

# Clearspan Skylights

Structural skylights and glazed structures for daylighting any building!

### Structures Unlimited, Inc.

Aluminum box beams provide the basis for Structures Unlimited, Inc. clearspan skylight systems. Kalwall roof panels are secured to the box beam superstructure to form a durable, rigid, cohesive structure. The panels and beams are thermally compatible and the unique, horizontal overlap eliminates leaks that plague other systems.

Structures Unlimited, Inc. skylight structures do not need gutters, drains and weep holes like other skylights that are prone to leaking and condensation. A structural thermal break option provides the ultimate in energy performance and condensation control. High-performance architectural coatings are applied to all exposed metal surfaces, such as the aluminum box beams and Kalwall installation system. All fabrication and finishing are performed in ideal manufacturing environments prior to shipment to the job site.

Structures Unlimited skylights offer far lower operating costs than other systems and all components are designed for minimal maintenance and upkeep.



Clearspans

to 150'!

Cooper Medical, Voorhees, NJ JK Roller, Architect



Allen WTP, Littleton, CO; CDM Architects



Metro Family YMCA, Portland, OR; BOORA Architects

Human comfort levels and building operating costs are key factors in the design and performance of our skylights. Diffuse daylight provides natural brightness without glare... significantly reducing summer heat gain and air conditioning costs, while the highly insulated panels (up to R-20, U=.05) control winter heat loss. Substantial savings can be realized in HVAC equipment sizing and operating costs.

From Canadian snowstorms to Caribbean hurricanes, each skylight is custom designed and engineered to meet or exceed all local snow and wind load requirements. Our computer-generated shop drawings will assist in layout and location of the box beam connections. We can also provide custom reaction reports for use by the project architect, engineer or contractor.

A computer-modeled daylight analysis can be generated to take the guesswork out of estimating approximate interior daylight levels. This is an excellent design tool in achieving the 2% Daylight Factor as suggested by the U.S. Green Building Council's LEED® Rating System... up to 20 LEED credits can be attained with Structures Unlimited.

Design options include: pastel-tinted exterior face sheets, retractable roof panels, and select areas of insulating glass.



Metropolitan Community College, Sarpa Center/ La Vista Public Library, La Vista, NE; Zenon Beringer Mabrey



Sylvan Abbey Memorial Park, Clearwater, FL; David Wilson, Architect

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Goasis, Ashland, OH WD Partners, Architect



Palisades Center, West Nyack, NY Dal Pos Architect, P.C.

installs rapidly

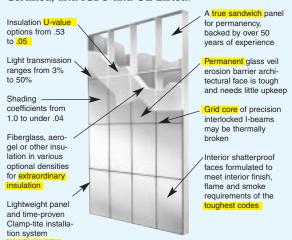
Partners, Architect;

Tom Kessler, Photography

# Time Fitness Centers; Don Pitlik, Photography ife

# **Kalwall**

Structures Unlimited, Inc. skylights utilize the patented Kalwall® structural roof panel system. It's the most highly insulating, diffuse-light-transmitting technology in the world! Structural thermally broken panels - NFRC Certified, and ICBO and UL Listed.



For more information on Kalwall, visit their Web site at www.kalwall.com

Areas with vision glazing available!

### **Energy and Daylighting Characteristics**

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Listed are a few of the light transmitting, solar heat gain and insulating factors of the many common face combinations of Kalwall Structural Roof Panels. Many other options are available.

FACE SHEET COMBINATIONS		% LIGHT TRANSMISSION AT note 1 VARIOUS INSULATION U-VALUES				SKYROOF SOLAR HEAT GAIN COEFFICIENT @ 0°∠ note 2			
EXTERIOR COLOR	INTERIOR COLOR	.23 "U" note 3	.14 "U" note 3	.10 "U" note 3	.05 "U" note 3	.23 "U" note 3	.14 "U" note 3	.10 "U" note 3	.05 "U" note 3
Aqua	White	17	6	4	12	0.19	0.10	0.07	0.11
Rose	White	18	6	4	12	0.19	0.10	0.07	0.11
Ice Blue	White	20	8	6	15	0.22	0.11	0.07	0.12
White	White	15	8	5	12	0.16	0.09	0.06	0.09
Crystal	White	20	12	8	15	0.23	0.11	0.07	0.11
Crystal	Crystal	30	15	10	20	0.27	0.14	0.09	0.12

- 1. Approximate values by ASTM E-972.
- At 0° incident angle.

with

3. U-values determined by NFRC test method at certified labs.

### NEW Kalwall 100™ Panels for even greater energy performance!

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FACE SHI COMBINA		% LIGH TRANS	IT IMISSION		SKYROOF SOLAR HEAT GAIN COEFFICIENT			
EXTERIOR COLOR	INTERIOR COLOR	.08 "U"	.15 "U"	.55 "U"	.08 "U"	.15 "U"	.55 "U"	
Crystal	Crystal	8	17	50	0.09	0.21	0.56	
Crystal	White	7	14	35	0.08	0.18	0.43	
White	White	5	12	20	0.06	0.14	0.33	

Check with Technical Services Department for further clarification. Since these tables are of a very technical nature, please consult your heating and ventilation engineer for proper interpretation.

## **Other Design Configurations**

- Awnings, canopies and walkways
- Removable skylights
- Swimming pool enclosures



Midtown Community Center, Newport News, VA Forrest Coile Associates, Architects



Canoersity of Central Florida, Statern Canon Banarity, Orlando, FL The Scott Partnership Architecture, Inc.

For more information on our Pool Enclosures, visit our Web site or see Sweet's 13 34 13.19/STR.



Aquarium at Mandalay Bay, Las Vegas, NV; Klai-Juba Architects



Community College of Rhode Island, Newport, RI Newport Collaborative Architects, Inc.

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# Structures Unlimited, Inc.

Design, manufacture and construction backed by over 50 years of experience.

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# www.SkylightInfo.com



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