For your house and your activity Environment protection





The skylight system that brightens the darkest areas of any buildings with its natural daylight without heating. SOLARSPOT<sup>®</sup> can be used in houses and factories, commercial and public buildings to brighten, even the enclosed areas.



### 2003

NEWS!! LEDSOLARSPOT® & Diameter 900 mm

> **BATIMAT** - Paris Gold medal for the innovation

2006 - ATEC 6/06-1672 2008 - ATEC 6/08-1798 2011 - ATEC 6/11-1975

**AVIS TECHNIQUE** CSTB - France Centre Scientifique et Technique du Bâtiment









#### Well-being and natural sunlight

As we know, the natural sunlight is an indispensable source of life for the living organisms. It has remarkable psychological effects for the quality of the vision of individuals and for their well-being as well: the feeling of a well-aired place, the perception of the true natural colours without distortions, the regulation of the biological cycles: the abstention of sunlight is the principal cause of some depressing pathologies.

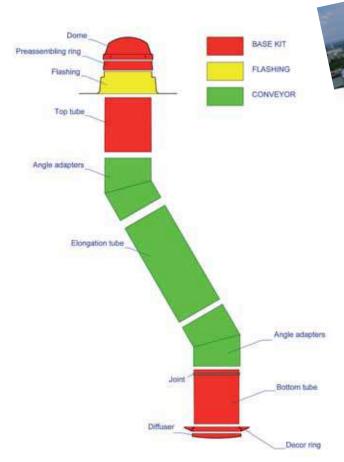
#### Principle of SOLARSPOT® system

SOLARSPOT<sup>®</sup> is a lighting system that catches the sunlight in any sky condition (clear or overcast) coming by every direction, thanks to its specific components: the transparent dome in anti-shock acrylic, protected against UV rays, the optical intercepting device RIR<sup>®</sup> - a true light funnel - that redirects all light beams coming from North and even the lowest on the horizon, inside the transfer cylindrical duct, made of internal and super-reflective surfaces of Vegalux<sup>™</sup>. Bouncing on the specular surface of the duct, the light beams reach and cross the translucent diffuser (available with many finishings) by creating a highly lighting surface (circular or quadrangular) on the ceiling, capable of lighting even the darkest areas. Diffusing the light from the top of the area, SOLARSPOT<sup>®</sup> increase the room daylight and make more homogeneous the natural luminance of room walls not so regular when produced only by side and roof windows. Above all brings the benefits of natural light into the enclosed areas that would be still dark without its contribution (world patents). SOLARSPOT<sup>®</sup> blocks UV rays and doesn't heat the areas with direct heating, usually produced by glass windows and traditional skylights.

#### Energy saving and environmental protection light up even our future

As soon as we have sufficient and free sunlight, the daily excess of artificial lighting constitute a wasting of precious electrical energy. During summer, enlightening the big areas of workplaces by SOLARSPOT<sup>®</sup>, you can save the energy to refresh them from the heating produced by electric lamps. SOLARSPOT<sup>®</sup> contributes to reduce the abuse of the precious fossil fuels and the inevitable environmental pollution which derives from, true natural disasters wasting non-renewable resources which should be protected keeping their availability and use, for the uses "that cannot be renounced" in the many daily current and future activities.

## Capturing, redirectioning and conveying of diffused and direct light





## System components - certifications

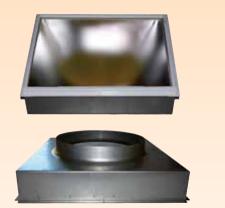


# **OFROTEO**

Universal flashing, for any diameter, tile and sloping roof



Metal transition box with glass diffuser: reaction to fire M1

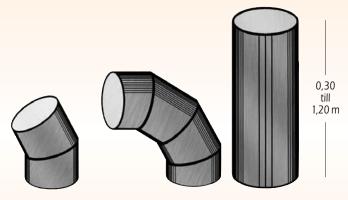


Electrical and manual darkening systems





## Angle adapters and elongation tubes



### COMPONENTS OF PRE-ASSEMBLED KITS

Capturing devices with RIR, pre-assembling rings for the fastening to the flashings of roof exit, starting tube and room-tube, (unified in lamp kits) with completely assembled diffusers and finishing frame, and accessories in suitable packs. Instructions for a **quick and correct assembly** 



#### CSTB - CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT - PARIS AVIS TECHNIQUE n° 6/08 - 1798 Download from www.cstb.fr CERTIFICATES AND EXPERIMENTAL RESULTS FOR AVIS TECHNIQUE

1 - Durability test of 3000h en WOM CI65 (Atlas, BST = 60°C) on the brown watertight sheet associated with a 250mm SOLARSPOT<sup>®</sup> system. Test report CSTB n° BV05-491 dated 26th July 2005.

2 - AEV test on pre-assembled kit of the 530mm diameter SOLARSPOT  $^{\rm 0}$  system. Test report CSTB n° BV05-441 dated 7th July 2005.

3 - Choc test on the dome of the 250mm diameter SOLARSPOT\* system. Test report CSTB n° BV05-440 dated 7th July 2005.

4 - Reaction to fire test on PROTEO® - Formula 5682 brown watertight sheet of fireproof synthetic rubber. PV N° RA05-0525 dated 8th December 2005.

5 - Calculation of thermal dispersion through the light ducts. Thermal study report. CSTB - Affair 05-027 DER/HTO 2005-140-FL/LS dated 1st August 2005.

6 - Characterization of the luminous performance on pre-assembled kit of the 250 mm, 375mm, 530mm e 650mm diameter SOLARSPOT® systems. Luminous balance data present at the end of the technical dossier per Avis Technique. Test report CSTB n° EN-ECL 05.02C dated 28th June 2005.

7 - Optical characterisation in transmission and reflection of the elements of the SOLARSPOT® system. Test reports n° CPM/05-0047 dated 16th September 2005.

8 - Identification by IRTF spectroscopy of organic materials that intervene in the manufacture of elements of the pre-assembled kits of the SOLARSPOT<sup>®</sup> system. Test report n<sup>°</sup> BV05-575 dated 27th July 2005.

9 - Durability test of 4000 h (BST = 65°C with cycle for plastic materials) en WOM c 15000 (ATLAS) of the dome in PMMA associated with a SOLARSPOT® system. Test report n° CPM 05-0009 (September - October 2005).

10 - Operative test on a preliminary model of a pre-assembled kit 250 mm SOLARSPOT<sup>®</sup> system for a covering plain terracotta roof tiles and PROTEO<sup>®</sup> universal outlet from the roof CSTB (July - August 2005).

11 - Operative test on a preliminary model of a pre-assembled kit 375 mm SOLARSPOT® system for a covering of double interlocking roof tiles with a weak relief to the extrados and PROTEO® universal outlet from the roof - CSTB (July - August 2005).

12 - Operative test on a preliminary model of a pre-assembled kit 530 mm lamppost type SOLARSPOT<sup>®</sup> system for a covering of double interlocking roof tiles with a strong relief to the extrados and PROTEO<sup>®</sup> universal outlet from the roof - CSTB (July - August 2005).

13 - Characterization of the luminous performance of the new boxer of diffusers. Test report CSTB  $n^\circ$  EN-ECL 08.08.C (June 2008).

14 - Reaction to fire test on VULCANO-V33S, rolled glass Type 33.1 assembled with a sheet of PVB. PV N° RA08-0242 dated 7th July 2008.

15 - Characterization of the luminous performance. Complementary measures. Test report CSTB  $n^\circ$  EN-ECL 09.02.C (January 2009).

16 - Reaction to fire test on VULCANO DQL, flat plate in polycarbonate for light duct (translucent circular Fresnel lens). PV N° RA09-0069 dated 4th March 2009.

17 - Reaction to fire test on LEXAN EXELL D FR, rigid plate in co-extruded transparent polycarbonate by UV treatment. PV SNPE N° 13145-07 dated 21st February 2007.

18 - Reaction to fire test on LEXAN 9030FR, plate in fireproof white opal polycarbonate. PV LNE  $N^\circ$  G020154 - CEMATE /1 dated 15th February 2006.

19 - Audit report n° 2031521/1A : production site of "SOLARSPOT®" systems. Bureau Veritas (17.07.2009).

# Installations in industrial



# and commercial buildings

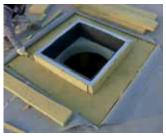


EUROSPED, Italy, 4600 sq.m. lighted by Solar-work lamp kit: N. 105 D650 - N. 6 D530 - N. 5 D375 (2001-2002)

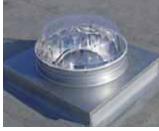
Giannino Distribuzione spa, Italy 18.000 sq.m. lighted by Solar-work lamp kit N. 580 D650 (2006)







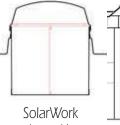
Square and isolated lifting bearing



Square flashing installed on the bearing (Tesco - 2009)



Bearing and square-based flashing with cylindrical flue and transom flashing (Massalengo school 2009)



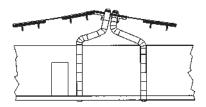
lamp kit

# Installation examples





N. 14 SOLARSPOT 650, of very complex configuration, made of 22 tubular sections, light 560 sqm of the enlarged workshop FRE.TOR in Puos d'Alpago, Belluno (Italy). (2001)













## Underground



# Round and square diffusers



round in pearled acrylic with ceiling ring, available for D-250-375-530



# (25DR10N+25-1DTPN) (38DR10N+38-1DTPN) (53DR10N+53-1DTPN)

lamp VISION Fleur in pearled or prismatic acrylic, availa-

ble for D530 e 650

round in prismatic acrylic with ceiling ring, available for D-250-375-530.



# (25DR10N+25DTPN) (38DR10N+38DTPN) (53DR10N+53DTPN)

round VISION in polycarbonate with ceiling ring in polycarbonate available for D530

round vision in transparent or pearled acrylic, or in polycarbonate, with ceiling ring, available for D-250-375-530.



# (25DR10N+25DTVN) (38DR10N+38DTVN) (25DR12NP+25DTNPOV)(38DR12NP+38DTNPOV)

lamp VISION Fleur in transparent acrylic available for D530 e 650



# 53-1 DCNACPV 65-1 DCNACPV # 53DCNACPV 65DCNACPV 90DCNACPV

Transition box with frame and square diffuser, radial Fresnel lens (available for D250, 375, 530 e 650)



# (53DR12NP+53DTNPOV)

quered grey or white



# 53DCNPOV 65DCNPOV



# 38RT40R+38DQL3 25RT30R+25DQL30 # 38RT66R+65DQL59 53RT66R+65DQL59 65RT66R+65DQL59



# 65DCNLEF + 65GEDAL15 + 65GISAL15

Lamp, radial Fresnel lens with metal finishing frame, lac- Transition box RT60R without frame and with square diffuser, radial Fresnel lens available for D375-530



# 38RT60R + 53DQL57 53RT60R+53DQL57



# **Roof exits - Seamless round and square flashing**

### (ask at our technical desk for other size and dimension)

Round and flat aluminized flashing with brim

Round and flat aluminized flashing, round edge of the diameter 522 mm

Round and flat aluminium flashing (variable heights)



# 53SAFALB 65SAFALB 90SAFALB

38SATOB

# 255ATO1 385ATO1 535ATO1 655ATO1 905ATO1

Square and flat copper flashing 625\*625 available for D.250-375 with bent brims according to standard measures



Universal flashing - PROTEOTM - for any kind of tile and sloping roof (zenith or coplanar installation) Available for all diameters.



Aluminized round and flat flashing with isolation (variable heights)

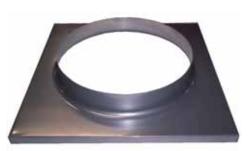


# 255ATO2 385ATO2 535ATO2 655ATO2

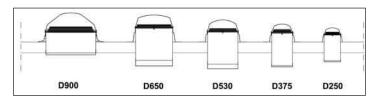
Round and flat flashing base 1000\*1000mm, available for all diameters. It can be made with different materials (aluminized steel, annealed aluminum, stainless steel, copper, etc.). It can be bent if there is the need, for installation on lifting bearing, and seam on covering of sheets as long as the pitch.



# 25SQ12V 38SQ12V # 53SQ12V 65SQ12V Round and flat flashing, maximum measure 625\*625mm, available for D250-375. It can be made with different materials (aluminized steel, annealed aluminum, stainless steel, copper). Bent according to standard measures, for installation on lifting bearing.







Available for standard

250-375-530-650

diameters

nottedi



### With electrical accessories

### Solar-Dimmer™

Controls of the amount of light by the ease of an electric switch; negligible lost of light when Dimmer open (<6%); available for all standard diameters

### Solar-Luce<sup>™</sup>

Night lamp

Solar-Fan™

Areas ventilation

# Solar-ATTIC<sup>™</sup>

Ideal to enlighten garrets and lofts



**SOLAR-WALL**<sup>™</sup>

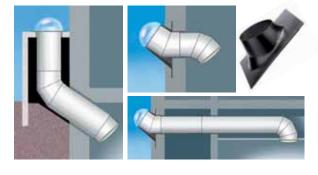
When areas can be reached only from ground and wall. Solarspot<sup>®</sup> can convey light horizontally and...uphill thanks to angle adapters and tubes made of



For the large surfaces of new buildings and restyled ones

SOLAR-WORK™

traditional or lamp, provides natural light, but not heat

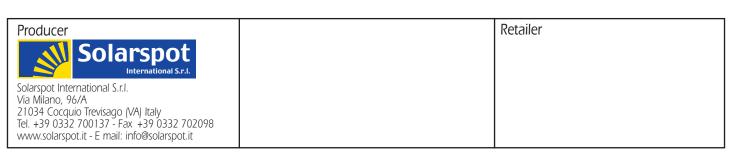


Standard

Lamp kit



3 November 2009, Solar Project Srl and Energo Project Srl merged in SOLARSPOT INTERNATIONAL SRL.



(Patented in Europa e USA)

