

# FLATGLASS ROOFLIGHTS



## Natural daylight with more design freedom

Flatglass rooflights are designed and manufactured in the UK, by one of the country's leading rooflight specialists. You'll find Flatglass rooflights on all kinds of buildings, from major landmarks to schools and colleges, hospitals, commercial offices and private homes across the country.

- Outstanding aesthetics – from both external and internal viewpoints
- Can be supplied in virtually any shape, including square, rectangular, circular, elliptical, triangular, hexagonal, octagonal and irregular shapes
- Single and multiple pane double or triple glazed units can be contained within a single frame to cater for a wide range of sizes
- Fully compliant with UK Building Regulations
- Non-fragile, CWCT TN 66, 67 & 92 (Class 2) ACR[M]001:2011 (Class B) compliant construction – options available where required
- Wide range of glazing and ventilation options
- Warm edge spacer for improved thermal performance – total product U-values as low as 0.8 W/m<sup>2</sup>k (triple glazed)
- Drawings, specifications and BIM Objects are available

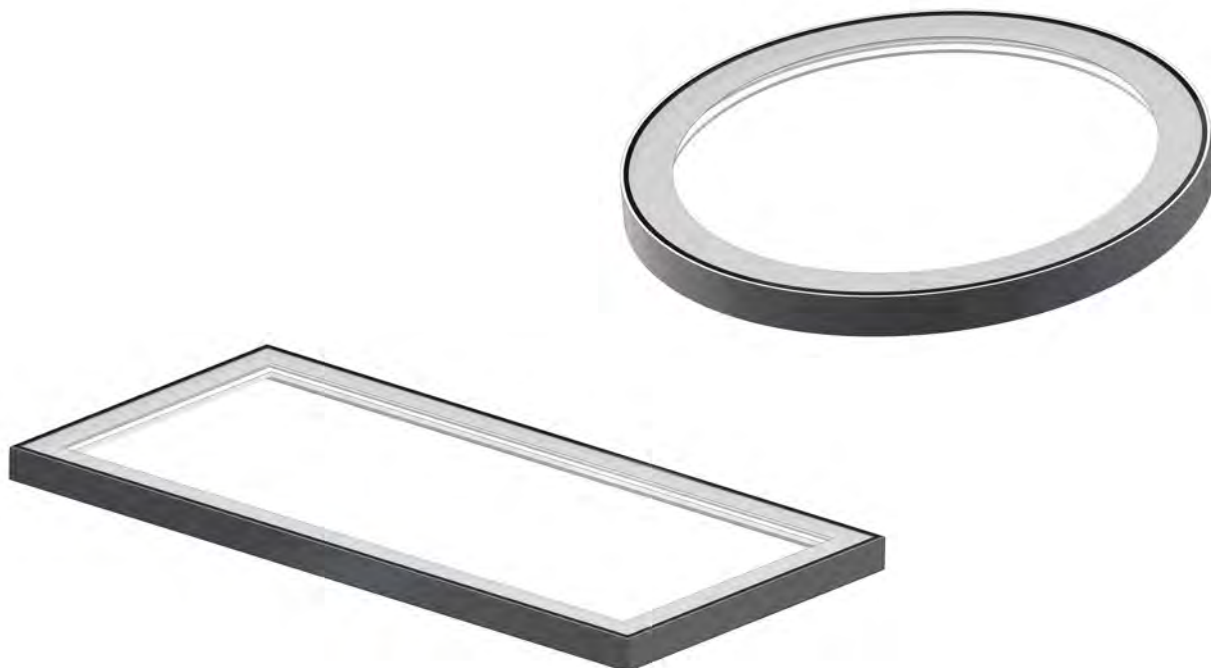
## Product Range

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# FIXED ROOFLIGHTS

Simply a better way to introduce natural light to internal spaces



## PRODUCT RANGE OVERVIEW

Flatglass rooflights can be supplied as double or triple glazed units in a wide range of shapes and sizes to suit different room layouts.

**Maximum standard kerb sizes for rooflights using a single glazing pane:**

### Double glazed

- Square: up to 1.8m x 1.8m or 3.3m<sup>2</sup> as standard, up to 2.3m x 2.3m to special order
- Rectangular: up to 4.9m<sup>2</sup> (Toughened Glass) as standard, up to 7m<sup>2</sup> single pane to special order
- Circular: up to 2.2m diameter for single pane, up to 3.2m diameter for multi-pane
- Bespoke shapes available – see page 12
- Recommended pitch: 5° up to 2m span, 10° over 2m span

### Triple glazed

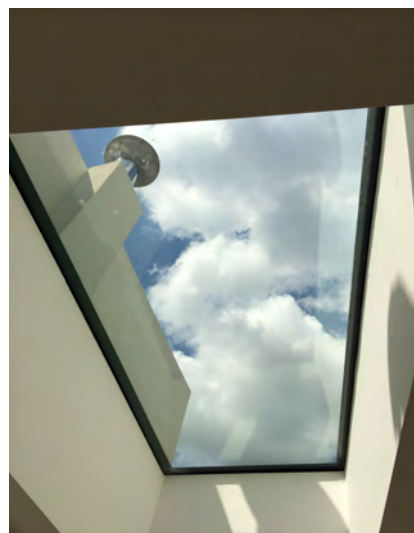
- Square: up to 1800mm x 1800mm
- Rectangular: up to 3000mm<sup>2</sup> as standard
- Circular: up to 1800mm diameter single pane
- Bespoke shapes available – see page 12
- Recommended pitch: 5° up to 2m span, 10° over 2m span

## OPTIONS

- Can be supplied with upstands (certain sizes only)

**For detailed product specifications, see pages 11 – 12**

**For plan and section views, see pages 13 – 15**



# HINGED ROOFLIGHTS

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Daylight plus natural ventilation



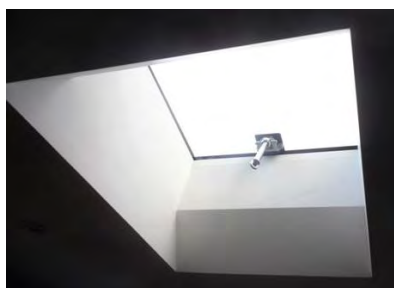
## ELECTRIC HINGED - PRODUCT RANGE OVERVIEW

Electric hinged Flatglass rooflights are operated by fully concealed 24v or 230v chain actuators. Minimum kerb span: 500mm.

**Maximum standard kerb sizes for electric hinged rooflights:**

### Double glazed

- Square: up to 1800mm x 1800mm
  - Rectangular: up to 1200mm x 2700mm or 3.3m<sup>2</sup>
- Contact us for sizes over 3.3m<sup>2</sup>  
Larger sizes require multiple, synchronised actuators and specialist refurb planning



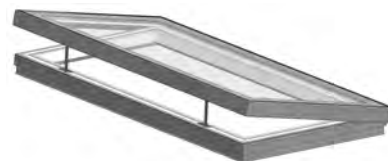
## MANUAL HINGED - PRODUCT RANGE OVERVIEW

Manual hinged Flatglass rooflights are operated by a worm gear spindle.

**Maximum standard kerb sizes for manual hinged rooflights:**

### Double glazed

- Square: up to 1700mm x 1700mm
  - Rectangular: up to 1500mm x 2000mm or 3m<sup>2</sup>
- A double spindle is required for units over 1400mm long



## OPTIONS

- Can be supplied with upstands (certain sizes only)
- Various opening pole options available
- Choice of switches, wind, rain & temperature sensors
- Synchronised multi-rooflight opening mechanism

For detailed product specifications, see pages 11 – 12

For plan and section views, see pages 16 – 19



Safe, secure access to roof areas



## PRODUCT RANGE OVERVIEW

Flatglass access hatches are double glazed units with gas rams concealed within the rooflight frame when in the closed position. These allow the units to open up to 80° for easy access to roof areas.

They can be installed to allow regular access to roof terraces via internal staircases, opening up new development possibilities. They are also frequently specified to provide occasional access to roof areas for maintenance. Minimum kerb span: 650mm.

### Maximum standard kerb sizes for hinged access hatches:

- Square: up to 1150mm x 1150mm

## SECURITY

Yale shoot bolt locking mechanism

## OPTIONS

- Can be supplied with upstands (certain sizes only)

For detailed product specifications, see pages 11 – 12

For plan and section views, see pages 19 – 20



# SLIDE-OPEN ROOFLIGHTS

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For ventilation or roof access



## PRODUCT RANGE OVERVIEW

Operated by concealed 24v or 230v electric chain actuators, Flatglass slide-open rooflights are ideal for providing ventilation or roof access in areas where high wind loadings may occur, making hinged rooflights unsuitable.

**Flatglass slide-open rooflights are double glazed units, available in a range of standard kerb sizes:**

- Square: 800mm x 800mm up to and including 1200mm x 1200mm
- Rectangular: 800mm x 900mm up to and including 1200mm x 1500mm
- Maximum opening length: 1200mm

## SECURITY

Yale shoot bolt locking mechanism

## OPTIONS

- Choice of switches, wind, rain & temperature sensors
- Synchronised multi-rooflight opening mechanism
- Manual-opening option available



For detailed product specifications, see pages 11 –12

For plan and section views, see pages 21 – 22

# WALK-ON ROOFLIGHTS

Combining natural daylight with creative use of space



## PRODUCT RANGE OVERVIEW

Flatglass rooflights can be supplied to walk-on specification, for roof terraces and internal applications. They provide attractive and creative solutions for introducing daylight into buildings.

Designed to the current British and European Standards (BS EN 1991-1-1), they have the capacity to withstand a uniformly distributed load of  $1.5\text{kN/m}^2$ , or a concentrated load of  $2.0\text{kN}$ . We can accommodate higher loads via special order.

**Our walk-on specification rooflights are available in a range of standard kerb sizes:**

- Single pane - up to  $1.2\text{m} \times 3\text{m}$  or  $3.6\text{m}^2$ , larger sizes are to special order
- Multi-pane - up to  $2.4\text{m}$  slope span, unlimited length with bays at up to  $1.2\text{m}$  centres

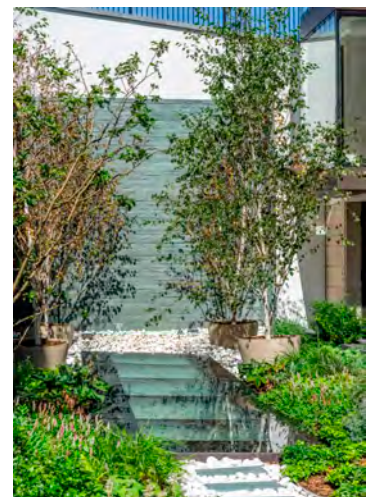
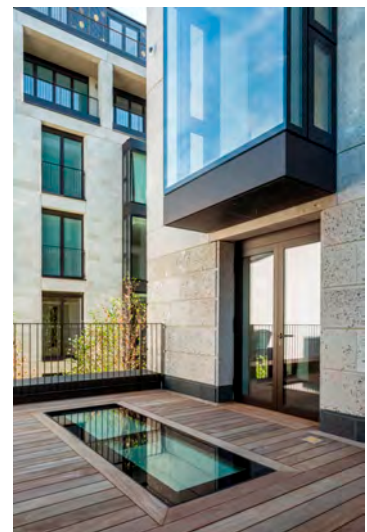
## GLASS SPECIFICATIONS

For the majority of domestic applications, our standard specification is as follows:  
33mm toughened laminated outer; 16mm argon cavity; 6mm low-e toughened inner.

## OPTIONS

- Black or white painted/ceramic border
- Single or multi-section construction
- Obscure glazing for privacy
- Slip-resistant external finish options available

**For detailed product specifications, see pages 11 –12**



# MULTI-SECTION ROOFLIGHTS

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Larger rooflights, more daylight



## PRODUCT RANGE OVERVIEW

Where larger rooflights are required, over and above single maximum pane sizes, we can supply multi-section rooflights. These provide the same characteristics and sleek profile as the single pane units. These rooflights are often specified to bring natural light to internal corridors.

Maximum spans up to 3.2m can be accommodated (free span slope length 3.2m). There is no limit on the length of the rooflight. Bay centres depend on span width.

## OPTIONS

- Double or triple glazed
- Walk-on specification glass available
- PVCu 'Aero-fin' shroud for internal glazing bars (colour-matching available)
- Multi-pane opening vent available

For detailed product specifications, see pages 11 – 12

For plan and section views, see pages 22 – 23



# HINGED ACCESS HATCHES

Electric opening rooflights for roof access and natural ventilation

## PRODUCT RANGE OVERVIEW

Flatglass electric access hatches are powered by two 24v actuators. These units open to 140° with a solid top and 90° with a glass top for access.

Flatglass electric access hatches are double glazed as standard and available in kerb sizes up to 2.5m x 2.5m. Minimum kerb span: 810mm.

## OPTIONS

- Can be supplied with upstands
- Control unit with battery back-up available
- Choice of switches, wind, rain & temperature sensors
- Synchronised opening mechanism
- Fireman's switch

For detailed product specifications, see pages 11 –12



# CUSTOM ROOFLIGHTS

Applying 'blue-sky thinking' to bespoke rooflight solutions

## PRODUCT RANGE OVERVIEW

In addition to our standard ranges, we can supply bespoke Flatglass rooflights to almost any shape and with glazing options to suit your requirements.

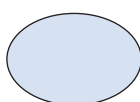
Triangles, parallelograms, hexagons, organic curved shapes...whatever shape you can think of, we can supply you with a solution in the form of a Flatglass rooflight.

## OPTIONS

- Double or triple glazed
- Bespoke glazing options
- Bespoke ventilation and opening options
- Wall abutting on 1, 2 or 3 sides

## APPLICATIONS

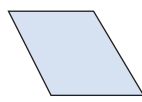
Irregular-shaped rooflights can be designed to fit irregular roof areas, or for aesthetic reasons. Glazing can be specified to meet specific requirements - i.e. privacy or solar control.



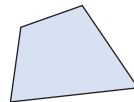
Elliptical



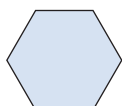
Triangular



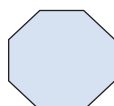
Trapezoidal



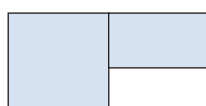
Irregular



Hexagonal



Octagonal



Multi-section, differing sizes



## For rooflight specifiers and installers

### STANDARD GLAZING

#### Double glazed units

- Clear toughened outer • Warm edge spacer • Argon filled cavity • Low-e laminated or toughened inner (heat soaked tested)

#### Triple glazed units

- Clear toughened outer • Argon filled cavity • Toughened middle • Argon filled cavity
- Low-e laminated or toughened inner (heat soaked tested)

All our units have sandblasted borders for improved aesthetics and to mask the glazing frame.

Please contact our Technical Department for bespoke glazing solutions.

### WALK-ON GLAZING

#### Domestic pedestrian applications: 1.5kN/m<sup>2</sup> uniformly distributed load capacity, 2.0kN concentrated load capacity

- 31.5/33mm toughened laminated outer; 16mm argon cavity; 6mm low-e toughened inner (heat soaked tested)
- Weight: 90kg/m<sup>2</sup>

#### Commercial applications: 4.0kN/m<sup>2</sup> uniformly distributed load capacity, 3.6kN concentrated load capacity

- 39/39.5mm toughened laminated outer; 16mm argon cavity; 6mm low-e toughened inner (heat soaked tested)
- Weight: 162kg/m<sup>2</sup>

#### Heavy duty commercial applications: 5.0kN/m<sup>2</sup> uniformly distributed load capacity, 4.5kN concentrated load capacity

- 48mm toughened laminated outer; 16mm argon cavity; 6mm low-e toughened inner (heat soaked tested)
- Weight: 183kg/m<sup>2</sup>

#### Internal walk-on rooflights

- 25.5mm toughened laminated glass – weight: 70kg/m<sup>2</sup>
- 31.5mm toughened laminated glass – weight: 80kg/m<sup>2</sup>

All our units have sleek, painted borders for improved aesthetics and to mask the glazing frame.

Slip-resistant external finish options available.

Please contact us for bespoke glazing solutions.

### LIGHT TRANSMISSION (DOUBLE GLAZED UNITS)

- Standard double glazed units: 78%

### G-VALUES (DOUBLE GLAZED UNITS)

- Standard glazing: 0.68
- Solar controlled glazing: 0.41

### GLAZING OPTIONS

- Activ self-cleaning • Ritec Clearshield easy-clean • High performance solar control • Body tints
- Diffusing/obscure glass • 78mm sandblasted border as standard to hide glazing frame - except on solar control

### GLAZING FRAME

Glazing elements are contained within a thermally-enhanced, extruded aluminium frame, to current British and European Standards (BS EN 12020-1:2001).

Glazing frames are polyester powder coated to BS 6496 and BS EN 12206-1:2004

Standard RAL Colours: Black 9005, White 9910, Grey 7015

Bespoke colours are available on request.

Glazing frames are bedded on a butyl strip to create an airtight seal against builder's kerbs or upstands.

## For rooflight specifiers and installers

**SILICONE**

Dow Corning 791 Structural Silicone is used as standard.

**THERMAL INSULATION****Double glazed units**

Total product U-values as low as 1.3 W/m<sup>2</sup>k, exceeding the requirements for Part L compliance.

Centre pane U-values as low as 1.0 W/m<sup>2</sup>k.

**Triple glazed units**

Total product U-values as low as 0.8 W/m<sup>2</sup>k.

Centre pane U-values as low as 0.5 W/m<sup>2</sup>k.

U-value calculations can be supplied upon request for specific rooflights.

**AIRTIGHTNESS**

Flatglass rooflights are air-tight to 0.5m<sup>3</sup> per m<sup>2</sup>/hr @ 50 pascals.

**NON-FRAGILITY**

All our units have been tested and can be supplied to provide non-fragility to CWCT TN 66 & 67

Class 2 / ACR[M] Class B compliance, or supplied to CWCT TN 92.

**INSTALLATION**

Flatglass rooflights are suitable for use with all popular flat roof finishes. They are designed for installation to timber builder's kerbs, or can alternatively be supplied with one of our range of PVCu upstands.

**BUILDER'S KERBS**

Kerbs should be installed with a minimum recommended pitch of 5°. A nominal thickness of 80mm – 100mm is recommended for fixed units. For hinged and access units, the recommended kerb thickness is 80mm – 90mm.

**OPTIONAL UPSTANDS**

Flatglass rooflights can be supplied complete with PVCu and GRP upstands.

**SPECIFYING ROOFLIGHT SIZE**

When fitting to a builder's kerb, each Flatglass unit is bespoke and manufactured to our customer's exact requirements. All dimensions provided to us should be external kerb dimensions (when weathered). Please see the following diagrams.

**DELIVERY**

Flatglass rooflights are often manufactured to order, with delivery from two weeks (subject to specification).

Stock sizes are also available for order with quicker delivery, please contact us for more details.

**WARRANTY**

Flatglass rooflights carry the following warranties:

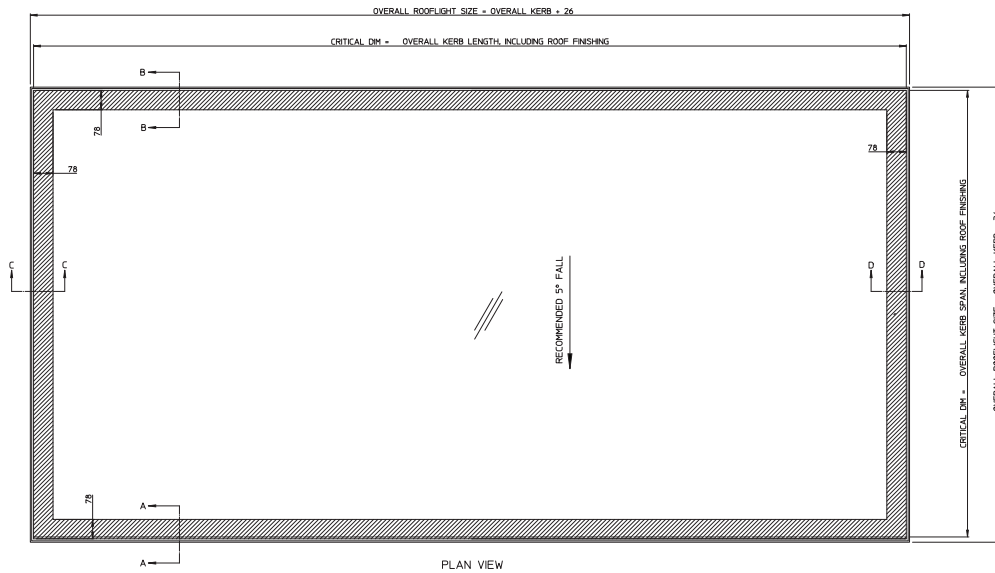
- Glass: 5 years
- PPC: 25 years
- Silicone: 5 years
- Actuators: 1 year

# TECHNICAL INFORMATION

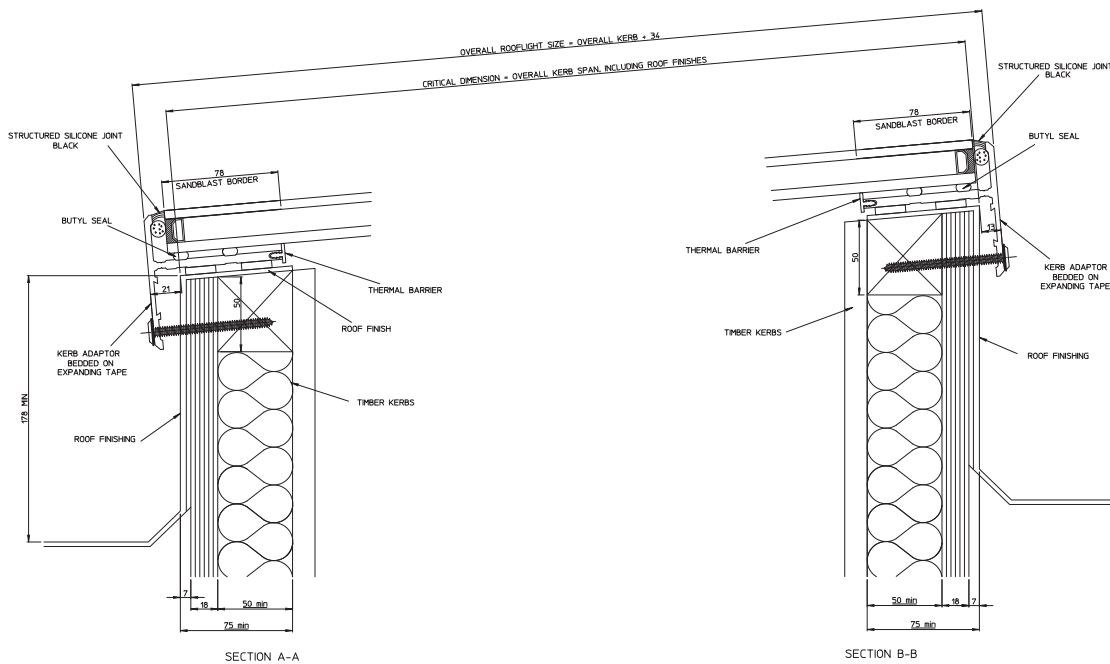
13

For rooflight specifiers and installers

## Fixed single rooflight, double glazed – plan view



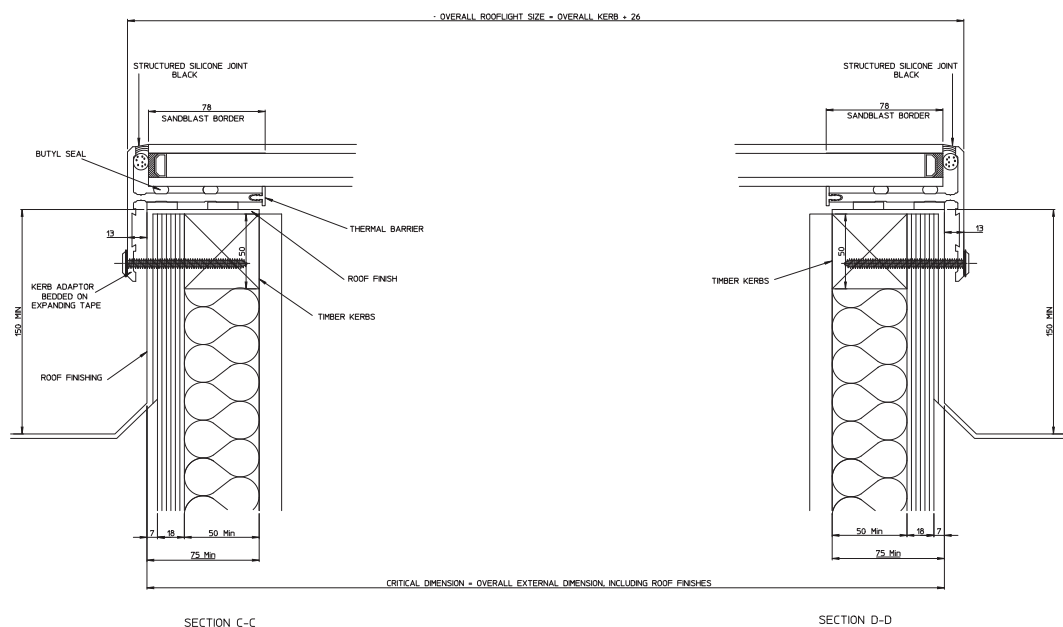
## Fixed single rooflight, double glazed – span section views



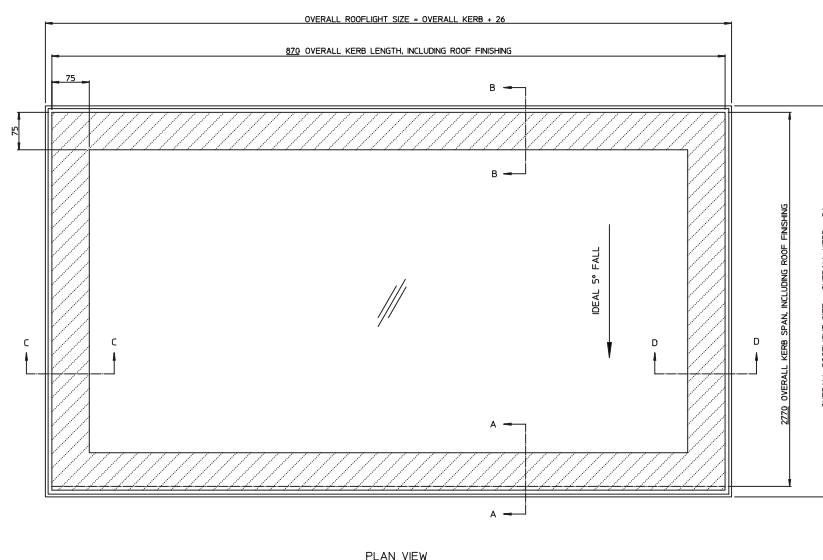
Long section views of this rooflight are on page 14

For rooflight specifiers and installers

## Fixed single rooflight, double glazed – long section views



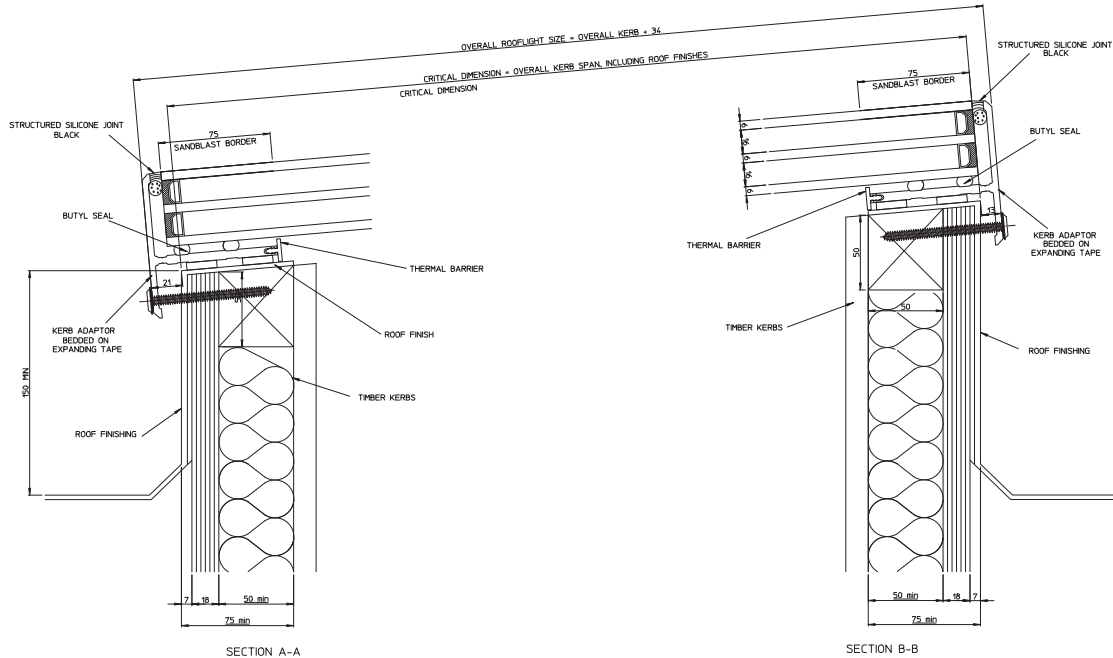
## Fixed single rooflight, triple glazed – plan view



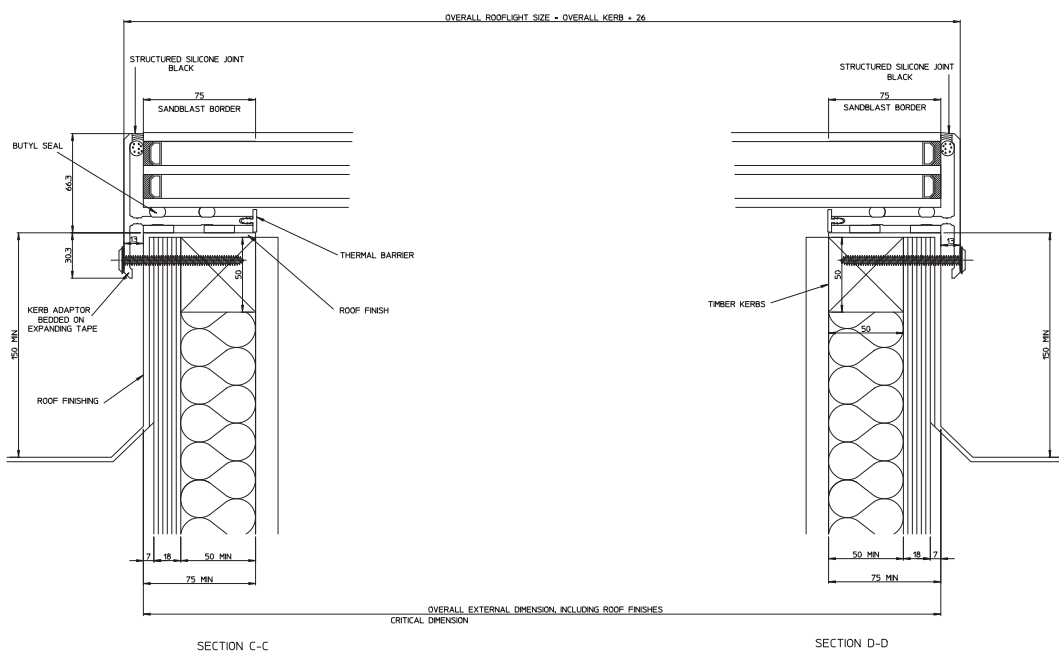
Span section and long section views of this rooflight are on page 15

For rooflight specifiers and installers

## Fixed single rooflight, triple glazed – span section views

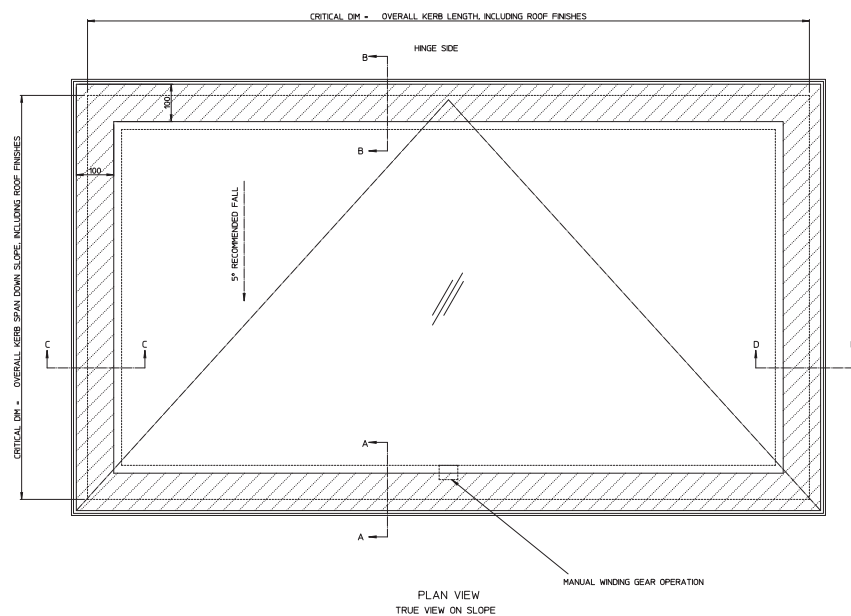


## Fixed single rooflight, triple glazed – long section views

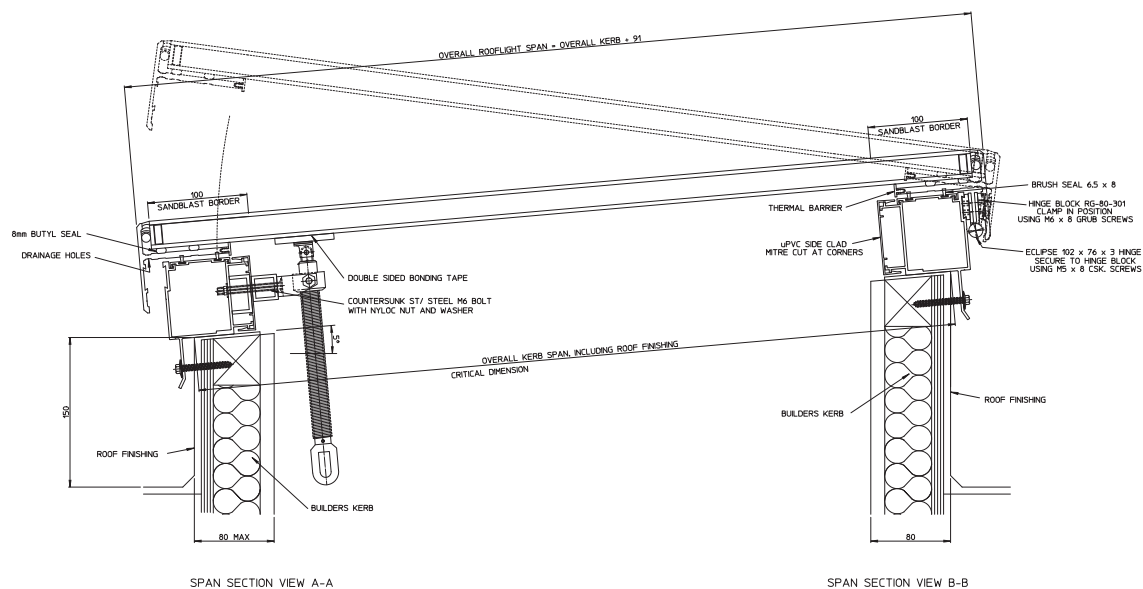


For rooflight specifiers and installers

## Manual hinged rooflight – plan view



## Manual hinged rooflight – span section views

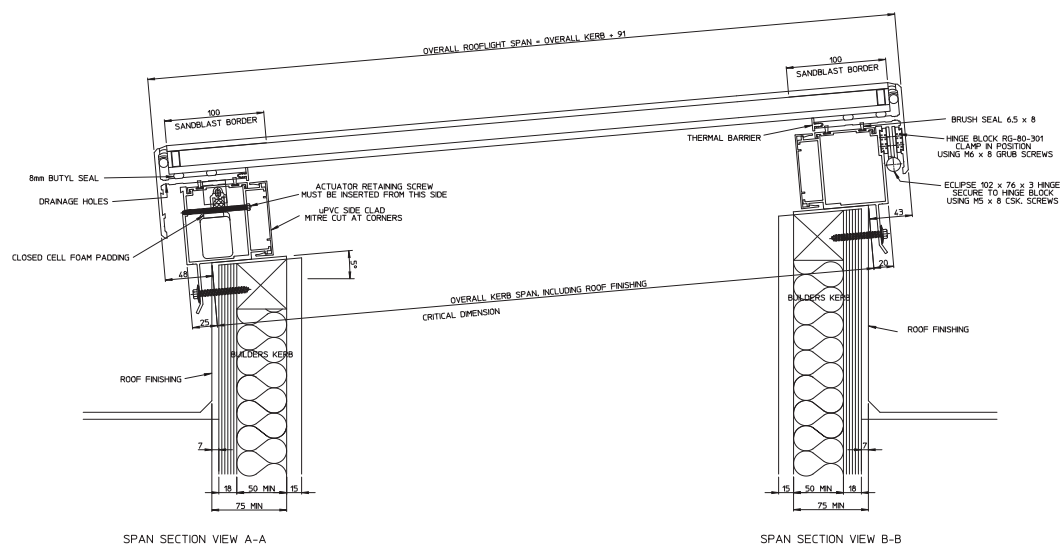


Long section views of this rooflight are on page 17

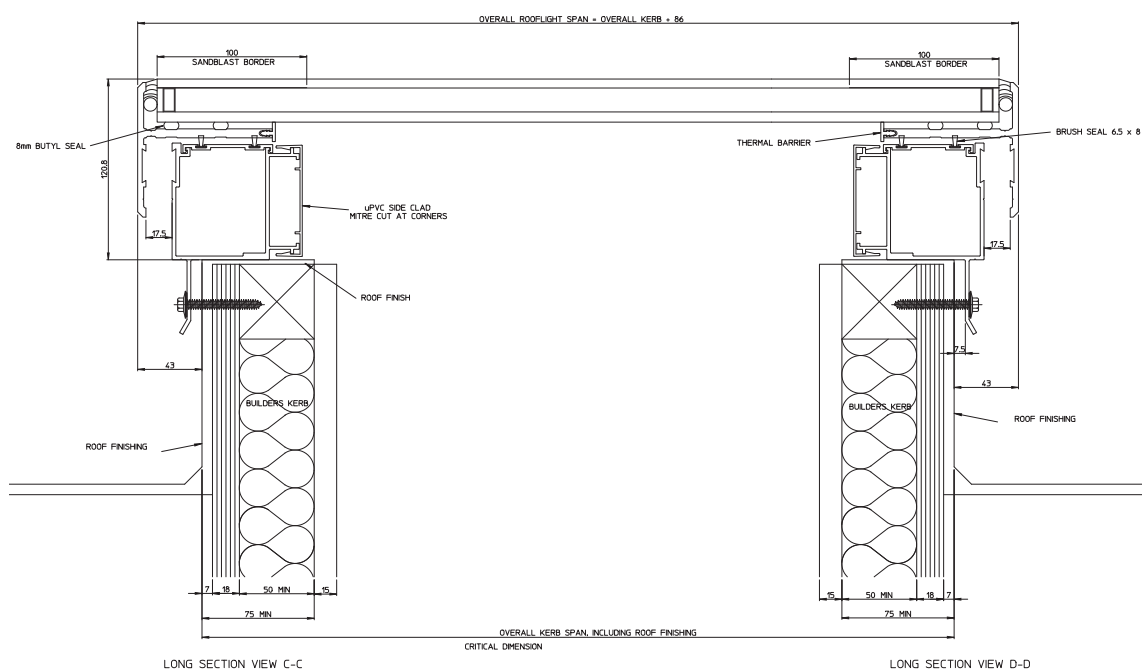


For rooflight specifiers and installers

## Electric hinged rooflight – span section views

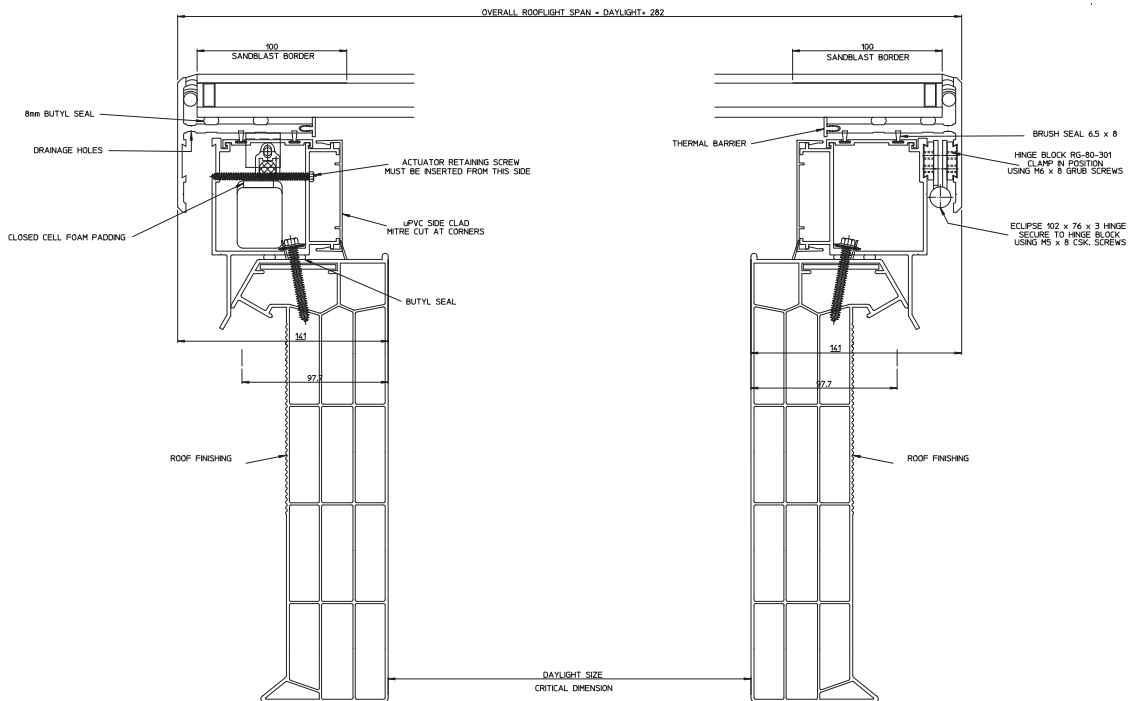


## Electric hinged rooflight – long section views

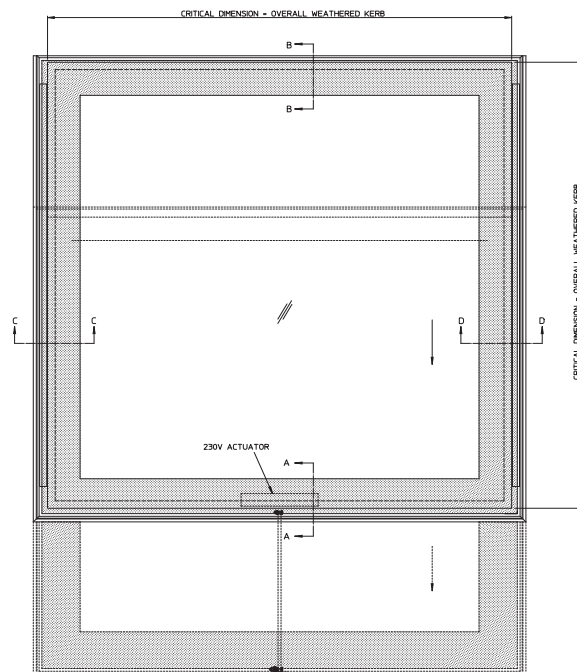


For rooflight specifiers and installers

## Electric hinged rooflight on uPVC upstand – span section views



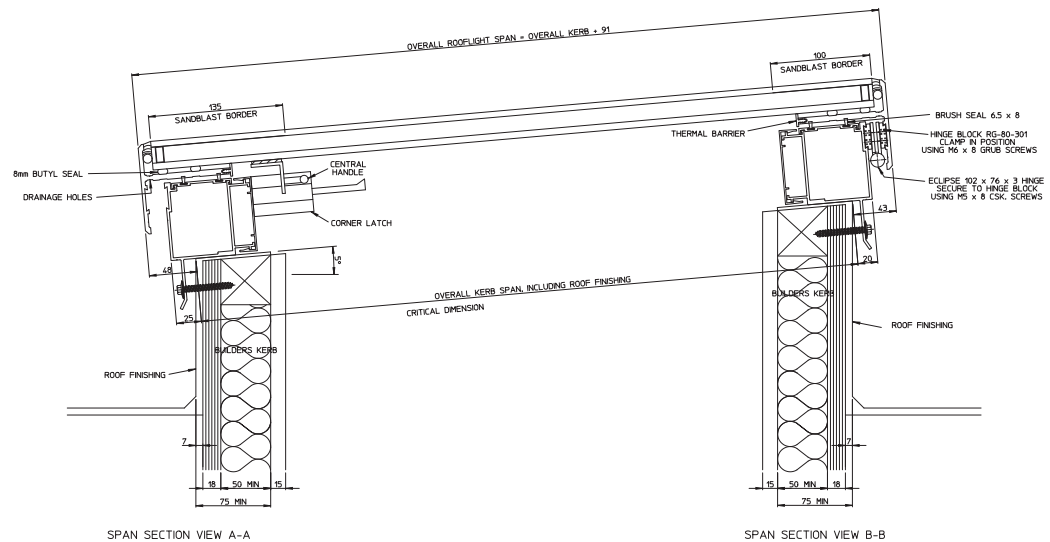
## Access hatch rooflight – plan view



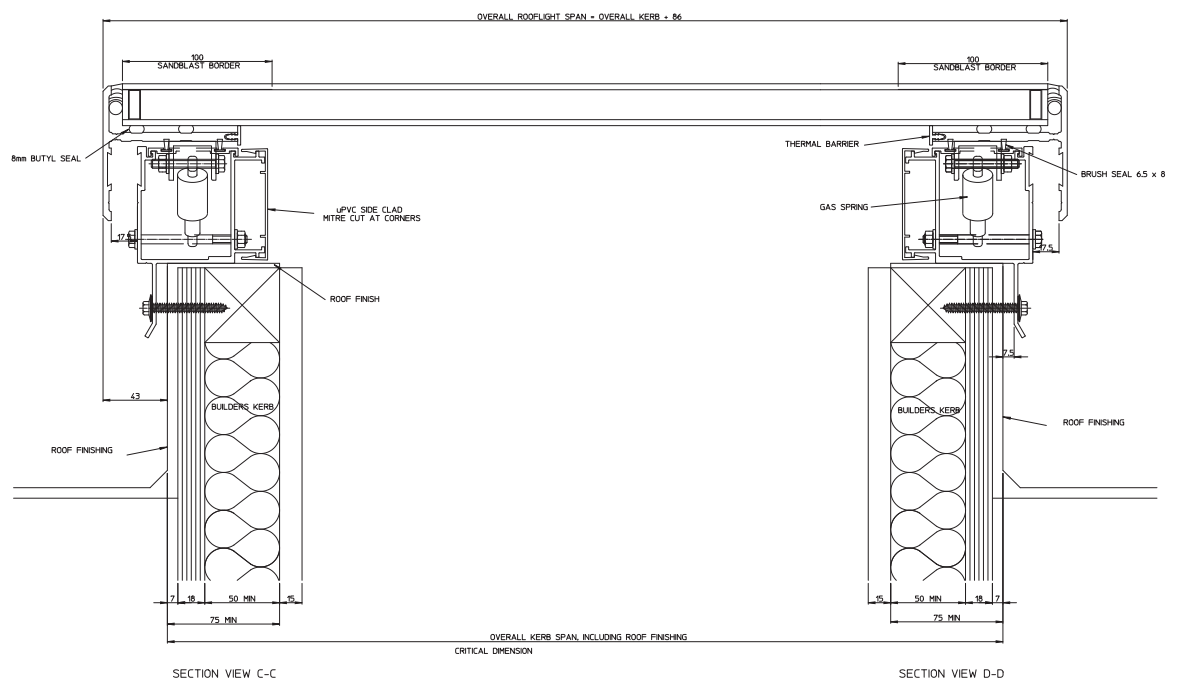
Span section and long section views of this rooflight are on page 20

For rooflight specifiers and installers

## Access hatch rooflight – span section views

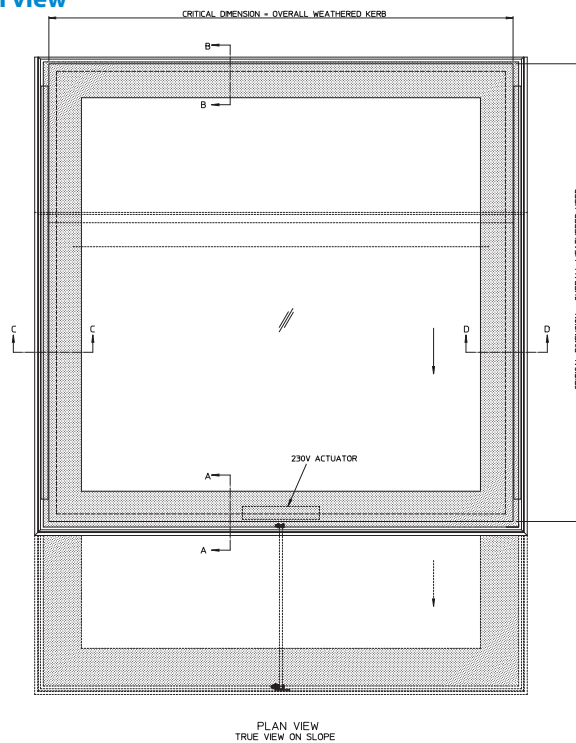


## Access hatch rooflight – long section views

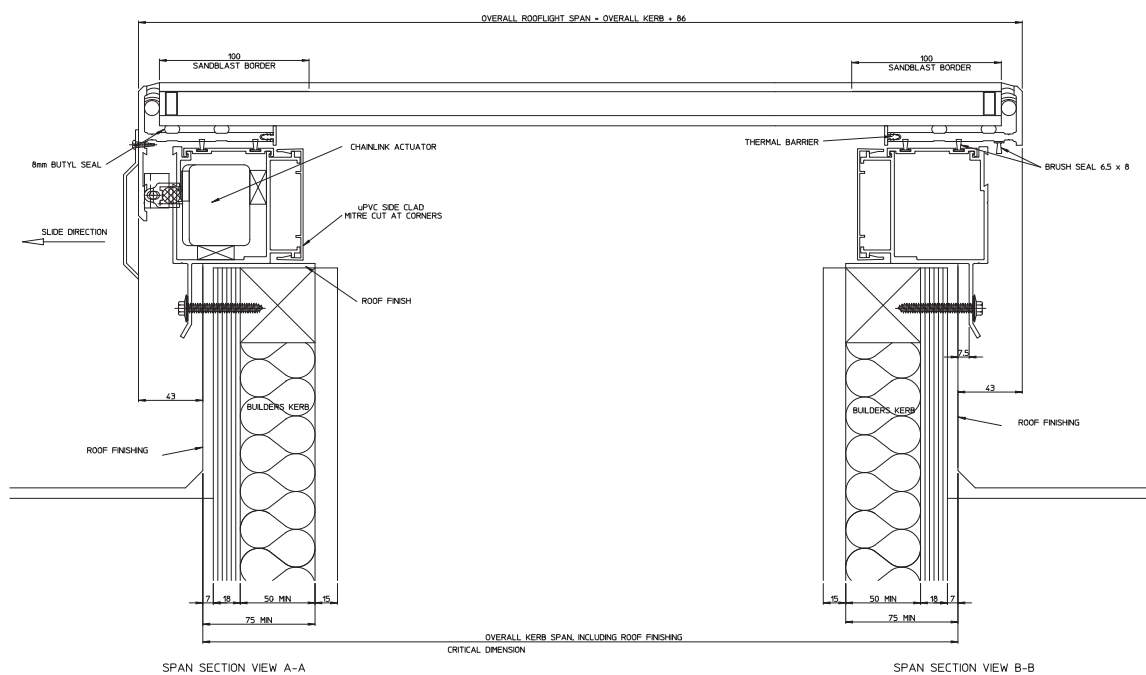


For rooflight specifiers and installers

## Slide open rooflight – plan view



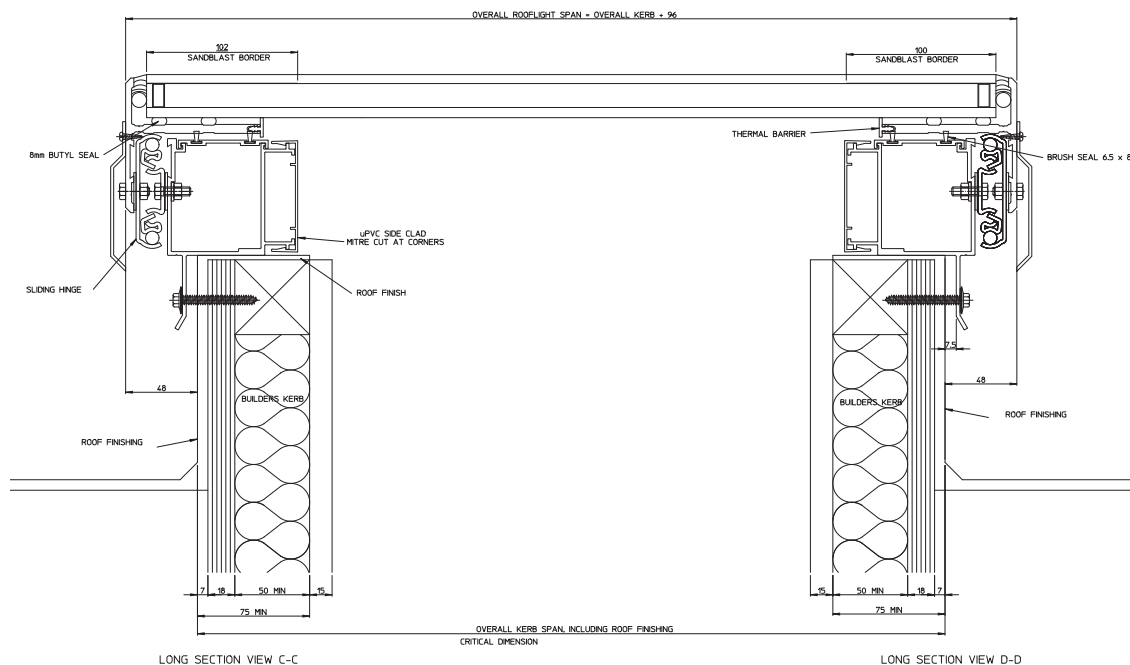
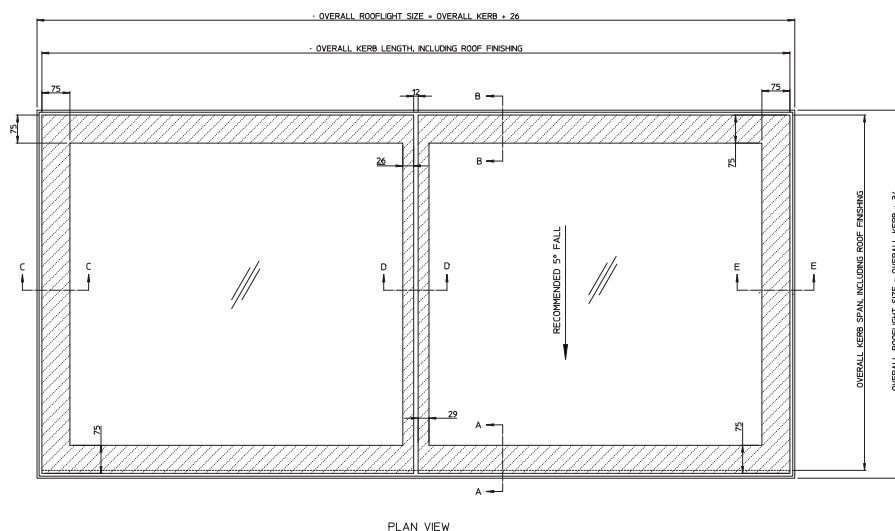
## Slide open rooflight – span section views



Long section views of this rooflight are on page 22

For rooflight specifiers and installers

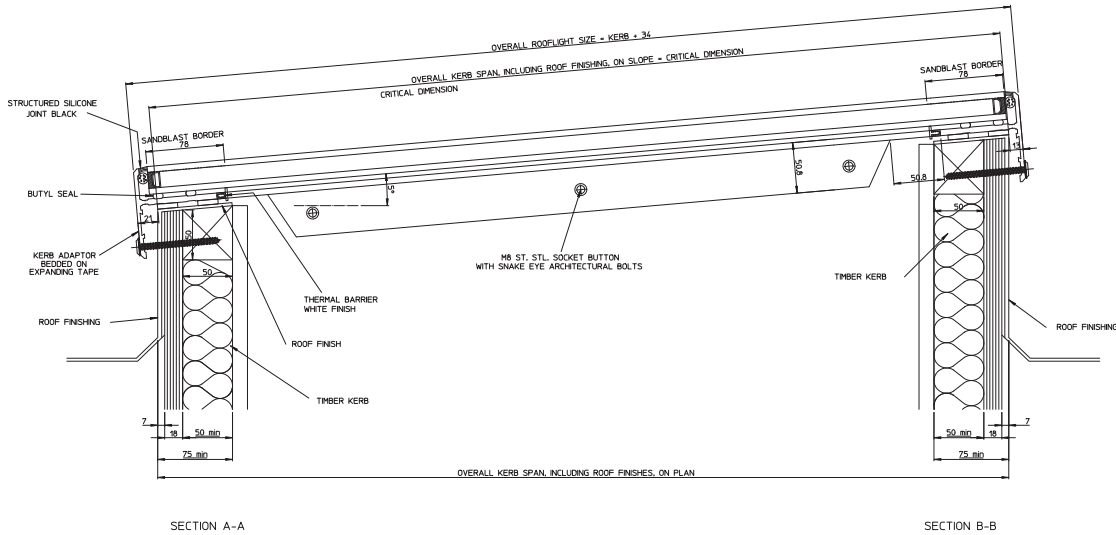
## Slide open rooflight – long section views

Multi section rooflight (up to 1800mm span\*) - plan view  
\*larger glazing bars required over 1800mm, up to 3200mm

For rooflight specifiers and installers

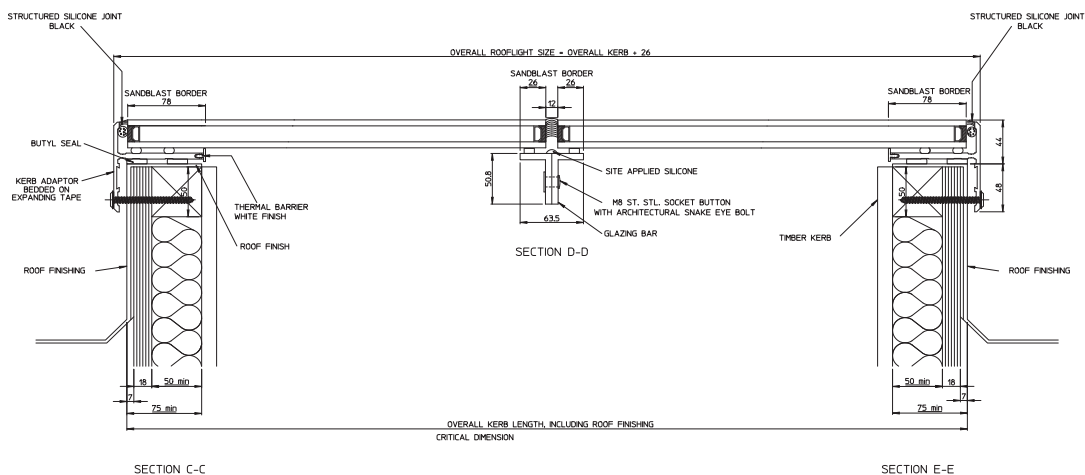
## Multi section rooflight (up to 1800mm span\*) - span section views

\*larger glazing bars required over 1800mm, up to 3200mm



## Multi section rooflight (up to 1800mm span\*) - long section views

\*larger glazing bars required over 1800mm, up to 3200mm



The background of the entire page is a vibrant blue sky filled with soft, white, wispy clouds. The sky is more densely clouded in the upper half and becomes clearer towards the bottom. A solid dark blue vertical bar runs along the left edge of the page.

FLATGLASS ROOFLIGHTS