

FEATURED

- LED Lighting... Do you know what you are getting?
- SIEMENS Digital Industry Portfolio
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I N D U S T R Y

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LED Lighting... Do you know what you are getting?



LED lighting has many advantages, low power consumption, longer life expectancy and high reliability. So, why are there so many options and why do prices vary so much? Not all LED lights are equal and often price and quality are directly correlated. Below are some important points to consider when investigating options to upgrade your plant lighting solution.

Lifespan

When problems occurred with traditional lighting solutions it was usually in the form of catastrophic failure – one moment the light works, the next you are in the dark. For example, when an incandescent bulb fails, the failure usually occurs instantaneously when the filament fuses open. For LED's it is unusual to experience catastrophic failure. More commonly the lumen output of the unit will depreciate over time. As there is no set threshold for this depreciation it is easy for manufacturers to claim astronomical life span, under real world conditions the effective lifespan could be much shorter than indicated.

Design and components

LED lights consist of multiple components. The LED itself, drivers, thermal management systems, optics, wires and connectors to name a few. Each of these components is a possible point of failure. For traditional fluorescent or incandescent lights the most common cause of failure is the lamp itself. With LED lighting this is not the case. The most common cause of failure with LED's is the driver. The driver, like any electronic device has a finite lifespan and the biggest impact on this is temperature. Using high

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quality components and a design that effectively manages heat has substantial impact on the life of the LED. The better heat is managed and effectively dispersed the longer the life of your light.

Other things to consider related to design will depend on your installation location and conditions. For example, if installed outdoors a quality paint or powder coated finish is essential for the lifespan of the exposed components. The coating is the first line of defense against the elements and once this breaks down it is a matter of time until other components are affected.

Reliability

Reliability is the measure of how many failures are expected during the normal lifespan of the LED. If you have an expectation that your fittings will have a lifespan of ten years, reliability is how many are likely to fail during that ten years. Choosing a proven brand that has been in the market for a long time can help to ensure you have chosen a reliable solution.

Serviceability

Considering the most common cause of failure of an LED fitting is the driver, it makes sense that these are field serviceable. On lower cost LED's this is not always possible - the complete fitting must be replaced. Not only is this likely to cost you more in time and labour, the replacement fitting could cost more than the replacement component.

Making the right selection

Choosing the correct light for your installation conditions is extremely important. You need to consider environmental conditions such as ambient temperature, indoor or outdoor installation, exposure to chemicals or gases, and exposure to dust or other substances. Making sure that your chosen solution is proven to last under the conditions that it will be subjected to will pay off in the long term.

Cost

Cost is always a factor when considering options.

The two main types of cost to consider is the initial outlay or capital investment, and the total cost of ownership. Total cost of ownership can include maintenance cost, replacing failed units, length and terms of warranty and the lifespan of the units.

Conclusion

Whilst there are many advantages to upgrading your site lighting to an LED solution it is important to understand what you are buying. As with a lot of newer technology many manufacturers have jumped on the band wagon. It is easy to quote figures like 50,000 hours lifespan but understanding what affects the lifespan and reliability of this technology is important to consider if you are thinking of upgrading. It is possible the cheapest, prettiest solution might turn out to be an expensive ugly mess.



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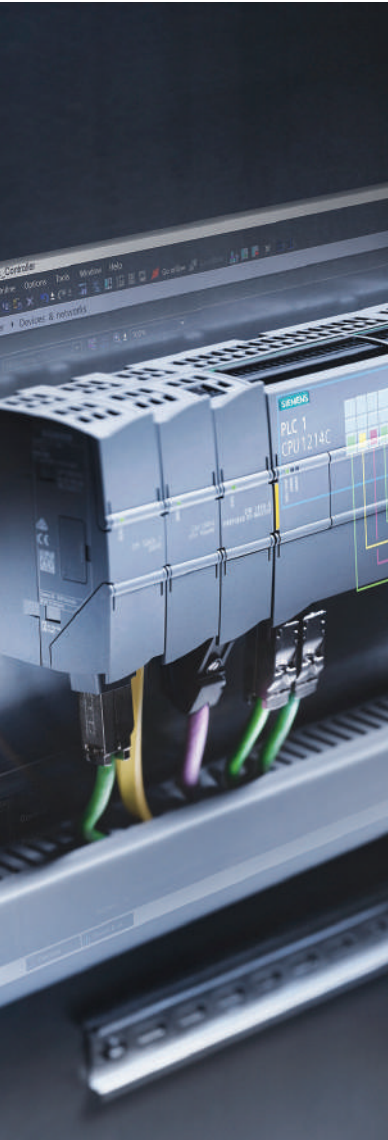
Featuring the industry's broadest range of LED luminaires for harsh, hazardous and industrial environments, Eaton's Crouse-Hinds can deliver a lighting solution that performs reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.

Why LED?

- Energy efficiency**
LED average energy consumption is significantly less than traditional fluorescent and HID fixtures
- Start/restart time**
Instant illumination vs. 10 minute restrike time for HID
- Light quality**
Higher color rendering compared to fluorescent and HID
- Environmental benefits**
Mercury-free LED eliminates disposal costs and lower energy consumption for a smaller carbon footprint

Why Crouse-Hinds?

- Industry-best reliability**
Built to withstand a wide array of applications
- Thermal management**
Effective heat sinking ensures longer life
- Quality of light**
Custom optics designed to maximize light distribution and intensity
- Globally certified**
Designed to global specifications for IEC and NEC applications
- Serviceable drivers**
Easy access to drivers for service or replacement



SIEMENS

CSL is now the official New Zealand distributor of the Siemens Digital Industries portfolio which includes:

■ Automation

The demands on modern machines and plants are steadily growing in all industries. Siemens has an extensive Automation Portfolio to meet these needs including:

- Programmable logic controllers
- Integral and remote IO hardware
- HMI's
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- LOGO Logic Module

With SIMATIC automation systems from Siemens, all your requirements are covered, while benefiting from maximum efficiency, flexibility, and cost effectiveness.

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SCALANCE network components from Siemens form the basis of communication networks in manufacturing and process automation.

- Managed and Unmanaged Ethernet Switches
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- SINAMICS V90 Servo Drive for OEM and basic servo applications
- SINAMICS G120 Modular drive range for more demanding applications
- S120 Servo Drives for the most demanding applications

The Siemens SINAMICS range of variable speed drives can meet your requirements from the simplest, to the most complex applications.

■ Process Instrumentation

Siemens Process Instrumentation offers you innovative, single-source measurement solutions to increase plant efficiency and enhance product quality.

- Flow metering
- Pressure measurement
- Level measurement
- Weighing solutions
- Process Protection
- Positioners

A reliable control system needs dependable inputs. Trust the Siemens range of process instrumentation for accurate, reliable measurement over the long term.



SIEMENS SITRANS LR100

SITRANS LR100 series are 80 GHz compact radar transmitters with Bluetooth wireless technology. Featuring a narrow beam for flexible installations in existing vessel openings – or non-intrusively through plastic vessels.

- 2 wire, 4-20 mA device with pre terminated cable optional
- Range up to 30m
- Simple Bluetooth commissioning and maintenance
- Hart communication
- Hazardous Area Approval options
- Optional submergence shield for flooding protection

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MEET OUR TEAM



INTRODUCING...

Kerry Schreiber

Business Manager - Hazardous

Born and raised in Taranaki Kerry is the Manager for Hazardous Area Products at CSL. He has been part of our team for twenty-three years and counting.

After completing an electrical apprenticeship Kerry was employed by Electrix for eight years and specialised in Industrial and Hazardous area work. This included work on various petrochemical sites around the Taranaki region and a four year stint helping to modify the Maui A Platform in preparation for installation of the second platform - Maui B.

Kerry enjoys the variety that his job brings - every enquiry is different providing a challenge for him to identify the right solution for his customers - in his

own words "challenges are good".

When ATEX was overtaken by IECEx certification in New Zealand (and most of the world) Kerry was an integral part of the team that set up CSL's TPA system. This enabled us to assemble IECEx junction boxes in house - a process that took nearly 18 months from the beginning to final audit and sign off.

A family man, Kerry has 5 adult children living throughout New Zealand. Visiting them gives him and his wife the chance to explore the country. When not working hard or visiting family Kerry can be found getting back to basics in his vegetable garden where his biggest challenge is not growing too much.

SA LUMIN

PORTABLE EX LIGHTING

ATEX & IECEX LIGHTING

Projects and tasks carried out in hazardous environments are often made more challenging by poor visibility and dark working conditions.

To sustain high levels of safety and efficiency in areas of darkness and or poor artificial lighting, sourcing reliable portable EX lighting is crucial for operators' effectiveness.