

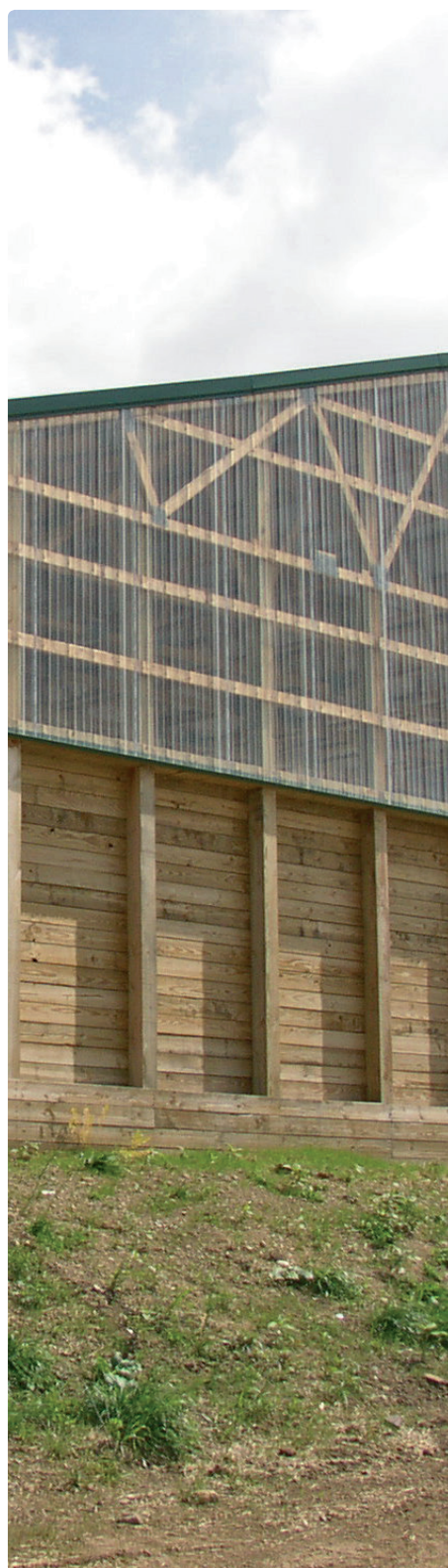


SUNTUF[®] Rooflights

Corrugated Polycarbonate Skylights & Sidelights



SUNTUF® Rooflights Corrugated Polycarbonate Skylights & Sidelights



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Introduction

Suntuf Rooflights facilitate multi-benefit use of natural daylight in industrial scale structures. They stand up to demanding exterior applications and offer multiple advantages over alternatives. Palram's advanced MetalMatch™ profile matching technology allows the panels to integrate virtually into any corrugated metal roof. Suntuf Rooflights form a complete shield against harmful UV rays while transmitting very high amounts on visible light. The panels' strength and high resistance to weathering allows them to maintain a high light transmission for very long periods, contribute to the conservation of energy and improve the quality of the working environment. A wide range of colors, transparencies and surface types enables optimal solar transmission specification for any type of structure, environment and climatic conditions.







Main Benefits of SUNTUF® Rooflights

- **Clarity**
Natural, clear Suntuf exhibits the clarity of glass, transmitting up to 90% of natural light.
- **Energy Saving**
By transmitting natural daylight into the structure, Suntuf Rooflights reduce energy consumption of electric lighting.
- **Matching Any Profile**
Palram's proprietary corrugation technology enables Suntuf to be quickly matched into any given profile, opening infinite corrugation possibilities.
- **Strength**
Suntuf sheets, manufactured from polycarbonate are virtually unbreakable. Suntuf is extremely resistant to impact, hailstones and loads.
- **Protective**
Suntuf does not allow harmful UV radiation to penetrate.
Flammability – meets the highest standards.
- **Low Weight**
Light in weight, Suntuf sheets are easy to handle and install.
- **Weather Resistance**
Suntuf resist wind, hail and extreme temperatures from -50°C to +120°C.
An integrated UV protective layer allows Suntuf to retain its transparency without yellowing over the course of a long lifetime of service.
- **10 Year Warranty**
Suntuf is warranted to retain its attractive appearance over its long lifetime with minimum maintenance.
- **SUNTUF Diffuser**
Suntuf offers a light diffusing technology that can be incorporated into any given color. Suntuf Diffuser forces light to disperse throughout the structure, minimizing shadows of objects. Suntuf Diffuser will prevent blinding due to direct sunlight and will admit soft, pleasant natural daylight.

The Benefits of Natural Daylight

Suntuf Rooflights put to good use the numerous benefits of natural daylight, which is an essential natural asset.

Health

Natural daylight helps people feel better by triggering the release of serotonin. Studies have proven that recovery rate of hospital patients is accelerated where levels of natural light are increased. Seasonal Affective Disorder (or SAD) is a clinically diagnosed condition in which the lack of sunlight in winter makes people feel ill; increased exposure to daylight will reduce the risk of SAD and also aid the healing process. Natural Ultraviolet light creates Vitamin D through our skin, which produces calcium for healthier bones & teeth.

Education

Research demonstrates a clear correlation between classrooms with good natural light and improved student performance and even attendance. This is because in natural light children concentrate better so are more focused and less easily distracted. Some studies suggest that better health helps to explain the improved attendance.

Workplace

Daylight improves concentration so that working environments tend to achieve increased productivity. Research in retail areas suggests that many sales outcomes tend to improve in naturally lit locations. Colors are more vivid and true, making goods appear attractive and encouraging customers to spend more time in these areas. Leading retail organizations include large areas of rooflights in specifications for all new building projects to ensure a high percentage of evenly distributed natural daylight within the interior.

Energy Saving

Rooflights can be extremely effective in reducing energy consumption in any given structure. Since lighting represents a significant and controllable part of a structure's expense, energy saving has an undeniable economical benefit. This will also help the environment by reducing the structure's carbon footprint. Specially tinted rooflights with Near-Infra-Red blocking can reduce heat gain and consequently air conditioning requirements

Production Hall in Israel - Case Study

In 2004 Palram installed 2mm white opal Suntuf® Rooflights in one of its production halls. The rooflights not only improved the quality of the work environment, but also reduced annual lighting costs by more than \$20,000.

Prior to SUNTUF Installation: 200 lux measured in the hall



After Rooflight Installation: 1000 lux measured in the hall



Warehouse in Mexico - Case Study

White diffuser SUNTUF Rooflights were installed in a 26,000sqm warehouse in Mexico. As the photos show, the abundance of natural daylight admitted through a mere 5% of the roof's surface provides all the lighting necessary for the structure during day time. The White Diffuser Rooflights also creates a pleasant working environment by softening the transmitted light.

After Rooflight Installation



Prior to SUNTUF Installation



MetalMatch™ - Quick Profile Matching

In addition to over 300 existing profiles, Suntuf can be quickly matched to virtually any given profile using the unique MetalMatch™ proprietary production technology.

MetalMatch™ enables the following:

- Maintaining an even and consistent roof assembly
- Simple and convenient installation
- No special fitting accessories are required
- Reducing installation time and cost
- Maximum impermeability
- Maximum flexibility with new or existing roof design
- Made with no additional costs and in very short time

For an updated listing of available Suntuf profiles, please refer to the "SUNTUF/SunSky Profile Catalog" available from the Suntuf page of Palram websites.

Match your SUNTUF® Profile →

1. Submit a detailed drawing or a full width sample.
2. Receive a drawing of the matched profile and approve for production, under minimum quantity order.



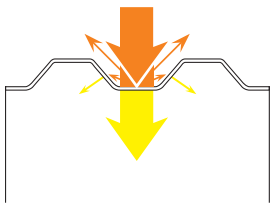
Light Diffusion Options

Suntuf Rooflights can be specified not only to transmit a desired amount of light, but also diffuse it. Diffused light creates a more pleasant work environment by minimizing blinding and shaded areas. While clear panels transmit the maximum natural daylight, embossed panels mildly disperse it and diffuser panels transmit soft, evenly spread light.

Clear

Optimum for low light regions or where high clarity is essential.

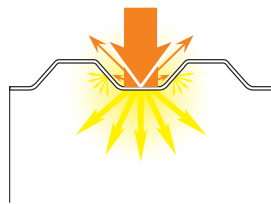
90% light transmission
0% Diffusion



Embossed

Offers high light transmission with mild diffusion for excellent flexibility.

90% light transmission
20% Diffusion



Diffuser

Combines high light transmission with maximum diffusion.

85% light transmission
100% Diffusion

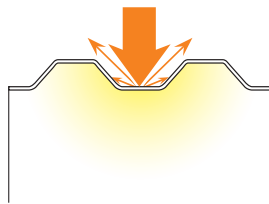


Illustration: Clear vs. Diffuser

Clear SUNTUF®

Transmits maximum light and creates light spots and shades.



SUNTUF® Diffuser

Transmits a softer, even light that minimizes shaded areas and corners.



Colors

Group	Description	Colors
Clear	Transmits up to 90% natural daylight, resulting in high lighting within the structure.	Clear
Transparent	Low haze colors offering high clarity. Breeze and Smart colors offer advanced heat blocking that reduces heat buildup while allowing a clear view through the sheet.	Solar Gray Bronze Sky Blue Transparent Green Smart Gray Breeze
Translucent	White Opal: Transmits 24-45% visible light with high light dispersion, produces mild and even lighting within the structure. Diffuser: Transmits 85% visible light with complete light dispersion, produces diffused and consistent lighting within the structure.	White Opal White Diffuser Solar Control (Solar Metallic Grey) Solar Ice Mist Green Smooth Cream

Project Gallery

TIS Port - Odessa, Ukraine | Seaside chemical warehouse | SUNTUF® Rooflights fitted into a PALRUF® White Opaque 2mm roof



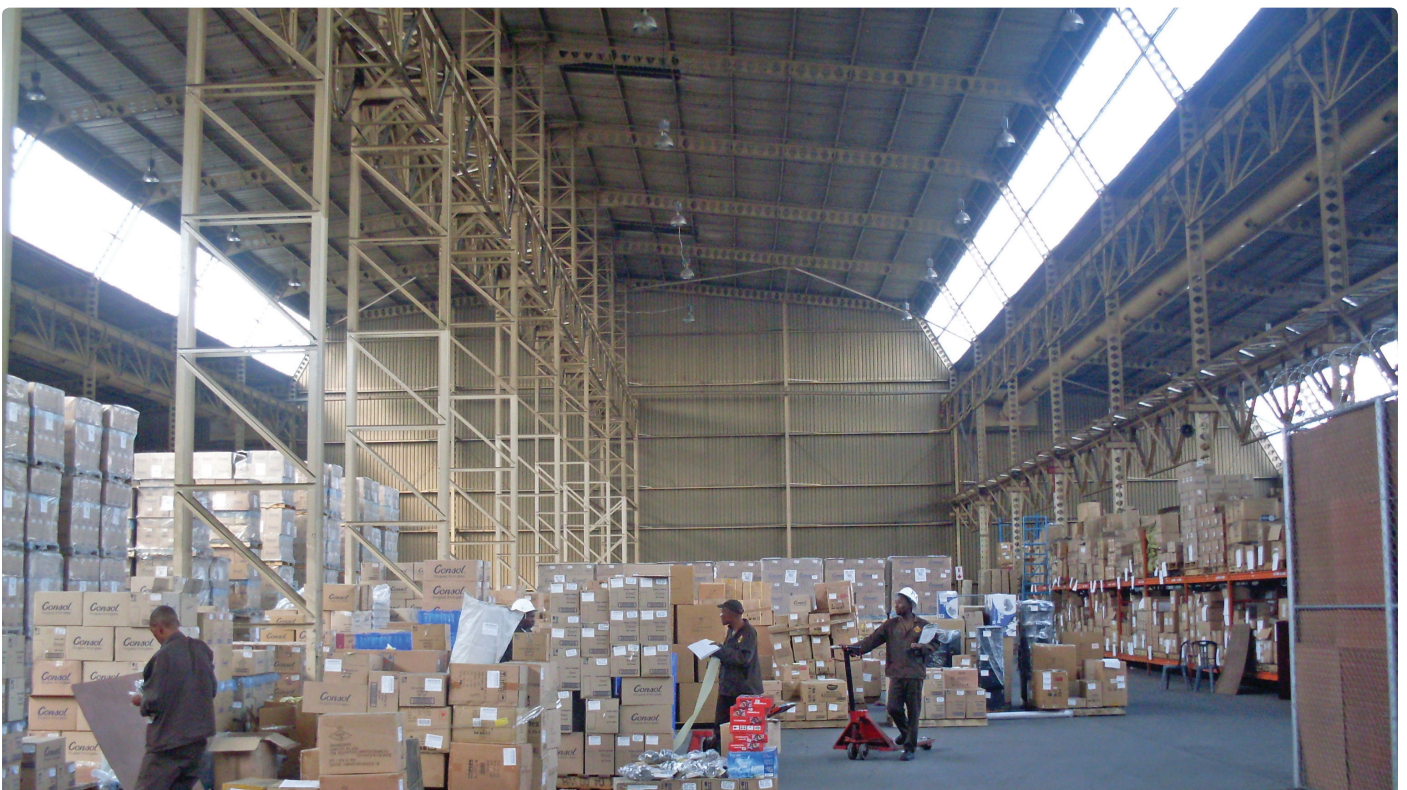
William Cox - Ireland | Industrial warehouse | SUNTUF® Rooflights fitted into a metal roof



Truper - Mexico City, Mexico | Retail warehouse | SUNTUF® Rooflights 8690 profile fitted into a metal roof (7000 sqm)



Alrode Multipark - Alberton, South Africa | Industrial warehouse | SUNTUF® Rooflights fitted as sidelights into a metal roof



Dairy Farm - USA | Cattle barn | SUNTUF® Rooflights fitted into a metal roof with wood substructure



Central Bus Station - Argentina | Bus garage | SUNTUF® Rooflights fitted into a curved metal roof



Retail Center - UK | Store warehouse | SUNTUF® Rooflights fitted into a metal roof



Coca Cola Center - George, South Africa | Industrial warehouse | SUNTUF® Rooflights fitted into a PALRUF® White Opaque 2mm roof



SUNTUF® Product Range

Product	Description
SUNTUF®	Corrugated polycarbonate sheet with integrated UV protective layer on one side.
SUNTUF® UV2	Corrugated polycarbonate sheet with integrated UV protective layer on both sides.
SUNTUF® Plus*	UV protective layer on the exterior side and anti-condensation treatment applied to the interior side.
SUNTUF® Solar Control*	Transmits selected percentages of daylight (20%, 35%, or 50%) while reflecting and absorbing some of the heat-generating Infra-Red radiation.
SUNTUF® Embossed*	Embossed or Hair Cell finish on one sides.
SUNTUF® Smart	Advanced heat blocking combined with low haze.

*Also available with co-extruded UV protective layer on both sides.

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