

BetaLED™ Project Brief Overview

South Entry Parking Structure–University of California, Davis



Photo Credit: Kathreen Fontecha / California Lighting Technology Center

PROJECT SUMMARY

End User:	University of California - Davis
Application:	Parking structure lights
Product:	51 side-arm mount THE EDGE fixtures in white, featuring three light bars and two-level sensor control
Benefits:	<p>The LED fixtures feature activity-sensing technology that provides enhanced nighttime visibility while reducing energy consumption.</p> <p>By including bi-level activity-sensing Smart Technology into the BetaLED fixtures, the structure features energy savings of 50 percent when the lights are at full power and 80 percent when at half power.</p> <p>Based on nighttime bi-level operation with an average ambient temperature near 15°C, BetaLED luminaires need no relamping and are virtually maintenance free for 20 to 25 years.</p>

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LED Luminaires Key to Efficient Lighting

Photo Credit: Kathreen Fontecha / California Lighting Technology Center



Nearly one-quarter of the electricity consumed in the U.S. goes to lighting. To better conserve that resource, the California Lighting Technology Center at UC Davis and its partners have designed and installed a new bi-level LED lighting system using BetaLED's THE EDGE™ at UC Davis' South Entry Parking Structure near the Robert and Margrit Mondavi Center for the Performing Arts.

"With LED lighting, we are improving visibility and enhancing the safety of our parking structure while reducing energy consumption," said Chris Cioni, UC Davis associate director, utilities. "We are also significantly reducing both maintenance costs and light trespass compared with the incumbent metal halide technology. Deploying LED lighting in our parking facilities yields benefits in many areas and we will be evaluating LED lighting in other applications."

The LED fixtures feature activity-sensing technology that provides enhanced nighttime visibility while reducing energy consumption. By switching to LED luminaires and adding the bi-level activity-sensing Smart Technology, the Center will yield energy savings of 50 percent when the lights are at full power and 80 percent when at half power.

Based on nighttime bi-level operation with an average ambient temperature near 15°C, BetaLED luminaires at facilities like the Mondavi Center need no relamping and are virtually maintenance free for 20 to 25 years.

The key to longevity is proper thermal management. The fixture's modular design has individual heat sinks mounted to each light bar leading to scalability in design and the assurance the LEDs are operating at optimal temperature.