

LED

Street Lighting Specification

SL-12D7KFC

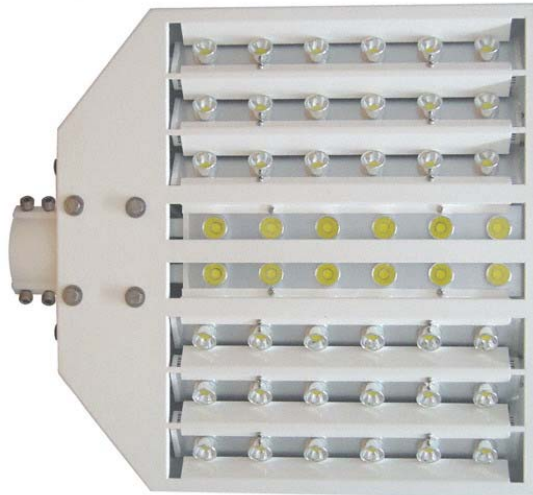
SkyLight

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OUTLOOK



APPLICATIONS

- Street Lighting
- Pathway Lighting
- Park Lighting



FEATURES

- Fully modularized sets with high brightness LED and unique passive thermal design
- System design integrating power, driver and LED light modules
- Choice of color temperatures and optical patterns (specifications re-defined accordingly)
- LED life 50,000 hours (reference LED specification)
- Over 90% of components is recyclable (cradle-to-cradle design)



OPERATION CONDITION

- Operation ambient temperature -40oC to +50oC
- Input voltage 110V / 220V AC, 50/60Hz
- Attached heat-sink is required for optimal performance



SPECIFICATION

Optical

Brightness	6800lm
CCT	Cool Daylight (5500-6000K)
Average illumination	28lux@8m
CRI	70

Mechanical and Dimension

IP level	IP65
Dimension	550mm × 380mm × 135mm
Weight	8.5kg

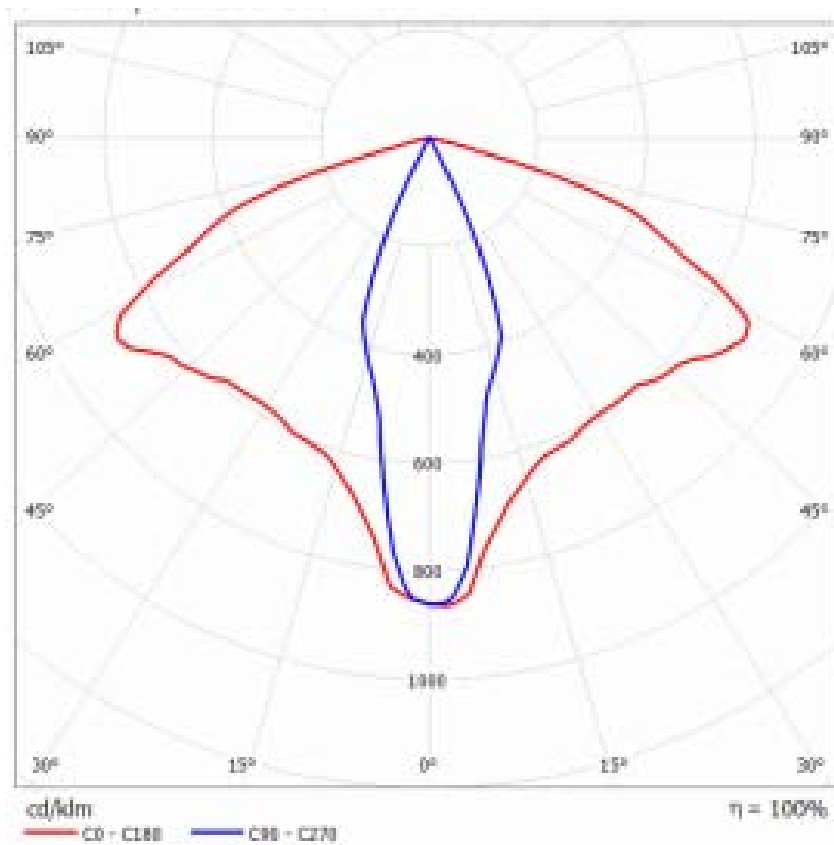
Electrical

Input Voltage	110V / 220V AC,50/60Hz
Power Consumption	120W of total system
Power Factor	0.95
Luminaries Efficacy	56lm/W

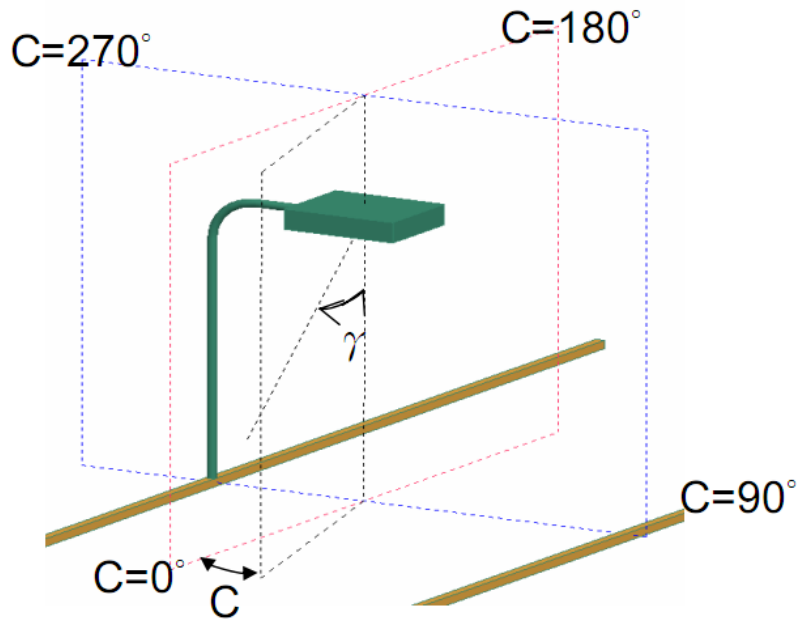


PHOTOMETRY

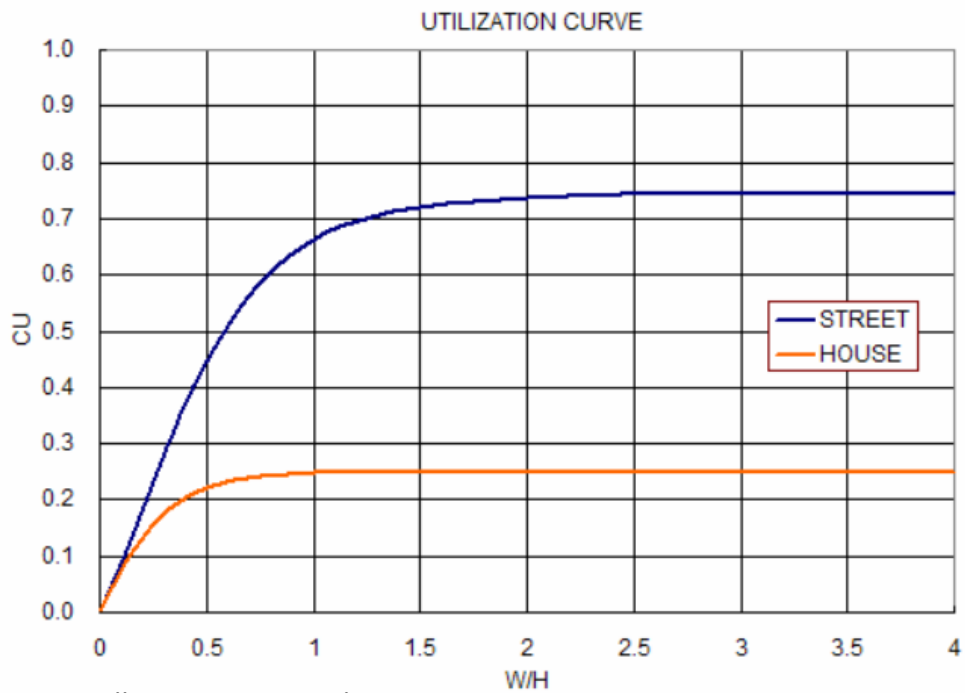
Polar intensity distribution of luminaries



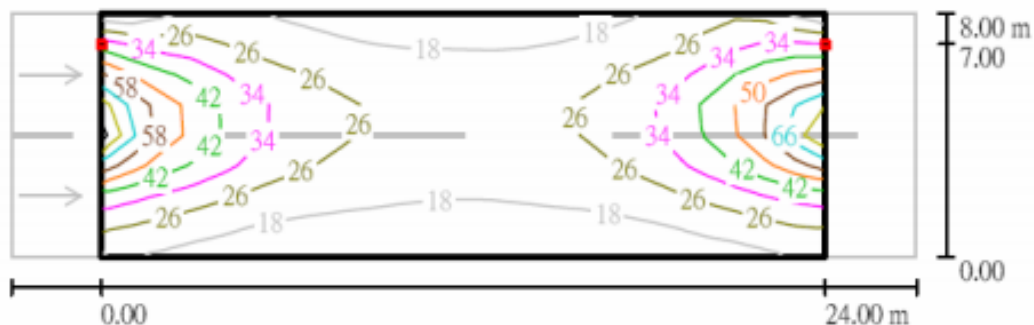
The testing is showing as below:



Utilization Curve



Illuminate on Road
(8m mounting height, lamp-head 1m offset and 20° tilt angle, 24m spacing)



E_{max}	81
E_{min}	13
E_{ave}	28
E_{min}/E_{ave}	0.45
E_{min}/E_{max}	0.16

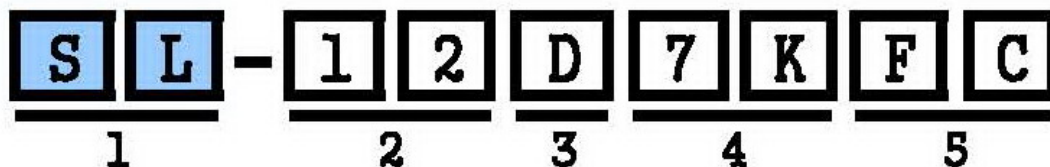


CERTIFICATION

- ◆ Power Safety Approval: Class II, SELV output, VDE & CE marking



PRODUCT CODE DEFINITION



1.SERIES CODE

SL : SkyLight (Street Light)

2.Input Power

08 : 80W
12 : 120W
10 : 100W
16 : 160W
20 : 200W
23 : 230W
35 : 350W

3. Light Color

C : Cool Daylight (Ref. 6500K)

4.Output Luminance

5K : 5000lm
6K : 6200lm
7K : 6600lm
9K : 9200lm
10 : 10000lm
14 : 14000lm
15 : 15000lm
19 : 18500lm
20 : 20000lm

5.Light Pattern

FC : Two-directional Cut-off

N : Neutral White (Ref. 4500K)
W : Warm White (Ref. 3000K)

SC : Two-directional Semi Cut-off
NC : Two-directional Non-cut-off
RC : Round Cut-off
RS : Round Semi Cut-off
RN : Round Non-cut-off

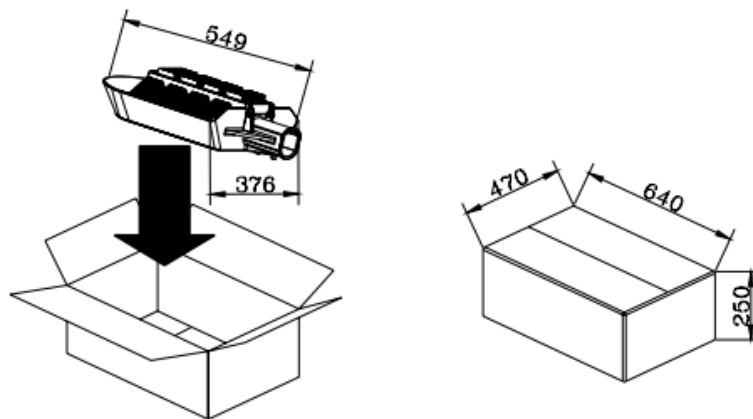


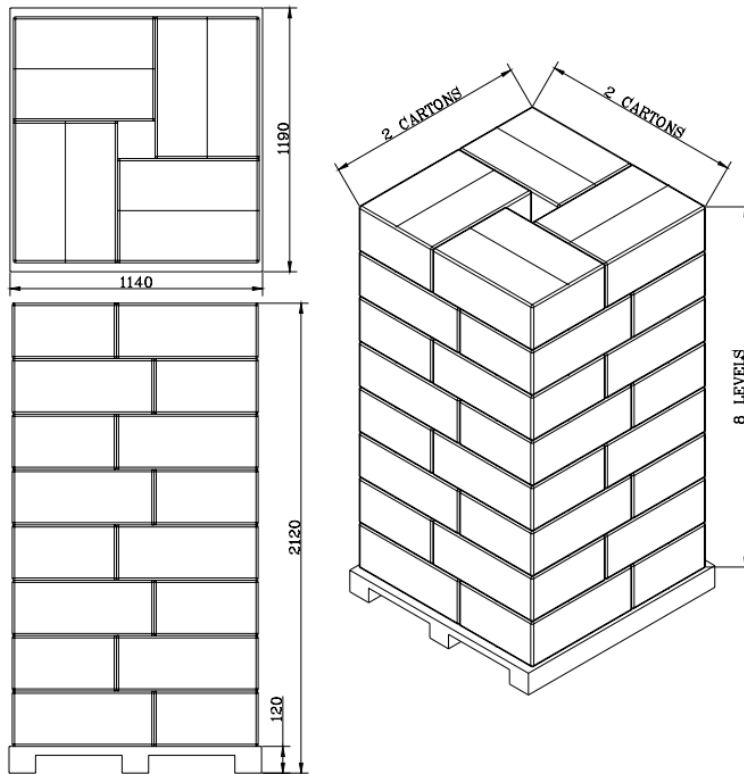
MATERIALS AND FINISH

- Two high power LEDs per lighting module
- Powder coating aluminum heat-sink
- IP65 for lighting module



PACKAGE AND PACKAGING DIMENSION





1 CARTON=1 SET

CARTON SIZE=640(L)*470(W)*250(H)

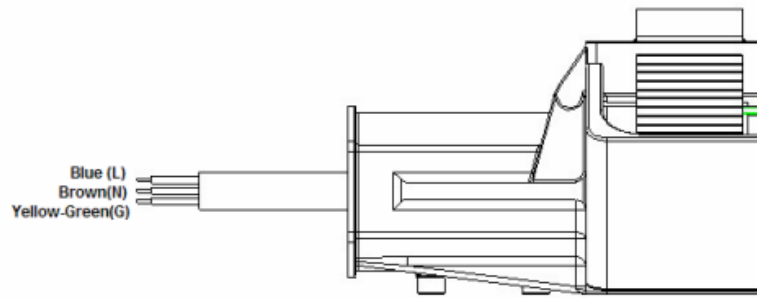
1 PALLET LEVEL=4(2*2) CARTONS

1 PALLET=4*8 LEVELS=32 CARTONS

=32 SETS STREETLIGHT

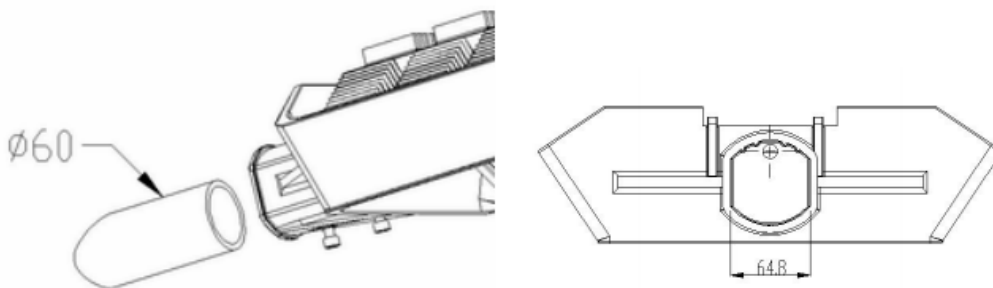


ASSEMBLY AND INSTALLATION

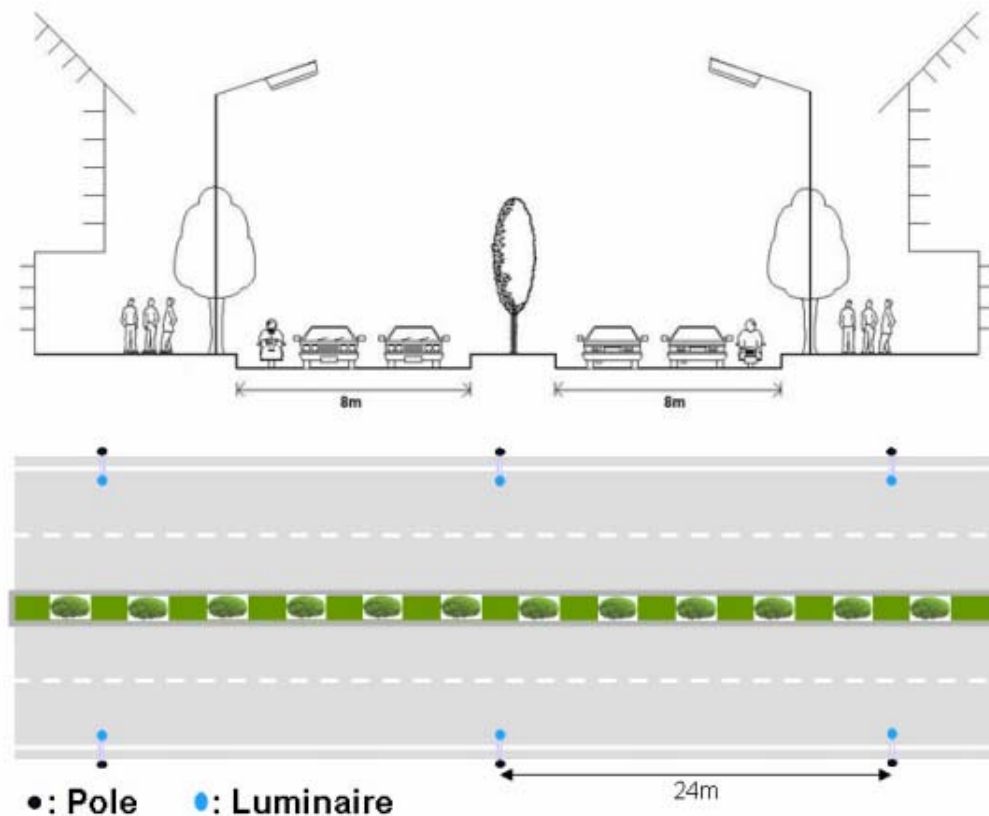


Blue	Line
Brown	Neutral
Yellow-Green	Ground

- Neck holder is designed to fit into a pillar extension with diameter of 60mm, distance of 100mm and fixed by fastening two screws.
- Max. equivalent projection to wind load: 25 m²
- Tightening torque of the pole assembly screw: 40Nm



Implementation Example



WARNING

- Do not disassemble individual LED light module
- Do not disconnect the connector inside the power box
- Do not transfer the product without package protection
- Do not light up the system without grounding connection
- Do not tilt the product angle for more than 30° horizontally and vertically during operation
- Shield should be replaced when damaged
(The tempered glass of module surface.)



WARRANTY

- 3 years on the entire system (power, driver, LED light module) with no mechanical damage or LED light module disassembly from the entire system under normal condition
- LED lumen degradation within 20% in 3 years



ENVIRONMENTAL AND ECONOMIC BENEFIT

Less electricity and maintenance is required, money is saved and carbon dioxide emission decreased, find out how much a ELECOSN LED streetlight (SL-12D7KFC) can save as below:

LED Streetlight Energy Comparison		400W	120W
		Mercury	SL-12D7KFC
Specification			
Total Lumens (lm)		10,000	6,600
Roadway Width 8m, Spacing 24m	E_{avg} (lx)	21	28
Mounting Height 8m, Tilt Angle 20°	Uniformity (min/avg)	0.36	0.45
Power Consumption (W)		500	120
CRI		55	70
Energy Saving			
Power (kW)		0.5	0.12
(%)		100%	24%
Power Consumption Per Year (kWh, 12hr/day light on)		2,190	526
Power Saving Per Year (kWh)			1,664
Money Saving Per Year (USD)		\$0.15/kWh	250
3-Year Saving (USD)		\$0.15/kWh	749
3-Year Maintain Fee (USD)		(Lamp \$15 + Ballast \$15) For Every Two Years	100
3-Year Total Money Saving (USD)			\$ 849
3-Year Total CO ₂ Emission Saving (Kg)		0.637Kg CO ₂ /kWh	3,675