

Roofglaze

The benefits of daylight
Transforming your home or workspace



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Rooflights save energy and reduce carbon emissions



The primary reason for including rooflights is to provide a bright, naturally-lit interior and reduce the requirement for artificial lighting. Daylight has many advantages over artificial light; not least the fact that it is a free and unlimited natural resource.

While artificial light is essential, it uses a lot of energy. Reducing its requirement dramatically lowers energy use, and the CO₂ emissions resulting from this.

There has previously been a widely held view that rooflights have a poorer insulation value, allowing more heat to escape the building than the rest of the roof structure and increasing running costs.

Recent research has proved that this view is no longer accurate, as modern rooflight design has resulted in significant improvements in insulation values.

The design parameters of a building will affect the impact that a rooflight area has on its total energy requirements for heating, cooling, artificial lighting, etc.

The savings in total energy costs and carbon footprint therefore vary from building to building, but have been found to be more positive as rooflight area increases, often up to 20% of the roof area.

Rooflights provide healthier and more functional internal environments



Daylight is an essential natural asset. For those of us living in temperate Northern climates, the beneficial effect of sunlight is easy to recognise; a couple of sunny days seem to lift everyone's spirits.

There is also a growing body of evidence to suggest that office buildings enjoying higher levels of natural light are more successful than those more reliant on artificial light.

In all environments, eye and brain functions respond better to natural light, so people will ultimately perform better.

Natural daylight promotes a sense of well-being amongst building occupants and rooflights achieve this without the potential distractions created by views through vertical windows.

Where vertical windows are not installed, rooflights provide occupants with beneficial natural daylight contact.

Rooflights can provide specific benefits in a wide range of applications

Education

Research demonstrates a clear correlation between classrooms with natural light ingress and improved student performance. Children concentrate better in natural light, so they are more focused and less easily distracted.

Studies also suggest that health is enhanced, helping to improve attendance. Further specific information about lighting design for schools is contained in the Government's Building Bulletin 90.

Health

In the UK we are used to hearing about Seasonal Affective Disorder, or SAD as it is often referred to. This is a clinically diagnosed condition where the lack of sunlight in winter makes people feel unwell.

Natural light helps people to feel better and can also aid the healing process. In hospitals, studies have proven that the recovery rate of patients is accelerated where levels of natural light are increased.

Business & Retail

Daylight improves concentration, leading to increased productivity in factories and offices. Studies of retail environments suggest that, in the vast majority of cases, sales are higher in naturally-lit locations.

Colours are vivid and true, making goods appear more attractive, encouraging customers to spend more time and money in these stores. The UK's leading retail organisations now make sure to specify rooflights for their stores.

Recreation

People like bright, naturally-lit environments, which is evidenced by the popularity of domestic conservatories and sunrooms.

It is therefore logical that, in their leisure time, people prefer facilities that enjoy high levels of natural daylight. Sporting and recreational facilities will always try to maximise their natural daylight levels in recognition of this fact.

Daylight ideas and opportunities

1. Opening rooflights can provide natural ventilation, roof access or automatic smoke ventilation
2. Walk-on rooflights make a great feature for buildings with roof terraces and basements
3. Multi-section Flatglass rooflights are ideal for providing daylight to corridors



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Flatglass Rooflights & Roof Glazing Systems

Making the
most of daylight

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