

## Luminous Ellipse LED SkyCeiling Installation Instructions Without A Framing Plate

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

Follow these six steps to install the Luminous Ellipse SkyCeiling:

### Step 1: Install the Lighting System

Install the Lighting System as per The Sky Factory "Custom Luminous SkyCeiling LED Lighting Installation Instructions". A qualified electrician is required and the system should be fully tested before installing the perimeter angle and grid.

### Step 2: Install the Perimeter Angle

Attach the curved Perimeter Angle to the finished sidewall as per The Sky Factory "Luminous Ellipse SkyCeiling Installation Guide for Perimeter Angle Without a Framing Plate." Care should be taken to raise the perimeter angle without kinking the sections or scratching the bottom face. Shims should be used to ensure that the perimeter angle is level. The bottom face of the perimeter angle has been painted to match Armstrong grid. If touch-up is needed, use Armstrong Grid Touch-Up Paint, White. The gap that remains between the perimeter angle and the finished 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 or attached directly to the bulkhead.**

### 3. Install the Ceiling 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. Installation of the Elevators and SkyTiles requires 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.

#### 4. Make Templates

See the included **Template Instructions and Template Instructions T1**.

Once the grid has been permanently secured so that **there is no chance of the grid moving**, templates for all the non-typical openings can be made and sent to The Sky Factory for custom elevator and tile manufacture. A typical opening is any square or rectangular opening with four right angles and is formed by 15/16” grid on 2’ by 2’ or 2’ by 4’ centers. **Use 1/8” or 4mm corrugated plastic only**. All other materials either do not mark well or can severely warp with changes in humidity. Corrugated plastic is available at most large building products stores and can be purchased online at sites like **packandseal.com**. Use an **Ultra** fine point Sharpie permanent marker to trace the profiles. Be especially careful when marking the corners and the curved edges. We

typically work to the nearest 1/32" to achieve the highest quality appearance.

## 5. Install the Elevators

**Install the Elevators** referring to Grid Plan G1 for the proper locations and orientations. 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 flange of the grid.

**Install the enclosed Foam Backer Rod** next. 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.

**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.

## 6. 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**, provided with the tiles and pending image confirmation. 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 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.