

Skylights

"Glory is Light, Light gives joy and joy is the happiness of the spirit"
- Antoni Gaudi



Advantages of Daylight

- Human performance is improved under daylighting
- Delivers abundant, high-quality lighting that many activities require
- Colours are rendered accurately
- Natural light improves morale and productivity
- Lower risks of accidents and errors
- Reduced operation and maintenance costs
- Demands savings during daytime peaks



What is a Skylight?

- **Skylight** is a horizontal Roof Window for harnessing day light.
- The main property of Acrylic Prismatic is that it diffuses the light.
- Cuts down heat and UV rays.
- Skylights admit more light per unit area than windows, and distributes it evenly during day time.



Why Skylights?

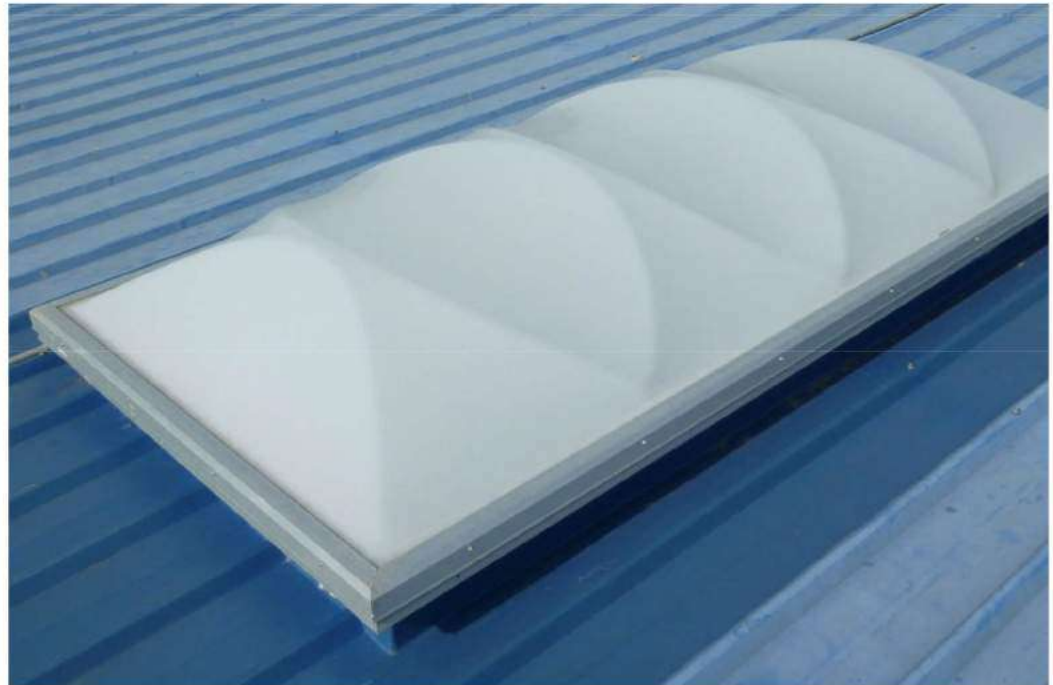
- Skylights Maximize Natural Light.
- Evenly distributes Light .
- Less heat transmission.(Low U factor)
- Less Solar heat radiation transmitted (SHGC)
- Recurring Expenditure is Dramatically Reduced.-
No electricity Consumption.



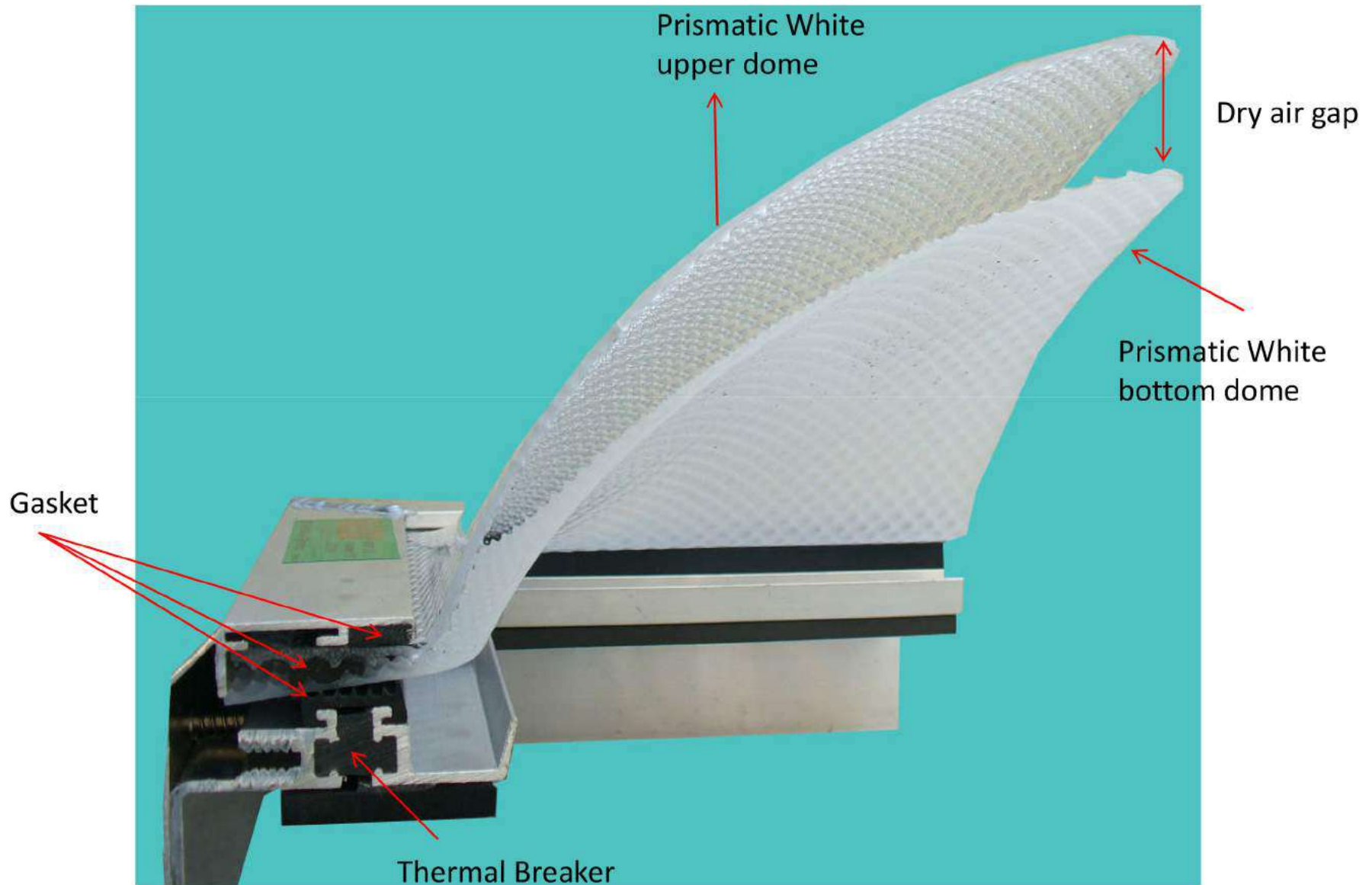
Our Offering

Quasar Prismatic Skylights from USA

- Available Dimensions -2x2, ,4x4 ,4x7 ,4x8 and many more
- Quasar Prismatic property for maximum light Diffusion and UV reduction with high VLT (70%-72%)
- SHGC - 0.5-0.51 (normal glass=2.5)
- U factor- 0.6-0.7 (Other Skylights 0.79-0.91)
- High Impact resistant- ASTM standards
- 10 years warranty ,max VLT loss 3% in 10 years
- Double Dome Prismatic



Science of Skylights



Science of Skylights

Prismatic White Domes

- The inner surface of the domes are infused with K12 Prisms to maximize light diffusion ruling out any possibilities of Hot spots

Dry Air Gap

- Dry air between the two domes acts as the insulator reducing the amount of heat that transfers with light

Gaskets

- Santoprene gaskets which come with a 25 year warranty are in place to stop the heat been transferred through the heating of the dome surface by sun light

Thermal Breaker

- The thermal breaker prevents the building temperature to transfer out. This is a feature which is included for Cold-room Skylights

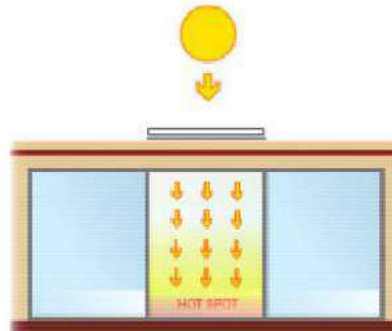
Why Choose Prismatic?



Standard white bubble skylights

Knock down light transmission in order to achieve diffusion

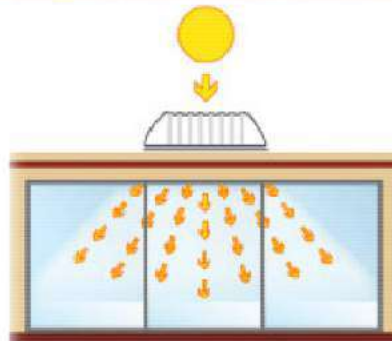
The Problem : Limited Light



Clear Skylights / Glass / Transparent sheets

Produce hot spots, glare and UV damage to the material inside the building

The Problem : Hot Spots



"Bristolite" Prismatic Skylights

Maximize light transmission while still providing 100% diffusion

Advantage : High-Performance Prismatic

Yellowing Index

- Describes the change in color from clear or white toward yellow.
- ASTM E-313 standards were applied.
- Xenon Arc accelerated weathering.(1 year= approx 83 days)

Under Xenon Arc accelerated weather condition	@1000 hrs
Clear prismatic(Bristolite)	81%
White prismatic(Bristolite)	15%
Clear prismatic(Other)	510%
White prismatic(Other)	219%

Scientific Simulation

➤ Roof area=

54.72m x 31.07 m = 1684sqm

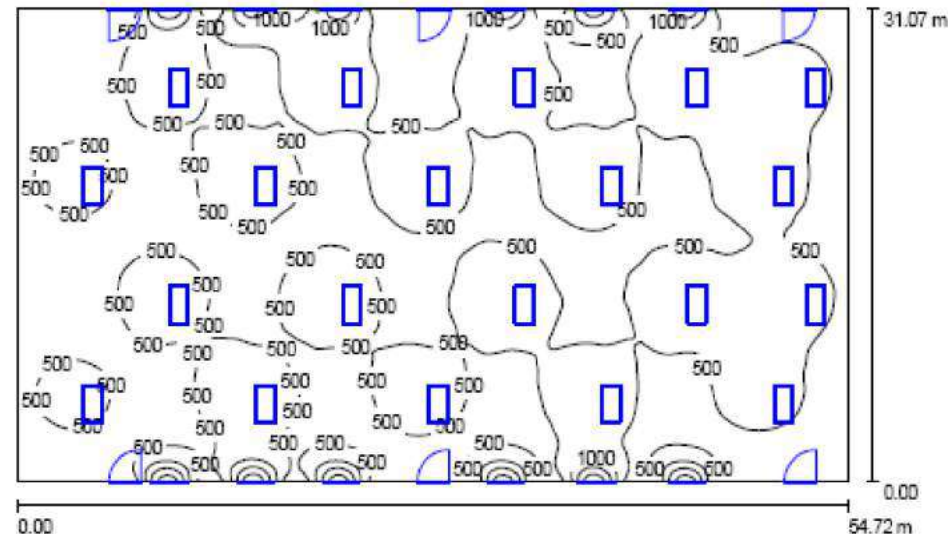
- 200 lx-300 lx = 2% of roof area
- 300 lx-500 lx = 3% of roof area
- 500 lx-800 lx = 4% of roof area
- 800 lx-1000 lx = 5% of roof area

➤ $1684 \times 4\% = 67.36\text{sqm}$

➤ Area of a 4x8 Skylight = 2.96sqm

➤ $67.36 / 2.96 = 22$ skylights

➤ Windows/openings reduces the need of Skylights..



Installation Process

Steel Roof / 4'x8' Skylight

- 1** An opening of 4'x8' is made on the steel roofing sheet using a Diamond Cutting Wheel.



- 2** The cut sheet is then removed.



- 3** A layer of silicon is applied to three sides of the Soaker Sheet (Top, Left and Right) and to the bolted areas on the Soaker Sheet to avoid any leakage.



- 4** The top part of the Soaker Sheet and a portion of its Left or Right side is inserted into the steel sheet and bolted to the purling using 5 X 60mm Hexagonal Cap Head Nuts and Bolts.

Installation Process

Steel Roof / 4'x8' Skylight

- 5** The 2'x6' section of Aluminum foil is removed from the middle of the foil and the remaining foil is then folded to the inner curb of the Soaker Sheet to avoid any sagging of the foil.



- 6** Aluminium/ Galvalume Sheets are then riveted onto the inner Curb of the Soaker sheet along with the folded Foil this holds the foil in place as well as it gives an aesthetic finish.



- 7** Finally the Skylight is placed on top and bolted to the curb from all sides using 5x20mm roofing bolts.



Installation Process

Steel Roof / 4'x8' Skylight

The final look



Skylight from the Roof



Bottom View



Side View



Roof Ridge Side showing the Rib separator and rain water drain

Prestigious references

- **Overseas-** Disney, Fender Guitar, Toyota, Mattel, Mercedes Benz, U.S Postal Service.



- **Local-** Keels (Super Market), ICL Katunayake, ICL Biyagama, MAS Asialine, Brandix, Royal Ceramics, Crystal Martin, Knit Concern, Fakruddin Garments













