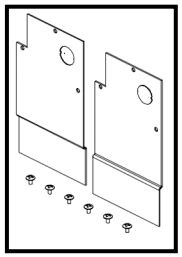
System Overview

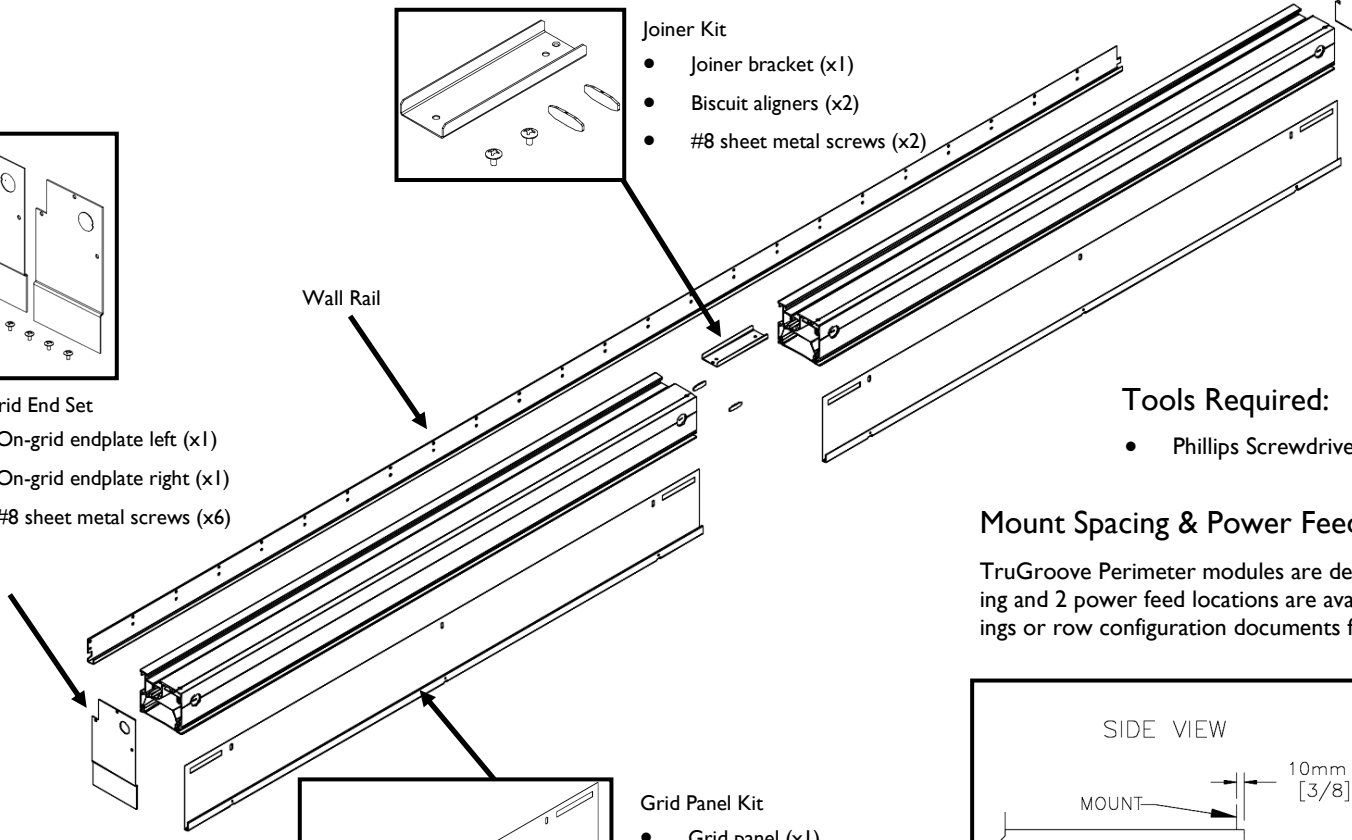
These instructions review how to install TruGroove Perimeter Ambient and Graze fixtures. Modules can be installed as individual standalone units, or they can be joined together to create continuous runs. The graphics below show the components required to install a typical run of TruGroove Perimeter fixtures.

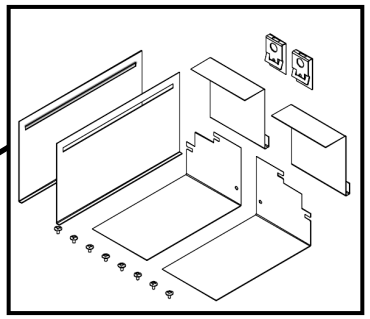
IMPORTANT: Read all instructions including fixture/sensor wiring AND mechanical details **before** beginning installation.



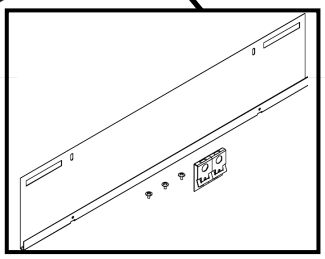
On Grid End Set
- On-grid endplate left (x1)
- On-grid endplate right (x1)
- #8 sheet metal screws (x6)

Joiner Kit
- Joiner bracket (x1)
- Biscuit aligners (x2)
- #8 sheet metal screws (x2)





Variable End Set
- Variable endplate left (x1)
- Variable endplate right (x1)
- Variable panels (x2)
- On-grid end caps (x2)
- Grid clips (x2)
- #8 sheet metal screws (x8)



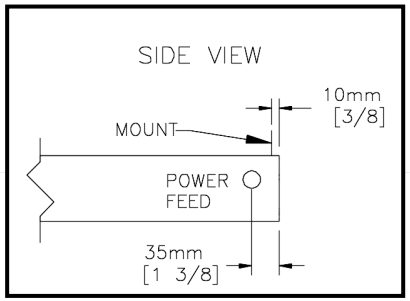
Grid Panel Kit
- Grid panel (x1)
- Grid clips (x2)
- #8 sheet metal screws (x3)

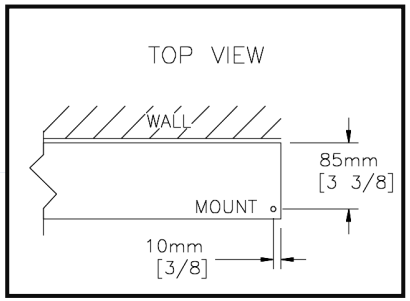
Tools Required:

- Phillips Screwdriver
- #2 Robertson Screwdriver

Mount Spacing & Power Feed Location

TruGroove Perimeter modules are designed for exact on-grid mounting. 2 mounting and 2 power feed locations are available on each module. Refer to layout drawings or row configuration documents for module lengths and mounting distances.





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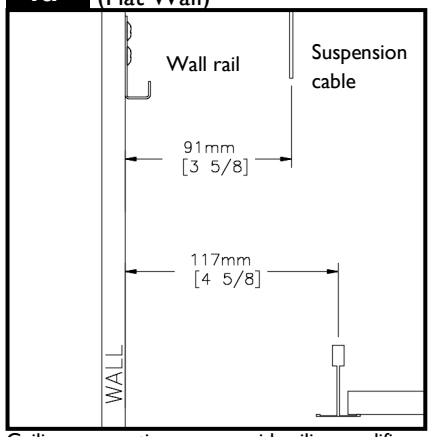
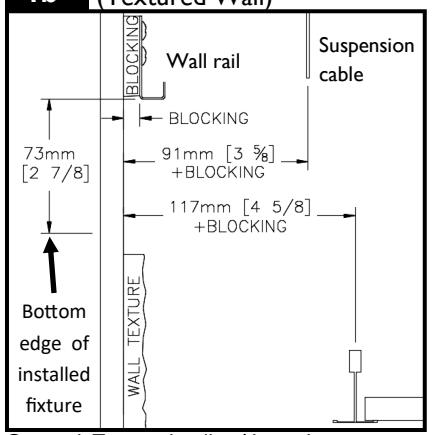
1a Ceiling Preparation (Flat Wall)



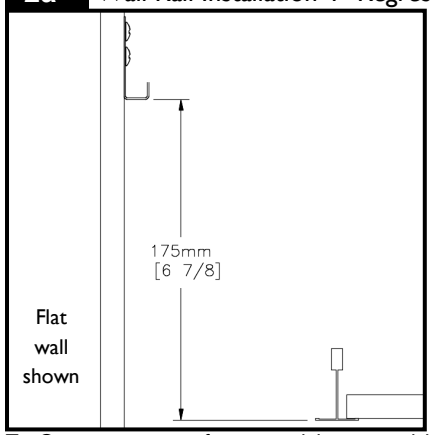
Ceiling preparation covers grid ceiling modifications, attachment of wall rails and mount installation. Above diagram covers all required dimensions for standard t-grid installation. IMPORTANT: Grid opening size must be followed for proper fit.

1b Ceiling Preparation (Textured Wall)



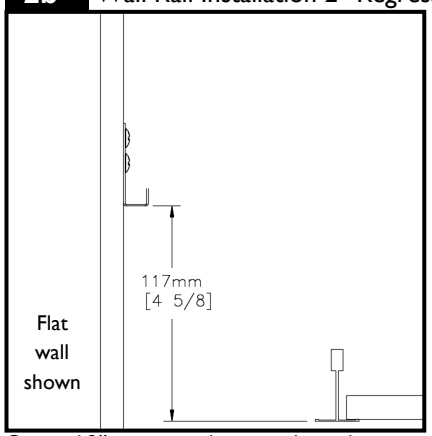
Optional: Textured walls. Above diagram covers all required dimensions for standard t-grid installation with a textured wall. IMPORTANT: To ensure a proper fit, blocking (by others) must be the same thickness as wall texture.

2a Wall Rail Installation 4" Regress



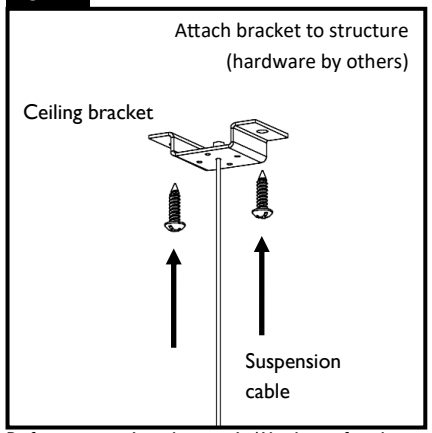
TruGroove perimeter fixture modules are available in two different above plenum heights. Refer to layout drawings for required regress. Standard 4" regress is shown in above diagram. Attach wall rails (hardware by others) to wall studs at specified height. IMPORTANT: Ensure all wall rails are level.

2b Wall Rail Installation 2" Regress



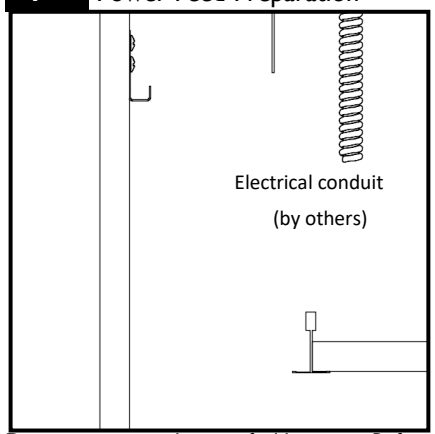
Optional 2" regress is shown in above diagram. Attach wall rails (hardware by others) to wall studs at specified height. IMPORTANT: Ensure all wall rails are level.

3 Mount Installation



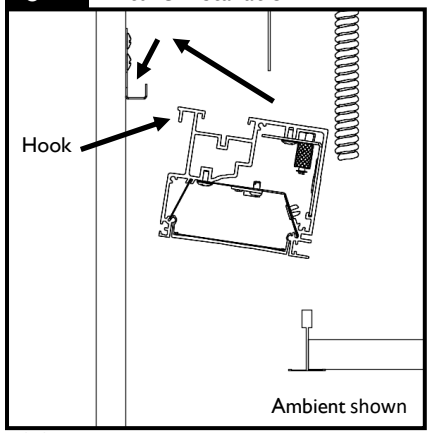
Refer to page 1 and steps 1a/1b above for determining mounting locations. To install the 1st module, two brackets and suspension cables are required. When joining luminaires, only one bracket and suspension cable are required for each joining module.

4 Power Feed Preparation



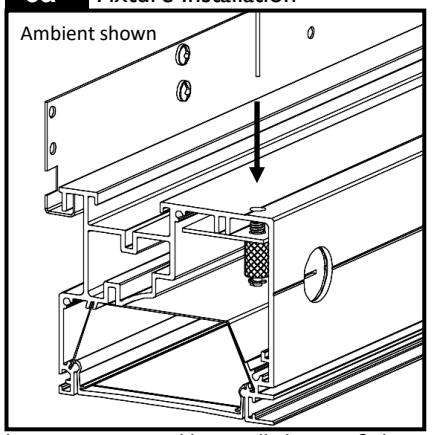
Determine required power feel locations. Refer to page 1 for typical power feed locations for each housing. Prepare power feed drop conduit and suspend close to required location. Attachment to fixture module is shown in step 8.

5 Fixture Installation



Lift fixture module past ceiling plane, Tilt as shown and engage housing hook on wall rail.

6a Fixture Installation



Insert suspension cables installed in step 3 through cable grippers inside fixture housing. IMPORTANT: Ensure suspension cables are vertical. Level fixture and trim excess cable to 1" below fixture. Tuck remaining cable inside fixture housing.

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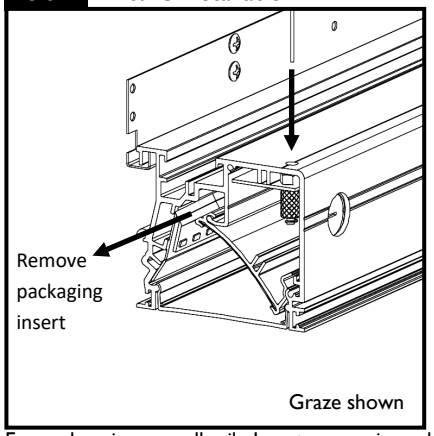
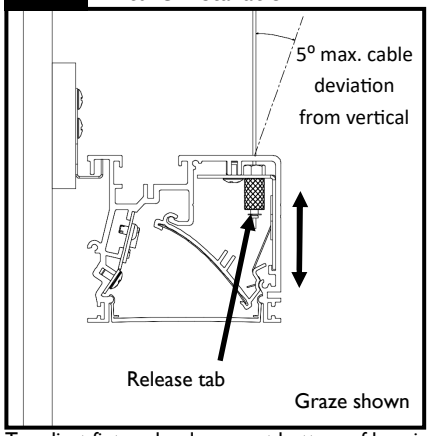
6b Fixture Installation



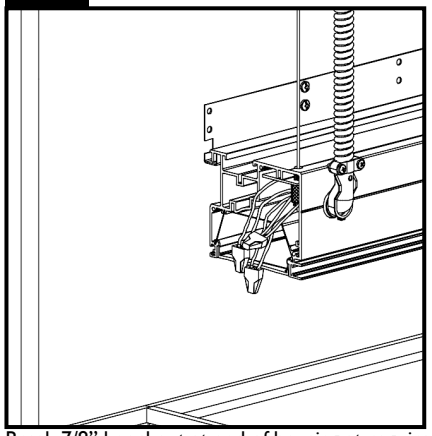
Engage housing on wall rail. Insert suspension cables installed in step 3 through cable grippers inside fixture housing. Pull cables through and refer to next step for levelling. IMPORTANT: Remove graze packaging insert from both ends of each housing.

7 Fixture Installation



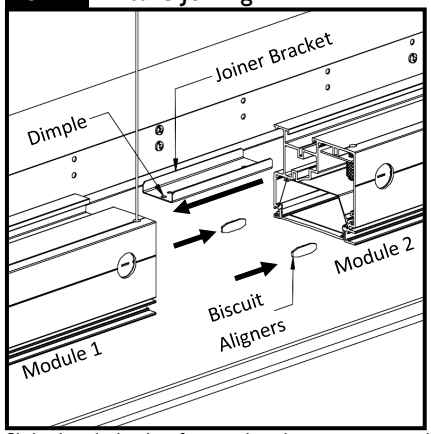
To adjust fixture level, support bottom of housing and release cable gripper by pulling tab as shown. Cable will slide freely and allow fine tuning of housing position. Repeat process at each cable gripper location using same procedure to ensure housing is level.

8 Power Feed Connection



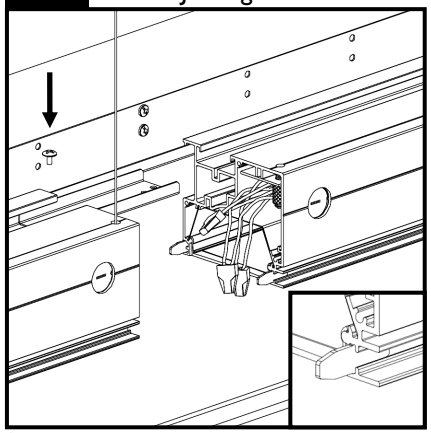
Break 7/8" knockout at end of housing at required power feed location. Install conduit connector (by others) and complete electrical connections. For a row end, tuck wires inside wiring cavity and follow endplate installation instructions starting in step 13.

9 Fixture Joining



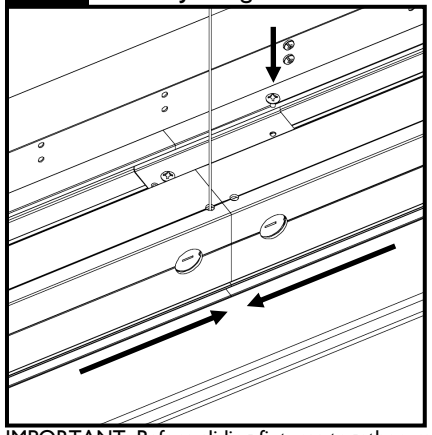
Slide dimpled side of joiner bracket approximately 1 inch inside top channel of module 1. Tap biscuit aligners just past half way inside module 2 as shown.

10 Fixture Joining



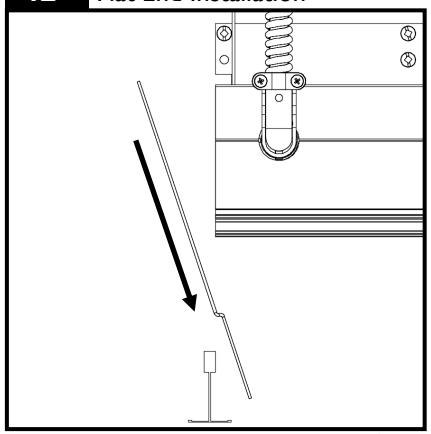
Secure joiner bracket to module 1 with screw provided. Slide module 2 on rail and engage on free end of joiner bracket. Complete all required electrical connections and tuck all wires inside both wiring cavities.

11 Fixture Joining



IMPORTANT: Before sliding fixtures together, make sure all electrical wires and suspension cables are properly tucked inside fixture wiring cavities. Slide fixture housings together and attach second joiner bracket screw.

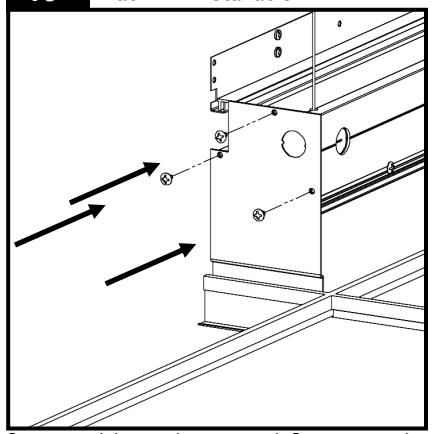
12 Flat End Installation



For variable end installation, skip to step 14b.

Rotate and position bottom of endplate inside grid and push flat against housing end.

13 Flat End Installation



Secure endplate to housing with 3 screws as shown.

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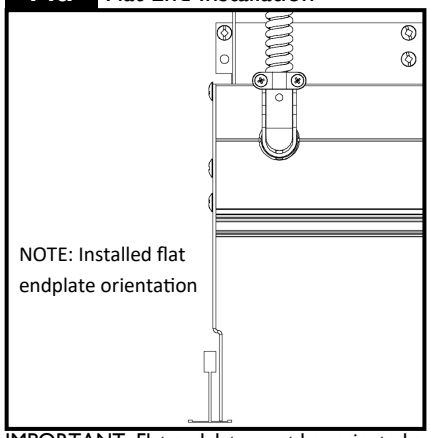
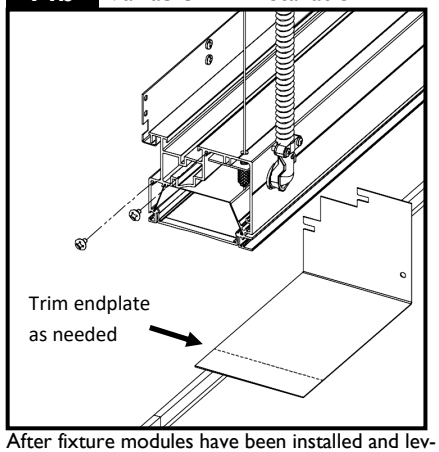
14a Flat End Installation



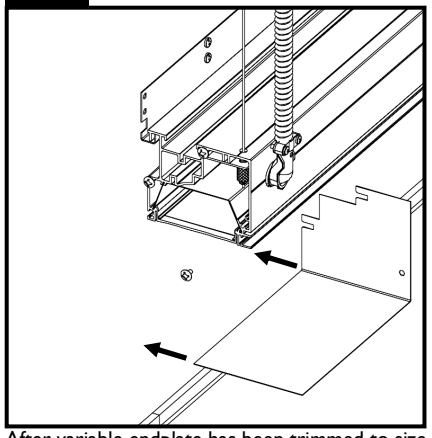
IMPORTANT: Flat endplate must be oriented and installed as shown above. If variable ends are not required, skip to step 17 for panel installation.

14b Variable End Installation



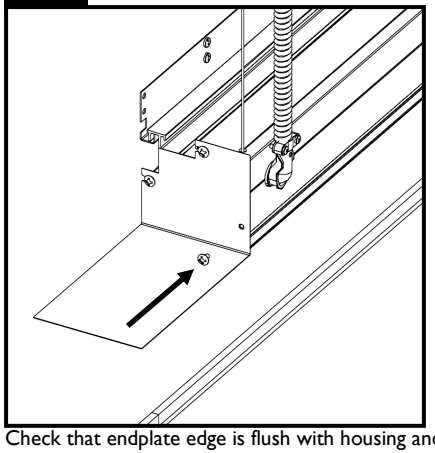
After fixture modules have been installed and levelled, measure distance between wall and fixture end. Trim variable endplate as required. INSTALLATION TIP: Before next step, attach 2 screws shown above to housing. Fully tighten then back off 1/2 turn.

15 Variable End Installation



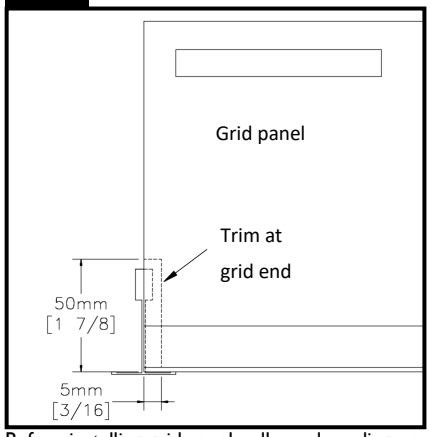
After variable endplate has been trimmed to size, slide endplate toward wall guiding open slots towards screws installed in step 14b. Hook slots on screws and push all the way towards wall.

16 Variable End Installation



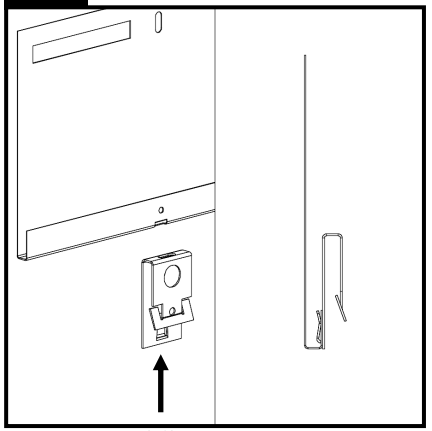
Check that endplate edge is flush with housing and attach final screw to lock in place.

17 Panel Installation – On Grid



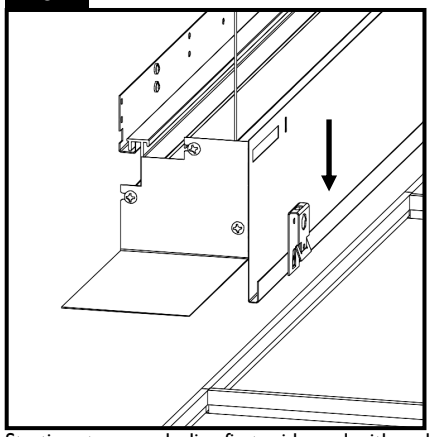
Before installing grid panels, all panels ending on grid must be trimmed as shown. Ensure one left and one right are trimmed for each required run.

18 Panel Installation



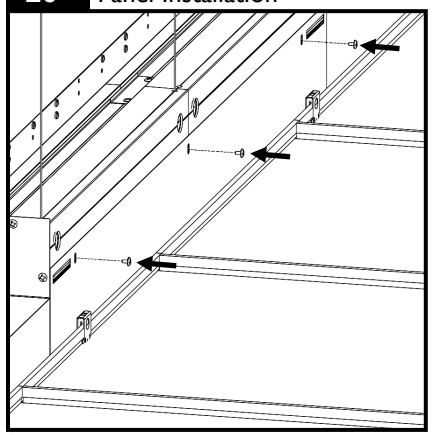
Insert grid clips (x2) to grid panel at slot locations. Push grid clip up as shown until bottom of clip is flush with bottom of grid panel.

19 Panel Installation



Starting at one end, align first grid panel with end of housing and slide onto t-grid to engage clips.

20 Panel Installation



Secure grid panel to housing by attaching provided screws to housing through panel slots as shown. Repeat panel installation to complete run.

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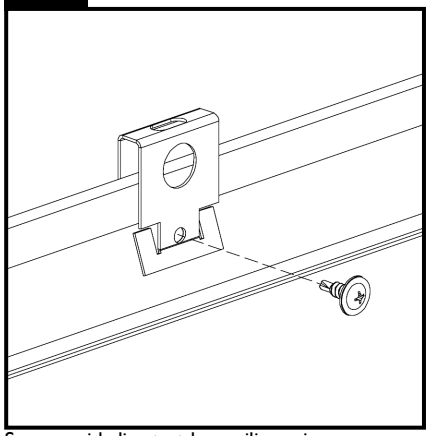
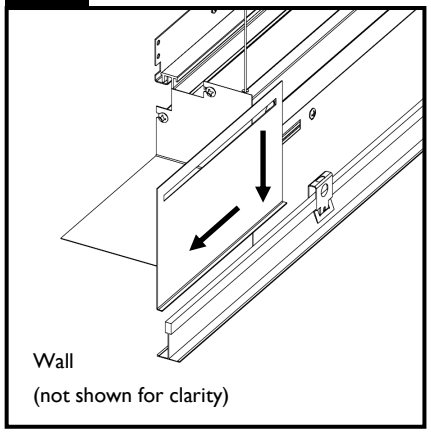
21 Panel Installation



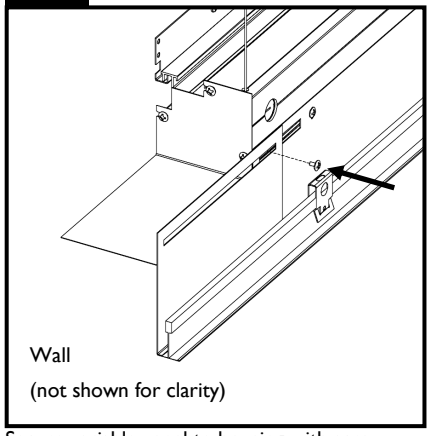
Secure grid clips to t-bar ceiling using screws (by others).

22 Variable Panel Installation



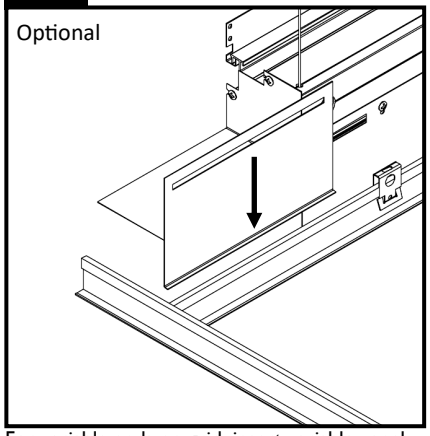
For variable ends at a wall, insert variable panel inside installed grid panel. Slide to required position. NOTE: When installed, the variable panel will match the length of variable endplate installed in steps 14b-16 .

23 Variable Panel Installation



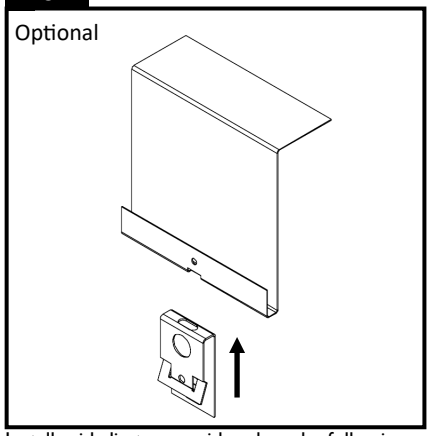
Secure variable panel to housing with screw provided.

24 Variable Panel Installation



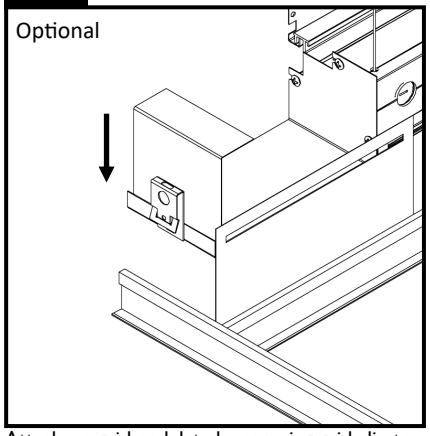
For variable ends on-grid, insert variable panel inside installed grid panel.

25 Variable End Installation



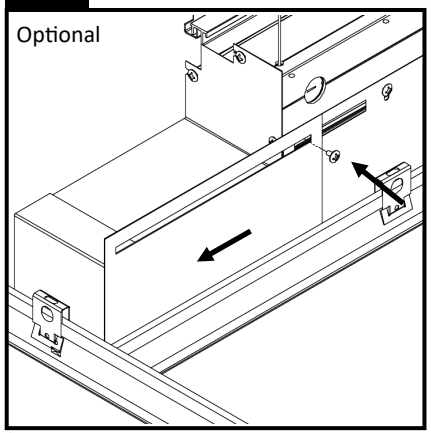
Install grid clip to on-grid end cap by following instructions shown in step 18.

26 Variable End Installation



Attach on-grid endplate by securing grid clip to t-bar. Secure grid clip to t-bar following instructions shown in step 21.

27 Variable Panel Installation



Slide variable panel against t-bar and secure to housing with screw provided.

28 Finishing

- Ensure all fixtures are level and in line with each other.
- Check that all joint and endplate screws are installed and all seams are tight.
- Check that all panel screws are attached and tight.

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 interreference 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.

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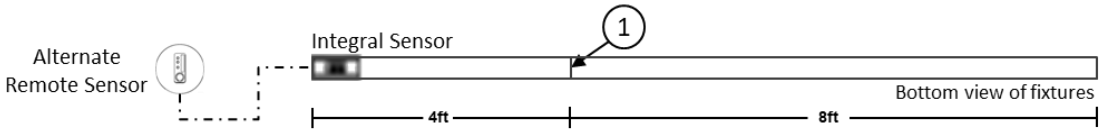
Sensor in Rows

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.

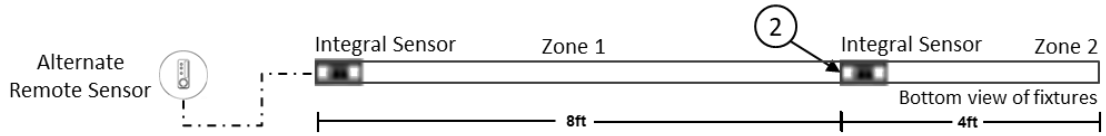


Multiple Sensors Controlling Separates Zones in a Row

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

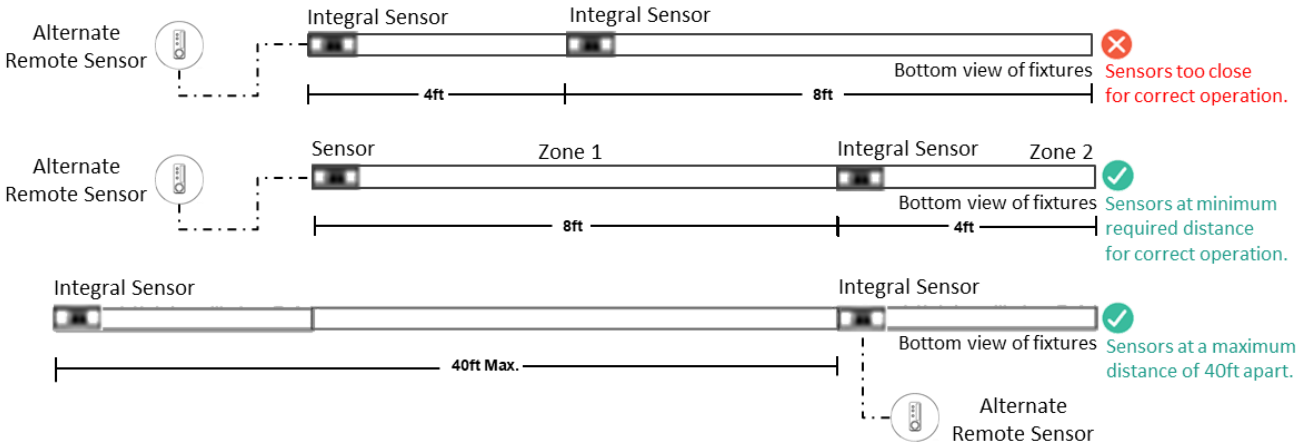
Notes :

- 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).



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.



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.

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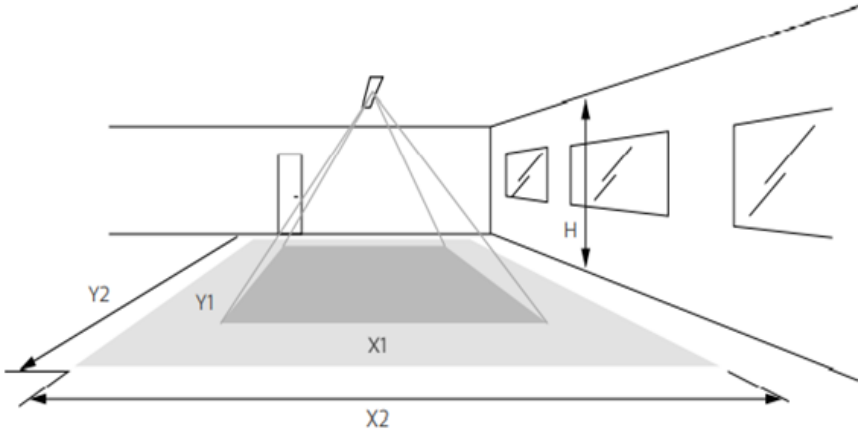
Occupancy Sensor Coverage:

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



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 ≤ 3ft/s or 0.9m/s).
- Major movements (person moving ≥ 3ft/s or 0.9m/s).

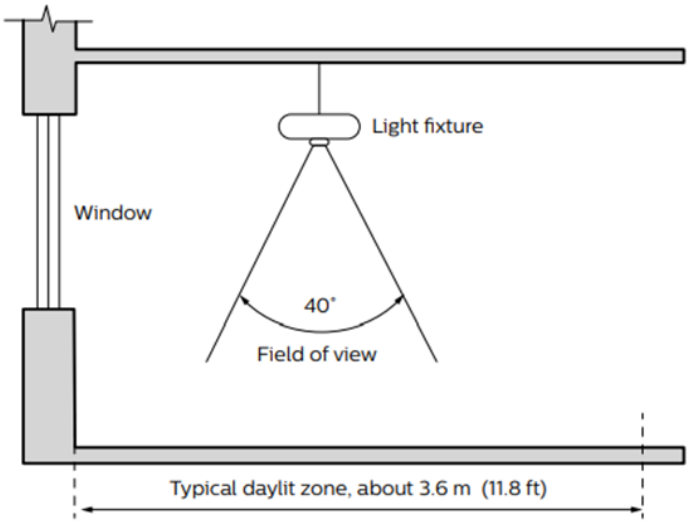
Daylight Sensor

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 ≥ 2ft (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 X 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.

Photosensor spatial response



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

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