

CLTC EVALUATES PERFORMANCE AND INTEROPERABILITY OF AN INTEGRATED OUTDOOR LIGHTING SOLUTION



The **California Lighting Technology Center (CLTC)** is a not-for-profit research, development and demonstration facility that is part of the University of California, Davis.

The CLTC is providing an environment to test and evaluate an outdoor lighting solution comprised of components from multiple manufacturers. This test program is evaluating technology components from leading lighting manufacturers to evaluate performance and interoperability of smart lighting components from multiple manufacturers.

The solution for this test is comprised of outdoor light fixtures from Leotek, Xitanium SR LED Drivers from Philips Advance, network lighting controls from Silver Spring Networks and a CIMCON lighting controller.

Specifically, this demonstration features three key components:

- The **Leotek ARIETA™ 13 Architectural LED Area Luminaire AR13**, characterized by a nominal correlated color temperature (CCT) of 4,000 K (Neutral White) and an ANSI 7-wire photo control receptacle. The AR13, with low glare (G2-rated) optics, is appropriate for 15-foot high poles, such as those used in the CLTC parking lot which includes pedestrian walkways. Features such as dimmability, motion sensing and factory programmed part-night dimming are part of the energy saving capabilities.
- **Philips Advance Xitanium SR Drivers for Outdoor Applications** feature a standard digital interface compatible with multiple network lighting controls, memory to store asset and diagnostics information (per proposed ANSI C137.4 standard) that may be accessed via the network, energy metering (per proposed ANSI C136.52 standard), easy integration of motion sensors and centrally scheduled controls, and remote updating of firmware to reduce site visits.
- Silver Spring's **Streetlight.Vision (SLV)** Central Management System (CMS). Silver Spring's open, standards-based platform approach allows cities, utilities,

enterprises and others to recoup higher return on investment by deploying multiple applications upon an integrated networking and data platform. The flexible, open architecture can be used with streetlights, electrical substations, pollution sensors, electric vehicle charging stations and more.

Over the next year, CLTC will test and evaluate how the smart lighting solution for outdoor applications can deliver the following:

- Interoperability between components from different suppliers by using a standardized interface
- Energy management by integrated energy metering into the driver
- Energy savings by augmenting the smart lighting network with LED lighting
- Faster installation process and reduced installation errors of "Smart Street" lighting networks
- Improved system management from bringing specific fixture asset information into the back-office software
- Improvements to public safety through optimizing the lighting network

Stay tuned for updates on the CLTC newsletter to learn more about this project and how the monitoring and verification of the energy savings compares to the HPS baseline.



The networked lighting solution at the California Lighting Technology Center.