CASE STUDY | DOT



Rhode Island Department of Transportation LED Fixture Evaluation Using CIMCON Lighting Wireless Controls

Executive Summary

CIMCON Lighting's wireless controls and Central Management System (CMS) were recently selected and installed by the Rhode Island Department of Transportation (DOT) in order to evaluate various manufacturers' LED fixtures. CIMCON was selected for its ease of installation and use, functionality and competitive price.

Situational Analysis

As part of a pilot program to test the lumens delivered verse the wattage required for LED light fixtures under consideration, the Rhode Island DOT needed a lighting control system that was easy to install, could work with any LED manufacturer's lights, was able to easily group and schedule lights and could accurately capture each manufacturer's energy consumption data.

The pilot program consisted of testing four LED manufacturers' fixtures across 154 lights at the intersection of Interstate 295 and State Route 44 (Exit 7) in Smithfield, RI. Each manufacturer's lights were installed at separate "leaves" of the cloverleaf intersection. CIMCON's wireless control system was installed via the ANSI 136.31 standard 7-pin receptacle on each fixture.

Selection Process

Working in combination with its partner, LFE (Lighting for ESCOs), CIMCON Lighting was identified as the lighting controls vendor of choice based on a combination of its ease of installation and use, functionality and price.

CIMCON Lighting's iSLC-3100-7P, 7-pin NEMA compliant controllers, wireless gateway and CMS were installed at the same time as the LED fixtures. GPS capabilities in each CIMCON controller quickly mapped the location of each controller via a Google Maps interface.

Implementation and Use

As it evaluated fixture manufacturers, the RI DOT used CIMCON's controllers and CMS to adjust and then measure the lighting output under a variety of dimming levels. The Google Maps images below display CIMCON's controllers in use in the intersection. The images present both a normal and "zoomed in" view.



Client:

Rhode Island Department of Transportation

Application/Environment:

Pilot program which tested four LED manufacturers' fixtures with CIMCON Lighting's wireless controls at the intersection of Interstate 295 and State Route 44 (Exit 7) in Smithfield, RI.

Project Scope:

154 CIMCON Lighting iSLC-3100-7P NEMA compliant controllers, wireless gateway and Central Management System (CMS)



Results

In addition to being able to capture and individually present the operating data of each individual LED manufacturer's lighting fixtures as well as group each "leaf" at the intersections for aggregated reporting, CIMCON's iSLC-3100-7P controllers and CMS have been able to provide the RI DOT with the ability to readily diagnose lighting fixture faults, particularly during the previous winter's electrical outages.

About CIMCON Lighting

With over 25 years of innovation and experience in outdoor wireless applications, CIMCON Lighting is the world's leading provider of scalable, intelligent wireless outdoor lighting management solutions for traditioal, LED and solar-based street lights. Focused on offering solutions that provide the lowest "Lifecycle Cost of Ownership," CIMCON pioneered the concept of "Just in Time Lighting™" to ensure that the right amount of lighting is provided when and where it is needed. CIMCON's "Just in Time Lighting[™]" reduces energy, maintenance, and repair costs while improving total ROI. CIMCON's lighting management solutions are appropriate for roadways, parking lots and parking garages, corporate and university campuses and a variety of industrial applications.

For more information, please visit www.cimconlighting.com.

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