CityEdge Low-Profile Networked Lighting Controller

Secure, proven, two-way lighting control for a broad range of decorative luminaires

Though decorative fixtures make up a minority of the lights in a city, they provide an attractive aesthetic for certain portions of a city such as downtown areas or mixed-use developments. As with other street or outdoor lighting fixtures, the ability to monitor and control these lights is an important element of some utility and city lighting strategies. However, there are thousands of options for decorative fixtures with little standardization in design. If a decorative fixture does not include a top-mounted NEMA receptacle for photocontrol, an internal Networked Lighting Controller (NLC) is required. The CityEdge Low-Profile Networked Lighting Controller (NLC) is a compact controller that can be installed in a broad range of ANSI-compatible decorative luminaires to enable a full range of on/off control, dimming, consumption monitoring and more.

CityEdge NLCs are integrated with robust Itron industrial IoT (IIoT) communications and leverage the CityEdge Platform, the Central Management System (CMS) front end software, which together providing the best-in-class solution for efficient luminaire operation. The robust network capabilities and use of open standards such as IPv6 allow the network to support additional smart city applications such as traffic-light control, parking automation and other networked sensors for enhanced living.

This solution includes multi-layer security policy enforcement and monitoring with end-to-end encryption (AES-128/256) and access control to ensure protection of critical infrastructure and data. Deployment options include full product licensing or CMS as a service. If an external antenna is required, it must be mounted by the customer in the globe of the luminaire as per the ANSI C136.16 standard.

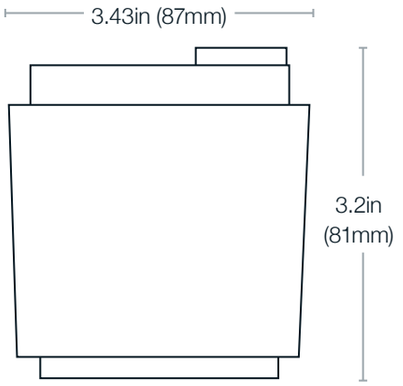
Key Features & Benefits of the Low-Profile NLC:

- Compact design that can be installed in a broad range of ANSI-compatible decorative luminaires across the U.S. and Canada
- Proven quality and reliability with over 30 years of lighting control experience
- Proven Itron networking technology— Over 90 million connected devices
- Up to 65% energy savings when deployed in conjunction with LED lights

Key Features & Benefits of the Low-Profile NLC (continued):

- Up to 40% operational savings through control and monitoring
- Robust multi-layer security with end-to- end encryption and full PKI (X.509) infrastructure
- Redundant, auto-healing, auto configuring network using open standards such as IPv6 and IEEE 802.15.4g
- Over-the-air configuration and firmware upgrades
- Economic scalability from small pilots to metropolitan or country-wide deployments
- Energy metrology up to 0.5% accuracy, with per day, per hour, or per minute records and robust utility billing integration
- Infrared Meter Calibration Interface per ANSI C136.50
- Compatible when plugged into NEMA 5 & 7-pin receptacles

CITYEDGE LOW-PROFILE NLC: SECURE, PROVEN, TWO-WAY DECORATIVE LIGHTING CONTROL



Technical Specifications

Metering Accuracy	0.5% Energy Accuracy per ANSI C136.50
Metering Range	105 – 305VAC, 10Amps RMS
Turn ON Light Level	16 or 35 Lux (1.5 or 3.25 fc), other levels available on request. Can also be set by schedule.
Housing Material	UV Stabilized Polycarbonate
Enclosure Sealing	IP53
Dimensions	H 3.20in (81mm) x D 3.43in (87mm); Weight 0.55lb (248g)
Switch Ratio (OFF:ON)	Typically 1.5:1; however, configurable to your requirements.
Warranty	10 years
Rated Load	1000W / 1800 VA
Maximum Load Current	10 Amps
Operating Voltage	105-305VAC (50/60Hz)
Operating Temperature Range	-40ºC to +70º C (-40ºF to +158ºF)
Circuit Power Consumption	<2Watts Average Power @120 VAC
Tilt	Embedded Tilt Sensor
Manufacturing Standard	EN ISO 9001:2015
Photo Control designed to satisfy the following standards	BS5972, ANSI C136.10, ANSI C136.41, UL773/ CSA C22.2, EMC EN55015, EN61547 EN61000-3-2, EN61000-3-3, EN61347
Compliance	RoHS, FCC, CE
Options for controlling LED driver for Dimming	DALI, 0-10V, Universal Auto-Detect
Itron Networking Specification	Frequency- Hopping Spread Spectrum up to 300kb/s mesh networking. Automatic data routing with self-configuration, auto-healing & redundant uplinks, IPv6 transport. Full application & link-layer security with full PKI, AES-128 and -256, and embedded firewall.
MOV Protection	420J, 20kV/10kA; Exceeds Extreme Surge requirements of ANSI C136.10.
External Antenna	External antennas should be pre-installed in the luminaire by the customer to the ANSI C136.16 standard. Itron does not install or retrofit luminaires with external antennas.
External Antenna Selection & Mounting Guidelines	Itron can provide specifications for compatible antennas in our Guidelines for Decorative Street Light Antenna Installation document upon request.

Examples of Tested Antennas that have met the Guidelines criteria:

Vendor	Model	Datasheet
World Products	WP ANT30100-S4A WP ANT30105-R1A	WPANT30100 Datasheet_Rev 3.pdf WPANT30105 Datasheet_Rev 1.pdf
Pasternack	PE51RD1009	PE51RD1009.pdf

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