Solo Sensors
High-Bay PIR Occupancy Sensing with Integral Photocell

Description

Solo Sensors (ZLS10) integrate PIR occupancy detection and photocell technology directly into 0-10V dimming light fixtures for standalone lighting control. Designed for mid to high-bay applications, Solo Sensors are IP65 rated for outdoor use. Configure output settings and dimming profile using DIP switches or access additional features using the ZLS0R remote control.

The Solo High Bay Sensors include two 360-degree interchangeable lenses for 20-40' mid to high bay mounting height applications. The sensor coverage radius is adjustable to a max of 30' and the daylight target level is selectable. The ZLS10-IDW is powered by 120-277VAC line voltage and is designed to control 0-10V dimmable LED drivers, dimming ballasts, and non-dimming ballasts. The ZLS10-ILW is a low voltage alternative and is powered by a 12-24V, typically by AUX supply from the LED driver.

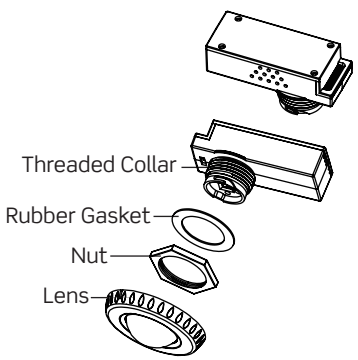
Applications

- Luminaire level lighting control (LLLC)
- Occupancy and light level sensing
- 0-10V dimming
- Wet and cold locations
- Warehouses
- Industrial applications
- Parking structures
- Exterior lighting

Features

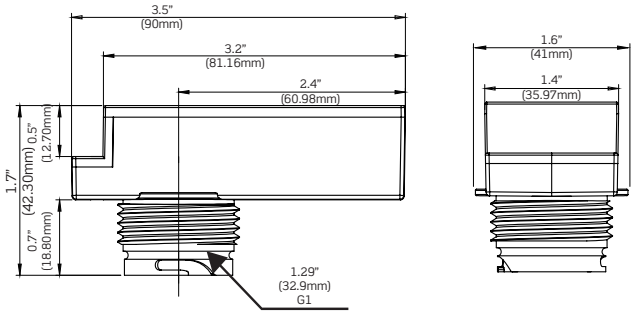
- 0-10V dimming with multi-level control
- Partial-OFF
- Selectable daylighting target
- IP65 Rated
- Configured using DIP switches or optional IR Remote (ZLS0R-RC1)
  - Remote stores and transmits sensor profiles to other devices if configuration requirements are the same
- Adjustable detection range (sensitivity), hold time, daylight target level, standby level and time:
  - Sensitivity - 20, 50, 75, 100%
  - Hold time - 10s, 1, 5, 15m
  - Photocell level - OFF, 10, 30, 50 lux
  - Standby level - 0, 10, 30, 50%
  - Standby time - infinite, 1, 30, 60m
- Maximum mounting height of 40' with adjustable coverage radius of up to 30'
- Can be used to comply IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/vacancy sensing and daylight harvesting requirements

Installation Diagram—IDW Depicted, ILW Similar

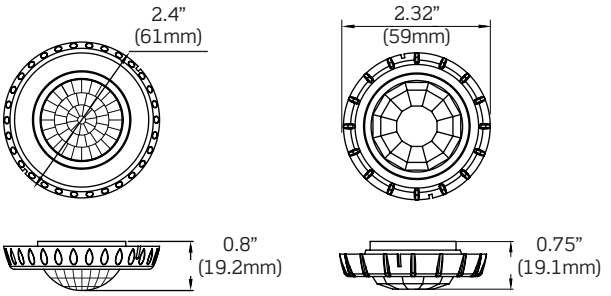


Leviton Manufacturing Co., Inc. Lighting & Controls
10385 SW Avery Street, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

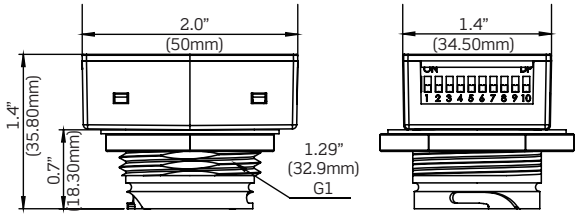
Dimensions Diagrams

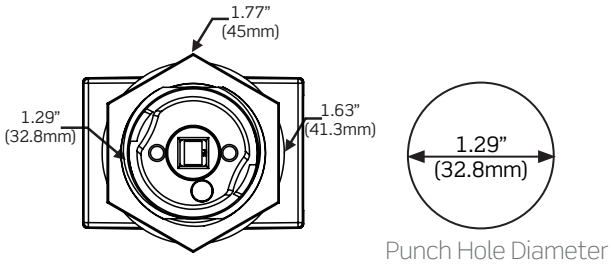


ZLS10-IDW Sensor



High Bay Lens Low Bay Lens

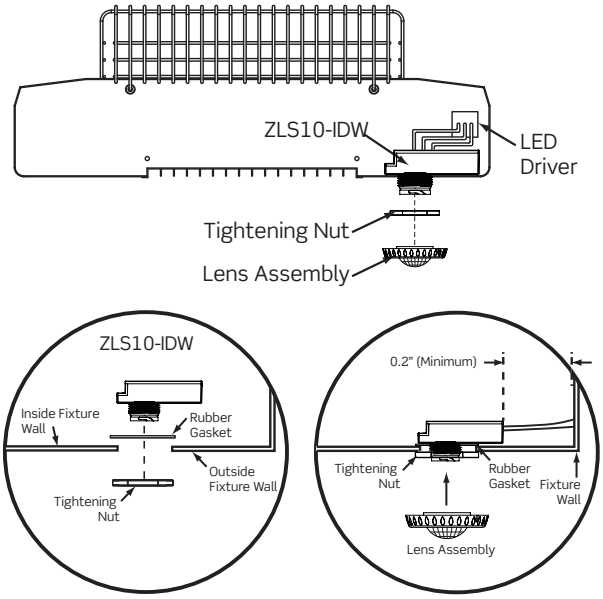




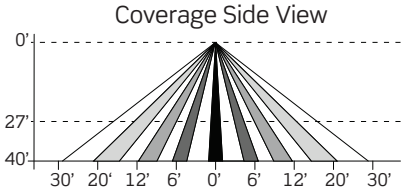
Punch Hole Diameter

ZLS10-ILW Sensor

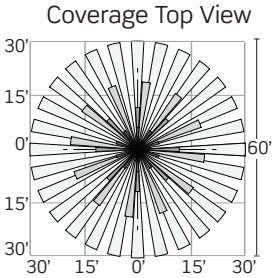
Mounting Diagram—IDW Depicted, ILW Similar

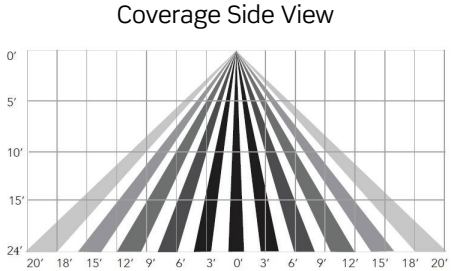


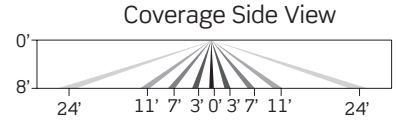
FOV Diagrams—360 Degree Coverage



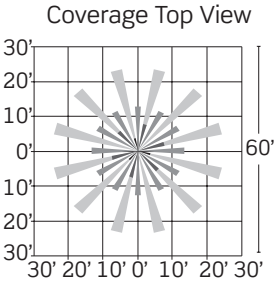
High Bay Lens

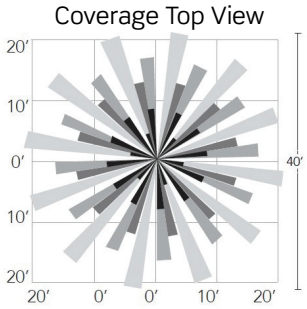






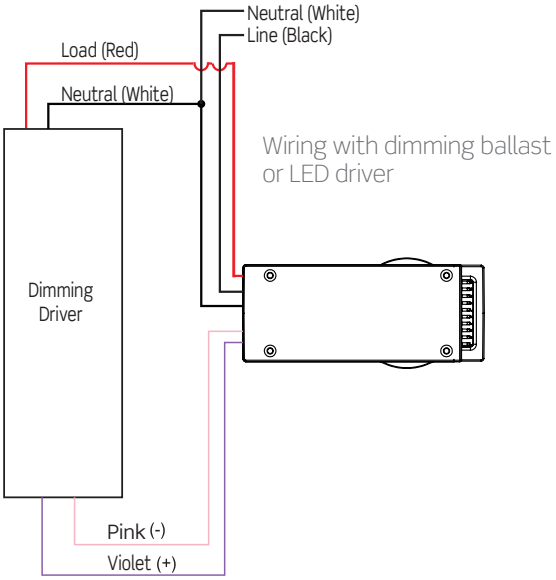
Low Bay Lens





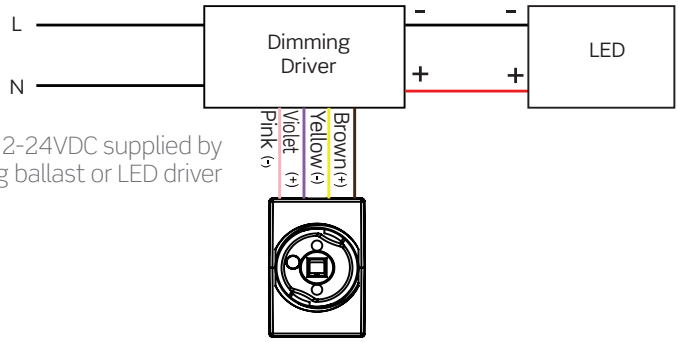
Product Data
ZLS10-IxW

Wiring Diagrams



Wiring with dimming ballast or LED driver

ZLS10-IDW



12-24VDC supplied by dimming ballast or LED driver

ZLS10-ILW

IR Remote Button Configurations

BUTTON	DESCRIPTION	BUTTON	DESCRIPTION
ON/OFF	Press the ON OFF button and the light will go to permanent ON or permanent OFF mode and disable the sensor. The Auto button must be pressed to exit out of this mode and to Settings.	AUTO	The Auto button allows the sensor function and all settings to remain the same as the previous status when the lights were switched ON or OFF
DISP	Press DISP button to show display setting parameters. LED indicators will light up	TEST 2s	The TEST 2 button is for testing sensitivity only. After the sensitivity thresholds are chosen, press the TEST 2 button and the sensor will go into test mode (hold time is 2s) automatically. This will disable the stand-by period and daylight sensor. Press the S button to exit this mode.
RESET	Press RESET button to reset all settings back to the DIP switch settings in the sensor		
▲ ▼	Press buttons to enter setting conditions, the remote LEDs will flash to be selected. Navigate the UP and Down buttons to select parameters.	◀ ▶	Navigate to LEFT and RIGHT to choose selected parameters and LED indicators
OK	Press the OK to button confirm the parameters selected in the remote	⎍	Open and close the sensor. Press the navigate up or down buttons and enter the setting condition. The parameter LED of the remote control will flash to select. Press or open or close sensor.
SEND	Press the SEND button to upload parameters to the sensor. The LED light connected to the sensor will blink ON and OFF to confirm.		
MODE1 MODE2 MODE3 MODE4	Four scene modes with preset parameters that can be changed and saved in each mode		

Leviton Manufacturing Co., Inc. Lighting & Controls
10385 SW Avery Street, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

DIP Switch Settings

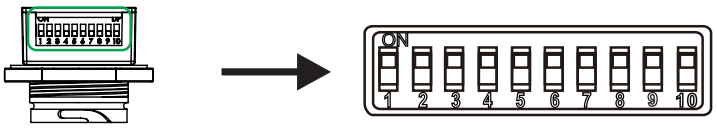
- **Detection Range Setting**
  - Detection range is based on a mounting height of 40ft
  - Pull switch to the ON position as ↑
  - Pull switch to the OFF position as ↓
  - See corresponding table for switch location and detection range

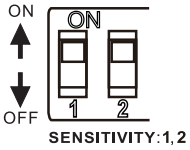
- **Hold Time Setting**
  - The light can be set to stay ON for a period of time between a minimum of 10 seconds and a maximum of 15 minutes. Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.
  - Pull switch to the ON position as ↑
  - Pull switch to the OFF position as ↓
  - See corresponding table for switch location and hold time

- **Light Control Setting**
  - The chosen light response threshold can be infinite to approximately 10-50 lux (0.92-4.64 FC)
  - Pull switch to the ON position as ↑
  - Pull switch to the OFF position as ↓
  - See corresponding diagram for switch location and light-control

- **Standby Light Level Setting**
  - Switch to ON with ↑
  - Switch to OFF with ↓
  - See corresponding diagram for switch location and stand-by level

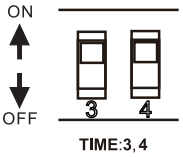
- **Standby Time Setting**
  - Switch to ON with ↑
  - Switch to OFF with ↓
  - See corresponding table for switch location and stand-by time





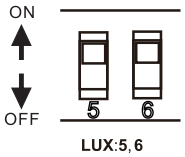
SENSITIVITY

1	2	
↓	↓	20%
↓	↑	50%
↑	↓	75%
↑	↑	100%



TIME

3	4	
↓	↓	10S
↓	↑	1Min
↑	↓	5Min
↑	↑	15Min

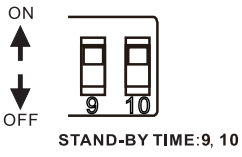


LIGHT

5	6	
↓	↓	☼ (light sensor disable)
↓	↑	10Lux
↑	↓	30Lux
↑	↑	50Lux

STAND-BY LEVEL

7	8	
↓	↓	0%
↓	↑	10%
↑	↓	30%
↑	↑	50%



STAND-BY TIME

9	10	
↓	↓	+∞
↓	↑	1Min
↑	↓	30Min
↑	↑	60Min

Product Data
ZLS10-IxW

Specifications

Electrical	ZLS10-IDW	ZLS10-ILW
Input Power	120/277VAC, 50/60Hz	12-24VDC
Dim Control Output	0-10V, 25mA sinking	
Load Ratings		
Resistive/Halogen	800W@120V/1200W@277V	—
Fluorescent Ballast	660W@120V/1200W@277V	
Electronic Ballast	(LED/CFL) - 5A@120V/5A@277V	
Lead Length	10" (254mm)	12" (304mm)
Environmental		
Operating Temperature Range	-40° to 158°F (-40° to 70°C)	-40° to 167° F (-40° to 75°C)
Humidity	20-90% relative humidity	95% relative humidity
Other		
Energy Codes	Can be used to comply with IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/ vacancy sensing and daylight harvesting requirements	
Rating	IP65 Rated	
Detection Area	360 degree with a maximum coverage diameter of 60' when mounted at 40'	
Mounting Height	40' Max	
Warranty	5-Year Limited	

Ordering Information

Product Name	
Cat. No.	**Description**
ZLS10-IDW	Solo PIR Sensor, fixture integrated. 120-277VAC, 50/60Hz; controls 0-10VDC LED drivers or dimming ballasts; mounting height: 40ft max; 30ft detection radius, Programmable using DIP switches or IR remote programmer (Cat. No. ZLS0R-RC1) to adjust sensitivity, time-out, photocell, and standby time, Color: White
ZLS10-ILW	Solo PIR Sensor, fixture integrated. 12-24VDC, 0-10V, max 25mA sinking current; mounting height: 40ft max; 30ft detection radius. Programmable via DIP switches or IR remote programmer (Cat. No. ZLS0R-RC1) to adjust sensitivity, time-out, photocell, and standby time. Color: White
ZLS0R-RC1	Optional Solo Sensor IR Remote, for use with ZLS10-IDW, ZLS10-ILW only

Leviton Manufacturing Co., Inc. Lighting & Controls
10385 SW Avery Street, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

Leviton Manufacturing Co., Inc. Lighting & Controls
10385 SW Avery Street, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Visit our Website at: www.leviton.com/integratedcontrols