Manufacturer's Statement
Thermal & Light Compliance

SOLATUBE
Innovation in Daylighting

Product: Solatube 160 DS & 290 DS

Solatube Australia is pleased to present this Manufacturer's Statement to assist when selecting a daylight solution to meet the Building Code of Australia (BCA) 2019 and the 6 Star Energy Rating Requirements.

Solatube Tubular Daylighting Devices have been tested by the National Fenestration Ratings Council (NFRC). NFRC testing and is the most accurate method of testing advanced optical technologies used in a Solatube Daylighting System.

As per the table below all 160/290 DS products meet:

a) Volume 1 Section J1.4 Roof lights (a) & (b) & Section J3.3 Roof lights (a) & (b)
b) Volume 2 Section 3.12. 1.2 & Section 3.12. 1.3

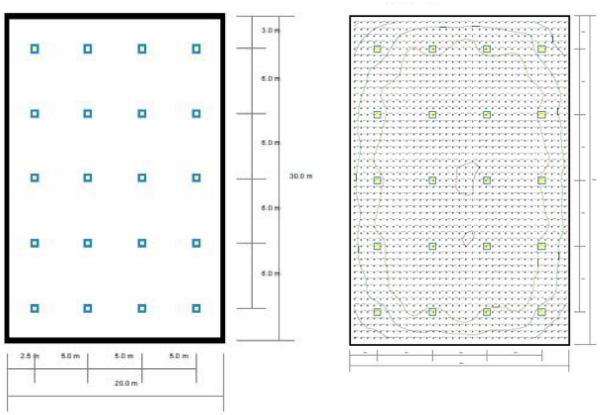
Product	Product Dia		Aggregated Daylight Area	
160 DS Tubular Skylight	250mm		.049m2 *NB	
290 DS Tubular Skylight	350mm		.096m2 *NB	
Product Detail	**U-Factor**	**SHGC**	**VT**	**Achieve NCC Performance Criteria**
160/290 DS Tubular Skylight - Single Dome Natural Effects Lens	2.89	0.23	0.51	YES
160/290 DS Tubular Skylight - Single Dome Softening Effects Lens	2.89	0.22	0.46	YES
160/290 DS Tubular Skylight - Single Dome Natural Effects Lens & Thermal Insulation Panel	2.10	0.20	0.35	YES
290 DS Low Profile Dome	2.95	0.29	0.46	YES

U-Factor - measures how well the skylight prevents heat escaping an interior space. It measures the rate of heat transfer through a building element over a given area under standardised conditions. The lower the U-Factor, the better a product performs thus resulting in reduced heat transfer.

Solar Heat Gain Coefficient (SHGC) - defines the fraction of solar radiation admitted through the skylight and measures its ability to block solar generated heat. A lower SHGC rating will result in less transfer of solar heat within building interiors.

Visible transmittance (VT) is a fraction of the visible spectrum of sunlight (380 to 720 nanometers), weighted by the sensitivity of the human eye, that is transmitted through the product. A product with a higher VT transmits more visible light.

Light-to-solar gain (LSG) is the ratio between the VT and SHGC. It provides a gauge of the relative efficiency of different products in transmitting daylight while blocking heat gains. The higher the number, the more light transmitted without adding excessive amounts of heat.



NB: Aggregated area of a skylight – the NCC has been reviewed based on traditional skylight technology requiring much larger area and does not recognize the performance of Tubular Daylighting products that commonly provide the highest Light-to-solar gain (LSG) ratio. For this reason Solatube Australia recommend a performance solution where trying to meet 3% of the floor area (NCC Volume One 2019 - F4.2 Methods and extent of natural light (a) (ii) (A) of the NCC). Solatube Australia will provide a "Natural" lighting design of the selected space which will achieve the minimum artificial lighting requirement as per AS1680.2 for 75-85% of the year base on local sunlight conditions. The aggregated daylight area for a Tubular Daylighting Devise is commonly as low as 1% of the floor area and must be approved by your certifier.

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APPROVED: BRETT DICKSON
JUNE 2021