OHL Enjoys Improved Facilities Management, Productivity, and Safety

The Opportunity

Ozburn-Hessey Logistics (OHL) is one of the largest third-party logistics companies in the world, providing integrated global supply chain management solutions, including transportation, warehousing, customs brokerage, freight forwarding, and import and export consulting services. Founded in 1951, OHL has more than 36 million square feet of flexible warehouse space. At the 300,000-square-foot facility in Granite City, Illinois, two-thirds is laid out as rack aisles and one-third is open warehouse.

This facility operates 100 hours per week, 52 weeks a year, and its high-pressure sodium lights were a drag on employee comfort and productivity. The lights did not provide good color resolution and required an employee to turn them on 15 minutes prior to opening the warehouse so they could warm to full intensity. The lighting caused eye-strain, and the inspection of certain products prior to re-packaging often had to be done outside because the yellow sodium lights prevented employees from spotting damage. The building thermostats also had to be turned on and off manually, which meant if it was too hot or cold when entering the building, it took about an hour to reach a comfortable temperature.

The Solution

Richard Gedmin of Superior Solutions Group knew that retrofitting the lights and thermostats with controls would solve OHL’s problems and deliver significant return on investment. “Richard arranged a site visit to a similar facility, and after seeing their Daintree™ lighting and system capabilities, we knew this was the direction we wanted to go;” said Dana Heflin, VP Operations at the OHL facility.

Superior Solutions Group outfitted the OHL with Daintree solutions from Current, powered by GE, enabling significantly improved facilities management. First, they installed 398 dimmable LED high bays equipped with the Daintree WHS100. In the offices, they also installed 120 dimmable LED troffers that were controlled via the Daintree WA100 on a circuit level. In addition, the Super Solutions Group added programmable WTS10 Daintree thermostats throughout the facility.

The Results

The Daintree system allows workers to adjust light levels for different types of work. “Under the old lighting, eye strain was something we all had to deal with. After the retrofit the consensus is that it’s easier for us to perform our jobs better,” commented Chris McIntyre, an operations lead.

Safety First

OHL programmed Daintree to light up the entire aisle fixture when the occupancy sensor was triggered, as opposed to traditional occupancy programming, which typically has a delay so that aisles remain dark ahead. Now, forklift operators can not only see if anyone is in the aisle, but can also read the product print on the top racks from the ground—a major plus for operational efficiency.

Employee Comfort

Workers located next to windows can now adjust lighting levels based on the brightness outside, improving comfort at their desks. In addition, the new thermostat controls ensure the ideal temperature always.

Business Results

The company has achieved 85% energy cost savings, and with its Daintree system, OHL also received a utility incentive of $70,000 for reducing wattage and adding occupancy sensors. Before the lighting and HVAC retrofit, the average weekly lighting and HVAC energy bill was $1,600; since then, it has been slashed to $250!
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**Superior Solutions Group + Daintree**

**398 DIMMABLE LED HIGH BAYS, 120 DIMMABLE LED TROFFERS, AND PROGRAMMABLE THERMOSTATS**

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Next Steps
Both executives and workers at the Granite City facility praised the Daintree and OHL plans to evaluate other facilities for lighting and thermostat retrofits with Daintree controls.

85% ENERGY COST SAVINGS

$70k UTILITY INCENTIVE

AVERAGE WEEKLY LIGHTING AND HVAC ENERGY BILL

$1,600 → $250

BEFORE AFTER

GIVE US A CALL LEARN MORE

Want to see how you can make your environment intelligent? Contact us to get the conversation started.
The Opportunity

Mack Technologies, a leading provider of complex electronic manufacturing services, makes electronic circuit boards for the defense, telecom, and industrial sections in its facility in Westford, Massachusetts. Mack Technologies researched efficient commercial lighting solutions to meet aggressive operational cost reduction goals, but concerns about the initial cost of replacing several thousand fluorescent bulbs made the manufacturer cautious about conversion. Mack Technologies also wanted to be a leader in corporate social responsibility. To do that, the company needed to significantly reduce its energy consumption and enhance employee working conditions while minimizing the cost of investment.

The Solution

Mack Technologies believed that the key to achieving energy efficiency was to leverage transformative technologies. Knowing that LED lighting, along with Daintree intelligent lighting controls, represent a significant innovation in energy efficiency, Mack Technologies sought to retrofit its 108,000-square-foot manufacturing facility in Westford.

To make this goal a reality, the firm brought in Bluestone Energy Services to develop and execute the comprehensive LED lighting and intelligent control project. Realizing the value of Daintree, Mack raised the bar in LED conversion by integrating controls to dramatically improve efficiency and flexibility.

The Results

The Daintree solution from Current, powered by GE, provides a wireless control solution for smart buildings, allowing Mack to transform LED conversion into a greater energy- and cost-savings investment. Daintree controls the new lighting fixtures through a standards-compliant ZigBee mesh network, enabling the driver in each lighting fixture to provide maximum flexibility to lighting control strategies.

Between October and December of 2012, Mack replaced 2,600 T-8 fluorescents with LED fixtures—investing over 3,000 man hours for the installation. The LED fixtures are warranted for five years or 50,000 hours and will not require frequent replacement like the fluorescent lighting fixtures they replaced.

At Mack, each fixture is individually programmed through ControlScope Manager to achieve maximum savings. Mack decreased the lighting intensity in one area from its normal level in 1-percent increments to better understand what levels were important for the tasks being performed. Not until the level reached 50 percent of spec standard did occupants perceive the lighting to be noticeably dimmer. So, while Mack is already saving significant money on its energy bill, it has opportunities to extract more savings from Daintree as the users gain experience with actual usage requirements.

"We were blown away by the information we came across in terms of the energy savings and the positive impact to the environment that we could realize."
—John Kovach
Former President of Mack Technologies

Through ControlScope Manager, Mack Technologies has access to reports that show its energy usage based on its settings. This information enables Mack to discover and implement opportunities to improve the facility's energy usage, boosting the business profitability. Mack can also use this information to define and refine zones of lighting to be controlled as a group on a schedule, on demand, or on sensor-based occupancy as they see fit.