



The Sky Factory, L.C.

P.O. Box 1177 · Fairfield, IA 52556

tel: 641-472-1747

fax: 641-472-1014

IM000076

5/9/12

Circular LED

Luminous SkyCeiling

Installation and Specification

Packet

Important: All subcontractors involved must have a copy of these specifications. All specifications must be followed in all stages of on-site manufacture or installation or warranty may be voided. Any deviation in the installation specifications may alter the final product and could result in a major increase in cost. Please review all documents enclosed before installation.

List of Documents Provided With Product

- Circular LED Luminous SkyCeiling Installation Instructions¹
- Installation Guide for the Circular Perimeter Angle¹
- Custom LED Lighting Installation Instructions¹
- Custom LED Lighting Electrical Drawing Packet¹
- The Sky Factory 24PS 24V DC Power System With Dimmer Option¹
- How To Install Luminous SkyTiles (provided with the Luminous SkyTiles)¹
- SkyTile Layout (provided with Luminous SkyTiles)²
- Grid Plan GR1²
- Back Pan Layout BP1²
- Back Pan Connector Layout EL1²
- Power Cable Connector Layout EL2²
- Power Cable Detail EL3²
- Connector Detail EL4²
- Grid Detail DE2¹
- Grid Detail DE3-4¹

¹These documents can be provided before purchase upon request

²These documents can be provided after purchase upon request

If any of these documents are missing, please contact The Sky Factory for replacements **before beginning installation.**

For technical support at any time during the installation, 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.

Circular LED Luminous SkyCeiling

Installation Instructions

Requirements: Plenum must be built exactly to The Sky Factory specifications. **See Drawings GR1 and DE2.** Means to attach suspended ceiling hanging wires to the plenum deck must be planned out in advance. A professional suspended ceiling installer and qualified electrician are required.

Step 1: Install the Lighting System

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

Step 2: Install the Perimeter

Attach the Perimeter Angle to the plenum sidewall as per The Sky Factory "Installation Guide for the Circular Perimeter Angle", "Installation Guide for the Circular Perimeter Angle With Single Or Multiple Arcs Using A Pattern", "Installation Guide for the Circular Perimeter Angle With Single Or Multiple Arcs Using A Pivot Arm", or "How to Install and Form PVC Perimeter Angle to an Existing Plenum Sidewall."

Care should be taken to raise the 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. 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. **Important: The perimeter angle is a trim system. It is not designed to support the weight of the grid. All runners (mains) and all spanners (cross-tees) over 24" (61cm) 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 GR1 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 GR1 for suggested Grid Hanger Strap “Δ” locations.**
- **All grid hanger wire must be centered over the grid to facilitate proper location of the LED light panels.** See Step 1 of “Custom Luminous SkyCeiling LED Lighting Installation Instructions.”
- In installations where spanners do not line up with factory slots in runners, appropriate slots have been punched and are labeled.
- In installations where non-standard spanners are specified and therefore will not lock into runner slots, angle connectors are provided to secure them to the runners. See next page.

Grid Hanger Straps:

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” (6.35mm) 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 grid 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.

Attach all runners to plenum deck using 12-gauge (or comparable) wire at all “Δ” locations or according to applicable local building codes.



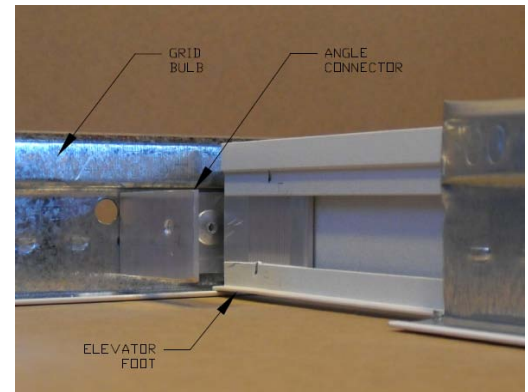
Angle Connectors and Rivets:

Angle connectors are provided to attach the runners and the cut spanners to the perimeter angle. Rivet the connector to the end of the grid and then screw the connector through the perimeter angle and into the plenum sidewall. See DE3-4.

Top edge of angle connector must sit against bottom of grid bulb so elevator foot can ride underneath it. See angle connector detail to right.

All angle connectors must be fastened to grid with rivets, not screws, for the elevators to install easily and fit properly.

Adjust the angle of the connector as needed to align it with the angle in which the runner or spanner meets the perimeter angle.



Step 4: Install the Elevators

Install the Elevators first:

Refer to Grid Plan GR1 or SkyTile Layout for their proper locations and orientations.

For Seismic Applications Only: All elevators have seismic cables installed. The cables are located to facilitate the installation of the SkyTiles. **Proper orientation of all elevators is required. Cable locations on elevators are marked as “□” on GR1.**

Cables have a spring clip which clips into a 16” (406mm) copper wire (provided) with a loop on one end. The copper wire then attaches to a 1” x 1” (25mm x 25mm) angle bracket pre-attached to the LED light panels. **Cable connections on back pans are marked as “□” on BP1.**

The cables on the elevators are temporarily held down with tape for shipping. Free the cables before inserting the elevators. Make sure all the seismic cables project above the grid and elevator once the elevator is installed.

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 Foam Backer Rod next:

Foam backer rod installs behind the perimeter elevators between the elevator and the perimeter angle. See DE2. The backer rod ensures against light leaks and provides backing for the elevators.

Attach the Seismic Cables next (Seismic Applications Only): Attach the seismic cables once the elevators and backer rod are installed. Clip a copper wire to the spring clip on a seismic cable. Run the wire up through the hole in the angle bracket bolted to the LED light panel directly above the cable. Take up the slack in the wire and cable and 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 strips.

Install the enclosed Hold Downs as needed:

Hold downs hold curved perimeter elevators tight to the grid. See DE2. 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 as needed:

Elevator wedges make small adjustments to the fit of the elevators within the grid. See DE3-4. The inside face of the elevators should ideally sit 1/32 inch (.79mm) back of the leading edge of the grid and 1/32 inch (.79mm) to 1/16 inch (1.59mm) 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" included with the SkyTiles. Determine the placement of the tiles by using the **SkyTile Layout** diagram provided with the SkyTiles. 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 **SkyTile Layout** diagram depicts the image as though you were **looking up** at the ceiling. The included **Grid Plan GR1** drawing depicts the ceiling as though you were **looking down** at the ceiling from the deck above ("**Reflected Ceiling Plan**" or **RCP**).