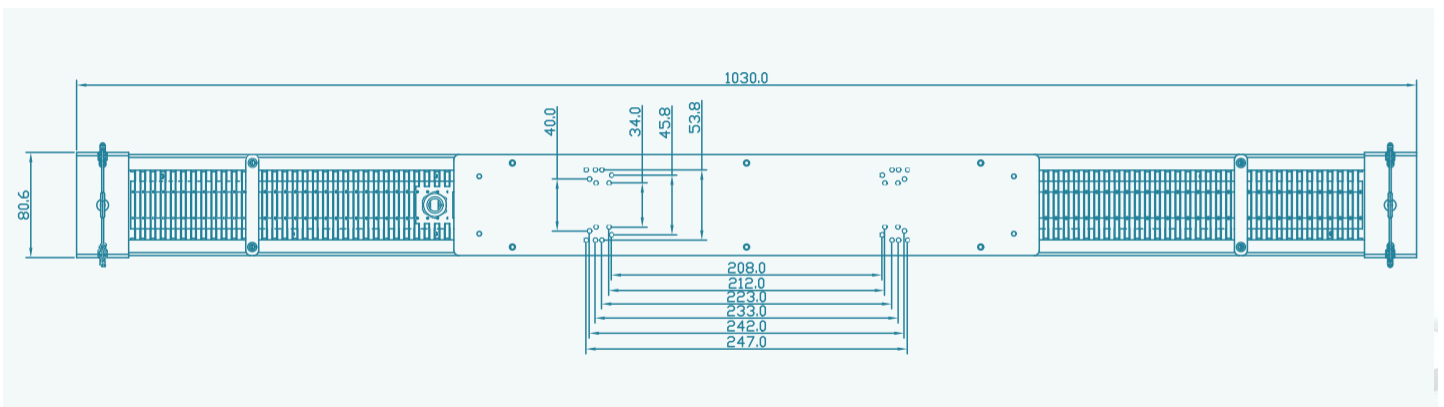


## Wiring Guide



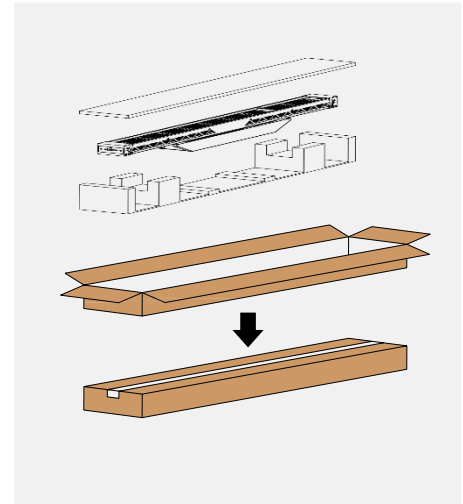
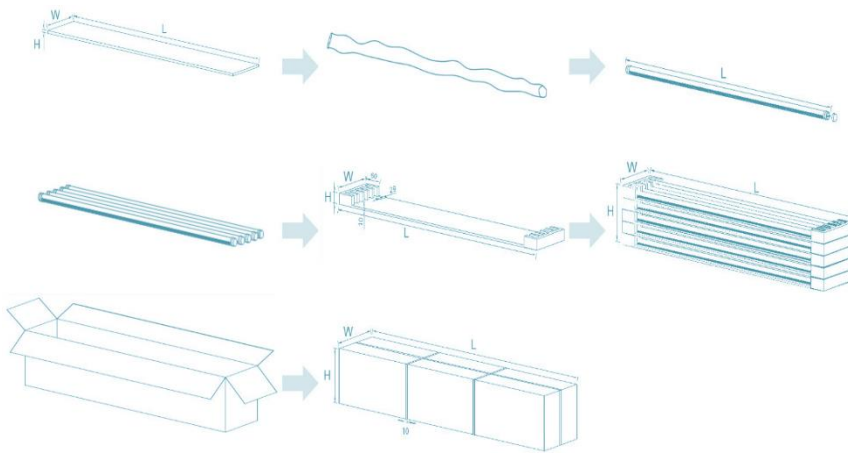
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## Installation method



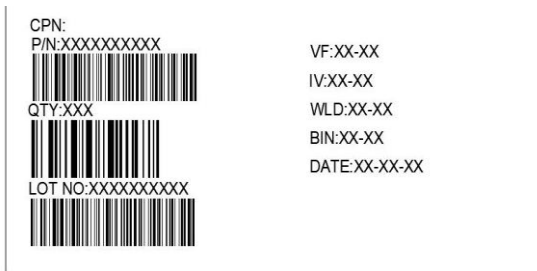
## Cardboard Box

Accessories included in the package:



Plant lighting kit  
Screw package  
Stainless steel hanging rope kit  
Power box cover (optional)  
Packing Specification

### - With Stopper



### - Without Stopper

CPN:Customer's Product Number  
P/N:Product Number  
QTY:Packing Quantity  
LOT NO:Lot Number  
VF:Forward Voltage Rank  
IV:Luminous Intensity Rank  
WLD:Dom. Wavelength Rank  
BIN:BIN Code  
DATE:Date Of Dispatch

## Over-current-proof

quality assurance:

1. Quality assurance is based on the correct storage, transportation, installation, use and maintenance of the product.
2. Product failure caused by man-made damage or improper use is not covered by the warranty.
3. During the warranty period, the company will select appropriate warranty services based on the actual situation, including repair and replacement of parts or replacement of new products.

safety warning:

Non-professionals are not allowed to perform related operations.

1. Please check the packaging and product integrity before installation and use. Do not use the product if it is damaged due to transportation.
2. Avoid hitting or heavily pressing the product with objects.
3. Handle it with care during transportation and installation.
4. The product must not be powered on before installation is completed. Please turn off the power first before cleaning.
5. Avoid using chemicals and corrosive substances to clean the surface of the lamp.
6. Do not touch the lamp when it is on.
7. It is normal for the lamp to generate heat when it is lit.