



Case Study

The Background

Arrowe Park Hospital is a major NHS facility located in The Wirral, Merseyside, UK. It offers various medical services, including emergency care, maternity, surgery, and outpatient clinics. Being one of the largest hospitals in Northwest England, Arrowe Park handles approximately 90,000 emergency visits and over 50,000 inpatient admissions annually. Recently, Arrowe Park has undergone extensive upgrades to enhance its outdated patient care and facilities, including the expansion of its emergency department and improvements to digital infrastructure. Accordingly, a reliable and effective emergency lighting solution needed to be implemented to ensure the safety of occupants and visitors - while allowing for minimal fuss during the compliance and testing stages.

Challenges

An outdated emergency lighting system meant that Arrowe Park had to manually test fittings every month to ensure compliance. This was extremely time-consuming and costly as any faults detected would often result in expensive callout fees to keep the system compliant. Additionally, the system was held together by a complex data cabling system which meant that a special contractor had to be brought in every time to decipher the software testing results. Adding to the issues, the software was run using the antiquated Windows 95 operating system.

Operating in a high-traffic hospital environment only made these challenges more pronounced. With the hospital's focus on patient care and operational efficiency, maintaining compliance with this outdated system became a substantial burden for the facility managers, who had to constantly juggle the demands of keeping the system running while ensuring minimal disruptions to the hospital's operations. The inefficiencies and mounting costs highlighted the urgent need for an autonomous and low-maintenance solution.

Solution

After conducting a thorough review process, Arrowe Park decided to engage Clevertronics to help implement a fully wireless system throughout the hospital. This was an ideal solution for the densely crowded hospital as it ensured minimal disruptions in the event of testing and maintenance.

Project Name
Arrowe Park Hospital

Location
Merseyside, United Kingdom

Year
December 2020 – ongoing

Industry Application
Healthcare

Product range
L10 Lithium Nanophosphate

Testing System
Zoneworks XT Hive

No. of Fittings
1200 plus additional fittings to come



ZONEWORKS[®]
XT HIVE

L10 LITHIUM
NANOPHOSPHATE[®]

OPTIMUM

NOTHING ELSE COMPETES WITH NANOPHOSPHATE[®]

Clevertronics Zoneworks XT Hive system, coupled with L10 Lithium battery technology proved to be a practical solution for Arrowe Park Hospital for several reasons.

- Longevity and reliability: Zoneworks XT Hive luminaires are built to withstand the rigors of a healthcare environment and are backed by a comprehensive 10-year warranty and lifetime support for peace of mind.
- Automatic testing and reporting: Zoneworks XT Hive luminaires continuously monitor their performance and report issues in real-time, ensuring compliance and eliminating disruptions and costs incurred by the old manual testing system.
- Lower cost and easier installation: The Zoneworks XT Hive system required just one RF controller for every 1,000 fittings and featured a self-discovering network, eliminating the need to run cables between fittings.
- Energy Efficiency: Offering some of the most advanced technology on the market, L10 Lithium fittings consume significantly less energy than outdated NiCad products. This provided Arrowe Park Hospital with significant cost savings and a reduced carbon footprint.

So far 1200 fittings have been installed at Arrowe Park Hospital in operating theatres, back of house, and corridors. Additionally, there are plans to gradually install additional fittings once stage 2 upgrades to the medical wards take place. This will allow for a seamless process with minimal disruptions to the hospital's operations, as Zoneworks XT Hive can be integrated into the system using self-discovering technology that forms colonies. This is ideal for larger sites as there is no need for additional routers, controllers, extenders, or new cables to be run between fittings.



Results

The system has exceeded expectations with its ease of use and minimal maintenance requirements. Andrew O'Donnell from the Operations and Maintenance Division at Arrowe Park Hospital notes, 'The fact that the system is wireless makes it much simpler for us than having to run data cables'. Moreover, the ongoing training available through Lifetime Technical Support means that there is continuous support available without having to occur costly call-out fees which had previously burdened the site. The maintenance team has also benefited from significant time savings, with Andrew estimating they've saved 'thousands of hours' by implementing Zoneworks XT Hive and its automatic testing capabilities. As a result, Arrowe Park Hospital's emergency lighting system has become more streamlined and efficient, resulting in a much easier compliance process. We look forward to continuing our work with Arrowe Park Hospital on future refurbishments.

Products Used

Battery | L10 Lithium Nanophosphate®
Testing System | Zoneworks® XT HIVE



Argonaut Square Luminaire



Ultrablade Pro Recessed Exit



Bunkalite Emergency



Lifelight Pro SM Emergency



Lifelight Recessed Mount Emergency



Lifelight Pro Recessed Mount Emergency



Lifelight IP44 Splashproof Emergency



Lifelight PRO Recessed IP65 Emergency



Ultrablade Pro Surface Mount Exit



Bulklite Weatherproof Emergency

