

Light + Air  
North America



# UniGrid™ Product Brochure

Formerly Guardian 275® from Major Industries, Inc.

Translucent Fiberglass Reinforced Wall Systems





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# About Us

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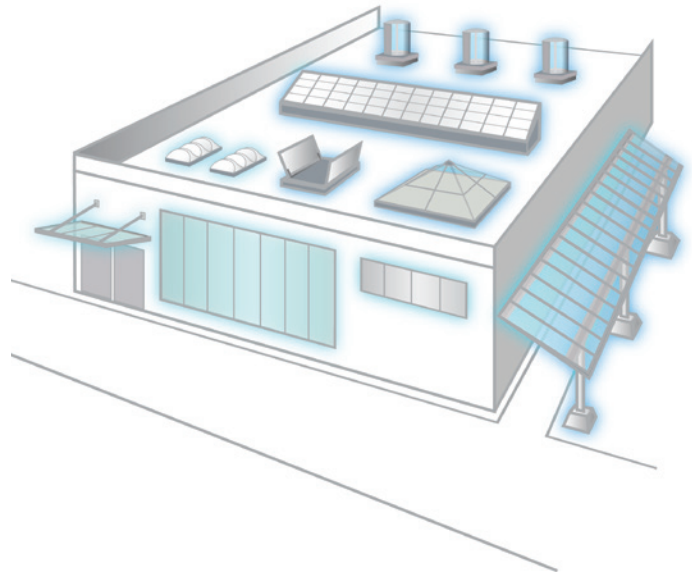
## Who We Are

Kingspan Light + Air (KLA) is an award-winning innovator of daylighting solutions for high-performance building envelopes.

We are a pioneer and leader of the daylighting industry, and continually innovate so clients never have to choose between efficiency, style, and safety. And our focus on sustainability is instilled at every level of the company and at every step in the manufacturing process.

Our global team of highly-skilled and experienced professionals, along with our extensive manufacturing capabilities, make us a trusted partner in the ever-changing world of modern construction. Together, we leverage our knowledge and expertise to serve as one of the leading daylighting consultants for the architectural community and building industry.

Never Compromise. Always Innovate.



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## The KLA Advantage

You shouldn't have to compromise your design. We want to enable architects to achieve the highest levels of building performance without sacrificing aesthetics.

This is why we team up with architects, contractors, and building owners to develop the most versatile daylighting systems on the market. We will work with you from design concept through engineering and installation - and beyond - to ensure the highest levels of performance and quality.

Our expansive line-up of daylighting and natural ventilation solutions - from custom skylights and wall systems to tubular daylighting devices to canopies and small unit skylights - means that we can provide you with a system that fits your project's specific needs.



# UniGrid™

Formerly Guardian 275® from Major Industries, Inc.

From new construction to retrofit applications, UniGrid™ fiberglass reinforced polymer (FRP) panel wall systems (formerly Guardian 275® from Major Industries, Inc.) are a dependable and cost-effective way to bring glare-free natural light into any space. They're engineered and built to be long-lasting, lightweight, structurally strong and to provide great thermal performance.

UniGrid™ wall systems help eliminate UV damage to interiors, can assist in reducing HVAC loads, and provide energy savings by reducing the need for continuous artificial lighting. UniGrid™ wall systems can also eliminate the need for costly interior or exterior shading devices as they diffuse direct sunlight throughout a space. They are designed for rapid and secure installation, with standard fastener covers for a clean look, and their combination of EPDM gasketing and integral guttering provide worry-free performance.



## Product Highlights

- Framing is designed for rapid and secure installation, keeping panels in place without visible fasteners
- Standard 2-3/4" panels are available up to 5' x 20' (1" and 4" panels also available)
- A variety of grid sizes and patterns are available (see inside back cover for illustration), including Verti-Lite™ that has a similar look to channel glass
- Insulation and thermal breaks available
- Built-in moisture management
- Mixed glazed systems available – combining translucent panels with operable or fixed windows
- Industry-best warranties – 25 year fiberbloom and up to 20 year color change
- Translucent Adapter Panel™ (TAP) converts 2.75" panels into standard 1" framing for retrofit applications
- Hurricane and blast protection configurations available





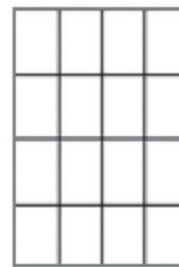


# Our Innovative Technology

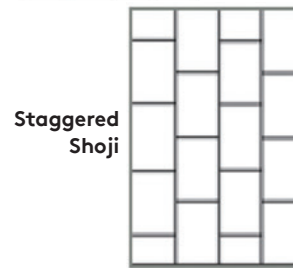
## Sandwich Panel System Benefits

UniGrid™ systems are made up of two FRP face sheets supported by an internal aluminum grid core. The sheets provide light control and durability, while the interior grid provides support for the panels and adds to the overall system strength. With individual glazing panels up to 5 feet wide and 20 feet long (depending on load requirements), UniGrid™ panels can reduce the amount of support needed, as well as points where air and water might penetrate. The area within the panels can also be filled with insulation for enhanced thermal performance.

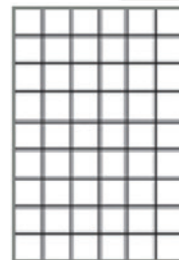
- Ultimate Series™ face sheets developed in conjunction with Crane Composites for long life and durability
- Large glazing panels are lightweight and easy to install
- Excellent solar heat gain performance
- Multiple color options including aqua, ice blue, desert rose and custom color matching (contact us for availability)
- Snap caps and fastener covers provide a fastener free look and a clean exterior aesthetic
- Long span capabilities - up to 20'
- Thermally broken panel and framing option
- Colored insulation option for a stained glass-like look



In-Line  
Shoji



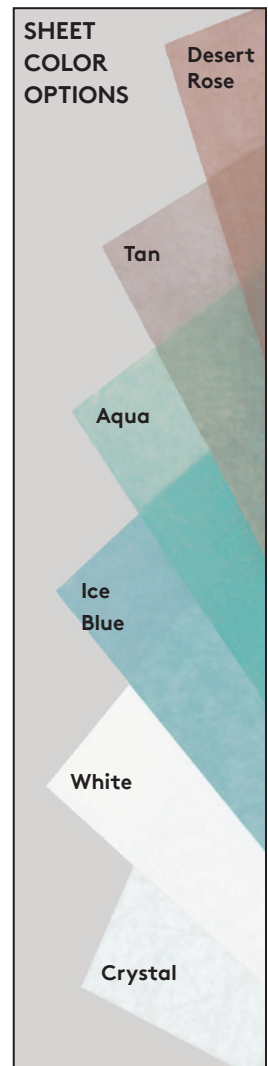
Staggered  
Shoji



Tuckerman



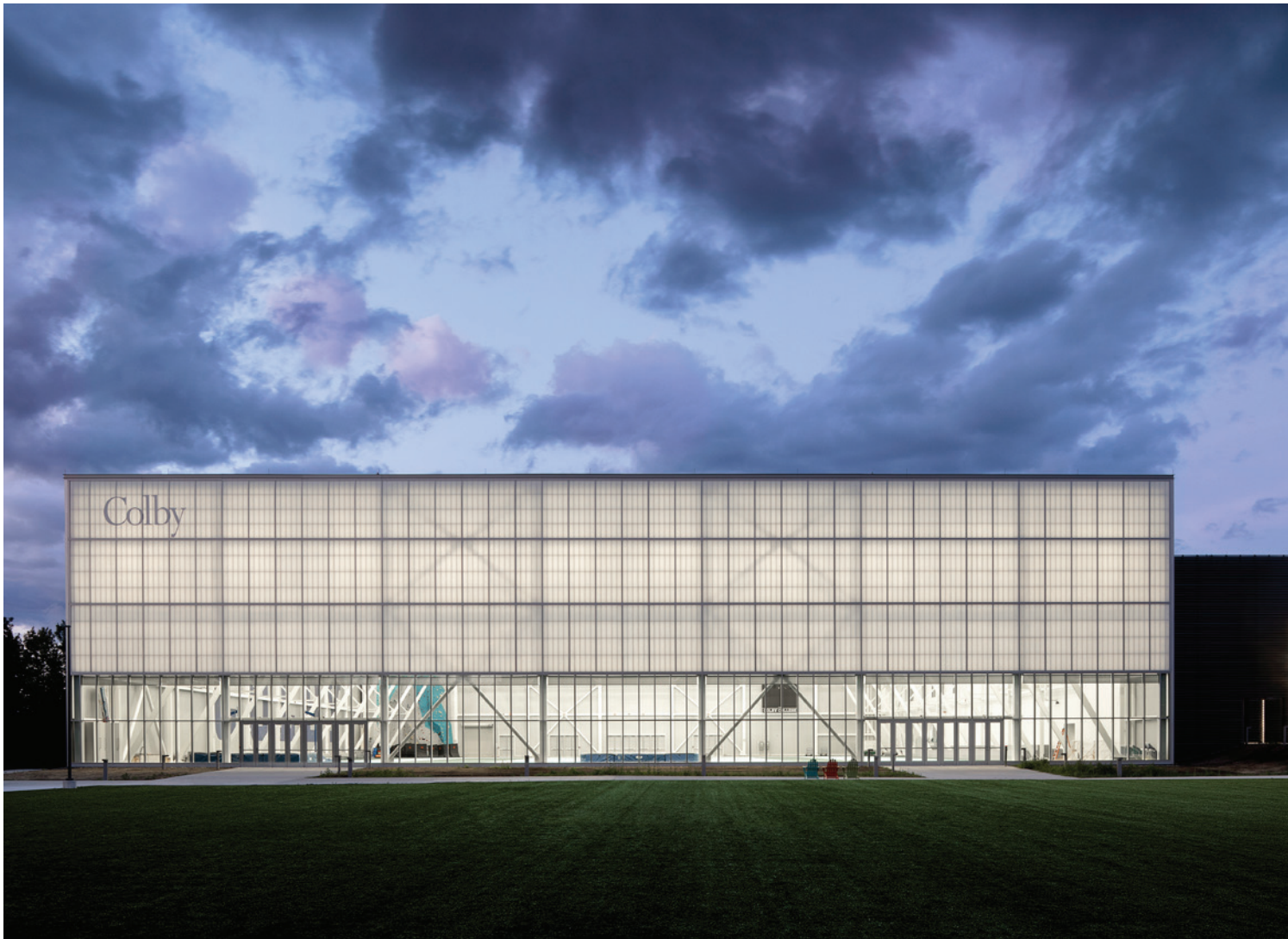
Verti-Lite™



\*Colors shown for comparative use only  
and may differ slightly from actual product.  
Contact us for sheet color samples.







## Benefits of Working with Kingspan Light + Air

### Design Assistance

Our team is ready to assist you with your daylighting needs. If you're not sure where to begin, or what the best solution is for your next project, our team of daylighting experts and engineers will work with you to find the right solution. We will walk you through each step of the process, from design to manufacturing to installation and beyond.

### Decades of Experience

We're no strangers to translucent wall systems... in fact, our roots run deep in the industry. In recent years, Kingspan Light + Air acquired CPI Daylighting and Major Industries, Inc. - manufacturers of translucent wall systems. Our combined industry expertise and experience allow us to work through your toughest daylighting challenges.

### Expert Installation

We work with certified installers who have the product training and know-how to install your system the proper way the first time. We'll work with you throughout the process to ensure that the system you receive is functioning properly.

# Specialty Systems

## Systems for Nearly Any Daylighting Challenge

UniGrid™ is available in a variety of specialty configurations, and can be custom-made to conquer whatever challenges your next project might bring. From our vast array of color and finish options to removable systems and integrated operable windows, our ability to flex with your design needs is just one of the many reasons to choose a UniGrid™ system for your next project. From blast and hurricane protection to mixed glazed systems that allow for views to the outdoors and ventilation control, we have the systems that meet your building's performance needs.

If you don't see the right daylighting solution here, please contact us to see if one of our other lines of translucent panel systems – including polycarbonate multi-wall and tubular daylighting devices – might be a fit, or if we can work with you to create a fully customized solution.



### Mixed Glazed Systems

UniGrid™ panels can be used with a wide range of commercial window systems. Our system adapters allow us to accommodate all types of 2" to 2.75" windows and louvers, and provide seamless integration of energy-efficient translucent panels with 1" glass or 25mm polycarbonate multi-wall. Modular systems can also be custom engineered and built to meet your design needs. Contact us for additional information.



### Create a Unique Look with Nighttime Illumination

No special lighting necessary (though you can experiment all you want!). The night sky becomes the perfect backdrop for the soft, illuminated glow of a back-lit panel. This distinctive design element allows for the highlighting of logos or signage and adds unique visual impact.



### Spectra-Grid™ Colored Insulation

Our translucent insulation can be custom-colored to create dynamic visual impact or subtle, understated tones. It's the perfect low-cost color solution for church designs that need an inexpensive stained glass look, restaurant plans that include corporate logo colors or learning facilities that need the excitement of school colors!

### Custom Overlays

Unique designs can be added to enhance the standard grid patterns (shown on the next page), adding a decorative element to your daylighting project. Contact us for additional details and options.





# Specialty Systems

## Unitized + Pre-assembled Systems

UniGrid™ systems are available in pre-assembled configurations for ease of installation and less time on site. They can also be unitized with glass glazing, louvers and more and shipped to the site ready to be installed, saving on field labor time and costs. Contact us for specific details.



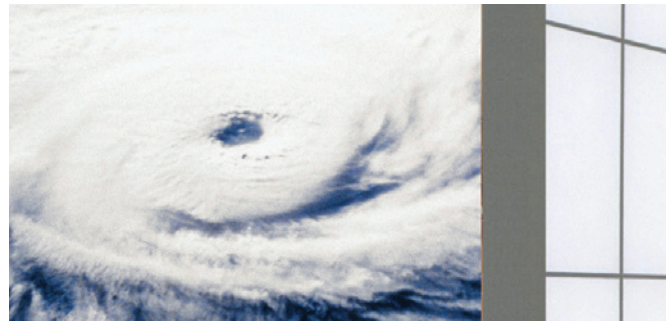
## Custom Grid Patterns

UniGrid™ systems feature panels with an internal grid core, but beyond our standard options (shoji, staggered shoji and tuckerman), we offer the flexibility of custom grid patterns to allow you to create a unique and eye-catching look. Contact us with your design ideas and we'll work with you to create a pattern that fits your needs and the structural requirements of the system.



## Hurricane Systems

UniGrid™ hurricane systems can be safely used in 95% of the hurricane zones in North America, including most Florida counties and the Texas gulf coast, and are configured to withstand winds up to 140 miles per hour. Extensive impact testing has also been conducted in conformance with ASTM E1886 and ASTM E1996 to ensure the highest level of performance in the roughest situations.



## Blast Protection

After going through the most punishing blast tests in the translucent daylighting industry (up to 10psi with an applied impulse of 90 psi-msec), UniGrid™ systems were found to meet or exceed the following anti-terrorism performance requirements:

- Department of Defense (DoD) - UFC 4-010-01 and ISC Security Design Criteria Level C loading
- US General Services Administration (GSA) - Condition "1", Hazard Level "None"
- ASTM F1642-04 - Glazing/Glazing Systems Subject to Airblast Loading
- AAMA 510-06 - Blast Hazard Mitigation for Fenestration Systems



# Renovations & Retrofits

## Why Renovate?

- Outdated systems that are under-performing
- Storm or occupant-related damage
- Deterioration that is causing leaks and structural damage

Retrofits and renovations can play a key role in revitalizing environments that are suffering from lack of adequate natural lighting. Deteriorating skylights often block out blue spectrum light, which accounts for the majority of health benefits associated with natural light.

We offer a variety of simple and effective solutions designed to re-glaze or replace existing systems that are under-performing or are in desperate need of repair due to damage or deterioration.

For retrofit applications, UniGrid™ wall systems can be configured with mixed glazing adapters that allow for easy window integration. And if you're replacing glass glazing, our Translucent Adapter Panel configuration lets you install our 2.75" panels into standard 1" curtainwall framing. Looking for a unique interior partition or translucent divider wall? Our 1" panels are also great for interior uses!

If you're looking to re-glaze an existing translucent panel system, please contact us. We review each request individually to determine if it's a candidate for retrofit or complete replacement.



## Renovate Existing Windows/Storefronts

Are you looking to replace outdated or worn glazing with something more energy saving? Our Guardian 275® Translucent Adapter Panels are specially designed to allow a 2.75" panel to fit industry standard 1" glazing pockets, making for an easy installation - and ultimately saving time and money.

We also manufacture 1" daylighting panels that provide quality natural light with greater energy efficiency and enhanced security over traditional insulated glass.





# Our Commitment to Sustainable Design



## ENERGY



## CARBON



## CIRCULARITY



## WATER



### What is Planet Passionate?

At Kingspan, we want to play our part. We believe advanced materials, building systems and digital technologies hold the key to addressing these issues.

Working in partnership with the industry, and through our new IKON innovation centre in Ireland and our Planet Passionate global sustainability program, we are confident that together we can:

1. Move to a clean energy future
2. Manage the earth's resources more sustainably
3. Protect our natural environment

Planet Passionate is Kingspan's ambitious 10-year global sustainability program which aims to impact three global issues:

- Climate change
- Circularity
- Protection of our natural world

By setting ourselves challenging targets in the areas of energy, carbon, circularity and water, we aim to make significant advances in the sustainability of both our business operations and products.

Learn more about Planet Passionate by visiting <https://www.kingspan.com/us/en/about-us/Planet-Passionate/>.



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For the product offering in other markets please  
contact your local sales representative or visit  
[www.kingspan.com/us/en](http://www.kingspan.com/us/en)

For additional technical information and/or daylighting systems design  
consultation, contact Kingspan Light + Air for your specific needs. Care has  
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