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# INDUSTRIAL LIGHTING

Manufacturing • Logistics • Heavy Industry • Transportation

# Redefining Lighting for industrial spaces.

Lighting that puts **safety**  
**and reliability** at the forefront.  
Discover solutions that  
can **adapt to** the needs  
of each environment.





BANKSTOWN AIRPORT TRAINING CENTRE

# Lighting in industrial facilities.

The industrial **sector is evolving**. Factors such as market forces and customer demand are **driving change** across all workplace environments, from **manufacturing and logistics** through to **mining**.

One of the most significant influences on industrial facilities right now is the Fourth Industrial Revolution, otherwise known as Industry 4.0.

Industry 4.0 technologies connect the physical world with the digital space, and it is changing the way businesses operate. The emergence of new technology, such as automation and robotics, cloud-computing, sensor technology and data analytics, is set to boost industry competitiveness. To further support this, the Australian Government Department of Industry, Innovation and Science has invested and piloted several international and industry-led initiatives with the aim to drive innovation and productivity in this area.

Incorporating smart, innovative lighting solutions throughout a facility is essential to remaining competitive in this new era. Not only will it help to reduce energy consumption and increase automation, but it will improve workplace

environments for the people who work within them.

People are an organisation's most valuable asset. The need to recruit and maintain high-calibre, skilled individuals has emphasised the importance for improving site amenities, safety and quality, from the warehouse floor and production line to lunchrooms and offices.

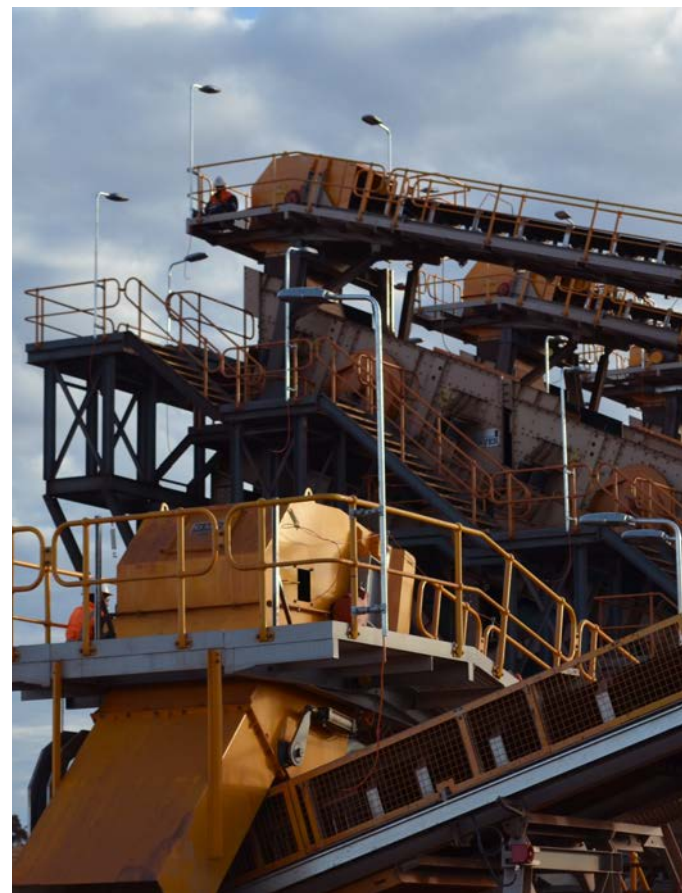
Designing a facility that meets the needs of employees is proven to enhance day-to-day operations. In fact, research shows that employees feel a greater sense of belonging in organisations that are committed to reducing carbon emissions, improving sustainability and developing green spaces within the workplace.

In most industrial facilities, the average employee spends 8-9 hours working indoors, some in areas with limited access to sunlight and fresh air. Research from the World Green Building Council (WorldGBC) demonstrates



productivity can increase by 15% for workers who have exposure to nature. Natural elements, such as daylight and greenery, improve concentration and assist in avoiding fatigue, which ultimately reduces time wastage and accidents within a facility.

Where industrial facilities were once all about maximising output per square metre, we now understand that improving the work environment leads to happier, more efficient employees. As a result, business owners are demanding more from builders and landlords by way of compliance to green building standards, energy efficient targets and adhering to new Section J6 codes by the NCC, which aim to reduce energy consumption and improve workplace wellbeing.



ONE STEEL - IQ CRUSHER

# The Pierlite approach to lighting.

The **industrial sector** covers a **diverse range** of businesses, from manufacturing, logistics and transport to heavy industries such as mining – each with **unique requirements**.

Tailoring a lighting solution to meet industry standards across safety and sustainability is paramount, as is taking the time to understand individual site needs. Effective use of light throughout a facility can also actively enhance operational output.

In many cases, loss of productivity can be attributed to human factors, whether it be errors made in operating machinery, mistakes made in production, incorrectly picked items, or absenteeism due to fatigue or sickness.

Studies published by WorldGBC report on the benefits of exposure to daylight, which includes improved health and better sleep. When people are rested, they are more alert throughout the day, and have better emotional and physical health. This reduces incidences and errors made at work, directly translating to increased productivity.

Where access to natural daylight is not possible, especially in underground or sealed off spaces such as cold-rooms or during night shifts, we can use quality artificial lighting to simulate natural daylight.

Incorporating a dynamic, circadian lighting system with smart connected solutions can improve the quality of work and wellbeing of the workforce.

It also allows an organisation to monitor and maximise energy efficiency throughout the facility, as lights can be programmed to automatically tone down or switch off when the space is not in use.

Pierlite's innovative approach to lighting integrates the latest technology and systems to deliver energy-efficient solutions that can adapt to the needs of each industrial segment, application and the people within them.

Combining the latest technology with innovative thinking, Pierlite harnesses the power of natural light with solutions that:

- Adapt to future technologies;
- Promote mental and physical wellbeing;
- Improve sustainability and efficiency.



# Lighting the way.

## Next-generation solutions for today.

Just as natural light changes throughout the day, so too should the lighting within a space.

It's why our products and systems are engineered to provide greater flexibility and control over lighting across an entire network - and switching lights on and off is just the beginning.

The digital age and the Internet of Things (IoT) allows us to create fully connected solutions with the ability to adapt to new technology as it emerges. Our range of sensor-ready luminaires can integrate with your existing or preferred control system.

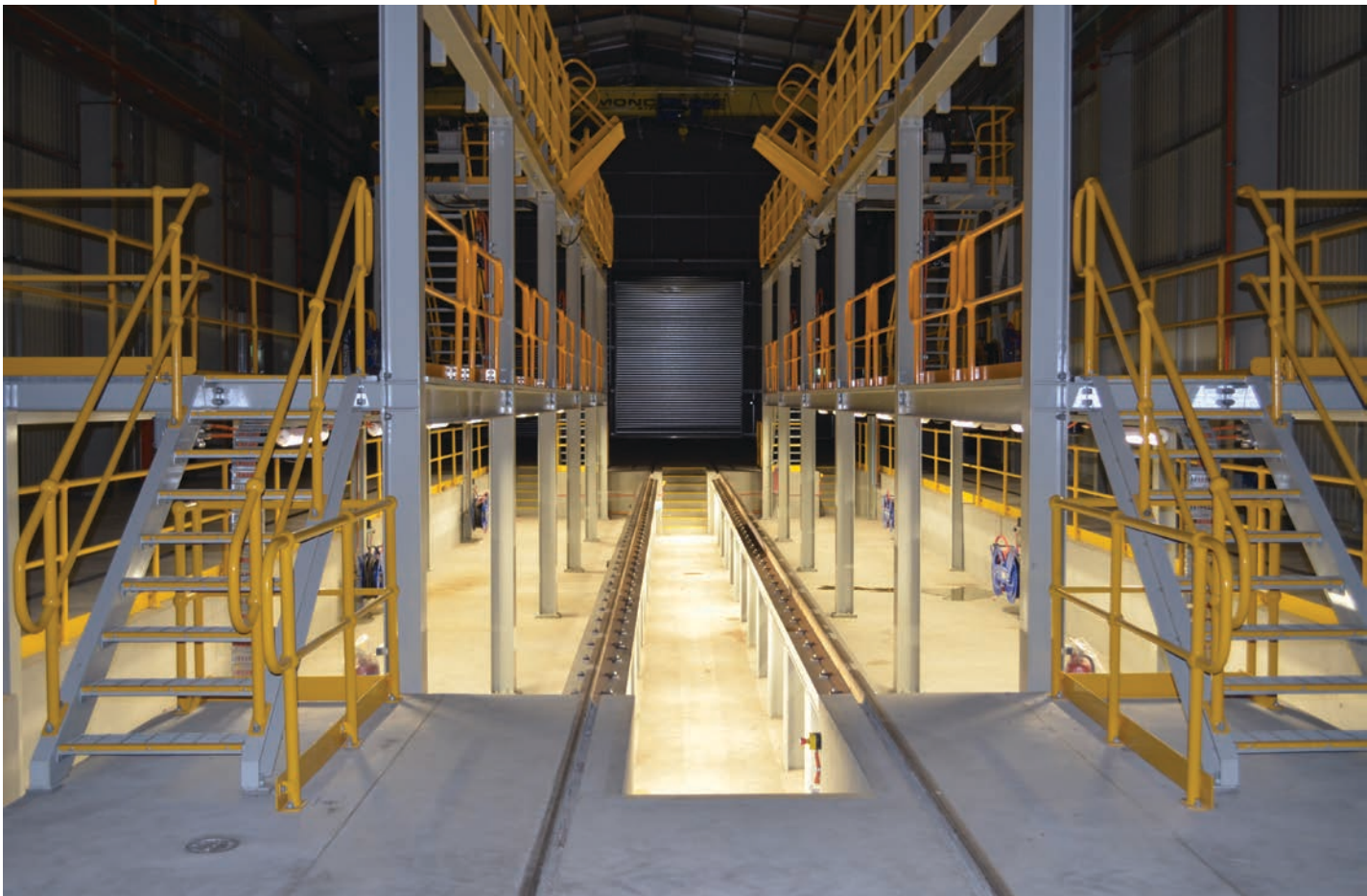
From improving energy efficiency by only providing light when it's needed to setting the colour temperature to match the time of day, Pierlite offers future-proof solutions for industrial spaces with diverse needs.

### **RAPIX Lighting Control System.**

Unlike 'one size-fits-all' competitive offerings, our RAPIX Lighting Control System is a new DALI and Ethernet based system that is purpose-built for commercial buildings. The RAPIX Lighting Control System strips away layers of complexity to greatly accelerate the design, installation and commissioning of lighting control. It has the ability to seamlessly work with any DALI fitting, regardless of the manufacturer.

# Our focus on safety.

In industrial work environments, **safety is critical** in every space and function. Not only is it a fundamental requirement for employers to create **safe workspaces**, it is essential to getting the **best out of a workforce**.







From providing adequate illumination of areas and objects to influencing mental alertness, lighting has been shown to have a dramatic impact on workplace safety.

When the lighting is inadequate it can lead to fatigue and physical discomfort. Factors such as high glare, uneven light distribution, overly illuminated spaces or low light levels cause the eyes to strain and lose focus.

Taking the time to ensure the light fitting and illumination meets the needs of the environment can help reduce incidences and injury at work.

Repetitive tasks that require standing in one place for long periods can become monotonous resulting in loss of concentration and lethargy. Dynamic lighting solutions that simulate daylight can help maintain energy levels throughout the day.

For tasks that require a high level of precision and accuracy, installing

appropriate task lighting can help improve concentration by avoiding vision fatigue and headaches.

Additionally, when it comes to safety, the quality of light is just as important as its reliability. In areas with no access to natural light, which is often the case in industrial environments, a malfunctioning or expired light fitting means no vision. And, while downtime caused by machinery failure may be localised to a certain part of the plant, light fitting failure may affect a wider zone.

Pierlite industrial solutions are designed and built for robustness and longevity.

Each product is rigorously tested in the Pierlite lab for its ability to withstand harsh conditions, such as high temperatures, pressure, impact and operating for long periods. It ensures every solution not only meets but exceeds AS & NZ standards.

# Creating energy-efficient spaces.

At Pierlite, we're focused on **next-generation lighting** – and looking after future generations.

Energy usage is a significant factor in the running of an industrial facility due to long operating hours, larger workspace footprints and the need to run machinery or other electrical assets. It's a huge cost for businesses, but an even bigger cost for the environment.

With recent updates to Section J6 of the National Construction Code, which reduces the wattage allowance per square metre, and the push for compliance to national and global sustainability standards, such as GreenStar, reducing energy consumption is a priority.

Pierlite industrial lighting solutions put sustainability in the spotlight.

Using the latest manufacturing technology and enforcing stringent quality standards, we develop smart and efficient luminaires. It ensures our lighting solutions are reliable, fit for purpose and engineered to last. The benefits of which also offer considerable savings for workplaces by reducing both energy consumption and replacement costs.

By integrating efficient LED luminaires with sensors and lighting control systems, a facility can reduce energy consumption by 50% without compromising on quality or reliability.





Industrial facilities have varying requirements, from operational needs to regulations and compliances. It's why Pierlite tailors every lighting solution to meet the unique and specific challenges of each workspace.

Our focus is on providing companies with future-proof solutions that adapt to changes in technology, and promote safety and reliability – all while improving sustainability.

## **Manufacturing, processing and logistics facilities**

Innovative solutions designed to increase workforce wellbeing across a wide range of sectors.

## **Heavy industries**

Smart and durable light fittings that withstand harsh conditions and improve workplace safety.

## **Transportation depots**

Transforming terminals with quality lighting to enhance architectural design, and promote public safety and security.

# Pierlite in manufacturing, processing and logistics.

From **food and beverage preparation, factories** and assembly plants to **workshops** and garages, Australian **industrial standards** differ from sector to sector.



Due to the diverse range of site conditions and applications, each solution requires efficient and robust light fittings that are able to withstand harsh industrial environments and nonstandard workplace situations.

Industrial luminaires require a high degree of mechanical protection. Pierlite offers a range of specially designed light fittings that are shatterproof, water resistant and are able to withstand extreme temperatures. Each product can tolerate chemicals and cleaning agents, as well as resist foreign bodies such as dust, grease and sparks that could damage elements within the fitting.

Ensuring the quality of light meets the needs of the specific application is also critical for workplace safety and wellbeing. Creating the right balance of illumination can reduce vision fatigue, eye strain, physical discomfort and even illness, which are all common reasons for accidents and absenteeism. Smart, integrated control systems are the ideal solution.

Incorporating occupancy detection and daylight sensing ensures there is adequate lighting when required but, when a space is empty, the lights automatically switch off to reduce energy consumption throughout the facility. Dimming sensors installed within a storage facility can detect when a forklift is approaching to fully light up a section of an aisle, then dim it once the area has been vacated.

No matter the site requirements, Pierlite has a range of durable, energy efficient solutions to suit specific tasks and conditions.

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#### **DIMMING EXAMPLE – LIGHT ALWAYS ONE STEP AHEAD**

Your lights can automatically come up to 100% while the other areas remain dimmed.



**PIERLITE ARION RANGE**



**PIERLITE SDW LED**



**PIERLITE SATURN HIGHBAY**



**PIERLITE STELLAR GEN 2**

# Pierlite in heavy industries.

In **heavy industries**, such as mining and public utilities, **safety is critical.**



With the operation of heavy machinery or nonstandard conditions, there are increased risks to consider. Each site must be designed to reduce hazards and ensure employees remain alert and acutely aware of their surroundings at all times. In these workplaces, maintaining adequate vision across every area is key.

Pierlite designs solutions specifically for the safe illumination of conveyors, walkways and platforms, as well as eye wash stations and general industrial areas.

Ensuring the lighting meets the unique needs of the environment and task assists in improving alertness and maintaining energy levels through an entire a shift. Smart, quality lighting is essential to avoiding high glare areas that can lead to optical fatigue and discomfort.

For mines, power stations, chemical processing, grain silos and storage facilities that cover large areas, implementing zone-specific solutions can effectively illuminate areas in use and keep other areas switched off to reduce energy consumption.

Putting safety at the forefront, each Pierlite solution exceeds Australian standards to ensure optimal performance in day-to-day operations.



**PIERLITE ALIEN GEN 2**



**PIERLITE MINE MASTER**



**PIERLITE NEXUS GEN 2**



**PIERLITE 420W HIGHBAY**

# Pierlite in transport facilities.

Transportation facilities, such as **stations, terminals and dockyards**, accommodate a **huge number of people** each day. So it is not only employees that building designers should consider when **designing the space**, it is also the public.

As mass transit is the primary function, keeping operators and commuters safe as they enter and exit the area is the primary focus. Good lighting can assist in fostering a sense of safety and security to create a welcoming atmosphere, as well as aid efficient wayfinding through the station.

Smart lighting solutions, that adapt to weather conditions and daylight availability, help to reduce carbon emissions and power costs. Control systems and dimming can improve the overall energy rating of the terminal, as well as create an environment that is enjoyable for visitors and employees alike.

In addition to lighting design, each solution should consider the need for added security by the way of vandal resistance. As such, each light fitting supplied by Pierlite is tamper-proof and able to resist extreme external forces.

Using the latest technology and adhering to the highest manufacturing standards, Pierlite carefully engineers solutions to meet the diverse needs of transportation facilities. From improving safety to improving architectural design, it results in vibrant, modern spaces that are both functional and appealing.





# Pierlite - Lighting the future.



INNOVATION CENTRE

With a strong heritage in **innovation and design** manufacturing, Pierlite is Australia's leader in **architectural, industrial and commercial** lighting systems for indoor and outdoor spaces.

Backed by over 70 years of superior technical service, our team of highly skilled lighting experts and engineers, deliver cutting-edge lighting solutions across a wide range of applications – from offices, industrial warehouses, healthcare, aged facilities, food preparation facilities, schools and more.

We are committed to pushing the boundaries with energy efficient and sustainable lighting solutions, without compromising on product safety and quality.

Now, with the largest lighting lab and testing facility in the southern hemisphere, we are equipped to continue to drive the development of innovative, future-proof lighting. Our 640m<sup>2</sup> Innovation Centre is a state-of-the-art engineering and laboratory facility built for delivering custom product design and full compliance testing – the only one of its kind in Australia.

Encompassing photometry, thermal and endurance chambers, IP chambers and more, the Innovation Centre enables Pierlite to develop lighting solutions that not only meet but far exceed Australian Standards and ensure the highest quality for customers.

Pierlite has also recently launched Composer, a digital configurator which enables Design-on-Demand with technical documentation, compliance, 3D models, pricing and codes available in moments of submitting product requirements. Product can then be delivered in a matter of weeks, not months. This is a service and product range that will reimagine lighting for this generation and the next.

With renowned reliability, proven quality and unsurpassed service and support, you can rest assured that you are in good hands with Pierlite.

## Pierlite Recommended Products

Visit [pierlite.com.au](http://pierlite.com.au) or search for the products on your preferred search engine

**Manufacturing,  
processing and  
logistics facilities**



PIERLITE STELLAR GEN 2



PIERLUX DALI HIGHBAY



PIERLITE ECO LED HIGHBAY GEN 6



PIERLITE LINEAR HIGHBAY



PERLITE C350 GEN 2



PIERLITE ARION RANGE



PIERLITE SATURN HIGHBAY

**Heavy  
Industries**



PIERLITE MAXI MASTER GEN II



PIERLITE VANDALUX



PIERLITE 420W HIGHBAY



PIERLITE MINE MASTER



PIERLITE NEXUS



PIERLITE SDW LED 2



PIERLITE WARDEN 2 DALI INDUSTRIAL

## Transporting Facilities



PIERLITE ALIEN GEN 2



PIERLITE DOMAIN



DISANO MINI STELVIO



PIERLITE 600W HIGHBAY



PIERLITE VANDALUX



PIERLITE GUARDIAN 2 DALI



PIERLITE WARDEN 2 DALI INDUSTRIAL



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