Product Portfolio
Specialist Roof Glazing

Xtralite ROOFLIGHTS

Overview

Over the years, Xtralite has developed a universal, structural glazing package for bespoke installations, offering architects complete design freedom while meeting the widest set of technical requirements. It utilises a comprehensive suite of interchangeable profiles from which the Xtralite system designers can select, in order to create an unlimited variety of differing shaped and sized rooflighting structures. In addition to impressive bespoke rooflights within buildings, other structures can also be supplied such as canopies, walkways and smoking shelters.

All designs incorporate such features as:

- 'Cascade' internal water management system
- Custom engineered connections
- Bespoke closures
- Custom-designed flashings
- 20 year warranty

An impressive choice of high quality glazing materials is available including glass and polycarbonate, and the latest advanced glazing technology Nanogel® sheet—offering impressive energy saving and lighting characteristics (see the earlier section **Designing with Daylight—Properties of Glazing Materials and Configurations**).

Of course, there is more to successfully realizing architectural concepts than a well-developed, comprehensive system of components. Of equal importance is a skilled and experienced design team with particular expertise in glazing technology. There are few, if any, similar organisations with such a rich breadth of knowledge and range of skills as Xtralite.

The Xtralite team comprises:

- Project Managers
- Estimators
- Design Engineers
- CAD Operators
- Quantity Surveyor
- Structural Engineer
- Installation Manager
- Commercial Manager
- Technical Manager

All of whom can be contacted on: **01670 354157**. Xtralite has recently substantially enlarged its manufacturing facilities to allow for further expansion of its Specialist Roof Glazing Division.

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing

Semi-Circular Barrel Vault with Nanogel® Technology

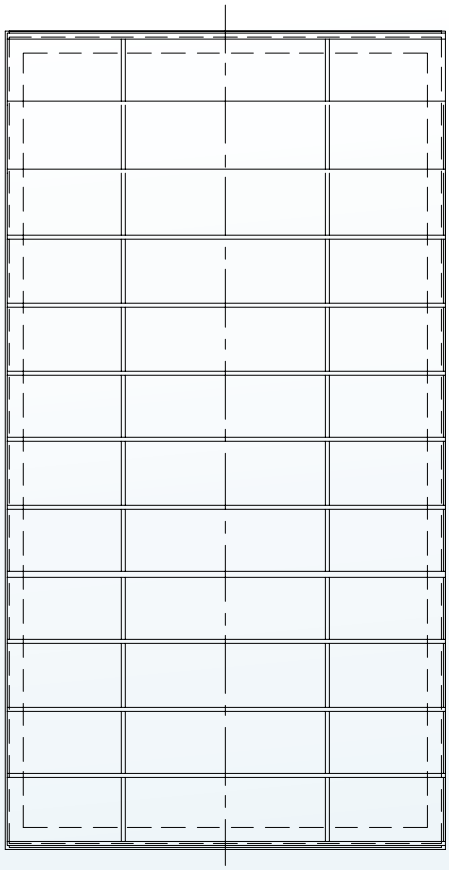
The classic vault is a simple semi-circle that tops the supporting structure. Aalternatively, it can be extended on vertical legs incorporating such features as windows, vents or louvres. Ends can be terminated with vertical glazed screens or simply abut an adjoining structure.

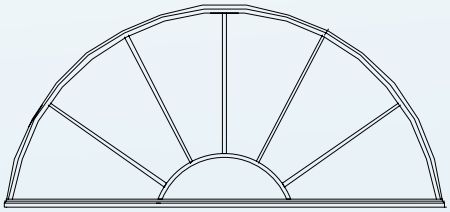
The spanning performance quoted below assumes classic semi-circular geometry and is self-supporting—much larger spans can be achieved but these would require a substructure for additional support.

May be glazed with a range of polycarbonate options—from solid single-skin for canopies and unheated spaces, to multiwall structured with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification





Maximum spans	Up to 7.0 m (self supporting).
Length	Infinite length.
Loading	Designed in accordance with CP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Structured and solid polycarbonate: clear, opal or bronze.
Thermal performance	Part L: below 2.0 W/m^{2}K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from an installation, designed and constructed with semi-circular geometry.

Such details are indicative only—project-specific designs and details are produced for each project engineered by Xtralite.

For more information on the semi-circular barrel vault contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing

Low Profile Barrel Vault

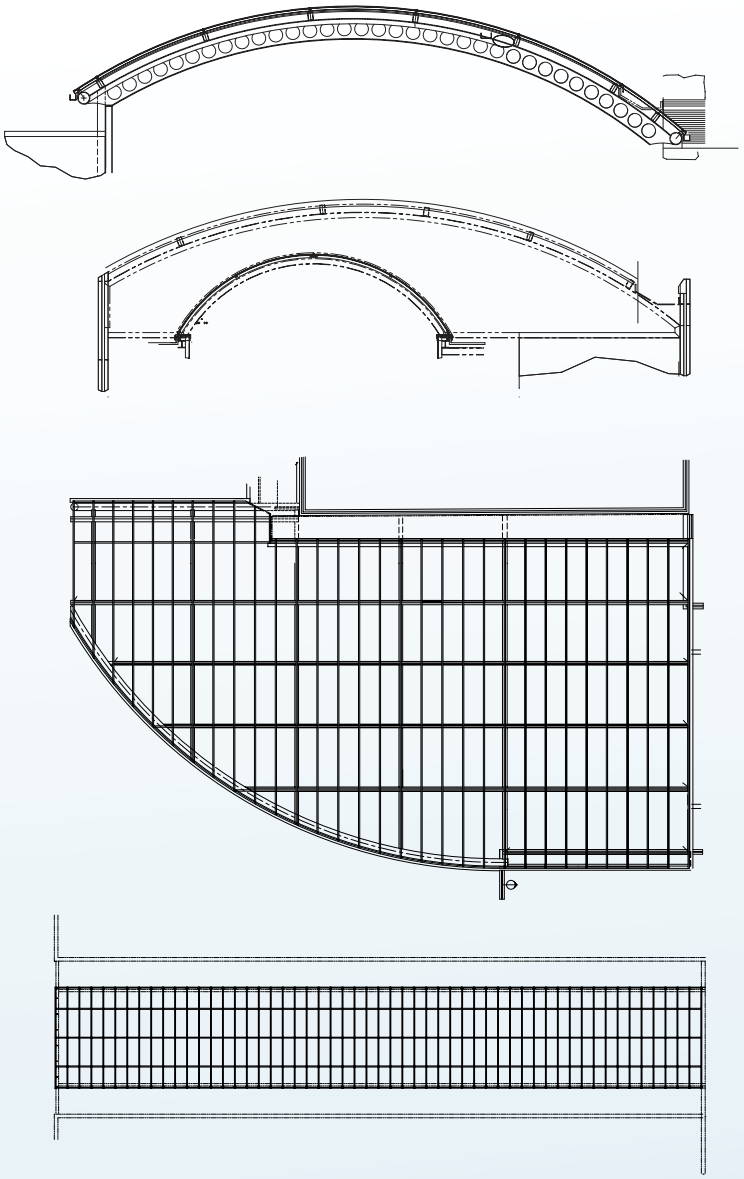
The typical low-profile barrel vault is an elegant low rise arc spanning between supporting structures. The normal geometry for low rise is usually stated as the radius of the arch is equal to the span of the arch, other geometries are entirely possible. Ends can be terminated with vertical glazed screens or simply abut an adjoining structure.

The spanning performance quoted overleaf assumes standard low-profile geometry and is self-supporting—much larger spans can be achieved but these would require a substructure for additional support.

They may be glazed with a range of polycarbonate options—from solid single-skin for canopies and unheated spaces, to multiwall structured with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification



Maximum spans	Up to 10.0 m (self supporting).
Length	Infinite length.
Loading	Designed in accordance with CP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from an installation, designed and constructed with low-rise geometry.

Such details are indicative only—project-specific designs and details are produced for each project engineered by Xtralite.

For more information on the low-profile barrel vault contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

Hipped-End Ridgelight

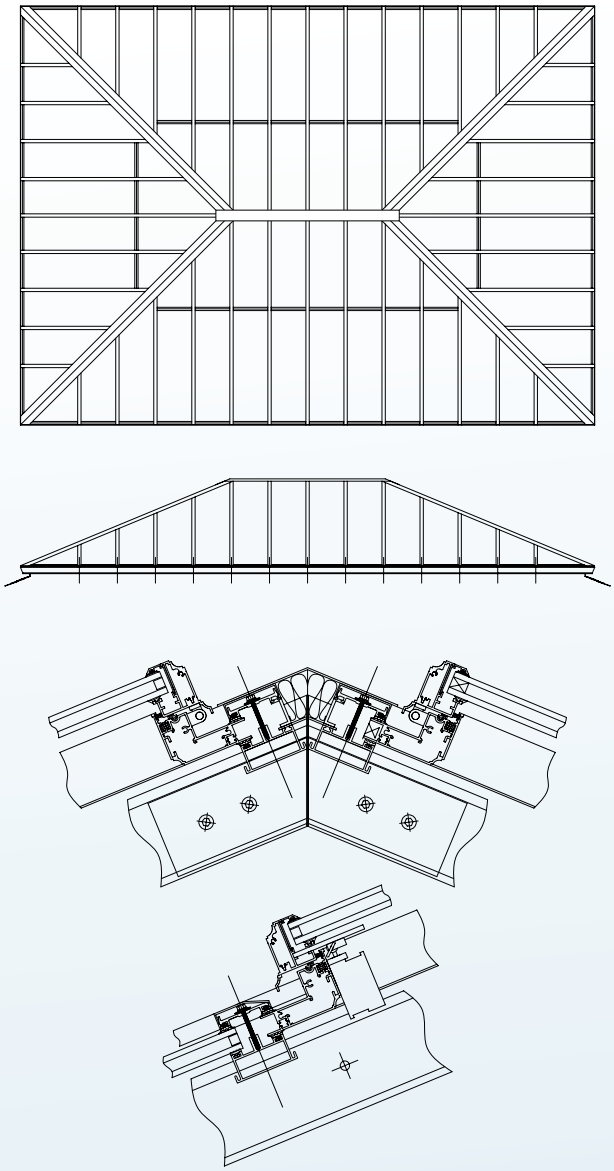
Create instant impact in a scheme with an Xtralite hipped-end ridgelight. These constructions seem to have an innate ability to introduce more daylight than any other type of rooflight construction. With hipped-end construction the sweep created at the sides is continued around at the ends producing an attractive, meaningful feature.

The most usual geometry for these rooflights would be 30°, although 45° is not uncommon. The limits for slope ranges from 10° up to near vertical.

They may be glazed with a range of advanced glasses and high specification polycarbonate options—from solid single glazed for canopies and unheated spaces, to multiwall structured or triple glazed with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification



Maximum spans	Up to 7.0 m (self supporting).
Length	Infinite length.
Loading	Designed in accordance with CP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from a hipped-end ridgelight installation, designed and constructed with 30° geometry.

Such details are indicative only—project specific designs and details are produced for each project engineered by Xtralite.

For additional information on the hipped end ridgelight contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing
Ridgelight

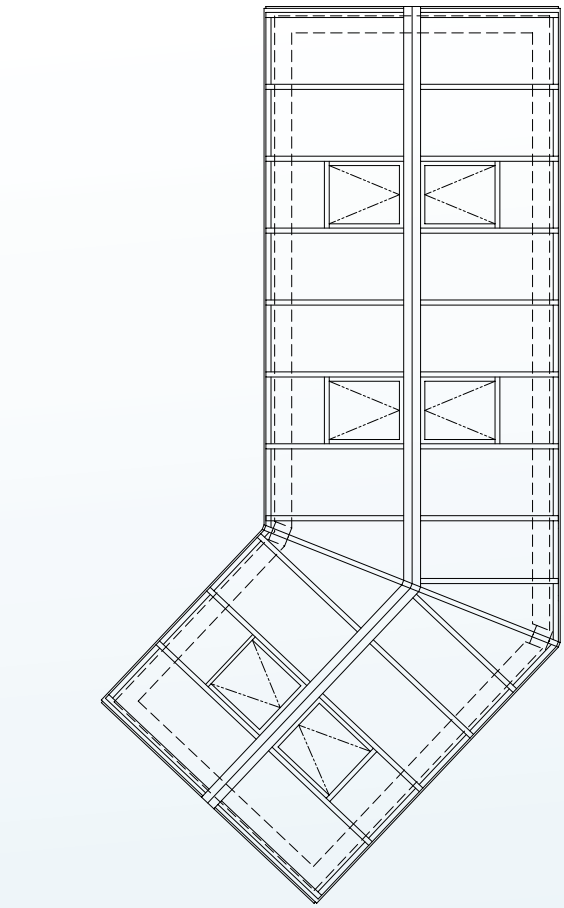
This is the workman of rooflights—used to cover and light corridors, walkways and monospaces. The detailing is both dedicated and repetitive, thus introducing enhanced levels of economy.

The most usual geometry for these rooflights would be 30°, although 45° is not uncommon. The limits for slope range from 10° up to near vertical.

They may be glazed with a range of advanced glasses and high specification polycarbonate options—from solid single glazed for canopies and unheated spaces, to multiwall structured or triple glazed with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification



Maximum spans	Up to 7.0m (self supporting).
Length	Infinite length.
Loading	Designed in accordance with CP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from a ridgelight installation, designed and constructed with 30° geometry and surmounting a pitched roof.

It is capable of turning corners, as illustrated, and just as capable of being extended to infinity should the need ever arise.

Such details are indicative only—project specific designs and details are produced for each project engineered by Xtralite.

For additional information on the ridgelight contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

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Self-Supporting Pyramid

As the name suggests these pyramids do not require any additional support except, of course, an upstand or kerb to which it can be attached.

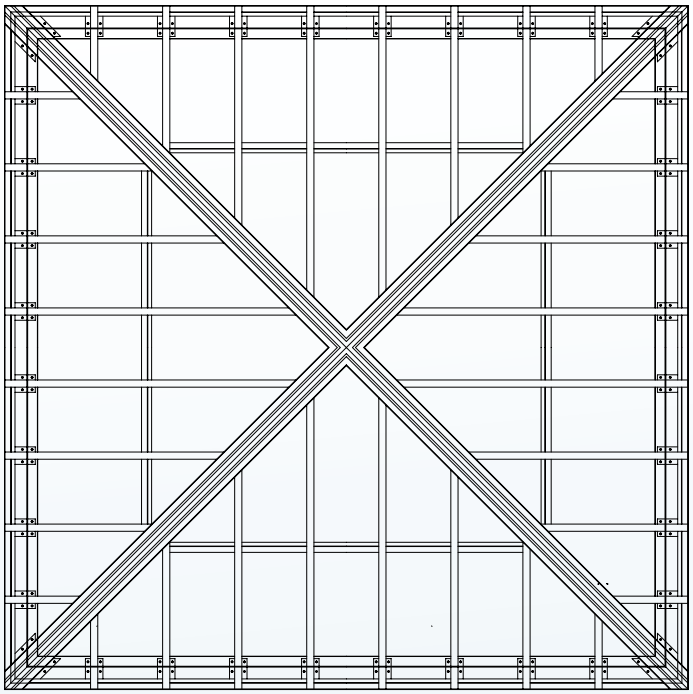
More than anything else, the pyramid is 'a statement' as presumably the Pharaohs would agree!! Strong lines and 'focus' make it useful in more ways than simply introducing light into a space.

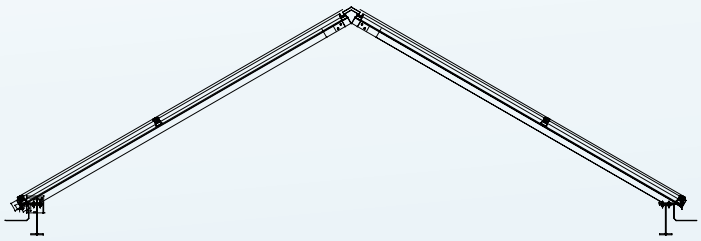
The most usual geometry for these rooflights would be 30°, although 45° is not uncommon. The limits for slope ranges from 10° up to near vertical.

They may be glazed with a range of advanced glasses and high-specification polycarbonate options—from solid single glazed for canopies and unheated spaces, to multiwall structured or triple glazed with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification





Maximum base square	Up to 8.0 m (self supporting).
Loading	Designed in accordance with CP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from a self-supporting pyramid installation, designed and constructed with 30° geometry and set into a flat roof.

Such details are indicative only—project-specific designs and details are produced for each project engineered by Xtralite.

For additional information on the self-supporting pyramid contact our structural department on 01670 354157 or email sales@xtralite.co.uk

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing

Pitched Polygon

A round, faceted pyramid of indescribable beauty when well engineered. Xtralite has delivered and installed many of these to the Middle and Far East.

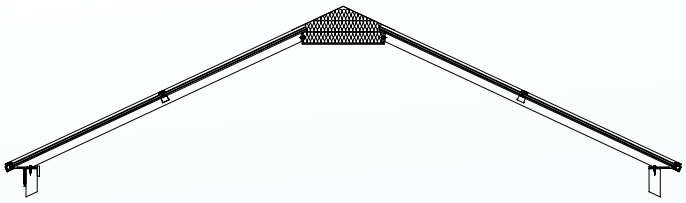
But, by inspection of the picture it can be seen that there is an overwhelming level of engineering. Couple that with the proportion of metal to glazing and it becomes obvious that this isn't a low budget item. These rooflights are nothing less than jewels mounted in roofscape settings.

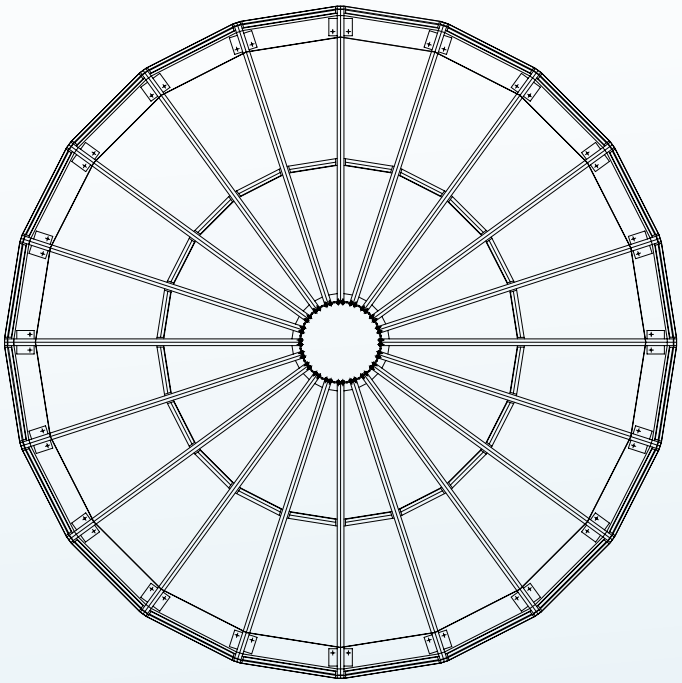
The most usual geometry for these rooflights would be 30°, although 45° is not uncommon. The limits for slope ranges from 10° up to near vertical.

They may be glazed with a range of advanced glasses and high-specification polycarbonate options—from solid single glazed for canopies and unheated spaces, to multiwall structured or triple glazed with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification





Maximum base square	Up to 10.0 m (self supporting).
Loading	Designed in accordance with CP3 Chapter V Part2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

Illustrated here are details from a self-supporting pitched polygon installation, designed and constructed with 30° geometry and set into a sloping metal profiled roof.

Such details are indicative only—project-specific designs and details are produced for each project engineered by Xtralite.

For additional information on the hipped end ridgelight contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing

Mono-Pitched Rooflight

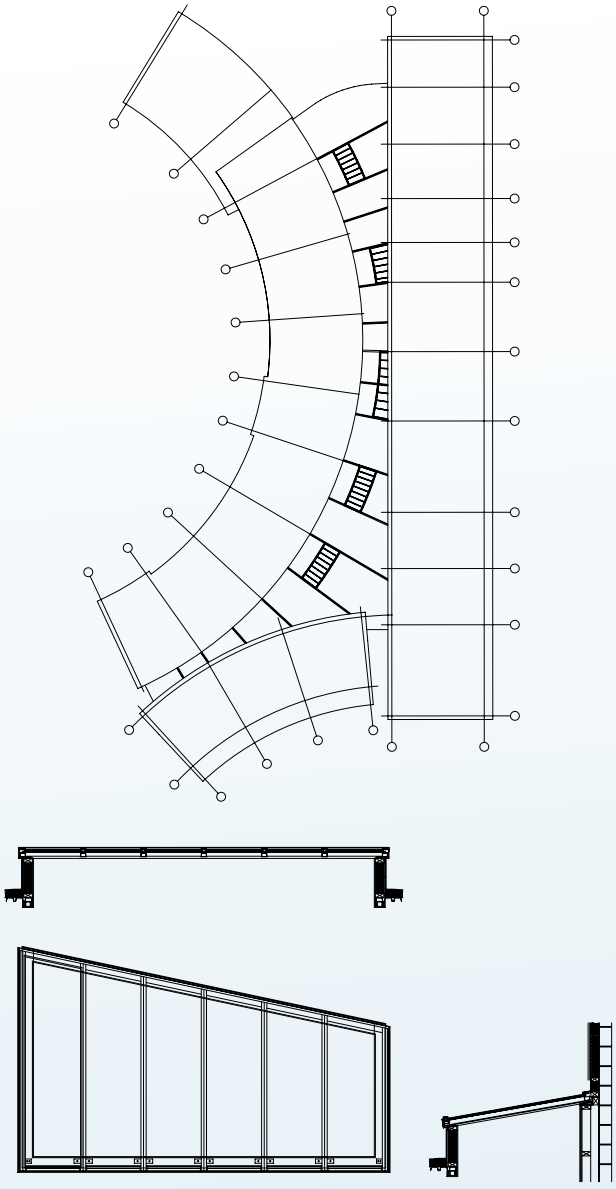
Arguably the most universally used system for closing and providing a glazed cover. Mono-pitches have been effectively used for covered walkways, large-scale conservatory areas through to major atria on prestigious buildings. One of the benefits of mono-pitch design is that it is rigidly constrained by the need for a level, orthogonal structure onto which it mounts. Capable of receiving accessories like smoke or natural ventilation modules access hatches and doors. The mono-pitch is equally at home when used to create an area of vertical glazing.

The most usual geometry for these rooflights would be 30°, although 45° is not uncommon. The limits for slope ranges from 10° up to vertical.

They may be glazed with a range of advanced glasses and high-specification polycarbonate options—from solid single glazed, for canopies and unheated spaces, to multiwall structured or triple glazed with exceptional thermal performance for part L compliance.

All metal parts can be mill finish for economy or, alternatively, coloured with polyester powder, PVF2 or anodised.

Specification



Maximum base square	Up to 4.0 m to 6.0 m (self supporting) dependant on glazing material.
Loading	Designed in accordance withCP3 Chapter V Part 2:1972 BS 6399:Part 1 and Part 3 1984 max. 1.5 kPa wind and 0.75 kPa imposed.
Safety	ACR[M]001:2005 Class B option available.
Glazing options	Glazing in glass or structured and solid polycarbonate.
Thermal performance	Part L: below 2.0 W/m²K options available.
Fire regs	BS 476 Part7:class1(1991) Class '0' Tp(a).
Surface finish	Mill finish, polyester powder, PVF2 and anodised.

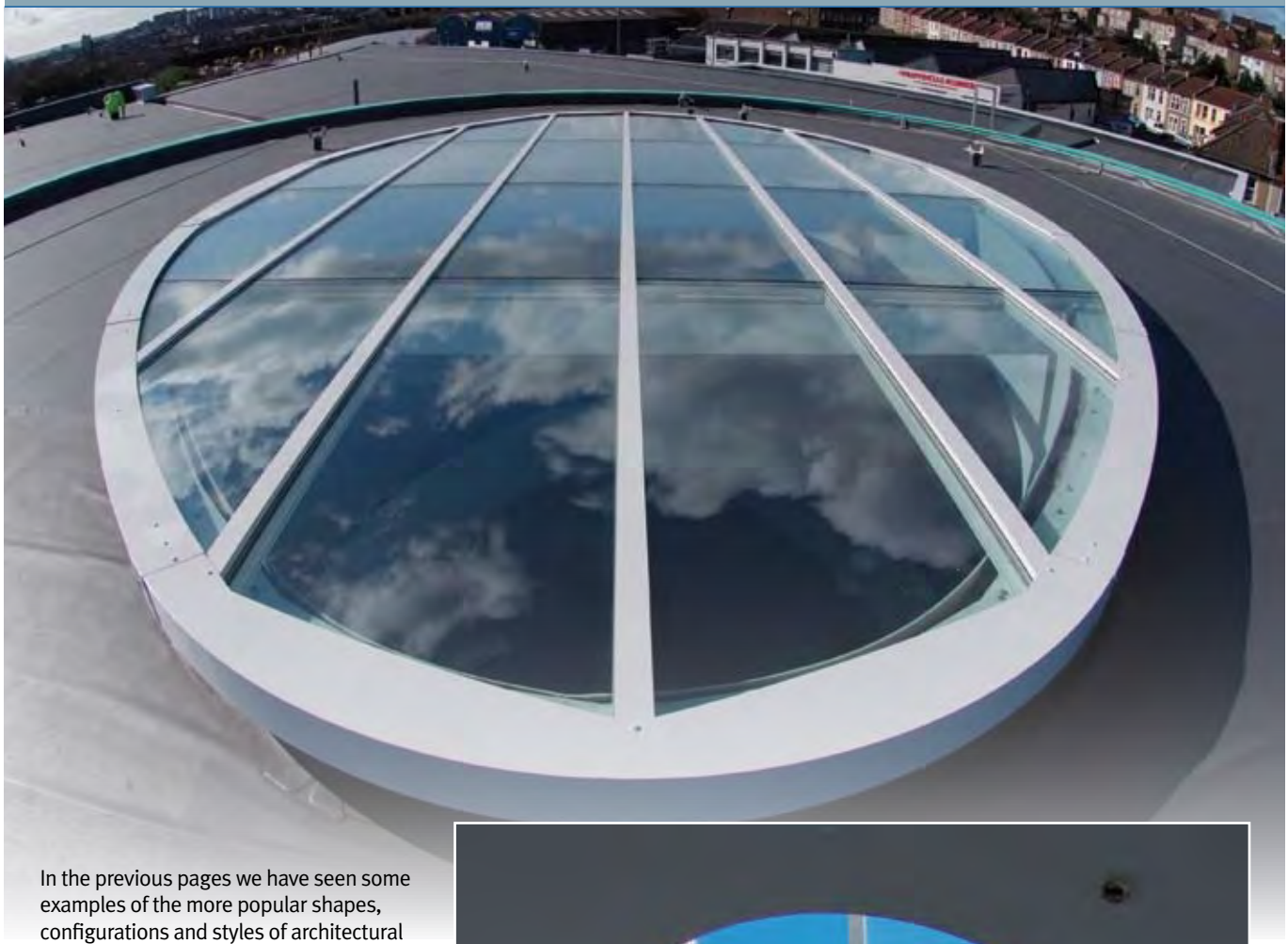
Illustrated here are details from a mono-pitched installation, designed and constructed with 15° geometry. Several such rooflights are arranged around a newly constructed building, introducing daylight to areas that would otherwise lack the benefit of natural light.

Such details are indicative only—project-specific designs and details are produced for each project engineered by Xtralite.

For additional information on the hipped end ridgelight contact our structural department on **01670 354157** or email **sales@xtralite.co.uk**

Xtralite ROOFLIGHTS

Product Portfolio Specialist Roof Glazing
Design Freedom



In the previous pages we have seen some examples of the more popular shapes, configurations and styles of architectural specialist roof glazing. However, Xtralite works closely with architects to realise individual design concepts while meeting the various technical challenges presented by roof glazing.

Illustrated here is an impressive 9 metre-long elliptical rooflight which forms the central focus of Bristol's Eastgate Oriental Centre. Here, a large copper-clad drum contains a sweeping main staircase leading to a first-floor gallery. This area is lit by the dramatic, elliptical oculus rooflight set within the shallow mono-pitched roof of the copper drum. Xtralite worked with the architects to develop an optimum structural and glazing solution to minimise rafter size, with perimeter cover flashings concealing both the construction and drainage route.