









# Monitor, Manage and Measure Outdoor Lighting Wirelessly

WiSCAPE® wireless outdoor lighting management platform provides insight into the operation of entire sites. Whether used for an office parking lot, a university campus, an airport parking structure, or an entire campus, wiSCAPE 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 wiSCAPE® 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

wiSCAPE's 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 wiSCAPE's advanced energy management tools, utility-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

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



# **Open Connectivity**

wiSCAPE 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.



# wiSCAPE's Core Capabilities

# Manage

Setup and code compliance are simple using the wiSCAPE 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 wiSCAPE system provides 24/7 monitoring of each luminaire with alarm notifications via SMS or email.

### Measure

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



# wiSCAPE® Delivers Solutions for Any Outdoor Application

The wiSCAPE platform offers lighting control solutions for virtually any outdoor application. From parking lots to smart cities, wiSCAPE's 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)



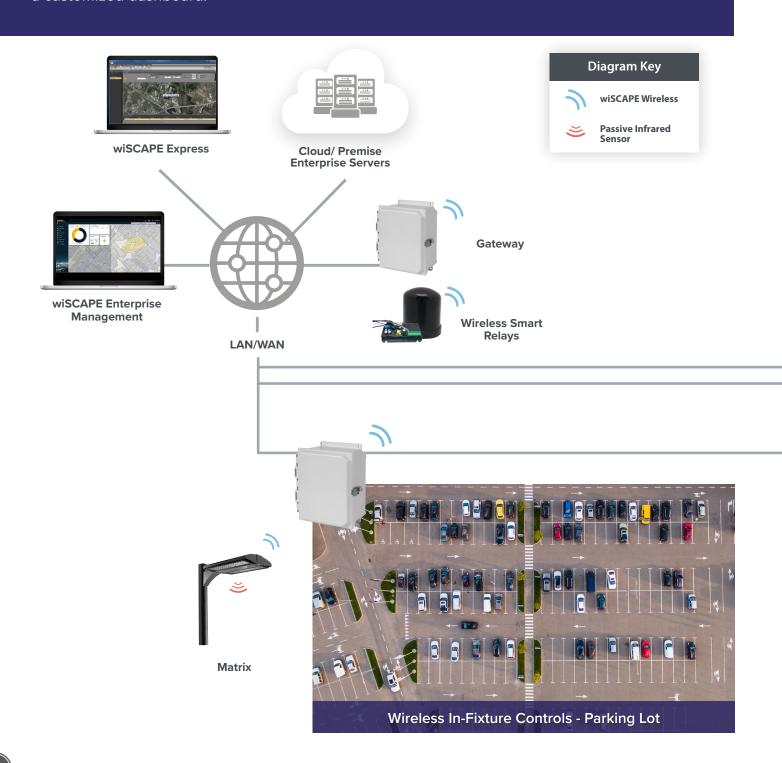
## **Outdoor Area Lighting**

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



# wiSCAPE® Architecture

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















Orbeon



wiSCAPE®-enabled luminaires provide you the breadth and flexibility to address all your project requirements today and in the future. For a complete list of luminaires with integrated wiSCAPE options please visit www.currentlighting.com

# Fixture Modules



#### **External Fixture Module**

- On/Off control with fullrange 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
- 3 Digital inputs for motion sensors, photocells, and low voltage switches
- 2 Dry contact outputs for driving external contractors

# **Zone Control**



#### **Gateway**

- Autonomously manages up to 1000 modules
- Astronomical & fixed time scheduling
- Supports network connectivity via Ethernet connection or optional cell modem.

# Enterprise Multi-Zone Control & Management

#### wiSCAPE 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 wiSCAPE 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-ofthe-box photocell operation
- On/Off lighting circuit control with 0-10V full-range dimming



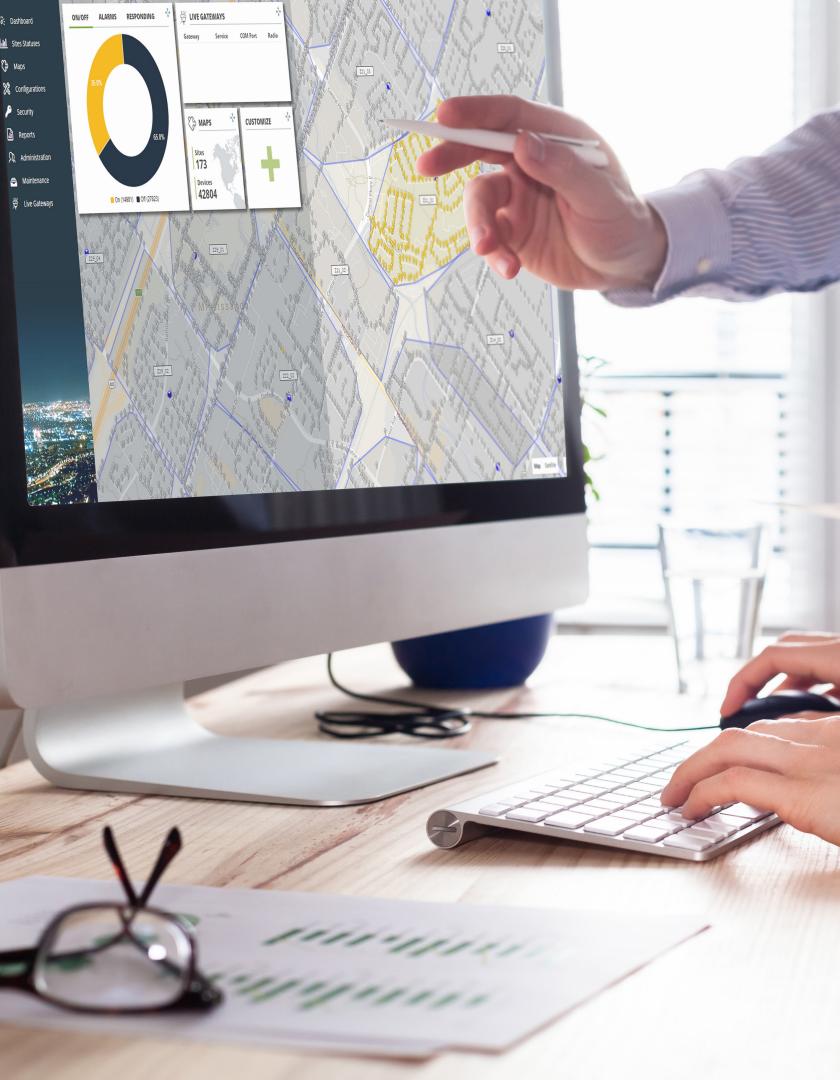
#### **Outdoor Lux Meter Sensor**

- Interfaces with Energy Management Systems
- Foot-candle range: 0-250FC
- Mounts horizontally Interfaces with Energy Management Systems
- Foot-candle range: 0-250FC
- · Mounts horizontally



#### **Low Voltage Wall Switches**

- Attractive, architecturally pleasing design
- Momentary and latching versions available
- 1-4 buttons





# Code Compliance at Every Level of Scalability

wiSCAPE software efficiently meets stringent energy codes and improves safety and performance over time. Using visual tools, including site maps, icons, and navigation tools, wiSCAPE 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.

#### **FITLE 24 PART 6-2019 ASHRAE 90.1-2019** Modules Gateway OUTDOOR 9.4.1.4(a) C405.2.7.1 130.2(c) 1 **Daylight OFF** 9.4.1.4(b) C405.2.7.4 130.2(c) 2 **Astronomical Timeclock** 9.4.1.4(c.2), C405.2.7.3.1.3, 130.2(c) 3 Motion 9.4.1.4(d) C405.2.7.3.2 C405.2.7.3.1.1, Curfew 9.4.1.4(c.1) C405.2.7.3.1.2 Contact **Demand Response BACnet IP** Closure

**ENERGY CODES** 



**BMS** Integration

#### Continuous Daylighing 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

Contact

**BACnet IP** 

**WISCAPE SOLUTIONS** 



#### 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

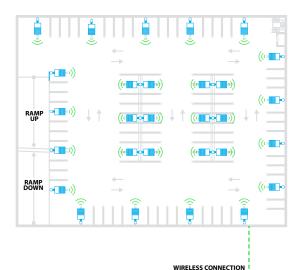
The data exchange for control and monitoring from a facilities Building Management System or Energy Management System using a common protocol such as BACnet®

## PARKING LOT/DECK APPLICATION GUIDE





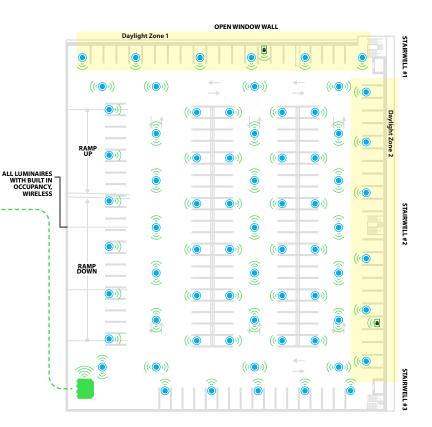




(INTERIOR PARKING FLOORS AND TOP DECK WIRELESSLY CONNECTED)

Parking lots and decks represent the typical applications where wiSCAPE is deployed since they require many of the outdoor lighting control features provided by wiSCAPE - 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.

#### INTERIOR PARKING FLOOR



#### **KEY**











## **BILL OF MATERIALS**

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



#### **WIR-GATEWAY3**

- Autonomously manages up to 1000 fixture modules
- Astronomical and fixed time scheduling
- Supports network connectivity via Ethernet connection (Standard) or optional cellular modem



**WIR-PHOTOCELL** 

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



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-EXPRES

- Windows®-based client application with intuitive Graphical User Interface (GUI)
- Easy management of devices, groups, scenarios and schedules
- Geographical mapping of devices on maps or layouts



WIR-RME-

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

#### **CONTROL INTENT**

#### **ASHRAE 90.1-2019**

- Astronomical Timeclock 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 Timeclock 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 Timeclock 130.2(c) 2
- Motion 130.2(c) 3
- Daylight OFF 130.2(c) 1

## **SOLUTION STRATEGY**

- Use wiSCAPE external fixture modules with photocell for top deck of parking garage
- Use wiSCAPE internal fixture modules for parking stalls, driving aisles, entry/exit and stairwell areas
- Use wiSCAPE 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 Service**

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.





## **HLI Solutions, Inc**

701 Millennium Blvd. Greenville, SC 29607

#### currentlighting.com

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