# WASCO SKYLIGHTS WITH LUMIRA<sup>™</sup> AEROGEL



UP TO 2x THE THERMAL VALUE!

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# MAXIMUM PERFORMANCE SKYLIGHTS

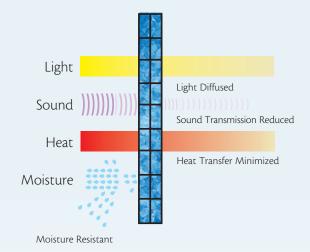


# THE BIG BREAKTHROUGH IN THERMAL INSULATING TECHNOLOGY!

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Adapting nano technology in Wasco skylights provides practical everyday solutions in fenestration products. Lumira<sup>™</sup> aerogel (formerly Nanogel<sup>®</sup> aerogel) is able to provide a tremendous thermal insulator that is also environmentally sound. Lumira<sup>™</sup> aerogel works so well because of what it does on a nano-scale. Lumira<sup>™</sup> aerogel permanently stops connective, conductive, thermal transfer without an appreciable drop in light transmission.

- Superior thermal performance up to 2x the thermal value of typical double dome unit skylights
- Glare-free, full spectrum diffused light
- "Green" product that's perfect for Cradle to Cradle designs
- Completely moisture resistant
- Will not support growth of mold, mildew, or fungus
- Reduces sound transmission
- UV stable
- Performance will not deteriorate over time



"Lumira™ aerogel is a very light, highly-porous form of silica aerogel that is 97% air...The amazing thing about silica aerogel is how well it insulates – even while transmitting (diffused) light."

> Environmental Building News Product and News Reviews

When used to insulate a cavity in a translucent skylight, Lumira<sup>™</sup> aerogel prevents convection currents. Thus it is the only insulation which **performs better than air**. It's translucent nature allows light to be transmitted. The porous structure also slows down the speed of sound in the air thus reducing noise.



asco skylights with Lumira<sup>™</sup> aerogel are the highest performing daylighting products available on the market today. Independent testing has proven Wasco Skylights with Lumira<sup>™</sup> aerogel will provide a dramatic improvement in thermal efficiency, reduced sound transmission, and high quality, glare free diffused light. Transform your daylighting applications into environmentally friendly sustainable, energy-efficient designs.

FEATURES	BENEFITS
<ul> <li>Great thermal insulator for energy savings</li> <li>Provides up to 2x the thermal value of typical double dome unit skylights</li> <li>Insulates to R-8 per inch (25mm)</li> </ul>	• Lower operating costs. Excellent return on investment.
• High-quality, full spectrum diffused light	<ul> <li>Glare-free, full spectrum light with excellent light scatter allows more light to enter while insulating against heating and cooling losses.</li> </ul>
<ul> <li>Will not support growth of mold, mildew or fungus</li> <li>ASTMG 21/Military Standard 81OE</li> </ul>	• Clear, long term light diffusion. Performance won't deteriorate over time.
Reduces sound transmission	Quieter more comfortable environment.
• Environmentally friendly	<ul> <li>Recyclable and consistent with MBDC Cradle to Cradle design philosophy.</li> <li>Green sustainable building product.</li> <li>Architects can receive 2-4 LEED points for optimizing energy efficiency.</li> </ul>
Completely moisture resistant	<ul> <li>Resistant to mold, mildew, and color change.</li> </ul>

## PERFORMANCE DATA ON WASCO® SKYLIGHTS WITH LUMIRA™ AEROGEL

## THERMAL PERFORMANCE OF UNIT SKYLIGHTS

		Solar Heat Gain		
Inickness	Transmission	Coefficient	U	ĸ
Clear/Nano 16mm	48	0.57	0.22	4.6

### SOUND TRANSMISSION

Unit Skylights - 70% Improvement in Sound Reduction

Scylight Type	ound Transmission Coefficient	
Standard Unit Skylight	24	
Unit Skylight Insulated with Lumira™ Aeroge	el 34	

## Structural Skylights - 25% Improvement in Sound Reduction

Skylight Type	Sound Transmission Coefficient	
Structural Skylight with Polycarbonate Panels	21	
Structural Skylight Insulated with Lumira™ Aerog	jel 27	



# THE BENEFITS OF DIFFUSED DAYLIGHTING

Increasing natural daylighting in buildings has long been a goal in architectural design. Studies have shown that people thrive in natural lighting; they're healthier, happier and more productive. Also, increased daylighting designs are proven to have a positive effects such as:

- Increased productivity
- Increase in sales up to 40%
- Shown to increase learning rates (20-26%)
- Decreases absenteeism
- Promotes a healthier, happier work and educational environment



# A GREEN PRODUCT WHOSE TIME HAS COME

Today, the cost of energy is driving more stringent energy code requirements and builders and architects are looking for ways to turn daylighting designs into sustainable, costefficient energy designs. Lumira<sup>™</sup> aerogel is the answer as the only eco-insulation for high performance skylighting.

## MEMBERSHIPS







# ENVIRONMENTAL CERTIFICATION

## From MBDC's perspective Lumira™ aerogel® is:

"An excellent technical nutrient which provides an elegant solution to the problem of thermal and sound insulation. The finished product is consistent with the MBDC Cradle to Cradle Design philosophy"



# PERFECT FOR MANY APPLICATIONS!







SCHOOLS OFFICES WAREHOUSE GROCERY STORES RETAIL ENVIRONMENTS BIG BOX STORES & MALLS



## AVAILABLE IN UNIT\* & STRUCTURAL SKYLIGHTS





\* See unit sizes on back cover.



# AVAILABLE IN WASCO'S THERMALIZED SOLAR ENERGY SKYDOMES



## Thermalized Solar Energy Skydomes

Wasco curb-mount and deckmount Thermalized Solar Energy Skydomes offer excellent lighting and thermal performance for both new construction and replacement applications.

- Offered in outer dome or pyramid styles
- Designed to work with any roofing material.

## **CA-NT Thermal Deck Mount**

#### **CS-NT Thermal Curb Mount**

Model	R.O. of Curb	Model	O.D. of Curb
2852	22 1/4" x 46 1/4"	2852	25 1/4" x 49 1/4"
3636	30 1/4" x 30 1/4"	3636	33 1/4" x 33 1/4"
4242	37" x 37"	4242	40" x 40"
5252	46 1/4" x 46 1/4"	5252	49 1/4" x 49 1/4"
5296	46 1/4" x 89 1/2"	5296	49 1/4" x 92 1/2"

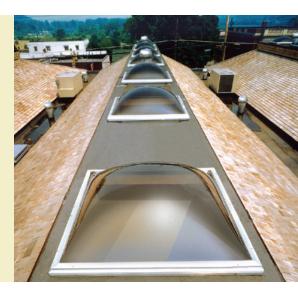
#### THERMAL PERFORMANCE OF UNIT SKYLIGHTS

Polycarbonate Thickness	Light Transmission	Solar Heat Gain Coefficient	U*	R*
Clear/Nano 16mm	48	0.57	0.22	4.6

## LUMIRA™ AEROGEL SKYLIGHTS ARE AVAILABLE IN WASCO'S SENTINEL SKYLIGHT

Lumira<sup>™</sup> aerogel skylights are available in Wasco's Sentinel Skydome<sup>™</sup> Skylight, an all-in-one skylight and fall protection unit providing facility managers, employers, and building owners with outstanding impact-resistant safety.

With impact resistance at a minimum 775 up to 2,200 ft. lb., without the use of metal grids or screens, the Sentinel Skydome<sup>™</sup> Skylight meets and/ or exceeds ASCE 7-95 "Minimum Design Loads for Buildings and other Structures" and OSHA 29 CFR regulations for skylight fall protection.



### SAFETY CONSIDERATIONS

- Wasco Skylights are designed to withstand normal elements of the weather.
- Skylights should not be walked upon under any circumstances.
- The owner, contractor or designer should restrict access only to authorized personnel who have been adequately cautioned as to the location of the skylights and informed of the warning above or said owner should provide protective guardrails or screens around the skylights.

Wasco is engaged in continual product development and improvement and therefore, reserves the right to change, or discontinue, any product without notice. Wasco holds numerous U.S., Canadian and European patents on its products. Wasco, Skywindow, Permatherm, Skyshade, Skydome, Quadraseal, Pyrovent, Pyrodome, E-Class and Super Thermalized are Registered Trademarks of Wasco Products, Inc.



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