

Luminous 360 LED SkyCeiling Seismic Installation Instructions

Requirements: Plenum must be built exactly to The Sky Factory specifications. **See Drawing XS1.** Means to attach suspended ceiling hanging wires to the deck must be planned out in advance. A professional suspended ceiling installer is recommended.

Follow these five steps to install the Luminous 360 SkyCeiling:

Step 1: Install the Lighting System

The Lighting System must be installed as per The Sky Factory "Custom Luminous SkyCeiling LED Lighting Installation Instructions". Install the lighting system first to prevent potential damage to the perimeter and grid.

Step 2: Install the Perimeter

Attach the Curved Perimeter Angle to the plenum sidewall as per The Sky Factory "Installation Guide for the Luminous 360 Perimeter Angle" or "Installation Guide for the Luminous 360 Perimeter Angle With Single Or Multiple Arcs Using A Pattern". Care should be taken to raise the curved perimeter angle without kinking the sections or scratching the bottom face. Install the perimeter angle so the horizontal leg is level or rising slightly toward the center of the SkyCeiling. This will help ensure a tight fit between the perimeter angle and the grid and elevators. Shims should be used to back all attachment points and maintain the precise radius of the circle. The gap that remains between the perimeter angle and the plenum sidewall should be caulked later, or covered with a flexible molding. **Important: The perimeter angle is a trim system. It is not designed to support the weight of the grid. All runners (and all spanners over 24 inches) should be suspended by wires as per applicable building codes.**

Step 3: Install the Grid

Install the Suspended Ceiling Grid, referring to the attached Grid Plan G1 for the runner (main) and

spanner (cross-tee) layout. **All grid must be installed parallel and square**, unless otherwise noted. All runners must be supported using the **Grid Hanger Straps** provided to facilitate installation of Elevators. **See G1 for suggested Grid Hanger Strap “H” locations. All grid hanger wire must be centered over the grid to facilitate proper location of the LED light panels.** See “Custom Luminous SkyCeiling LED Lighting Installation Instructions,” Step 1.

Grid Hanger Straps allow the grid to be supported without the hanger wire interfering with the installation and proper fit of the Elevator and SkyTile. Straps are designed to wrap down over the rectangular top bulb of the runner and fasten together through one of the holes in the grid. Bend the strap at the two perforations in the center and fold it over the grid. Use the enclosed 8-32 x 1/4” undercut flat head machine screws and Keps nuts to secure it. Grid wire goes through the holes in the straps just below the fold.

Where possible, support the runners in the middle of 2’ x 2’ openings for ease of Elevator installation. Grid hangers and seismic cables are located to facilitate the installation of the Elevators and SkyTiles. Tiles and elevators require one open side above the grid into which they can be temporarily inserted before dropping down into the grid pocket.



Install the runners first. Install the spanners next, starting with column A. Install all the spanners in one column before moving to the next column. Attach the runners and the cut spanners to the perimeter angle using the enclosed aluminum **Angle Connectors**. Rivet or bolt the connector to the end of the grid and then screw the connector through the perimeter angle and into the plenum sidewall. See Detail D2. Rivets are enclosed. Adjust the angle of the connector as needed to align it with the angle in which the runner meets the perimeter angle. Attach grid to plenum deck, using 12-gauge wire, at a minimum of 4’ centers, with first wire within 8” of sidewall, or to applicable local building codes.

Step 4: Install the Elevators

In seismic installations, all elevators have seismic cables installed. The cables have 14” of copper wire attached to reach the LED ceiling. The cables and wires are temporarily held down with tape for shipping. Free the cables and wires before inserting the elevators.

Install the Elevators referring to Grid Plan G1 for the proper locations and orientations. **The seismic cables are located to facilitate the installation of the SkyTiles. Proper orientation is**

recommended. Cable locations are marked as “x” on G1. Insert the elevator diagonally up through the appropriate grid opening with the wide edge of the elevator face down. Then slip one side of the elevator down onto the grid and carefully but firmly press the opposite side of the elevator down until all four sides rest against the horizontal surface of the grid. Make sure all the seismic cables and attached wires project above the grid and elevator once the elevator is installed.

Install the enclosed Foam Backer Rod next and before attaching the seismic cables. It installs **behind** the perimeter elevators between the elevator and the curved perimeter angle. See Detail D1. The backer rod ensures against light leaks and provides backing for the elevators.

Attach the Seismic Cables once the elevators and backer rod are installed. Run each wire up to the **angle bracket** bolted to the LED light panel directly above the cable. Run the wire through the hole in the angle bracket, take up the slack in the wire and cable, then twist the wire back on itself. The cable and wire should be loose enough to allow the elevator to sit firmly on the grid, yet should not loop out under any of the LED light strips.

Install the enclosed Hold Downs as needed to hold perimeter elevators tight to the grid. See Detail D1. One hold down is installed on each end of the curved sides of the perimeter elevators. The hold down can be bent by hand to fit the spacing needs of the installation. To install, insert the end without a hole into the lower back channel of the elevator. Then, while **gently** pressing the hold down and elevator against the horizontal flange of the perimeter grid, attach the top end to the plenum sidewall with a pan head screw.

Use the enclosed Elevator Wedges to make small adjustments to the fit of the elevators within the grid. See Detail D2. The inside face of the elevators should ideally sit 1/32 inch back of the leading edge of the grid and 1/32 inch to 1/16 inch back of the leading edge of the curved perimeter angle.

Step 5: Install the Luminous SkyTiles

Install the Luminous SkyTiles as per The Sky Factory "How To Install Luminous SkyTiles." Determine the placement of the tiles by using the **Luminous SkyTile Layout Diagram**. Insert the tile diagonally through the opening into the plenum area above the grid, as with any normal acoustic tile. Then rotate it into position and lower it onto the elevator so the edges of the tile fit onto the shelf of the elevator.

Important Note: The **Luminous SkyTile Layout Diagram** depicts the image as though you were **looking up** at the ceiling. The attached **Grid Plan G1** depicts the ceiling as though you were **looking down** at the ceiling from the deck above (“Reflected Ceiling Plan” or RCP).

For technical support please call us toll free at 866-759-3228. We want your installation to go as smoothly as possible. Thank you for choosing The Sky Factory.