

# Welcome to street light world



Kuala Lumpur, Malaysia



# Led Changing The Illuminance World



Led light

Devote to the human development



# Led street lights family



LED  
products

JB720LD

JB920LD

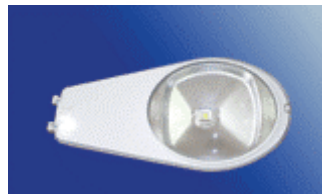
JB7235LD

JB5324LD

JB635LD

JB1200LD

CE





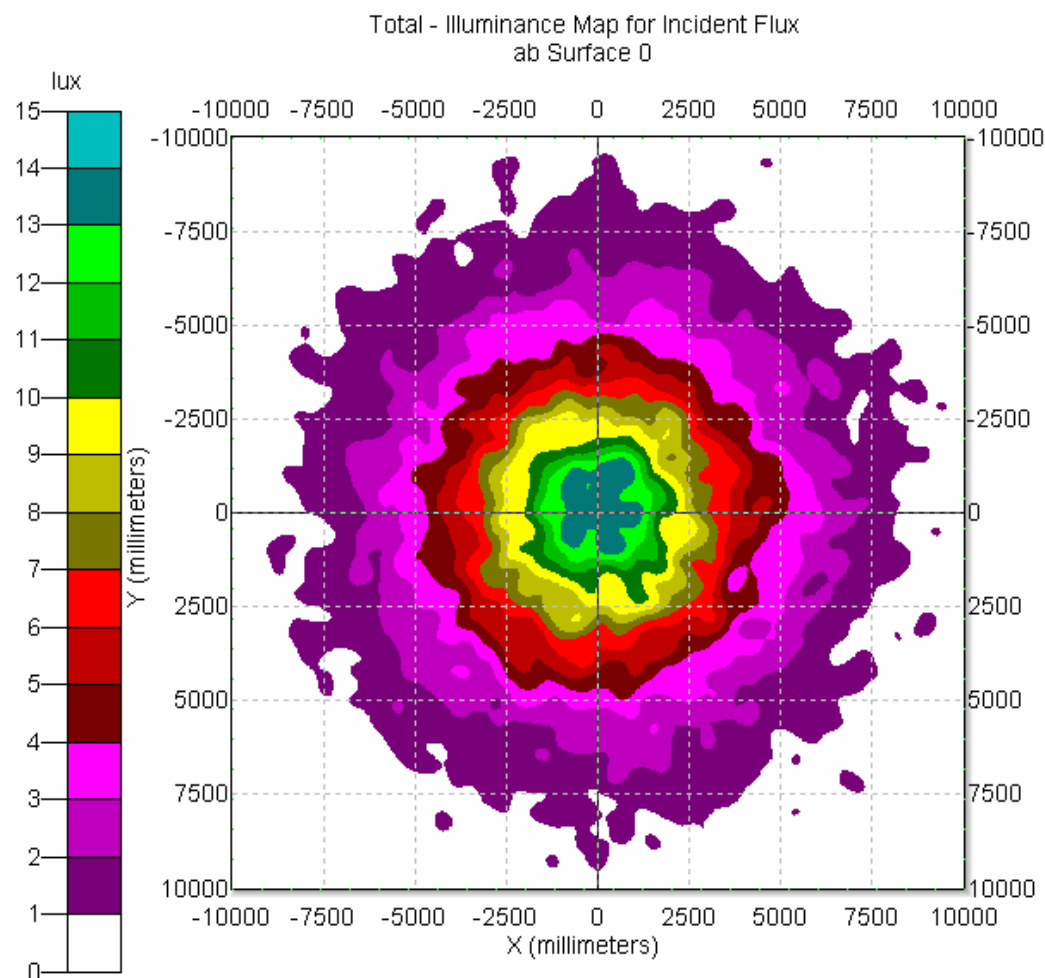
# JB720 High power led street light



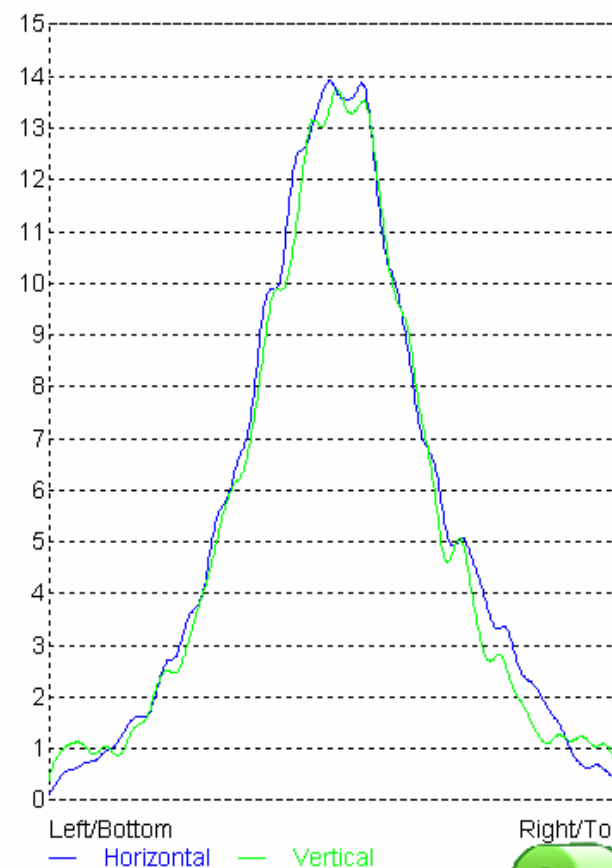
- Model : JB720LD 30w ----- Model : JB720LD 100watt (Every 10w is a new model )
- Power: 30w - 100w
- Power Efficiency: >90%
- Voltage : AC (85V~265V ) / DC (12V 24V 36V)
- Luminous Efficiency: 80lm/watt
- Frequency: (50~60Hz)
- Effective Beam Angle: 65°
- Color Rendering Index :Ra>80
- Color Temperature : 2700K~7000K
- Life Span : >50000hours
- Protection degree: IP 65
- Net Weight (kg) : 9.56kg



# 30w JB720 led street light lux test



Illuminance Min:1.9876e-005 lux, Max:14.015 lux, Ave:2.3108 lux,  
RMS:2.7703, Total Flux:924.32 lm 24735 Incident Rays



# JB920 High power led street light



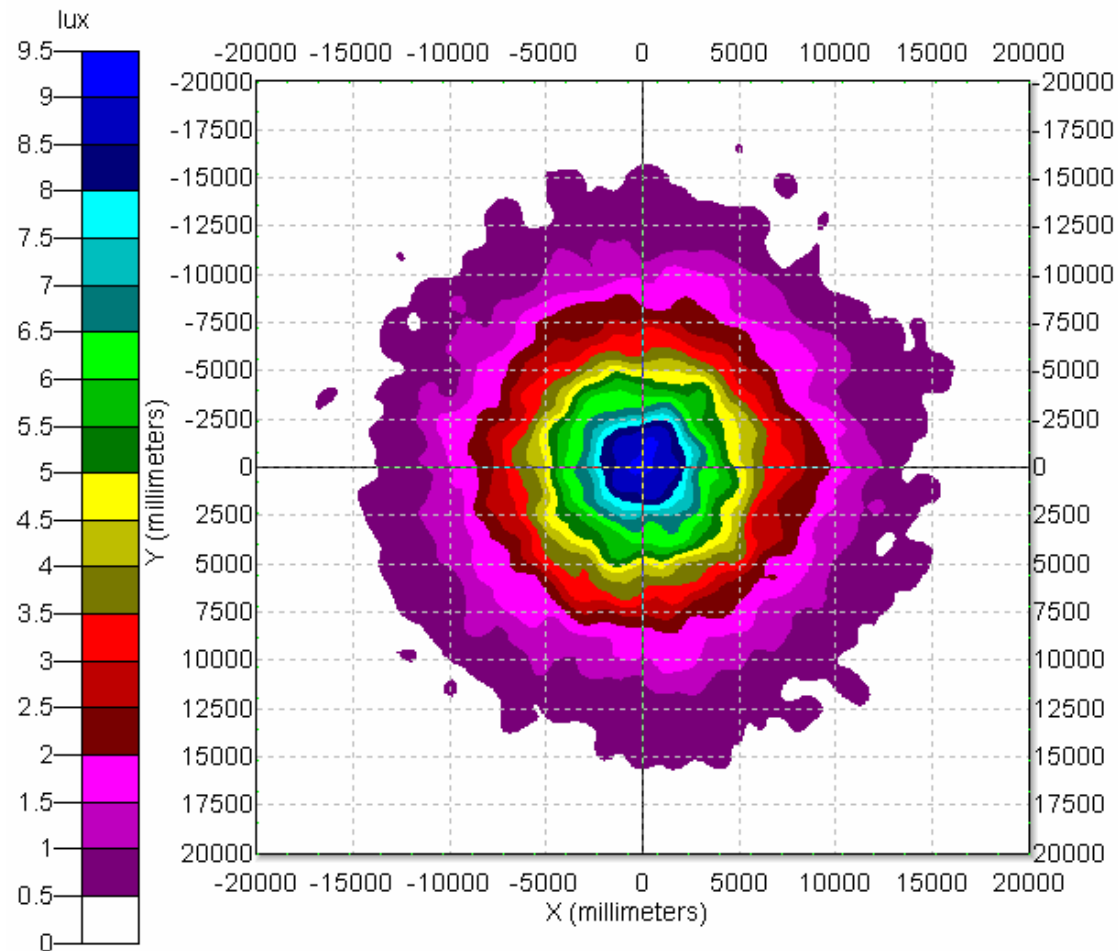
- Model : JB920LD 30w ----- Model : JB920LD 120w (Every 10w is a new model )
- Power: 30w - 120w
- Power Efficiency: >90%
- Voltage : AC (85V~265V ) / DC (12V 24V 36V)
- Luminous Efficiency: 80lm/watt
- Frequency: (50~60Hz)
- Effective Beam Angle: 65°
- Color Rendering Index :Ra>80
- Color Temperature : 2700K~7000K
- Life Span : >50000hours
- Protection degree: IP 65
- Net Weight (kg) : 9.7kg



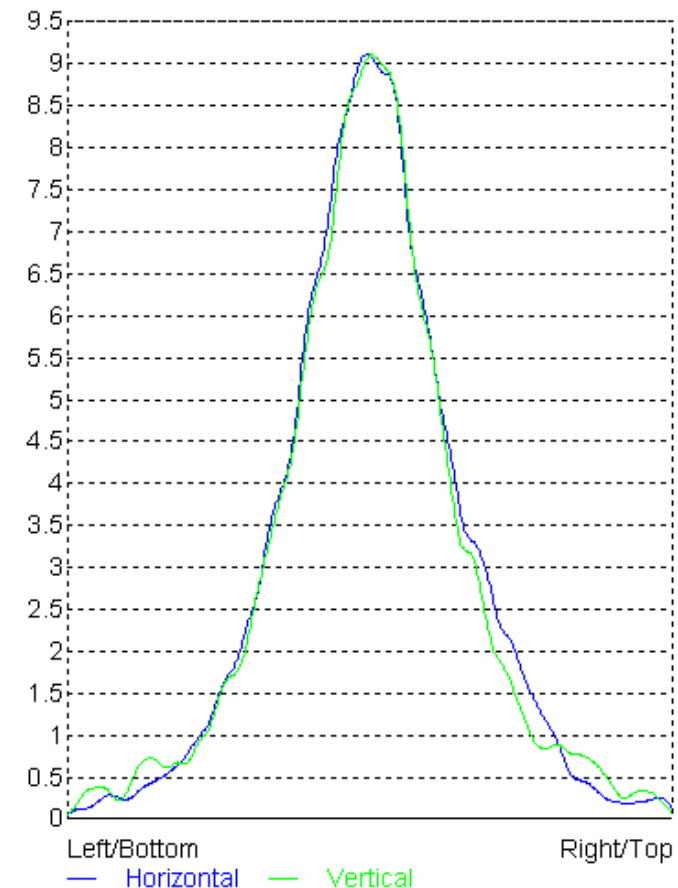
# 50w JB920 led street light lux tested



Total - Illuminance Map for Incident Flux  
observer Surface 0



Illuminance Min:0.001979 lux, Max:9.1412 lux, Ave:1.0302 lux,  
RMS:1.5799, Total Flux:1648.2 lm 26423 Incident Rays



# JB7235 High power led street light



- Model : JB7235LD 10w JB7235LD 15w JB7235LD 18w JB7235LD 20 w  
JB7235LD 25w JB7235LD 30w JB7235LD 35w JB7235LD 40w
- Power Efficiency: >90%
- Voltage : AC (85V~265V ) / DC (12V 24V 36V)
- Luminous Efficiency: 80lm/watt
- Frequency: (50~60Hz)
- Effective Beam Angle: 65°
- Color Rendering Index :Ra>80
- Color Temperature : 2700K~7000K
- Life Span : >50000hours
- Protection degree: IP 65
- Net Weight (kg) : 9.7kg



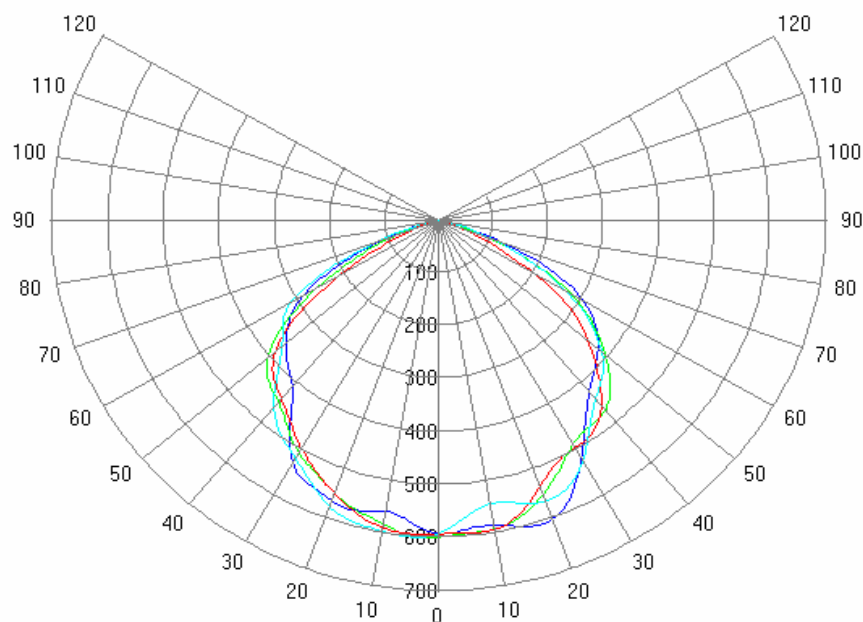


# Polar candela Distribution plot



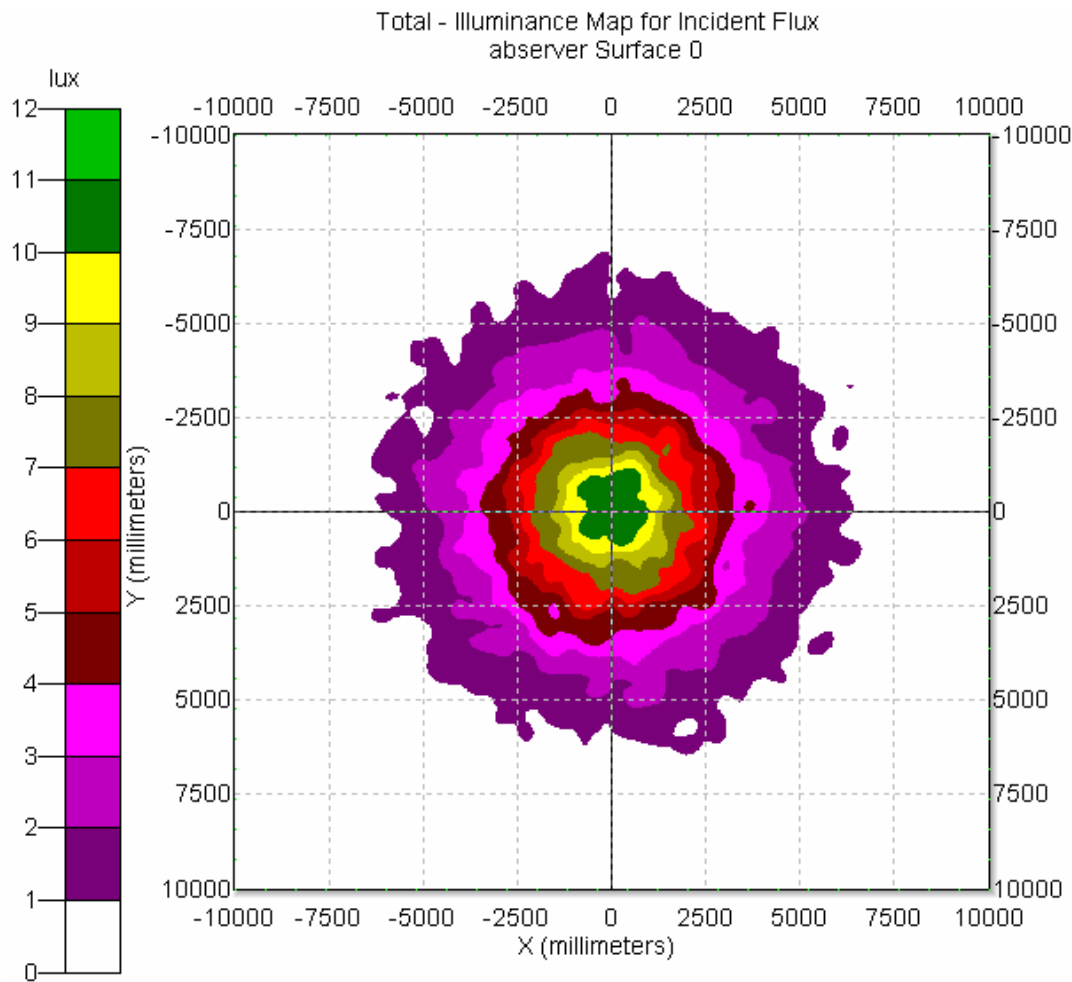
Polar Candela Distribution Plot  
Using incident rays on Object 31 Surface 0

cd  
— 0.0  
— 45.0  
— 90.0  
— 135.0

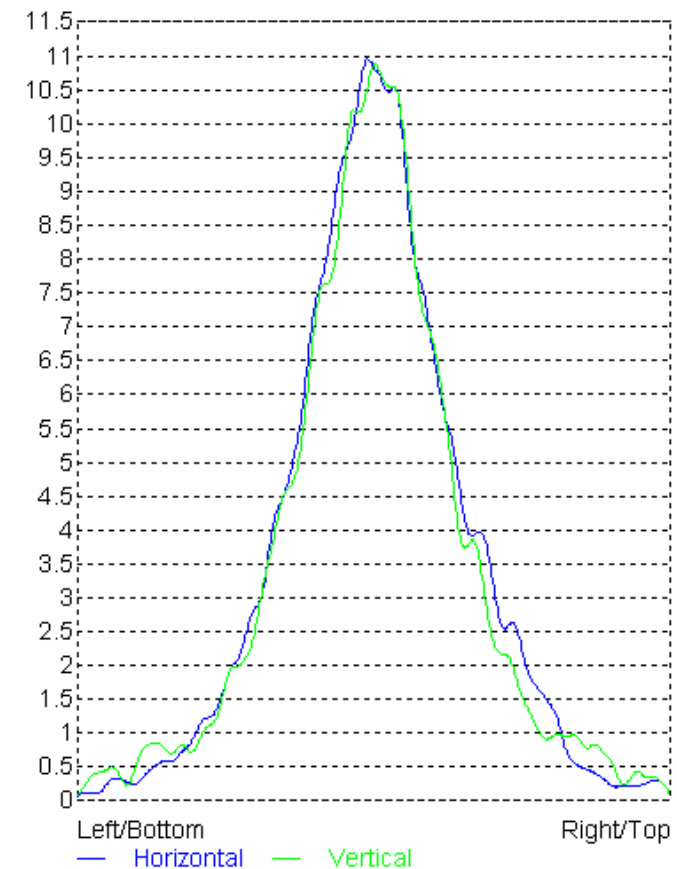


Efficiency: 0.97398 - 9760 Rays  
Min: 3.9622e-013 cd, Max: 603.65 cd, Total Flux: 1558.4 lm

# 15w JB7235 led street light lux test



Illuminance Min:0.0020535 lux, Max:11.02 lux, Ave:1.2349 lux,  
RMS:1.8833, Total Flux:493.95 lm 26387 Incident Rays



# JB5324 High power led street light



- ✓ Model : JB5324LD 10w JB5324LD 15w JB5324LD 18w JB5324LD 20 w
- ✓ Power Efficiency: >90%
- ✓ Voltage : AC (85V~265V ) / DC (12V 24V 36V)
- ✓ Luminous Efficiency: 80lm/watt
- ✓ Frequency: (50~60Hz)
- ✓ Effective Beam Angle: 65°
- ✓ Color Rendering Index :Ra>80
- ✓ Color Temperature : 2700K~7000K
- ✓ Life Span : >50000hours
- ✓ Protection degree: IP 65
- ✓ Net Weight (kg) : 4 kg

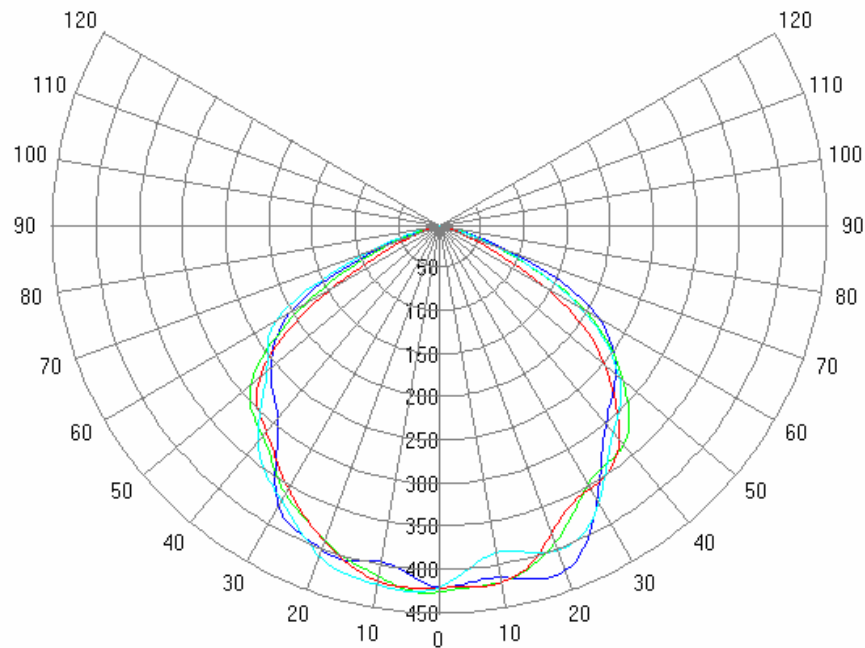


# JB5324 Polar candela Distribution plot



Polar Candela Distribution Plot  
Using incident rays on Object 31 Surface 0

cd  
— 0.0  
— 45.0  
— 90.0  
— 135.0



Efficiency: 0.97398 - 9760 Rays  
Min: 2.8666e-013 cd, Max: 428.22 cd, Total Flux: 1105.5 lm

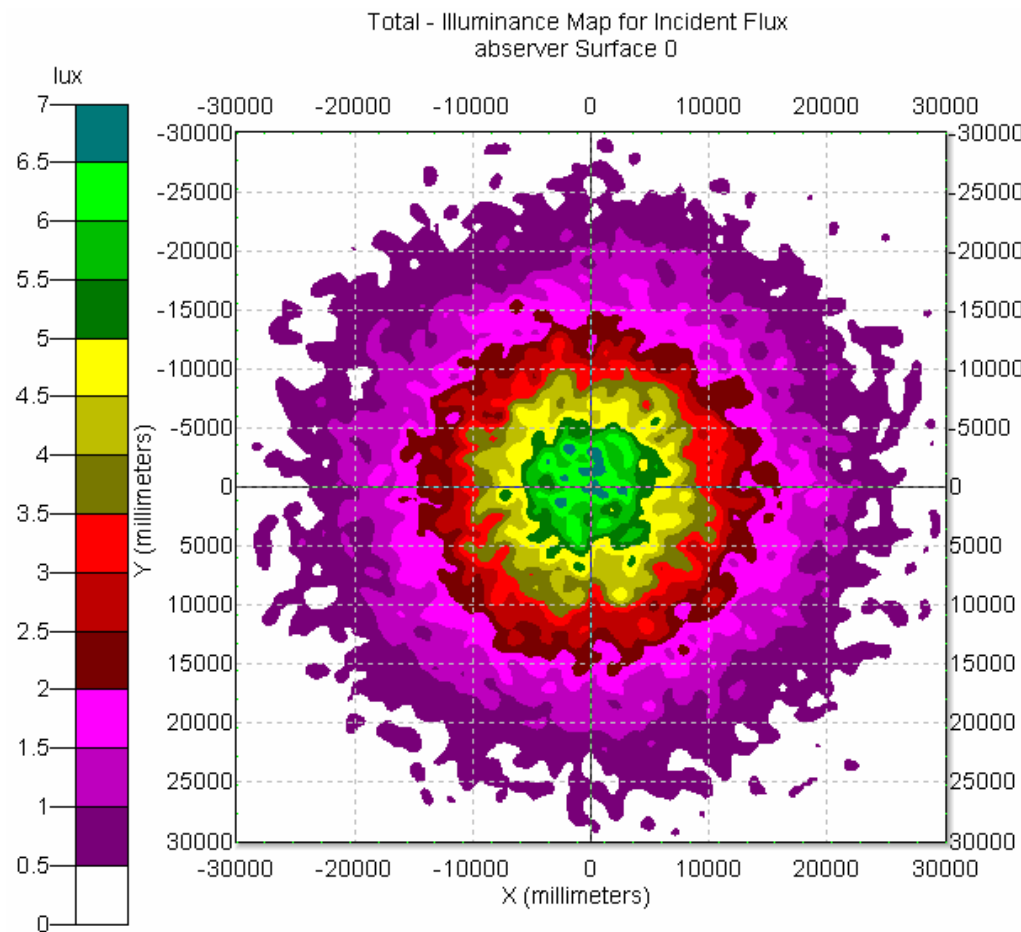
# JB1200 High power led street light

- Model : JB1200LD 140w JB1200LD 160w JB1200LD 180w JB1200LD 200w
- Voltage : AC (85V~265V) / DC (12V 24V 36V)
- Luminous Efficiency: 80lm/watt
- Frequency: (50~60Hz)
- Effective Beam Angle: 65°
- Color Rendering Index :Ra>80
- Color Temperature : 2700K~7000K
- Life Span : >50000hours
- Protection degree: IP 65
- Power Efficiency:>90%
- Net Weight (kg) : 20.7 kg

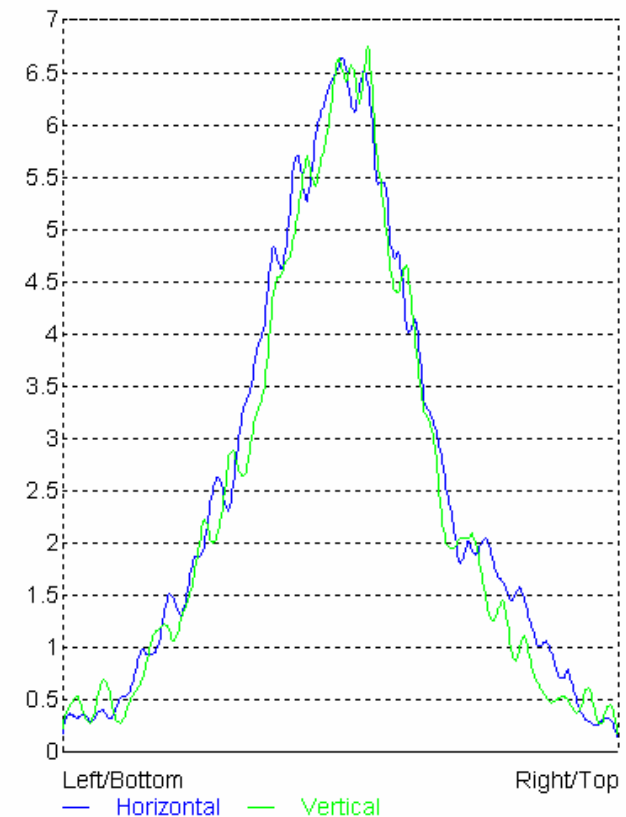




# 140w JB1200 led street light lux test



Illuminance Min: 0.0026219 lux, Max: 6.9502 lux, Ave: 1.176 lux,  
RMS: 1.3259, Total Flux: 4233.6 lm 40410 Incident Rays



# Usage of led street light



## Lighting Applications:

- Area Lighting.
- Airport Lighting
- Hospital Parking-
- Parking Lot lighting.
- High Way Road Way Lighting.
- Street lighting.
- Security Light.
- Highway and ramp lighting.
- Bridge lighting, Under Pass lighting.
- Residential, Industrial, Commercial lighting.



# How to match led light with different height pole

Design of Road lighting (Recommend ) and The Ground illuminance comparision Table

|   | Pole height<br>(meter) | Led light power | Distance<br>between<br>pole (meter) | Max<br>(Illumination) lux | Average<br>Lux |
|---|------------------------|-----------------|-------------------------------------|---------------------------|----------------|
| Solar street<br>light /common<br>street light | 4m                     | 15w             | 12-18m                              | 25                        | 18             |
|   | 5m                     | 18w             | 14-20m                              | 30                        | 18             |
|   | 6m                     | 30w             | 18-24m                              | 32                        | 20             |
|   | 7m                     | 50w             | 21-28m                              | 32                        | 20             |
|   |                        |                 |                                     |                           |                |
| Common street<br>light                        | 8m                     | 100w            | 24-32m                              | 40                        | 22             |
|   | 9m                     | 110w            | 27-35m                              | 34                        | 20             |
|   | 10m                    | 140w            | 30-40w                              | 35                        | 22             |
|   | 12m                    | 180w            | 30-40w                              | 33                        | 23             |
|   | 14m                    | 200w            | 30-40w                              | 30                        | 21             |
|   |                        |                 |                                     |                           |                |

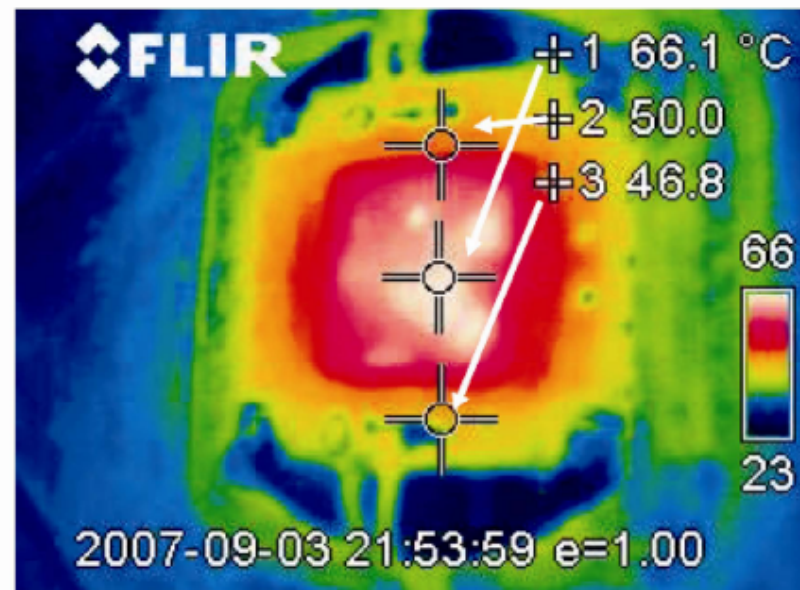
# Unique Selling Points

## Materials of led street light

- High efficiency imported LED driver

\* Imported high brightness semiconductor chips

Surface Temperature Distribution of 100W LED Streetlight



Led chip center max temperature : 66 ° c

Outermost temp: 23 ° c

So call will solve the led key problem - heating problem

- High powerful LED light source

\* With the characters of high heat conductivity

# Unique Selling Points

On design and material

- High-purity Aluminium reflector





# Unique Selling Points

## Materials of led street light

- special design light housing and heat sink

\*heat dissipation wing and also by the air cross-ventilation. It ensures a

50000 hours life-span of LED.



Die-casting aluminium alloy housing

# Unique Selling Points

## Materials of led street light

- Tempered glass: anti-reflecting coating and high transmission rate glass increase the power output and the mechanical strength of solar street light
- Good performance of preventing from atrocious weather such as wind and hails
- Resisting moisture and etching effectively , not effect by geology



# The value of led street light

It's an excellent partner of the Solar system

## Energy efficiency and Saving money.

Use less energy ,saving 70% energy .light helping to keep operating costs down. After three years, will regain the cost of installing the new fixtures from energy and maintenance savings.

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# The value of **led** street light

It's an excellent partner of the Solar system

## Lifetime reliability

life > 50K + hours longer life ; 3 year warranty More than 5 times longer life than conventional



# The value of **led** street light

It's an excellent partner of the Solar system

## Easy retrofit

Can easily retrofit existing metal halide, high pressure sodium and mercury vapor luminaries ■ minimal maintenance






# Other value

- Withstand 160 MPH winds
  - Shock and vibration resistant.
  - Eliminate unsafe hazardous disposal.
  - Eliminate "cold-start" problems; no ballast.
  - waterproof design.
  - Better visibility with excellent Lumen efficiency.
  - Environmentally friendly. **Reduce excessive lighting and light pollution**
  - Substantial energy & maintenance savings.
  - High color rendition - near natural color
  - Expected product life is more than 10 years with an approximate 3-year payback period, depending upon local energy & maintenance cost savings.
-

## Certifications

CERTIFICAT • CERTIFICATE • CERTIFICADO • CERTIFICAT



**Attestation of Conformity**  
No. 04 08 04 66613 002

**Holder of Certificate:** SHANXI GUANGYU POWER SOURCES CO., LTD.  
No. 8 Yuhang Road  
DEFOSE Lixin City (Shanxi Province)  
PEOPLE'S REPUBLIC OF CHINA

**Product:** LED lamps  
Street Lights

**Model(s):** JB720LD(30-100W), JB920LD(30-120W), JB1200LD(140-200W), JB5324LD(10-20W), JB635LD(100-200W), JB7235LD(10-40W)


**Parameters:**  
Rated voltage: 85-265V AC(50/60Hz)  
Rated Power: 10-200W

**Tested according to:**  
1. European Directive 2004/104/EC  
2. IEC 61347-1:2002, IEC 62571, EN 15019  
- Electric Technical Products:  
Determination of levels of  
six regulated substances  
(lead, mercury, cadmium, hexavalent chromium,  
polybrominated diphenyls,  
polybrominated diphenyl ethers)

**Ph. No. Cg, Cd, Cr, Pb, Hg and PCDFs could not be detected over the limit defined by the European Directive 2002/95/EC.**

This Attestation of Conformity confirms the compliance with the latest standards on a voluntary basis. It refers only to the samples submitted and does not certify the quality or safety of the serial products. See also notes covered.

**Test report no.:** 4840305707200-2




**Date:** 2008-04-18  
Page 1 of 1

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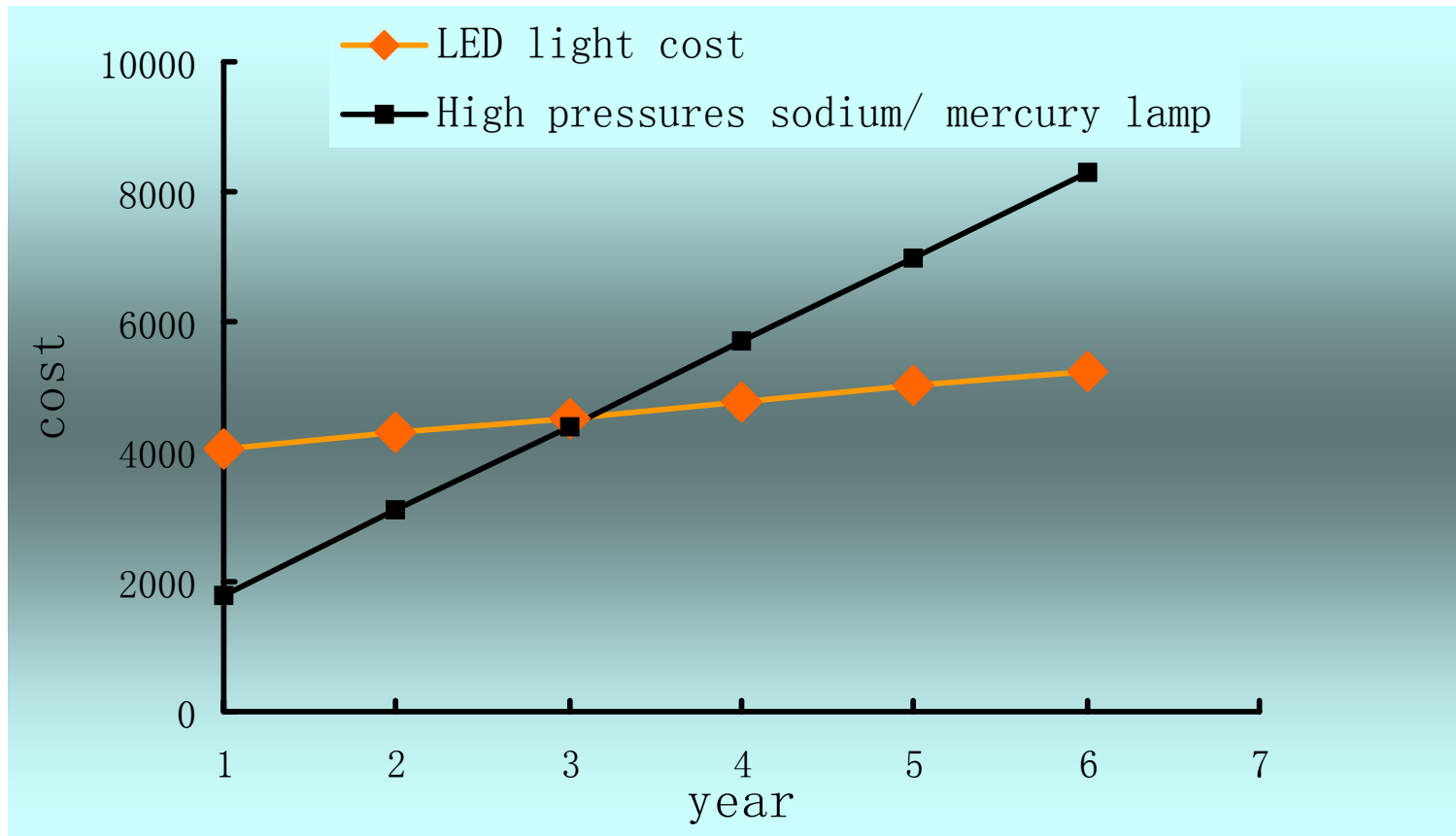
# Why choose led street light

| Comparative classification |   |   |
|----------------------------|---|---|
| Led street light           | = | High pressures sodium/<br>mercury lamp                |
| 30w Led street light       |   | <i>80w</i><br>High pressures sodium/<br>mercury lamp  |
| 60w Led street light       |   | <i>170w</i><br>High pressures sodium/<br>mercury lamp |
| 100w Led street light      |   | <i>250w</i><br>High pressures sodium/<br>mercury lamp |
| 140w led street light      |   | <i>400w</i><br>High pressures sodium/<br>mercury lamp |

# Cost comparison

|                  | 100w Led street light (RMB) |                         |                     |                   | 250w High pressures sodium/<br>mercury lamp (RMB) |                         |                     |                                      |
|------------------|-----------------------------|-------------------------|---------------------|-------------------|---|-------------------------|---------------------|--------------------------------------|
| Y<br>e<br>a<br>r | Initial<br>cost of<br>light | electricity<br>consumed | Maintenance<br>cost | LED light<br>cost | Initial cost<br>of light                          | electricity<br>consumed | Maintenance<br>cost | High<br>pressures<br>sodium/<br>cost |
| 1                | 3800                        | 241                     | 0                   | 4041              | 1200  | 600                     | 0                   | 1800                                 |
| 2                | 0                           | 241                     | 0                   | 4282              |   | 600                     | 700                 | 3100                                 |
| 3                | 0                           | 241                     | 0                   | 4523              |   | 600                     | 700                 | 4400                                 |
| 4                | 0                           | 241                     | 0                   | 4764              |   | 600                     | 700                 | 5700                                 |
| 5                | 0                           | 241                     | 0                   | 5005              |   | 600                     | 700                 | 7000                                 |
| 6                | 0                           | 241                     | 0                   | 5246              |   | 600                     | 700                 | 8300                                 |

# Cost comparison chart





# Project picture

Solar led street light

Location : Beijing ,china

Project : Rassel Gymnasium for  
Beijing Olympics

-Led street light JB 720 30w

-Solar panel : 130w

--Batteries: Long-Life - Deep-  
Cycle - Maintenance-Free.

65AH/12v 2pcs

-Microprocessor controlled Charge  
controller +Timer.

-Pole : 6meter



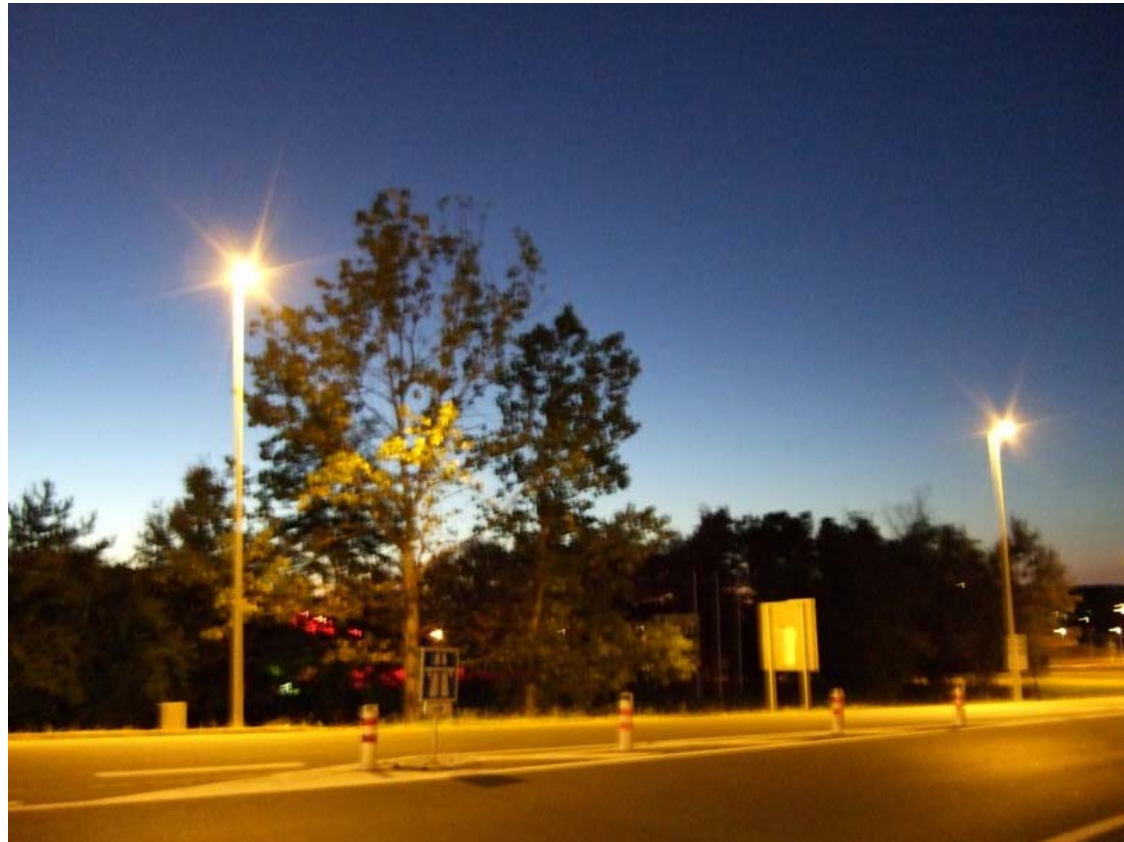
# Project

led street light

Location: France

-Led street light JB 635 LD

-Pole : 6meter



# Project

Solar +wind + led street light

Location : HaiNan ,china

Project :

- Led street light JB 720 50w

- Solar panel : 100wp

- Wind : 400watt

- Batteries: Long-Life - Deep-Cycle - Maintenance-Free.

- 100AH/12v 4pcs

- Microprocessor controlled Charge controller +Timer.

- Pole : 7meter



# Project

Solar led street light

Location : Beijing ,china

- Project : Residential night illuminance in Beijing

-Pole : 4.5meter



# Project

led street light

Location: shan xi china

-Led street light JB 1200LD  
160watt

-Pole : 12meter



# Project

Solar led street light

Location : china

Project :

-Led street light JB 920 100w





# Basic concept of photometry

| SI photometry units                |        |  |                   |   |
|------------------------------------|--------|--|-------------------|---|
| Quantity                           | Symbol | SI unit  | Abbr.             | Notes   |
| <a href="#">Luminous energy</a>    | $Q_v$  | <a href="#">lumen second</a>                       | lm · s            | units are sometimes called <a href="#">talbots</a>  |
| <a href="#">Luminous flux</a>      | $F$    | <a href="#">lumen</a> (= cd · <a href="#">sr</a> ) | lm                | also called <i>luminous power</i>   |
| Luminous intensity                 | $I_v$  | <a href="#">candela</a> (= lm/sr)                  | cd                | an <a href="#">SI base unit</a>   |
| <a href="#">Luminance</a>          | $L_v$  | candela per <a href="#">square metre</a>           | cd/m <sup>2</sup> | units are sometimes called <a href="#">nits</a>   |
| <a href="#">Illuminance</a>        | $E_v$  | <a href="#">lux</a> (= lm/m <sup>2</sup> )         | lx                | Used for light <a href="#">incident</a> on a surface                                      |
| <a href="#">Luminous emittance</a> | $M_v$  | lux (= lm/m <sup>2</sup> )                         | lx                | Used for light emitted from a surface   |
| <a href="#">Luminous efficacy</a>  |        | lumen per <a href="#">watt</a>                     | lm/W              | ratio of luminous flux to <a href="#">radiant flux</a> ; maximum possible is 683.002 lm/W |

# Concept of lux

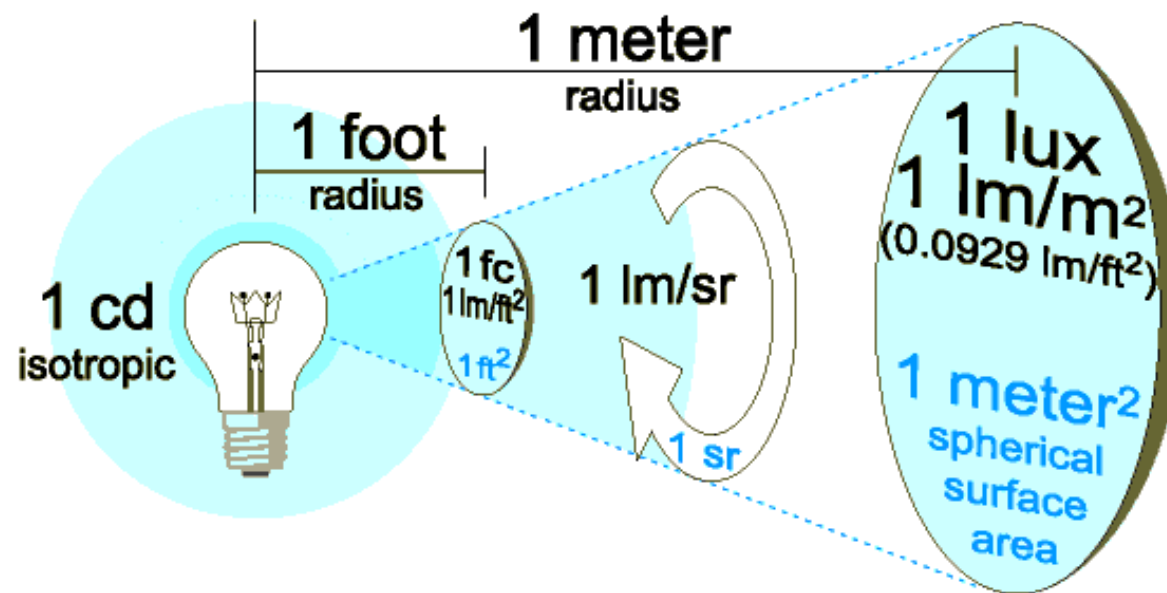


Fig. 7.4 Irradiance.

# Candela

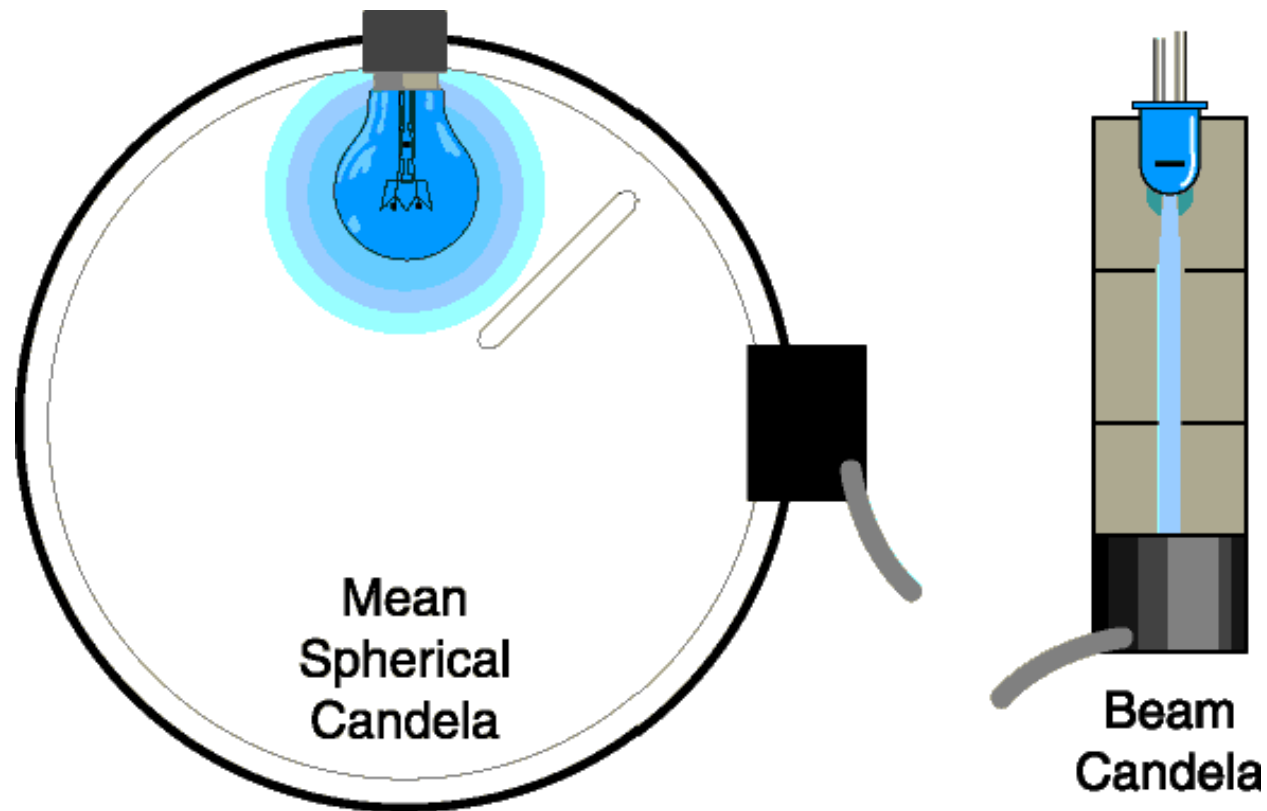


Fig. 7.8 Both mean spherical candela and beam candela are expressed in cd.

# Basic knowledge

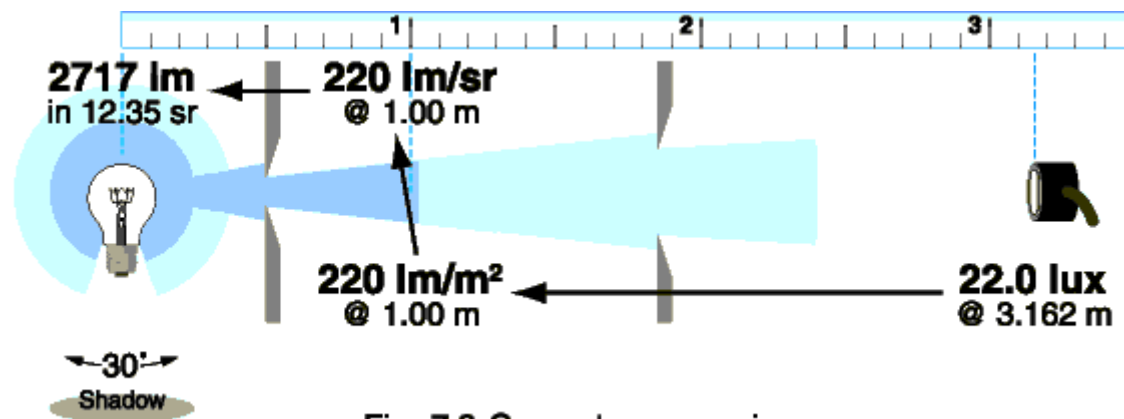


Fig. 7.9 Geometry conversion.



We believe that big changes start small and that everyone should contribute to saving our planet

Beijing solar one energy technology co.,ltd