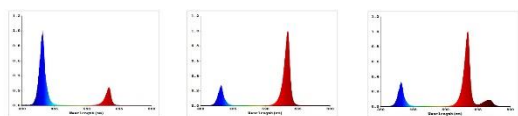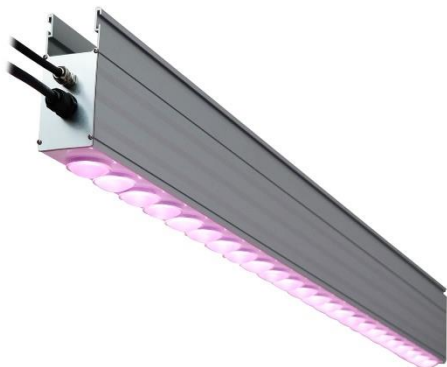**Description:** RX-TP12050 Toplighting LED Grow Module, New patent design product with unique lens, Different LED chips in one lens, Concentrating Light efficiently and More uniform spectral radiation, directional light ,higher light utilization efficiency, more efficient comparing with common grow lights. Silicone Potted waterproof, more reliable. Suitable for various kinds of plant cultivation（dedicated light recipes）, High wire vegetables, vegetable cultivation, flower cultivation, ornamental plant cultivation, succulent plant cultivation, medicinal plant cultivation.

1. LED toplighting solution for greenhouse growers, 40x40mm C-profile for easy installation
2. Different LED chips in one lens, More uniform spectral radiation, higher light utilization efficiency
3. German brand horticulture LED, Whole lights effect2.3umol/J, High efficiency and more reliable
4. Meanwell power supply for longer life and reliability, Dimmable plant light
5. Preferred plant-specific spectra, multiple light-recipe to meet different plant requirements. (Customize the spectrum you need)
6. Discard the traditional fan cooling solution (as a result of fan lights affect the life span of life)
7. Waterproof IP65
8. Input: AC100~305V PF >0.9
9. Meet the safety requirements around the world, CE RoHS FCC

| Model | Dimension LxWxH | Spectral Wavelength | Photon PPFD μmol/m²/s | Luminous flux Radiation Power | Power Input | Comment |
|---|---|---|---|---|---|---|
| RX-TP12050-R2B5 | 1206x51x135mm | R2B5 | 174μmol @1.5m 1423Lx<br>106μmol @2m 893Lx<br>52μmol @3m 476Lx | Flux: 3859Lm<br>PPF:464umol/s | 200W | 2umol/J<br>Supplemental lightings<br>Start germinating and sprouting Seedlings |
| RX-TP12050-R6B1 | 1206x51x135mm | R6B1 | 374μmol @1m 4061Lx<br>124μmol @2m 1358Lx<br>60μmol @3m 689Lx | Flux: 4737Lm<br>PPF:464umol/s | 200W | 2.3umol/J<br>Supplemental lighting<br>Plant growth Light recipe |
| RX-TP12050-R5B1FR1 | 1206x51x135mm | R5B1FR1 | 352μmol @1m 3626Lx<br>112μmol @2m 1188Lx<br>54μmol @3m 605Lx | Flux: 4203Lm<br>PPF: 412umol/s | 200W | 2.3umol/J FR730<br>Supplemental lighting<br>flowering Light recipe |

Surface temperature rise Tc 31K ,    Operating temperature: -30°C ~ 40°C , Lifespan: 35,000 hours (Note: Ta 25°C)
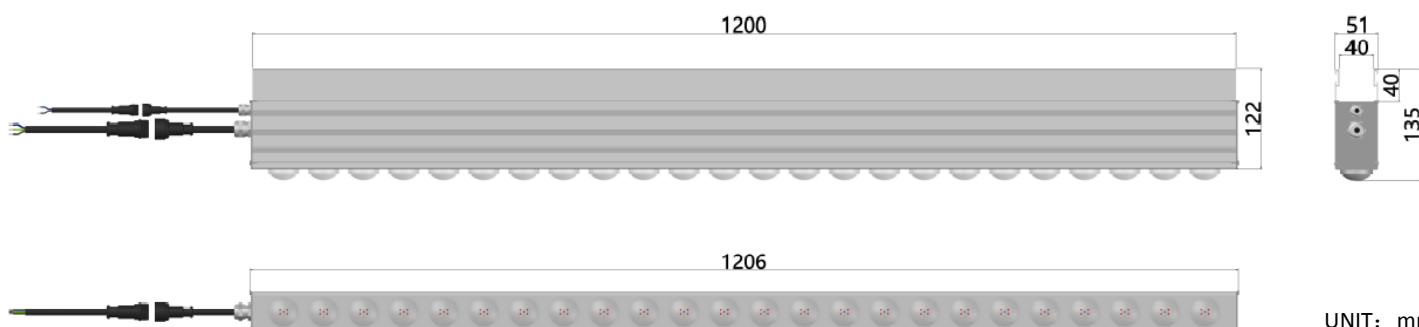
Tolerance range for optical and electrical data: ±10 %. Light emitting angle: 60 °

Recommended irradiation distance 0.5 ~ 2m
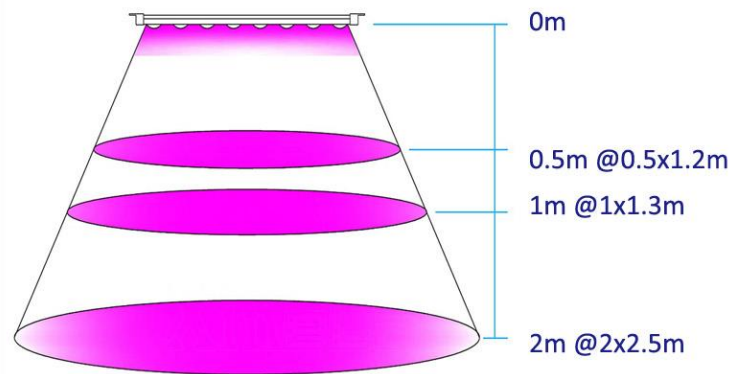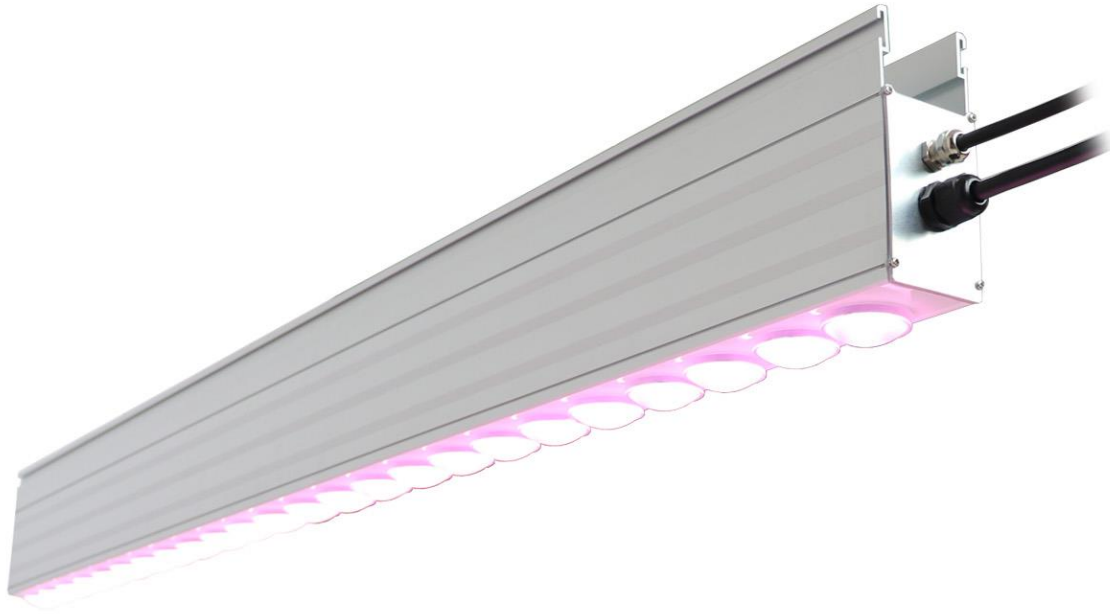
The above data is for reference only!

*Exceed the test equipment test range, estimated value!

● Dimension:

1200

122

51
40
40
135

1206

UNIT：mm

● 60D Depth distance & Coverage:





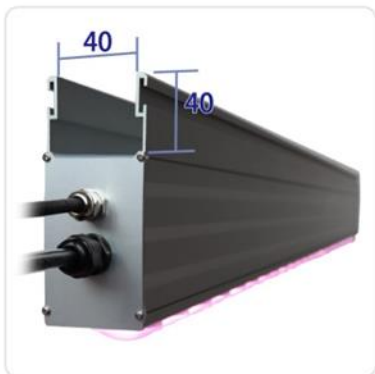| 0m |
| 0.5m @0.5x1.2m |
| 1m @1x1.3m |
| 2m @2x2.5m |

Note: The illuminance at the edge of the coverage area is approximately 50% of the center value.

- Different LED chips in one lens, More uniform spectral radiation, higher light utilization efficiency; C-profile design, used for plant greenhouse toplighting, easy to install, German brand plant lights dedicated horticulture LED, high efficiency and high reliability.



### Different LED in one lens More uniform Light
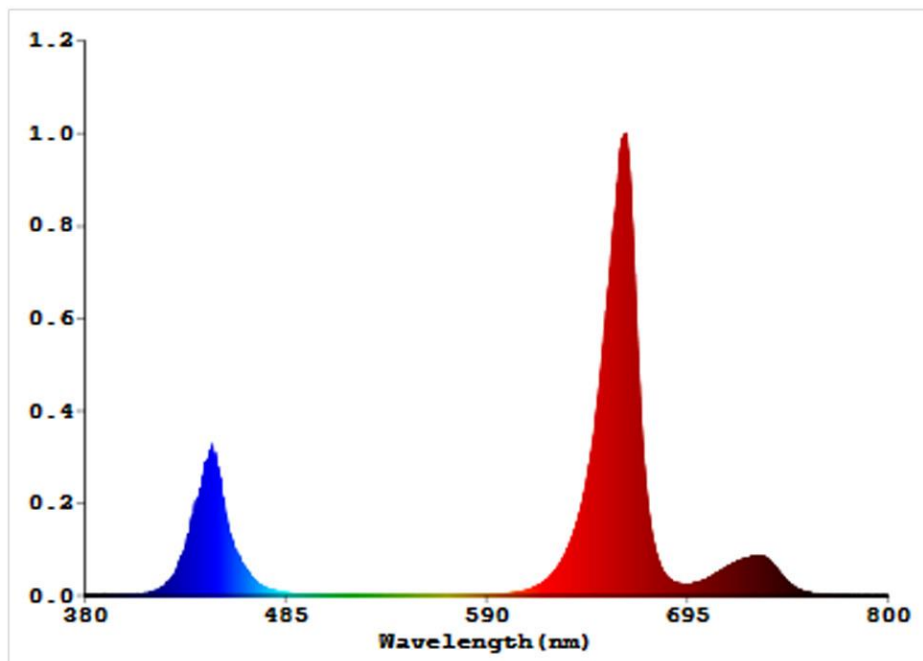Concentrating Light efficiently higher light utilization efficiency



### C-profile design
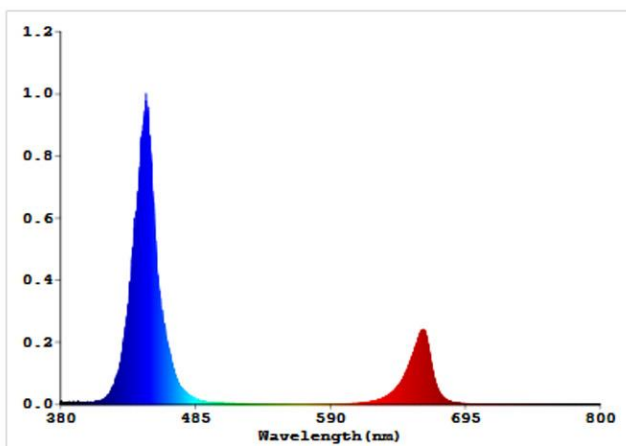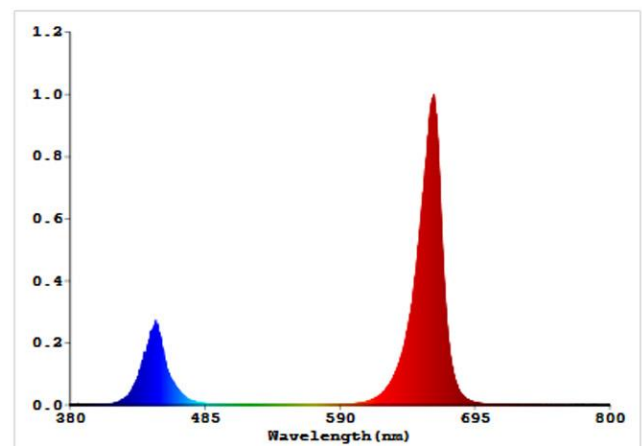### Greenhouse toplighting



### German brand horticulture LED

● Preferred plant-specific spectra, multiple light-recipe to meet different plant requirements. (Customize the spectrum you need); R2B5 spectrum is used for seedling, which is good for root growth, R6B1 spectrum is suitable for most plant vegetative growth, R5B1FR1 spectrum increases far red FR730nm spectrum, regulates Plant photoperiod, Can be used for flower plants.

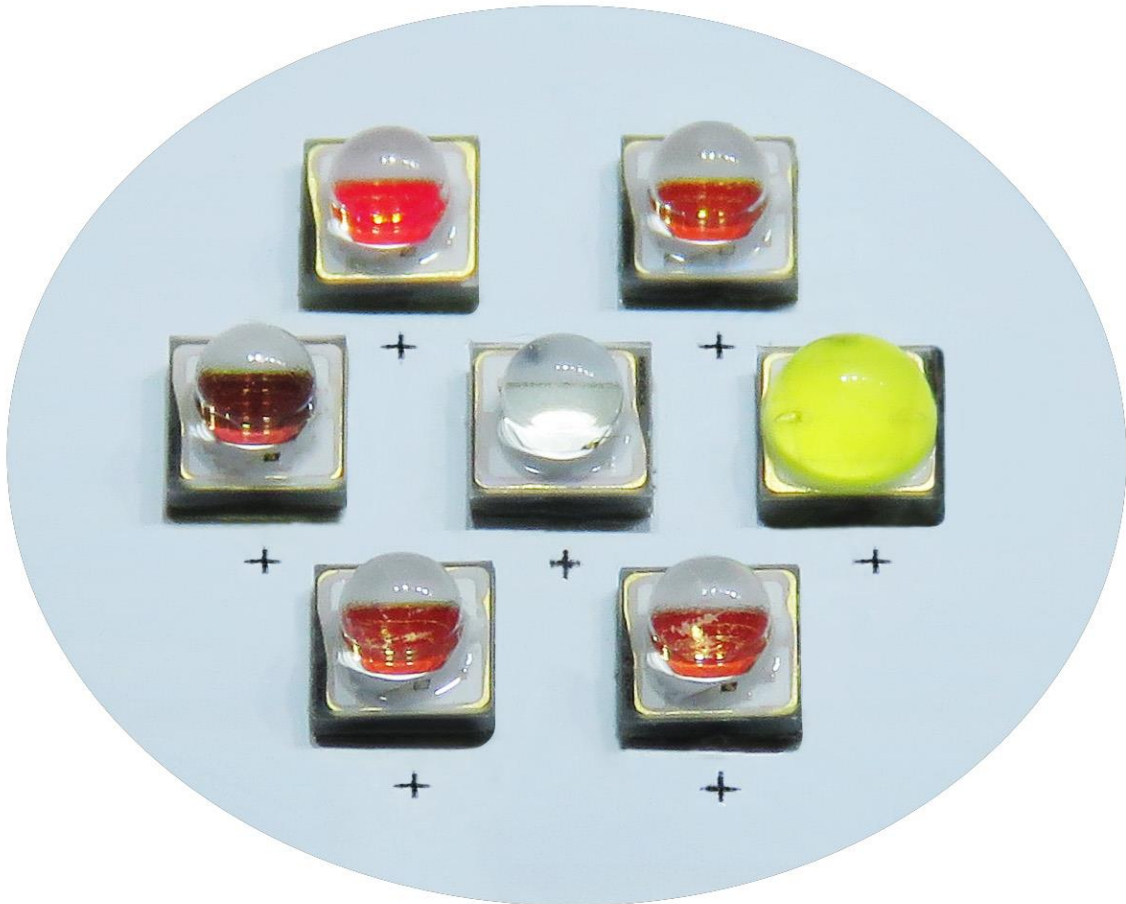RX-TP12050-R5B1FR1 Supplemental lighting flowering Light recipe

RX-TP12050-R2B5 Start germinating and sprouting Seedlings

RX-TP12050-R6B1 Plant growth Light recipe

- German brand horticultural LED(Deep Blue,Far Red, Hyper Red), high efficiency and high reliability
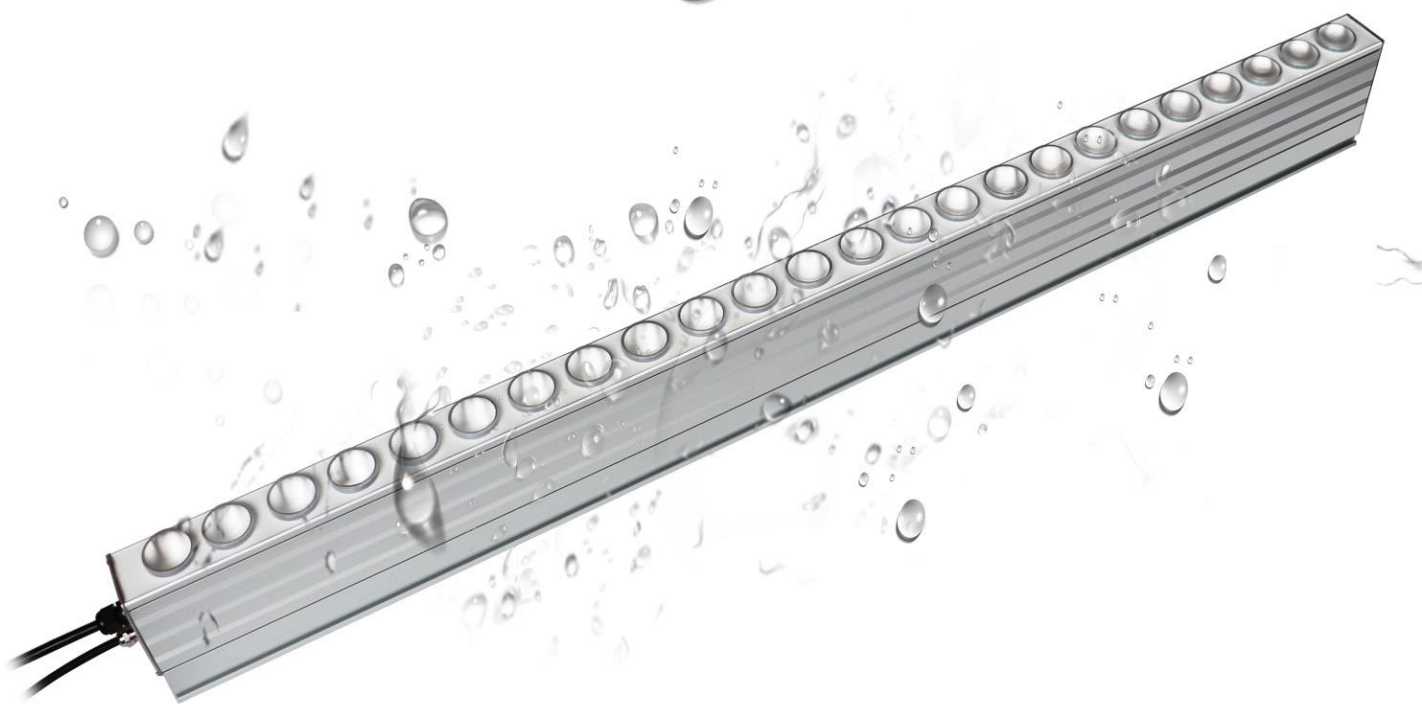


German brand horticultural LED(Deep Blue,Far Red, Hyper Red)
high efficiency and high reliability

- Built-in Meanwell power supply, dimmable, waterproof, high reliability, 3 in 1 dimming function (0~10VDC, PWM signal, or resistance) Input 100 ~305VAC
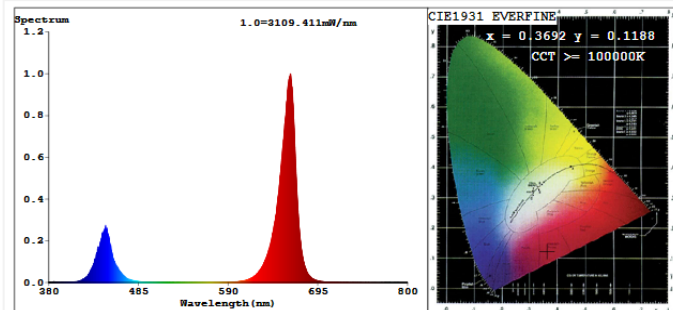


Meanwell power supply, dimmable, waterproof, high reliability
3 in 1 dimming function (0~10VDC, PWM signal, or resistance)

- Waterpfoof IP65



Waterpfoof IP65,Protected against dust ingress, Protected against low pressure water jets from any direction, Limited ingress permitted.

## Testing report



### Color Parameters:

Chromaticity Coordinate:x=0.3692   y=0.1188/u'=0.4006 v'=0.2899
CCT=100000K(Duv=-0.2316) Dominant WL:Ld =-545.4nm Purity=55.2%
Ratio:R=87.6% G=2.6% B=9.8%  Peak WL:Lp=663.1nm  FWHM=19.1nm
Render Index:Ra=0.0   AvgR=0.0
R1 =0    R2 =0    R3 =0    R4 =0    R5 =0    R6 =0    R7 =0
R8 =0    R9 =0    R10=0    R11=0    R12=0    R13=0    R14=0    R15=0

### Photo Parameters:

Flux  = 4737 lm   Eff. : 23.24 lm/W  Fe  = 90.79 W
Scotopic:12948 S/P:2.7332
Photosynthetic:PPF:464.2umol/s PAR WATT:90466mW(400-700nm)
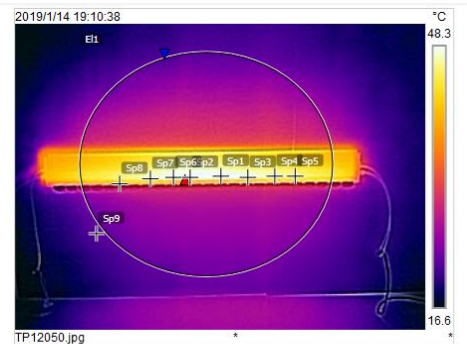
### Electrical parameters:
V = 229.74 V     I = 0.9073 A     P = 203.8 W PF = 0.9777
LEVEL:OUT       WHITE:OUT

RX-TP12050-R6B1 PPF PAR Test
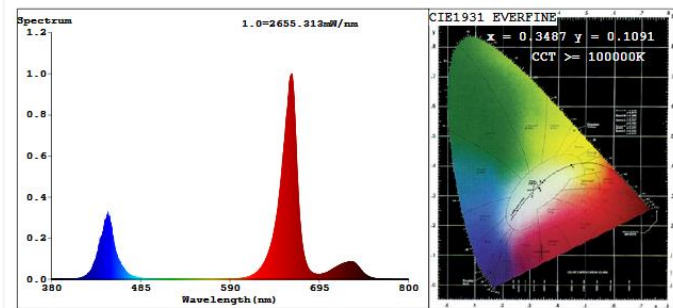


Surface temperature Test



### Color Parameters:

Chromaticity Coordinate:x=0.3487   y=0.1091/u'=0.3861 v'=0.2719
CCT=100000K(Duv=-0.2223) Dominant WL:Ld =-551.1nm Purity=63.7%
Ratio:R=86.2% G=2.6% B=11.2%  Peak WL:Lp=663.1nm  FWHM=19.0nm
Render Index:Ra=0.0   AvgR=0.0
R1 =0    R2 =0    R3 =0    R4 =0    R5 =0    R6 =0    R7 =0
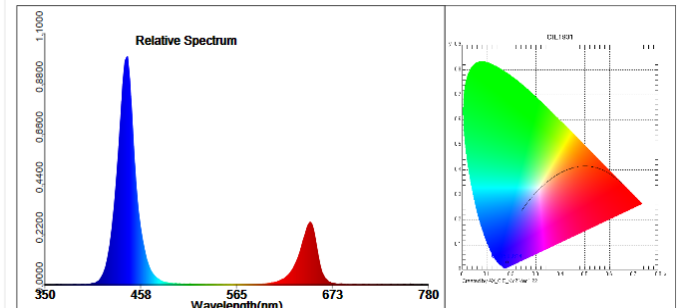R8 =0    R9 =0    R10=0    R11=0    R12=0    R13=0    R14=0    R15=0

### Photo Parameters:

Flux  = 4203 lm   Eff. : 20.92 lm/W  Fe  = 89.53 W
Scotopic:13191 S/P:3.1382
Photosynthetic:PPF:412.06umol/s PAR WATT:81097mW(400-700nm)

### Electrical parameters:
V = 231.34 V     I = 0.8894 A     P = 201.0 W PF = 0.9767
LEVEL:OUT       WHITE:OUT

RX-TP12050-R5B1FR1 PPF PAR Test



### Test parameter:

E= 892.8 lx              E(fc)=82.9724 fc

CIE x= 0.1815     CIE y= 0.0314      CIE u'=0.2409      CIE v'=0.0938
Tc=100000 K       Lp=447.0 nm        HW=20.8 nm         Ld=429.2 nm
Pur=92.4 %        Ratio_R=38.1 %     Ratio_G=5.3 %      Ratio_B=56.6 %
Duv=-0.21212

Ra=-165.2         R1=-147            R2=-277            R3=-347
R4=-50            R5=-89             R6=-205            R7=-87
R8=-119           R9=-797            R10=-859           R11=-41
R12=-354          R13=-239           R14=-100           R15=-302

SDCM=113.5(F5000)
White Class:OUT

| E1=25.812 W/m2 | E2=25.84 W/m2 | PPFD=106.21 μmol/(m·s) |
| Ech-A=6.8737 W/m2 | Ech-B=13.522 W/m2 | Ef=0.017637 W/m2 |
| Eb=20.093 W/m2 | Ey=0.10052 W/m2 | Er=5.6187 W/m2 |
| Ep=20.274 Wphyto/m2 | Erb_Ratio=0.27963 | |
| PPFDf=1.0704E-001 μmol/(m2·s) | | |

106μmol/m²/s RX-TP12050-R2B5 2m PPFD Test

● Packing List    Package includes the following items



Koray LED grow toplighting bar 1pcs



Stainless steel cable ties 2pcs
Plastic Wire Cable 2pcs It is only for fixed use during installation, not for long-term fixture.

● Type description



TYPE A
One input wire
three core input waterproof plug wire; two core dimming waterproof plug wire



TYPE B
Head and tail wires for series connection, maximum series current 14A, AC120V input, maximum series connection number 6pcs. AC230V input, maximum number of series 12 pcs.

- Optional accessories(Need extra purchase)

T Type Waterproof Cable Wire 3-pin Connector

Waterproof 2-pin Connector        Waterproof 3-pin Connector

T Type waterproof IP68 Electrical Cable Wire 3-pin
Connector
Waterproof IP68 Electrical Cable Wire 3-pin Connector
Waterproof IP68 Electrical Cable Wire 2-pin Connector

U-type fittings
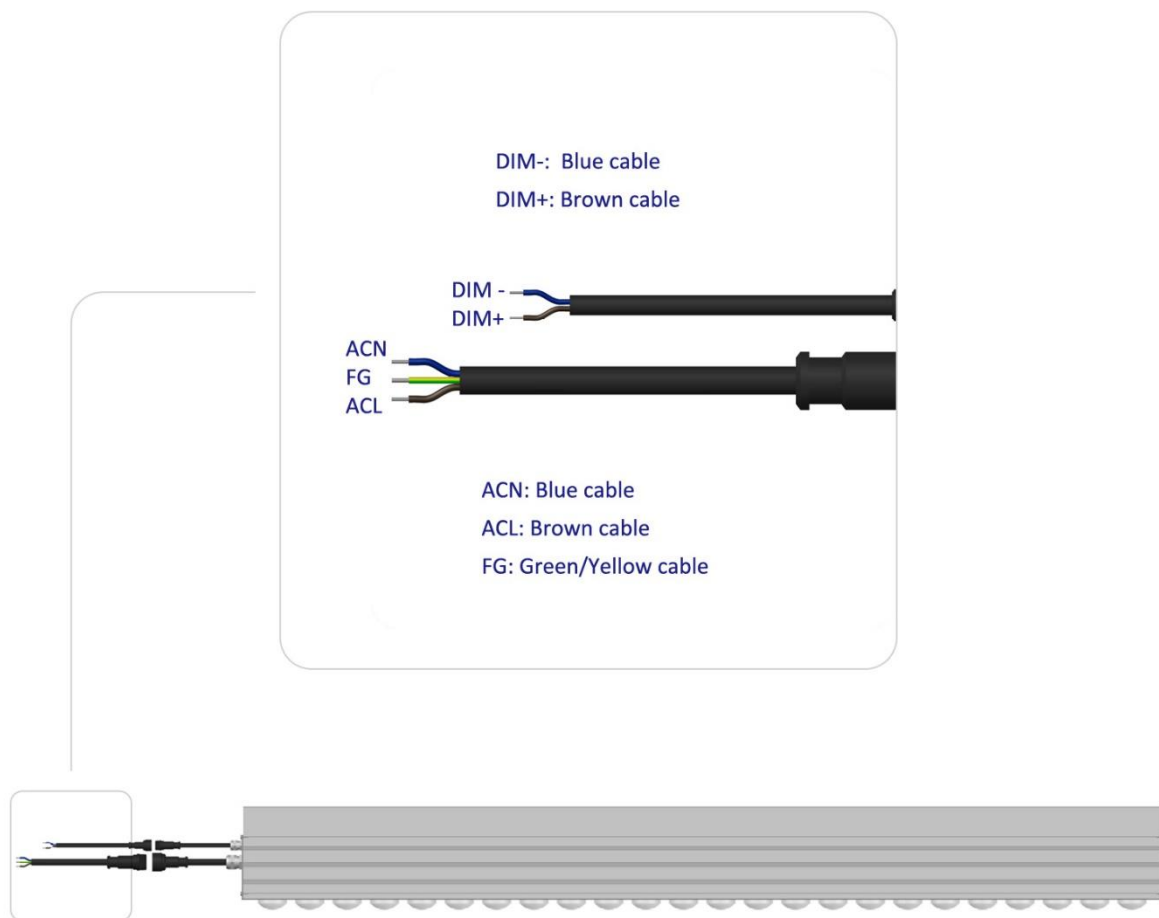Stainless Steel Square Clamp Bolt

- Installation diagram, for reference only

Installed with Stainless Steel Square Clamp Bolt

● Electronic installation instructions

1. When open the package, please check whether the inside is including product, accessory, label, certificate quality. And please assure that the light is perfect without any damage.

2. The wires of LED Light is three-core, the standard size of the wire is 3*1mm²or3*1.5mm² and the outer diameter is Φ7~12mm, brown wire is live line, blue wire is null line, yellow& green is ground line.

3. LED Light will work when the voltage up to rated voltage, so please be sure the voltage within the requested range, or it will damage the light which can't be repaired.

4. when the electrical continuity is connected, the lead wire should be in electric insulating The way of connect wire：



DIM-:  Blue cable
DIM+: Brown cable

DIM -
DIM+

ACN
FG
ACL

ACN: Blue cable
ACL: Brown cable
FG: Green/Yellow cable

Attention

1. In order to make sure the light can work safety and stability, the ground line should be connected the earth.

2. When connecting the wires please turn off the power, and check whether the wires are connected correctly. Never connect the wires in opposite way, or the power should not be turned on.

3. Please keeping the trip bolt being fastening and reliable, in case of the light fall down of looseness.

4. When finishing connect the wires, please use the insulation gummed tape to convolve the wires, confirm the insulation and solve the waterproof problem.