

British Fruit Importer Overcomes Rising Energy Costs with New Hi-Efficiency Dialight LED Lighting

One of the largest importers of fresh fruit in the United Kingdom, MMD Shipping's inbound facility at the City of Portsmouth handles roughly 60 percent of all bananas brought into the UK. With a dozen ships that traverse the Atlantic hauling fruit "across The Pond" from the Caribbean, MMD operates a 12-warehouse facility that receives and distributes all varieties of fresh fruit to the British market.



Dialight's DuroSite® LED High Bay fixtures installed in MMD Shipping's Portsmouth ware-

Already coping with a nearly 20 percent increase in energy rates over the past year, the company was facing an additional 10-15 percent year-over-year increase down the road. In an effort to overcome the rising cost of electricity and improve overall operational efficiency, MMD has recently begun to install Dialight's high-efficiency LED lighting fixtures at both its new and existing facilities. Not only has the effort paid off by cutting energy consumption and cost with an expected ROI of two years but it has also dramatically improved lighting efficacy and safety while reducing maintenance demands and expenses throughout the company.

New Facility Demands New Approach to Lighting

With construction of its new 3,000 square meter (32,000 square foot) Portsmouth cold storage facility underway, MMD began looking at a variety of lighting solutions. Lighting needs alone accounted for up to 15 percent of the company's total electrical consumption, and rates had already jumped considerably over the past year. Looking to minimize consumption and costs, the company compared Dialight LEDs against some other LED products, as well as induction and fluorescent options, for its new chill store.

Working with Elite Renewables, a Dialight authorized distributor and installation contractor, a trial of the Dialight product ultimately demonstrated superior light output with the High Bay fixtures delivering up to 320 lux on the floor, even at a ceiling mounting height of 12 meters (nearly 40 feet). MMD had found its high-efficiency lighting solution for the new cold storage facility. Elite Renewables then went to work providing complete lighting schematics with layouts and measurements to optimize light efficacy.

"The improvement in on-the-ground lux level made possible with the Dialight High Bays was truly impressive," said Adrian Corthine of Elite Renewables. **"In some areas, the 320 lux was nearly five times what the typical metal halide or high-pressure fitting could provide and with a much greater operational efficiency."**

Installation Snapshot

- New installation
- (134) 150W LED High Bays w/ occ sensors
- (16) 80W LED Low Bays w/ occ sensors
- Delivered light: ~300 lux
- Payback: 2 years
- 19% return from UK's Enhanced Capital Allowance (ECA) scheme

Dialight Delivers Dramatic Savings

The company installed 134 Dialight 150W High Bays in the cold storage area proper, with an additional 16 Low Bay units in the indoor and outdoor loading bay areas. Not only do the fixtures deliver even illumination with clear, crisp white lighting, but due to the LED's superior performance in cold applications, the fixtures in the chill store actually deliver more than the advertised lumen output, thanks to the ambient temperature of 5°C. And, with the Dialight LED's exceptionally low heat output, the entire cold storage locker runs more efficiently with less refrigeration demand to maintain optimum temperature.



Dialight DuroSite® LED High Bays with Instant on switching allows MMD Shipping to achieve even greater savings

Finally, each fixture is also linked to occupancy sensors to illuminate the area only when needed. Instead of the 24/7 burn time common with other conventional lighting solutions, the fixtures are only on about 30 percent of the time. This feature alone delivers dramatic energy savings compared to typical metal halide or high-pressure sodium fixtures and significantly extends the life span of the fixture itself well beyond its warranted five-year period.

"We have been extremely pleased with the energy savings and reduced operating cost we've seen with the new Dialight fixtures in the cold storage facility," said Tim Schofield, Financial Controller with MMD. **"In fact, we've been so impressed with the performance and warranty that we've begun retrofitting nearly all of our other facilities to Dialight LEDs to improve efficiency, lighting efficacy and safety throughout our operations."**

Outstanding Results Drive Corporate-Wide Rollout

With the new cold storage facility now complete, MMD has since purchased an additional 440 Dialight fixtures for a one-to-one replacement of existing 400W metal halide fixtures at 11 other warehouse buildings. At one banana storage facility, the retrofit has earned rave reviews from the employees who immediately noticed a vast improvement over the previous lighting

conditions. The reduced heat output of the LEDs has also helped improve temperature maintenance in the banana facility. The chillers no longer have to work so hard during warmer weather to keep the temperature down and the product itself benefits from optimum, even temperatures throughout.

Furthermore, the long-life performance of the Dialight LEDs will significantly reduce MMD's lighting maintenance needs, which were once a costly and cumbersome exercise. Now, rather than halting production to bring in a scissor lift and change bulbs every few months, the facility can enjoy years of reliable, steady light output with virtually zero maintenance.

Tax Incentives Sweeten the Deal

Supplementing the energy and maintenance savings, MMD has also been able to take advantage of a nearly 20 percent tax break from the British government as part of the UK's Enhanced Capital Allowance (ECA) scheme. The program allows companies that invest in energy-efficient equipment and machinery to write off the entire expense in the year in which the investment is made, rather than amortize the cost over several years. Similar programs are also available in the U.S. for Designlights™ Consortium qualified products, such as the Dialight High Bay fixtures. **"I don't understand why everyone doesn't go LED,"** Schofield quipped. **"Between the energy and maintenance savings, and the tax incentives, the switch to LED fittings was a no brainer."**

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