

LAMILUX DAYLIGHT SYSTEMS RENOVATION

LAMILUX RENOVATION

"Upkeep is an important topic in construction, as we cannot only think in terms of new buildings. Renovation, refurbishment and upgrading of buildings and parts of buildings is the clear future of the industry and even the present. It is an issue construction specialists will be addressing on an ever more frequent basis. We are therefore constantly working on solutions that bring daylight, fresh air and safety into existing buildings of any age from above."

Alexander Strunz

Executive Manager LAMILUX Heinrich Strunz GmbH



The LAMILUX CI Philosophy

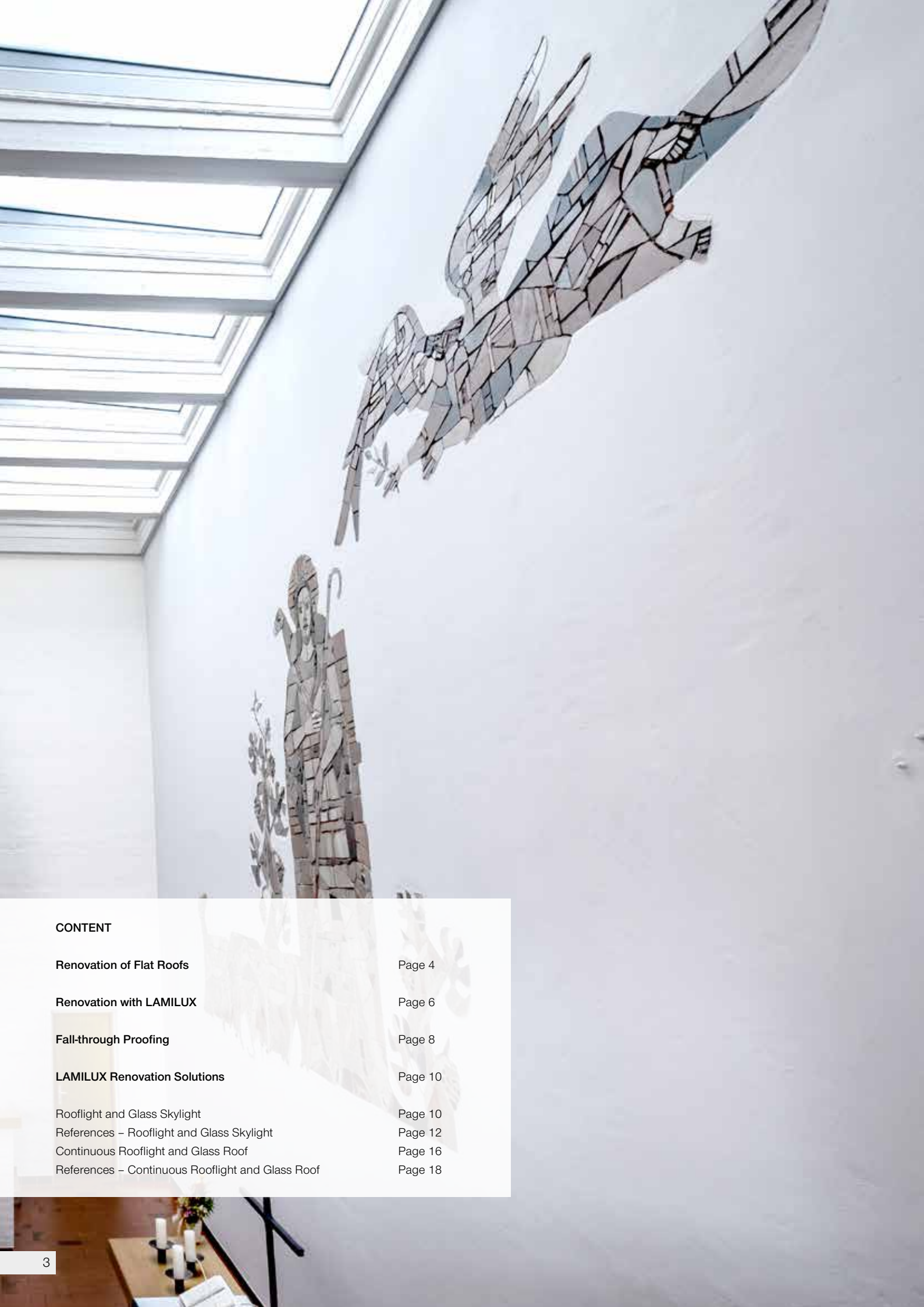
Customer value is the reason we exist – and the focus of our activities. This requires harmony, identity and a balance between customer value and company strategy.

The principles that guide our company's actions and customer relations are set out in LAMILUX's company philosophy:

Customized Intelligence – serving customers is our first priority:

This requires outstanding performance and leadership in all areas relevant to customers, particularly in the role of:

- A leader in quality – optimum benefit for customers
- A leader in innovation – at the cutting edge of technology
- A leader in service – fast, uncomplicated, reliable and friendly
- A leader in expertise – optimum sales and technical advisory services
- A leader in solving problems – customised, made-to-order solutions



CONTENT

Renovation of Flat Roofs	Page 4
Renovation with LAMILUX	Page 6
Fall-through Proofing	Page 8
LAMILUX Renovation Solutions	Page 10
Rooflight and Glass Skylight	Page 10
References – Rooflight and Glass Skylight	Page 12
Continuous Rooflight and Glass Roof	Page 16
References – Continuous Rooflight and Glass Roof	Page 18

RENOVATION OF FLAT ROOFS

In order to maintain the function of a roof, the flat roof needs to be checked for damage on a regular basis. Undetected leaks can quickly become very expensive. The consequences of long-term damage can often only become apparent in your skylights when it is too late, for example porous sealing or weather-related damage to skylights. To ensure that you have an intact and functional flat roof in the future and are also on the safe side from a legal point of view, you should make appropriate provisions.

Are you aware of the condition of your daylight elements and SHEV systems? Is the thermal insulation still appropriate for the current use of your building? Do you have any concerns about the current condition of your rooflights or are you already planning renovation of the entire flat roof? We will be happy to assist you in all of these matters with our many years of experience.

A quick checklist for you



Are your daylight systems and seals free of visible damage?

Extreme weather events and the age of the material can cause fracture points and holes.



How much light comes into your building via the glazing types?

Blinding the glazing prevents daylight entering the building.



Are your skylights serviced and do they provide fall-through protection?

Regular maintenance of SHEV systems is mandatory and, in this regard, the operator is responsible for the safety of any persons on the roof.



Are the heat insulation values of the construction appropriate for your heating requirements and the use of the building?

Unnecessary heat energy leads to high fixed costs each year. Particularly if there is a change in the way the building is used, energy requirements can quickly become significantly higher.



RENOVATION WITH LAMILUX

Renovation requires expertise – so it's good to have a competent partner like LAMILUX by your side. Statutory regulations, health regulations and industrial requirements call for customised and tailor-made solutions, especially on business premises. For this reason, take advantage of our decades of experience and receive comprehensive and optimum service.

We will find you not only the most efficient, but also the most economical solution for your rooflights, glass skylights, continuous rooflights or even for your glass roofs. In addition, we are able to install on any on-site supporting structure, regardless of the manufacturer. We achieve this for you through our product variety and through quick and straightforward exchange while normal operations can continue.

Your benefits at a glance



**We renovate every
daylight element,
regardless of the manufacturer**



**From planning
through to installation
all from a single source**



**Comprehensive and
optimum service**



**Decades of
experience**



FALL-THROUGH PROTECTION

Fall-through protection is an issue of ever greater importance on flat roofs. If a person falls from the roof, the operator of the building is responsible and also personally liable. For this reason, we recommend: Equip your roof with fall-through protection.

LAMILUX offer various fall-through protection solutions on and in the glazing, under the glazing as well as on and in the roof opening – for all our daylight elements such as rooflights, glass skylights, continuous rooflights and glass roofs.

Accidents involving falls do not only happen because untrained personnel set foot on the roof (e.g. for snow removal work). After all, even experts can stumble, fall over and fall through a non-load-bearing area on the roof while working on the roof. Such falls are seldom without serious consequences.

Our glass skylights made of real glass are all certified as permanent fall-through protection. However, there is no permanent fall-through-protection for composite glazing, which is why additional measures such as fall-through protection grids need to be used.



In the glazing – The Safety Net is a filigree stainless steel net, located between the glazing layers in the upper part

Under the glazing – Our retrofittable spot-welded grid can be easily mounted on the upstand or heightening element during renovation

In the roof opening – A laser grid can be retrofitted if the on-site reveal is made of concrete, wood or steel of sufficient stability





Here you can access the checklists for renovation on LAMILUX and all on-site upstands.

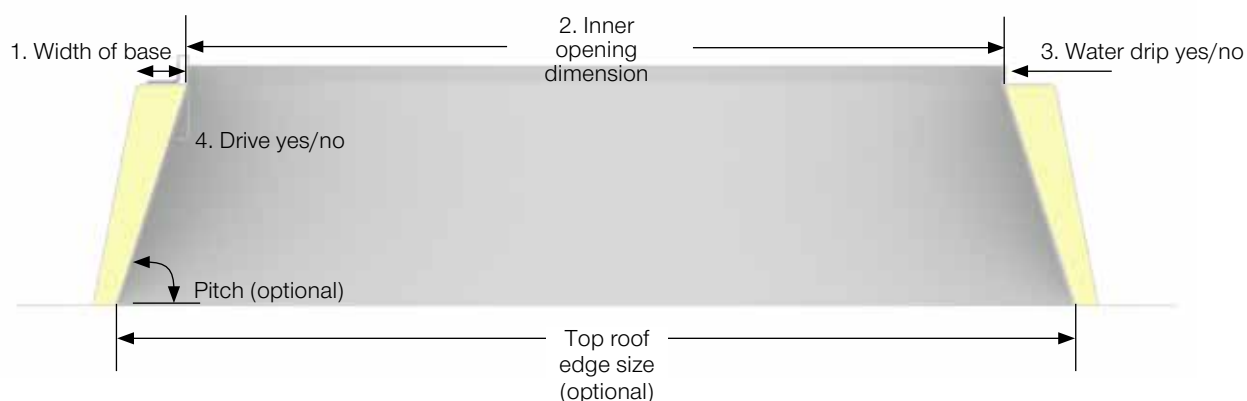
LAMILUX RENOVATION SOLUTIONS ROOFLIGHT AND GLASS SKYLIGHT

We offer you made-to-order solutions for the renovation of your circular and square rooflight domes and flat roof windows. With our renovation frames we are able to mount on any on-site upstand to ensure easy exchange. If the roof is also renovated in terms of energy efficiency, the roof system is usually heightened. In such cases, our heightening elements, which are mounted on the on-site upstand, are the right choice.

Glass is a profitable, long-term alternative for anyone renovating a rooflight while, at the same time, keeping an eye on the energy balance of their building. After all, better heat insulation values save energy. That being said, all our Glass Skylights provide fall-through protection as a matter of principle.

It is also easy to add fall-through protection to rooflights during renovation as an option. Take advantage of our extensive product range and our accessories. Similar to a construction kit, the system solutions can be exchanged on an individual basis and be expanded – with full compatibility. Of utmost importance in this regard: Individual consultation in individual cases.

Important renovation features



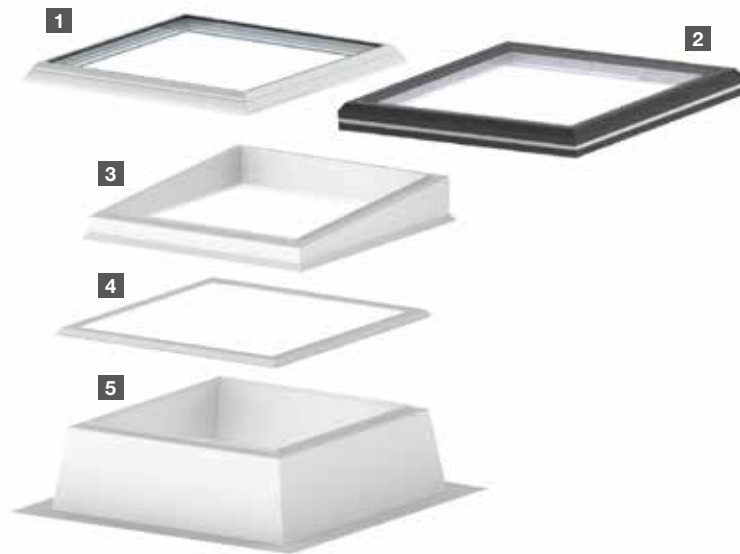
LAMILUX Glass Skylight F100 or LAMILUX Glass Skylight FE

LAMILUX Glass Skylight

Optional Heightening Element

Renovation Frame

Existing on-site
upstand



1 LAMILUX Glass Skylight F100

2 LAMILUX Glass Skylight FE

3 GRP Heightening Element 5°

4 Renovation Frame 1 or 11

5 Existing on-site upstand

LAMILUX Rooflight F100 or LAMILUX Glass Skylight FE 3°

LAMILUX Rooflight /
Glass Skylight

Optional Heightening Element

Renovation Frame

Existing on-site
upstand



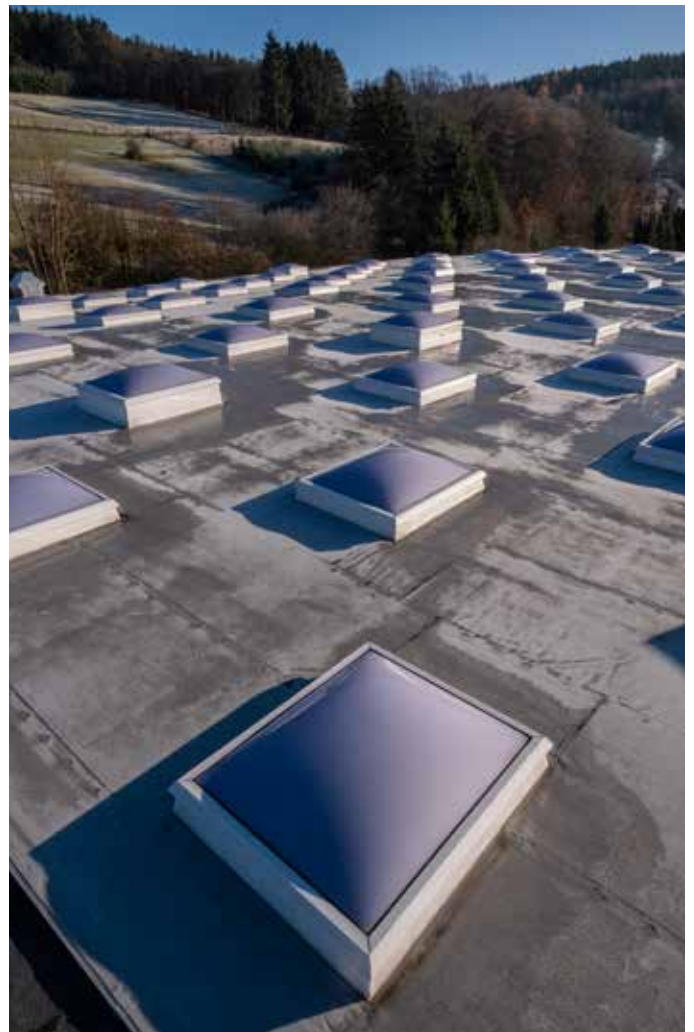
1 LAMILUX Rooflight F100

2 LAMILUX Glass Skylight FE 3°

3 GRP Heightening Element

4 Renovation Frame 1 or 11

5 Existing on-site upstand



RENOVATION EXAMPLE ROOFLIGHT F100 BATTENFELD, MEDEBACH

Before the renovation

The roof and skylights were starting to show their age. This was noticeable both from the lack of daylight, as the windows had become cloudy, and from the energy values of the hall.

After the renovation

- 57 thermally separated LAMILUX Rooflights F100 free of thermal bridges with double opal glazing in lockable ventilation design
- GRP Heightening Elements implemented in smoke and heat exhaust ventilation units for connecting the rooflights to the up-stands existing on-site
- 46 fall-through protection grids under the glazing



RENOVATION EXAMPLE GLASS SKYLIGHT F100 CARITAS, HAGEN

Before the renovation

Dirt deposits on the daylight elements and the ageing of such elements had significantly reduced the daylight intake.

After the renovation

- 54 LAMILUX Glass Skylights F100
- Nine LAMILUX Glass Skylights FE
- Fall-through protection provided by the glazing as per GS-Bau 18 or DIN 18008-6
- Flush-mounted glazing in the border frame to ensure planar water drainage for preventing dirt deposits



RENOVATION EXAMPLE GLASS SKYLIGHT FE 3° VOGEL CONVENTION CENTRE, WÜRZBURG

Before the renovation

The yellowed rooflights as well as the old wired glass shed roofs did not do justice – neither in terms of energy efficiency or visually – to the showpiece building of the event centre and publishing house.

After the renovation

- 23 LAMILUX Glass Skylights FE 3° as an energy-efficiency upgrade and fall-through protection thanks to real glass, 16 of which in ventilated design
- Three LAMILUX Glass Roofs PR60 as shed roof with 60° inclination and each one 40 metres in length including heat-insulated base point with circumferential secondary water drainage, split into 44 glass panels with double thermal insulation glazing
- Integration of seven LAMILUX Ventilation Flaps PR60 for daily aeration and ventilation



RENOVATION EXAMPLE GLASS SKYLIGHT FE 3° PAULUSKIRCHE, TRAUNREUT

Before the renovation

The chancel provides a unique view of the bell tower thanks to the skylights. However, the yellowed plastic glazing obstructed this view when it came down to it and also made it difficult for daylight to enter the church.

After the renovation

- Eight LAMILUX Glass Skylights FE 3° and a sound insulation value of 38 dB
- Mounted on eight LAMILUX Renovation Frames 11 to ensure safe installation on the existing supporting structure

LAMILUX RENOVATION SOLUTIONS

CONTINUOUS ROOF LIGHT AND GLASS ROOF

We offer you a holistic solution with our complete composite and glass systems. With our broad product portfolio, you will receive economical solutions for all installation situations. Regardless of whether use-optimised as a continuous rooflight in an industrial hall or technically sophisticated and aesthetically appealing with our PR60 glass roof constructions.

We would be happy to find customised solutions for more demanding requirements such as extreme site conditions, monument preservation, special glazing, installation openings or other such applications.

The procedure

1. Analysis

Extensive survey of the installation by our experienced specialists on-site

2. Preliminary planning

We develop a customised, energy-efficient and cost-efficient concept for you and produce a system drawing for you in advance.

3. Production

Strict controls and sustainable production methods – production planning is a top priority for us.

4. Installation

We offer extensive installation services. We will provide you with trained specialists for all installation work.





RENOVATION EXAMPLE CONTINUOUS ROOFLIGHT B STUTE, PADERBORN

Before the renovation

The hall roofs and daylight elements of the food plant had been severely damaged by a storm. The energy-efficiency values of the old continuous rooflights were also no longer satisfactory.

After the renovation

- 36 LAMILUX Continuous Rooflights B in different sizes, thermally separated and free of thermal bridges with glazing in multi-shell polycarbonate panels of opal design, for non-glare daylight illumination where possible.
- 15 LAMILUX Smoke Lifts Continuous Rooflight B each integrated as a single flap to ensure safety in the event of a fire and for daily aeration and ventilation



RENOVATION EXAMPLE CONTINUOUS ROOFLIGHT B WEGMANN GRUNDBESITZ GMBH, KASSEL

Before the renovation

The old wired glass constructions could no longer meet their energy-efficiency requirements. Even the top view of the yellowed shed roofs was no longer aesthetically pleasing.

After the renovation

- Twelve LAMILUX Continuous Rooflights B with thermally separated frame profiles in an insulation chamber
- Restriction of fire spreading as per the requirements of DIN18234 by means of an integrated safety package with linear burn-through protection
- Twelve Smoke Lifts Continuous Rooflight B as smoke and heat exhaust ventilation devices and an opener for an additional ventilation function



RENOVATION EXAMPLE CONTINUOUS ROOFLIGHT S PRODUCTION HALL, WURZEN

Before the renovation

Today's event hall used to be a production facility that had not been used for some time. Accordingly, the demands placed on the yellowed, partly blind daylight systems hardly optimised in terms of energy efficiency were different.

After the renovation

- 22 saddle roof shaped LAMILUX Continuous Rooflights S with a 30° inclination and, in part, with ridge bend
- Eight LAMILUX Smoke Lifts Continuous Rooflight S as single flaps for smoke and heat exhaust ventilation in the event of a fire



RENOVATION EXAMPLE CONTINUOUS ROOFLIGHT W/R COROPLAST, WUPPERTAL

Before the renovation

The old shed construction brought only a small amount of daylight into the building and could no longer keep up with the new fire protection regulations.

After the renovation

- 55 LAMILUX Continuous Rooflights W/R as shed construction in a system completely free of thermal bridges
- 55 LAMILUX fall-through protection grids for installation under the shed glazing
- Twelve LAMILUX-roda louvered ventilators as natural ventilation units for daily aeration and ventilation



RENOVATION EXAMPLE GLASS ROOF PR60 DANTE GYMNASIUM, MUNICH

Before the renovation

Heat energy was shown to escape from the old glass roof. The supporting structure had become unstable and the partly opaque glass panes were only letting a small amount of daylight into the building.

After the renovation

- One Glass Roof PR60 in pyramid shape with double insulation glazing and a size of 275 m²
- Integration of two LAMILUX Ventilation Flaps PR60
- Construction on an existing steel supporting structure accompanied by extensive measurement
- Upgrading of the old brick base using additionally fixed steel beams
- Renovation work below a protective roof 2500 m² in size, which was opened and closed the same way as a blind on a daily basis



RENOVATION EXAMPLE GLASS ROOF PR60 UNIVERSITY OF MUSIC AND PERFORMING ARTS, MUNICH

Before the renovation

The old wired glass construction alone could no longer meet the visual requirements of a modern music school. The old glazing also performed poorly in terms of allowing light to enter and in terms of the energy costs of the building.

After the renovation

- Two LAMILUX Glass Roofs PR60 with a width of 14 m and length of 22 m including ventilation flaps made of thermally separated, extruded aluminium profiles



Scan this to discover more about
LAMILUX daylight systems!



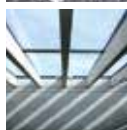
ROOFLIGHT F100



GLASS SKYLIGHT F100



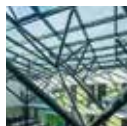
GLASS SKYLIGHT FE



GLASS ARCHITECTURE



RENOVATION



MIROTEC STEEL CONSTRUCTIONS



CONTINUOUS ROOFLIGHT B



CONTINUOUS ROOFLIGHT S



CONTINUOUS ROOFLIGHT W|R



SMOKE AND HEAT EXHAUST
VENTILATION SYSTEMS



BUILDING SMOKE EXTRACTION



RODA LIGHT AND AIR TECHNOLOGY

The technical data printed in this brochure was accurate when this brochure went to press and is subject to change without notice. Our technical specifications are based on calculations and supplier specifications, or have been determined by independent testing authorities within the scope of applicable standards.

Thermal transmission coefficients for our composite glazing were calculated using the finite element method with reference values in accordance with DIN EN 673 for insulated glass. Based on empirical values and specific characteristics of the plastics, a temperature vector of 15 K was defined as the vector between the outer surfaces of the material. Functional values refer to test specimens and the dimensions used in testing only. We cannot provide any further guarantees of technical values. This particularly applies to changes in installation locations, or if dimensions are re-measured on site.



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