

Smart Street Lighting Control

ubicell®



ubicquia® simply connected simply smart™

## Smart Street Lighting Controls that Deliver Significant Savings



Advanced Light Control, Monitoring & Metering



Sensors & Applications

The UbiCquia UbiCell smart lighting solution brings real-time control and visibility to your street light assets. Its remote sensing and communication technology alerts you immediately to lighting problems such as a day burners, outages, or ballast failures.

The UbiCell also offers advanced control capabilities. Users can group lights by location, set custom on/off schedules, and create dimming profiles that extend the life of LED fixtures.

This valuable insight enables cities and utilities to reduce the cost of managing and operating streetlights by up to 40%, while providing customers with unparalleled service.

### DEPLOYMENT AS EASY AS ONE, TWO, THREE

The UbiCell is purposefully designed for ease of deployment. It connects directly to a standard NEMA socket and is compatible with over 360 million streetlights worldwide including LED, HID and HPS luminaires.

The node is self-commissioning and communicates over LTE cellular to UbiVu<sup>®</sup>, our cloud-based software asset management platform. There is no need to build a separate network. The UbiCell leverages existing mobile infrastructure that is proven to be reliable and secure.

Within minutes, you get location and health metrics for all your lighting assets.

By combining the UbiCell lighting control node, a hardened LTE communication network, and the UbiVu platform, cities and utilities get complete visibility and control across the service territory.

With the UbiCell smart street lighting solution you receive:

- Energy and O&M savings
- 360° asset management
- Intuitive cloud management platform
- Simple and fast deployment

Start your journey to a more efficient and robust street lighting system with UbiCell.



## Tangible Benefits for Cities and Utilities



### Energy and O&M Savings

- 20-40% reduction in energy costs
- Identify day burners and dim lights during off-peak hours
- Extend the life of LED fixtures by up to 30% through intelligent dimming
- Eliminate unnecessary truck rolls with real-time fault and outage alerts



### 360° Asset Management

- Detailed fixture and pole information
- GIS integration with accurate GPS location information
- Real-time tilt, knock-down and power quality status
- Revenue-grade metrology for accurate billing



### Intuitive Cloud Management

- Top-down view of streetlight assets with filtering capabilities
- Organize assets by group for mass control
- Unlimited number of on/off/dimming schedules and threshold alerts
- Detailed reporting and analytics



### Simple and Fast Deployment

- Installs in seconds and data in minutes
- Compatible with 360 million streetlights
- Immediate node visibility via cellular connectivity
- Foundation of the Smart City: easily add air quality monitors, cameras and other sensors



## Use Cases That Go Beyond Illumination

### Improve Customer Satisfaction

With a real-time view of lighting assets, cities and utilities now can proactively address most lighting problems before a customer calls.

### Active Street Light Control

Operators get complete control over their streetlight assets and can remotely set dimming levels, create customized on/off schedules, develop analytical reports and more.

### Optimize Asset Management

Get a top-down visualization of your deployed lighting assets and actively monitor the fixture and pole health including tilt, vibration, and power quality status.

### Remote Grid Monitoring

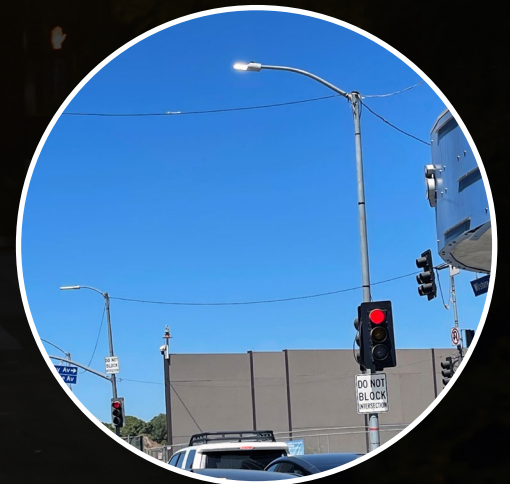
Grid operators can use streetlight monitoring and control to identify momentary outages, see voltage sag/swells and initiate a demand response event.

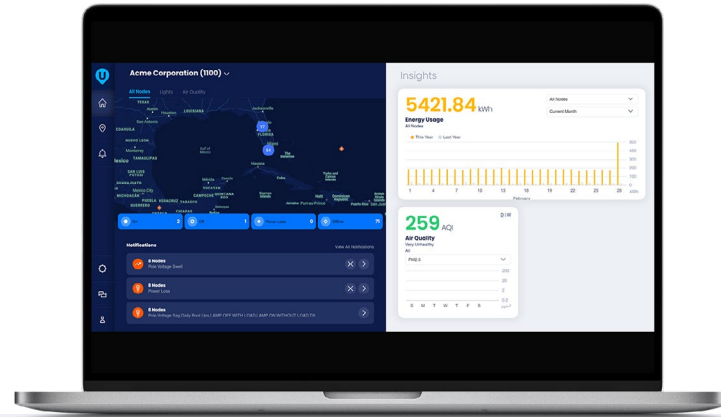
### Build a Solid Smart City Foundation

Communities are leveraging smart lighting networks to support other intelligent devices—bringing a strategic approach to smart city initiatives.

### Positive Environmental Impact

Reduce your carbon footprint and make the world a better place by extending the life of streetlights, lowering energy consumption, and eliminating truck rolls.





## FLEXIBLE & INTUITIVE DATA MANAGEMENT

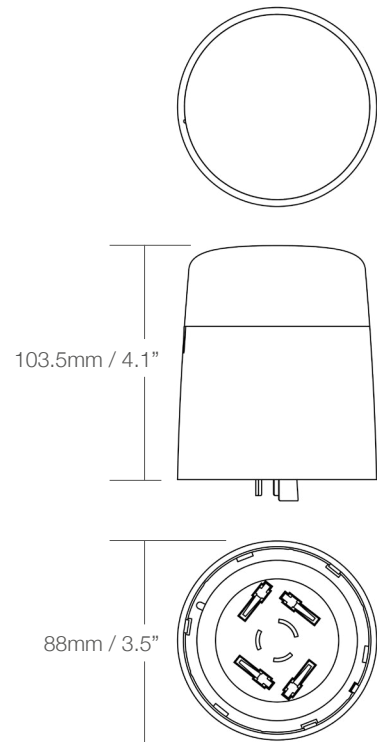
The UbiVu cloud-based management system, allows cities and utilities to provision, manage, and operate a variety of smart devices through a single pane of glass platform. APIs are also available, allowing this rich data to integrate into other software platforms.

With UbiVu, you receive:

- Over-the-air firmware updates
- Customizable reports and configurations
- Remote troubleshooting
- User access management
- Deployment map with hierarchical device view
- Alert and thresholds settings
- Key performance metrics

Reporting capabilities are constantly being evaluated and updated to solve our customer's needs. Receive reports on:

- All node details
- Power usage
- Alert notifications
- Active alerts report
- Schedule updates & transactions
- Light state
- Device burn hours
- Momentary outage report
- Thresholds
- Audit reports



## SPECIFICATIONS

<b>Dimensions</b>	103.5mm x 88mm
<b>Weight</b>	375g
<b>Color/Housing</b>	Multiple colors
<b>Housing Material</b>	UV stabilized, outdoor rated and flame resistant polymer
<b>Enclosure Sealing</b>	IP66
<b>Operating Temperature Range</b>	-40C to +70C
<b>Voltage Range</b>	120-480 V
<b>Surge Rating</b>	20 kV/10 kA Type C
<b>Average Power Consumption</b>	1 W Typical
<b>Impact Rating</b>	IK08
<b>Security</b>	AES 128/256 encryption TLS 1.2 Dedicated Security Controller · Common Criteria Certified EAL6+ (high) · Secure management of certificates · Supports device
<b>Lamp On/Off</b>	Photocell control, automated and astronomical scheduling w/adjustable offsets
<b>Dimming Control</b>	Auto select: 0-10V, DALI, DALI2
<b>WARRANTY</b>	5-Year Warranty Optional 10-Year

## COMMUNICATIONS

<b>Modem</b>	Cat 1 LTE
<b>Reporting Frequency</b>	Programmable
<b>Network Protocol</b>	IPV4 and IPV6 compliant
<b>External Sensor Interface</b>	Pins 6 & 7 using DALI/DALI2

## POWER METERING

<b>Metering Accuracy</b>	+/- 0.5%, optical infrared pulse verification
<b>Load Switching</b>	10A
<b>Line Voltage</b>	90V to 506V (50/60Hz)
<b>Power</b>	Active power with PF
<b>Energy Consumption</b>	kWh

## ANALYTICS

<b>Data</b>	Storage and query of metering data
<b>History and Reporting</b>	Event log, details and time stamp. Available daily/weekly/monthly
<b>Life Cycle Tracking</b>	Cycle count, burn hours

## CERTIFICATIONS & COMPLIANCES

<b>Metrology</b>	ANSI C136.5-C12.20
<b>Safety</b>	UL773*
<b>FCC</b>	Part 15, Subpart B, Class B

## FEATURE HIGHLIGHTS

- Public or private LTE
- Data transfer speeds up to 100MB/s\*
- OTA firmware upgrades
- Voltage sag/swell detection
- Impact & tilt detection (0 to 90° with 1° resolution and knock down alarm)
- Triac assisted relay
- Circuit switch prediction
- Power loss detection w/last gasp notification

ubicell<sup>®</sup>



**ubicquia**<sup>®</sup> simply **connected** simply **smart**<sup>™</sup>