



## **Solatube Frequently Asked Questions**

### **How does the Solatube Daylighting System work?**

The Solatube Daylighting System captures sunlight on the rooftop and redirects it down a reflective tube into interior spaces. The tubing will fit between rafters and will install easily with no structural modification. At the ceiling level, an attractive diffuser spreads the light evenly throughout the room.

### **What is the Brighten Up Series?**

The Brighten Up Series transforms difficult to light and often forgotten rooms into extraordinary spaces filled with pure, natural light. Highly effective and easy to install, the Solatube Brighten Up Series is designed bring natural light into the home. The Brighten Up Series includes the Solatube 160 DS (10 in/250 mm Daylighting System) and Solatube 290 DS (14 in/350 mm Daylighting System), both with optional diffusers and flashings. It also includes an innovative line of accessories, such as a Light Add-On Kit, Daylight Dimmer and Ventilation Add-On Kit (available on 160 DS only).

### **How large an area does the Solatube Daylighting System light?**

The Solatube Daylighting system that is right for you depends on both the room size and layout and how much light you prefer. Here are some guidelines for residential areas:

- Solatube 160 DS (10 in/250 mm): 150 - 200 square feet (19 sq meters)
- Solatube 290 DS (14 in/350 mm): 250 - 300 square feet (28 sq meters)
- Solatube 21-C and 21-O (21 in/530): 500 square feet (46 sq meters)

These estimated lighting areas are based upon an average 6' (1.82m) tube length and 8' (2.4m) ceiling height, with the dome being in direct sunlight. Light output will vary depending on the intensity of the sun. Light output may also decrease as the length of tube increases.

### **Is a Solatube Daylighting System difficult to install?**

Both the Solatube 160 DS and 290 DS fit easily between roof rafters, so they don't require structural changes. We offer adjustable tubing designs that allow installation around attic obstructions, such as Spectralight® Infinity angle adaptors, Spectralight® Infinity extension tubing in 16" (400mm) and 24" (600mm) segments and our revolutionary 0-90 Degree Extension Tube. All are designed to fit together for easy installation.

### **Will my clothing or furniture fade?**

Solatube products block all UVB and UVC radiation, and greater than 95% of UVA. We block everything below 380 nm, and only transmit 20% @ 400nm.

- UVA is 315 nm to 400 nm
- UVB is 280 nm to 315 nm
- UVC is 100 nm to 280 nm

### **Is there a way to turn off or "block-out" a Solatube Daylighting System?**

Yes! The Daylight Dimmer easily controls the amount of light desired in any room from the convenience of a switch. The Solatube Daylight Dimmer (Patent 7,082,726) allows the natural lighting level of a room to be turned up or down on demand, because you don't need 100% of the light 100% of the time!

- Available for Solatube 160 DS, Solatube 290 DS, Solatube 21-C and Solatube 21-O.
- Patented variable butterfly baffle controls light output.
- Perfect for bedrooms, family rooms, media rooms, and offices.

## How long can a tube be?

Recommended Maximum Tube Run	
Solatube 160 DS (10 in/250 mm) Brighten Up® Series	20' (6m)
Solatube 290 DS (14 in/350 mm) Brighten Up® Series	30' (9m)
Solatube 21-C (21 in/530 mm) SolaMaster® Series	40' (12m)

## How short can the tube be?

There is no minimum distance. Solatube Daylighting Systems are designed for installation even where there is no access to the attic or no attic at all. Our unique tubing allows complete installation from the roof and inside the building.

## What if it's too bright?

We offer a softening lens that fits above the primary diffuser to temper the light if necessary. The optional Solatube Daylight Dimmer can also be installed to allow control of the light output. Never use standard window tinting or any flammable material to block the incoming light. This unauthorized modification creates an extreme fire hazard.

## How do I remove my Solatube Daylighting System diffuser?

Your ceiling diffuser is easy to remove and clean. Please note that older Solatube Daylighting Systems (Installed before the year 2000) have twist-lock diffusers for the 10 in/250 mm & 14 in/350 mm models. For these older units, the diffuser twists off counter clockwise when looking up at the diffuser.

If you have a unit that was installed between 2000 & 2007, to remove the diffuser simply pry down one edge of the white trim ring using something flat such as a butter knife. Continue to work your way around the ring until you have a 1/4" (7mm) or so gap all the way around. Then simply grab onto the edges and pull straight down. The diffuser lens can be cleaned with soap and water. To re-install the diffuser position the 4 zip style ties into the 4 holes on the ceiling ring and push up until the diffuser is flush with the ceiling.

If you have a unit that was installed in 2007, simply pull the diffuser down.

## How durable is the Solatube Daylighting System?

All parts are covered by a 10-year warranty. Electrical components are covered by a 5-year warranty.

The dome is made from high quality acrylic resin that is specifically formulated for increased impact strength, chemical, weather resistance and high clarity. For High Velocity Wind Zone areas we have available the Shock Inner Dome for the Brighten Up® Series. For the SolaMaster® Series we offer a Polycarbonate dome.

Other assemblies are injection molded to ensure strength and quality.

## Are the domes strong?

The high quality and durability of the Brighten Up® Series dome material, combined with our patented technology, delivers a dome second to none in the industry. This dome is virtually unbreakable - it can withstand nearly any "act of God".

For markets that subscribe to Miami-Dade or Texas Department of Insurance building codes the Shock Inner Dome is available. This material is required to pass stringent missile impact tests for hurricane threat areas.

## What happens on cloudy days?

Solatube Daylighting Systems provide good performance even on cloudy days. Our combined LightTracker™ Reflector, RayBender® 3000 Technology and Spectralight® Infinity patented technologies transfer the maximum amount of ambient light down into the room with minimal light loss.

### **Is there an electric light for night use?**

The Solatube Daylighting System offers two available light kit options for the Brighten Up® Series so the product can double as a standard lighting fixture.

1. Incandescent Light Add-on Kits: The Solatube 160 DS accepts one incandescent lamp up to 100-watt. The Solatube 290 DS accepts two incandescent lamps up to 100-watt. While there is minimal blockage of sunlight when a light kit is used, this can be minimized by using a clear bulb.
2. Compact Fluorescent Light Kit: This kit does not accept standard light bulbs, only special compact fluorescent bulbs with a pronged plug. It is available for users who want a very energy efficient light fixture. This fixture accepts one 26-watt compact fluorescent lamp. One fixture may be used for the Solatube 160 DS. One or two fixtures may be used for the Solatube 290 DS.

### **Is there a vent kit available?**

The Solatube 160 DS is available with an attractive optional Ventilation Add-On Kit. When the Solatube 160 DS is combined with a Ventilation Add-On Kit and a Light Add-On Kit, it becomes an attractive 3-in-one ceiling fixture

- Quiet, remote twin fan / motor with opposing rotation to overcome pressure and increase speed and volume of airflow, even under extended duct runs.
- Fan motor moves up to 110 cubic feet (3 cubic meters) per minute
- UL listed, CE approved
- 5 year component warranty

The Optional Ventilation Cap has a self flashing design for easy installation. The gravity damper prevents back flow and the low profile black color blends with the roof, so it is virtually unnoticeable.

### **Will a Solatube Daylighting System work with both a light and a vent kit at the same time?**

Yes. When the Solatube 160 DS is combined with a Ventilation Add-On Kit and a Light Add-On Kit, it becomes an attractive 3-in-one ceiling fixture.

### **Can I split the tubing and light two rooms with only one dome?**

No. It is not possible to connect 2 diffusers to one dome. In order to gain the maximum light possible to your room, Solatube International uses a 1-to-1 product design matching the dome to the diffuser. There is no "Y" adapter available for Solatube Daylighting System.

### **Can a Solatube Daylighting System be installed through a wall?**

This is not what the product was designed for and is not recommended. The advantage of Raybender 3000 is that it captures light throughout the day for consistent light source. Placing the dome in a vertical position strongly decreases the light output potential.

### **Will the Solatube Daylighting System work for a basement application?**

Yes, if there is a closet, existing chase or place for the tubes to run through the house from the roof to the basement.

A Solatube 290 DS is recommended due to the long distance from the roof to the basement. Usually a chase is built around the daylighting system for added protection.

### **Can the Solatube Daylighting System work for the first floor of a two story house?**

Yes, if there is a closet, existing chase, or place for the tubes to run through the house from the roof to the first floor. A Solatube 290 DS is recommended due to the long distance from the roof. Usually a chase is built around the unit for added protection.

### **What is the product warranty?**

The product warranty for all Solatube Daylighting System components is 10 years and 5 years for all electrical components. Your installer should provide a warranty for installation.

**Does the Solar Star have an on-off switch or a thermostat?**

Attics by design are meant to be ventilated year-round. The Solar Star has no switches or thermostat by design; it runs whenever daylight strikes the solar panel. During the winter, proper ventilation helps prevent condensation from forming within the attic, which would cause significant heat loss from the home if the attic insulation gets wet. A cool, dry attic is the best solution for keeping the heat in the house during the winter.

**Should my Solar Star run during the winter?**

Attics by design are meant to be ventilated year-round. The Solar Star has no switches or thermostat by design; it runs whenever daylight strikes the solar panel. During the winter, proper ventilation helps prevent condensation from forming within the attic, which would cause significant heat loss from the home if the attic insulation gets wet. A cool, dry attic is the best solution for keeping the heat in the house during the winter.

**Does the Solar Star run at night?**

There are no batteries on the Solar Star, the unit only runs when daylight is available on the solar panel.

**Is the Solar Star attic fan quiet?**

The Solar Star attic fan is whisper quiet and would likely not be audible from within the house or in the yard.

**What if the roof location doesn't have all-day sun exposure?**

The Solar Star attic fan runs best when the solar panel is in direct sunlight. The unit will run at a reduced speed in the shade (provided sky is bright) but if one has heavy shading for a good portion of the day an "Add-on Solar Panel" for the Solar Star is a great idea. An extra panel can be placed up to 15' (4.5m) away (possibly on the opposite side of the roof) from the main roof unit to provide better all day performance.

**Can I transform an electric vent to a solar powered vent?**

Use the Solar Star Conversion Kit to transform a noisy electric vent into an environmentally friendly solar powered vent.

**What if I don't want to put a fan on my roof?**

The Solar Star Conversion Kit can be used in the attic to transform a gable vent, dormer vent, whirlybird or other vent unit into a solar powered vent with only the solar panel mounted on the roof.