![roda Licht- und Lufttechnik GmbH]

Information about EUROLIGHT

Large illustration: EUROLIGHT skylights with fall-through protection type PSP30 on a huge productionhall.

EUROLIGHT with fitted PHOENIX   On top of a saddle roof ridge   Integrated PHOENIX and MEGAPHOENIX

Information about EUROLIGHT

The EUROLIGHT is an arched skylight system with multiwall polycarbonate panels mounted in extruded aluminium sections. Because the upper and lower glazing bars are not connected, the panels are thermally separated in the radius. The system's good thermal-insulation properties ensure low energy costs. The EUROLIGHT can also be fitted with the PSP30 or PSG50 fall-through prevention systems. In order to comply with specific sound insulation standards, the EUROLIGHT can be built with sound insulation values up to 29 dB. This value was established in a testing laboratory at Müller BBM. Depending on the thermotechnical requirements, 10 mm or 16 mm multiwall polycarbonate panels (transparent or opal) can be fitted. Furthermore, to improve the light-scattering properties and achieve significantly higher thermal-insulation values, the panels can be filled with Lumira™ aerogel. The rated light-transmittance value of the polycarbonate panels changes only slightly due to weathering. The panels are hail resistant in accordance with SIA standard 280 and are treated with a UV stabilizer. Natural smoke and heat extractors can be incorporated in the EUROLIGHT using a special flange or a curb on the arch.

The EUROLIGHT complies with the fire classification B-s1, d0 (opal: B-s2, d0).

Advantages:

- Natural daylight (glare-free when Opal or Lumira™-aerogel-filled panels are fitted)
- Natural smoke and heat extractors can be fitted, which can also be used for everyday ventilation
- Low weight due to aluminium sections and multiwall polycarbonate panels
- Easy assembly due to the modular system
- Thermal separation in the arch

Design characteristics:

Matching cover and border profiles hold the curved multiwall polycarbonate panels in place and, at the same time, form the border of the base. The design of the extruded aluminium profiles used for the glazing bars allows the expansion of the different materials to be easily compensated for. The profiles are made of the aluminium alloy AlMg Si05 F22. The individual components of the skylight system can be bolted together easily in a modular system. All fittings are made of aluminium or stainless steel.

Light and thermal transmittance values for polycarbonate panels:

Plate thickness	Light transmission in % (for transparent multiwall panels)	U-value in W/m²K
10 mm	65	2.39
+Lumira™	65	1.93
16 mm	59	1.82
+Lumira™	57	1.31

For glare-free lighting, opal panels are also available. This option is not available for Lumira™-filled panels, as Lumira™ aerogel already offers optimum light-scattering properties.

The EUROLIGHT is available in three versions, MKI, MKII and MKIII, which differ mainly in the mounting of the base and the sizes offered.

Information about EUROLIGHT

EUROLIGHT MKI

Theoretically, the EUROLIGHT MK1 can be produced in unlimited lengths and up to a width of 5,600 mm (opening width). The EUROLIGHT MKI has been type approved by the DIBt (German Institute for Structural Engineering). As the base profile consists of two profiles, of which one is swivel mounted in the other, the EUROLIGHT MK1 can be offered in versions with different rises.
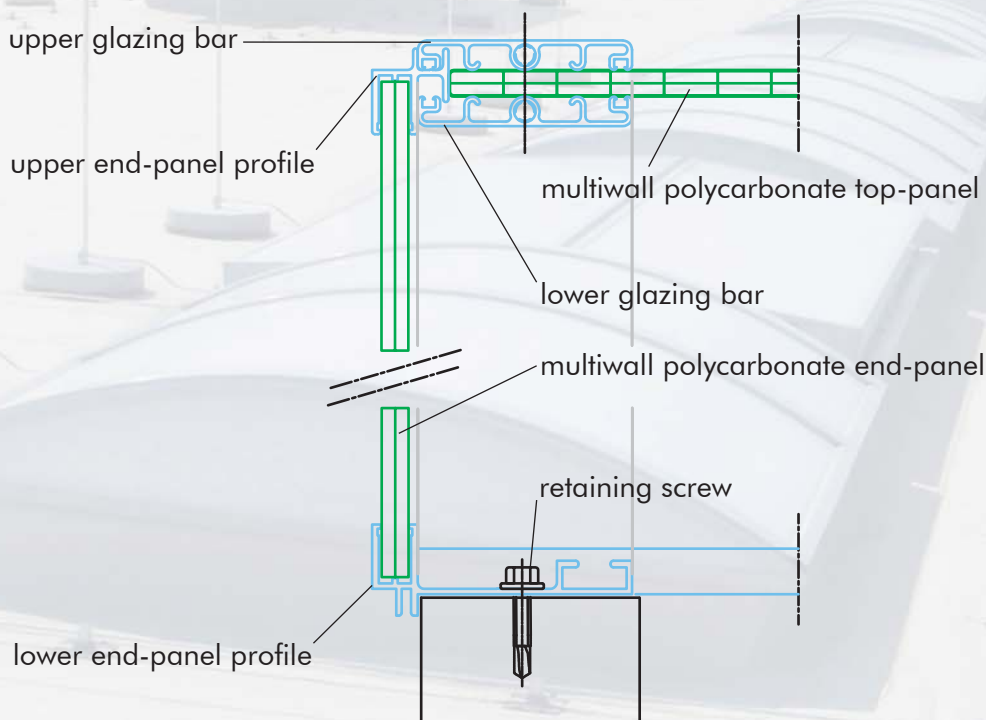
EUROLIGHT MKII

Unlike the MKI version, the MKII can only be produced with an opening width up to 3,000 mm. The rise/span ratio is available in 1/5 and 1/7. The difference to the MK1 is mainly in the modified base profile, which makes the MKII versions slightly cheaper.

EUROLIGHT MKIII

The MKIII has been designed as a EUROLIGHT, with a standard width of 2,500 mm, in which PHOENIX natural smoke and heat extractors can be incorporated using an insulated, hollow base profile without having to use connecting profiles. The rise/span ratio is fixed at 1/7. The MKII version has also been type approved by the DIBt.

End panels:

For all three versions, the prefabricated end panels are almost identical. These are also custom-made out of polycarbonate multiwall panels (10 mm or 16 mm). The panels are held in place by the upper and lower end-panel profiles. The upper end-panel profile is held in place by the upper and lower glazing bars. The lower end-panel profile serves as the base profile.
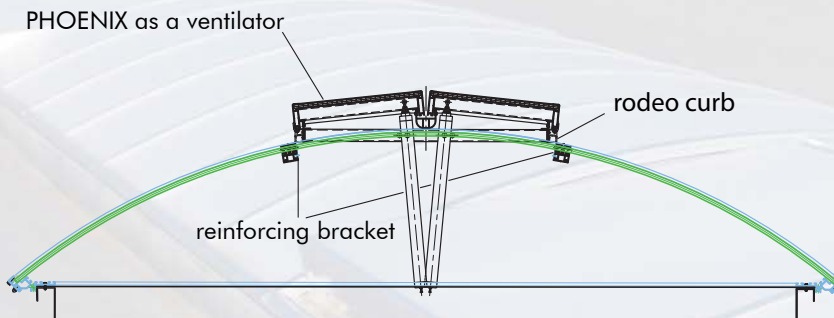

upper glazing bar

upper end-panel profile

multiwall polycarbonate top-panel

lower glazing bar

multiwall polycarbonate end-panel

retaining screw

lower end-panel profile

Information about EUROLIGHT

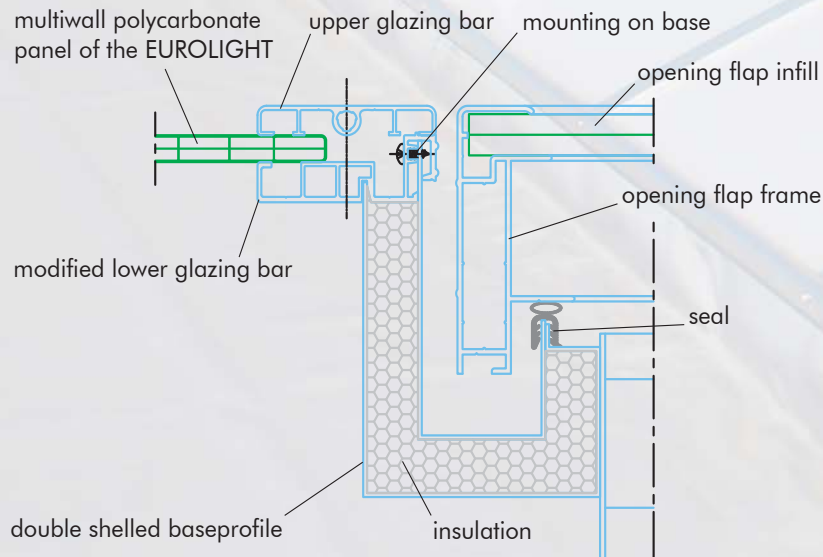### Integration of natural smoke and heat extractor in the skylight:

Natural smoke and heat extractors, ventilation equipment and multi-purpose ventilators can be integrated into the EUROLIGHT. They are generally flange mounted. In special cases, a smaller ventilator can be mounted on the skylight using a rodeo curb (see larger image). We have designed a PHOENIX especially for the EUROLIGHT MKIII, which, with its stable base frame, can be integrated into the skylight without a flange. In the twin-flap version it has a standard width of 2.5 m and lengths are available up to 2 m.

upper glazing bar of the EUROLIGHT

cap profile

mounting of natural smoke and heat extractors / ventilators

mounting of multi-purpose ventilator
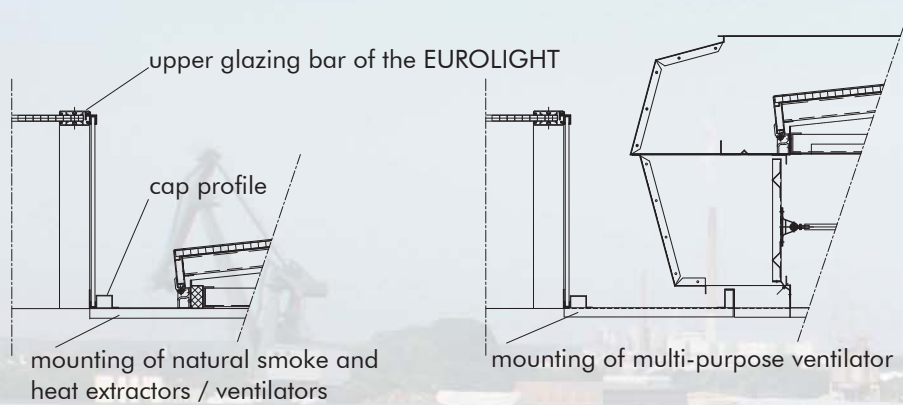
Integration of natural smoke and heat extractors or multi-purpose ventilators using a flange.

PHOENIX as a ventilator

rodeo curb

reinforcing bracket

Double flap ventilator mounted on the skylight with a rodeo curb.

multiwall polycarbonate panel of the EUROLIGHT

upper glazing bar

mounting on base

opening flap infill

opening flap frame

modified lower glazing bar

seal

double shelled baseprofile

insulation

A PHOENIX MKIII mounted on a EUROLIGHT MKIII.