

MAJOR
INDUSTRIES

GUARDIAN 275[®]

Translucent Skylights & Curtainwall



ENERGY SAVING COST-EFFECTIVE GLARE-FREE VERSATILE SECURE WEATHERPROOF



www.majorskylights.com

Your One-Stop Source for Daylighting Solutions

GUARDIAN 275®



Vetro Condominium
Fujikawa Johnson Gobel Architects

TAKE THE MAJOR CHALLENGE:

“Nobody beats our quality and pricing and still meets the specification.”

Major Industries has enjoyed three decades of engineering and building skylights and translucent curtainwall to fit your needs... and your budget.

We realize that you have a choice when it comes to selecting the right daylighting for your next project – and your decision to use Major Industries is a sign of trust we take seriously. Everyone at Major Industries strives to develop high quality, cost-effective daylighting solutions that let light in and keep water out. Our stringent standards and advanced technology allow us to offer industry-best warranties and an excellent on-time delivery record.

Let our experienced engineers and sales staff show you how our dedication to client satisfaction and product quality make Guardian 275® Translucent Daylighting Panels the best choice for your daylighting needs.

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SUN CONTROL

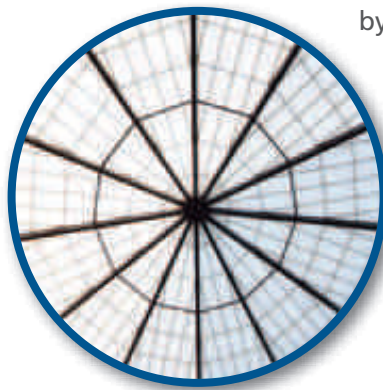
GUARDIAN 275® - BUILT-IN SUN CONTROL

We all know how uncomfortable it can be to work under a skylight or sit in front of glass curtainwall that has no sun control capabilities – but there’s a cost-effective alternative to expensive exterior shading devices. The solution is simple – utilize Guardian 275® translucent daylighting panels. Guardian 275® provides beautiful natural light, eliminates glare and “hot spots,” and generates savings for the owner by lowering HVAC loads and reducing the need for continuous and costly artificial lighting.



THE “ULTIMATE” DAYLIGHTING TOOL

Guardian 275® panels feature a fiberglass reinforced polymer (FRP) face sheet that allows light to pass through while blocking harmful UV rays. Our Ultimate Series™ FRP face sheet goes beyond industry standards by incorporating an enhanced SunStrong™ PRS resin system that withstands wide temperature fluctuations, acid rain, smog, and seismic vibration up to your specified structural limit without cracking, crazing, or shattering – or we will provide replacement panels at no charge per warranty.



The Ultimate Series™ – created in cooperation with Crane Composites®, the world’s largest manufacturer of architectural fiberglass – offers unmatched benefits, including:

- SunStrong™ PRS resin system = superior color retention
- Vivid translucent colors available
- Longer lasting exterior FRP
- Erosion veil for extreme environments
- Industry-best warranties
- Free fiberbloom guarantee

Recent color-change and weathering tests, backed by 25 year fiberbloom and up to 20 year color change warranties, prove that the Ultimate Series™ goes above and beyond standard FRP systems and provides performance that’s second-to-none.

For more information about the Ultimate Series™, as well as specific test results, see page 25 or visit

www.majorskylights.com

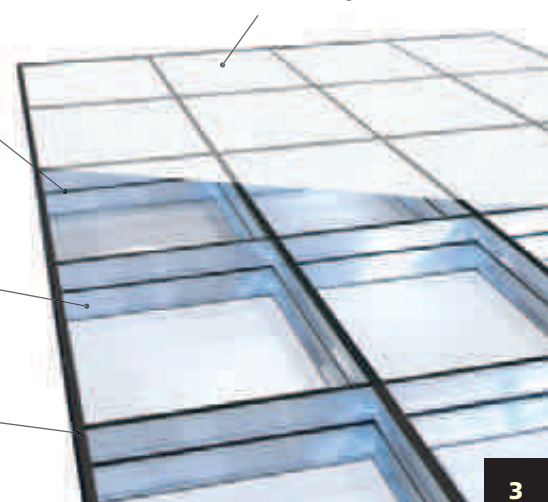
DESIGNED FOR DURABILITY

Panels are available with a poured and debridged structural polyurethane thermal break for enhanced performance.

Our aluminum framing and grid core provide one of the highest strength-to-weight ratios available for daylighting applications.

Strongest panel adhesive available ensures structural integrity.

Ready for extreme conditions, our Ultimate Series™ fiberglass features unmatched color-retention and a free fiberbloom guarantee.



DAYLIGHTING



Classic BMW - Plano, TX
Jennings Hacker Architects



Kenosha Transit Operation - Kenosha, WI
Carter and Burgess Architects

USE DAYLIGHTING TO YOUR ADVANTAGE

Here are just a few of the ways Major Industries' daylighting solutions can benefit your next project:

- Utilizing natural light saves energy and is good for the environment
- Daylighting improves people's mood and increases occupant satisfaction
- Guardian 275® Translucent Daylighting Panels offer glare-free natural light without "hot spots"
- In-house structural engineering capabilities help you conquer your toughest design challenges

Proper daylighting can reduce energy costs significantly, but studies also show that sunlight can positively impact a variety of spaces, including commercial and retail environments. When daylighting is implemented, retail sales and worker productivity have been shown to improve significantly.

Educators know that the superior quality of natural light can improve test scores and long-term retention. Give students the daylighting they deserve while controlling views to outside distractions – and improve student concentration and performance in the process – by incorporating Guardian 275® systems into cafeterias, auditoriums, hallways and classrooms.

Major has designed, manufactured and installed skylights and translucent curtainwall for three decades. We don't just sell daylighting – we offer solutions that work for schools, retail spaces, and manufacturing and commercial developments across the country and around the world.



West Ottawa High School
Holland, MI
Design Plus

For detailed case study information and more examples of how Guardian 275® Translucent Daylighting Panels can enhance your next project, visit www.majorskylights.com.

GREEN BUILDING



Gen-Probe PHASE II - San Diego, CA
Smith Consulting Architects



Guajome Park Academy - Vista, CA
Sprotte & Watson Architects

IMPROVE THE QUALITY OF YOUR ENVIRONMENT- INSIDE AND OUT

Green design is more than a concept – it's a significant shift toward utilizing environmentally-conscious design ideas and products.



Guardian 275® Translucent Daylighting Panels are an energy-saving and cost-effective green design tool that provides occupants with the beauty and benefits of glare-free natural light. By reducing the need for energy-hungry artificial lighting, as well as controlling heat loss and gain, Guardian 275® can optimize energy performance and reduce HVAC loads.

Because of their environmentally-friendly design qualities, Guardian 275® Translucent Daylighting Panels offer LEED® credit opportunities for both new construction and existing buildings, including possible contribution for features and benefits such as:

- **Reduced light pollution**
- **Post-consumer and post-industrial recycled content**
- **Occupant control of ventilation and line of-sight vision options with our Guard-Tite™ window wall systems**

Certain types of Guardian 275® skylights are also ENERGY STAR® qualified. For specific information, please call us at **888-759-2678**.

For more information on ENERGY STAR, visit www.energystar.gov.



For more information on green building, and which specific LEED® credits may apply, visit www.majorskylights.com/products/leed/ A downloadable LEED® Reference Guide is also available online or by calling **888-759-2678**.

GUARDIAN 275®



DeAnza College - Cupertino, CA, tBP Architecture



Rickey C. Bailey
Middle School
Spring, TX
PBK Architects, Inc.



Heartland
Business Center
Daleville, IN
Gooden and Ellis
Architects

GUARDIAN 275® TRANSLUCENT SKYLIGHTS

Whether you're looking for simple, economical daylighting or a large, complex and colorful architectural centerpiece, Guardian 275® skylights are a cost-effective and field-proven solution with benefits that include:

- **Flexibility for use in both retrofit applications and new construction**
- **Reduced energy costs and stabilized HVAC loads**
- **Glare-free daylight that illuminates interior spaces**
- **Elimination of "hot spots" common with traditional skylights**
- **LEED® credit opportunities**
- **Quick Ship™ pre-engineered standard sizes for reduced lead times and fast turnaround**
- **Increased concentration in students and improved sales in retail environments when occupants are given access to natural daylighting**



SKYLIGHTS

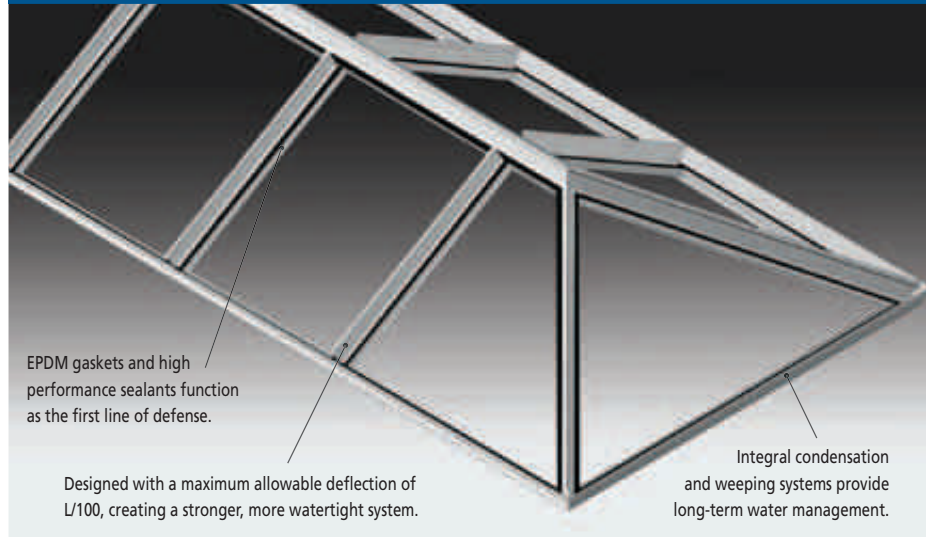
Guardian 275® Skylight Overview

Major Industries created the Guardian 275® translucent panel skylight system for sloped daylighting applications. The system provides diffused, glare-free lighting, excellent energy efficiency, and is available in a variety of configurations and design options.

Features and Benefits:

- Pre-engineered and custom skylights are a cost-effective solution for both new and retrofit applications
- Available Ultimate Series™ FRP face sheet for extended performance, weather resistance and UV protection
- EPDM gasketing and high-performance sealants provide extra protection against water and air infiltration
- Standard 2-3/4" panels are available up to 5' x 20' (1-1/2" panels also available)
- Classic grid layouts include In-line Shoji, Staggered Shoji, and Tuckerman patterns (see page 20 for examples), in sizes from 6"x 6" up to 12"x 24"
- Energy-saving translucent insulation and thermal breaks can be added to Guardian 275® panels to enhance performance
- Available in several standard colors (White, Crystal, Ice Blue, Aqua, Tan and Desert Rose) to modify appearance and interior effect
- Industry-best warranties – 25 year fiberbloom and up to 20 year color change

Better by Design: Major's 3-Way Leak Defense System



FIELD-PROVEN TOUGHNESS

Major's translucent skylights are constructed of Guardian 275® translucent panels that feature an aluminum grid core and FRP face sheet, creating a glazing panel with an exceptional strength-to-weight ratio.

While each Guardian 275® skylight system starts with an energy efficient translucent glazing panel that's specially blended for fire protection on the interior and weather protection on the exterior, performance can be upgraded by taking advantage of our Ultimate Series™ face sheet. The Ultimate Series™ features unmatched color stability and weathering properties, and is the optimal choice for severe climates as it offers the best long-term performance in the translucent daylighting industry.

No matter what the environment, Guardian 275® skylights provide field-proven, worry-free daylighting.



Quick Ship™
Availability
(See p. 24)



Online Quote
Requests



LEED® Credit
Opportunities



Color Options
Available



St. Michael
Church
Wausau, WI
PMSI



Millennium
San Juan, PR
Quinones
Rodriguez
Tallet Borinquen
Architects

GUARDIAN 275®



South Cedar School - South Cedar Hills, UT
Sandstrom Architects



Liestman Elementary - Houston, TX
RWS Architects, Inc.

GUARDIAN 275® SKYLIGHTS – THE RIGHT CHOICE

Guardian 275® skylights are a unique, versatile and cost-effective alternative to traditional glass skylights. Unlike some short-term “budget” skylight solutions, Guardian 275® systems are built to last. Our industry-best warranties prove that we will stand behind our high-performance products for years to come.

Whether you’re working on a large new project or renovating a small older structure, we offer Guardian 275® skylights in a variety of configurations to meet your specific requirements.

NUMEROUS COLOR AND FINISH OPTIONS

Guardian 275® skylights are available with six standard exterior sheet colors (White, Crystal, Ice Blue, Aqua, Tan and Desert Rose – shown below) and a full range of long-lasting AAMA 2604/2605 Kynar® coatings. Budget-minded customers can select from three AAMA 603.8 anodize finishes.

From skylights that blend seamlessly into their surroundings to colorful, eye-catching focal points, our wide variety of design options make Guardian 275® the right daylighting solution for any project.

For more information about Guardian 275® custom skylights, as well as test reports and design options, visit us online at www.majorskylights.com. You’ll also find our project portfolio of over 250 images. It’s a great design inspiration tool and also allows you to see where Guardian 275® skylights have been installed in your area.

White

Crystal

Ice Blue

Aqua

Tan

Desert Rose

SKYLIGHTS



Hargrave High School - Huffman, TX
PBK Architects, Inc.

GUARDIAN 275®



Senior Resource Center - Wisconsin Rapids, WI
Vierbicher Associates



Macomb
Community College
Clinton Township, MI
Integrated
Design Solutions LLC



Outagamie County
Regional Airport
Appleton, WI
Mead & Hunt

TransCURVE™ TRANSLUCENT SKYLIGHTS

TransCURVE™ systems, based on our energy-efficient Guardian 275® translucent panels, provide exceptional strength and glare-free daylighting in a unique, curved format that adds a distinctive design element to skylights, curtainwall and outdoor canopies.

While the striking appearance of our TransCURVE™ system enhances design freedom, it also offers building occupants with the same UV protection and high-quality, controlled natural light provided by our Guardian 275® panels. Other benefits include:

- Available for both wall panel and skylight applications for ultimate design flexibility
- Natural energy efficiency saves money and stabilizes HVAC loads
- No "hot spots" – controlled natural light
- Low rise or half-round designs available



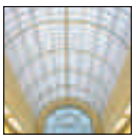
TRANSCURVE™

Guardian 275® TransCURVE™ Overview

When your project demands something different, choose TransCURVE™. This visually compelling system, backed by Guardian 275® technology, is available in standard or custom radii to fit your specific design needs.

Features and Benefits:

- Maximum grid size is 12" x 24" in both 4'-0" wide and 5'-0" wide panels
- Standard TransCURVE™ panels have a maximum panel width of 5'-0" and length of 14'-0" for added versatility
- Larger spans require multiple panels and smaller grid configurations – contact us for details and requirements
- Thrust loads on the curb vary by skylight configuration and span – thrust-free designs can be accomplished with a number of cost-effective upgrades
- Minimum panel radius in any application is 4'-0"
- Energy-saving insulation can be added to control heat loss and heat gain
- Spectra-Grid™ colored insulation can be utilized for a stained-glass look (see page 21 for more information)
- Industry-best warranties – 25 year fiberbloom and up to 20 year color change



Unique Design
Possibilities

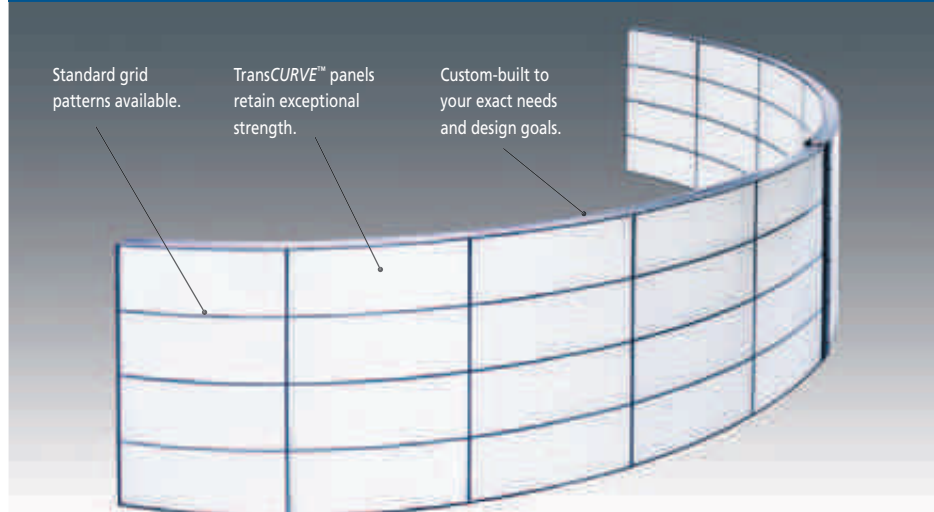


LEED® Credit
Opportunities



Color Options
Available

Better by Design: Eye-catching and Strong



DISTINCTIVE DESIGN AND PERFORMANCE

TransCURVE™ systems incorporate the same design strengths, such as EPDM gaskets and integral guttering for optimal water management, that make Guardian 275® translucent panels a field-proven success.

As in Major's other translucent building panels, TransCURVE™ is offered with our Ultimate Series™ fiberglass that features a SunStrong™ PRS resin system. This high-performance weathering surface minimizes natural weathering, virtually eliminating fiberbloom. In addition, Ultimate Series™ stops more than 99% of UV rays cold, working with powerful stabilizers to maintain excellent panel color.

Children's Hospital - Wauwatosa, WI
Shepley, Bulfinch, Richardson and Abbott



GUARDIAN 275®



Gateway Medical - Flint, MI
Asselin & Associates Architects



Cuyahoga Community College - Parma, Ohio
Robert Maschke Architects



Adams Middle School - Westland, MI
TMP Architects

STRENGTH AND STYLE UNITE

TransCURVE™ translucent glazing panels feature an aluminum grid core in Staggered Shoji, In-line Shoji and Tuckerman patterns (see page 20 for examples), giving the panels a refined look while maintaining exceptional strength.

In wall applications, TransCURVE™ adds design emphasis to corners, alcoves and also provides a unique alternative to standard interior partitions. Skylights designed with TransCURVE™ panels are self-supporting in many applications – larger spans are achievable with multiple panels and suitable structural support. Standard panel thicknesses are 1-1/2" and 2-3/4" with energy-saving insulation options up to R-10.

For more examples of TransCURVE™ designs, visit us at www.majorskylights.com. Our large online project portfolio is a great way to get inspired, and to see which TransCURVE™ projects are located in your area.



TRANSCURVE™



Spectrum - San Diego, CA
Pacific Cornerstone Architects, Inc.

GUARD-TITE™



Vetro Condominium
Fujikawa Johnson Gobel Architects

GUARD-TITE™ WALL SYSTEMS

Guard-Tite™, our advanced translucent wall panel system, offers outstanding features with long-lasting benefits. This field-proven design, which utilizes Guardian 275® panel technology, also includes snap-together framing without visible fasteners – reducing installation time and providing a finished appearance.



Findlay Middle School - Las Vegas, NV
Welles Pugsley Architects



Kenosha Transit Operation - Kenosha, WI
Carter and Burgess Architects

Guardian 275® Translucent Daylighting Panels generally cost less to own than other glazing materials. Major's composite panel design is engineered to be long-lasting, structurally strong but lightweight, and energy efficient. As in our skylight and TransCURVE™ systems, the combination of EPDM gasketing and integral guttering provide worry-free daylighting.

WALL SYSTEMS

Guardian 275® Guard-Tite™ Overview

Guard-Tite™ wall systems provide cost-effective daylighting, significant energy savings, and a striking appearance when used in vertical applications. They can also be installed in conjunction with commercial windows to provide a means of code-required egress and ventilation.

Features and Benefits:

- Guard-Tite™ framing, designed for rapid installation and secure holding power, keeps panels in place without visible fasteners
- Standard 2-3/4" panels are available up to 5' x 20' (1-1/2" and 4" panels also available)
- A variety of grid patterns are available (see page 20 for examples), in sizes from 6" x 6" up to 12" x 24"
- Can be configured for blast protection – meets or exceeds DOD and GSA standards
- Ultimate Series™ face sheet offers long-lasting weather protection and industry-leading warranties
- Framing uses EPDM gasketing and high-performance sealants for protection against water and air infiltration
- Insulation can be added to control heat loss and heat gain
- Distinctive finish and color options modify building appearance and interior effect
- Industry-best warranties – 25 year fiberbloom and up to 20 year color change

Better by Design: Guard-Tite™ - Always a Perfect Fit



Our Translucent Adapter Panel™ (TAP) allows for panels to fit into standard 1" framing while retaining the original look of the building.

Guardian 275® Guard-Tite™ wall systems can be custom engineered to fit both new construction and retrofit applications. Triple your energy savings with our unique Translucent Adapter Panel™ (TAP). The TAP makes it easy to install 2.75" Guardian 275® panels into an existing 1" framing system for maximum energy savings.

CURTAINWALL REDEFINED

Guard-Tite™ wall systems virtually eliminate UV damage, reduce HVAC loads, and provide energy savings by reducing the need for continuous artificial lighting.

- **Control natural light without expensive shading mechanisms**
- **Great for sports facilities – or anywhere durability and impact resistance is key**
- **A multifunctional solution for buildings require blast protection and daylighting – can be configured for anti-terrorism use**
- **Unique design options**
- **Possible LEED® credit opportunities**
- **Can be configured to meet or exceed most hurricane-related performance requirements**



Online Quote Requests



LEED® Credit Opportunities



Color Options Available



Blast Protection Configurable



Hurricane Protection Configurable



TAP System Fits Standard 1" Framing



GUARD-TITE™



Minor Elementary School - Birmingham, AL
Davis Architects



Lambert International Airport - St. Louis, MO
Burns and McDonnell Architects



Center 58 High School - Kansas City, MO
DLR Group

No matter what the application, it's important to remember that high-quality, glare-free natural light, like the kind provided by Guard-Tite™ wall systems, has benefits beyond energy savings. Daylighting has been shown to improve the appearance of food, clothing, cars and other visual merchandise, and studies prove that natural daylighting increases retail sales, reduces employee absenteeism and provides numerous health benefits.

Guard-Tite™ wall systems also benefit commercial and retail settings in a unique and eye-catching way. While natural light penetrates interior spaces during much of the day, the night sky becomes the perfect backdrop for the soft, illuminated glow of interior lighting making its way through the translucent panels. This distinctive design element allows owners to optimize their building's curb appeal by highlighting a company name or logo for enhanced visual impact while reducing unwanted light pollution.

When your next project demands a high-performance, energy-saving and adaptable curtainwall system, look no further than Guard-Tite™.



Jim Kryshak Jewelers - Wausau, WI
Structural Systems of Wausau

WALL SYSTEMS

STRENGTH AND SECURITY

For three decades, Guard-Tite™ has provided glare-free natural daylighting in clerestories, large translucent curtainwall assemblies, and as cost-effective window replacements in buildings around the world.

Available Ultimate Series™ face sheet provides long-term protection against environmental elements like acid rain, smog and seismic vibration, and offers a free fiberbloom guarantee. Insulation can be added for additional control of heat exchange, and panels can also be configured for blast protection (see page 22 for details).

For more information on Guard-Tite™ systems, as well as technical drawings, specs and a large, searchable portfolio of projects, please visit www.majorskylights.com.



MTM - Verona, WI
TJK Design & Construction



Belvedere Elementary - Omaha, NE
Carlson, West, Povondra Architects



Cedarburg High School - Cedarburg, WI
Plunkett Rayisch Architects



Aramco Hanger & Facilities - Houston, TX

GUARD-TITE™ WINDOW WALL

Major Industries' high-performance Guard-Tite™ aluminum window wall systems offer designers the freedom to incorporate leak-free window systems with translucent panels in one seamless unit. The system includes a combination of 2.75" translucent panels and projecting vents as a pre-assembled window wall. Guard-Tite™ projecting windows are available in traditional awning, hopper, or casement configurations with integrated fixed lites.

- **Versatile combination of glare-free light and ventilation – perfect for schools**
- **Available in a variety of configurations**
- **LEED® line-of-sight credit opportunities**
- **Great solution for standard window replacement and other retrofit projects**

DESIGN VERSATILITY



Ellis Davis Field House - Dallas, TX
HKS, Inc.



Moore Hall Lobby - Kansas State University - Manhattan, KS
Jim Hodges



The Cube (5th Avenue Lofts) - Venice, CA
M (designs)

GUARDIAN 275® PROVIDES UNLIMITED OPPORTUNITIES

Guardian 275® Translucent Daylighting Panels are an incredibly versatile design tool. Their unique properties, including controlled light transmission, color and finish options, and eye-catching aesthetics, make them the perfect custom solution for any space that demands something extraordinary.

Guardian 275® panels are a great way to accent interior spaces when utilized as:

- **Office partitions and cubicle walls**
- **Room dividers**
- **Custom accents for built-ins and displays**

Our TransCURVE™ panels lend themselves to other interior uses such as adding an eye-catching element to lobbies and entrances, or a beautiful accent to front desk areas and other common use spaces.

DESIGN VERSATILITY

Guardian 275® panels add visual interest to exterior spaces as well, including:

- **Canopies over building entrances – draw people into interior spaces with a bright, daylit entryway**
- **Walkway covers that transmit light while protecting building occupants from the elements**
- **As a unique and luminous backdrop for company logos and signs**

For more information on how Guardian 275® can enhance your building's spaces – both inside and out – call 888-759-2678 or visit us online at www.majorskylights.com. We will work with you to create a one-of-a-kind daylighting solution that fits your needs and budget.



Minor Elementary - Birmingham, AL
Davis Architects



Herron School of Art - Indianapolis, IN
Browning, Day, Mullins, Dierdorf Inc. Architects



Classic BMW - Plano, TX
Jennings Hacker Architects



Maryland Walk Condos - St. Louis, MO
Saur & Associates Architects

FINISH OPTIONS



Kathleen & Tim Harney Mid. School - Las Vegas, NV
Welles Pugsley Architects

COLOR & FINISH OPTIONS

Why settle for ordinary? Guardian 275® panels are the ultimate in flexibility. Guardian 275® skylights are available in three grid patterns (In-line Shoji, Staggered Shoji, and Tuckerman) while wall systems can also be designed with our Verti-Lite™ grid pattern (see illustrations below). A variety of paint and finish colors, as well as six standard exterior sheet colors (White, Crystal, Ice Blue, Aqua, Tan and Desert Rose), are also available. Guardian 275® panels can also be configured with the following color upgrades:

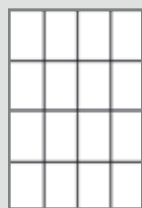
Trim Tones™

Blend in or stand out with this unique and colorful option. Hidden exterior fasteners disappear even further with color-coordinated trim, or add a splash of vibrant color to make the support structure stand out and accent other elements of your design.

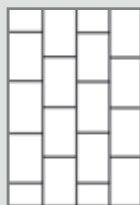


Guardian 275® Exterior FRP Color Options

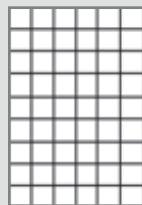
Available Grid Patterns



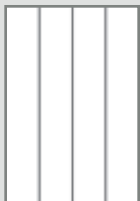
In-Line Shoji



Staggered Shoji



Tuckerman



Verti-Lite™

Available for wall systems only

White

Crystal

Ice Blue

Aqua

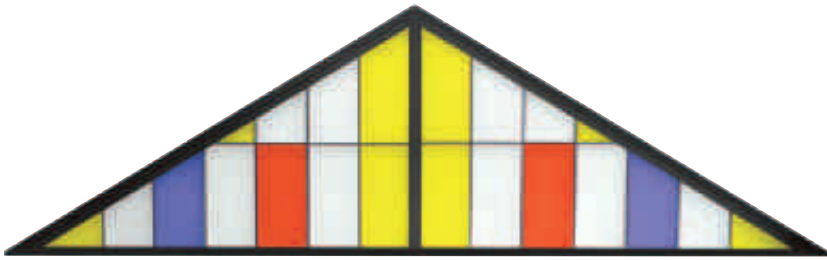
Tan

Desert Rose

FINISH OPTIONS

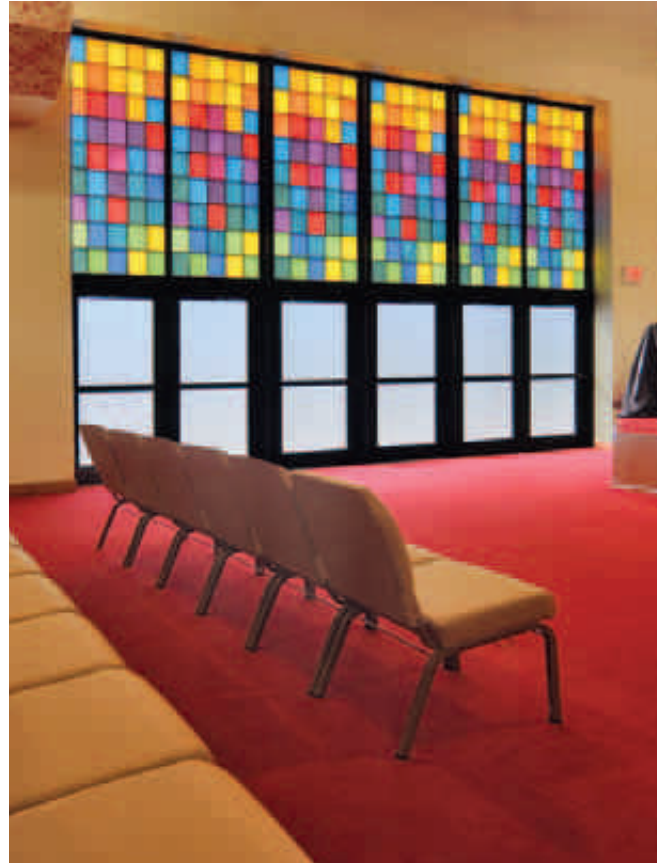
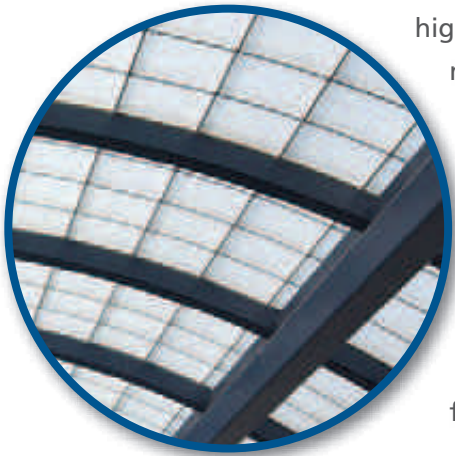
Spectra-Grid™

Our translucent insulation can be custom-colored to create dynamic visual impact or a subtle stained-glass look – it's the perfect low-cost color solution for churches, restaurants and schools.



Finishes

Our goal is to provide you with a wide variety of long-lasting custom finish options. Working in conjunction with the country's largest independent high-performance architectural metals finishing company, we can offer advanced Kynar® paint and durable anodize finishes and will work with you to create a solution that best fits your needs. Contact us today for more information about specific finishing options.



Living Word Church - Manhattan, KS
Bruce McMillan, AIA Architects, PA



National Amusement Park - San Antonio, TX



Fleet Farm - Owatonna, MN
Widseth Smith Nolting

SPECIALTY APPLICATIONS



High-speed video of the blast testing can be found at www.majorskylights.com

BLAST PROTECTION

Don't hide behind steel and concrete... glare-free natural light and safety unite in Major Industries' Guardian 275® Translucent Daylighting Panels.

Guardian 275® panels have unique design features that allow them to “flex” with the force of a blast. Field-tested using machine generated shock waves (up to 10psi with an applied impulse of 90 psi-msec) to replicate dangerous real-world blast conditions that would cause serious health risks, the Guardian 275® panels created no flying debris and posed no threat to building occupants.

Guardian 275® panels, after going through the most punishing blast tests in the translucent daylighting Industry meet or exceed the following related performance requirements:

- Department of Defense (DoD) Minimum Anti-terrorism Standards for Buildings (UFC 4-010-01) for conventional building standoff distances and ISC Security Design Criteria Level C loading
- US General Services Administration (GSA) Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings – Condition “1”, Hazard Level “None”
- ASTM F 1642-04 Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loading
- AAMA 510-06 Voluntary Specification Guide for Blast Hazard Mitigation for Fenestration Systems

PRESSURE RELEASE WALL PANELS

Guard-Tite™ Wall Systems can be upgraded with premium third-party certified pressure release fasteners to meet your most demanding safety application.

The installed system is designed to “relieve” any sudden pressure surge by releasing the panels before significant structure damage can threaten the building occupants. Stainless steel safety lanyards keep the panels attached to the Guard-Tite™ framing to minimize the risk to people and property outside the affected area. Common applications are R&D laboratories and process lines with the potential for developing an explosive atmosphere.



INTERNATIONAL FIRE RATINGS

Guardian 275® Translucent Daylighting Panels are available with high performance FRP face sheet manufactured to meet the world's toughest fire codes.

If your project requires fire testing to meet EU, Pacific Asian or the Americas, Major Industries has a product capable of meeting the challenge.

MTRC Disneyland Station - Hong Kong
MTR Corp./Disney's Imagineers/
Ove Arup and Partners



SPECIALTY APPLICATIONS

Guardian 275® 4" System - 100mm ENERGY PANEL™

Provide cost-effective daylight with a minimum of energy cost. Built-in light management provides the benefits of sunlight without overpowering computer screens or causing discomfort to building occupants. Increased R-Values allow more daylighting area while still meeting stringent energy codes.



REMOVABLE SKYLIGHTS

Guardian 275® translucent skylights can be ordered with optional lifting hooks for drop-on installation or for future building access. Also available is a mixed glazing package which combines energy efficient Guardian 275® Translucent daylighting panels in a truncated pyramid base which supports a removable top section using clear or colored glazing panels.



Typical building applications include hospital MRI centers, water treatment plants and industrial daylighting over large machines. Permanent lifting options are available in stainless steel for long-term service considerations.



MRI Building
Rochester, MN

INCORPORATING MULTIPLE GLAZINGS

Guardian 275® panels can be used with a wide range of commercial window systems. Our 1305 adapter accommodates all types of 2" to 2.75" windows and louvers. Our 1299 mixed glazing adapter allows for seamless integration of energy-efficient Guardian 275® panels with 1" glass or 25mm polycarbonate multi-wall. Contact us for more information and specific details.



Gates-Chili - Rochester, NY
La Bella Associates



Maryland Walk Condos
St. Louis, MO
Saur & Associates Architects



1299 Window
Adapter

RENOVATE EXISTING WINDOWS/STOREFRONTS

Whether you are renovating an older building or looking for a contemporary look, specify Guardian 275® Translucent Daylighting Panels sized to fit industry standard 1" glazing pockets.

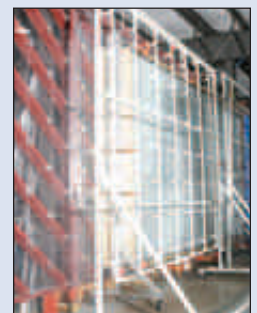


Our 1" daylighting panels provide quality natural light with greater energy efficiency and enhanced security over traditional insulated glass lites.

HURRICANE PROTECTION

Guardian 275® translucent skylights and Guard-Tite™ wall systems can be safely used in 90% of the hurricane zones in North America.

Extensive impact testing in conformance with ASTM E 1886 and ASTM E 1996 proves the margin of safety. The structural integrity of our internal aluminum grid core and high-impact exterior FRP face sheet allows our cost-effective hurricane-rated translucent daylighting panels to withstand winds up to 140 miles per hour.



QUICK SHIP™



Headworks Digester Plant - Las Vegas, NV
HDR Engineering



University of MO - Columbia, MO
McCoy Hutchinson



Headworks Digester Plant - Las Vegas, NV
HDR Engineering

GUARDIAN 275® QUICK SHIP™ SKYLIGHTS

Guardian 275® Quick Ship™ skylights are pre-engineered for many common daylighting applications.

- **Pricing within 1 business day**
- **50% shorter lead times on standard size and finish options**
- **Pyramid sizes between 4' and 10'**
- **Pyramid slope dimensions of 18.5°, 26.5° and 30°**
- **Single slope dimensions of 4' and 5' upslope and widths of 4' to 12'**
- **Finish available in Bone-White 50% Kynar®, Dark Bronze Anodize, and Clear Anodize (other colors available at an additional cost)**
- **Ready-to-install option available**

EASY ONLINE QUOTE REQUESTS

Simply visit www.majorskylights.com/products/quickship/, choose the pyramid or single slope option, and fill in the electronic form – it's that easy! If you have questions about our Quick Ship™ line, please call us toll-free at 888-759-2678.

For more images of Quick Ship™ skylight projects, visit our online portfolio at www.majorskylights.com.

PERFORMANCE

GUARDIAN 275® TESTING

Guardian 275® translucent curtainwall, skylights, and roof panels have passed the rigorous testing required to meet standards set by Underwriters Laboratories (UL), the International Code Council (Legacy Report Listing PFC-5620), and have also been certified by the National Fenestration Rating Council (NFRC). Current NFRC testing evaluates fenestration as a complete system, including the glazing and framing. Guardian 275® translucent panels have been tested for visible light transmission, solar heat gain, shading coefficient, condensation resistance factor, NFRC U-factors and air/water infiltration.

A summary of current test reports is available online at www.majorskylights.com.

GUARDIAN 275® PRODUCT PERFORMANCE

General: Guardian 275® panels shall be manufactured by Major Industries to conform to ICC-ES PFC-5620 listing standard. Panels shall be 2-3/4" thick and consist of architectural-grade glass fiber-reinforced polymer sheets bonded under controlled heat and pressure to a mechanically interlocked aluminum I-beam grid core. Guardian 275® panels are also available in 1", 1-1/2" and 4" configurations.

Performance: Guardian 275® panels shall have the following minimum performance characteristics:

Weatherability: Color change on exterior face sheet shall not exceed 4.0 units (Delta E, per ASTM D-2244) when exposed to 126,000 megajoules of full spectrum sunlight (15 years of full Florida sun).

Impact Resistance: Exterior face sheets meet or exceed the requirements per ASTM D-3841. Optional high-impact (360 ft-lbs) available.

Hurricane Resistance: Tested in conformance with ASTM E 1886 and ASTM E 1996. Guardian 275® systems can be safely used in 90% of the hurricane zones in North America.

Anti-terrorism – Blast Resistance: Tested up to 10psi with an applied impulse of 90 psi-msec. Meet or exceed the following related performance requirements: Department of Defense (DoD) Minimum Anti-terrorism Standards for Buildings (UFC 4-010-01) for conventional building standoff distances and ISC Security Design Criteria Level C loading, US General Services Administration (GSA) Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings – Condition "1", Hazard Level "None", ASTM F 1642-04 Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loading, and AAMA 510-06 Voluntary Specification Guide for Blast Hazard Mitigation for Fenestration Systems.

Flame Spread and Smoke Development: Interior flame spread maximum 20, smoke density 150, per ASTM E-84, Burn Extent less than 1" per ASTM D-635.

Bond Strength: Maintain maximum adherence over time, and have an initial bond strength of 750 PSI per ASTM C-297 with no decrease in tensile strength after aging per ASTM D-1037.

Grid Core: 6063-T6 or 6005-T5 aluminum I-beam per design load, 7/16" flange width, that is mechanically interlocked to ensure core strength and uniform intersections. Grid core available with optional poured and debridged structural polyurethane thermal break.

Available Finishes: Kynar® paint coatings (AAMA 2604/2605) and architectural Class I and II anodized (AAMA 603.8).

Guardian 275® Certified Uniform Load Testing



Our beauty is more than "skin deep"... certified third-party deflection testing confirms that Major Industries provides the strongest standard framing system at no extra charge. Don't settle for less!



PERFORMANCE



Major Industries, Inc. strives to create the most advanced products in the daylighting industry. As a result, products, materials and test results presented in this brochure are subject to change without notice. For a statement of warranty for a particular product, please contact Major Industries at 888-759-2678 or by fax at 715-848-3336.

GUARDIAN 275® PERFORMANCE DATA 2.75"	FACE SHEET COLOR COMBINATIONS											
	Exterior Sheet Color / Interior Sheet Color											
	Crystal/ Crystal	Crystal/ White	White/ Crystal	White/ White	Ice Blue/ Crystal	Ice Blue/ White	Tan/ Crystal	Tan/ White	Aqua/ Crystal	Aqua/ White	Desert Rose/ Crystal	Desert Rose/ White
CENTER OF PANEL U-FACTOR ¹												
No Insulation												0.48
Insul 24												0.20
Insul 15												0.17
IMG 125												0.08
SYSTEM U-FACTOR ²												
Standard / Thermally Broken												
No Insulation	Sloped System - 0.56 / 0.54					Wall System - 0.58 / 0.54						
Insul 24	Sloped System - 0.29 / 0.26					Wall System - 0.28 / 0.25						
Insul 15	Sloped System - 0.25 / 0.23					Wall System - 0.25 / 0.22						
IMG 125	Sloped System - 0.17 / 0.15					Wall System - 0.17 / 0.15						
LIGHT TRANSMISSION ³												
No Insulation (%)	64	40	31	24	58	39	55	35	44	34	53	35
Insul 24 (%)	33	25	21	17	34	24	27	22	23	22	27	20
Insul 15 (%)	23	19	17	15	22	18	19	18	17	16	20	17
IMG 125 (%)	7	6	5	5	7	7	6	6	7	7	6	6
SOLAR HEAT GAIN COEFFICIENT ⁴												
No Insulation	0.52	0.38	0.31	0.24	0.39	0.37	0.44	0.32	0.34	0.31	0.46	0.34
Insul 24	0.24	0.21	0.18	0.15	0.26	0.25	0.25	0.22	0.23	0.21	0.31	0.24
Insul 15	0.22	0.19	0.17	0.14	0.23	0.18	0.21	0.20	0.20	0.16	0.23	0.21
IMG 125	0.08	0.08	0.07	0.06	0.08	0.07	0.08	0.08	0.08	0.07	0.08	0.08
CRF ⁵												
Sloped Glazed - 77 Vertical Wall - 81												
UV TRANSMITTANCE												
<0.01												
SOLAR TRANSMITTAL (Ts)												
.04 - .54												
REFLECTIVE (Rs)												
.21 - .73												

GUARDIAN 275® PERFORMANCE DATA 4"	FACE SHEET COLOR COMBINATIONS				
	Exterior Sheet Color / Interior Sheet Color				
	Crystal/ Crystal	Crystal/ White	White/ Crystal	White/ White	
CENTER OF PANEL U-FACTOR ¹					
No Insulation					0.48
Insul 10					0.10
IMG 125					0.06
SYSTEM U-FACTOR ²					
Standard / Thermally Broken					
No Insulation					.58 / .54
Insul 10					.19 / .17
IMG 125					.14 / .13
LIGHT TRANSMISSION ³					
No Insulation (%)	64	40	31	24	
Insul 10 (%)	19	17	14	12	
IMG 125 (%)	4	3	3	3	
SOLAR HEAT GAIN COEFFICIENT ⁴					
No Insulation	0.52	0.38	0.31	0.24	
Insul 10	0.18	0.15	0.12	0.11	
IMG 125	0.06	0.06	0.06	0.05	
CRF ⁵					
88					
UV Transmittance					
<0.01					
Solar Transmittal (Ts)					
.08 - .14					
Reflective (Rs)					
.38 - .68					

- 1 Determined by NFRC test methods. For glazing comparisons only
- 2 NFRC 100-2004 certified system U-factors for site-built applications. 80"x80" system with perimeter framing and grid (12" x 24" grid pattern), both standard and thermally broken, at 15mph wind, 0°F cold side/70°F warm side
- 3 Approximate LT values per ASTM E-972 @ 0 incident angle in Arizona sun
- 4 Solar Heat Gain Coefficient (SHGC) of thermally broken wall systems determined by solar calorimeter tracking California sun per NFRC 201-2004
- 5 Condensation Resistance Factor (CRF) for panel with thermally broken grid core. Values are determined by test data calculation and vary with structural requirements

*Additional sheet color combinations are available

*Shading Coefficient (SC) is equivalent of SHGC x 1.15

PERFORMANCE

Ultimate Series™ Testing Overview

Ultimate Series™ SunStrong™ PRS exterior face sheets have been put through rigorous testing and offer the best weathering performance ever seen in the daylighting industry – backed by a 25 year fiberbloom warranty and available 20 year color change warranty.

Forget “yellowing” stories of the past – this breakthrough SunStrong™ PRS resin system and post-applied polymer coating combination is the best long-term solution for achieving high quality, energy-efficient diffused natural daylighting.

Don't take our word for it... the numbers speak for themselves!

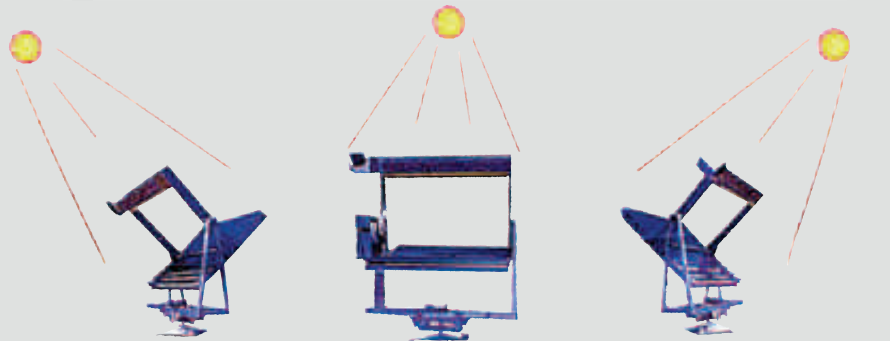
Property	Test Method	Typical Value
Flexural Strength	ASTM D790	22,000 psi
Flexural Modulus	ASTM D790	800,000 psi
Tensile Strength	ASTM D638	12,000 psi
Tensile Modulus	ASTM D638	1,200,000 psi
IZOD Impact	ASTM D256	12 ft-lb
Barcol Hardness	ASTM D2583	50
Coefficient of Linear Thermal Expansion	ASTM D696	1.6×10^{-5} in/in/°F
Flash Ignition Temperature	ASTM D1929	> 700° F
Spontaneous Ignition Temperature	ASTM D1929	> 800° F
Thermal Conductivity	ASTM C518-98	0.1475 8tu-in/°F-ft ² -hr
Average Burn rate	ASTM D635	> 1.5 in/min.
Building Code Classification	ASTM D635	CC1, CC2
Taber Abrasion	ASTM D4060	< .7mils/40mg

Additional testing information can be found at www.majorskylights.com

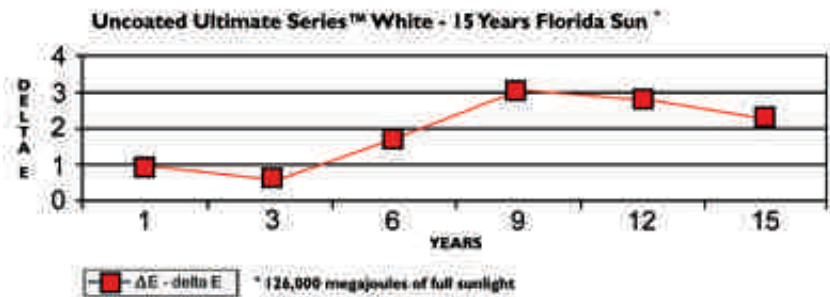
Following the Sun*...*

Certified Field Testing

The Q-Trac uses a series of ten mirrors to reflect and concentrate full spectrum natural sunlight from morning until night. Dual axis tracking allows it to move in any direction for both seasonal and daily adjustments.



* 83,000 megajoules of full sunlight



Kenosha Transit Operation
Kenosha, WI
Carter and Burgess Architects

Los Amigos Elementary School
Palmdale, CA
NTD Architects



GUARDIAN 275®



Midwood High School - Brooklyn, NY
HLW International LLP

MAJOR INDUSTRIES IS YOUR ONE-STOP SOURCE FOR DAYLIGHTING SOLUTIONS.

Guardian 275® translucent daylighting provides beautiful natural light while reducing glare and heat loss.

- **Saves on HVAC costs and energy use**
- **Perfect for green building concepts – LEED® credit opportunities**
- **Field-tested and backed by industry-leading warranties**
- **Guard-Tite™ systems can be engineered for anti-terrorism use – offers significant blast protection**
- **Unique design options**

Our knowledgeable staff, backed by Major's long history of building quality skylights and curtainwall, can help you find an energy-saving and cost-effective daylighting solution for your next project.



Citibank - Hoffman Estates - Hoffman Estates, IL
Clune Construction Company



Hargrave High School - Huffman, TX
PBK Architects, Inc.



Major Industries provides nationwide continuing education to Architects with its certified "box lunch" training sessions.



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