



EIC® LED STREET & PUBLIC LIGHTING SOLUTIONS

CATALOG (Dolphin Series)

General Features and Applications

EIC High Power LED Street Light is a new solution for traditional street illumination. Direct connection to 90~275VAC AC Power, the LED Street Light embodying state-of-the-art high power LED technology is a green “environmental friendly” product.

- Street light optics
- CITIZEN COB LED chips
- High Transmission glass lens with rectangular Beam
- Reduced excessive lighting and light pollution
- Higher efficacy, up to 90 lm/W, more energy and money saving
- Unique **HEAT ENGINE** technology, $T_c \leq 45^\circ\text{C}$
- Durability, IP67 driver, IP66 full sealed housing
- Aero superior aluminum alloy body, super conductive Nano powder coating
- Longer lifespan $\geq 50,000$ hrs, low maintenance
- RoHS compliant

For road and area lighting: e.g. roads, streets, highways, industrial parks, packing lots, path, driveways and

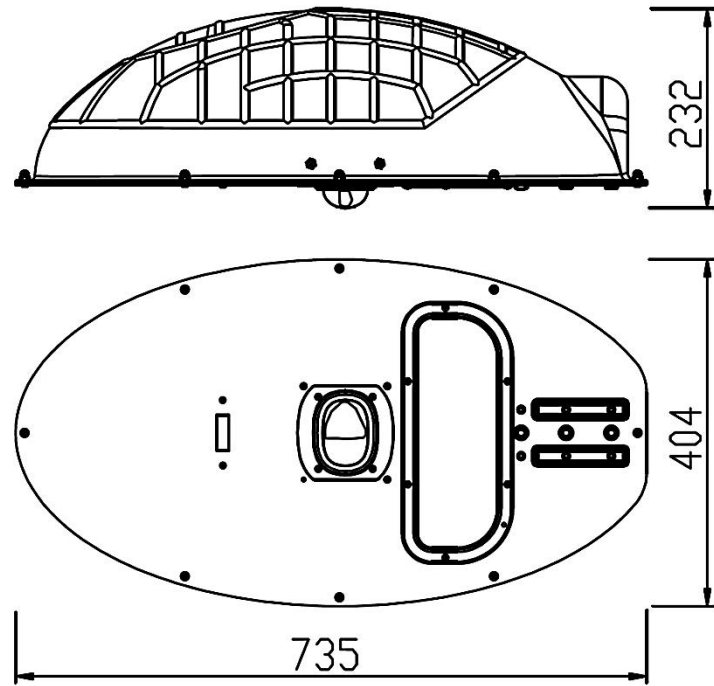
other outdoor area lighting.

Model: SC-LD0450I 45W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD04501

- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 45W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 6.8kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD04501	1	Warm white	3000	3825	85	80
	1	Neutral white	5000	4140	92	65-70

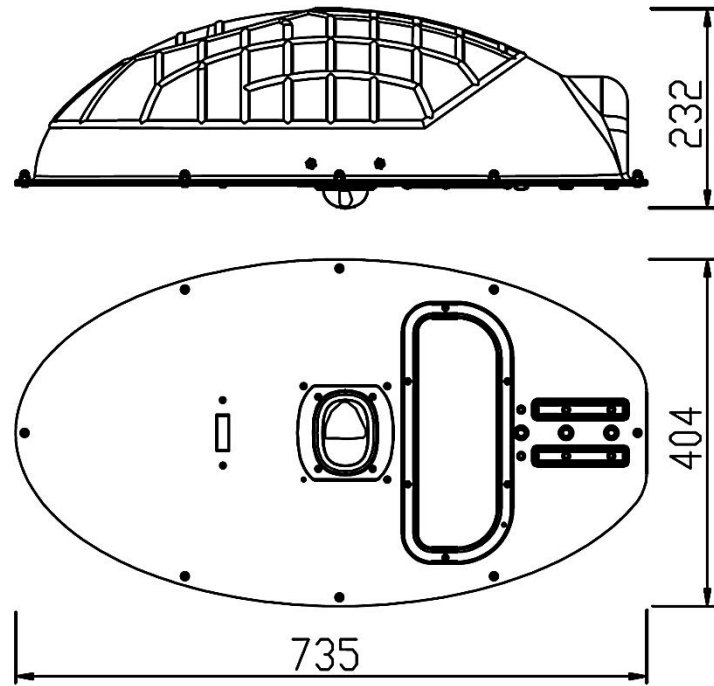
Note: * $\pm 10\%$ will be allowed

Model: SC-LD0650I 65W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD0650I

- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 65W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 7.3kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD0650I	1	Warm white	3000	5525	85	80
	1	Neutral white	5000	5980	92	65-70

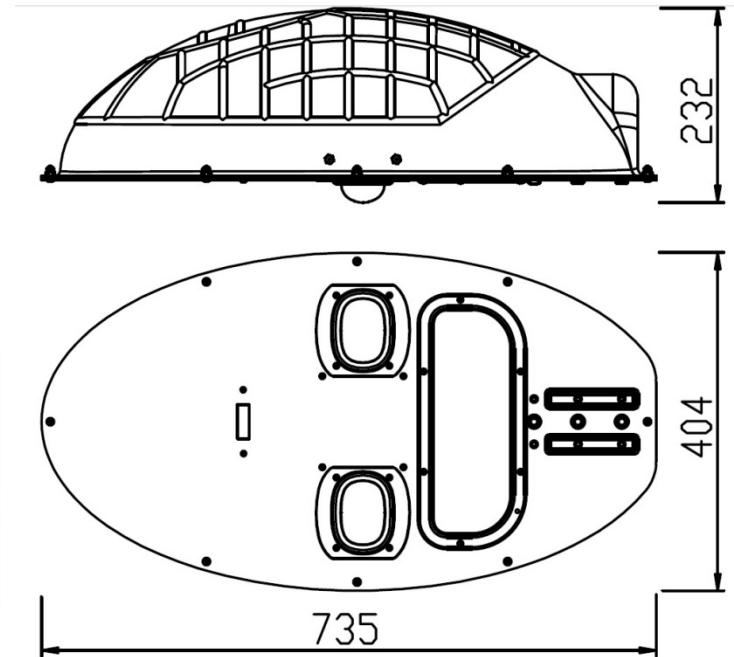
Note: * $\pm 10\%$ will be allowed

Model: SC-LD0900I 90W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD09001

- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 90W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 7.3kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD09001	2	Warm white	3000	7650	85	80
	2	Neutral white	5000	8280	92	65-70

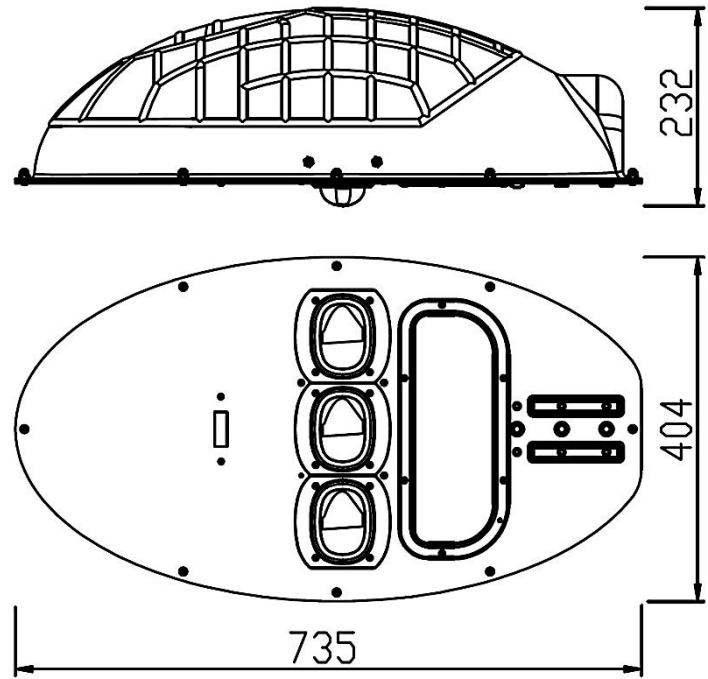
Note: * $\pm 10\%$ will be allowed

Model: SC-LDI2001 120W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD12001

- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 120W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 7.5kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD12001	3	Warm white	3000	10200	85	80
	3	Neutral white	5000	11040	92	65-70

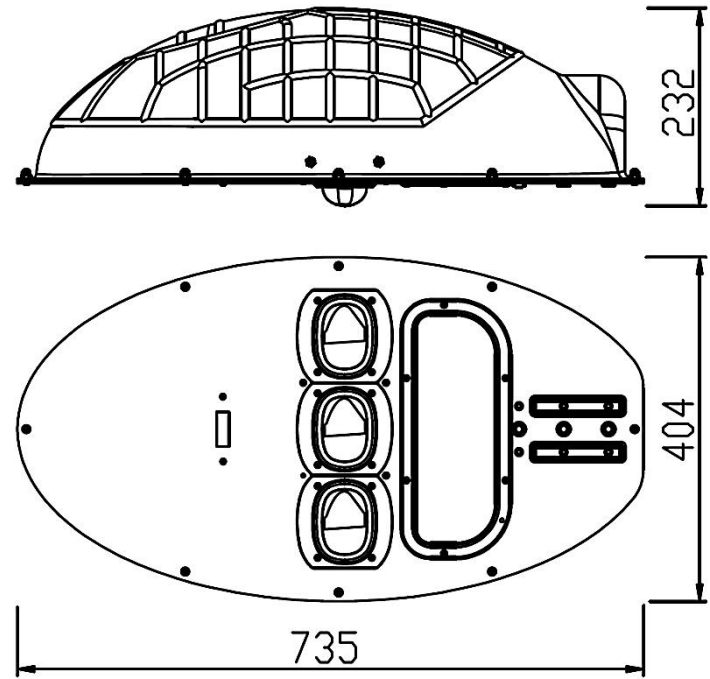
Note: * $\pm 10\%$ will be allowed

Model: SC-LDI500I 150W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD15001

- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 150W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 7.6kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD15001	3	Warm white	3000	12750	85	80
	3	Neutral white	5000	13800	92	65-70

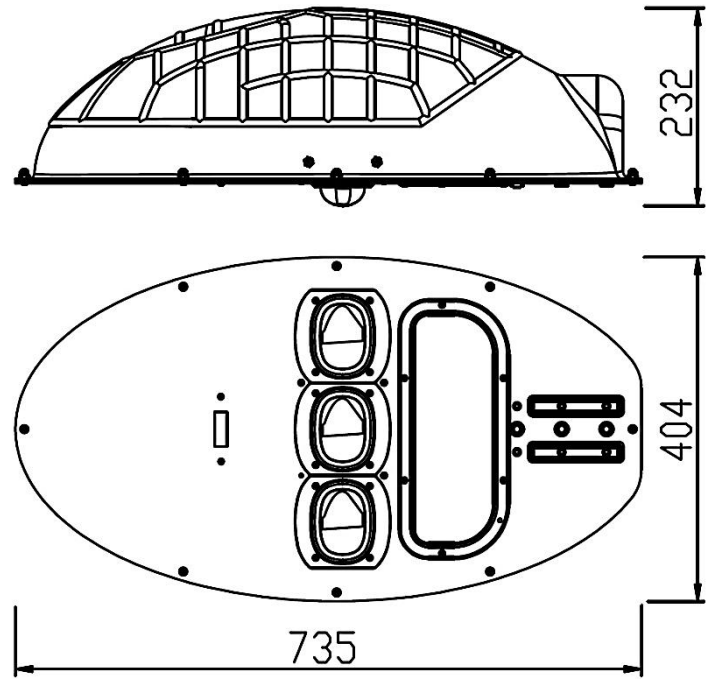
Note: * $\pm 10\%$ will be allowed

Model: SC-LD18001 180W Dolphin Series

Dimensions



Drawing



Technical Specifications

Model: SC-LD18001

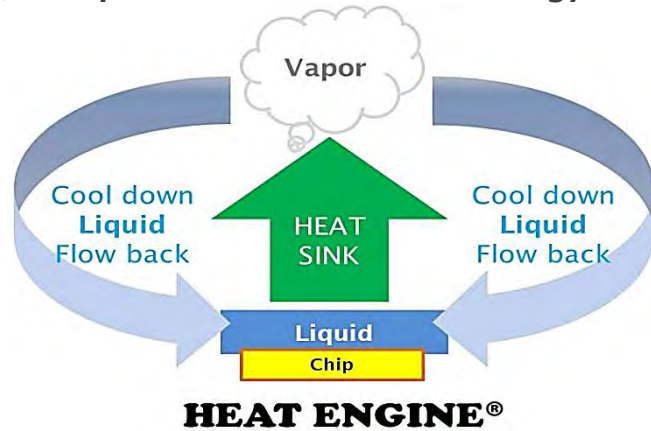
- Light type: LED street/public lights
- Input Voltage: 100-240v AC
- Input Power: 180W*
- Beam Angle: 70*120/70*140deg*
- LED Source: CITIZEN/LUSTROUS COB LED
- Case Temperature: <math><45^{\circ}\text{C}</math> ($T_a=25^{\circ}\text{C}</math>)$
- Working Temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- Color Temperature (CCT): 3000/5000
- IP Rating: IP67 driver, IP66 whole lamp
- Life Span: 50,000 hrs
- Net weight: 8.0 kg
- High quality, robust aluminum heat sink

Model	LEDs	Color	CCT (K)	Luminous Flux* (lm)	Light Efficacy* (lm/W)	Color Rendering Index* (CRI: Ra)
SC-LD18001	3	Warm white	3000	15300	85	80
	3	Neutral white	5000	16560	92	65-70

Note: * $\pm 10\%$ will be allowed

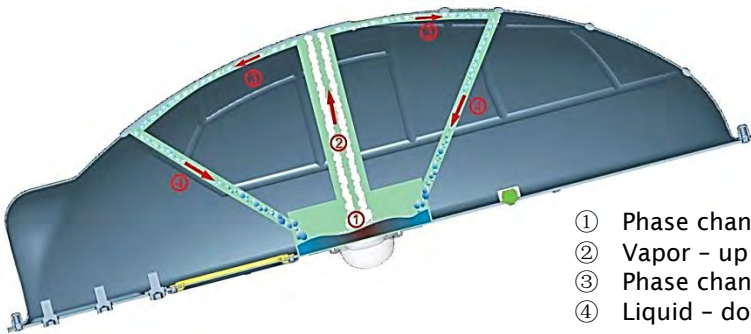
Unique Features and Advantages

a) Unique HEAT ENGINE Technology



We are the first company in the world to propose 'HEAT ENGINE®' concept:

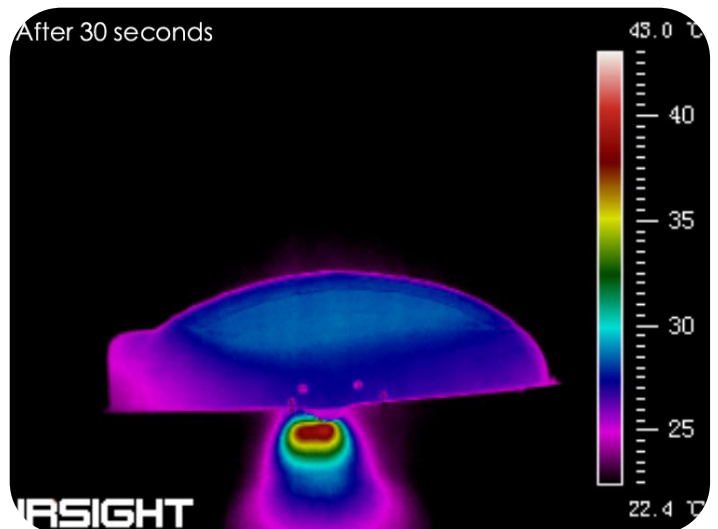
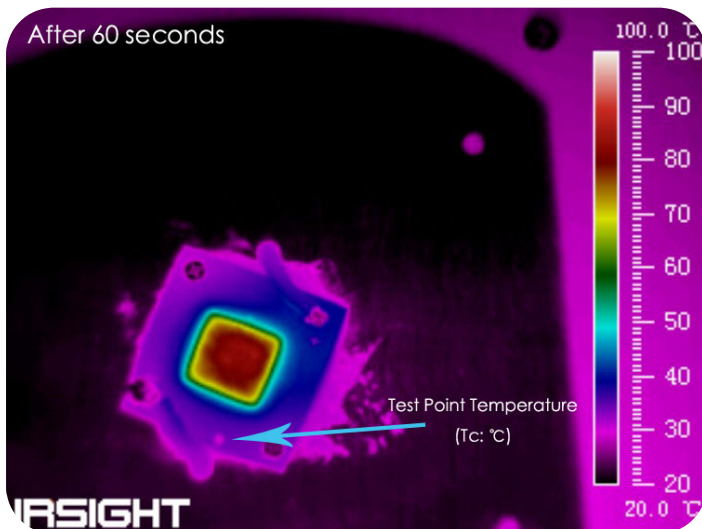
- Phase change loop cooling system, quicker heat diffusion
- No fin heat sink, the housing applied for heat dissipation
- Lower junction temperature: $T_c \leq 45^\circ\text{C}$
- Higher fixture luminous efficacy: 90~100lm/W
- Less lumen depreciation: <1% (3,000hrs tested)
- Longer lifespan >50,000hrs
- Less weight: minimum 4.5kg



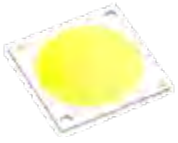
- ① Phase change: Liquid → vapor
- ② Vapor - up - pipe
- ③ Phase change: Vapor → liquid
- ④ Liquid - down - pipe

Phase change cooling system

- Higher thermal conductivity
- Swifter heat diffusion with subtle temperature deviation
- Even heat distribution on housing
- The whole shell as heat sink, less weight and cost



b) High Efficient LIGHT ENGINE



- Imported COB chips
- High efficacy, up to 120lm/W
- Stable lamination
- No overlapped images

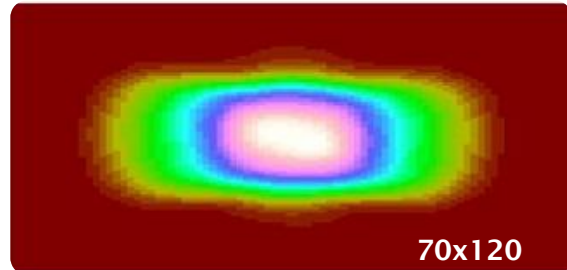
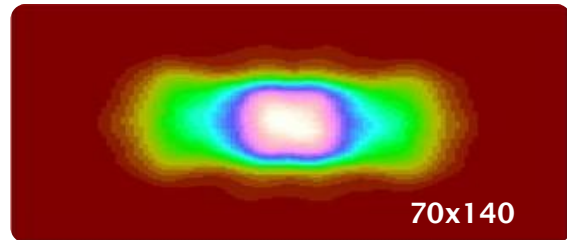
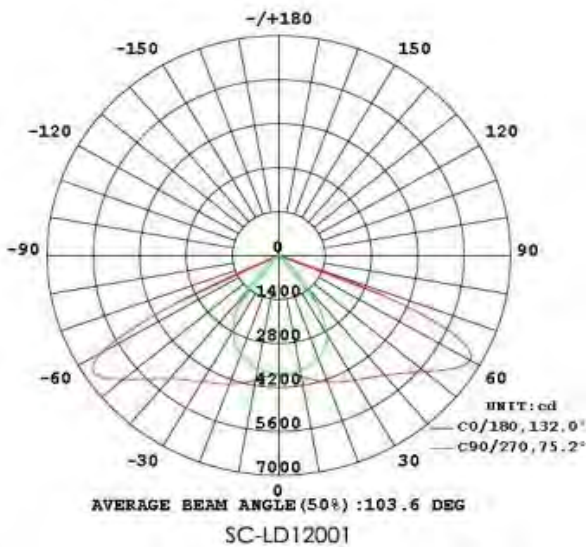


- Self patented lens
- 70°X120°/70°X140° beam angle
- High Transmission
- Rectangular Beam
- Reduced glare and increased visibility

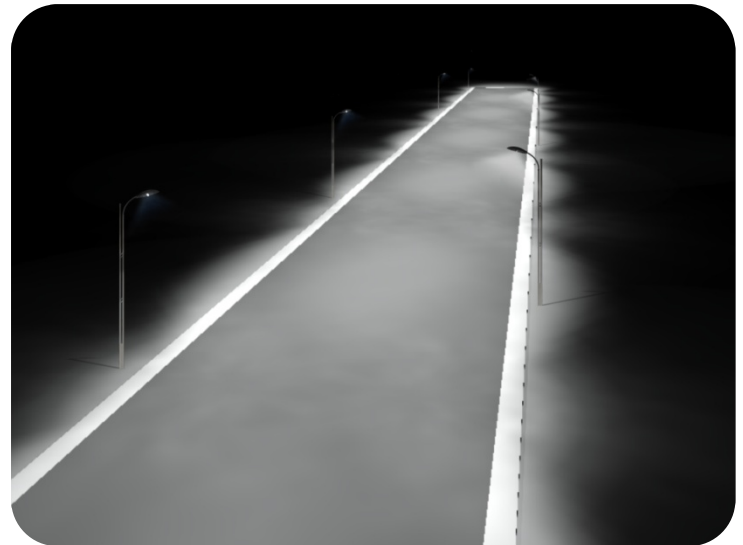


- World famous drivers
- High efficiency
- IP67, safety and reliability
- Easy replacement

INTENSITY DISTRIBUTION DIAGRAM IN C



Traditional HPSL Lighting Simulation



EIC LED Street Lighting Simulation



Before

- No light wasted
- Brighter and clearer visibility
- Less power consumption



After

- Better light distribution and less light pollution
- Higher color rendering index

c) Retrofit Capability

Our product have the capability to replace current HPSL. The following table listed is the equal retrofit comparason, ex. Our 45W LED street light can be used to replace 100-150W HPSL. The replacement will save 60%-75% of energy.

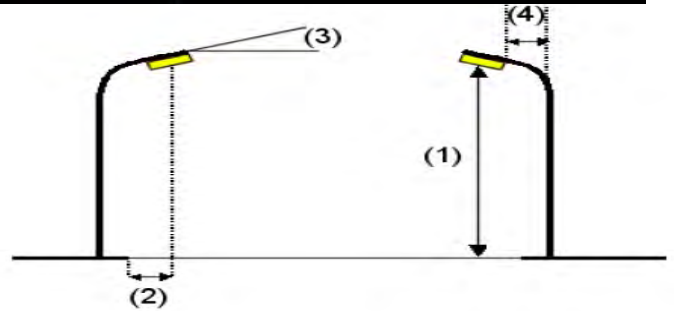
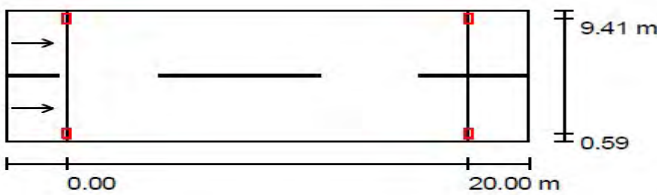
Item	Traditional HPSL		EIC LED Street Light	
	Nominal Power (W)	Real Power (W)	Nominal Power (W)	Real Power (W)
Lamp a	400W ~ 500W	460W~580W	180	180
Lamp b	350W ~ 450W	400W~510W	150	150
Lamp c	250W ~ 400W	290W~460W	120	120
Lamp d	250W ~ 400W	290W~460W	90	90
Lamp e	150W ~ 250W	180W~290W	65	65
Lamp f	100W ~ 150W	110W~180W	45	45
Lamp g	70W ~ 100W	80W~110W	30	30

Note: the replacement is a general retrofit comparason. The retrofit will be proceeded after previewing the actual requirements and condition or results expected to achieve.

d) Professional Lighting Solutions



We are not only high quality LED street light manufacturer, but also have the ability to provide lighting solutions and financial calculation for customers' reference. Please contact us for project quotation.



Luminaire:
 Luminous flux (Luminaire): 6230 lm
 Luminous flux (Lamps): 7225 lm
 Luminaire Wattage: 66.2 W
 Arrangement: Double row, opposing
 Pole Distance: 20.000 m
 Mounting Height (1): 8.000 m
 Height: 7.885 m
 Overhang (2): 0.600 m
 Boom Angle (3): 5.0 °
 Boom Length (4): 1.000 m

EIC ELECTRONIC SC-LD06501 65W Street Light 70*120

Maximum luminous intensities

at 70°: 92 cd/klm

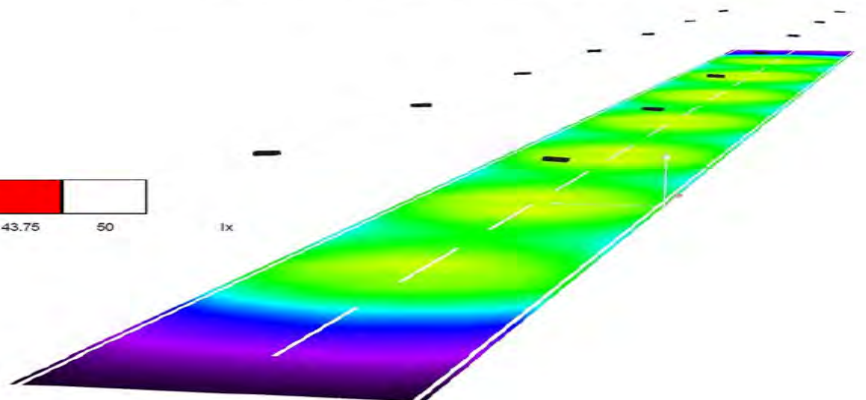
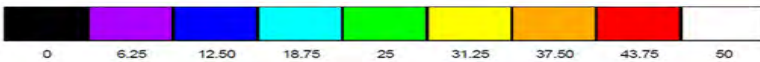
at 80°: 13 cd/klm

at 90°: 6.34 cd/klm

Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.

Arrangement complies with luminous intensity class G3.

Arrangement complies with glare index class D.6.



Street 1
 Length: 20.000 m, Width: 10.000 m
 Grid: 10 x 6 Points
 Accompanying Street Elements: Street 1.
 tarmac: R1, q0: 0.100
 Selected Lighting Class: ME4a

(All lighting performance requirements are met.)

Calculated values:
 Required values according to class:
 Fulfilled/Not fulfilled:

L_{av} [cd/m ²]	U0	UI	TI [%]	SR
2.26	0.84	0.88	2	0.53
≥ 1.50	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
✓	✓	✓	✓	✓



e) Installation

1. Remove old lamps



2. Connect with prewired EIC light head



3. Mount on pole (pole diameter $\Phi 60\text{mm}$)



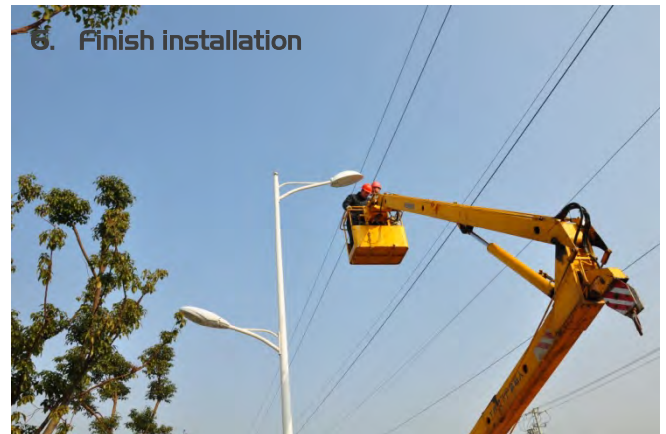
4. Check the level at the bottom and adjust the mounting angle



5. Fasten the screws tightly



6. Finish installation



Model	Power	Suggested Mounting Height
SC-LD03003	30	3-5m
SC-LD04501	45	6-8m
SC-LD06501	65	6-8m
SC-LD09001	90	6-8m
SC-LD12001	120	8-10m
SC-LD15001	150	8-10m
SC-LD18001	180	≥10m

f) Certificates and Patents

Total 41 patent applications were submitted

- 20 passed patents
- 21 pending patents
- 1 international patent application



All LED street lights have passed certificates from:

- European Standard: CE, RoHS
- American Standard: FCC, UL(pending)
- Australasia Standard: C-tick, SAA
- Japanese Standard: PSE, IC
- ISO quality system



Other declarations

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Case Studies







