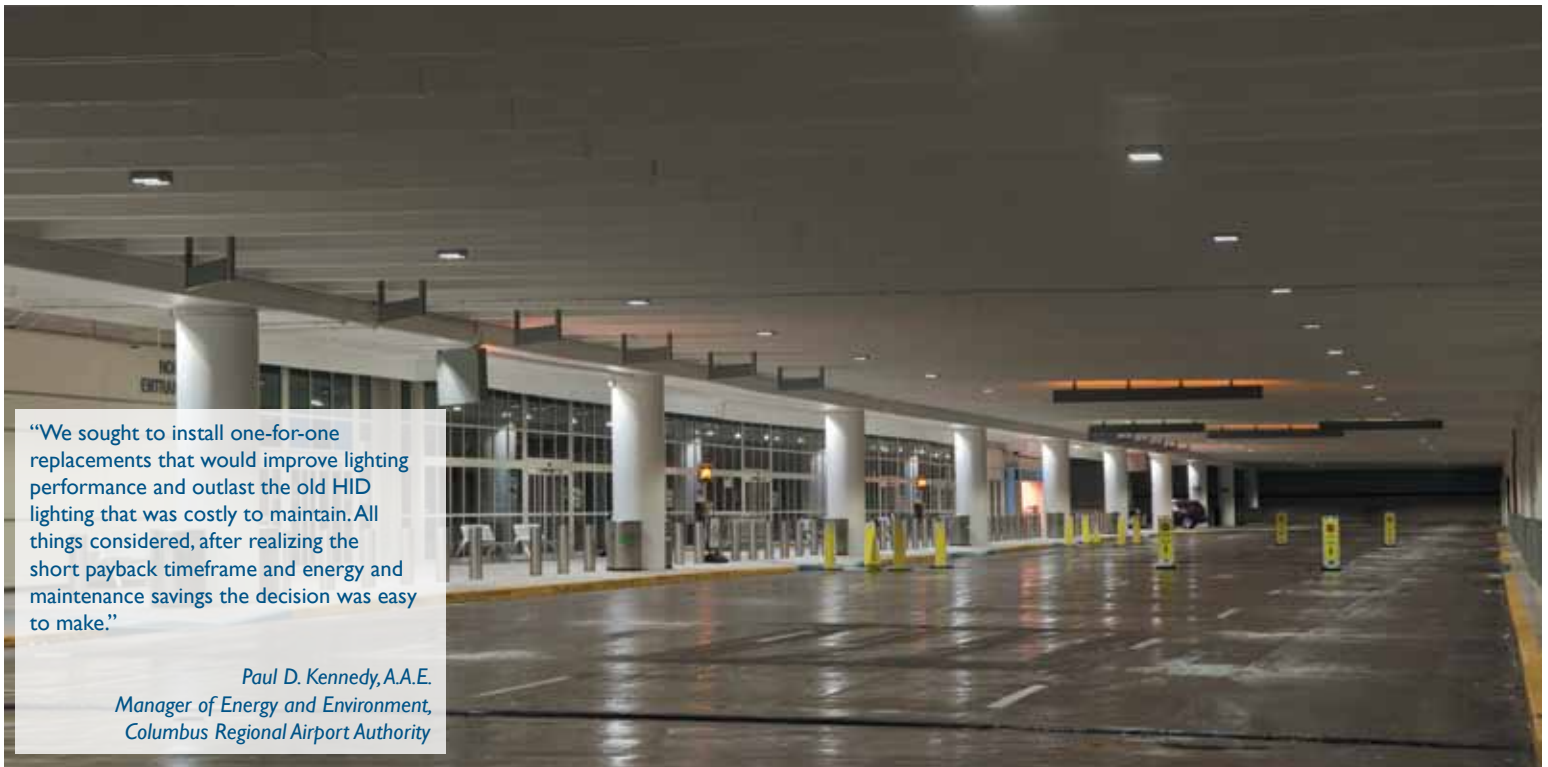


LED APPLICATION: Roadway, Walkway and Tunnel Lighting – Retrofit



“We sought to install one-for-one replacements that would improve lighting performance and outlast the old HID lighting that was costly to maintain. All things considered, after realizing the short payback timeframe and energy and maintenance savings the decision was easy to make.”

*Paul D. Kennedy, A.A.E.
Manager of Energy and Environment,
Columbus Regional Airport Authority*

LED PRODUCTS



- 232 BetaLED® 304 Series™ pendant-mount parking structure luminaires



- 112 BetaLED® 304 Series™ yoke-mount flood luminaires



- 18 BetaLED® THE EDGE® flood luminaires

BENEFITS

- Estimated first-year energy savings of \$31,000 (compared to originally specified CMH solution)
- Estimated annual maintenance cost savings of \$14,000
- Reduced energy use by nearly 60 percent



PROJECT OVERVIEW

Port Columbus International Airport – Columbus, OH

Energy and Maintenance Savings Take Flight with BetaLED



Port Columbus International Airport is the largest passenger airport in the central Ohio region and is the second busiest in the state. Owned and operated by the Columbus Regional Airport Authority (CRAA), Port Columbus is primarily a passenger airport, providing 151 non-stop flights to 34 airports via 9 airlines daily. CRAA is comprised of Port Columbus International Airport, cargo-dedicated Rickenbacker International Airport, and general aviation Bolton Field Airport.

In an effort to improve lighting performance and save energy, airport officials recently retrofitted the Port Columbus arrival and departure roadway and pedestrian walkway lighting with BetaLED 304 Series luminaires featuring the latest LED chip package technology.

PROJECT GOALS

In fall, 2010, the airport underwent a major customer service initiative that included a curb-front beautification project to make the area cleaner, safer and more welcoming to travelers. CRAA was in search of a 24/7 lighting solution with virtually no maintenance.

As part of the CRAA's "15 by 15" campaign (CRAA's energy reduction campaign to reduce energy consumption by 15 percent by the year 2015), the airport replaced nearly 350 metal halide fixtures with BetaLED 304 Series luminaires. The energy efficient luminaires reduced energy consumption by nearly 60 percent compared to the previous metal halide system. As a result CRAA was able to exceed its current energy reduction goal as it moves towards its long term goal of a 15 percent energy reduction by 2015.

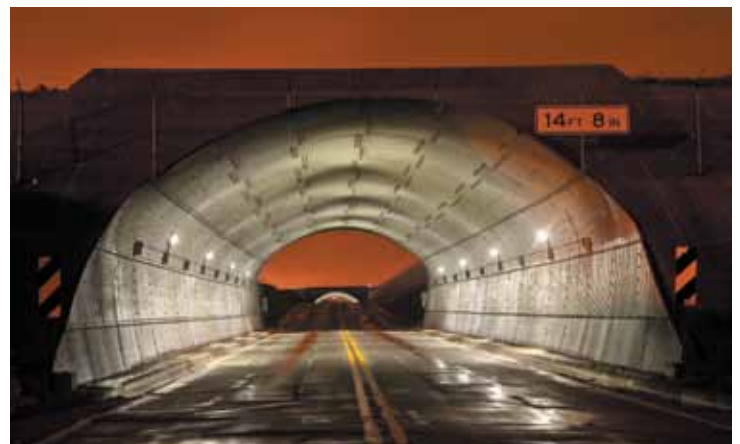
Kennedy became aware of BetaLED luminaires when airport maintenance personnel retrofitted 100 watt HPS fixtures in one of the airport's Sawyer Road tunnels with THE EDGE flood wall-mounted luminaires for the purpose of energy and maintenance cost savings.

While conducting research on sustainable approaches for the curb-front project, Kennedy took notice of publicity about Boston's General Edward Lawrence Logan International Airport and the positive results of the BetaLED installation. A cost analysis comparing the savings and payback period of a BetaLED solution to metal halide showed Kennedy that a retrofit with LED luminaires provided the most efficient and highest performing result.

"We sought to install one-for-one replacements that would improve lighting performance and outlast the old HID system that was costly to maintain. All things considered, after realizing the short payback timeframe and energy and maintenance savings the decision was easy to make," related Kennedy.

SAVINGS SUMMARY:

344 BetaLED luminaires installed on two levels of the airport passenger drop-off, arrival and baggage claim area, and a covered pedestrian walkway, has significantly reduced energy use. In addition to the significant energy savings, the new installation will allow the CRAA to realize significant maintenance savings as well. When combined with an approximate \$36,000 rebate from an AEP (American Electric Power) Gridsmart Rebate program from their local utility, CRAA expects to save over \$80,000 in the first year alone.



Project Participants

End User: Columbus Regional Airport Authority
Engineering Agency: Dynamix Engineering LTD
BetaLED Rep Agency: Lighting Unlimited, Inc., Columbus, OH