

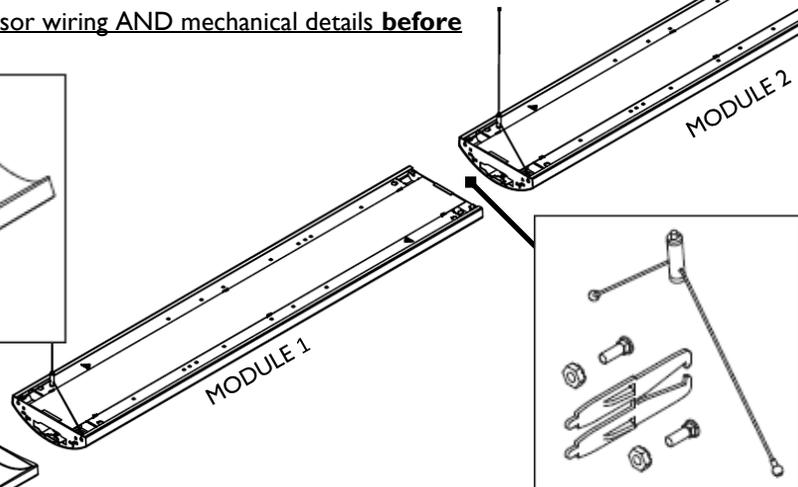
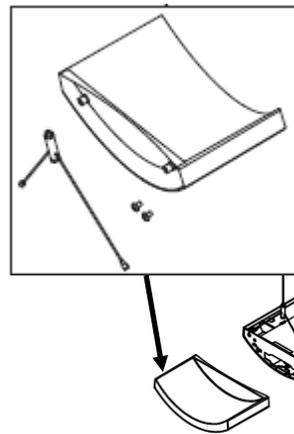
## System Overview

These instructions review how to install Sona suspended fixtures. 4ft and 8ft modules can be installed as individual standalone units, or they can be joined together to create continuous runs. The graphics below show the components required to install a typical run of Sona suspended fixtures.

**IMPORTANT:** Read all instructions including fixture/sensor wiring AND mechanical details before beginning installation.

### Sona Endcap Kits

- Endcap
- Sling cable assembly
- #8-32 x 1/2" screws (x2)



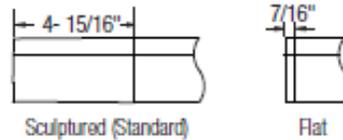
### Sona Joint Kit(s)

- Sling cable assembly (X1)
- Joiner aligner pair (X1)
- #10-24 x 9/16" bolts (x2)
- #10-24 nuts (x2)

Note: 1 kit required for each in-row joint

## Module Lengths

Sona suspended fixtures come in 4ft and 8ft modules. Overall module lengths are shown below. Add 4-15/16" for each sculpted endcap or 7/16" for each flat endcap.

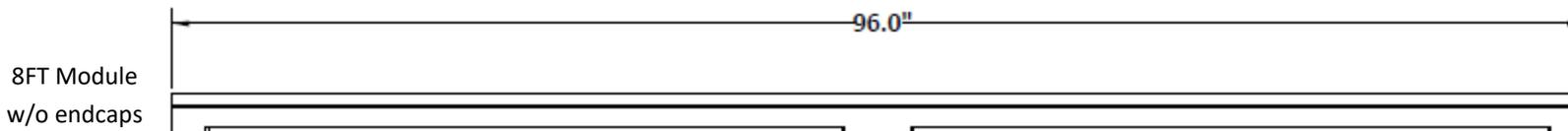
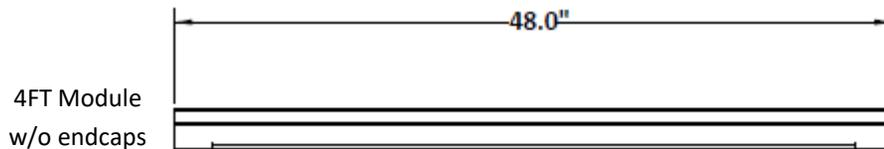


## Tools Required:

- Medium Phillips Screwdriver
- 3/8" Wrench, 1/4" ratchet with 3/8" socket, or 3/8" GearWrench.

## Mount Spacing:

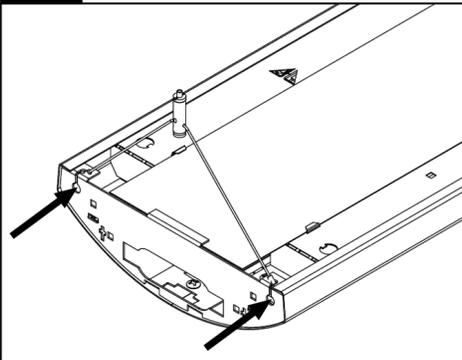
Sona fixture modules are designed for exact on-grid mounting.



**! ATTENTION: Install in accordance with national and local building and electrical codes.**

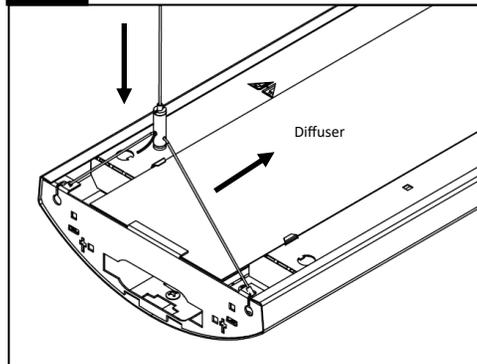
**1** Arrange boxed fixture on floor in specified mounting location, remove fixtures from boxes. Install all ceiling mounting components and vertical aircraft cables using separate installation instruction for Aircraft Cable Mounting (supplied).

**2a** Install cable gripper



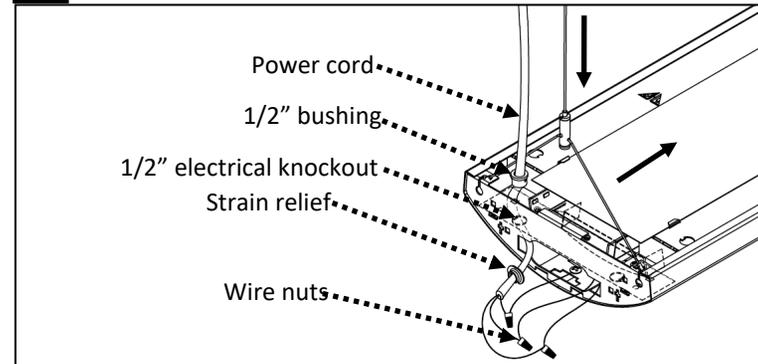
Insert sling cable gripper into cross plate holes as shown. Pivot the cable gripper up. Repeat at other end of light fixture.\* For variable mount option, see page 4, steps 9a to 10.

**2b** Suspend fixture



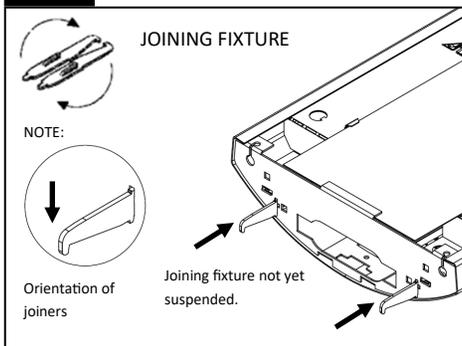
With 2 people, raise the fixture up to the suspension cables and feed through grippers. Set fixture to desired height. Slide diffuser back from cross plate if needed.

**3** Power Cord Installation



Insert supplied 1/2" bushing into 1/2" electrical knockout on wire cover reflector. Crimp supplied strain relief onto power cord insulation (recommend Heyco Tool PN0019(R12)). Ensure power cord does not have excess slack or is too tight. Complete necessary electrical connections (by others) in compliance with local codes. Tuck wires into wiring cavity.

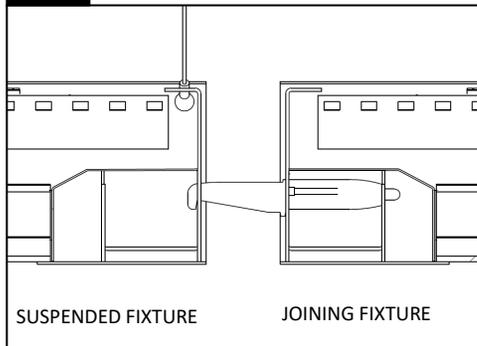
**4a**



On joining fixture, break apart joiner pair by twisting them apart. Insert joiner brackets into cross plate (brackets should lock into place). With two people, raise second fixture to ceiling.

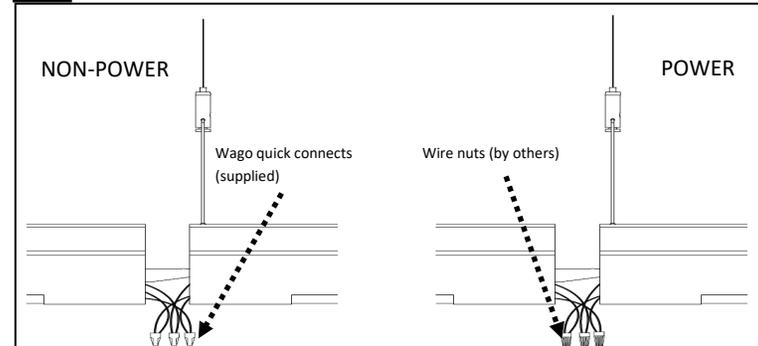
**IMPORTANT: Do not attempt to join fixtures on floor. Instead hang one fixture at a time and join modules at ceiling level.**

**4b**



At joint, rest joiner aligners in suspended fixture at other end (opposite joint), insert aircraft cable through adjuster

**5**

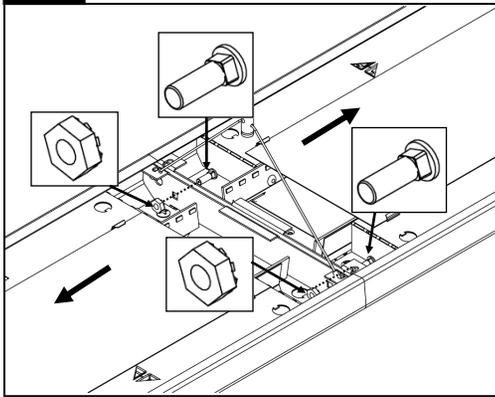


Complete in-row electrical connections.

**NON-POWER LOCATIONS:** Use supplied quick-wire connectors. Tuck wires into wire cavity.

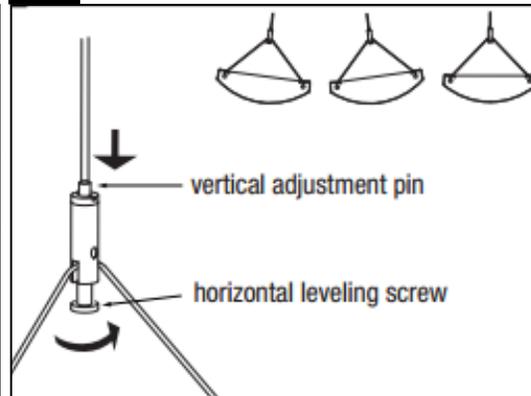
**POWER LOCATIONS:** Remove installed quick-wire connectors and complete electrical connections using wire nuts (supplied by others). Tuck wires into wiring cavity.

**! ATTENTION: Install in accordance with national and local building and electrical codes.**

**6** Secure joints

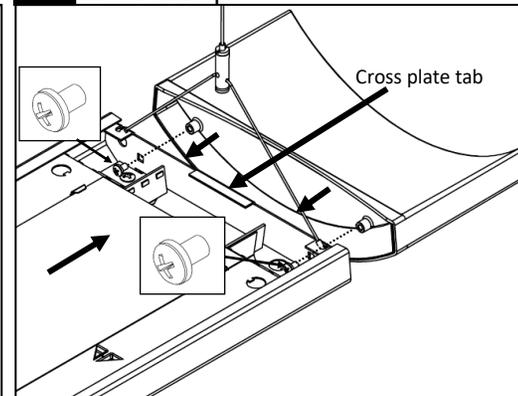
Slide fixtures together and secure joint using supplied nut and bolt hardware (requires 3/8" wrench, 1/4" ratchet with 3/8" socket, or 3/8" GearWrench).

Slide diffuser back under tab after securing hardware.

**7** Level all fixtures / rows

**LEVEL HORIZONTALLY:** Loosen horizontal leveling screw located on bottom of adjuster and level as required. Tighten screw once mount is in level position.

**ADJUST VERTICALLY:** Support fixture from below and press down on vertical adjustment pin to make fine height adjustments (review instruction A for details)

**8** Install endcaps

Attach endcap to first and last module in each row using supplied hardware.

Slide diffuser back under tab on cross plate after securing hardware.

**IMPORTANT: Do not over-tighten endcap screws. Ledalite recommends tightening screws by hand.**

**A** Aircraft cable adjustment

**IMPORTANT: Do not force cable into adjuster. Insert cable into adjuster following the steps below.**

## 1. CUT

If required, cut cable ends cleanly prior to inserting into adjuster. Recommended cutters: K.K. Porter cable cutter cat. No. 0690TN or Klein all purpose shears cat. No. 1104.

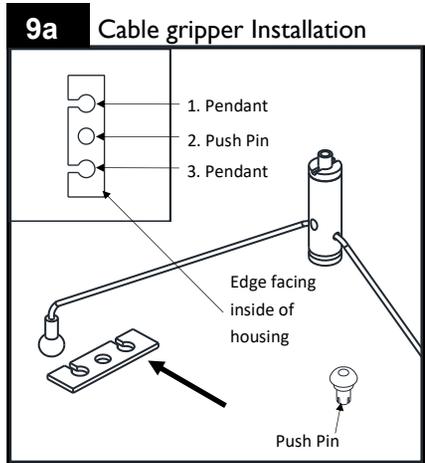
## 2. INSERT

Carefully insert cable into tapered end. Press down on vertical adjustment pin to make fine height adjustments. Trim end, as required, leaving minimum 1" exposed.

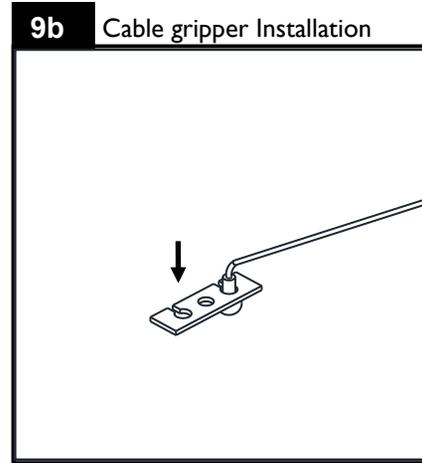
## 3. TEST

Once cable is inserted, apply a 25lb point load to each mount bracket to ensure all connections are secure.

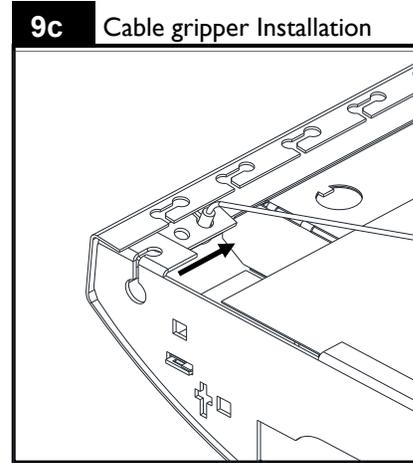
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



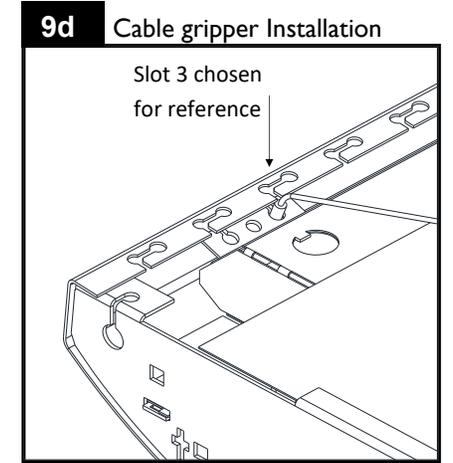
Insert locking plate on sling cable gripper as shown above. All components are located in the End Cap Kit or Joining Kit.



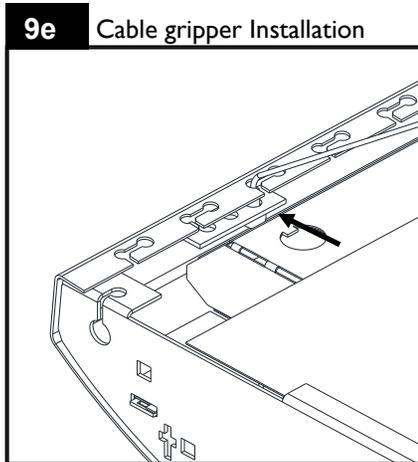
Locking plate will rest on the ball pendant.



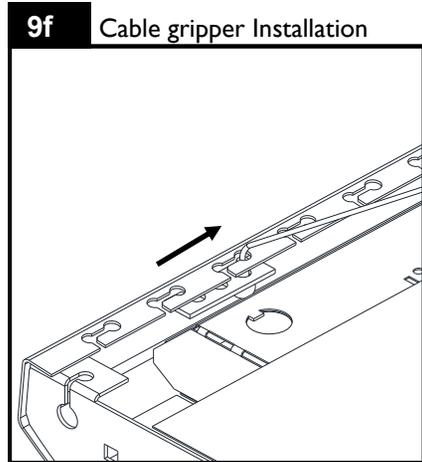
Slide the sling cable gripper and the locking plate through the opening to the desired slot location.



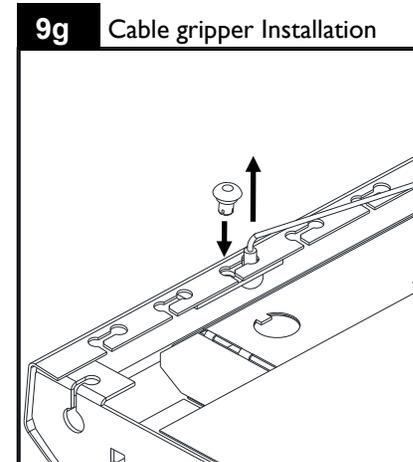
Align sling cable gripper to the opening of the slot.



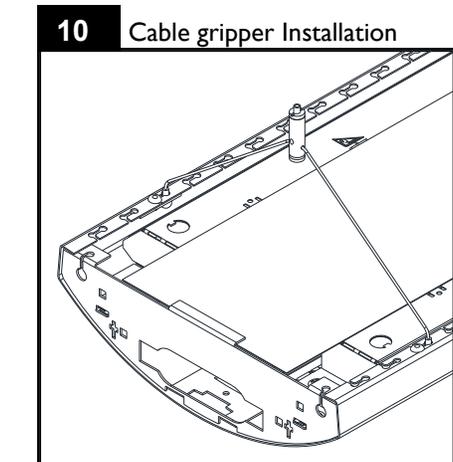
Slide sling cable gripper into the opening of the chosen slot. Ensure locking plate is installed under housing flange.



Slide the sling cable gripper to the inside opening. Align the 2nd hole on the locking plate to the adjacent hole where the sling cable gripper is coming out of.



Pull the sling cable gripper upwards. Ensure locking plate is flush to the housing flange. Secure the locking plate with the push pin provided.



Follow steps 9a to 9g to install the other side of the sling cable gripper.

**Sensor in Rows**

**Single Sensor Controlling Whole Row**

1. Purple & brown (or purple & grey/pink) control wires **MUST** be connected between fixtures.

Note :

- A maximum of 8 drivers can be wired to 8 sensors; confirm fixture driver count with factory.



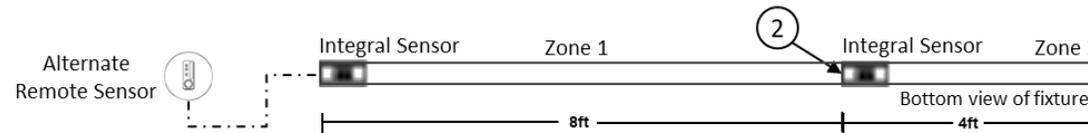
**Multiple Sensors Controlling Separates Zones in a Row**

2. Purple & brown (or purple & grey/pink) control wires **MUST NOT** be connected between zones.

Notes :

- A maximum of 8 drivers can be wired to one sensor; confirm fixture driver count with factory.

- Only one sensor is allowed on a wired zone. (Sensors can be paired together wirelessly via a mobile app).



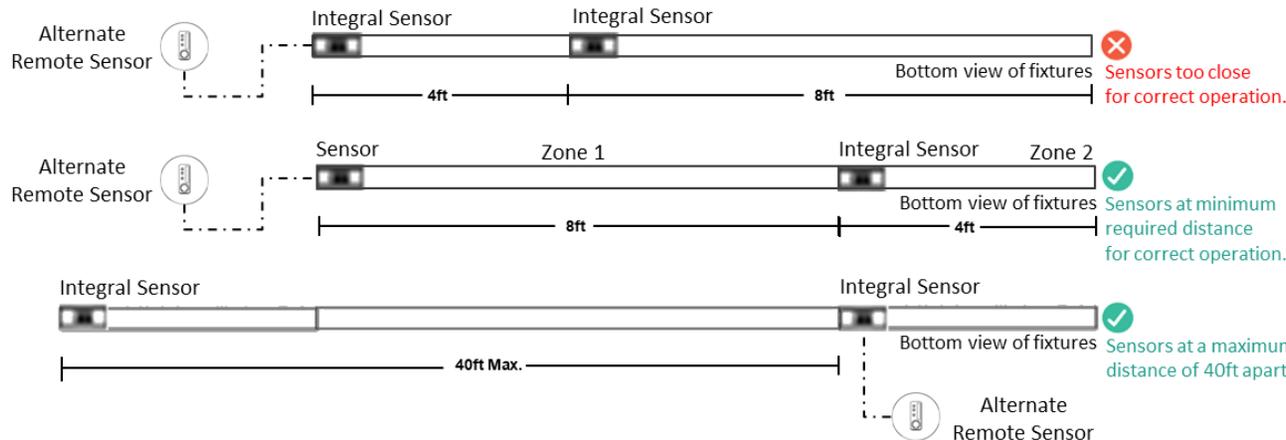
**Important Consideration When Using Sensor in a Row**

- For fixtures with wireless sensors (CS, SB or RA options): **DO NOT** connect fixture purple and brown (or purple & grey/pink) control wires to an external dimming switch. Fixture mains wiring should not be connected to a circuit with an external on/off switch.
- For best aesthetic condition, place sensors at ends of row only so as not to break the continuous lens.
- For better occupancy coverage in longer rows, sensors may be placed mid run, but keep in mind this will break the continuous lens into discrete sections. Alternatively, remote sensors may be used, note the same wiring rules will apply.

**Sensor Spacing**

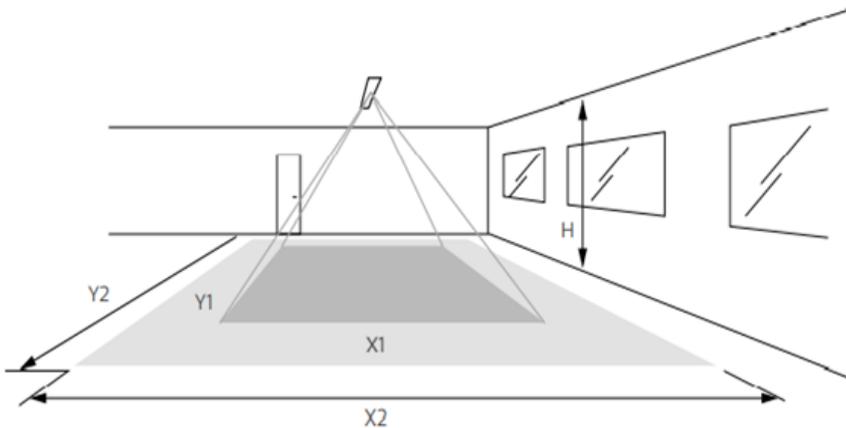
- For correct operation, sensor should be placed a minimum distance of 8ft apart.

- Wireless sensor should be placed no further than 40ft apart for good wireless signal connection.



**Occupancy Sensor Coverage:**

Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of the luminaire.



**Daylight Sensor**

The light sensor measures the total amount of light in a circular field of approximately 80% of the PIR detection area. The following aspects should be observed during installation:

- Minimum distance from the window  $\geq 2\text{ft}$  (0.6m).
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car hood) as this will lead to incorrect light regulation.

As a guideline the formula  $0.72 \times H$  can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the sensor.



Height	Minor movement		Major movement	
h	X1	Y1	X2	Y2
2.4 m (7.9 ft)	1.9 m (6.2 ft)	2.9 m (9.5 ft)	2.9 m (9.5 ft)	4.3 m (14.1 ft)
3 m (9.8 ft)	2.4 m (7.9 ft)	3.6 m (11.8 ft)	3.6 m (11.8 ft)	5.4 m (17.7 ft)

The detection area for the movement sensor can be roughly divided into two parts;

- Minor movements (person moving  $\leq 3\text{ft/s}$  or  $0.9\text{m/s}$ ).
- Major movements (person moving  $\geq 3\text{ft/s}$  or  $0.9\text{m/s}$ ).

**Photosensor spatial response**

