



In partnership with...

a.f. **blakemore**
& son ltd

Case Study

Distribution & Warehouse

Electrical Efficiency

Large warehouse facilities can suffer from inefficient lighting problems such as uneven light distribution and outdated light fittings.

Electrical efficiency is also crucial in temperature controlled environments that require effective cooling solutions for food and pharma storage and distribution.



About Us

Ayjay Group are electrical and refrigeration engineering specialists. From design, installation, bespoke project management and ongoing maintenance support, we offer a full range of electrical solutions for every commercial and industrial project.

Within our field, we are constantly looking to provide solutions that match our customers needs offering bespoke provisions to help them create a greener, more energy efficient and cost effective environment.

The following case study (in partnership with AF Blakemore) outlines a full lighting project from concept to completion and the impact of effective lighting within their ambient, chilled and frozen storage areas.

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Overview

Ayjay Group were appointed to review and update the current lighting provision throughout the site - warehouse, distribution (ambient/ chilled and frozen), office and recreational areas.

The project involved:

1

Lighting Efficiency Audit

Hotspots and issues identified and tested throughout the building.

2

Report & Recommendations

Lux level lighting report and product recommendations suitable for each area.

3

Pre-works

We assessed the existing electrical infrastructure to ensure compliance with BS7671, prior to the upgrading works.

4

Installation

Install quality replacement light fittings and PIR/ Occupancy sensors suitable to each area.

5

Completion

Provide a full report to customer, highlighting increase in lux levels, decrease in energy consumption and expected ROI.



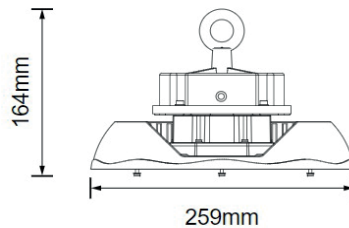
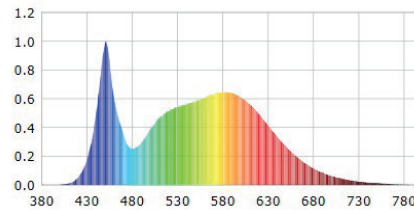
Kosnic range of LED Circular Suspended High Bay Luminaires with Emergency and Sensor options were fitted throughout the warehouse area.



Action

Mindful of each application, our team assessed the lighting requirement and installed lighting solutions and controls to purpose fit each environment.

- Using specialist software, we designed a lighting scheme for each area, outlining product options including suitable luminaires and sensors.
- Installation of intelligent controls throughout the building to provide a cost-effective and energy efficient solution.
- For chilled and frozen areas, light fittings were chosen to introduce minimal heat gain, which in turn, reduces load on the refrigeration system.
- Correct disposal of waste following WEEE Regulations.

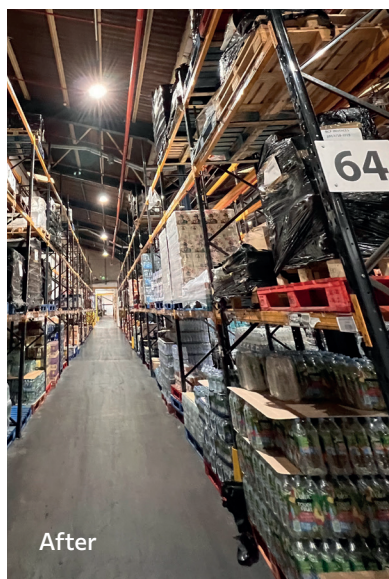


Products

All light fittings installed were high efficiency and long life of 40,000h.

LED lights have less heat load in refrigerated areas so will help reduce refrigeration running costs. LED panels fitted in office and recreational areas were supplied with flicker-free drivers, suitable for users who require high quality lighting to maintain well-being.

For further efficiency, PIR sensors were installed, some with remote control for stand-by dimming and daylight threshold.



Quality products

Brands such as Kosnic, Robus and Ansell were chosen for this project.



Energy Savings

The old light fittings were running at 73.696 KWh. With the new LED lighting installed, this significantly decreased to 39.72 KWh, with further savings due to the use of sensed fittings.

This means an increase in lighting levels (an average of 30% increase in lux levels and in areas with failed fittings up to a 100% improvement) but a decrease in energy used.



ENVIRONMENTAL COMMITMENT

Compliance to Waste Electrical and Electronic Equipment (WEEE) Regulations, reducing the environmental impacts caused by end-of-life electronic and electrical items.





Result

The operation was complex, therefore working together positively with the customer was essential and the success of this project was based on this. We were able to establish great communication and work together on joint solutions to effectively address unforeseen issues.

Significant energy cost savings were achieved for the customer whilst elevating lighting levels.

The increase in lighting levels has also improved safety for employees, especially in areas with operational fork trucks.

With excellent knowledge of warehouse storage and logistics business requirements, we were able to deliver:

“Good communication is the key to any successful works and we certainly received this. Thanks for an excellent install.”

Group Facilities Manager
AF Blakemore



Expert Recommendations

We select products based on requirement rather than standard.



ROI

The cost of investment in replacing old equipment will payback in energy savings.



Delivered Ahead of Schedule

Working effectively meant we delivered ahead of the program timescale.



Limited Disruption

Good working practices and OOH working to minimise impact on the existing operations.



On-site Performance

Excellent product knowledge, health & safety practices, communication and install timings.

Future

We aim to provide each customer with effective, long-term, innovative lighting and control systems and quality electrical solutions that deliver efficiency, high-performance output and reliability. This project will benefit from:



Energy Savings

Initial feedback shows significant cost savings on energy output since the installation.



Energy Efficiency

New intelligent lighting installed with energy saving controls to reduce waste energy & costs.



Maintenance Support

After-care support to maintain the environment and continue to function at an optimal level.



ENERGY COMMITMENT

Collaborating with customers to deliver energy focussed consultancy advice, design, installation, and after-care support.