



Indoor & Outdoor Spaces

# PoE-Powered Smart Lighting

## Company Overview

For over 35 years, Allied Telesis has been delivering reliable, intelligent connectivity for everything from enterprise organizations to complex, critical infrastructure projects around the globe.

Allied Telesis enables building managers and facility operators to create energy-efficient, intelligent environments by delivering network infrastructure purpose-built for smart lighting systems.

For smart building applications, Allied Telesis offers enterprise and industrial solutions that are scalable and easy to manage, ensuring consistent power delivery while minimizing energy consumption, simplifying maintenance, and reducing overall system costs.

### Indoor smart lighting

Allied Telesis delivers efficient and intelligent PoE-based solutions for indoor environments, enabling centralized control, energy savings, and seamless integration with building management systems.

### Outdoor smart lighting

Allied Telesis provides rugged, high-power PoE solutions for outdoor lighting, ensuring reliable operation in harsh environments and simplified management through unified network infrastructure.

#### Customers' pains

Optimize building energy consumption to reduce carbon footprint and comply with regulations

High installation and maintenance costs for lighting systems

High-voltage cable and fixture installation are expensive and require certified electricians

Rising cost of power and copper cabling

#### How Allied Telesis addresses them

Smart lighting systems driven by PoE switches permit granular control of power usage and enable implementation of automation and energy-reduction policies.

LED luminaires with integrated controls, sensors and analytics deliver optimal cost savings and can be easily deployed over PoE Ethernet infrastructure.

PoE lighting operates at low voltage, is safe for occupants and does not require certified electrical installers.

PoE uses standard Ethernet cables (e.g., Cat5e/Cat6) that contain less copper and are less expensive than traditional power cables.

## The Scope

Smart lighting solutions are designed to provide intelligent, energy-efficient lighting systems that are powered and controlled over the IP network.

They enable dynamic lighting management and seamless integration with other building automation systems — whether managed locally or via the cloud.

Smart lighting leverages the full ecosystem of smart building sensors to optimize energy efficiency.

These solutions are suitable for both indoor and outdoor lighting in various building types and smart infrastructure scales, including:

- Single building
- Multi-building facilities
- Large smart campuses

Smart lighting solutions support building managers, CIOs, and facility operators in addressing the sustainability, automation, and energy-efficiency challenges of modern smart buildings..

## Key Differentiators

**Unified Indoor & Outdoor PoE Infrastructure:** a single converged Ethernet network powers and controls both indoor fixtures and rugged outdoor luminaires. Industrial-rated PoE switches (fan-less, wide-temperature, surge-protected) ensure consistent operation in corridors, workspaces, and exposed exteriors without separate power cabling.

**Seamless Integration with Building Systems:** smart lighting becomes part of the overall building automation ecosystem—integrating with HVAC, security cameras, occupancy sensors, and BMS platforms. Standardized protocols (e.g., BACnet/IP, SNMP) on AlliedTelesis switches guarantee interoperability and centralized management.

**Scalable, Future-Proof Topology:** from small offices to multi-campus deployments, PoE lighting scales simply by adding switches and fixtures—no electrician required. AlliedTelesis supports high-power budgets (up to 90W per port), ready for next-gen luminaires and IoT devices.

**Centralized Monitoring & Automation:** through Vista Manager, administrators gain granular control over the entire Ethernet network, with detailed per-port power-consumption metrics that feed valuable data into analytics platforms.

**Simplified UPS Integration:** by leveraging PoE+ technology, a single UPS connected to an edge switch can guarantee uninterrupted power delivery to the lighting system, reducing UPS hardware costs and enhancing overall system reliability.

**Outstanding PoE for outdoor installation:** PoE++ power sourcing up to 95W per port (IEEE 802.3bt) with durable, reinforced connectors for extended cable and port longevity.

Rev A