# Product advantages of ***LED Tubes***

- **Massive reduction of current consumption – considerable cost savings!**
- Due to the reduced current consumption **considerably decreased output of $CO_2$ emissions**!).
- Instant fit, replace traditional fluorescent (T5 or T8) tube directly, **no need rewire of fitting (just take out fluorescent tube and insert led tube**).
- Compatible electronics ballast (HF Ballast), magnetic ballast and AC input directly, and also it is compatible AC one side input or two side input with Pin Safety technology, without change any wires inside the fixtures, compatible with all kinds of ballast.
- Guaranteed lifetime **5 years.**
- All necessary certifications (i.e. **CE, RoHS)** available.
- **Guaranteed energy saving: -70% with more luminosity**.
- **Maintenance costs (tubes replacing) disappearing**.
- **Efficiency >85%, Power Factor up to 0,95** (without ballast).
- **Top of the range LED (160lm/W)** only from leading suppliers**.**
- **Straightforward waste disposal,** as **no harmful or toxic substances** are used according to RoHS European specs.
- T5 and T8 with all standard lengths available.
- 40% less temperature compared with a fluorescent tube.
- No flickering, no problems with cold starting.
- Light range from 3000 – 8000K, special LED for meat and vegetables.
- Almost unbreakable (safety at work).
- Constant luminosity irrespective of the outside temperature (cold!).
- **No UV-light (important for outdoor - no insects and hospitals**).
- **Short-term return of investment (typically 6 to 12 months when used 18 hours per day).**

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# Certifications

All our products are certified according the following specs:
EN 55015:2006 + A9:2009
EN 61000-3-2:2006
EN 61000-3-3:2008
EN 61547:2009
EN 60598-1:2008 + A11:2009
EN 60825-1:2007

Required for **CE** labelling.

And fulfil

**The RoHS regulation (EU Directive 2002/95/EC)**
**Restriction of Hazardous Substances Directive** or **RoHS**

**RoHS** restricts the use of the following six substances:

1. Lead
2. Mercury
3. Cadmium
4. Hexavalent chromium ($Cr^{6+}$)
5. Polybrominated biphenyls (PBB)
6. Polybrominated diphenyl ether (PBDE)

PBB and PBDE are flame retardants used in several plastics.

Our products can use the normal waste disposal as they don't have any toxic substance.

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# T5 LED tube


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**3in1 LED T5 Tubes:**

- **Compatibilty of electronics ballast;**
- **Compatibity of magnetic ballast;**
- **Compatibity of AC input directly;**
- **Compatibity of One side and Two side input without need change the wiring of the existing fixture ;**

The 3in1 LED T5 Tubes is new generation of the T5 LED tubes, it is compatible electronics ballast (HF Ballast), magnetic ballast and AC input directly, and also it is compatible AC one side input or two side input with Pin Safety technology, without change any wires inside the fixtures. It is the simplicity and ultra-efficiency LED T5 tubes.

3in1 LED tubes became the quickest and easiest LED tubes to upgrade to LED technology for immediate energy savings over a long and reliable lifetime.

**Features:**

1. Instant fit, replace traditional fluorescent T5 tube directly, no need rewire.
2. Compatible for both Magnetic ballast and Electronic Ballast, compatible with all kinds of ballast.
3. CE Rohs Certification Approval.
4. SMD2835 led chip, 160Lm/w, CRI>80.
5. Constant current and Isolated power supply PF>0.9.
6. Thickened 0.9mm aluminium radiator for heat dissipation.
7. Long Lifespan 50,000 hours, 5 years warranty.
8. Energy saving up to 80%, inner power efficiency more than 88%, Minimum maintenance costs.



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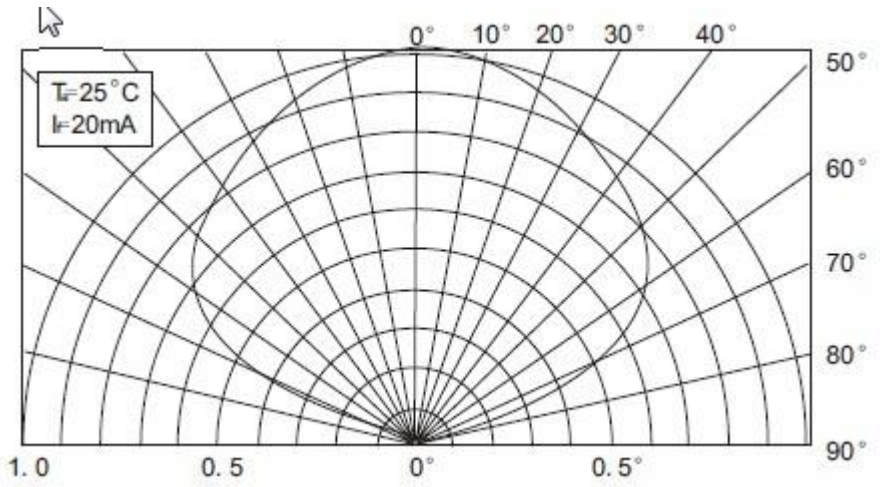
| Part No. | Lenght | Voltage | Wattage | Lumen | CCT | PF | RA |
|---|---|---|---|---|---|---|---|
| LT-T5-AFH-206A | 549mm | AC100-240V | 6W | 960LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-209A | 549mm | AC100-240V | 9W | 1440LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-312A | 849mm | AC100-240V | 12W | 1920LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-412A | 1149mm | AC100-240V | 12W | 1920LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-418A | 1149mm | AC100-240V | 18W | 2880LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-420A | 1149mm | AC100-240V | 18W | 3200LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-520A | 1449mm | AC100-240V | 20W | 3200LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-525A | 1449mm | AC100-240V | 25W | 4000LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T5-AFH-530A | 1449mm | AC100-240V | 30W | 4650LM | 3000K/4000K/5000K | >0.9 | >80 |

**Note: The above parameters are for reference only.**

## Radiation degrees:



# T8 LED tube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## 3in1 LED T8 Tubes

- **Compatibilty of electronics ballast;**
- **Compatibity of magnetic ballast;**
- **Compatibity of AC input directly;**
- **Compatibity of One side and Two side input without need change the wiring of the existing fixture ;**

The 3in1 LED T8 Tubes is new generation of the T8 LED tubes, it is compatible electronics ballast (HF Ballast), magnetic ballast and AC input directly, and also it is compatible AC one side input or two side input with Pin Safety technology, without change any wires inside the fixtures. It is the simplicity and ultra-efficiency LED T8 tubes.

3in1 LED tubes became the quickest and easiest LED tubes to upgrade to LED technology for immediate energy savings over a long and reliable lifetime.

**Features:**

1. Compatible with ballast, instant fit, replace traditional fluorescent T8 tube directly, no need rewire.
2. Compatible for both Magnectic ballast and Electronic Ballast, compatible with all kinds of ballast.
3. CE Rohs Certification Approval.
4. SMD2835 led chip, 160Lm/w, CRI>80.
5. Constant current and Isolated power supply PF>0.9.
6. Thickened 0.9mm aluminum radiator for heat dissipation.
7. Long Lifespan 50,000 hours, 5 years warranty.
8. Energy saving up to 80%, inner power efficiency more than 88%, Minimum maintenance costs.

| Part No. | Lenght | Voltage | Wattage | Lumen | CCT | PF | RA |
|---|---|---|---|---|---|---|---|
| LT-T8-AFH-209A | 60cmt | AC100-240V | 9W | 1260LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-312A | 90cm | AC100-240V | 12W | 1680LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-418A | 120cm | AC100-240V | 18W | 2890LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-420A | 120cm | AC100-240V | 20W | 3200LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-520A | 150cm | AC100-240V | 20W | 3200LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-525A | 150cm | AC100-240V | 25W | 4000LM | 3000K/4000K/5000K | >0.9 | >80 |
| LT-T8-AFH-530A | 150cm | AC100-240V | 30W | 4650LM | 3000K/4000K/5000K | >0.9 | >80 |

**Note: The above parameters are for reference only.**



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# LED Bay Light Fixture
# Product Manual

Up to 15000 lumen for 18m high-mount applications


Complus Trading

Vabaõhumuuseumi tee 2A-14, 13522 Tallinn, Estonia

**1. Product Description**

LED bay light fixture series are designed and developed to replace traditional high bay or low bay fixtures for industrial and other rugged applications. Light weighted and easy for installation, the LED High Bay/Low Bay fixtures are all designed to offer maximum energy saving, substantially reduced maintenance costs and superior quality.

**Bay Light series: 30W, 50W, 60W, 80W, 100W, lumen output up to 7200lm**

**Bay Light series: 120W, 150W, 200W, lumen output up to 15000lm**

**1.1 Major Applications**

Factory production floors, Workshop, Warehouses, Road toll gates, Petrol stations, Supermarkets, Sports stadiums, Convention centre halls, Airport passenger halls, etc., where high ceiling lighting required.

**1.2 Features**

1) Low power consumption. More than 60% energy saving compared to conventional HID/HPS.
2) Environmental friendly. Lead and mercury free.
3) Long operation life time, above 50,000hours. Low maintenance costs.
4) Voltage input 110-240VAC or 110-277VAC, 50/60Hz at choice.
5) Instant ON/OFF operation.
6) Superior colour rendition compared to conventional industrial luminaire.
7) Selectable colour temperature.
8) Patented single piece 30W-100W high power LED light source with unique multi-chip integration design ensure high light purity, high heat conduction and slow brightness derating.
9) Unique heat sink design ensures superior heat management.
10) Resistant to shock and vibration.

Car park

Gas station

Hall & corridor

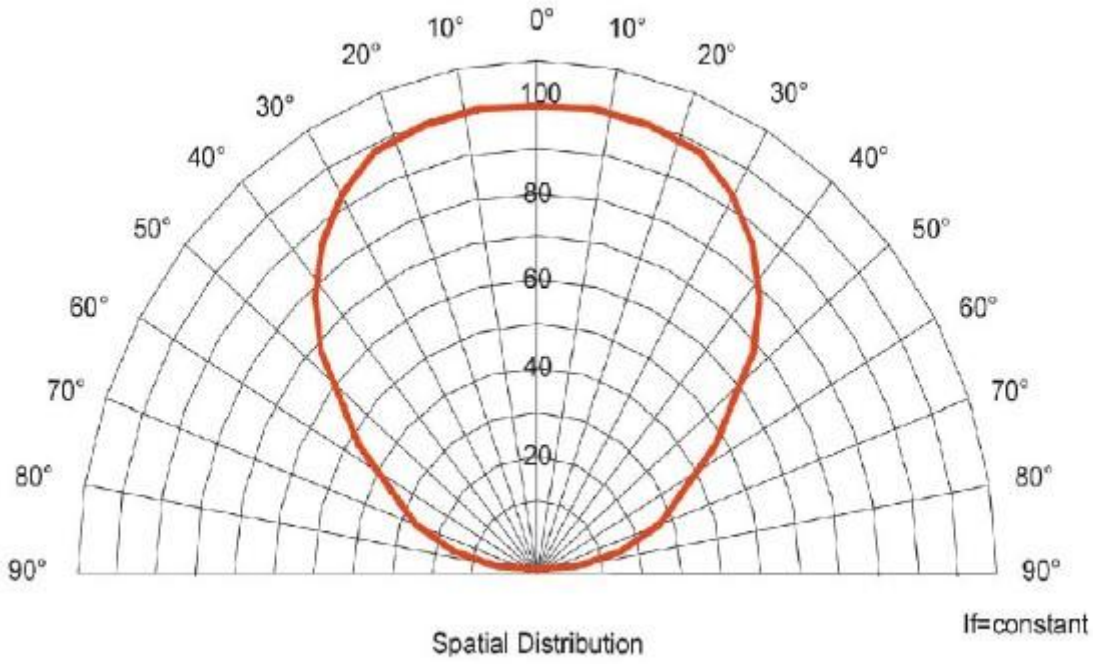
## 2. Technical Parameters

| | |
|---|---|
| Input Voltage | AC 100～240V/100～277V |
| Driver Power Frequency | 47～63Hz |
| Driver Power Efficiency | ≥85％ |
| Total Power Consumption | 30W 50W 60W 80W 100W 120W 150W 200W |
| Power Factor(PF) | ≥0.98 |
| Total Harmonic Distortion | ≤10％ |
| Luminaire Efficiency | ≥90％ |
| Flux (Lumens) | 2400 4000 4800 6000 7200 9500 11500 15000 |
| Colour Rendering Index | ≥80 |
| Colour Temperature | 2700～7000K Optional |
| Beam Angle | 90/120 Degree Optional |
| Light Efficiency | 70～80lm/W |
| Working Ambient Temperature | -25°C～+45°C |
| Working Ambient Humidity | 15%～90%RH |
| IP Rating | IP30/IP54 Optional |
| Service Life | ≥50000 Hours |
| Light Fixture Material | Aluminium Alloy |
| NW (Kg) | 3.2 3.6 3.9 4.5 4.9 6.2 7.7 9.5 |

**Workshop**

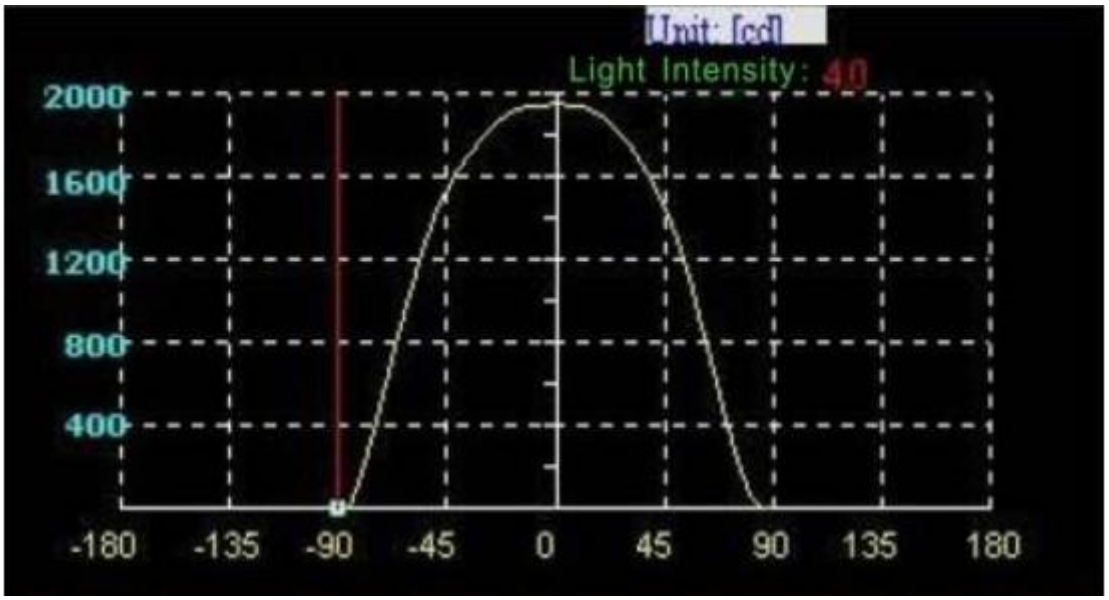
**Exhibition Hall**

## 3. Light Distribution




Spatial Distribution

If=constant



4. Illuminance Chart

| | Model | Power | Height | Light Spot Diameter | Illuminance (lux) | |
|---|---|---|---|---|---|---|
| | | | | | Centre Illuminance | Average Illuminance |
| LED High Bay/Low Bay Luminaire | BAY30EO | 30 W | 4m | 8m | 180 | 90 |
| | | | 5m | 10m | 110 | 55 |
| | | | 6m | 12m | 70 | 35 |
| | BAY50EO | 50 W | 4m | 8m | 270 | 140 |
| | | | 5m | 10m | 175 | 90 |
| | | | 6m | 12m | 120 | 60 |
| | | | 7m | 14m | 90 | 45 |
| | | | 8m | 16m | 70 | 35 |
| | BAY60EO | 60 W | 4m | 8m | 320 | 160 |
| | | | 5m | 10m | 210 | 105 |
| | | | 6m | 12m | 150 | 75 |
| | | | 7m | 14m | 110 | 55 |
| | | | 7.5m | 15m | 90 | 45 |
| | | | 8m | 16m | 70 | 35 |
| | BAY80EO | 80 W | 4m | 8m | 405 | 205 |
| | | | 5m | 10m | 255 | 130 |
| | | | 6m | 12m | 170 | 90 |
| | | | 7m | 14m | 130 | 70 |
| | | | 8m | 16m | 95 | 50 |
| | | | 9m | 18m | 75 | 40 |
| | | | 10m | 20m | 65 | 35 |
| | BAY100EO | 100 W | 4m | 8m | 420 | 255 |
| | | | 5m | 10m | 270 | 165 |
| | | | 6m | 12m | 190 | 115 |
| | | | 7m | 14m | 140 | 85 |
| | | | 8m | 16m | 110 | 65 |
| | | | 9m | 18m | 90 | 50 |
| | | | 10m | 20m | 70 | 40 |
| | | | 11m | 22m | 60 | 35 |

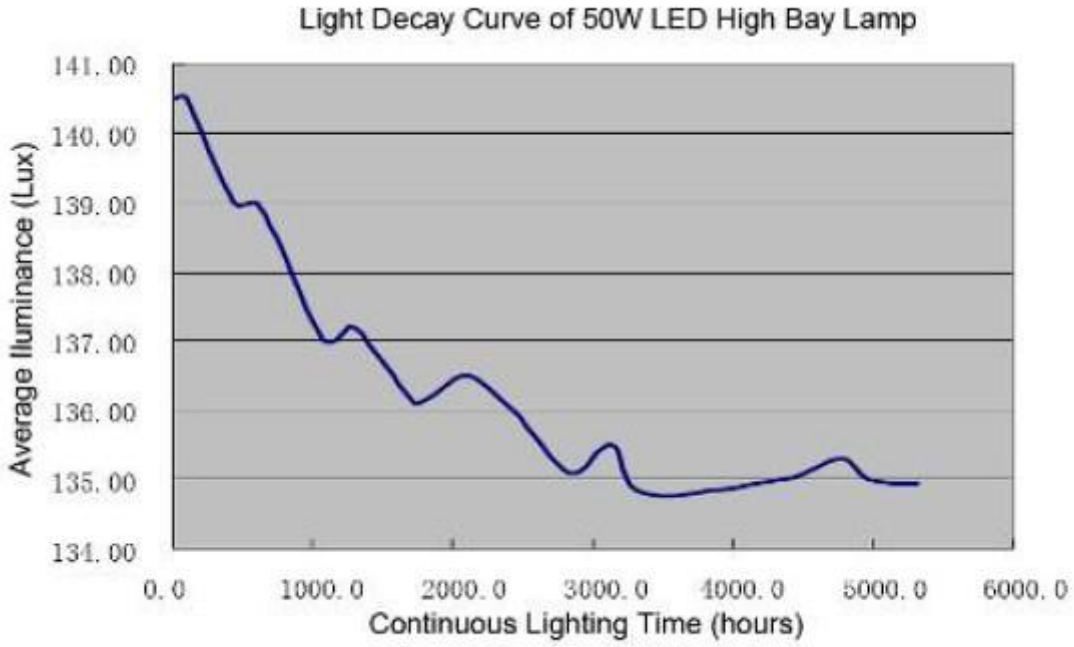
| | Model | Power | Height | Light Spot Diameter | Illuminance (lux) | |
|---|---|---|---|---|---|---|
| | | | | | Centre Illuminance | Average Illuminance |
| LED High Bay/Low Bay Luminaire | BAY120EO | 120 W | 8m | 16m | 140 | 85 |
| | | | 9m | 18m | 118 | 65 |
| | | | 10m | 20m | 90 | 50 |
| | | | 11m | 22m | 78 | 42 |
| | | | 12m | 24m | 65 | 36 |
| | | | 13m | 26m | 55 | 32 |
| | | | 14m | 28m | 45 | 25 |
| | | | 15m | 30m | 35 | 20 |
| | BAY150EO | 150 W | 8m | 16m | 170 | 105 |
| | | | 9m | 18m | 145 | 78 |
| | | | 10m | 20m | 110 | 60 |
| | | | 11m | 22m | 95 | 50 |
| | | | 12m | 24m | 80 | 42 |
| | | | 13m | 26m | 65 | 35 |
| | | | 14m | 28m | 55 | 29 |
| | | | 15m | 30m | 50 | 25 |
| | BAY200EO | 200 W | 10m | 20m | 145 | 78 |
| | | | 11m | 22m | 125 | 65 |
| | | | 12m | 24m | 104 | 55 |
| | | | 13m | 26m | 85 | 46 |
| | | | 14m | 28m | 77 | 37 |
| | | | 15m | 30m | 66 | 32 |
| | | | 16m | 32m | 55 | 28 |
| | | | 17m | 34m | 50 | 24 |
| | | | 18m | 36m | 42 | 19 |
| | | | 19m | 38m | 36 | 16 |


**MAX Lighting and Power Ltd**

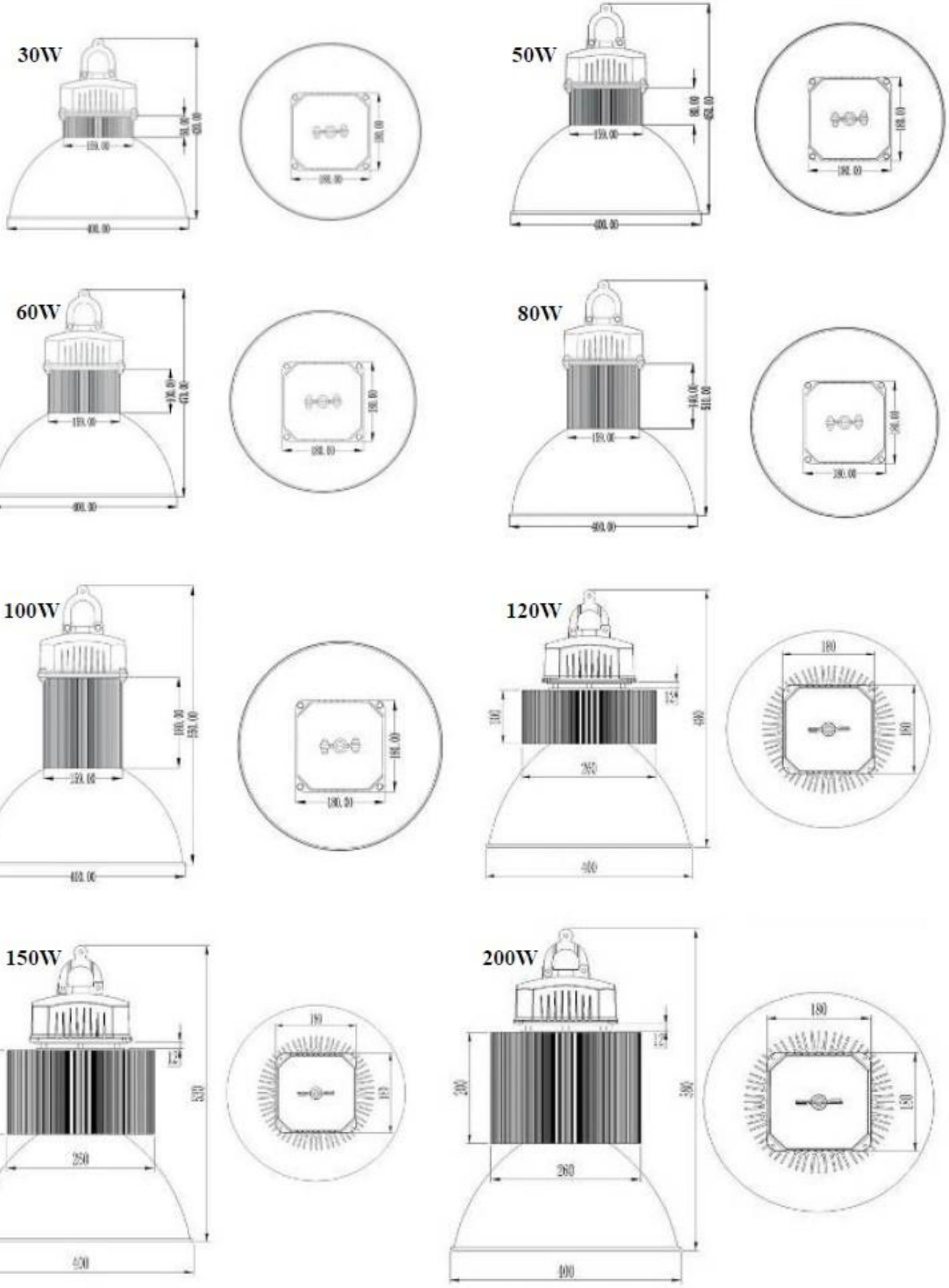
20/F, Unit 1-5, Midas Plaza, Tai Yau Street, San Po Kong, Kowloon, Hong Kong

**5. Lumen Test Report**

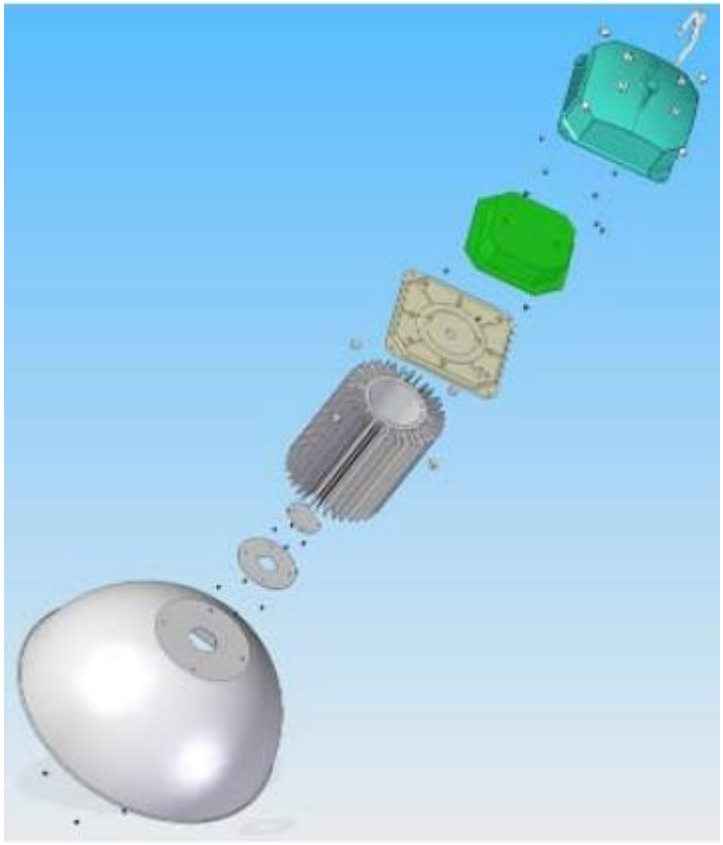
All LED bay light lumen tests indicate a typical 18% light depreciation after 5328 hours' non-stop performance.




6. Product Profile - 6.1 Fixture Dimensions



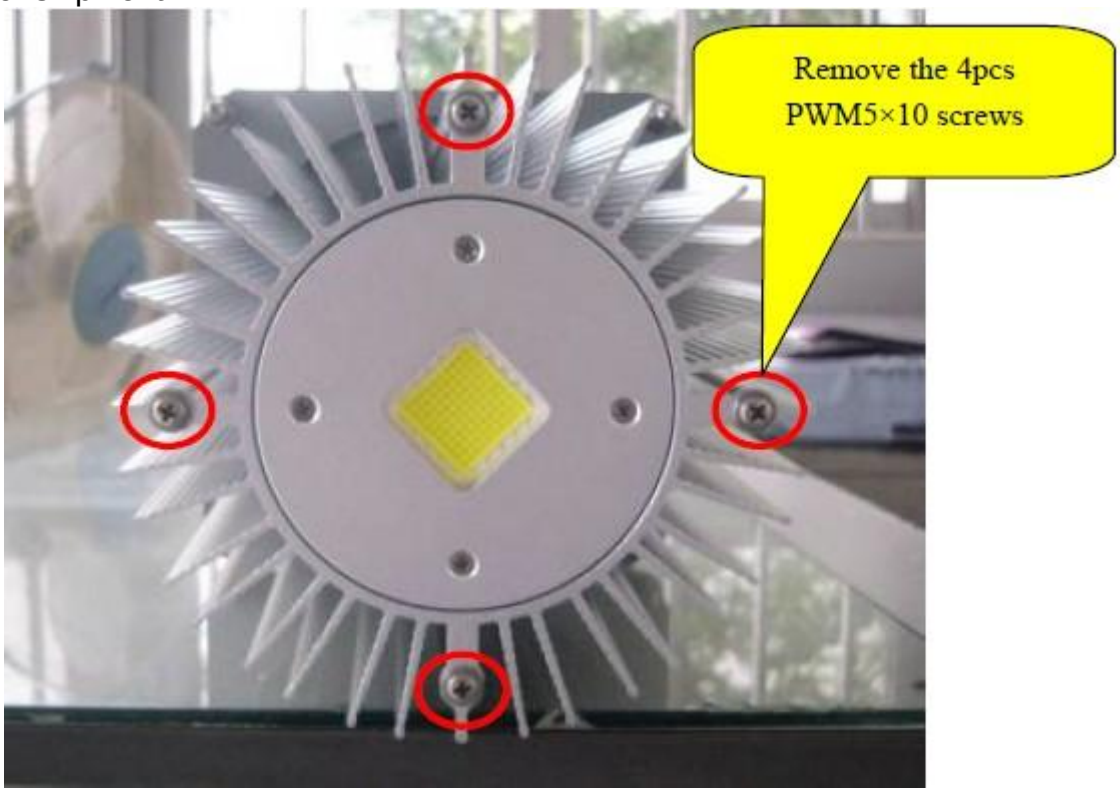
### 6.2 Components Break-Down



## 7. Installation Guide

**(For Bay Light Fixture at 30W, 50W, 60W, 80W and 100W)**

**Step 1:** Remove the four pieces PWM5×10 screws from the bay light fixture body, which are prefixed for shipment:



**Step 2:** Assemble the reflector to the lamp body with the four pieces PWM5×10 screws:

**Step 3:** Check and ensure the hanging ring bolts are properly tightened:

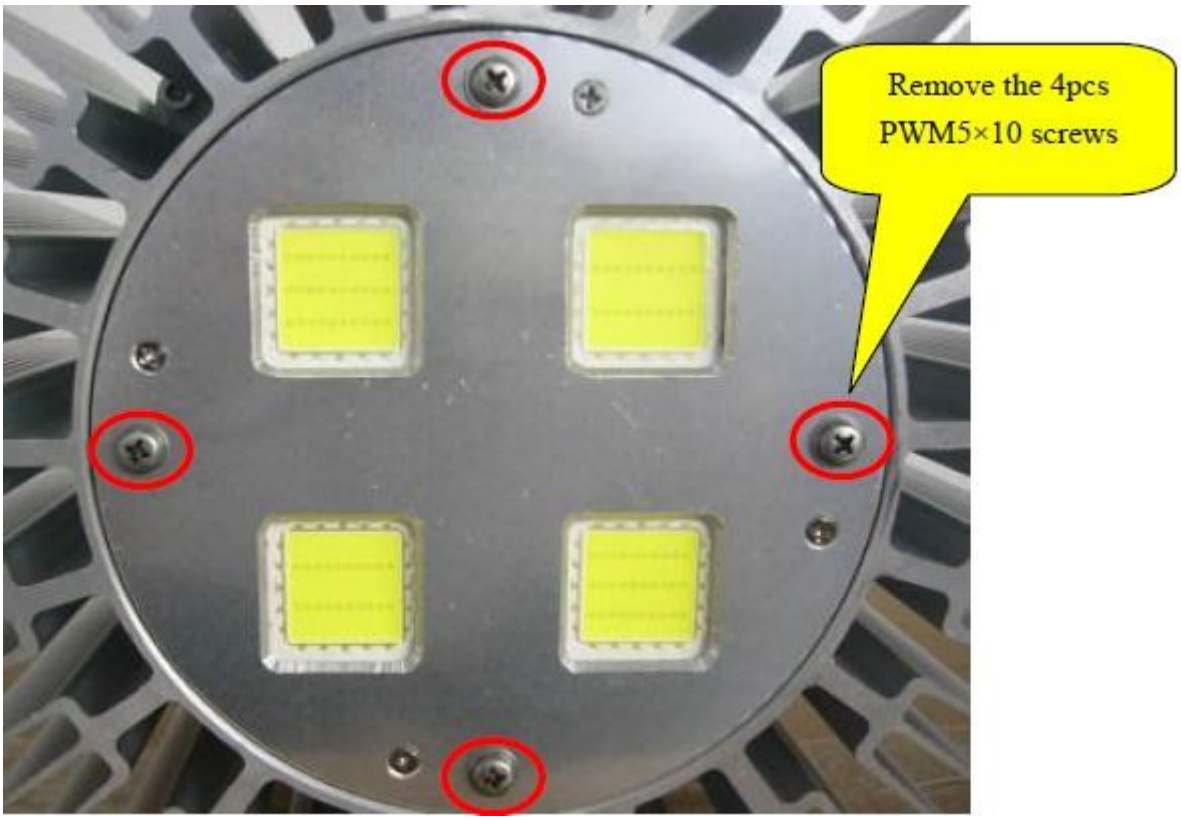
**Step 4:** Test light the lamp before hanging.

**Step 5:** Hang up the fixture to the hook from the ceiling securely:

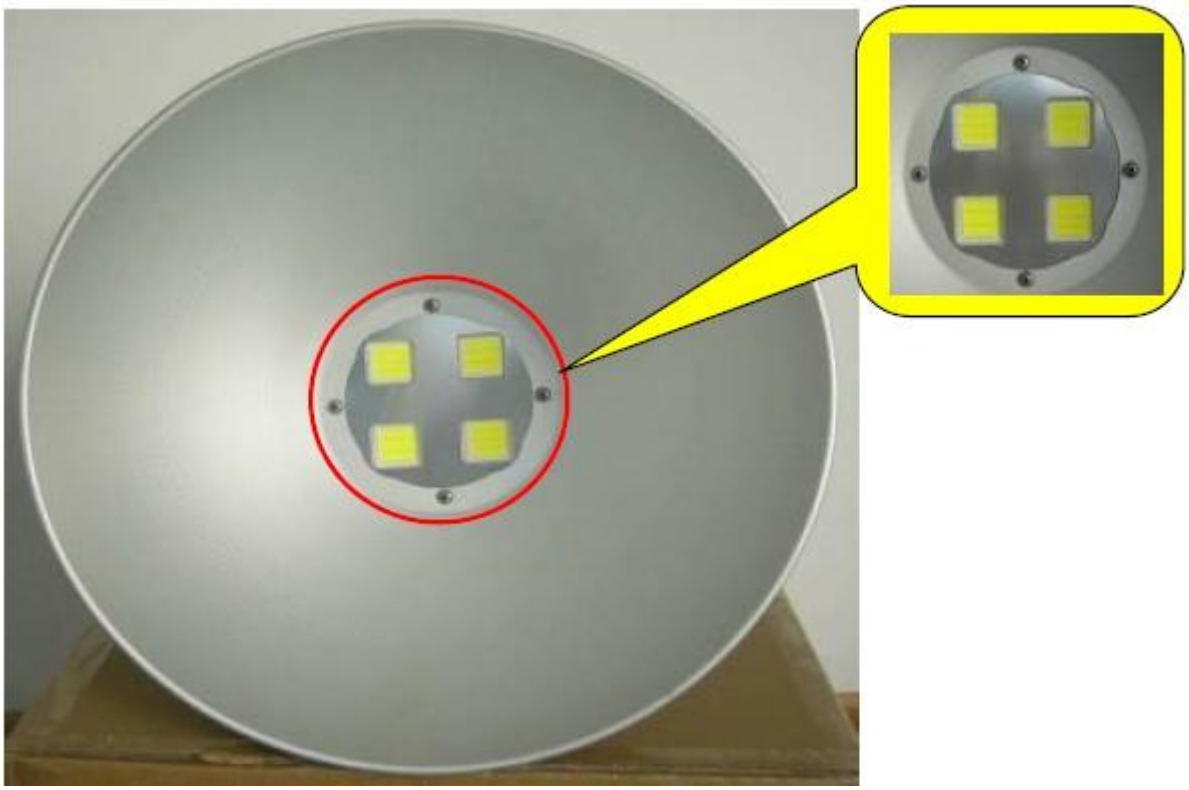
**Step 6:** Connect the power core and turn on the power:

## For Bay Light Fixture 120W, 150W and 200W

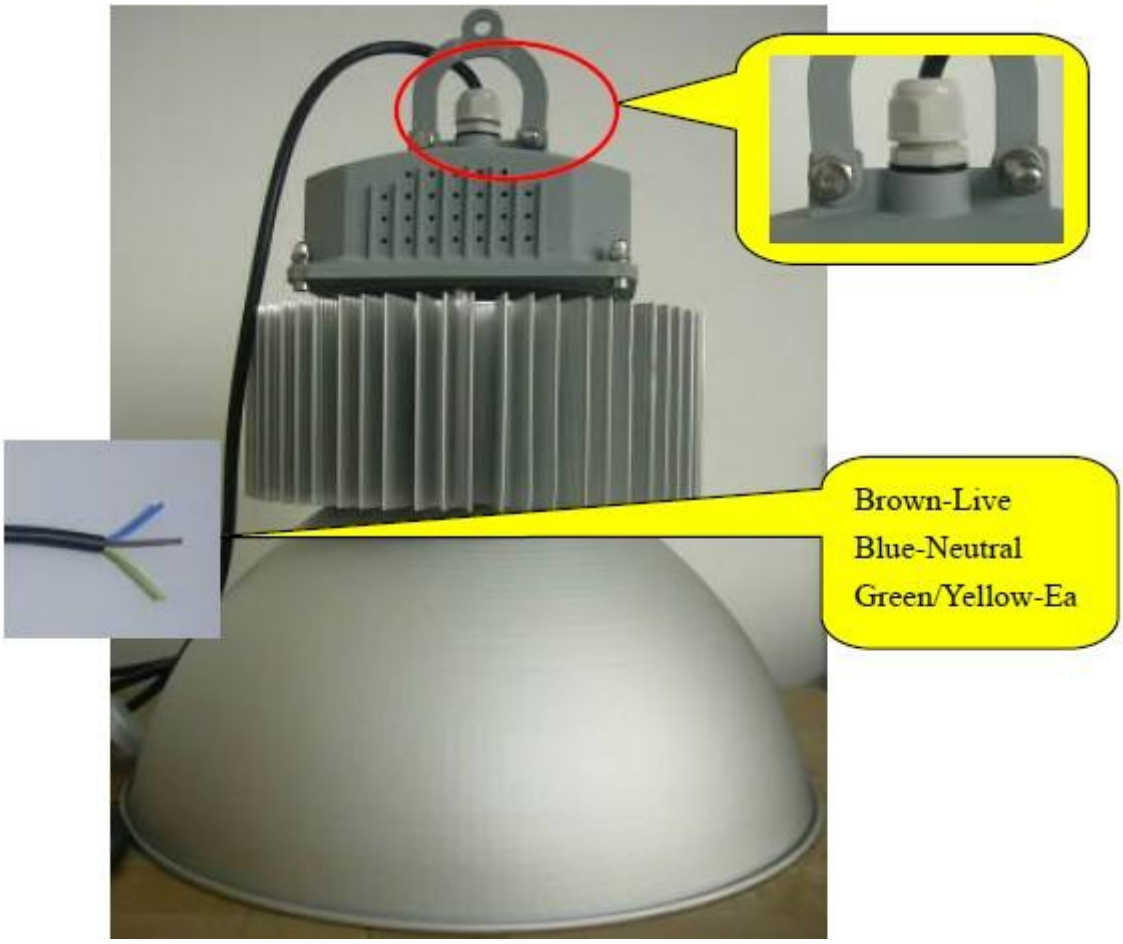
**Step 1:** Remove the four pieces PWM5×10 screws from the bay light fixture body, which are prefixed for shipment:




**Step 2:** Assemble the reflector to the lamp body with the four pieces PWM5×10 screws:



**Step 3:** Check and ensure the hanging ring bolts are properly tightened:




**Step 4:** Test light the lamp before hanging.
**Step 5:** Hang up the fixture to the hook from the ceiling securely. Connect the power core and turn on the power

**Caution:**

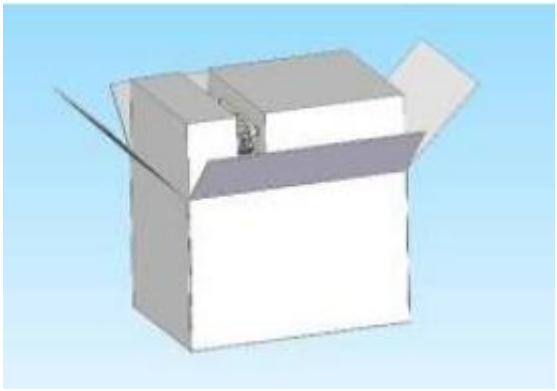
- Turn off power before cable connection
- Anti-static hand ring is required when replacing any electronics components
- Ensure all the AC power connections are properly done before turning power on.
- Do not touch the power driver when power is on
- Turn off power in case of any maintenance.

## 8. Troubleshooting

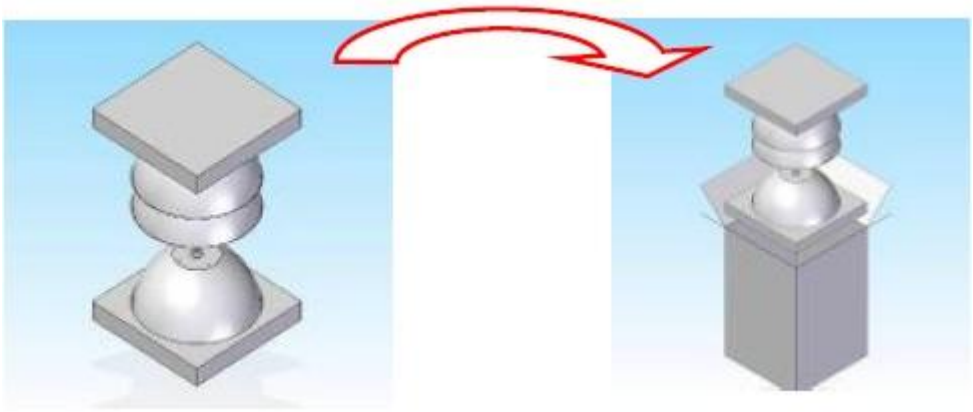
| Description | Analysis | Solution |
|---|---|---|
| LED lamp doesn’t light | 1. Check whether the power line connection is right; | 1. Reconnect the power line in the right way; |
| | 2. Check whether the power plug is loose; | 2. Re-plugged the loose power plug; |
| | 3. Driver failure; | 3. Replace with new driver |
| | 4. LED integrated light source has been damaged. | 4. Replace with a new LED integrated light source. |
| LED lamp light output is dim | 1. Driver output is abnormal; | 1. Replace with new driver; |
| | 2. LED integrated light source supply failure. | 2. Replace with new LED integrated light source. |
| LED lamp is flashing | 3. Driver output is abnormal; | 3. Replace with new driver; |
| | 4. LED integrated chips failure. | 4. Replace with new LED integrated chips. |

**9. Package Information**

LED bay light's lamp body and lamp shade are packed separately:



Lamp Body packing



Lamp Shades Packing

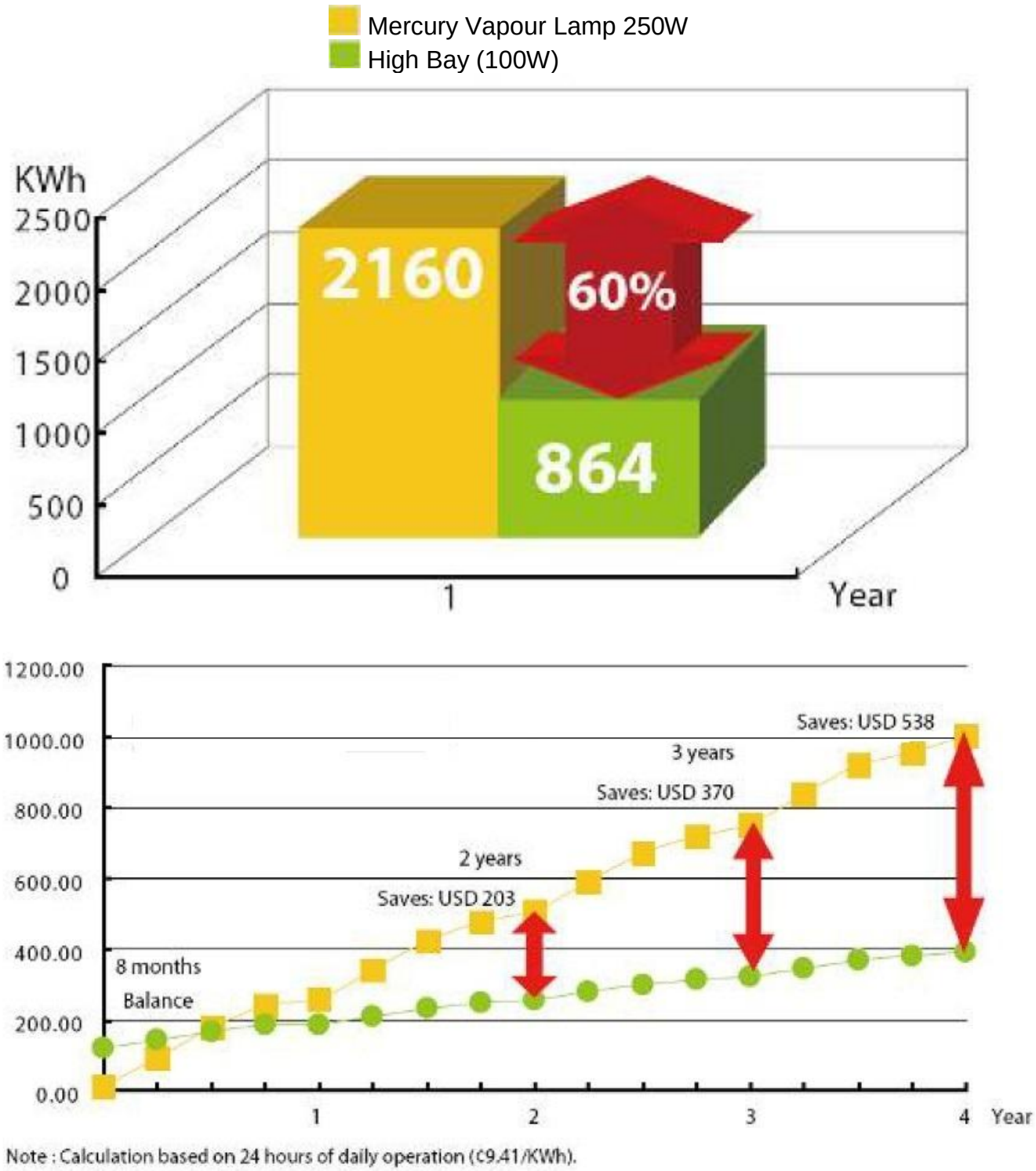
Removed from package.

## 10. Lamp Comparison - LED vs Conventional

| Flux (lm) | Power | Equivalent power of HID/Vapor lamp |
|---|---|---|
| 2400 | 30W | 100W |
| 4000 | 50W | 150W |
| 4800 | 60W | 200W |
| 6000 | 80W | 250W |
| 7200 | 100W | 300W |
| 9500 | 120W | 350W |
| 11500 | 150W | 400W |
| 15000 | 200W | 700W |

## 100W LED High Bay Vs 250W Mercury Vapor Lamp

| Power saving by 60% | Reduction of greenhouse gas emission by 505kg | Save 36 trees per year |
|---|---|---|




Note : Calculation based on 24 hours of daily operation (©9.41/KWh).

**NOTE:**

The Product design and specifications are subject to change without prior notice for the purposes of performance improvement.

## Other Product Highlight


**LED Floodlight**
Up to 30,000 lumen for 36m high-mount applications

IP65 protection

60% power saving, 90% reduction in greenhouse gas emission. Long lifetimes and highly reliable service, greatly reducing maintenance costs.

Original Cree chips used

50,000 hours service life.

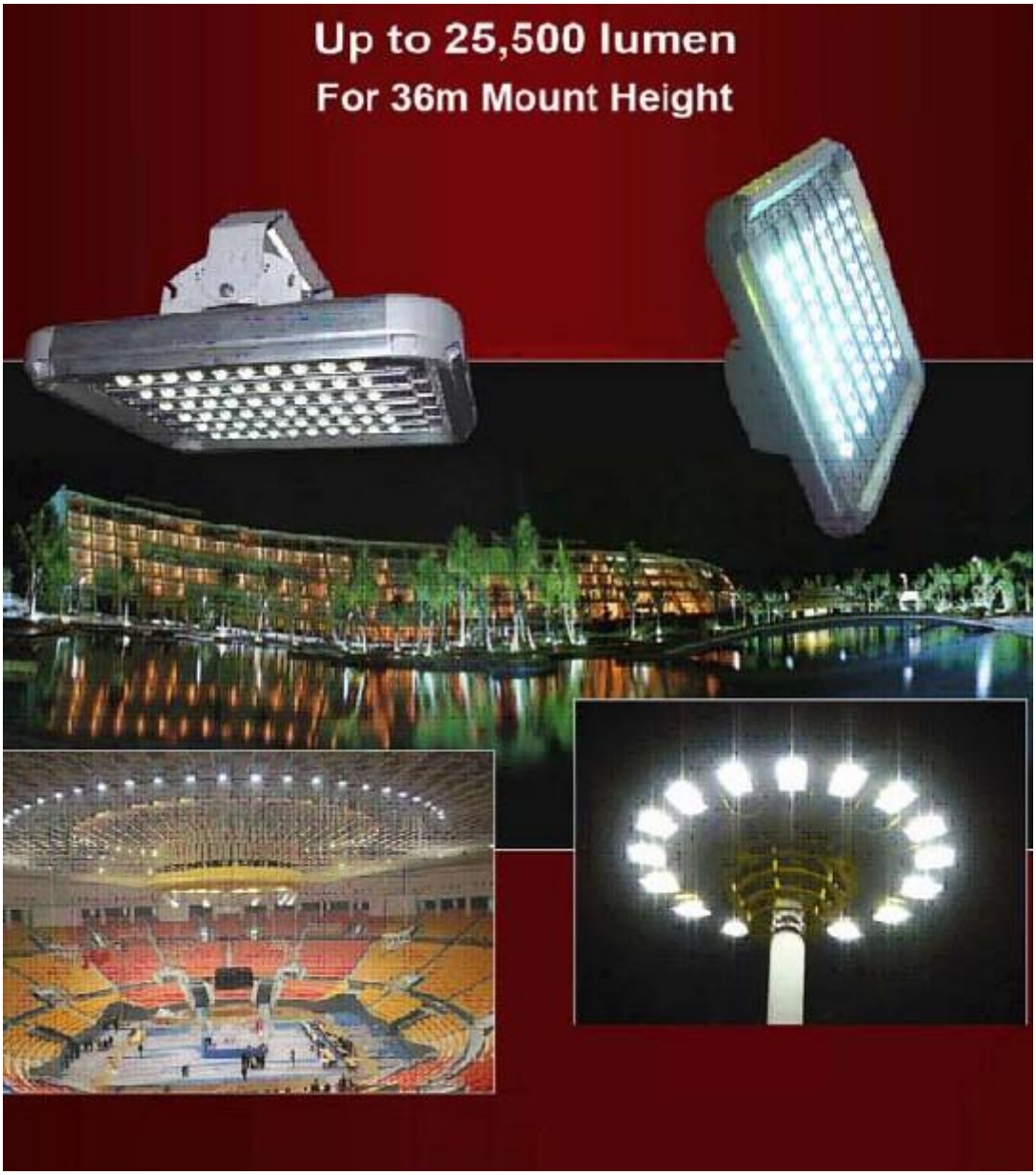
**Garage Light**
60% power saving, 90% reduction in greenhouse gas emission. Long lifetimes and highly reliable service, greatly reducing maintenance costs.

LED's own cutoff light property provides high vertical illuminance with minimum glare.

IP30/IP54 protection

50,000 hours service life

# LED Flood/Canopy Light Fixture
# Product Manual




CE RoHS IP65

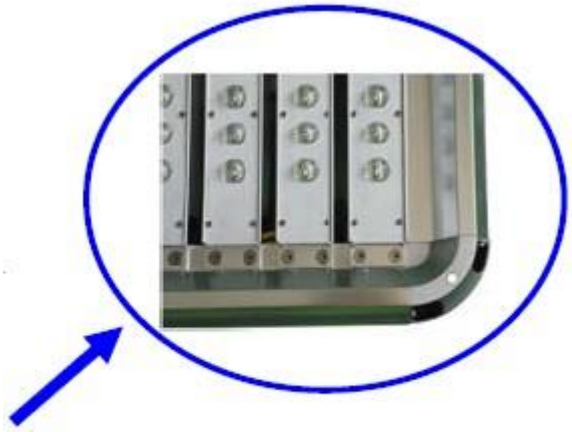
Complus Trading

Vabaõhumuuseumi tee 2A-14, 13522 Tallinn, Estonia

## 1. Product Description

## 1.1 Material Summary

1) Aluminium alloy frame
2) Proprietary modular-based heat sink in high purity aluminium



3) Cree XPC/XPE LEDs
4) UL Listed high efficiency driver IP67 rated

## 1.2 Major Applications

Suitable for outdoor and/or dusty environment illumination such as for tunnels, billboards, building contour, public squares, sport stadiums, factories, railway stations and harbours, etc.

## 1.3 Features

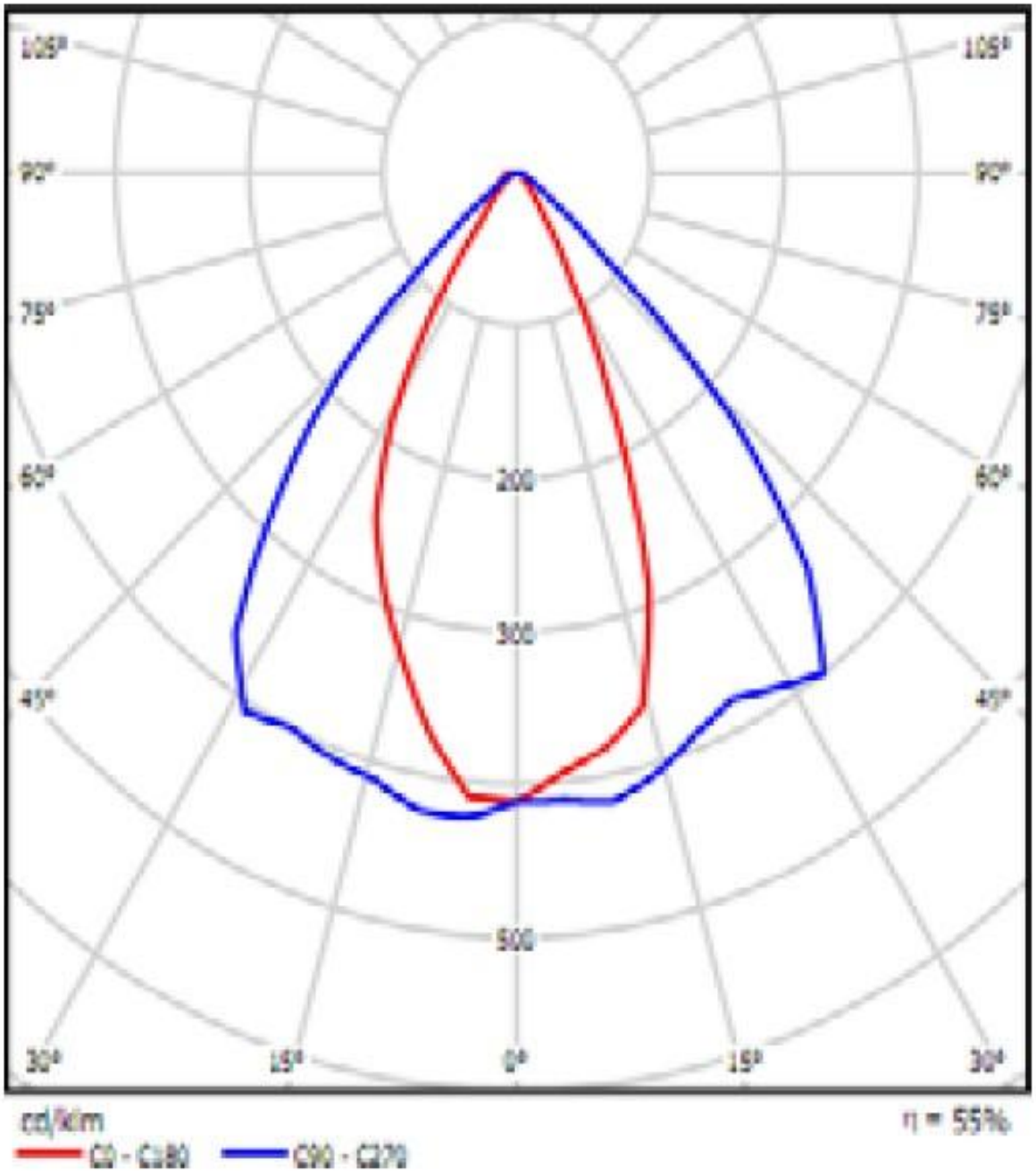
- Complete produce range from 40W to 300W
- Extremely high lux output up to 25500lm
- Original Cree outdoor white LEDs, XP-C/XP-E
- Smart modular design ensures superior heat management
- IP 65 rated, water and dust proof
- Voltage input 110-240VAC or 110-277VAC, 50/60Hz at choice
- Selectable colour temperature from 2700K to 7000K
- Optional function as IP65 low bay/high bay and tunnel lighting application
- Long operation life time, above 50,000 hours. Low maintenance costs
- Ideal replacement of 120W to 1000W conventional metal halide lamps
- Energy saving more than 60%
- Environmental friendly. Lead and mercury free
- Instant ON/OFF operation, no more waiting for warm up
- Superior colour rendition compared to conventional luminaire
- Resistant to shock and vibration

## 2. Technical Parameters

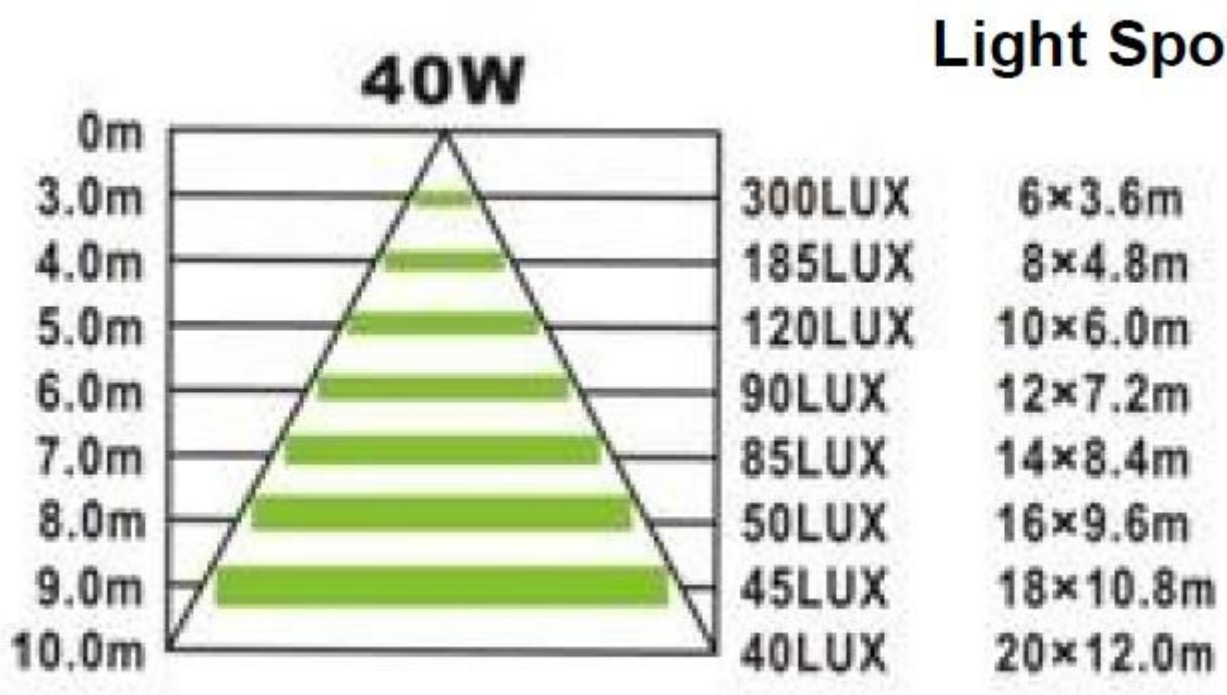
| | |
|---|---|
| Input Voltage | 90VAC～264VAC |
| Driver Power Frequency | 47～63Hz |
| Driver Power Efficiency | ≥90％ |
| Total Power Consumption | 40W 60W 90W 120W 150W 180W 240W 300W |
| Power Factor(PF) | ≥0.95 |
| Luminaire Efficiency | ≥94％ |
| Flux (Lumens) | 3500～25500lm |
| Colour Rendering Index | ≥80 |
| Colour Temperature | 2700～7000K Optional |
| Brightness Uniformity | 0.7 |
| Beam Angle | 60/90 Degree Optional |
| Light Spot | Rectangular |
| Working Ambient Temperature | -35°C～+50°C |
| Working Ambient Humidity | 15%～90%RH |
| IP Rating | IP65 |
| Service Life | ≥50000 Hours |
| Light Fixture Material | Aluminium Alloy + PC Lens |

40W LED Flood/Canopy Light
Model FLOOD40EO

| **Optical Parameters** | | **Electrical Parameters** | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 20 | Output Voltage DC | 3～42V |
| Colour Temperature | 2700～7000K | Optional Output Current | 2.8A（Constant Current） |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 52W±5W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 44W±5W |
| Flux | 2900～3400lm | Power Efficiency of Driver | ≥85% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 43°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 45°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55+C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 4.3kg±0.2kg |
| Storage Ambient Temperature | –30～+65℃ | Light Fixture Size | L378mm×W256mm×H125mm |
| HPS Equivalent | 120W/150W | Package Size | L458mm×W336mm×H210mm |



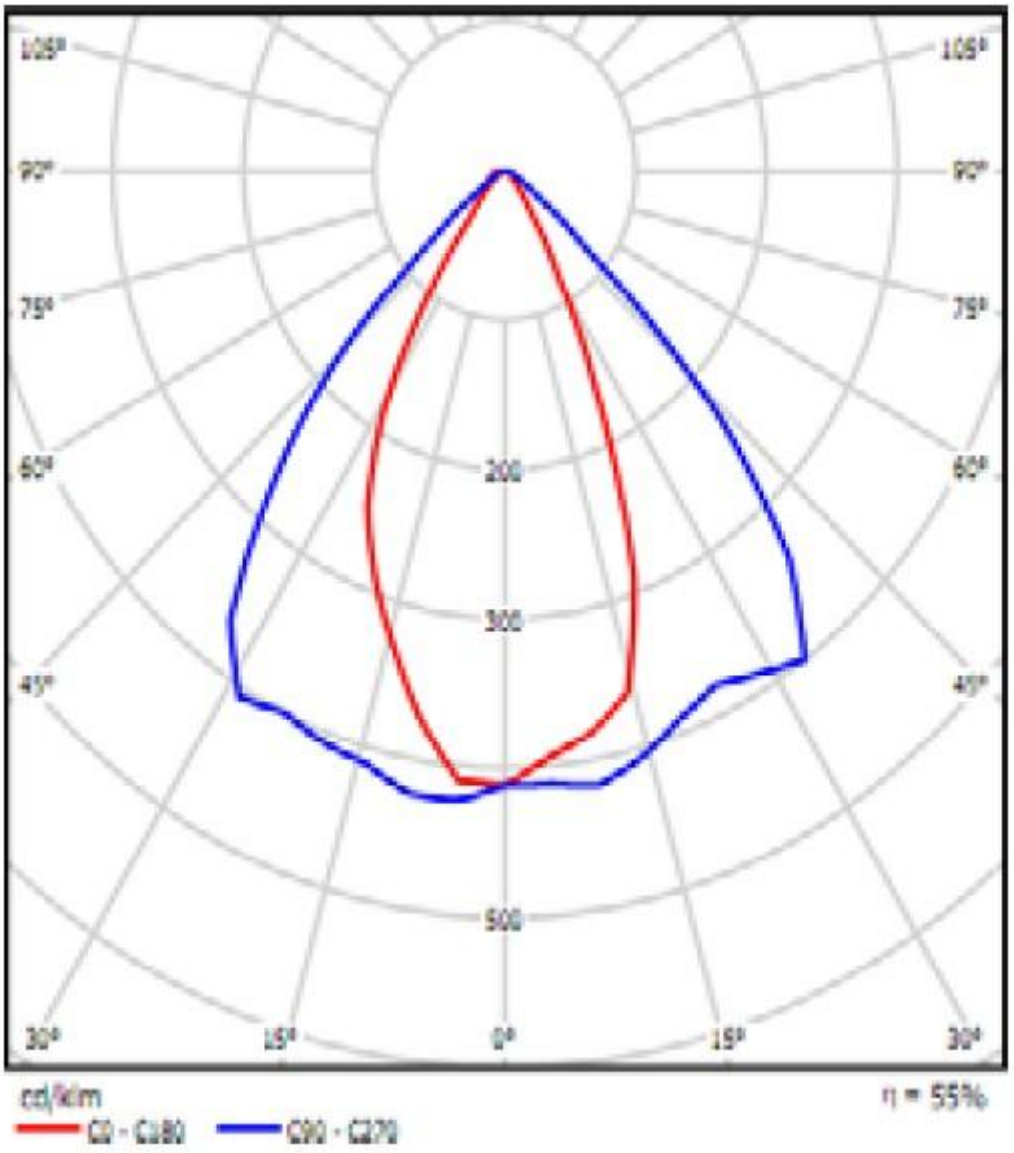

**Light Distribution**




**Illuminance Chart**

60W LED Flood/Canopy Light
Model FLOOD60EO

| Optical Parameters | | Electrical Parameters | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 30 | Output Voltage DC | 3～34V |
| Colour Temperature | 2700～7000K | Optional Output Current | 3.48A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 67W±5W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 58W±5W |
| Flux | 4350～5100lm | Power Efficiency of Driver | ≥85% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 43°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 45°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55℃ | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 5.3kg±0.3kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L378mm×W340mm×H125mm |
| HPS Equivalent | 120W/150W | Package Size | L458mm×W420mm×H210mm |

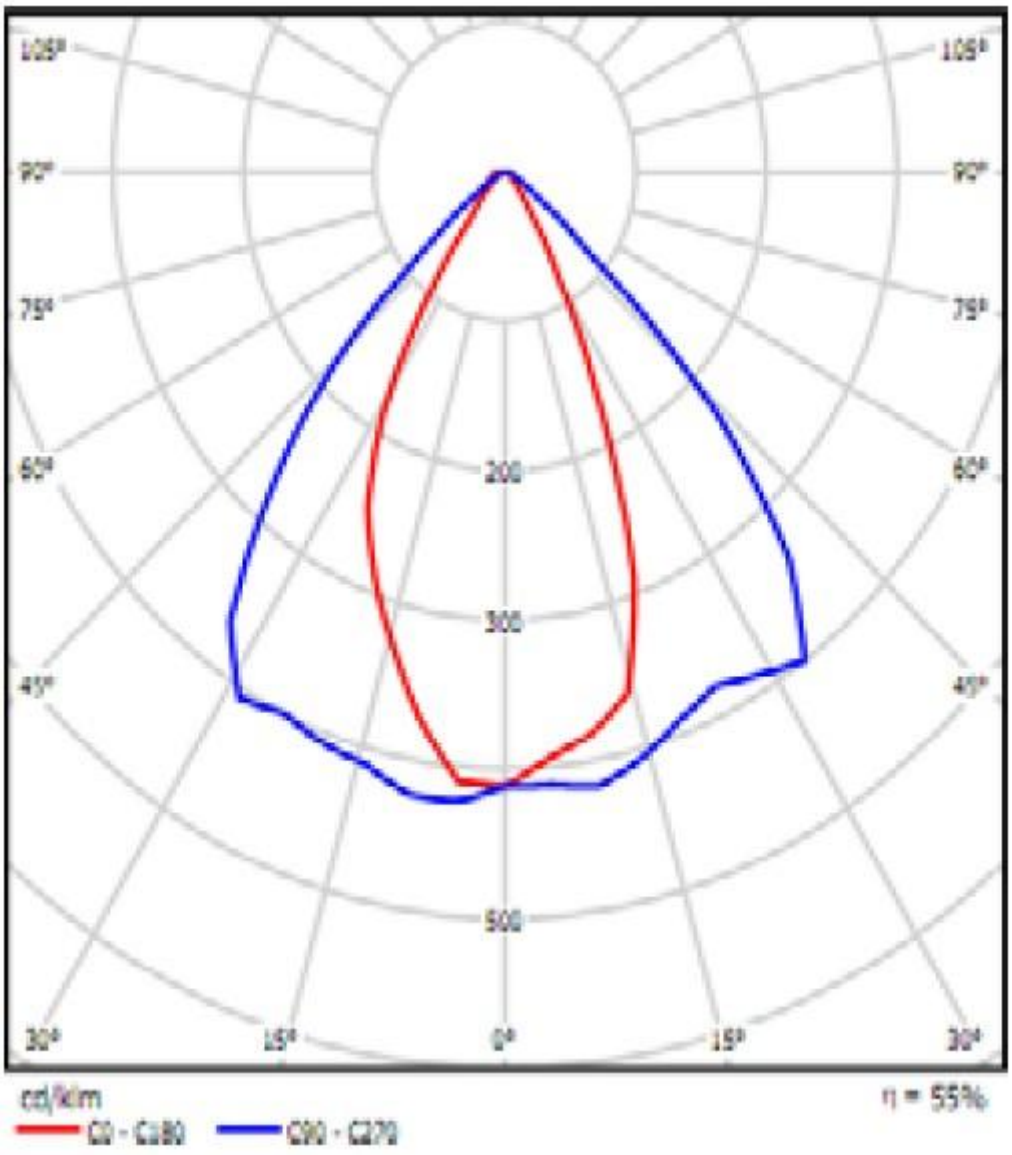



Light Distribution

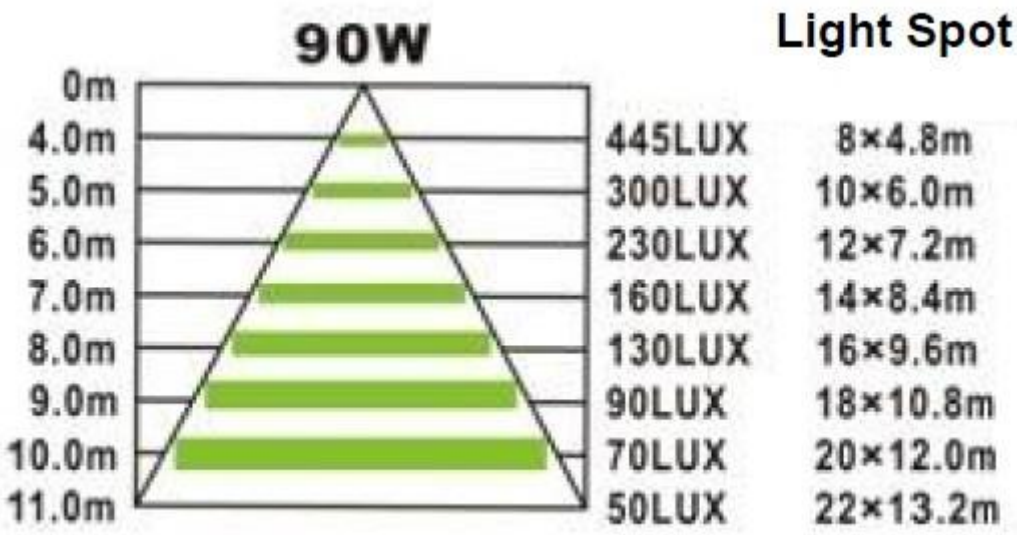

Illuminance Chart

90W LED Flood/Canopy Light
Model FLOOD90EO

| Optical Parameters | | Electrical Parameters | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 48 | Output Voltage DC | 42～56V |
| Colour Temperature | 2700～7000K | Optional Output Current | 3.6A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 100W±5W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 90W±5W |
| Flux | 6960～8160lm | Power Efficiency of Driver | ≥88% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 44°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 46°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 5.8kg±0.32kg |
| Storage Ambient Temperature | –30～+65℃ | Light Fixture Size | L520mm×W340mm×H125mm |
| HPS Equivalent | 150W/180W | Package Size | L600mm×W420mm×H210mm |



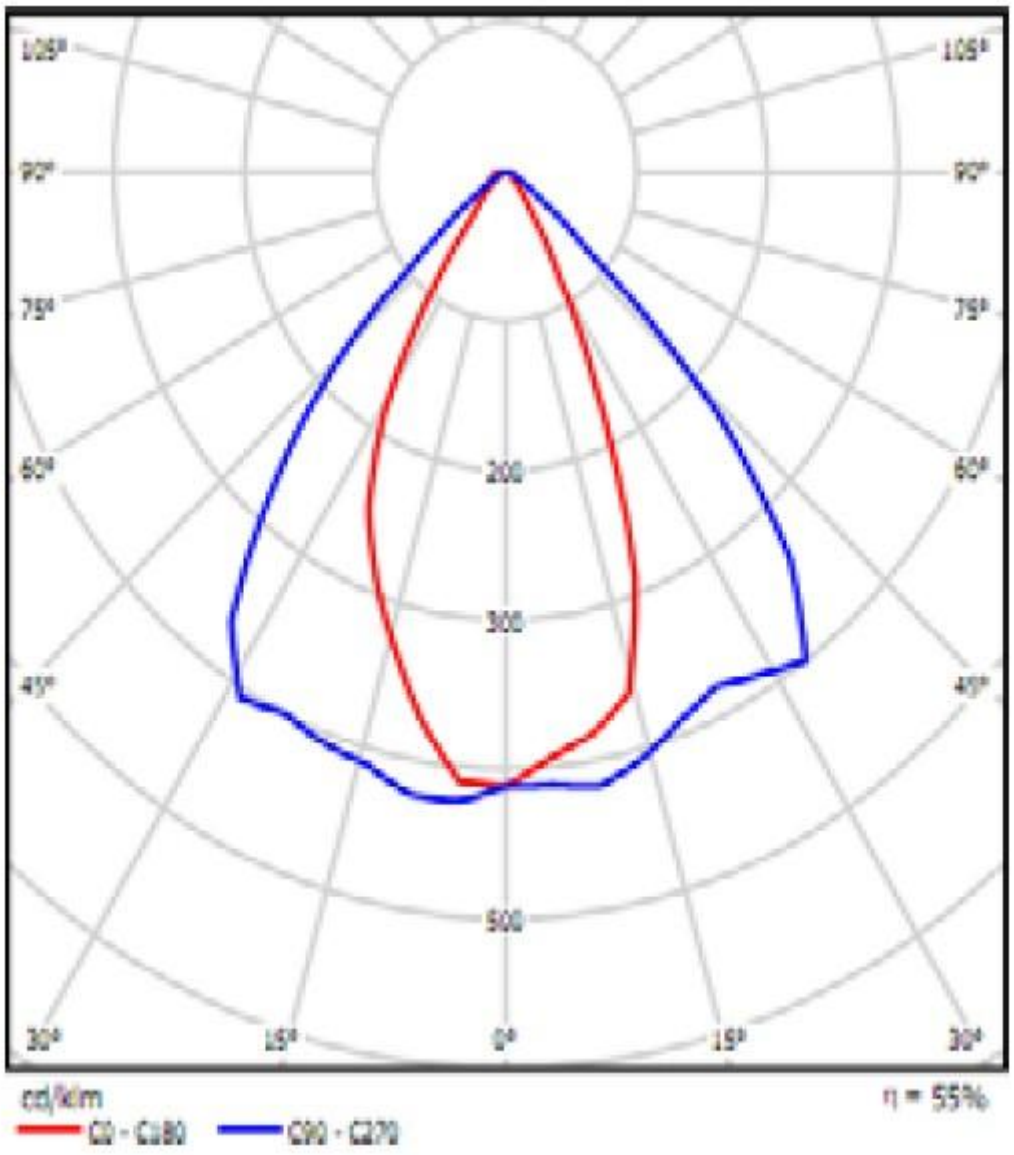

Light Distribution



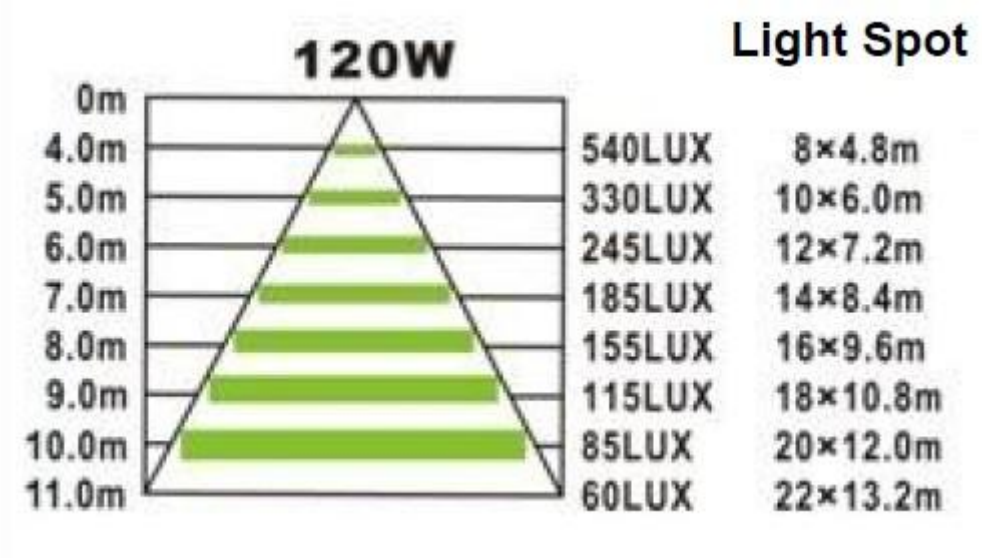

Illuminance Chart

| 120W LED Flood/Canopy Light<br>Model FLOOD120EO |  |
|---|---|

| **Optical Parameters** | | **Electrical Parameters** | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 64 | Output Voltage DC | 42～56V |
| Colour Temperature | 2700～7000K | Optional Output Current | 4.8A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 143W±5W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 121W±5W |
| Flux | 9280～10880lm | Power Efficiency of Driver | ≥89% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 45°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 47°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 8.2kg±0.4kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L520mm×W424mm×H125mm |
| HPS Equivalent | 250W/400W | Package Size | L600mm×W504mm×H210mm |



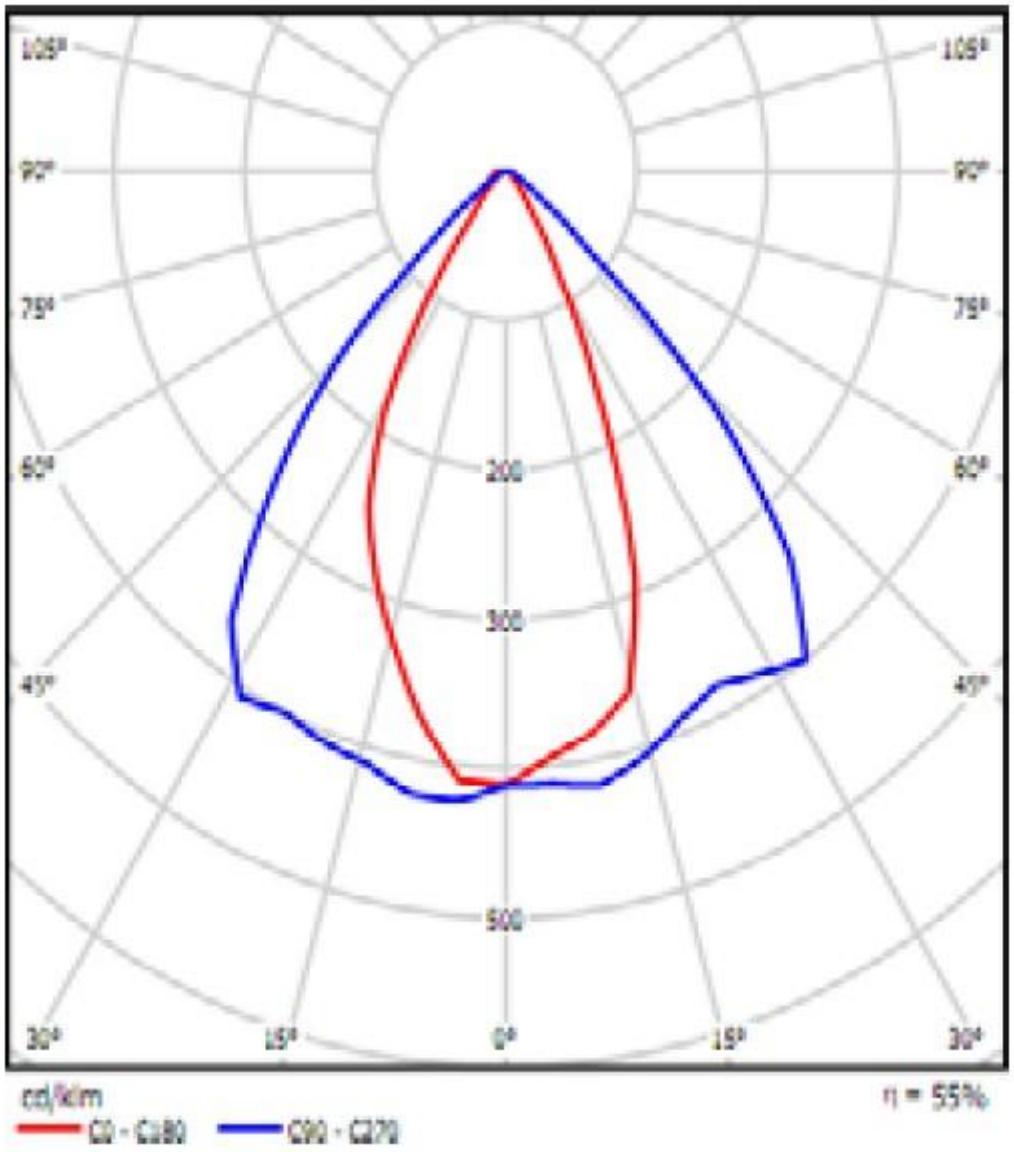

Light Distribution



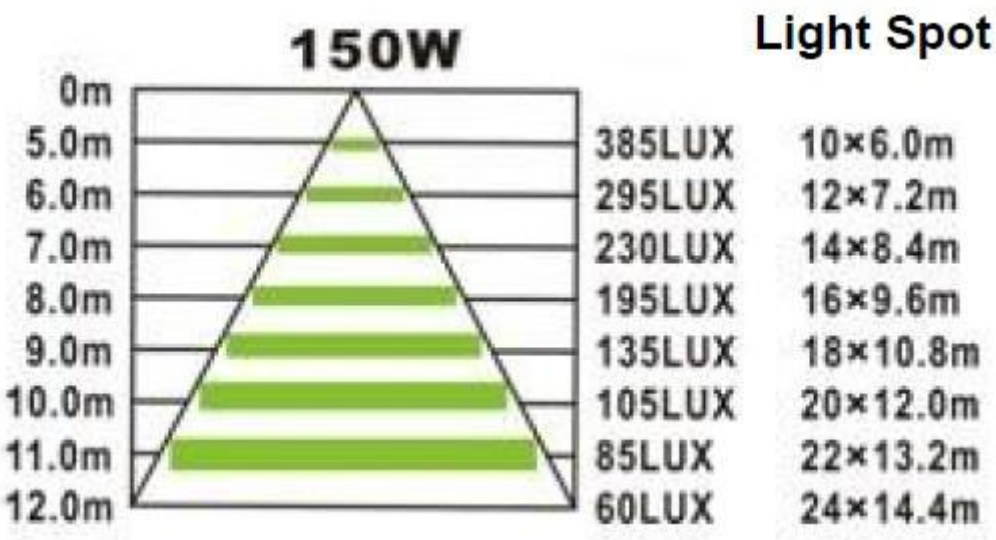

Illuminance Chart

150W LED Flood/Canopy Light
Model FLOOD150EO

| **Optical Parameters** | | **Electrical Parameters** | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 80 | Output Voltage DC | 42～56V |
| Colour Temperature | 2700～7000K | Optional Output Current | 6.0A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 175W±5W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 151W±5W |
| Flux | 11600～13600lm | Power Efficiency of Driver | ≥91% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 45°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 47°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 10.2kg±0.4kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L520mm×W508mm×H125mm |
| HPS Equivalent | 250W/400W | Package Size | L600mm×W588mm×H210mm |

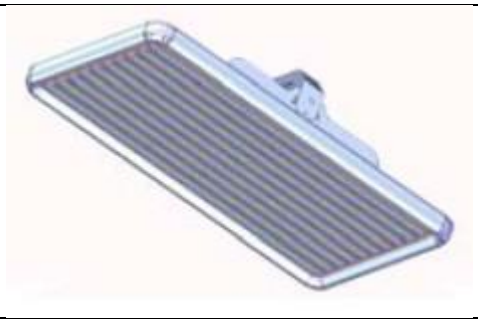



Light Distribution

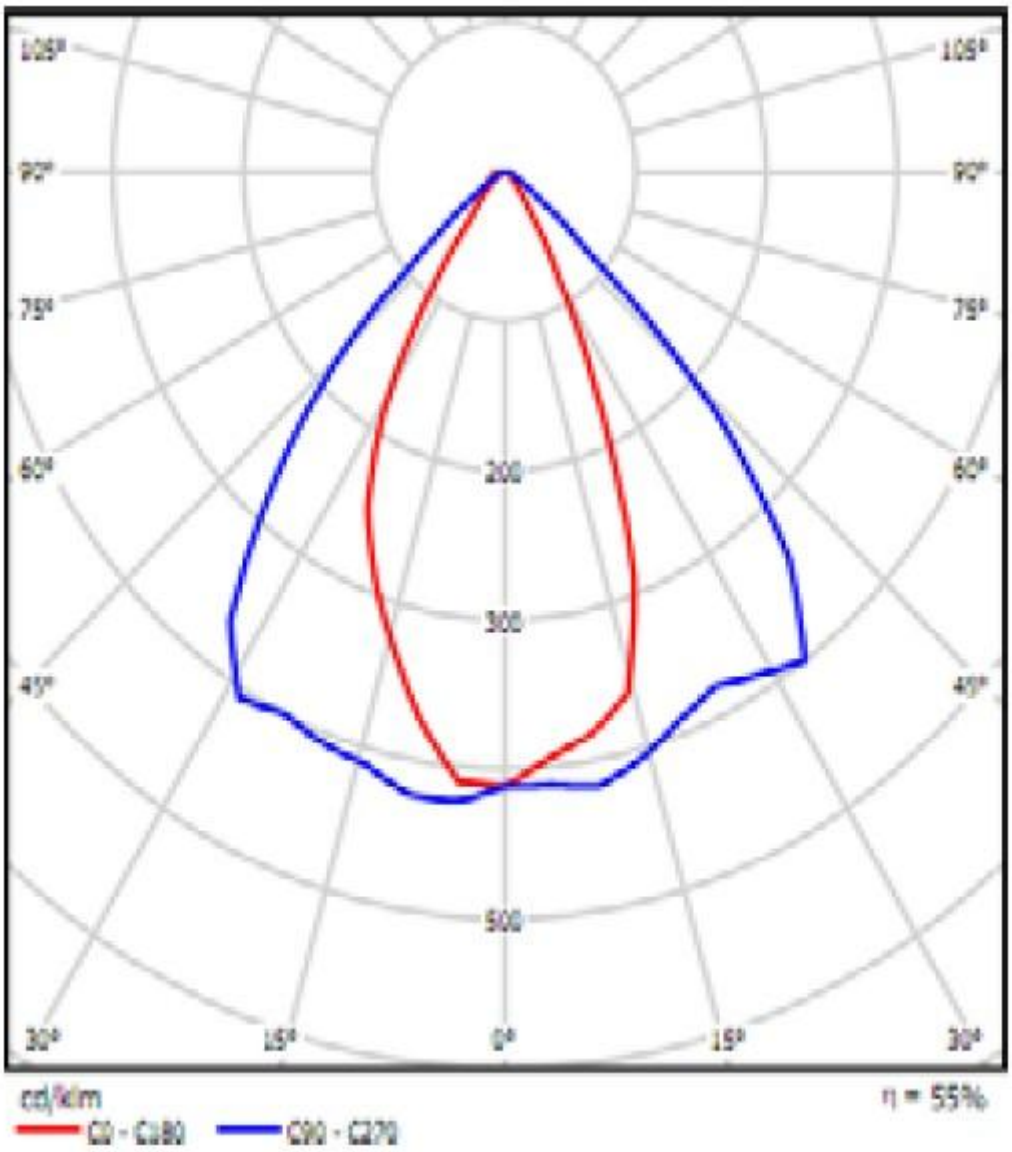



Illuminance Chart

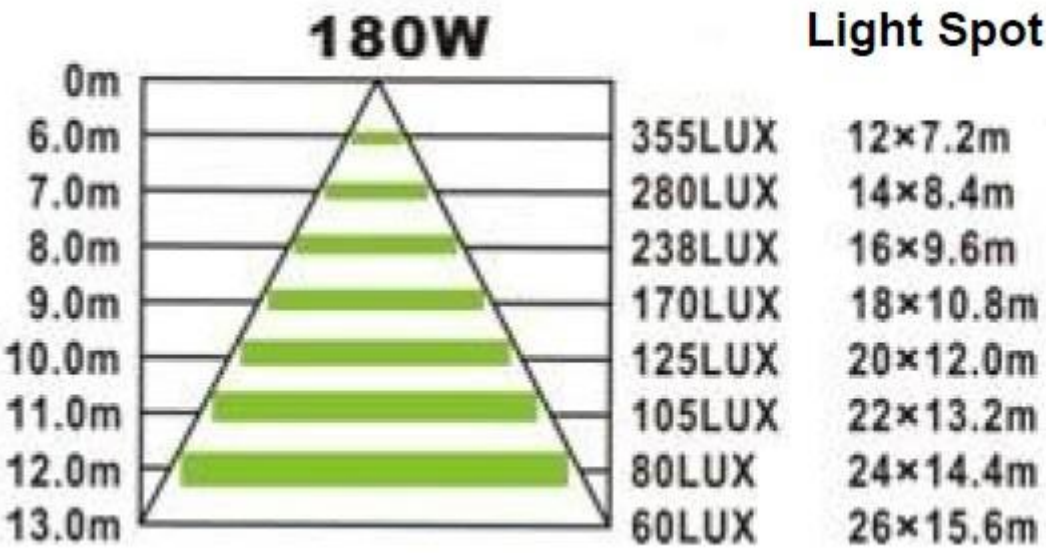
180W LED Flood/Canopy Light
Model FLOOD180EO



| Optical Parameters | | Electrical Parameters | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 90 | Output Voltage DC | 39～53V |
| Colour Temperature | 2700～7000K | Optional Output Current | 6.0A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 199W±8W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 170W±8W |
| Flux | 13050～15300lm | Power Efficiency of Driver | ≥90% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 44°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 46°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 10.5kg±0.4kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L900mm×W508mm×H125mm |
| HPS Equivalent | 400W/600W | Package Size | L980mm×W588mm×H210mm |

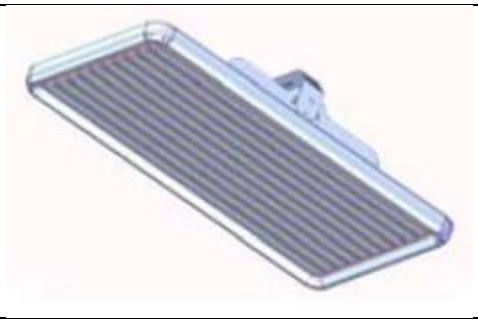



Light Distribution

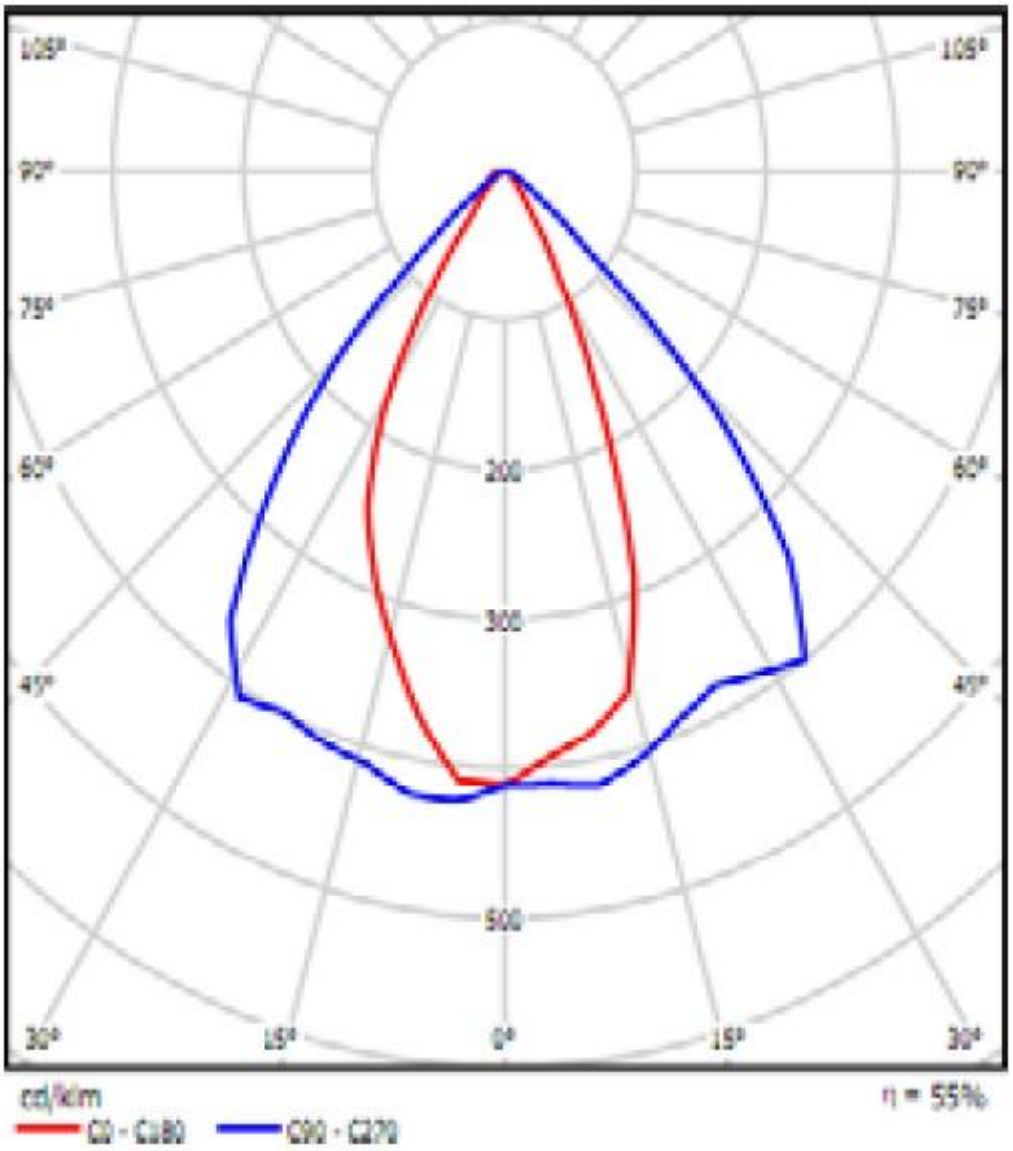



Illuminance Chart

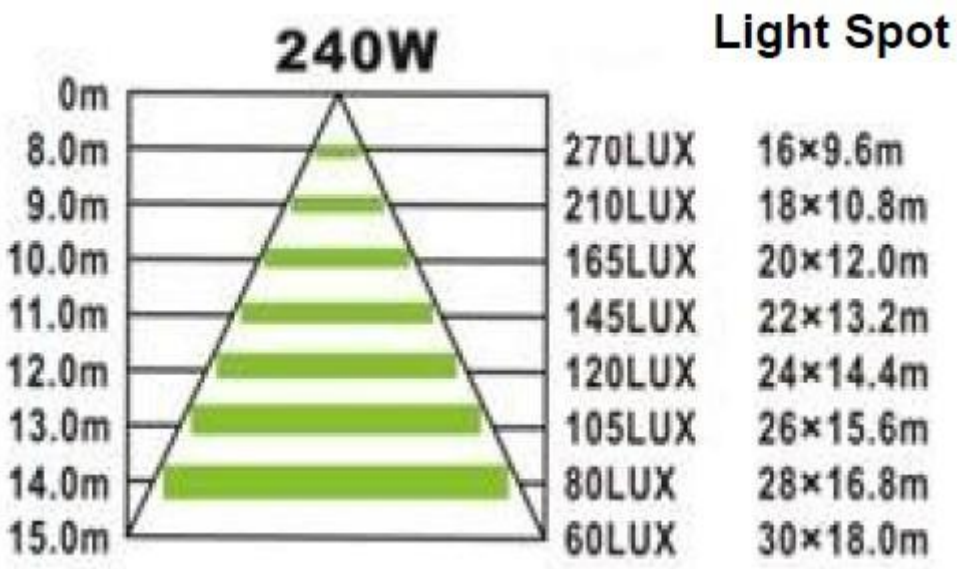
240W LED Flood/Canopy Light
Model FLOOD240EO



| Optical Parameters | | Electrical Parameters | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 120 | Output Voltage DC | 26～51V |
| Colour Temperature | 2700～7000K | Optional Output Current | 4.8A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 254W±8W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 227W±8W |
| Flux | 17400～20400lm | Power Efficiency of Driver | ≥94% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 44°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 46°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 11.0kg±0.4kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L900mm×W508mm×H125mm |
| HPS Equivalent | 500W/700W | Package Size | L980mm×W588mm×H210mm |

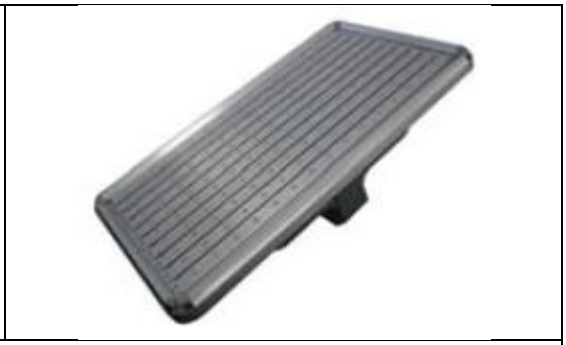



Light Distribution

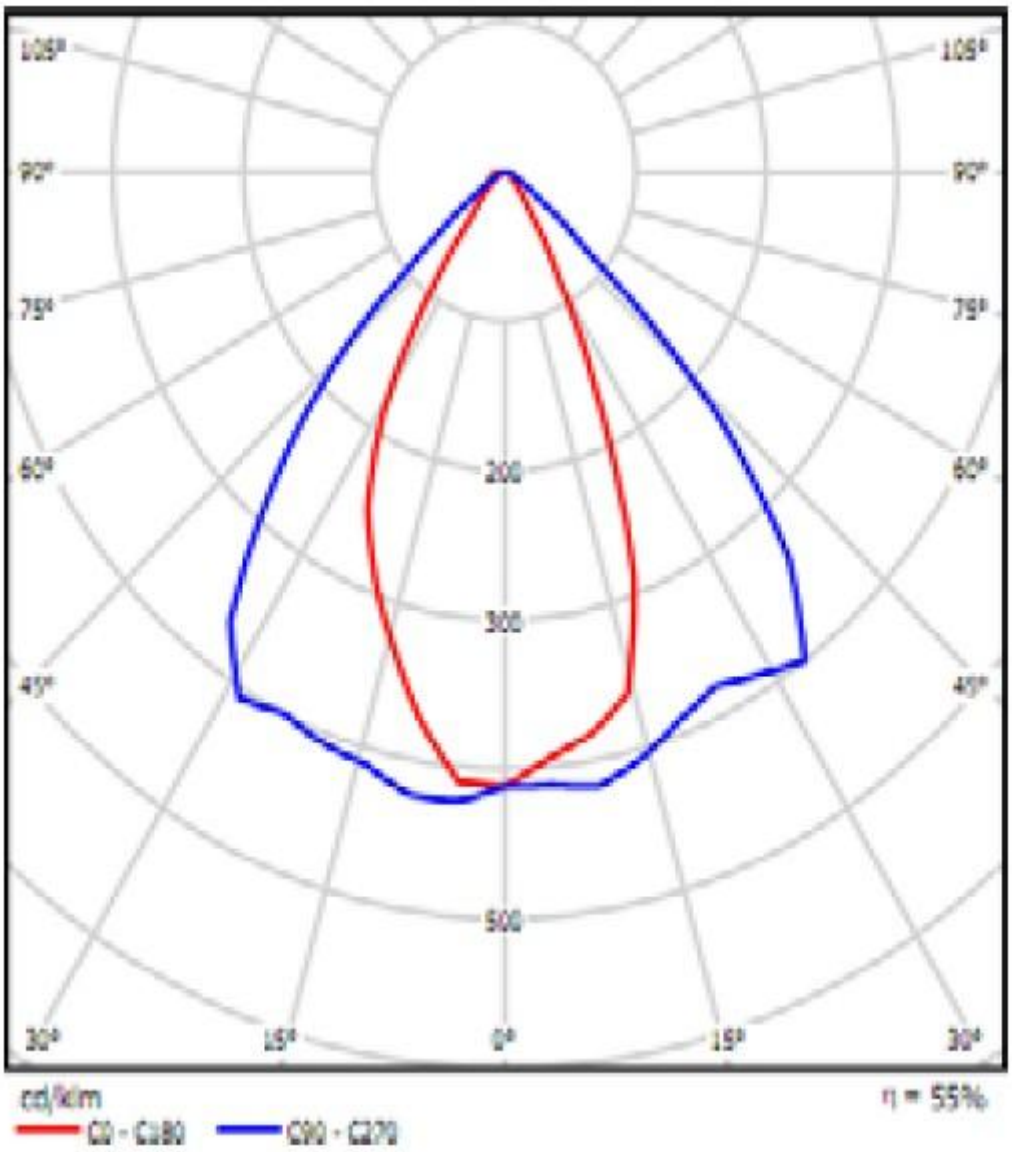



Illuminance Chart

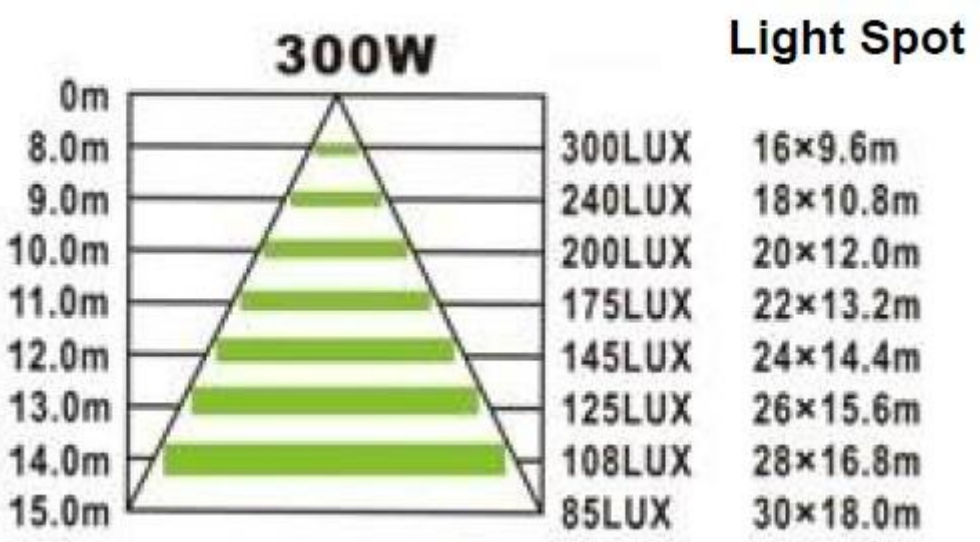
300W LED Flood/Canopy Light
Model FLOOD300EO



| Optical Parameters | | Electrical Parameters | |
|---|---|---|---|
| LED Chip Input | CREE XPE | Voltage AC | 100～240V/100～277V |
| Light Source CREE | LED Chip of 1～3W | Power Frequency of Driver | 47～63Hz |
| LED Quantity | 150 | Output Voltage DC | 42～56V |
| Colour Temperature | 2700～7000K | Optional Output Current | 6.0A（Constant Current) |
| Luminaire Efficiency | ≥94% | Total Power Consumption | 328W±8W |
| Luminous Efficacy | ≥80lm/W LED | Power Consumption | 284W±8W |
| Flux | 21750～25500lm | Power Efficiency of Driver | ≥91% |
| Colour Rendering Index | ≥80 | Power Factor | ≥0.95 |
| Beam Angle | 60°/90° | Dgr Total Harmonic Distortion | ≤15% |
| Heat Sink Surface Temperature | 44°C (@ Ambient Temperature 30°C) | Service Life | ≥50000Hrs |
| Base Plate Temperature | 46°C (@ Ambient Temperature 30°C) | Light Fixture Material | Aluminium alloy + PC Lens |
| Working Ambient Temperature | –35～+55°C | IP Rating | IP65 |
| Working Ambient Humidity | 15%～90%RH | Net Weight | 11.50kg±0.4kg |
| Storage Ambient Temperature | –30～+65°C | Light Fixture Size | L900mm×W508mm×H125mm |
| HPS Equivalent | 700W/1000W | Package Size | L980mm×W588mm×H210mm |

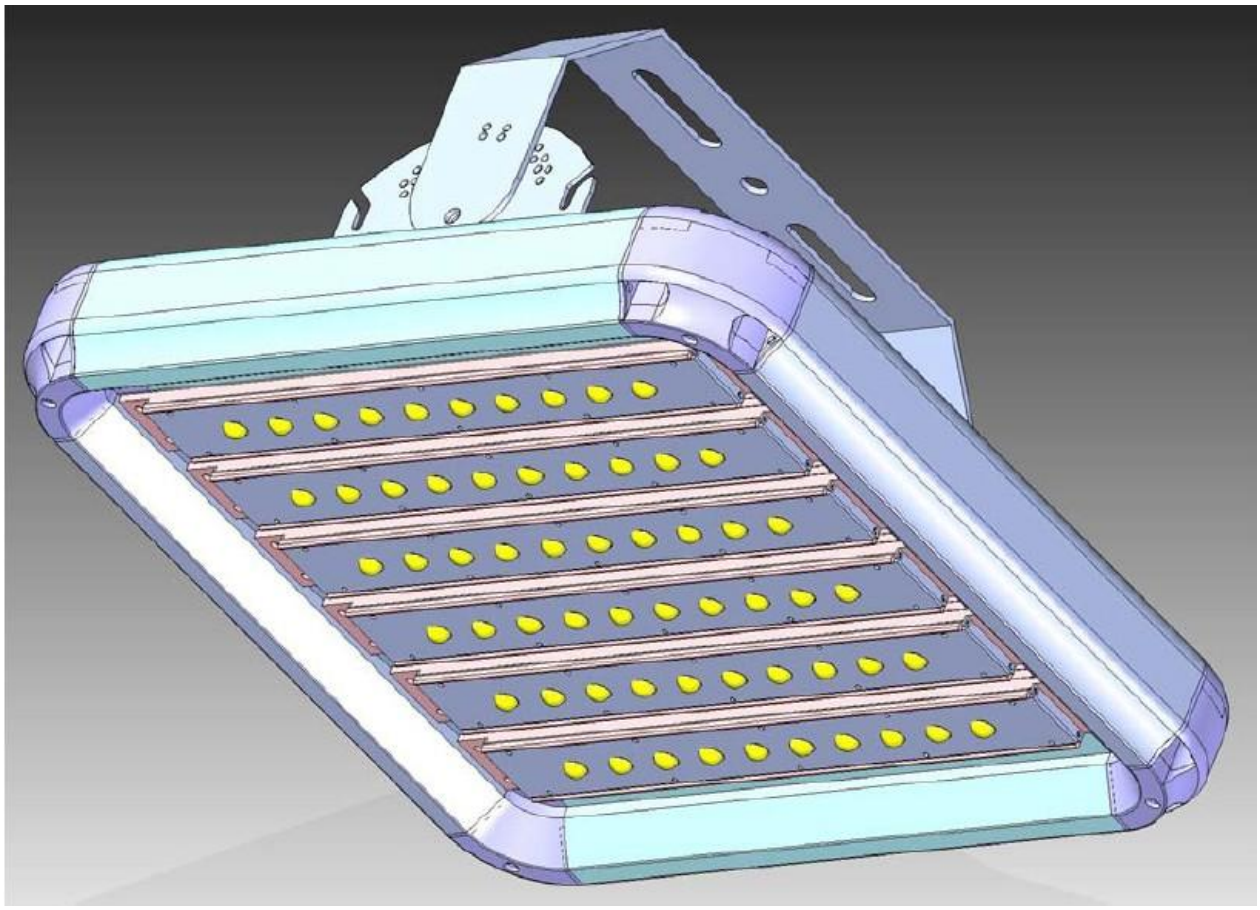


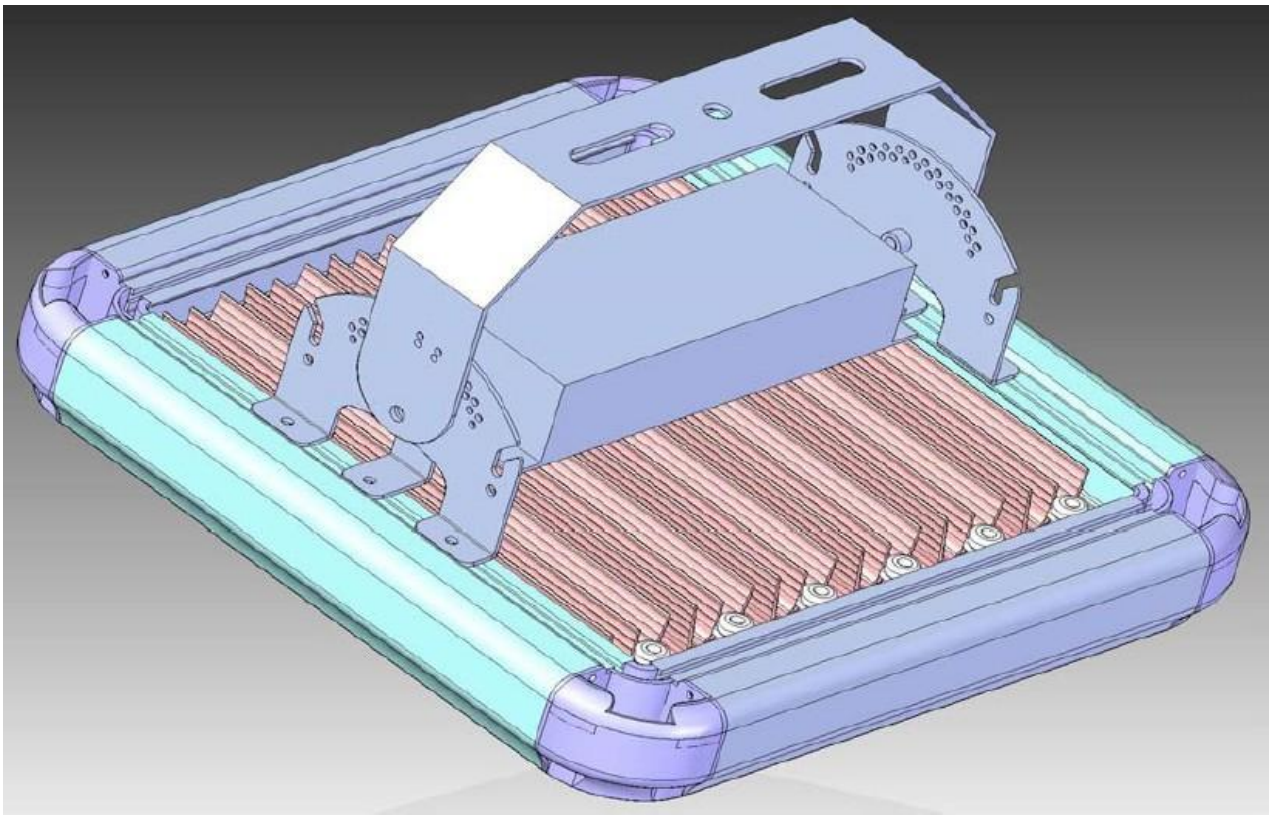

Light Distribution

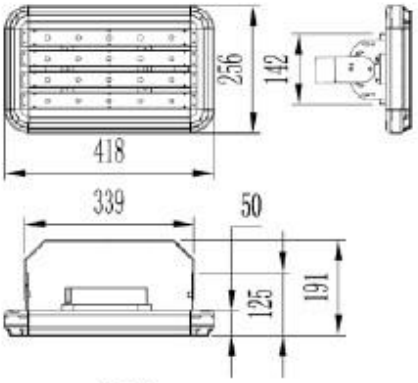



Illuminance Chart

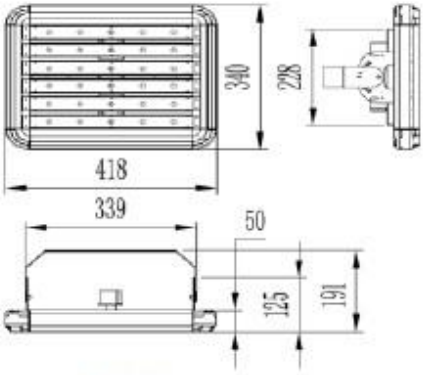
## 3 Product Profile



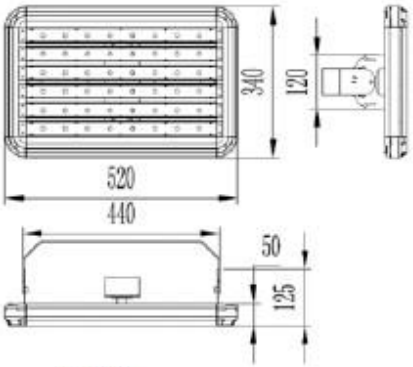




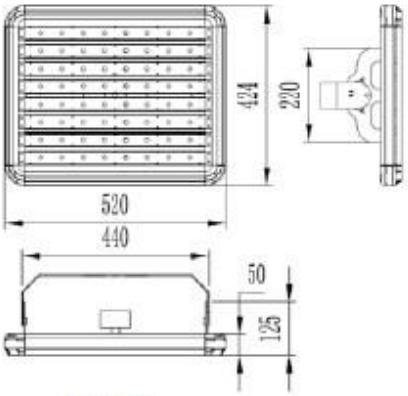

**40W**



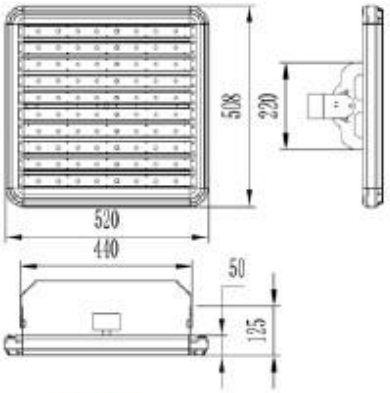

**60W**



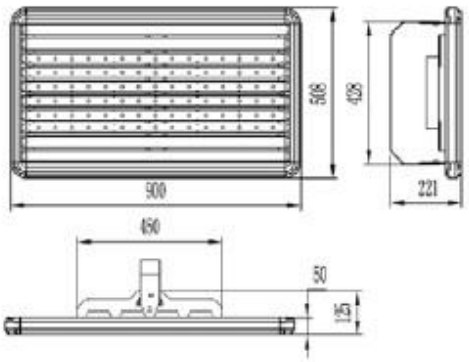

**90W**



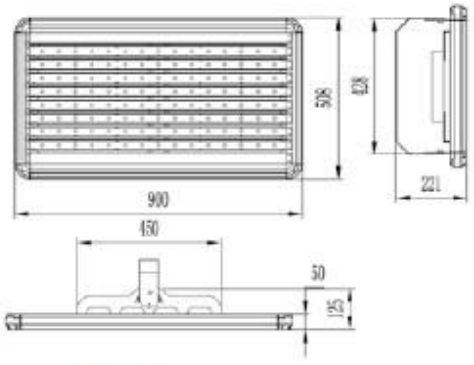

**120W**



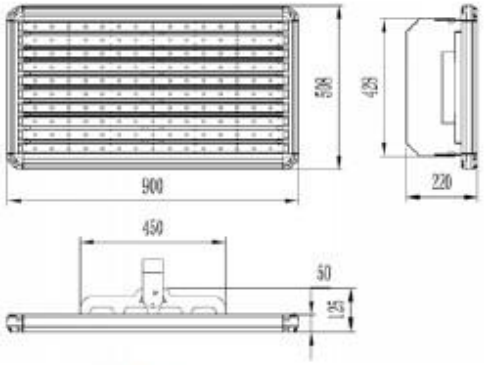

**150W**




**180W**




**240W**




**300W**

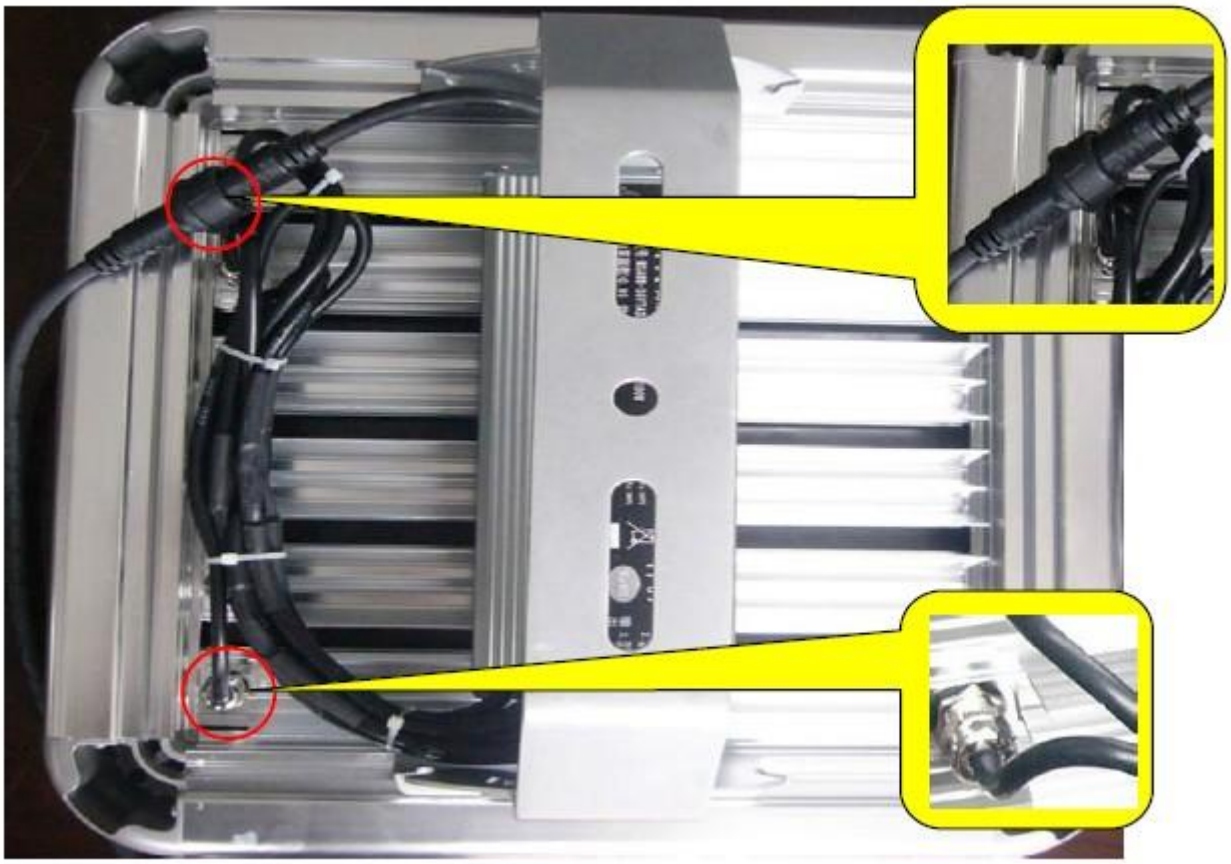
## 4 Installation Guide

1. Check carefully to ensure all screws and the handle are prepared in the package.

2. Remove the screws from the light bracket

3. Fix the handle to the light body with the screws and ensure all the screws are securely tightened.


4. Double check all the cable connections are properly done before hanging and power up.



**Caution:**

- Turn off power before cable connection
- Anti-static hand ring is required when replacing any electronics components
- Ensure all the AC power connections are properly done before turning power on.
- Do not touch the power driver when power is on
- Turn off power in case of any maintenance.

## 5. Troubleshooting

| Description | Analysis | Solution |
|---|---|---|
| LED lamp doesn’t light | 1. Check whether the power line connection is right; | 1. Reconnect the power line in the right way; |
| | 2. Check whether the power plug is loose; | 2. Re-plugged the loose power plug; |
| | 3. Driving power supply failure; | 3. Replace with new driver |
| | 4. LED light source has been damaged. | 4. Replace with a new LED integrated light source. |
| LED lamp light output is dim | 1. Driver output is abnormal; | 1. Replace with new driver; |
| | 2. LED light source supply failure. | 2. Replace with new LED light source. |
| LED lamp is flashing | 3. Driver output is abnormal; | 3. Replace with new driver; |

## 6 Packaging Information

**7 Lamp Comparison - LED vs Conventional**

| Flux (lm) | Power | Equivalent power of metal halide lamp |
|---|---|---|
| 3500～4500 | 40W | 120W |
| 5500～6500 | 60W | 180W |
| 6960～8160 | 90W | 250W |
| 9280～10880 | 120W | 400W |
| 11600～13600 | 150W | 400W |
| 13050～15300 | 180W | 700W |
| 17400～20400 | 240W | 700W |
| 21750～25500 | 300W | 1000W |

## 8 Other Products Highlight

### LED Bay Light

LED High Bay light reaches 18000 lumens for mounting height up to 20 metres, the 200W LED High Bay light is equivalent to 700W conventional HPS/HID.


### LED Garage Lighting

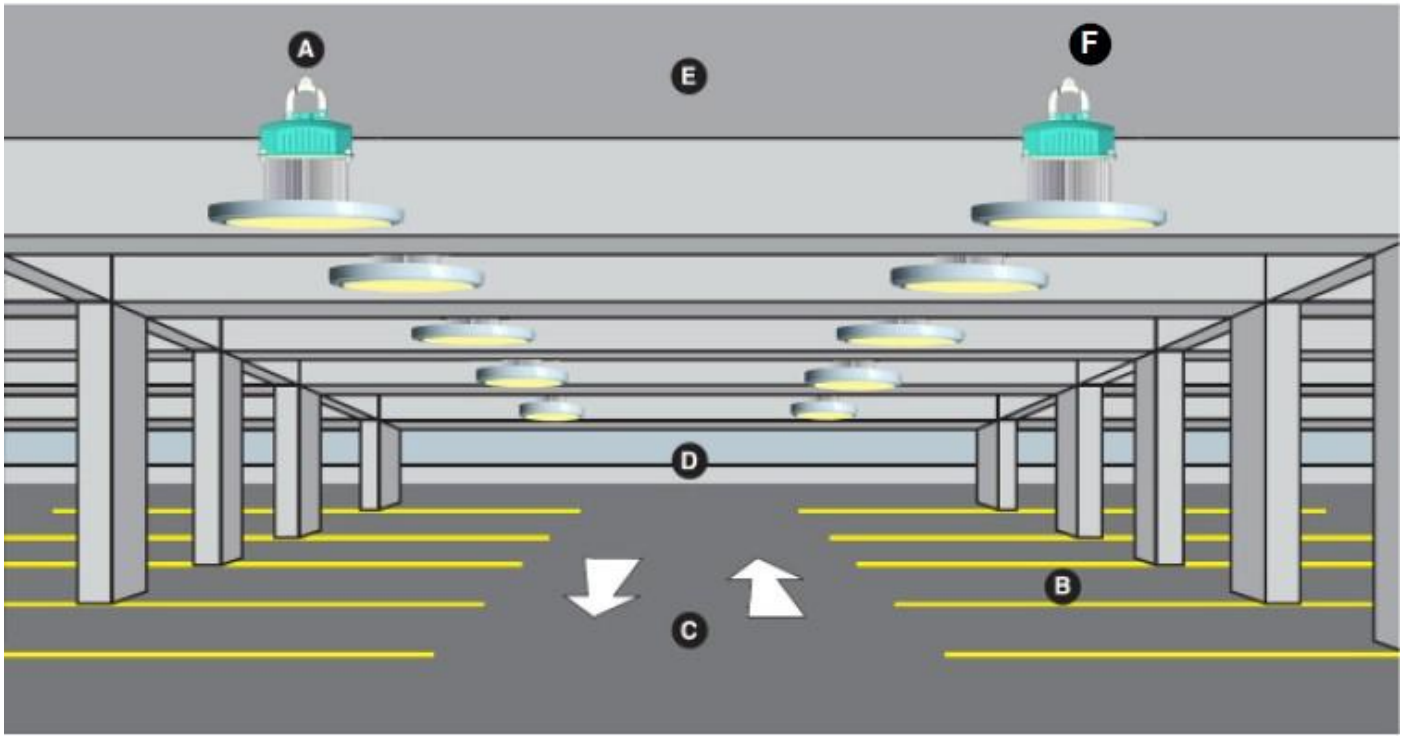
1. 60% power saving, 90% reduction in greenhouse gas emission. Long lifetimes and highly reliable service,
greatly reducing maintenance costs.
2. LED's own cut off light property provides high vertical illuminance with minimum glare.
3. For the safety and security of people entering and leaving their vehicles, and easy identification of open parking spaces for traffic flow, vertical illumination in the parking zones is required. This is best approached through direct high angle illumination, combined with ambient indirect lighting to reduce harsh shadows and contrast.

# LED Garage Lighting


Complus Trading

Vabaõhumuuseumi tee 2A-14, 13522 Tallinn, Estonia

# Features




**A** 60% power saving, 90% reduction in greenhouse gas emission. Long lifetimes and highly reliable service, greatly reducing maintenance costs.

**B** For the safety and security of people entering and leaving their vehicles, and easy identification of open parking spaces for traffic flow, vertical illumination in the parking zones is required. This is best approached through direct high angle illumination, combined with ambient indirect lighting to reduce harsh shadows and contrast.

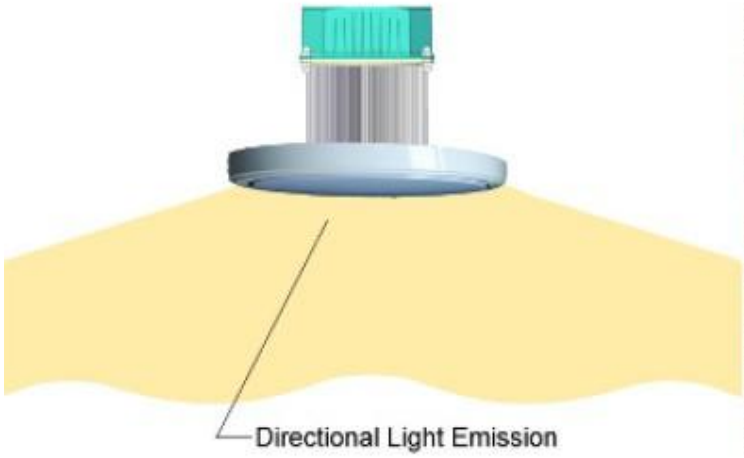
**C** LED's own cut off light property provides high vertical illuminance with minimum glare.

**D** Visibility of the facility must provide an inviting appearance with no glare to surrounding properties. The combination of indirect illumination of the garage interior and cut off optical control, provides the most attractive presentation from the exterior of the garage.

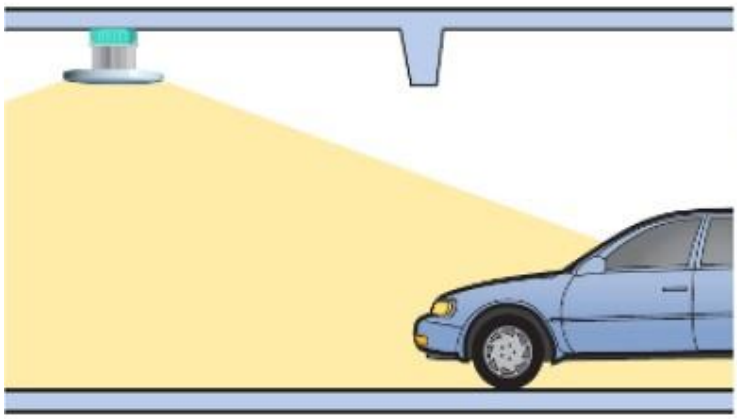
**E** Not affected by most vibrations and typical temperature variations.

**F** Various colour temperatures available from "warm" to "cool" with high CRI providing high quality lighting effect(2700K - 7000K).

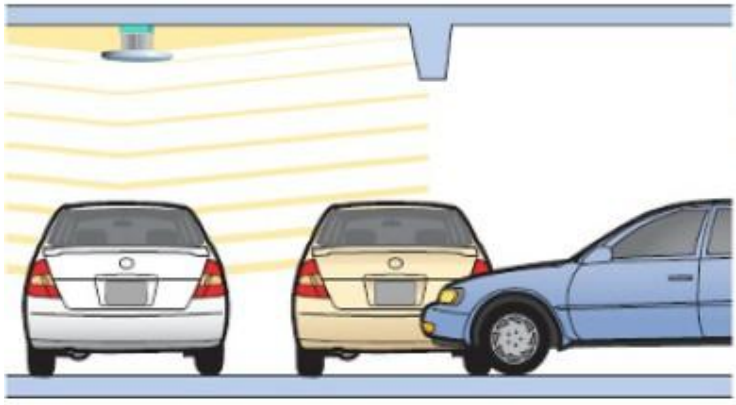
# Design Basis




**Superior Luminaire Efficiency:**
Comparing with conventional HPS, which emits combination of visible and invisible light with 360 degree beam angle, LED light emits 100% visible light to be fully projected towards the target. Thus, luminaire efficiency of LED light is 2.5 times to conventional HPS/HID. 30W LED bay light is equivalent to 80W fluorescent light or CFL, and 60W LED light is equivalent to 150W HPS or HID.



**Cutoff Downlight:**
Directional lighting property of LED brings cutoff down light, which provides overall illumination with low glare. A balance of providing high vertical illuminance and drive lane comfort is accomplished by LED design that all light is projected to useful zones without any lose at unwanted area.



**High Illuminance and High CRI:**
High vertical illuminance and high CRI of LED light improves visibility and provides a sense of security and safety.

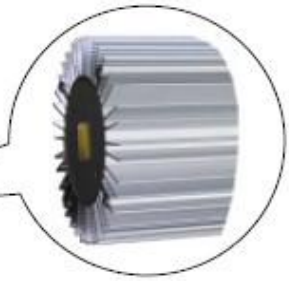
## Configurations

**Speed Monuting Design**

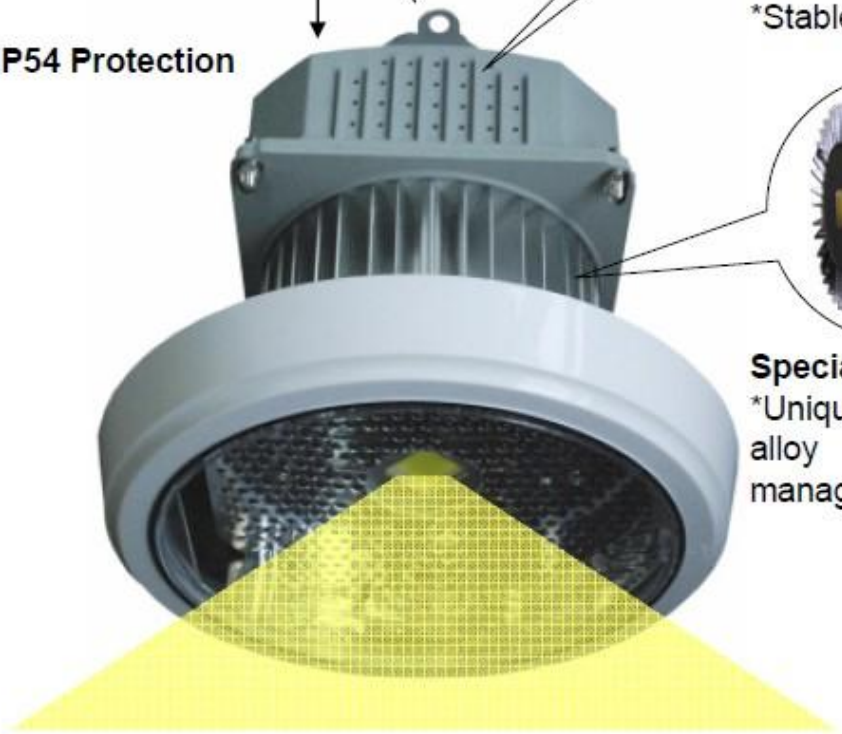
**Die Cast Housing**

**IP30 / IP54 Protection**

**Dedicated Power Driver**
*Input Voltage of wide range: 110V - 277V
*Stable & Long Life

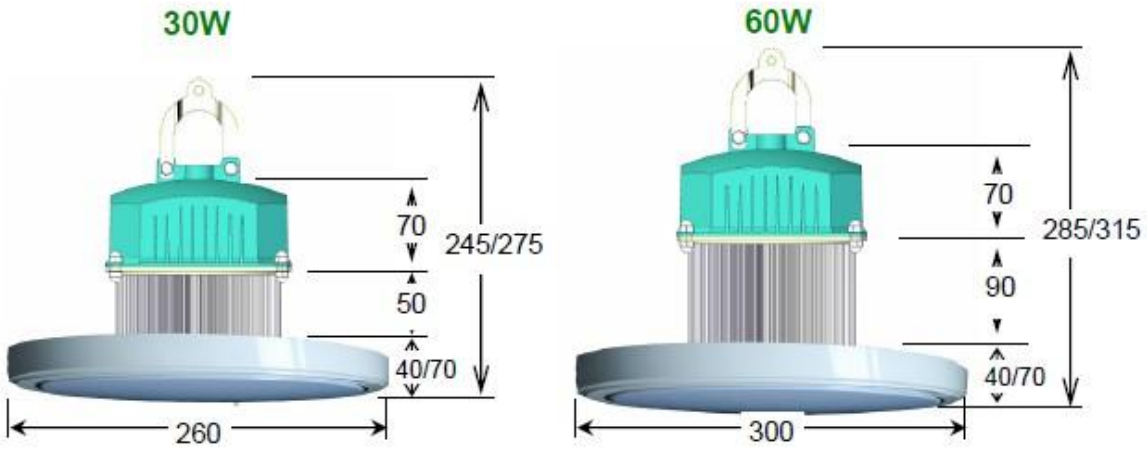


**Specially Designed Heat Sink**
*Unique design with aluminum alloy ensures superior heat management.



**High Illuminance Integrated LED**
*Provides high illuminance of directional downlight.
*Cutoff down light provides overall illuminance with low glare.
*No light pollution or waste.
*50000 hours service life.

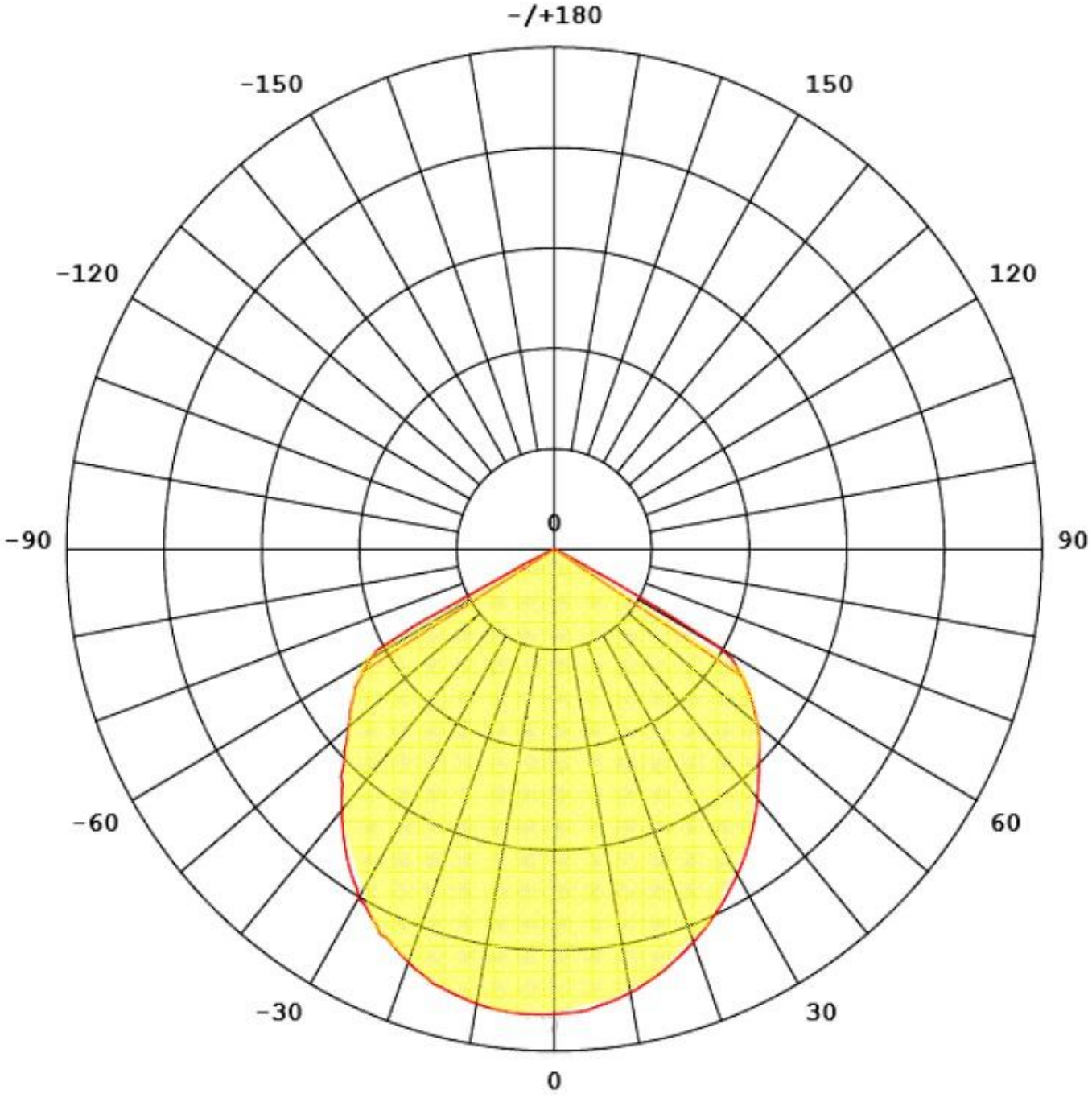
# Specifications



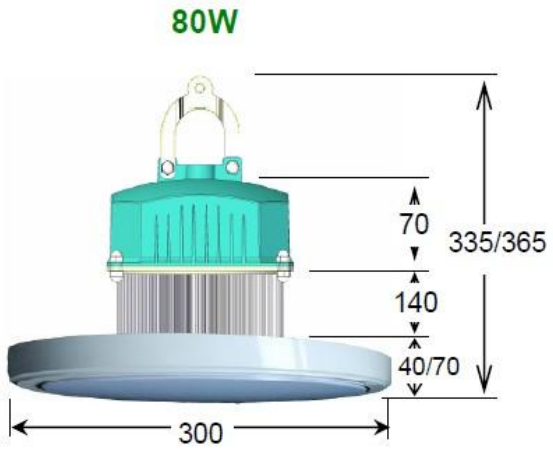

| Specifications | Product Code | |
|---|---|---|
| | Garage30EO | Garage60EO |
| Input Voltage | 110V - 277V | |
| Power Frequency | 50HZ - 60HZ | |
| Power Efficiency | >85% | |
| LED Power Consumption | 30W | 60W |
| Power Factor(PF) | >95% | |
| Max Input Amps | 0.16 | 0.32 |
| Total Harmonic Distortion | <15% | |
| Luminaire Efficiency | 80 lm/W | |
| Flux | 2400 lm | 4500 lm |
| Colour Rendering Index(CRI) | Ra>80 | |
| Colour Temperature | 2700K - 7000K | |
| Beam Angle | 120° | |
| HPS/HID Equivalent | 80W HPS/HID | 180W HPS/HID |
| IP Rating | IP30/IP54 | |
| Working Ambient Temperature | -25 ～ +45℃ | |
| Working Ambient Humidity | 15% ～ 90% | |
| Lamp Fixture Material | Aluminium Alloy | |

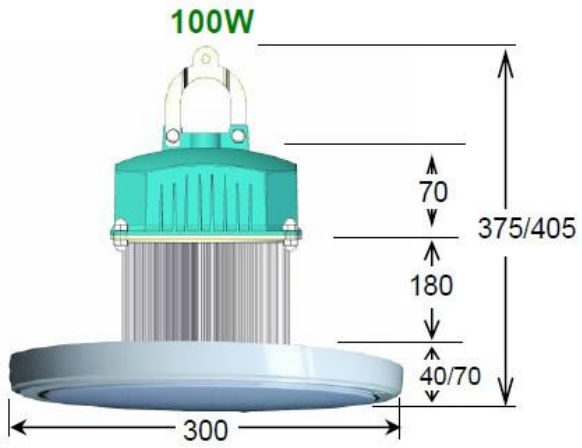
**Light Distribution Polar Diagram**

- Wide distribution with high illuminance intensity.
- Cut off light control ensures brightness and low glare.



# Specifications




| Specifications | Product Code | |
|---|---|---|
| | Garage80EO | Garage100EO |
| Input Voltage | 110V - 277V | |
| Power Frequency | 50HZ - 60HZ | |
| Power Efficiency | >85% | |
| LED Power Consumption | 80W | 100W |
| Power Factor(PF) | >95% | |
| Max Input Amps | 0.16 | 0.32 |
| Total Harmonic Distortion | <15% | |
| Luminaire Efficiency | 75 lm/W | 72 lm/W |
| Flux | 6000 lm | 7200 lm |
| Colour Rendering Index(CRI) | Ra>80 | |
| Colour Temperature | 2700K - 7000K | |
| Beam Angle | 120° | |
| HPS/HID Equivalent | 200W HPS/HID | 250W HPS/HID |
| IP Rating | IP30/IP54 | |
| Working Ambient Temperature | -25 ～ +45℃ | |
| Working Ambient Humidity | 15% ～ 90% | |
| Lamp Fixture Material | Aluminium Alloy | |

**Light Distribution Polar Diagram**

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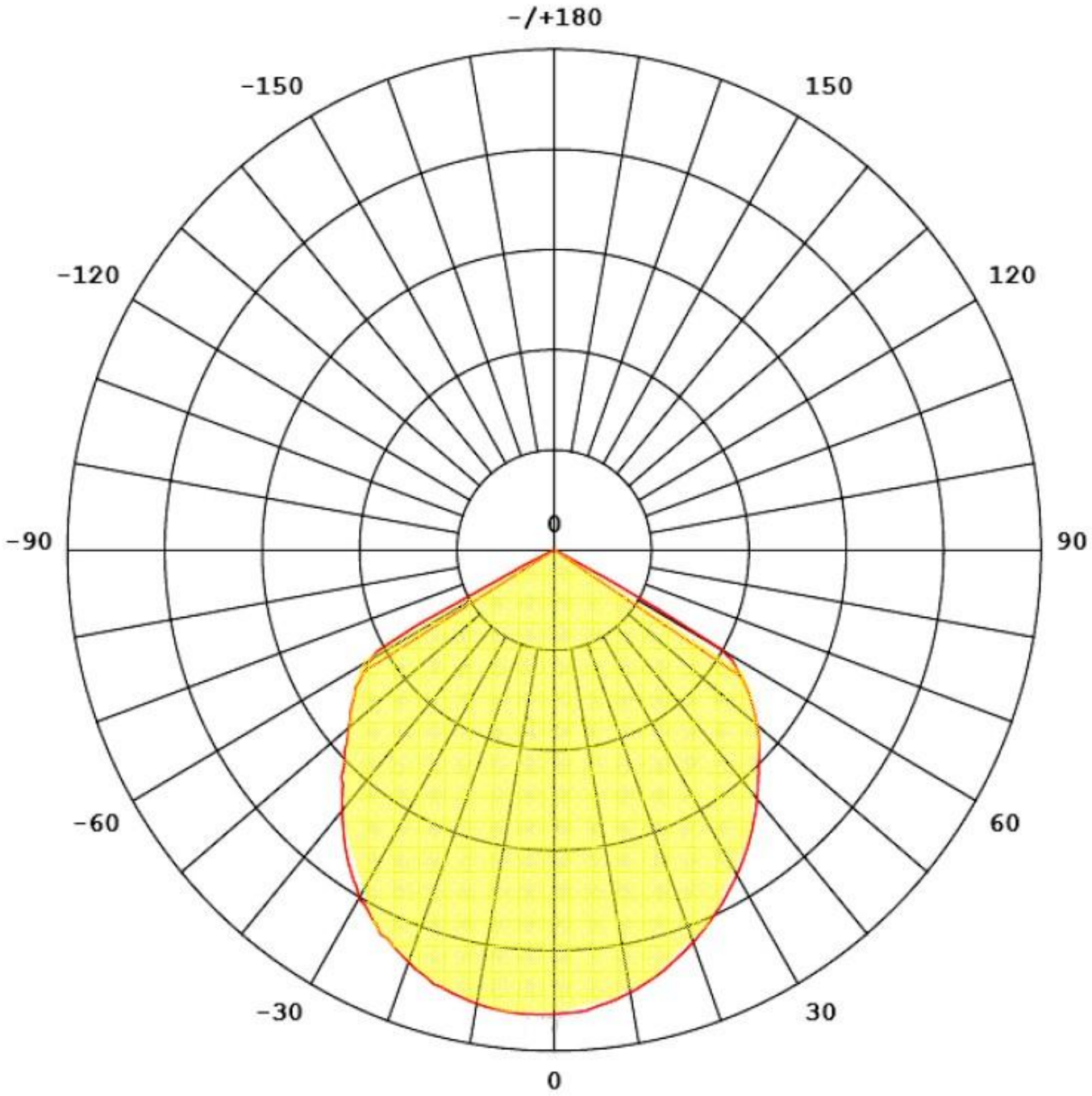
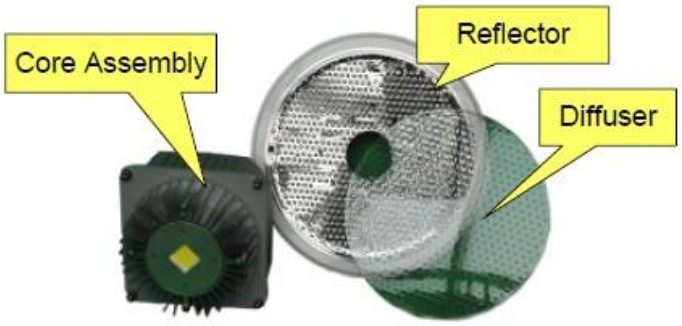


**Step 1:** Unpack

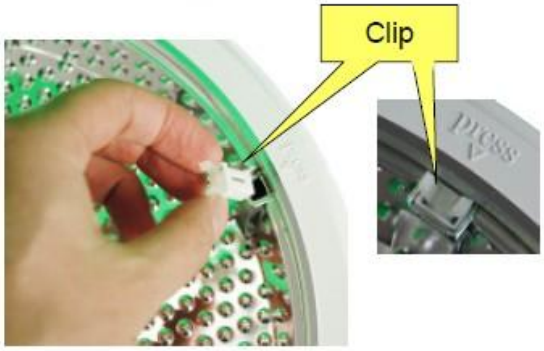



Removed from package

**Step 2:** Unscrew and remove the 4 bolts at the core assembly.


**Step 3:** Fix the reflector to the core assembly by screwing 4 bolts.

**Step 4:** Insert the clip into the socket at the reflector.




**Step 5:** Cover the reflector with diffuser.

Diffuser D1-
D300mm x H40mm
Milky color

Diffuser D2-
D300mm x H40mm
Droplet transparent

Diffuser D3-
D300mm x H70mm
Semi- transparent

**The best choice of energy saving, environment friendly and light pollution-free.**