



MUNICIPALITIES



UTILITIES



CAMPUS



COMMERCIAL/  
INDUSTRIAL

## Wireless Monitoring and Control for Outdoor Area Lighting



## WHY ROAM®?

ROAM is a wireless outdoor lighting management system that delivers flexible control strategies for minimizing maintenance costs, optimizing energy use and providing a safe nighttime environment. The comprehensive product portfolio is unlimited in scale and can be centrally or locally hosted. With numerous deployments across the U.S. and Canada, ROAM is the proven leader in wireless control solutions.

Customers significantly reduce operating costs and optimize the performance of outdoor lighting systems when using ROAM's award-winning technology. Through a robust mesh network, ROAM devices wirelessly communicate with a data center to deliver state-of-the-art monitoring, control and measurement.

ROAM also offers the flexibility customers need to fit a wide range of applications – from individual parking lots to large municipalities, new construction or retrofit. With a complete portfolio of solutions, ROAM has the right platform for every outdoor lighting need.

### SPECIFIC APPLICATIONS

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## ROAM Technology: Proven Performance for Multiple Applications

- ▶ ROAM Concierge offers a centrally hosted system for customers that don't want to make any IT infrastructure investments.

ROAM's ability to monitor and precisely control your outdoor lighting does much more for your bottom line than just help save on energy costs.

“ **Monitor. Control.**  
And so much more... ”

### ROAM also:

- Continuously monitors for equipment malfunctions and unusual conditions that may lead to premature failure such as faulty equipment, daytime operation, low and excessive wattage and high and low voltage;
- Automatically notifies the system operator of problems;
- Enables scheduled and on-demand ON/OFF and dimming control for individual or groups of fixtures;
- Provides an accurate measurement of operating hours and power from a single, web-based interface with customized reports;
- Generates information about the outdoor lighting system for energy analysis, energy savings verification, warranty enforcement and other purposes; and
- Delivers billable-quality energy data allowing transition from flat-rate to metered energy billing\*.

\* With ROAM metering node

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## APPLICATION: MUNICIPALITIES

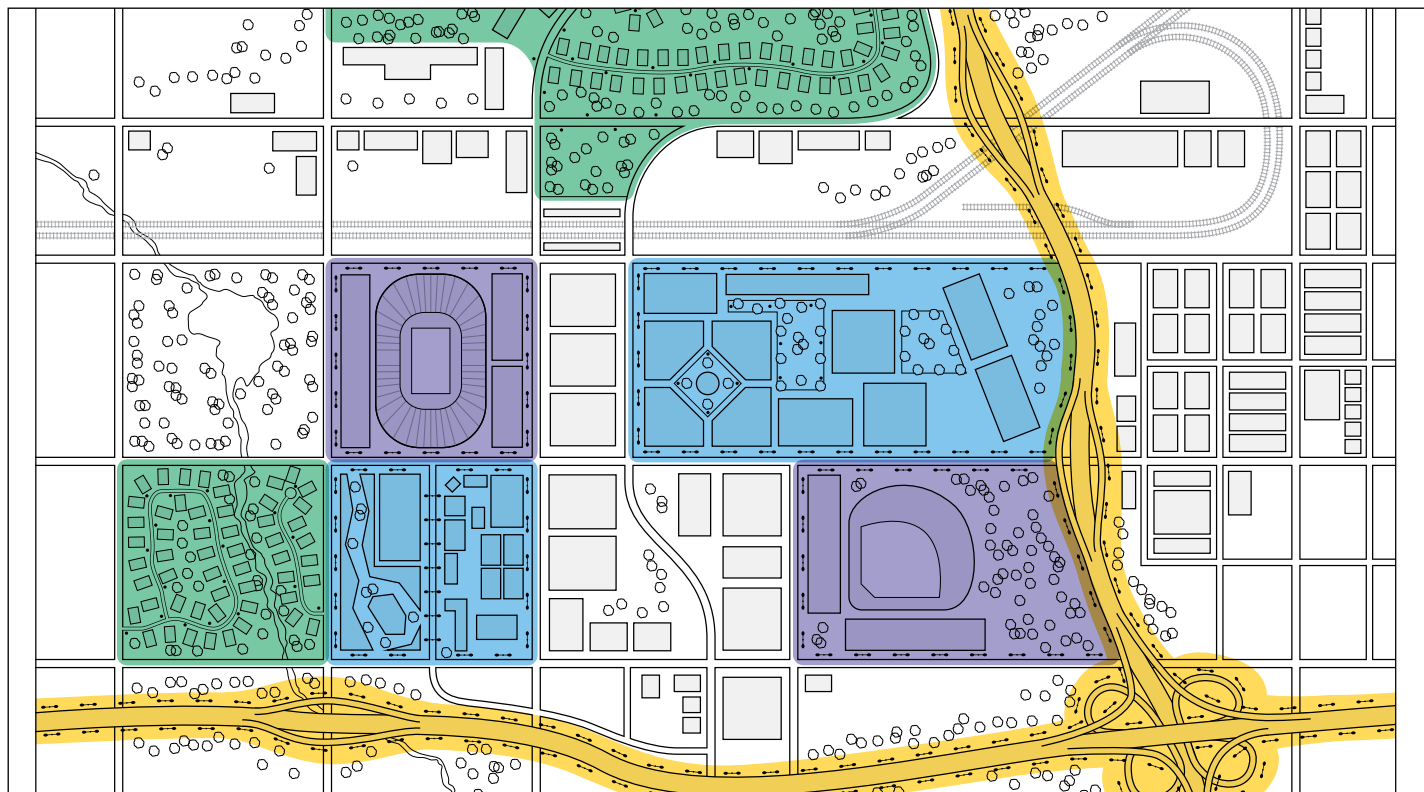
ROAM represents a complete transformation in the way street lighting is operated and maintained. Now cities and municipalities can proactively manage their lighting assets.

- Maintenance savings: Optimize maintenance practices by repairing fixtures at the first sign of malfunction. Dispatch repair crews and ensure repair completion utilizing the ROAM work order management tool.
- Energy savings: Through dimming and ON/OFF control of individual or groups of lights, ROAM gives lighting system operators the capability to drive energy savings and accelerate return on investment in outdoor lighting systems while extending LED product life. Owners can use ROAM's revenue-grade node to validate utility bills.
- Safety and security: Ensure streetlights are operating properly to enhance roadway safety, provide a proven deterrent to crime and reduce liability.
- Feature/event lightings: Group fixtures and create schedules to enhance select areas during special events and holidays.
- Record keeping: Store historical data regarding lighting performance. Track maintenance and equipment replacements, generate reports on maintenance and repair activities and capture warranty claims.

*Enhance your outdoor nighttime environment*



# Proactively Manage Lighting Assets



Drive energy savings by controlling when lights go on and off each day.

## LEGEND

	Part-Night	Remotely schedule on/off/dim times to shorten burn cycle and put the right amount of light in an area only at times it is needed.
	Dusk-to-Dawn	Lights turn on or off based on pre-set sensing of ambient light conditions.
	Dusk-to-Scheduled-Off	Lights turn on at pre-set ambient light sensing levels but go off or dim based on scheduled times set remotely by the user.
	Trimming	Remotely adjust schedules for on/off/dim times based on offsets from official sunrise and sunset. Shorten the time lights are on without impacting public safety or lighting performance.

## APPLICATION: UTILITIES

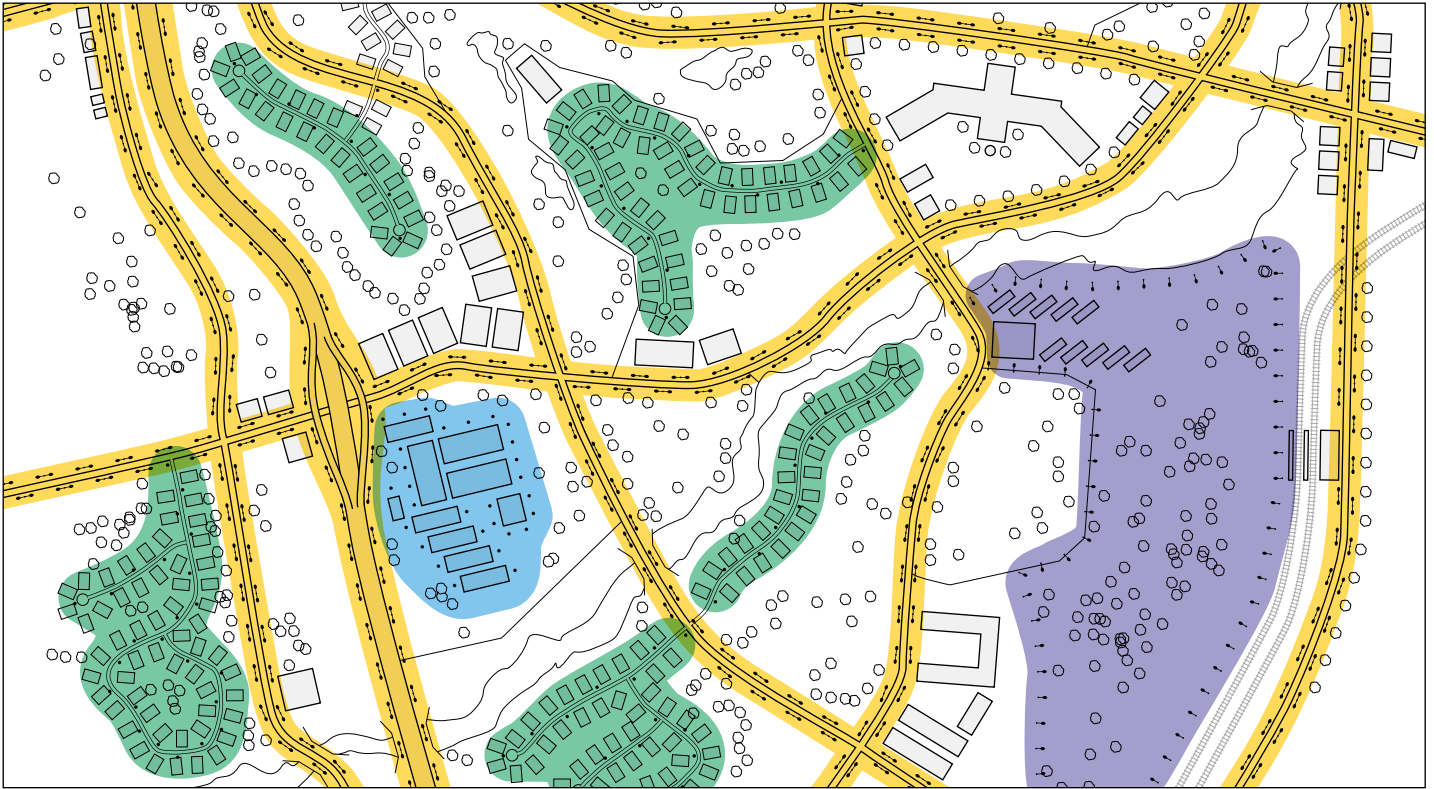
Significantly improve the efficiency of your lighting system operations while enhancing public safety and delivering state-of-the-art control and metering solutions to your customers. ROAM extends the benefits of LED fixtures by preserving LED life and enhancing opportunities for energy savings through dimming.

- **Increased efficiency:** Improve the efficiency of your lighting repair crews by providing the exact location and material needs for every repair, and utilize ROAM's work order management tool to expeditiously assign, close and verify repair activities. Eliminate night patrols, repeat trips and customer calls to your call center.
- **Asset management:** Pinpoint the location and business critical attributes of every pole and fixture ensuring crews have needed information and materials to make repairs in one trip.
- **Safety and security:** Ensure lights are working when and where they need to be. Quickly detect and repair fixture problems, improving public safety and customer satisfaction.
- **Reduce liability:** Greatly improve the burn rate of your lighting system by responding to outages as they occur. Eliminate long outage periods and establish precise records of operation for each fixture.
- **Energy savings:** Separately group and schedule fixtures to match light levels with user/event needs. Capture and deliver energy savings to your customers with revenue-grade metering of energy use on every fixture.
- **Record keeping:** Capture and store historical data regarding your lighting assets. Track maintenance and equipment replacements and generate reports on maintenance and repair activities to support warranty claims and purchasing decisions.

*Proactively manage your outdoor lighting assets*







# Improve Public Safety and Deliver Energy Savings



Enhance the security of city streets and thoroughfares by monitoring your outdoor lighting system to ensure outages are fixed in a timely manner.

## LEGEND

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	<b>Trimming</b>	Remotely adjust schedules for on/off/dim times based on offsets from official sunrise and sunset. Shorten the time lights are on without impacting public safety or lighting performance.

# APPLICATION: LARGE CAMPUS AND UNIVERSITY

Ensure a safe and secure nighttime campus environment by rapidly and accurately addressing lighting issues for individual or multi-site campus areas, while reducing total energy costs for lighting.

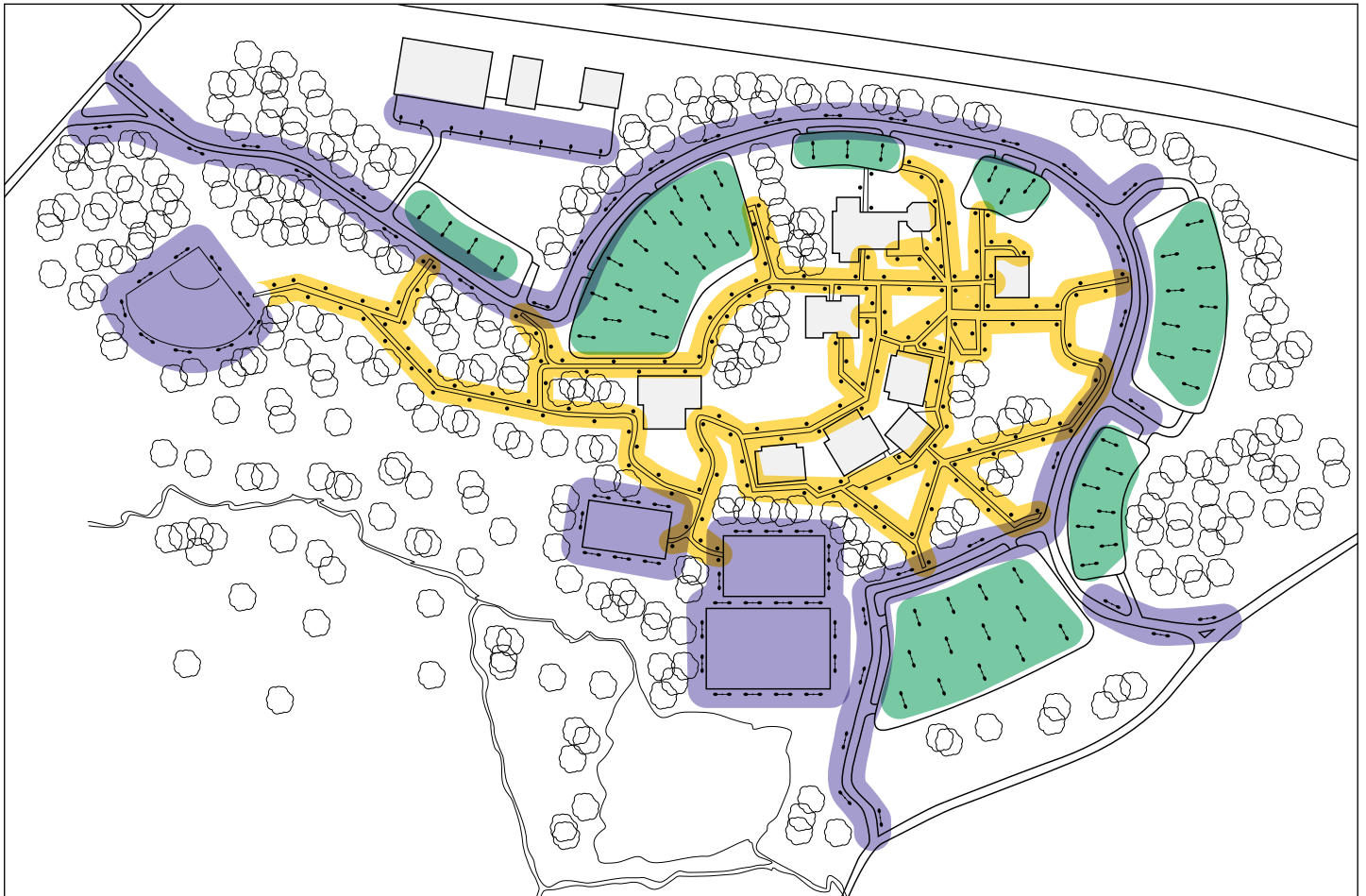
- Campus and student safety and security: Enhance student safety and reduce risk by ensuring lights are ON when and where they need to be. Quick detection and repair of fixture problems provide a more secure nighttime environment.
- Maintenance efficiency: Increase maintenance efficiency by using the ROAM system to monitor fixtures and detect outages. If an outage is detected, work orders are generated and the location of the fixtures is provided via GPS coordinates. Quickly detecting, locating and repairing fixtures significantly reduces maintenance costs.
- Feature lighting: Showcase building and other priority site locations through grouping and scheduling.
- Energy savings: Minimize energy costs through proven control strategies such as scheduling, part-night dimming or ON/OFF or dusk-to-dawn shutoff.
- Asset protection: Rapidly detect operating problems that can shorten the life of fixtures, while extending service life through dimming, alternating lamp usage through grouping and identifying daytime operation. System offers a single control point regardless of fixture type or light source.
- Ease of retrofit: A typical fixture can be ROAM-enabled within minutes, without costly lamp replacement, trenching or new lighting panels.
- Seamless interface: After installation, simply log on to the secure internal website using any web browser to begin monitoring and controlling the lighting system, with no special computer work or support required.

*Showcase building and other priority site locations*









# Enhance Security and Manage Risk



*Provide safety and security to the on-campus environment by ensuring optimal lighting levels are reliably maintained, as outages are quickly identified or prevented.*

## LEGEND

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 <p>Dusk-to-Dawn</p>	<p>Lights turn on or off based on pre-set sensing of ambient light conditions.</p>
 <p>Dusk-to-Scheduled-Off</p>	<p>Lights turn on at pre-set ambient light sensing levels but go off or dim based on scheduled times set remotely by the user.</p>
 <p>Trimming</p>	<p>Remotely adjust schedules for on/off/dim times based on offsets from official sunrise and sunset. Shorten the time lights are on without impacting public safety or lighting performance.</p>

# APPLICATION: MULTI-SITE COMMERCIAL AND INDUSTRIAL

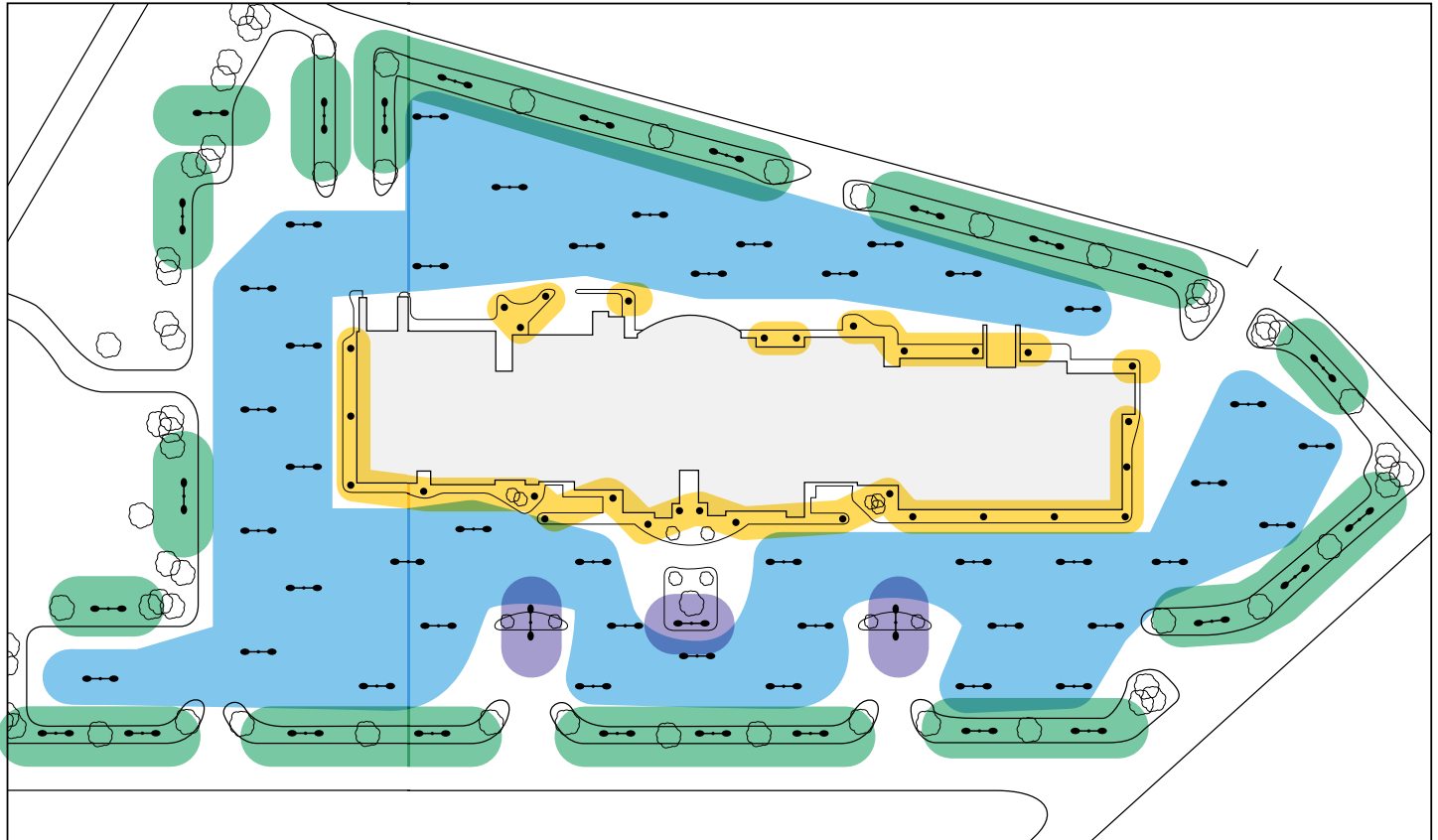
Provide a welcome and safe parking environment for customers and staff by promptly addressing outdoor lighting outages, while reducing energy costs.

- Feature lighting: Support flexible hours of operation for customers, employees and shipping/receiving by grouping lighting fixtures, scheduling ON/OFF and dim-level control of parking lot lighting.
- Energy savings: Minimize energy costs through proven control strategies such as scheduling, dimming, part-night dimming or ON/OFF. Reduce after-hours parking lot lighting levels to support security needs while significantly reducing energy usage.
- Asset protection: Rapidly detect operating problems that can shorten the life of fixtures, while extending LED service life through dimming, alternating lamp usage through grouping and identifying daytime operation.
- Safety and security: Reduce risk by ensuring lights are ON when and where they need to be, providing security for customers and employees. Monitor the system to rapidly detect outages and other anomalies for more efficient maintenance and work order management.
- Ease of retrofit: A typical fixture can be ROAM-enabled within minutes, without costly lamp replacement, trenching or new lighting panels.
- Seamless interface: After installation, simply log on to the secure website using any web browser to begin monitoring and controlling the lighting system, with no special computer work or support required.

*Increase safety and security – reduce risk and liability*







# Lower Costs and Increase Visual Appeal



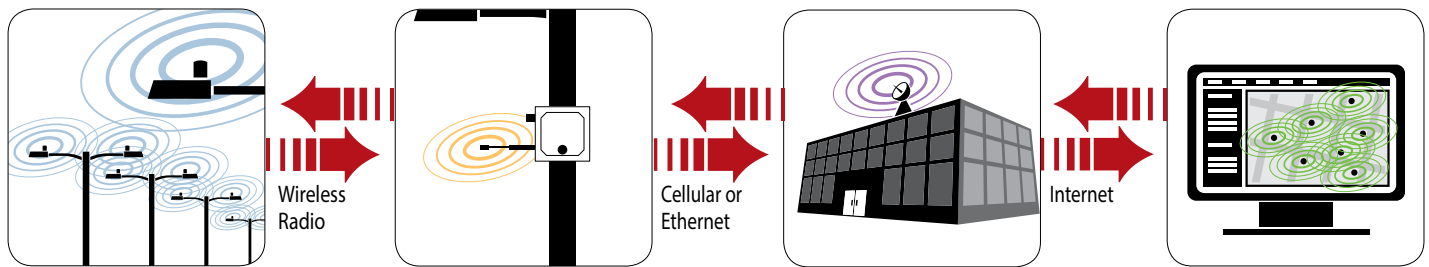
*Present a welcoming storefront at any hour with lighting that offers security to customers and retail owners. Lighting asset protection, maintenance and energy savings help offset the cost of outdoor lighting.*

## LEGEND

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# How ROAM Works

ROAM consists of a mesh network of intelligent photocontrols, or *nodes*, used to control 70-1000W, 120-480VAC LED, HID and other fixtures. Nodes monitor fixture performance and operating conditions, and execute commands based on inputs such as schedules and daylight levels. Information collected about fixture performance is wirelessly transmitted to a gateway and passed on to a server, where it is graphically displayed at a customer's workstation.



## Smart Photocontrols

- Commands onboard dimming control modules
- Operates with any outdoor LED, HID or other fixtures
- Spacing can be up to 1,000 feet apart
- Provides increased surge protection for durability
- Up to 0.5% energy measurement accuracy

## Gateway

- Receives data and transmits commands to nodes
- Communicates with up to 2,000 devices, reducing installed cost
- Uplinks via cellular or Ethernet communication
- Mounts on pole or building

## Centrally or Locally Hosted Network Operation Center

- Receives and stores all data from Gateways
- Analyzes and stores fixture data on secure data servers
- Uses encryption scheme approved by NSA
- Operates without requiring customer-hosted hardware, software or IT support

## Customer Portal

- Provides secure web-based user GIS map or dashboard graphic interface
- Displays operating conditions and performance data
- Controls and schedules ON/OFF/TRIM/DIM for individual fixtures or groups
- Manages lighting at one or multiple sites

# Reduce Operating Costs and Enhance Public Safety with ROAM

Wireless outdoor lighting control technology, used for control of municipal streetlighting for years, is now being adopted by building owners seeking to reduce costs, enhance nighttime safety and security and protect investments in energy-saving LED technology.

ROAM by Acuity Brands is an award-winning outdoor lighting control system consisting of devices that wirelessly communicate with a central data server and deliver state-of-the-art monitoring, control and measurement capability.

Leveraging proven technology, ROAM can significantly reduce operating costs while maximizing the value of outdoor lighting in a wide range of applications—from individual parking lots to university campuses, both new construction and retrofit.

## Control for Every Application Need

Whether the application involves users driving, parking or walking, ROAM enables a range of lighting control strategies that can minimize energy costs, enhance maintenance and public safety and reduce outdoor lighting's impact on the environment.



In 2007, The City of Glendale, AZ was experiencing major headaches with street lighting system maintenance and outages. After careful evaluation, the city chose ROAM as the best solution for their needs and soon ROAM smart photocontrols (nodes) were installed on 18,500 streetlights covering 55 square miles. This was the first time a municipality had used ROAM or any outdoor lighting monitoring system on such a broad scale. Since the conversion, Glendale has reduced the number of malfunctioning streetlights to less than a half percent. ROAM has also helped the city improve public safety, reduce the number of calls from citizens and efficiently manage streetlight maintenance.

*"The primary benefit of ROAM is it provides us with the accountability we need. Any municipality that manages its own streetlight system should have the accountability of a streetlight monitoring system."*

– Mike Sills-Trausch,  
Street Lighting Program Manager  
for the City of Glendale



# Acuity Brands Service and Support

Acuity Brands promises the best customer service in the industry to support our lighting and controls solutions in every project.



## Technical Support and Quotations

From 7 am to 6 pm Eastern Standard Time, help is just a call away at 800.442.6745. For quotations, contact your local authorized Acuity Brands sales representative.



## Project Assistance

Need information to support your next controls project? Our group works directly with the specifier or client to design the ideal controls experience. Contact us at [sales@roamservices.net](mailto:sales@roamservices.net).

## Deployment Services

We ensure jobs are correctly implemented and working properly. Highly skilled personnel are available for on-site deployment assistance. We can provide trained contractors or train customer resources for installation and ongoing maintenance.

## Lighting Control Success

Success in every job. Period. That's our promise and only Acuity Controls can make it. It's a new world for lighting controls.



To learn more, visit [roamservices.net](http://roamservices.net)

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At Acuity Brands, we're maximizing the potential of technology to create the best quality of lighting for every environment. With our industry-leading portfolio and proven expertise in indoor and outdoor luminaires, controls, components, LED technology and daylighting, we deliver integrated, intelligent solutions that expand the boundaries of lighting.

#### Our Brands

- Lithonia Lighting · Acculamp · American Electric Lighting
- Antique Street Lamps · Carandini · Dark to Light · Gotham
- Healthcare Lighting · Holophane · Horizon · Hydrel
- Lighting Control & Design · Mark Architectural Lighting
- Pathway Connectivity · Peerless · RELOC · ROAM · Sensor Switch
- Sunoptics · Tersen · Synergy · Winona Lighting