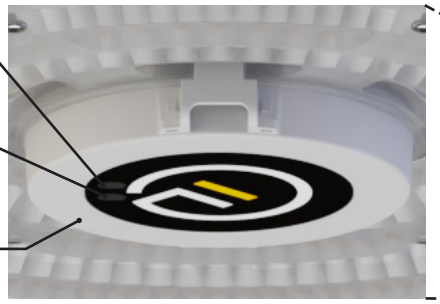
V2L/V2M

Integral Daylight and Occupancy Sensor Controls (V4)

- **RF occupancy sensitive to at least 15 meters (50 feet)**
- **Daylight sensor**
- **Tri-level dimming**
- **Custom IR remote control to 20 meters (66 feet)**
- **Each sensor controls its own light**
- **Four preset scenes for ease of programming**
- **Daylight or motion-only option**

WARNING: Do not use controls with ballast operations



Occupancy and Daylight Sensing

The occupancy sensor is capable of detecting motion to 50 feet (15 meters) away using Radio Frequency (RF) technology. RF sensors work in high temperature environments as well as in fully enclosed fixtures, unlike traditional PIR sensors. The sensor is compatible only when operating from direct AC line voltage.

Sensor can control the light output to three levels of light: maximum level, a dimmed light level and off. They have the ability to program two periods of selectable waiting times: hold-time and stand-by period. Using the daylight sensor to detect ambient light, the fixture can turn itself off, regardless of occupancy status. These levels, as well as motion sensitivity and hold times, are user programable using the IR remote control. The IR remote has been custom designed for operation in high-bay applications and will control the sensor at least 66 feet (20 meters) away.

Quick Start Instructions

- The sensor is integral to the luminaire and is installed in the front cap at the factory.
- The sensor will work right out of the box with the default factory setting scene of "SC1"
- The factory default "SC1" is:
  - 20 minutes of hold time at maximum power when unoccupied
  - After 20 minutes, the light will dim to 50% and does not switch off
  - Daylight sensor is disabled.
- The use of the IR remote control is only necessary if the user wishes to configure the sensor away from the "SC1" default.
- The sensor can be quickly set to three other preset scenes using the IR remote control, see scene mode on page two.

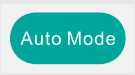
IR Remote Control

- Remote is only needed if factory default settings are not sufficient
- Only one remote is need to control multiple sensors
- The light source will flash to acknowledge receiving a command
- Do no use Occupancy Sensor with controls

Remote Operation

The light will flash to indicate the fixture has received the command from the remote successfully.
The sensor will retain the last setting when power is switched off and on again.

ON/OFF:
- "OFF" disables sensor; light is turned off
- "ON" light is turned on BUT the sensor is disabled. To enable the sensor, select "Auto-Mode" button.

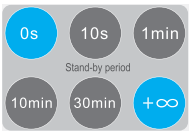


Auto Mode:
- Activate sensor to last presets.

Scene Mode:
- SC1, SC2, SC3, SC4: Sets one of four presets that can be used to configure the fixture. See the table below for guidance.

Preset	Hold Time	Stand-by Dimming Level	Stand-By Period	Daylight Sensor	Detection Range
SC1 (default)	20 mins	50%	Infinity	Disable	100%
SC2	10 mins	30%	10 mins	Disable	100%
SC3	10 mins	30%	Infinity	50 Lux	100%
SC4	5 mins	10%	15 mins	Disable	100%

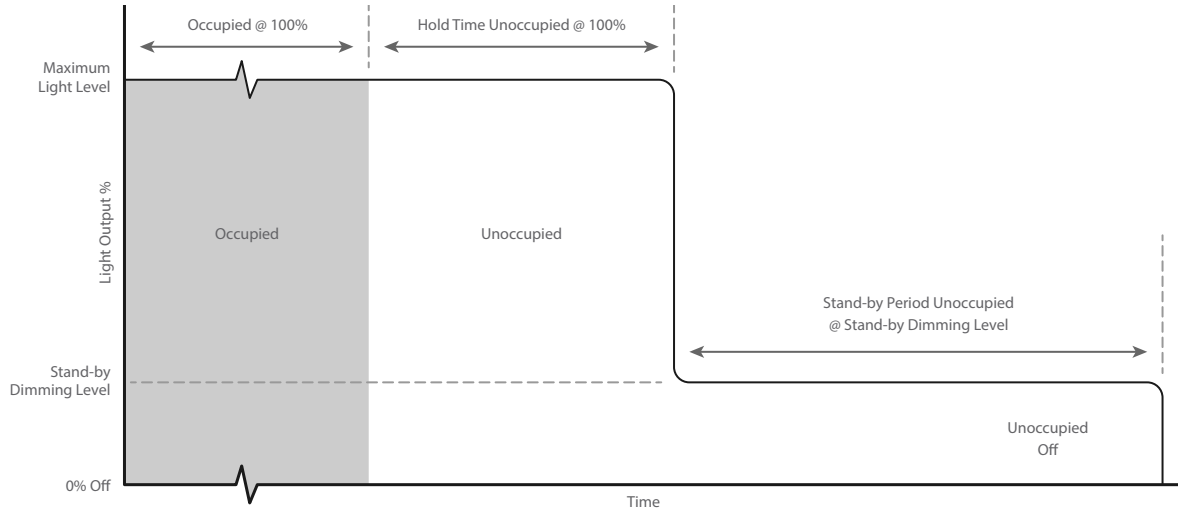
Hold-Time Group:
- This refers to time the light will remain on at maximum light output after initial unoccupied period.
- Assigns hold time of 30 seconds, 1 minute, 5 minutes, 10 minutes or 30 minutes.
- See Figure 1 below for guidance.



Stand-By Period Group:
- This refers to time the light will remain on at dimmed light output after the Hold-time period.
- Assigns cutoff period of 0 seconds, 10 seconds, 1 minute, 10 minutes, 30 minutes or 1 hour. 0 seconds gives fixture on/off control rather than dimming. (+∞) keeps the light on continously (see Figure 1 below for guidance).
- NOTE: Setting the Stand-by period to (+∞) DISABLES the ambient light sensor, which means the light will stay on

Stand-by Dimming Level Group:
- This refers to the dimmed light level during the Stand-by period
- Assigns level of 10%, 20% or 30% for dimmed light output (of the maximum output of the fixture) after the Hold-time passes (see Figure 1 below for guidance).

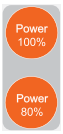
Figure I: Occupancy Tri-level Dimming



Remote Operation

Reset:
- Returns unit to factory settings of "SC1" and "Auto-Mode"

Dim buttons:
- Adjusts lamp brightness at maximum light level.
- When the sensor is disabled and the light is on, these buttons can be used as a dimming control.



Power 100% and Power 80%:
Sets maximum light level for occupied and Hold-time periods. When the occupancy sensor is activated, the light will return to this level.

Daylight Sensor Group:
When the ambient light level is above the set level and after a 5 minute delay, the motion sensor is disabled and the light will gradually dim to off over the period of 2 minutes. The light will gradually increase in brightness to set light level.

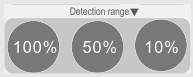
Blue Button:
- Sets the daylight sensor threshold level to the current ambient light level

2 Lux, 10 Lux and 50 Lux:
- Sets daylight sensor threshold level to the indicated Lux values. When enabled, the light sensor will overide the occupancy sensor and disable the luminaire.

Lux Disable:
- Disables daylight sensor when the light level is above the present light level.

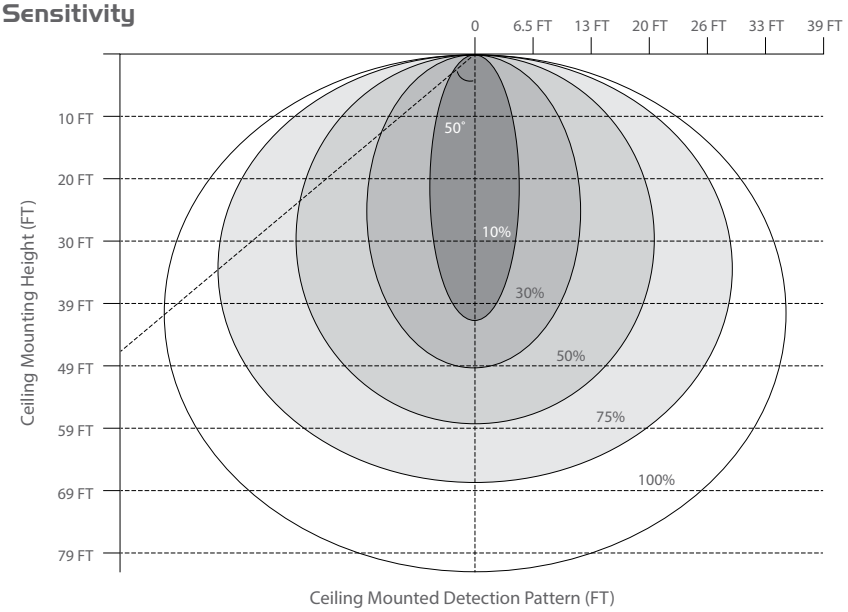
* Daylight sensor is only enabled at the end of the current cycle (Hold Time to Stand-by time to off)

Daylight Sensor Only Mode:
Triggers Daylight Sensor only mode and sets the daylight sensor to 50 Lux. You can set the threshold light level using the Daylight Sensor Group. Disables Occupancy sensors and timing. To exit this mode, hit the reset button.



Detection Range Group:
- Assigns detection sensitivity of 10%, 50% or 100% to limit the sensitivity in which motion will activate (use Figure 2 below for guidance)
- The sensor is very sensitive and may be activated by motion behind thin walls, on other aisles or behind the lamp.

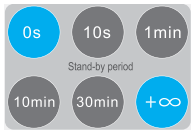
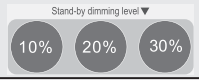
Figure 2: Occupancy Sensitivity



Remote Operation

Example of a Custom Sensor Setting

Follow the sequence below to set the fixture to a hold time of 10 minutes, with a standard dimming of 30% for a period of 30 minutes and have an ambient light cut off of 10 Lux. After pressing each button, the fixture should flash briefly:

	Press "Reset" to start at a known starting point of SC1
	Press "10min" from the "Hold-time" group
	Press "30min" from the "Stand-by period" group
	Press "30%" from the "Stand-by dimming level" group
	Press "10 Lux" from the "Day light sensor" group

Troubleshooting

Issue	Cause	Possible Resolution Options
Fixture will not turn on	No power	• Check power connection to the fixture.
	Sensor was disabled with the On/Off button on remote.	• Press the On/Off button on remote to enable light then press the "Auto Mode" button on remote to enable sensors
	Ambient light sensor was tripped, which overides occupancy level and keeps the fixture from lighting.	• Press "LUX Disable" to test then set ambient light level • Wait for the ambient light level to decrease (see "Daylight sensor group" on page three for details) • Set ambient light to high level above current ambient
Fixture will not dim the light when unoccupied	The RF motion sensor is very sensitive. The sensor may be tripped by motion that is behind the lamp, through walls or from cyclic machines (such as fans).	• Turn off cyclic machines • Move the fixture away from walls that may have motion behind it. • Reduce sensitivity of the sensor by selecting an option from the "Detection range group" (see page three for details) • Sensor has been disabled and the fixture is on – enable sensor by pressing "Auto" (see page two for details)
Fixture will not shut off with ambient light	Sensor was disabled with the On/Off button on remote.	• Sensor has been disabled and the fixture is on. Enable sensor by pressing "Auto" (see page two for details)
	Ambient light sensor has been disabled	• Select an option from the "Daylight sensor group" that enable the sensors (see page three for details)
	Ambient light sensor level is too low.	• Select a higher Lux level in the "Daylight sensor button group"
Remote will not control the light	No battery or the battery is dead	• Install new battery
	IR communication path is too far or blocked	• The IR remote works on line of light within 20 meters. Ensure you have direct line of sight within 20 meters of sensor.
Occupancy features not working	Daylight Only mode is enabled	• Hit the reset button, and after confirmation flash, set desired occupancy configuration.