Custom Hardwired Helipad Lighting Solution for Royal Adelaide Hospital

South Australia, Australia

Project Overview

✈ **Application**
Custom Hardwired Helipad Lighting Solution

▣ **Product**
- AV-HL-AC LED Helipad Perimeter Light
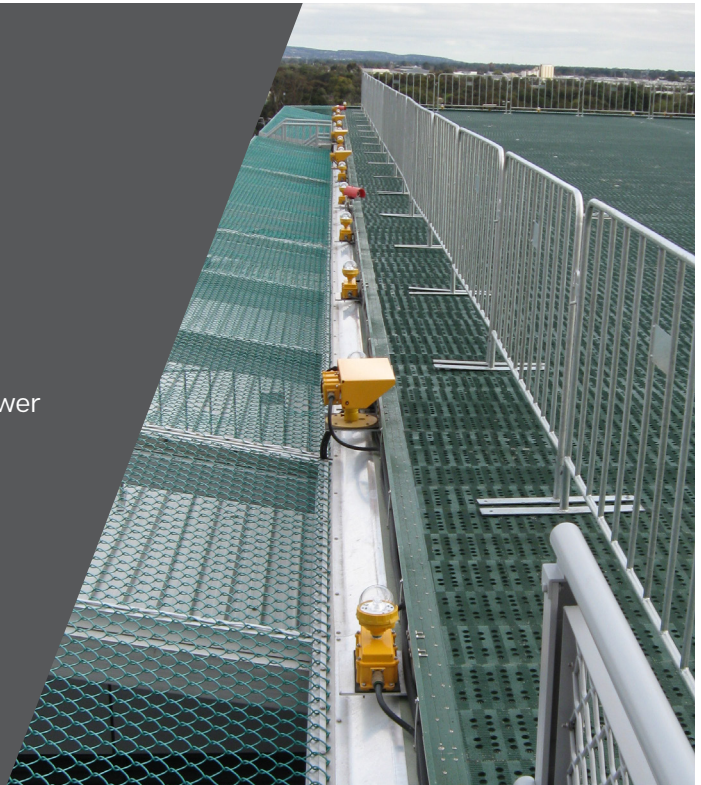- AV-FL-AC LED Flood Light with universal power supply

📍 **Location**
Royal Adelaide Hospital, Adelaide SA, Australia

📅 **Date**
July 2016

Overview

The Royal Adelaide Hospital (RAH) is one of the most technologically advanced hospitals in Australia and serves as the multi-trauma destination for the state of South Australia (SA). The hospital plays a lead role in South Australia's disaster strategy plan equipped to support victims of major man-made and natural disasters. Additionally, the RAH is engineered to withstand major earthquakes and extreme weather events and will continue to operate if completely cut-off from power and water.

After 10 years of planning and construction, a need for a double sized elevated helipad was identified to serve as the primary landing site for Air Ambulance SA, the SA Police and other Emergency Medical Service (EMS) providers to transfer critical patients in emergency situations.

Background

The project is one of the largest helipad designs in Australia, being 54m long by 27m wide and was required to accommodate two helicopters of up to 11 metric ton at any one time. Located in the region with the highest risk of earthquakes in Australia, the helipad was designed to withstand earthquake loads and turbulence during helicopter landing.

Due to lower visibility at both night and during more extreme weather conditions, the site was deemed critical to have helipad lighting installed that could deliver superior lighting capabilities in all types of conditions, while having the strength and durability to withstand wear-and-tear for long-term use. To ensure safe operation, aviation compliant lighting was a crucial requirement for this project.
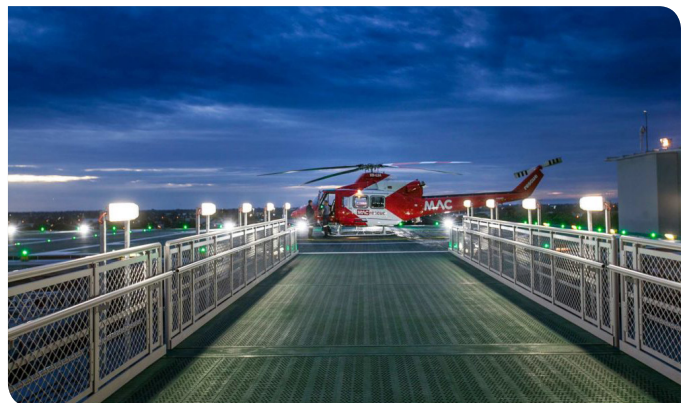
Challenge

A hardwired lighting helipad solution with Australian made local content was a requirement for the RAH development. At the time Avlite did not have a hardwired option in the helipad lighting portfolio, traditionally producing solar powered helipad lighting. As technology leaders in aviation lighting, Avlite was approached by contractor and long-standing partner, Aluminium Offshore to design and manufacture a turnkey hard-wired helipad lighting system for RAH.

The challenge was to design a hardwired lighting solution that passed Australian standards via the Civil Aviation Code of Australia (CASA) and could be easily installed, cost-effective and as durable as the solar powered options Avlite currently provided. As the largest Australian manufacturer of helipad lighting, Avlite met the RAH project requirements for local content, with tireless efforts of the R&D and engineering team who custom built the compliant hardwired lighting system using the design of the current robust solar powered lights.

Solution

Aluminium Offshore, a leading global manufacturer and supplier of helideck solutions (in conjunction with Hansen Yuncken Leighton Contractors, SA Health and Governing bodies) chose the Avlite custom helipad lighting solution due to the long-life LEDs, robust design, ease of installation and maintenance and local manufacturing. There were two different types of Avlite helipad lighting installed to fulfil the specifications of this lighting project; LED helipad perimeter lights with universal AC power supply and LED floodlights with universal AC power supply, both supplied on frangible mounting assemblies.

Both the Perimeter and Flood lights were specifically designed for helipads to provide uniform surface lighting where the light is distributed evenly across the wide helipad surface. The angle tilt of the high intensity and energy efficient LEDs can be easily adjusted to focus the light on the helipad to maximise illumination. The custom lens optic design is specifically developed for helipad operations and the low profile of each light conforms to industry requirements. Housed in a weather resistant, powder coated aluminium enclosures, the lighting system will withstand the harshest of environments.

Helipad perimeter lighting is a vital aspect of a hospital Helicopter Landing System (HLS). The installed helipad solution featuring Avlite's premium LED lighting provides superior visibility in all conditions, requires minimum maintenance and ensures the maximum safety for critical patients in the take-off and landing at Royal Adelaide Hospital. The elevated helipad now serves as the primary landing site for all helicopters using the Royal Adelaide Hospital.

Avlite's first deployment of this hardwired product configuration solution was so successful, the new lighting system became part of Avlite's Helipad portfolio and has since been installed at Rockhampton and Sunshine Coast Hospitals in Queensland, Australia and Christchurch Hospital in New Zealand.

"Hardwired helipad lighting has become a significant component of our Avlite business, and we are proud it began with this lifesaving project at Royal Adelaide Hospital. This project instigated the development of the first hardwired Avlite helipad solution; a quality Australian made helipad lighting system that meets global standards and certifications."

Wade Evans, Product Manager – Aviation and Digital

Avlite

All Avlite Systems products are manufactured to exacting standards under strict quality control procedures. Avlite's commitment to research and development, investing in modern equipment and advanced manufacturing procedures has made us an industry leader in solar aviation lighting. By choosing Avlite Systems you can rest assured you have chosen the very best.

- ✔ **Experienced & Trained Personnel**
- ✔ **Worldwide Distribution Team**
- ✔ **Agile Manufacturing**
- ✔ **Product Innovation**

- ✔ **Precision Construction**
- ✔ **Total Quality Management**
- ✔ **ISO9001:2015**
- ✔ **Rapid Turnaround**

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