



L.A. Lighting Develops Cost-Saving Solution for Public Utility

Energy and maintenance costs drop dramatically with introduction of sensor-controlled LED luminaires.

The Challenge

Like any large metropolitan area, Los Angeles has hundreds of miles of underground tunnels providing utility workers with essential access to critical infrastructure. Unfortunately, many of these tunnels continue to employ inefficient fluorescent technology for illumination.

With safety concerns due to poor visibility from non-operational luminaires, as well as the high maintenance cost of servicing the aging fluorescent system, The Metropolitan Water District of Southern California (MWD) required a more affordable, dependable source of illumination.



WSE201

L.A. Lighting's Solution

Working with MWD's facility management team, L.A. Lighting set out to deploy an LED lighting system that would not only meet the lighting requirements set by OSHA, but also reduce costs. The solution required selecting the right luminaire for the job and pairing it with a controls plan that would amplify the benefits of LED.

The team's ultimate choice: L.A. Lighting's [WSE201 LED wraparound luminaire](#), a sturdy, efficient luminaire with an integrated motion sensor. Commonly used in parking structures, corridors, and stairwells, the WSE201's optional polycarbonate lens, tamper-proof screws, and wet location rating made it an ideal replacement for the tunnels' 4-foot, 32W fluorescent fixtures.





But what really set the WSE201 apart was its ability to reduce energy costs through the clever use of sensors. When the tunnels are vacant, the luminaires operate at just 20% of full power (about 5W), enough to meet OSHA illumination requirements while cutting excess energy use. When the integrated motion sensor detects movement, the luminaire immediately increases to 100% output for 30 minutes, providing full illumination for workers to pass through the area or perform maintenance.

Adding to the WSE201's versatility, the precise lumen output and dimming behavior of the luminaire can be easily customized, allowing the end user to specify the luminaire's exact performance depending on the application.

Benefits

By operating at 20% output for most of the day, each WSE201 saves almost 230 kilowatt hours of electricity per year compared to the previous fluorescent fixtures, while providing MWD over \$5700 in savings per 100 fixtures.

In addition, the reliable illumination of the new LED luminaires has helped make the tunnels safer for MWD's workers as they keep the water flowing to millions of Los Angeles area residents.

Estimated Annual Energy Savings

Luminaire Type	T8 Fluorescent	WSE201 LED
System Watts- Full Power	32W	26W
System Watts- Dimmed	N/A	5W
Annual Power Use	280kWh	51kWh
Annual Electricity Cost	\$70	\$12.75

Note: Estimates based on 1 hour/day at full power, 23 hours/day dimmed. Electricity cost estimated at \$0.25 per kWh.

Before



After



About L.A. Lighting

LA Lighting is a leading American manufacturer of commercial and industrial luminaires. Known for its quality products, short lead times, and BAA-Compliant fixtures, the company offers a standard product line, modified products, retrofit solutions, and custom luminaires. For more information, visit www.lalighting.com.