Case Study

From Head Lamps to Sunglasses: LEDs Speed Picking in Memphis Warehouse

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Dwayne Henry
Facilities Supervisor, Flex

Company: Flex Memphis

Plant: Warehouse 267,000 square foot warehouse connected to an electronics repair facility

Overview: The Memphis parts warehouse was poorly lit with lighting levels of just 7 to 9 foot candles, which made it hard for employees to pick parts because it was difficult to see the correct part numbers. When the warehouse manager discovered internal company documents stating that a foot candle reading of 45 was desirable for warehouses, the facilities manager chose Flex Lighting Solutions LEDs, which greatly increased the quality of light while reducing energy costs.

Key Results
• Improved working conditions, including safety
• Increased foot candle readings from 7 to 9 to 45 foot candles
• Lowered energy costs
• Reduced employee complaints
• Eliminated need for task lighting
Challenge

The Flex Memphis facility consists of two spaces, an electronics repair floor that serves six customers and, separated by a wall, a 267,000 square-foot warehouse where electronic parts for repairs are stored. Employees complained for years that it was hard to see part numbers in the dark warehouse aisles, and some joked that the company should invest in head lamps to speed picking.

“We knew the warehouse was too dark, and it had been that way for years,” said Dwayne Henry, facilities supervisor. “We came across a document that our regional facilities manager had written stating what the foot candle standards should be at all sites and realized we were grossly under the minimum by quite a bit.”

The Memphis warehouse facilities, they learned, had just 7 to 9 foot candles on the floor when the minimum required was supposed to be 32 foot candles. The warehouse employees were nearly working in the dark. Armed with this information, Henry set out to replace the company’s T8 High Bay fluorescent 2 by 4 and 2 by 8 fixtures.

Multiple lighting contractors made presentations and informed the team that High Bay LED lighting was brighter, more efficient in wattage and power consumption than the fluorescent lighting installed in the warehouse. The payback on LEDs was also faster, Henry learned.

Solution

The Memphis facility chose Flex Lighting Solutions because it was the most affordable option, he said. In August 2016, the warehouse installed 392 2 by 2 High Bay LED fixtures and 166 2 by 4 High Bays over a four week period. They rented scissors lifts with booms and scheduled installation around work schedules, which included some production work that takes place in the warehouse.

The day after each new area sported the new lights, employees “were all excited that they could see part numbers in the aisles,” Henry said. “The difference was literally night and day. Going from 7 to 9 foot candles to 45 footcandles was quite a difference. When we started talking about issuing safety vests, we jokingly talked about possibly having to issue sunglasses too.”

Managers can now look across the warehouse and identify workers by name because they can see them so well. Previously, you couldn’t make them out before, Henry said. One customer that needed supplemental lighting previously doesn’t need the extra lighting anymore, he added.

Henry expects the plant will see a reduction in energy costs in a few months. Energy costs for the entire facility – the production floor and warehouse – costs about $35,000 a month for some 400,000 kWh a month.

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