



**SOLATUBE**<sup>®</sup>

## Innovation in Daylighting™



COMMERCIAL & RESIDENTIAL IDEA BOOK

# “We’re changing the way people think about natural lighting.”

– *David Rillie, CEO*  
*Solatube International, Inc.*

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Let's face it: change isn't something that happens spontaneously. After all, we didn't just wake up one day and decide to revolutionize the daylighting industry. Truth be told, changing the way people use daylighting has simply been the result of our passion to challenge conventional thinking and find a better way.

When we started Solatube International, Inc., we were challenged to find an affordable way to bring natural light into dark spaces where natural light had rarely been an option. Our original designs were revolutionary and earned the praise of the media and the loyalty of product owners all over the world. In a quest to tell others about this fantastic new invention, the market needed a name. Thus, the term “tubular skylight” was born.

Over the years, we continued to innovate, adding optical technology throughout the system to capture more sunlight on the roof, transfer more sunlight through the tubing and effectively diffuse the light in the building interior. If you have ever seen Solatube® brand products, you'll understand. They are remarkable.

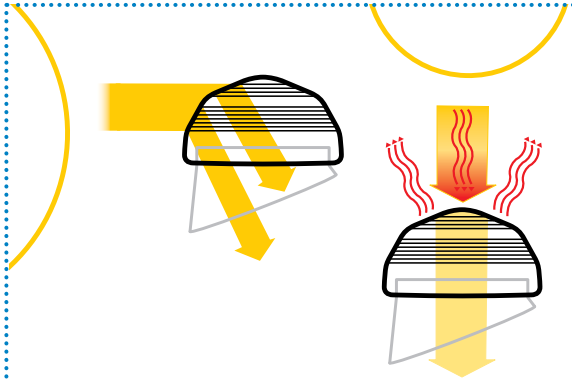
But one thing is clear. Our products are not skylights. They are high-performance daylighting systems that use advanced optics to significantly improve the way daylight is harnessed. Read on and discover a new world of opportunity for natural lighting.

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# Breakthrough Technology



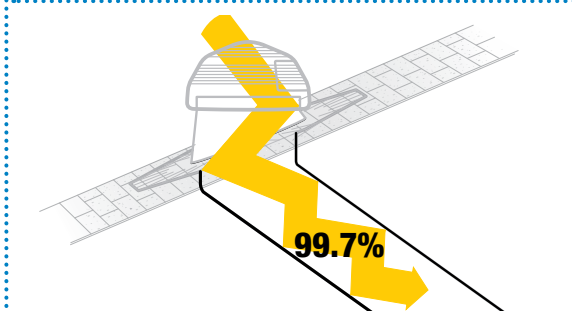
## 1 Raybender® 3000 Technology\*

- Patented daylight-capturing dome lens
- Redirects low-angle sunlight
- Rejects overpowering summer midday sunlight
- Consistent lighting throughout the day



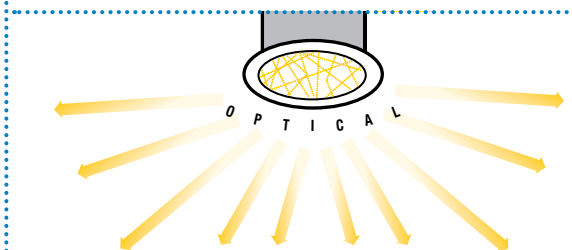
## 2 LightTracker™ Reflector

- Patented in-dome reflector
- Redirects low-angle winter sunlight
- Increases light input for increased light output
- Unsurpassed year-round performance



## 3 Spectralight® Infinity Tubing

- World's most reflective tubing
- 99.7% spectral reflectivity
- Purest color rendition possible
- Transfers sunlight a phenomenal 50ft/15m



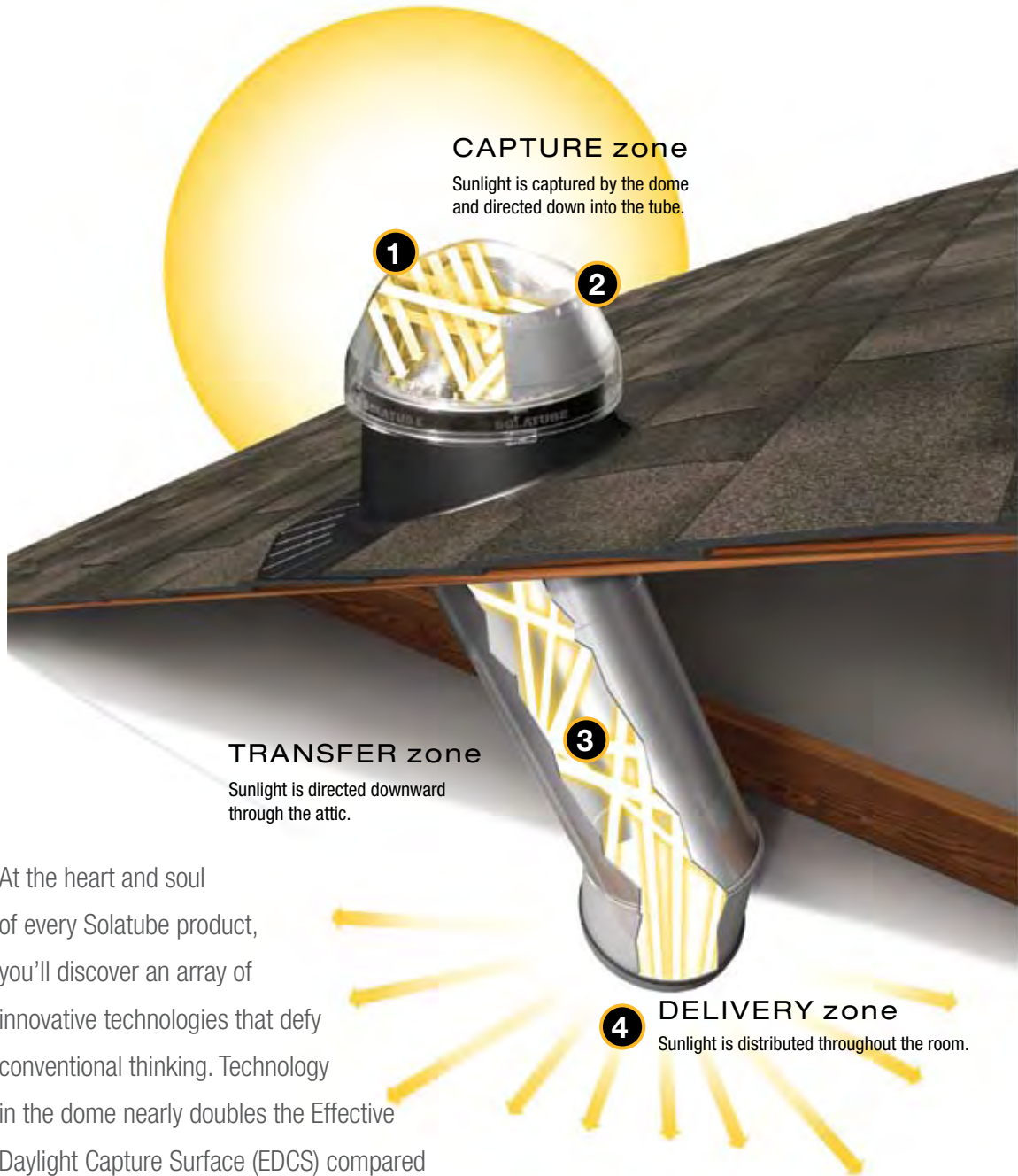
## 4 Engineered Light Diffusion

- Blocks UV transmission
- Optical lenses deliver superior diffusion
- Designed for visual comfort

\*Available in Brighten Up® Series

# for Higher Performance

## Solatube® Daylighting System



### CAPTURE zone

Sunlight is captured by the dome and directed down into the tube.

### TRANSFER zone

Sunlight is directed downward through the attic.

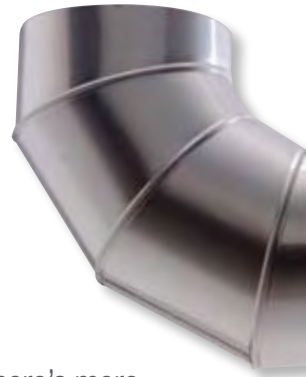
### DELIVERY zone

Sunlight is distributed throughout the room.

At the heart and soul of every Solatube product, you'll discover an array of innovative technologies that defy conventional thinking. Technology in the dome nearly doubles the Effective Daylight Capture Surface (EDCS) compared to ordinary clear domes used by "tubular skylights."

Our proprietary reflective tubing uses a revolutionary multi-layer polymer surface to reflect more light than physicists thought possible. In fact, it is the most reflective material in the world without using environmentally harmful metals. Optical lenses give designers the ability to deliver daylight like never before. That's a Solatube Daylighting System.

# Engineered for Peace of Mind



We didn't just design our Solatube® products with natural lighting in mind. After all, there's more to creating a Daylighting System than meets the eye. Our engineers thought through even the smallest nuances and came up with products that are impact resistant, low maintenance and amazingly easy to install, even around difficult obstructions. You might say we build peace of mind right into every Solatube Daylighting System we make. Which, now that you mention it, we do.



## DOMES

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Solatube domes are injection molded from impact-resistant acrylic. This special formula includes UV screening up to 380 nanometers to prevent fading and cancer causing solar radiation. The unique dome geometry maximizes light collection while staving off airborne particulates. Natural moisture, nighttime dew and rain help maintain dome clarity.

## FLASHING

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A leaking roof penetration simply wasn't an option, so we designed a circular flashing that doubles as a built-in water diverter. Our revolutionary one-piece flashings have no seams that could open from thermal expansion and contraction, setting the industry standard for leak-proof flashing systems.





## ANGLE ADAPTORS

Standard on all Solatube Daylighting Systems, angle adaptors are simple to install and make navigating around attic obstructions a breeze. With the amazing reflective qualities of Spectralight® Infinity inside the tube, you won't have to compromise light transfer performance, even when using the optional 0-90 degree extension tubes.

## MOISTURE CONTROL SYSTEM

The potential for condensation in tubular daylight systems is virtually unavoidable. But that's not to say there isn't a solution. Every Solatube Daylighting System is constructed with factory-installed seals for minimum air infiltration and our own Moisture Control System that draws moisture into a special channel below the dome and out through specially-designed exit holes.



## INSTALLATION

A great product is only as good as its installation, so we made it easier than ever, with pre-assembled pieces and fewer parts. Keeping it simple ultimately ensures an affordable, quality installation.

## CODES AND APPROVALS

Rest assured that the Solatube Daylighting System can be used in your project without hassles. Solatube Daylighting Systems have been approved by all major building product approval entities:

- A440-05 (AAMA/WDMA/CSA)
- ICC
- Florida Building Code/High Velocity Wind Zone
- City of Los Angeles
- Texas Department of Insurance
- ENERGY STAR®/NFRC



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# Residential

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Come out of the dark and into the light.





• For cleaner ceilings, combine the Solatube® Light Add-On Kit with the Ventilation Add-On Kit.

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# Multi-Family Housing

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Some only see two walls, yet a world of opportunity awaits.





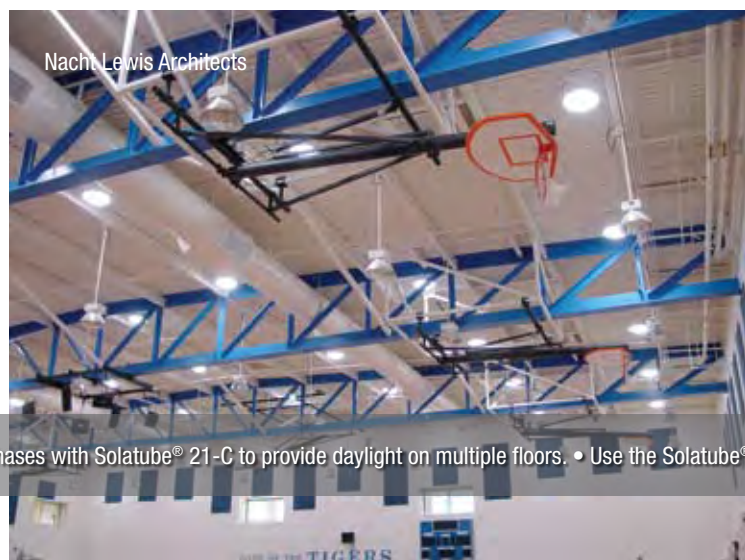
and running it down a closet. • Use larger Daylighting Systems when specifying darker finishes.

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# Education

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Now you can control the daylight.  
Controlling students, well,  
that's another story.





Tucker Sadler Noble Castro Architects



21-0 for gyms. • Incorporate the Daylight Dimmer in all classrooms for lighting control.

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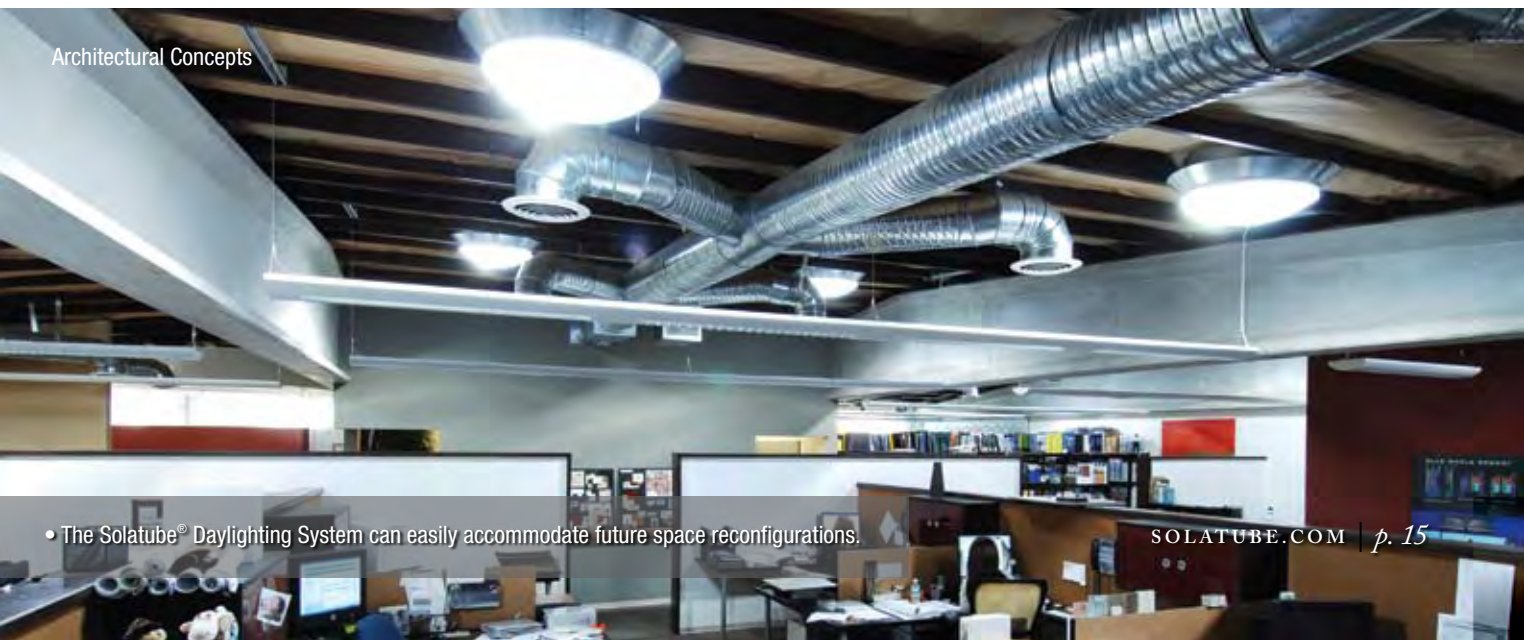
# Office

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With non-conventional thinking,  
everyone can have a window office.

Architect: Environmental Dynamics, Inc.





Architectural Concepts

• The Solatube® Daylighting System can easily accommodate future space reconfigurations.

SOLATUBE.COM | p. 15

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# Retail

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How to go from blah to ahhh.





Lighting Designer: Color Lume



Lighting Designer: Benya Lighting Design

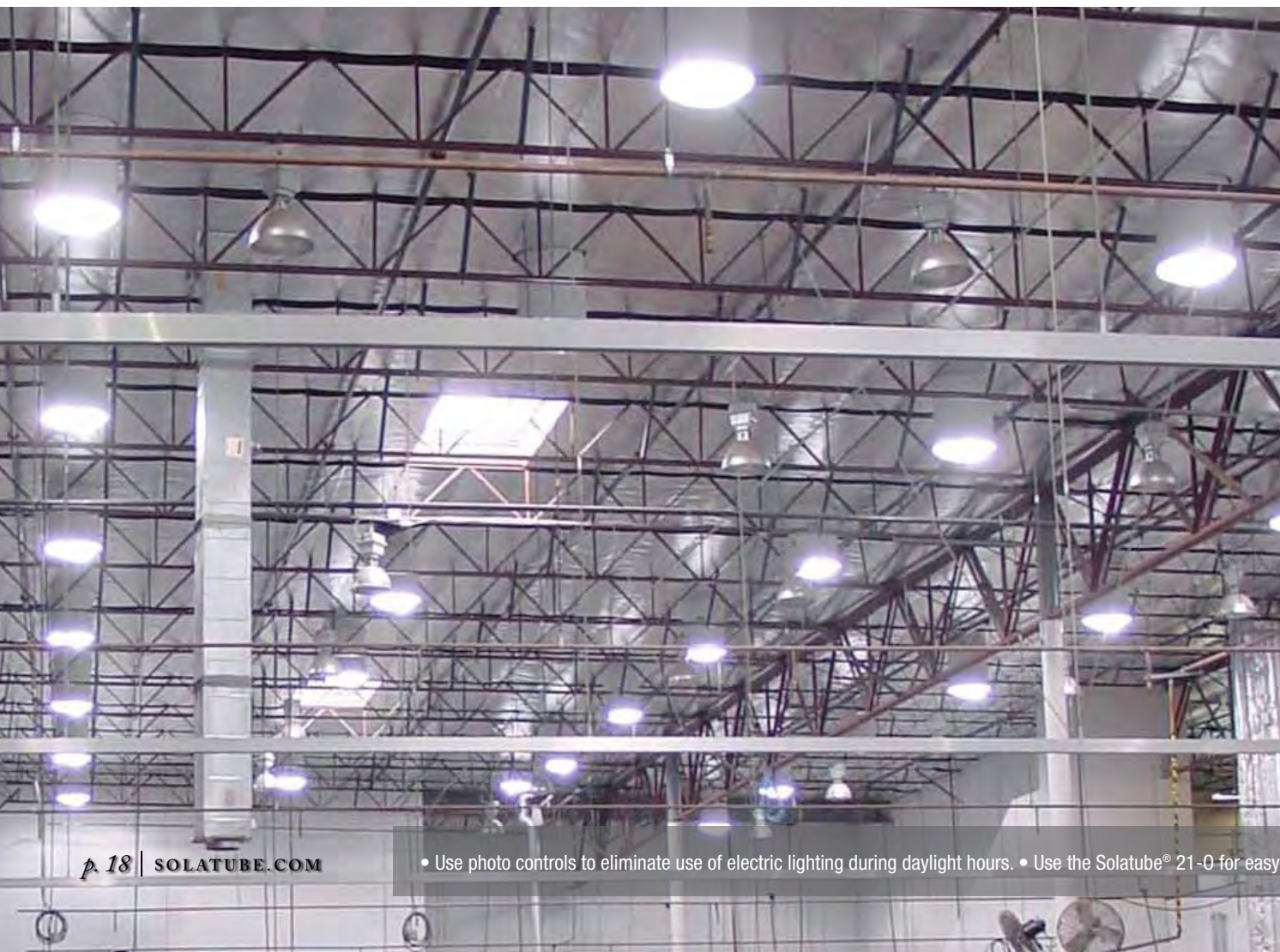


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# Warehouse/Industrial

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State-of-the-art should not be limited to the warehouse floor.





# Brighten Up® Series

Solatube 160 DS  
Solatube 290 DS

The all new Solatube® 160 DS and 290 DS Daylighting Systems set performance standards never seen before. These models feature our patented Raybender® 3000 Technology and LightTracker™ Reflector to deliver an Effective Daylight Capture Surface (EDCS) significantly higher than our previous 10 inch and 14 inch Solatube models and nearly double the EDCS of similar size copycat products. Highly effective and simple to install, these models can transform dark interior rooms and light more expansive spaces with multiple units creating a unique architectural effect.

Model	Tube Size (diameter)	EDCS*	Light Coverage Area (residential)	Potential Tube Length
<b>Solatube 160 DS</b>	≈ 10 in (250 mm)	160 in <sup>2</sup> (1032 cm <sup>2</sup> )	150 - 200 ft <sup>2</sup> (14 - 19 m <sup>2</sup> )	20 ft+ (6 m+)
<b>Solatube 290 DS</b>	≈ 14 in (350 mm)	290 in <sup>2</sup> (1871 cm <sup>2</sup> )	250 - 300 ft <sup>2</sup> (23 - 28 m <sup>2</sup> )	30 ft+ (9 m+)

\*EDCS (Effective Daylight Capture Surface) represents the surface area of the dome that collects and redirects sunlight. For comparison, a clear dome with no lens on a typical 10 inch tube system has an EDCS of 78.5 square inches.



### Ideal for:

- Bathrooms
- Hallways/Corridors
- Utility Rooms
- Dens/Home Offices
- Kitchens
- Dining Rooms
- Closets

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## Brighten Up® Series • Diffusers

Solatube 160 DS  
Solatube 290 DS

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The Brighten Up Series offers two diffuser choices designed with our proprietary lenses for highly effective light diffusion. Each features a sleek, low-profile dress ring. These attractive and stylish diffusers seamlessly integrate into most ceiling surfaces with no visible fasteners.

### Vusion™ Diffuser

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For outstanding light diffusion that artfully blends to the ceiling plane, select the Vusion diffuser. The fresh design harmonizes with most décors, yet provides the radiance of natural light.



### OptiView® Diffuser

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Considered the ultimate in diffuser design, this technologically superior diffuser uses a Fresnel lens to deliver crystal clear daylight and a unique view of the sky.

### Softening Lens

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Eliminate unwanted glare or reduce light with the optional softening lens.



For fast and easy installations, Solatube® flashings are available for nearly all roof types and pitches. The flashings provide complete protection and create an attractive appearance on the roof. They're fabricated as a single, seamless piece to ensure leak-proof performance. Pitched flashings provide the optimal position for the tube to capture daylight on sloped roofs.

No Pitch	Pitched	Universal Tile	Curb Mounted
 <p>0:12 - 3:12</p>	 <p>4:12 - 12:12</p>		
 <p>Flat</p>	 <p>Shingle</p>	 <p>Tile</p>	 <p>Standard</p>
<ul style="list-style-type: none"> <li>• Use on low pitched or flat roofs. Available in 4 in/100 mm or 6 in/150 mm heights.</li> <li>• Use 6 in/150 mm for areas prone to heavy snow loads and on commercial roofs.</li> </ul>	 <p>Shake/Slate</p>	 <p>Flat Tile</p>	 <p>Metal</p>
	 <p>Metal*</p> <p>*Order Metal Roof Kit.</p>	<ul style="list-style-type: none"> <li>• Pitched or no pitch models are available.</li> <li>• Use standard pitched or standard no pitch flashings as a base.</li> </ul>	<ul style="list-style-type: none"> <li>• Available for Solatube 290 DS</li> </ul>

## Turret Extensions

- Use to raise the height of the Solatube dome on a roof to avoid snow, water, or shading from roof obstructions.
- Order additional Spectralight® Infinity tubing to accommodate turret height.
- Available in 2 in/50 mm, 4 in/100 mm, 12 in/300 mm, 24 in/600 mm, 36 in/900 mm and 48 in/1200 mm sizes.



2 in/50 mm Turret Extension installed on tile roof

### Spectralight® Infinity Extension Tubes

Extension tubes can be added in increments of 16 in/400 mm or 24 in/600 mm for long runs without sacrificing performance. The secret is the unrivaled reflectivity of Spectralight® Infinity tubing, making it possible to create up to 90 degree angles and long tube runs up to 30 ft/9 m.



0-90 Degree Extension Tube



Extension Tube

### Daylight Dimmer

Because you don't need 100% of the light 100% of the time, the innovative Solatube Daylight Dimmer\* easily controls the amount of daylight entering a room with the convenience of a switch. Our proprietary variable butterfly baffle controls the light output.

- Perfect for bedrooms, media rooms and offices.
- Wall mounted switch provides convenient low voltage control.

\*Patent 7,082,726



Add a Daylight Dimmer to control light output to any desired light level, making it ideal for bedrooms and offices. (Switch kit sold separately.)



Daylight Dimmer Switch Kit (sold separately) includes DPDT switch, wall plate and 15 ft/4.5 m of cable. Multiple Daylight Dimmers can be controlled by one switch.

### Ventilation Add-On Kit (160 DS only)

When combined with this innovative accessory, the 2-in-1 ceiling fixture minimizes ceiling penetrations for a more attractive look. (Roof Vent Cap sold separately.)



Ventilation Roof Vent Cap is for use with the Ventilation Add-On Kit (if no vent exists). Comes with gravity damper to prevent back flow.

Ventilation Booster Motor Kit. Use with Ventilation Add-On Kit when extended duct requires additional air velocity.

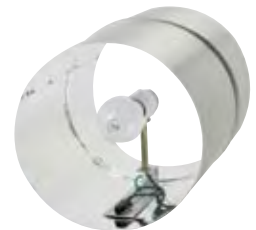


### Light Add-On Kit

When equipped with a Light Add-On Kit, the Solatube Daylighting System provides the convenience of a switched light for night time use.

#### Incandescent

Our incandescent lamp accepts one 100 watt lamp for the 160 DS and two 100 watt lamps for the 290 DS. A 230 volt light kit is also available.



#### Compact Fluorescent

Our energy efficient compact fluorescent fixture uses one 26 watt lamp for the 160 DS and two 26 watt lamps for the 290 DS.

### Flashing Insulator

This insulating material helps to reduce flashing condensation in cold climates when the flashing is exposed to a humid interior space. The insulator is affixed to the flashing base and the top tube slips through the opening, which provides a seal between the interior and metal flashing.



Flashing Insulator

### Shock Inner Dome

High Velocity Wind Zone areas such as South Florida require the Solatube Shock Inner Dome. This highly impact-resistant inner dome can also be added to any installation for extra protection from extreme forces.



### Dome Edge Protection Band

This is required for fire rated roofs.



# SolaMaster® Series

Solatube 21-C  
Solatube 21-0

Expansive spaces require extraordinary amounts of natural light so we designed the SolaMaster Series. With the highest Effective Daylight Capture Surface (EDCS) available, these Daylighting Systems feature our largest aperture tubing and patented LightTracker™ Reflector for effective daylight harvesting. With our Spectralight® Infinity tubing, these systems make it possible to bring natural light deep into buildings where natural light has rarely been an option.

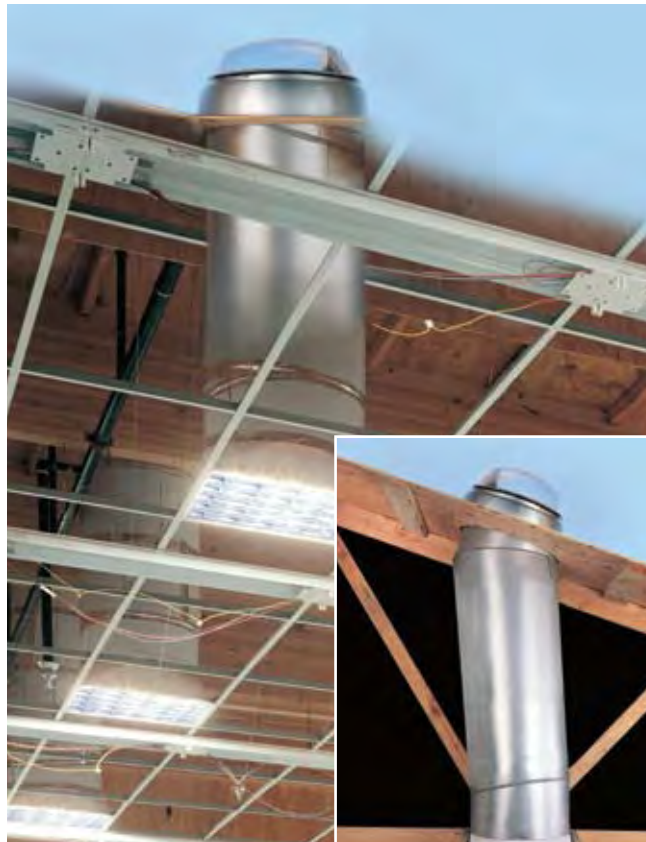
## Solatube 21-C DAYLIGHTING SYSTEM

Tube Diameter - 21 in/530 mm

The Solatube® 21-C features a patented transition box that seamlessly converts the round tubing to a square diffuser. This transition box easily fits into standard commercial ceiling grids. The Solatube modular design offers the ability to be reconfigured when spaces need to change. For hard ceilings, the transition box has a sleek, integrated, self-trim feature, eliminating the need for finishing trim work.

### Ideal for:

- Retail
- Schools
- Offices
- Medical Rooms
- Stairwells
- Lobbies
- Family Rooms



## Solatube 21-0 DAYLIGHTING SYSTEM

Tube Diameter 21 in/530 mm

The Solatube 21-0 brings high-performance daylighting to spaces without a finished ceiling. The Solatube 21-0 uses Spectralight Infinity tubing to bypass light-absorbing structural members and deliver highly diffused natural light with a less obtrusive roof opening than required with traditional skylights. Additionally, this system is excellent for retrofits because it can be installed from the roof, eliminating the need for interior scaffolding or lift systems.



### Ideal for:

- Warehouses
- Manufacturing Plants
- Gyms
- Lofts
- Unique Architectural Effects

Meticulously designed and artfully crafted, the Solatube 21-C and 21-O diffusers are engineered to give you optimal control over vast amounts of daylight generated from our proprietary Spectralight® Infinity reflective tubing. Whether your goal is to blend in beautifully or stand artfully apart, these diffusers offer an exciting array of possibilities.

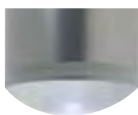
### OptiView® Diffuser

The innovative design of our OptiView diffuser delivers the cleanest, purest natural daylight imaginable. A matrix of individual Fresnel lenses offers a unique view of the sky above and also provides unrivaled and highly engineered diffusion.



### Prismatic Diffuser

Ideal for replicating the look and style of traditional troffers, the Prismatic diffuser option blends into virtually any design to provide a bright, broad diffusion of natural light.



### Open Ceiling

Designed for applications where the Solatube 21-O hangs freely from the ceiling, Open Ceiling diffusers incorporate the same look and unsurpassed performance of our Prismatic diffuser, in a curved circular design.











### Frosted Diffuser

The Frosted diffuser offers a unique appearance on the ceiling with crystalline highlights as the sun moves. The lens is soft with even amounts of light and has a glimpse of ever changing sparkles for highly-effective diffusion.

### Secondary Diffuser

To eliminate unwanted glare or to reduce light output, an optional secondary diffuser can be inserted into the Solatube® Daylighting System dome for natural lighting preference.

A full selection of durable flashings ensures leak-proof, hassle-free installations on virtually any roof type and pitch. The Solatube® self mounted flashings eliminate the need for expensive curbs and can be integrated into the roofing system for a worry-free installation.

Self Mounted	Curb Mounted
	
 <p data-bbox="266 879 379 911"><b>Built-up</b></p>	 <p data-bbox="542 879 704 911"><b>Membrane</b></p>
 <p data-bbox="243 1129 409 1161"><b>Membrane*</b></p>	 <p data-bbox="573 1129 681 1161"><b>Built-up</b></p>
<ul style="list-style-type: none"> <li>• Available in 4 in/100 mm, 8 in/200 mm and 11 in/280 mm height flashing options, used on pitched or flat roof systems.</li> <li>• The 4 in/100 mm high flashing is recommended for most residential applications because of its low profile.</li> <li>• The 8 in/200 mm and 11 in/280 mm high flashings are recommended for use on flat commercial roof applications to meet commercial curb height requirements.</li> </ul> <p>* Special order boots with minimum quantities.</p>	 <p data-bbox="586 1360 666 1392"><b>Metal</b></p>
	 <p data-bbox="601 1587 651 1619"><b>Tile</b></p>
	<ul style="list-style-type: none"> <li>• Use on pitched or flat roof with any roof materials and with pre-built wood or manufactured metal curb.</li> </ul>

## Turret Extensions

- Use to raise the height of the Solatube dome on a roof to avoid snow, water or shading from roof obstructions.
- Order appropriate amount of extension tubing to accommodate turret height.
- Available in 12 in/300 mm, 24 in/600 mm, 36 in/900 mm and 48 in/1200 mm sizes.



### Daylight Dimmer

Use the Daylight Dimmer\* to control light output to any desired light level. Accepts power supplies ranging from 90 to 277 volts AC. It is ideal for conference rooms, classrooms and offices.

\*Patent 7,082,726



Daylight Dimmer Switch Kit (sold separately) includes DPDT switch, wall plate and 15 ft/4.5 m of cable. Multiple Daylight Dimmers can be controlled by one switch.

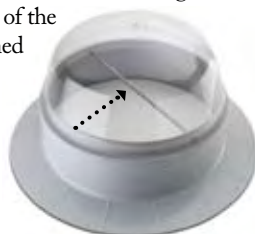
### Flashing Insulator

The Flashing Insulator material helps to reduce flashing condensation in cold climates when the flashing is exposed to a humid interior space. The insulator is affixed to the flashing base and the top tube slips through the opening which provides a seal between the room interior and metal flashing.



### Security Bar

This stainless steel bar inserts into the flashing turret across the diameter of the opening. The bar is fastened using rivets and prohibits entry through the dome.



### Open Ceiling Trim Ring



For use with the Solatube® 21-O, the trim ring provides a finished appearance to the installation.

### Shock Dome

High Velocity Wind Zone areas such as South Florida require the Solatube Shock Dome. This optional highly impact resistant polycarbonate dome can be installed for extra protection from extreme environmental forces.



### Wire Suspension Kit



Use the wire suspension kit when additional bracing to the structure is required.

### Spectralight® Infinity Extension Tubes

Extension tubes can be added in increments of 24 in/600 mm for long runs without sacrificing performance. The secret is the unrivaled reflectivity of Spectralight Infinity. This proprietary tubing has the highest reflectivity in the world for the brightest, purest light. Create tube runs of up to 50 ft/15 m.

### Dome Security Kit

The kit consists of six rivets with protective nylon spacers, which replace dome screws. The dome security kit reduces the possibility of the dome being removed.





*Customizable Specifications (SpecWizard)*

## Technical Resources

Designing with Solatube products has never been easier.

<http://www.solatube.com/technicalresources/>

- Customizable Specifications (SpecWizard)
- Photometric IES Files
- Case Studies
- CAD Drawings
- Codes and Approvals

Call our technical experts, 888-SOLATUBE (765-2882)

- Commercial Design, ext. 384  
Education, Retail, Office and Industrial/Warehouse
- Residential Design, ext. 386  
Single Family Housing, Multi-Family Housing and Town Home



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