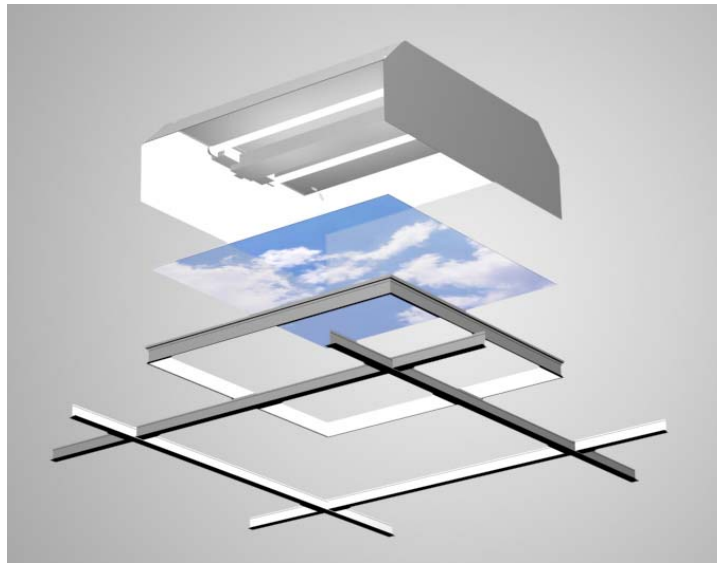


## T5 Rectilinear SkyCeiling™ Installation Instructions (Imperial)



### Before starting:

- Rectilinear SkyCeilings are designed to integrate with standard 2' x 2' or 2' x 4', 15/16" ceiling grid systems
- **Must have at least 9" of clearance** from the bottom of the grid to the deck above.
- Be sure **grid** is installed **level and square**.
- **Grid Hanger Straps** supplied to facilitate installation of Elevators. See Step 1.
- **Be sure all adjacent runners (mains) are not supported in the same 2' x 2' opening** or it will interfere with installation and removal of the Elevator and SkyTile.
- Supplied light fixtures are rated for **110-277 volts AC**.
- **Electrical work must be performed by a qualified electrician.**

## 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 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' or 2' x 4' openings for ease of Elevator installation. **Do not hang adjacent runners in the same 2' x 2' 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.**



## Step 2: Assemble the 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 8-32 self-threading screws. Thread screws in from outside the unit as show in picture to the right.



### Step 3: Install the Light Boxes

Place the assembled light box over a 2' x 2' or 2' x 4' opening of suspended ceiling grid so that **the grid runners (or mains) are parallel to the open side of the light box**. 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. See Figure 1.

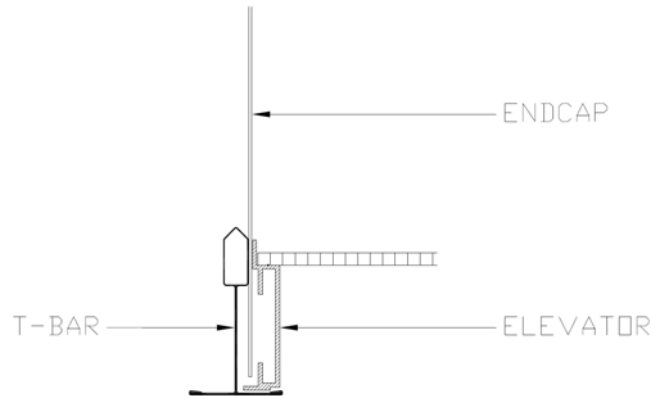


Figure 1

Support the light box with hanger wire using the slots located in each corner of the top of the fixture. The weight of the light box must be supported by the hanger wire, **NOT** the ceiling grid, and the bottom of the end caps should sit **1/16" – 1/8" above** the horizontal surface of the T-bar. See Figure 1. This will allow the bottom lip of the elevator to slip underneath the end cap.

Secure the wire to the ceiling according to national and local code. See Figure 2.

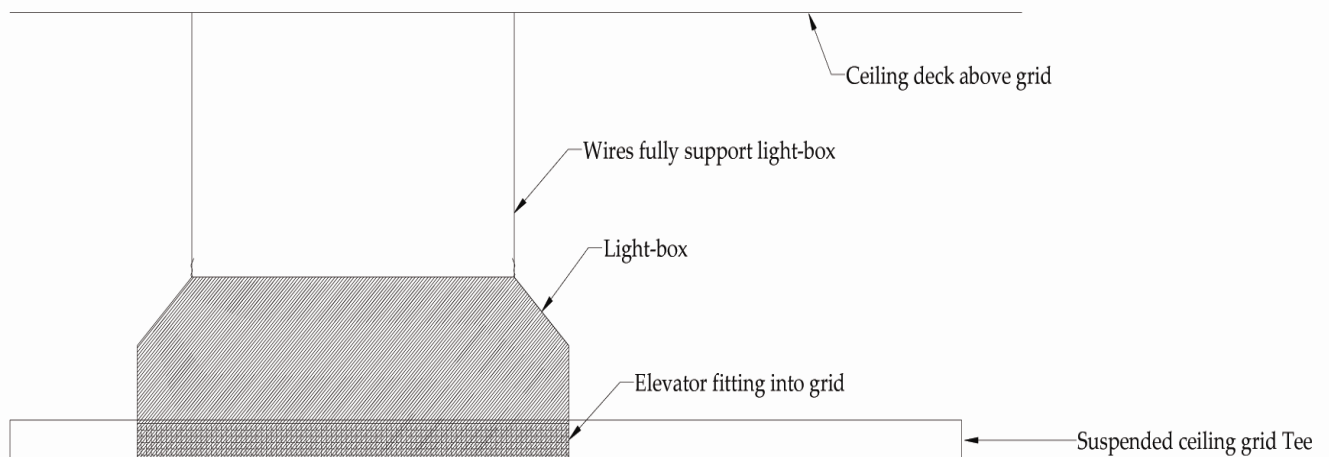


Figure 2

**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: Electrical Connection of Light-Boxes

Connect 120-277 volt AC line by means of the quick-wire plate located on top of the light-box in conformance to Local and National Electrical Codes. Be sure to test the lighting before moving on to Step 4.

T5 Lighting System for Rectilinear SkyCeiling Installations						
TSF Part No.	No. of Lamps	Dimensions WXLXH (inches)	Weight (lbs)	System Wattage (Max)	Input Current (Max)	
					120V 50/60hz	277V 50/60hz
Standard Fixtures						
SKF.22U	(2)F14T5	23.375x23.75x8.0625	13	34	0.29	0.13
SKF.24U	(2)F28T5	23.75x47.875x8.0625	21	64-63	0.55	0.23
Dimmable Fixtures						
SKF.22UD	(2)F14T5	23.375x23.75x8.0625	13	34	0.28	0.13
SKF.24UD	(2)F28T5	23.75x47.875x8.0625	21	67	0.56	0.25

### For Dimmable Systems:

To wire a 0 – 10v dimmable lighting system, refer to the wiring diagrams supplied by the manufacturer included with the Dimmer Switch. For troubleshooting, see **Universal SuperDim System Troubleshooting** guide attached. If you are using a ballast other than the 0 – 10v system, please contact The Sky Factory for further assistance.

## Step 5: Install the Elevators

Insert the elevator diagonally up through a 2' x 2' or 2' x 4' grid opening with the wide edge of the elevator face down. (Insertion is similar to inserting a standard acoustic ceiling tile.)

Slip one side of the elevator under an end cap of the light-box and rest it on the horizontal flange of the grid. See Step 3, Figure 1. Then carefully but firmly press the opposite side of the elevator down into the opening until the elevator snaps in under the other end cap and all four sides rest on the horizontal flange of the grid.

## Step 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**. 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.

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.

## SuperDim® System troubleshooting

**Note: All wiring must be completed in compliance with national and local electric codes.  
Caution!!! : Disconnect power before servicing ballasts or lighting fixtures**

Symptom	Possible Reason	Step to take
1 Ballasts and modules not responding to wall control	Control May not be powered.	Check Line, Neutral and ground connections
	Control wires disconnected.	Check & fix control wire connections
	Wrong control unit	Check control specification. Use only 0-10V control
	Shorted Control wires.	Check & fix control wire connections
	Control wires at one or more devices may be cross-wired.	Check & fix control wire connections
2 All fixtures stuck at full bright	Control wires disconnected.	Check and fix the control wiring
	Wrong control unit	Check control specification. Use only 0-10V control
	Incorrect ballast	Use only SuperDim analog dimming ballasts.
3 All fixtures stuck at full dim	Non-Dimming ballast.	Check and replace with correct unit.
	Shorted Control wires.	Check & fix control wire connections
Control wires at one or more devices may be cross-wired.		
4 Lamps flicker at low light levels	Two ballasts operating on exact same frequency	Wait five minutes for ballast self-adjustment.
	Long lead lengths.	Limit lead lengths as short as possible
	Leads bundled.	Limit lead lengths as short as possible
	Lamps too cold (low room ambient).	Wait until lamps warm up
	New lamps.	Burn lamps at full bright for at least 12 hours
	Ballasts not properly grounded.	Check fixture wiring. Check grounding point for proper contact.
	Fixture not properly grounded.	
Lamp too close or far from the ground fixture surface.	Spacing between the ground plane and linear lamp must be between 1/8"-1/2" for linear fluorescent..	
5 Lamps flash and turned OFF	Bad Lamps.	Replace lamps
	Shunted sockets (Instant start socket with shorted terminals)	Check and replace lamp sockets
	Incorrect ballast.	Check and replace with correct unit.
	Wrong lamps.	Check device specification and use correct lamps.
	Wrong fixture wiring.	Check and correct wiring
6 Lamps never turned on	Ballasts or modules not powered.	Check device power wiring, circuit breakers etc
	Bad Lamps.	Replace lamps
	Shunted sockets (Instant start socket with shorted terminals)	Check and replace lamp sockets
	Incorrect ballast.	Check and replace with correct unit.
	Wrong lamps.	Check device specification and use correct lamps.
7 Intermittent operation of SuperDim system	Wrong fixture wiring.	Check and correct wiring
	Loose connection with control or power wiring.	Check and fix the wiring
8 Lamp ends turned black or frequent lamp failure	Wrong Fixture wiring or shunted sockets.	Check and fix the problem
	Incorrect ballast.	Check and replace with correct unit.
	Wrong lamps	Check device specification and use correct lamp
	Wrong fixture wiring.	Check and correct wiring

**Additional Troubleshooting Techniques:** In some cases the troubleshooting methods outlined above may not lead to a quick detection and resolution of the problem. In this case it is often beneficial to perform one or more of the following tasks.

#### Divide and troubleshoot the system.

If a large system of SuperDim® ballasts has an apparent malfunction, but the specific component or location of the malfunction is unknown, the system can be divided somewhere near the center of the control circuit. If the malfunction persists on one side but not the other, further separations may help determine the actual failure site.

**Bypass installed control wires:** If the source of a malfunction cannot be assigned to a ballast or to the wires connecting it to the control system, disconnect the installed control wiring and connect a known good control device using visible, external control wires.

**Ballast substitution:** After performing all steps mentioned above, if still any of the luminaires doesn't respond then replace it with a known good unit and try again.

**Control substitution:** After performing all these troubleshooting technique, if none of the lighting devices in the SuperDim loop is responding to the control device then replace the existing control device with a known good unit.

For further assistance or ordering information contact Universal lighting technologies @ 1-800-BALLAST or visit our website at <http://www.universalballast.com>