

Daylight

In the built environment



Overhead
Glazing
Solutions



Sale Grammar School
Em-Glaze lantern lights

The importance of daylight in design

Would you like to design hospitals where less medicine is needed, where patients recover faster, where staff enjoy their environment?

Are you looking to create schools where academic performance is raised, where better behaviour blossoms, where futures seem brighter?

Could you transform workplaces so that productivity is lifted, staff recruitment and retention increases, and the bottom line is boosted?

Or new homes with lower heating costs and happier occupants?

These are just a few of the benefits felt when your designs flood interiors with natural light.

Of course your clients also want to save energy and cut carbon footprint. And more natural light means lower energy bills and a substantially higher saleable or rentable value.

A rooflight draws in three times as much daylight as a vertical window the same size.

Whitesales is the daylighting expert and the country's standout designer and manufacturer of high-performance rooflights for every sector. Building regulations should be a baseline in building design – our products help you aim higher, for better BREEAM and SKA ratings.

There's a lesson to be learnt about daylight

Two factors are guaranteed to influence educational outcomes for students and staff alike: quantity and quality of natural light, and the quality of the air they breathe.

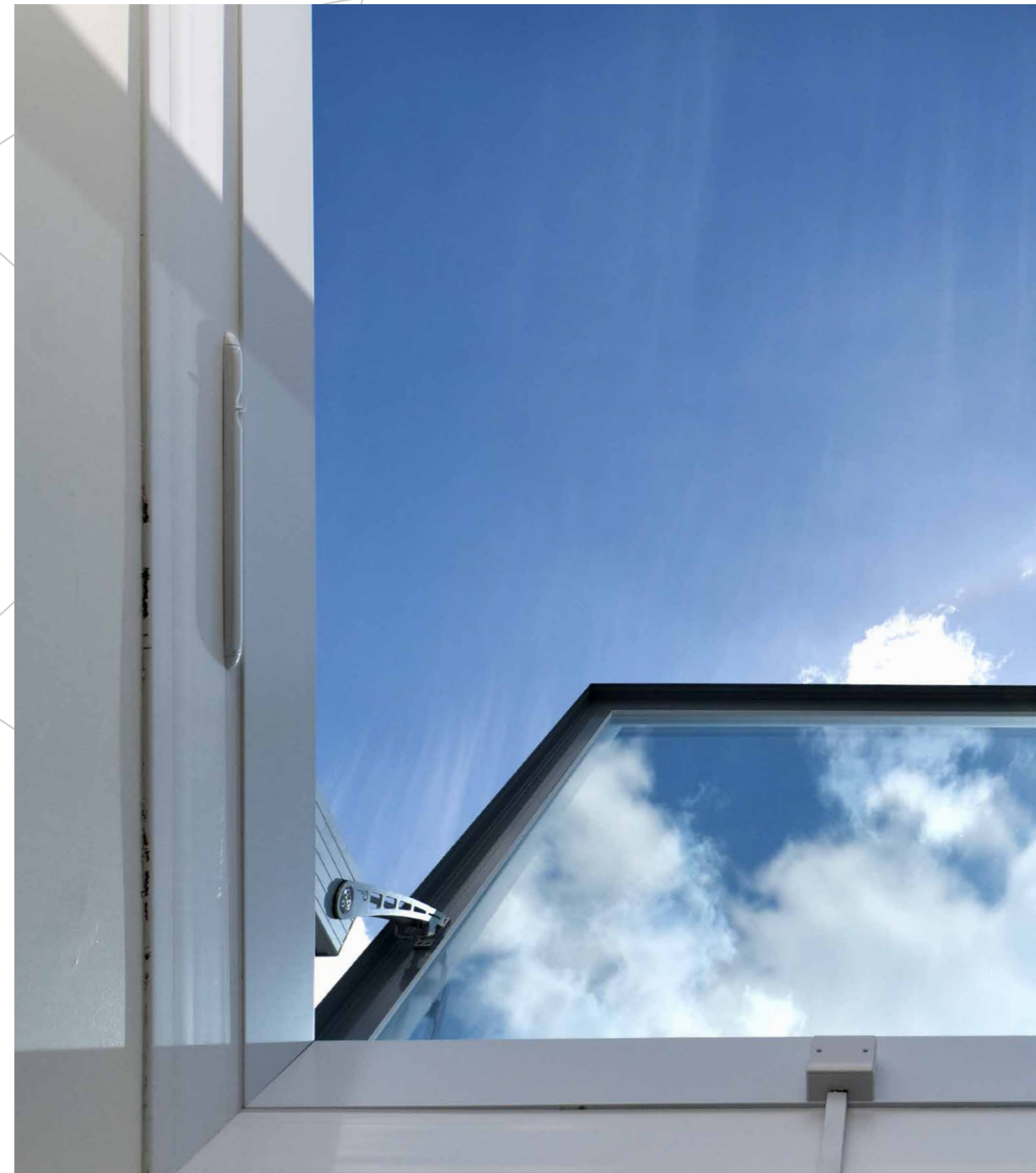
When Alberta Department of Education analysed 21,000 students, sunlit classrooms saw 20% faster progress in maths tests and 26% faster in reading tests.

Whitesales rooflights feature passive or controlled ventilation to bring in fresh air and prevent CO₂ build-up. Why does this matter? Sub-par ventilation causes drowsiness and impaired performance. Tests have found that cognitive function in rooms with high CO₂ levels is up to 50% worse than in well-ventilated rooms.

Well-designed rooflights help pupils fulfil their potential. As the head of Wadebridge School says, *"Whitesales' Em-Dome rooflights have greatly improved the amount of daylight in our school; daylight is essential to the productivity of students and staff alike."*

25% better **test scores**
in **daylit** classrooms *

* Daylighting in Schools, Heschong Mahone Group



St Lawrence Primary School, Hassocks
Em-Glaze modular



Living under natural light

Incorporating effective rooflights into domestic developments brings a host of benefits. Better sleep quality and better physical, emotional and mental wellbeing.

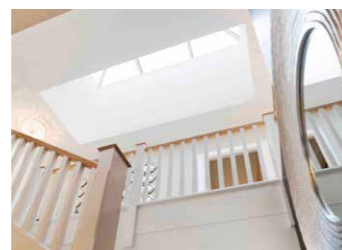
It's no secret that a naturally lit home is instinctively more appealing to homeowners and tenants. They will see financial benefits too. Artificial lighting at home contributes 15% of the average annual household energy bill. However, by designing in the right rooflights, you can lower energy use and energy bills substantially, without compromising on thermal performance and occupier comfort.

Of course, for house value or rentable rate to reach its maximum, skylights need to be sleek as well as high-functioning. Whitesales' range of low-profile stock and bespoke rooflights marry aesthetic with outstanding performance.

That's why Bloor Homes chose Whitesales – and we chose Em-Glaze – for its Winkfield residential scheme near Windsor; our rooflights were essential to achieving a high-end experience inside and out.

Occupants of houses with **daylit rooms** get **46 minutes** more sleep per night*

Winkfield Residential Scheme, Windsor
Em-Glaze modular ridgelight



* Impact of Windows and Daylight Exposure on Overall Health and Sleep Quality of Office Workers, *Journal of Clinical Sleep Medicine*

A healthier healthcare sector

If better daylighting boosts wellbeing in homes and schools, what's the impact on human health in hospitals?

Exactly what you'd hope. Perhaps even better. Sunlight boosts serotonin levels, which decreases stress and increases positivity – more than 11 studies show that sunlight reduces depression in bipolar and seasonal affective disorder sufferers.

That's not all. It has an analgesic effect, reducing pain medication use by 22% and costs by 21%, according to the BRE's Daylight benefits in healthcare buildings report. Post-operative recovery rates speed up too – by up to 41%.

Add efficient rooflights with integral ventilation, and you'll cut the negative effects of CO₂ build-up as well as enhancing public safety with smoke ventilation.

From post-op recovery rooms to care homes, we should be looking to maximise daylight in every room where people spend their time. It was exactly this insight that led Drake & Kannemeyer and Beard Construction to bring us in to design a healthy and safe environment for Royal Surreys new Ophthalmology unit.

Bright daylight reduces agitation in dementia sufferers*

* Daylight benefits in healthcare buildings, BRE



Royal Surrey County Hospital, Guildford (right)
Em-Vault barrel vault



Think of a building, any building

Daylight's beneficial boost to physical, mental and emotional wellbeing is felt in all sorts of ways, in all sorts of spaces.

Better concentration, increased productivity, more motivation and morale, resurgent recruitment and retention levels. That's true across all industries: public sector and private, office staff or workers in a warehouse. Employers appreciate all this as much as the reduced number of days' sick leave and lower energy bills that daylighting brings.

Daylit retail environments even report higher sales turnover - it's the third most important factor in increasing sales volume, according to HMC's *Daylighting impacts on retail sales performance*.

No surprise that Billingsgate Market's 13-acre indoor site is now fitted with Whitesales Em-Glaze rooflights: *"The installation of the new glass rooflights has really transformed the fish market. The rooflights themselves have increased the amount of natural daylight and provide a much greater level of energy efficiency"*.

Lighting accounts for **33%** of
office building **electrical use***

* Energy consumption in the United Kingdom, *Department for Business Enterprise & Regulatory Reform*



West Kirby Train Station (right)
Em-Vault
Billingsgate Market (left)
Em-Glaze bespoke





Creating new heritage rooflights

Britain enjoys a fine and varied architectural heritage dating back centuries. Maintaining, restoring and refurbishing historical buildings requires respect and sensitivity.

Fortunately Specifiers have become more aware of the importance of daylight, which is why we now have the pleasure of recreating original rooflights in such illustrious buildings as Somerset House and the Barbican, with all the advantages of outstanding daylight ingress, solar control and impressive thermal performance.

Galleries, museums, ancestral homes – they all benefit from the even spread of natural light into the dark corners which light through a window cannot reach.

Many historical buildings suffer neglect through lack of finance, yet choosing the right rooflights can make significant energy savings, which helps owners manage costs. Since natural light improves internal aesthetic – and a sensitively designed rooflight suits its context – heritage buildings become more usable and more profitable too.



The daylighting experts

Our daylighting team offers an unrivalled enquiry to installation service, tailored to your needs.

From an off-the-shelf modular rooflight range to suit all budgets, through to the complete consultation, including daylight condition reports, bespoke design and manufacture.

Glass rooflights

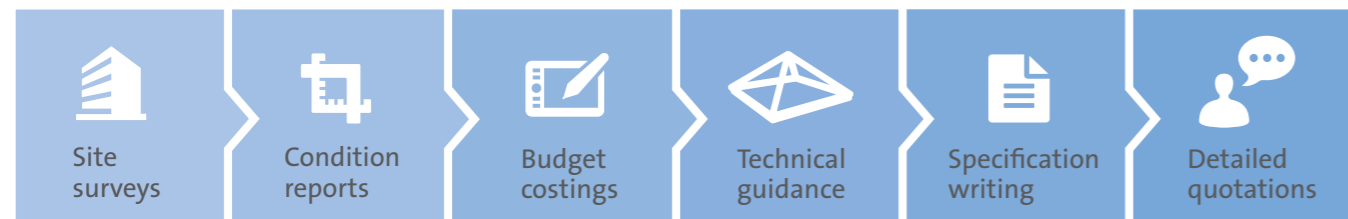
Minimalist modular rooflights, ridgelights and bespoke skylights designed to the most demanding specifications.

Polycarbonate rooflights

ECO models, tubular skylights, barrel vaults, vertical oversleeves and bespoke designs.

We also have the in-house expertise to integrate a complete roof access and smoke ventilation system into our skylights – to exceed all safety requirements and in complete compliance with all legislation.

We believe in the quality of our products, which is why we guarantee them when installed to our instructions. We believe in the technical and design skills of our expert team, which is down to the results they achieve for our clients. We believe you'll see the difference.



Wadebridge School
Em-Dome pyramid and trapezoidal

Rooflights increase daylight availability dramatically

We humans spend an estimated 90% of our lives indoors. While it can be difficult to measure the precise impact of daylight on our working environments, homes and hospitals, the consensus from international research across decades is that people need daylight. It makes us healthier in mind, body and spirit. It helps us heal, lifts physical and mental performance and productivity, and helps us reach our potential. It makes us happier in ourselves, and in the way we interact with others.

We work with leading building designers to create the best environments in which to live, work and play, rest, recuperate and reflect.

We want to help you do the same.

For a no-obligation discussion, please get in touch with our team on **01483 271371** or email sales@whitesales.co.uk.

In the meantime, you can discover more on our website: www.whitesales.co.uk.

Rooflights increase daylight availability by up to 45% of the occupied year*

* Institute of Energy and Sustainable Development, De Montfort University in Leicester



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