



WELLINGTON HOSPITAL SPECIALIST LIGHTING

Specialised LED lighting solutions for operating theatres help accurate diagnosis of patients by medical staff, and increase patient safety.



CYANOSIS LIGHTING IN OPERATING THEATRE



LOCATION

Wellington Regional Hospital



YEAR

2017 - 2018



PROJECTED SAVINGS

\$50,000



PAYBACK TIME

5 years

THE CLIENT

Capital Coast District Health Board has undertaken to reduce energy consumption by 40% by 2021. Under their new energy management program, the hospital has committed to replace all older types of lighting technology with LED, where LED exists as an option.

"We want to be known as a 'Green Hospital'", explains Operations Manager Leon Clews.

Ecopoint has worked with CCDHB since 2013 on a variety of projects, so when the team wanted to explore a specialist lighting solution for their operating theatres, they came to us.

THE OBJECTIVE

As part of their push to reduce energy consumption and create more energy efficiency, CCDHB wanted to upgrade the old fluorescent tubes in their operating theatres to LED.

It was important that the new LEDs could support cyanosis observation in the theatres, enabling medical staff to accurately observe skin and/or membranes turning bluish/purplish. This symptom is an indication that the patient is low on oxygen and could indicate a range of cardiac or respiratory problems.

Medical staff are trained to look for this symptom and need accurate lighting conditions, especially in relation to colour (CRI) to assist observation.



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"Ecopoint's ability to provide adaptive solutions to the unique problems we face in the healthcare sector was vital"

Leon Clews: Operations Manager, CCDHB

THE SOLUTION

With the support of an EECA New Technology Grant, Ecopoint developed a bespoke lighting solution for CCDHB's 16 operating theatres, that focussed on supporting [cyanosis observation](#). The resulting product met both CCDHB's requirements, and AS/NZS 1680.2.5:1997, the interior lighting standard that covers 'Hospital and Medical Tasks'. This meant developing an LED tube that has a colour temperature between 3300K and 5300K with a COI (Colour Observation Index) of 3.3 or less.

As Leon Clews says, "CCDHB is happy to invest in the equipment and technologies that enable sustainable resource use. In the operating theatres, Ecopoint could work within the constraints of that environment and provide a bespoke solution by working with EECA to develop the cyanosis tube".

The resulting cyanosis tube looks very much like any other LED tube, but its 'special powers' means that the tubes installed in the operating theatres enable visual observation of cyanosis indicators in patients and help medical staff to make more accurate decisions for patient care.

Beyond operating theatres, the tube can be used in any environment where lighting is required to support the observation of cyanosis, including triage, maternity suites, examination rooms, intensive care and more, while also reducing maintenance and energy costs. You can find out more about EECA Funding [here](#) and read about other EECA new Technology Projects [here](#).

THE PRODUCT

Ecopoint's J Series Cyanosis tube is specifically designed for hospital operating theatres, featuring:

- Sleek 26mm diameter body (identical to a T8 fluorescent tube)
- Efficient aluminium heat sink
- Choice of frosted or clear lens
- Superior lumens-per-watt output
- Lockable rotating end-caps
- Proven Ecopoint build quality.

CYANOSIS TUBES ARE A SPECIALISED ECOPOINT PRODUCT. PLEASE CONTACT US DIRECTLY FOR MORE INFORMATION INCLUDING PRICING AND AVAILABILITY.