

## VELUX PRODUCT INFORMATION

### THERMAL PERFORMANCE

<b>Skylights</b>	<b>Glazing (IGU)</b>	<b>U-Value (W/m<sup>2</sup>*K)</b>	<b>SHGC Solar Heat Gain Co-efficient</b>	<b>VT Visible Light Transmittance</b>	<b>Luminous Efficacy (Ke) Ke=VT/SHGC</b>
VSE Opening Skylight	Type 2004	2.5	0.21	0.48	2.29
VS Opening Skylight	Type 2004	2.5	0.21	0.48	2.29
VS Opening Skylight	Type 2005	2.6	0.21	0.49	2.33
FS Fixed Skylight	Type 2004	2.6	0.24	0.55	2.29
FS Fixed Skylight	Type 2005	2.7	0.24	0.56	2.33
FCM Fixed Skylight	Type 2004	3.3	0.26	0.61	2.35

Skylight figures: Calculated using AFRC/NFRC simulations.

AFRC = Australian Fenestration Rating Council  
NFRC = National Fenestration Rating Council (USA)

Skylight figures: based on nominal size 1140mm (W) x 1180mm (H). FCM based on nominal size 1275mm (W) x 1275mm (H).  
All figures quoted are for complete skylight.

<b>Roof Windows V21 Variant (2000-June 2015)</b>	<b>Glazing (IGU)</b>	<b>U-Value (W/m<sup>2</sup>*K)</b>	<b>SHGC Solar Heat Gain Co-efficient</b>	<b>VT Visible Light Transmittance</b>	<b>Luminous Efficacy (Ke) Ke=VT/SHGC</b>
GGL Opening Window	Type 76	1.4	0.28	0.45	1.60
GHL Opening Window	Type 76	1.4	0.28	0.45	1.60

Roof Window figures: All figures according to EN 14351-1:2006 + A1:2010

Window figures: based on nominal size 1140mm (W) x 1400mm (H). All figures quoted are for complete skylight.

<b>Roof Windows V22 Variant (From June 2015)</b>	<b>Glazing (IGU)</b>	<b>U-Value (W/m<sup>2</sup>*K)</b>	<b>SHGC Solar Heat Gain Co-efficient</b>	<b>VT Visible Light Transmittance</b>	<b>Luminous Efficacy (Ke) Ke=VT/SHGC</b>
GGL Opening Window	Type 76	1.2	0.30	0.62	2.07
GPL Opening Window	Type 76	1.2	0.30	0.62	2.07

Roof Window figures: All figures according to EN 14351-1:2006 + A1:2010

Window figures: based on nominal size 1140mm (W) x 1400mm (H). All figures quoted are for complete skylight.

<b>Sun Tunnel</b> V1.0 (2010-June 2015)	<b>Glazing</b>	<b>U-Value</b> (W/m <sup>2</sup> *K)	<b>SHGC</b> Solar Heat Gain Co-efficient	<b>VT</b> Visible Light Transmittance	<b>Luminous Efficacy (Ke)</b> Ke=VT/SHGC
<b>TWF/TWR</b> tunnel (0.75metre shaft)	Single pane with diffuser	Pending	n/a	n/a	n/a

<b>Sun Tunnel</b> V2.0 (From June 2015)	<b>Glazing</b>	<b>U-Value</b> (W/m <sup>2</sup> *K)	<b>SHGC</b> Solar Heat Gain Co-efficient	<b>VT</b> Visible Light Transmittance	<b>Luminous Efficacy (Ke)</b> Ke=VT/SHGC
<b>TWF/TWR</b> tunnel (0.75metre shaft)	Single pane with diffuser	Pending	n/a	n/a	n/a

**U-Value:** The measurement of heat flow (in both directions) through the pane. (lower value is better)  
*Typical U-value for a single glazed vertical window is 5.0*

**SHGC:** The percentage of heat that penetrates a window compared to the amount that strikes the outer surface. (lower value is better)  
*Typical SHGC for a single glazed vertical window is 0.8 (or 80%)*

**VT:** Visible light Transmittance (of the full light spectrum).  
*Typical VT for a single glazed vertical window is 0.5 BUT sloped glass lets in 3 times more light than a vertical window.*

**Ke** is the relationship between light and heat. More thermally efficient glazing lets in more light per unit of heat.  
 eg: A Ke of 1 means 1 unit of heat = 1 unit of light  
 eg: A Ke of 2 means 1 unit of heat = 2 units of light (*more light than heat*)

Note: A typical single glazed vertical window has a Ke of 0.75. That is: 1 unit of heat = .75 units of light (*less light than heat*)