



Hybrid Lighting by Monodraught

Sunpipe[®] LuxLoop

Low Energy Hybrid Lighting System

SUNPIPE Luxloop combines the SUNPIPE natural daylight system with an incredibly efficient and intelligent LED solution.

Delivering the right light at the right time of the day: SUNPIPE directs healthy natural light from its patented Diamond Dome through the SUPER-SILVER[®] finish aluminium tube to the ceiling diffuser. In the evening or when the level of external light is insufficient to properly light the space, the system is complimented by its advanced LED by leading British manufacturer PhotonStar[™].

The result is a complete and ultra-low energy lighting system, suitable for any location with guaranteed lighting performance.

Features:

- Smart controls that match LED colour temperature with natural daylight. Available in standard, smart and circadian configurations.
- Combines natural daylight with a biologically optimised LED to maintain the circadian rhythm, enabling healthier and more productive spaces.
- Reduces CO₂ emissions, lighting energy-usage and maintenance costs: The integration with SUNPIPE increases the life of the LEDs and leads to fewer replacements. Additionally, SUNPIPE is proven and tested to maintain its performance over long periods of time.
- Quadruple glazed system that minimises heat loss-gain achieving high thermal performance. Glazing Details: Clear high impact acrylic Diamond Dome complete with optional acrylic Ecoshield double glazed component.
- Goretex: Breathable, waterproof vent to alleviate condensation risk.
- High performance polycarbonate diffuser for uniform distribution and low glare. Meets both LG7 - Office Lighting and UGR19.
- Conversant with microwave sensors and emergency options.
- Works on its own controls or with existing lighting systems/controls.
- Luminaire delivers up to 4000 lumens. Sunpipe delivers 4460 lumens in full summer sun.
- Design life of 20 years and a 5 years warranty.



Technical Specifications

Product Options

SUNPIPE Luxloop is only available for the 300 mm SUNPIPE system.

The process to choose the correct system for your building application is described below:

1. Choose Diamond Dome or Square SUNPIPE:

Diamond Dome



Squared Sunpipe



2. Choose Roof Type: Pitched, Pitched Gallery or Flat roof:

Pitched



Pitched Gallery



Flat



3. Roof Finish:

Plain Tile Roof



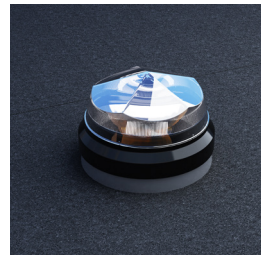
Slate Roof



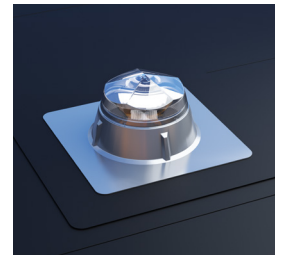
Bold Roll Roof



Flat Felt/Asphalt Membrane Roof



Flat EPDM Rubber Roof



Contact us for more information on metal roofs.

4. Ceiling Type:



Panel:

Suitable for standard 595 mm x 595 mm suspended ceiling grids.
Efficacy up to 90 luminaire lumens per circuit watt.



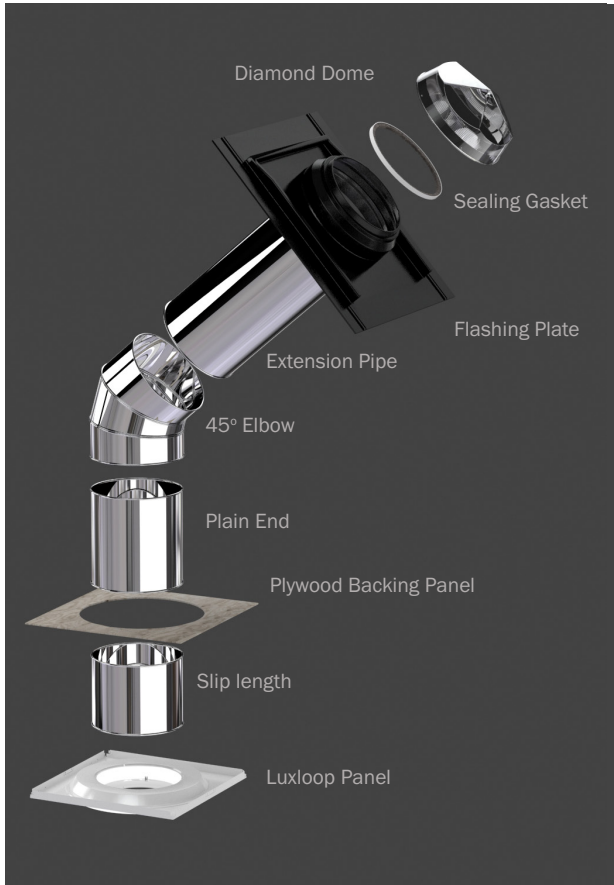
Surface Mount:

Plasterboard and similar. Suitable for all surface mount applications including vertical and horizontal faces.
Efficacy up to 83 luminaire lumens per circuit watt.

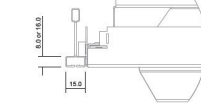
5. Control:

- **Standard:** Switch operated on/off
- **Smart:** Fully automatic and reactive to illumination and motion.
- **Circadian:** Wireless, biologically optimised and fully customisable.

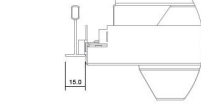
Panel:



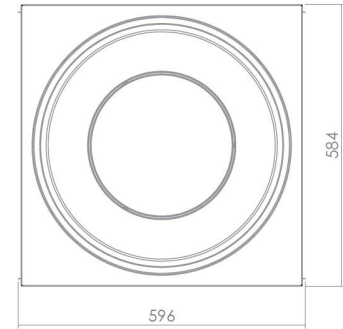
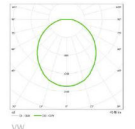
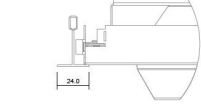
15mm Designer Grid



15mm Exposed T



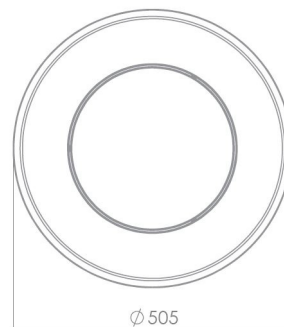
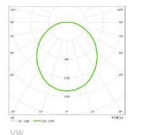
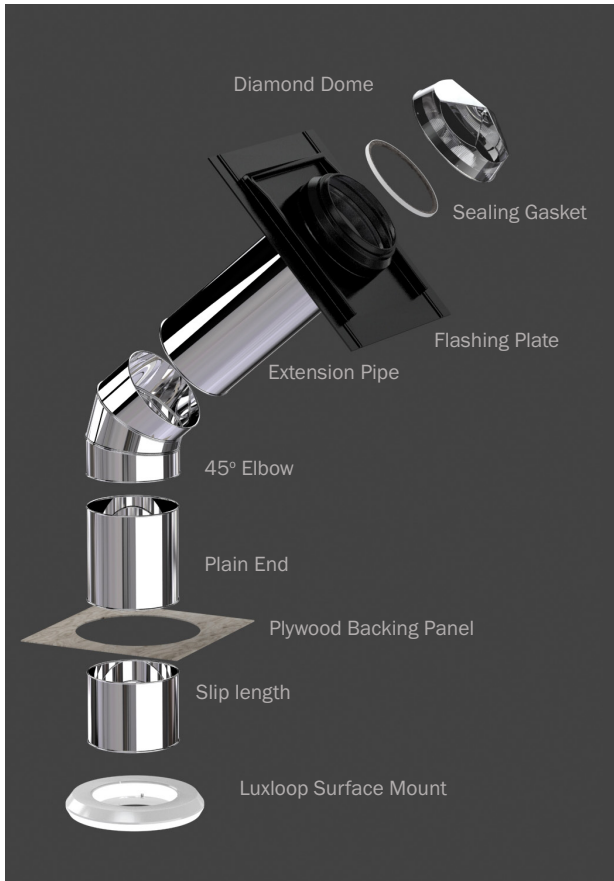
24mm Exposed T



Dimensions:

- 305 mm Dia SUNPIPE.
- 320 mm Dia roof opening required.
- 595 mm x 595 mm LED suspended ceiling grid diffuser.

Surface Mount:



Dimensions:

- 305 mm Dia SUNPIPE.
- 320 mm Dia roof opening required.
- 505 mm LED surface mount diffuser.

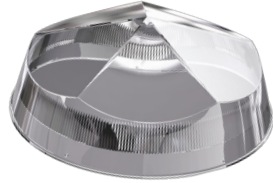
*Diamond Dome Sunpipe - Pitched Roof Exploded View
(Other Product Options are also available)*

Product Components

Above Roof Components

Diamond Dome SUNPIPE

As standard we use high impact acrylic thick in our patented Diamond Domes which maximises the penetration of natural daylight.



Gore® Vent Technology

GORE vent technology uses a waterproof membrane whilst still allowing the pipe to breathe. This ensures the pipe is completely sealed against dust and water ingress and ensures that there will be no condensation on the inside of the dome.



ABS Flashing Plate

The ABS flashing plate is manufactured from 3.5 mm thick ABS, capped with PMA for a long lasting, durable finish.

It is suitable for the majority of slate roofs.



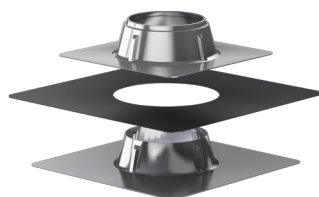
Code 4 Lead Flashing and ABS Collar

It will mould to suit any profiled/bold-roll tile, providing a completely watertight finish. Supplied with an ABS collar for diamond dome to fit on.



Composite EPDM Flashing Plate

The Composite EPDM Flashing Plate is fully watertight and is designed to meet strict installation procedures for weathering into a flat rubber-cover roof.



Squared Rooflight Frame

690 mm x 780 mm rooflight with a double glazed cover measuring 475 mm x 570 mm which finishes virtually flush with the roof surface. Supplied with code 4 lead skirt to enable suitable weathering. A square to circular transition piece completes the arrangement.



Sealing Gasket

Brushed nylon condensation sealing gasket.



EcoShield

When combined with the double glazed Micro Prism diffusers, the EcoShield effectively makes the SUNPIPE system a quadruple glazed system ensuring an extremely low U-value and sound transmission through the system.



ABS Flashing Plate with Weathering Skirt and Foam

Manufactured from 3.5 mm thick ABS capped with PMA for a long lasting, durable finish. It is suitable for the majority of plain tile roofs. Supplied with code 4 lead flashing for suitable weathering.










Galvanised Flashing Plate and ABS Collar

Manufactured from 0.8 mm galvanised mild steel which is corrosion resistant and suitable for felt, membrane and asphalt roof finishes. Supplied with an ABS collar for dome to fit mounting.



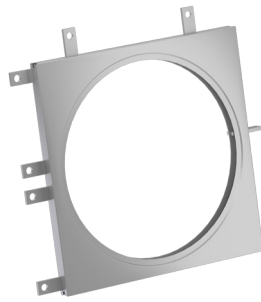
Below Roof Components

<p>The Pipe SUPER-SILVER finish aluminium tube</p>	<p>Elbows</p>	
 <p>610 mm Extension Pipe</p> <p>The 610 mm extension pipe is manufactured from a silverised PVD coated mirror finished aluminium with a total reflexion of 98%.</p>	 <p>45° Adjustable Elbow</p> <p>The 45° adjustable elbow is manufactured from a silverised PVD coated mirror finished aluminium.</p>	 <p>30° Adjustable Elbow</p> <p>The 30° adjustable elbow is manufactured from a silverised PVD coated mirror finished aluminium.</p>
 <p>610 mm Plain End Pipe</p> <p>The 610 mm plain end pipe is manufactured from a silverised PVD coated mirror finished aluminium.</p>	<p>Ceiling Diffusers</p>  <p>Luxloop Suspended Ceiling Panel</p> <p>Suitable for standard 595 mm x 595 mm suspended ceiling grids.</p> <p>High performance polycarbonate diffuser for uniform distribution - UGR19 compliant.</p>	
 <p>Slip Length</p> <p>The 250 mm ceiling extension is manufactured from a silverised PVD coated mirror finished aluminium.</p>	 <p>Luxloop Surface Mount</p> <p>Plasterboard and similar. Suitable for all surface mount applications including vertical and horizontal faces.</p> <p>High performance polycarbonate diffuser for uniform distribution - UGR19 compliant.</p>	

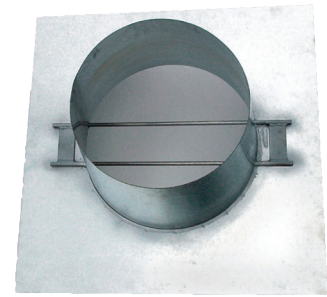
Additional Components (Optional)



Motorised Light Shut-Off Damper



Intumescent Fire Colar



Security Bars

- 610 mm Extension Lengths and 30°-45° Adjustable Elbows.
- LED available in standard fixed white, white colour tuneable and Circadian (white colour tuneable with RGB) light engines.

Performance:

- Natural daylight output: 4460 in full summer sun (105 k lux).
- LED output: up to 4000 lumens.
- Colour temperature of LEDs tuneable from 1800 k to 7000 k.
- Efficacy of up to 83 lumens per circuit watt.
- 120° beam angle.
- Dimmable.
- Standards: BS EN ISO 14001 and BS EN ISO 9001. The Fire Choke Collar has been fully tested to current British and European Standards (test report TE39902).

PERFORMANCE DATA			
	SUNPIPE Luxloop Standard	SUNPIPE Luxloop Smart	SUNPIPE Luxloop Circadian
Description	High Efficiency	High Efficiency	Tuneable 1800 k - 7000 k & RGB
Illuminance comparable to	4 x 14 W T5/4 x 18 W T8	4 x 14 W T5/4 x 18 W T8	-
Light Engine Power	30 W	30 W	38 W
LED (Source) Lumens (L100)	3724 lm	3724 lm	3945 lm
Luminaire / System Power	30 W	30 W	38 W
For Drivers: I / Vmax	N/A	N/A	N/A
Optic	-	-	Diffuser
Beam Angle	120° / VW	120° / VW	120° / VW
Luminaire Efficacy >80R34000k	83 lm/cW	83 lm/cW	79 lm/cW @ 6500 k
Initial / Maintained SDCM	<3 / <3	<3 / <3	<3 / <3 @ 6500 K
Rated Life (hours)	50,000	50,000	50,000
Lumen Maintenance Category	Cat 1 / Code 9	Cat 1 / Code 9	Cat 1 / Code 9
Dimmable	No	Yes	Yes

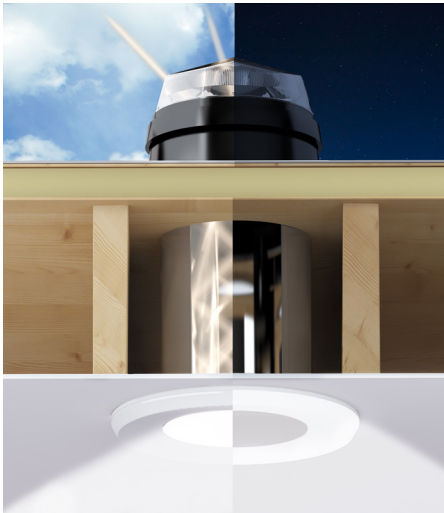
Deliver the Right Light at the Right Time

SUNPIPE Luxloop Controls the Circadian Rhythm

Halcyon™ is the only intelligent wireless lighting system that has been optimised for your biology to deliver the right light at the right time of the day. Halcyon™ emulates changing daylight for health, wellbeing, productivity and improved sleep. The system also offers automated energy saving benefits through wireless lighting control.

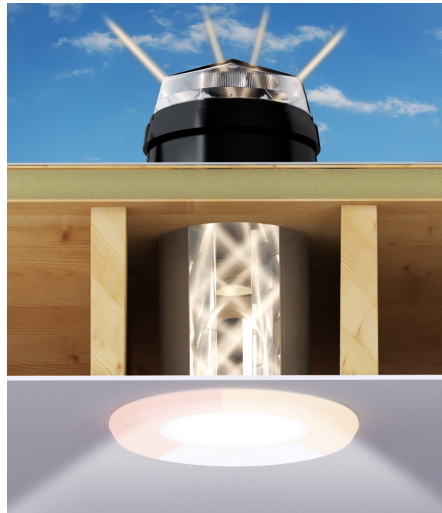


Modes of Operation



Standard:

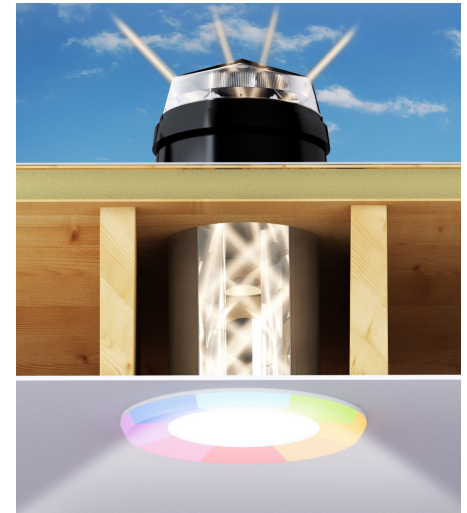
No controls. SUNPIPE Luxloop operates on a standard ON/OFF switch (by others). Non-dimmable, fixed white 4000 k.



Smart:

SUNPIPE Luxloop functions with a combination of 1-10V driver and Daylight Harvest sensor for fully automatic control. System operates as detailed below:

- When there is sufficient daylight, the Luxloops will not turn on regardless of movement.
- When there is insufficient daylight, the lights will dim on when it senses movement to maintain the specified lux level.
- It continuously monitors the level of daylight and dims the lights accordingly.
- The lights dim to a standby level if no movement is detected and daylight levels are insufficient.
- After a standby period has elapsed the lights will turn off automatically.
- The light is a fixed white 4000 k.
- 1 sensor per area to be served (normal sized office for 10 people), additional sensors may be required for large areas.



Circadian:

The SUNPIPE Luxloop Circadian comes with the wireless control system which changes the colour of the Luxloop as the colour of the natural daylight changes over the course of the day. It can also display a full RGB spectrum of colours and 1700 k - 7000 k white light. The systems can be controlled through a wireless network using any device which has an internet browser, enabling the users to set their own controls and scenes, have full control over individual luminaires or leave the system to run automatically.

- On Circadian Automatic setting (default) the colour of the luminaire matches the colour of natural daylight – helping the occupants to maintain a healthy Circadian Rhythm and promoting healthy bodily function.
- The system is fully customisable – preset scenes and schedules can be defined by the user.
- Areas and individual luminaires can be controlled together or independently.

For more details on Halcyon please visit PhotonStar website.

Note: Other lighting control drivers are available on request.



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