

STN	Optovláknové spájacie prvky a pasívne súčiastky. Základné skúšobné a meracie postupy. Časť 3-53: Skúšanie a meranie. Metóda na meranie uhlovozávislého kruhovo ohraničeného toku (EAF) založená na dvojrozmerných údajoch vzdialeného poľa z mnohovidového vlnovodu (vrátane vlákna) so stupňovitým indexom lomu.	STN EN 61300-3-53 35 9252
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Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-53: Examinations and measurements - Encircled angular flux (EAF) measurement method based on two-dimensional far field data from step index multimode waveguide (including fibre)

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. 08/15

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61300-3-53

March 2015

ICS 33.180.20

English Version

**Fibre optic interconnecting devices and passive components -
Basic test and measurement procedures - Part 3-53:
Examinations and measurements - Encircled angular flux (EAF)
measurement method based on two-dimensional far field data
from step index multimode waveguide (including fibre)
(IEC 61300-3-53:2015)**

Dispositifs d'interconnexion et composants passifs à fibres
optiques - Procédures fondamentales d'essais et de
mesures - Partie 3-53 : Examens et mesures - Méthode de
mesure du flux angulaire inscrit (EAF) fondée sur les
données bidimensionnelles de champ lointain d'un guide
d'onde multimodal à saut d'indice (fibre incluse)
(IEC 61300-3-53:2015)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-
53: Untersuchungen und Messungen - Verfahren zur
Messung des winkelabhängigen begrenzten Lichtstroms
(EAF) basierend auf den zweidimensionalen Fernfelddaten
einer Mehrmodenfasern
(IEC 61300-3-53:2015)

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Foreword

The text of document 86B/3850/FDIS, future edition 1 of IEC 61300-3-53, prepared by SC 86B "Fibre optic interconnecting devices and passive components" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61300-3-53:2015.

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

IEC 60793-2-30	NOTE	Harmonized as EN 60793-2-30.
IEC 60793-2-40	NOTE	Harmonized as EN 60793-2-40.
IEC 60793-1-43	NOTE	Harmonized as EN 60793-1-43.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 When 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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60825-1	-	Safety of laser products -- Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 61300-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 1: General and guidance	EN 61300-1	-



INTERNATIONAL STANDARD



**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 3-53: Examinations and measurements – Encircled angular flux (EAF) measurement method based on two-dimensional far field data from step index multimode waveguide (including fibre)**



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INTERNATIONAL STANDARD



Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –

Part 3-53: Examinations and measurements – Encircled angular flux (EAF) measurement method based on two-dimensional far field data from step index multimode waveguide (including fibre)

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**FIBRE OPTIC INTERCONNECTING DEVICES
AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 3-53: Examinations and measurements –
Encircled angular flux (EAF) measurement method based
on two-dimensional far field data from step index multimode
waveguide (including fibre)**

FOREWORD

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International Standard IEC 61300-3-53 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/3850/FDIS	86B/3875/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61300 series, published under the general title, *Fibre optic interconnecting and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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**FIBRE OPTIC INTERCONNECTING DEVICES
AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –**

**Part 3-53: Examinations and measurements –
Encircled angular flux (EAF) measurement method based
on two-dimensional far field data from step index multimode
waveguide (including fibre)**

1 Scope

This part of IEC 61300 is intended to characterize the encircled angular flux of measurement step index multimode waveguide light sources, in which most of the transverse modes are excited. The term waveguide is understood to include both channel waveguides and optical fibres but not slab waveguides in this standard.

Encircled angular flux (EAF) is the fraction of the total optical power radiating from a step index multimode waveguide's core within a certain solid angle. The EAF is measured as a function of the numerical aperture full angle. The basic approach is to collect, for every measurement, two dimensional far field data using a calibrated camera and to convert them mathematically into encircled angular flux.

2 Normative references

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

IEC 60825-1, *Safety of laser products – Part 1: Equipment classification and requirements*

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