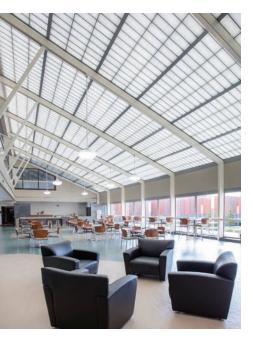
# Daylighting Systems + Natural Ventilation Solutions





















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# **Quality Comes to Light**

### Who We Are

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

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 and extensive manufacturing capability ensure we are the partner of choice for the ever-changing world of modern construction. Together, we leverage our knowledge and expertise to serve as the leading daylighting consultants for the architectural community and building industry.

Never Compromise. Always Innovate.

### 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 lineup of daylighting and natural ventilation solutions will be able to provide you with a system that fits your project's specific needs.













# Start Planning Your Next Project

Kingspan Light + Air is the global leader in daylighting, ventilation, and smoke management solutions for a sustainable built environment. Our translucent walls, skylights, tubular daylighting devices, canopies, walkways, and smoke vents are engineered to optimize the role that natural light and air play in the design of advanced energy-efficient buildings and the health and well-being of their occupants.



### **Quality Solutions**

Now that Kingspan Light & Air, Solatube International and Major Industries, Inc. have joined forces, we offer a full range of standard and custom daylighting solutions built to perform across a wide array of conditions and set a higher standard for the quality and versatility of daylighting technology and integrated design solutions.



### Connecting with our Customers

For the last three years, the focus has been on digital access and sales transformation. We will continue to offer robust digital support, but we are renewing our efforts to connect with our customers and serve them on a more personal level.



### **Our Mission**

Our newly-formed Architectural Solutions Team is to serve our clients as their comprehensive project partners for delivering the best customer experience in the market. Our team collaborates to create exceptional outcomes through the seamless integration of architectural daylighting design, including: Product education and inspiration, assistance in design, and full-service support from project start to finish.



### Services Available

- Design Assistance
- Testing and code information
- Technical details

- System performance analysis
- Daylighting modeling
- Preliminary structural review

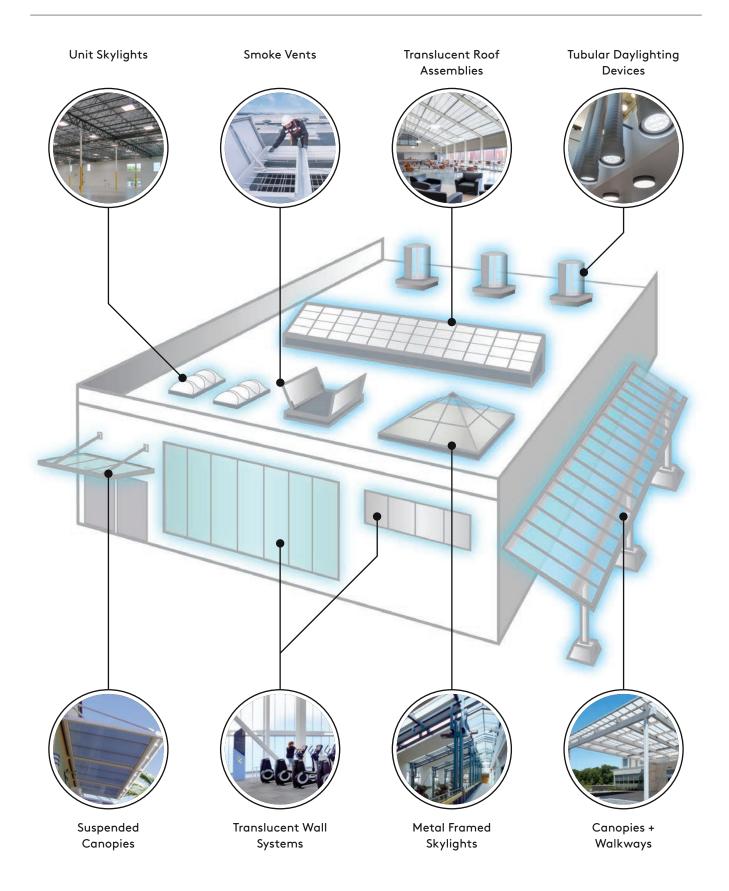


### **Project Assistance**

We are here to help! Your Project Designer is a daylighting industry expert who:

- Assists with product selection and system design
- Helps identify exact daylighting needs for your project
- Models alternate design solutions when needed
- Provides daylighting inspiration packages with images
- Designs solutions with your exact budget and performance goals in mind
- Provides budgetary pricing during conceptual design and design development

# Kingspan Light + Air Family of Products



# Translucent Wall Assemblies

# UniQuad® Polycarbonate Multiwall Systems

UniQuad® translucent wall systems feature a unitized panel design of aluminum support members and polycarbonate multiwall glazing that provides light control and high thermal performance along with the versatility to meet the functional and creative needs of any building design. Systems may be customized for a wide range of performance and aesthetic needs, including sound control, custom colors and graphics, specialty systems for hurricane and blast protection, integration with insulated metal panels, insulation options and more. UniQuad® Window systems, designed for smaller openings, are also available.

Best of all, UniQuad® is easy to install and maintain, and features excellent end-of-life sustainability, as most materials can be recycled (an Environmental Product Declaration is also available).





### Innovative Design

The hallmark of the UniQuad® system is the innovative two-piece panel connection, which enables the system to be unitized. The panels themselves are factory glazed and assembled for superior quality control. The unitized construction of the system results in quick, cost-effective installation.



# Translucent Wall Assemblies



# Guardian 275® Fiberglass Reinforced Polymer Systems

Guardian 275® translucent panel wall systems are a versatile daylighting tool. From the numerous thermal and specialty performance options to extensive warranties, Guardian 275® systems offer long-term reliability and a wide range of design versatility.

Guardian 275® translucent wall systems feature a lightweight sandwich panel design and innovative Ultimate Series™ fiberglass technology for long-term durability. They also come standard with concealed fasteners, an innovative "snap and capture" detail that provides rapid field installation and secure holding power, and excellent protection against water and air infiltration via EPDM gasketing and long-lasting high-performance sealants. Guardian 275® is available with a variety of insulation options, as well as a 4″ panel option for enhanced thermal performance.



# Colby Photo by Jeremy Bittermann / JBSA



### Engineered to Perform

Guardian 275® wall systems are designed with a snap-to-lock caps and concealed fasteners for a clean look. Thermal breaks are available for both the panels and framing, and two panel widths are available - 2.75" and 4".



# Translucent Roof Assemblies

# Quadwall® Polycarbonate Multiwall Systems

Quadwall® two panel translucent skylights diffuse sunlight, provide excellent thermal performance, and are significantly lighter than traditional glass systems. Glazing panels are pre-assembled for easy installation and are designed to span long distances, allowing for a clean look with less visible exterior framing. Quadwall®, available in a variety of specialty configurations and custom designed to fit your project's needs, is an excellent choice for both new construction and renovation.

Quadwall® skylights are available in a variety of standard shapes, including vaults, ridges, single-slopes, pyramids, and more. Vibrant glazing colors are also available, making it easy to incorporate school or logo colors into your design.

Quadwall® skylights are an impactful design tool that can make a space more inviting, and create an open and comfortable environment for occupants.





### Versatility +

Quadwall® systems feature Removable System Technology (RST) that allows for glazing panels to be removed independently from one another, making repairs and retrofits possible without opening interior spaces to the elements.



# Translucent Roof Assemblies



# Guardian 275® Fiberglass Reinforced Polymer Systems

Guardian 275° skylights provide built-in sun control, eliminating many of the issues common with traditional glass systems. Their aluminum framing and sandwich panel construction also make them strong but lightweight, often reducing the need for additional support structure.

Guardian 275® systems feature advanced Ultimate Series™ face sheet technology for long-term dependability, and can be configured with thermal breaks as well as numerous insulation options for enhanced performance in more demanding climates. Guardian 275® panels are also available with a variety of sheet color options, and panel insulation can also be tinted to create a stained-glass look or to incorporate school or logo colors. Smaller sized single slope and pyramid skylights can also be partially assembled prior to shipping, allowing for faster installation.





### Performance Focused

Guardian 275® skylights feature built-in moisture management, including integral gutters on framing members, which allows any built-up condensation to escape to the exterior of the building.



# **Tubular Daylighting Devices**



# SkyVault, SolaMaster, and Brighten Up Systems

Solatube tubular daylighting devices deliver optimal light levels to hard-to-reach areas that traditional windows or skylights cannot reach. They harvest natural light using patented rooftop domes, then transfer the light to interiors through highly reflective tubing with minimal light loss and perfect color rendition. At the ceiling level, specially designed lenses evenly disperse the daylight throughout the space for energy-efficient light that is cost-effective and sustainable.

Great for retrofit and new construction, Solatube daylighting systems are modular and easy to integrate in ceiling systems. Unlike traditional skylights, they are designed to be reconfigurable over time, and to reduce glare and inconsistent light patterns while screening UV and infrared wavelengths that can fade finishes and overheat interiors.

Solatube's commercial daylighting systems include SkyVault for large spaces, SolaMaster for medium sized spaces and Brighten Up for smaller areas.





### Advanced Technology

Raybender® optical technology and proprietary Spectralight® Infinity tubing allow for optimal light delivery throughout the day.



# Metal Framed Skylights

# Glass Glazed Systems

Metal framed glass skylights from Kingspan Light + Air are a great way to add daylight and drama to a space. Glass skylights can flood a space with light, and add an aesthetic focal point to entryways, atriums and other well-travelled spaces. And with a wide variety of options available, including custom shapes and finish colors, plus a wide range of compatible glass options, our metal framed systems can be configured to meet just about any daylighting challenge you might face.

Our Metal Framed Skylights are also available with both standard and custom paint options and anodized finishes. All components are shipped fabricated and ready to assemble for superior quality control and a simplified installation, and smaller sizes may be pre- or partially-assembled.





### Visual Impact

Metal framed glass skylights are a great way to add eye-catching drama to a space. Expansive views of the sky can help define atriums and entryways, and allow maximum sunlight into a space.

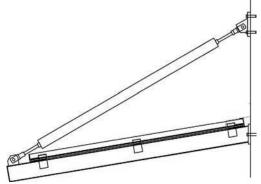


# Canopies + Walkways

BriteWay™ and Guardian 275® Canopies + Walkways

Polycarbonate glazed Briteway™ and fiberglass panel glazed Guardian 275® canopies and walkways offer shelter and protection for building occupants plus the benefits of diffuse natural light – in a system that's also cost-effective and easy to install. Whether it's a simple design or complex custom configuration, our canopy solutions feature prefabricated components for reduced labor time, with a wide range of glazing color and system design options to accommodate just about any need.

From innovative clearspan designs that eliminate the need for cross-bracing and open up the space below the canopy to U-Lite low-slope options with monolithic glazing to LiteBrow suspended canopies that come ready to install, Kingspan Light + Air has a solution for your next project.







### Design Flexibility

Translucent canopies and walkways are lightweight, allowing for design flexibility. Some Briteway™ systems are also available with a clear monolithic glazing option that allows you to mimic the look of glass with less weight and cost.



# Cladding + Rainscreen

# Single Panel Solutions

Our rainscreen + cladding system offers an effective solution for enclosing non-conditioned spaces. The single panel design uses Nano-Cell® technology to provide durability and impact resistance plus balanced distribution of natural light. The system helps modernize building exteriors or hide mechanical structures with a standing seam or flush appearance that allows for graphics and backlighting. It's a great tool for creating eye-catching light boxes that highlight an entryway or public space.

- Modernize the exterior of your building
- Meet hurricane standards
- Create an area for signage or backlighting for a unique building appearance







### Aesthetic Impact

Whether it's a large light box that announces an entryway or an expanse of panels concealing building mechanicals, our cladding and rainscreen options can turn the mundane into something beautiful.



# **Unit Skylights**

We offer dependable and cost-effective unit skylight solutions to fit nearly any project need. They arrive pre-assembled and ready to install, reducing time on-site, and are an excellent option for both new builds and retrofit projects. They're available in a wide range of sizes and models with options that include acrylic and polycarbonate dome configurations, thermally broken framing, color and prismatic glazing options and more.

Specialty options are also available, including:

- FM approved system
- High security and heavy weather options
- High velocity hurricane zone systems
- Internal safety screens and external safety cages also availabe contact us for additional detail



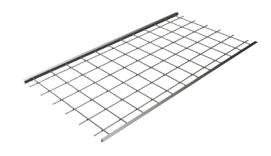




# **Roof Safety**

Kingspan Light + Air offers a wide range of roof safety solutions, including mobile safety rails and safety lines that can be installed without penetrating the roof's surface, ladder guards, and hatch guards.

Skylight-specific cages and screens are also availale, and are designed to fit with our unit skylight offerings. Contact us to find out more about our full line of roof safety products, and share your specific project requirements.









# Smoke Vents + Natural Ventilation

Smoke and heat vents bring beneficial natural light into interior spaces, but also provide a path for hot gases and smoke to exit a building during a fire. Designed to perform under tortuous conditions, they can help minimize structural damage, reduce lateral fire spread, allow fire-fighters to determine the location of a fire by observing smoke plumes from open vents, and can reduce dangerous heat and vision-obscuring and potentially toxic smoke.

Features and options include:

- Polycarbonate and Acrylic domes for efficient light capture (metal lid option also available)
- Durable aluminum or galvanized steel construction
- UL Listed and FM Approved models
- Curb mounted insulated frame optional (self-flashing bases also available)
- Available in widths up to 60" and lengths up to 96"





# **Retrofit Solutions**

Whether you're simply updating an old and outdated daylighting system or upgrading after storm damage or other failure, we can help. We offer a wide range of skylight, wall system and canopy options designed to make retrofits easy - from retrofit-ready panels to Direct-2-Fab systems that can be on-site quickly. We'll work with you to find the right solution for your replacement needs.







# **Specialty Configurations**

# Designed to Perform in a Variety of Environments





### **Blast Protection + Explosion Release**

Kingspan Light + Air offers a wide range of blast rated solutions - from polycarbonate wall and skylight systems to fiberglass panel wall and skylights systems. These systems can also be configured for explosion release.

Contact us for additional details on blast protection systems and requirements for your project.





### Hurricane + Heavy Weather

Solatube SolaMaster 750 DS series is the only rooftop daylighting device in the world compliant for use in an ICC 500 storm shelter and FEMA P-361 safe room. We also offer unit skylights, translucent walls and custom skylights that meet Texas Department of Insurance and Florida Product Approval standards, and will work with you to find the right system for your project needs.

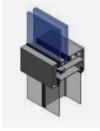




### Sound Transmission Class (STC)

Custom translucent wall and skylights systems can be configured for improved control of sound. Whether you're looking to reduce highway noise or occupant noise between workspaces, we'll work with you to find the right solution for your project.





### Mixed Glazed + Unitized Systems

Combining translucent and glass glazing is a great way to gain sun control while still allowing views to the outside. Guardian 275® systems can also be configured as a unitized system, combining translucent panels with fixed glass, operable windows and/or louvers that arrives on-site pre-assembled and ready-to-install.





### Removable Systems

Kingspan Light + Air offers a variety of translucent daylighting systems that can be configured with lifting tabs that allow for larger skylights to be removed for access to heavy equipment, or lifted into place in the case of hard-to-access building sites.

# Custom Colors, Accessories + Graphics

# Make a Statement

### **Backlighting**

Translucent daylighting systems can create a beacon-like look during evening hours with normal interior lights - but add some properly placed LED backlighting and the space can transform. Not sure where to start? We can assist you through the design process and connect you with the right lighting designers to make your project glow.





### Glazing + Insulation Color

Polycarbonate glazing is available in a variety of standard and custom colors, and can be a vibrant way to include school and logo colors in a facility. FRP panel systems come in more muted colors, but insulation can be colored to give the panels a stained glass type look. Contact us to find out more about color options and availability.





### **Custom Decorative Options**

Solatube systems are offered with a variety of standard diffusers to help the system blend into interior environments, but when you want to stand out, we'll work with you to find and source the right custom shade or tube aesthetic that can make the system a focal point in the space.





### **Applied Graphics**

Whether it's a company logo, a school mascot or a graphic that helps define a building's use, we'll work with you to define your needs and determine the best graphic solution. Simple or complex, graphics can be a great way to evoke a building's past, reinforce a brand, or simply add some fun and aesthetic impact.





### **Custom Grid Patterns**

Guardian 275® translucent panel wall and roof assemblies can be designed with custom grid patterns that stray away from the standard rectangular grid. Whether you're emulating stained glass or want to mimic the unique architectural lines in other parts of your space, we can help create a daylighting system that fits your needs.





# Focus On The Environment



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

### What is Planet Passionate?

Planet Passionate is Kingspan's ambitious 10-year global sustainability program which aims to impact three big 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 our products.



# **Our Targets**

## **ENERGY**

Target

60%

Direct renewable energy use by 2030

Target

20%

On-site renewable energy generated by 2030

Target

100%

Maintain our net-zero energy status

Target

100%

Install Solar PV systems on all wholly owned facilities by 2030



# CARBON

Target

0%

Net-zero carbon manufacturing by 2030

Taraet

100%

Zero emission company funded cars by 2025



Reduction in product CO<sub>2</sub>e intensity from our primary supply partners by 2030



# **CIRCULARITY**

Target

0

Zero company waste to landfill by 2030 rarget

 $\mathbf{1}_{\mathsf{billion}}$ 

1 billion PET bottles recycled into our manufacturing processes by 2025

Target

100%

Quadcore<sup>™</sup> products utilizing recycled PET by 2025



# **WATER**

Target

100<sub>million</sub>

Harvest 100 million liters of rainwater by 2030

Target

5

Support 5 ocean clean-up projects by 2025



### Kingspan Light + Air North America

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For more information on Tubular Daylighting Devices, visit: www.solatube.com



For more information on Fiberglass Reinforced Translucent Panel Systems, visit: www.majorskylights.com



For the product offering in other markets please contact your local sales representative or visit kingspan.com

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