

## Lightpipe™ - Roof mounted Daylighting System

### Technology for Daylight Transportation

**Skyshade™** is the premier, leading company in Daylighting in forefront of Research & Development and manufacturing Daylighting products. The company has developed many products & systems to provide Daylight in buildings. For more details visit [www.skyshade.in](http://www.skyshade.in).

It is a common experience that building fenestration elements like windows & skylight cannot provide Natural light to all spaces in building. For buildings with deep plan or spaces in accessible, basements below ground level, natural light can only be delivered with Daylight Transportation Technology-Lightpipe™.

Lightpipe™ can capture ambient Sunlight when mounted on **roof top** or **side wall** of the buildings. The collected light is 'piped' through pipes or ducts to longer distances up to 12 m or 40 feet. The transported light is delivered to the end light diffuser into the space. The light coming out of light diffuser is refreshingly without heat or glare.

### Lightpipe™-Roof mounted:

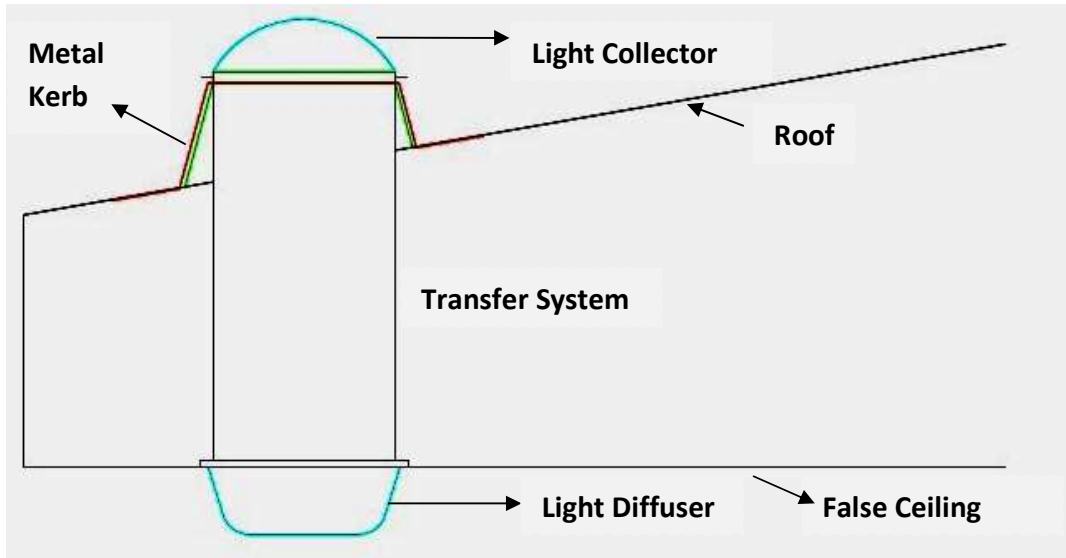
#### Features

- Superior angle selective light collector for enhanced Daylight collection.
- Reduction of Heat transfer.
- Easy to install & maintain.
- Factory manufactured metal kerbs for long life and leak proof installation.
- Light diffuser for longer area of spread of light.
- Pipes with high reflectivity (95-98%) with very long life of 25 years.

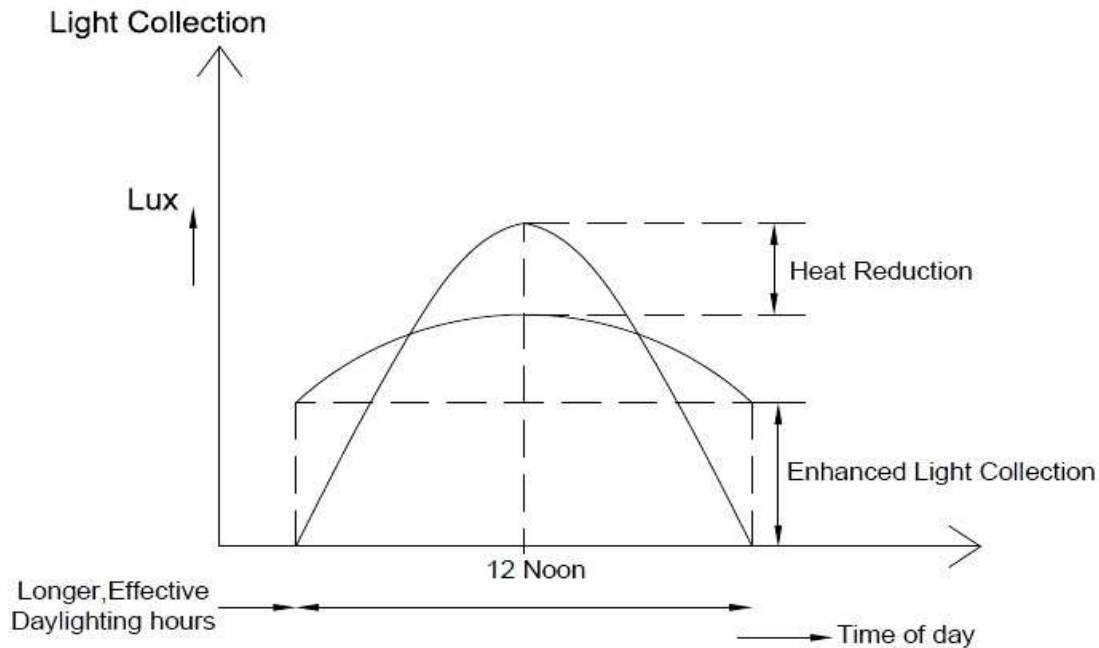


**Lightpipe™**

**Technology for Daylight Transportation**



**Fig.1 General Arrangement**



**Fig.2**

**Lighting Diffusers Specifications:**

Clear Bright Diffuser



**Clear Bright Diffuser**

- **High Light Transmission.**
- **Medium Light Distribution.**
- **Applicable for high roof Industrial buildings/Warehouses/Commercial buildings.**
- **Dome shape wider distribution**

Soft White Diffuser



**Soft White Diffuser:**

- **Soft, Pleasing Light.**
- **High Lighting distribution.**
- **Applicable for low roof.**
- **Application-Offices & Residences**
- **Dome & Flat Shaped diffuser options.**

**Metal kerb photo**



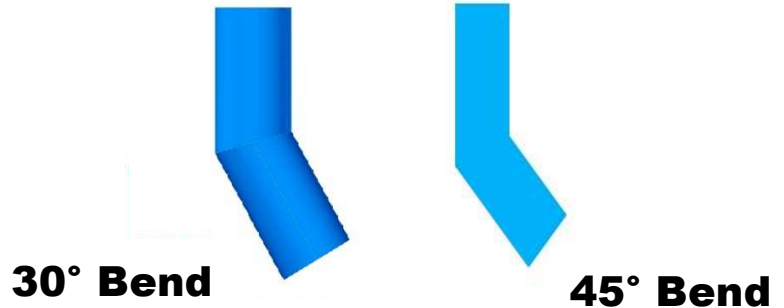
**Lightpipe™ Product selection chart:**

Diameter Size (in mm)	Max. Length Recommended	Area coverage (Approximately)	Roof height Recommended
300 mm – 12 inches	4-5 meters	15 Sqm(150sft)	Upto 3m
400 mm - 16 inches	6-8 meters	23 Sqm(250sft)	Upto 5m
530 mm - 21 inches	10-12 meters	42 Sqm(450sft)	Upto 7m
750 mm - 30 inches	Generally for shorter length	80 Sqm(850sft)	Upto 12m

Note: The area coverage is approximately measured with clear sky conditions and LUX achieved at 200-300LUX at Skyshade Daylighting lab, Hyderabad, India.



**Bends:** 30 & 45 degree bends can be used.



**Lumen output Table:**

Size	Lumen output	Electrical wattage equivalent
300 mm-12 inches	4,000 Lumens	90 W
400 mm-16 inches	8,000 Lumens	180 W
530 mm-21 inches	12,000 Lumens	300 W
750 mm-30 inches	22,000 Lumens	475 W

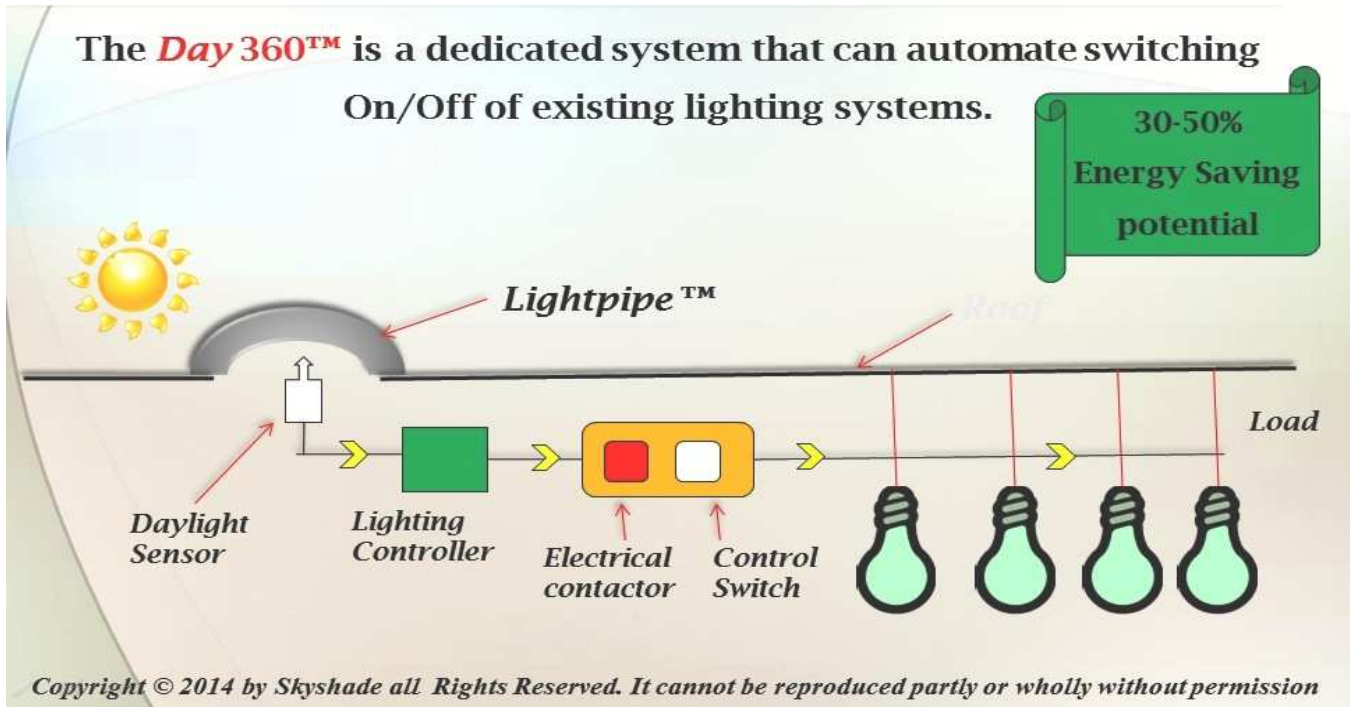
Note: The lumen output is measured in clear sky condition of ambient light of 1, 00,000 LUX at Skyshade Daylighting lab, Hyderabad, India.

**Dimming Arrangement**

Motorized dimming attachment for operated with wall mounted switch for Dimming of light output. Line supply -230V.



**Lightpipe Integration with Electrical lighting**



To enhance the energy savings in practice by 30%, it is recommended to use Day 360™ lighting control system.

**Carbon-di-oxide (CO2) emission reduction table:**

300 mm	
400 mm	
530 mm	
750 mm	

**Performance sensitivity to sky condition:**

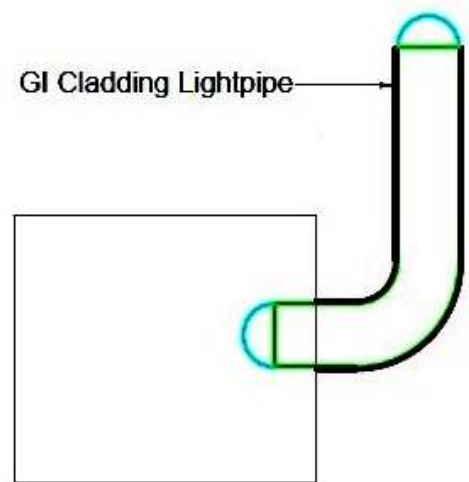
Clear, Sunny sky	Good
Diffused	Average
Overcast, dense cloudy	Below Average

**Ordering information:**

Roof details	Open ceiling	False ceiling
	Flat or pitched roof	
	Industrial metal, Asbestos, Concrete or any other	
Diameter	Length	bends
300 mm		
400 mm		
530 mm		
750 mm		

**External Cladding:**

If the light pipes are exposed to atmosphere External cladding is provided by galvanized iron sheet (GI) cladding enclosing the reflective pipes inside with holding wall clamps. External cladding to be ordered separately.



**Metal kerb:**

Factory manufactured metal kerbs are provided for

- Concrete flat roof
- Metal pitched roof

Custom made metal kerbs can be made for any other applications.

**Applications:** Manufacturing units, Warehouses etc