T5 Rectilinear Luminous SkyCeiling
Installation Instructions

Installation Packet Includes:
T5 Rectilinear Luminous SkyCeiling QuickStart Guide
T5 Rectilinear Luminous SkyCeiling Installation Instructions
Drop Ceiling and Soffit Cross-Sections included on pages 11-14
Luminous SkyTile Installation and SkyTile Layout (included with the SkyTiles)

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.
**T5 Rectilinear SkyCeiling Specifications:**

**Ceiling Grids**
Each Rectilinear SkyCeiling is built specifically for one of three standard ceiling grid systems:

- **Imperial** 2’ x 2’ or 2’ x 4’, 15/16”
- **Metric** 60cm x 60cm or 60cm x 120cm, 24mm
- **Metric** 62.5cm x 62.5cm or 62.5cm x 125cm, 24mm

**Ceiling Openings**
All grid which receives Elevators and SkyTiles must have one of the three standard openings noted above:

See “Before Starting” below and cross-section drawings on pages 11-14

Non-standard openings require custom Elevators

**Clearance**
Must have at least 9” (23cm) of clearance from the bottom of the grid to the deck above

If not, call The Sky Factory for other options: 866-759-3228.

**Runners and Spanners (and Perimeter, where used)**
Grid must be installed level and square

Grid Hanger Straps (provided) must be used to accommodate Elevators in grid pocket. See Step 1

For all 2’ x 2’, 60cm x 60cm, 62.5cm x 62.5cm ceiling grids, be sure all adjacent runners (mains) are not supported in the same opening or it may interfere with installation and removal of the Elevator and SkyTile

Where grid is provided:

- See Grid Plan GR1 for layout and “Before Starting” section at bottom of this page
- Install all grid as per local and/or national codes
- Angle connectors and rivets provided to attach runners and cut spanners to perimeter
- If touch up is needed, use Armstrong Touch-Up Paint, White

**Seismic Cables**
Seismic Cables, where applicable, are pre-attached to the Elevators. See Step 5

**Wiring**

- UL and CSA light fixtures and dimmer switch are auto-ranging: 120-277V AC
- CE light fixtures and dimmer switch are 220 - 240V AC
- See Step 4

*Electrical work must be performed by a qualified electrician; all other work by a qualified installer.*

**Important! Before Starting**

For standard 15/16” or 24mm ceiling grid without perimeter or edge angle:

use “T5 Rectilinear Luminous SkyCeiling Drop Ceiling Cross Section” drawings on pages 11-12 as a reference and proceed with the installation instructions.

For standard 15/16” or 24mm ceiling grid with perimeter or edge angle:

use “T5 Rectilinear Luminous SkyCeiling Soffit Cross Section” drawings on pages 13-14 as a reference and verify before beginning installation that the perimeter and/or soffit openings are the correct dimensions.

If your perimeter and/or soffit openings are not correct, please contact The Sky Factory before beginning the installation.
**Step 1: Install 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 bend at the center, fold down over the top bulb of the runner and fasten through one of the holes in 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 hole in the strap just below the fold.

Where possible, support the runners in the middle of openings for ease of Elevator installation.

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**Note:** Where possible, do not hang adjacent runners in the same 2’ x 2’, 60cm x 60cm, or 62.5cm x 62.5cm opening: 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.

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**Step 2: Assemble Light-Boxes**

All T5 Light-Boxes come with end caps that need to be installed.

**End caps:** Fasten one end cap onto each end of Light-Box body using the provided C style self-threading screws. Thread screws in from outside the unit as shown here.
Step 3: Hang Light-Boxes in ceiling

Place the assembled Light-Box over an opening of suspended ceiling grid so that the grid runners (or mains) are parallel to the open sides of the Light-Box.

![Diagram showing Light-Box placement and components: Light-Box, Grid Spanner, Grid Runner, Grid Hanger Strap.]

- Light boxes must not be covered with thermal insulation

Lower the Light-Box onto the grid spanner (or Cross Tee) making sure that the end caps sit inside of the vertical leg of the grid & rest on the upper surface.

![Diagram showing Light-Box placement with end caps inside vertical leg of grid spanner.]

Support the Light-Box with 12 gauge (2.7mm) or comparable steel hanger wire using the slots located in each corner of the top of the fixture. Secure hanger wire to the ceiling according to national and local code.

![Diagram showing hanger wire being secured with slots in corners of Light-Box.]

- Hanger wire not provided.

The weight of the Light-Box must be supported by the hanger wire, NOT the ceiling grid. End caps should sit +/- 1/16” above the horizontal surface of the T-bar.

![Diagram showing Light-Box with hanger wire securing it, end caps above horizontal surface.]

- Note: Light-Boxes use universal end caps. If the length of the end cap is smaller than the grid opening, center the Light-Box in the opening. This helps insure even light distribution in the image.
Step 4: Wire Light-Boxes and install lamps

**Note:** Once the Light-Boxes are wired, install the lamps and test the lighting before installing the Elevators and SkyTiles. Burn in dimmable lamps a minimum of 12 hours at maximum intensity prior to dimming.

UL and CSA Only (for “CE Only”, see page 6):

<table>
<thead>
<tr>
<th>Light-Box Specifications for T5 Rectilinear Luminous SkyCeiling Installations - <strong>UL and CSA Only</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>TSF Model No.</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>SKF.22U</td>
</tr>
<tr>
<td>SKF.22Ucr</td>
</tr>
<tr>
<td>SKF.24U</td>
</tr>
<tr>
<td>SKF.24Ucr</td>
</tr>
<tr>
<td>Standard Fixtures -- Auto Ranging</td>
</tr>
<tr>
<td>Dimmable Fixtures -- Auto Ranging</td>
</tr>
<tr>
<td>SKF.22UD</td>
</tr>
<tr>
<td>SKF.22UDcr</td>
</tr>
<tr>
<td>SKF.24UD</td>
</tr>
<tr>
<td>SKF.24UDcr</td>
</tr>
</tbody>
</table>

All UL and CSA non-dimmable and dimmable fixtures are auto-ranging: 120-277V AC.
UL and CSA dimmer switch is auto-ranging: 120-277V AC.

V AC power enters the Light-Box through the quick-wire plate located on top.
Connect power referring to the wiring diagram on the ballast and in conformance to Local and National Electrical Codes. Be sure to test the lighting before moving on to Step 5.

**For UL and CSA Dimmable Systems:**

To wire the dimmable lighting system, refer to both:
- the wiring diagram on the ballast, and
- the wiring diagram included with the Leviton dimmer switch.

Installer must use a line voltage dimmer switch which is compatible with the ballast.
Step 4 Continued: Wire Light-Boxes and install bulbs

CE Only (for “UL and CSA Only”, see page 5):

All CE non-dimmable and dimmable fixtures and dimmer switch are 220–240V AC.

<table>
<thead>
<tr>
<th>TSF Model No.</th>
<th>TSF Part No.</th>
<th>No. and Type of Lamps</th>
<th>Dimensions W x L x H (mm)</th>
<th>Weight (kg)</th>
<th>Input Current (max)</th>
</tr>
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<tbody>
<tr>
<td>SKF.22Um</td>
<td>T5000195</td>
<td>2 @ F14T5</td>
<td>590 x 590 x 203</td>
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<td>T5000199</td>
<td>2 @ F28T5</td>
<td>590 x 1190 x 203</td>
<td>8.62</td>
<td>0.29</td>
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<tr>
<td>SKF.22Ugcr</td>
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<td>615 x 1240 x 203</td>
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</table>

All CE installations (other than Israel)

V AC power enters the light-box through the quick-wire plate located on top.
Connect power referring to the wiring diagram on the ballast and in conformance to Local and National Electrical Codes.
Terminal block must accept 0.5–1.5mm² wire and be rated at 220–240V AC, 0.5A.
Be sure to test the lighting before moving on to Step 5.

For CE Dimmable Systems (other than Israel)

To wire a 1 – 10v dimmable lighting system (light fixture and dimming controller), refer to both:
- the wiring diagram on the ballast, and
- the wiring diagram included with the dimmer switch.

Israel CE installations

V AC power enters the light-box through the quick-wire plate located on top.
Connect power to the three-wire terminal block: “L1” (Line), “N” (Neutral) and “+” (Ground).
Make connections in conformance to Local and National Electrical Codes.
Be sure to test the lighting before moving on to Step 5.

For Israel CE Dimmable Systems

To wire a 1 – 10v dimmable lighting system, connect signal wires to the two-wire terminal block, referring to:
- the wiring diagram on the ballast, and
- the wiring diagram included with the dimmer switch.
Step 5: Install Elevators

In all installations with more than one elevator, an elevator with logo is provided.

Elevator is installed in location noted on SkyTile Layout (included with SkyTiles).

Note: Elevator tile shelf must be oriented upwards to support tiles

Check SkyTile Layout for proper placement of elevator with Sky Factory logo

Elevator inserts diagonally up through the grid opening with the SkyTile shelf up. (Insertion is similar to inserting a standard acoustic ceiling tile.)

Rest one side on the grid flange, then carefully but firmly press the opposite side of the elevator down into the opening until all four sides rest on the flange.
**Seismic Cable Option**

In seismic installations, all Elevators have seismic cables attached. These cables clip to holes along the bottom edge of the open sides of each Light-Box. The cables are temporarily held down with tape for shipping. Free them before inserting the Elevators. When installing the Elevator, orient it so the two sides with seismic cables fall along the open sides of the Light-Box. Make sure all four cables project above the grid and Elevator once the Elevator is seated on the grid flange.

**Important!**

The SkyTiles cannot be inserted when all four seismic cables are attached. Leave the seismic cables unattached to the Light-Box on at least one side until after the SkyTile is installed. Once the SkyTile is installed, gently lift up one side to attach the cables.

**Perimeter or Edge Angle Option**

In installations that interface with perimeter or edge angle, use backer rod * (or equivalent) between the elevator and perimeter or edge angle to center the elevator in the grid opening and to prevent light leaks along the elevator/perimeter interface. Backer rod should be large enough in diameter to comfortably fit in the space, but not so large as to force the elevator out of position. Use 5/8” backer rod for standard 7/8” Armstrong edge angle.

* Backer rod is a closed-cell polyethylene foam “rope” that is used to fill large joints before caulking.

See “Rectilinear Luminous SkyCeiling Soffit Cross Section” drawings on pages 13-14.
Step 6: Install SkyTiles

Unpack and install the Luminous SkyTiles as per The Sky Factory “Luminous SkyTile Installation” and “SkyTile Layout” included with the SkyTiles. (For oversized SkyTiles, see also “Oversize Luminous SkyTile Installation”).

**Important**

SkyTiles may have a slight bow.

Use SkyTile Clips to make sure SkyTile is fully seated on Elevator so no light leaks will occur.

2 per side on 2’ (60cm or 62.5cm) lengths
3 per side on 4’ (120cm or 125cm) lengths

3rd one centered on 4’ (120cm or 125cm) lengths

**Important**

Quick release labels are for installation purposes only. They orient the location and direction of each tile in the SkyCeiling. Labels MUST be removed once the SkyTiles are fully installed and checked for proper orientation.
Step 7: Check installation using Final Inspection list.

Do all the Elevators sit evenly in the grid?
• Hanger wire can force an Elevator side to bow in. If so, re-attach the wire using a Grid Hanger Strap.
• If grid is not installed square, Elevators can be pinched and distorted. If so, adjust grid so it is square.

Are all the Elevators seated down on the grid flange?
• If Elevators are not seated on the flange, light leaks could result.

Is the image evenly lit?
• If there are shadows, dark spots, or bright lines on the image, clear off the back of the SkyTile.
• If there are consistent bright spots, the Light-Boxes may be too low. Light-Boxes require a minimum of 8” (20cm) between top of Light-Box and bottom of grid for even illumination.
• If one or two SkyTiles are dark and one lamp is not working, make sure lamp is seated in socket.
• If one or two SkyTiles are dark and two lamps are not working, make sure ballast is wired correctly. If ballast is wired correctly and lamps will not work, please call The Sky Factory.

Are there light leaks around edges of a SkyTile?
• Hanger wire can force an Elevator side to bow in, so the SkyTile will not fit. Re-attach the wire using a Grid Hanger Strap.
• SkyTile may be slightly bowed. Use SkyTile Clips as specified. (See “Luminous SkyTile Installation”)

Does the SkyCeiling image match the SkyTile Layout image?
• Are the tiles in the correct position and orientation?
• If the SkyTile Layout has a head location, is the SkyCeiling properly oriented?

Is the elevator with logo in correct location?
• See SkyTile Layout for correct location.
• NOTE: Single 2x2 and 2x4 installations do not have logo.

Have the arrow-labels been removed once the image has been verified?
• Quick release labels MUST be removed once the SkyTiles are fully installed and checked for proper orientation.