

Location:

Cincinnati, Ohio

Segment:

Commercial Construction/Lighting

Challenge:

To achieve a green footprint in the construction of new corporate offices using the latest efficient lighting technologies including controls to achieve energy code compliance.

Solution:

Eaton's Distributed Low-Voltage Power (DLVP) system and Metalux Cruze LED Luminaires (34W, 4000K).

Results:

The LED lighting and controls solution provided fast, simple installation with reduced wiring materials, cutting installation labor by 67 percent. The sustainable solution allows the customer the ability to control the lighting products based on occupancy and daylighting as well as create scenes for various office settings.

Electrical Contractor:

Brooks and Sons Remodeling, Cincinnati, Ohio

Eaton's Distributed Low-Voltage Power System and LED Lighting Solutions Help USGreentech Meet Sustainable Goals

Minimizing line voltage wiring and terminations, the Distributed Low-voltage Power system utilizes preterminated cabling for plug-n-play connections. The result is a system that installs quickly, eliminates wiring errors, and is configured by the installer.

Background

Located in Cincinnati, Ohio, USGreentech is a company focused on the development and distribution of progressive synthetic turf infill for the sports field industry.

The company, which offers innovative and award-winning sustainable solutions including natural, renewable and recyclable products, wants to provide a lower environmental impact in its new corporate offices.

Challenge

USGreentech wanted the latest LED and controls technology for its new 2,200 sq. ft. corporate offices to meet the company's sustainable goals. The new lighting system needed to be energy efficient; include occupancy and daylighting control capabilities; and provide uniform lighting with the fewest number of lighting fixtures. USGreentech also wanted the ability to create scenes to adjust the lighting for different activities in the offices.



Solution

USGreentech chose Eaton's Distributed Low-Voltage Power (DLVP) system with 22 Metalux Cruze 2' x 4' LED lighting products to illuminate the open office area, collaboration area and private office. The electrical installation was completed by Brooks and Sons Remodeling.

The DLVP system provides low-voltage power and control within the same cable, which simplifies installation and minimizes the material required to install a lighting and control system.

The sustainable solution enables the customer to control and program different lighting products based on occupancy and daylighting.

The open office and collaborative spaces have manual, occupancy and daylighting control capabilities. The private office has manual control and occupancy sensing capabilities.

"The Eaton products were chosen because they are the first of its kind and my client USGreentech strives to be on the cutting-edge in their industry as well as other," said Quentin Mecklenborg, owner, Brooks and Sons Remodeling.



Results

When comparing installation cost, the low-voltage wiring system saved 67 percent in labor man-hours compared to a traditional overlay installation, which could require miles of high voltage wiring to power lighting and controls systems.

The easily configured "plug-and-play" system took one electrician less than a day to install the 2,200 sq. ft. space with lighting — from running the wire to the low-voltage power module and connecting all the fixtures to working order — versus traditional wiring, which typically takes two electricians over a day to wire the same amount of fixtures.

"My clients business goals are to provide a lower impact on the environment and using the DLVP lighting system significantly helps reduce their impact," said Mecklenborg.

"The lighting is one of the things that visitors comment on most frequently. The space is bright and the lighting levels consistent throughout the space no matter the time of day," said Adam Coleman, general manager, USGreetech. "The system also powers down when the space isn't being used, which is a constant reminder that the system is watching out for the energy efficiency of the space even when we are not. The ability to create scenes allows the lighting to be easily adjusted based on the activity in the space."







About Eaton Lighting

Eaton's Lighting Division delivers a range of innovative and reliable indoor and outdoor lighting solutions, as well as controls products specifically designed to maximize performance, energy efficiency and cost savings. The Lighting business serves customers in the commercial, industrial, retail, institutional, residential, utility and other markets.

Eaton's Electrical Sector is a global leader with expertise in power distribution and circuit protection; backup power protection; control and automation; lighting and security; structural solutions and wiring devices; solutions for harsh and hazardous environments; and engineering services. Eaton is positioned through its global solutions to answer today's most critical electrical power management challenges.

Eaton is a power management company with sales of \$19.7 billion. Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. Eaton has approximately 95,000 employees and sells products to customers in more than 175 countries. For more information, visit www.eaton.com.



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