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# The VELUX House

The possibilities are endless



The flat glass, low profile SUN TUNNEL™ skylight creates a sleek look on any roofline and is perfect for those developments where local ordinances do not allow domed skylights.

Page 48



The electric "Fresh Air" models feature pre-mounted Pick&Click!™ system brackets, making installation of sunscreen blinds a snap. A single hard wire connects to a standard junction box.

Pages 10-13

Roof windows are perfect for upper floor bonus rooms where they will be within reach for easy opening. Features include a sash that rotates inward for easy cleaning from the inside and a ventilation flap that allows for fresh air circulation when the window is closed.

Pages 32-39



Eligible fo

Federal tax credit

The Solar Powered "Fresh Air" Skylight features a solar panel that charges an internal battery and control system. The skylight is remote controlled and solar powered, which means it requires no additional wiring, making for easy and cost effective installation. An integrated rain sensor closes the unit in case of rain and it is a No Leak Skylight, with our 3 layers of water protection, covered

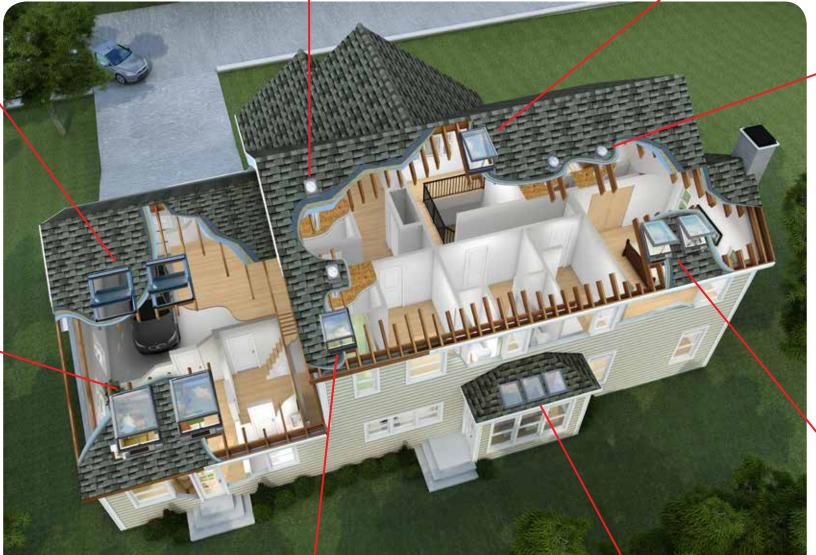
by our 10-year installation

Pages 6-9

warranty.

The No Leak Skylight

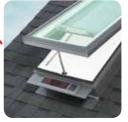
• No Leak Promise • No Worries





SUN TUNNEL™ skylights are a great way to bring natural light into areas where a window may be impractical.

Pages 46-50



The Solar Powered "Fresh Air" Skylight is available for both deck mounted and curb mounted applications.

Pages 6-9



The manual "Fresh Air" skylights open and close using a control rod that operates a smooth turning handle when the skylight is out of reach.

Pages 14-17



Our fixed skylights feature a prefinished white wood frame and protective aluminum or copper cladding. The streamlined exterior profile does not obstruct your roofline.

Pages 18-23

# The logical choice for any skylight installation

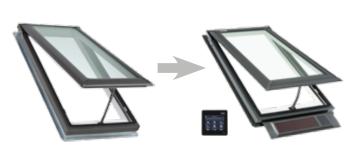
See how easy it is to upgrade to a Solar Powered "Fresh Air" Skylight

If you are considering adding daylight to your home, see how easy it is to add daylight and fresh air. With a 30% federal tax credit homeowners will receive an average of \$850\* with federal tax credit eligibility which makes this product very affordable.



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 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





# Clean, Quiet & Safe glass



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

The No Leak Skylight No Leak Promise No Worries



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



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

# Intelligent touch remote control powered by VELUX INTEGRA®

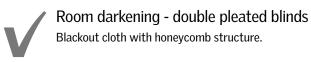
Included with your skylight is the Intelligent touch remote control powered by VELUX INTEGRA®. With the touchsensitive screen and easily-understood icons, programing skylights has become simpler than ever.

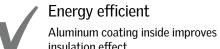


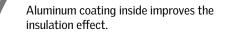


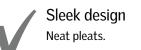


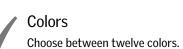
Make your home more energy efficient with VELUX room darkening - double pleated blinds. The blackout cloth with honeycomb structure and an aluminum coating inside improves the insulation effect of the window as well as the indoor climate all year round. The sleek design with neat pleats makes it an attractive blind for any room. The only blind that offers blackout, privacy and insulation all-in-one.

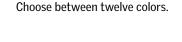


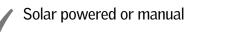


















# Choosing the right glass

Clean, Quiet & Safe glass - Recommended for out of reach applications



Tempered glass (xx05)

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



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

Impact (xx06) Available on: VSS, VSE, VCS, VCE, VS, VCM, FS, FCM, OPF Miami-Dade (xx07) Available on: FCM

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

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

#### Clean

Silicon dioxide makes Neat® glass exceptionally smooth. In fact, it's much smoother than ordinary glass. So water disperses evenly, "sheets off" and evaporates quickly, greatly reducing water spotting.

Titanium dioxide reacts chemically with the sun's UV rays, causing organic materials that are on the glass to decompose. It works even on cloudy days, as 80 percent of UV radiation gets through cloud cover. Then when it rains, the decomposed dirt is rinsed away, leaving the glass almost spotless. Result? Homeowners can spend less time washing windows and more time enjoying the view.

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



#### Ouiet

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



#### Safe

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

# Choosing the right glass

Tempered glass - Recommended for in reach applications



Tempered glass (xx05)

If your skylight is within reach, our tempered glass consists of a dual pane, triple-coated with LoE3, dual-sealed and injected with argon gas. This provides excellent energy efficiency and thermal performance for year round comfort.

Dual pane laminated alass

# **ENERGY STAR®**

Use of ENERGY STAR® products

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

Most VELUX products are ENERGY STAR® certified in all 50 states, which means that they meet strict energy efficiency standards set by the Environmental Protection Agency (EPA). ENERGY STAR® fenestration products must have their U-factor, Visible Transmittance, and Solar Heat Gain Coefficient tested and certified by the National Fenestration Rating Council (NFRC) in order to qualify.

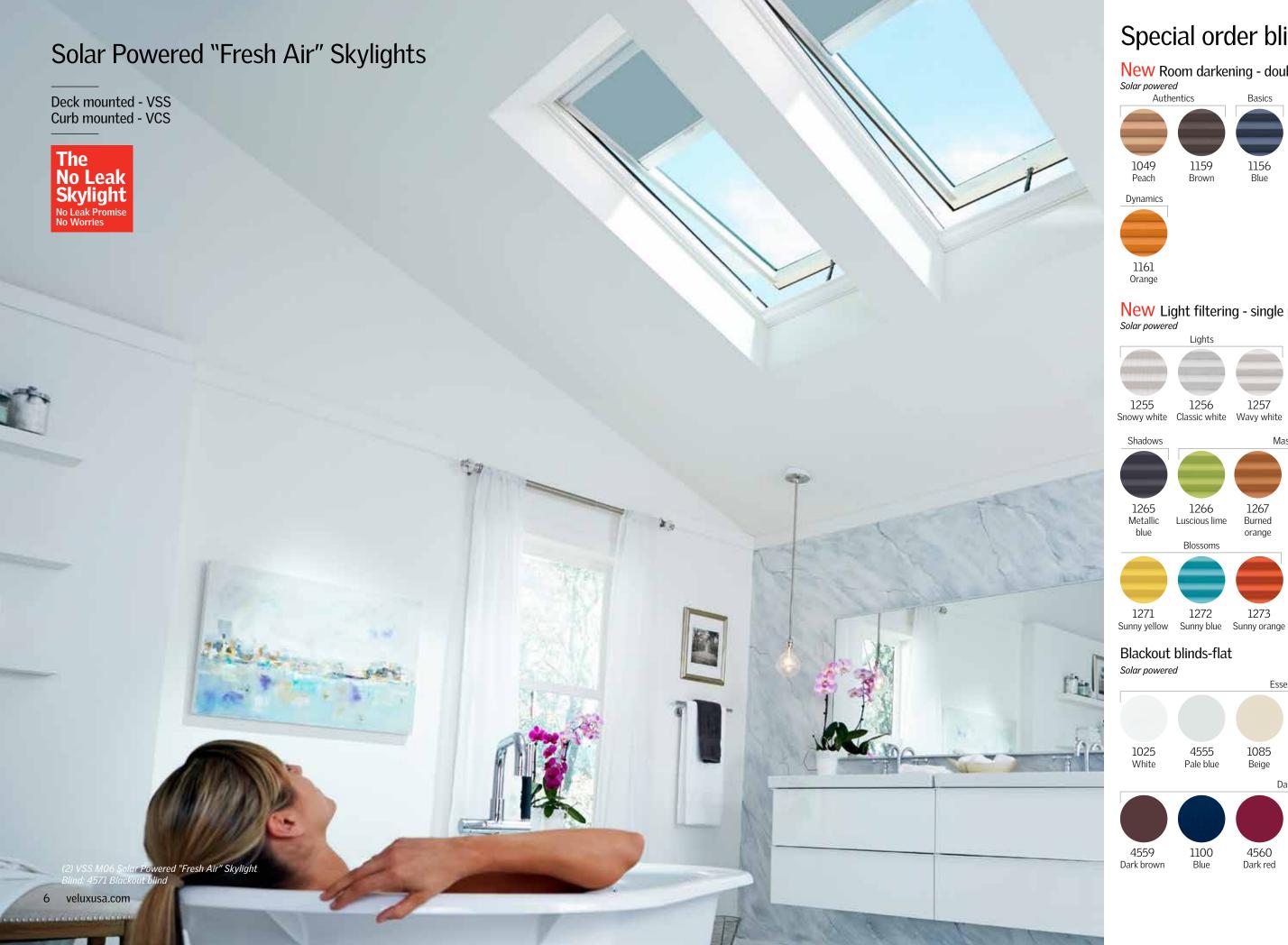
By specifying or using ENERGY STAR® products, architects and builders can use more windows and skylights, bring more daylight and much needed fresh air inside. Create more attractive buildings and more livable spaces while still meeting the local energy codes economically.

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 and SUN TUNNEL™ skylights.

Visit: energystar.gov for more information.







# **New** Room darkening - double pleated blinds

Authentics 1049 Peach Raspberry Yellow



# New Light filtering - single pleated blinds

1255 1256 1257 1262 Delightful Metallic gold Snowy white Classic white Wavy white Infinite grey Shadows Blossoms 1265 1266 1267 1268 1269 1270 Metallic Luscious lime Burned Delightful Classic red Sunny stripes

## Blackout blinds-flat



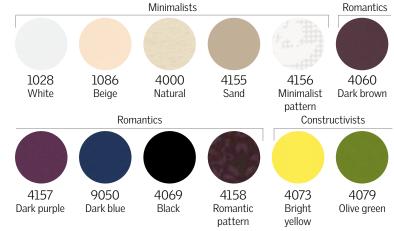
## Blackout blinds-flat (cont.)

Solar powered



Vegetals

# Light filtering blinds-flat







## Factory installed blinds

Ten factory installed blinds are available to include in the purchase of your skylight. The blind uses its own independent, built-in solar panel and power

In-stock Room darkening - double pleated blinds



#### In-stock light filtering - single pleated blinds (Solar powered)

FS01 FS31 Classic sand Misty brown Lovely latte

Federal tax credit on solar powered blinds\*

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







## Clean, Quiet & Safe glass

All VSS and VCS skylights come standard with Clean, Quiet & Safe glass.

#### Intelligent touch remote control

Included with your skylight is the Intelligent touch remote control powered by VELUX INTEGRA®. Comes with pre-programmed settings for ease



Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits

# Solar Powered "Fresh Air" Skylights

Deck mounted - VSS Curb mounted - VCS

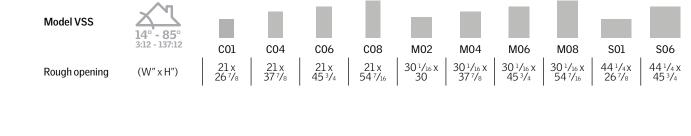




## Benefits:

- With a 30% federal tax credit homeowners will receive an average of \$850\* with federal tax credit eligibility which makes this product very affordable.
- Features a solar panel that captures any available daylight and uses it to recharge a highly efficient, fully concealed battery powered operator
- Replace a fixed or manual skylight easily because no wiring is required.
- Available in deck and curb mounted applications.

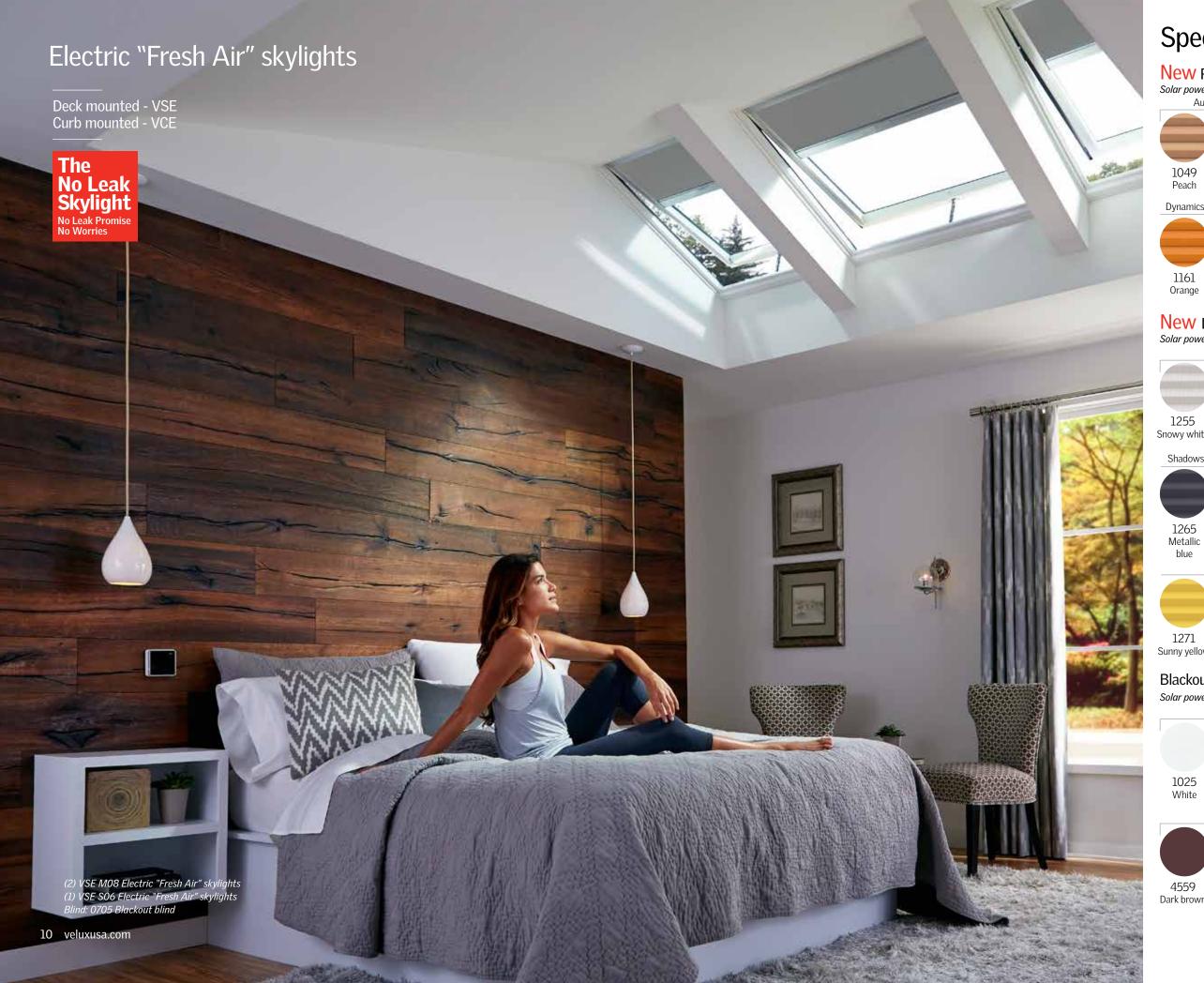
<sup>\*</sup>For more information visit: veluxusa.com/taxcredits



Model VCS 3030 (W"xH") | 25½x25½ | 25½x37½ | 25½x49½ | 33½x33½ | 33½x49½ | 37½x37½ | 49½x25½ | 49½x49½ Outside curb

Please reference the price list for a full description of all sizes and glass options.





# **New** Room darkening - double pleated blinds

Authentics Peach Raspberry Cherise Yellow



# New Light filtering - single pleated blinds



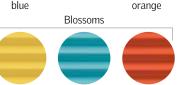
Delightful

Classic red

Sunny

stripes

Burned



Luscious lime



## Blackout blinds-flat



## Blackout blinds-flat (cont.)

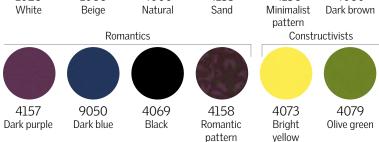
Solar powered



Vegetals

# Light filtering blinds-flat







## Factory installed blinds

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

In-stock Room darkening - double pleated blinds (Solar powered)



In-stock light filtering - single pleated blinds (Solar powered)



Federal tax credit on solar powered blinds Available in Room darkening - double pleated blinds,

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



Clean, Quiet & Safe glass

All VSE and VCE skylights come standard with Clean, Quiet & Safe glass.

#### Intelligent touch remote control

Included with your skylight is the Intelligent touch remote control powered by VELUX INTEGRA®. Comes with pre-programmed settings for ease



Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits

# Electric "Fresh Air" skylights

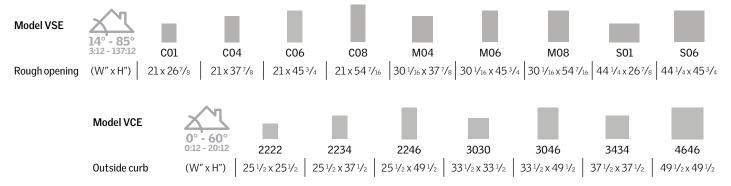
Deck mounted - VSE Curb mounted - VCE





## Benefits:

- A pre-installed concealed motor and control system powered by VELUX INTEGRA®, allows you to enjoy 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!™ system brackets make the installation of sunscreen blinds a snap.
- Factory pre-finished white frames and sashes provide for a high quality finish that eliminates the need for secondary high cost trips by a painter.



Please reference the price list for a full description of all sizes and glass options.





## New Room darkening - double pleated blinds

Authentics 1049 Raspberry Yellow



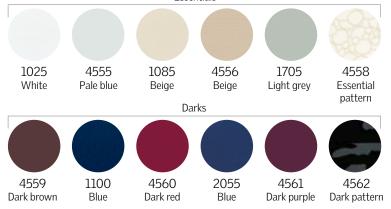
# New Light filtering - single pleated blinds

Solar powered or manual



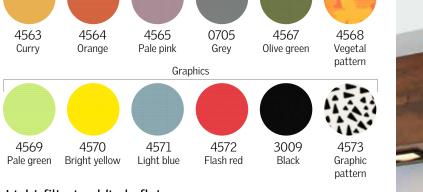
## Blackout blinds-flat

Solar powered or manual



## Blackout blinds-flat (cont.)

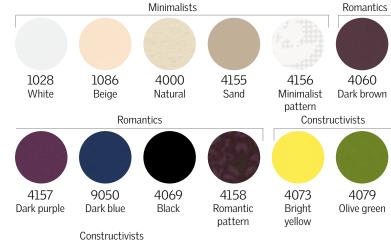
Solar powered or manual



Vegetals

# Light filtering blinds-flat

Solar powered or manual





## Venetian blinds

Manual only



Passionate red Wenge wood

Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits

#### Factory installed blinds

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

In-stock Room darkening - double pleated blinds (Solar powered/manual)

CH00 CH01 CH41 Charcoal

#### In-stock light filtering - single pleated blinds (Solar powered/manual)

Shadows FH01 FH31 White Classic sand Misty brown Lovely latte

In-stock venetian blind (VS only) (Manual)

PA00

Federal tax credit on solar powered blinds

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



#### Convenient manual control

A control rod can be used when skylights are out

# Manual "Fresh Air" skylights

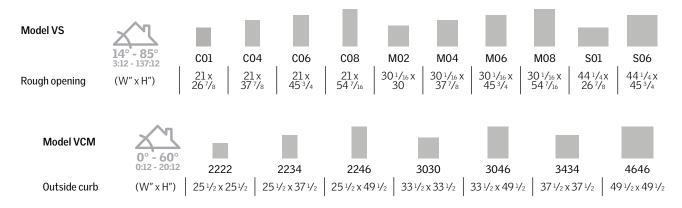
Deck mounted - VS Curb mounted - VCM

No Leak Warranty For complete information visit thenoleakskylight.com **VELUX** flashing required.



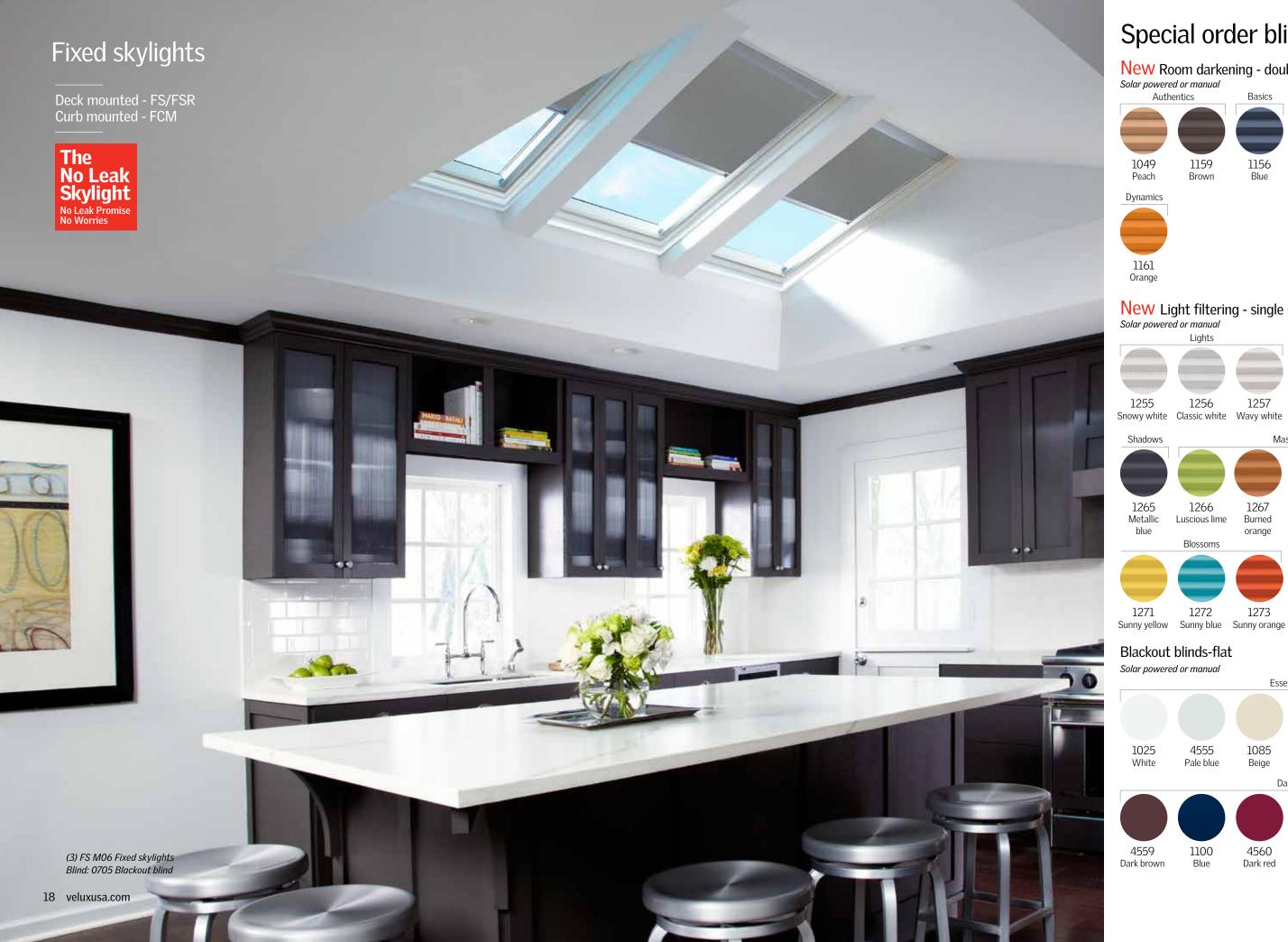
## Benefits:

- Factory pre-finished white frames and sashes provide for a high quality finish that eliminates the need for secondary high
- Opened and closed manually with VELUX control rods when out of reach.
- Smooth turning handle for when the skylight is installed within reach. (Sold separately)
- Pre-mounted Pick&Click!™ system brackets make the installation of sunscreen blinds a snap.



Please reference the price list for a full description of all sizes and glass options.





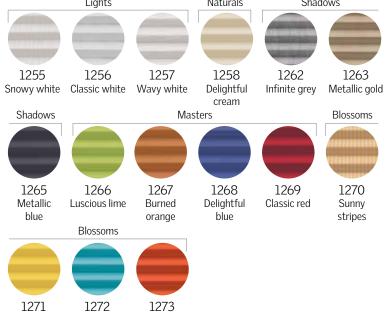
## **New** Room darkening - double pleated blinds

Solar powered or manual Authentics Dynamics 1049 Peach Raspberry Cherise Yellow



# New Light filtering - single pleated blinds

Solar powered or manual



#### Blackout blinds-flat

Solar powered or manual



## Blackout blinds-flat (cont.)

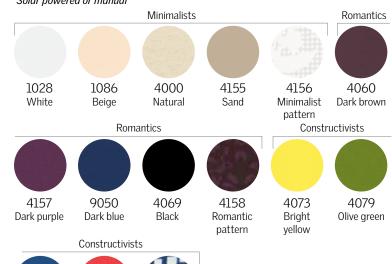
Solar powered or manual



Vegetals

## Light filtering blinds-flat

Solar powered or manual







## Venetian blinds

Manual only

7060

Passionate red Wenge wood



Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits

## Factory installed blinds

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

#### In-stock Room darkening - double pleated blinds (Solar powered/manual)



#### In-stock light filtering - single pleated blinds (Solar powered/manual)



#### In-stock venetian blind (Manual only)



Federal tax credit on solar powered blinds\* 30% Available in room darkening - double pleated blinds, blackout blinds, light filtering - single pleated blinds

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



## 3 layers of protection

As with most of our skylights. This product carries the 10-year installation warranty.

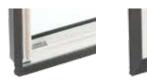
# Fixed skylights

Deck mounted - FS Deck mounted replacement skylight series - FSR









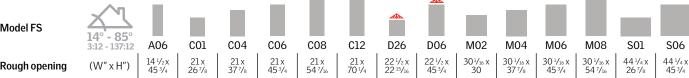
existing skylights.



## Benefits:

- 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!™ system brackets make the installation of sunscreen blinds a snap.

Note: In general the FSR, allows a finished opening variance of 2" on the width and height for an ideal fit where the front of the drywall will be under the white skylight frame. An additional 2" in width and height variance will allow the skylight to fit the opening but additional trim will be required.



Model FS sizes D26 and D06 fit perfectly between roof trusses.

Model FSR	14° - 85° 3:12 - 137:12	D26	D06	M02	S06
Outside frame	$(W'' \times H'')$	23 1/4 x 23 7/16	23½x 46⅓	30 %16 x 30 1/2	44 <sup>3</sup> / <sub>4</sub> x 46 <sup>1</sup> / <sub>4</sub>
Rough opening	$(W'' \times H'')$	22 ½ x 22 ½/16	22 <sup>1</sup> / <sub>2</sub> x 45 <sup>3</sup> / <sub>4</sub>	30½16 x 30	44 <sup>1</sup> / <sub>4</sub> x 45 <sup>3</sup> / <sub>4</sub>
Ideal fit Width	$(W'' \times H'')$	211/8 - 223/8	211/8-223/8	28 1/2 - 29 3/4	42 3/8 - 44
Ideal fit Height	$(W'' \times H'')$	211/2 - 223/4	44 1/4 - 45 1/2	281/2 - 293/4	44 1/4 - 45 1/2

Please reference the price list for a full description of all sizes and glass options.



# Fixed skylights

Curb mounted - FCM





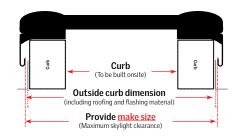


Accessory tray is required for blind installation.

## Benefits:

- 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

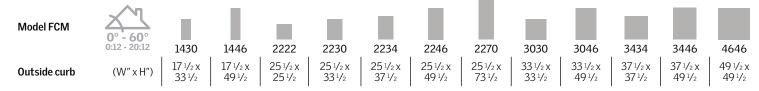


Make size (W" x L")	Width 18 3/4 To 50 3/4
Height 18 <sup>3</sup> / <sub>4</sub> To 72	Now delivered in 12 days or less
Height 72 1/4 To 76 1/2	Now delivered in 20 days or less

We require maximum skylight clearance dimensions in  $\frac{1}{4}$ " increments  $(0, \frac{1}{4}, \frac{1}{2}, \frac{3}{4})$  for width and height.

Note: Custom size flashing kits and custom size blinds are not available. Note: Some speciality glass options require longer lead times.

Please call for pricing and availability. 1-800-888-3589



(2) FCM 2222 Fixed skylights



# **New** Room darkening - double pleated blinds

1049 Peach Raspberry



# New Light filtering - single pleated blinds

Solar powered or manual



#### Blackout blinds-flat

Solar powered or manual



## Blackout blinds-flat (cont.)

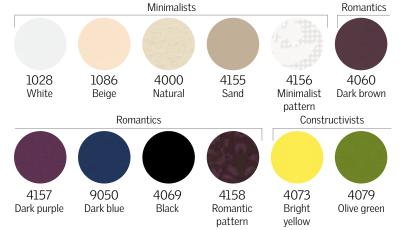
Solar powered or manual



Vegetals

## Light filtering blinds-flat

Solar powered or manual



#### Constructivists



## Venetian blinds

Manual only



Passionate red Wenge wood

Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits

## Factory installed blinds

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

In-stock Room darkening - double pleated blinds



#### In-stock light filtering - single pleated blinds (Solar powered/manual)

	Lights		Naturals		Shadows	
į.			400			
ľ						
ı			1			
	FS00	FS01	FS31	FS32	FS33	
U	FH00	FH01	FH31	FH32	FH33	
a	White	Classic sand	Misty brown	Lovely latte	Shiny	
М					cappuccino	

#### In-stock venetian blind (Manual only)

PA00

Federal tax credit on solar powered blinds\* 30% Available in room darkening - double pleated blin blackout blinds, light filtering - single pleated blin

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



## Quality construction

Pre-installed metal pan-flashing design for use with roofing sealant based installation.

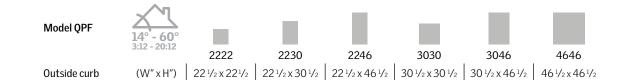
# Self-flashed skylight

Self-flashed - QPF

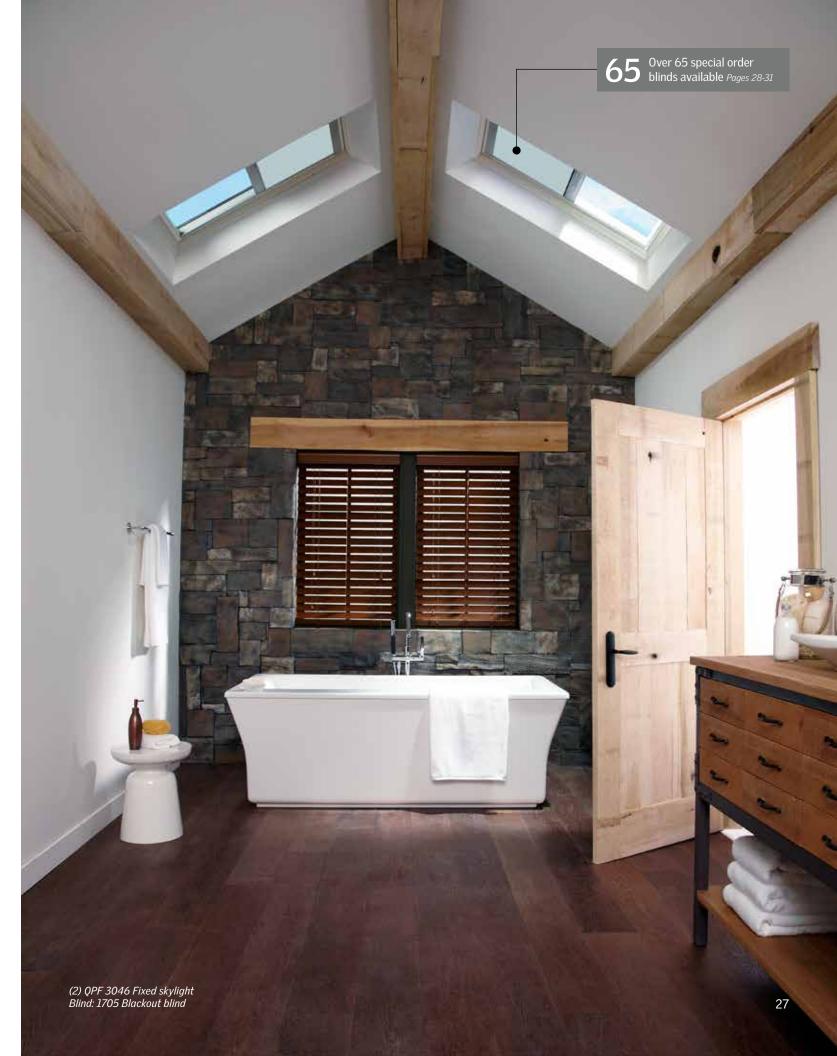


# Benefits:

- 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!™ system brackets make the installation of sunscreen blinds a snap.



Please reference the price list for a full description of all sizes and glass options.





# Room darkening - double pleated blinds

Double pleated blinds

Blackout cloth with honeycomb structure.

Energy efficient

Aluminum coating inside improves the insulation effect.

Sleek design
Neat pleats.

Easy installation Installs in minutes with VELUX Pick&Click!™ system.

Solar powered or manual





Federal tax credit on solar powered blinds\*

Available in room darkening - double pleated blinds, blackout blinds, light filtering - single pleated blinds and light filtering blinds

Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery.

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



# Light filtering - single pleat blinds

Colorful light effects
Softens incoming light.

# Solar powered or manual



Sunny stripes Sunny yellow Sunny blue Sunny orange

## Blackout blinds - flat

Blackout 24/7
Blackout even when the sun is shining.

# Solar powered or manual



4571

Light blue

4572

Flash red

3009

Black

4573

Graphic pattern

## Light filtering blinds - flat

Basic privacy
Offers both protection and good looks.

# Solar powered or manual



## Venetian blinds

Complete light control

Control amount and direction of incoming light and shadows.

# ✓ Manual only



Federal tax credit on solar powered blinds\*

Available in eoom darkening - double pleated blinds, blackout blinds, light filtering - single pleated blinds and light filtering blinds

Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery.

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



# New Room darkening - double pleated blinds





# New Light filtering - single pleated blinds







# Blackout blinds-flat

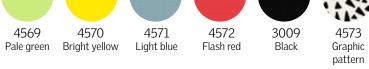
Manual

1025 White	4555 Pale blue	1085 Beige	4556 Beige	1705 Light grey	4558 Essential pattern
		Dai	rks		
4559 Dark brown	1100 Blue	4560 Dark red	2055 Blue	4561 Dark purple	4562 Dark pattern

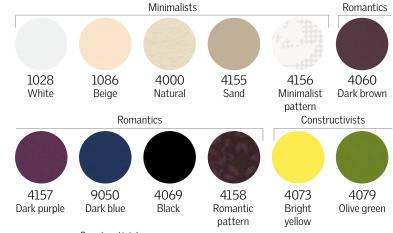
Essentials

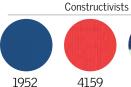
# Blackout blinds-flat (cont.)





# Light filtering blinds-flat







# Venetian blinds





Note: Special order blinds ship separately from your skylight and please allow 2 weeks for delivery. \*For more information visit: veluxusa.com/taxcredits



## Natural ventilation with a closed window

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



# White Polyurethane

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



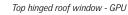
More access to the outdoors

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

# Roof windows

Top hinged roof window - GPU Center-pivot roof window - GGU



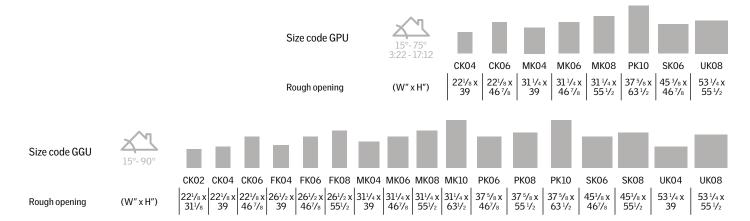




Center-pivot roof window - GGU

## 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.
- Convenient even with furniture placed beneath the roof window.
- Easy to open and quick to close with the top control bar.
- Low installation allows for more flexibility and better views.





# Roof windows

Roof access window - GXU



# Benefits:

- Easy roof access for roof 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&Clcik!™ brackets for easy blind installation.









# Balcony roof window

Deck mounted - GDL CABRIO™



# Benefits:

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





PK19

Rough opening

 $(W'' \times H'')$ 

39 <sup>3</sup>/<sub>8</sub> x 101

(3) PK19 GDL CABRIO™ skylight

# 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.

2 Adhesive underlayment

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

Flashing 

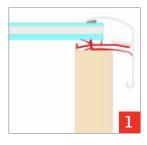
VELUX flashing must be purchased in order to qualify for the 10-year installation warranty.

Engineered flashing for easy installation and primary water protection.

For complete information visit thenoleakskylight.com.

## Curb mounted - 3 layers of protection









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.

Flashing 

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.

# The No Leak Skylight

No Leak Promise
 No Worries

110

# 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.

Note: Adhesive underlayment included in flashing kit



## 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



#### 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



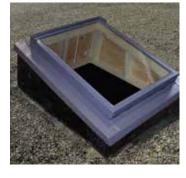
## Metal roofing - EDM

- 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 deck mounted 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 x 4 lumber and plywood.
- Download curb construction www.veluxusa.com



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.

Note: Adhesive underlayment included in flashing kit.



# 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: Not available for VSS.

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

EKW applications require 4" over-and-under and side by side.

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

# **Accessories**

#### Accessories for all your skylight conveniences

#### Intelligent touch remote control (KLR 200)



Included with your solar or electric skylight is the Intelligent touch remote control powered by VELUX INTEGRA®. With the touch-sensitive screen and easily-understood icons, programing skylights has become simpler than ever. Size: 3 11/16" x 3 11/16"

## Sunscreening accessory tray for fixed curb mounted skylights (ZZZ 199)



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

#### Angle adapter for chain operator (ZZZ 203)

Extension for chain operator



(ZZZ 208)

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

Extension for manual crank handle

or for the manual angle adapter to

make the skylight easier to operate.

#### Extension rods (ZCT 300, ZMT 300, ZCT 100, ZXT 200)



#### 6' - 10' rod for operation of manual skylights (ZCT 300)

Available for models: VS, VCM



# 6' - 10' motorized rod for manual skylights

Available for models: VS, VCM

# (ZMT 300)

#### 3' extension for ZCT 300, ZMT 300, and ZXT 200 (ZCT 100)

Available for models: FS, VS, VCM, QPF



#### "7 hook" rod for new manual blinds (ZXT 200)

VS Replacement hooks (ZZZ 202)

VCM Crank handle (ZZZ 211)

Available for models: FS, FCM, QPF

#### Trim kit with L parts (ZZZ 213)



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

#### Filler piece (ZZZ 213-B)



Trim groove filler pieces simplifies replacement of existing skylights

- Three 57<sup>1</sup>/<sub>2</sub>" pieces
- One kit works for most sizes



Manual crank handle to operate deck mounted venting skylights with a chain operator that are installed within reach and manufactured since 2010.

## VS Crank handle (ZZZ 201) VCM Crank handle (ZZZ 212)



Available for manual venting skylights.



#### 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.

# Structural brackets kit for oversize openings (ZZZ 219)



Structural mounting bracket for deck mounted skylights to be used in applications with an oversized rough opening. Bracket come in sets of four.



# VELUX SUN TUNNEL™ skylights

Flat glass - TLR Curb metal flashing - TCR





## Benefits:

- Low profile glass design creates sleek appearance on any roofline.
- Perfect for developments where local ordinances do not allow acrylic dome tubular skylights.
- Available in 14" rigid only.
- Prefabricated light tunnel makes it easy to install.

- One piece metal curb mounted flashing.
- Low profile dome acrylic or polycarbonate.
- Pivoting tunnel system.

Model TLR	14° - 60° 3:12 - 20:12		014
Outside flashing		in.	$25^{3}/8 \times 30^{1}/_{2}$
Rough opening (ceiling)		in.	14 1/2
Rough opening (roof deck)		in.	$14^{1/2} \times 17^{3/4}$
Daylight area		sq. in.	138
Net wt (w/ acrylic)		lbs.	29
Standard tubing kit length		in.	48
Maximum recommended i length	nstall	ft.	20

	X		
Model TCR	0° - 60° 0:12 - 20:12		014
Outside flashing		in.	$25^{3}/8 \times 30^{1}/2$
Rough opening (ceiling)		in.	141/2
Rough opening (roof deck)		in.	$14^{1/2} \times 17^{3/4}$
Daylight area		sq. in.	138
Net wt (w/ acrylic)		lbs.	29
Standard tubing kit length		in.	48
Maximum recommended ir ength	ıstall	ft.	20

# VELUX SUN TUNNEL™ skylights

Rigid pitched - TMR Rigid low profile - TGR





- Pitched flashing provides optimum angle for gathering light from all roof directions.
- 10" tile flashing kit available. 14" and 22" tile flashings available for the TCR.
- Impact models available for hurricane prone areas.
- 99% silver reflective layer with a 20-year tunnel warranty, total reflectance 99%.
- Model TMR 014 010 27 x 27 29 x 30 1/2 Outside flashing 141/2 Rough opening (ceiling) 10 1/2 Rough opening (roof deck) 14<sup>1</sup>/<sub>2</sub> x 16  $14^{1}/_{2} \times 20$ Daylight area 65 138 29 Net wt (w/ acrylic) lbs. 20 Standard tubing kit length 52\* 52\* Maximum recommended install length 20 20

- Low profile flashing provides an integrated look with the roofline.
- Impact models available for hurricane prone areas.
- 99% silver reflective layer with a 20-year tunnel warranty, total reflectance 99%.

Model TGR	14° - 60° 3:12 - 20:12		010	014
Outside flashing		in.	24 <sup>3</sup> / <sub>4</sub> x 24 <sup>3</sup> / <sub>4</sub>	29 x 29
Rough opening (ceiling)		in.	101/2	141/2
Rough opening (roof deck)		in.	$14^{1}/_{2} \times 14^{1}/_{2}$	$14^{1}/_{2} \times 18$
aylight area		sq. in.	65	138
let wt (w/ acrylic)		lbs.	20	29
standard tubing kit length		in.	52*	52*
Maximum recommended ins ength	tall	ft.	20	20

\*Subtract approximately 6" for flashing when comparing to attic depth at point of installation.

# VELUX SUN TUNNEL™ skylights

Flex pitched - TMF Flex low profile - TGF



## Benefits:

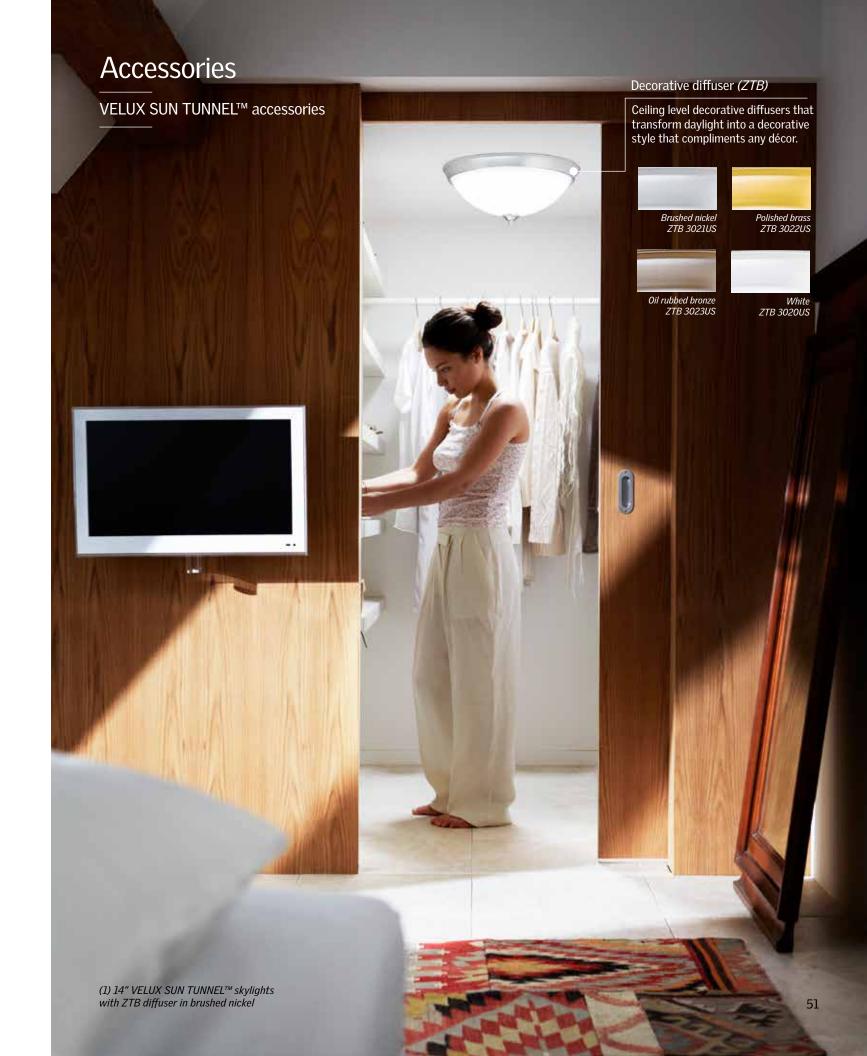
- Pitched flashing provides optimum angle for gathering light from all roof directions.
- Tile flashing available.
- Impact models available for hurricane prone areas.



- Low profile flashing provides an integrated look with the roofline.
- Pivoting tunnel system and flexible tunnel for a quick and easy installation.
- Impact models available for hurricane prone areas.

Model TMF	14° - 60° 3:12 - 20:12		014
Outside flashing		in.	29 x 30 1/2
Rough opening (ceiling)		in.	141/2
Rough opening (roof deck)		in.	$14 \frac{1}{2} \times 20$
Daylight area		sq. in.	138
Net wt (w/ acrylic)		lbs.	26
Standard tubing kit length		in.	96
Maximum recommended in length	stall	ft.	8

	/\			
Model TGF	14° - 60° 3:12 - 20:12		014	022
Outside flashing		in.	29 x 29	37 x 37
Rough opening (ceiling)		in.	14 1/2	221/2
Rough opening (roof deck)		in.	$14^{1/2} \times 18$	22 1/2 x 26
Daylight area		sq. in.	138	314
Net wt (w/ acrylic)		lbs.	24	36
Standard tubing kit length		in.	96	96
Maximum recommended in ength	stall	ft.	8	12



# Accessories

#### Energy kit (ZTC 0041US)



Designed to increase the energy efficiency of the VELUX SUN TUNNEL skylight and enables it to be ENERGY STAR® certified.

## Daylight controller (ZTP) Power supply for controller (ZZZ 233)



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



Power supply for VELUX SUN TUNNEL skylight light control devices.

#### **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° degree bend or any configuration needed to maneuver around obstacles.

#### Rotating coupler (ZTZ 211)



Easy to install tunnel and elbow coupler that enables quick tunnel connections and a rotating joint to help align tunnel sections.

#### VELUX ZTL electric light kit (ZTL)



Tubular daylight fixture that uses a UL approved energy efficient compact florescent bulb (26 watts) especially designed for VELUX SUN TUNNEL skylights. Available for all models.



#### **ZTK Blackout shade**



Manually block the light coming through the SUN TUNNEL in seconds with a manual blackout blind.



Available for the 10" and 14" SUN TUNNEL skylights

#### Rigid tube (ZTR)



24" tunnel sections manufactured with the Flexi Loc™ tunnel connector system that reduces tunnel installation time in half and delivers 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.

## Tile flashing for 10" and 14" pitched SUN TUNNEL (ZTM)



Tile flashing accessory for pitched SUN TUNNEL skylights with painted malleable aluminum water diverting sheet.

## Tile flashing for curb mounted SUN TUNNEL skylights (ECW)



A pliable, pleated, and proven curb mounted tile flashing system for VELUX curb mounted SUN TUNNEL skylights. Engineered flashing designed for tile roofing material.

# Decorative diffuser



Ceiling level decorative diffusers that transform daylight into a decorative style that compliments any décor.



Polished brass ZTB 3022US



ZTB 3023US ZTB 3020US

# How to order

## Choosing the right skylight for you

Choose the right location for your skylight



It's never been easier to choose the right location for your skylight than with our skylight planner app. Download the VELUX skylight planner app from the Apple store or Android market.



Choose the right skylight

"Fresh Air" skylights



Available options: VSS, VCS, VSE, VCE, VS, VCM, GPU, GGU, GXU, GDL CABRIO $^{\text{TM}}$ 

Fixed skylights



Available options: FS, FCM, QPF

SUN TUNNEL™ skylights



Available options: TLR, TCR, TMR, TGR, TMF, TGF

# Choose a blind or accessory

Choose one of our in-stock factory installed blinds or choose from over 65 special order blinds (pages 28-31).

In-stock Room darkening - double pleated blinds



In-stock Light filtering - single pleated blinds



In-stock venetian blind (Manual)



Federal tax credit on solar powered blinds\*

Available in Room darkening - double pleated blinds, blackout blinds, light filtering - single pleated blinds and light filtering blinds

Note: Special order blinds are not pre-installed with your skylight order and require a two week lead time. Special order blinds will ship separately.

# 4 Choose the right glass

# For out of reach applications



Clean, Quiet & Safe glass (xx04) - recommended

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

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



Impact (xx06)

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



Miami-Dade (xx07) Available on: FCM



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



Snowload (xx10)

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

# For in reach applications

out of reach applications.

VELUX recommends and building codes require laminated glass for



Dual pane tempered glass (xx05)

Available on: FS, VS, FCM, VCM, QPF

# Code compliance

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:

2015 IBC (International Building Code), 2015 IRC (International Residential Code), and 2015 IECC (International Energy Conservation Code),as well as local and regional codes that are the above (and earlier) codes.

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

Standard VELUX 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.







# 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.

**VELUX**<sup>®</sup>





# Testing data

VSE/VSS Technical Information									
Glass	04	06**	08	10	9994				
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]									
l/s/m²	0.2	0.4	0.2	0.3	0.2				
cfm/ft²	0.03	0.07	0.03	0.06	0.03				
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]									
Pascals	720	720	720	720	720				
lbs/ft²	15	15	15	15	15				
Thermal performance (Certified, complete unit values)									
VELUX GI U-Factor,	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	0.42	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 pro	otection, %						
(300- 380 nm)	99.9	99.9	99.9	99.9	99.9				
	Fadi	ing protection,	% (Krochmani	n damage funct	tion)				
(300- 600 nm)	83.1	84.6	88.4	83.2	85.1				
	Structura	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		De	ownload (lbs/ff	:2)					
S06	370	300	370	860	370				
M08	440	360	440	1090	440				
C06	n.r.	n.r.	n.r.	1200	n.r.				
* T4-1		:+I- A A B A A /\A/	DAAA (OCA 101	// C O /A 4 4 O 13	(NIA EC 2011)				

<sup>\*</sup> 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: Products 426-H-670, -678, -679, -682 (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	Informati	on		
Glass	04	05	06**	08	10	9993	9994
Air int	filtration/ex	filtration*	[max. @ 7	5 Pa (1.57 I	bs/ft²) diffe	erential pre	ssure]
l/s/m²	0.2	0.5	0.4	0.2	0.3	0.5	0.2
cfm/ft²	0.03	0.09	0.07	0.03	0.06	0.09	0.03
					USgal/ft²/l ith no leaka		
Pascals	720	720	720	720	720	720	720
lbs/ft²	15	15	15	15	15	15	15
	Thern	nal perform	ance (Cer	tified, comp	olete unit v	alues)	
VELUX GI U-Factor,	ass Skyligl <b>SHGC, and</b>	nts are rate I VT rating	ed at 20° s s listed in	lope and la the NFRC (	beled with Certified Pr	NFRC-cer roducts Dir	tified ectory
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 prot	ection, %			
(300- 380 nm)	99.9	95.2	99.9	99.9	99.9	95.3	99.9
		Fading pro	otection, %	(Krochma	ınn damage	function)	
(300- 600 nm)	83.1	79.2	84.6	88.4	83.2	81.6	85.1
	Struc	tural Perfo	rmance [F	erformanc	e Grade or I	DP] *	
Tested Size			U	plift (lbs/ft	<del>-2</del> )		
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.
Structura skylights a	l performa	nce ratings Hallmark	also apply certified: <b>F</b>	to sizes sı	01/I.S.2/A4 maller than <b>26-H-670</b> ,	the Teste	d Size <b>VS</b>
	impact, in	accordance	ce with AS	TM E 1886	tified for W 6 and ASTI cle Pressu	M E 1996.	
	<b>04</b> gla	ss: Tempere	ed over lam	inated HS	(0.030" inte	erlayer)	
		<b>05</b> gla	ss: Temper	ed over ten	npered		
	<b>06</b> glas	ss: Tempere	ed over lam	inated HS (	(0.090" inte	erlayer)	
		<b>08</b> glass: S	ame as <b>04</b>	, with whit	e interlayer		
	<b>10</b> glass: 7	empered o	ver laminat	ed Temper	ed (0.030"	interlayer)	
	<b>9993</b> gla	ıss: Same a	s <b>05</b> , with	i89 coatin	g on interio	r surface	
	0004	•	04 ::1	.00 1:	g on interio	r	

		FS	Technical	Informati	on		
Glass	04	05	06**	08	10	9993	9994
Air infi	ltration/e	xfiltration*	[max. @ 7	5 Pa (1.57 I	bs/ft²) diffe	rential pre	ssure]
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
		ter resistan ax. tested d					
Pascals	720	720	720	720	720	720	720
lbs/ft²	15	15	15	15	15	15	15
	Then	mal perform	ance (Cer	tified, comp	olete unit va	alues)	
VELUX Gla U-Factor, S	ss Skylig SHGC, an	hts are rate d VT rating	ed at 20° s s listed in	lope and la the NFRC (	beled with Certified Pr	NFRC-cer oducts Dir	tified ectory
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	protection	, %		
(300- 380 nm)	99.9	95.2	99.9	99.9	99.9	95.3	99.9
		Fading pro	otection, %	(Krochma	nn damage	function)	
(300- 600 nm)	83.1	79.2	84.6	88.4	83.2	81.6	85.1
	Stru	ctural Perfo	rmance [F	erformance	e Grade or [	)P] *	
Tested Size			U	plift (lbs/ft	<sup>2</sup> )		
S06	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)		
S06	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.
Structural skylights a • <b>694</b> (not a ** 06 v	performa re WDMA applicable ariant is t impact, in ated for N	nce with A ance ratings A Hallmark to copper- tested and a accordance Wind Zone	also apply certified: F -clad varia WDMA Ha ce with AS 3, Missile I	y to sizes si Products 4: nts) Illmark cert TM E 1886 Level C, Cy	maller than 26-H-669, :ified for W 5 and ASTN cle Pressu	the Teste -672, -67 (ind-borne M E 1996. re +50/-50	d Size FS 5, -680 debris
	<b>04</b> gla	ss: Tempere	ed over lam	inated HS (	(0.030" inte	rlayer)	
		<b>05</b> gla	ss: Temper	ed over ten	npered		
	<b>06</b> gla	ss: Tempere	d over lam	inated HS (	(0.090" inte	erlayer)	
	<b>10</b> glass: '	<b>08</b> glass: S Tempered o			e interlayer ed (0.030" i		
	<b>9993</b> gl	ass: Same a	s <b>05</b> , with	i89 coating	g on interio	surface	
	-	ass: Same a					

	VC	E /VCS Techn	ical Informati	on				
Glass	04	06**	08	10	9994			
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]								
l/s/m²	0.1	0.1	0.1	<0.1	0.1			
cfm/ft²	0.02	0.01	0.02	<0.01	0.02			
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]								
Pascals	720	720	720	720	720			
lbs/ft²	15	15	15	15	15			
	Thermal perf	ormance (Cer	tified, complete	e 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	0.23			
VT	0.55	0.54	0.40	0.54	0.54			
		L	V protection, 9	%				
(300-380 nm)	99.9	99.9	99.9	99.9	99.9			
	Fadi	ng protection,	% (Krochmanr	n damage func	tion)			
(300-600 nm)	83.1	84.6	88.4	83.2	85.1			
	Structural P	erformance [F	erformance Gr	ade 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		De	ownload (lbs/fl	t²)				
4646	230	230	230	620	230			
2246	n.r.	n.r.	n.r.	1150	n.r.			
* Tested in a	ccordance wit	h AAMA/WDI	MA/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: Products 426-H-695, -696, -697, -698

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debri 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

	Download (IDS/π²)									
S06	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.			
* Tested	in accordar	ice with A	AMA/WDI	MA/CSA 1	01/I.S.2/A	440-11 (NA	AFS 201			
skylights	l performa are WDMA applicable	Hallmark	certified: <b>F</b>	roducts 4						
** 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)									
	<b>04</b> glas	ss: Tempere	ed over lam	inated HS	(0.030" inte	erlayer)				
	<b>04</b> glas		ed over lam ss: Temper			erlayer)				
	3	<b>05</b> gla	ss: Temper	ed over ter						
	<b>06</b> glas	<b>05</b> glass: Tempere	ss: Temper ed over lam	ed over ter inated HS	npered	erlayer)				
	<b>06</b> glas	05 gla ss: Tempere 08 glass: S	ss: Temper ed over lam ame as <b>04</b>	ed over ter inated HS , with whit	npered (0.090" inte	erlayer)				
	06 glas 10 glass: 1	05 glass: Tempere 08 glass: S empered o	ss: Temper d over lam ame as <b>04</b> ver laminat	ed over ter inated HS , with whit ted Temper	npered (0.090" inte e interlayer	erlayer) interlayer)				

# Testing data

VCM Technical Information									
Glass	04	05	06**	08	10	9993	9994		
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]									
l/s/m²	0.1 <0.1 0.1 0.1 <0.1 <0.1 0.1								
cfm/ft²	0.02	<0.01	0.01	0.02	<0.01	<0.01	0.02		
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]									
Pascals	720	720	720	720	720	720	720		
lbs/ft²	15	15	15	15	15	15	15		
	Thern	nal perform	ance (Cer	tified, com	olete unit v	alues)			
					beled with Certified Pr				
U-Factor	0.53	0.53	0.50	0.53	0.51	0.48	0.48		
SHGC	0.24	0.24	0.24	0.23	0.24	0.23	0.23		
VT	0.55	0.56	0.54	0.40	0.54	0.54	0.54		
			UV	protection	, %				
(300- 380 nm)	99.9	95.2	99.9	99.9	99.9	95.3	99.9		
		Fading pro	otection, %	(Krochma	nn damage	function)			
(300- 600 nm)	83.1	79.2	84.6	88.4	83.2	81.6	85.1		
	Struc	tural Perfo	rmance [F	erformanc	e Grade or I	DP] *			
Tested Size			U	plift (lbs/ft	.2)				
4646	45	30	60	45	40	30	45		
2246	n.r.	n.r.	n.r.	n.r.	65	n.r.	n.r.		
Tested Size	Download (lbs/ft²)								
4646	230	230	230	230	620	230	230		
2246	n.r.	n.r.	n.r.	n.r.	1150	n.r.	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 VCM skylights are WDMA Hallmark certified: Products 426-H-695, -696, -697, -698									

\*\* 06 variant is tested and WDMA Hallmark certified for Wind-borne de 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 Technical Information									
Glass	04	05	06**	08	10	9993	9994		
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]									
l/s/m²	0.2	<.1	<.1	0.2	0.1	<.1	0.2		
cfm/ft²	0.03	<0.01	<0.01	0.03	0.01	<0.01	0.03		
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]									
Pascals	720	720	720	720	720	720	720		
lbs/ft²	15	15	15	15	15	15	15		
	Thern	nal perform	nance (Cer	tified, com	olete unit v	alues)			
					beled with Certified Pr				
U-Factor	048	0.49	0.46	0.48	0.47	0.43	0.43		
SHGC	0.27	0.27	0.27	0.26	0.27	0.25	0.25		
VT	0.63	0.64	0.62	0.46	0.62	0.57	0.57		
UV protection, %									
(300- 380 nm)	99.9	95.2	99.9	99.9	99.9	95.3	99.9		
		Fading pro	otection, %	(Krochma	nn damage	function)			
(300- 600 nm)	83.1	79.2	84.6	88.4	83.2	81.6	85.1		
	Struc	ctural Perfo	rmance [P	erformance	e Grade or I	DP] *			
Tested Size			U	plift (lbs/ft	. <sup>2</sup> )				
4646	120	140	80	120	135	140	120		
2270	100	n.r.	n.r.	100	n.r.	n.r.	100		
Tested Size	Download (lbc/ff²)								
4646	250	100	100	250	970	100	250		
2270	200	n.r.	n.r.	200	n.r.	n.r.	200		
* Tested i	n accordar	nce with A	AMA/WDI	MA/CSA 1	01/I.S.2/A	440-11 (NA	AFS 2011		
Structural performance ratings also apply to sizes smaller than the Tested Size FCM skylights are WDMA Hallmark certified: Products 426-H-671, -701, -702, -703									
** 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

Note: The FCM 4646 0007 (or smaller) is the only VELUX skylight qualified for use in the Florida HVHZ (High Velocity Hurricane Zone). See Miami-Dade NOA No. 12-0223.14

#### 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, TAS201, 202, and 203; OSHA regulations; various ASTM methods.

b) Thermal and optical performance data are determined for skylights at 20 degree slope, and verified in accordance with NFRC procedures (where applicable) by accredited entities.

Most VELUX products are listed in the NFRC Certified Products Directory, and carry appropriate labels in accordance with NFRC's certification program. NFRC ID: VEL-N-xxx

c) Most variants have achieved WDMA Hallmark certification under No. 426-H, and/or recognition under Uniform-ES report #ER 0199 (IAPMO-ES).

In addition, Florida and TDI have listed most variants in their product evaluation/approval systems, and the FCM 07 is covered by Miami-Dade NOA #12-0233.14.

QPF Technical Information								
Glass	04	05	06**	08	9993	9994		
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]								
l/s/m²	0.5	0.3	0.4	0.5	0.3	0.5		
cfm/ft²	0.09	0.06	0.08	0.09	0.06	0.09		
			3.4 L/m²/mi ential pressu					
Pascals	580	720	720	580	720	580		
lbs/ft²	12	15	15	12	15	12		
	Thermal	performance	(Certified,	complete uni	t values)			
	ss Skylights S <b>HGC, and V</b>							
U-Factor	0.44	0.45	0.42	0.44	0.40	0.39		
SHGC	0.24	0.24	0.24	0.24	0.24	0.24		
VT	0.56	0.57	0.55	0.41	0.55	0.55		
			UV prote	ection, %				
(300-380 nm)	99.9	95.2	99.9	99.9	95.3	99.9		
	F	ading protec	tion, % (Kro	chmann dan	age function	1)		
(300-600 nm)	83.1	79.2	84.6	88.4	81.6	85.1		
	Structu	ral Performai	nce [Perforn	nance Grade	or DP] *			
Tested Size			Uplift (	lbs/ft²)				
4646	80	80	100	80	80	80		
Tested Size			Download	d (lbs/ft²)				
4646	320	300	300	320	300	320		

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 QPF skylights are WDMA Hallmark certified: Products 426-H-677, -699, -700

\* 06 variant is tested and WDMA Hallmark certified for Wind-borne debris imp 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

9993 glass: Same as 05, with i89 coating on interior surface

9994 glass: Same as 04, with i89 coating on interior surface

SUN TUNNEL™ skylights Technical Information*									
Model	TLR	TSR	TCR	TGF	TGR	TMF	TMR		
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]]									
l/s/m²	0.2 (Fixed)	0.3 (A3)	0.5 (A3)		0.2 (F	ixed)			
cfm/ft²	.03	.05	.09		.0	4			
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr)* [max. tested differential pressure with no leakage]									
Pascals (Pa)	720	720	720		72	20			
lbs/ft² (psf)	15	15	15		1	5			
	Therm	al performa	nce (Certifi	ed, complet	e unit value	s)			
VELUX SUN T	UNNEL™ sky nd <b>SHGC</b> ra						at ceiling),		
	ı	U-factor: Bt	tu/[hr*ft²*F	°] and (W/[r	n²*K°])				
Base Model	.61 (3.46)	.38 (2.16)	n.r.	.50 (2.84)	n.r.	.50 (2.84)	n.r.		
w/ Energy kits	n.r.	n.r.	.38 (2.16)	.37 (2.10)	.38 (2.16)	.37 (2.10)	.38 (2.16)		
SHGC:	US and (Car	nadian) ratin	igs shown fo	r models wi	th EO and (E	1) energy k	its		
Base model	.44	.37	n.r.	.21 n.r21 n.i					
w/ Energy kits	n.r.	n.r.	.25 (0.36)	n.r. (0.21)	.25 (0.37)	n.r. (0.21)	.25 (0.37)		
Structu	ıral Perform		ormance Gr lote: 1 psf = -		1 psf: NAFS	-11 (NAFS-0	)8)		
Dome Type:**			Up	olift (negativ	re)				
Acrylic or Polycarbonate	NA	240 (155) Acrylic only	165 (125)	125 (90)					
Temp. Glass	n.r. (170)			NA					
Dome Type:**		Download (positive)							
Acrylic or Polycarbonate	NA	400 (250) Acrylic only	300 (200)	300 (200)					
Temp. Glass	n.r. (250)			N	A				
* Tested	in accordan	ice with AA	MA/WDMA	/CSA 101/I	S.2/A440-1	1 (NAFS 20	)11).		

Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011). VELUX SUN TUNNEL™ skylights are **WDMA Hallmark** certified as indicated above and below (See www.wdma.com, Hallmark Nos. 426-H-626, -693, -705, -706)

Products with Polycarbonate domes are tested for Wind-borne debris impact and pressun ling in accordance with ASTM E 1886-05 and ASTM E 1996-05. Rated for Wind Zone 3 Missile Level C, Cycle Pressure +50/-50

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 America Inc. offers the choice of laminated or tempered glass skylights. Miami-Dade glass, 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). In case of breakage, the interlayer is designed to hold the fragments together. 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.

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