

REDEFINE DAYLIGHTING



# REDEFINE PERFORMANCE

Until now, performance has been measured by the amount of light a tubular daylighting device can provide. At Solatube International, Inc., we set out to develop a daylighting system that also addressed two new dimensions of performance that are critical for sustainable design – illumination consistency and energy efficiency – through technological breakthroughs.

The solution is the all-new Solatube 750<sup>®</sup> DS Daylighting System, an engineering revolution that balances illumination intensity, illumination consistency and thermal performance without sacrificing performance. It's simple. It's effective and it redefines what you may think is possible with daylighting.

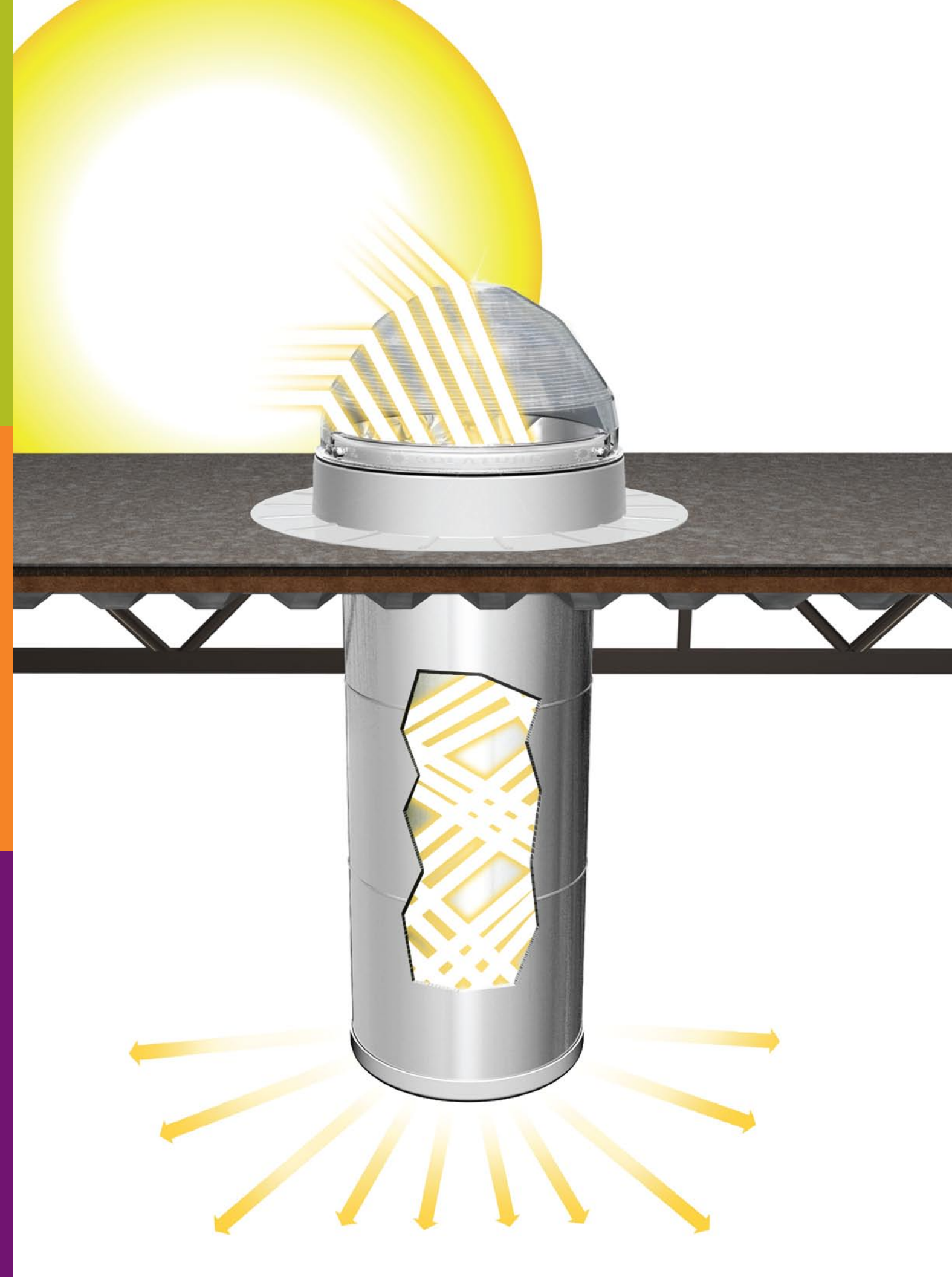
Introducing the Solatube<sup>®</sup> 750 DS  
Daylighting System.



CAPTURE

TRANSFER

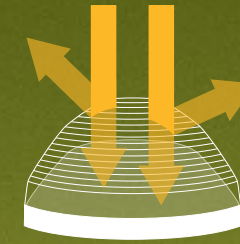
DELIVERY



# REDEFINE HARVESTING

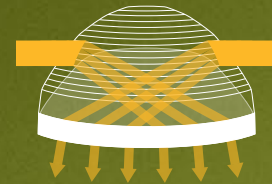
Traditional daylight harvesting has its issues – too much light and heat sometimes and not enough light other times. Problem solved. The new Solatube® 750 DS optical dome features Raybender® 3000 Technology, a series of Fresnel lenses that function to harvest appropriate daylight based upon the incidence angles of daylight. Raybender® 3000 Technology delivers an Effective Daylight Capture Surface (EDCS) of up to 750 square inches, over double that of a clear dome of the same diameter.

This new dome, coupled with an optional insulating inner dome, delivers the ultimate in illumination consistency, visual comfort, and thermal performance – throughout the day and throughout the year.



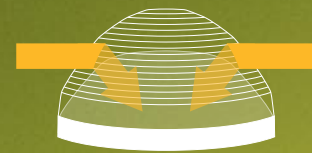
## Reject High Intensity Sunlight

There is such a thing as too much of a good thing, and summer mid-day sun is a great example. When the sun is high in the sky vault, there is simply just too much sunlight accompanied by too much heat. This lens screens the over-powering and punishing mid-day sun, and only allows comfortable daylight into the optical tube. The result is a staggering reduction in solar heat gain and a favorable reduction in bothersome light intensity for improved output consistency throughout the day and over the course of the year.



## Superior Visual Comfort

Not only does this lens help redirect low-angled light, it also works to temper glints by mixing light in the optical tubing. This provides that lively sunlight you've come to expect from a Solatube® Daylighting System with even more visual comfort.



## Harvest Low-Angled Daylight

This lens captures low-angled morning and afternoon sunlight and redirects it into the shaft to greatly extend your day. In the winter, Raybender® 3000 Technology captures not only low-angled sunlight on the horizon, but also redirects diffuse light from the sky vault delivering vastly higher light levels.

The bottom line? A top lighting solution that works when you're working – keeping the lights off for a much longer period to maximize energy efficiency.





### Enhanced Energy Performance

Spectralight® Infinity Tubing now features a patented process that allows the tubing to absorb heat, then emit it through its exterior with a high emissivity coating. We call it "Cool Tube". It's just another way we minimize solar heat gain.



### Extended Tube Lengths

With a phenomenal specular reflectivity over 99.7%, Solatube Spectralight® Infinity Tubing can run amazing lengths – in excess of 50 feet – without jeopardizing effectiveness. Think of the possibilities.

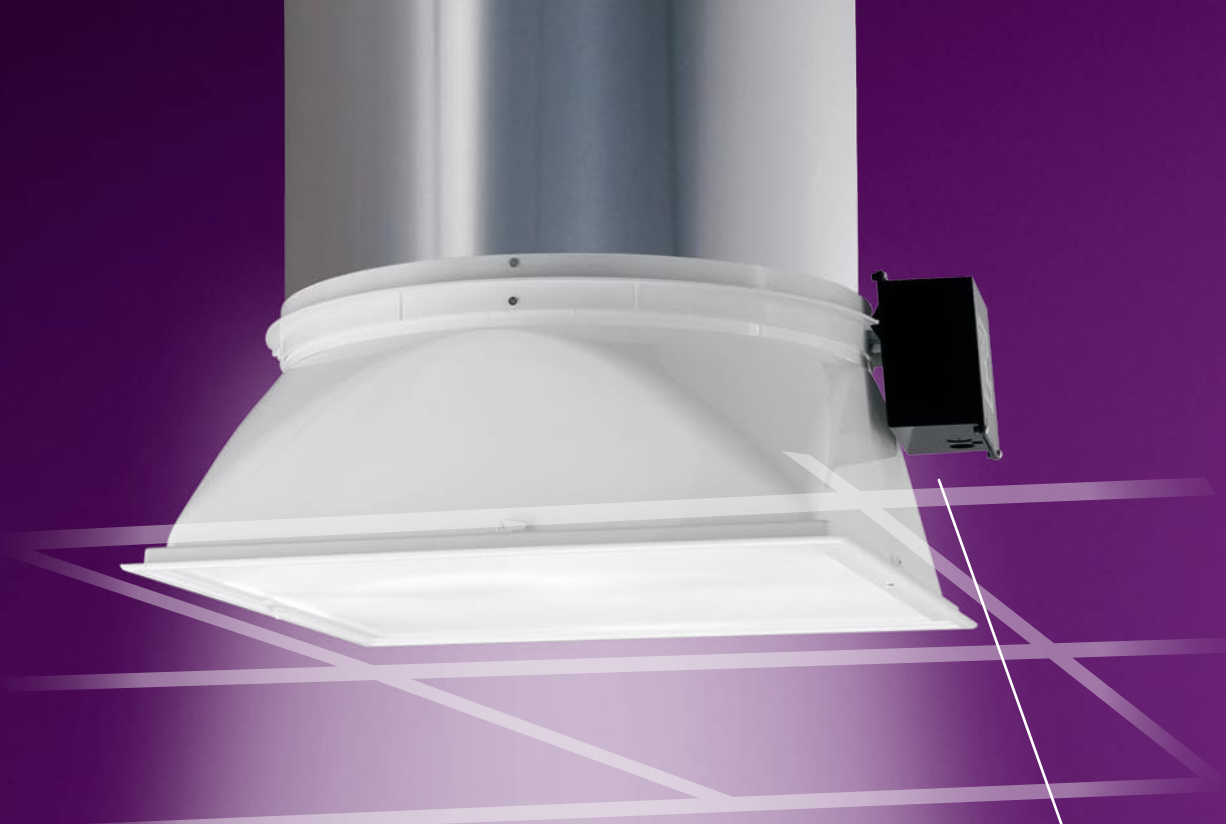


### 0-90° Flexibility

If you need to go the distance, you may need to make a turn. Never fear. Solatube Daylighting Systems can be designed with angles from 0 to 90 degrees to overcome construction limitations. It's made possible with Spectralight® Infinity Tubing.

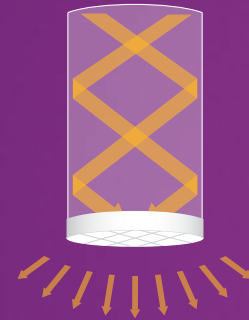
# REDEFINE POSSIBILITIES

Imagine having daylight in interior offices, or lower levels of a building, or in hallways and corridors. Keep imagining. Because Solatube Spectralight® Infinity Tubing is redefining where daylighting can and should be used. With the most reflective surface in the world, Spectralight® Infinity Tubing transfers maximum daylight with minimal absorption losses, even when going to hard-to-reach places.



### Light Control

With the ability to place daylight everywhere, it became more important than ever to offer powerful control options. The Solatube Daylight Dimmer™ allows you to completely adjust daylight levels in a room with the touch of a switch. For scene and time-based control, the Solatube 0-10 V Daylight Dimmer can be integrated into automated digital lighting systems.



### Design With Daylight

The all new diffuser options for open ceiling applications provide designers choices in diffusing light evenly into a space. Now designers can use daylight to create just the right experience in every space. Open and suspended ceiling options give you limitless opportunities to diffuse daylight into any room.



### Superior Color Rendition

The unique spectral reflectance characteristics of Spectralight® Infinity Tubing reflect the visible spectrum without color shift, to deliver the purest color rendition possible. It's performance like this that ensures that the color you use in a space will be vivid and accurate.

## REDEFINE ILLUMINATION

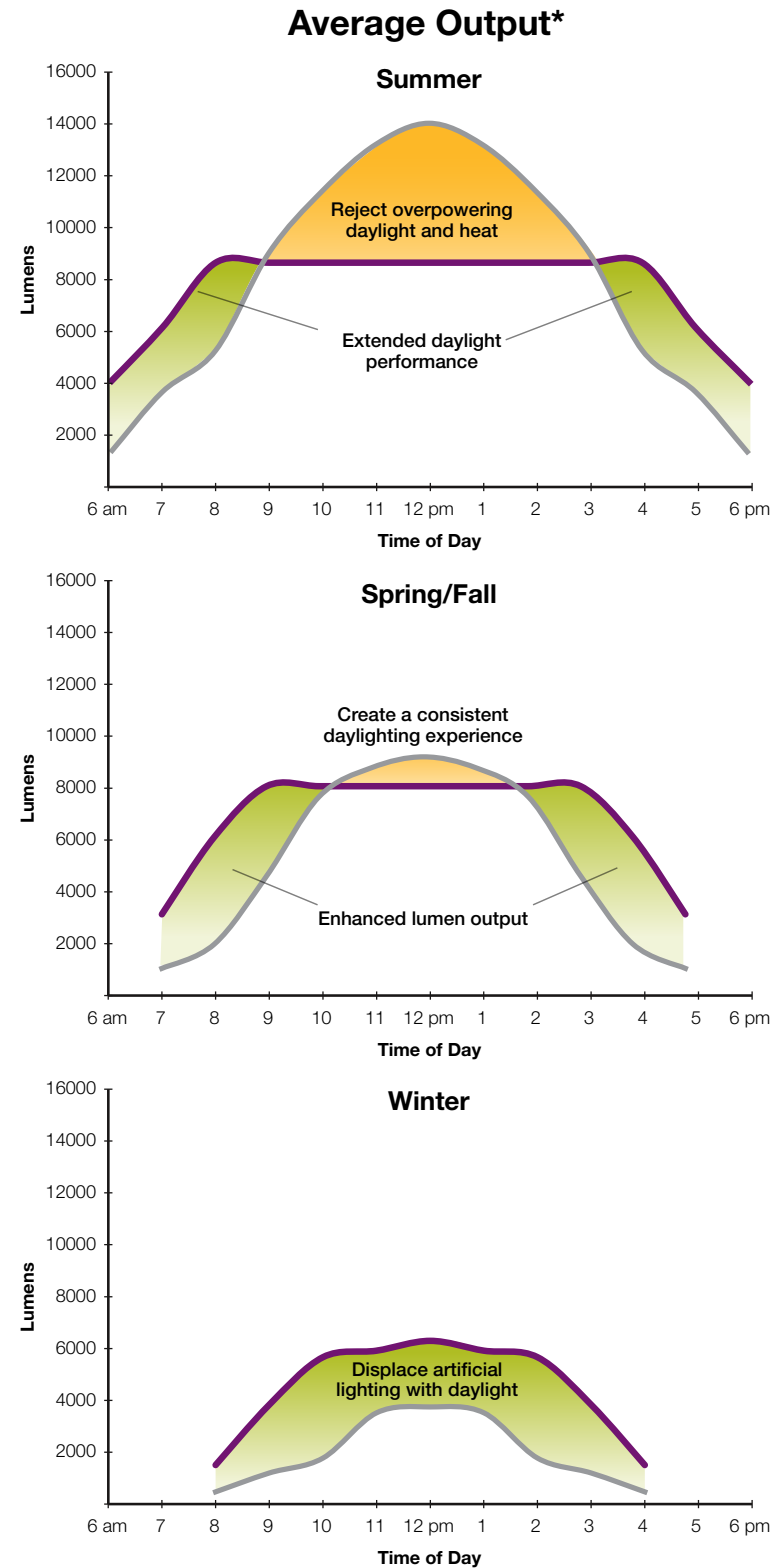
Effective daylighting is a cornerstone of modern architectural design. Worldwide, Solatube Daylighting Systems provide the inspiration for some of the most dynamic daylighting applications today. The Solatube 750 DS is no exception because it provides whole new options for designers to develop innovative ways to daylight their buildings.

# The Solatube 750 DS | Performance

## It's Always Daylight Season

The Solatube® 750 DS Daylighting system was engineered to provide the highest and most consistent performance available throughout the day – all year long. The fact is, Solatube Daylighting Systems are superior at harvesting early morning and late afternoon sunlight, greatly extending your day.

- Solatube® 750 DS Daylighting System
- 21" Aperture Tubular Daylighting Device



## Thermal Performance

The Solatube® 750 DS offers unsurpassed thermal performance. Unique features such as Dual-Dome system, Raybender® 3000 Technology, and Spectralight® Infinity Tubing work in concert to deliver the most energy efficient tubular daylighting device available.



	Solar Heat Gain Coefficient	U-Factor
ENERGY STAR® Requirements	<0.40	<0.60
<b>Solatube 750 DS Daylighting System</b>	<b>0.20<sup>†</sup></b>	<b>0.55<sup>†</sup></b>

## Visibly Better Efficiency

With the Solatube 750 DS you never have to sacrifice daylighting performance to achieve remarkable energy efficiency. Unlike the majority of fenestration products, Solatube Daylighting Systems offer maximum light performance with minimal solar heat gain. With an energy performance ratio over double most fenestration products, Solatube Daylighting Systems are the highest performing choice for daylighting any space.

Fenestration product	Visible Transmission (Vt)	Solar Heat Gain (SHGC)	Daylighting Energy Performance Ratio (Vt/SHGC)
<b>Triple Glazed Low-e Window</b> Clear glass, suspended low-e Heat mirror film	22%	0.16	1.38
<b>Triple Glazed Window</b> Clear glass, suspended low-e Heat mirror film, clear glass	63%	0.36	1.75
<b>Double glazed Window</b> Clear glass, low-e glass)	71%	0.49	1.45
<b>Double Glazed Prismatic Skylight</b> Clear outside, prism inside	71%	0.51	1.39
<b>Solatube® 750 DS Daylighting System</b>	60% <sup>†</sup>	0.20 <sup>†</sup>	<b>3.00</b>

Source: NFRC Spectral Weighting Function Research Project, Draft 2.0, March 2007

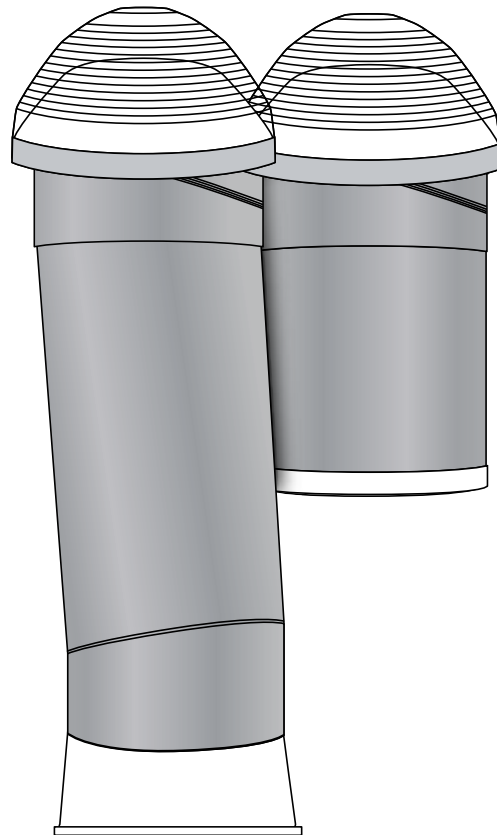
\* A Comparison of Hourly Lumen Performance in Mid-America (Denver) With 21" Diameter Tubular Daylighting Devices. Note: Tube length of 120 inches. Solatube 750 DS Daylighting System is equipped with Raybender® 3000 Technology, inner dome, Spectralight® Infinity Tubing, and OptiView® diffuser. The industry-standard 21" diameter Tubular Daylighting Device has clear dome, enhanced silver tubing and single prismatic diffuser.

\*\* ENERGY STAR® pending. † Solar Heat Gain Coefficient (SHGC), U-Factor and Visible Transmission (Vt) are estimated.

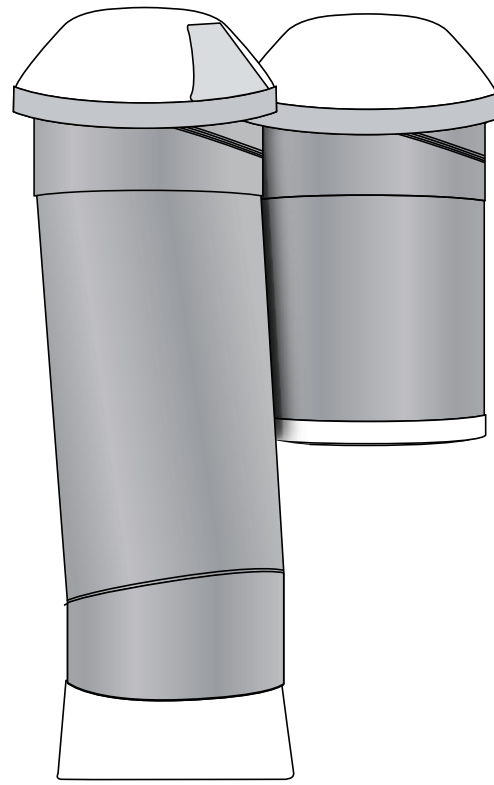
# The SolaMaster® Series | Choices

The SolaMaster® Series provides architects and designers a comprehensive selection of daylighting options for virtually every application. Whether it's daylighting a large warehouse, or integrating into a closed ceiling grid, the Solatube SolaMaster® Series allows you to bring daylight to virtually every space.

**Solatube® 750 DS Daylighting System**



**Solatube® 330 DS Daylighting System**



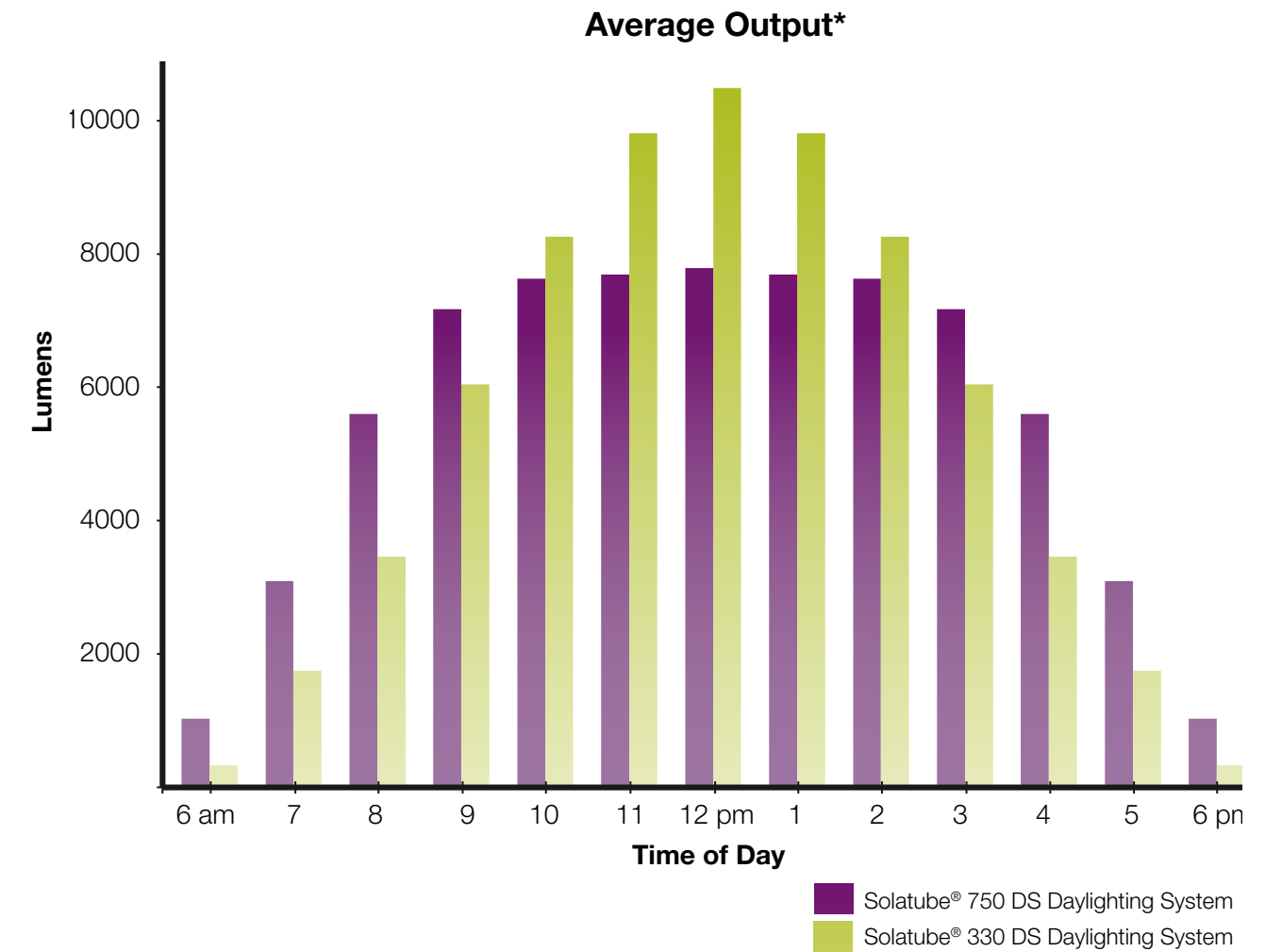
Specifications			
Tube Size (Diameter)	21 in (530 mm)	21 in (530 mm)	
EDCS Effective Daylight Capture Surface	750 in <sup>2</sup>	330 in <sup>2</sup>	
Technology Features			
Raybender® 3000 Technology	■		
LightTracker™ Reflector		■	
Spectralight® Infinity Tubing	■	■	
Energy Performance			
ENERGY STAR®	■*		
Design Criteria			
Effective Tube Length	> 50 feet	> 50 feet	
Spacing Criteria using OptiView® Diffuser			
From Walls	≥ 0.5 MH	≥ 0.5 MH	
From Units	1.0xMH ≥ Spacing < 1.3xMH	1.0xMH ≥ Spacing < 1.3xMH	
Spacing Criteria using Prismatic Diffuser			
From Walls	≥ 0.5 MH	≥ 0.5 MH	
From Units	0.8xMH ≥ Spacing < 1.0xMH	0.8xMH ≥ Spacing < 1.0xMH	

\* Exceeds current ENERGY STAR Requirements for U Factor and Solar Heat Gain Performance. Application pending.

# The SolaMaster® Series | Performance

## Just the Right Light

The SolaMaster® Series also provides two exceptional choices for daylighting design. The Solatube 330 DS Daylighting System offers a high-performance daylighting experience that maximizes mid-day sunlight. The 750 DS is designed to create a more consistent daylighting experience that extends the day and enhances visual comfort.



\* A Comparison of Hourly Lumen Performance in Mid-America (Denver) With 21" Diameter Tubular Daylighting Devices. Note: Tube length of 120 inches. Solatube 750 DS Daylighting System is equipped with Raybender® 3000 Technology, inner dome, Spectralight® Infinity Tubing, and OptiView® diffuser. The Solatube® 330 DS Daylighting System diameter has clear dome, LightTracker™ Reflector, Spectralight® Infinity tubing, and OptiView® diffuser.



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