A roof **EuroLight** is a unique solution, which uses the combination of high quality of mechanical, aesthetic and thermal properties. The view and the cross section are shown in the picture 1.

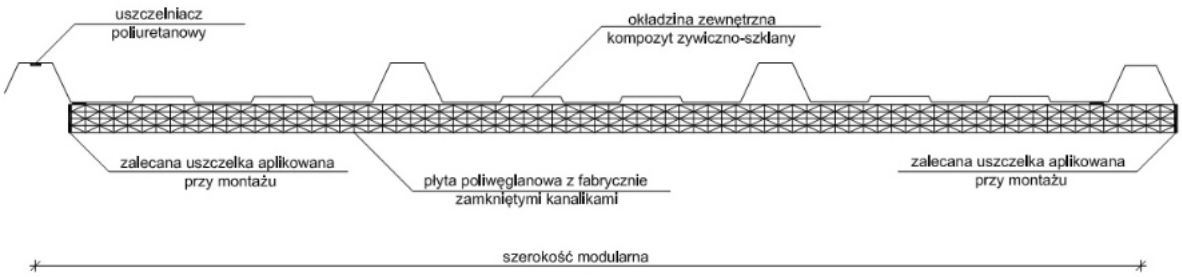
The combination of resin-glass composite, which fits to the shape of roofing together with polycarbonate, is a perfect solution for warm roof lighting for sandwich panels.

The resin-glass composite used in **EuroLight** is made of double resin layers, the external one made of special gelcoat is resistant to external conditions, especially UV rays.

Picture 1.

A) View of Eurolight

B) The cross section of Eurolight



The elements of roof **EuroLight** are mechanically connected to each other using special rivets and polyethylene gaskets that seal the connection of composite elements with polycarbonate. Polycarbonate channels are also sealed with a special tape that prevents dirt from entering the ducts and water penetration.

Characteristics of a roof EuroLight

Parameters	Value
Material	Resin-glass composite combined with polycarbonate 25 mm thick (16mm or thicker on request)
Length of opening	7,0 m (7,2 m with overlap in one piece) elements can be connected longwise directly on the building site
Recommended minimum inclination angle of roof	10% (with 20 cm overlap)
Maximum spacing between supports	1,5 m
Thickness	20 mm + projection height
Weight	6 mg ± 5%
Permissible dimensional deviations over the length, width and thickness of skylight elements	± 5%
Overall heat transfer coefficient	Standard U = 1,5 W/m^2K with polycarbonate 25 mm thick
Light penetration	50% ± 5%

Use of a roof EuroLight

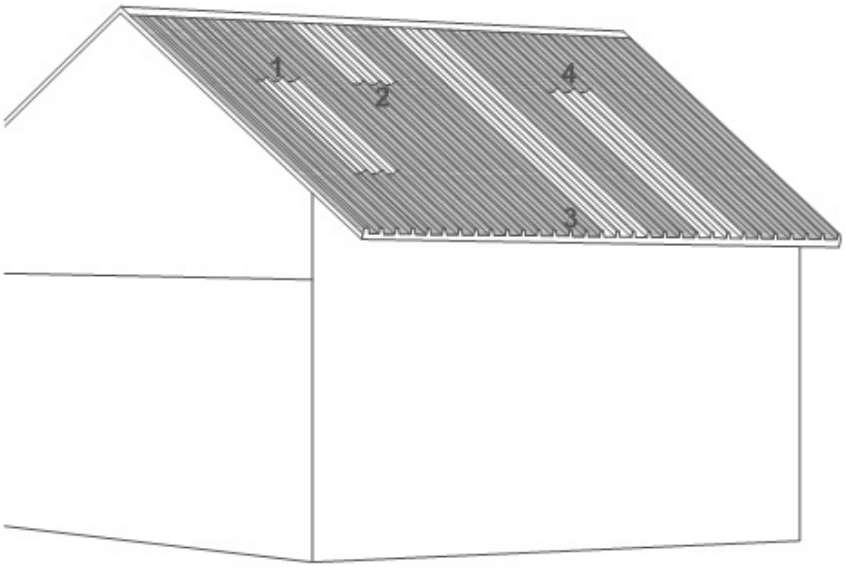
The application of roof **EuroLight** is an effective solution providing daylight to the interior of a building. Already at roofing in the area of 7 and 15% a roof Eurolight can replace electric lighting. Cavity design of lighting limits excessive temperature rise caused by solar radiation, as well as minimises accumulated heat loss in the building.

Eurolights can be used in industrial facilities covered with so-called sloping roofs which are with inclination angle above 10% made of warm roofing of roof sandwich panels.

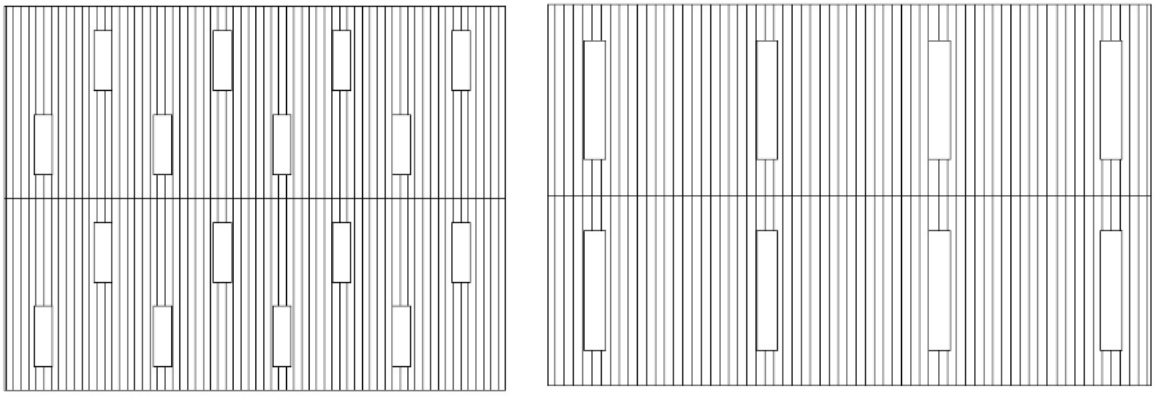
EuroLight can be assembled as spot lighting or roof light covering from roof ridge to eaves (3), in the middle of roof surface (1), next to roof ridge (2), from the middle of roof surface to eaves (4) according to picture 2.

EuroLight connect with sandwich panels on the side with a side connector (on the humps) and on top and bottom (with overlap), but the resin glass layer of the Eurolights is 3-4 times thicker than the sheating of the panels. This means that at the overlap junctions the Eurolights and sandwich panels do not adhere perfectly and particular attention should be paid to their sealing while designing and assemblage. One should also keep in mind that Eurolights are not as tough as the panels located next to them, so to preserve the durability and watertightness of the system, it is important to assemble it in accordance with the guidelines given and good construction practice.

We do not recommend installing Eurolights in series, between the Eurolights there should always be a part of the coating.



A) view

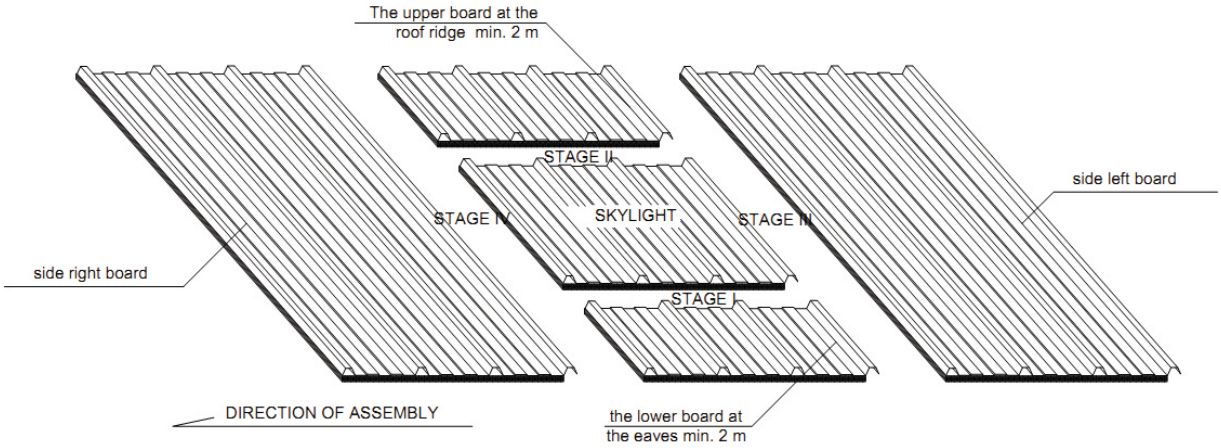


B) ground plan

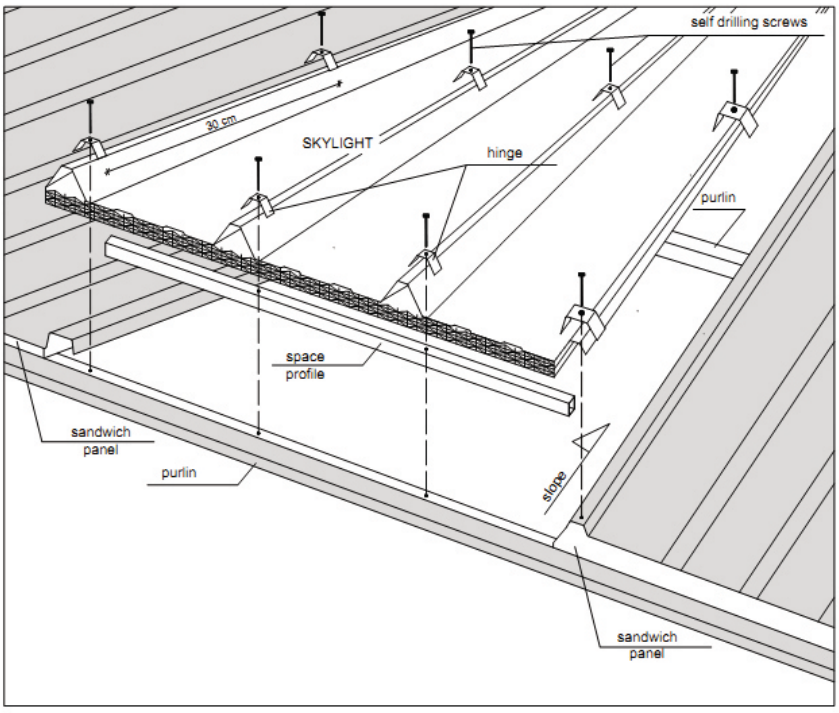
Picture 2. The exemplary arrangement of Eurolight in roof surface

Installation of EuroLight

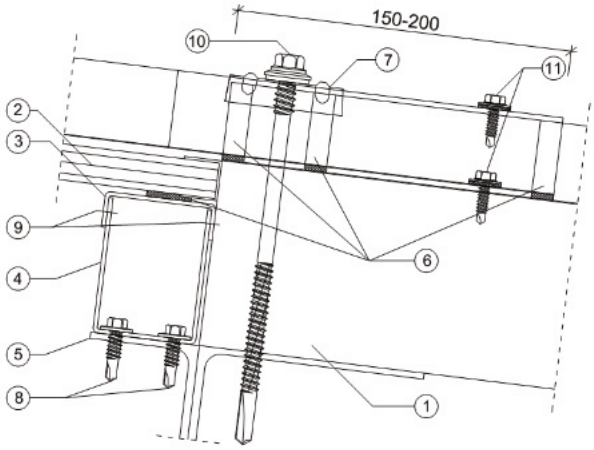
Eurolights should be installed acording to the instructions as follows.



Picture 3. The assembly example of the Eurolight in a roof surface

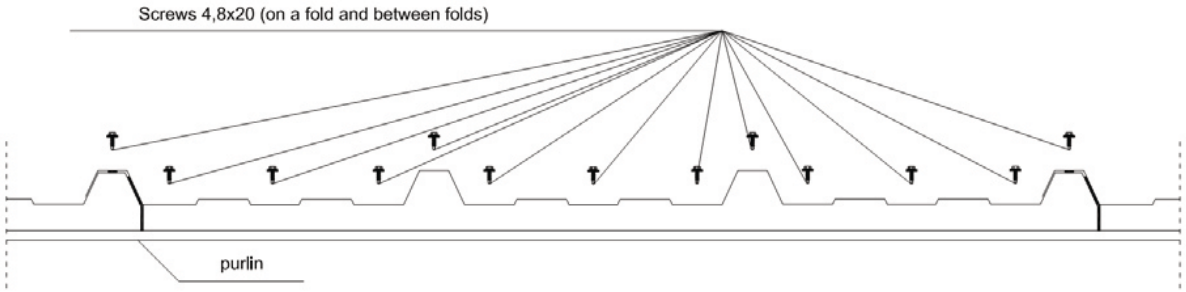


Picture 4. The assembly of the Eurolight to a construction

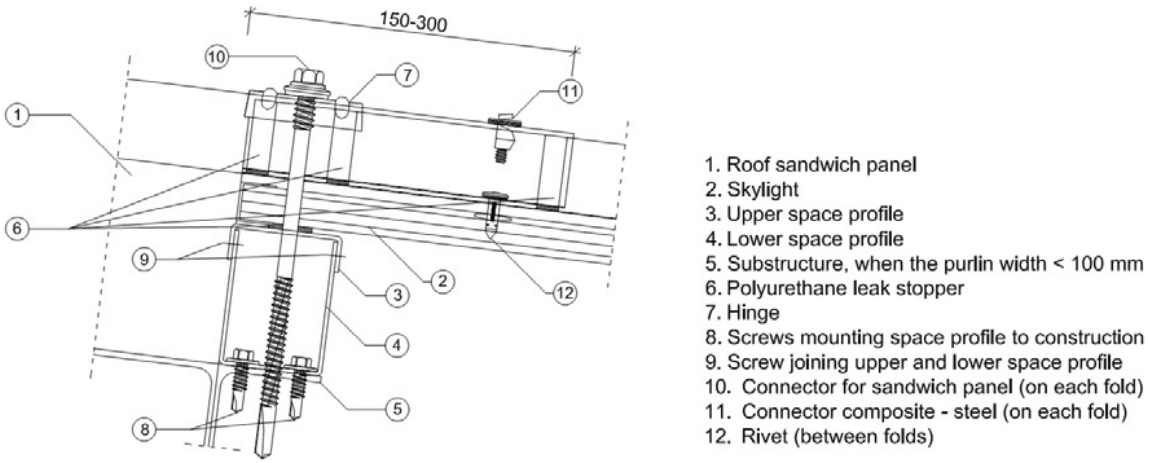


1. Roof sandwich panel
2. Skylight
3. Upper space profile
4. Lower space profile
5. Substructure, when the purlin width < 100 mm
6. Polyurethane leak stopper
7. Hinge
8. Screws mounting space profile to construction
9. Screw connecting upper and lower space profile
10. Connector for sandwich panel (on each fold)
11. Screw (on a fold and between folds)

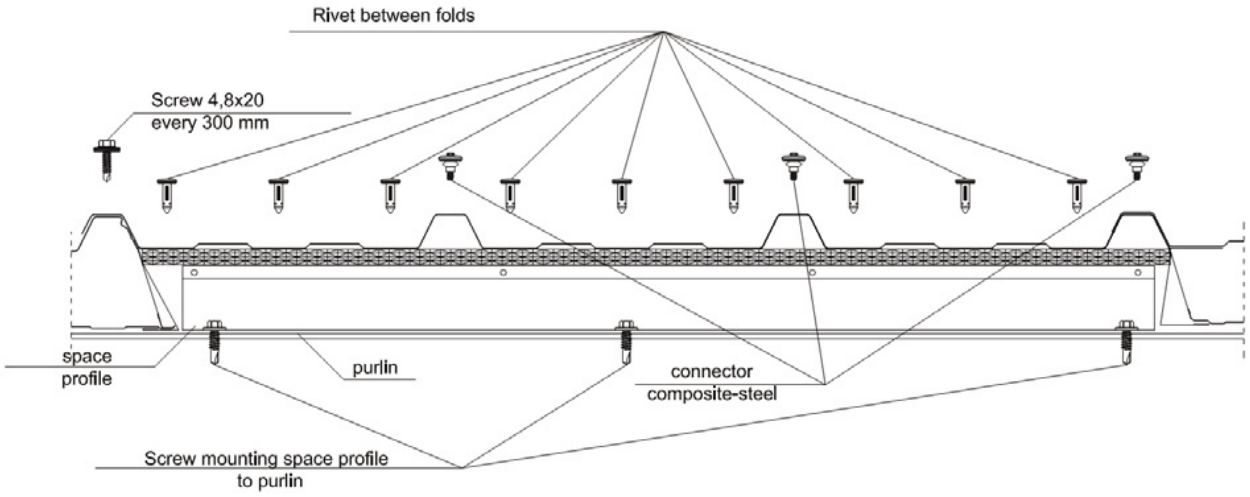
Picture 5. The joint along the length of Eurolight with a roof sandwich panel (on the side of eaves)



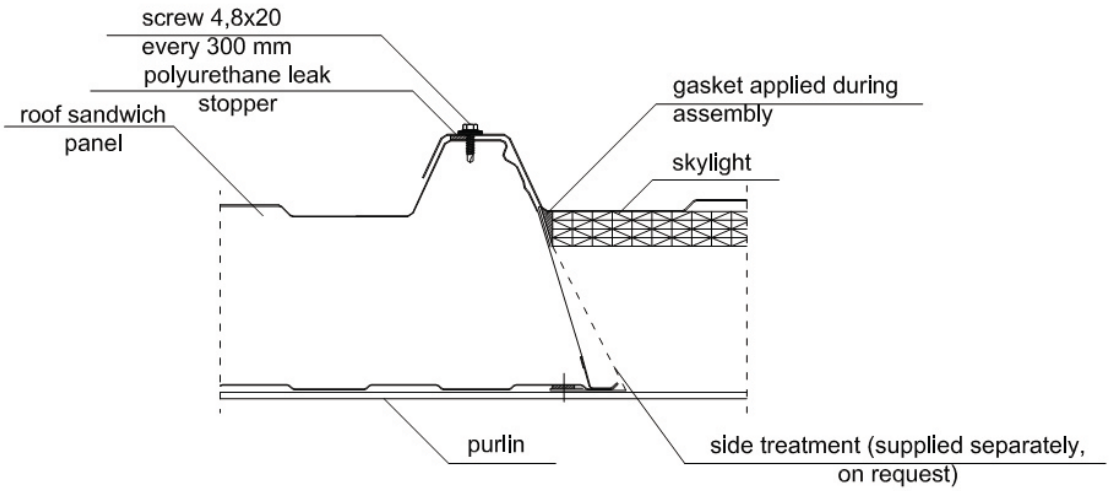
Picture 6. Stitching the overlap of Eurolight with the lining of a roof sandwich panel – cross section



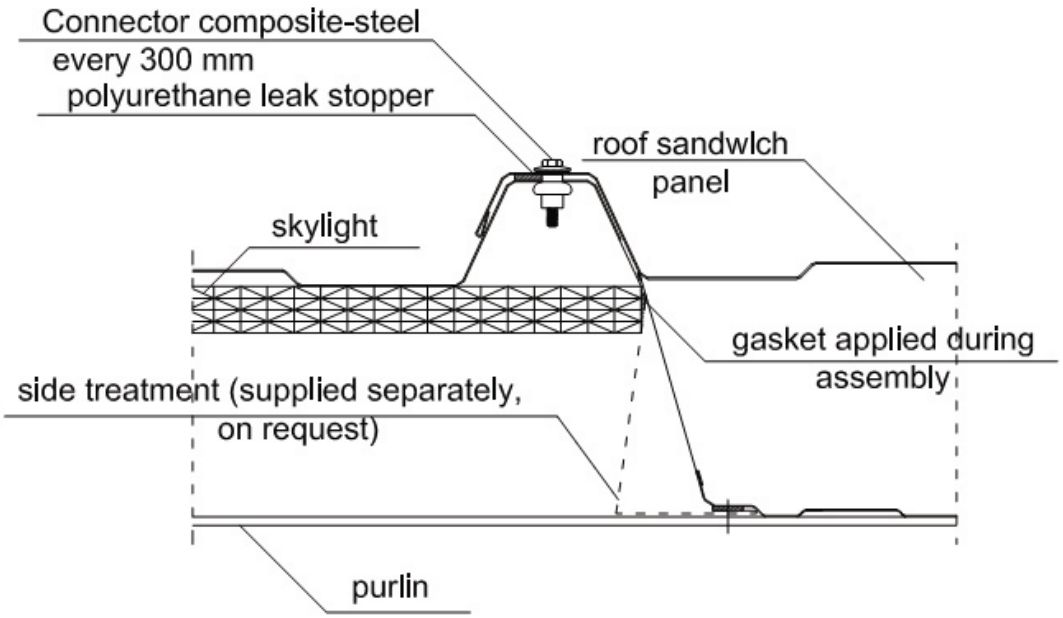
Picture 7. The joint along the length of a roof sandwich panel with a Eurolight (on the side of a roof ridge)



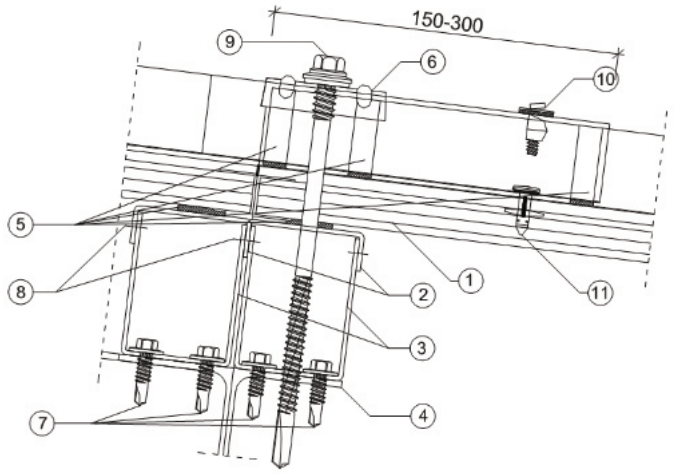
Picture 8. Stitching the overlap of a roof sandwich panel with a Eurolight – cross section



Picture 9. The side joint of a roof panel sandwich with the Eurolight along the lock



Picture 10. The side joint of the Eurolight with a roof sandwich panel along the lock



1. Skylight
2. Upper space profile
3. Lower space profile
4. Substructure, when the purlin width < 100 mm
5. Polyurethane leak stopper
6. Hinge
7. Screws mounting space profile to construction
8. Screw joining upper and lower space profile
9. Connector for sandwich panel (on each fold)
10. Connector composite - steel (on each fold)
11. Rivet (between folds)

Picture 11. The joint of the Eurolight along the length