







Parking Garage

Energy code guide recommendations

As with most lighting control nodes used in luminaires with a combined motion and photosensor, daylighting configuration can be challenging in some instances, especially when trying to enable daylight harvesting in the periphery of a parking garage.

Eaton recommends the use of occupancy sensing when the fixtures are 10' or greater from the perimeter. For fixtures mounted 10' or less from the perimeter the daylight has to enter the parking deck and reflect off the floor back to the sensor at an intensity greater than the electric light source contributes back to itself. The light levels of the daylight must be at least 20fc greater than the level of the light fixture.

Additionally, Eaton recommends three different sensor program settings to meet energy codes and the desired function of the lighting:

Parking Garage	Description	IECC 2018	ASHRAE 2016	Title 24 2019
Alternative 1	 <p>Nighttime: Fixture dims to specific level when there is no motion. If there is motion, fixture turns on to full brightness.</p>	Can be used to comply with	Can be used to comply with	Can be used to comply with
	 <p>Daytime: Fixture will remain at dimmed level all through the day regardless of motion.</p>	Does not comply	Can be used to comply with	Can be used to comply with
Alternative 2	 <p>Nighttime: Fixture is on throughout the night.</p>	Can be used to comply with	Can be used to comply with	Can be used to comply with
	 <p>Daytime: If there is enough daylight throughout the day, the fixture will turn off and remain off until light levels drop below setpoint level. At this point, fixture will turn on if there is motion then cycle back to night mode.</p>	Can be used to comply with	Can be used to comply with	Can be used to comply with
Alternative 3	 <p>Nighttime: Fixture dims to specific level when there is no motion. If there is motion, fixture turns on to full brightness.</p>	Can be used to comply with	Can be used to comply with	Can be used to comply with
	 <p>Daytime: Fixture will remain in a dimmed mode throughout the day until the light threshold is reached. At this point, the fixture will turn off and remain off until light levels drop below setpoint level. At this point, fixture will turn on if there is motion then cycle back to night mode.</p>	Can be used to comply with	Can be used to comply with	Can be used to comply with

The operational alternatives listed above comply with the latest parking code regulations mentioned in the table headers. Alternative 1 does not comply with the daytime requirement for IECC 2018. However, Alternative 1 does comply with ASHRAE 2016 and Title 24 2019, which is enough in most cases.