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

Light Sense node for networked lighting controls.

The Light Sense node is an advanced, standards-compliant IoT device that transforms LED luminaires into intelligent network endpoints. It provides actionable data and insights that extend beyond basic illumination, driving measurable improvements in energy and operations savings, asset management, and public safety.

Main features

- Cellular connectivity enables gateway-free installation
- Advanced LTE CAT-M IoT technology
- Auto-commissioning with integrated GPS for rapid, error-free deployment and accurate location mapping
- Simple plug-and-twist mounting to luminaires via existing National Electrical Manufacturers Association (NEMA) 5- or 7-pin photo-control socket in accordance with American National Standards Institute (ANSI) C136.41
- Advanced lighting control featuring an on-board photocell and universal dimming with auto-detection of 0-10 V and DALI protocols
- Utility-grade energy measurement with metering Class 0.5 accuracy per ANSI C136.50
- Electrical and sensor data management and reporting to Verizon's Intelligent Lighting Central Management System (CMS) and 3rd party platforms via API
- Designed in accordance with ANSI C136.48 for Networked Lighting Controls (NLCs)

Advanced LTE CAT-M IoT connectivity

Fast, reliable nationwide LTE connectivity from Verizon Wireless allows for gateway-free deployment.

Networked lighting controls

Provides integral on/off switching control and performance monitoring by connecting to incoming AC mains and the LED driver/standard ballast. Supports both 0-10 V and DALI dimming standards with auto-detection.

Onboard sensors

The Light Sense node includes a comprehensive suite of sensors: GPS, photocell for ambient light sensing, utility-grade power metering, tilt detection, and an internal temperature sensor. Last gasp alerting is available as an optional add-on.

Security

The Light Sense node connects to the network using highly secure, certificate-based authentication and encryption for each device. Secure Boot helps prevent malware or unauthorized software from being loaded during the startup process.

Certifications

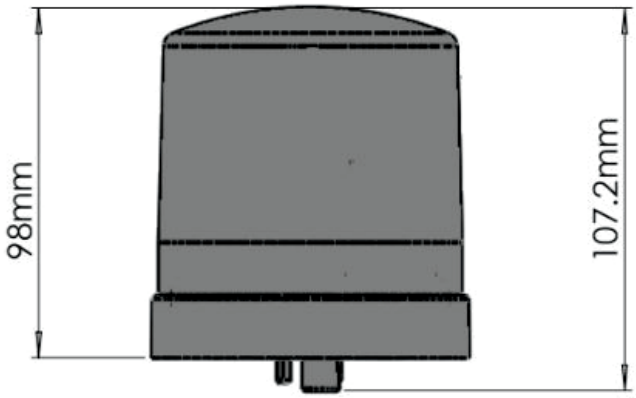
UL Certified
Federal Communications Commission (FCC)
PCS Type Certification Review Board (PTCRB)
Digital Addressable Lighting Interface (DALI) 2 and D4i

verizon business

Product specifications

Communication	
Communication	Cellular technology
LTE frequency bands	Verizon LTE bands 4 and 13
Cellular data rate	LTE CAT-M
Security	
Encryption	DTLS 1.3 PSK with 256-bit AES encryption
Device security	Secure boot
Power and electrical	
AC input voltager	120-277 V/60 Hz
Node power consumption	1.5 W typical (1.8 W max)
Surge rating	10kV/5kA ANSI C136.2 (Enhanced)
Energy measurement	Metering accuracy ANSI C12.20 Class 0.5 (relevant sections), IR pulse LED support for energy measurement. ANSI C136.50 compliant for meter device performance
Onboard sensors	Photocell, GPS, power metering, internal temperature, tilt, last gasp (optional)
GPS accuracy	3m (clear open sky)
LED luminaire control	
Ballast rating	EF Ballast and Standard/HID Ballast rating of 8.33A max at 120 V/277 V 60 Hz (1385VA rating)
Dimming control output	0–10 V DC and DALI 2.0 D4i certified with auto-detection
Photocell	
Operating levels	Turn-on typical at 16 Lux, turn-off typical at 24 Lux (On:Off ratio of 1:1.5) per ANSI C136.10
Physical	
Mounting	Twist-lock NEMA photo-receptacle (ANSI C136.41) 5-wire/7-wire receptacle. 3 pin w/o dimming
Weight	0.6 lbs
Color	Light gray
Dimensions	98 mm height (w/o NEMA base) x 88.9 mm diameter
Environmental and compliance	
Water ingress	IP66, UL773 wet rated
Vibration	3G vibration per ANSI C136.31 2010
Operating temperature	-40° C to 70° C (-40° F to 158° F)
Relative humidity operating range	5% to 95% non-condensing
Certifications	UL, FCC, PTCRB, DALI
Region of certification and LTE operation	USA

Mechanical dimensions



Ordering information

Order code	Description
S90-000100	Light Sense node, 120-277 V Gray