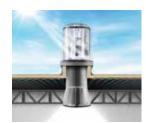


## **Product Guide**

Tubular Daylighting Technologies for Commercial Spaces

100

# Create inspiring spaces with tubular daylighting.



**Technology & Engineering** p 4-7 Explore the performance and innovations



**SkyVault® Series** p 8-13 Large Tubes for Large Spaces



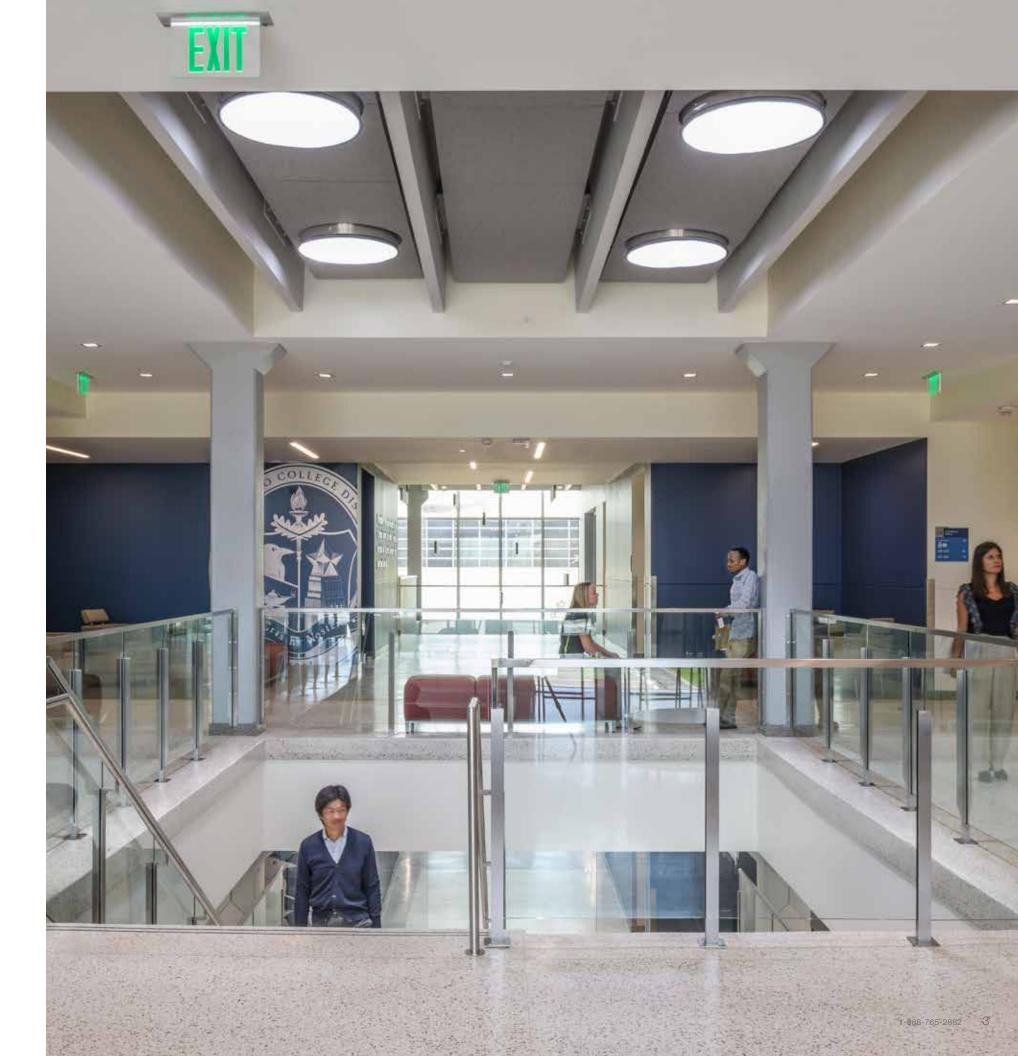
**SolaMaster® Series** p 14-19 Medium Spaces, Maximum Versatility



Brighten Up® Series p 20-25 Big Impact for Small Areas



**Professional Services** p 26-27 Our full-service support offerings



# **Discover the** technology that changed daylighting.

At Solatube International, we intentionally design our daylighting systems using passive optical technology in order to significantly reduce system costs and maintenance. We've also spent the last 30 years perfecting this technology to ensure our Solatube Daylighting Systems perform better than other tubular daylighting devices on the market.





Raybender<sup>®</sup> Technology A patented daylight-capturing dome lens that redirects low-angle sunlight, rejects overpowering summer sunlight and provides consistent daylighting through the year.



THERMAL CONTROL



A technology integrated into Spectralight® Infinity tubing that uses a proprietary process to filter out infrared wavelengths and minimize solar heat gain.



TRANSFER



Spectralight<sup>®</sup> Infinity Tubing made of the world's most reflective material offers the highest Specular Reflectivity up to 99.7% and provides the purest color rendition possible for truer, brighter colors. Long tube runs are possible, including multistory and 90° turns with minimal light loss.



**Optical Lenses** DaylightShaping<sup>™</sup> Lens Technology allows for direct light distribution for different visual effects and provides superior visual comfort.



Daylight Dimmer<sup>™</sup> Adjusts daylight levels at the touch of a button.

INTEGRATION



Integrated LED Light Kit Allows integration of traditional light for a cleaner ceiling appearance and nighttime illumination from a single fixture.

#### LightTracker<sup>™</sup> Reflector

An innovative in-dome reflector that redirects low-angle winter sunlight, increases light input for greater light output and delivers unsurpassed year-round performance.

#### **INFRAREDuction™** Technology

#### **Thermal Insulation Panel**

Provides unmatched thermal performance. Two climate controlled discs and a thermal break prevent conductive and convective heat transfer.

# Engineered for peace of mind.

When you choose Solatube Tubular Daylighting Systems, you are choosing quality that's been tested over time. Every material and component is specifically selected and designed for maximum performance, ease of installation and protection from the elements. We offer a 10 year warranty on most of our components.



#### Leak Proof Design

Solatube Tubular Daylighting Systems use one-piece seamless flashing designs that can be fit to any roof shape and slope, and the materials are designed to stand up to the harshest elements, year after year. Tubular daylighting roof penetrations are smaller and seams are shorter than those for large traditional skylights. The circular design allows rain and debris to bypass the rooftop dome, so it's leak-proof and virtually maintenancefree. Additionally, the Solatube dome and flashing assemblies are designed to provide a protected "dry edge" for all openings into the building envelope.



#### **Thermal Performance**

Solatube Tubular Daylighting Systems provide unmatched thermal performance. Our InfraReduction Technology, which is integrated into our Spectralight Infinity tubing, uses a proprietary process to filter out infrared wavelengths and minimizes solar heat gain. Thermal breaks designed between the flashing and tubing ensure heat is not conducted from the roof to the interior. Thermal insulation panels are also available for most models.



#### No Harmful UV

Our optical domes prevent virtually all UV wavelengths from entering the TDD system. This is important because UV light can have a negative impact on building materials it contacts—like carpet, clothing, furniture, and artwork.



#### No Glare

Solatube Tubular Daylighting Systems are designed to prevent glare during peak daylight hours. Our Raybender<sup>®</sup> 3000 dome technology filters out overpowering midday rays, letting in only those that are comfortable on the eyes. This provides consistent daylight from morning through late afternoon. Additionally, Solatube's unqiue optical diffuser lenses precisely shape light output, placing light where it is needed and desired for a balanced, visual environment.



#### **Ease of Installation**

Solatube Tubular Daylighting Systems feature factory-assembled parts for faster, easier, more professional-looking installations. Our modular systems feature angle adaptors for tube-run flexibility, snap-in diffusers, and extension tube tabs with notches on top and bottom tubes.





#### **Energy Efficiency**

Solatube deployments substantially reduce the energy used for interior lighting during daylight hours. A Solatube Installation reduces electrical energy usage and greenhouse gas emissions created during electricity generation. Due to the excellent thermal efficiency of a Solatube daylight system, minimal heat is lost during the winter, reducing the need for heating. On hot days, minimum heat enters the building, reducing the need for cooling.



#### **Ease of Maintenance**

Solatube Tubular Daylighting Systems feature passive daylighting technology that does not rely on moving parts, making it virtually maintenance-free. Seals prevent bug and dirt filtration. In addition, the dome and flashing are designed to eliminate debris build-up. Unlike traditional skylights, that need periodic cleaning and inspection, the Solatube Tubular Daylighting System does not require ongoing maintenance.

# **SkyVault Series**

Industrial • Sports Arenas • Airports • Convention Centers • Big Box Retail

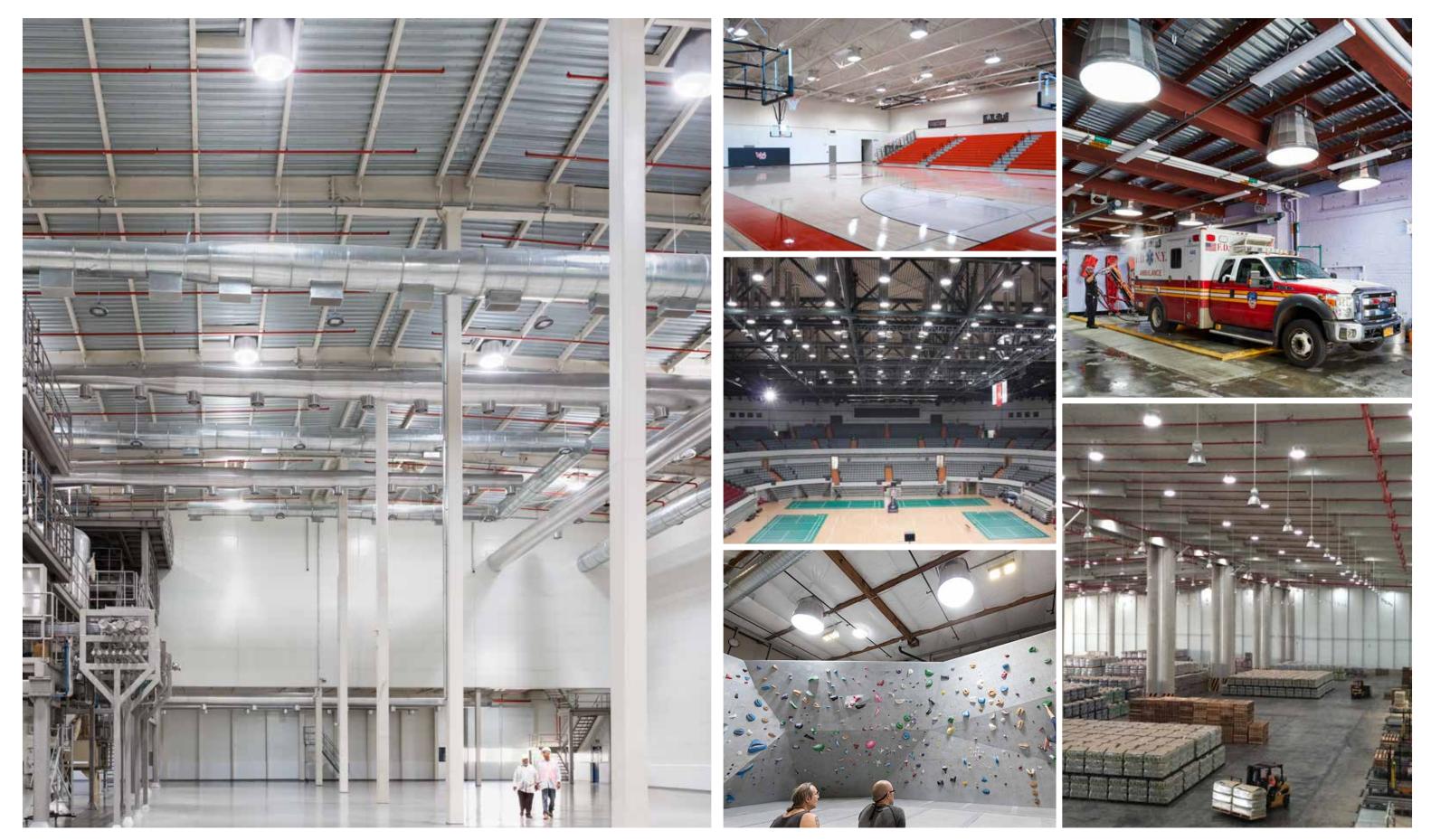


## Large Tubes for Large Spaces

The SkyVault Series is a line of modular, high output tubular daylighting devices that deliver massive amounts of daylight to large volume spaces with high, open ceilings. The beauty of SkyVault is that it's not just one size fits all. Varying combinations of domes and collectors capture daylight and large extension tubes transfer it to an optical diffuser. Daylight can be delivered deeper into the building with the use of an optional Amplifier. The SkyVault Series is a configurable, modular, high-output solution for any large-volume space.



## **SkyVault Series**



## How to Order the SkyVault Series

### **STEP 1: START WITH THE CORE**

### Powerful Lighting for Large Spaces

Our largest tubular daylighting device has the M74 DS at its core with 29" diameter tubes that extend up to 100 feet to fill the largest spaces with natural light.

> Tube diameter  $\approx$ 29 in. (736 mm) Potential tube length  $\approx$ 100 ft. (30 m)

#### STEP 2: CHOOSE TOP ASSEMBLY

### Top Assemblies: Massive Daylight Capture

It all starts with standard domes that are available in both single- and dual-glazed configurations with optional security guards. The light capture really increases with the SkyVault Collector that redirects lowangle light downward while filtering out the heat from infrared wavelengths. All top assemblies are supplied pre-assembled on a curb-mounted cap.

#### **STEP 3: CHOOSE DELIVERY**

### Bottom Assemblies: Deep Delivery

The M74 DS uses unique bottom assembly components to deliver maximum daylight in highbay applications with the prismatic diffuser and the optional Amplifier, which focuses daylight all the way down to the task area.



M74 Daylighting System



Single-Glazed Dome Assembly (Dual-Glazed Configuration Available)



Single-Glazed Dome Assembly with Optional Security Guard (Dual-Glazed Configuration Available)



SkyVault Collector can be added to Single or Dual-Glazed Base Unit



Standard Prismatic Diffuser



Optional Amplifier with Prismatic Diffuser

**STEP 4: OPTIONAL ACCESSORIES** 

## All the Accessories for Big Impact

The SkyVault Series offers a Thermal Insulation Panel to minimize the thermal impact to the building, as well as a 0-10v Daylight Dimmer to control the levels of daylight in the space.



Thermal Insulation Panel



Daylight Dimmer

# **SolaMaster Series**

Classrooms • Office Space • Retail • Medical • Hospitality • Municipal





## Medium Spaces, Maximum Versatility

The Solamaster Series is our flagship product for common commercial applications with ceiling heights from 8 ft. to 30 ft. This product has been used to daylight thousands of applications worldwide ranging from schools to offices to grocery stores. SolaMaster products provide the versatility for numerous applications and sky conditions. Choose from three different models, varying extension tubing configurations (including angle adaptors), and open or closed ceiling options.

## **SolaMaster Series**



## How to Order the SolaMaster Series

#### **STEP 1: CHOOSE YOUR DOME**



#### 750 DS Dome

The 750 DS is designed to deliver consistent light output throughout the day. It effectively captures low-angle rays in the morning and late afternoon, but rejects midday summer rays to prevent glare, overlighting and overheating.

Tube diameter  $\approx 21$  in. (530 mm) Potential tube length  $\approx$ 50 ft. (15 m)



#### 330 DS Dome

The 330 DS is designed to maximize light output at any time of day. It effectively captures low-angle rays in the morning and late afternoon, and maximizes midday sunlight for powerful performance.

Tube diameter  $\approx 21$  in. (530 mm) Potential tube length  $\approx$ 50 ft. (15 m)



#### 300 DS Dome

The 300 DS is an optimal solution for applications where roof or ceiling framing only allows a 14 inch diameter tube or for lower ceiling heights. Available only in closed ceiling applications.

Tube diameter ≈14 in. (350 mm) Potential tube length  $\approx$ 30 ft. (9 m)

#### **STEP 2: CHOOSE CURBS & FLASHINGS (MOUNTING FOR ANY ROOF)**

Standard insulation curbs available





Self Mounted Flashing



Curb Mounted Cap

#### **STEP 3: CHOOSE A CEILING OPTION FOR YOUR APPLICATION**







Closed Ceiling / Round



Closed Ceiling / Square

### **STEP 4: CHOOSE A DIFFUSER OPTION TO MATCH YOUR DESIGN VISION**

Diffuser options enhance the look of your interior while delivering highly diffuse, evenly-spread natural light. OptiView<sup>®</sup> DaylightShaping<sup>™</sup> Diffusers achieve differing light distribution for specific visual effects. Prismatic diffusers replicate the look of traditional troffers and blend into virtually any design. 300 DS model only available with square diffusers.

#### **Prismatic Diffusers**



#### OptiView<sup>®</sup> DaylightShaping<sup>™</sup> Diffusers



Square (closed ceiling)

#### OptiView<sup>®</sup> DaylightShaping<sup>™</sup> **Diffuser Light Distribution Options**

Choose a light distribution spread for your OptiView Diffuser.

### **STEP 5: OPTIONAL ACCESSORIES FOR TOTAL DAYLIGHTING CONTROL**

The SolaMaster Series offers a thermal insulation panel to minimize the thermal impact to the building, as well as a 0-10v Daylight Dimmer™ to control the levels of daylight in the space. And with our integrated LED featuring up to 10,000 lumens, you can keep your ceiling uncluttered while achieving your desired level of illumination, day or night.







Thermal Insulation Panel

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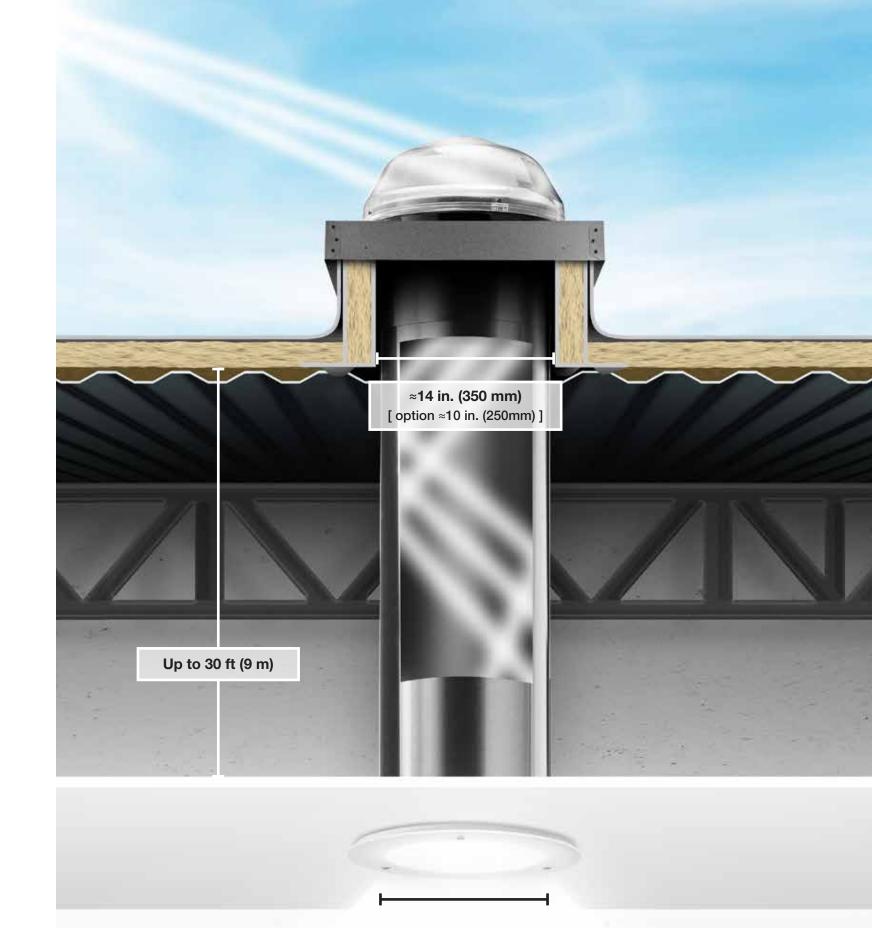
Daylight Dimmer™

Integrated LED Light Kit (Available in 3,250 lumens for 300 DS and 10,000 lumens for the 330 DS / 750 DS)

# **Brighten Up Series**

Corridors • Hallways • Kitchens • Restrooms • Nooks • Residential





## **Big Impact for Small Spaces**

Residential and smaller commercial spaces with corridors, restrooms and alcoves often suffer from lack of natural light. Solatube's Brighten Up Series is the perfect solution for bringing daylight to unexpected, hard-to-reach areas.

≈**14 in. (350 mm)** [ option ≈10 in. (250mm) ]

## **Brighten Up Series**



## How to Order the Brighten Up Series

#### **STEP 1: CHOOSE YOUR SYSTEM**

The Brighten Up Series offers two different tubular daylighting devices, 160 DS and 290 DS, both of which are great solutions for small areas with ceiling heights under 10 ft. or where structural issues or aesthetic goals may limit the use of larger diameter tubes. Each can be utilized with hard, suspended or open ceilings.

#### **STEP 2: CHOOSE A MOUNT TO FIT YOUR ROOF**

The Brighten Up Series has leak-proof flashings to mount its domes on any roof type as well as curb caps and self-flashings for both pitched and non-pitched roofs.





Curb Cap

### **STEP 3: CHOOSE A DIFFUSER FOR BEAUTIFUL LIGHT DELIVERY**

The Brighten Up Series offers a variety of diffuser options, which can be used with hard, suspended or open ceilings for different aesthetics.



JustFrost

### **STEP 4: CHOOSE OPTIONAL ADD-ONS AND ACCESSORIES**

From daylight dimming to integrated electric lights, there's options for you to completely control your daylighting environment.



#### Integrated LED Light Kit (Available in 3250 Lumens for 290 DS only)



### 290 Daylighting System

The Solatube 290 DS is ideal for filling small spaces with natural light like bathrooms, corridors, and heights under 10 ft or where structural issues or aesthetic goals may limit the use of larger diameter tubes.

> Tube diameter ≈14 in. (350 mm) Potential tube length  $\approx$ 30 ft. (9 m)

#### 160 Daylighting System

The Solatube 160 DS is ideal for illuminating smaller spaces like alcoves and hallways with soft, comfortable natural light. It's a great solution for ceiling heights under 10 ft or where structural issues or aesthetic goals may limit the use of larger diameter tubes.

> Tube diameter  $\approx 10$  in. (250 mm) Potential tube length  $\approx$ 20 ft. (6 m)





Pitched

Flat





Daylight Dimmer™

# Service as exceptional as our products.

When it comes to building design and construction, you've already got your hands full. You don't have time to become a daylighting expert too.

Our established network of Solatube Certified Commercial Distributors are trained to help you with every aspect of your building project. These factory-trained daylighting and installation experts make the process of selecting and specifying Solatube products quicker and easier, so you can spend your valuable time on other important project deliverables.

They provide full-service support...from the early stages of defining your project scope through the final stages of building sign-off...and are in every market nationwide. So, no matter where you are, you can find a Solatube Certified Commercial Distributor with the knowledge and experience to help make your project a success.



#### **Design Services**

Obtain turnkey product recommendations early on to optimize the daylighting opportunity in terms of site location, building size and orientation. Get hands-on assistance with Solatube product selection, system design and detailed daylighting calculations, so you can develop better lighting designs and free up more time for other tasks. Acquire detailed product and installation information relating to your specific project, so you can confidently present your proposal to clients.



#### **Spec Writing**

Ensure specifications are written properly and save time with spec writing assistance from knowledgeable experts. Solatube's proprietary specifications are also available through Arcat, Deltek MasterSpec and BSD SpecLink.



#### **Lighting Calculations**

Let us help you create advanced proprietary lighting calculations that ensure proper product selection and save you time by determining the ideal model and configuration for your project. Request IES and BSDF files of daylighting selections for easy coordination with other lighting components.



#### **Certified Installation**

Utilize professional installation services for quick, easy and cost-effective placement of all Solatube products. For online assistance, access the Technical Resources page for selfserve resources such as BIM models, product cut sheets, CAD drawings, and more.



#### **LEED** Impact Analysis

Receive a free and comprehensive LEED impact analysis that details how Solatube products can contribute to the achievement of LEED milestones.



#### **Continuing Education**

Earn free AIA or GBCI credit while learning about tubular daylighting devices via in-person or virtual presentations.



#### **Compliance Documentation**

Obtain necessary compliance documentation with existing project specifications to support your Solatube product selection.

## **Technical Resources**

Solatube provides all the technical resources needed to select, configure, install and promote the optimal Solatube product solution. This includes architectural specs, CAD drawings, cut sheets, sustainability information and more. Just search by technical categories or product categories to quickly find the resources you're looking for.

Go to solatube.com/Technical-Resources for more details

	Technical Resources		
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#### **Codes and Approvals**

Rest assured that the Solatube Daylighting System can be used in your project without any hassles. Most Solatube Daylighting Systems have been approved by all major building product approval agencies: • International Building Code (IBC) 2015, 2018, 2021 • International Residential Code (IRC) 2015, 2018, 2021 • A440-05 & A440-11 (AAMA/WDMA/CSA) • Florida Building Code/High Velocity Hurricane Zone • Code Compliance Research Report (CCRR) • City of Los Angeles Research Report • Texas Department of Insurance • Energy Star®/NFRC • UL • TUV



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