Solatube International Company Folio

Perfecting Daylight
Through Innovation

SOLATUBE®

A History of Innovation

Daylight. Pure and bright, it's the most energy-efficient light source on the planet. It beautifully illuminates interior spaces, and drives human performance and satisfaction. It also cuts energy costs and minimizes impact on the environment. As a result, architects and designers have continually sought ways to incorporate reliable and consistent natural light into their commercial building projects without sacrificing thermal performance.

As the company that pioneered the development of tubular daylighting devices (TDDs) and introduced them to the world, Solatube International, Inc. has spent more than 30 years developing breakthrough optical technologies that allow Solatube Daylighting Systems to deliver the highest quality natural light with the best color rendition to any space, regardless of building orientation.

For over 30 years, Solatube International, Inc. has been the worldwide leading manufacturer and marketer of tubular daylighting devices.

Our patented optical domes featuring Raybender® and LightTracker™ Technologies, proprietary Spectralight® Infinity Tubing, and specially designed Solatube decorative fixtures and diffusers work together to deliver powerful and predictable energy-efficient performance. We offer a wide array of models and components to build the ideal configuration, fulfilling any conceivable design intent. This innovative engineering also has earned our systems recognition for their ability to help design professionals achieve their LEED®, and Net Zero Energy design goals.

Creating innovative daylighting solutions is the core of our business, and we constantly seek new ways to take technology to the next level. If daylighting is in your future plans, Solatube Daylighting Systems can deliver exceptional performance guaranteed to make your project a lasting success.

Leading the Industry We Created

The Solatube story began in the 1980s when a lone Australian inventor created a product that revolutionized the way daylight was brought into a building. Known as a tubular daylighting device (TDD), this product was a compact and leakproof alternative to traditional skylights. After being patented, this device became the first Solatube product ever sold and the catalyst that transformed the daylighting industry.

Since that time, Solatube International has continued to innovate with new and updated models; advanced optical technologies; daylight dimming, lighting and ventilation devices; and modular, performance-enhancing components. And there's more to come.

First prototype installed:
The original design features a rooftop light capturing system that redirects daylight through a highly reflective cylinder to a diffuser at the ceiling level.

1986 Applied for first patent

1987 First prototype installed

1991 First Solatube product sold

1992 Solatube entered North America market, The Miracle Skylight® introduced

1995 Spectralight® 2000 Tubing released

2000 Solatube expanded into commercial market: Brighten Up® Series and SolaMaster® Series launched, Patented Raybender® Technology introduced, Light Intercepting Transfer Device (LITD) unveiled, Solar Star® Attic Fans debuted

2002 0-90 Degree Extension Tube rolled out, Spectralight® Infinity Tubing unveiled

2003 Daylight Dimmer launched

2004 OptiView® Diffuser introduced

2006 Cool Tube Technology put into production

2007 LightTracker™ Reflector released, Raybender 3000 Technology introduced

2009 SolaMaster® Series extended with Solatube 750 DS model

2011 Solatube Decorative Fixtures unveiled

2012 Smart LED™ System launched

2013 SkyVault® Series debuted, AuroraGlo Decorative Fixture updated, SkyVault® Amplifier rolled out

2014 Raybender HD Technology introduced, SkyVault® Collector launched

2015 Thermal Insulation Panel introduced, Launched the SkyVault® Daylight Dimmer

2016 Introduced Square fixtures for Residential, Launched Solatube ISn Solar Integrated NightLight

2017 Launched SolaMaster® 300 DS with SoftLight Technology, Whole House Fan launched

2018 Garage Fan launched

2019 New Low-Profile Dome for 290 DS

2020 New Solar-Powered Daylight Dimmer for Brighten Up®, Launched LED Light Kit

2021 Solatube International celebrates 30 Years of Wonder

2021 Kingspan Light + Air North America acquires Solatube International

Discover the technology that changed daylighting.

Capture

Raybender® Technology

A patented daylight-capturing dome lens that:

- Redirects low-angle sunlight
- Rejects overpowering summer sunlight
- Provides consistent daylighting through the year

LightTracker™ Reflector

An innovative in-dome reflector that:

- Redirects low-angle winter sunlight
- Increases light input for greater light output
- Delivers unsurpassed year-round performance

Transfer

Spectralight® Infinity

Tubing made of the world's most reflective material that:

- Offers the highest Specular Reflectivity up to 99.7%
- Provides the purest color rendition possible so colors are truer and brighter
- Long tube runs possible, including multistory and 90 degree turns with minimal light loss

Deliver

Optical Lenses

New DaylightShaping™ Lens Technology

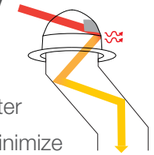
- Ability to direct light distribution for different visual effects
- Provide superior visual comfort

Daylight Dimmer

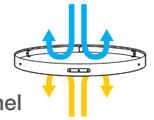
Adjusts daylight levels at the touch of a button

Thermal Control

INFRAREDuction™ Technology



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



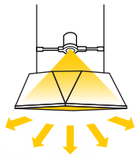
Thermal Insulation Panel

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

Integration

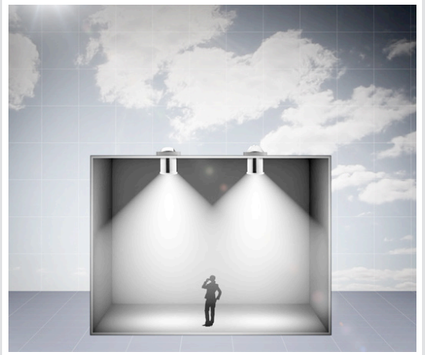
Integrated LED Light Kit

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



The right products for any size space.

SkyVault® Series
Large Tubes for Large Spaces



SolaMaster® Series
Medium Spaces, Maximum Versatility

Brighten Up® Series
Big Impact for Small Areas

Solatube Advantage

Where Natural Light Goes to Work

While the individual components of Solatube Daylighting Systems are designed to perform at the highest level, they are also engineered to work together. Each part enhances the performance of other elements in the system to produce the most effective and advanced tubular daylighting device on the market. That's the Solatube advantage.

LTE

Light Transfer Efficiency

Light Transfer Efficiency (LTE) relates to the amount of light that travels through a TDD daily, seasonally and between multiple floors. Raybender and LightTracker Technologies in combination with Spectralight Infinity Tubing allow Solatube Daylighting Systems to enhance light transfer efficiency by maximizing the collection of low-angle rays. They also minimize light loss as daylight is transferred into the interior space below. This results in the industry's longest tube runs with optimal light output and minimal seasonal variation.

CTM

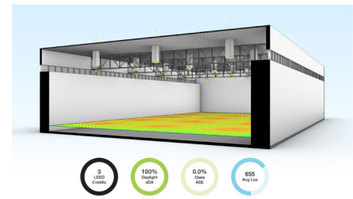
Color Temperature Maintenance

Color Temperature Maintenance (CTM) measures how effectively a daylighting system delivers reflected light without a color shift. Solatube Daylighting Systems excel in this area, thanks to Spectralight Infinity Tubing and its "spectrally-neutral" properties. Solatube Daylighting Systems deliver the brightest, purest daylight without a major color shift over the course of the day and throughout the year. The daylight delivered to the interior is the same color temperature as the daylight outside. Our tubing also provides perfect color rendition, so colors appear in their true state. As an added bonus, the UV-inhibitors built into the dome ensure interior colors will never fade.

IES

Photometry and Photometric Analysis Tools

Accurately analyzing and predicting a daylighting system's lighting performance is a critical part of achieving a robust daylighting solution that meets an architectural project's lighting, energy, and sustainability goals. For experts accustomed to using traditional IES photometry for lighting and daylighting calculations, Solatube International can support the design process through state-of-the art, third-party IES photometric files for nearly every-possible Solatube product configuration. For design teams who are adopting the latest in BIM-centric design and analysis platforms, Solatube's suite of a full BIM Product Library and Bidirectional Spectral Distribution Function (BSDF) data files enables detailed, integrated daylighting design analyses that are capable of predicting and evaluating not only the dynamic nature of interior illumination, but occupant visual comfort and behavior based upon exterior site factors and hourly weather data through Radiance-based ray tracing simulation tools.



Daylight modeling brings science into the art of daylighting, revealing how daylight patterns will affect any building through 3D simulation software.

LSG

Light to Solar Heat Gain Ratio

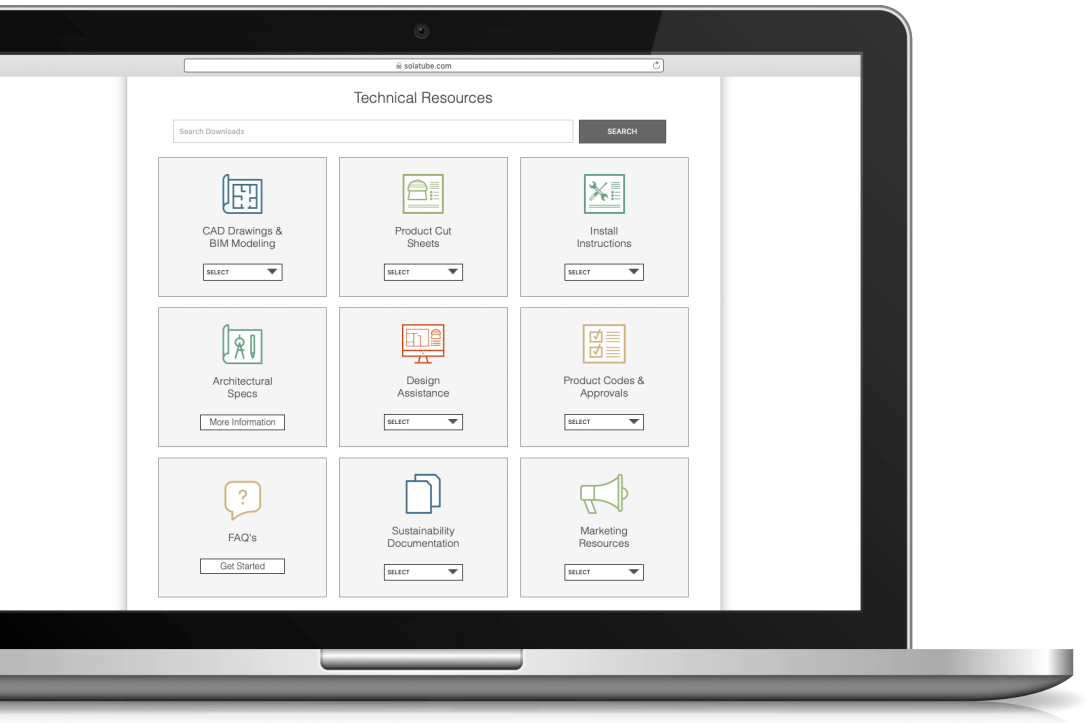
Light to Solar Heat Gain Ratio (LSG) compares visible transmittance (VT) and solar heat gain coefficient (SHGC). The ratio reveals how well a daylighting product transmits useful visible light rays while filtering out problematic heat-carrying infrared rays.

Solatube Daylighting Systems create the ideal balance between VT and SHGC to deliver pure, bright daylight without the added solar energy that can cause heat buildup and force air conditioning units to work harder. This is due to proprietary Raybender Technology and Spectralight Infinity Tubing, which features Cool Tube Technology. This combination makes it possible to deliver only the visible spectrum of light while filtering and dissipating infrared rays. In addition, thermal breaks designed between the flashing and tubing ensure heat is not conducted from the roof to the interior. The result is maximum light and minimal heat gain.

Technical Resources for You

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/commercial/Technical-Resources** for more details



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A Kingspan Light+Air Company

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Latest Version