

# SKYLIGHT SYSTEMS

Natural Daylighting Solutions for Residential & Commercial Applications



# About Us



## **DRIVE TO SUCCEED**

At Solar Innovations® Architectural Glazing Systems, we push the envelope by continually developing more innovative ways to build the products our customers are requesting. Our deep rooted core values strengthen our commitment to completing the highest quality projects delivered on time. We enjoy tackling some of the most complex projects that others in the industry will not touch, simply because innovation not only creates long lasting partnerships with our customers but it also facilitates our ability to make products better than others in the industry.

Solar has been making high quality systems since 1998. We began with an idea that we could not only create better products than the market was offering at the time, but could also introduce new designs that were not even a concept in our customers' or competitors' minds. Our team was small in the beginning, but over time as we found a talented pool of people with our same principles, we began to build a company that today conquers projects of all sizes and types including commercial, residential, resort, institutional, hospitality, and multi-family. We now reside in a 36+ acre campus where craftsmen, engineers, and designers are dedicated to becoming the best Architectural Glazing company out there today. We sincerely hope you think of us for your next endeavor.

## **CUSTOM DESIGNS**

Ingrained in our company's DNA is a "never say no" customer service attitude. This mentality has been the catalyst for each product line offered by Solar Innovations® and continues to drive us to become the premier door & window, glass structure, and skylight provider in North America. Some of Solar's greatest innovations have developed from unique customer requests that others could not fulfill.

## **VERTICALLY INTEGRATED**

Engineering, product testing, and product design all take place within our own facility. We machine many of our own parts, paint most of our own material, and create our own custom hardware. By producing as many components within our own manufacturing facility as possible, we have greater control over cost and lead times. Superior technical support can also be offered for our products because it is provided directly from the individual that created or assembled the product, unlike many in our industry that source their parts from places outside the United States.

# Why Choose Solar?

## MADE IN THE U.S.A.

All of our products are designed and manufactured in the United States at our state-of-the-art facility in Pine Grove, PA. This allows us more flexibility to provide better quality, service and faster lead times. Additionally, over 95% of our vendors manufacture and assemble in the United States.

## SINGLE SOURCE PROVIDER

We are a single source supplier of aluminum, wood, and vinyl-composite glazing systems; this creates consistency throughout your project. Solar provides all fasteners, silicone, and sill flashings as needed, plus project specific shop drawings, as compared to our competitors who typically add 10% in material and labor costs, which does not include engineering, sourcing, and shipping costs.

## QUALITY IN-HOUSE TESTING

The quality of our products is second to none, with some of the highest test ratings in class. Most of our products are tested within our facility's test labs. Solar Innovations® offers a vast line of tested products that meet various certifications, including NFRC, Florida Impact, Miami Dade, and TDI. Our products are specifically designed and engineered to your project location.

## ECO-FRIENDLY PRODUCTS

Our materials are sourced from local suppliers, reducing the cost of transportation and keeping our local economy strong. Our products feature high thermal performance, making them an energy efficient option for homes and commercial spaces. Our systems include recycled content and are LEED friendly. LEED credits are available in the following categories: Materials & Resources (Recycled Content), Indoor Environmental Quality, Daylight, and Regional Priority (within 500 miles of our facility). Other credits may also apply depending on the application. Our facility is also LEED Gold certified, thanks to our team's green practices.

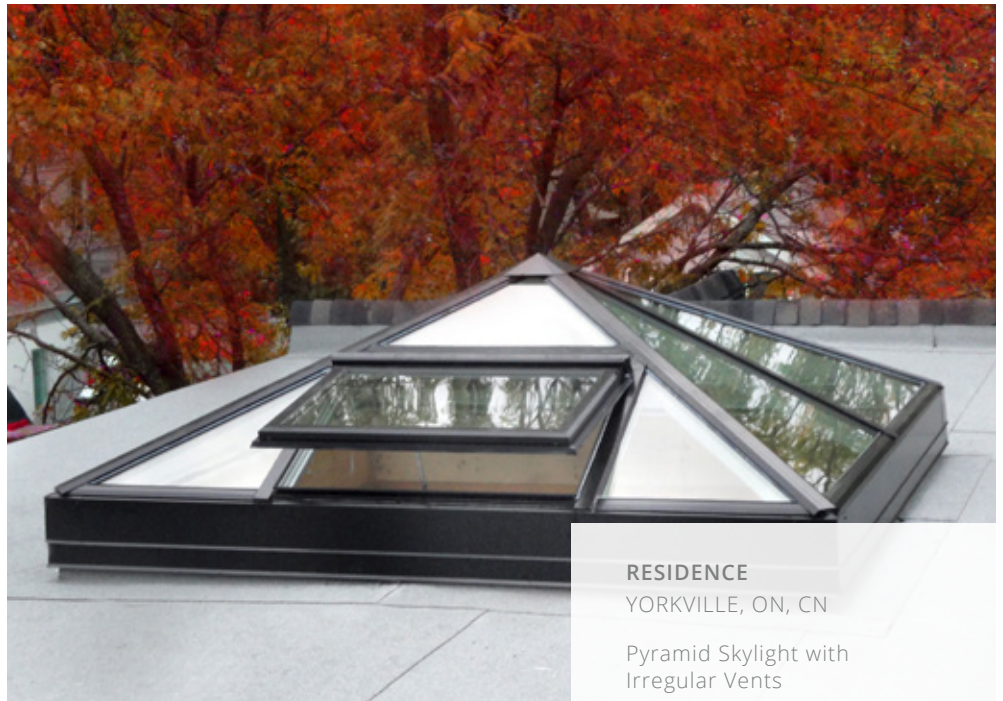
## COASTAL APPLICATIONS

Our systems have the ability to meet coastal requirements. We use finished aluminum and stainless steel components in our hardware; therefore, our materials can withstand the corrosive effects of the elements in coastal regions.



**RESIDENCE**  
SANDUSKY, OH

True Radius Segmented  
Dome Skylight



**RESIDENCE**  
YORKVILLE, ON, CN

Pyramid Skylight with  
Irregular Vents

# Design Considerations

**RESIDENCE**  
SHARON, CT

Radius Dome Skylight with  
Curved Windows

## LOCATION

Warmer locations require higher performance glass to limit heat gain while cooler locations require the glass to limit heat loss.

- A southern facing skylight is ideal because it allows maximum exposure to sunlight and natural warmth. Extra cooling provisions may be needed due to the presence of the natural heat throughout the entire day.
- A northern facing skylight receives less sunlight during the day and an extra heating unit may be required.
- A southeast facing skylight will provide plenty of warmth and sunlight throughout the day, with shade cooling the enclosure in the late afternoon and evening.
- A southwest facing skylight will provide a cool shaded morning, but will warm up with sunlight throughout the afternoon and evening.

## SIZING

The minimum curb allowed by code is a 4" curb, unless noted otherwise; Solar Innovations® recommends a 6" curb. We typically use four pitches that are preset for speed and efficiency: 14.75° and 30° are standard and 22.5° and 45° are alternates to the standards. Any pitch from 1/12 to 16/12 is possible, but an increased fabrication and engineering time must be considered for custom options.

## CLIMATE

Cooling and ventilation can be achieved in various ways:

- Ridge vents, combined with windows, will provide the air flow needed to cool the enclosure and maintain constant circulation.
- High performance glass is the best solution for a comfortable yet energy efficient enclosure.
- Laminated glazing protects your furnishings from the sun's harmful rays.

## FOUNDATION

Solar Innovations® recommends that any structure be placed on a pre-built curb. Concrete foundations are ideal. If a unit is constructed on an uneven, poorly built curb it may cause shifting which over time may cause the glass to crack under pressure.

## SHADES

We have various styles of shade systems that cool rooms and block the sun exposure. Each option has its own benefits and situations when it's more advantageous to use. For more information about our shading systems, visit our website at [solarinnovations.com/accessories/shade-systems](http://solarinnovations.com/accessories/shade-systems).

## ATTACHING TO AN EXISTING STRUCTURE

We will need all the details describing the surface to which the enclosure will be attaching.

- For a bull nose or hip end skylight, the depth of the nose is half the width.
- A polygon skylight requires the length to be equal to the width.
- For a transom, please add two inches to the desired transom height and the front wall height.
- Always note the mounting height of the skylight. If it is higher than 12 feet, many local codes require laminated glass in the sloped glazing and possibly in the lantern glazing as well.
- If applicable, allow at least one foot of clearance under any existing roof overhang.
- Any site preparation and structural curbing needs will not be provided by Solar Innovations®.

## GLAZING

Solar Innovations® recommends laminated glass for all skylights. Upon impact, laminated will break into a spiral, but it will not fall out of the frame and injure those below it. Laminated glass also removes 99% of all harmful UV rays.

# Traditional vs. Contemporary

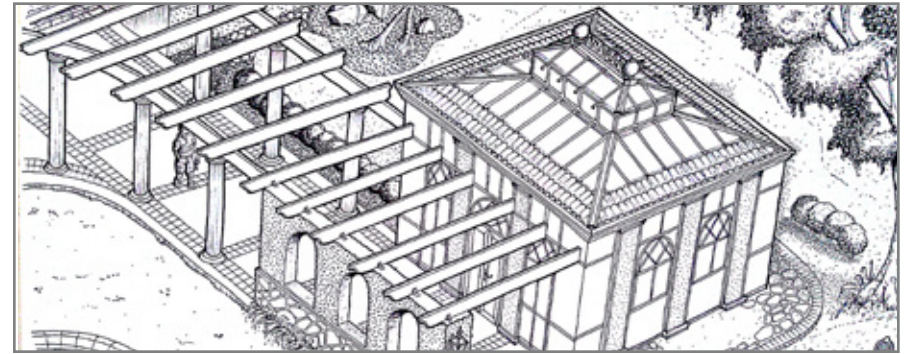


**PRIVATE HALL**  
ROCHESTER, NY

Curved Eave Double Pitch  
Skylight

## HISTORICAL CHARM

Nothing can surpass the charm and beauty of classic English skylights. With their elegant lines and exquisite detail, these systems are the ultimate extension of your living space into the natural environment. A Solar Innovations® traditional skylight embodies the timeless beauty of English design combined with the reassurance of tested American innovation.

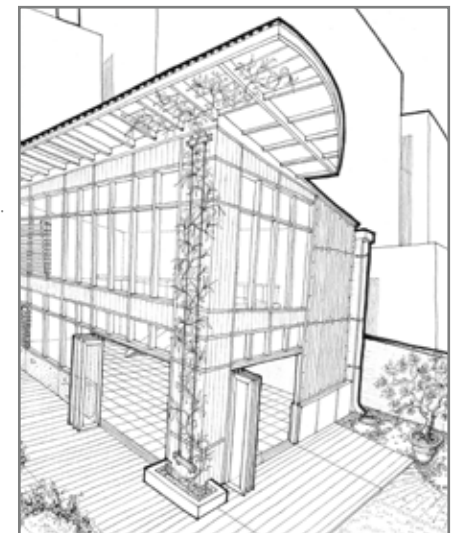


**CONDO COMPLEX**  
NAPLES, FL

Irregular Straight Eave Lean-to  
Skylight

## MODERN INNOVATION

Modern style skylights are often characterized by simple forms and clean lines. These skylights generally combine a variety of materials such as glass, concrete, and aluminum. The materials used in a modern skylight are very minimalistic, and typically feature interior finishes that consist of natural looking materials like concrete, stainless steel, and wood. Sustainability is often a key factor in the selection of materials for modern styling.



# Residential Skylights



**RESIDENCE**  
WASHINGTON, D.C.

● Welded Curb  
Mount Skylight



**RESIDENCE**  
ARMONK, NY  
Circular Walkable Skylight



**RESIDENCE**  
MONTGOMERY, TX  
True Radius Segmented  
Dome Skylight

## Limitless Design Options

Skylights brighten living spaces, creating a more comfortable and productive environment. Any room can benefit from increased natural light, including kitchens, living rooms, bedrooms, bathrooms, studies, and enclosed porches. Skylights can be paired with windows or operable walls to create a relaxing sunroom environment. Since Solar Innovations® has designed several different style skylight systems, virtually any roof glazing need can be met. Solar's skylights can attach to any substrate without size or design limitations, which make them ideal for any residential application.

Every skylight produced by Solar Innovations® is created custom for your project and there are no standard sizes. In addition, completely custom configurations or designs are possible. Our in-house design & engineering teams can help create a custom skylight to act as a focal piece for your project. Skylights have several unique delivery options, including Pre-Assembled /Pre-Glazed, Pre-Assembled/Not Pre-Glazed, and Knocked Down.

### **PRE-ASSEMBLED/PRE-GLAZED**

Pre-assembled/pre-glazed skylights can be shipped up to 8' x 8' depending on the configuration, accessories, engineering, shipping method, and installation logistics. The skylight is shipped as complete as possible, requiring a crane to hoist or lift the skylight into place. Once in place, the skylight only needs to be fastened to the structure to complete the installation. This option provides the ultimate manufacturing control and the greatest ease of installation. Pre-assembled/pre-glazed skylights up to 4' x 8' flat (non-walkable) and up to 8' x 8' geometric shapes also require engineering approval.

### **PRE-ASSEMBLED/NOT PRE-GLAZED**

Pre-assembled/not pre-glazed skylights feature welded curbs and a pre-assembled frame which can be lifted or hoisted into place for factory assembled, water tight, and secure curb details. Installation is reduced to installing only glass, exterior caps, fasteners, and finishing the exterior seals. Pre-assembled/not pre-glazed skylights require less expertise and time to install than the knocked down models offered. Pre-assembled/not pre-glazed flat & geometric shaped skylights up to 8'x 8' require engineering pre-approval.

### **KNOCKED DOWN**

Knocked down skylights, have virtually no design size limitation. These skylights are shipped with each part pre manufactured, wrapped, and labeled. Each piece is prepared with applied clips, gaskets, and glazing tapes for ease of assembly and cost effective installation.

# Operable Skylights



**RESIDENCE**  
BROOKLYN, NY

Two 90° Operable Skylights with  
AAMA 2603 Bronze Aluminum Framing



# Open Up the Possibilities

Through our skylight evolution, Solar Innovations® is now able to provide fully operable skylights in glass options to meet the specifications of the customer.

## RETRACTABLE SKYLIGHTS

Retractable skylights provide clear, unobstructed views and increased airflow for all residential and commercial structures. Natural daylight, fresh air, and circulation are all beneficial to occupants, providing a more positive environment. Offices with natural light show increased productivity and well-being of employees. Retail stores can use skylights to highlight products in a clean, bright setting. Residential greenhouses and pool enclosures are common applications for retractable skylights.

## 90° OPERABLE SKYLIGHTS

A 90° operable skylight lifts the glazed unit, or "lid," 90° from the plane of the curb. This type of skylight offers several applications and functions, the main being ventilation. A typical ridge vent or standard operable skylight only opens a few degrees, while the 90° operable skylight fully opens, allowing for optimum amounts of ventilation. At times, large equipment may need to be moved into a room, but the building doors are not large enough, or a building may require easy access to the rooftop; in either situation, a 90° operable skylight is an ideal solution. These can be motorized or manually operated.

## OPERABLE RIDGE VENTS & VENTING SKYLIGHTS

Operable ridge vents are used to bring fresh air and circulation into a room and operate with the use of a continuous hinge. Hot air rises and accumulates at the peak of the house. As the ridge vents are opened, the hot air escapes and fresh, cool air enters, allowing the air to circulate. A venting skylight has a higher profile than that of a ridge vent and offers better air and water performance along with a higher thermal value. Both ridge vents and venting skylights can be utilized in any skylight or glass structure, such as greenhouses and sunrooms. These can be motorized or manually operated.



**RESIDENCE**  
KENNETT SQUARE, PA  
Straight Eave Double Pitch  
Retractable Skylight



**RESIDENCE**  
BROOKLYN, NY  
90° Operable Skylight



**RESIDENCE**  
STOWE, VT  
Straight Eave Double Pitch Skylight  
with Operable Ridge Vent



RESIDENCE  
BOSTON, MA

Retractable Skylight

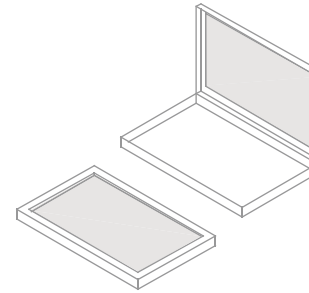


RESIDENCE  
NEW YORK, NY

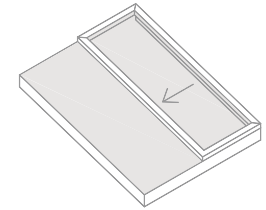
Venting Skylight

# Operable Configurations

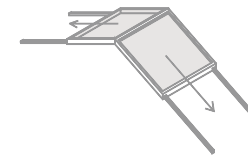
Solar Innovations® offers several different options for operable skylights and custom configurations are also available upon request. Whether you are looking for a 90° operable or retractable skylight, we will work to meet your project's exact specifications.



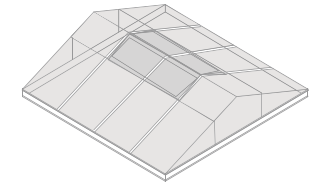
90° Operable



Flat Retractable



On-Slope Retractable



Ridge Vents

# Performance

## 90° OPERABLE SKYLIGHTS

- Water performance up to 15 psf, depending on sill choice and configuration
- Structurally tested up to a design pressure of 40 psf

## RETRACTABLE SKYLIGHTS

- Water performance up to 6.89 psf (G3 only), depending on sill choice and configuration
- Structurally tested up to a design pressure of 45 psf (G3 only)



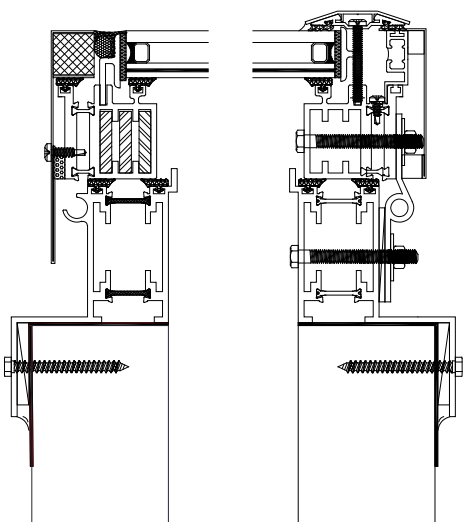
**RESIDENCE**  
STRATFORD, CT

Straight Eave Lean-to  
Retractable Skylight

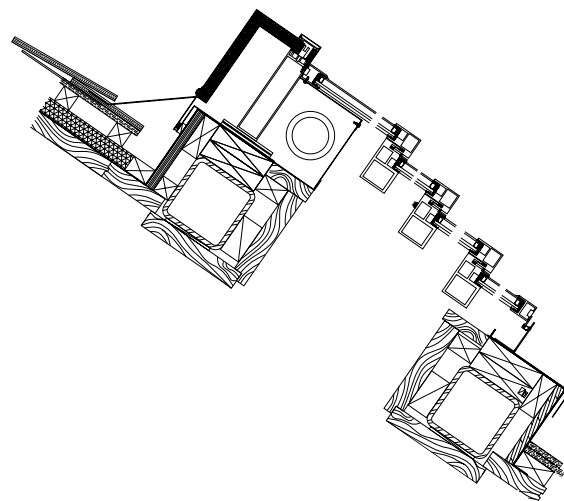
## Details

We are always happy to work with our customers, vendors, and dealers to achieve outstanding results. Some details related to our operable skylights are shown below. For further information or to download standard dwg files, visit our website at [solarinnovations.com/information/downloads](http://solarinnovations.com/information/downloads). Proprietary details are only available upon request.

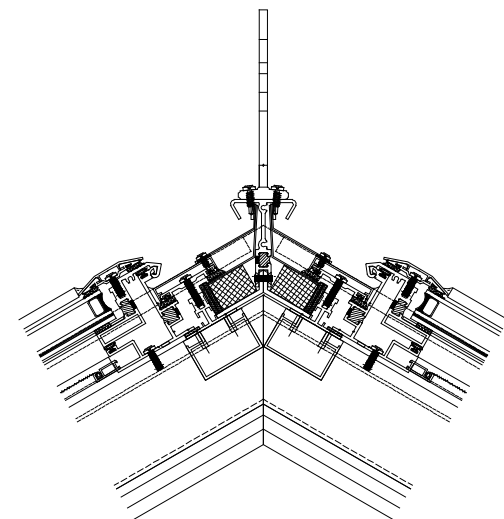
### 90° OPERABLE HEAD & SILL



### G2 MULTI-PANEL RETRACTABLE HEAD & SILL



### G2 RIDGE VENT



# Fixed Skylights



**RESIDENCE**  
CARLISLE, MA

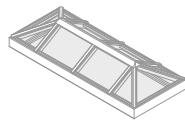
Two Fixed Single Slope Skylights

## Any Shape or Size

Solar Innovations® offers fixed skylights in virtually any size and can accommodate a wide range of design requirements, including impact certified options and Florida Approved Products.

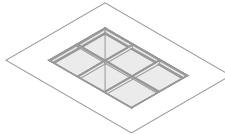
### WELDED CURB SKYLIGHTS

Welded curb skylights are uniquely designed to eliminate water penetration. These units are attached through the side of the curb, not the top, as is typical of many other industry skylights.



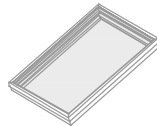
### WALKABLE SKYLIGHTS

Solar Innovations® walkable skylights are the ideal natural lighting solution when space is limited or travel cannot be prohibited. Light can travel between multiple floors or into dark basements without surrendering the ability to freely travel. Solar recommends frit glass for walkable skylights.



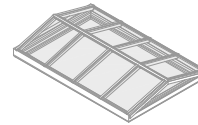
### SINGLE SLOPE SKYLIGHTS

Single slope skylights are simple, yet suitable for a wide variety of projects and applications. These skylights are available for any roof pitch and nearly any size.



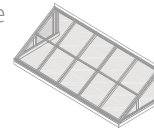
### DOUBLE PITCH SKYLIGHTS

Double pitch skylights consist of two sloped sides that meet at a ridge. Decorative elements like ridge cresting and finials can be added to the skylight to create a more traditional appearance.



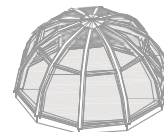
### LEAN-TO SKYLIGHTS

Straight eave, lean-to skylights are versatile, can be attached to structures in areas with space constraints, and are equally impressive when utilized in long spans.



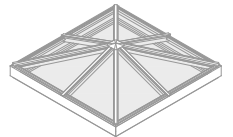
### DOMESKYLIGHTS

All dome skylights are designed to your exact dimensions. These skylights can be found in living rooms or surrounding a spa, allowing natural light to penetrate the room while offering a classic appearance. Radius and segmented glass options are available.



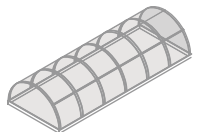
### PYRAMID SKYLIGHTS

Pyramids are one of the oldest shapes in architectural history. A pyramid skylight is an affordable design option. The shape allows for snow run-off and can be customized to different pitches. All dimensions are custom as well, which means you do not have to stick to a standard model.



### BARREL VAULT SKYLIGHTS

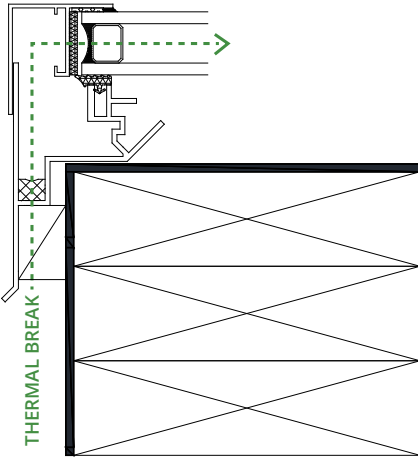
A barrel vault skylight is a beautiful choice for residential skylights. Barrel vault skylights are often used in open air atriums or corridors connecting two spaces to filter light into dark or dimly lit areas. Radius and segmented glass options are available.



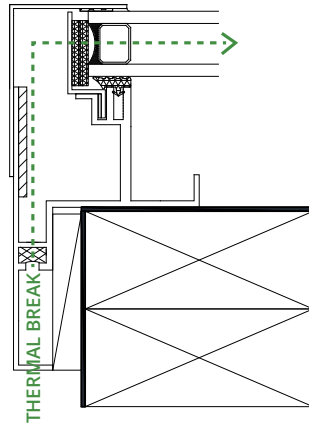
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**G2 WELDED CURB**



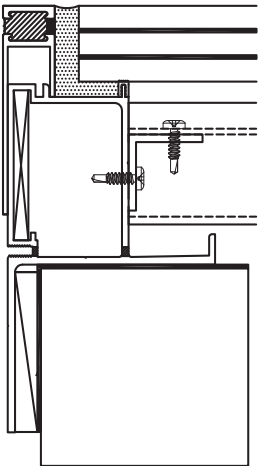
**G3 WELDED CURB**



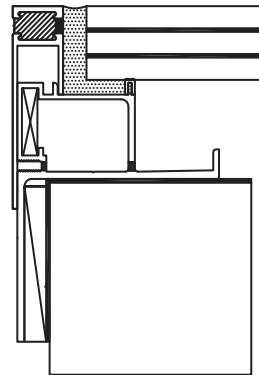
**RESIDENCE**  
RYE, NY

Straight Eave Lean-to Skylight  
with Double Pitch Projection

**WALKABLE HIGH FRAME**



**WALKABLE STANDARD FRAME**

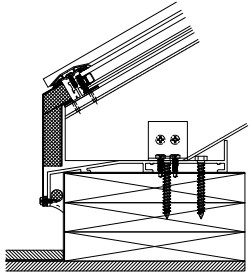


**RESIDENCE**  
OLD GREENWICH, CT

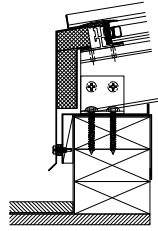
Curb Mount Irregular  
Conservatory Nose Skylight

# Details

EXTRUDED SKYLIGHT SILL

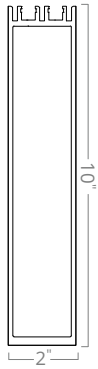


PAN FLASHING SILL

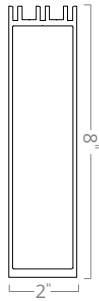


**RESIDENCE**  
SOUTH HAMPTON, NY  
Impact Welded Curb Skylight

## 2" RAFTER SYSTEMS



2" x 10"  
Rafter



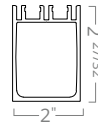
2" x 8"  
Rafter



Heavy  
Glazing Bar



2" x 4"  
Rafter

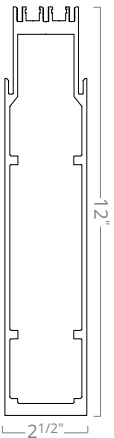


Regular  
Glazing Bar



**RESIDENCE**  
ROCKLAND, ON, CANADA  
Straight Eave Lean-to Skylight

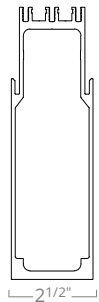
## 2½" RAFTER SYSTEMS



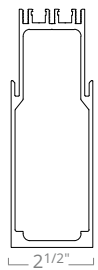
2½" x 12"  
Rafter



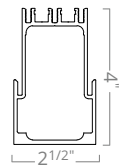
2½" x 9¾"  
Rafter



2½" x 8"  
Rafter



2½" x 7"  
Rafter



2½" x 4"  
Rafter



**RESIDENCE**  
WEST HAMPTON BEACH, NY  
Straight Eave Lean-to Skylight

# Wood Interior Skylights



**RESIDENCE**  
MORGANTOWN, WV  
Straight Eave Double Pitch Skylight

## Natural Light Meets Timeless Beauty

Solar Innovations® skylights are available in custom wood interiors, which pair the beauty of classic wood interiors with the durability and dependability of aluminum exteriors. Moldings and trims on the interior can be formed to match existing architectural elements on your house.

Thermal efficiency tends to be higher with a wooden skylight because wood allows for lower U-values. The lowered U-value means that the room will maintain a more even temperature and will not lose as much heat in the cold winter months. Wood interiors are not recommended in structures that have high moisture, such as greenhouses and pool enclosures due to wood's natural tendency to warp and rot over time from the moisture exposure.

### WOOD OPTIONS\*



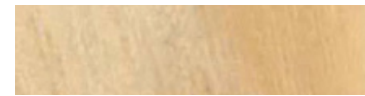
White Oak



Birch



Mahogany



Southern Yellow Pine



Northern White Pine



Red Oak



Spanish Cedar



Western Red Cedar



Douglas Fir



White Maple

\*Additional wood offerings available upon request

**Please Note:** Depending upon color selection, additional charges and increased lead times may apply. Color illustrations are shown as accurate as standard photography and printing processes allow. Final finish selection should be made from a physical sample; please contact Solar Innovations® to receive samples. All product and finish options are subject to vendor availability. Solar Innovations® reserves the right to discontinue any option at any time without notice. Additional options, including custom color match, are available; contact Solar Innovations® for details.

# Canopies



**RESIDENCE**  
PORT REPUBLIC, VA  
Straight Eave Double Pitch Canopy



**RESIDENCE**  
LANCASTER, PA  
Irregular Canopy Carport



**RESIDENCE**  
LONG ISLAND, NY  
Straight Eave Lean-to Canopy

## Make a Grand Entrance

Canopies typically consist of an overhead aluminum awning with supporting posts and exposed sides. Canopies can range from a simple overhead barrier to an elaborate radius barrel vault design. All canopies ward off rain and snow. Solar Innovations® designs canopies for both commercial and residential applications.

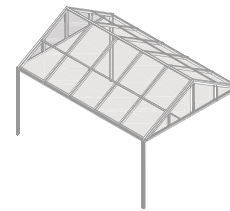
### RESIDENTIAL APPLICATIONS

Outdoor kitchens, patios, and carports are all common residential applications. All of these canopies provide you and your guests shade and protection from the weather. The shape and size of each canopy is completely custom and can be designed to virtually any specification, including hurricane requirements and high snow loads.

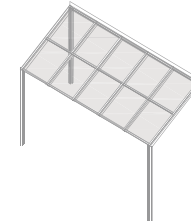
### COMMERCIAL APPLICATIONS

If you are considering improving your commercial building with a glass canopy, Solar Innovations® can provide cost effective options. Common uses for commercial aluminum canopies are entrances to a business, ambulance entrances for hospitals and retirement homes, and airports. Glass canopies are ideal for shading guests on restaurant patios, along with improving the aesthetics of the building.

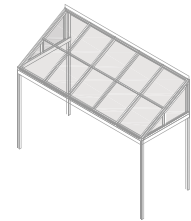
### CONFIGURATIONS AVAILABLE\*



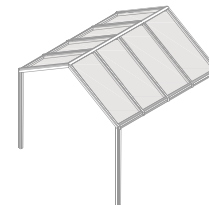
Straight Eave Double Pitch Canopy



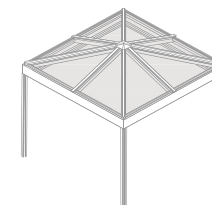
Flat Canopy



Straight Eave Lean-to Canopy



Ridge Mount Canopy



Pyramid Canopy

\*Additional configurations are also available



# Walkways



**RESIDENCE**  
OLD WESTBURY, NY  
Straight Eave Lean-to Walkway



**RESIDENCE**  
RIDGEFIELD, CT  
Straight Eave Double Pitch Walkway

## Providing a Gateway to Nature

Glass walkways are typically pathways enclosed on all four sides that connect two buildings or provide a sheltered walking area directly from the street. Glass walkways can range from a simple lean-to attachment to a free standing decorative thoroughfare. Solar Innovations® durable aluminum walkways are designed to withstand exposure to the elements for years to come. Unlike wooden canopies, an aluminum structure will not rot, warp or require constant finish maintenance. Each walkway is designed to meet our clients' exact needs, including shape, size, and overall design; hurricane and high snow load requirements can also be met with a Solar Innovations® walkway.

### COMMON APPLICATIONS

Walkways between a house and garage are common. Connecting the route from the home to a sunroom, greenhouse, conservatory, or pool enclosure is also a practical walkway use. All of these applications provide shade and protection from the weather as people pass from one location to another, while enjoying the view around them.

### WINDOW & DOOR INTEGRATION

Doors and windows can be incorporated into the design, allowing ventilation of the structure and to provide an exit.

### ONE OF A KIND

Each job is built to the customer's exact specifications; any shape or size can be created. Complex designs with multiple levels and directional turns are a welcome challenge. In-house engineers ensure the walkway's ability to withstand high wind, snow, and water loads.

### CUSTOM CONFIGURATIONS

The most common walkway designs include double pitch, lean-to, and curved barrel vault. Decorative options such as grids, finials, and ridge cresting can be added (depending on the configuration).

### GLAZING OPTIONS

Various glass options are available; the majority of the roof will consist of laminated glass, while the walls usually feature tempered glass. Glass tints, such as low-e and additional color options are available for the walkways.

### COMMERCIAL APPLICATIONS

Commercial aluminum walkways are commonly used in healthcare facilities, schools, hotels, and businesses.

# Commercial Skylights

**SOLAR CHIMNEY**  
PINE GROVE, PA

Solar chimneys harness the sun's natural heating abilities to warm a structure.

# A Brighter Side of Business

Natural daylight creates a more productive work environment, making skylights a popular choice for businesses of all kinds. Customers are also more attracted to brighter, naturally-lit environments. Skylights are commonly found in institutional settings like retirement homes, hospitals, and religious buildings as a source of natural light.

## RESTAURANTS & RETAIL STORES

Everyone gets a window seat with a Solar Innovations® skylight. Incorporate a skylight into your restaurant or retail space to create a relaxing and enjoyable customer experience. Retractable skylights are popular in restaurants, opening up the environment during pleasant weather while keeping guests dry and warm during harsher weather.

## ECCLESIASTICAL APPLICATIONS

Skylights are a great addition to an old (or new) church that may not have many windows or has several stained glass windows. The addition of a skylight doesn't change the interior but rather enhances it. Natural light is proven to increase morale and heal, so parishioners will enjoy the experience more. Solar can also add custom finials, such as crosses or religious figures, to be a focal point of the church.

## HOSPITALS & NURSING HOMES

Our modern contemporary look, blended with our thermally enhanced performance, make any skylight a great option for hospitals and nursing homes. Allowing natural skylight into rooms or entryways can be therapeutic to guests trying to heal. Exposure to natural sunlight is proven to nourish your psyche and reduce anxiety and stress.



**LUDLOW HOUSE**  
NEW YORK, NY

Straight Eave Double Pitch  
Retractable Skylight



**TRINITY PRESBYTERIAN  
CHURCH**  
BETHESDA, MD

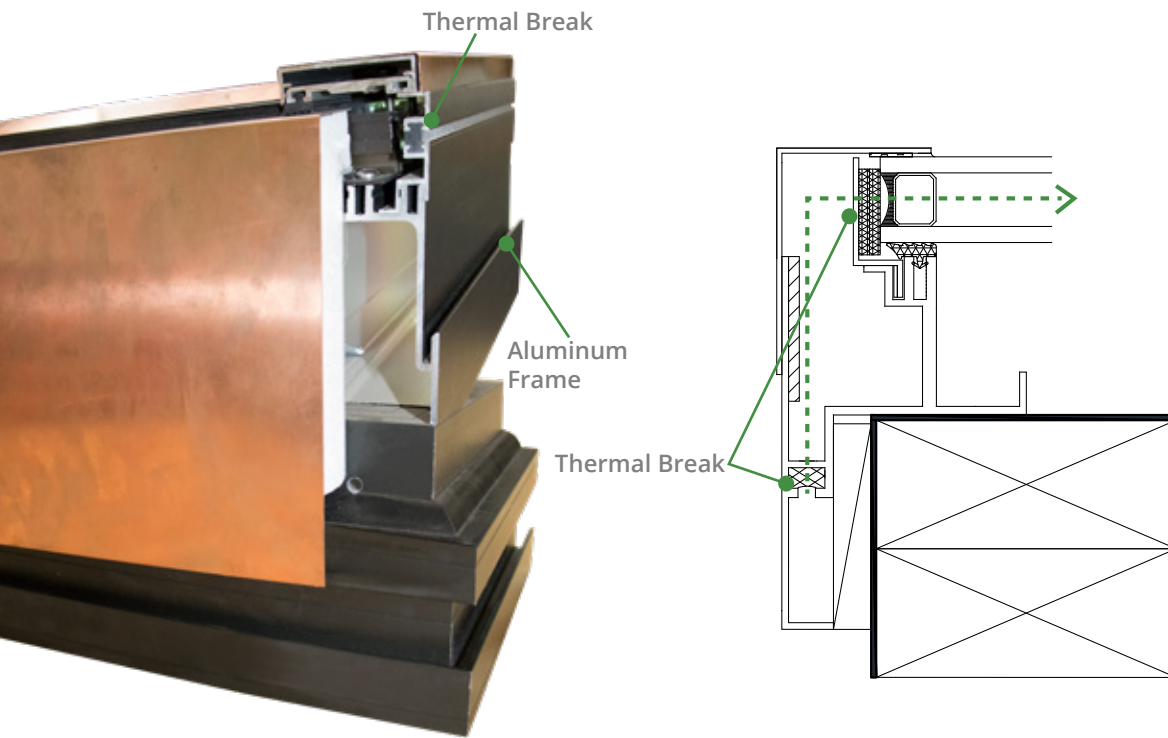
Pyramid Skylight



**VERIA WELLNESS CENTER**  
MONTICELLO, NY

16 Sided Polygonal Skylight

# Performance



## Thermally Enhanced

The thermal break separates the aluminum and minimizes conductivity of heat and cold from the inside to the outside while ensuring the structure's interior remains comfortable all year long. One common construction method is when a polyamide strut is threaded into the cavity between two aluminum profiles and crimped into place. In another method, a pour-and-debridge system, liquid polyurethane is poured into an aluminum cavity; once the polyurethane has hardened, the aluminum "bridge" around it is removed. Both methods improve thermal efficiency by breaking the continuous metal-to-metal contact of the highly conductive aluminum. Nonthermal aluminum frames are also available and should be used for interior locations or where there is no exposure to the elements.

## Certified Products



### TESTING

Solar is dedicated to providing safe, quality products to customers. Our in-house test labs offer the unique opportunity to execute tests quickly and efficiently with certification by nationally-recognized third parties.

### NFRC Approved

- Welded Curb Pyramid
- Pan Flashing



### HURRICANE IMPACT TESTED

Our company currently offers the largest selection of products tested for Florida ratings. They can withstand even the most extreme weather conditions.

- Welded Curb Pyramid Skylight\*
- Welded Curb Skylight
- 90° Operable Skylight\*
- Biparting Skylight

\*Also non-impact certified

# Installation & Services



## INSTALLATION

Since 1998, Solar Innovations® has been installing skylights and working in any condition imaginable. We can provide installation and service work for all of our products within a six-hour radius of Pine Grove, PA, whether a product is purchased factory-direct or through our dealer network. Our expertly trained team is registered to complete installation and service work in over 26 states. When utilizing our installation services, an experienced team will be scheduled to install the project upon completion and preparation of the shipment. Our installation team is trained in the correct protocols to ensure safe, efficient, and accurate system installation. When choosing a direct installation, customers can rest assured knowing their project is being installed by a qualified installation crew that knows the products.

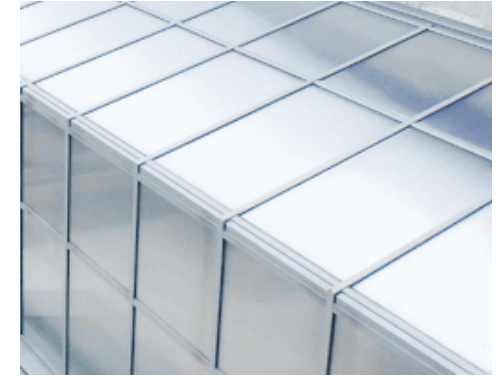
Solar's nationwide dealer network can also act as the installer. However, when a customer requests to have his or her own contractor complete the installation, Solar recommends choosing a contractor who is familiar with glazed products and who will thoroughly review the provided installation guides prior to project commencement. We can provide a list of nearby installation teams for any project outside of Solar's installation radius.

## SERVICES

Our team has the technical skill and experience to evaluate your situation and determine the most effective options for repair, service, or replacement of your skylight. All drawings and information are permanently saved for each of our projects; therefore, a site visit will not always be required.

Skylights that were glazed with polycarbonate 20-30 years ago are most likely brittle or yellowed from long-term exposure to the weather. Solar can replace the polycarbonate and restore the skylight to its original luster or help determine if a new glazing package is the correct alternative. Skylights can also experience leaks when weep holes are not properly cleaned. If dirt and debris begin to clog the weep hole, water will have nowhere to escape and begin to accumulate. Leaks may also stem from cracked glass or a compromised frame. It is important to have an expert evaluate the issue and determine the correct course of action.

# Glazing Options



## LOW-E GLASS

LoE glass includes microscopically thin transparent layers on the glass surfaces that reflect heat back to its source, keeping outside heat out in the summer and warmth in during the winter. We offer several variations of tint intensity for the perfect selection in any climate.

- **LoE 272:** Our most common glazing, allowing for clear views with the thermal benefits of low-e glass.  
*72% VISIBLE LIGHT TRANSMITTANCE  
0.37 SOLAR HEAT GAIN COEFFICIENT*
- **LoE 366:** Increased performance with a slight tint, providing a comfortable space for both plants and people.  
*65% VISIBLE LIGHT TRANSMITTANCE  
0.27 SOLAR HEAT GAIN COEFFICIENT*
- **LoE 340:** Reduces solar heat gain drastically while allowing daylight to enter.  
*39% VISIBLE LIGHT TRANSMITTANCE  
0.18 SOLAR HEAT GAIN COEFFICIENT.*

## DYNAMIC GLASS

Dynamic glass can change automatically at specific temperature and lighting conditions or on demand, allowing for heat, light, and glare control at any time of day.

- **Electrochromic:** This highly energy efficient glass switches between clear and tinted states on demand. In its tinted state, it blocks solar heat while controlling glare. In its clear state, it transmits more solar heat than typical LoE glass, reducing the need for heating.
- **Thermochromic:** Thermochromic glazing darkens gradually and dynamically when heated by direct sunlight. The glass interlayer changes in reaction to ambient temperature and sunlight, managing a building's changing needs for passive solar heat gain, solar control, and natural daylight transmittance throughout the day.

## DECORATIVE GLAZING

Decorative glazing is a broad category consisting of art glass and other unique glazing options.

- **Art Glass:** Art glass refers to any special order glass, including hand blown, photograph or graphic imprints, and colorful or patterned glass.
- **Satin Etch:** Satin etching adds a 3-dimensional texture that can be felt when running a hand over the glass.
- **Leaded Grids:** Antique window gridwork was done with leaded grids; we can recreate this historical look in a variety of configurations.
- **EnsoGlass:** EnsoGlass is a composite of glass and resin designed to be extremely durable and over 100 times stronger than glass. Organic materials are encapsulated in the material to create a pattern, with options including flowers and leaves.

## POLYCARBONATE

Polycarbonate is a popular alternative to glass; it is lightweight, sustainable, incredibly strong, easily transported, and virtually indestructible. Bricks are not able to break the polycarbonate, making it an excellent choice for high traffic areas and high wind areas. Testing is complete for Florida Impact ratings. Polycarbonate is available in several thicknesses and colors.

- **Lumira® Aerogel** can also be used to fill the polycarbonate for increased insulating and acoustical properties. Lumira® aerogel's main purpose is to increase thermal ratings, but it can also greatly reduce sound transmission difference. Another benefit of incorporating Lumira® aerogel is glare reduction. The diffused daylight offered by polycarbonate creates bright, even lighting in any space.

# Finish Options



**THERAPY CENTER**  
MAUI, HI  
Polygonal Roof Lantern



**RESIDENCE**  
CAMBRIDGE, MA  
Curb Mount Single Slope Skylight  
with Operable Ridge Vents

## Stock Finishes



SI White

SI Bronze

Class I Clear Anodized

Dark Bronze Anodized

## Designer Finishes



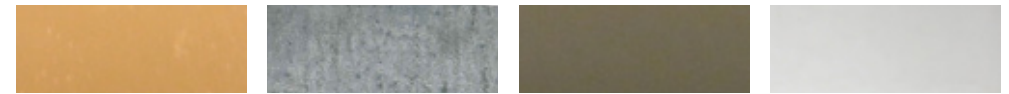
SI Black

SI Sandstone

SI Natural Clay

SI Hartford Green

## Metal Cladding



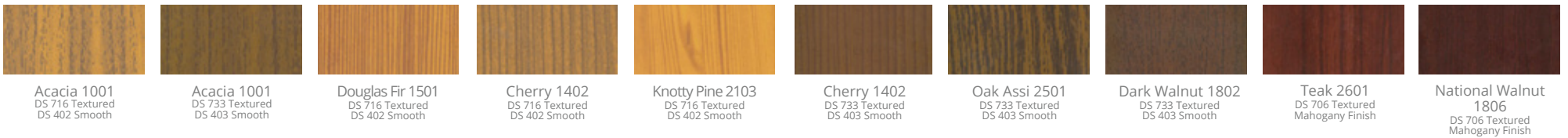
Copper

Lead Coated Copper

304 Stainless Steel #4  
Satin Cladding

304 Stainless Steel #8  
Mirror Cladding

## Faux Wood Finishes



Acacia 1001  
DS 716 Textured  
DS 402 Smooth

Acacia 1001  
DS 733 Textured  
DS 403 Smooth

Douglas Fir 1501  
DS 716 Textured  
DS 402 Smooth

Cherry 1402  
DS 716 Textured  
DS 402 Smooth

Knotty Pine 2103  
DS 716 Textured  
DS 402 Smooth

Cherry 1402  
DS 733 Textured  
DS 403 Smooth

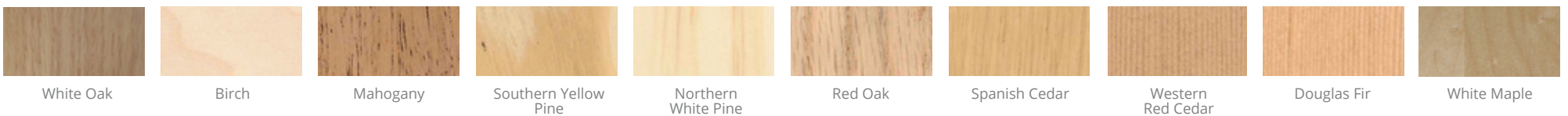
Oak Assi 2501  
DS 733 Textured  
DS 403 Smooth

Dark Walnut 1802  
DS 733 Textured  
DS 403 Smooth

Teak 2601  
DS 706 Textured  
Mahogany Finish

National Walnut  
1806  
DS 706 Textured  
Mahogany Finish

## Wood Veneering (Unfinished)



White Oak

Birch

Mahogany

Southern Yellow  
Pine

Northern  
White Pine

Red Oak

Spanish Cedar

Western  
Red Cedar

Douglas Fir

White Maple

Please Note: Depending upon color selection, additional charges and increased lead times may apply. Color illustrations are shown as accurate as standard photography and printing processes allow. Final finish selection should be made from a physical sample; please contact Solar Innovations® to receive samples. All product and finish options are subject to vendor availability. Solar Innovations® reserves the right to discontinue any option at any time without notice. Additional options, including custom color match, are available; contact Solar Innovations® for details.

# DOORS & WINDOWS | GLASS STRUCTURES | SKYLIGHTS

Folding Glass Walls  
Slide & Stack Glass Walls  
Clear Glass Walls  
Sliding Glass Doors  
Lift Slide Doors

Swing Doors  
Pivot Doors  
Casement Windows  
Awning Windows  
Tilt Turn Windows

Mulled Windows  
Hopper Windows  
Fixed Windows  
Sliding Glass Windows  
Folding Glass Windows

Curtain Walls  
Wood Curtain Walls  
Greenhouses  
Conservatories  
Sunrooms

Canopies  
Pool Enclosures  
Pool Houses  
Walkways  
Glass Railings

Fixed Skylights  
Curb Mount Skylights  
Barrel Vault Skylights  
Double Pitch Skylights  
Dome Skylights

Single Slope Skylights  
Pyramid Skylights  
Walkable Skylights  
Retractable Skylights  
90° Operable Skylights



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 **SOLAR INNOVATIONS**<sup>®</sup>  
ARCHITECTURAL GLAZING SYSTEMS