LIGHTGRID+

WIRELESS OUTDOOR LIGHTING SYSTEM

Current

LIGHTGRID+

Monitor, Manage and Measure Outdoor Lighting Wirelessly

Current's LightGRID+ wireless outdoor lighting management platform provides insight into the operation of entire sites. Whether used for roadway lighting, an office park, a university campus, an airport parking structure, or an entire campus, LightGRID+ has the software and hardware solutions needed to monitor, manage and measure the success of the project.

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Safety First

Keeping outdoor areas safe is paramount to communities. Well-designed and well-maintained luminaires are costly and important assets for any outdoor or public installation. Without maintenance, lighting can become a liability. In the past, expensive labor and equipment were needed to ensure safety, beyond just energy costs. Using the Manage, Monitor and Measure concepts, the LightGRID+ wireless outdoor lighting control system builds on the energy and maintenance savings of an LED lighting installation by reducing money wasted on “lights out” calls, maintenance crew sweeps, as well as control strategies that exceed today's code requirements.

Versatile Operation with Peace of Mind

LightGRID+ enterprise software suite offers real-time asset management using customizable maps and dashboard-driven pages, to get immediate visual confirmation of safe operation status, energy savings, and peak efficiency.

Invaluable Insights

Data generated by LightGRID+ advanced energy management tools, revenue-grade metering and 24/7 diagnostic reporting with configurable alert notifications, can be used to improve the bottom line by managing key lighting control strategies.

Unparalleled Scalability and Flexibility

LightGRID+ provides the ability to monitor, manage, and meter a vast number of lighting assets creating an optimized, resilient lighting infrastructure.

Open Connectivity

LightGRID+ uses a highly secure wireless network to ensure critical data is locked down. The software can be reliably integrated with 3rd party systems to combine technologies when needed.

LightGRID+ Core Capabilities

Manage
Setup and code compliance are simple using the LightGRID+ software suite. Lights with wireless nodes are placed on maps or site plans and configured to meet code.

Monitor
No more calls about a luminaire being out – you know it first. The LightGRID+ system provides 24/7 monitoring of each luminaire with alarm notifications via SMS or email.

Measure
Revenue-grade metering enables you to determine just how much energy is being consumed by individual luminaires, sites or an entire city.

LightGRID+ Delivers Solutions for Any Outdoor Application

The LightGRID+ platform offers lighting control solutions for virtually any outdoor application. From parking lots to smart cities, LightGRID+ has proven robustness and scalability provides cost-effective and flexible solutions that meet application requirements and energy codes, maximizes energy savings and simplifies outdoor lighting operations.

Parking Lot

- Astronomical time-clock scheduling
- Scheduled-based dimming with motion control
- Supports high/low trim settings

Parking Deck

- Motion sensor controlled zones/levels
- Photocell control of perimeter zones
- Entry adaptation zone lighting control

Smart Campus Lighting

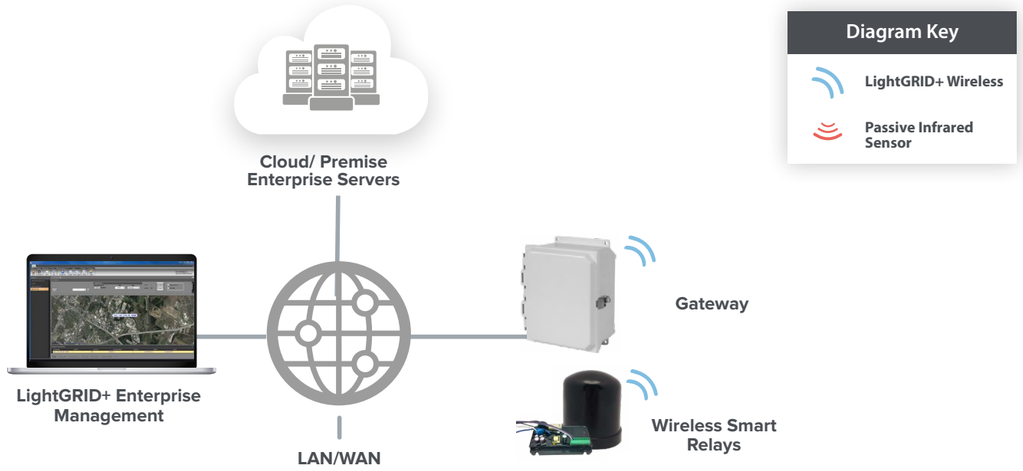
- Supports very large scale networks
- Provides integration of other device types - water & sewer meters, gun shot detectors, etc.
- Supports and responds to external signals (e.g. Demand Response)

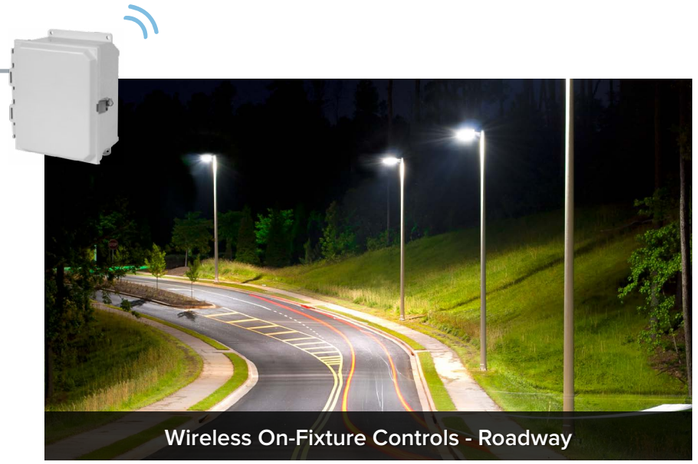
Roadway and Outdoor Area Lighting

- Large scale, multi-site management with dashboard analytics
- Revenue-grade energy metering
- Automatic generation of energy usage reports

LightGRID+ Architecture

LightGRID+ provides a seamless, code compliant lighting control solution using wireless technology. Wireless modules control the luminaires and communicate over the air to a LightGRID+ Gateway. The LightGRID+ Gateways monitor the health of the modules and retrieve metering information. The LightGRID+ Enterprise Server retrieves information from the Gateways over a standard Ethernet/Cellular network and presents that information in a customized dashboard.





LightGRID+-enabled luminaires provide you the breadth and flexibility to address all your project requirements today and in the future. **For luminaires with LightGRID+ options please visit currentlighting.com**

Fixture Modules

External Fixture Module

- On/Off control with full-range dimming
- Compliant with ANSI C136-41 (7 & 5 pin) twist-lock receptacles
- Internal photocell for out of the box operation

Internal Fixture Module

- On/Off control with full-range dimming
- 5 Digital / analog low voltage inputs for motion sensors, photocells, and low voltage switches
- 2 Digital low voltage outputs for driving external devices (e.g. lighting contactors)

Zone Control

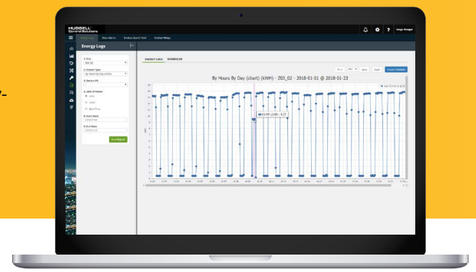
Gateway

- Autonomously manages up to 500 modules
- Astronomical & fixed time scheduling
- Supports network connectivity via Ethernet connection or optional cell modem.

Enterprise Multi-Zone Control & Management

LighGRID+ Enterprise

A powerful server solution that can handle a vast, city-wide network of nodes. Enterprise conveniently combines the information from multiple gateways to provide network-wide data analytics on energy usage and system activity. The LightGRID+ Enterprise Server software features an easy-to-use, web browser-based GUI interface with customizable dashboard, and the server software can be installed on premise or made available as a hosted Software as a Service (SaaS) solution.



Accessories

External Photocell

- On/Off photcell
- Pre-programmed for out-of-the-box photocell operation
- On/Off lighting circuit control with 0-10V full-range dimming

Low Voltage Motion Sensors

- Digital Passive Infrared (PIR) sensor
- High/low area detection options
- End-mount and surface-mount versions
- Bluetooth versions available
- IP65 and low-temperature operation

Low Voltage Wall Switches

- Attractive, architecturally pleasing design
- Momentary and latching versions available
- 1-3 buttons

Code Compliance at Every Level of Scalability

LightGRID+ software efficiently meets stringent energy codes and improves safety and performance over time. Using visual tools, including site maps, icons, and navigation tools, LightGRID+ can remotely and securely manage multiple sites from anywhere. The hardware at each light is minimal, and uses industry-standard plug modules and rugged gateways.

	ENERGY CODES			LightGRID+ SOLUTIONS	
	ASHRAE 901.1-2019	IECC-2021	TITLE 24 PART 6-2019	Modules	Gateway
OUTDOOR					
Daylight OFF	9.4.1.4(a)	C405.2.7.1	130.2(c) 1	✓	✓
Astronomical Timeclock	9.4.1.4(b)	C405.2.7.4	130.2(c) 2	✓	✓
Motion	9.4.1.4(c.2), 9.4.1.4(d)	C405.2.7.3.1.3, C405.2.7.3.2	130.2(c) 3	✓	✓
Curfew	9.4.1.4(c.1)	C405.2.7.3.1.1, C405.2.7.3.1.2	-	✓	✓
Demand Response	-	-	-	Contact Closure	BACnet IP
BMS Integration	-	-	-	Contact Closure	BACnet IP

Continuous Daylighting
Automatically turns the lights off based on the amount of daylight

Curfew
Automatically turns lights down to a reduced level during specific hours of the day

Scheduling/Time Clock
Controls light levels based on sunrise/sunset and project location

Demand Response
A defined temporary reduction of lighting load or load shedding in response to a request from an energy authority such as a utility or regional transmission operator

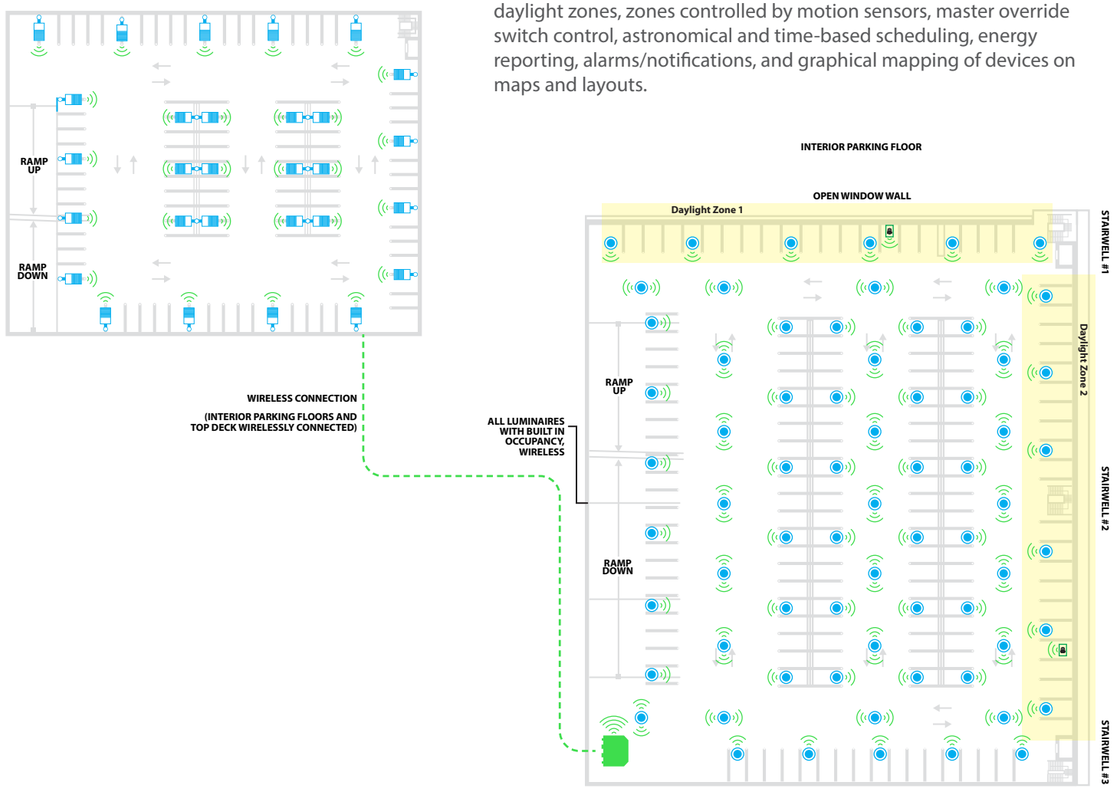
Motion
Automatically turns lights down to a reduced level after all occupants leave the area

BMS Integration
The data exchange for control and monitoring from a facilities Building Management System or Energy Management System using a common protocol such as BACnet®

PARKING LOT/DECK APPLICATION GUIDE

ASHRAE 90.1 | IECC 2015 | Title 24 Part 6

Parking lots and decks represent the typical applications where LightGRID+ is deployed since they require many of the outdoor lighting control features provided by LightGRID+ - On/Off photocell control, daylight zones, zones controlled by motion sensors, master override switch control, astronomical and time-based scheduling, energy reporting, alarms/notifications, and graphical mapping of devices on maps and layouts.



KEY

WIR-GATEWAY3 | Wireless Connectivity | PGL8 with WIR-RMI-IO | Beacon Viper with WIR-RME-L | WIR-PHOTOCELL

BILL OF MATERIALS

QTY.	Catalog #	Description
1	WIR-GATEWAY3	LightGRID+ Gateway Gen3, 2.4GHz, GPS, wiSCAPE-Express, 120/208/240VAC
70	PGL8 with WIR-RMI-IO	LightGRID+ Internal Fixture Module with Metering, 2.4GHz Radio, I/O Terminals, 120-480VAC
29	BEACON VIPER with WIR-RME-L	LightGRID+ External Fixture Module with Metering, 2.4GHz Radio, 110-480VAC
1	WIR-PHOTOCELL	LightGRID+ Photocell, On/Off Control, 2.4GHz Radio, NEMA 4X Enclosure, 120-480VAC

PRODUCTS

WIR-GATEWAY3

- Autonomously manages up to 500 fixture modules
- Astronomical and fixed time scheduling
- Supports network connectivity via Ethernet connection (Standard) or optional cellular modem

WIR-RMI-IO

- On/Off lighing control with 0-10V full-range dimming
- Digital and analog inputs for low-voltage switches, motion and photo sensors
- Revenue grade metering (+/- 0.5% accuracy)

WIR-RME-L

- On/Off lighting control with 0-10V full-range dimming
- Compliant with ANSI C136-41 (7 & 5 pin) twist-lock receptacles
- Built-in internal on/off photocell

WIR-PHOTOCELL

- On/Off photocell
- NEMA 4X enclosure with ANSI C136-41 7 pin twist-lock receptacle
- On/Off lighting circuit control with 0-10V full-range dimming

CONTROL INTENT

ASHRAE 90.1-2019
- Astronomical Time Clock - 9.4.1.4(b)
- Motion - 9.4.1.4(c.2), 9.4.1.4(d)
- Daylight OFF - 9.4.1.4(a)

IECC-2021
- Astronomical Time Clock - C405.2.7.4
- Motion - C405.2.7.3.1.3, C405.2.7.3.2
- Daylight OFF - C405.2.7.1

Title 24 Part 6-2019
- Astronomical Time Clock - 130.2(c) 2
- Motion - 130.2(c) 3
- Daylight OFF - 130.2(c) 1

SOLUTION STRATEGY

- Use LightGRID+ external fixture modules with photocell for top deck of parking garage
- Use LightGRID+ internal fixture modules for parking stalls, driving aisles, entry/exit and stairwell areas
- Use LightGRID+ Gateway for astronomical and standard schedules

BEST PRACTICE LAYOUT

- For the interior floor parking areas, group occupancy sensors into zones
- Place photocell modules with northern and/or southern exposure
- Ensure that wireless fixtures have direct line of sight of one another and are within 100 ft from the next wireless fixture

OPERATIONAL DESCRIPTION

- Multi-zone daylight harvesting for exterior walls
- On to high level upon occupancy / Dim to low level upon vacancy
- Dusk to dawn ON/OFF control for top deck and entry/exit zones

Comprehensive Support Options to Meet Project Needs

Contact Us

Call (800) 888-8006 and selct one of the options listed above

Tech Support Hours: 7:00am - 7:00pm EST, Monday - Friday

Quotes, Applications, Layouts and Submittal Requests:
controls-Design@currentlighting.com

Technical Support (troubleshooting, specifications, programming):
controls-tech@currentlighting.com

Option 1
Tech Support

Option 2
Field Commissioning

Phone and Online Support

While it is our goal to provide you with intelligent, simple and scalable control solutions, customer experience level and project complexity may necessitate additional support during the design development, construction and post-occupancy stages of a project. The support team is available for consultation to evaluate multiple control scenarios to identify the ideal lighting control device or system to meet energy code requirement and customer criteria. Additionally, our team of friendly and experienced professionals is enabled to assist on-site personnel, such as installation contractors, third party integrators, certified field technicians and facilities personnel, to quickly resolve issues and provide additional support.

Design Services

Our team of lighting control system design professionals are available to provide sensor layouts, networked system design services and third party integration support for new and retrofit projects. Our goal is to provide you with on-time and accurate delivery of design deliverables optimized for your specific application, compliant with local building codes and project specifications.

On-site Support

Current offers on-site support service to ensure your project goes smoothly. While Current products are designed with simplicity in mind, some projects may benefit from a Certified Field Technician to perform an on-site pre-installation walk-through, after-hours and remote startup assistance, occupant training, sensor tuning, preset programming and other pre/post-occupancy services.

Warranty

Current provides a 5-year limited warranty for LED luminaires and Lighting Controls devices.

GRID+ LIGHTING

Current

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currentlighting.com

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