

Smart Solitaire



The **Solitaire** family of Street & Road fixtures by Juganu revolutionizes urban spaces by turning them into smart, connected environments.

These fixtures combine embedded sensors, cameras, and public Wi-Fi with **advanced edge processing**, enabling on-site intelligence and minimizing data transmission to the cloud.

Combined with Juganu's proprietary wireless broadband infrastructure between fixtures, they enable **seamless connectivity across large spaces**.

With a high system efficiency Solitaire3 fixtures delivers **significant energy savings**—up to 90% compared to HPS lamps and 30% compared to other LEDs.



Features

- Dual high-resolution cameras supporting both computer vision analytics and video streaming
- Wireless connectivity - Powered by AC only (Ethernet Is not required)
- Integrated edge processor with a powerful GPU for efficient AI processing and minimal latency
- Wirelessly controlled and monitored for easy access and management

Benefits

- All-in-one solution, integrating multiple sensors within a single design
- Ensures privacy by processing AI locally inside the lamp, with only raw data sent to the cloud
- Serves as infrastructure for gathering both real-time insights and BI statistics
- Transforms any space into a digital smart environment
- Quick and easy installation
- High lumen output with excellent energy efficiency

Smart Solitaire3

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GENERAL INFORMATION

Dimensions (mm)	Diameter – 643 mm/25.3 in Height - Solitaire with Nema – 783mm/30.8 in Solitaire w/o Nema – 786 mm/30.9 in
Weight	16.7kg/36.8 lb
Materials	Cast Aluminum body with powder paint, Plastic (PMMA,PC)
Color	Black (RAL 9005)

OPERATING AND ELECTRICAL

Power Consumption	Up to 50W - Road Lighting Up to 60W – Smart space capabilities
Surge Protection	10 kV
Power Factor	> 0.92, max current THD 15% at 220V
System Efficacy	Up to 100 lm/w for road lighting
Operating Voltage	100 – 240VAC
Maximum Voltage	277 VAC
Operating Frequency	47Hz – 63 Hz
Dimming	Wireless control
Operating Temperature	-40°C +40°C (-40°F to +104°F)
Cooling	Passive cooling
Ingress Protection (IP Rating)	IP65

LIGHTING CHARACTERISTICS

Lumen Maintenance	TM21 based on ISTMT and LM80 L70 - 120,000 hours L90 – 60,000 hours
Correlated Color Temperature (CCT)	3000K, 4000K AI: Dynamic Color Shifting (Atmosphere lighting)
Color Rendering Index (CRI)	>70

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EMBEDDED CAMERAS

Number of Optical sensors	2
Resolution/fps	Sensor: Sony, Max Resolution: 12MP 4056(H) x 3040(V)
Field of View (FOV)	90° H, 110° D Additional lenses are optional and can be configured at the time of purchase

INTEGRATED SENSORS

GPS location accuracy	2 meters
Audio (Microphone)	Digital microphone for noise level (dB)

ACCESS POINT SERVICE

Wireless Technology	802.11ax, WiFi 6 2.4GHz, CH1-11 5GHz U-NII-1, U-NII-3 (band automatically enabled when JNET2 backhaul channel is not in use) Up to 250 connected Wi-Fi users
Antenna Types	Omni 4x4

WIRELESS LIGHTING MANAGEMENT

Wireless Lighting control	Juganu proprietary mesh technology SubG frequency 868/915/433 MHz
NEMA Socket	ANSI 136C

JNET 2 MULTI-LEVEL WIRELESS BACKHAUL

Wireless technology, dual radio	802.11ax WIFI6, WIFI6E ready, MIMO 4x4, BW: 20 MHz, 40 MHz ,80 MHz, 160MHz (optional) Frequency band: 5160-7115MHz U-NII-1, U-NII-3, U-NII-4, U-NII-5, U-NII-6, U-NII-7, U-NII- 8
Antenna Types	Omni 4x4
Max Aggregated EIRP	<36dBm

EDGE PROCESSING

GPU	384 NVIDIA CUDA® cores and 48 Tensor cores
CPU	6-core NVIDIA Carmel Arm
Memory	16GByte Flash
Main AI Processor Performance	21 TOPS

Smart Solitaire3

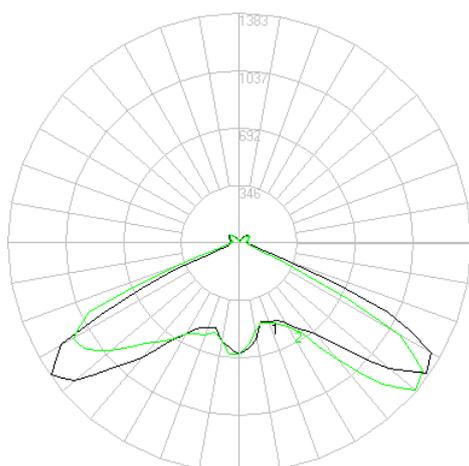
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STANDARDS (additional local standards applicable)
The product is designed to meet following standards:

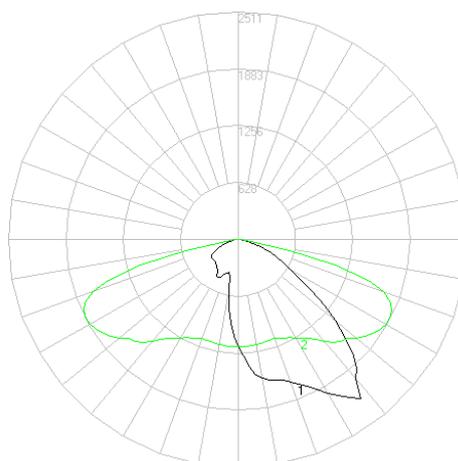
Group	Standard abbreviation	Description
EMC	FCC Part 15 Subpart B CISPR 32	Emission
	ETSI EN 301 489-1,3 ETSI EN 301 489-17,19	Immunity
Radio	ETSI EN 301 893 EN 300 220-1,2	Radio Standards
	FCC Part 15 Subpart C	
Photometrics	EN 13032-1 IESNA LM-79 – 2008	Photometric
	IEC 62471:2006 IEC62778 and IEEE1789	Photo-biologic, exempt Blue light
	IEC 60529, IEC60598-1	Protection rate
Mechanics and Environment	ETSI EN 300 019-1-4 Class 4.1 IEC60598-1	Environmental
	IEC 60598-2-3	Wind Load
	IEC 60598-2-3 IEC60598-1 IEC 62368-1	Contains: Dielectric strength Insulation resistance Leakage current Protection against electric shock Torque resistance of screws and fittings Weight/wind
Safety	UL 1598	UL Standard for Safety of Luminaires for the North America market
	IEC 62031	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

Photometric Curves

D02 Type VS, Symmetric



D01 Type II, Short



Mounting

- Integral die cast mounting pole stop feature
- 60 mm (2.36") – 76 mm (3.00") pole

Performance (4000K)

Power [W]	Typ. efficacy [LPW]	Total lumens [LM]
50W road lighting	100	5000

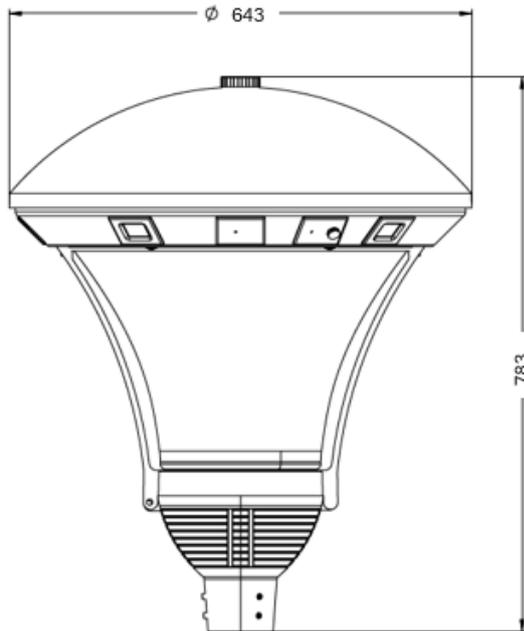
Package Contents

<input type="checkbox"/> Solitaire3 fixture	
<input type="checkbox"/> Six (6) Hexagon socket set screws	
<input type="checkbox"/> 3-pin AC junction box connector	
<input type="checkbox"/> RJ45 waterproof coupler	

Mechanical Dimension

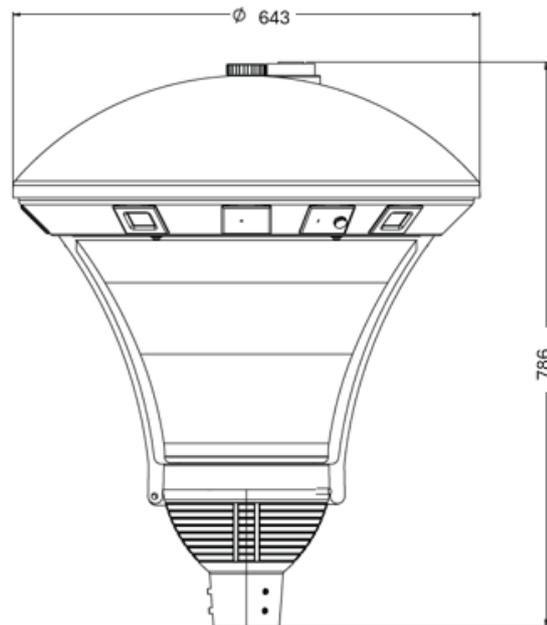
Solitaire3 without Nema

Height - 783mm/30.8 in
Diameter – 643mm/25.3 in



Solitaire3 with Nema

Height - 786mm/30.9 in
Diameter – 643mm/25.3 in



Packaging and Weight

Packaging Dimensions	Net Weight	Gross weight
820 x 695 x 695 mm 32.3 x 27.4 x 27.4 in	16.7 kg/36.8 lb	20 kg/44 lb

Ordering Information

Product	Family	CCT	NEMA	Distribution curve	IoT Connect
JLED-SL	Solitaire3	XX	xx	Dxx	PoE

CCT	30 - 3000K	
	40 - 4000K	Default
NEMA Socket	Blank - no NEMA	Default
	ND - with NEMA and Dali	
	NA - with NEMA and PWM	
Distribution curves (see distribution curve)	D02 - Type VS, Symmetric	Default
	D01 - Type II, Short	
IoT Connect	PoE - IoT Connect	

Ordering Example

Order Code: *JLED-SL-SOLITAIRE3-40-NA-D01*

Description

Smart Solitaire3 Street Light, 4,000K, Nema PWM, D01 Optics

Note: For additional CCT options and product colors contact Sales