



Case Study

The Background

Sofitel Brisbane Central is a five-star hotel that had a need to upgrade its aging emergency lighting system and car park and back of house with modern LED technology.

Over the years, the 110V central battery emergency lighting system had become costly to maintain and the need to constantly service and maintain fittings created disruption to areas where guests frequented. The back of house and car park areas needed improvement to provide better general lighting outcomes for guests and staff and reduce energy and ongoing maintenance.

The Sofitel Brisbane Central was looking to reduce cost, complexity and disruption to the hotel, which in turn would allow for a simple way to achieve ongoing compliance.

The project scope included:

- Decommissioning and removal of the previously installed 110v central battery system.
- Installation and commissioning of new general and emergency luminaires throughout the front of house, back of house and car park areas.
- Use of energy-efficient luminaires using LED and sensor technology.
- Low disruption during the installation and commissioning of new luminaires and the system while the hotel is operating.

The Challenge

Clevertronics managed the various project stakeholder relationships from the electrical engineer and contractor to the Sofitel facility team to assess the challenges in creating a solution.

Some of the challenges included:

- Retrofitting of new fittings into existing templates to eliminate the need for plaster repair and painting.
- Custom exit luminaires within ballroom areas to match architecture and design elements.
- No new cabling infrastructure is to be added to the facility.
- Reducing maintenance and replacement of luminaires is critical to minimise any disruption to hotel clients.
- Remove the need for manual or physical testing every 6 months by using a remote testing system.'
- Reduction of energy in the back of house and car park luminaires which are currently running 24/7.

Project Name

Sofitel Brisbane Central

Location

Brisbane, Queensland

Industry Application

Multi-Level

Year

2023

Number of Fittings

750

Contractor

Cu2 Electrical

Electrical Engineer

Building Services Design

Product Range

L10 Lithium Nanophosphate

Testing System

Zoneworks XT HIVE

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Solution

The following solution was recommended after consultation with the stakeholders and the Clevertronics project services team.

- Installation of L10 Nanophosphate range of products to provide 12+ year service design life and 10-year warranty to eliminate the need for ongoing maintenance and disruption to the hotel facilities and to improve ongoing compliance.
- The use of the extensive range of adaptor plates to help with existing luminaire cut-outs to ensure no painting or repairs were needed.
- The deployment of the Zoneworks XT HIVE RF monitoring and test system which ensured.
 - All emergency and exit fittings communicate using radio frequency with one single controller; no additional cable or backbone infrastructure is required.
 - Fittings can be grouped and tested to suit the hotel's requirements, avoiding disruption to day-to-day activities.
- Engagement of the Clevertronics engineering team to develop a custom Zoneworks control gear solution to retrofit existing brass exit luminaires within the hotel ballroom area in line with heritage architectural requirements.
- A detailed cost savings report was generated, which identified the Argonaut PLUS battens with sensors as the best solution. The motion sensors minimise energy consumption when light is not required in that particular area.

Results

The Sofitel Brisbane Central has fully upgraded its exit and emergency lighting, including new LED lighting across the car park, stairwell and back-of-house areas. This was achieved while the hotel was in operation.

The new system includes:

- L10 Nanophosphate emergency and exit luminaires
- Zoneworks XT HIVE emergency lighting system

The site is managed on a single Zoneworks Hive controller managing the 750 luminaires.

By upgrading the stairwell lighting to high-efficacy LED battens, including motion sensors, an energy saving worth \$50k over a 12-year period will be achieved. Clevertronics was able to offer 100% of luminaires in the project, including custom control gears and adaptor plates in accordance with the project's delivery timeline.

Mark from CU2 Electrical who installed the exit and emergency luminaires and coordinated the commissioning with the Clevertronics project services team, found the overall process seamless. "It was important to complete this project with limited interruption to the Sofitel. This was achieved by planning the installation and commissioning and not requiring additional cabling or backbone hardware. We have now installed a state-of-the-art emergency lighting system for the Sofitel that has also achieved cost savings with sensor battens in the car park and back of house areas".

The Sofitel Brisbane Central now has an emergency lighting solution that will provide maintenance-free compliance for 12+ years. The Zoneworks XT HIVE system is backed by the complimentary Lifetime Technical Support program that ensures the hotel has access to updated software, technical support and any other needs.

Find Out More

Sofitel Brisbane Central is another quality project delivered by Clevertronics. If you would like further information about this case study or are interested in understanding more about Emergency and Exit lighting within your building, contact Clevertronics for a site audit, demonstration, and cost analysis report.

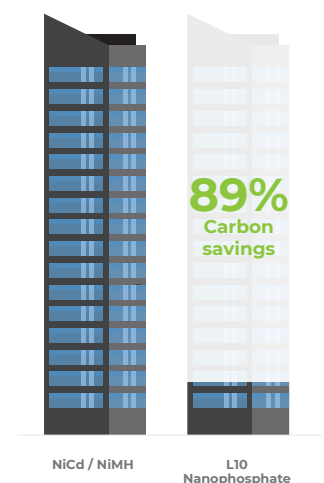


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Sustainability: Carbon Impact

L10 Nanophosphate and Zoneworks XT HIVE can reduce carbon emissions by up to 89%



* Findings based on recent AECOM carbon study on the use of emergency lighting products in buildings.