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STN	**Optické vlákna** **Časť 1-44: Metódy merania a skúšobné postupy** **Medzná vlnová dĺžka**	**STN** **EN IEC** **60793-1-44** 35 9213

Optical fibres - Part 1-44: Measurement methods and test procedures - Cut-off wavelength

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/23

Obsahuje: EN IEC 60793-1-44:2023, IEC 60793-1-44:2023

Oznámením tejto normy sa od 28.08.2026 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60793-1-44

September 2023

ICS 33.180.10

Supersedes EN 60793-1-44:2011

English Version

Optical fibres - Part 1-44: Measurement methods and test procedures - Cut-off wavelength (IEC 60793-1-44:2023)

Fibres optiques - Partie 1-44: Méthodes de mesure et procédures d'essai - Longueur d'onde de coupure (IEC 60793-1-44:2023)

Lichtwellenleiter - Teil 1-44: Mess- und Prüfverfahren - Grenzwellenlänge (IEC 60793-1-44:2023)

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European foreword

The text of document 86A/2314/FDIS, future edition 3 of IEC 60793-1-44, prepared by SC 86A "Fibres and cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60793-1-44:2023.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2024-05-28
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2026-08-28

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Endorsement notice

The text of the International Standard IEC 60793-1-44:2023 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60793-1-40 NOTE Approved as EN IEC 60793-1-40

IEC 60793-2-10 NOTE Approved as EN IEC 60793-2-10

IEC 60793-2-50 NOTE Approved as EN IEC 60793-2-50

IEC 60793-2-60 NOTE Approved as EN 60793-2-60

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60793-1-1	-	Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance	EN IEC 60793-1-1	-

IEC 60793-1-44

Edition 3.0 2023-07

INTERNATIONAL STANDARD

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Optical fibres –
Part 1-44: Measurement methods and test procedures – Cut-off wavelength

IEC 60793-1-44:2023-07(en)

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INTERNATIONAL STANDARD

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Optical fibres –
Part 1-44: Measurement methods and test procedures – Cut-off wavelength

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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IEC 60793-1-44 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) used the diameter of the fibre loops to describe deployment;
b) added Annex D related to cut-off curve artifacts;
c) reorganized information and added more figures to clarify concepts.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86A/2314/FDIS	86A/2327/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be read in conjunction with IEC 60793-1-1.

A list of all parts of the IEC 60793-1 series, published under the general title *Optical fibres – Measurement methods and test procedures*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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OPTICAL FIBRES –

Part 1-44: Measurement methods and test procedures – Cut-off wavelength

1 Scope

This part of IEC 60793 establishes uniform requirements for measuring the cut-off wavelength of single-mode optical fibre, thereby assisting in the inspection of fibres and cables for commercial purposes.

This document gives methods for measuring the cut-off wavelength for uncabled or cabled single mode telecom fibre. These procedures apply to all category B and C fibre types.

There are three methods of deployment for measuring the cut-off wavelength:

- method A: cable cut-off using uncabled fibre 22 m long sample, λ_{cc};
- method B: cable cut-off using cabled fibre 22 m long sample, λ_{cc};
- method C: fibre cut-off using uncabled fibre 2 m long sample, λ_{c}.

All methods require a reference measurement. There are two reference-scan techniques, either or both of which can be used with all methods:

- bend-reference technique;
- multimode-reference technique using category A1(OM1-OM5) multimode fibre.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60793-1-1, *Optical fibres – Part 1-1: Measurement methods and test procedures – General and* guidance

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