

Dialight SafeSite® LED Lighting

New Diamond Pet Foods Facility Achieves Less than Two Year Payback with Dialight's SafeSite® LED Lighting Fixtures



Installation Snapshot

- 300,000 sq. ft. facility, Class II Div 2
- <2 year payback
- 24/7 lighting indoor, 12/7 lighting outdoor on photocell
- 500+ Class II Div 2 and general purpose fixtures installed:
 - (304) LED Linear Fixtures (CII D2)
 - (97) LED High Bay Fixtures (CII D2)
 - (48) LED High Bay Fixtures (UL1598A)
 - (79) LED Area Lights (CII D2)
 - (10) LED RTO Area Lights (CIID2)
- Energy rate - \$0.136/kWh
- Energy savings: at least 50%
- Up to 10 years of zero maintenance

The new 300,000 square foot Diamond Pet Foods facility in Ripon, Calif. went online in May 2012 with more than 500 high-efficiency, Class II Div 2 LED fixtures by Dialight, the innovation leader in industrial and hazardous location LED lighting. Through combined energy and maintenance savings, the company expects a full return on its investment in less than two years and will benefit from improved visibility thanks to the clear, white light of the Dialight LEDs.

The Challenge

A leading manufacturer of super premium, nutritious and natural pet foods, Diamond Pet Foods is a family-owned business with more than 40 years history of providing the highest-quality pet foods at an affordable price for dogs and cats of all ages. Thanks to its rigorous 151 Checks ingredient and product quality system, the brand has become the choice of top breeders, kennel owners and families worldwide.

Planning to construct a new manufacturing facility, the Missouri-based company had been so impressed with the work ethic of employees at its Lathrop, Calif. plant, Diamond chose neighboring Ripon, Calif. for the new site, just 30 miles away. The 300,000 square foot plant would be a Class II Div 2 facility as dictated by its raw materials, which arrive in powder form, are extruded into a pellet and then dried through an oven.

Aiming to minimize energy consumption and achieve more sustainable operations at the new facility, the company installed solar panels designed to provide roughly one-quarter of the electricity to power the building.

The manufacturing environment posed a number of lighting challenges. First, the company needed an ultra-energy-efficient system to reduce consumption and fully leverage the benefits of its solar system. Second, they required Class II Div 2 certified fixtures that would offer safety and reliability amid the high-vibration and dusty conditions. Ambient heat and humidity was also an issue, driving a need for lighting that would safely withstand up to 120°F and high humidity in the extrusion areas. With many hard-to-reach and low-clearance areas near process equipment, Diamond also needed dependable fixtures that offer longevity, low maintenance and ease of installation.



Dialight SafeSite® LED Linear Fixtures provide superior illumination at Diamond Pet Foods

The Solution

All things considered, LED lighting was the natural choice. Diamond consulted with Nelson & Sons Electrical, the company's electrical service partner for more than 15 years and a specialist in lighting and electrical needs for the food processing industry, to help specify the best solution. Diamond began with a trial of 16 Dialight DuroSite High Bay LEDs in the receiving area, prior to the facility coming online.

Satisfied with what they saw, the company gave the green light to outfit the entire facility, including 304 2-foot and 4-foot LED Linear fixtures, 145 LED High Bays and 89 LED Area Lights, for a total of 538 Dialight LED fixtures.

The Result

The low profile of the Dialight LED fixtures enabled mounting in areas that would have been difficult with other bulky conventional lighting fixtures, and the company can expect to use at least 50% less energy compared to other options.

Not only did the Dialight products offer the rugged durability Diamond required, but each fixture is also backed by Dialight's 5-year full-performance warranty. Based on performance history, Diamond will likely enjoy up to a decade of reliable illumination, for a truly maintenance-free solution that adds to the significant energy savings. As a result of the energy and maintenance savings, the company easily hit its goal of less than two year pay back.

Employees immediately recognized the difference in the crisp, white, glare-free light at the Ripon facility compared to other plants that do not yet use LED. In fact, the project at Ripon has been such a success, Diamond is considering an LED retrofit at its Lathrop plant just up the road.



Employees noted a significant difference in the bright white exterior lighting at the Diamond Pet Foods plant compared to the orange glow of the high-pressure sodium fixtures at CoGen power generation facility next door.

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