

# **LED Street Light**





# **Road Lighting**

For road lighting the lighting criteria are selected depending upon the class of road being lit. The class has a range of sub-classes, from the strictest to the lenient, and these are chosen depending on the following factors: typical speed of users, typical volumes of traffic flow, difficulty of the navigational task, etc. The basic lighting classes are defined as:

- ME This class is intended for users of motorized vehicles on traffic routes and in some countries this class also applies to residential roads. Traffic speeds are medium to high. The ME classes range from ME1 to ME6, with ME1 defining the strictest requirements. As for wet road conditions the MEW classes range from MEW1 to MEW6.
- S This class is intended for cyclists and pedestrians on footpaths, cycle paths, residential roads, pedestrian streets, parking areas, etc. The S class and the A class are for similar situations, but the S class criteria are defined in terms of horizontal illuminance as preferred by certain countries. The S classes range from S1 to S6, with S1 defining the strictest requirements.

	ME1	ME2	ME3	ME4	ME5	S1	S2	S3	<b>S4</b>	S5	S6
30									$\checkmark$	$\checkmark$	✓
50								$\checkmark$	$\checkmark$	$\checkmark$	✓
70							✓	✓	✓	✓	✓
90						✓	$\checkmark$	✓	$\checkmark$	✓	✓
120		✓	✓	✓	✓						
150	$\checkmark$	$\checkmark$	✓	✓	✓						
180	✓	✓	✓	✓	✓						

	Horizontal illuminance					
	L <sub>m</sub>	U。	U <sub>I</sub>			
M1	≥ 2.0 cd/m <sup>2</sup>	≥ 0.40	≥ 0.70			
M2	≥ 1.5 cd/m <sup>2</sup>	≥ 0.40	≥ 0.70			
МЗА	≥ 1.0 cd/m <sup>2</sup>	≥ 0.40	≥ 0.70			
ME4A	$\geq 0.75 \text{ cd/m}^2$	≥ 0.40	≥ 0.60			
ME5	≥ 0.50 cd/m <sup>2</sup>	≥ 0.35	≥ 0.40			
ME6	$\geq 0.3 \text{ cd/m}^2$	≥ 0.35	≥ 0.40			

	Horizontal illuminance							
	E	m	E <sub>min</sub>	U。				
S1	≥ 15.0 lux;	≤ 22.5 lux	≥ 5.0 lux	-				
S2	≥ 10.0 lux;	≤ 15.0 lux	≥ 3.0 lux	-				
S3	≥ 7.5 lux;	≤ 11.25 lux	≥ 1.5 lux	-				
S4	≥ 5.0 lux;	≤ 7.5 lux	≥ 1.0 lux	-				
S5	≥ 3.0 lux;	≤4.5 lux	≥ 0.6 lux	-				
S6	≥ 2.0 lux;	≤ 3.0 lux	≥ 0.6 lux	-				

#### **KEY**

E<sub>min</sub>- minimum illuminance

E<sub>m</sub> - maintained average illuminance

L<sub>m</sub> - maintained average luminance

U - overall uniformity

U, - longitudal uniformity

# **Heat Dissipation**

While LED is environmentally friendly it's performance and life time depends on junction temperature specially when it is a high-power luminaire.

With streamlined heat sink technology the result is 15.9% greater to the traditional heat sink.







3000K

4000K

5000K







## Easy Access to LED Driver

As a maintenance issue having access to the parts that need to be maintained is a challenge. Thus we have made the parts easy to access.

The lamp body can be opened easily without using any tools with buckle which fixes the two parts of the body together. Furthermore, the drivers in our lamps have been fixed with buckles to be easy to change in case if maintenance is needed.

### Which Color Temperature?

Based on the application of Luminaire you should select the correct color temperature from warm white to cool white.

Our lamps can be customized and they range from 3000K up to 5000K. Furthermore 3000K and 4000K lamps comply with EU photo-biological standards.

#### **Power-Off Protection**

When it comes to maintenance safety is the first thing that should be considered before starting work.

As per electrical safety law all electrical devices must be disconnected from the main power. For more safety our lamps are protected by Power-Off system which is when the body of the lamp is opened the power automatically turn off.

## Surge Protection

The Luminaire is usually installed from a high distance off the ground which causes a risk of damage by a spike in rainy days.

Because of this risk, we have added an extra protection integrating lamp driver with SPD and TVSS system to protect the lamp against any voltage spike.

## Optional Intelligent Control

You may need one of the following intelligent control systems to be added to the lamp. So please feel free to contact for more details.

- Daylight Sensor
- Time Control
- Solar System

#### Surface Treatment

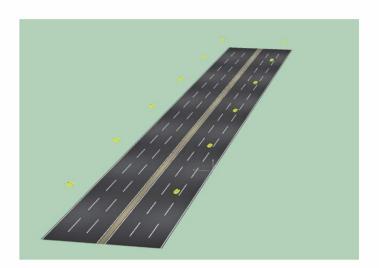
Having Anti-Static and Anti-UV outdoor powder coating treatment on the body of the lamp has made this lamp a long-lasting product against the heat and humidity.

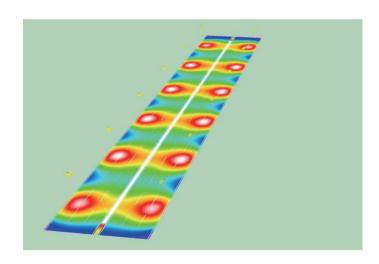
## **Specifications**

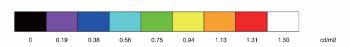
- · Applied to main roads, collection roads, roundabouts
- Mounting height: 8 to 12m
- · Mast spacing: up to 50m
- Variants from 10,900 to 21,000 lumens
- Compliance with CIE, EN and IESNA lighting standards
- · High performance luminaire using Nichia LED Chip
- Luminous flux up to 21,600lm (180W)
- · Luminous efficacy up to 120lm/ W
- Wide range of input voltage, 100 277V AC, 50/60Hz
- High power factor: PF>0.93
- LED life span >50,000 hours
- Energy saving up to 90%
- · Superior lighting distribution uniformity
- · Superior temperature stability
- · Passed all tough high temperature tests
- · No external reflectors required
- Diffuser : Safe for industrial applications
- Operating temperature -30 ~ +60°
- Body material: Die casting aluminum
- · Stainless steel screws

# Dialux case study simulation for 180W LED street light

As a service provider, we will be happy to do a case study of your requested street to give you Dialux simulation using our lamps before you go for a real installation. For more information about lighting simulation please feel free to contact us.







### LU180RC-SL01 (Type II) 4000K Ra70

#### Calculation Field List

Valuation Field Roadway 1

Length: 25.000 m, Width: 10.500 m

Grid: 10 x 9 Points

Accompanying Street Elements: Roadway 1.

Tarmac: R3, q0: 0.070

Selected Lighting Class: ME1

(All lighting performance requirements are met.)

	L <sub>av</sub> [cd/m²]	U0	UI	TI [%]	SR
Calculated values:	2.08	0.69	0.91	7	0.75
Required values according to class:	≥ 2.00	≥ 0.40	≥ 0.70	≤10	≥ 0.50
Fulfilled/Not fulfilled:	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>



All info here ONLY for reference, please confirm with our sales before order.



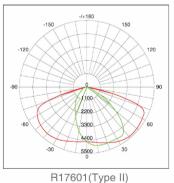


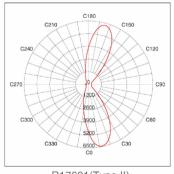
# LED Street light Product Range

Part Number	LU030RC-SL01	LU050RC-SL01	LU070RC-SL01	LU090RC-SL01	LU120RC-SL01	LU150RC-SL011	LU180RC-SL01	
Lumen Output	3,600lm	6,000lm	8,400lm	10,800lm	14,400lm	18,000lm	21,600lm	
Wattage	30W	50W	70W	90W	120W	150W	180W	
Luminous Efficacy	120lm/W	120lm/W	120lm/W	120lm/W	120lm/W	120lm/W	120lm/W	
ССТ	4000K, 3000K, 5000K							
CRI	>Ra80							
Beam Angle	75°x150°							
Input Voltage	100-240Vac/100-277Vac 50-60hz PF≥0.93							
IP Rating	IP66							
LED Driver	Meanwell, Inventronics							
HID Equivalent	100W	120W	120W-180W	250W	300W-400W	400W-600W	650W	
Certification Pending	CE, CB, SAA, DLC, RoHS							

## **Control Options**

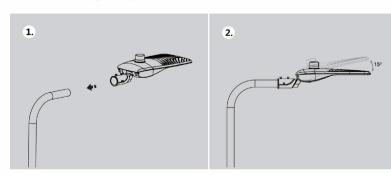
## Photometric Diagrams

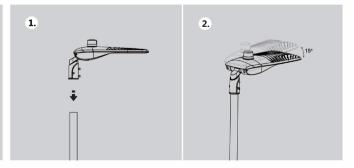




e II) R17601(Type II)

# **Mounting Options**





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