# ECO DOME SUNLIGHT UK

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Sussex-UK

## A Cost Effective Green Building & Zero Carbon Product

For more enquiry contact


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# WORLDWIDE ENERGY SAVING DRIVE

Nowadays more and more countries are encouraging their citizens and companies to take measures to reduce energy consumption.

This is driven by the gradual depletion of the Earth's ozone layer and its potential damage to the environment.

It is one's responsibility to reduce their carbon footprint to protect the environment.

Electrical Lighting systems can consume up to 40% of a building's power requirement, Sunlight Dome will help reduce this consumption.

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# TYPICAL ROI

Replacing 100 x 400W lamps with 100 x 21 inch Sunlight Dome tubular daylight saving units.

- Return on investments - 2.00 years.
- Carbon emissions reduction - 100 tons per year.
- 265,000 gallons of water saved - used to produce the electricity generated for the 400 W lamps.
- Savings per year - USD 25,000.00.
- Capital benefit over 20 years - USD 400,400.00.
- Budget Cost - USD 55,000.00.
- The figures used in this example is based on a unit cost or electricity of 0.12 USD/kwh.

Our aim is to provide the best service to our customers and we offer the following:

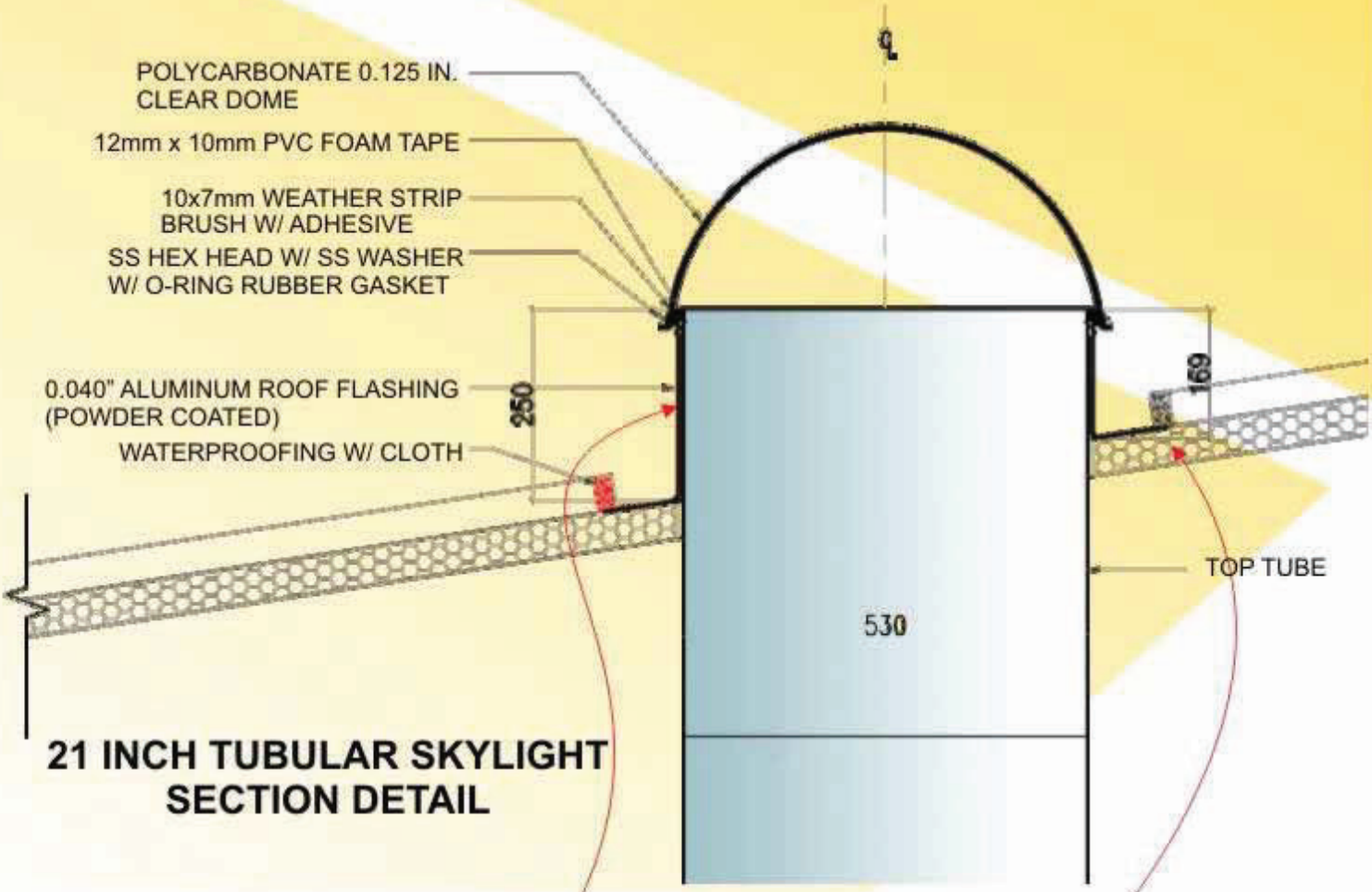
***DESIGN*** - We have an in-house design facility. If you require we can make a customized system suited to your requirements.

***INSTALLATION*** - Our fully trained teams of technicians can conduct installation for all building types.

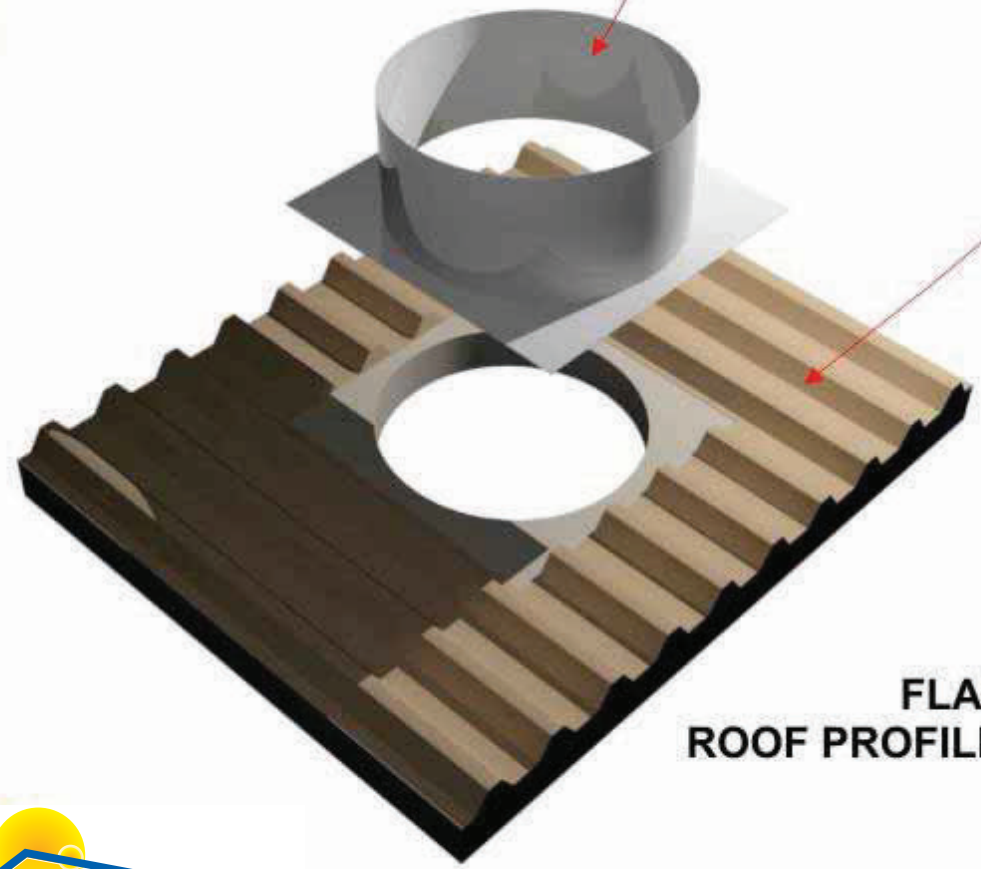
***WARRANTY***- A warranty is given on all of our systems backed up by fully trained service teams.

Our ***Sunlight Dome*** is a British product with many satisfied customers including government agencies, military, oil companies, manufacturing plants, logistics, farmhouses and warehouses.

# ROOF FLASHING DETAIL




## 21 INCH TUBULAR SKYLIGHT SECTION DETAIL



## FLASHING & ROOF PROFILE ISOMETRIC VIEW

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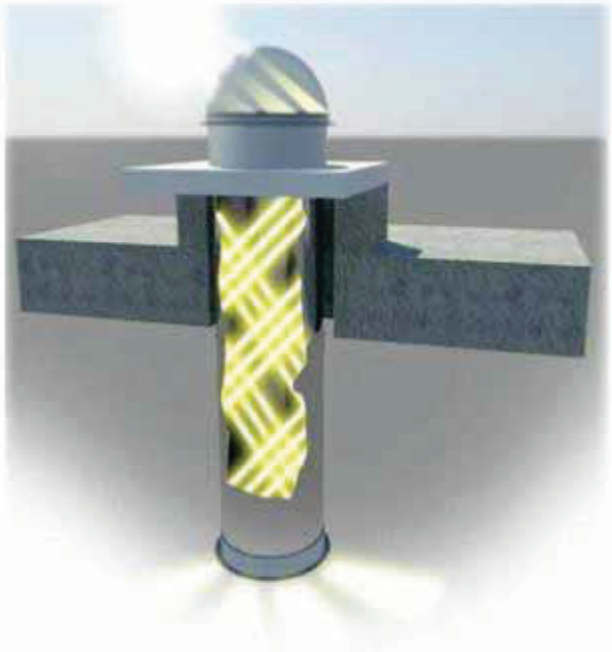
# DAYLIGHTING BENEFITS

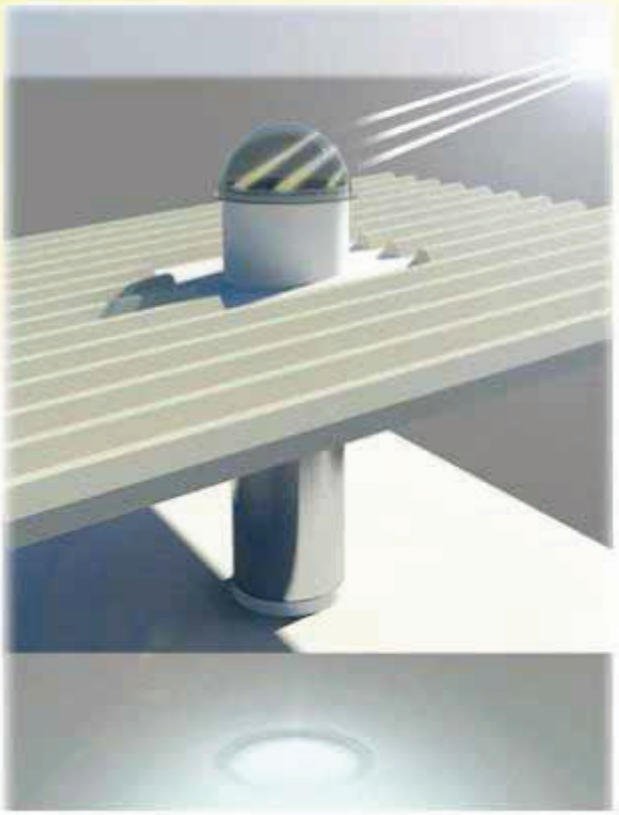
| | |
|---|---|
| **ENERGY SAVING** | Both Lighting and A/C costs reduced. |
| **GREEN BUILDING CODE** | Certification made easier. |
| **ENVIRONMENT** | Carbon emission reduction |
| **POWER SAVING** | Reduced peak load demand |
| **HUMAN BENEFITS** | Biological clock, reduced sick leave faster patient recovery, better environment, colour quality and a direct source of vitamin D in homes, school, clinics and at work. |

## How Does It Work?

A simple, maintenance free way to utilise the sun's light for interior spaces. Capture the sunlight at roof level and transfer it through reflective tubes to interior areas.

Applications for all uses - commercial, industrial, education, residential - the only limit is tube length.





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## 1. ENERGY SAVING

The use of Sunlight Domes will result in considerable savings in electricity costs. A building's lighting system can consume up to 40% of the total energy cost – imagine the cost benefits when you are able to turn off the lights for up to 10 hours per day. Additionally because our system generates much less heat than an electric light, the cooling load on the building is also reduced. Result is a saving in the cost of running air conditioners. Below, you can see the actual difference in temperature between a Sunlight Dome unit and a typical workshop electrical .Can be used with our light sensors to cover periods of overcast weather.

These pictures were taken in Abu Dhabi, UAE in a non - air conditioned workshop when the outside ambient temperature was 44˚C, and the internal room temperature was 35˚C.

## 2. GREEN BUILDING CODE

Most countries have now introduced new Green Building Codes. Most of these codes have a section covering natural daylighting. Green Building Codes recognize the importance of natural light into buildings and also the disadvantages of traditional methods (windows/skylights). Example, increase in heat gain and glare. Sunlight Dome gives flexibility in placing required natural light without heat gain and glare. Sunlight Domes will contribute to obtaining the credit points required to achieve a Green Building Certificate.

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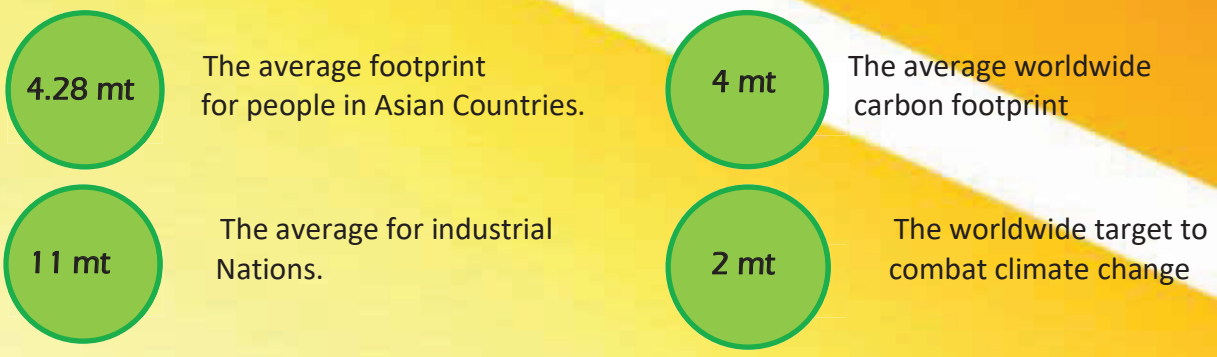
## 3. ENVIRONMENT

As an example, a typical warehouse with 100 electric high bay lamps you can save 100 tons of CO2 emissions per year by using Sunlight Domes.




Source : http://www.carbonfootprint.com/calculator.aspx

## 4. POWER SAVING

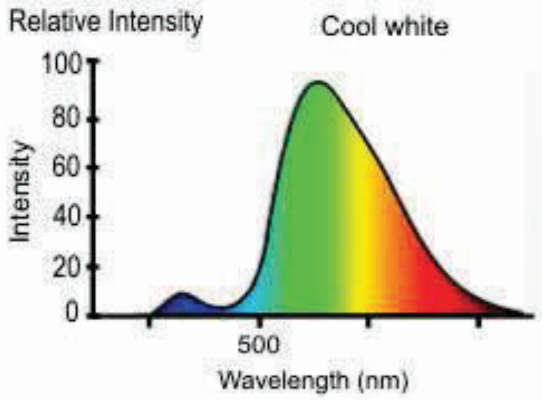
Since Sunlight Domes are used between early morning to late evening they are reducing electrical demand during peak load times in most areas. This in the long term will lead to less and/or smaller power stations.

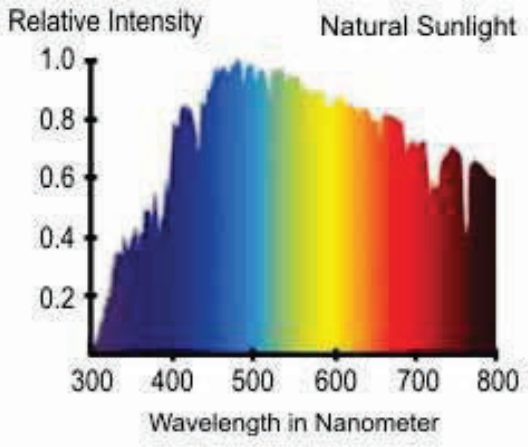
## 5. HUMAN BENEFITS

### Better Built Environment

The lack of light has been documented to cause Seasonal Affective Disorder (winter depression or the winter blues), maladjustment of our body clock (circadian rhythms) and consistent periods of reduced productivity and enthusiasm. The National Commission on Sleep Disorders Research estimates that, in the United States alone, businesses lose more than $150 billion a year in productivity as a result of employee fatigue. One solution is providing a well-lit workspace, with as much natural light as possible. (Munugementheview¸Octoberf999)

# Colour Quality



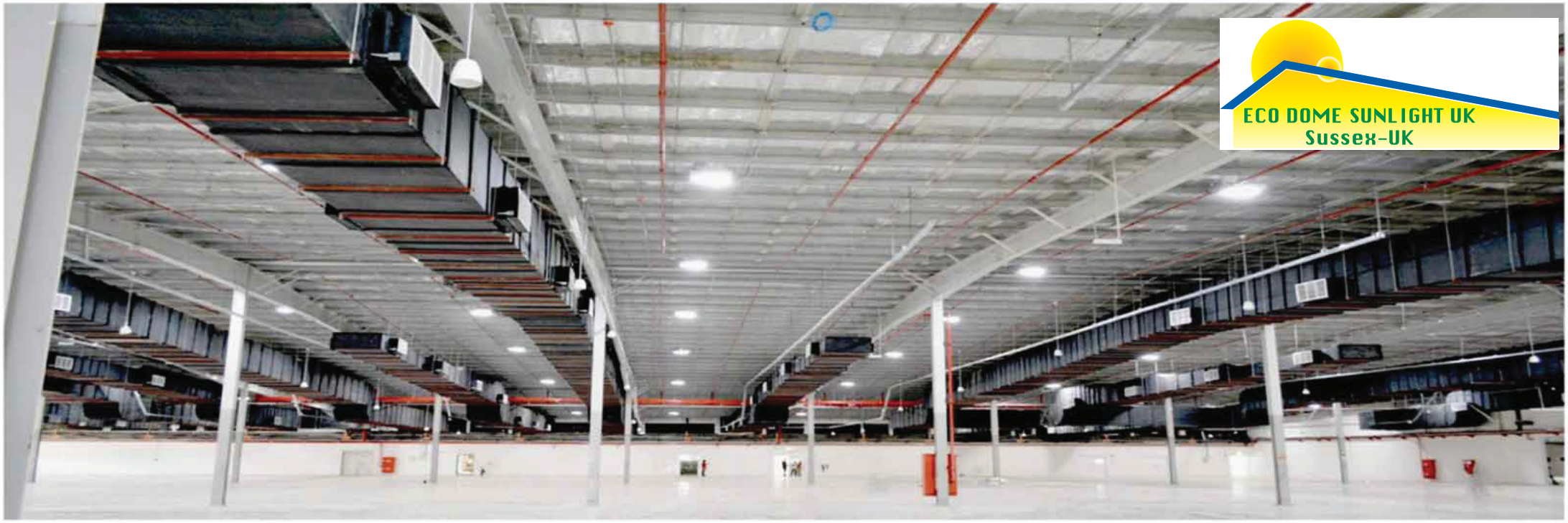




Three observations:

1. Notice how the yellow and green peaks. This is what you see.
2. Notice the lack of color spectra, in comparison to the other lights.
3. The blacks are flat lining on the right, contracts and form visibility is decrease

With Sunlight Dome the full colour spectrum Is provided

In areas such as Artwork, Printing, Car Bodywork Spraying, Fabrics, Furniture repair and numerous others, the need to see the true colour of objects can be critically important. With regular artificial lighting a very limited range of colours is seen, So when natural light is utilized the quality of work produced can be significantly improved.



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# A Cost Effective Green Building Product

# APPLICATIONS

Suspended ceiling tubular lighting installation – case studies confirm student performance improves in natural light.

Sandwich panel roofing tubular lighting installation - easy installation to new or old facilities with no disruption to ongoing operations.

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Sunlight Dome 53cm units installed in a workshop facility.

Sunlight Dome installed in many facilities

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# SUNLIGHT DOME MODELS

4 Sunlight Dome models are available as follows:

## SD 25 (10 inch)

- This model has a 25cm diameter tube
- Will light up areas to 20 square meters
- Can be installed with a tube length up to 6 linear meters
- It is ideally suited for residential and small offices

## SD 35 (13inch)

- This model has a 35cm diameter tube
- Will light up area to 30 square meters
- Can be installed with a tube length up to 9 linear meters
- It is ideally suited for larger residential rooms, normal sized offices and small commercial areas

## SD 44 (18inch)

- This model has a 44.4 cm diameter tube
- Will light up area to 45 square meters
- Can be installed with a tube length up to 12 linear meters
- It is ideally suited for factories, warehouses, workshops, sports facilities and larger commercial or educational areas.

## SD 53 (21inch)

- This model has a 53cm diameter tube
- Will light up area to 50 square meters
- Can be installed with a tube length up to 12 linear meters
- It is ideally suited for factories, warehouses, workshops, sports facilities and larger commercial or educational areas.

**DIMMERS and LED units are available in all models to give 24 hours coverage.**

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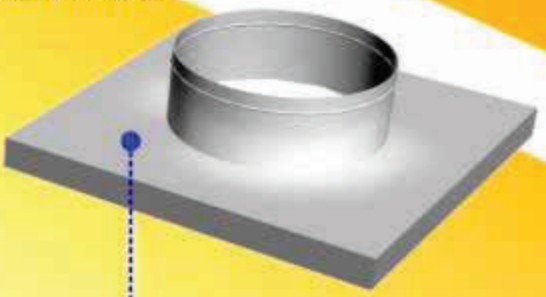
# SYSTEM COMPONENTS

CLEAR POLYCARBONATE
COLLECTOR DOME
Unit sizes: 10", 13" & 21"

PILE WEATHER
SEAL
METAL ROOF FLASHING
(for roof profiles)

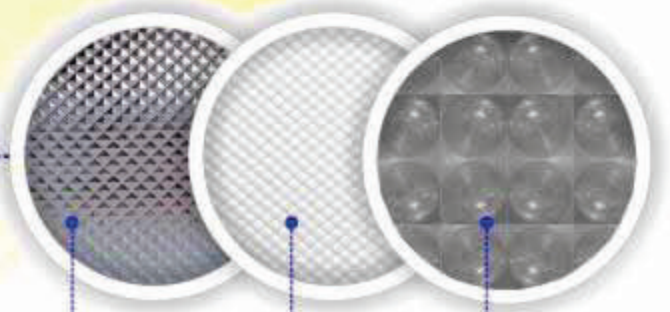


CURB MOUNT
ROOF FLASHING
(for concrete roof upstand)

FOAM TAPE WITH
ADHESIVE

TOP TUBE

ADJUSTABLE TUBE




PLASTIC DIFFUSER

DIFFUSER HOLDER

LED's ON TROFFER FOR COMMERCIAL USE

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# SUNLIGHT DOME COMPONENT AND MOUNTING KIT

## 1, ALUMINUM PIPE

- Aluminum pipe with silver surface treatment silver-plus with 98% super-reflective factor according to DIN 5036, capable of transferring solar light to 12 m. It is 100% metallic and not laminated in plastic, that's why it will never peel, it won't yellow or crack after a long sun exposure to the UV rays. It is electrostatically neutral and doesn't attract powder in suspension which is covered by warranty.

## 2, DIFFUSER

-Polycarbonate or Acrylic
-various styles available
-with different trims / frames can be customized to suit customer décor. All diffusers are rated CC1 or CC2 for fire resistance. Prismatic type gives biggest spread of light. Can be used with any ceiling type including 60x60 tile grids.

## 3, FLASHING

-Aluminium flashing, thickness 1 mm powder coated

## 5, DIMMER UNIT

- For all our models we offer the option to dim or fully close off the light output by a switch controlled in-tube valve. This can be wired so that one switch can control up to 10 dimmer units at the same time

## 4,POLYCARBONATE DOME

- 25cm, 35cm and 53cm diameters, 3mm thickness High impact and UV resistance.

## 6. LED LIGHT SYSTEM

- We offer a kit which allows the installation of LED lamp inside or outside the tube, so in one combined unit both night and daytime requirements are met.

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