

Lighting controls and Building Code of Australia

Lighting controls such as timers, time switches, motion detectors, daylight sensors and dynamic lighting control devices can be used to save energy and maintain compliance with the requirements of the Building Code of Australia¹ (BCA) and Australian standards.

Building Code of Australia

The BCA and Australian standards set the minimum performance requirements for new buildings and new developments in Australia. The BCA requires artificial lighting in certain building areas if natural lighting is not available when these areas are occupied². This is to allow occupants to safely exit in an emergency and to perform tasks appropriate for that space. The artificial lighting system must comply with AS/NZS 1680 during the times when areas are occupied.

The overarching *performance requirement*³ of the artificial lighting section of the BCA requires artificial lighting to provide a level of illuminance appropriate to the function or use of the building to enable safe movement by occupants. The overarching *functional statement*⁴ relevant to artificial lighting requires spaces within buildings used by occupants to be provided with artificial lighting consistent with their function or use which, when activated in the absence of suitable natural light, will enable safe movement.

The Australian Building Codes Board National Construction Code 2015 Guide to the BCA⁵ highlights that artificial lighting is required where it is necessary to minimise any hazard to occupants during an emergency evacuation. However, it does not require such lighting to be illuminated at all times. Illumination is only required when areas are occupied.

The BCA requirements allow lighting controls to vary the intensity of lighting or turn lighting off when areas are not occupied. The main requirement is for lighting to be available when areas are occupied to allow for safe egress in an emergency.

Specification J6⁶ of the BCA requires motion detectors to be capable of detecting a person before they are 1m into the space as well as other requirements for various applications and building classes. Positioning and placement of occupancy sensors is important to satisfy the specification J6 requirement.

Specification J6 details the requirements for lighting timers, time switches, motion detectors, daylight sensors and dynamic lighting control devices when such devices are used to satisfy a requirement of the BCA.

It is also worth noting that lighting controls can be used to automatically test emergency lighting systems and provide system status reports.

1. The Building Code of Australia comprises volumes one and two of the National Construction Code Series. The National Construction Code series is available at <http://www.abcb.gov.au/about-the-national-construction-code/the-building-code-of-australia>
2. NCC 2015 Building Code of Australia – Volume One, section F4.4 Artificial lighting
3. NCC 2015 Building Code of Australia—Volume One, Section FP4.2
4. NCC 2015 Building Code of Australia—Volume One, section FF4.2
5. Australian Building Codes Board NCC 2015 Guide to the BCA Volume One, F4.4 HEALTH AND AMENITY
6. NCC 2015 Building Code of Australia Volume One, Specification J6

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