



Lighting Council
AUSTRALIA

LIGHTING CONTROLS INTRODUCTION

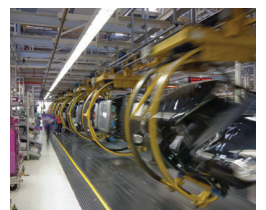
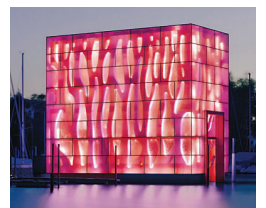


Lighting control systems provide the right amount of light, at the right colour, in the required place, at the appropriate time. The result is a dynamic, flexible and multi-faceted space that complements a building's ambience and use.

This introductory brochure for the lighting industry outlines the benefits of lighting control systems.

Lighting control systems can achieve:

- Optimum lighting energy efficiency;
- Increased comfort, safety, convenience, health and well-being of occupants;
- Aesthetic appeal of building interiors and exteriors;
- Installation cost reductions, building flexibility, maintenance improvements and compliance with building regulations.



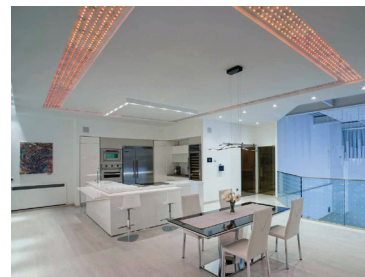


WIDE APPLICATION

Lighting controls can be used in all types of buildings and lighting applications including residential, commercial, industrial and public lighting.

AESTHETIC APPEAL

Architectural lighting increases the aesthetic appeal, ambience and viewers' night time experience of buildings and monument facades. The effects can range from classic to animated.

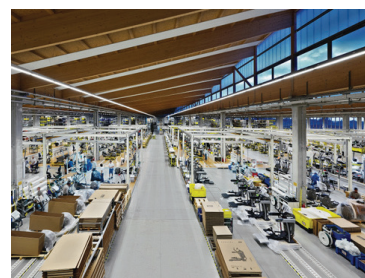
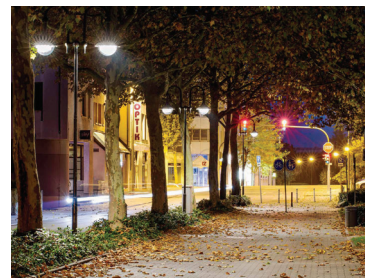


ENERGY SAVINGS

Energy savings are achieved when the illumination of a space is maintained to the task requirements and with lights on only when needed. Examples include time-based control of shopping mall lighting and photocell control of external and street lighting so that lights are only on when needed.

Occupancy sensors are used to switch (or dim) lighting automatically depending on occupancy.

Light level control will reduce energy consumption by unobtrusively dimming artificial lights when there is adequate natural light - for example near windows. Similarly, maintained illuminance will adjust for the slow loss of brightness experienced by most artificial lighting sources and will maintain lighting levels, including designed highlights and lowlights. Dimmable and automatically adjusted lighting levels are shown to reduce lighting energy consumption by between 10% and 30% (on top of energy savings in changing from traditional light sources to LED lighting).





OCCUPANT COMFORT, SAFETY, CONVENIENCE, HEALTH AND WELL-BEING

Varying lighting intensity and colour can help to maintain health and well-being by reinforcing circadian rhythms.

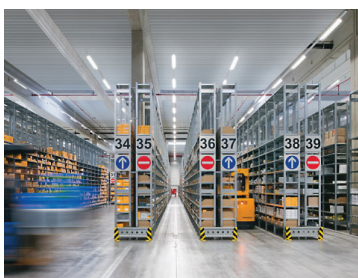
Occupant comfort is increased by providing the correct lighting intensity for given tasks or moods.

Safety and security is provided by lighting exit routes and zones just outside of those occupied. Occupants feel safer if areas around them are lit.



P rearranged lighting effects ('scene setting') are used to allow 'one touch' arrangement of lighting levels for instant and easy setup and changeover between scenes. Use wall mounted scene switches, touch screens, remote controls, PCs, tablets or smartphones to activate scenes.

The ability to personally tune lighting to suit tasks, conditions and moods can maximise safety, productivity and enhance comfort. Research studies demonstrate that convenient controls result in more content staff.



COST REDUCTIONS, BUILDING FLEXIBILITY, MAINTENANCE IMPROVEMENTS AND COMPLIANCE

The flexibility of lighting controls will speed construction and give occupants greater control of their lit environment.

Maintenance, including emergency light testing and general lamp replacements, can be automated to assist facility managers meet their statutory obligations, instantly flag failures and optimise replacement planning.

Lighting control systems are recognised in the Building Code of Australia and when used, provide additional flexibility to allow increased lighting levels to be specified if needed.



OPTIMISING, INTEGRATING AND MAINTAINING CONTROL SYSTEMS



Timers, sensors and programmable systems can be used individually or in combination to optimise control effects. For example, occupants can switch lights on manually and then sensors and timers can automatically adjust the light level including switching lights off at night or when a space is no longer in use.

Lighting control systems should be transparent and simple to operate. They can be integrated with other building systems, allow central management and include open protocols for multiple vendor choice.

Lighting control assets should be reviewed, maintained and optimised periodically to adjust for changing building use and continuous performance improvement. The lighting control system should be correctly depreciated and upgraded as with other building systems.



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About Lighting Council Australia

Lighting Council Australia is the peak body for Australia's lighting industry. Its members include manufacturers and suppliers of luminaires, lighting control devices, lamps, solid state lighting and associated technologies. Lighting Council's goal is to encourage the use of environmentally appropriate, energy efficient, quality lighting systems.



For more information refer
to the capability section
(look for lighting controls) of our
website www.lightingcouncil.com.au
or talk with your lighting
equipment supplier.

With thanks to OSRAM, PHILIPS
and ZUMTOBEL for images.

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