



Case Study

Project Overview

Aico, a market leader in home life safety products, has commenced a phased upgrade of its emergency lighting infrastructure at its Oswestry headquarters. As part of a broader initiative involving approximately 300 fittings, the first stage focused on replacing entrance stairwell emergency luminaires with advanced Clevertronics solutions, integrated into the Zoneworks HIVE system.

Background & Challenges

Prior to the upgrade, the existing emergency lighting system operated continuously at full output (100%) regardless of occupancy. This resulted in excessive energy consumption and more critically, creating a risk of statutory non-compliance

Over 70% of fittings failed to meet the minimum 3-hour duration during emergency lighting tests.

The lack of intelligent control and monitoring capabilities further complicated maintenance and regulatory reporting, posing risks to both operational efficiency and legal compliance.

Project Name

Aico Oswestry Headquarters

Location

Oswestry, UK

Industry Application

Manufacturer

Project Type

Emergency Lighting
Phased Upgrade

Year

2025 - Ongoing

Number of Fittings

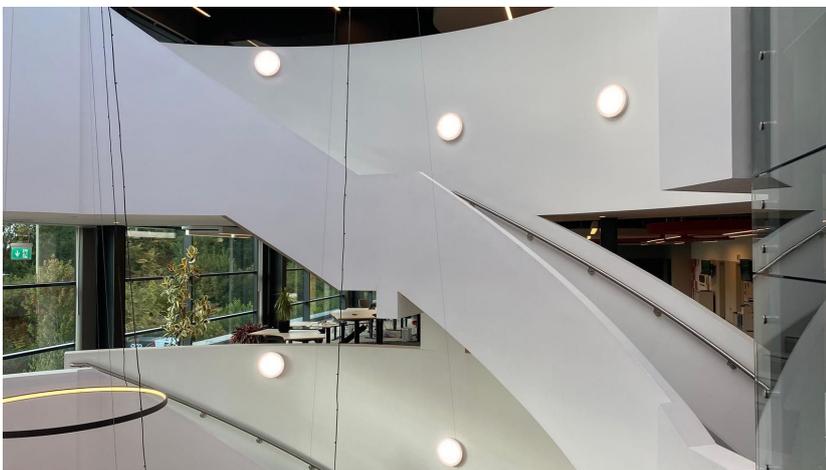
300

Contractor

City Electrical Factors

Testing System

Zoneworks HIVE



Solution Implementation

To address these challenges, Aico installed Clevertronics emergency bulkhead fittings equipped with integrated occupancy sensors. These advanced fittings automatically reduce output due to the 0 and 50% outputs after five minutes of no occupancy detection and subsequently switch off, significantly reducing energy usage.

The fittings are fully integrated into the Zoneworks HIVE platform, enabling centralised monitoring, automated testing, and real-time diagnostics across the site.

Key Features:

- Occupancy-responsive dimming and shut-off
- Self-testing functionality with automated reporting
- Zoneworks HIVE integration for centralised system management
- Weekly compliance reports and maintenance alerts
- 10-year warranty for long-term reliability

Regulatory Compliance

The upgraded system ensures full compliance with the following UK emergency lighting standards and regulations:

- The Regulatory Reform (Fire Safety) Order 2005: Requires emergency routes and exits to be adequately illuminated in the event of power failure.
- BS 5266-1: Provides guidance on the design, installation and maintenance of emergency lighting systems.
- BS EN 1838: Specifies minimum illuminance levels for escape routes (1 lux) and anti-panic areas (0.5 lux).
- BS EN 50172: Mandates monthly functional tests and annual full-duration discharge tests.

The Zoneworks HIVE system supports these requirements by delivering automated test results, real-time alerts, and detailed analytics - enabling Aico to maintain compliance with minimal manual intervention.

Outcomes & Benefits

- Regulatory Compliance Achieved: All fittings now meet the required 3-hour emergency duration.
- Energy Efficiency Improved: Intelligent dimming and shut-off features significantly reduce energy consumption.
- Maintenance Streamlined: Automated reports identify degrading fittings before failure, enabling proactive servicing.
- Scalable Infrastructure: The Zoneworks HIVE platform supports future expansion across the remaining 280+ fittings.

Acknowledgements

This successful project was made possible through the collaborative efforts of:

- Dan Rivers – Aico
- Steve Varley – City Electrical Factors
- Allan Dunderdale – Clevertronics UK

Their expertise and commitment were instrumental in delivering a solution that meets both operational and regulatory objectives.

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