ADAPTIVE SOLUTIONS FOR OUTDOOR LIGHTING

Adaptive exterior lighting products are entering the marketplace at a rapid rate. By coupling features such as occupancy-based lighting controls with efficacious, dimmable sources, these solutions offer 30–75% energy savings over traditional systems.

The outdoor lighting products presented in this compendium utilize features that have been tested and verified through RD&D activities supported by the California Energy Commission. CLTC case studies demonstrated the commercial readiness of these technology features as they progressed from the lab to the marketplace. This collection focuses on the combination of occupancy-based lighting controls and dynamically tunable light sources. It is not intended as a comprehensive catalog, but offers a starting point for facility managers considering the implementation of adaptive lighting technologies today.

CASE STUDIES

PARKING LOT Bi-level Street & Parking Area Luminaires, Cal Poly San Luis Obispo (05/10)
- PARKING STRUCTURE Bi-level Induction Parking Garage Luminaires, UC Davis (05/10)
- WALKWAY Bi-level LED Post Top Luminaires, Los Angeles Trade Technical College (05/12)
- WALL PACK Bi-level HID Wall Packs, CSU Chico (06/10) • Adaptive LED Wall Packs, UC Davis (03/13)

PARKING LOT

LED
- CREE 304 Series • SLM IP66
- EATON'S COOPER LIGHTING BUSINESS Galleon • Navion • Ventus
- KENALL TopDek
- KIM LIGHTING The Archetype • Warp 9
- OSRAM SYLVANIA ProPoint Cobrahead • ProPoint Shoebox

INDUCTION
- NEPTUN LIGHT Bi-level Dimming Shoebox

HID
- SPAULDING LIGHTING Cimmaron • Raven

PARKING STRUCTURE

LED
- EATON'S COOPER LIGHTING BUSINESS Quadcast • Valet
- CREE 304 Series • Edge
- HYDREL Ratio Canopy 1.5
- KENALL TekDek
- KIM LIGHTING PGL7
- LAMAR LIGHTING VOL Series LED with Occusmart
- LED ERA L Series
- LITHONIA LIGHTING Archway
- OSRAM SYLVANIA PermaLED Canopy • ProPoint Medium Round Canopy ProPoint Medium Square Canopy
- PHILIPS GARDCO ELG with LimeLight • VizorLED

INDUCTION
- DECO LIGHTING D511ib
- ENVIRO TECH LIGHTING Garage Light
- EVERLAST LIGHTING BioLume • Classic • Davenport

FLUORESCENT
- COLUMBIA LIGHTING Bi-level Luminaire
- DECO LIGHTING DSBL-CP
- ENVIRO TECH LIGHTING FLU-VT
- LAMAR LIGHTING VO Series with Occusmart
- PHILIPS DAY-BRITE Vaporlume
ABOUT THE CALIFORNIA LIGHTING TECHNOLOGY CENTER: The California Lighting Technology Center was created in 2003 by the California Energy Commission in collaboration with the U.S. Department of Energy and the National Electrical Manufacturers Association. Part of the Department of Design at the University of California, Davis, CLTC is dedicated to accelerating the development and deployment of energy-efficient lighting and daylighting technologies.