Introduction

Xtralite ROOFLIGHTS

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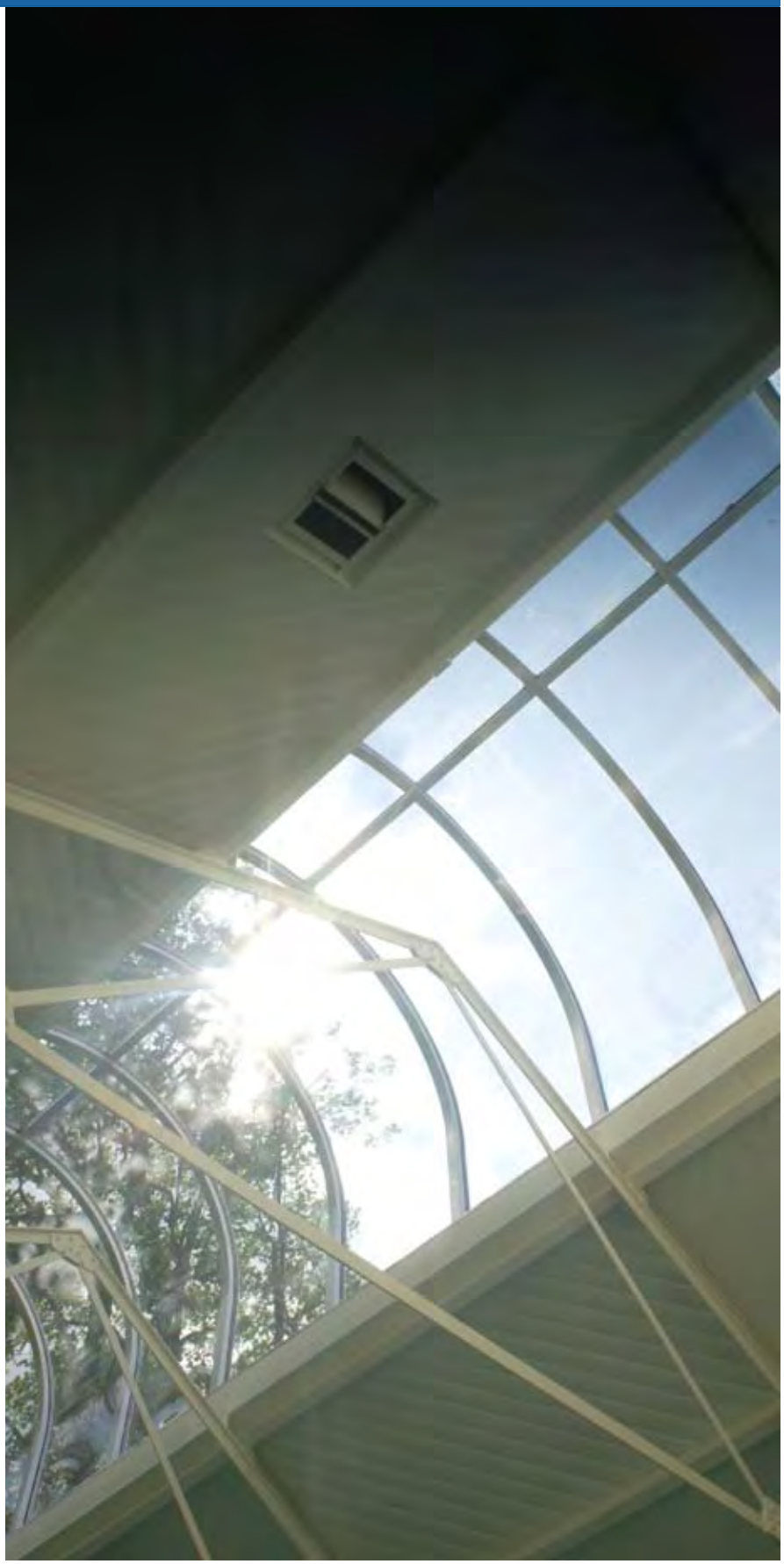
The Case for Rooflights

For many years the rooflight has been recognised as an essential and the most efficient device for introducing daylight into buildings. However, nowadays there is a growing appreciation that rooflights have a far more profound impact on the economics of running a building and also on the way that users react to the building.

Modern rooflights of the type made by Xtralite are extremely effective in reducing a building's energy consumption. Rooflights can be positioned to make a significant contribution to the illumination of a building interior and so save on lighting costs during daylight hours. They can be made of materials that reduce solar gain inside the building and thus save on mechanical cooling costs. They can also be insulated so that, in cooler climates, the gain in natural interior illumination does not equate to a rise in heating demand.

In addition to the benefits of energy efficiency, rooflights also offer significant aesthetic qualities. A view of clear blue sky or the reassurance offered by natural diffused daylight from a building's interior adds immeasurably to the sense of well being. Equally, detailed research in educational, medical and commercial environments has shown that people perform far better in buildings where daylight is a major factor.

In the past rooflights were often regarded as accessories. Today, the informed architectural approach is to take full advantage of the economic and aesthetic benefits and build rooflights into the core design proposition. The wide range of rooflight solutions available from Xtralite enables and actively encourages such an approach.



About Xtralite

Since its foundation in 1993, Xtralite has sought to deliver the highest levels of professionalism, expertise and innovation to specifiers, installers and users of rooflights. By 1995 the company had the largest technical team for rooflights in the UK, with BBA accreditation for its entire range of standard and modular rooflights the following year and, by 1997, Xtralite had become the leading independent producer of rooflights in the country. Xtralite has always invested in technical expertise, product development and manufacturing capability. The company is committed to the principle of independently-tested performance characteristics—including 'hot box' testing of products by the National Physical Laboratory to establish accurate U values.

The diverse systems available range from simple 'dome on a kerb' units to the most technically demanding, custom-designed structural glazing. The company continues to lead the industry, developing new innovations such as Nanogel® sheet technology. Xtralite is consulted on and provides solutions for many of our major buildings—such as the Millennium Dome and Newcastle United's state-of-the-art football stadium. Our senior team members work with RIBA in providing specification details for the NBS programme and also give RIBA accredited presentations as part of the CPD lecture resource. Xtralite is an active member of the National Association of Rooflight Manufacturers (NARM).

In recognition of the company's dedication to quality, Xtralite is ISO 9001:2000 accredited for design, manufacturing and customer satisfaction. Xtralite is also leading the industry drive toward sustainability—and not just with energy saving products—its manufacturing capabilities are energy efficient and it aims for 95% of its product materials to be recyclable after end of life. Xtralite is involved with all building types and market sectors, whether new-build or refurbishment. In 2002, the company became the first in its industry to offer insurance-protected product guarantees.

Partnerships with Industry Bodies—NARM

NARM is the National Association of Rooflight Manufacturers of which Xtralite is not only a member but also plays a leading role. NARM represents a complete cross section of the rooflight design and material type manufacturers in the UK.

This includes: in-plane profiled rooflights, continuous barrel vaults, modular domes and pyramids, panel glazing systems and architectural glazing systems for skylights, lantern lights and atria.

The association promotes co-operation between member companies, in order to develop and maintain standards and codes of practice—and to provide an authoritative information portal for rooflight specifiers.

All Full and Associate Members of the National Association of Rooflight Manufacturers are:

- Focussed on quality and have obtained, or are working towards, BS EN ISO 9001:2000 registration.
- Committed to staff training and development.
- Able to offer balanced advice on the use of rooflights, rooflight materials and rooflight systems without misrepresentation.
- Dedicated to customer satisfaction through the development and supply of quality rooflights, rooflight materials and systems.
- Supplying only those products which comply with relevant UK and European Standards and Building Legislation.
- Promoting good business practice and publish clear statements on terms of sale and product warranties.

A NARM spokesman reflects on their role and the design of rooflights:

"Omitting rooflights from a building is often seen as a short-term (but misguided) cost saving measure. This totally ignores the major benefits natural daylight can bring. Natural daylight is a freely available resource; through a carefully designed daylighting scheme, rooflights can utilise that resource, bringing lifecycle cost savings in terms of less power for artificial lighting, therefore benefiting the environment. Improved efficiency through natural daylight also brings the benefit of increased productivity and therefore improving investment 'pay back' times. Health benefits of natural daylight are well documented. NARM's mission must therefore be to continue the promotion of daylight in buildings, through the use of rooflights.

Our strengths, as an Association, lie with our Members and a very well respected Technical Team. We'll continue to be active in research and development and will regularly produce and publish technical documents and bulletins. Rather than just following legislation we are, as a Trade Association, looking to lead the way in contributing to its development."

NARM members are united in their vision of NARM as an active organisation and not a passive, administrative function. For instance:

- NARM has a continuing working function in European Standardisation, leading UK representation on the CEN Working Groups revising and developing European Standards such as EN1013, EN1873 and WI 00128038, and chairing the BSI B/542/8 mirror committee to CEN/TC128/9.
- The Technical Committee has commissioned a research report from the Institute of Energy and Sustainable Development at De Montfort University, to provide supporting data for Part L of the Building Regulations. This is now available on the NARM website: **www.narm.org.uk**.
- NARM is regularly involved with governmental working groups considering on-going revisions to Part L of the Building Regulations.
- NARM is represented on the Advisory Committee for Roofwork (ACR) which works on roof safety issues, and NARM is currently developing further recommendations for long-term non-fragility of inplane rooflights, published in a document, NARM 2004/1. Details are posted on our website.
- NARM has been heavily involved with development of new harmonised European fire tests, contributing to various PII projects with government departments, and continue to be involved with BSI FSH/22/8 committee and development work with BRE FRS.

Xtralite fully endorses NARM's views and, as exemplified by this Guide, hopes to raise both the level of design and rooflight specification by actively working with specifiers throughout all the stages of specification.

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Partnerships with Industry Bodies—Constructionline & CHAS

Xtralite is a member of Constructionline and accredited with Contractors Health and Safety Scheme (CHAS) to make life a little easier for customers and contractors.

Constructionline is the UK's premier register of pre-qualified local and national construction and construction-related contractors and consultants. Owned and endorsed by the Department for Business, Enterprise & Regulatory Reform (formerly the DTI), Constructionline is a contributor to the Rethinking Construction initiative.

Constructionline helps contractors and consultants by reducing the need for them to fill in pre-qualification forms for every tender, allowing them to use one 'site' to choose the range of suppliers for a particular project based on their suitability for the job.

Xtralite has been certified by CHAS which assesses Xtralite's compliance with—and sound management of—current health and safety legislation. This certification adds to Xtralite's ongoing pursuit of good business practice which gives further confidence to the industry when selecting Xtralite as a rooflight supplier.

Partnerships with Industry Bodies—BBA

Xtralite's goal of ensuring quality product design and installation is reflected in our pursuit of achieving recognition both within the industry and for the industry.

BBA BRITISH BOARD OF AGRÉMENT
CERTIFICATE No 02/3890

This is exemplified in the work with the BBA (British Board of Agrément), the organisation partnered with Government and whose Governing Board includes representation on behalf of Government.

The BBA's Agrément Certificates have been providing authoritative and independent information on the performance of building products for over 35 years.

In relation to Xtralite, the BBA's Sales and Marketing Director, Alan Thomas says,

'The increasing use of rooflights to introduce natural light and ventilation into buildings is giving a lift to all kinds of properties throughout the UK. As ever though, it is important to ensure that the rooflight system chosen is up to the job; and I am delighted that Xtralite has sought and gained BBA Approval for its range. The BBA assessment included resistance to weathering, wind and snow loads as well as rain, along with thermal performance. Condensation risks were also evaluated along with soft body tests for non-fragility.

Xtralite's BBA certificate allows specifiers and purchasers nationwide to specify and select Xtralite rooflights in the knowledge that they have been put through the mill at the BBA and have been shown to be fit for purpose. And of course our interest in a product doesn't end with the award of the BBA Certificate: we carry out surveillance visits throughout the validity of the Certificate to make sure the product specification is exactly the same as we originally approved—another good reason for selecting BBA Approved products.'

Partnerships with Industry Bodies—NBS

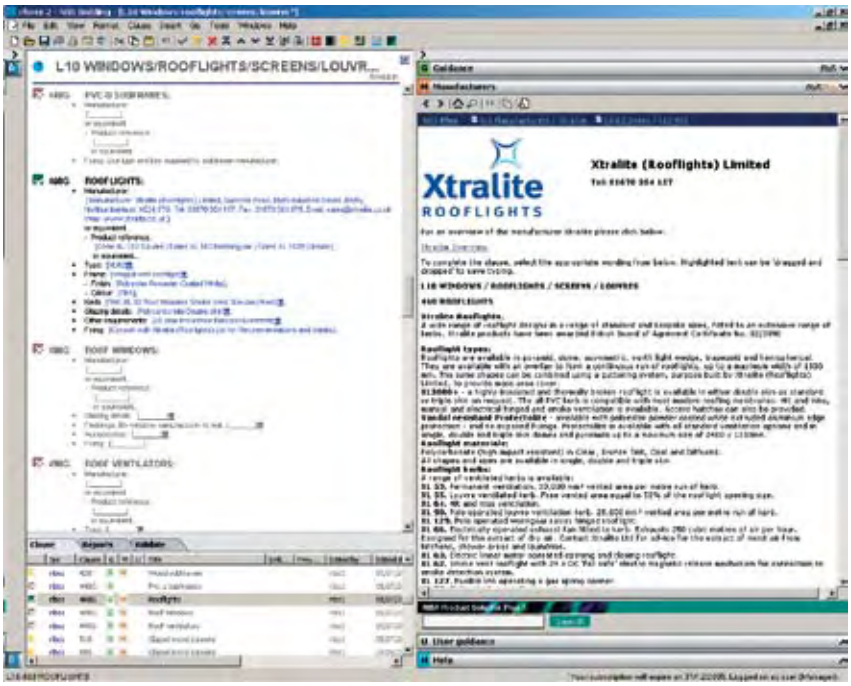
NBS Building is the most widely used specification system suitable for a wide variety of construction projects. It is available in three levels of service depending upon projects undertaken.

NBS brings together the specifier and the NBS library of technical product information which is managed and updated by a team of RIBA specialists. Information is standardised and therefore recognised throughout the industry facilitating an understandable and easier specification process.

Xtralite are members of the NBS specification system assisting specifiers with rooflight specification across the two main categories of rooflight—structural and standard.

Xtralite Rooflight and Continuous Rooflight products usually come under the NBS heading of L10 WINDOWS/ ROOFLIGHTS/SCREENS/LOUVRES, part 460 Rooflights (L10/460).

Xtralite Panelised Glazing and Specialist Roof Glazing products usually come under the heading of H10 PATENT GLAZING, part 115 Patent Glazing (H10/115).



Images taken from the NBS Specification Writer System.

Partnerships with Industry Bodies—NPL

The National Physical Laboratory (NPL) is the United Kingdom's national measurement laboratory, an internationally respected and independent centre of excellence for R&D, and knowledge transfer in measurement and materials science. It is UKAS accredited—as recognised by the Building Regulations—and offers comprehensive test facilities to measure thermal resistance, including a rotatable hot box which is particularly suited to full-scale testing of rooflights.

Xtralite is firmly committed to providing specifiers with accurate U value data on all its thermally-efficient products, based on testing by NPL. Xtralite does not endorse claimed U values based solely on desk-top calculation using thermal transmittance values for component materials. Although this is a complex area, it is of fundamental importance to ensuring that our buildings actually perform as designed in terms of energy efficiency. A Rooflight Technical Bulletin is available via the Xtralite website **www.xtralite.co.uk** providing full information on this important topic.

The National Physical Laboratory hot box apparatus provides an accurate method of measuring actual U values for rooflights. It can be rotated into any orientation, enabling measurements to be carried out in the orientation that the product will be used.

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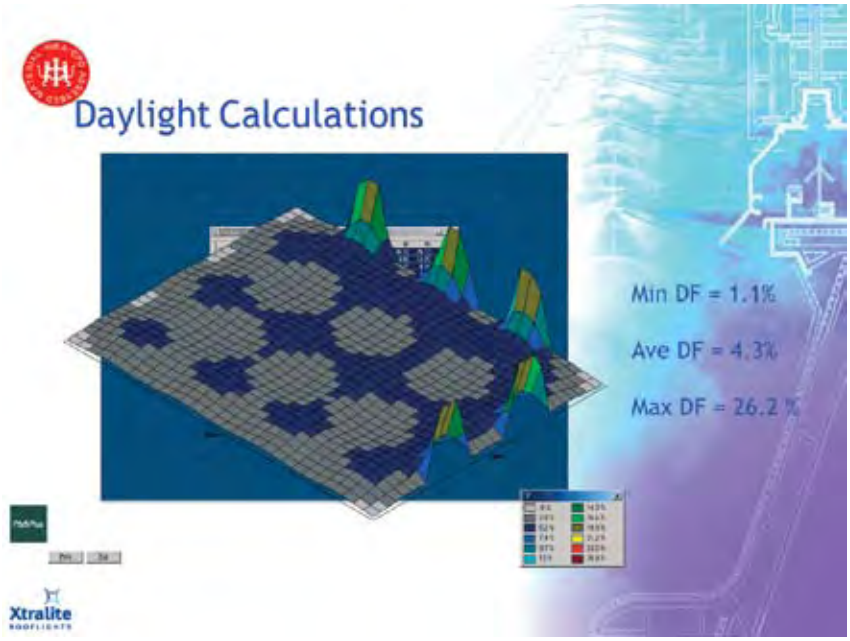
Partnerships with Industry Bodies—RIBA

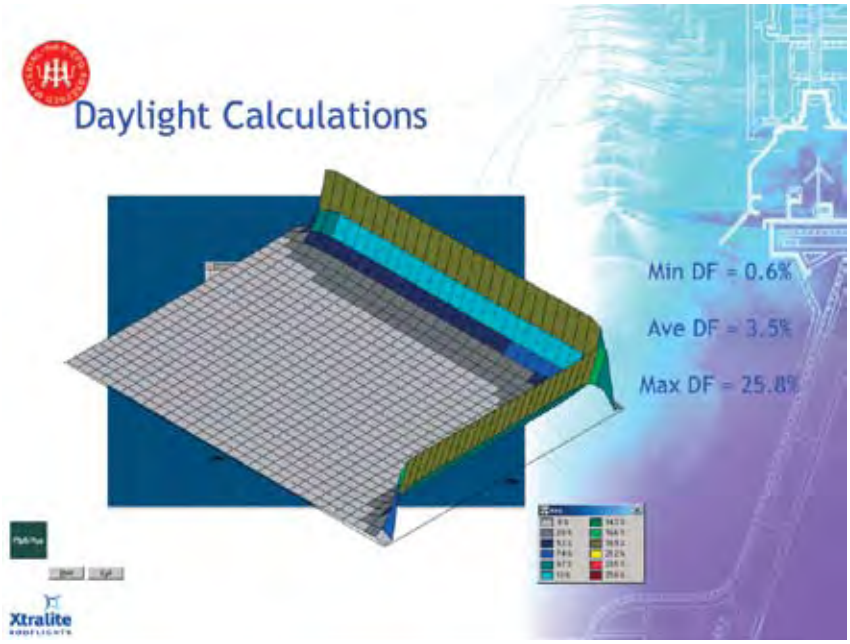
The Royal Institute of British Architects (RIBA) requires its members to carry out Continuing Professional Development (CPD) and assesses CPD material submitted by manufacturers and others.

Xtralite is a member of the RIBA CPD Providers Network and offers a comprehensive support programme for rooflight specification including an expanding series of RIBA assessed CPD seminars. The *'Rooflight Solutions'* seminar explores the benefits that 'designed' daylight can offer, then considers various common—and some unusual—problems with rooflights and how to solve them. Testing and legislative requirements are also covered, including energy efficiency.

A second seminar *'Overhead Glazing—the Choices to be made'* gives an objective outlook on the rationale behind specifying rooflights. The presentation takes an informative and illustrated overview of typical overhead glazing projects whilst balancing the advantages and disadvantages of different shapes, glazing materials and systems. The most recent seminar—*'Advanced Fenestrations'*—looks in detail at the use of natural daylight and the latest technologies for high-performance rooflights, including Nanogel® translucent aerogel granules. A fourth seminar dealing with the detailed implications of Part L of the Building Regulations will also be available shortly.

To book an Xtralite CPD seminar, call **01670 354157** or email **cpd@xtralite.co.uk**.





Images are taken from the *'Rooflight Solutions'* presentation.