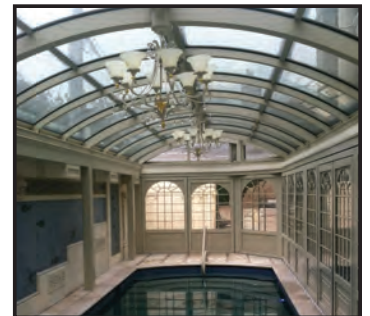


Pool and Spa Enclosures

Single source manufacturer of engineered glazed structures, skylights, windows, and doors.



Controlled environments
for year round enjoyment
of any water feature.

Made in the U.S.A.

Welcome to Solar Innovations, Inc.

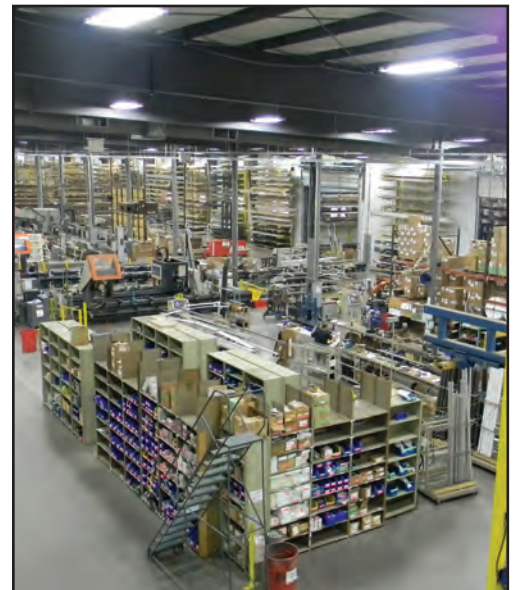
Solar Innovations, Inc. is a privately owned, single source manufacturer of engineered glazed structures, skylights, windows, and doors, providing in-house design, engineering, manufacturing, and in some cases, installation and service of our products. Ingrained in the company's core values is a "never say no" customer service attitude. This mentality has been the catalyst for every product that Solar offers. Today, Solar Innovations, Inc. engineers and manufactures glazed structures, windows, and doors made from aluminum and wood that satisfy the highest design standards.

Solar Innovations, Inc. operates from a 227,000 square foot, state-of-the-art facility in Pine Grove, PA, which achieved a **Gold** rating from the USGBC's LEED rating system in February 2011. The entire company lives and works **green**; this can be seen in everything that we do - from recycling and reusing manufacturing and office goods, to composting in the cafeteria. Our professional sales and engineering staff work directly with architects, contractors, and owners to develop and finalize their designs, turning visions into reality. The result of this close collaboration is successful commercial and residential installations which can be found across the country, as well as the Caribbean and Europe. These projects range from turn-key greenhouses, conservatories, and sunrooms, to folding glass walls and windows, aluminum and timber curtain walls, and skylights. Our products are the perfect complement for institutional, commercial, or residential applications in need of a unique, high performing solution.

Nearly every Solar Innovations, Inc. product is put through rigorous in-house and external testing, to ensure they perform to the highest standards and are then third party certified. To this end, many of our products have obtained hurricane impact, as well as *Miami-Dade* and *Texas* certifications. Testing can also be carried out on a project basis to satisfy specific requirements. Our goal is to deliver the best performing systems possible, meet customers' needs, and create the smallest possible environmental impact throughout the process.

Solar Innovations, Inc. is currently working toward their Platinum LEED rating. The company also hopes to reach a self sustaining energy status by 2015 and to be zero energy within the year.

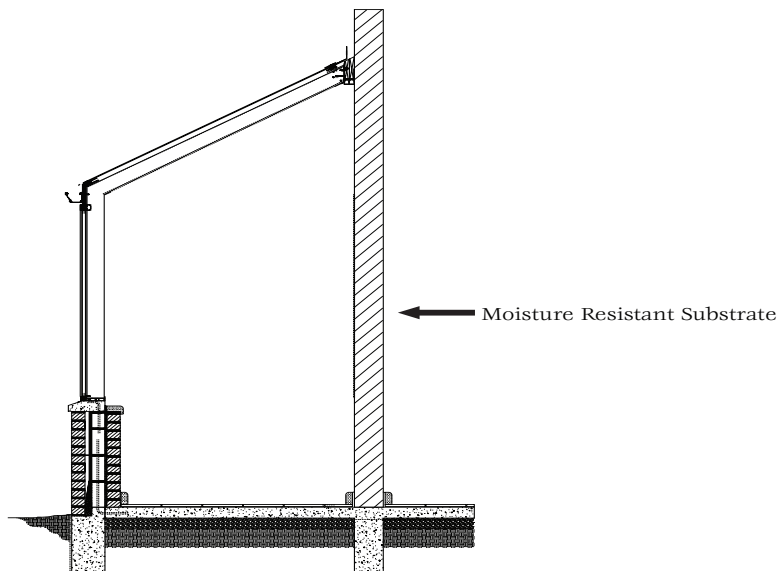
The Solar team looks forward to working with you on your next project.



Design Considerations



Example of Environmentally Appropriate Décor



Building Materials

When adding a pool enclosure, many important factors must be considered. First and foremost, the attachment materials must be reviewed. Maintaining easy access to the pool by attaching the enclosure to the home or business is a wise choice; however convenient as this may be, there are certain measures that must be taken to ensure the long term success of the structure in this application. The main structure's wall, which will be exposed to the pool environment, should not be drywall. Due to the high humidity and the potential for water to come in direct contact with the wall, materials such as marble, brick, stone, and cement blocks are better selections since they can be water-sealed. When walls are sealed, mold and fungus cannot inhabit the material or develop behind them. Sealed walls create a safer environment for the occupants of the main structure and the new enclosure.

Environmentally Appropriate Décor

It can be common with any pool enclosure for moisture to build-up in the air. If the air becomes saturated, moisture can cover windows and cause damage to interior décor and furniture. For this reason, it is important to ensure all pool side furniture selections, storage containers, and any other items in the room are safe for the high humidity and water exposure. Outdoor materials such as vinyl and natural stone will not rust or rot, and can be safely utilized for the enclosure. Outdoor lighting with enclosed bulbs, flooring with slip resistant traction, and water tight storage containers are all good choices to consider when designing the interior of the pool enclosure.

Environmental Control Systems

To minimize humidity and create a more comfortable atmosphere, an environmental control system including dehumidification options is recommended. This system can control the entire environment automatically including ridge and eave vents for air circulation, and heating/cooling systems. Dehumidifiers create a more enjoyable environment within the pool enclosure. A dehumidification system can both cool and heat the air inside the enclosure as well as alter the water temperature. By controlling the moisture in the environment, the ability for mold and fungus to develop will be greatly reduced.

If an environment for plants and pools is desired, Solar Innovations, Inc. can create a unique control system that will water the vegetation in addition to controlling the humidity, temperature, and air circulation. Solar Innovations, Inc. representatives will work with you to achieve the desired balance between interior temperature and humidity levels.



Environmental Control System in Solar Innovations, Inc.'s Greenhouse

Commercial

One Spring Street Luxury Apartments
Straight eave, double pitch pool enclosure
with gable end and hip end.

Location: New Brunswick, New Jersey

Application: Apartment Complex

Approximate size: 29' Projection
63' Width
20' Ridge Height
(including base wall)



Commercial



(Left)

The Edge

Three stacking glass wall units: two six-panel units and one four-panel unit which are used to enclose a pool.

Location: Brooklyn, New York

Application: Waterfront Condominium

Approximate size: 30' Width

10' Height

(Bottom)

Bluegreen Resort

Straight eave, double pitch pool enclosure with lean-to walkway and awning windows.

Location: Hershey, Pennsylvania

Application: Vacation Resort

Approximate size: 64' Length

34' Width

19' Ridge Height



Residential

(Top & Bottom)

Straight eave, double pitch pool enclosure with two conservatory noses, including a multi-track sliding glass door system, four folding glass wall systems, four operable ridge vents, interior muntins, ball and spire finials, and decorative ridge cresting.

Location: Rochester, New York

Approximate size: 58' Length

31' Width

18' Ridge Height



Residential



(Top)

Straight eave, double pitch pool enclosure with two eight-sided conservatory noses and one straight eave, double pitch walkway.

Location: Lebanon, Pennsylvania

Approximate size: 50' Length

34' Width

14' Ridge Height

(Bottom)

Straight eave, lean-to pool enclosure with partial gable end, one filler gable end, and attached straight eave, lean-to including six operable ridge vents, a multi-track sliding glass door system, and a seven-panel folding glass wall system.

Location: Heathsville, Virginia

Approximate size: 24' Projection

69' Length

15' Ridge Height



Residential

(Top)

Straight eave, double pitch pool enclosure with an irregular conservatory nose including six casement windows, 2 two-bay operable ridge vents, a French door, ridge cresting, and decorative finials.

Location: Millis, Massachusetts

Approximate size: 32' Length
23' Width
18' Ridge Height



(Bottom)

Ogee style curved eave, double pitch existing pool enclosure with six sets of integrated Solar Innovations, Inc. folding glass walls and four French door systems with external colonial grids.

Location: Lake Forest, Illinois

Approximate size: 62' Length
28' Width
14' Ridge Height



Residential



(Top)

Straight eave, double pitch pool enclosure with structural portal frames on eight foot centers, three four-bay operable ridge vents, and ten dual track sliding glass door systems.

Location: Branchville, New Jersey

Approximate size: 44' Length

26' Width

15' Ridge Height

(Bottom)

Straight eave, lean-to pool enclosure with no gable ends including a French door, five single-bay ridge vents, five awning windows, and two out-of-system fixed windows.

Location: North Andover, Massachusetts

Approximate size: 12' Projection

28' Length

9' Ridge Height

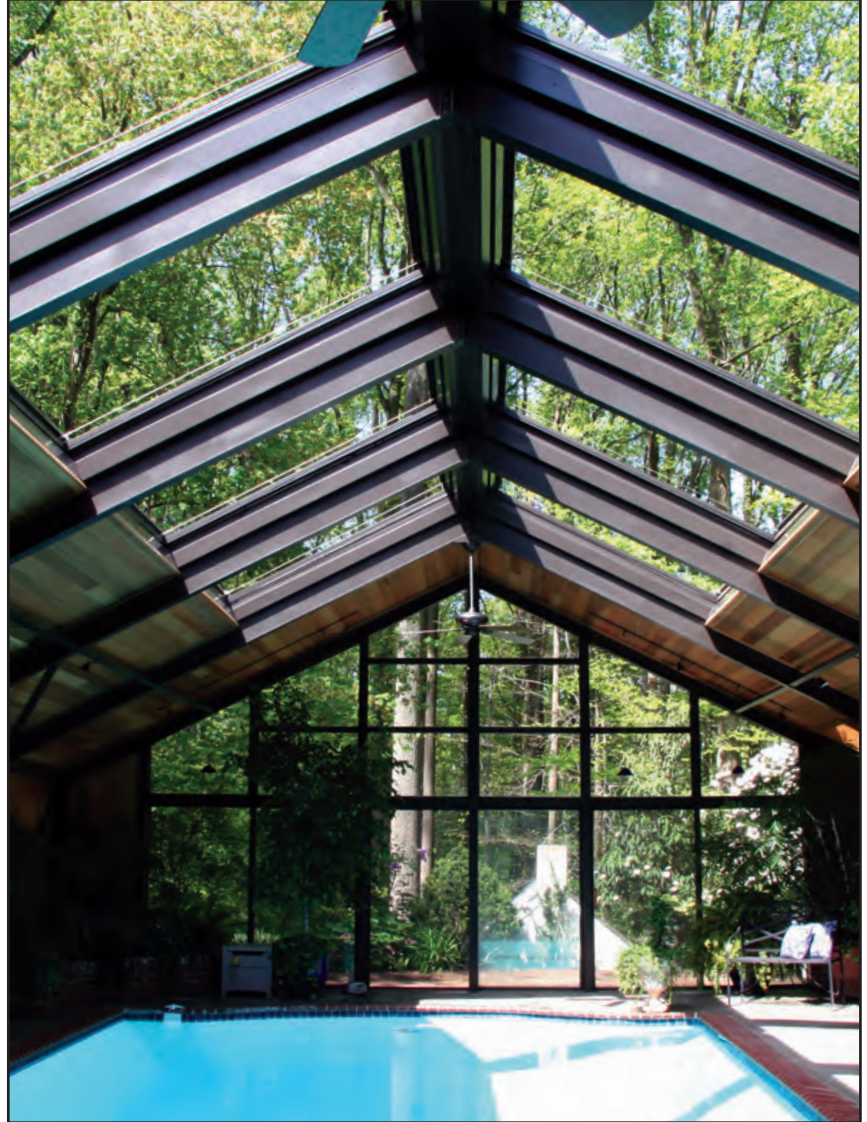
(including base wall)



Retractable Roofs



(Top and Right)
Two four-bay retractable glass roof sections.
Location: Kennett Square, Pennsylvania
Approximate size: 8' Length
8' Slope



(Bottom Left)
Four-bay, G2 Multi-panel retractable skylight.
Location: British Virgin Islands
Approximate size: 25' Length
17' Slope

(Bottom Right)
Straight eave, lean-to pool enclosure with five two-bay retractable roof sections.
Location: Stratford, Connecticut
Approximate size: 19' Projection
29' Length
13' Ridge Height



Spa Enclosures



(Top)

Curved eave, lean-to spa enclosure with two gable ends including a four-panel folding glass wall, five-bay operable ridge vent, shutter fan, and a motorized eave sash operated by a thermostat.

Location: South China, Maine

Approximate size: 14' Projection

18' Length

16' Ridge Height

(Bottom Left)

Straight eave, double pitch spa enclosure with decorative ring and collars, operable ridge vents, and four dual track sliding glass door systems.

Location: Guilford, Connecticut

Approximate size: 21' Projection

28' Width

17' Ridge Height

(including base wall)

(Bottom Right)

Straight eave, double pitch spa enclosure with a conservatory nose.

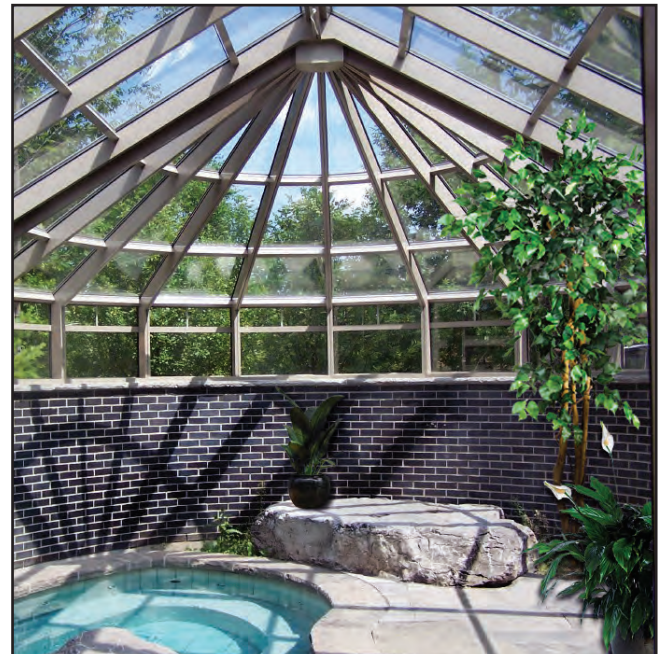
Location: Lakefield, Ontario

Approximate size: 29' Length

20' Width

14' Ridge Height

(including base wall)



Lap Pool Enclosures



(Top)
True radius, barrel vault pool enclosure with two gable ends, an 18-panel stacking glass wall, radius patterns, and decorative base panels.
Location: Brooklyn, New York
Approximate size: 13' Projection
44' Length
11' Ridge Height



(Bottom)
Straight eave, hip end pool enclosure with transoms and five multi-track sliding glass door systems.
Location: Indianapolis, Indiana
Approximate size: 24' Projection
80' Width
7' Ridge Height

Skylight Solutions



(Top Left)
Straight eave, double pitch skylight with two operable ridge vents.

Location: Leesport, Pennsylvania
Approximate size: 37' Length
27' Width
5' Height

(Top Right)
Straight eave, double pitch skylight with curtain wall and French door system.

Location: Hagerstown, MD
Approximate size: 25' Length
20' Width
15' Height (with curtain wall)

(Bottom)
Straight eave, double pitch lantern skylight with two hip ends.

Location: Westport, Connecticut
Approximate size: 34' Length
7' Width
4' Ridge Height

Pool Houses



(Top Left)
One six-panel folding glass wall system with recessed sill, SDLs, and integrated French door.
Location: Southampton, New York
Approximate size: 18' Width
8' Height



(Top Right)
Straight eave, double pitch pool house with two gable end dormers including decorative ridge cresting, finials, gutters, and a French door.
Location: Downers Grove, Illinois
Approximate size: 28' Length
18' Width
18' Ridge Height (including base wall)



(Middle Right)
Glazed straight eave, double pitch pool house with an attached conservatory nose screen enclosure, three-bay operable ridge vent, motorized shade system, and finial.
Location: North Salem, New York
Approximate size: 47' Projection
21' Width
18' Ridge Height (including base wall)

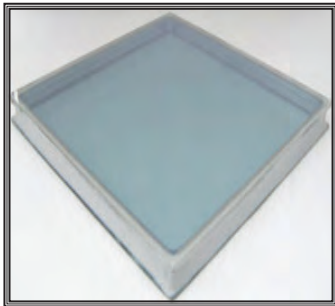


(Bottom Right)
Straight eave, double pitch pool house with a conservatory nose, conservatory nose lantern, grids, ridge cresting, finial, ridge vents, and French doors.
Location: Winston Salem, North Carolina
Approximate size: 15' Projection
21' Width
19' Ridge Height (including base wall)

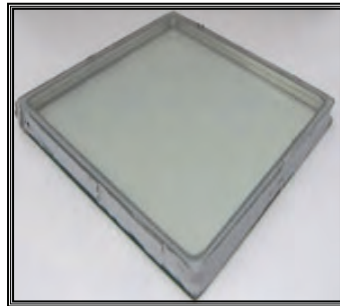
Glazing Options

Selecting glazing for your structure, skylights, doors, and windows is a very important decision. With thousands of different glazing options available in the market today, the options can become overwhelming if you do not understand basic glazing function and terminology. Solar Innovations, Inc. will help you through the process. The following information provides a basic overview of glazing to help you make an educated decision. For additional glazing options visit www.solarinnovations.com.

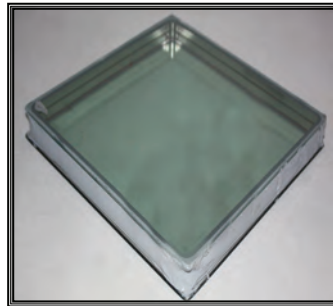
Glass Description	Overall Unit Thickness	Glass Performance Chart (Double Pane)						Solar Heat Gain Coefficient	Trans (%)	Reflectance Out (%)	Reflectance In (%)	UV Transmittance (%)
		Glass Lite #1	Air Spacer	Glass Lite #2	U-Value	R-Value	Outside Lite / Inside Lite					
CARDINAL												
Double Pane 180 / Clear	1"	3/16"	5/8"	3/16"	0.26	3.84	0.62	78%	15%	14%	26%	
Double Pane 180 / i89	1"	3/16"	5/8"	3/16"	0.21	4.76	0.60	76%	15%	16%	25%	
Double Pane 272 / Clear	1"	3/16"	5/8"	3/16"	0.25	4.00	0.40	71%	10%	11%	15%	
Double Pane 272 / i89	1"	3/16"	5/8"	3/16"	0.20	5.00	0.39	43%	10%	11%	14%	
Double Pane 366 / Clear	1"	3/16"	5/8"	3/16"	0.24	4.16	0.27	64%	10%	11%	4%	
Double Pane 366 / i89	1"	3/16"	5/8"	3/16"	0.20	5.00	0.26	62%	10%	11%	4.4%	
Double Pane 180 / 180	1"	3/16"	5/8"	3/16"	0.25	4.00	0.59	75%	15%	15%	14%	
Double Pane 272 / 272	1"	3/16"	5/8"	3/16"	0.24	4.16	0.37	62%	8%	8%	6%	
Double Pane 366 / 366	1"	3/16"	5/8"	3/16"	0.24	4.16	0.26	50%	9%	9%	0.5%	
Double Pane Clear / Clear	1"	3/16"	5/8"	3/16"	0.45	2.22	0.74	81%	14%	14%	51%	
Double Pane Clear / i89	1"	3/16"	5/8"	3/16"	0.33	3.03	0.67	79%	14%	13%	48%	



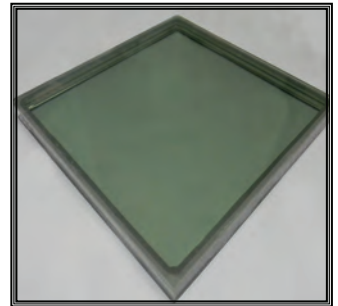
"LowE" 240



"LowE" 272

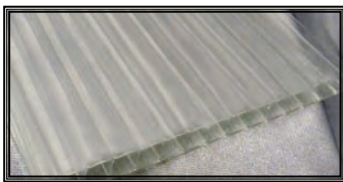


"LowE" 366



"LowE" 366 over "LowE" i89

Common Polycarbonate Selections

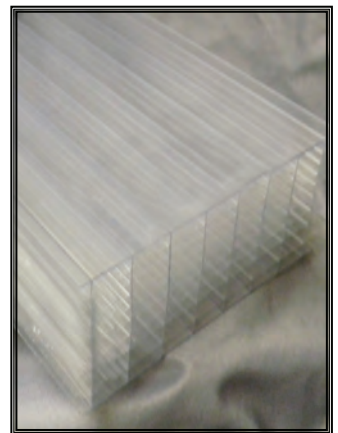


8mm Polycarbonate



25mm Polycarbonate

Polycarbonate is a durable material with many unique features and benefits. While this product has been on the market for years, there is currently a resurgence of polycarbonate use taking place in the building industry. Traditionally polycarbonate was used in replacement of glass to drive down costs, but it is now being utilized for the aesthetic values and durable properties. Polycarbonate is virtually indestructible. Even when bricks or pool toys are thrown at the material, it does not shatter. Solar Innovations, Inc. provides a variety of polycarbonate choices varying in color and sizes to fulfill any application's needs. Solar Innovations, Inc. is also able to provide Lumira™ filled polycarbonate panels which can double the product's U-values, reduce noise, and better disperse daylight.



60mm Polycarbonate

Product Lines and Colors



Folding Glass Walls, Doors, Windows, & Screens

- Interior and Exterior Applications
- Aluminum Construction
- Wood and Metal Cladding Interior Options
- 90° No Post and Segmented Radius Options
- Multiple Sills; ADA Sills
- Miami Dade and Florida Product Approved Options
- Panic Hardware



Stacking Glass Walls & Clear Glass Walls

- Interior and Exterior Applications (Limited Air and Water Performance)
- Aluminum Construction
- Wood and Metal Cladding Options
- Pocketing; 90° No Post; Segmented Radius; Remote Stack
- Multiple Sills; ADA Sills
- Non-Thermal Systems Available
- Panic Hardware



Sliding Glass Doors, Windows, & Screens

- Multiple and Dual Track Options
- Radius; Pocketing; Serpentine
- 90° and No Post Options
- ADA Sills
- Florida Impact Approved Options



Doors

- Terrace and French
- Dual Action (Tilt Turn, Tilt Slide, Lift Slide)
- Pivot Door (Offset and Automated Options)
- Wood and Metal Cladding
- Single Side Lites, Fixed, and Operable Transoms
- ADA and High Performance Sill Options
- Modular Pre-Assembled and/or Pre-Glazed



Windows

- Projected (Awning, Hopper, Casement, Fixed)
- Dual Action (Tilt Turn, Tilt Slide, Lift Slide)
- Hung (Single, Double)
- Mulled Window Systems Available
- Modular Pre-Assembled and/or Pre-Glazed
- Thermally Broken Aluminum
- SDL and Grid Options



Skylights

- Aluminum Construction
- Wood Interior/Aluminum Exterior (Solid or Glulam; Species Options)
- Integrated Vertical/Slope Options
- Operable Vents (Manual and Automated)
- Retractable and Operable Roof Panels
- Single & Multi-panel Retractable Skylights
- Shades (Manual and Automated)
- Florida Product Approved Options
- Pre-Assembled and/or Pre-Glazed, Knocked Down, and Modular Options



Structures

Greenhouses, Conservatories, Sunrooms
Pool and Spa Enclosures, and Custom

- Aluminum
- Wood Interior/Aluminum Exterior
- Operable Windows, Doors, & Roof Vents
- Numerous Decorative Accessories
- Florida Product Approved Options
- Interior and Exterior Shading Available



Curtain Walls - Wood & Aluminum

- Wood Construction (Straight or Radius) (Solid or Glulam Members)
- Aluminum Construction (Straight or Radius Options)
- Integrated Vertical/Slope Options
- Florida Product Approved Options
- Integrated Windows and Doors



Canopies & Walkways

- Radius and Segmented Radius
- Curved and Flat Glass Options
- Integrated Gutters
- Glass and Photovoltaic Infills
- Polycarbonate 8, 16, 25, 40, 50 and 60 MM



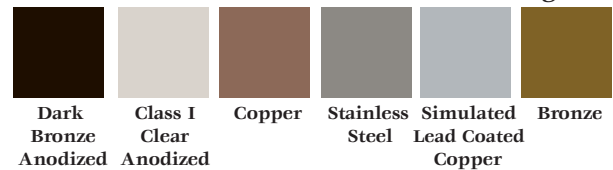
Vertical & Sloped Daylighting Systems

- Continuous Walls to 24'
- Welded Curb & Integrated Slope Skylights
- Polycarbonate 60 MM
- Lumira Infill
- Impact Certified Options

Standard Colors



Anodized Colors & Metal Cladding



Wood Cladding



Decoral Faux Wood Finish



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