

## **Brighten Up Series 160DS** Recommended Specification

### **Brighten Up Series 160DS (250mm diameter) Daylighting System manufactured by Solatube Australia PTY LTD**

**Roof Mounted 250mm Tubular Daylighting System with UV and impact resistant Raybender 3000 Dome, Spectralight Infinity 99.7% Spectral reflectivity solid tubing with ceiling level (selected) diffuser assembly, transferring sunlight to interior spaces.**

#### **CAPTURE ZONE:**

**Roof Dome:** Raybender 3000 variable prism optic moulded into dome to capture low angle sunlight and limit high angle sunlight. 3.7 mm minimum thickness injection moulded acrylic, classified as CC2 material; UV inhibiting, impact modified acrylic blend. EDCS (Effective Daylight Capture Surface) of 160 square inches (1032cm<sup>2</sup>).

#### **Flashing:**

Flashing base supporting dome and top of tube as per manufacturer's recommendations to suit roof profile

#### **TRANSFER ZONE:**

##### **Tubing - 99.7% Spectrally Reflective Tubing: (Starter Kit)**

Aluminium sheet, thickness 0.5mm. Top and Bottom Tube Angle Adaptors, 406 mm long (Each) and Spectralight Infinity 99.7% high reflectance specular finish Tubes (400mm or 600mm to suit site conditions) on exposed reflective surface. Visible spectrum (400 nm to 760 nm) greater than 99 percent. Total solar spectrum (400 nm to 2500 nm) less than 93 percent.

#### **DELIVERY ZONE:**

**Effect lens** - Lens made of acrylic, classified as CC2, Class C 1.5mm thick, with open cell foam seal to minimise condensation and bug, dirt and air infiltration.  
Select - Natural or Warm or Softening

#### **Diffuser: OPTIONS**

##### **Select**

Classic Vusion White Trim

or

Optiview Superwide Round

or

Just Frost Square

or

Just Frost Acrylic Decorative Fixture

or

Tierdrop Acrylic Decorative Fixture

## **ACCESSORIES:**

SELECT REQUIRED

### **Daylight Dimmers.**

Low voltage Daylight Dimmer – Electro-mechanically actuated daylight valve, 0-10V control, Class2, UL listed. Dimming control for Daylight between 2 and 100%.

**Daylight Dimmer Switches** – Low Voltage 0-10V Class2 switch (white) required to operate 0-10V Daylight Dimmer.

### **Bushfire Kit**

Solatube TDD Bushfire protection Kit, consisting of reinforced A Grade Glass Wire with powder coated steel support ring, and fire related acrylic sealant (existing in assembly), Suitable for use up to BAL29. (maximum)

### **Wire Suspension Kit**

Use the wire suspension kit when additional bracing to the structure is required.

### **Light Kit – add on Kit**

Consists of a light bar and batten holder fixed within the tube and controlled by a wall mounted switch – Bulbs not included.

**eChoice** – selected to reduce SHGC values and conform to BCA – section J Requirements – nominated in product name as e eg 160DSe

**Natural Effect lens** - Lens made of acrylic, classified as CC2, Class C 1.5mm thick, with open cell foam seal to minimise condensation and bug, dirt and air infiltration.

**Nightlight** – versatile solar electric nightlight which emits a soft ambient light during the night.

**Performance Tested:** NFRC (National Fenestration and Ratings Council). Meets SHGC and U-Value requirements set out in the BCA (Building Code of Australia) tables 3.12.1.2 and J1.4.

**SHGC = refer Solatube for relevant data on configuration chosen.**

**U-Factor = refer Solatube for relevant data on configuration chosen.**

**Annual average VLT = 0.37** – test report G3705.04-301-41

The amount of light transmitted is specified by the visible light transmittance(VLT) Rating vary between 0 and 1. The higher the value, the better.

**Light-to-Solar Gain** – (The ratio of the visible light transmittance to the Solar Heat Gain Coefficient.  $LSG = T_{vis}/SHGC$  A higher LSG ratio means sunlight entering the room is more efficient for daylighting, especially for summer conditions where more light is desired with less solar gain) =  $0.37/0.19 =$  and **LSG of 1.95**

**FM Approval – Solatube SolaMaster Series have FM Approval** - FM Approvals verify that products meet rigorous loss prevention standards of quality, technical integrity and performance —for use in commercial and industrial facilities **FM approval information** - link to STI website.