Dialight LED Low Bay Fixtures Provide a Clever Lighting Solution for Denver's Fox31 Parking Garage



On the left, 175W Metal Halide and 80W Dialight DuroSite® LED Low Bay fixtures on the right.

Plagued by seemingly never-ending light maintenance in its two-deck parking garage, Denver's Fox31 television news station has put an end to the incessant bulb and fixture changes and saved thousands of dollars in the process by converting to new high-efficiency DuroSite[®] LED Low Bay luminaires from Dialight Corporation. The retrofit slashed energy use by more than half and dramatically improved visibility inside the garage, while earning the station more than \$10,000 in energy-efficiency rebates.

Watch Your Head!

Like most multi-level enclosed parking garages, the Fox31 TV news station facility in Denver seemed a dark and cavernous space, made further uninviting by the low clearance (just 8-10 feet) between each deck. The facility's 15-year-old metal halide lighting fixtures provided inconsistent illumination and low light levels, at best—as little as 1 footcandle in some areas. Not only were the fixtures themselves antiquated and inadequate for this kind of low-bay application, they were also inefficient, consuming 175W per unit (up to 208W including the ballast).

Maintenance was a never-ending chore for Fox31 due to the metal halide's inherently short lifespan and the high-profile news vans which seemed to impact the fixtures on a regular basis. The station was spending far too much time, about once per year, and money in replacing damaged lights and relamping all 147 fixtures. Considering that many were difficult to access, especially those lighting the steep ramps between the decks, the Fox station was eager to find a more modern, economical and energy-efficient solution to shed some much-needed light on its "den."

Durability, Efficiency and Savings Courtesy of Dialight

Installation Snapshot

- Retrofit installation
- (147) 80W LED Low Bays
- Replaced 175W metal halide
- Delivered light: \sim 20 Footcandles
- Payback: 3 years
- Received over \$10,000 in energy
 efficiency rebates

At the recommendation of Denver-based LED Supply Co., the station replaced all 147 metal halides with new LED DuroSite Low Bay Fixtures from Dialight, the world leader in industrial LED lighting solutions. Offering a ruggedized, low-profile design at less than 9" in overall depth off the ceiling, the DuroSite Low Bays promised to put an end to the news vans knocking out the lights, while delivering a significant improvement in visibility at a much lower operating cost.

"Low profile was a big factor in the decision to go with the Dialight fixtures," said Brian Stern, president and CEO of LED Supply. "The Dialight units are a full six-inches shallower than the existing metal halides, which put them safely out of range for the satellite-topped news trucks."

Since the new Dialight fixtures were fully compatibility with the existing wiring and mounting brackets, changing all 147 lights was quick and easy, completed in just four days.

Durability, Efficiency and Savings Courtesy of Dialight

Consuming just 80W, the new Dialight Low Bays immediately reduced overall lighting electricity consumption by nearly 55 percent, while delivering up to 20 footcandles of crisp, clear white light with a CRI of 70, compared to the low light quality of the metal halides.

"The improved visibility is quite dramatic, like night and day almost," Stern said. "Since the optics in the Dialight units are optimized for low-bay applications, they efficiently direct the light exactly where it's needed and better illuminate the area while minimizing glare, which makes for a safer environment for drivers in the facility."



Dialight DuroSite® LED Low Bays improve lighting at FOX31 while reducing maintenance and operating cost

Years of Dependability and Ongoing Savings

Each DuroSite fixture has an expected fixture life of at least 60,000 continuous hours of worry-free and maintenance-free performance. This means the station could easily go more than a decade without ever having to change a light bulb, with half that time backed by Dialight's five-year, full-performance warranty. And, because the Dialight units are especially resistant to shock and vibration—both big issues in multi-level parking garages—the new lights offer a long-life durability that renders the old metal halides vitually obsolete.

"This was one of our best facilities investments to date," says David Harpe, vice president of Technology for KDVR and KWGN. "We are a 24-hour facility with a staff of over two hundred employees. There are relatively few opportunities for cost savings with a facility like this. Although we'd been looking at LED lighting for quite a while, we had a hard time finding a fixture with the performance and ROI numbers we needed. With the team from LED Supply Co., we were able to come up with a Dialight based solution that ended up being a 'no brainer' from a numbers perspective. In addition to the cost savings and short ROI on these lights, we've been getting great comments from our staff about the quality of light we now have in our garage areas. We're really pleased with our investment."

Dialight LED benefits

- 5 year warranty = maintenance free
- 80% lumen maintenance after 60,000 hours
- Up to 100 lm/w
- Significant energy savings
- Instant on/off
- Superior light quality
- IP66 rated to withstand dust and moisture
- Polycarbonate lens
- No UV or IR
- No hazardous substances
- Temperature compensation technology for long life

As a result of the substantial energy reduction, the Dialight retrofit qualified Fox31 for more than \$10,000 in energy efficiency rebates—equaling just over \$70.00 per fixture—through Xcel Energy and the City of Denver that helped to significantly offset the cost of the project. Between the rebate, the dramatic energy savings and the money saved by eliminating maintenance, Fox31 expects a pay back period of just over 3 years—a very healthy return on investment for products that will last nearly four times as long.

Dialight reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.dialight.com/news/details/fox_news_case_study