



**PIERLITE®**

NEW LIGHTING BENCHMARK FOR AUSTRALIA'S

**ENERGY  
EFFICIENT  
FUTURE.**

Section  
**J6**  
ARTIFICIAL  
LIGHTING  
& POWER

Australia is continuing its stance in reducing greenhouse gas emissions, with the current goal of a 26% reduction between 2005 to 2030.

With electricity as the largest emissions contributor, Australia has committed to building a sustainable future with an updated Section J6 by the National Construction Code (NCC).

Section J6 - Artificial Lighting and Power, deals with the mandatory, minimum standards required for an energy efficient lighting design, when constructing buildings in Australia. This is achieved by limiting the Illumination Power Density (watts per square metre) when lighting a space, leaving some areas with a reduction in IPD to less than half of the previous allowance.

The key is achieving a balance of performance, design and energy efficiency. Utilising key adjustment factors in your design, such as lighting controls, a higher CRI and a warmer 3500K colour temperature, can assist in achieving more than 60% in energy allowances, helping to accomplish the desired lighting results.

Our team of lighting professionals can ensure your project meets the new standards with focus on our key segments Commercial, Retail, Health and Industrial.

For new and refurbished projects, changes take effect on 1 May 2020, although, they can be applied voluntarily between 1 May 2019 and 1 May 2020.

## COMMERCIAL LIGHTING



Pierlite Oculed LED Troffer

**4.5** W/m<sup>2</sup>  
OFFICES

50% reduction

Lighting uses up to 30% of an office building's electricity needs, therefore, tougher power allowances will enforce Illumination Power Density (IPD) in office areas to reduce from 9W/m<sup>2</sup> to 4.5W/m<sup>2</sup>. This is a significant reduction, however Pierlite is ready for these changes.

The next generation office troffer, the Pierlite Oculed is already super-efficient at 100 lumens per watt, with CRI90 as standard. This, matched with good design and best practices could significantly contribute to energy savings and enhance the occupants' performance and wellbeing.



# RETAIL LIGHTING

Retail spaces have seen a reduction in Illumination Power Density allowances from 22W/m<sup>2</sup> down to 14W/m<sup>2</sup>, while retail storage areas have been significantly reduced from 8W/m<sup>2</sup> down to 1.5W/m<sup>2</sup>.

Pierlite can help gain significant benefits through the new allowances when considering a store fit out, as the retail offer is already engineered with high CRI and has 3000K options in all the products. By providing the ability for allowances to be maximised, designers are given more freedom to enhance the space in creative ways.

**14** W/m<sup>2</sup>  
RETAIL STORES  
36% reduction



Concord Cilindro LED Track Spotlight



Pierlite LAB LED Cleanroom Troffer

**2.5** W/m<sup>2</sup>  
HEALTHCARE  
(general areas)  
88% reduction

# HEALTHCARE LIGHTING

The healthcare segment has been significantly affected by the changes made to the NCC Section J6. With the exception of intensive care, all other areas have had a forced reduction of maximum Illumination Power Density between 55-88%.

With the current efficacy of LED luminaires, most areas will still be able to maintain a suitable amount of illumination, compared to current standards. However, wards and corridors see an 88% reduction in maximum IPD, to a very low 2.5W/m<sup>2</sup> (previous 13W/m<sup>2</sup>).

The allowance of adjustment factors can assist to increase the maximum W/m<sup>2</sup> available, however in the case of corridors this may prove challenging when attempting to achieve an aesthetically lit space.

# J6 INDUSTRIAL LIGHTING



Pierlite Arion LED Linear Highbay

**4**W/m<sup>2</sup>  
**WAREHOUSE STORAGE**  
(vertical)  
50% reduction

The changes to Section J6 will reinforce the current industry movement towards luminaire controls, whether that be through an integrated DALI control gear or daylight dimming. It will improve the much needed requirement to increase the luminaires efficacy, helping to move the industry towards quality of light over quantity of luminaires required.

Larger industrial buildings, such as warehouses, workshops and manufacturing plants can obtain an increase of more than 60% in IPD allowance depending on colour temperature, control systems, CRI and efficacy of products.

# BUILDING SUSTAINABILITY

Every building has a major impact on the environment and the people around them. As a whole, buildings use 40% of the world's energy, emit 40% of the world's carbon emissions, and use 20% of the world's available drinking water.

The introduction of Section J6 of the NCC is only one piece of a larger ecosystem of building norms that aim to achieve a sustainable and efficient future while providing healthier environments for all building occupants. The ecosystem includes NABERS, Green Star and WELL, each playing an important role in building sustainability.



NABERS is a national rating system that measures the environmental performance of Australian buildings, measuring energy efficiency, carbon emissions, water consumption and waste management. NABERS ratings are legally required for commercial buildings with offices of 1000m<sup>2</sup> or more.



Green Star assesses the sustainable design, construction and operation of buildings, fitouts and communities. Prioritising the elimination of carbon emissions from the built environment, while reducing cost, creating healthier environments and minimising environmental footprint.



WELL is the leading global movement that transforms buildings, communities and everything within, to advance health and well-being and help people thrive. The science based rating system focuses on how a space performs to improve human wellbeing and comfort, to in turn drive better choices and productivity. 10% of the measured performance features relate to lighting and controls.



[www.glg.lighting](http://www.glg.lighting)

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