



THE CITY OF SAN DIEGO

## Illumination Activated by Motion Sensors

## BLDG-10-2

CITY OF SAN DIEGO DEVELOPMENT SERVICES  
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The purpose of this Technical Bulletin is to establish requirements for the use of occupant or presence sensors to switch means of egress illumination required by Chapter 10 of the 2013 California Building Code (CBC). Subchapter 4 of the 2013 California Energy Code (CEC) requires an automatic reduction in lighting when portions of a building are not occupied; the use of occupant or presence sensors or lighting control systems can be used to conform to the regulations.

### I. CODE REQUIREMENTS

The CBC in Section 1006.1 requires that the means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied. The means of egress illumination level shall not be less than one (1) footcandle (11 lux) at the walking surface.

Additionally, Section 1006.3 of the CBC requires that in the event of power supply failure to the premises' electrical supply, an emergency electrical system shall automatically illuminate all of the corridors, interior exit stairways and ramps and exit passageways in buildings which required two or more exits.

### II. REQUIREMENTS

Means of egress illumination connected to the premises' electrical supply may be controlled through the use of occupant or presence sensors which comply with the intent of the Section 1006.1 and 1006.3 of the CBC if the following conditions are satisfied:

- A. When activated, the lighting system providing means of egress illumination shall remain in the on-position for a minimum of 15-minute duration.
- B. The occupant or presence sensing system shall be installed throughout the portions of the exit access whose lighting is to be controlled and shall provide full coverage to provide illumination within 100 ft. of a sensor.
- C. When an occupant or presence sensing system is installed to control lighting in stairways, the sensing system shall be installed at the landing on each story. Activation of any sensor within the stairway shall illuminate the entire stairway.
- D. The occupant or presence sensor shall incorporate both infra-red and ultrasonic technologies within each sensor device.

### Documents Referenced in this Technical Bulletin

- 2013 California Building Code, (CBC)
- 2013 California Energy Code, (CEC)

- E. The occupant or presence sensor shall be equipped for fail-safe operation ensuring that if the sensor or control fails, the lighting levels will be at the levels required by Section 1006.3 of the CBC.
- F. The occupant or presence sensor shall not control lighting connected to the emergency system required by Section 1006.3 of the CBC unless listed and labeled per UL 924.
- G. The occupant or presence sensing system shall not control lighting in areas providing illumination for photoluminescent exit signs or path markings installed in portions of the exit access or the exit.