

Location:

Cleveland, Ohio

Segment: Commercial Construction/Lighting

Challenge:

Upgrade existing fluorescent lighting in a data center with energyefficient, budget-conscious and easy-to-install solutions that improve light quality and meet crucial timeframes.

Solution:

Eaton's Distributed Low-Voltage Power (DLVP) system and Metalux WSL LED Luminaires met H5 Data Centers sustainable goals and quick timeframe.

Results:

The LED lighting and controls solution provided fast, simple installation, installing in one day with wiring material costs of less than half of a traditional quoted system, while providing an estimated energy savings of up to 70 percent¹. Eaton's Distributed Low-Voltage Power System and LED Lighting Solutions Meet Data Center Sustainable and Critical Timeframe Goals

"With today's huge demand for nearinstantaneous delivery of data, data centers operate 24/7, and require a lot of power, so energy efficiency is extremely important," said Jeremy Lavelle, facility manager, H5 Data Centers. "We try to be as efficient as possible to keep utility cost manageable and meet our company's sustainable goals."

Background

Headquartered in Denver, Colorado, H5 Data Centers is one of the leading privatelyowned data center operators in the United States with nearly two million square feet under management. The company designs and engineers flexible and scalable data center and interconnection solutions to address the business and operational requirements of its customers. With locations nationwide, the company's sustainability initiative is to improve efficiency and reduce the environmental impact of the energy use of its data centers that operate 24/7.

Challenge

H5 Data Centers is a multitenant data center company that purchases older buildings and quickly and efficiently transforms them into state-of-the-art facilities, representing the next generation of data center design and operations. The company recently purchased a 330,000 sq. ft. building in Cleveland, building out a 3,500 sg. ft. space, which needed upgrading of the existing conventional fluorescent lighting products with an energy-saving system that improved the light quality, was easy to install and had minimal integrated controls capabilities. In addition, the company didn't want the traditional-looking industrial warehouse lighting fixture, but a more attractive, aestheticallypleasing solution to satisfy the company's required needs.



¹As referenced by Lighting Controls Association, November 2017, and Northwest Lighting Network

Solution

H5 Data Centers was introduced to Eaton's Distributed Low-Voltage Power (DLVP) system, a wiring system that provides low-voltage power and control in the same cable, which simplifies installation and greatly reduces the material required to install a lighting and control system. The sustainable solution allows the ability to control and program different lighting products based on occupancy, among other capabilities.

"We move rapidly once a customer needs to occupy a new space, so it's crucial that timeframes are met," said Lavelle. "We locked on to the DLVP system due to the efficiency and ease of installation as we knew we could quickly self-install the lowvoltage Class 2 cabling system for additional savings. The easily configured plug-and-play lighting and controls system was installed in one day."

Twenty-seven of Eaton's Metalux WSL suspended LED lighting products were chosen to illuminate the data center. "We were looking for a lighting product that was more attractive to the eye than an industrial warehouse-type fixture," Lavelle noted. "We chose the WSL LED product and Eaton took the time to develop the product to work with the DLVP system, so it would best suit our needs."

Since this data center has no windows, the control capability needed to include only occupancy sensing, no daylighting, and the ability to create and change zones for additional energy efficiency.

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Results

The complete system hardware and install was less than half of the cost of a traditional system, installed in one day and providing an estimated energy savings of up to 70 percent1.

Since the completion, H5 Data Centers had standardized on their new sustainable system and is installing the DLVP and LED lighting system in an additional 22,500 square feet of two new data center spaces at this Cleveland campus.

The company has also recently expanded its renewable energy and sustainable initiatives by purchasing renewable energy certificates to offset 100 percent of the energy consumption at this Cleveland data center.





Photography: After photo: Eighty Eight Photo (eightyeightphoto.com)





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AFTER

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