



Daylight Systems

## Trilite 2.4 Energysaver FAIR

Consult Brett Martin Daylight Systems early in the design process as we can provide in-depth assistance with design and specification.

A low U-value GRP factory assembled insulating rooflight (FAIR) compatible with composite panel systems, incorporating Trilite 2.4 outer sheets.

Trilite 2.4 Energysavers are designed for a service life in excess of 25 years and there should be no significant discolouration for at least 20 years or significant loss of structural properties for at least 25 years.

Class B non-fragile to ACR[M]001:2005 and withstands loads typical of accidental foot traffic or a falling person without failure when new and fully fixed, although such loads will result in some damage.

Trilite 2.4 Energysavers have sufficient safety margin to ensure they will be non-fragile when new, and they will retain their structural properties for at least 25 years, but do not have sufficient safety margin to compensate for any deterioration to other aspects of the installation. Non-fragility of an assembly containing Trilite 2.4 FAIRs would only be maintained for 25 years if there was no deterioration to any aspect of the original installation; in practice, with typical maintenance regimes, it is likely that it would remain non-fragile for 5-20 years.

Energysaver FAIRs incorporate patented thermal membrane technology giving improved insulation without loss of light transmission.

Trilite 2.4 Energysavers incorporate Hardpak rigid internal supports for minimum deflection at fixings.

Include Underlap Strip in the specification: it allows use of standard side stitch fasteners at the underlap, which reduces the cost of fasteners and number of fastener types required on site, and improves ease of installation.

Consult Brett Martin Daylight Systems technical literature for further details.

# NBS Specification Clause: Trilite 2.4 Energysaver FAIR

System type:	To match composite cladding system
Material:	Natural, clear translucent GRP (tinted sheets available) Outer sheet: 2.4kg/m <sup>2</sup> , 1.3mm thick
Manufacturer:	Brett Martin Daylight Systems, Sandford Close, Aldermans Green Industrial Estate, Coventry, West Midlands CV2 2QU. Tel: 024 7660 2022. Fax: 024 7660 2745. Email: daylight@brettmartin.com Web: www.daylightsystems.com
Product ref:	Trilite 2.4 Energysaver triple skin FAIR to match composite cladding system profile, to have full BBA approval.
Fragility class to ACR[M]001:	To be Class B non-fragile to ACR[M]001:2005 and to withstand loads typical of accidental foot traffic or a falling person without failure when new and fully fixed.
Accessories:	Not applicable
Primary sheet fasteners:	5.5mm diameter fasteners fitted with large diameter washers and bonded seals located through Hardpak™ internal supports in the rooflights at top and intermediate purlins. The use of lightweight washers must be avoided.
Fastener profile location:	Fix through troughs in profile, in accordance with Brett Martin Daylight Systems recommendations, Technical Bulletin 125. Fixings should not be over tightened.
No. of fasteners per sheet width:	Eaves and end laps: There should be at least five main fixings per purlin, fitted in the trough, max. 200mm apart, which typically necessitates one or two fixings per trough. Intermediate supports: As for eaves and end laps
Endlaps size:	150mm, with the fixings through the internal support of the down slope unit or composite.
Side laps stitching:	Stitching screws at 3-400mm centres on the crown of the corrugation. Ensure that Underlap Strip is specified to avoid the use of elastomer lap bolts where Trilite 2.4 Energysaver is lapped under adjacent composite panels.
Sealing laps:	Sheets overlapped by metal: At end laps 2no. rows of 6x5mm UV stable, pale coloured cross-linked butyl mastic, positioned 25mm above and below the line of fixings. At side laps 6x5mm UV stable, pale coloured cross linked butyl mastic on the crown just outside the line of the fixings. Sheets underlapped by metal: As for sheets overlapped by metal Sheets lapped by plastics: As for sheets overlapped by metal
Special features:	Thermal performance: U-value: 1.9 W/m <sup>2</sup> K, f-factor: 0.8. Inner Sheet: Patented thermal membrane to give U-value of 1.9W/m <sup>2</sup> K, without loss of light transmission Sidelap reinforcement: UnderlapStrip™ in the underlapping sidelap allowing standard stitching screws to be used on both sides. Internal reinforcement: Hardpak™ rigid internal supports at each purlin position with compressive bulk modulus of at least 8.0MPa. To withstand the weight of a 90kg man (applied evenly to a typical filler) with maximum deflection of 0.2mm. Hardpak™ internal supports MUST be located securely onto each purlin or onto a suitable purlin extension plate. Durability: will remain fit for purpose for at least 25 years subject to normal conditions Light transmission: 65-70% overall Length: Individual units should not exceed 7 metres. UV Protection: Superlife™ surface protection and UV stabilised resin system to protect against discolouration and degradation to prevent significant discolouration for at least 20 years. Performance proven by accelerated weathering test showing delta E less than 10 and light transmission reduced by less than 12% after 3000 hours exposure to QUV testing, comprising cycles of 4 hours of UVA340nm at 60°C and 4 hours condensation at 40°C. Fire rating: Outer sheet: SAB to BS476 Pt 3; Liner panel: Class 1 to BS476 Pt 7 (alternative fire ratings available)

BBA certificate number 04/4114



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