



The Lotus family of Street & Road lights by Juganu is efficient, lightweight, and reliable.

High system efficacy of up to 160 LPW yields significant energy savings of 75%-90% compared to HPS lamps and 30% compared to other LEDs.

Negligible reduction of light with time of under 0.5% per year allows stable lighting for many years.

Optimized optics direct the light where it is needed, providing uniform illumination, while meeting international standards for Street & Road lights.

JLED™ fixtures withstand severe weather conditions, such as tropical rains and proximity to the sea.

Lotus provides infrastructure for smart cities and incorporates various pre-installed modules, such as:

- Sophisticated GPS-based wireless communication
- Autonomously-operated cloud-based management and control software
- Accurate power management module
- AC total protection module.

Lotus supports ANSI C136.41 NEMA for remote management systems.

Features

- CCT (Typical) – 2700K - 5000K
- Several types of optics for various road conditions:
 - Lateral distribution: Type II, III
 - Longitudinal distribution: Short, Medium
- Photobiologic IEC62471 Exempt Group compliant
- Blue Light: IEC 62778, IEEE 1789 compliant
- Water Resistance: IP66
- Impact Protection: IK08 rating (IK 10 optional)
- Salt resistance: IAW ISO9227

Benefits

- Efficient, uniform and glare-free light
- 75%-90% energy cost savings
- 95% maintenance costs savings
- Long guaranteed operating lifetime
- Easy installation
- Increased safety for drivers, passengers, and pedestrians



Lotus

City & Infrastructure

GENERAL INFORMATION

Dimensions (mm)	Various models, see the Mechanical Dimensions page below
Weight	Various models, see the Packaging and Weight section below
Materials	Body: powder-coated die-cast aluminum Color (RAL): Black or gray (other colors available on request, e.g. dark bronze) Lens: PC for LED array or single LED Protective Glass

OPERATING AND ELECTRICAL

Power Consumption	0 to 200 W (other power options available on request)
Surge Protection	10 kV
Power Factor	> 0.92, max current THD 15% at 220V
System Efficacy	up to 160 LPW (including PS & Optics)
Operating Voltage	110 – 277 VAC
Maximum Voltage	90 – 305 VAC
Operating Frequency	47Hz – 63 Hz
Dimming	DALI, factory set, 0 to 10V, wireless control
Operating Temperature	–25°C to 50°C (13°F to 122°F)
Cooling	Passive cooling
Water Resistance (IP Rating)	IP66 (with Salt fog and UV treatment)
Impact Protection	IK08 (IK10 is optional)

LIGHTING CHARACTERISTICS

Lumen Maintenance	TM21 based on ISTMT and LM80 L90 > 60,000 hours L70 > 140,000 hours
Correlated Color Temperature (CCT)	2700K - 5000K
Color Rendering Index (CRI)	>70

Lotus

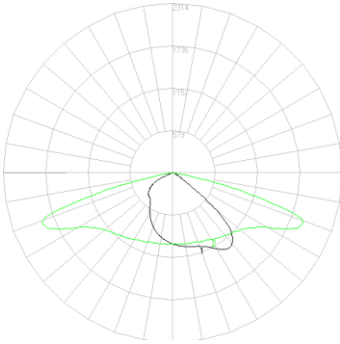
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STANDARDS (additional local standards applicable)

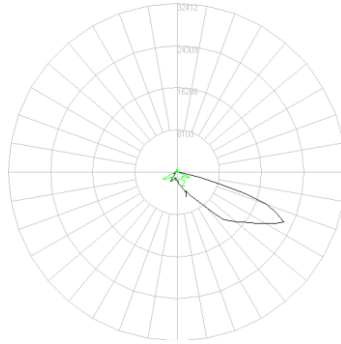
Group	Standard abbreviation	Description
EMC	CISPR 15,22 EM 55015 IEC 61000-3-2,3	Emission
	EN61547 EN 61000-4-2,3,4,5,6,8,11	Immunity 10kV surges
Photometrics	EN 13032-1 IESNA LM-79 – 2008	Photometric
	IEC 62471:2006 IEC62778 and IEEE1789	Photo-biologic, exempt Blue light
Mechanics and Environment	IEC 60529, EN 60529	IP66, Dust and Humidity, Water Jets
	IEC-62262-2002	IK-08 , Impact
	IEC 68-2-6	Vibration in 3 axes
	ASTM G154/2006	UV (NA for glass cover)
	ISO9227, *MIL-STD-810G	Salt fog for 1000h for marine environment
Safety	IEC 60598-2-3:2002, AMD1:2011 Used in conjunction with: IEC60598-1:2014, AMD1:2017	Contains: Dielectric strength Insulation resistance Leakage current Protection against electric shock Torque resistance of screws and fittings Weight/wind
	UL 1598:2018 CSA C22.2 No. 250.0-18	UL Standard for Safety of Luminaires for the North America market
	IEC 62031:2008 + A1:2012	Safety of LED board
	EN61347-1, EN61347-2-13, EN62384	LED driver safety
Luminaire Performance Test	EN 62722-1:2016 EN 62722-2-1:2016, EN 62717	Lumens and CRI performance test over 1000 hours
	ISTMT TM-21, LM-80	Temp. of LED, Driver
Certifications	CB (up to 200w) ENEC (up to 200w) Test report ENEC+ (up to 200w)	Europe
	cTUVus (up to 200w)	North America
	Inmetro (up to 255w)	Brazil
	NOM-003/031/058 PAESE (up to 180w)	Mexico
	Teken 20 (up to 200w)	Israel SII

Photometric Curves

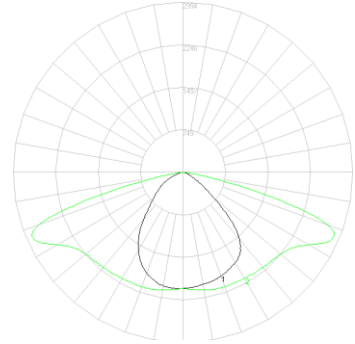
D01 Type II, Medium



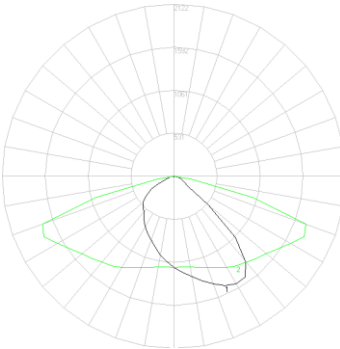
D02 Type IV, Short



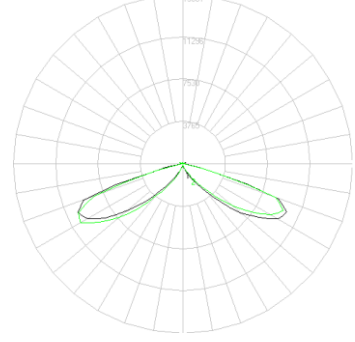
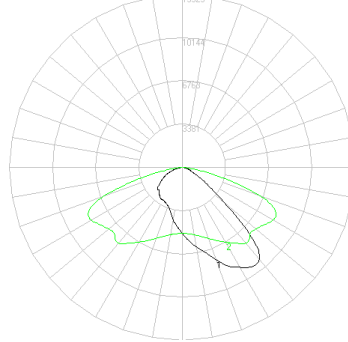
D03 Type II, Medium



D04 Type II, Short

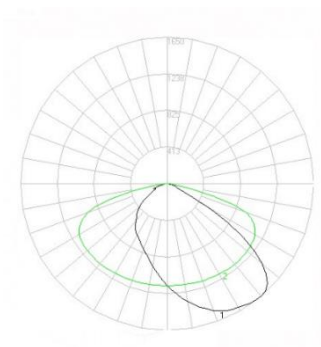


D05 Type II, Short



D44 Type II, Short

Very



P0: Surge Protection Compliance (10kV Protection)

- UL1449 Type 4 Component Assembly
- IEC 61643-11 Class II / EN61643-11 Type 2
- CE Class I & II Installation
- IEEE/ANSI C62.41.2 Guidelines - Protects Line to Neutral, Line to Ground and Neutral to Ground
- IEC 61000-4-5, Class 5, 10kV @ 1.2/50μs, 5KA @ 8/20μs using 2ohm Source Impedance
- Pulse Rating @ 8/20μs (No. of Strikes @ I):
 - 1 @ 10,000A
 - 1 @ 10,000A
 - 2 @ 6,500A
 - 10 @ 3,000A
 - 1000 @ 1,500A

P1 : JACTP Surge Protection

- 10kV standard SPD
- Over / under voltage momentary serial protection up to 440V
 - Disconnect LED driver from AC grid when AC voltage is under 180V
 - Disconnect LED driver from AC grid when AC voltage over 300V

Mounting

- Integral die cast mounting pole stop feature
- Suitable for 42mm to 60mm (1.65 to 2.36 in.) mounting pole
- Wall mounting adapter option available
- Supports addition of 25 mm (1 in.) Adapter
- Inclination: integrated with $\pm 15^\circ$, can be 90° for pole with no arm (post up)

Performance (4000K)

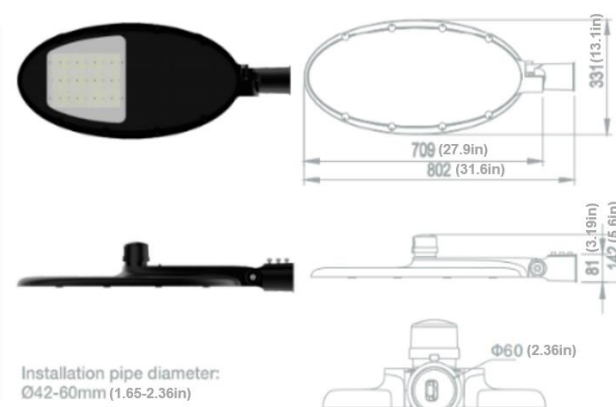
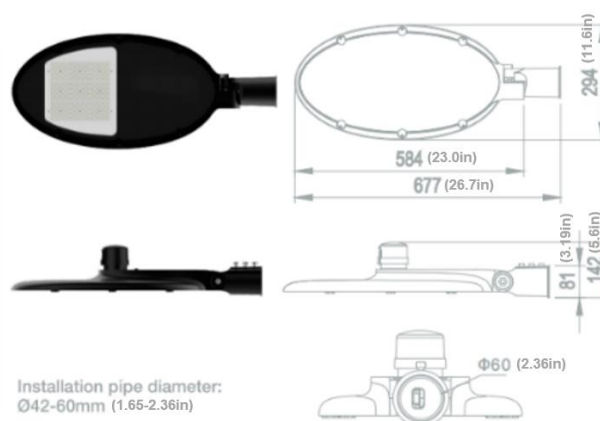
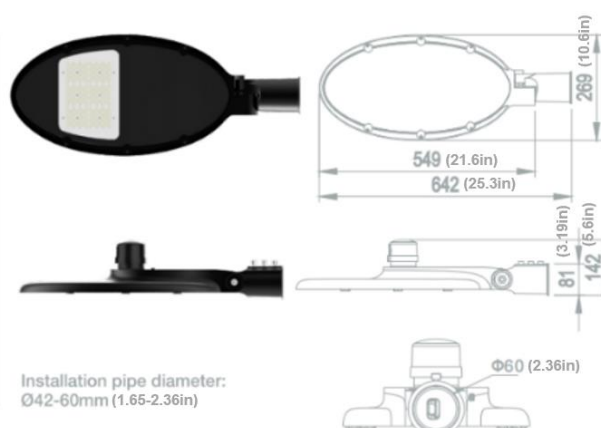
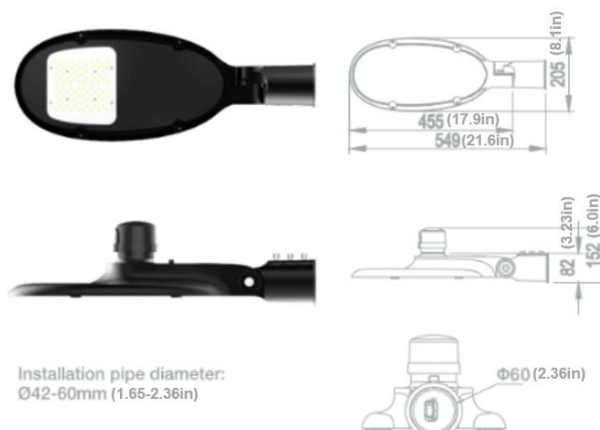
Power [W]	Typ. efficacy [LPW]	Total lumens [LM]	
		LP1	LP2
30	140 LP1, 160 LP2	4.200, 4.800	
50	140 LP1, 160 LP2	7.000, 8.000	
80	140 LP1, 160 LP2	11.200, 12.800	
100	140 LP1, 160 LP2	14.000, 16.000	
120	140 LP1, 160 LP2	16.800, 19.200	
150	140 LP1, 160 LP2	21.000, 24.000	
180	140 LP1, 160 LP2	25.200, 28.800	
200	140 LP1, 160 LP2	28.000, 32.000	

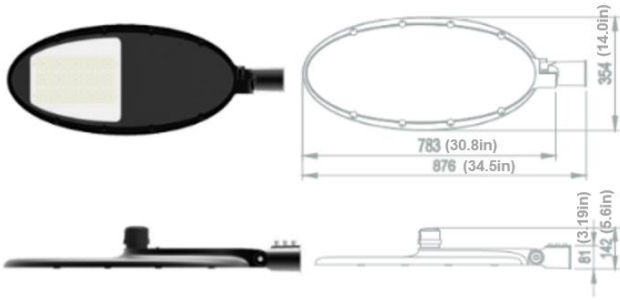
* Luminaire efficacy at 2700K is reduced at a maximum of 15%.

Packaging and Weight

Group	Power	Lighting Fixtures Dimensions	Packaging Dimensions	Net Weight	Gross Weight
LP1	Up to 30W	549*205*152 mm 21.6*8.1*6.0 in	608*232*265 mm 24.0*9.2*10.5 in	7 kg 15.4 lb	8 kg 17.6 lb
	31W- 60W	642*269*142 mm 25.3*10.6*5.6 in	695*222*325 mm 27.4*8.8*12.8 in	12 kg 26.5 lb	14 kg 30.9 lb
	61W-120W	677*294*142 mm 26.7*11.6*5.6 in	730*222*345 mm 28.8*8.8*13.6 in	12.2 kg 26.9 lb	15 kg 33.1 lb
	121W-200W	802*331*142 mm 31.6*13.1*5.6 in	855*222*385 mm 33.7*8.8*15.2 in	14.8 kg 32.6 lb	18 kg 39.7 lb
LP2	Up to 25W	549*205*152 mm 21.6*8.1*6.0 in	608*232*265 mm 24.0*9.2*10.5 in	7 kg 15.4 lb	8 kg 17.6 lb
	25W-50W	642*269*142 mm 25.3*10.6*5.6 in	695*222*325 mm 27.4*8.8*12.8 in	12 kg 26.5 lb	14 kg 30.9 lb
	51W-80W	677*294*142 mm 26.7*11.6*5.6 in	730*222*345 mm 28.8*8.8*13.6 in	12.2 kg 26.9 lb	15 kg 33.1 lb
	81W-120W	802*331*142 mm 31.6*13.1*5.6 in	855*222*385 mm 33.7*8.8*15.2 in	14.8 kg 32.6 lb	18 kg 39.7 lb
	121W-200W	876*354*142 mm 34.5*14.0*5.6 in	930*222*405 mm 36.7*8.8*16.0 in	17.4 kg 38.4 lb	20 kg 44.1 lb

Mechanical Dimensions (LP1=140 lumens per watt, LP2=160 lumens per watt)





Ordering Information

Product	Power	Family	CCT	Wireless (COM)	ANSI C136.41 5 (NEMA)	AC protection unit	Distribution curve	Lumens per watt	Class
JLED-SL	xxxW	LOTUS	xx	Wx	Nx	Px	Dxx	LPx	Cx

Ordering Options

Power xxxW (custom levels on request)	30	
	50	
	80	
	100	
	120	
	150	
	180	
	200	
	XXX – specify custom wattage	
CCT (custom levels on request)	27 – 2700K	
	30 – 3000K	
	40 – 4000K	Standard
	50 – 5000K	
Wx	W0 – Wireless controller is not integrated	Standard
	WM – JNET1 & JCMS is integrated	
Nx	N0 – NEMA not included	
	NS – 0 to 10V Analog NEMA base with shorting cap	Standard
	NP – NEMA with photocell	
	NWA – NEMA with JNET 1 & JCMS with 0 to 10V, Analog	
	NWD – NEMA with JNET 1 & JCMS with DALI control	
Px	ND – DALI control NEMA base with shorting cap	
	P0 – Standard surge protection (10kV) included	Standard
Distribution curves (see Photometric Curves section)	P1 – JACTP (AC total protection module) included	
	D01 - Type II, Medium	
	D02 - Type IV, Short	
	D03 - Type II, Medium	
	D04 - Type II, Short	Standard
	D05 - Type II, Short	
	D06	
	D44 - Type II, Very Short	
LPx	LP1 – 140 lumens per watt	Standard
	LP2 – 160 lumens per watt	
Cx	C1 - Class I installation	Standard
	C2 - Class II installation	

Ordering Example

JLED-SL-080W-LOTUS-40-W0-NS-P0-D04-LP1-C1

Description

JLED street light of the Lotus family with 80W, 4000K, no communication, 0 to 10V NEMA base with a shorting cap, 10kV, distribution curve D04, 140 lumens per watt, and Class I installation