



Lighting Upgrade To Acuity Brands® LED Luminaires Creates Safe, Inviting Exterior at 38 Dignity Health Hospitals, Cuts Costs

DETAILS

Project:

38 Dignity Health hospitals

Project Size:

Over 15,000 Luminaires

Lighting Agent:

Performance Lighting Systems

Lighting Contractor:

Earth Savers Energy Services, Inc.

Lighting Manufacturers:

Lithonia Lighting®, American Electric Lighting®

Products:

D-Series (Area, Bollards, Floods, Parking Garage, Wall Pack) HLF, KAD LED, PGX, RV Series, WL Series, WSTM LED, ATB2 and additional Lithonia Lighting products including decorative outdoor floodlights, wall sconces and ceiling mounts.

The Situation

Dignity Health has made its mark in the health care industry by providing quality and compassionate care at facilities in 3 states. After adopting a brand campaign to elevate the experience of visitors and staff, Dignity Health wanted to revitalize the aesthetics of 38 of its hospital campuses while promoting greater visibility, enhanced curb appeal and significantly reducing operating costs.

“Many employees and visitors arrived in the evening and complained about burned-out lights and dark areas,” said Joe Garibay, engineering manager, St. Mary Medical Center, Long Beach, California, the first facility to undergo a lighting update.

“Many people requested an escort after dusk to take them to the Metro or their vehicles,” said Maribel Aldaco, security officer for St. Mary.

Dignity Health’s management team realizes the significance of first impressions and how patients and the public subconsciously link aesthetics to a facility’s quality of care. Patients and visitors tend to form opinions based on the appearance of the grounds and building exteriors before they even enter a facility, making the quality of the exterior lighting system essential.

A commitment to environmental sustainability is confirmed in Dignity Health’s adoption of the term humankindness to reflect the corporation’s shared heritage and commitment to future generations.



Dignity Health cares about the health of its patient population, the planet and strives to modernize its health delivery system and facilities in ways that promote a healthy environment.

With safety, security and sustainability in mind, Dignity Health issued a bid request for a turnkey exterior lighting solution that would include new luminaires, site surveys, audits, supply chain coordination and luminaire installation at 38 locations in Arizona, California and Nevada. Retrofitting the existing luminaires was not an option because many of the luminaires were installed during the mid-1990s and earlier and required replacement or repair.

Maintenance had become very expensive at St. Mary, for example, as the hospital frequently hired a company with a crane to change luminaire lamps. Many of the ballasts from the legacy fixtures had overheated and failed and needed to be replaced.

The Challenges

Dignity Health campuses vary in size, with some locations comprised of numerous buildings and structures with various architectural styles. One of the buildings on the St. Mary campus, for example, was constructed in the early 1900s and features timeless Art Deco architecture.

A variety of metal halide, high pressure sodium and incandescent fixtures of various shapes and sizes illuminated the hospital campuses. St. Mary had more than 400 different fixtures illuminating the grounds and campus buildings, with some areas over-lit and others poorly illuminated.



“Human kindness is the expression of how we care for our patients, visitors and staff. It involves hundreds of individual touchpoint interactions that define the experience, starting with when you first drive onto a Dignity Health campus or walk onto one. We wanted that experience to be just as great at night as it is in the daytime and chose Acuity as our partner in that effort.”

- Paul Gerner, PE, CEM, GBE, Dignity Health Area Director



Some of the highlighted features of the installed Acuity Brands luminaires from Lithonia Lighting® and American Electric Lighting® are noted below:

- The D-Series family of luminaires provides better lighting from every angle with outstanding performance, incredibly long life, remarkable energy efficiency and modern styling. These LED luminaires save up to 90% in energy when replacing comparable HID luminaires. Finally, the family's sleek, sophisticated design is striking yet unobtrusive.
- The PGX LED luminaire is designed to provide visual comfort, energy savings, and long life. It delivers up to 86% in energy savings when replacing 175W metal halide luminaires. With over a 100,000 hour life expectancy, (12+ years of 24/7 continuous operation) the PGX LED luminaire provides significant maintenance savings over traditional luminaires.
- The ABT2 is a high performance, energy efficient solution for roadways and area lighting applications. It is 40-60% more efficient than existing 250-400 watt high pressure sodium luminaires.
- Universal Mounting brackets were used allowing Lithonia Lighting LED area luminaires to be installed on existing poles without the need for drilling or cutting of the pole, saving time and cost.
- WL Series LED luminaire installed in the parking garage stairwells provides a sleek, minimalist-designed architectural LED luminaire with an integral occupancy sensor that enables one-for-one replacement of existing fluorescent fixtures while achieving 50% or more in energy savings over a traditional T12 lamp.



The Solution

Dignity Health received bids and recommendations from six major lighting manufacturers and created a multi-faceted selection process considering price and qualitative measures.

Based on selection process results, the corporation teamed with Acuity Brands to provide LED solutions for each hospital campus. Performance Lighting Systems, an Acuity Brands agency, developed project specifications while Earth Savers Energy Services, Inc., the lighting contractor, compiled a spreadsheet with existing fixtures, the Acuity Brands LED luminaire recommended, hours of operation, energy savings and other variables.

Once specific LED luminaires were agreed upon for each campus, Energy Services worked with local regulatory authorities, including the Office of Statewide Health Planning and Development (OSHPD) in California, to gain approval.

Motion sensors were employed to reduce energy consumption by dimming luminaires in areas that were sometimes unoccupied during the night. When someone entered the area, the luminaires returned to full brightness.

Earth Savers determined what hospital sites qualified for utility rebates, developed energy usage profiles and conducted audits and surveys. Data gathered helped Acuity Brands provide unique solutions tailored to each site to achieve the greatest value.

The Results

LED lighting contributes to Dignity Health's modernization and sustainability goals by decreasing system wide energy consumption. Dignity Health hospitals have the potential to reduce energy



"The lighting upgrade improved the quality of the illumination and made our campuses feel safer and more inviting...Color rendering improved, contrast ratios decreased and visitors and staff find it easier to navigate our night environment."

- Paul Gerner, PE, CEM, GBE, Dignity Health Area Director

usage by over 50 percent and greenhouse gas emissions by 5,284 metric tons, the equivalent of over 12 million miles driven by an average passenger vehicle. This decrease reinforces the corporation's commitment to reduce greenhouse gas emissions 40 percent overall by 2020.

In addition, upgrading to LED luminaires decreases annual maintenance costs by an average of \$505,000 across the 38 facilities. The LED system will require virtually no maintenance over the next 10 years.

"Man hours required to maintain the lighting system are greatly reduced," Garibay said. "Maintenance team members can now focus on needs inside of the hospital rather than dealing with the exterior."

Lighting upgrades for the exterior of the 38 hospitals took around 21 months from the initial audits to installation, with the project on budget and meeting customer expectations without disrupting each site's operations. The project payback ranges from 5 – 10 years.

"It has been incredibly rewarding to be a partner in Dignity Health's lighting revitalization project. We not only achieved the sustainability goals of the expansive project, but more importantly, we were able to deeply impact the people who use these spaces." said Karyn Gayle - VP Healthcare Market, Acuity Brands.



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