

# **Residential Skylights**

Bringing light to life

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Why VELUX Skylights

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# A window into a smarter, healthier home.

### VELUX ACTIVE indoor climate control

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Whether you're at home or away, VELUX ACTIVE is your home's climate control and monitoring system. Trusted to create a healthier home environment, VELUX ACTIVE's sensor-based controls pair with your smartphone and automatically adjust your skylights and blinds for ideal temperature and air quality.

Download your VELUX ACTIVE app now for a smarter, healthier home.



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### Testing data

63 Testing Data





# The logical choice for any skylight installation

See how easy it is to upgrade to a Solar-Powered "Fresh Air" Skylight

Considering adding daylight and fresh air to your home? See how easy and affordable it is. With a 30% federal tax credit, homeowners receive an average of \$850 on product and installation.





Fixed Skylight

Solar-Powered "Fresh Air" Skylight

### Considering just a Fixed Skylight?

Upgrade from a fixed skylight to a Solar-Powered "Fresh Air" Skylight with all the features for around **\$100 after tax** credit eligibility!\*



Manual "Fresh Air"Skylight



Solar-Powered "Fresh Air" Skylight

### Considering just a Manual "Fresh Air" Skylight?

Upgrade from a Manual "Fresh Air" Skylight to a Solar-Powered "Fresh Air" Skylight with all the features and **save around \$140 after tax credit eligibility!\*** 

\* For more information, visit: veluxusa.com/taxcredits

### Eligible for a **30%** Federal Tax Credit

Receive an average of \$850\* on product and installation with federal tax credit eligibility

### Deck-Mounted Solar-Powered "Fresh Air" Skylight





# Clean, Quiet & Safe Glass



### Clean

Features Neat<sup>®</sup> glass coating to keep your skylight cleaner longer, leaving skylights virtually spotless

### Quiet

Reduce unwanted outside noise by up to 25% compared to a standard double pane glass, and up to 50% compared to a plastic skylight

### Safe

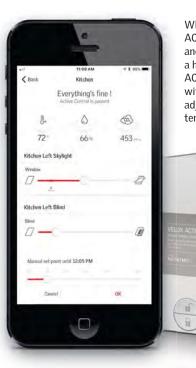
8-ft.

VELUX recommends and building codes require laminated glass for out of reach applications





# VELUX ACTIVE is the new all-in-one solution for automatic control of indoor climate.



Whether you're at home or away, VELUX ACTIVE is your home's climate control and monitoring system. Trusted to create a healthier home environment, VELUX ACTIVE's sensor-based controls pair with your smartphone and automatically adjust your skylights and blinds for ideal temperature and air quality.

VELUX



# Fifth Wall Shift Your Outlook

They say the quietest people have the loudest minds. The same can be said for the most unnoticed yet impactful wall in every room – the ceiling. It's more than a roof over your head and more than a surface to be painted white and forgotten. As an unexpected design space with a direct connection to the great wide open, it's your Fifth Wall.

This untapped design opportunity has the power to completely transform spaces from top to bottom. The Fifth Wall allows you to set your sights higher than the average wall. That's why skylights are a must-have on your home renovation to-do list.

When in need of a fresh perspective, all you have to do is look up.

### Choosing the right glass

Clean, Quiet & Safe Glass

# Recommended for out-of-reach applications

### 10-year hail breakage warranty

or complete informat

#### Clean



Features Neat<sup>®</sup> glass coating to keep your skylight cleaner longer, leaving skylights virtually spotless

#### Quiet



Reduce unwanted outside noise by up to 25% compared to a standard double pane glass, and up to 50% compared to a plastic skylight

#### Safe



Neat<sup>®</sup> glass: The smooth surface

disperses water evenly, removing dirt

more quickly and reducing water spots.

Clean, Quiet & Safe Glass (xx04) Dual pane laminated glass Standard on: VSS, VCS, VSE, VCE skylights

When Neat<sup>®</sup> is applied to LowE glass, it combines the ultimate in low maintenance with the best energy-conserving LowE glass on the planet. So homes stay warmer in winter, cooler in summer. Neat<sup>®</sup> LowE conserves energy year-round, too, saving homeowners up to 25% annually.

Clean, Quiet & Safe Glass also available in the following options:



Impact (xx06) Available on: VSS, VSE, VCS, VCE, VS, VCM, FS, FCM, QPF

White laminated (xx08) Available on: VSE, VCE, VS, VCM, FS, FCM, QPF



Ordinary glass: Water beads higher on

rough surface of ordinary glass, causing more spots and greater cleaning needs.

Snowload (xx10) Available on: VSE, VCE, VS, VCM, FS, FCM, VSS

### Tempered Glass - Recommended for in-reach applications

Tempered Glass (xx05)

If your skylight is within reach, our tempered glass is dual-paned, triple-coated with LowE3, dual-sealed and injected with argon gas. This provides excellent energy efficiency and thermal performance for year-round comfort.



Dual pane tempered glass

# ENERGY STAR®

Use of ENERGY STAR® products

### One of the most straightforward ways to help meet energy codes as a builder or architect, while still designing bright, airy buildings, is to specify ENERGY STAR certified products.

Most VELUX residential products are ENERGY STAR certified in all 50 states, which means they meet energy efficiency standards set by the US Environmental Protection Agency (EPA). ENERGY STAR certified fenestration products must have their U-factor, Visible Transmittance, and Solar Heat Gain Coefficient ratings independently tested and approved under the FenStar<sup>SM</sup> Certification Program of the National Fenestration Rating Council (NFRC) to qualify.

By specifying or using ENERGY STAR certified products, architects and builders can use windows and skylights to bring much needed daylight and fresh air inside allowing them to create more attractive buildings and more livable spaces while still meeting the local energy codes economically.

In warmer climates, there is great potential for lighting energy savings using emerging control technologies in combination with more effective daylighting products like VELUX skylights with blinds and Sun Tunnel skylights.

Visit: energystar.gov for more information.



## Code compliance

Performance requirements

VELUX offers a broad array of skylights and Sun Tunnel skylights that meet the applicable performance requirements and testing and labeling standards written into the most current US Model Codes:

- 2018 IBC (International Building Code),
- 2018 IRC (International Residential Code), and
- 2018 IECC (International Energy Conservation Code), as well as local and regional codes that are based on the above (and earlier) codes.

In addition, electrical components built into VELUX products are UL listed.

Standard VELUX residential skylights and Sun Tunnel products also meet or exceed applicable Powersmart requirements, in addition to those of the current and prior North American Fenestration Standards (NAFS) also known as AAMA/ WDMA/CSA 101/I.S.2/A440, with one exception: copper-clad versions.

To verify these attainments on-site, the products are shipped with all required labels to expedite the inspection and final acceptance process. VELUX confidently certifies through these labels that only products consistent with the tested specimens are sent to the job.



# Solar-Powered "Fresh Air" Skylights

Deck-Mounted - VSS Curb-Mounted - VCS



# VELUX ACTIVE is the new all-in-one solution system for automatic control of indoor climate.

Whether you're at home or away, VELUX ACTIVE is your home's climate control and monitoring system. Trusted to create a healthier home environment, VELUX ACTIVE's sensor-based controls pair with your smartphone and automatically adjust your skylights and blinds for ideal temperature and air quality.

Monitor indoor climate temperature, humidity, and CO2

> Sliders to open/close blinds

VELUX

Apple HomeKit

Internet Gateway Connects to Internet to monitor indoor climate to provide feedback for operations

> Departure Switch Securely close skylights and activate safe mode to limit skylight functions and only operate blinds

Climate Sensor Constantly measures temperature and air quality (humidity and CO<sub>2</sub>)

### **VELUX ACTIVE**

Smart sensor-based operation of your VELUX skylights, and blinds.

with **NETATMO** 



**Fifth Wall** 

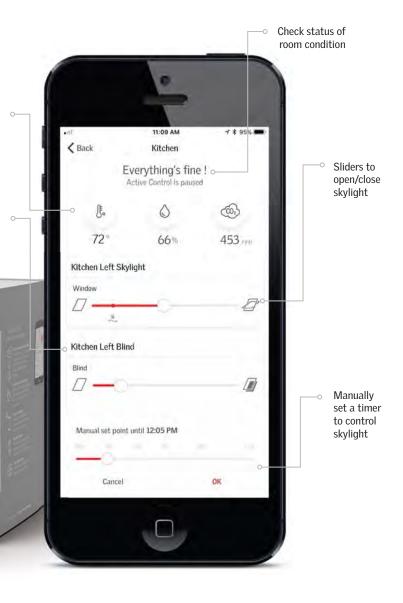
**Design Tip** 

transform ceiling wall with fun wallpaper





Download your VELUX ACTIVE app now for a smarter, healthier home.



# A window into a smarter, healthier home.

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VELUX ACTIVE indoor climate control





### Solar-Powered "Fresh Air" Skylights

Deck-Mounted - VSS Curb-Mounted - VCS



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No Leak <u>Skvlig</u>ht

No Leak Promis

Worries

### Benefits:

- With a 30% federal tax credit, homeowners receive an average of \$850\* in savings with federal tax credit eligibility.
- Features a solar panel that captures any available daylight to recharge a highly efficient, fully concealed, battery-powered operator and control system.
- Replace a fixed or manual skylight easily because no wiring is required.
- KLI 110 remote and insect screen included with skylight.
- Available in deck and curb-mounted applications.

Model VSS 85 3:12 - 137:12 C04 C01 C06 C08 M02 M04 M06 M08 S01 S06 30<sup>1</sup>/<sub>16</sub> x 30 30<sup>1</sup>/<sub>16</sub> x 45<sup>3</sup>/<sub>4</sub> 44<sup>1</sup>/<sub>4</sub>x 26<sup>7</sup>/<sub>8</sub> 21 x 26<sup>7</sup>/8 21 x 37 7/8 21 x 45 <sup>3</sup>/<sub>4</sub> 21 x 54 <sup>7</sup>/<sub>16</sub> 30<sup>1</sup>/<sub>16</sub> x 30<sup>1</sup>/<sub>16</sub> x  $44^{1/4} \times 45^{3/4}$ Rough opening (W-in. x H-in.) 377/8 54 7/16 Model VCS 60 2222 2234 2246 3030 3046 3434 4622 4646  $25 \frac{1}{2} x \frac{25 \frac{1}{2}}{2} x \frac{25 \frac{1}{2}}{2} x \frac{37 \frac{1}{2}}{2} \frac{25 \frac{1}{2} x 49 \frac{1}{2}}{2} \frac{33 \frac{1}{2} x 33 \frac{1}{2}}{33 \frac{1}{2} x 39 \frac{1}{2}} \frac{37 \frac{1}{2} x 37 \frac{1}{2}}{37 \frac{1}{2} x 37 \frac{1}{2}} \frac{49 \frac{1}{2} x 25 \frac{1}{2}}{49 \frac{1}{2} x 49 \frac{1}{2}}$ Outside curb (W-in. x H-in.)

#### \*For more information visit: veluxusa.com/taxcredits

### Fifth Wall Design Tip

transform dark bonus rooms with light



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# Electric "Fresh Air" Skylights

Deck-Mounted - VSE Curb-Mounted - VCE



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Monitor indoor climate temperature, humidity, and CO2



Internet Gateway Connects to Internet to monitor indoor climate to provide feedback for operations

> Departure Switch Securely close skylights and activate safe mode to limit skylight functions and only operate blinds

Climate Sensor Constantly measures temperature and air quality (humidity and CO<sub>2</sub>)



Fifth Wall Design Tip

illuminate the geometry of

structural beams



**VELUX ACTIVE** 

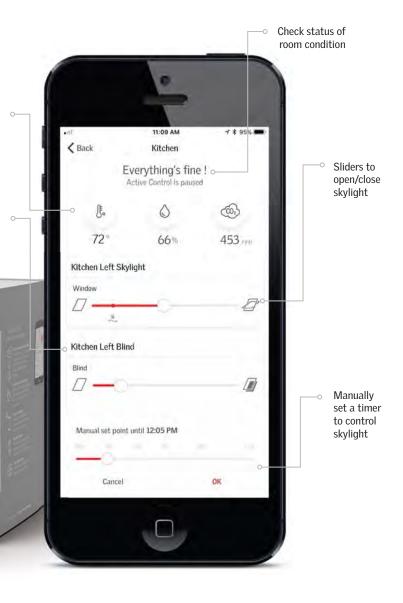
Smart sensor-based operation of your VELUX skylights, and blinds.

with **NETATMO** 





Download your VELUX ACTIVE app now for a smarter, healthier home.



# A window into a smarter, healthier home.

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VELUX ACTIVE indoor climate control





### Electric "Fresh Air" Skylights

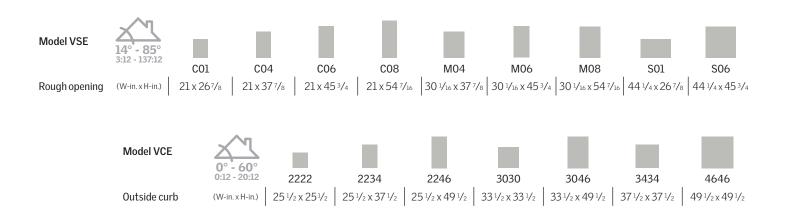
Deck-Mounted - VSE Curb-Mounted - VCE





### Benefits:

- A pre-installed concealed motor and control system powered by VELUX INTEGRA® allows you to enjoy the one-touch convenience of a remote control.
- With the integrated rain sensor, electric skylights will close automatically in case of inclement weather.
- Pre-mounted Pick&Click!<sup>™</sup> system brackets make the installation of sunscreen blinds a snap.
- Factory pre-finished white frames and sashes provide a high quality finish that eliminates the need for secondary, high cost trips by a painter.
- KLI 110 remote and insect screen included with skylight.



### Fifth Wall Design Tip

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create serene spaces with diffused light from above

# Manual "Fresh Air" Skylights

Deck-Mounted - VS Curb-Mounted - VCM



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## Manual "Fresh Air" Skylights

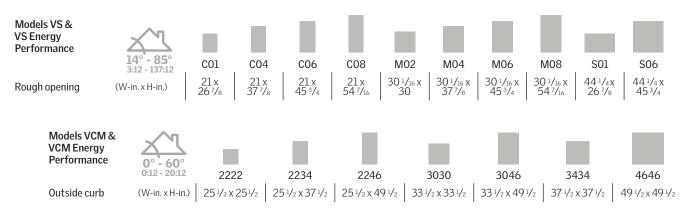
Deck-Mounted - VS Curb-Mounted - VCM



### NEW VS & VCM Energy Performance Model



- Factory pre-finished white frames and sashes provide a high quality finish that eliminates the need for secondary, high cost trips by a painter.
- Pre-mounted Pick&Click!<sup>™</sup> system brackets make the installation of sunscreen blinds a snap.
- Replacement kits (ZZZ 238) are available and sold separately for all VS skylights. The kit allows the installer to use a standard size VELUX VS on a non-standard opening while minimizing the amount of interior trim work needed. For more information, see page 49.



### Fifth Wall Design Tip

bring in cool breezes with Fresh Air Skylights

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# Fixed Skylights

Deck-Mounted - FS Curb-Mounted - FCM Self-Flashed - QPF



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# Fixed Skylights

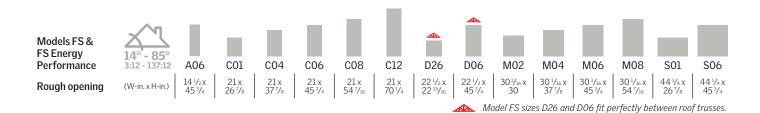
### Deck-Mounted - FS

### **NEW** FS Energy Performance Model





- Pre-finished white wood frame and protective aluminum or copper cladding.
- Integrated gaskets drain condensation to the outside.
- Streamlined exterior profile does not obstruct your roofline.
- Pre-mounted Pick&Click!<sup>™</sup> system brackets make the installation of sunscreen blinds a snap.



### Fifth Wall Design Tip

connect outdoor rooms with sky views of nature

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# Fixed Skylights

Curb-Mounted - FCM

**NEW** FCM Energy Performance Model





- Integrated gaskets drain condensation to the outside.
- Streamlined exterior profile does not obstruct your roofline.
- A sunscreen accessory tray for standard site-built curbs allows for installation of VELUX Pick&Click!™ blinds.

#### Custom Size Fixed Curb-Mounted Skylights - Custom FCM Shipping Curb Curb Curb Width: 18 3/4 - 50 3/4 Width: 18<sup>3</sup>/<sub>4</sub> - 50<sup>3</sup>/<sub>4</sub> (To be built onsite) Note: Custom size flashing kits and custom size blinds are not available. Height: 18<sup>3</sup>/<sub>4</sub> - 72 **Height:** 72<sup>1</sup>/<sub>4</sub> – 76<sup>1</sup>/<sub>2</sub> Outside curb dimension Note: Some specialty glass options require Delivered: 8-14 days Delivered: 20 days (including roofing and flashing material) longer lead times Provide make size (Max num skylight clearance) Models FCM & FCM Energy **0**° - 60° 0:12 - 20:12Performance 1430 1446 2222 2230 2234 2246 2270 3030 3046 3434 3446 4646 17<sup>1</sup>/<sub>2</sub> x 17 1/2 X 25 1/2 x 25 1/2 x 25 1/2 x 25<sup>1</sup>/<sub>2</sub>x 25<sup>1</sup>/<sub>2</sub>x 33 1/2 X 33 1/2 X 37 1/2 x 37 1/2 X 49 1/2 x **Outside curb** (W-in. x H-in.) 37 1/2 491/2 371/2 331/2 491/2 25<sup>1</sup>/<sub>2</sub> $33^{1/2}$ 731/2 331/2 491/2 491/2 491/2



# Self-Flashed Skylights

Self-Flashed - QPF

**NEW** QPF Energy Preformance Model



efficiency by automatically controlling blind position based on seasons.

WINTER

### Benefits:

- · Pre-finished white wood frame and protective aluminum exterior.
- Integrated gaskets drain condensation to the outside.
- Streamlined exterior profile does not obstruct your roofline.
- Pre-mounted Pick&Click!<sup>™</sup> system brackets make the installation of sunscreen blinds a snap.

See page 36





# Instant Light Shaft Ready-made skylight liner for easy and airtight

Ready-made skylight liner for easy and airtight completion on deck-mounted skylights (Model ZZZ 234)

For 90° shafts











The VELUX Instant Light Shaft simplifies the installation of a skylight by eliminating the time and costs associated with the construction of a traditional drywall light shaft.

- 1. Prefabricated light shaft assembly kit
- 2. Assemble moulding
- 3. Install mounting clips to skylight drywall groove
- 4. Measure and cut panels to proper depth and join to moulding
- 5. Align assembled light shaft to mounting clips and click to install
- No drywall, spackling, sanding and painting needed
- Works on all "box" type light shafts (not flared)
- 16" standard depth (trim to actual on site)
- All other pieces are pre-cut to size to be site assembled
- 4" minimum spacing required around all sides if multiple skylights are installed

Smaller sizes: C01, C04, C06, C08 Bigger sizes: M02, M04, M06, M08, S01, S06

Must provide skylight size code when ordering. Example: ZZZ 234 MO2



5-Star

Skylight Specialist

# Need an installer?

- Use our installer locator at veluxusa.com/installer.
- Check with your local VELUX skylight dealer.
- Contact VELUX Solutions at 1-866-358-3589.

We offer a Skylight Specialist program for local independent installers. A VELUX Skylight Specialist is

- Carefully screened by us.
- Required to complete an extensive training program.
- Provides the best solutions for your daylighting needs.



# Blinds

Room Darkening - double-pleated Light Filtering - single-pleated Blackout - flat fabric



bring in color accents with blinds





# Factory-Installed Blinds

Ten factory-installed blinds are available to include with the purchase of your skylight. Most models are available in either manual or solar powered. The solar-powered blind uses its own independent, built-in solar panel and power system.

## In-stock room darkening - double-pleated blinds

## Room darkening

Blackout cloth with honeycomb structure.



## **Energy** efficient

Aluminum coating inside improves the insulation effect.



## Sleek design



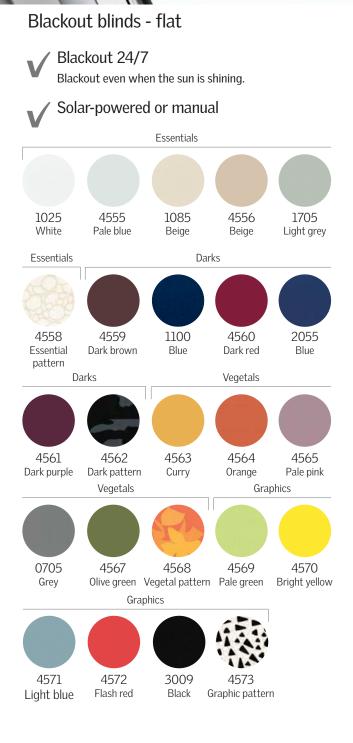
## In-stock light filtering - single-pleated blinds







## **Special Order Blinds**



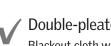
## Light filtering - single-pleated blinds





Note: Special order blinds ship separately from your skylight. Please allow 14 working days for delivery. \*For more information visit: veluxusa.com/taxcredits





**Double-pleated blinds** 

Blackout cloth with honeycomb structure.

Room darkening - double-pleated blinds



Energy efficient

40% improvement in U-value energy performance.



Sleek design Neat pleats.

## Easy installation

Installs in minutes with VELUX Pick&Click!<sup>™</sup> system.

## Solar-powered or manual



## Venetian blinds





## Energy Performance model can boost energy performance up to 40%

Choose from 5 color blinds. Double-pleated, room darkening, solar-powered blind improves energy performance up to 40%.



## Seasonal automation optimizes energy efficiency

Reduce energy dependency and maximize efficiency by allowing the homeowner or system to control blind positioning based on outside conditions.

Easy programmable remote control for winter and summer modes.



Blinds automatically close at night during winter months to maximize energy efficiency and reduce heating costs.



Blinds automatically close during the daytime in warm summer months to maximize energy efficiency and reduce cooling costs.

\*For more information, please visit veluxusa.com/taxcredits. All calculations are based on the estimated cost of both the product and installation. These estimates were generated assuming a typical installation and used national averages for a new skylight cut-in. Actual installation costs will vary from these estimations based on common variables in roof construction and shaft construction.

## NEW Energy Performance Model

## Energy performance and tax savings all in <u>one box</u>

✓ Skylight✓ Solar Blind✓ Remote Control

## **30%** Federal Tax Credit

Receive an average of \$730 on product and installation with federal tax credit eligibility.

Available for the following models: VS, VCM, FS, FCM, QPF

For more information visit: veluxusa.com/taxcredits\*







## Natural ventilation with a closed window

Let fresh air into your home without having to worry about security or bad weather, even when you are away or sleeping. Pull the unique top control bar once and you will allow fresh, filtered air to enter through the ventilation flap.

## White Polyurethane

Perfect for contemporary interiors and white ceilings. The polyurethane molding has no visible joints, and therefore ensures a moisture resistant finish that requires less maintenance than lacquered natural pine.



## More access to the outdoors

All of our roof windows make it easier to gain access to the outdoors.

## **Roof Windows**

Top-Hinged Roof Window - GPU Center-Pivot Roof Window - GGU



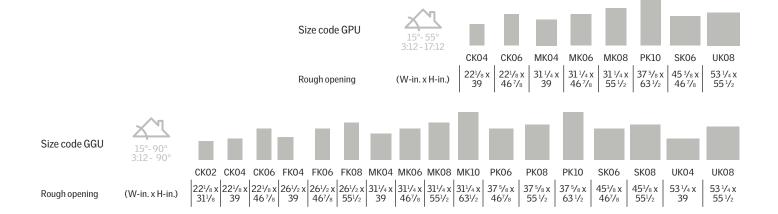
Top-Hinged Roof Window - GPU

Center-Pivot Roof Window - GGU

## Benefits:

- Enjoy panoramic views while increasing your energy efficiency and natural ventilation.
- Greatly increase the amount of natural light in your rooms.
- Convenient bottom operation the perfect choice for loft conversions with windows in easy reach.
- GGU roof windows are only available for special order.
- Easy to open and quick to close with the top control bar. (GGU only)
- Low installation allows for more flexibility and better views.

Note: All cladding components for roof windows are included in the flashing box. If VELUX flashing is not used, then cladding pieces must be ordered.





## **Roof Windows**

Roof Access Window - GXU



## Benefits:

- Easy roof access for repairs, maintenance, emergency, and egress (FK06).
- Locking device keeps sash in open position.
- Slim sash and frame appearance.
- Ventilation flap.
- Can be installed as a left-hinged or right-hinged roof access window.
- Pre-installed Pick&Click!<sup>™</sup> brackets for easy blind installation.

Note: All cladding components for roof windows are included in the flashing box. If VELUX flashing is not used, then cladding pieces must be ordered.



Size code GXU







Rough opening

(W-in. x H-in.)

22<sup>1</sup>/<sub>8</sub> x 46<sup>7</sup>/<sub>8</sub>

26<sup>1</sup>/<sub>2</sub>x 46<sup>7</sup>/<sub>8</sub>

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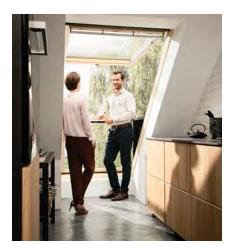
## **Balcony Roof Window**

Deck-Mounted - GDL CABRIO<sup>™</sup>



## Benefits:

- Dual-sash operation.
- Features a select wood frame with a clear finish sash coating and exterior aluminum.







Rough opening (W-in. x H-in.) 39<sup>3</sup>/<sub>8</sub> x 101



## **10-Year Installation Warranty**

Deck-Mounted - 3 layers of protection





## Deck seal

The pre-attached deck seal on all deck-mounted skylights provides a seal between the frame and roof deck for a leak-proof installation.

## Adhesive underlayment

Adhesive underlayment for secondary water protection against the harshest weather conditions.

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Flashing *VELUX* flashing must be purchased in order to qualify for the 10-year installation warranty.

Engineered flashing for easy installation and primary water protection.

For complete information visit thenoleakskylight.com.

## The No Leak Skylight • No Leak Promise • No Worries

## Curb-Mounted - 3 layers of protection





## 1 Pre-attached gasket

A pre-attached skylight gasket provides a seal between a standard site-built curb and the skylight that caps off a leak-proof installation for curb-mounted skylights.

## 2 Adhesive underlayment

Adhesive underlayment for secondary water protection against the harshest weather conditions for standard site-built curbs.

**3** Flashing  $\leftarrow$  ECL shingle or ECW tile flashing must be purchased in order to qualify for the 10-year installation warranty.

Engineered flashing for easy installation and primary water protection.

For complete information visit thenoleakskylight.com.

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## **Deck-Mounted Flashing Systems**

Flashing must be purchased with skylights and installed properly to benefit from the No Leak Warranty



## Shingles/shakes - EDL

- Step flashing pieces interweave with roofing material for proper water drainage.
- Additional step pieces (ZZZ 200) are required for shakes and other thick roofing materials.



## Combi applications\*

- Type EKL works with groupings on low-profile roofing materials such as shingles and shakes.
- Type EKW works with groupings on high-profile roofing materials such as Spanish tile or corrugated metal roofing.

Note: VSS only available for side-by-side applications. (EKL only)



## Tile roofing - EDW

- Patented-sill flashing features pliable pleats that form to most types of tile.
- Side and head flashing pieces form a gutter to direct water away from the skylight.

Note: Not available for VSS



## Metal roofing - EDM

- Flashing pieces interlock with roofing material for a fast weather tight installation.
- Sill apron features pliable pleats that form to the roof.



## Copper cladding and flashing

- Available for select deckmounted VELUX roof windows and skylights.
- Copper products are special order items and require varying lead-times. Call for more information.



## Biepack flashing - ECB

- Used with site-built curb on low-sloped roofs.
- No bending of flashing required.
- Applied to 2-in. x 4-in. lumber and plywood.
- Download curb construction guidelines at veluxusa.com.

\*EKL applications require 4-in. over-and-under spacing and 2.5-in. - 12-in. side-by-side spacing in ½-in. increments.

EKW applications require 4-in. side-by-side.

Roof window combi application is available as a special order with varying lead-times. 4-in. spacing is required for both over-and-under and side-by-side spacing.

## **Curb-Mounted Flashing Systems**

Flashing must be purchased with skylights and installed properly to benefit from the No Leak Warranty



Shingles/shakes - ECL

- Step flashing pieces interweave with roofing material for proper water drainage.
- Additional step pieces (ZZZ 200) are required for shakes and other thick roofing materials.



## Tile roofing - ECW

- Patented-sill flashing features pliable pleats that form to most types of tile.
- Side and head flashing pieces form a gutter to direct water away from the skylight.

Note: Also available for 14" & 22" curbmount Sun Tunnel Skylight

## Accessories

Skylight accessories

## VELUX ACTIVE

## indoor climate control starter kit (KIX 300US)



This sensor-based control system monitors the climate in your home and automatically adjusts the ventilation of your skylights and position of your blinds accordingly.

## VELUX ACTIVE indoor climate sensor (KLA 300US)



Measures temperature, humidity, and air quality (CO<sub>2</sub> levels). It can also operate INTEGRA skylights. Included in VELUX ACTIVE starter kit and can be bought separately in case extra sensors are needed. A sensor is recommended for each room with Fresh Air skylights.

## VELUX ACTIVE departure switch (KLN 300US)



Can securely close all electric/solar skylights. Safe mode limits skylight functions to only operate blinds when activated. Included in VELUX ACTIVE starter kit and can be bought separately in case extra departure switch is needed.

## Replacement Kits for FS and VS (ZZZ 238)

Replacement kit for all sizes of VS and most FS\* skylights. Allows the installer to use a standard size VELUX VS or FS skylight on a non-standard opening while minimizing the amount of interior trim work needed.

## Replacement kit (ZZZ 238) contents:

- **1.** 4 pre-cut drywall groove filler pieces minimizes interior trim work needed.
- **2.** 4 structural mounting brackets allows skylight to be used in applications with an oversized rough opening.

\* Excluding FS A06, FS C12

## Sun Screen Accessory Adapter Kit (ZZZ 232)



Enables prior model skylights to be fitted with any of our current model blinds. Available as a special order. For models manufactured prior to January 1, 2010.

## Instant Light Shaft (ZZZ 234)



The VELUX Instant Light Shaft simplifies the installation of a skylight by eliminating the time and costs associated with the construction of a traditional drywall light shaft.

49 veluxusa.com

## Angle Adapter for Chain Operator (ZZZ 203)



Extension for manual crank handle or for the manual angle adapter to make skylights easier to operate with a manual pole.

## Extension for Chain Operator (ZZZ 208)



Extension for manual crank handle or for the manual angle adapter to make skylights easier to operate.

## Trim Kit with L Parts (ZZZ 213)



Our skylight trim kit provides a clean interior finish with no trim work required. Used when replacing older style roof windows and skylights.

## VS Replacement Hook (ZZZ 202) VCM Replacement Hook (ZZZ 211)



Available for manual venting skylights.

## VS Crank Handle (*ZZZ 201*) VCM Crank Handle (*ZZZ 212*)



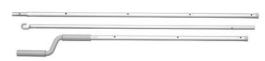
A manual crank handle used to operate deck-mounted venting skylights with a chain operator. Skylights must have been installed within reach and manufactured since 2010.

## Sunscreening Accessory Tray for Fixed Curb-mounted Skylights (ZZZ 199)



The sunscreening accessory tray combined with the revolutionary Pick&Click!<sup>™</sup> system makes blind installation quick and easy for VELUX fixed, curb-mounted skylights. It has everything built-in.

## Extension Rods (*ZCT 300, ZCT 100, ZXT 200*)



6-ft. - 10-ft. rod for operation of manual skylights *(ZCT 300)* Available for models: VS, VCM

3-ft. extension for ZCT 300, and ZXT 200 (ZCT 100) Available for models: FS, VS, VCM, QPF

## "7 hook" rod for new manual blinds (*ZXT 200*) Available for models: FS, FCM, QPF

## Home Automation Integration Kit (KLF)



The KLF provides the means for third party sensors to send wireless commands to VELUX skylights and accessories. The interface can control up to 200 solar operated or electrically powered skylights or skylight blinds. The KLF also functions as a signal repeater that extends the operating range of standard operating controls.

## VELUX Sun Tunnel Skylights

Flat glass - TLR Curb-Mounted - TCR Rigid - TMR/TGR Flex - TMF/TGF

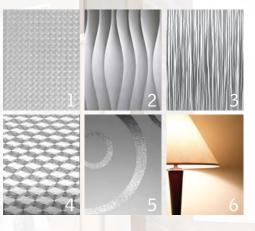


Redesigned Ceiling Ring Better looking Brighter More energy efficient

## Fifth Wall Design Tip

paint shiplap to create a vintage appearance





## 6 New Decorative Diffusers

- 1. Micro Fresnel
- 2. Triple Wave
- 3. Brushed Metal
- 4. Prismatic
- 5. Bubbles
- 6. Neutral Light



Flexi Loc<sup>™</sup> system

A tunnel connection system that reduces tunnel installation time in half. Integrates highly reflective tunnels that deliver quality daylight into the space below. VELUX Sun Tunnel Skylights capture daylight and deliver it to the interior of your home without the need for complex construction.

1

2

1 Clear UV resistant light capturing dome

2 Pivoting tunnel system for easy assembly

3 One-piece waterproof flashing assembly

4 Flexi Loc<sup>™</sup> tunnel assembly system for quick and easy installation

5 Two 45-degree elbows, one 24" tunnel section, additional available

6 Energy efficient diffuser assembly with several diffuser options



Flat Glass - TLR Curb-Metal Flashing - TCR Rigid Pitched - TMR Rigid Low Profile - TGR

Kits included two 12" 45 degree adjustable elbows and one 24" tunnel extension



## Benefits:

- Ultra low profile glass design creates a stealth appearance on any roof line.
- Perfect for developments where local ordinance do not allow domed skylights.
- Provides maximum daylight on southern exposures.
- One piece pan flashing for easy installation.



Model TLR	014
Overall flashing	25 <sup>3</sup> /8" x 30 <sup>1</sup> /2"
Rough opening (ceiling)	141/2"
Rough opening (roof deck)	141/2"
Minimum installable length	4″
Maximum recommended install length (orientation dependent)	30′





**Universal solar powered night light** for VELUX Rigid Residential Sun Tunnels (ZTZ 213)

Provides constant low-level light when the sun sets. Ensures Sun Tunnels provide light all day, every day. Available for all Rigid Sun Tunnels.









- Ideal for low sloped applications.
- Perfect for use with metal roofing, rolled roofing, and high profile roofing materials.
- One piece curb mount flashing for easy installation.



Model TCR	014
Overall flashing	22" x 22"
Rough opening (ceiling)	141/2"
Rough opening (roof deck)	16 ³/4 ″
Minimum installable length	4″
Maximum recommended install length	30'

- Pitched pan flashing is ideal for sloped roof applications.
- Pitched flashing provides optimal angle for gathering daylight within sloped applications.
- Ideal for all roof exposures.
- One piece pan flashing for easy installation.



Model TMR	010	014
Overall flashing	24 ³/4" x 26"	29" x 30 1/2"
Rough opening (ceiling)	10 1/2"	14 <sup>1</sup> / <sub>2</sub> "
Rough opening (roof deck)	14 <sup>1</sup> /2" x 16"	14 1/2 "x 20"
Minimum installable length	4″	4″
Maximum recommended install length	20′	30′

- Low profile flashing provides and integrated look with the roof line.
- Low profile dome acrylic or polycarbonate.
- Provides maximum daylight on southern exposures.
- One piece pan flashing for easy installation.



Model TGR	010	014
Overall flashing	24 <sup>3</sup> /4" x 24 <sup>3</sup> /4"	29" x 29"
Rough opening (ceiling)	10 1/2"	14 <sup>1</sup> / <sub>2</sub> "
Rough opening (roof deck)	14 <sup>1</sup> /2" x 16"	14 <sup>1</sup> / <sub>2</sub> " x 18"
Minimum installable length	4″	4″
Maximum recommended install length	20′	30′

## VELUX Sun Tunnel Skylights

Flex Pitched - TMF Flex Low Profile - TGF

Kits included 8' of flexible tunnel





## Benefits:

- Pitched pan flashing is ideal for sloped roof applications.
- Pitched flashing provides optimal angle for gathering daylight within sloped applications.
- Ideal for all roof exposures and short tunnel runs.
- One piece pan flashing for easy installation.

	14° - 60°	
	3:12 - 20:12	
Model TMF		014
Overall Flashing size		29" x 30 1/2"
Rough opening (ceiling)		14 1/2"
Rough Opening (roof deck)		14 <sup>1</sup> / <sub>2</sub> " x 20"
Minimum installable length		4″
Maximum recommended inst	all length	8′

- Low profile flashing provides and integrated look with the roof line.
- Low profile dome acrylic or polycarbonate.
- Provides maximum daylight on southern exposures.
- One piece pan flashing for easy installation.

<b>14° - 60°</b> 3:12 - 20:12 Model TGF	014	022
Overall Flashing size	29" x 29"	37" x 37"
Rough opening (ceiling)	14 <sup>1</sup> / <sub>2</sub> "	221/2"
Rough Opening (roof deck)	14 <sup>1</sup> / <sub>2</sub> " x 18"	22 <sup>1</sup> / <sub>2</sub> " x 26"
Minimum installable length	4″	4″
Maximum recommended install length	8'	8′



## Accessories

## Sun Tunnel Accessories

## NEW

Universal Solar Powered Night Light (ZTZ 213)





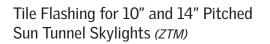
Provides constant low-level light when the sun sets. Ensures Sun Tunnels provide light all day, every day. Available for all Rigid Sun Tunnels.

## VELUX ZTL Electric Light Kit (ZTL)



UL-approved, tubular light fixture that uses an energy efficient GU24 bulb base. Capable of accepting compact fluorescent bulbs or LED bulbs.

Available for all models.





Tile flashing accessory for pitched Sun Tunnel Skylights. Engineered with a painted, malleable aluminum water diverting sheet.

## Tile Flashing for 14" & 22" Curb-mounted Sun Tunnel Skylights (ECW)

c(UL)us



A pliable, pleated, and proven curbmounted tile flashing system for VELUX curb-mounted Sun Tunnel Skylights. Engineered flashing designed for tile roofing material.

## Daylight Controller (*ZTP*) Power Supply for Controller (*ZZZ 233*)



Allows the user to control the amount of daylight that enters a room. Perfect for rooms that require room darkening.



Power supply for VELUX Sun Tunnel Skylight light control devices. Energy Kit (ZTC 0041US)



Designed to increase the energy efficiency of the VELUX Sun Tunnel Skylight while enabling it to be ENERGY STAR<sup>®</sup> certified.

## Elbows (ZTE)



A durable and easy to operate elbow that can be used at the top, bottom, or middle of your installation. Multiple elbows can be joined together with rotating couplers to form a 90° bend or any other configuration needed to maneuver around obstacles. Length 15"

## Rotating Coupler (ZTZ 211)



Easy to install tunnel and elbow coupler that enables quick tunnel connections. Rotating joint helps align tunnel sections. Available in 10" and 14"

## Rigid Tube (ZTR)



24" Tunnel sections manufactured with the Flexi Loc<sup>™</sup> tunnel connector system reduces tunnel installation time in half while delivering the highest quality daylight into the space below.

## Exterior Fire Band (ZZZ 192)



Fire band provides the dome edge protection needed for installation on Class B and C rated roofs.

## Decorative Diffuser (ZTB)

Transform Sun Tunnels to match your interior décor. Select from a range of micro engineered decorative diffusers to increase interior aesthetics and visual appeal.



Micro Fresnel

ZTB 4004US



*Triple Wave ZTB 4005US* 

Brushed Metal ZTB 4006U

Prismatic ZTB 4007US



Bubbles ZTB 4008US



Neutral Light ZTB 4009US Convert daylight to appear more like a traditional household light bulb with a warm yellow hue.

## VELUX Modular Skylights

Fully integrated ventilation and sunscreening

## Fifth Wall Design Tip

place skylights over a stairwell to illuminate the core of the home





## What are VELUX Modular Skylights?

VELUX Modular Skylights are the perfect way to open up large rooms in your home and create a light, bright and spacious environment. VELUX Modular Skylights combine elegant lines and intelligent design with exceptional energy efficiency.



## Unique design

2

Developed in collaboration with renowned architects Foster + Partners, VELUX Modular Skylights offers a minimalist design with superslim profiles. The electronics and motors in each module are concealed, creating a simple and refined look, inside and out.



## Robust and energy efficient

All VELUX Modular Skylights are constructed from an advanced composite material that makes them very strong and highly energy-efficient. The entire installation is designed to withstand extreme weather conditions, with a life expectancy stretching far into the future and a 10-Year Product Guarantee.

## VELUX Modular Skylights

## 5° Longlights suitable for roof pitches between 0°– 10° \*

Other longlight systems available for roof pitches betweeen 10°- 25° call 844-99-GOVMS

	Product code Ventilating	Product code all Fixed	Description	Total opening width x height
	HVC 100120 SL0047	HFC 100120 SL0017	Fixed: One fixed longlight, complete with all flashings components.**	41 %/16" x 51"
	HVC 100160 SL0047	HFC 100160 SL0017		41 %16″ x 67″
	HVC 100200 SL0047	HFC 100200 SL007	Ventilating: One electrically operated vented longlight, complete with all flashings components. Includes electric control system and	41 %/16″ x 83″
	HVC 100240 SL0047 HFC 100240 SL0017 wind and rain sensor.**		41 %/16" x 98"	
	HVC 100120 SL0048	HFC 100120 SL0018	Fixed: Two fixed longlights, complete with flashing components.**	81" x 51"
	HVC 100160 SL0048	HFC 100160 SL0018		81" x 67"
SZ///	HVC 100200 SL0048	HFC 100200 SL0018	Ventilating: Two longlights, one fixed, one electrically operated vent- ed, complete with flashing components. Includes electric control sys-	81" x 83"
	HVC 100240 SL0048			81" x 98"
1717m	HVC 100120 SL0049 HVC 100160 SL0049	HFC 100120 SL0019 HFC 100160 SL0019	Fixed: Three fixed longlights, complete with flashing components.**	120 <sup>4</sup> /16" x 51" 120 <sup>4</sup> /16" x 67"
	HVC 100200 SL0049 HVC 100240 SL0049	HFC 100200 SL0019 HFC 100200 SL0019 HFC 100240 SL0019	Ventilating: Three longlights, two fixed, one electrically operated vented, complete with flashing components. Includes electric control system and wind and rain sensor.**	120 <sup>4</sup> / <sub>16</sub> " x 83" 120 <sup>4</sup> / <sub>16</sub> " x 98"
17172m	HVC 100120 SL0050	HFC 100120 SL0020	Fixed: Four fixed longlights, complete with flashing components.**	159 <sup>10</sup> /16" x 51"
\$ <i>E[[]</i> ]	HVC 100160 SL0050	HFC 100160 SL0020 HFC 100200 SL0020	Ventilating: Four longlights, two fixed, two electrically operated	159 <sup>10</sup> / <sub>16</sub> " x 67" 159 <sup>10</sup> / <sub>16</sub> " x 83"
	HVC 100240 SL0050	HFC 100200 SL0020	vented, complete with flashing componets. Includes electric control	159 <sup>10</sup> / <sub>16</sub> x 85
~	HVC 100240 SL0050	HFC 100240 SL0020	system and wind and rain sensor.**	139 -716 X 90
	HVC 100120 SL0051	HFC 100120 SL0021	Fixed: 10 fixed longlights, complete with flashing components.**	395 14/16" x 51"
Eller of the second sec	HVC 100160 SL0051	HFC 100160 SL0021		395 <sup>14</sup> / <sub>16</sub> " x 67"
*****	HVC 100200 SL0051	HFC 100200 SL0021	Ventilating: Ten longlights, seven fixed, three electrically operated vented, complete with flashing components. Includes electric control	395 <sup>14</sup> / <sub>16</sub> " x 83"
	HVC 100240 SL0051	HFC 100240 SL0021	system and wind and rain sensor.**	$395^{14}/_{16}$ " x 98"

\*Assumes 0° roof pitch

\*\*The installer is responsible for curb flashing material and installation of the curb to the roof.

Installer may want to consider the use of a water diverter above the longlight system when installed on a pitched roof.

## **Double-glazing unit**

All configurations come standard with **Type 10 Glass** – Dual pane, low energy, clear exterior over laminated interior.

Also available:

**Type 11** Dual pane, low energy, with solar protection exterior over laminated interior.

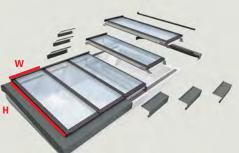
**Type 16** Super low energy, triple pane.

## with solar protection

## Modular concept

VELUX Modular Skylights is based on a strictly modular concept. All components are prefabricated to ensure consistent quality throughout the build, fast and easy installation and a perfect fit every time.

Delivery time is approximately 8-10 weeks

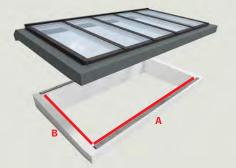


**Module** H: Module Hight W: Module Width



## Individual sub-construction

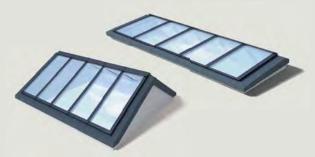
To ensure a precise and trouble-free installation process, the sub-construction needs to meet the individual demands of your roof construction. Consequently, the sub-construction is not part of the modular system, but has to be constructed on site. Ask your installer to recommend the best sub-construction for your installation project. Sub-construction document will be provided on all quotes and orders providing exact dimensions.



Sub-construction A: Opening Width B: Opening Length

## More VMS configurations are available.

Please call 844-99-GOVMS for pricing and product availability or email vmsmodularskylightsusa@velux.com.



## Testing data

VSE/VSS Technical Information						
Glass	04	06**	08	10	9994	
			<b>/exfiltration</b> t <sup>2</sup> ) differential			
l/s/m <sup>2</sup>	0.2	0.4	0.2	0.3	0.2	
cfm/ft <sup>2</sup>	0.03	0.07	0.03	0.06	0.03	
W		<u> </u>	<b>'m²/min (5 U</b> ressure with n		*	
Pascals	720	720	720	720	720	
lbs/ft <sup>2</sup>	15	15	15	15	15	
	(Ce	Thermal per ertified, compl	r <b>formance</b> ete unit values	5)		
	5 5		slope and labe the NFRC Cer			
U-Factor	0.42	0.40	0.42	0.41	0.37	
SHGC	0.23	0.23	0.22	0.23	0.23	
VT	0.53	0.52	0.39	0.52	0.52	
		UV prote	ction, %			
300-380 nm	99.9	99.9	99.9	99.9	99.9	
F	ading protec	tion, % (Kroo	chmann dama	ge function)		
300-600 nm	83.1	84.6	88.4	83.2	85.1	
Si	tructural Per	formance [P	erformance G	irade or DP] *	•	
Tested size			Uplift (lbs/ft²)			
S06	65	65	65	80	65	
M08	105	65	105	85	105	
C06	n.r.	n.r.	n.r.	90	n.r.	
Tested size		Do	wnload (lbs/f	t²)		
S06	370	300	370	860	370	
M08	440	360	440	1090	440	
C06	n.r.	n.r.	n.r.	1200	n.r.	
* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440- 11 (NAFS 2011)						

Structural performance ratings also apply to sizes smaller than the Tested Size VSE and VSS skylights are WDMA Hallmark certified: **Product 426-H-670** (not applicable to copper-clad variants)

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debris impact, in accordance with ASTM E 1886 and ASTM E 1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50

04 glass: Tempered over laminated HS (0.030" interlayer) 06 glass: Tempered over laminated HS (0.090" interlayer) 08 glass: Same as 04, with white interlayer 10 glass: Tempered over laminated Tempered (0.030" interlayer) 9994 glass: Same as 04, with i89 coating on interior surface

VS Technical Information							
Glass	04	05	06**	08	10	9993	9994
<b>Air infiltration/exfiltration*</b> [max. @ 75 Pa (1.57 lbs/ft <sup>2</sup> ) differential pressure]							
l/s/m²	0.2	0.5	0.4	0.2	0.3	0.5	0.2
cfm/ft <sup>2</sup>	0.03	0.09	0.07	0.03	0.06	0.09	0.03
		r <b>esistance</b> x. tested dif	<u> </u>				
Pascals	720	720	720	720	720	720	720
lbs/ft <sup>2</sup>	15	15	15	15	15	15	15
		(Certif	<b>hermal per</b> fied, comple	ete unit valı	-		
	5	ights are ra <b>nd VT</b> ratin					
U-Factor	0.42	0.43	0.40	0.42	0.41	0.38	0.37
SHGC	0.23	0.23	0.23	0.22	0.23	0.23	0.23
VT	0.53	0.54	0.52	0.39	0.52	0.52	0.52
			UV protec	tion, %			
300-380 nm	99.9	95.2	99.9	99.9	99.9	95.3	99.9
	Fading	protection	1, % (Kroc	hmann dar	nage funct	tion)	
00-600 nm	83.1	79.2	84.6	88.4	83.2	81.6	85.1
	Structu	Iral Perfor	mance [Pe	rformance	Grade or	DP] *	
Tested size			U	plift (lbs/ft	<sup>2</sup> )		
S06	65	90	65	65	80	90	65
M08	105	120	65	105	85	120	105
C06	n.r.	n.r.	n.r.	n.r.	90	n.r.	n.r.
Tested size			Dov	vnload (lbs/	/ft²)		
S06	370	300	300	370	860	300	370
M08	440	400	360	440	1090	400	440
C06	n.r.	n.r.	n.r.	n.r.	1200	n.r.	n.r.
* T	* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011)						

Structural performance ratings also apply to sizes smaller than the Tested Size VS skylights are WDMA Hallmark certified: **Product 426-H-670** (not applicable to copper-clad variants)

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debris impact, in accordance with ASTM E 1886 and ASTM E 1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50

04 glass: Tempered over laminated HS (0.030" interlayer)
05 glass: Tempered over tempered
06 glass: Tempered over laminated HS (0.090" interlayer)
08 glass: Same as 04, with white interlayer
10 glass: Tempered over laminated Tempered (0.030" interlayer)
29 glass: Tempered over tempered over laminated HS (0.030" interlayer)
9993 glass: Same as 05, with i89 coating on interior surface
9994 glass: Same as 04, with i89 coating on interior surface

	FS Technical Information								
Glass	04	05	06**	08	10	9993	9994		
	<b>Air infiltration/exfiltration*</b> [max. @ 75 Pa (1.57 lbs/ft <sup>2</sup> ) differential pressure]								
l/s/m²	0.1	0.7	0.1	0.1	0.1	0.7	0.1		
cfm/ft²	0.01	0.14	0.01	0.01	0.01	0.14	0.01		
			<u> </u>	m²/min (5 ressure with					
Pascals	720	720	720	720	720	720	720		
lbs/ft <sup>2</sup>	15	15	15	15	15	15	15		
			<b>hermal per</b> fied, comple	<b>formance</b> ete unit valu	ies)				
	Glass Skyli <b>r, SHGC, a</b> i								
U-Factor	0.44	0.45	0.42	0.44	0.42	0.39	0.38		
SHGC	0.26	0.26	0.26	0.25	0.26	0.26	0.26		
VT	0.60	0.61	0.60	0.44	0.60	0.60	0.60		
			UV protec	tion, %					
300-380 nm	99.9	95.2	99.9	99.9	99.9	95.3	99.9		
	Fading	protection	1, % (Kroc	hmann dar	nage funct	tion)			
300-600 nm	83.1	79.2	84.6	88.4	83.2	81.6	85.1		
	Structu	ral Perfor	mance [Pe	erformance	Grade or	DP] *			
Tested size			U	plift (lbs/ft	<sup>2</sup> )				
\$06	70	45	65	70	65	45	70		
M08	105	90	120	105	100	90	105		
C06	n.r.	n.r.	n.r.	n.r.	65	n.r.	n.r.		
Tested size			Dov	vnload (lbs/	′ft²)				
\$06	160	400	300	160	720	400	160		
M08	350	400	300	350	1180	400	350		
C06	n.r.	n.r.	n.r.	n.r.	1250	n.r.	n.r.		
* ]	Fested in ac	cordance w	ith AAMA (NAFS 2		SA 101/I.S.	2/A440-11			
	Structural performance ratings also apply to sizes smaller than the Tested Size FS skylights are WDMA Hallmark certified: <b>Product 426-H-669</b> (not applicable to copper-clad variants)								
** 06	** 06 variant is tested and WDMA Hallmark certified for Wind-borne debris impact, in accordance with ASTM E 1886 and ASTM E 1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50								
04 glass: Tempered over laminated HS (0.030" interlayer) 05 glass: Tempered over tempered 06 glass: Tempered over tempered									
29 (	<ul> <li>06 glass: Tempered over laminated HS (0.090" interlayer)</li> <li>08 glass: Same as 04, with white interlayer</li> <li>10 glass: Tempered over laminated Tempered (0.030" interlayer)</li> <li>29 glass: Tempered over tempered over laminated HS (0.030" interlayer)</li> <li>9993 glass: Same as 05, with i89 coating on interior surface</li> <li>9994 glass: Same as 04, with i89 coating on interior surface</li> </ul>								

VCE /VCS Technical Information							
Glass	04	06**	08	10	9994		
<b>Air infiltration/exfiltration*</b> [max. @ 75 Pa (1.57 lbs/ft <sup>2</sup> ) differential pressure]							
l/s/m <sup>2</sup>	0.1	0.1	0.41	<0.1	0.1		
cfm/ft <sup>2</sup>	0.02	0.01	0.02	<0.01	0.02		
W	<b>ater resista</b> [max. tested]	nce @ 3.4 L/ d differential p			*		
Pascals	720	720	720	720	720		
lbs/ft <sup>2</sup>	15	15	15	15	15		
Thermal performance (Certified, complete unit values)           VELUX Glass Skylights are rated at 20° slope and labeled with NFRC-certified           U-Factor, SHGC, and VT ratings listed in the NFRC Certified Products Directory.							
U-Factor	0.53	0.50	0.53	0.51	0.48		
SHGC	0.24	0.24	0.23	0.24	0.22		
VT	0.55	0.54	0.40	0.54	0.49		
		UV prote	ction, %				
300-380 nm	99.9	99.9	99.9	99.9	99.9		
F	ading protec	tion, % (Kro	chmann dama	ge function)			
300-600 nm	83.1	84.6	88.4	83.2	85.1		
S	tructural Per	formance [P	erformance G	arade or DP] *			
Tested size		r	Uplift (lbs/ft²)	)	r		
4646	45	60	45	40	45		
2246	n.r.	n.r.	n.r.	65	n.r.		
Tested size		Do	wnload (lbs/f	t²)			
4646	230	230	230	620	230		
2246	n.r.	n.r.	n.r.	1150	n.r.		
* Tested in accordance with AAMA/WDMA/CSA 101/LS.2/A440-							

\* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011)

Structural performance ratings also apply to sizes smaller than the Tested Size VCE and VCS skylights are WDMA Hallmark certified: **Product 426-H-695** 

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debris impact, in accordance with ASTM E 1886 and ASTM E 1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50

04 glass: Tempered over laminated HS (0.030" interlayer) 06 glass: Tempered over laminated HS (0.090" interlayer) 08 glass: Same as 04, with white interlayer 10 glass: Tempered over laminated Tempered (0.030" interlayer) 9994 glass: Same as 04, with i89 coating on interior surface

## Testing data

VCM Technical Information								
Glass	04	05	06**	10	9993	9994		
	<b>Air infiltration/exfiltration*</b> [max. @ 75 Pa (1.57 lbs/ft <sup>2</sup> ) differential pressure]							
l/s/m²	0.1	<0.1	0.1	<0.1	<0.1	0.1		
cfm/ft <sup>2</sup>	0.02	<0.01	0.01	<0.01	<0.01	0.02		
		<u> </u>		<b>iin (5 USga</b> l e with no lea				
Pascals	720	720	720	720	720	720		
lbs/ft <sup>2</sup>	15	15	15	15	15	15		
			n <b>al perform</b> complete un					
	lass Skylight SHGC, and V							
U-Factor	0.53	0.53	0.50	0.51	0.48	0.48		
SHGC	0.24	0.24	0.24	0.24	0.22	0.22		
VT	0.55	0.56	0.54	0.54	0.50	0.49		
		UV	protection,	%				
300-380 nm	99.9	95.2	99.9	99.9	95.3	99.9		
	Fading pro	otection, %	(Krochmar	nn damage f	unction)			
300-600 nm	83.1	79.2	84.6	83.2	81.6	85.1		
	Structural	Performan	ce [Perform	nance Grade	e or DP] *			
Tested size			Uplift (	lbs/ft²)				
4646	45	30	60	40	30	45		
2246	n.r.	n.r.	n.r.	65	n.r.	n.r.		
Tested size			Download	d (lbs/ft²)				
4646	230	230	230	620	230	230		
2246	n.r.	n.r.	n.r.	1150	n.r.	n.r.		
* Te	* Tested in accordance with AAMA/WDMA/CSA 101/LS 2/A440-11							

\* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011)

Structural performance ratings also apply to sizes smaller than the Tested Size VCM skylights are WDMA Hallmark certified: **Product 426-H-695** 

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debris impact, in accordance with ASTM E 1886 and ASTM E 1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50

04 glass: Tempered over laminated HS (0.030" interlayer) 05 glass: Tempered over tempered 06 glass: Tempered over laminated HS (0.090" interlayer) 08 glass: Same as 04, with white interlayer 10 glass: Tempered over laminated Tempered (0.030" interlayer) 9993 glass: Same as 05, with i89 coating on interior surface 9994 glass: Same as 04, with i89 coating on interior surface

		FCM	Technic	cal Info	rmation			
Glass	04	05/05C	06**	08	10	29/30	9993	9994
				on/exfilt		-		
1/ / 2		ax. @ 75 Pa					-0.1	0.0
l/s/m <sup>2</sup>	0.2	< 0.1	< 0.1	0.2	0.1	0.3	< 0.1	0.2
cfm/ft <sup>2</sup>	0.03	<0.01	< 0.01	0.03	0.01	0.05	< 0.01	0.03
		resistanc ax. tested d					r)*	
Pascals	720	720	720	720	720	720	720	720
lbs/ft <sup>2</sup>	15	15	15	15	15	15	15	15
				p <b>erform</b> a oplete uni				
		lights are r Ind VT ratio						
U-Factor	0.48	0.49/0.45	0.46	0.48	0.47	0.38	0.43	0.43
SHGC	0.27	0.27/0.28	0.27	0.26	0.27	0.25	0.25	0.25
VT	0.63	0.64/0.63	0.62	0.46	0.62	0.57	0.57	0.57
			UV pro	tection, <sup>o</sup>	%			
300-380 nm	99.9	95.2	99.9	99.9	99.9	95.2	95.3	99.9
	Fading	g protectio	on, % (Ki	rochman	n damago	e functio	n)	
300-600 nm	83.1	79.2	84.6	88.4	83.2	79.2	81.6	85.1
	Struct	ural Perfo	rmance	[Perform	ance Gra	de or DP	]*	
Tested size	Uplift (lbs/ft²)							
4672	80	n.r.	n.r.	80	n.r.	n.r.	n.r.	80
4646	120	140	80	120	135	60	140	120
2270	100	n.r.	n.r.	100	n.r.	n.r.	n.r.	100
Tested size			[	Download	(lbs/ft²)			
4672	70	n.r.	n.r.	70	n.r.	n.r.	n.r.	70
4646	250	100	100	250	970	75	100	250
2270	200	n.r.	n.r.	200	n.r.	n.r.	n.r.	200
* -						01/1 0 0/1		

\* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011)

Structural performance ratings also apply to sizes smaller than the Tested Size FCM skylights are WDMA Hallmark certified: **Product 426-H-701** 

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-Borne debris impact, Florida HVHZ : Large Missile Level D, Cycle Pressure +50/-50, tested per TAS 201, 202 and 203 (Wind Zone 4) Large Missile Level C, Cycle Pressure +50/-50, tested per ASTM E 1886 and ASTM E 1996

04 glass: Tempered over laminated HS (0.030" interlayer) 05 glass: Tempered over tempered 06 glass: Tempered over laminated HS (0.090" interlayer) 08 glass: Same as 04, with white interlayer 10 glass: Tempered over laminated Tempered (0.030" interlayer) 29 glass: Tempered over tempered over laminated HS (0.030" interlayer) 30 glass: Tempered over tempered over tempered 9993 glass: Same as 05, with i89 coating on interior surface 9994 glass: Same as 04, with i89 coating on interior surface

Note: The FCM 4646 (or smaller) 06 is the only VELUX skylight currently qualified for use in Florida HVHZ (High Velocity Hurricane Zone).

	QPF	- Technic	al Inforn	nation		
Glass	04	05	06**	08	9993	9994
[n		<b>infiltratio</b> Pa (1.57 lbs	•		sure]	
l/s/m <sup>2</sup>	0.5	0.3	0.4	0.5	0.3	0.5
cfm/ft <sup>2</sup>	0.09	0.06	0.08	0.09	0.06	0.09
		<b>ce @ 3.4</b>   differentia				
Pascals	580	720	720	580	720	580
lbs/ft <sup>2</sup>	12	15	15	12	15	12
	(Cei	Thermal <b> </b> rtified, com	<b>performan</b> plete unit v			
<b>QPF</b> Skyligh <b>U-Factor, SHGC,</b>					-	-
U-factor (Btu/[hr*ft²*F°]) @20° slope	0.42	0.43	0.40	0.42	0.38	0.37
SHGC	0.25	0.24	0.25	0.24	0.24	0.24
VT	0.57	0.57	0.57	0.40	0.56	0.56
		UV pro	tection, %			
300-380 nm	99.9	95.2	99.9	99.9	95.3	99.9
Fadiı	1g protect	ion, % (Kr	ochmann	damage fu	nction)	
300-380 nm	83.1	79.2	84.6	88.4	81.6	85.1
Struc	tural Perf	ormance [	Performa	nce Grade	or DP] *	
Tested size			Uplift (	[	[	
4646	80	80	100	80	80	80
Tested size				d (lbs/ft²)		
4646	320	300	300	320	300	320
* Tested in a Structural perfo		(NAF	S 2011)			
<b>QPF</b> skyligh Tex **06 variant i	Floric as Dept. o	da Product f Insurance	Approval F Reports: 3	E-13300 SK-03 and	SK-14	
debris,	in accordai	nce with A	STM E 188	6 and AST		
06 gla	05 gl iss: Tempe 08 glass:	red over la ass: Tempo red over la Same as 0 as 05, wit	ered over to minated HS 4, with wh	empered 5 (0.090″ iı iite interlay	nterlayer)	
-					ior surface	

## Testing data notes

- a) Production samples structurally tested and labeled in accordance with one or more of: AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS), various ASTM methods.
- b) Thermal and optical performance data are verified by accredited entities.
- c) Most variants with WDMA Hallmark certification are also recognized under Uniform-ES report #ER 0199 (IAPMO-ES).

NOTICE: ALL GLASS MAY BE SUBJECT TO UNEXPECTED AND SPONTANEOUS BREAKAGE in rare circumstances due to imperfections in the glass that are undetectable during the manufacturing and inspection process by the manufacturer of the glass and VELUX.

Model	TLR	TSR	TCR	TGF	TGR	TMF	TMR/TH	
		Air inf	iltration/	exfiltrati	on*			
	[max.	@ 75 Pa (	1.57 lbs/ft	<sup>2</sup> ) differen	tial pressur	-		
l/s/m²	0.1	0.3	0.5	0.2				
cfm/ft <sup>2</sup>	0.01	0.05	0.09			0.04		
					<b>USgal/ft</b> h no leakaq			
Pascals	720	720	720			720		
lbs/ft <sup>2</sup>	15	15	15			15		
			<b>ermal per</b> ed, comple		ues)			
Si					er NFRC pr IGC, and V			
		U-fa	ctor: Btu/	[hr*ft²*F	<u>,</u> ]			
Base model	0.51	n.r.	n.r.	0.50	n.r.	0.50	n.r.	
w/energy kits	0.36	n.r.	0.38	0.37	0.38	0.37	0.38	
	SHGC: US	ratings sl	nown for n	nodels wit	th EO ener	gy kits		
Base model	0.46	n.r.	n.r.	0.21	n.r.	0.21	n.r.	
w/energy kits	0.42	n.r.	0.25	n.r.	0.25	n.r.	0.25	
	Annu	al Average	e Visible T	ransmitta	nce (VT <sub>ann</sub>	<sub>ual</sub> )		
Base model	0.36	n.r.	n.r.	0.16	n.r.	0.16	n.r.	
w/energy kits	0.32	n.r.	0.40	n.r.	0.40	n.r.	0.40	
	Structu		nance [Pe ote: 1 psf =		e Grade or	DP]*		
Dome type **			ι	Uplift (neg	ative)			
Acrylic or Polycarbonate	n.a.	180 Acrylic only	165	125				
Temp. Glass	245			n.a.				
Dome type **	Download (positive)							
Acrylic or Polycarbonate	n.a.	200 Acrylic only	300	300				
Temp. Glass	150	150 n.a.						
* Tested in	accordanc	e with AAI	MA/WDM	A/CSA 101	/I.S.2/A44	10-11 (NAF	S 2011)	

\*\*All Sun Tunnels models with Polycarbonate domes are tested for Wind-Borne debris, in accordance with ASTM E1886 and ASTM E1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50 (The following models not available with Polycarbonate domes: THR, TLR, TSR)

VELUX America LLC offers the choice of laminated or tempered glass for the inside pane. Laminated glass is a combination of two or more glass sheets with one or more interlayers of plastic (PVB). In case of breakage, the interlayer is designed to hold the fragments together. Types 04, 06, 08 and 10 glass are the standard laminated glass options. Type 05 glass is the only standard tempered glass option. Tempered glass does not contain an interlayer to hold the fragments together; instead, tempered glass is designed to break into small, pebble-like pieces. When tempered glass breaks, pieces of glass come loose and may strike an individual.

CONSULT LOCAL REGULATIONS AND/OR BUILDING MATERIAL CONSULTANTS TO DETERMINE WHICH TYPE OF GLASS IS RIGHT FOR YOU OR IF LAMINATED GLASS OR GLASS RETENTION SCREENING IS REQUIRED IN YOUR APPLICATION. VELUX America LLC 450 Old Brickyard Road PO Box 5001 Greenwood, SC 29648-5001 Tel 1-800-888-3589 Fax 1-864-943-2631 veluxusa.com whyskylights.com



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Bringing light to life





The VELUX Group creates better living environments with daylight and fresh air through the roof. The VELUX product program contains a wide range of roof windows and skylights, along with solutions for flat roofs. The Group also supplies many types of decoration and sun screening, roller shutters, installation in roofs. The VELUX Group, which has manutacturing companies in 11 countries and sales companies in just under 40 countries, represents one of the strongest brands in the global building materials sector and its products are sold in most parts of the world. The VELUX Group, which has manutacturing companies in 11 countries and sales companies in just under 40 countries, represents one of the strongest brands in the global building materials sector and its products are sold in most parts of the world. The VELUX Group has about 10,000 employees and is owned by VKR Holding A/S, a limited company wholly owned by foundations and family. For more details, visit velux.com.