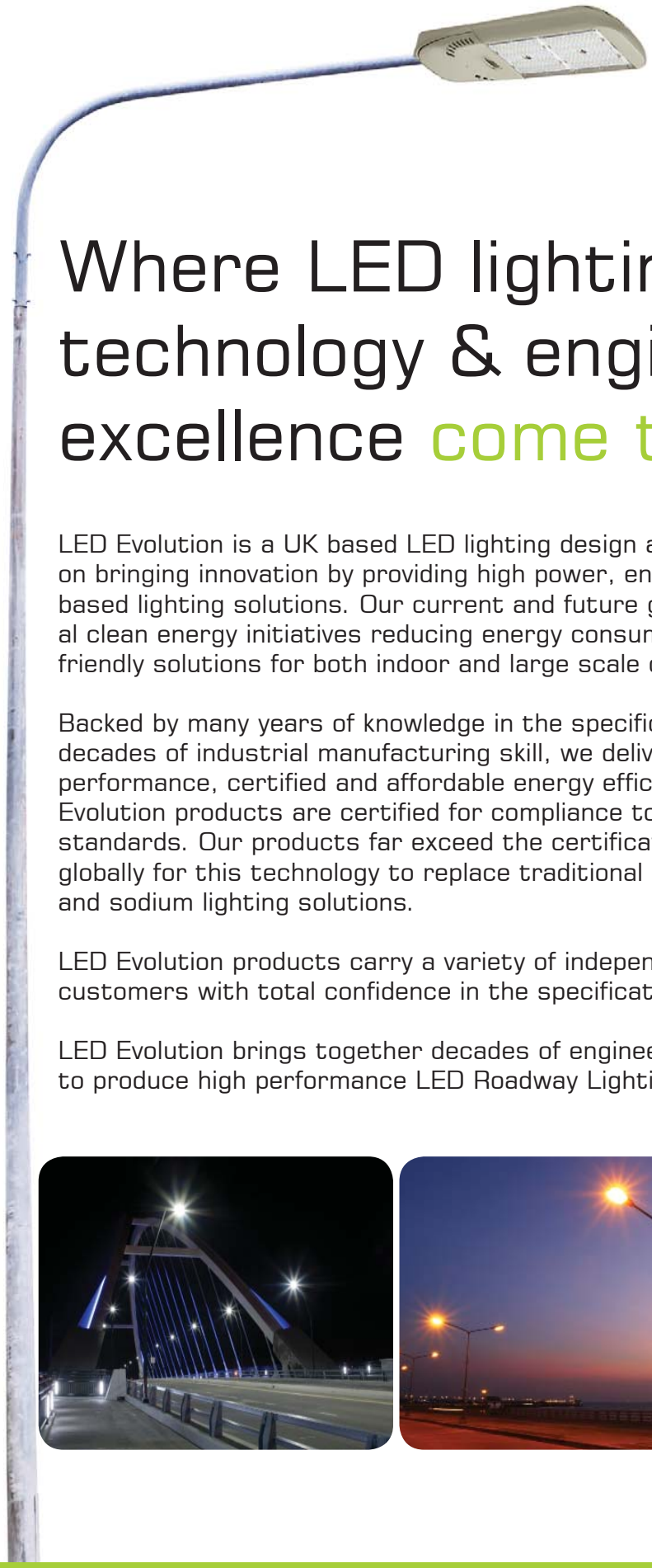
LEDevolution

The Natural Selection In LED Lighting



Where LED lighting technology & engineering excellence come together

LED Evolution is a UK based LED lighting design and manufacturing company focused on bringing innovation by providing high power, energy efficient and cost effective LED based lighting solutions. Our current and future generation products support global clean energy initiatives reducing energy consumption and offering environmentally friendly solutions for both indoor and large scale outdoor applications.

Backed by many years of knowledge in the specific design of advanced LED lighting and decades of industrial manufacturing skill, we deliver high quality, high output performance, certified and affordable energy efficient LED lighting products. All LED Evolution products are certified for compliance to the most rigorous performance standards. Our products far exceed the certification levels demanded by governments globally for this technology to replace traditional incandescent, halogen, fluorescent and sodium lighting solutions.

LED Evolution products carry a variety of independent test certifications to provide our customers with total confidence in the specification of our products.

LED Evolution brings together decades of engineering expertise and manufacturing skill to produce high performance LED Roadway Lighting products to the finest quality.

SL Series

The LED Evolution (SL series) LED Streetlight sets new all-round performance and application standards for a modular LED outdoor luminaire system and specifically energy saving efficiency and lighting effects requirements across the range.

The simple modular design allows for the lighting system to minimise the parts count which ultimately reduces the cost of the finished luminaire yet allows for optimised use of LED technology to save energy and to guide light output to specific photometric patterns.

The concept of using replaceable LED / optical modules, power and lighting control systems is applied in these designs and so simple to maintain or upgrade as well also future proof. The upgrade of the LED module to future LED modules with higher performance is easily implemented and can be simply replaced as required and thus ensure a sustainable and future proof technology the existing luminaire housing.

Patented optical designs ensure asymmetric, wide light, distribution to standards compliance with DIN EN 13201 & BS 5489-1: 2008 with excellent glare reduction, and minimal light spill for optimal adaptation to lighting situations and a variety of road geometries.

There are numerous Central Monitoring System (CMS) options of microprocessor - controlled LED operating electronics systems to enable even greater levels of saving and energy efficiency. The gear tray is suitably sized to typically accommodate those systems and antennae as required.

Special features:

- Innovative, future proof, upgradeable luminaire design
- Newly developed optical technology optimised for the street lighting applications sector
- Minimised light emissions with no tertiary optical losses
- Patented optical design for optimal roadway lighting
- Cut out optics meet “Dark Sky” requirements
- For large light-point spacing of typically between 30…40m
- The optical module unit (s) fitted with high power LEDs offers suitability for simple maintenance with simple replacement or upgrading
- Replaceable, encapsulated LED / Optics module rated to IP66
- Optional with NEMA twist lock antennae and using numerous WIMAC protocol options
- Dependable gear tray with electrical and electronic components, simply accessible / replaceable
- Premium grade materials offer enhanced thermal conduction and corrosion resistance
- Long system service life and low luminous flux loss via optimised thermal management (>70,000 hrs)
- Low power consumption with very good photometric results ensures efficient and economic road lighting
- Conversion and drive electronics are isolated and sealed away from the optical chamber
- IP66 optics seal, IP65 electronics seal
- On / off as standard with options on WIMAC control systems and time dimming
- Fits 1.25” – 2.0” mast arms or pole adaptors
- LEDs modules are warrantied to >75,000hrs to L70
- 40W & 60W options available for PV / Solar applications

Typical Applications:

Roadway lighting options dependant on power / light output requirements for residential areas, side streets, collector roads and main carriageways.

SL Series 45W

Technical Data

Model No.:	45W LED Street Light
Operating Voltage (V):	140V-270V
Frequency (Hz)	50Hz / 60Hz
Operating Temp. (C):	0°C to +50°C
Humidity:	0 to 95%
Power Consumption (9W):	45W, 5% tolerance
Power Factor:	>0.9
THD:	<10% (between 180 - 240VAC)
O/P Voltage (V):	34
O/P Current (A):	1
No. Of LED PCBs:	1
No. Of LEDs:	24
Make of LEDs:	Philips / CREE
Model No. OF LED:	Rebel ES / XTG
Lens Type:	Type II
Material Of Lens:	Poly Carbonate (scratch resistant)
LED Driver Efficiency:	>82% (88%)
Surge Voltage Protection:	2.5kV/4kV/10kV
IP Rating:	IP65 for Driver, IP66 for LED section
Housing:	Die cast & Extruded Aluminum
Weight:	10Kg Approx.
Dimensions:	714mm x 203mm x 109mm

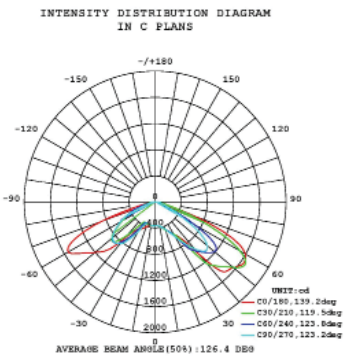
High Performance Design

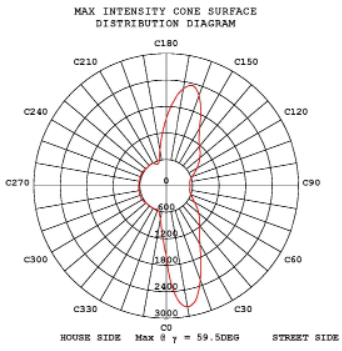
Flood Summary

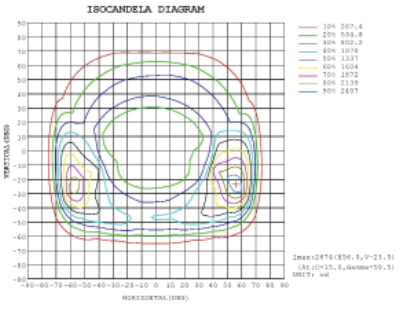
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	332192.8%	3,321.9	148.8	113.2
Beam (50%)	79373.8%	793.7	31.1	51.6
Total:	350857%	3,508.6		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	355.2	35517.1	10.1
0-40	795.1	79514	22.7
0-60	2,593.8	259376.6	73.9
60-90	915.9	91585.3	76.1
70-100	242.6	24258.1	6.9
90-120	0.4	42.6	0
0-90	3,509.6	350961.9	100
90-180	0.4	42.6	0
0-180	3,510.0	351004.6	100







SL Series 60W

Technical Data

Model No.:	60W LED Street Light
Operating Voltage (V):	140V-270V
Frequency (Hz)	50Hz / 60Hz
Operating Temp. (C):	0°C to +50°C
Humidity:	0 to 95%
Power Consumption (9W):	60W, 5% tolerance
Power Factor:	>0.9
THD:	<10% (between 180 - 240VAC)
O/P Voltage (V):	38
O/P Current (A):	1.38
No. Of LED PCBs:	1
No. Of LEDs:	36
Make of LEDs:	Philips / CREE
Model No. OF LED:	Rebel ES / XTG
Lens Type:	Type II
Material Of Lens:	Poly Carbonate (scratch resistant)
LED Driver Efficiency:	>85% (88%)
Surge Voltage Protection:	2.5kV/4kV/10kV
IP Rating:	IP65 for Driver, IP66 for LED section
Housing:	Die cast & Extruded Aluminum
Weight:	10Kg Approx.
Dimensions:	714mm x 203mm x 109mm

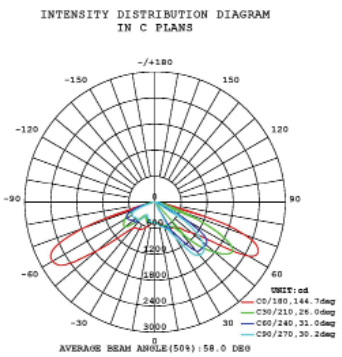
High Performance Design

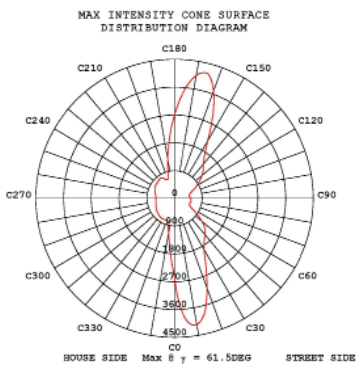
Flood Summary

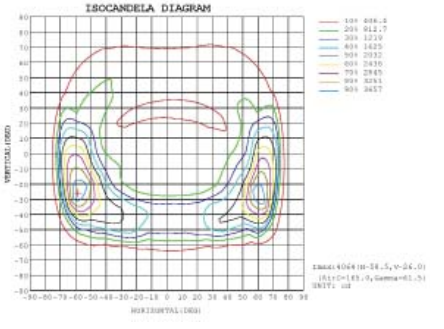
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	418504.9%	4,185.0	150.5	114.5
Beam (50%)	98567%	985.7	26.4	52.1
Total:	453908.5%	4,539.1		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	459.8	45980.9	10.1
0-40	922.6	92262.5	20.3
0-60	3,018.7	301866.7	66.5
60-90	1,520.5	152048.3	33.5
70-100	433.5	43354.6	9.5
90-120	1.5	152.5	0
0-90	4,539.2	45915	100
90-180	1.5	152.5	0
0-180	4,540.7	454067.5	100







SL Series 90W

Technical Data

Model No.:	90W LED Street Light
Operating Voltage (V):	140V-270V
Frequency (Hz)	50Hz / 60Hz
Operating Temp. (C):	0°C to +50°C
Humidity:	0 to 95%
Power Consumption (9W):	90W, 5% tolerance
Power Factor:	>0.9
THD:	<10% (between 180 - 240VAC)
O/P Voltage (V):	38
O/P Current (A):	2
No. Of LED PCBs:	1
No. Of LEDs:	48
Make of LEDs:	Philips / CREE
Model No. OF LED:	Rebel ES / XTG
Lens Type:	Type II
Material Of Lens:	Poly Carbonate (scratch resistant)
LED Driver Efficiency:	>85% (86%)
Surge Voltage Protection:	2.5kV/4kV/10kV
IP Rating:	IP65 for Driver, IP66 for LED section
Housing:	Die cast & Extruded Aluminum
Weight:	10Kg Approx.
Dimensions:	714mm x 203mm x 109mm

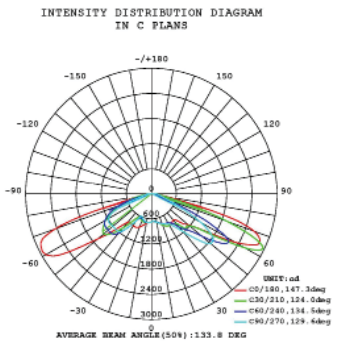
High Performance Design

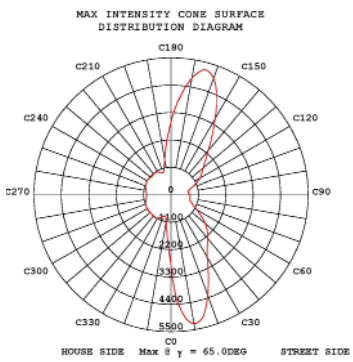
Flood Summary

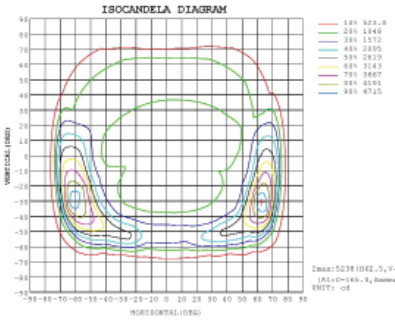
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	586609.4	5,866.1	152.8	119
Beam (50%)	123027.9	1,230.3	18.6	51.4
Total:	619393.4	6,193.9		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	619.4	61940.6	10
0-40	1,178.7	117869.6	19
0-60	3,736.3	373630.2	60.3
60-90	2,455.5	245545.2	39.6
70-100	759.3	75934.7	12.3
90-120	4.2	418.2	0.1
0-90	6,191.8	619175.4	99.9
90-180	4.2	418.2	0.1
0-180	6,195.9	619593.6	100







SL Series 120W

Technical Data

Model No.:	120W LED Street Light
Operating Voltage (V):	140V-270V
Frequency (Hz)	50Hz / 60Hz
Operating Temp. (C):	0°C to +50°C
Humidity:	0 to 95%
Power Consumption (9W):	120W, 5% tolerance
Power Factor:	>0.9
THD:	<10% (between 180 - 240VAC)
O/P Voltage (V):	36
O/P Current (A):	2.97
No. Of LED PCBs:	2
No. Of LEDs:	96
Make of LEDs:	Philips / CREE
Model No. OF LED:	Rebel ES / XTG
Lens Type:	Type II
Material Of Lens:	Poly Carbonate (scratch resistant)
LED Driver Efficiency:	>85% (88%)
Surge Voltage Protection:	2.5kV/4kV/10kV
IP Rating:	IP65 for Driver, IP66 for LED section
Housing:	Die cast & Extruded Aluminum
Weight:	12Kg Approx.
Dimensions:	942mm x 203mm x 109mm

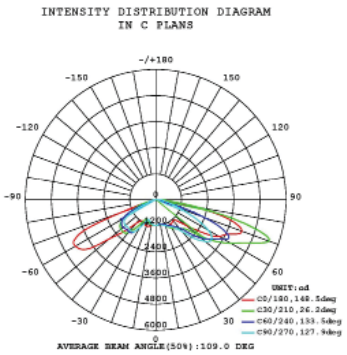
High Performance Design

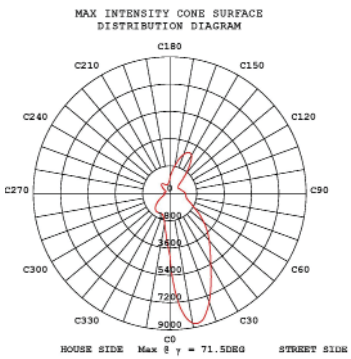
Flood Summary

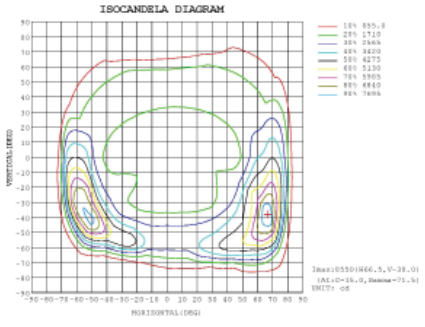
	% Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	1022390.3	10,223.9	152.1	135.5
Beam (50%)	243859.1	2,438.6	25.2	59
Total:	1078263.5	10,782.6		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	1,035.9	103594.6	9.6
0-40	2,020.3	202027.5	18.7
0-60	6,278.4	627835.2	58.2
60-90	4,470.6	447062.5	41.4
70-100	1,677.5	167752	15.6
90-120	34.7	3466.7	0.3
0-90	10,749.0	1074897.9	99.7
90-180	37.6	3763.6	0.3
0-180	10,786.6	1078661.5	100







The Natural Selection In LED Lighting

LED and Optical modules
(painted optics)

CMS aerial location

Optix lid of gear tray

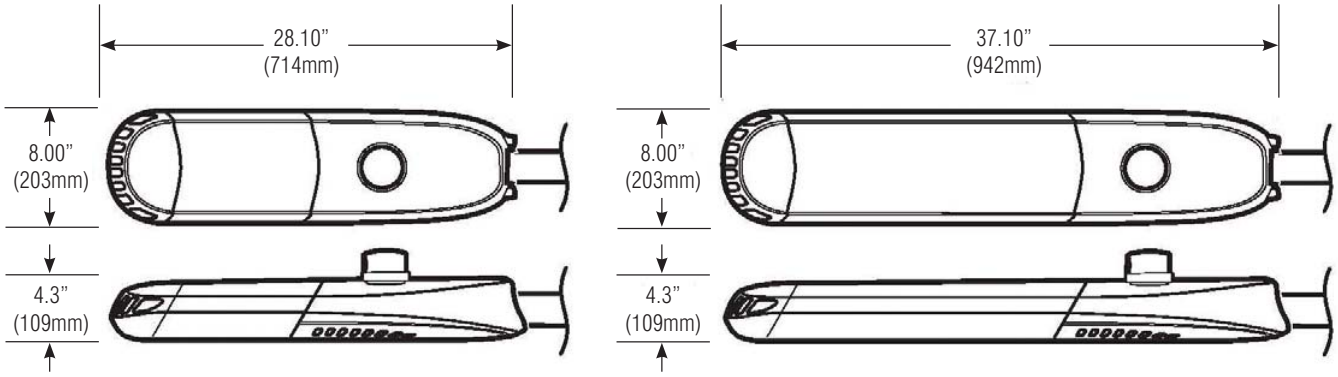
Tooless access
to gear tray

As shown in standard installation.
Options for dimming and central
management systems (CMA),
WIMAC enabled using GPRS &
RF.

Dimensions

Upto 90W:
28.10" x 8.0" x 4.3"
714mm x 203mm x 109mm

Above: 90W:
37.10" x 8.0" x 4.3"
942mm x 203mm x 109mm



Ordering Options

Street Light

SL	45	300

45W	45
60W	60
90W	90
120W	120
225W*	225

* In final development

3000K	300
4000K	400
5000K	500
5650K	565

Street Light Photovoltaic

SLP	40	300

40W	40
60W	60

3000K	300
4000K	400
5000K	500
5650K	565