

Product Performance Values

What you get with a VELUX

All VELUX Skylights are tested to meet the harshest weather climates around the world. Our entire product program endures rigorous VELUX testing to ensure quality and performance in every box. All products manufactured in North America are not just tested for performance, but also third party certified with unannounced factory inspections.

Testing Data

VELUX residential skylights & Sun Tunnels are rated at 20° slope and labelled with NFRC – certified product values and NAFS testing.

Certified Energy Performance Value (NFRC) - Definitions

U-value is the thermal transmittance, the rate of heat transfer through the skylight due to temperature difference. The lower the number the more energy efficient. (U-value is the inverse of R-value)

Solar heat gain coefficient (SHGC), the fraction of incident solar radiation from the sun that gets through the skylight and into the building at a 0° incident angle.

Visual transmittance, the fraction of visual light that gets through the skylight from outside into the building.

FACT: VELUX is Canada's leading manufacture with the most Energy Star® certified skylights as verified by Natural Resources Canada.



Deck Mounted Skylights

Model	VSS/VSE/VS [†]		FS [†]		
	04	i89	04	05	i89
Glass	04	i89	04	05	i89
Energy Star® 	-	Yes	-	-	Yes
U-Value* metric (imperial)	2.44 (0.43)	2.16 (0.38)	2.50 (0.44)	2.50 (0.44)	2.16 (0.38)
SHGC**	0.23	0.23	0.26	0.26	0.25
VT***	0.53	0.52	0.60	0.61	0.59
Class	SKG-PG65 (SKG-PG105)	SKG-PG65 (SKG-PG105)	SKG-PG70 (SKG-PG105)	SKG-PG45 (SKG-PG105)	SKG-PG70 (SKG-PG105)
Size Tested	S06 (M08)	S06 (M08)	S06 (M08)	S06 (M08)	S06 (M08)
Design Pressure (Pa)	+11252/-2394 (+12012/-3830)	+11252/-2394 (+12012/-3830)	+6224/-2633 (+10790/-3830)	+11990/-1676 (+11990/-3591)	+6224/-2633 (+10790/-3830)
Water Penetration Resistance Test Pressure (Pa)	720	720	720	720	720
Canadian Air Infiltration/Exfiltration	A3	A3	Fixed	Fixed	Fixed

*U-Value - W/m²K (BTU/ h ft² F) ** SHGC - Solar Heat Gain Coefficient *** Visible Transmittance †Tested up to size S06 and (M08) ††Tested up to size 4646 †††Tested up to size 4646 and (2270) ‡‡ Tested, but not certified

Curb Mounted Skylights

Model	VCS/VCE/VCM††	VCS††	FCM†††	FCM†††	FCM††
Glass	04	10	04	05C	29/30
Energy Star* 	-	-	-	-	Yes
U-Value* metric (imperial)	2.98 (0.52)	2.75 (0.49)	2.73 (0.48)	2.56 (0.45)	2.16 (0.38)
SHGC**	0.24	0.24	0.27	0.28	0.25
VT***	0.55	0.55	0.64	0.64	0.58
Class	SKG-PG45	SKG-PG40 (SKG-PG65)	SKG-PG120 (SKG-PG100) {SKG-PG70}	CW-PG100	SKG-PG60
Size Tested	4646	4646 (2246)	4646 (2270){4672}	4646	4646
Design Pressure (Pa)	+7920/-1915	+17237/-1430 (+29750/-2390)	+8390/-4309 (+7190/-3591) {+3360/-2880}	+4788/-5027	+3600/-2160
Water Penetration Resistance Test Pressure (Pa)	720	720	720	720	720
Canadian Air Infiltration/Exfiltration	A3	A3	Fixed	Fixed	Fixed

Deck Mounted Roof Windows

Model	GGL**	GPL**
Glass	66	66
Energy Star* 	N/A	N/A
U-Value* metric (imperial)	1.23 (0.22)	1.36 (0.24)
SHGC**	0.36	0.36
VT***	0.51	0.51
Class	RWG-PG30	RWG-PG40
Size Tested	1340x1400 frame UK08	1340x1400 frame UK08
Design Pressure (Pa)	+1440/-1440	+1920/-1920
Water Penetration Resistance Test Pressure (Pa)	720	720
Canadian Air Infiltration/Exfiltration	A3	A3

Flat Roof Skylights

Model	CFP**
Glass	73
Energy Star* 	N/A
U-Value* metric (imperial)	1.30 (0.23)
SHGC**	0.5
VT***	0.6
Class	SKG-PG100
Size Tested	1685x1685 frame (150150)
Design Pressure (Pa)	+4800/-4800
Water Penetration Resistance Test Pressure (Pa)	720
Canadian Air Infiltration/Exfiltration	Fixed

Sun Tunnel Skylights with Energy Kit ZTC 51†

Model	TGF/TMF	TGR/TMR/THR	TLR	TCR
Energy Star* 	Yes	Yes	N/A	Yes
U-Value* metric (imperial)	1.93* (0.34)	2.10* (0.37)	2.33* (0.41)	2.10* (0.37)
SHGC**	0.19*	0.33*	0.41*	0.33*
VT	0.26	0.30	0.37	0.30
Class***	TDDCC-PG125	TDDCC-PG125	TDDCC-PG150	TDDCC-PG165
Size Tested	559mm (022)	559mm (022)	356mm (014)	356mm (014)
Design Pressure (Pa)	+9476/-4549	+9476/-4549	+7182/-8140 G34	+9576/-5985
Water Penetration Resistance Test Pressure (Pa)	720	720	720	720
Canadian Air Infiltration/Exfiltration	Fixed	Fixed	Fixed	A3

*U-Value - W/m²K (BTU/h ft²F) ** SHGC - Solar Heat Gain Coefficient *** Visible Transmittance †Tested up to size SO6 and (M08)

††Tested up to size 4646 †††Tested up to size 4646 and (2270) ‡ Tested with Canadian Energy Kit installed, ZTC 51 ‡‡ Tested, but not certified.

Energy Star® and Limited Warranty

Energy Star® for skylights

Canada has adopted a simple, single zone criteria for Energy Star rating.

VELUX has the best selection of Energy Star certified skylights and Sun Tunnels. Not only do we have products that meet Energy Star to save your clients money but they are all rigorously tested to perform in the harshest and most extreme climates. See pages 42-43 for specific Energy Star by product.

All Energy Star® certified skylights are required to have a maximum U-factor value of 2.29 (metric) or 0.40 (imperial) and meet factory inspections. Energy Star® certified skylights are more energy efficient than what most local building codes require.

VELUX also has the **VELUX Energy Series VES** with products that have extremely low performance U-values.



For more information on Energy Star visit www.nrcan.gc.ca/energy

Certifications

VELUX Skylights and Sun Tunnel Skylights, including VSS, VSE, VS, FS, VCS, VCE, VCM, FCM, TMR, TGR, TCR, TMF and TGF have been tested to the following standards and the results have been third party certified.

- **AAMA/WDMA/CSA 101/I.S.2/A440-08** NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights
- **A440S1-09** Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS
- **NFRC 100** Procedure for determining fenestration product U-factors.



WDMA
Hallmark Certified

Limited Warranty Summary

This Warranty applies to products manufactured as of January 1st, 2010. Please contact VELUX for warranty information for product manufactured prior to 2010.

VELUX Skylights & Roof Windows

- 20 YEARS:** Parts on seal failure (moisture between glass panes).
- 10 YEARS:** Parts for defective skylights, roof windows and flashings.
- 10 YEARS:** Laminated glass with Neat® coating and triple pane products on cracking or breakage due to hail.

VELUX Sun Tunnel Skylights

- 20 YEARS:** Parts for Rigid Tunnel reflection-enhanced material (surface deterioration).
- 10 YEARS:** Parts (corrosion and deterioration).

VELUX Electrical Systems & Sunscreening Accessories

- 5 YEARS:** Parts for electrical systems and sunscreening accessories.

VELUX Commercial Warranty

See velux.ca for full warranty details

Limited labour warranty included. See velux.ca or call for full warranty details.

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. 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 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 is required in your application.

The pricing listed is suggested retail, dealer may sell for more or less. Shipping to the dealer is included on all skylight, Sun Tunnel Skylight and roof window orders. Shipping is excluded on commercial skylight orders. All other orders are subject to a \$15 freight charge.