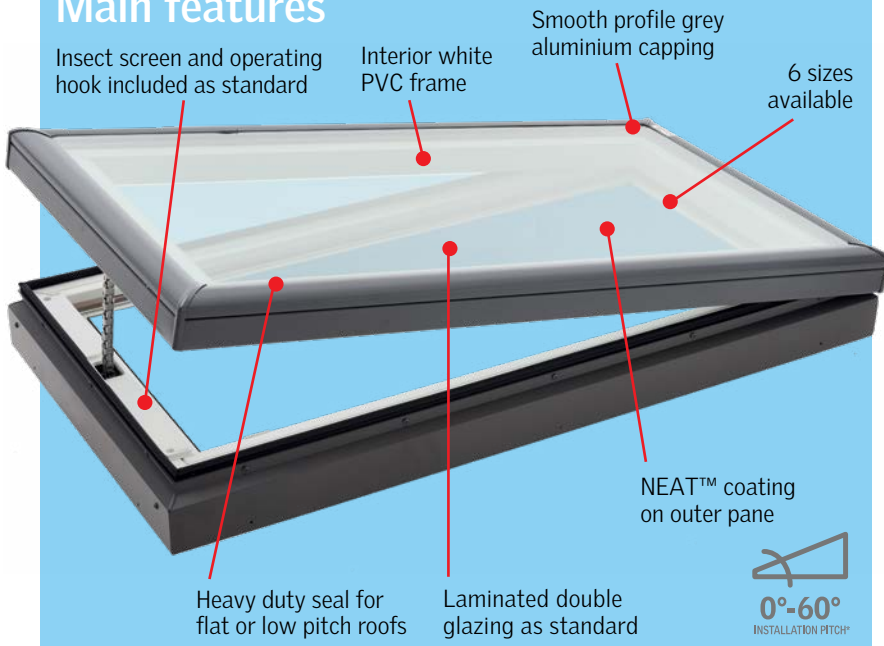


VCM Manual Skylight Flat roof

Main features



Insect screen and operating hook included as standard

Interior white PVC frame

Smooth profile grey aluminium capping

6 sizes available

Heavy duty seal for flat or low pitch roofs

Laminated double glazing as standard

NEAT™ coating on outer pane

0°-60°
INSTALLATION PITCH*

Construction

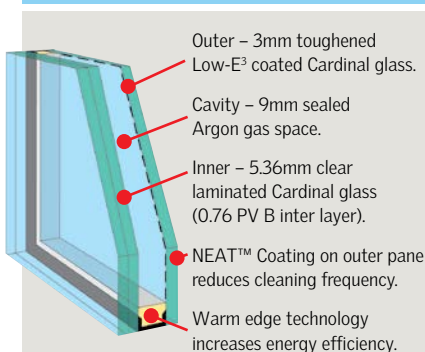
White PVC frame and sash components with extruded gaskets. White framed insect screen included as standard.

Aluminium external capping finished in a smooth grey colour, similar to 'COLORSTEEL® Grey Friars'.

Operation

VCM Skylights are manually operated. The VCM has a hook included which requires a rod control to wind the hook and open the sash, or for applications within reach, a winder handle can be used.

High Performance Double Glazing



Outer – 3mm toughened Low-E³ coated Cardinal glass.

Cavity – 9mm sealed Argon gas space.

Inner – 5.36mm clear laminated Cardinal glass (0.76 PV B inter layer).

NEAT™ Coating on outer pane reduces cleaning frequency.

Warm edge technology increases energy efficiency.

Benefits:

- Radiant heat block: Complete window **approx 76%**
Glass only **approx 70%**
- UV Harmful rays block **approx 99%**
- WERS rating **5 stars**
- Low-E³ coating. ✓
- Reduced cleaning frequency. ✓

New Zealand Standard 4223.4

Laminated glass (standard) must be used for skylights installed 5m or more above floor level.

NEAT™ Photocatalytic Coating

- Silicone Dioxide/Titanium Dioxide coating reacts with the sun's UV rays to decompose surface organic dirt before rinsing away with the next shower of rain, thereby reducing cleaning frequency.
- The coating also makes the glass surface smoother, so water disperses evenly, sheets off, and evaporates quickly; thereby minimising water spotting on the pane.



* The VCM is watertight for pitches between 0°-60°, though raising the installation pitch to 10° may be preferred for best aesthetic appearance. Below this pitch you are likely to experience water ponding on the glass.

VCM technical performance

CodeMark® is a voluntary scheme owned by the Ministry of Business, Innovation & Employment that provides an easily understood and robust way to show a building product, design or method meets the requirements of the New Zealand Building Code. CodeMark is unchallengeable and has legal status equivalent to that of an Acceptable Solution or Verification Method.

CodeMark
CMNZ10008



BRANZ Appraised
Appraisal No. 968

WORLD-CLASS
QUALITY

New Zealand Standards

VELUX Skylights are tested and appraised to the appropriate New Zealand Standards.

NZS4223 NZS3604 NZS1170

AS4285 SKYLIGHTS

(Exceeds Wind Pressure requirement for 'Extra High wind zones – 55m/s, 1.8kpa).

Hailstone Test

VELUX Simulated Tests ^ASTM E822-2009.

^ ASTM E822-2009 standard practice for determining resistance of Solar Collector Covers to Hail impact with propelled ice balls.

H1 Compliance

Listed thermal values (see reverse side) have been verified by BRANZ and can be used for all climate zones to show compliance with NZBC H1/AS1 using Alternative Solution VELUX Schedule Method (CodeMark), or the Calculation Method.

Energy rating

VCM Skylights have been energy rated in accordance with the Skylight Energy Rating Scheme (WERS).

★★★★★ **Maximum 5 stars Summer Ratings**

4.5 out of 5 stars for Winter Rating.
4.5 out of 5 stars for Cool Daylight in Summer.

Technical Values

R-value

Refer to reverse side

Solar Heat Gain Co-efficient

Complete skylight 0.24

Visible Light Transmittance

Complete skylight 0.55

Luminous Efficacy (Ke = VT/SHGC)

Complete skylight 2.29

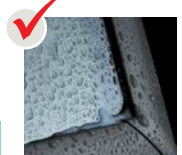
Acoustic performance

Complete skylight 31dB#

#Based on STC value tested to AS1276.1.



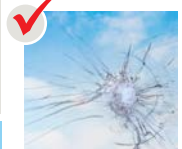
LOAD TESTED
(NZBC Clause B1)



DURABILITY
(NZBC Clause B2)
Exceeds requirements for Exposure Zone D (NZ3604).



WEATHERTIGHTNESS
(NZBC Clause E2)



SAFETY GLAZING
(NZBC Clause F2)



ENERGY EFFICIENCY
(NZBC Clause H1)



VENTILATION
(NZBC Clause G4)



NATURAL LIGHT
(NZBC Clause G7)

NB: CodeMark certification and BRANZ appraisal scope does not cover installations over 60°.

VCM Manual Skylight Flat roof

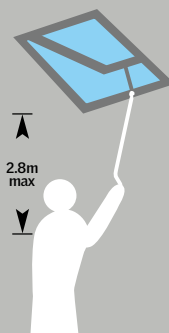
Solar Powered Honeycomb Blind (FSCC)



- Provides near total light reduction.
- Adds a decorative effect.
- Colour: White material and rails.
- Materials: Double layered pleats (polyester) form a 'honeycomb' structure. Inner structure of honeycomb has aluminium coating. White powder-coated aluminium side channels and top cover.
- Reduce heat by approx 60%.[^]
- Unique installation system allows easy installation.

Control options

Out of reach



ZCT 300 extension rod
Telescopic rod control adjustable from 145 – 285cm.
Attaches to operating hook for simple winding action to open and close.

Within reach situations



ZZZ 212 winder handle
Replaces operating hook for simple winding action to open and close.

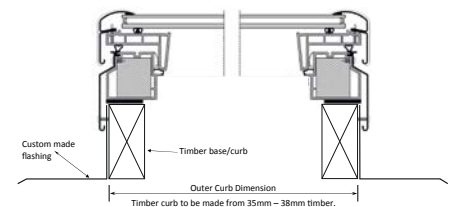
Important considerations

- VELUX VCM Skylights can be used for low sloping roofs. The low profile external covering and glazing seal prevents water infiltration even at 0°. Raising the installation pitch to 10° may be preferred for best aesthetic appearance. Below this pitch you are likely to experience water ponding on the glass.
- VCM is a curb mounted skylight and requires a custom made flashing to be made by roofer. See below for curb dimensions. (No VELUX proprietary flashing available).

Opening Restrictors

Building regulations may require the use of a restrictor device contact: VELUX for information relating to restrictor devices for within-reach opening skylights.

Preparation guide for custom-made flashing



Blinds and Control Options sold separately

VCM – Technical Data

Product/size code ▶	2222	2234	2246	3030	3046	4646
External frame dimensions wxh (mm)	692x692	692x997	692x1302	895x895	895x1302	1302x1302
Outer curb dimensions wxh (mm)	645x645	645x950	645x1255	850x850	850x1255	1255x1255
Visible glass dimensions wxh (mm)	572x572	572x876	572x1181	775x775	775x1181	1181x1181
Daylight area (m ²)	0.24	0.39	0.55	0.49	0.77	1.22
Ventilation area (m ²)	0.29	0.46	0.62	0.55	0.85	1.32
R-Value (BRANZ Verified Horizontal R-Value) [‡]	0.374	0.393	0.403	0.403	0.422	0.443
Weight in kg [*]	19.8	26.0	32.2	29.1	39.1	55.1

Skylights can only be installed as per orientation depicted above.

* Weight does not include flashing.

[^] Based on VELUX internal testing with 3076 model Roof Window.

[‡] Listed thermal values have been verified by BRANZ and can be used for all climate zones to show compliance with NZBC H1/AS1 using Alternative Solution VELUX Schedule Method (CodeMark), or the Calculation Method.