



Logistics Warehouse Dramatically Transformed by Lighting System Upgrade with Flex Lighting Solutions

“ Before the Flex LED lighting upgrade, operators were spending more time pulling orders for customers. Since the retrofit, productivity increased as well as the light levels and now it's a more safe and efficient work environment. ”

Jed Young
Director of Business Development

Location: Savannah, GA

Application: Warehouse

End Customer: Port City Logistics

Partner: LED Lowcountry

Facility

180,000-square-foot Food Grade Warehouse and Distribution Center near the Port of Savannah

Key Results

- Over 86% Energy Reduction
- 100% Reduction of Maintenance Costs
- \$215,000 Cost Savings over next 10-years
- Reconfigured and Redesigned Lighting Layout
- Increased Light Levels from 5 Foot-candles to 15 Foot-candles
- Increased Safety
- Improved Operators Efficiency and Productivity



\$21,500
annual energy savings



80%
energy savings

Overview

Port City Logistics converted one of their warehouses from food to bulk storage, a change that required a new floor plan and a reconfigured aisle racking. The existing lighting system did not have the flexibility to meet the new lighting requirements, wasting light in some areas and leaving others too dark. With the assistance of LED Lowcountry, Port City Logistics upgraded their lighting system with Essentials Series 4.0 LED high bays from Flex Lighting Solutions. This dramatically increased their energy efficiency over 80%, created better illumination, and saved them money, all while increasing safety, productivity and efficiency.

Challenge

As business evolved at Port City Logistics, so did their 180,000 square foot warehouse and its primary use. They had undergone a conversion of their warehouse from a set up utilizing area lighting to reconfiguring the 80% of the space to house rack storage. This created a challenge replacing outdated lighting technology and a need to redesign their lighting floor plan as a whole.

After the modification, this also presented a huge illumination challenge, with all the lights placed now in the wrong place. On top of the placement issue, the incumbent lighting system consisted of T5 fluorescent lighting. This outdated lighting not only added to a dismal light level problem but also experienced expensive energy consumption, high maintenance costs and safety concerns regarding broken glass and mercury content.



Essentials Series 4.0 LED High Bay

Solution

Port City Logistics realized they were in need of a lighting overhaul to fix their lighting challenges. The first step was to diagnose the current lighting layout and come up with a solution that fit the new configuration and made economic sense.

They discovered that with all the new rack storage, the warehouse had too few lights now to properly illuminate the space. The products stacked on the racks blocked the light output from some of the old lights. Flex Lighting Solutions and LED Lowcountry worked together with Port City Logistics to design lighting layouts to create a new floor plan. Together, they showed them how they could properly light their facility with the number of fixtures in each aisle.

The new lighting floor plan was created and to meet the lighting requirements fixture count increased from 143 8-lamp T5 Fluorescent fixtures to 203 Essential Series 4.0 LED high bays. This upgrade eliminated the costs and time to continuously service 1,144 fluorescent lamps. To secure optimal light levels for the different areas of the warehouse, the Flex Essentials Series 4.0 LED high bays were set to 23,000 lm for the open areas and 15,000 lm in the aisles. These Flex LED high bay's used in the aisles were equipped with special aisle lenses to direct the light to the floor.

"With the new Flex lighting, the light levels were dramatically improved in the aisles. We tripled the light from less than 5 foot candles to 15. The area lighting was also improved from 10 foot candles to 15," shared Joel Rudicil, owner of LED Lowcountry.

The installed Essentials Series 4.0 LED high bays feature integrated control systems that maximize energy savings. Each luminaire includes an occupancy sensor that dims the light when there is no activity in their area. Each luminaire includes an integrated photocell as well that measures the amount of natural light their area and adjusts its light output to deliver the optimal illumination level. The combination of these control systems with the efficiency of the Essentials Series 4.0, and LED Lowcountry estimates that Port City Logistic will save \$21,500 annually from this lighting upgrade.

Port City Logistics now enjoys a properly illuminated warehouse with intelligent control systems and the flexibility to adapt the illumination for future demands. Offering a safer working space for its employees with a noticed increase in productivity while saving money in energy and maintenance.

"With the old lighting before the Flex LED lighting upgrade, operators were spending more time pulling orders for customers," shared Jed Young, Director of Business Development. "Since the retrofit, productivity increased as well as the light levels and now it's a more safe and efficient work environment."

For more information, please visit www.flexlightingsolutions.com

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