



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 14963:2006

ICS 91.060.20

**ROOF COVERINGS - CONTINUOUS
ROOFLIGHTS OF PLASTICS WITH OR
WITHOUT UPSTANDS - CLASSIFICATION,
REQUIREMENTS AND TEST METHODS**

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*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland and comes into
effect on:*

20 November 2006

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EUROPEAN STANDARD

EN 14963

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2006

ICS 91.060.20

English Version

Roof coverings - Continuous rooflights of plastics with or without upstands - Classification, requirements and test methods

Éléments de couverture - Lanterneaux continus en matière plastique avec et sans costière - Classification, spécifications et méthodes d'essais

Dachdeckungen - Dachlichtbänder aus Kunststoff mit oder ohne Aufsetzkränzen - Klassifizierung, Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 4 September 2006.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EN 14963:2006 (E)

Foreword

This document (EN 14963:2006) has been prepared by Technical Committee CEN/TC 128 "Roof covering products for discontinuous laying and products for wall cladding", the secretariat of which is held by IBN/BIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2007, and conflicting national standards shall be withdrawn at the latest by July 2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies requirements for continuous rooflights made of plastic materials (e.g. GF-UP, PC, PMMA, PVC) with or without bearing profiles to be used with upstands made of e.g. GF-UP, PVC, steel, aluminium, wood or concrete, for laying in roofs, which serve the purpose of lighting by means of daylight and, possibly, of ventilating interior spaces by means of opening devices.

This European Standard applies to continuous rooflights without upstand and to continuous rooflights, where a single manufacturer provides all components of the rooflight with upstand, which are bought in a single purchase. Products covered by this European Standard may be supplied as continuous rooflights with and without upstand and rooflights intended to be used with an upstand, for which the upstand is specified, but not supplied.

It applies to continuous rooflights when mounted with an inclination δ in the longitudinal direction not more than 10° to the horizontal and not more than 10° in the transversal direction (see Figure 1):

a) with bearing profiles:

- symmetrical, angled, curved (see Figure 2) or flat (see Figure 3);
- constructed with bearing profiles parallel to the span and with a rectangular ground plan;

b) without bearing profiles:

- symmetrical, angled or curved with an α angle not more than 45° (measured to the horizontal at the line of fixing, see Figure 4);
- constructed with a span (width) lower than or equal 2,5 m and with a rectangular ground plan.

This European Standard applies to continuous rooflights, including barrel vault rooflights, with a rectangular ground plan of plastic glazing laying in roofs having, in addition a minimum distance of $b/3$ (b = effective span of rooflights, corresponding to the light opening). The upstands may be self-supporting or non self-supporting.

The design of the upstand is not part of this European Standard. Upstands can be prefabricated or site fabricated. Prefabricated upstands are to be considered as part of the continuous rooflight. Site fabricated upstands are not covered by this European Standard.

This European Standard does not include calculation with regard to works, design requirements and installation techniques.

The possible additional functions of smoke and heat ventilation in case of fire, and/or roof access are outside the scope of this European Standard.

NOTE 1 Continuous rooflights outside of the scope of this European Standard will be covered by European Technical Approvals based on EOTA ETA-Guideline 010 "Self supporting translucent roof kits". Individual rooflights are covered by EN 1873.

NOTE 2 Guidelines for safety, application, use and maintenance of continuous rooflights are presented in Annex A.

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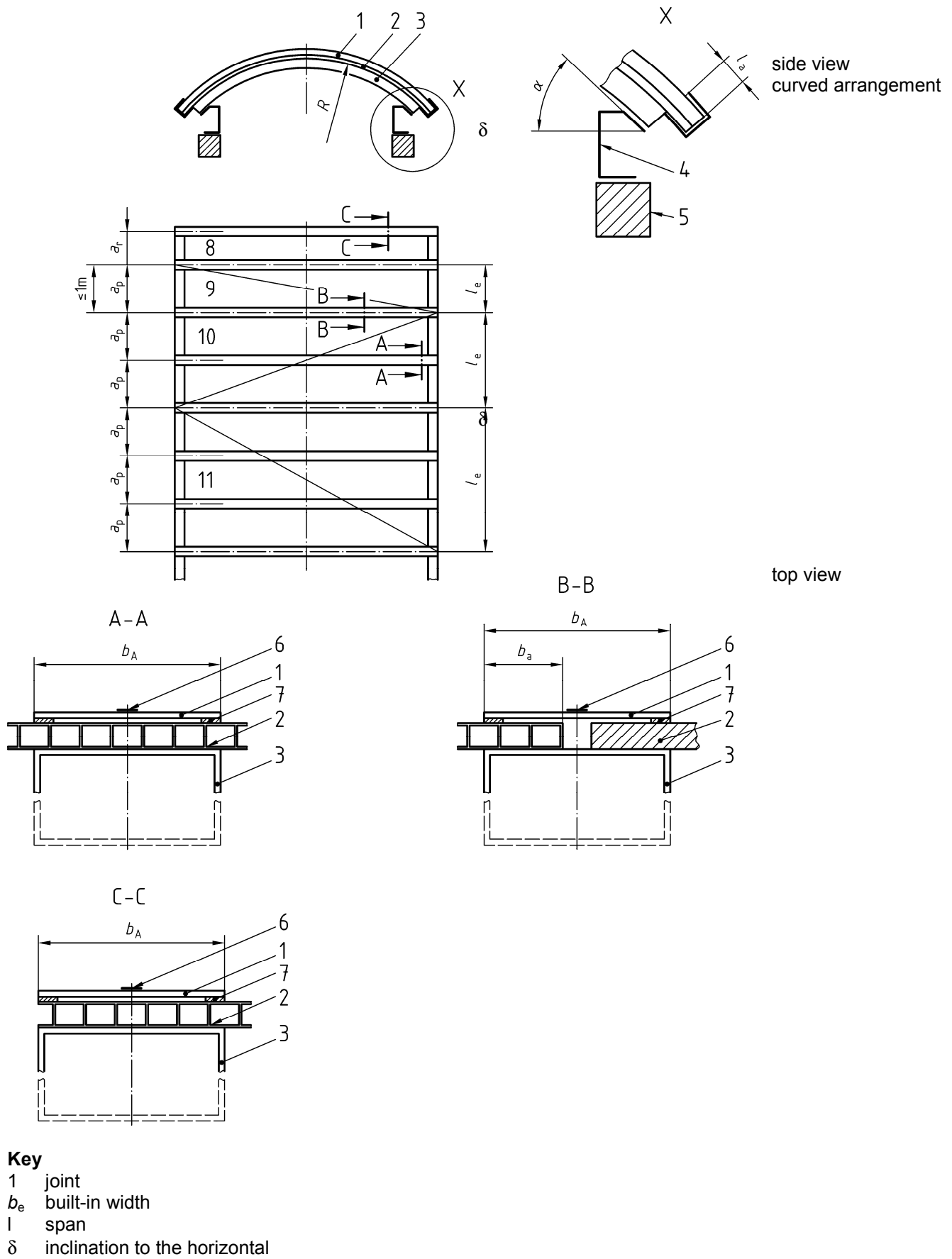
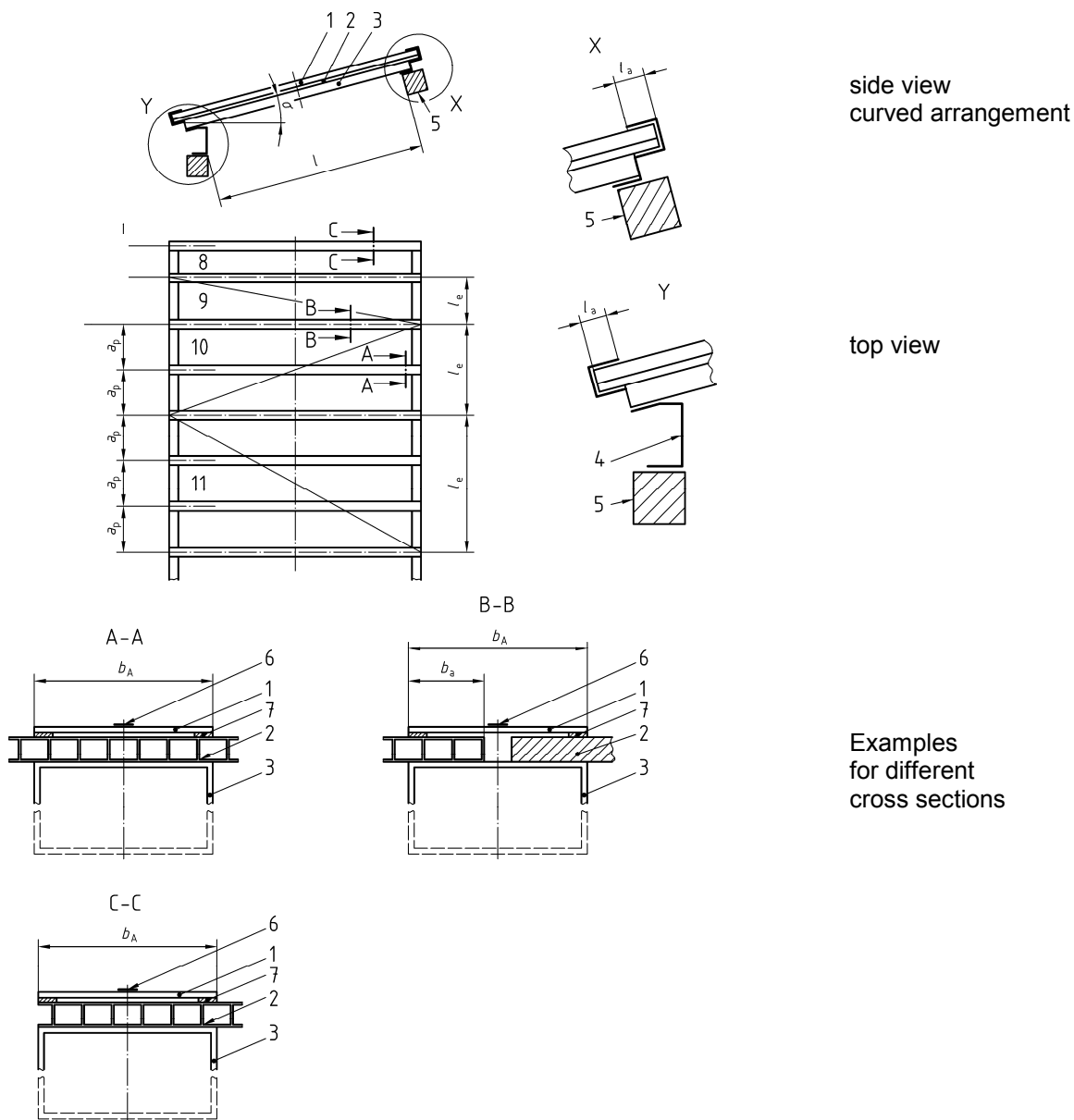


Figure 1 — Range of inclination of continuous rooflights without bearing profiles



Key

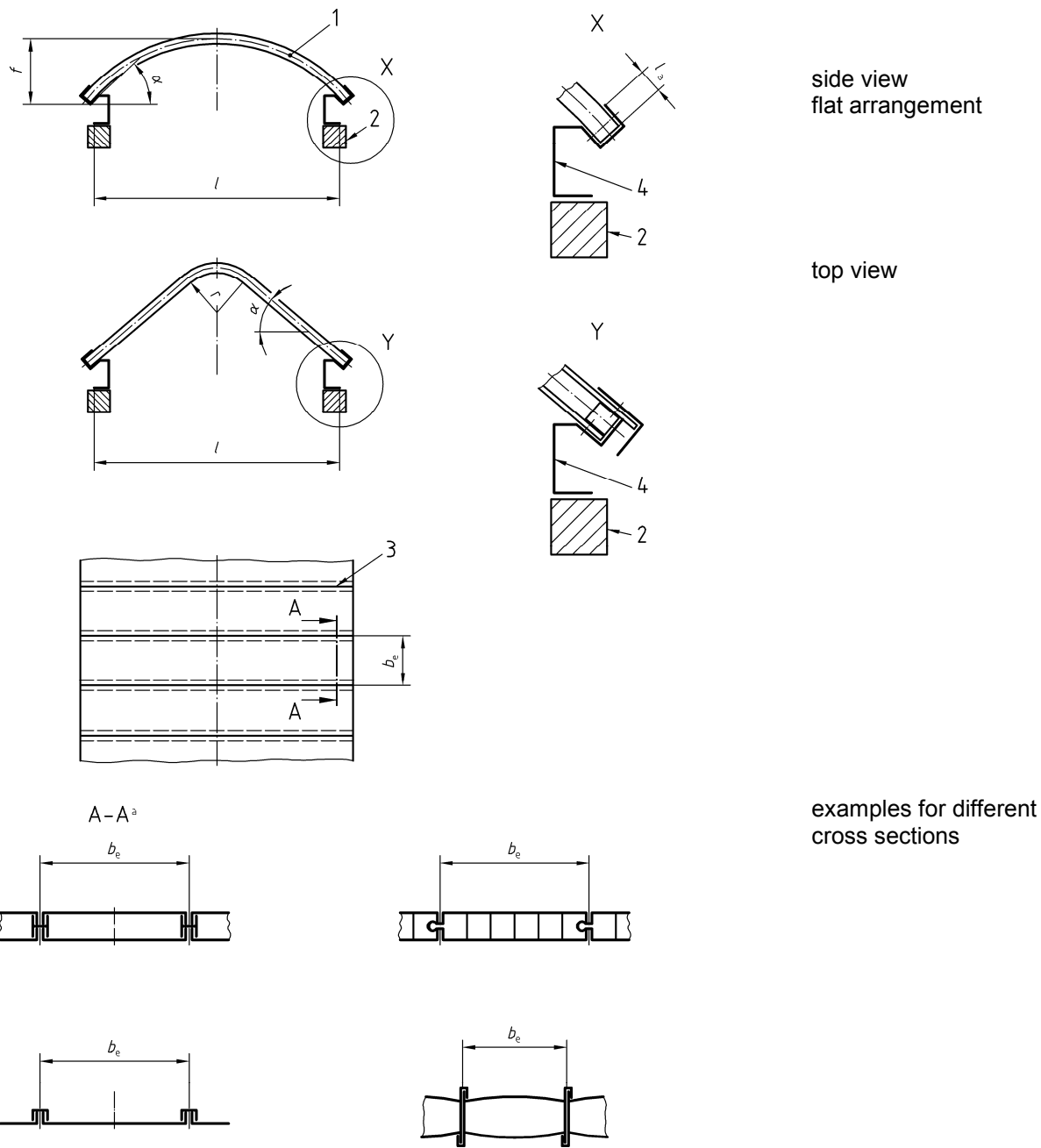
- 1 covering profile
- 2 solid or multi-wall sheet
- 3 bearing profile
- 4 upstand
- 5 support
- 6 screw
- 7 sealing profile
- 8 marginal sheet
- 9 single span sheet
- 10 double span sheet
- 11 triple span sheet

- a inclination measured to the horizontal at the line of fixing
- a_p spacing of the bearing profiles
- a_r spacing of the bearing profiles for marginal sheets
- b_A width of the bearing profiles
- b_a supported width of the sheet
- l_a supported length of the sheet
- l_e sheet width
- R radius

NOTE If drilled profiles should be avoided, e.g. in PMMA-sheets, the covering profiles in curved systems can be alternatively fixed at their end (similar to a tie member).

Figure 2 — Example for curved continuous rooflights with bearing profiles, for single, double and triple span systems

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side view
flat arrangement

top view

examples for different
cross sections

Key

- 1 covering profile
- 2 solid or multi-wall sheet
- 3 bearing profile
- 4 upstand
- 5 support
- 6 screw
- 7 sealing profile
- 8 marginal sheet
- 9 single span sheet
- 10 double span sheet
- 11 triple span sheet

- a_p spacing of the bearing profiles
- a_r spacing of the bearing profiles for marginal sheet
- b_A width of the bearing profiles
- b_a supported width of the sheet
- l_a supported length of the sheet
- l_e sheet width
- σ inclination to the horizontal

Figure 3 — Example for flat continuous rooflights with bearing profiles, for single, double and triple span systems

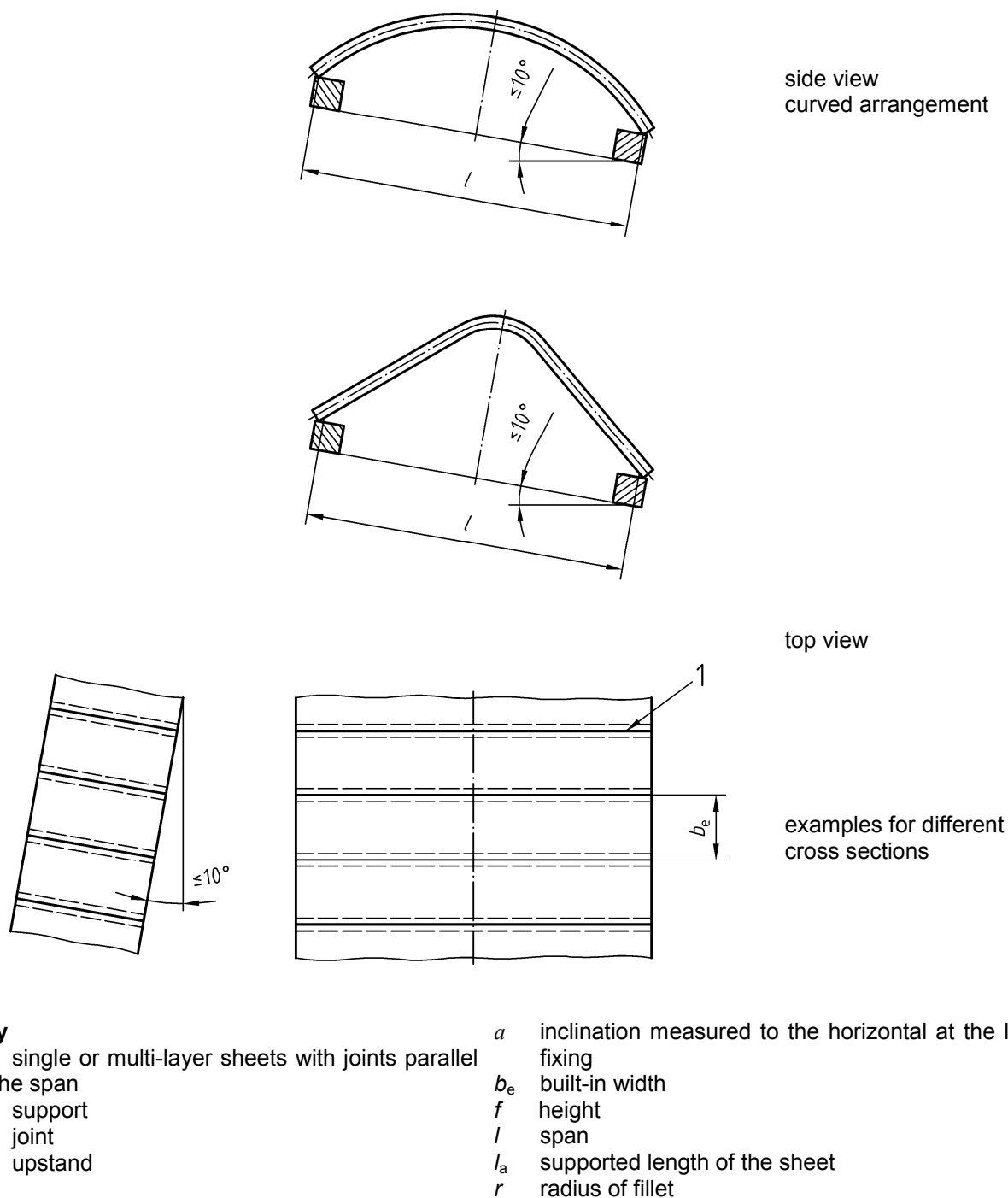


Figure 4 — Examples for curved continuous rooflights without bearing profiles

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 410, *Glass in building — Determination of luminous and solar characteristics of glazing*

EN 596, *Timber structures — Test methods — Soft body impact test of timber framed walls*

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