



SMART LIGHTING

OFFERING COMMUNITIES
A BRIGHTER FUTURE



Upgrading municipal lighting systems with smart technology can do more than control costs. It makes indoor lighting more efficient and effective and provides better outdoor illumination to keep public roads and spaces safe.

THE CHALLENGES OF LEGACY LIGHTING

In many cities, buildings remain lighted long after working hours, and streetlamps blaze through the early morning despite the presence of adequate sunlight. This unnecessary power use drives up costs and increases the risk of blackouts by overburdening power grids. Smart lighting solutions enable municipalities to efficiently manage both their indoor and outdoor lighting needs, while also creating a greener environment and improving safety.

INDOOR SMART LIGHTING FOR OFFICE BUILDINGS

Municipal offices require significant energy expenditures to maintain adequate lighting. Though conservation programs can mitigate some of these costs, they are typically dependent on users to turn off lights, which doesn't always happen. Smart indoor lighting systems—equipped with motion sensors that turn lights off when people leave rooms—are far more effective in saving money while relieving stress on the municipal power grid.

Smart indoor solutions can adjust individual light levels based on occupancy demands and ambient light levels. These systems require no new cables, using integrated sensors and wireless technology to allow light fixtures to share information. This provides the necessary data regarding light levels so building managers can respond appropriately for the comfort and safety of occupants.

The data collected with these smart solutions can provide powerful, actionable insights for municipalities to further reduce costs, and monitor HVAC systems to provide healthier, greener buildings.

SMART LIGHTING FOR STREETS, HIGHWAYS AND PUBLIC AREAS

Today's streetlights typically operate at full intensity for 12 hours a day, generating high energy costs and shortening bulb lives. Outages are typically detected only when citizens report them, or when crews detect the outage during periodic checks. If left unnoticed for long periods, these outages can have an impact on a neighborhood's health and public safety.

Smart outdoor lighting solutions combine networking and sensor-enabled LED street lights to increase a lamp's life span. The advanced functionality of these lighting networks provides municipalities with the ability to dim streetlights and quickly adjust timing sequences. In addition, motion detection sensors can turn on a lamp if there is activity immediately surrounding the lamppost, and also trigger nearby surveillance cameras. This provides municipalities with cost savings in energy and maintenance, while increasing public safety.

Streetlights can also offer more than literal illumination. Additional sensor-based smart devices can be affixed to collect, monitor and analyze data that can be used for smarter parking management, intelligent surveillance, location-based traffic management and other new applications.

To help make these smart lighting solutions work across their communities, some municipalities are creating coalitions between public and private sectors. Working together, communities that embrace smart lighting solutions can reap the benefits of lower costs, improved safety and a lessened environmental impact.