Bringing light to life with the VELUX Group

More than 70 years of research and development has made the VELUX Group market leader in roof windows. The time has come to use our experience on a bigger scale.

Daylight and fresh air are essential for a healthy indoor environment. Mentally and physically we can perform better with an abundance of daylight and fresh air. This, in combination with solid energy performance remain at the core of the VELUX brand. With the new VELUX Modular Skylights we now offer these same benefits to commercial buildings. Plenty of daylight, intelligent ventilation and excellent energy performance.

Reinventing the commercial skylight

Introducing a unique design, a new material and even better energy performance. The new VELUX Modular Skylights are changing the rules of commercial skylights.

VELUX Modular Skylights mark a shift in the evolution of traditional commercial daylighting. For the first time the market is offered a fully prefabricated skylight concept. Made from a composite material that ensures excellent energy performance, thermal stability and high strength, the product is elegantly designed and meets all international standards. VELUX Modular Skylights is an excellent choice for all types of commercial buildings.
VELUX Modular Skylights

The one module that offer all the benefits of a truly modular system

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VELUX Modular Skylights are based on three key advantages

VELUX Modularity

VELUX Modularity sums up the benefits of having a complete product system with 100% prefabricated components, one single module design and an innovative installation principle that ensures fast and easy installation.

Intelligent Design

Intelligent design equals fully integrated product features and all the benefits of working closely together with the renowned architects, Foster + Partners.

Innovative Material Performance

Material performance is all about maximising the strength, stability and positive insulation properties of the entire installation by employing a composite, which is specifically designed to do the job.

Solutions

Longlight 5 - 25°
Ridgelight 25 - 40°
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Northlight 40 - 90°
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For decades skylights have been designed and installed with components that need to be customized for each specific building’s design. Glazing and profiles being delivered on separate pallets, muddled installation procedures that keep the building open to the elements and vulnerable for weeks. It has never been a straightforward task.

VELUX Modular Skylights is an entirely different story. With a fully prefabricated modular concept comes a single module system. All essential components are created, tested and integrated in a controlled environment and pre-fitted prior to delivery.

From an architectural point of view this modular concept comes from a simplified design process where transparency and ease of specification remain keywords.
VELUX Modularity

A complete skylight system

All components are designed in exact accordance to the overall system. In our controlled production facilities we monitor all aspects to ensure a perfect fit and assembly.

A unique bracket system with a simple clamp design guarantees a predictable installation process, this makes it possible to fit an entire module within minutes.

Benefits
- High level of functionality
- Perfect system fit
- Easy installation
VELUX Modularity

One module design for all solutions

Longlight 5 - 25°

Northlight 40 - 90°

Rigdelight 25 - 40°

Ridgelight at 5° with Beam

Atrium Longlight 5 - 25°

Atrium Ridgelight 25 - 40°

Based on a one-module design specifying the desired solution becomes much simpler, ensuring a safer and more transparent design process.

Benefits

- Extensive design options
- Easy specification

* Extra long modules for longlight and northlight. Constructed with an extra strong glazing unit.
* Not available with triple glazing.
All components used within VELUX Modular Skylights are prefabricated and require no processing on site. Therefore, following installation your entire solution will replicate the exact properties and safety margins proven throughout rigorous testing in tough conditions.

Tested in Northern Europe’s largest wind tunnel with gusts, reaching a full 30 M/S (storm).

Pyrotechnical testing. Glazing unit and profile are able to sustain more than 900° C for at least 30 minutes.

Tested for the effect of unwanted electromagnetic fields, interference, radio waves and noise in Northern Europe’s only audio centre.

Benefit

Reliable and predictable quality
Intelligent Design

Most contemporary skylights reveal the difficulty of creating a true minimalistic design with few obtrusive components. Actuators for ventilation and sun screening often stick out and spoil the view. VELUX Modular Skylights have overcome this challenge by creating a totally integrated modular design, inserting actuators into the sash as well as creating a simpler sun screening application. The result is a classic yet modern skylight solution complimenting the overall architectural design.
Intelligent Design

Designed in cooperation with Foster + Partners

The joint expert team from the two companies used the London Headquarters of Foster + Partners in designing the concept. 

VELUX Modular Skylights was developed in close cooperation with the renowned architects from Foster + Partners. Together we have created an intelligent design that meets all international standards and requirements for commercial building.

“This is our contribution in terms of pushing the prefabrication of sophisticated building elements forward.”

Paul Kalkhoven
Senior partner at Fosters + Partners

Foster + Partners Headquarters

From left: Paul Kalkhoven, senior partner at Foster + Partners and Brent Møller, VELUX architect, at the London Headquarters of Foster + Partners.

Benefit

Designed for architecture – engineered for performance
Intelligent Design

Fully integrated ventilation and sun screening

Ventilation and sun screening components are subtly integrated within the skylight design. Actuators for venting modules and roller blinds are concealed in the slim profiles, meaning there is no visual difference to distinguish between fixed and venting modules.

1. Slim profiles and a flush exterior surface ensures an elegant look.
2. Chain actuators for venting modules are fully concealed.
3. Internal blinds add to the minimalism with a “floating” design.
4. Ultra small motor hidden inside the blinds.

What you draw is precisely what you get.

Benefits

- Minimalistic and elegant design
With low-energy glazing units VELUX Modular Skylights offer one of the lowest overall U-values for frame and glazing assembly on the market. 1.4 W/m²K with a standard double-glazing unit and only 1.0 W/m²K with a standard triple-glazing unit for both fixed and venting modules. Furthermore, a life-cycle assessment shows that VELUX Modular Skylights offer a better environmental profile than traditional aluminium skylights, due to a better overall energy performance.
Material Performance

A new framing material made from pultruded fibreglass and polyurethane

1. **Thermal conductivity (W/mK)**
   - A low score means high insulation performance

   Profiles used for VELUX Modular Skylights consist of an extremely low-conductive pultruded fibreglass and polyurethane composite.

2. **Linear expansion coefficient (10^-6 m/m K)**
   - A low score means high thermal stability

   Whereas traditional skylight materials are bound to change form due to thermal fluctuations, the composite of VELUX Modular Skylights will maintain its dimensional properties, prolonging the expected lifetime of the application.

3. **E-Modulus (GPa)**
   - A high score means high strength

   Material that combines low-conductive properties with high strength is usually hard to achieve. Thanks to the nature of the VELUX composite we are able to combine the two characteristics, giving the slim profiles self-supporting strength and an ability to support installations of considerable size.

Source:
- 1) Approved external test institute
- 2) According to EN ISO 10077-2
- 3) Value identical to fibreglass
- 4) www.engineeringtoolbox.com
- 5) Internal VELUX test

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**Benefit**

VELUX composite - a material ideal for skylight profiles
Longlight 5 - 25°

Longlights are bands of VELUX Modular Skylights, pre-fitted with installation brackets and clamps that guarantee a fast and secure installation. The flashing allows for configurations with a pitch of 5 to 25°.

1. Mounting bracket
   The galvanized steel bracket system for fastening the module consists of two identical brackets and clamps in top and bottom, ensuring a precise and easy installation.

2. Down to 5° pitch
   The design permits installations down to a 5° pitch. Using fixed as well as venting modules.

3. Modular flashing
   The prefabricated modular flashing comes with integrated insulation and snow stop. The flashing is easy to install and guarantees a perfect fit that makes it 100% waterproof.
Ridgelight 25 - 40°

Ridgelight, with a 25 - 40° pitch, is a classic looking solution, consisting of two rows of skylights that support each other. No beam is required as the construction is a self-supporting structure. The flashing allows for installations with a 25 - 40° pitch.

1. **Mounting bracket**
   - The galvanized steel mounting bracket at the bottom and the interlocking ridge bracket at the top ensures a precise and easy installation.

2. **Self-supporting ridge**
   - The self-supporting ridge is covered internally by a white cover that offers an elegant finish.

3. **No on-site adjustment**
   - The solution-specific ridge flashing is prefabricated and supplied by the VELUX Group. No on-site adjustment is needed.
Ridgelight at 5° with Beam

Ridgelight at 5° pitch generates the illusion of a small glass roof with discreet transverse horizontal supporting beams. Ridgelight is mounted on a rail system that guarantees fast and secure installation.

1. Mounting bracket
   The galvanized steel mounting bracket at the bottom and the interlocking ridge bracket at the top ensures a precise and easy installation.

2. Supporting beam
   The prefabricated VELUX beams support the modules and create a 5° pitch. The beams are mounted on the sub-construction.

3. Flashing
   The prefabricated modular flashing comes with integrated insulation. The flashing ensures a 100% waterproof installation and seamless integration between roof material and skylights.
Northlight 40 - 90°

Similar to longlights, northlights are strips of VELUX Modular Skylights. The characteristic upright design is primarily for installations that are directed towards the northern hemisphere for soft and reflected lighting. Northlight installations are applicable for pitches from 40° to 90°.

1. **Mounting bracket**
The galvanized steel bracket system for fastening the module consists of two identical brackets and clamps in top and bottom, ensuring a precise and easy installation.

2. **Up to 90° pitch**
The design permits installations up to 90° pitch, using fixed as well as venting skylights.

3. **Flashing**
The prefabricated modular flashing comes with integrated insulation. The flashing ensures a 100% waterproof installation and seamless integration between roof material and skylights.
Atrium Longlight / Ridgelight

An atrium solution consists of several longlights or ridgelights attached to each other in the subconstruction. A drainage gutter separates each strip.

The supporting steel beams are not included in the VELUX delivery. The support structure must be designed by a structural engineer specifically for each project.

1. Full functionality
   Atrium brings together all VELUX indoor climate functionalities, including automated ventilation and internal blind control.

2. Maintenance
   The valley gutter, separating the bands of skylights, offers easy access for external service and cleaning.

Atrium Ridgelight

An atrium ridgelight is applicable in building designs that have a relatively wide span between transverse beams.
Glazing unit

Three different glazing options for optimal energy performance

VELUX Modular Skylights come with a standard low-energy double-glazing unit. Alternatively the skylight can be supplied with a glazing unit with improved solar protection or a triple-glazing unit for extra-low U-value.

Double-glazing unit

Triple-glazing unit

Control System

Choose between VELUX INTEGRA® or open system

Venting Modular Skylights and blinds controlled with the VELUX INTEGRA® system will be powered and controlled from a VELUX control unit using the VELUX INTEGRA® control pad, which allow the skylight modules and blinds to be set in any position and offers a range of programming features.

Venting Modular Skylights and blinds controlled with the open system solution is connected to ±24 V DC and can be connected to, and integrated in, common building automation fieldbus systems.

The VELUX INTEGRA® control pad offers fully automated control.

A wall switch is for basic control of blinds and ventilation.

A combined rain and wind sensor is available as an accessory.

Sunscreening

Blinds help control the indoor climate

The internal roller blind is designed for installation with VELUX Modular Skylights. The blind offers protection against heat and glare and is available in three commonly used colours. The fabric is colourfast and very durable. All brackets and wheels are grey.

Sunscreening

Fire resistant

Grey White Black White
Sub-construction

An accurate sub-construction precedes a trouble-free installation

To achieve a trouble-free installation process the sub-construction needs to accommodate the unique module installation system. VELUX Modular Skylights require an accurate fixed dimensioned substructure. Likewise the strength of the sub-construction needs to be calculated from project to project, based on the building design and application size. Hence the sub-construction is not part of the prefabricated modular system.

1. Timber
   Timber remains the most flexible choice for creating a light and economical sub-construction with maximum energy performance. Due to its limited strength timber is not recommended for larger solutions and ridgelight installations.

2. Steel
   Steel offers flexibility in combination with great strength. Steel also permits the application to be installed with the maximum amount of insulation.

3. Concrete
   Concrete provides a strong, but heavy sub-construction, mostly suited for concrete buildings. Whereas a wood or steel sub-construction can be prefabricated and hoisted onto the roof, concrete upstands are usually cast in-situ.
A Logical Delivery

All elements are labelled for logistical control and building optimization.

On delivery each pallet is clearly marked with a letter, signifying the components ranking in the installation process. The letters make it easy to arrange the delivery on arrival and plan the following installation, so that each component is made available at the right time at the right location.

VELUX Guarantee

VELUX Modular Skylights are supported by a 10-year guarantee.

VELUX Modular Skylights and VELUX flashings are supported by a 10-year guarantee. Blinds, actuators and other electrical components that are a part of the modular system comes with a 3-year guarantee.

All warranty is subject to correct installation and usage. Warranty conditions can be found on www.modularskylights.velux.com

Tools and References

Take a look at our professional tools and references on velux.co.uk/modularskylights

Website

Visit the product website, explore our vast amount of background material and try our professional tools.

Films

Get the entire vision and product overview in only a few minutes. The film offers a rare look behind the scene at Foster + Partners and uncovers the development process from start to finish.

Technical data

All vital data is available in the technical data sheets. Order your free copy or download the sheets directly from the website.

Case stories

Explore existing projects and read what architects, builders, installers and end users think of VELUX Modular Skylights.

VELUX Daylight Visualizer

Test the daylight effect of your project in relation to the ecliptic and your chosen application.

CAD and BIM

Visit our website to download valuable professional tools, including CAD, ArchiCAD and Revit elements. Register to receive regular updates.

VELUX Guarantee

VELUX Modular Skylights are supported by a 10-year guarantee.

VELUX Daylight Visualizer

VELUX Modular Skylights created a bright and inspiring learning environment at Sågbäcksgymnasiet. The day was bright and sunny, and the new skylights were installed in a ridge solution.

Sågbäcksgymnasiet

The sub-construction is not included in the VELUX delivery. The sub-construction as shown in the drawing only represents general instruction of other building suppliers.

VELOX Modular Skylights Sub-construction

Sub-construction for ridgelight at 25-40° pitch

VELUX modular skylights installed in a ridgelight solution are build on a sub-construction made of steel or concrete. The sub-construction raises the modules above the roof surface, protecting the construction against water and drifting snow, and provides the supporting base for the modular skylights.

Sub-construction for Longlight 5-25° pitch

The sub-construction is not included in the VELUX delivery. The sub-construction as shown in the drawing only represents general instructions of other building suppliers.
On-site VELUX Support

From drawing board to building site

The VELUX Group offers on-site expert support during the entire project. Based on each building case we help to identify the best product and delivery option. All technical documentation is available offline and online for planning, easy specification, design processing etc.

To ensure a trouble-free installation process, we also offer training of commissioned installers, providing them with vital knowledge and the confidence to get the job done in a safe and timely manner. Following installation, we offer comprehensive after sales support by way of user guidance, product maintenance and timely solution updates.

Consultancy and Support

Contact VELUX Modular Skylights for more information and support

Our experts will help you identify the best and most viable solution. Contact us for more information.

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