

# 2019 Residential Skylights Catalog

Residential Skylights and Sun Tunnel Skylights



### **Table of Contents**

#### INSPIRATION

- **2** The Indoor Generation
- **4** The No Leak Skylight
- **6** Fifth Wall
- **8** Room-Based Inspiration
- **36** VELUX ACTIVE

#### **INFORMATION**

- **37** Installers
- 38 How It's Made
- **39** Tax Savings
- **40** Flat vs. Vaulted Ceiling
- 41 Roof Pitch

#### PRODUCTS

- 42 Go Solar
- **54** "Fresh Air" Skylights
- **50** Fixed Skylights
- **54** Skylight Accessories
- 62 Roof Windows
- 68 Sun Tunnels
- **72** Sun Tunnel Accessories
- **76** VELUX Modual Skylights (VMS)

#### **TECHNICAL INFORMATION**

- **80** No Leak Warranty
- **81** Deck and Curb Flashing
- 82 Energy Star/Code Compliance
- 83 Size Charts
- 85 Testing Data

# **Bringing light** to life has been our passion for over 75 years.

In 1942, in the Danish city of Copenhagen, a young engineer came up with an idea to transform dark, empty attics into bright living spaces. Despite a shortage of materials during World War II, his vision was "to make a skylight—a roof window—that is just as good as the best vertical window." He ended up developing and handcrafting the first ever roof window as an effective way to bring more daylight and fresh air into people's homes.

Today, we are still using our founder's same method of making skylights. Each piece of lumber is inspected by hand to check quality. The glass in our windows is continuously tested to withstand powerful rain, hail, and wind to keep your family safe inside. It's all how we ensure each skylight we install delivers unmatched guality, beautiful results, and a brighter home for you.

**VELUX America LLC** 450 Old Brickyard Road PO Box 5001 Greenwood, SC 29648-5001

Phone: 1-800-888-3589 Fax: 1-864-943-2631 veluxusa.com | whyskylights.com



# Why Skylights?

# Daylight



Homes full of light are homes full of life. At VELUX, we believe daylight is powerful. It redesigns the look and feel of our homes every hour of the day. It balances our circadian rhythms, improves our general health and well-being, decreases our dependency on electricity, and gives functionality back to our space.



We often ask, "Why skylights?" **But with endless reasons** to install a skylight, the question becomes more, "Why not skylights?"



Open your home to crisper, cleaner air with VELUX. All of our "fresh air" skylights are designed to release stale, trapped air from your home while bathing it in rich, natural light. We find it's the best way to reduce your dependency on central air, while continuously energizing your home with fresh air and natural light.



#### A Must-Have for Any Home

Able to be installed further into the heart of your home than vertical windows, skylights offer a way to bring more natural light into more spaces than you'd ever thought possible. What's more, a venting skylight in the core of your home allows you to replenish the air throughout your entire house, improving your family's health on a daily basis.

# The Indoor Generation

Our physical space affects us more than we think. The lights and sounds that surround us play a key role in how we feel, whether we realize it or not. As we shift into becoming more of an Indoor Generation - one that spends 90% of our time indoors, with 50% of that time spent in our own home - the quality of our indoor air matters.

#### And it should matter a lot.

The solution to an unhealthy indoor environment? It's as simple as looking up! A fresh air skylight or roof window is ready to reduce allergens, freshen your home, and help you live a healthier life. So, why not skylights?



3X

Living in a humid, moldy environment increases the risk of asthma and other respiratory problems by 40 percent.

Homes should exchange indoor air 3 times throughout the day to reduce allergens and improve the indoor climate.

Natural light can help sufferers of seasonal affective disorder by balancing their circadian rhythms and boosting vitamin D.

Fresh air boosts the immune system, helps cleanse the lungs, and improves overall heart and brain health.

Children's learning abilities can be improved by up to 15 percent with regular exposure to daylight.



# The No Leak Promise

### Our biggest promise that the skylights you add to your home will not leak.

VELUX's three patented layers of water protection work seamlessly to ensure no rain will leak into your home through your skylight.

*Read more about our No Leak Promise on page 80.* 



# 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.



# **Cooking With** Daylight & Fresh Air

Some of our best memories are made in the kitchen: learning old family recipes, making messes, and sharing smiles across the table. You depend on your kitchen to not only have all the appliances, cabinets, and groceries needed to prepare and enjoy meals but to also be filled with life and light.

When we start looking at upgrades our kitchens may need, we tend to look around — around at all the outdated appliances, the counter tops that don't match, and the cabinet space we could use more of. But rarely do we ever look up! Enhancing your cooking area with natural light is one of the best ways to get the most out of the sights, smells, and, yes, even tastes you create in your kitchen.

Get this look



VELUX Solar Powered "Fresh Air" Skylight VSS



VELUX ACTIVE Indoor Climate Control Kit KIX 300 US



Blackout Flat Blinds Grey 0705









# **Natural Light For A Better Night's Sleep**

As your solace at the end of a long day, your bedroom is a room to recharge your body and mind. It's also often the most secluded room of a home, where we shut off the outside world as we seek sleep. But did you know filling your bedroom with daylight can help you sleep even better?

The sun regulates our circadian rhythms, helping our bodies know when it's time to wake up naturally and drift off to sleep at night. When you open your bedroom up to the sky, you welcome in brilliant, natural light during the day and a starry expanse at night to help give you more restful nights' sleep and more productive days.

#### Get this look



VELUX Fixed Skylight FS



Remote Control



Room-Darkening, Double-Pleated Blinds Grey CS43









As the core of your home, your living room deserves to be awash with daylight and fresh air. We may be biased, but nothing invigorates a space quite like fresh air, and nothing illuminates it quite like daylight. Natural light and fresh air are powerful: changing color schemes, making rooms feel larger, lowering our dependency on electricity. And they make us feel good too! Isn't it time you lived a little more naturally?





VELUX Electric "Fresh Air" Skylight VSE

VELUX ACTIVE Indoor Climate Control Kit KIX 300 US



Your living room sees a lot of activity: it's where loved ones gather during the holidays, where you host family game night, where you curl up to watch your favorite shows. It's the room you live in so it should be bright, open, and comfortable.

Get this look



Light-Filtering, Single-Pleated Blinds Shiny Cappuccino FS33





# **Bringing The Outside Into Your Bathroom**

luxurious, spa-like room you deserve!

Before you start picking out new paint colors, furniture, or knocking down walls, maybe all your bathroom needs is a dip into more natural light. With daylight and fresh air, you can easily turn your bathroom into your own personal oasis. So, are you ready for a change?



VELUX Solar Powered "Fresh Air" Skylight VSS

Unlike other rooms, your bathroom is a private space, one that is more of function than a design opportunity. After all, it's where you can take care of your needs as well as relax and be alone. But, the days of functiononly bathrooms are behind us; it's time to create the

Get this look



VELUX ACTIVE Indoor Climate Control Kit KIX 300 US



Light-Filtering, Single-Pleated Blinds White FS00





# The Bonus Of Your Spare Room

Bonus rooms are notorious for being the catch-all room, the oddly shaped space, the room that may have a purpose, but no real design focus. So, before going to work redesigning your bonus room, look up! You have an untapped design space right above you to help transform your bonus room into a room worth showing off.

The best way to redesign your space into the perfect multi-functional room is with rich, natural light. Natural light and fresh air can take a dimly lit bonus room and turn it into a space the whole family will enjoy.

#### Get this look



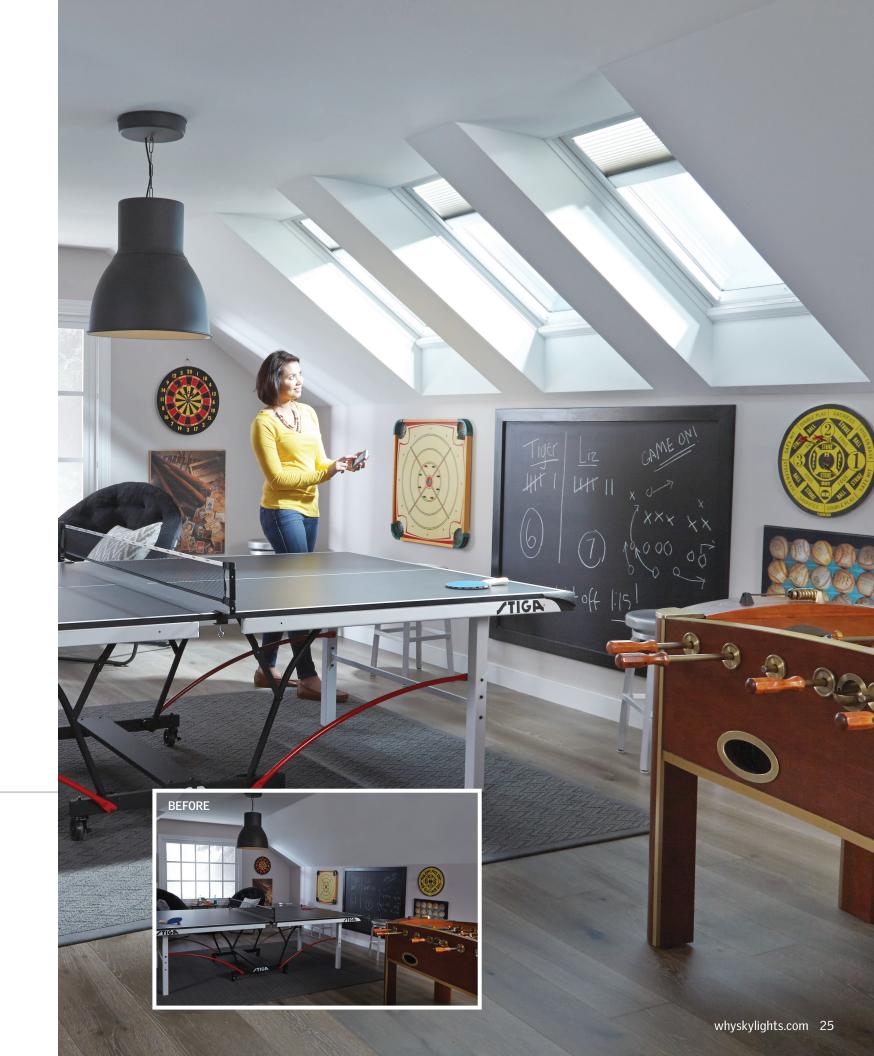
VELUX Fixed Skylight **FS** 



Remote Control



Light-Filtering, Single-Pleated Blinds Classic Sand FS01



24 veluxusa.com



# **Daylight In Every Corner Of Your Home**

There are areas in every house that are just a bit harder to illuminate than others, especially with natural lighting. This can make small spaces, like entryways or hallways, dark and unwelcoming. When traditional windows just won't fit, it can be especially hard to bring natural light into the smallest interiors of your home.

But don't let that stop you from trying! With VELUX's innovative skylights, roof windows, and sun tunnels, you can add enough daylight to turn every corner of your home into something extraordinary. Remember: where a window won't fit, a skylight will!

#### Get this look



Rigid Pitched Sun Tunnel TMR



ZTZ 213

Micro Fresnel Solar Night Light Decorative Diffuser ZTB 4004US





whyskylights.com 31



# A Room Filled With Daylight

From entertaining spaces to cooking stations to areas designed for lounging, patios can add value and comfort to your home. After all, they're the best of both worlds: all the amenities of being indoors with the atmosphere of the great outdoors. All it's missing is a view of the sky!

When you walk out onto your porch, look up! Your next big design space is right above you. In a way, your patio is the skylight of rooms, so what better way is there to fill it with daylight?

#### Get this look



VELUX Manual "Fresh Air" Skylight **VS** 



lmpact Glass **XX06** 





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

with **NETATMO** 

**VELUX**®

C.

Apple HomeKit

# A skylight that thinks for itself.

VELUX ACTIVE is the easiest way to create a healthier indoor environment in your home. All day, VELUX ACTIVE monitors your home's temperature, humidity, and CO<sub>2</sub> levels and compares them to the weather outside. It works by learning what you like then automatically adjusts your skylights and blinds to match your comfort level. It does the thinking for you. That's the best part.

Learn more on page 58.

When Why? Becomes How?

#### Find an Installer:

VELUX partners with certified installers around the country to help bring daylight to your home. A VELUX Skylight Specialist near you will offer advice on the best skylight sizes and placement for your new addition.

#### Find a Dealer:

For a do-it-yourself project, an authorized VELUX dealer can provide you with all the products you need to get the job done. We offer plenty of installation instructions and videos to help you along the way.











# Sustainable Living Through Skylights

As the world leader in skylights, VELUX has put our most abundant natural resource to excellent use: the Sun. And we're able to do this by developing, manufacturing, and marketing environmentally friendly products.

High quality, energy-efficient skylights are an important part of building today's green-friendly homes. That's why at VELUX, it is our top priority to use the most modern technologies, so our products are as energy-efficient as possible. For example, to minimize the heat gain associated with UV penetration through a skylight, we've incorporated argon gas between the insulated panes of all our glass products and use Low-E coatings. This makes our glass among the most energy-efficient in the industry. And that's just the start!

Sustainable living is the way of the future, and VELUX is proud to say we've been ahead of this curve and intend to stay there. With more than 90% of our products ENERGY STAR qualified in all US climate zones, you can rest easy knowing your VELUX skylight is as energy-efficient as it is luminous.

# Sensitivity in Manufacturing

At VELUX, we aim to be a worldwide steward of the environment. We achieve this by ensuring all areas of our process, including product design, raw materials, production methods, and the use of technologically advanced equipment, meet our highest environmental review standards. And to accomplish our goals of sustainable manufacturing practices, we are continuously working to improve our environmental health and safety.

In all areas of our manufacturing process, VELUX is nearly emissions-free and we make every effort to ensure materials used are as harmless as possible. All paints and finishes are water-based for safer disposal and to reduce volatile organic compounds released into the environment. Additionally, our manufacturing activities involve procuring and processing natural resources for our products.

We also aim to reduce the carbon footprint of our production activities by improving energy efficiency and by increasing the use of renewables. We take a holistic approach to product sustainability, including aspects of carbon footprint, energy balance, sourcing, recyclability, and chemical emissions. And, we work to continuously improve material efficiency and have a long-term vision of zero waste at our production sites.

We believe we have a direct obligation to our environment. Through the innovations we've made, we've been able to achieve and surpass our sustainable manufacturing goals! But we're not stopping there: while we uphold our tradition of quality and craftsmanship, we will also continue to assess and develop our environmental efforts as best we can at every turn.

# Get Credit for Installing Your Skylight

Did you know that adding certain skylights to your home can earn you a tax credit? It's just one more bonus that comes with adding more daylight and fresh air!

Through the combined effects of the Emergency Stabilization Act and the American Recovery and Reinvestment Act, you're eligible for a tax credit of 30% when you purchase and install qualifying products in renewable technologies, like solar, wind, and geothermal energies.

Under these laws, The VELUX "Fresh Air" Solar Powered Skylights, VELUX solar-powered blinds, and the VELUX Sun Tunnel Solar Night Lights qualify as Solar Electric Property.

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



materials used are as

harmless as possible.



In other words, if you purchase any of these products, you become eligible to receive a 30% federal tax credit.

And, to clarify, that's a 30% credit based on the cost of both the product and entire installation! In other words, if you purchase a VELUX Sun Tunnel and include the Solar Night Light, the cost of the whole purchase is considered when calculating your credit amount. The same goes for the VELUX Solar Powered Blinds: if you purchase a fixed skylight and include the solar-powered blinds, your skylight also becomes eligible for a 30% federal credit.

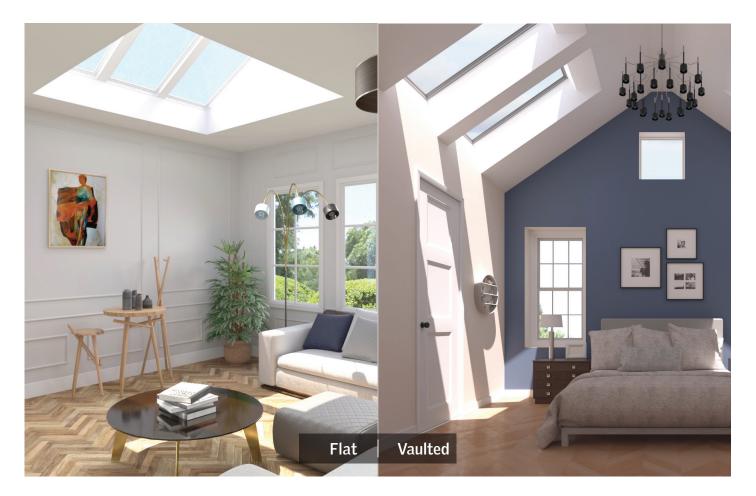
### How to Apply

To receive your federal tax credit, you'll need to keep your receipts for the total price paid for your qualifying VELUX products and attach them to a completed 30% Federal Tax Credit – Manufacturers Certification Statement. Keep this for your records.

At tax time, fill out IRS Form 5695. Then, enter the tax credit from Form 5695 onto your Form 1040. You're not required to submit Form 5695 with your 1040 Form, so it's best to keep it for your records.

You can find out more about this tax credit by visiting our website, www. veluxusa.com. But, as in all tax matters, consult your tax professional if you have any further questions regarding how to apply for and receive the tax credit.

# A Skylight for Every Type of Ceiling



A common misconception regarding skylights is that they can only be installed in homes with vaulted ceilings.

#### But regardless of roof or ceiling type, you can still have the skylight of your dreams!

During your consultation with a VELUX installer, they'll come by your home to assess the room where you want your skylights. From there, they'll be able to tell you how many skylights and what size would be best, along with which installation style is most efficient. When it's time to install, there will be two phases to the project: rooftop and interior. And depending on your situation, the installation will take between 1-3 days. Regardless of your ceiling type, the first step is to cut a hole in your roof and fasten the skylight with our three layers of protection. Once inside, your installer will then work to finish up bringing daylight in through your ceiling.



If your ceiling is flat, your installation will require a bit more drywall work than if your ceilings were vaulted. With a flat ceiling, your installer will use drywall to build a shaft from the skylight to direct daylight into the room below. And in opening up your ceiling, this light shaft can be used as a design element to enhance the overall layout of your room. But don't worry, our installers will make every effort to protect your home's interior from dust and other debris during construction. Once the light shaft is built, your installer will paint it to match the surrounding ceiling area. And voilá! You're well on your way to more daylight and fresh air in any room of your home, no matter what type of ceiling you have.

# What is a Roof Pitch?



In order to determine the best skylight and installat you or your VELUX installer will need to determine But just what is a roof pitch?

The roof pitch is the angle of your roof, and it's calc of inches it rises vertically for every 12" it extends is measured by placing a pitch-gauge directly on th accurate reading. This calculation is important beca skylights and flashing kits are engineered with spec that match your roof's slope in order to effectively skylight. It's just one more way to help ensure your

Check out the table below to learn more about w windows are available for various roof pitches.

0° - 60° 0:12 - 20:12	14° - 60° 3:12 - 20:12	14° - 85° 3:12 - 137:12	
VCS	QPF	VSS	
VCE	TLR	VSE	
VCM	TMR	VS	
FCM	TGR	FS	
TCR	TMF		
	TGF		

ation options fo e your roof's pit	-		
culated by the horizontally. The roof and tak cause each of V crific pitch requ drain water of skylight won't	his angle ing an ELUX's irements f of the		
/hich skylights	and roof		
<b>15° - 55°</b> 3:12 - 17:12 GPU	15° - 55° 3:12 - 17:12 GXU	<b>15° - 90°</b> 3:12 - 90° GGU	<b>35° - 53°</b> 8.4:12 - 15:12 Cabrio

# Go Solar, Save Big!

When you Go Solar with VELUX, you can reduce your energy consumption and actively fine-tune the climate inside your home as the seasons change. The products we design at VELUX can help you reduce your dependency on electricity and, ultimately, lower your carbon footprint.

We help you do this by providing you with the opportunity to exchange artificial light with bright, natural light that lets you cut ties with high energy bills. Products like the Solar Powered "Fresh Air" Skylights, the Sun Tunnel Solar Night Light, and our solar-powered blinds are all featured in our Go Solar Series to help you create a greener home.

But the savings don't stop at cutting high energy costs: when you install any of VELUX's Go Solar products, you become eligible for a 30% federal tax credit on product and installation! Because our Go Solar products gualify as Solar Electric Property, you can get back as much as 30% of what you put into your project if you install by 2021.

### Example of a VELUX Fixed Skylight with the Go Solar Option:



### **Fixed Skylight Option**

Estimated price/savings

- \$400 Fixed Skylight & Flashing
- + \$1,500 Installation \$1,900 Final Cost



\*Based on tax credit eligibility. For more information visit veluxusa.com/taxcredit. <sup>1</sup> VELUX ACTIVE Gateway not included with the Go Solar option for the VELUX Solar Powered "Fresh Air" Skylight. <sup>2</sup>Actual installation costs will vary from these estimates based on common variables in roof construction and shaft construction. Local delivery costs and applicable sales tax not considered for these estimates. These numbers are provided as estimates only.

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

off product and install cost when you Go Solar

2009-2019	30% Federal Tax Credit
2020	26% Federal Tax Credit
2021	22% Federal Tax Credit

For more information visit: veluxusa.com/taxcredit







Includes fixed skylight, factory installed solar blind, and a free VELUX ACTIVE Gateway

### **Go Solar Option**

Estimated price/savings

(	\$1	600* Go Solar
	\$1,600	Final Cost
-	<b>\$685</b>	30% Federal Tax Credit*
+	\$1,500	Installation
	FREE	VELUX ACTIVE Gateway
	\$785	Fixed Skylight, Blind & Flashing

# "Fresh Air" Skylights

Solar-Powered – VSS, VCS Electric – VSE, VCE Manual – VS, VCM



C ..............

# Solar-Powered "Fresh Air" Skylights

Deck-Mounted - VSS | Curb-Mounted - VCS







The VELUX Solar Powered "Fresh Air" Skylight, our most innovative skylight yet, opens your home to a world of crisper, cleaner air and brighter days. With its striking design and effortless functionality, this skylight can boost your home's energy efficiency, while bringing in an abundance of natural light and fresh air.

- Effortlessly opens and closes your skylight with solar-powered technology; no electricity needed.
- Venting feature maximizes the chimney effect, releasing hot, stale air trapped at the top of a ceiling.
- The equipped rain sensor automatically closes your open skylight at the first sign of rain to ensure your home and valuables below stay dry.
- The solar-powered, rechargeable battery continuously collects available daylight, even minimal amounts, to ensure your skylight is ready to use at any time.
- Ingenious pairing to a variety of VELUX factory-installed blinds.
- Compatible with VELUX ACTIVE, giving your skylight the ability to open and close automatically to match your home's ideal indoor climate.



Remote and insect screen included with VSS/VCS skylight



Roof pitch for VSS skylights



Roof pitch for VCS skylights



Go Solar and be eligible to receive the 30% Federal Tax Credit on product and installation.



Blind options See page 56



### Electric "Fresh Air" Skylights

Deck-Mounted - VSE | Curb-Mounted - VCE

# Manual "Fresh Air" Skylights

Deck-Mounted - VS | Curb-Mounted - VCM







A refreshingly robust skylight, the VELUX Electric "Fresh Air" Skylight pours plentiful amounts of natural light and fresh air into your home. This skylight's seamless integration to your home's electricity gives you the flexibility to vent your home any time of day.

- Quietly opens to vent your home and closes with one touch of the remote.
- Daily venting with this skylight allows cool, fresh air to fill your home.
- The rain sensor automatically closes an open skylight at the first sign of rain.
- Seamlessly pairs with any VELUX factory-installed blinds to complete the look of your room.
- Compatible with VELUX ACTIVE, giving your skylight the ability to open and close automatically to match your home's ideal indoor climate.



Remote and insect screen included with VSE/VCE skylight



Roof pitch for VSE skylights



Roof pitch for VCE skylights



Blind options See page 56



Manual "Fresh Air" Deck-Mounted No Leak Skylight - VS

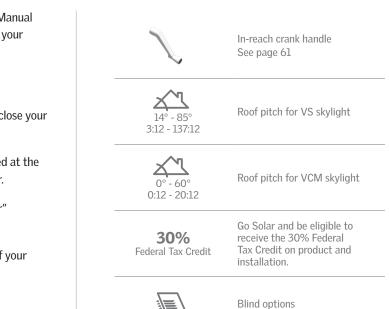


Lighten and freshen up your home at any time with the VELUX Manual "Fresh Air" Skylight. This skylight brings in a wealth of light into your space, while letting go of the stale air.

- Smooth operator hook enables you to effortlessly open and close your skylight to crank up the fresh air in your home.
- Daily venting of your skylight lets all the hot, stale air trapped at the top of your ceiling to escape, making room for more fresh air.
- Never worry about pests entering your home as all "fresh air" skylights are equipped with a well-built insect screen.
- Perfect pairing to any VELUX blind lets you finish the look of your room with pops of color.



Manual "Fresh Air" Curb-Mounted No Leak Skylight - VCM





See page 56

# Fixed Skylights

Fixed – FS, FCM Self-Flashed – QPF



# Fixed Skylights

Deck-Mounted - FS | Curb-Mounted - FCM

### Fixed Skylights

Self-Flashed - QPF



Fixed Deck-Mounted No Leak Skylight - FS



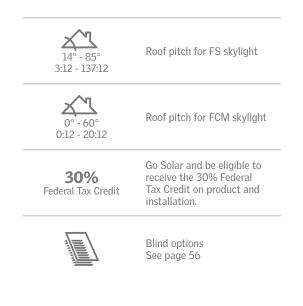
The VELUX Fixed Skylight is perfect for visually expanding areas such as hallways, stairwells, and other closed-in, dark spaces that can be transformed with light and sky views. It provides an economical choice in creating a spacious home that is filled with natural light.

- This skylight's clean exterior profile won't obstruct your roofline, adding natural light discreetly.
- Versatile in shape, allowing for a greater flexibility and positioning options for your room.
- Equipped with high-quality Low-E3 glass that is coated to keep the skylight surface virtually spotless.
- Able to fit any VELUX blind to give you ultimate control over the light levels in your space.



Fixed Curb-Mounted No Leak Skylight - FCM

Pre-finished white interior wood frame for FS skylight





Fixed Self-Flashed Skylight - QPF



The VELUX Self-Flashed Fixed Skylight visually expands and dramatically changes the look and feel of your space with natural light. With its integration of VELUX flashing, this skylight has one of our quickest installation times.

- This skylight's clean exterior profile won't obstruct your roofline, adding natural light discreetly.
- Versatile in shape, allowing for greater flexibility and positioning options for your room.
- Integrated with VELUX flashing makes for a quick and easy installation.
- Equipped with high-quality Low-E3 glass that is coated to keep the skylight surface virtually spotless.
- Able to fit any VELUX blind to give you ultimate control over the light levels in your space.

Designed for use with asphalt shingles Welded and painted flashing joints for durability <u>X</u> Roof pitch for 14° - 60° QPF skylight 3:12 - 20:12 Go Solar and be eligible to receive 30% the 30% Federal Tax Credit on Federal Tax Credit product and installation. Blind options See page 56

# Skylight Accessories

Blinds VELUX ACTIVE Glass Options Accessories



# Blinds

Room-Darkening, Double-Pleated Light-Filtering, Single-Pleated

Whether you're looking to decorate your home, control the amount of daylight coming into it, ensure a comfortable room temperature, or are just looking to reduce energy costs, VELUX blinds are specifically designed to meet your needs. In addition to their sleek, modern look, all VELUX blinds are designed with supreme functionality because your home and skylight deserve the very best.

Find the right blind for your lighting needs below!



#### **Room-Darkening, Double-Pleated Blinds**

Designed with a unique honeycomb structure, this pleated blind adds a textured appearance while working to block even the brightest sunlight.

- Energy efficient
- Easy to install
- · Solar-powered and manual options available

#### Light-Filtering, Single-Pleated Blinds

Softly diffuse the natural light from your skylight with this single-pleated blind. A perfect choice to let you enjoy all the light without the glare.

- Sleek design
- Solar-powered and manual options available

#### **Blackout Blinds**

Ideal for movie rooms and bedrooms, blackout blinds are made with a flat material designed to block all incoming light.

- Flat, complimentary design
- Wide selection of colors
- · Solar-powered and manual options available

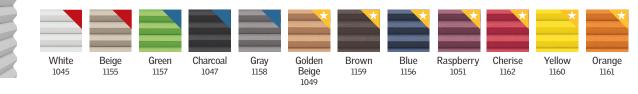
#### Venetian Blinds

When you want both style and comfort, the venetian blind is your best option for light control.\*

- Offers privacy and control of light levels
- Low-maintenance
- Manual option available







#### Light-Filtering, Single-Pleated Blinds - Solar-Powered or Manual



#### Blackout Blinds, Flat Fabric - Solar-Powered or Manual



Venetian Blinds - Manual





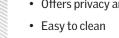
Blind slats measure 1.375"













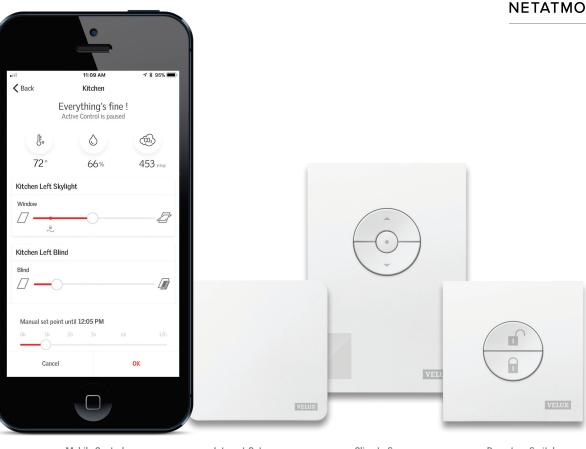
In-stock blinds ship directly with your skylight. Please allow up to 13 business days for delivery.



Special order blinds ship separately from your skylight. Please allow 14 business days for delivery. Special order blinds are non-returnable and non-refundable

# **VELUX ACTIVE**

#### **Climate Control Monitoring System**



Mobile Control Operate your VELUX skylights and blinds from your smartphone.

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

**Climate Sensor** Constantly measures temperature and air quality (humidity and CO)

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

**VELUX ACTIVE** 

Smart sensor-based operation of your VELUX skylights,

and blinds.

with

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 to automatically adjust your skylights and blinds for ideal temperature and air quality.

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





**Sensor-based Ventilation** Smart sensors monitor temperature, humidity, and CO<sub>2</sub> levels and operate your skylights accordingly for a healthier indoor climate.



Nighttime mode You can choose for the blinds to go down at the end of the day for energy savings and privacy.



**Daily Ventilation** Depending on local weather conditions, the system will air out three times a day, giving you a healthier home.



Say the Word Apple HomeKit<sup>®</sup> compatibility lets you use voice control to operate your VELUX skylights and blinds. Morks with



**Smart Heat Protection** Proactively closes your blinds based on local weather forecast information.



Easy Departure Tap the VELUX ACTIVE departure switch on your way out to close your VELUX skylights and only operate blinds.

# **Glass Options**

Clean, Quiet & Safe Glass | Impact | White Laminated | Snowload | Tempered



#### Clean, Quiet & Safe Glass (xx04)

When selecting a VELUX Skylight, rest assured your skylight comes with our most-recommended, top-rated glass: Clean, Quiet & Safe. Named for its three biggest benefits, this glass is made of state-of-the-art, energy-conserving LowE glass, designed to keep your home warmer in the winter and cooler in the summer.

Dual-pane laminated glass standard on: VSS, VCS, VSE, VCE, FS, skylights

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



#### Impact (xx06)

The glass is very resistant to penetration from flying debris. Our impact glass meets the requirements for wind-borne debris protection of the IBC (International Building Code Commercial), IRC (International Residential Code), and the Florida Building Code 2001, with exception of Dade County Protocols.

Available on: VSS, VSE, VCE, VS, VCS, VCM, FS, FCM, OPF

your home.

#### Tempered Glass (xx05)

With an additional degree of hardness, this glass shatters into small pieces rather than larger shards of glass if broken.

Available on: VCM, VCS, FCM, QPF

White Laminated (xx08)

Made up of bonded layers, this glass holds together if broken. Plus with its white coating, it can diffuse 100% of the light flowing into

Available on: VSE, VCE, VS, VCS, VCM, FS, FCM, QPF



Snowload (xx10)

Ideal for climates that experience heavy amounts of snowfall a year, snowload glass ensures your skylight can support the added weight from accumulated snow.

Available on: VSS, VSE, VCE, VS, VCM, FS, FCM

# **Accessories Skylight Accessories**

#### VELUX ACTIVE - Starter Kit



Model KIX 300 US Includes Climate Sensor, Departure Switch, and Internet Gateway

#### **Basic Remote Control**



#### Model KLI 310 US

Remote control allows users to operate skylights and blinds from anywhere in the room





Model ZZZ 213B

Three 57 1/2" pieces one kit works for most sizes

#### Sun Screen Adapter Kit



Model ZZZ 232V ZZZ 232F

Allows skylight models manufactured prior to January 1, 2010 to have special order blinds



VELUX ACTIVE - Indoor Climate Sensor

Model KLA 300 US Additional sensor for other rooms with VELUX skylights

#### **Battery Backup**



Model KLB 100 WW Provide limited operation of VSE, VCE skylights and electric blinds during power outages

#### Trim Kit - with L parts



Model ZZZ 213A Trim groove filler pieces simplifies replacement of existing skylights





4 pre-cut drywall groove filler pieces and 4 structural brackets. Sizes: CO1, CO4, CO6, C08, D06, D26, M02, M04, M06, M08, S01, S06

**VELUX ACTIVE** - Departure Switch



Model KLN 300 US Additional departure switch for added convenience

#### Home Automation Integration Kit



Model KLF 200 US Wirelessly control up to five groups of solar/ electric powered skylights or blinds

#### Blind Accessory Tray



Model ZZZ 199 Needed for blind installation on fixed curb-mounted skylights (2270-4646)

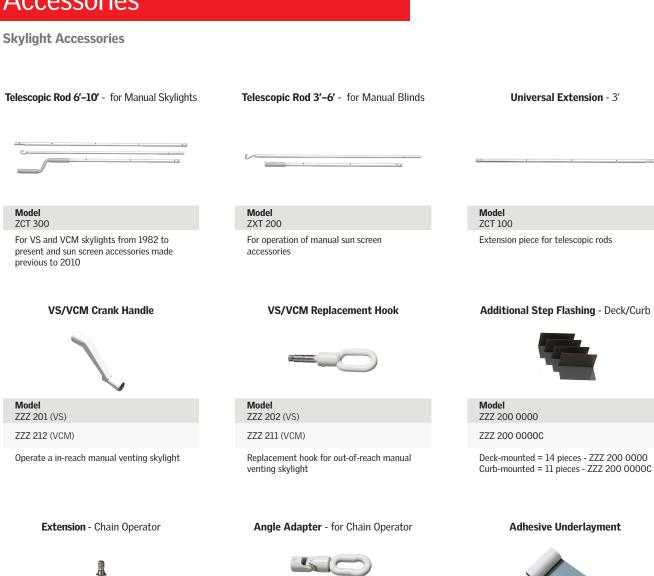
Structural Brackets - 4 brackets



ZZZ 219

### Accessories

**Skylight Accessories** 





Model ZCT 300

For VS and VCM skylights from 1982 to present and sun screen accessories made



Model ZZZ 201 (VS) ZZZ 212 (VCM)

Operate a in-reach manual venting skylight



Model ZZZ 208

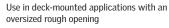
Model ZZZ 203

For manual crank handle or angle adapter

easier to operate with a manual pole







Used in conjunction with the manual hook for out-of-reach applications to make the skylight

Model ZOZ 216L 9" x 26' per roll

# Roof Windows

GPU GGU GXU

62 veluxusa.co



### **Roof Windows**

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

### **Roof Windows**

**Roof Access Window - GXU** 



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.

The sky is the limit with a top-hinged roof window! Operated with an elegant handle at the bottom, VELUX top-hinged roof windows give you a full, open view of your skyline and maximize the amount of natural daylight that comes in. Top-hinged roof windows are the perfect choice for loft conversions.

- 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.

Opens to a maximum of 45 degrees allowing access to the outdoors



Roof pitch for GPU roof window



Special order blind options See page 56

Put fresh air at your fingertips with a center-pivot VELUX roof window. Ideal for rooms with high humidity, like kitchens and bathrooms, but they will fit nicely in any room because of their modern and contemporary look. The innovative top control bar allows you to install the window lower than an equivalent bottom-operated window to get an excellent view while standing and when seated.

- A top control bar allows you to pull once for background ventilation, twice to open the window and can rotate 180 degrees.
- Convenient access and views even with furniture placed beneath the roof window.
- Low installation allows for more flexibility and better views.

Easy to open and quick to close with the top control bar



Roof pitch for GGU roof window



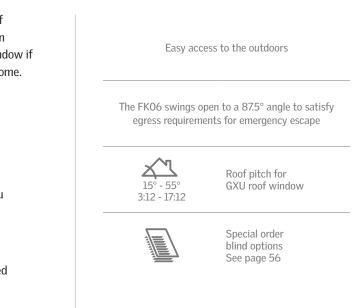
Special order blind options See page 56



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.

Open your home up to the sky-your roof! With the VELUX Roof Access Roof Window, embrace the best of the outdoors and turn unused rooms into inspired spaces. We recommend this roof window if you need to gain access to your roof or add ventilation to your home.

- Allows for easy access to your roof for repairs, maintenance, emergency, and egress.
- A locking device keeps the window in an open position so you never have to worry about the window falling shut.
- Sleek outer appearance that blends in with your roofline.
- Can be installed to open as either a left-hinged or right-hinged window.



### Roof Windows

Balcony Roof Window - GDL CABRIO™



The VELUX CABRIO balcony opens in seconds to give your loft space a place in the sun. The innovative balcony adds air, light and a great view to your home. For added convenience, the VELUX CABRIO balcony fits flush with the roof when closed.

- Enjoy a balcony any time as the VELUX CABRIO transforms from roof window to balcony in seconds.
- Bring the outside in to let in more natural daylight and fresh air.
- Versatility of opening the top half of the CABRIO to become a roof window or open both windows fully to create a balcony.

Dual-sash operation: top opens for ventilation and bottom opens outward to create a roof balcony

When the GDL CABRIO™ roof window is closed, a ventilation flap can be opened to provide a breath of fresh air, even if it is raining outside



Roof pitch for GDL CABRIO<sup>™</sup> roof window





# Sun/Tunnel Skylights

Low-Profile Flashing – TGF/ TGR Pitched Metal Flashing – TMF/TMR Low-Profile, Flat Glass Flashing – TLR Curb-Mounted Metal Flashing – TCR

........................



# Sun Tunnels

#### **Rigid & Flexible Sun Tunnels**

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



Model TGR





14″ Model TMF

Pitched Metal Flashing

#### Low-Profile Metal Flashing

Model TGF



Low-Profile Flat Glass Flashing (Available in 14" only)



Every room in your home deserves to be filled with natural light—even those in the center of your home. Unlike traditional windows, the VELUX Sun Tunnel Skylight can be installed within an afternoon, making it one of the fastest and most inexpensive ways to transform your room with natural light.

- Versatile and highly reflective tunnel that lets light travel from your roof down to the space below uninhibited.
- Fastest VELUX skylight to install, letting you enjoy bright, natural light in a single afternoon.
- Choose to equip your sun tunnel with multiple diffuser options to finish the look of the room.

Curb-Mounted Metal Flashing (Available in 14" only)

Model TCR



Go Solar Option: Add the ZTZ 213 Solar Night Light for additional low level light in rigid sun tunnels.



Roof pitch for TGF, TGR, TMF, TMR, and TLR

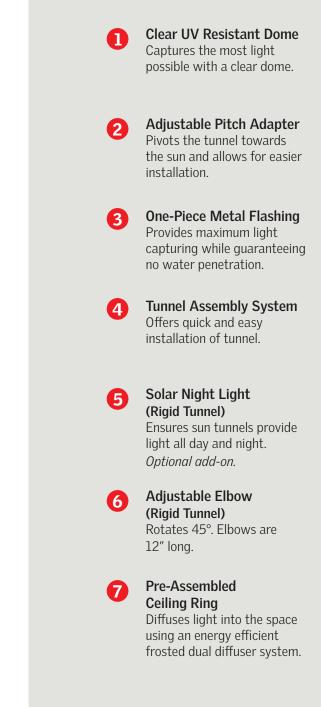


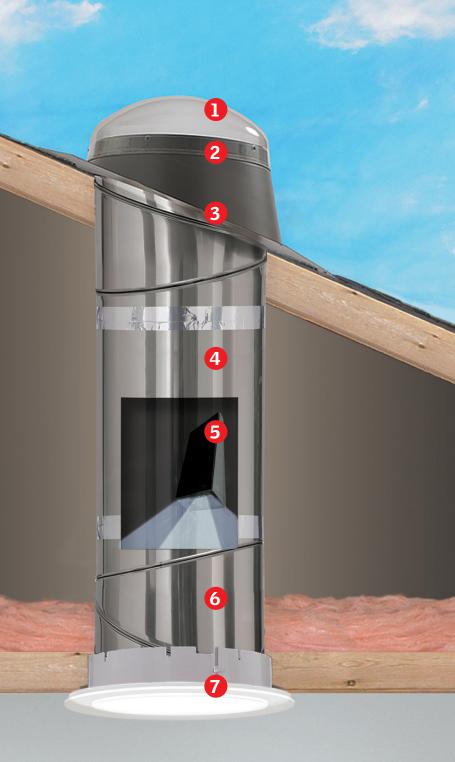
Roof pitch for TCR



Go Solar and be eligible to receive the 30% Federal Tax Credit on product and installation.

**VELUX Sun Tunnel** Skylights capture daylight and deliver it to the interior of your home without the need for complex construction.





# **Sun Tunnel Accessories**

Solar Night Light Sun Tunnel Accessories



State State

### Accessories

#### Sun Tunnel Solar Night Light

### Accessories

#### **Sun Tunnel Accessories**

Model

ZTZ 213

tunnel only

Model

ZTL 114

ZZZ 122

Solar Night Light

Provides low level light available for rigid

**Universal Electric Light Kit** 









Model ZTC 0051US ZZZ 0041US (22")

Designed to increase energy efficiency;



Model ZTZ 211 required



Model ZTM 0000 50



# ZTY

Designed to let your sun tunnel be a source of light at night and also during the day

#### Diffusion Enhancer - 6" band



Model ZTZ 209 Highly reflective, obscure 6" band designed to diffuse direct sunlight





Model ECW Install on tile roofing material over 3/4"

Model

ZTZ 203

tunnel sections





This powerful combination of the VELUX Sun Tunnel and the Solar Night Light provides you with constant free light, day or night. The Sun Tunnel's unique cylinder shape fits between the beams of your ceiling to allow light to travel from your roof down to the space below uninhibited. And when the sun goes down, the moon-like glow of the Solar Night Light will help guide your way.

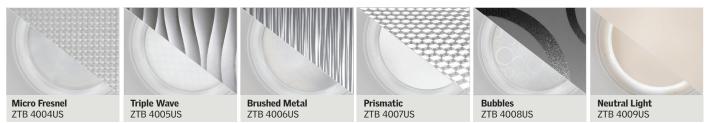
- Mounts discreetly in seconds
- Provides light for over 72 hours without a charge
- Charges within a few hours on a sunny day



For more about Go Solar savings, see pages 42-43.

#### **Decorative Diffuser**

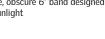
Transform Sun Tunnels to match your interior décor. Select from a range of micro engineered decorative diffusers to increase interior aesthetics and visual appeal.



Solar Night Light

ZTZ 213





#### Flashing Curb-mounted - Tile ECW



thickness for roof pitch 14-60° on TCR model

12-gauge wire and fastener set to secure longer





# Model



#### Daylight Controller

Motorized variable positioning daylight control device - available in 14" and 22"

#### **Energy Kit**

includes a thermal plate and a diffusing disc

#### **Rotation Coupler**



Enables quick tunnel connections when maneuvering around obstacles in the attic is

#### Flashing Pitched - Tile



Water-tight flashing without the use of sealants – available for TMR and TMF

#### Vapor Barrier

Designed for protecting flashing components and ceiling opening from condensation



Power supply for control devices

#### Exterior Fire Band



Model ZZZ 192

Designed to meet fire prevention requirements of building codes - not available for TSR 10"

#### Elbows



Model ZTE 0000

Can be used at bottom, middle, or top of your installation - can form a 90 degree bend using multiple elbows with rotating couplers

#### **Rigid Tunnel**



Model ZTR

24" reflective tunnel sections - available in bulk quantities

# VELUX Modular Skylights

5°Longligh



	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 SL0017	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"
12m	HVC 100160 SL0048	HFC 100160 SL0018		81" x 67"
	HVC 100200 SL0048	HFC 100200 SL0018	Ventilating: Two longlights, one fixed, one electrically operated vent-	81" x 83"
	HVC 100240 SL0048	HFC 100240 SL0018	ed, complete with flashing components. Includes electric control sys- tem and wind and rain sensor.**	81" x 98"
	HVC 100120 SL0049	HFC 100120 SL0019	Fixed: Three fixed longlights, complete with flashing components.**	120 <sup>4</sup> /16" x 51"
	HVC 100160 SL0049	HFC 100160 SL0019		120 <sup>4</sup> / <sub>16</sub> " x 67"
	HVC 100200 SL0049	HFC 100200 SL0019	Ventilating: Three longlights, two fixed, one electrically operated vented, complete with flashing components. Includes electric control	120 <sup>4</sup> / <sub>16</sub> " x 83"
	HVC 100240 SL0049	HFC 100240 SL0019	system and wind and rain sensor.**	120 <sup>4</sup> / <sub>16</sub> " x 98"
*	HVC 100120 SL0050	HFC 100120 SL0020	Fixed: Four fixed longlights, complete with flashing components.**	159 10/16" x 51"
GIN	HVC 100160 SL0050	HFC 100160 SL0020		159 <sup>10</sup> / <sub>16</sub> " x 67"
~~~~~///	HVC 100200 SL0050	HFC 100200 SL0020	Ventilating: Four longlights, two fixed, two electrically operated vented, complete with flashing componets. Includes electric control	$159^{10}/_{16}$ " x 83"
	HVC 100240 SL0050	HFC 100240 SL0020	system and wind and rain sensor.**	$159^{10}/_{16}'' \times 98''$
	HVC 100120 SL0051	HFC 100120 SL0021	Fixed: 10 fixed longlights, complete with flashing components.**	395 <sup>14</sup> / <sub>16</sub> " x 51"
Eller .	HVC 100160 SL0051	HFC 100160 SL0021		395 <sup>14</sup> / <sub>16</sub> " x 67"
- Starter	9 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"

Delivery time is approximately 8-10 weeks

\*\*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**

\*Assumes 0° roof pitch

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

Also available:

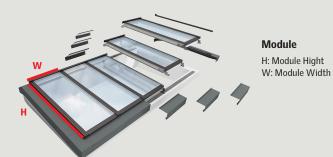
Type 11 Dual pane, low energy, with solar protection exterior over laminated interior.

Type 16 Super low energy, triple pane.



#### Modular Concept

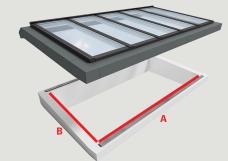
VELUX Modular Skylights are based on a strictly modular concept. All components are prefabricated to ensure consistent quality throughout the build, fast and easy installation and a perfect fit every time.





#### **Individual Sub-Construction**

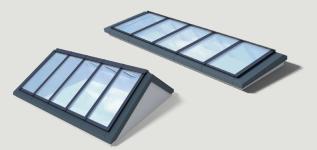
To ensure a precise and trouble-free installation process, the sub-construction needs to meet the individual demands of your roof construction. Consequently, the sub-construction is not part of the modular system, but has to be constructed on site. Ask your installer to recommend the best sub-construction 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.



# The No Leak Skylight

#### **3 Lavers of Protection**

From the very beginning, VELUX has been committed to putting only the best skylights in the homes of our customers. That meant addressing the most common problem skylights have: after a while, they start to leak.

It's such a common problem that, when we solved it, we dubbed our skylights the "No Leak Skylight" and crafted a matching No Leak Promise as our assurance to you that your VELUX skylight will not leak.

Serving as our warranty, the No Leak Promise ensures a 10-year installation warranty plus 20 years on glass, 10 years on product, and 5 years on blinds and controls.

We're able to make and keep this promise thanks to our patented three layers of water protection on our deck- and curb-mounted skylights.

No matter which skylight you choose, you can rest easily beneath it knowing that, while it lets in abundant sunlight and fresh air, it will never let in rain.

#### **Deck-Mounted - 3 lavers of protection**

#### **Deck Seal**

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

#### **Adhesive Underlayment**

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

#### Flashing

Engineered flashing for easy installation and primary water protection. In order to qualify for the 10-year installation warranty, VELUX flashing must be purchased.

### **Curb-Mounted - 3 layers of protection**



Gasket

A pre-attached skylight gasket provides a tight seal between a standard site-built curb and the skylight.



#### Adhesive Underlayment

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

Flashing

Engineered flashing for easy installation and primary water protection.

In order to qualify for the 10-year installation warranty, ECL shingle or ECW tile flashing must be purchased.

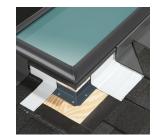
### Flashing Systems

#### Deck-Mounted Flashing | Curb-Mounted Flashing

A crucial part of our complete system, VELUX Skylight Flashing Kits are designed to shed water without relying on sealants that can break down over time. No matter the scope of your project, we offer a variety of skylight flashing systems to ensure a weather-tight fit for virtually all roof types and slopes so you can easily install the skylight of your dreams.

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

#### **Deck-Mounted Flashing Systems**



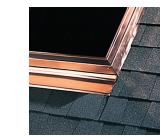
Step flashing pieces interweave

Shingles/Shakes - EDL

- with roofing material for proper water drainage. Adhesive underlayment included
- in this flashing kit.
- Additional step pieces may be required for shakes and other thick roofing materials.

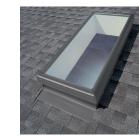


- Tile Roofing EDW Patented sill flashing that
  - features pliable pleats that form to meet most types of tile. Side and head flashing pieces
- form a gutter to direct water away from the skylight.
- Note: Not available for VSS.



- Copper Cladding and Flashing Available for select deckmounted VELUX roof windows
- and skylights. Available as a special order with varying lead-times. Call for more information.

#### **Curb-Mounted Flashing Systems**

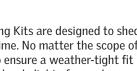


- Shingles/Shakes ECL Step flashing pieces interweave with roofing material for proper water drainage.
- Adhesive underlayment included in this flashing kit.
- Additional step pieces may be required for shakes and other thick materials.



# The No Leak Skylight<sup>™</sup>

No Leak Promise
 No Worries





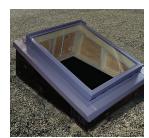
#### Combi Applications

- Type EKL works with groupings on lowprofile roofing materials and requires 4" over-and-under spacing and 2.5"-12" side-by-side spacing in  $\frac{1}{2}$ " increments.
- Type EKW works with aroupings on high-profile roofing materials and requires 4" side-by-side spacing.
- Available as a special order with varying lead-times. Call for more information.



#### Metal Roofing – EDM

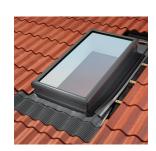
- Flashing pieces interlock with roofing material for a fast. weather-tight installation.
- Sill apron features pliable pleats that form to the roof.



**Biepack Flashing – ECB\*** 

- Used with a site-built curb on low-sloped roofs.
- No bending of flashing required.
- Applied to 2" x 4" lumber and boowvlg

No Leak Warranty not applicable



Tile Roofing – ECW

- Patented sill flashing that features pliable pleats that form to meet most types of tile.
- Side and head flashing pieces form a gutter to direct water away from the skylight.
- Note: not available for VCS.

### **ENERGY STAR®**

### **Product Size Charts**

#### Solar-Powered "Fresh Air" Skylight Sizes

**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). In order to be 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 gualify.

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

In warmer climates, there is great potential for lighting energy savings by using emerging control technologies, like VELUX Active, 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, roof windows, and sun tunnels 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 based on the above codes.

Additionally, electrical components built into VELUX products are UL listed.

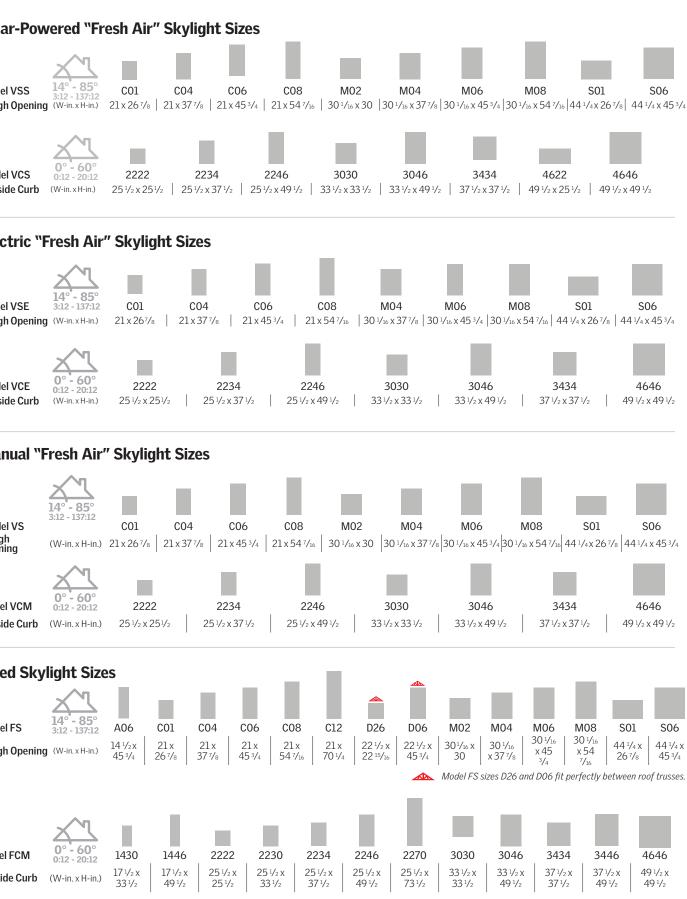
Standard VELUX residential skylights and sun tunnel products also meet or exceed applicable Powersmart requirements, in addition to those of the current and prior North American Fenestration Standards (NAFS), also known as AAMA/WDMA/CSA 101/I.S.2/A440. Copperclad versions may not exceed these requirements but do meet other standards required of them.

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.







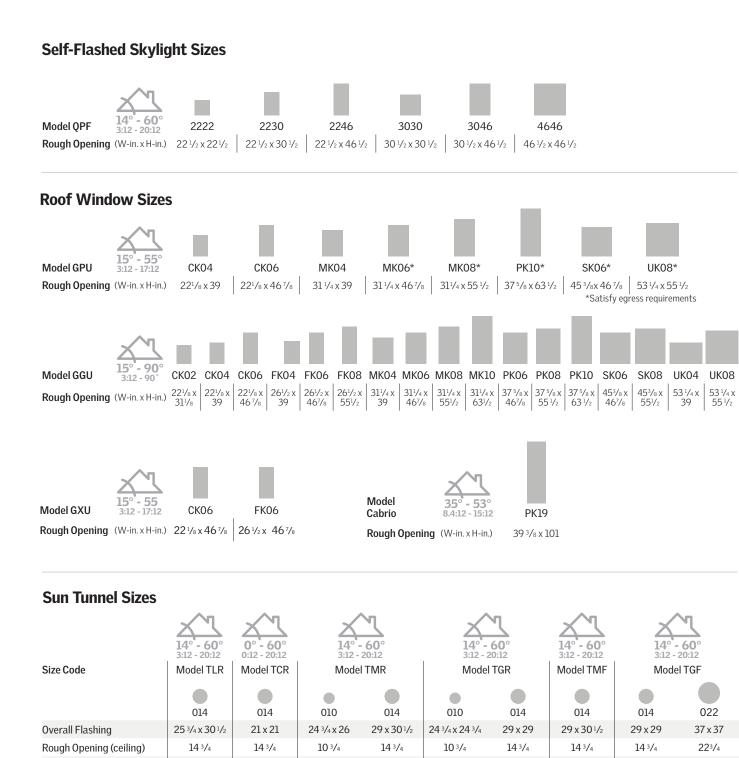


#### **Fixed Skylight Sizes**





### Product Size Charts



### **Testing Data**

VSE/VSS Technical Information											
Glass	04	06**	08	10	9994						
			<b>/exfiltration</b> t <sup>2</sup> ) differentia								
l/s/m²	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						
Water resistance @ 3.4 L/m <sup>2</sup> /min (5 USgal/ft <sup>2</sup> /hr)* [max. tested differential pressure with no leakage]											
Pascals	720	720	720	720	720						
lbs/ft <sup>2</sup>	15	15	15	15	15						
<b>Thermal performance</b> (Certified, complete unit values)											
VELUX Glass Skylights are rated at 20° slope and labeled with NFRC-certified <b>U-Factor, SHGC, and VT</b> ratings listed in the NFRC Certified Products Directory.											
U-Factor	0.43	0.41	0.43	0.42	0.38						
SHGC	0.23	0.23	0.22	0.23	0.23						
VT	0.53	0.53	0.38	0.53	0.52						
UV protection, %											
300-380 nm	99.9	99.9	99.9	99.9	99.9						
F	ading protect	tion, %(Kroo	chmann dama	ge function)							
300-600 nm	83.1	84.6	88.4	83.2	85.1						
Structural Performance [Performance Grade 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: <b>Product 426-H-670</b> (not applicable to copper-clad variants)											
debris i Rate 04	<ul> <li>Product 426-H-670 (not applicable to copper-clad variants)</li> <li>** 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</li> <li>04 glass: Tempered over laminated HS (0.030" interlayer)</li> <li>06 glass: Tempered over laminated HS (0.090" interlayer)</li> </ul>										
	ud glass	. Same as 04,	with white in	lerlayer							

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

Rough Opening (roof deck)

Minimum Installable Length

Maximum Recommended Install Length (ft.)  $14 \frac{1}{2} \times 17 \frac{3}{4}$ 

4

30

16<sup>3</sup>/<sub>4</sub> x 16<sup>3</sup>/<sub>4</sub>

4

30

 $12^{1/2} \times 16$ 

4

20

 $14 \frac{1}{2} \times 20$ 

4

30

14 1/2 x 16

4

20

14<sup>1</sup>/<sub>2</sub> x 18

4

30

 $14^{1/2} \times 20$ 

4

8

14<sup>1</sup>/<sub>2</sub> x 18

4

8

22<sup>1</sup>/<sub>2</sub>x26

4

8

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				
Water resistance @ 3.4 L/m <sup>2</sup> /min (5 USgal/ft <sup>2</sup> /hr)* [max. tested differential pressure with no leakage]											
Pascals	720	720	720	720	720	720	720				
lbs/ft <sup>2</sup>	15	15	15	15	15	15	15				
<b>Thermal performance</b> (Certified, complete unit values)											
		ights are ra 1 <b>d VT</b> ratin		•							
U-Factor	0.43	0.44	0.41	0.43	0.42	0.39	0.38				
SHGC	0.23	0.23	0.23	0.22	0.23	0.23	0.23				
VT	0.53	0.54	0.53	0.38	0.53	0.52	0.52				
UV protection, %											
300-380 nm	99.9	95.2	99.9	99.9	99.9	95.3	99.9				
Fading protection, % (Krochmann damage function)											
300-600 nm	83.1	79.2	84.6	88.4	83.2	81.6	85.1				
	Structu	ral 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.				
Struc	tural perfo	cordance w rmance rat hts are WD	(NAFS 2	2011) oply to sizes	s smaller th	an the Test	ed				
0.2	, 9			oper-clad va							

\*\* 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

### **Testing Data**

[max. @ 75 Pa .1 0.2 01 0.04 ater resistanc [max. tested d 20 720 5 15	0.1 0.01 e @ 3.4 L/ ifferential p 720 15 hermal per ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	<ul> <li>t<sup>2</sup>) different</li> <li>0.1</li> <li>0.01</li> <li>m<sup>2</sup>/min (5</li> <li>ressure with</li> <li>720</li> <li>15</li> <li>formance</li> <li>ete unit valuislope and la</li> </ul>	ial pressure 0.1 0.01 USgal/ft <sup>2</sup> h no leakag 720 15 ues) abeled with	0.2 0.04 2/hr)* e] 720 15 NFRC-cert									
[max. @ 75 Pa .1 0.2 01 0.04 ater resistanc [max. tested d 20 720 5 15 15 5 15 7 (Cert 3 Skylights are r. <b>GC</b> , and VT ratio 44 0.44 26 0.26	a (1.57 lbs/f 0.1 0.01 e @ 3.4 L/ ifferential p 720 15 <b>hermal per</b> ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	t <sup>2</sup> ) different 0.1 0.01 m <sup>2</sup> /min (5 ressure with 720 15 formance ete unit valu slope and la the NFRC ( 0.44 0.25	ial pressure 0.1 0.01 USgal/ft <sup>2</sup> h no leakag 720 15 ues) abeled with Certified Pro 0.42 0.26	0.2 0.04 2/hr)* e] 720 15 NFRC-cert oducts Dire 0.39 0.25	0.01 720 15 ified ctory. 0.38 0.25								
01 0.04 ater resistanc [max. tested d 20 720 5 15 15 (Cert 3 Skylights are r. GC, and VT ratii 44 0.44 26 0.26	0.01 e @ 3.4 L/ ifferential p 720 15 Thermal per ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	0.01 m²/min (5 ressure with 720 15 formance ete unit valu slope and la the NFRC ( 0.44 0.25	0.01 USgal/ft <sup>2</sup> h no leakag 720 15 ues) abeled with Certified Pro 0.42 0.26	0.04 2/hr)* e] 720 15 NFRC-cert oducts Dire 0.39 0.25	0.01 720 15 ified ctory. 0.38 0.25								
ater resistanc [max. tested d 20 720 5 15 7 (Cert 5 Skylights are r. <b>GC, and VT</b> ratif 44 0.44 26 0.26	e @ 3.4 L/ ifferential p 720 15 Thermal per ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	m <sup>2</sup> /min (5 ressure with 720 15 formance ete unit valu slope and la the NFRC 0 0.44 0.25	USgal/ft <sup>2</sup> h no leakag 720 15 Jes) abeled with Certified Pro 0.42 0.26	2/hr)* e] 720 15 NFRC-cert oducts Dire 0.39 0.25	720 15 iffied cctory. 0.38 0.25								
[max. tested d 20 720 5 15 (Cert 5 Skylights are r. <b>GC, and VT</b> ratio 44 0.44 26 0.26	ifferential p 720 15 Thermal per ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	ressure with 720 15 formance ete unit value slope and la the NFRC 0 0.44 0.25	h no leakag 720 15 Jes) abeled with Certified Pro 0.42 0.26	e] 720 15 NFRC-cert oducts Dire 0.39 0.25	15 cified ectory. 0.38 0.25								
5 15 (Cert Skylights are r. <b>GC, and VT</b> ratii 44 0.44 26 0.26	15       Thermal perified, compliant of the complexity of the c	15 formance ete unit valu slope and la the NFRC 0 0.44 0.25	15 Jes) abeled with Certified Pro 0.42 0.26	NFRC-cert oducts Dire 0.39 0.25	15 cified ectory. 0.38 0.25								
T           (Cert           Skylights are r.           GC, and VT ratif           44         0.44           26         0.26	Thermal per ified, comple ated at 20° ngs listed in 0.41 0.26 0.60	formance ete unit valu slope and la the NFRC ( 0.44 0.25	ues) abeled with Certified Pro 0.42 0.26	NFRC-cert oducts Dire 0.39 0.25	ified ctory. 0.38 0.25								
(Cert Skylights are r GC, and VT ration 44 0.44 26 0.26	ified, compliated at 20° ngs listed in 0.41 0.26 0.60	ete unit valu slope and la the NFRC 0 0.44 0.25	abeled with Certified Pro 0.42 0.26	oducts Dire 0.39 0.25	ctory. 0.38 0.25								
GC, and VT ratio           44         0.44           26         0.26	ngs listed in 0.41 0.26 0.60	the NFRC 0 0.44 0.25	Certified Pro 0.42 0.26	oducts Dire 0.39 0.25	ctory. 0.38 0.25								
26 0.26	0.26	0.25	0.26	0.25	0.25								
	0.60												
60 0.61		0.42	0.60	0.59	0.59								
	UV protec	UV protection, %											
9.9 95.2	99.9	99.9	99.9	95.3	99.9								
ading protectio	n, % (Kroc	hmann dai	nage funct	tion)									
3.1 79.2	84.6	88.4	83.2	81.6	85.1								
ructural Perfo	rmance [Pe	erformance	Grade or	DP] *									
	U	lplift (lbs/ft	<sup>2</sup> )										
0 45	65	70	65	45	70								
90	120	105	100	90	105								
.r. n.r.	n.r.	n.r.	65	n.r.	n.r.								
	Dov	wnload (lbs,	/ft²)										
400	300	160	720	400	160								
50 400	300	350	1180	400	350								
.r. n.r.	n.r.	n.r.	1250	n.r.	n.r.								
	Puctural Performance           0         45           5         90           r.         n.r.           0         400           0         400           r.         n.r.	Performance         Performance	Processing Performance [Performance           Uplift (lbs/ft           0         45         65         70           5         90         120         105           r.         n.r.         n.r.         n.r.           Download (lbs/ 0           0         400         300         160           0         400         300         350           r.         n.r.         n.r.         n.r.           in accordance with AAMA/WDMA/CC         In accordance with AAMA/WDMA/CC	Purctural Performance [Performance Grade or           Uplift (lbs/ft²)           0         45         65         70         65           5         90         120         105         100           r.         n.r.         n.r.         n.r.         65           0         400         300         160         720           0         400         300         350         1180           r.         n.r.         n.r.         n.r.         1250	Functural Performance [Performance Grade or DP] *           Uplift (lbs/ft2)           0         45         65         70         65         45           5         90         120         105         100         90           r.         n.r.         n.r.         n.r.         65         n.r.           0         400         300         160         720         400           0         400         300         350         1180         400           r.         n.r.         n.r.         n.r.         1250         n.r.           in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11         11/1.S.2/A440-11         11/1.S.2/A440-11         11/1.S.2/A440-11								

Structural performance ratings also apply to sizes smaller than the Tested Size FS skylights are WDMA Hallmark certified: Product 426-H-672xx (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

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	0.1	<0.1	0.1					
cfm/ft <sup>2</sup>	0.02	0.01	0.02	<0.01	0.02					
Water resistance @ 3.4 L/m <sup>2</sup> /min (5 USgal/ft <sup>2</sup> /hr)* [max. tested differential pressure with no leakage]										
Pascals	720	720	720	720	720					
lbs/ft <sup>2</sup>	15	15	15	15	15					
<b>Thermal performance</b> (Certified, complete unit values)										
VELUX Glass Skylights are rated at 20° slope and labeled with NFRC-certified <b>U-Factor, SHGC, and VT</b> ratings listed in the NFRC Certified Products Directory.										
U-Factor	0.52	0.48	0.52	0.49	0.47					
SHGC	0.24	0.24	0.23	0.24	0.23					
VT	0.55	0.55	0.39	0.55	0.54					
		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					
Si	tructural Per	formance [P	erformance G	irade or DP] *						
Tested size			Uplift (lbs/ft²)							
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.					
* Test	ed in accorda		IA/WDMA/CS S 2011)	SA 101/I.S.2/A	440-					

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 Tech	hnical Info	ormation	-		FCM Technical Information				-				
Glass	04	05	06**	10	9993	9994	Glass	04	05/05C	06**	08	10	29/30	9993	9994
	[max.	<b>Air infiltr</b> @ 75 Pa (1.5	r <b>ation/exfi</b> l 7 lbs/ft²) dif		ssure]			[m	<b>Air i</b> ax. @ 75 Pa	<b>nfiltrati</b> a (1.57 lb:	-		ressure]	1	1
l/s/m <sup>2</sup>	0.1	<0.1	0.1	<0.1	<0.1	0.1	l/s/m <sup>2</sup>	0.2	<0.1	<0.1	0.2	0.1	0.3	<0.1	0.2
cfm/ft²	0.02	<0.01	0.01	<0.01	<0.01	0.02	cfm/ft <sup>2</sup>	0.03	< 0.01	<0.01	0.03	0.01	0.05	<0.01	0.03
		<b>sistance @</b> a sted differe					Water resistance @ 3.4 L/m <sup>2</sup> /min [max. tested differential pressure w								
Pascals	720	720	720	720	720	720	Pascals	720	720	720	720	720	720	720	720
lbs/ft <sup>2</sup>	15	15	15	15	15	15	lbs/ft <sup>2</sup>	15	15	15	15	15	15	15	15
			n <b>al perform</b> complete ur				Thermal performance (Certified, complete unit values)								
		ts are rated a <b>VT</b> ratings lis							/lights are r <b>and VT</b> rati						
U-Factor	0.52	0.53	0.48	0.49	0.48	0.47	U-Factor	0.48	0.49/0.45	0.46	0.48	0.47	0.38	0.43	0.42
SHGC	0.24	0.24	0.24	0.24	0.23	0.23	SHGC	0.27	0.27/0.28	0.28	0.26	0.28	0.25	0.27	0.27
VT	0.55	0.56	0.55	0.55	0.49	0.47	VT	0.63	0.64/0.63	0.66	0.45	0.63	0.58	0.62	0.62
		UV	protection,	%			UV protection, %								
300-380 nm	99.9	95.2	99.9	99.9	95.3	99.9	300-380 nm	99.9	95.2	99.9	99.9	99.9	95.2	95.3	99.9
	Fading pr	otection, %	(Krochmai	ın damage f	function)		Fading protection, % (Krochmann damage function)								
300-600 nm	83.1	79.2	84.6	83.2	81.6	85.1	300-600 nm	83.1	79.2	84.6	88.4	83.2	79.2	81.6	85.1
	Structura	l Performan	ce [Perfor	nance Grad	e or DP] *			Struct	tural Perfo	rmance	[Perform	nance Gra	ade or DP	9]*	
Tested size		r	Uplift (	lbs/ft²)		r	Tested size		r		Uplift (l	lbs/ft²)			
4646	45	30	60	40	30	45	4672	80	n.r.	n.r.	80	n.r.	n.r.	n.r.	80
2246	n.r.	n.r.	n.r.	65	n.r.	n.r.	4646	120	140	80	120	135	60	140	120
Tested size		ŗ	Downloa	d (lbs/ft²)	1	r	2270	100	n.r.	n.r.	100	n.r.	n.r.	n.r.	100
4646	230	230	230	620	230	230	Tested size			[	Download	l (lbs/ft²)	1	1	
2246	n.r.	n.r.	n.r.	1150	n.r.	n.r.	4672	70	n.r.	n.r.	70	n.r.	n.r.	n.r.	70
* Te	sted in acco	rdance with <i>i</i>	AAMA/WDI	MA/CSA 101	/I.S.2/A440	-11	4646	250	100	100	250	970	75	100	250
		(	NAFS 2011)				2270	200	n.r.	n.r.	200	n.r.	n.r.	n.r.	200
	•	nance ratings ts are WDMA					* Te	ested in a	ccordance		/IA/WDN S 2011)	1A/CSA 1	01/I.S.2//	A440-11	
deb	oris impact, i	tested and W n accordance nd Zone 3, Mi	with ASTM	E 1886 and	ASTM E 199	96.	Size	FCM sky D6 varian	formance ra lights are V it is tested a , Florida HVI	/DMA Ha und WDM	llmark ce A Hallma	ertified: <b>P</b> i irk certifie	roduct 42	2 <b>6-H-703</b> d-Borne	L
	-	Tempered ov <b>05 glass:</b> Tempered ov	empered over	tempered	-		50, te	sted per	TAS 201, 20 ure +50/-50	02 and 20	3 (Wind	Zone 4) L	arge Miss	sile Level (	

**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

**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).

### **Testing Data**

	QP	F Technic	cal Inform	nation			R	esidentia	al Sun Tun	nel Skyl	ights Te	chnical I	nforma	tion
Glass	04	05	06**	08	9993	9994	Model	TLR	TSR	TCR	TGF 022	TGF 014	TGR	ТМ
[m		<b>infiltrati</b> Pa (1.57 lb	-		ssure]			[m	Air in ax. @ 75 Pa		<b>1/exfiltra</b> ft²) differe		sure]	
l/s/m <sup>2</sup>	0.5	0.3	0.4	0.5	0.3	0.5	l/s/m <sup>2</sup>	0.1	0.3	0.5			0.2	
cfm/ft²	0.09	0.06	0.08	0.09	0.06	0.09	cfm/ft <sup>2</sup>	0.01	0.05	0.09			0.04	
		<b>ice @ 3.4</b> I differentia							<b>resistance</b> ax. tested dif	-		-		
Pascals	580	720	720	580	720	580	Pascals	720	720	720			720	
lbs/ft <sup>2</sup>	12	15	15	12	15	12	lbs/ft <sup>2</sup>	15	15	15			15	
	(Ce	Thermal rtified, con	<b>performar</b> nplete unit				<b>Thermal performance</b> (Certified, complete unit ratings from physical testin					esting)		
<b>QPF</b> Skyligh <b>U-Factor, SHGC</b> ,							The following V		Tunnel skylight /T <sub>annual</sub> ratings, a					
U-factor									U-fa	actor: Btı	ı/[hr*ft²*	F°]		
Btu/[hr*ft²*F°]) @20° slope	0.42	0.43	0.40	0.42	0.38	0.37	Base model	0.51	n.r.	n.r.	0.42	0.44	n.r.	0.44
SHGC	0.25	0.24	0.25	0.24	0.24	0.24	w/energy kits	0.36	n.r.	0.37	0.27	0.34	0.37	0.34
VT	0.57	0.57	0.57	0.40	0.56	0.56		SHGC:	US ratings s	hown for	models w	vith EO en	ergy kits	;
UV protection, %						0.50	Base model	0.46	n.r.	n.r.	0.35	0.30	n.r.	0.30
300-380 nm	99.9	95.2	99.9	99.9	95.3	99.9	w/energy kits	n.r.	n.r.	0.26	0.30	0.22	0.26	0.22
		tion, % (Ki					Annual Average Visible Transmittance (VT <sub>annu</sub>					annual)		
300-380 nm	83.1	79.2	84.6	88.4	81.6	85.1	Base model	0.36	n.r.	n.r.	0.32	0.22	n.r.	0.22
		formance				0012	w/energy kits	n.r.	n.r.	0.27	0.28	0.16	0.27	0.16
Tested size		iormanoe (		(lbs/ft²)			Structura	al Perform	iance [Perfo [N		arade or D = 47.88 P	-	IAFS-11 (	(NAFS-
4646	80	80	100	80	80	80	Dome type **				Uplift (neg	ative)		
Tested size			Downloa	d (lbs/ft²)	1		Acrylic or	n.a.	180 (135)	165 (125)		1	125 (90)	
4646	320	300	300	320	300	320	Polycarbonate	II.a.	Acrylic only	105 (125)	/	Acryli	c only for	THR
* Tested in a	accordanc			A/CSA 101,	/I.S.2/A44	0-11	Temp. Glass	245 (170)				n.a.		
Structural perfor	rmance ra		FS 2011) apply to size	es smaller f	than the Te	sted Size	Dome type **			Do	ownload (p	ositive)		
<b>QPF</b> skylight							Acrylic or Polycarbonate	n.a.	200 (200) Acrylic only	300 (200)			00 (200) c only for	
Toy		da Product of Insurance			SK 14		Temp. Glass	150				n.a.		
**06 variant i debris, i Rated for	is tested a in accorda r Wind Zoi		d per WDN STM E 188 e Level C, C	IA Hallmar 36 and AST Cycle Press	k for Wind- ГМ E 1996. ure +50/-5		VELUX <sup>®</sup> Sur	n Tunnel sk (See www	.wdma.com,	/DMA Hal Hallmark	llmark cert Nos. 426-I	ified as in 1-626,-69	dicated al 3,-705,-7(	bove ar 06)
06 gla 9993 gl	05 g iss: Tempe 08 glass lass: Same	lass: Temp ered over la : Same as ( e as 05, wit e as 04, wit	ered over t iminated H 04, with wh th i89 coat	empered S (0.090" i nite interlay ing on inter	nterlayer) yer rior surface		<ul> <li>**** VELUX® Sun Tunnel skylights with Polycarbonate domes are tested for Wind-Borr impact and pressure cycling, in accordance with ASTM E 1886-05 and ASTM E 1990</li> <li>Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50</li> <li>(The following models do not have Polycarbonate domes - THR, TLR, TSR)</li> </ul>							

#### 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 (IAPM0-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.

Residential Sun funnel Skylights fechnical information												
Model	TLR	TSR	TCR	TGF 022	TGF 014	TGR	TMF	TMR/ THR				
<b>Air infiltration/exfiltration*</b> [max. @ 75 Pa (1.57 lbs/ft <sup>2</sup> ) differential pressure]												
l/s/m²	0.1	0.3	0.5			0.2						
cfm/ft <sup>2</sup> 0.01 0.05 0.09 0.04												
Water resistance @ 3.4 L/m <sup>2</sup> /min (5 USgal/ft <sup>2</sup> /hr)* [max. tested differential pressure with no leakage]												
Pascals	720	720	720			720						
lbs/ft <sup>2</sup>	15	15	15			15						
<b>Thermal performance</b> (Certified, complete unit ratings from physical testing)												
The following VELUX <sup>®</sup> Sun Tunnel skylights are labeled with certified U-Factors with "Insulation at Ceiling", SHGC, and VT <sub>annual</sub> ratings, as listed in the NFRC Certified Products Directory												
U-factor: Btu/[hr*ft²*F°]												
Base model	0.51	n.r.	n.r.	0.42	0.44	n.r.	0.44	n.r.				
w/energy kits	0.36	n.r.	0.37	0.27	0.34	0.37	0.34	0.37				
SHGC: US ratings shown for models with EO energy kits												
Base model	0.46	n.r.	n.r.	0.35	0.30	n.r.	0.30	n.r.				
w/energy kits	n.r.	n.r.	0.26	0.30	0.22	0.26	0.22	0.26				
	An	nual Averag	e Visible <sup>.</sup>	Fransmitt	ance (VT	unnual)						
Base model	0.36	n.r.	n.r.	0.32	0.22	n.r.	0.22	n.r.				
w/energy kits	n.r.	n.r.	0.27	0.28	0.16	0.27	0.16	0.27				
Structura	l Perform	ance [Perfor [N		<b>rade or D</b> = 47.88 Pa	•	AFS-11 (	NAFS-08	)]*				
Dome type **				Jplift (neg	ative)							
Acrylic or Polycarbonate	n.a.	180 (135) Acrylic only	165 (125)			.25 (90) c only for <sup>-</sup>	THR					
Temp. Glass	245 (170)				n.a.							
Dome type **			Do	wnload (p	ositive)							
Acrylic or Polycarbonate	n.a.	200 (200) Acrylic only	300 (200)			00 (200) c only for	THR					
Temp. Glass	150				n.a.							
* Tested	in accorda	nce with AA	MA/WDN	1A/CSA 10	01/I.S.2/A	440-11 (N	IAFS 2011	.)				

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

unnel skylights are WDMA Hallmark certified as indicated above and below ee www.wdma.com, Hallmark Nos. 426-H-626,-693,-705,-706)

Sun Tunnel skylights with Polycarbonate domes are tested for Wind-Borne debris pressure cycling, in accordance with ASTM E 1886-05 and ASTM E 1996-05. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50 following models do not have 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

Bringing light to life

#### Non-dealer disclaimer

List prices shown do not include shipping and handling cost, delivery cost by your local VELUX Dealer or applicable sales tax. Final unit pricing can be 10–15%+ higher depending on your location, services provided and final delivery of the skylight to the job site. Many of the skylights do not include flashings or blinds. These can be purchased separately.

All VELUX skylights, roof windows, Sun Tunnel Skylights, flashing kits and blinds must be purchased through a qualified VELUX dealer. Please see the "Where To Buy" section of veluxusa.com website for a list of VELUX dealers near you.

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.

VELUX offers the choice of laminated or tempered glass skylights. Impact glass and comfortplus glass are all types of laminated glass. Comfort glass is a type of tempered glass. Laminated glass is a combination of two or more glass sheets with one or more interlayers of plastic (PVB) or resin. In case of breakage, the interlayer is designed to hold the fragments together. Tempered glass loes 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 IS REQUIRED IN YOUR APPLICATION.



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 products, products for remote control for installation in roofs. The VELUX Group, which has manufacturing 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 Å/S, a limited company wholly owned by foundations and family. For more details, visit velux.com.

XUS 20183-0219 • © 2019 VELUX Group • VELUX , VELUX logo are registered trademarks • VELUX Sun Tunnel is a trademark of VELUX Group