Add smart, full-featured controls to your street lights.

Data sheet

Light Sense node for Intelligent Lighting

Light Sense node is designed to convert LED fixtures into intelligent focal centers, providing actionable insights that go far beyond illumination and mere granular lighting control. Our Smart Communities solutions and cloud-based IoT services are now at your fingertips.

Main features.

- Cellular connectivity enables gateway-free installation
- Advanced 4G LTE CAT-M IoT technology
- Auto-commissioning with integrated GPS
- Simple plug-and-twist mounting to luminaires via existing National Electrical Manufacturers Association (NEMA) 3, 5 and 7-pin photo-control socket in accordance with American National Standards Institute (ANSI) C136.41
- Advanced lighting control with on-board photocell, dimming, and schedule-based control
    - Dimming requires 0-10V dimmable driver and 5 or 7 pin socket
- Utility-grade energy measurement with metering Class 0.5 accuracy
- Measures and reports electrical and sensor data to NetSense® Lighting Application

Advanced 4G LTE IoT CAT-M IoT connectivity
No additional networking equipment is needed to deploy with 4G LTE connectivity. Fast, reliable, and nationwide** 4G LTE connectivity from Verizon Wireless allows for gateway-free deployment.

Lighting control
Light Sense node is connected to incoming AC mains and the LED driver/standard ballast. This direct connection provides on/off control and performance monitoring of the luminaire. Luminaire dimming control follows the 0-10V.

Onboard sensors
Light Sense node sensors include: GPS, photocell, utility-grade power metering and internal temperature.

Security
Light Sense node connects to the network using certificate-based authentication and encryption for each device.

Certifications
Underwriters Laboratories (UL), Federal Communications Commission (FCC)

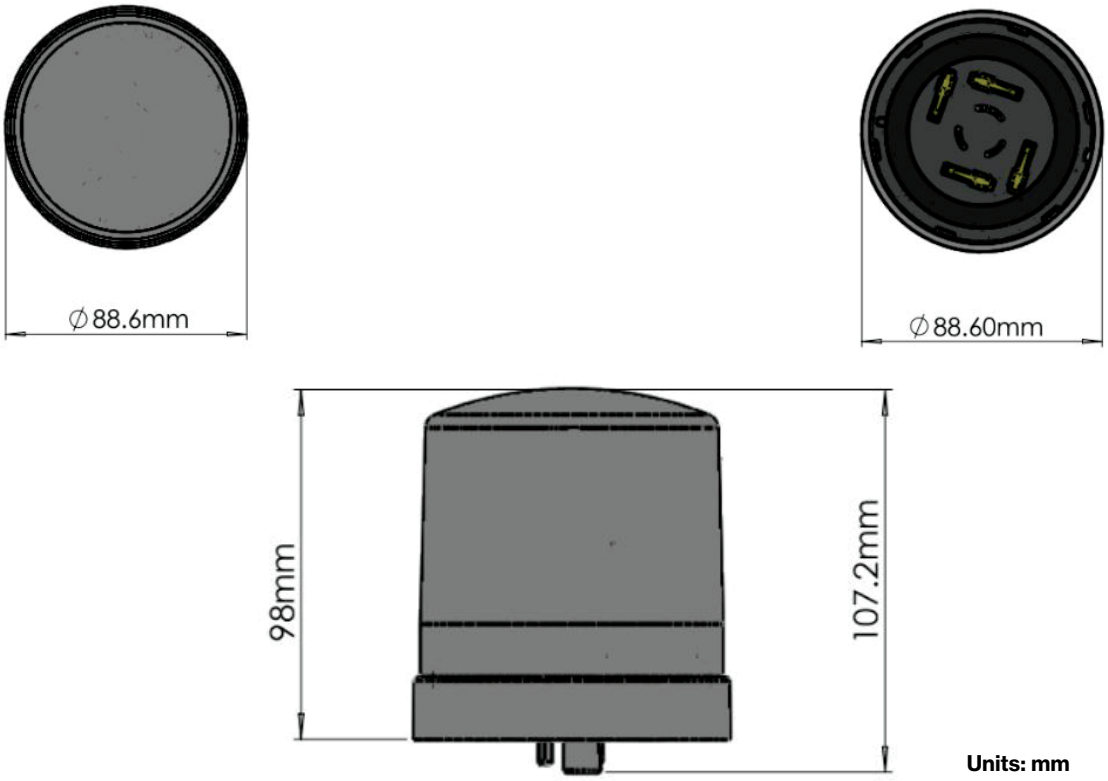
verizon

Product specifications

Order code	S80-000123
Communication	
Communication	Cellular (4G LTE) Lightweight machine-to-machine (LwM2M) protocol
LTE frequency bands	LTE band 4 and 13
Cellular data rate	LTE CAT-M
Security	
Encryption	DTLS1.2 PSK with 128-bit AES encryption
Power and electrical	
AC input voltage	120-277V/60Hz
Node power consumption	0.3W Typical (1.2W max)
Surge rating	6kV/10kA ANSI C136.2
Energy measurement	Metering accuracy ANSI C12.20 Class 0.5 (relevant sections)
On-board sensors	Photocell, GPS, power metering, internal temperature
GPS accuracy	3m (clear open sky)
LED Luminaire Control	
Ballast rating	E-Ballast and Standard/HID Ballast* rating of 5A max at 120V/277V 60Hz
Dimming control output	0-10V (current sinking, per IEC 60929 Annex E)
Photocell	
Operating levels	ANSI C136.10 Turn-on typical at 64 Lux, turn-off typical at 96 Lux, (On:Off ratio of 1:1.5), levels are configurable
Physical	
Mounting	Twist-lock National Electrical Manufacturers Association (NEMA) photo-receptacle (ANSI C136.41) 5-wire/7-wire receptacle
Weight	0.6 lbs
Color	Light gray
Dimensions	107.2 mm height x 88.6mm diameter
Environmental and compliance	
Water ingress	IP66, UL773 wet rated
Vibration	3G vibration per ANSI C136.31 2010
Operating temperature	-40°C to 55°C
Relative humidity operating range	5% to 95% non-condensing
Certifications	UL, FCC
Region of certification and LTE operation	USA

** For Standard/HID Luminaires support the luminaire must have main AC entry SPD rated at ANSI C136.2-2018 20kV/10kA*

Mechanical dimensions



Units: mm

Ordering information

Order code	Description
S80-000123	Light Sense node, 4G LTE, 0-10V, NEMA, 120-277V