



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN ISO 8598-1:2014

Optics and optical instruments - Focimeters - Part 1: General purpose instruments (ISO 8598-1:2014)

Optik und optische Instrumente -
Scheitelbrechwert-Messgeräte - Teil 1:
Instrumente für den allgemeinen
Gebrauch (ISO 8598-1:2014)

Optique et instruments d'optique -
Frontofocomètres - Partie 1: Instruments
pour cas généraux (ISO 8598-1:2014)

09/2014



National Foreword

This European Standard EN ISO 8598-1:2014 was adopted as Luxembourgish Standard ILNAS-EN ISO 8598-1:2014.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

ILNAS-EN ISO 8598-1:2014

EUROPEAN STANDARD **EN ISO 8598-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2014

ICS 11.040.70

Supersedes EN ISO 8598:1998

English Version

Optics and optical instruments - Focimeters - Part 1: General purpose instruments used for measuring spectacle lenses (ISO 8598-1:2014)

Optique et instruments d'optique - Frontofocomètres -
Partie 1: Instruments pour cas généraux pour le mesurage
des verres de lunettes (ISO 8598-1:2014)

Optik und optische Instrumente - Scheitelbrechwert-
Messgeräte - Teil 1: Instrumente für den allgemeinen
Gebrauch zur Verwendung für die Brillenglas-Messung
(ISO 8598-1:2014)

This European Standard was approved by CEN on 22 April 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3

Foreword

This document (EN ISO 8598-1:2014) has been prepared by Technical Committee ISO/TC 172 "Optics and photonics" in collaboration with Technical Committee CEN/TC 170 "Ophthalmic optics" the secretariat of which is held by DIN.

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 March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 8598:1998.

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

Endorsement notice

The text of ISO 8598-1:2014 has been approved by CEN as EN ISO 8598-1:2014 without any modification.

ILNAS-EN ISO 8598-1:2014
**INTERNATIONAL
STANDARD**

**ISO
8598-1**

First edition
2014-09-15

**Optics and optical instruments —
Focimeters —**

**Part 1:
General purpose instruments**

*Optique et instruments d'optique — Frontofocomètres —
Partie 1: Instruments pour cas généraux*



Reference number
ISO 8598-1:2014(E)

© ISO 2014

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Technical requirements for general purpose focimeters	3
5 Metrological requirements	5
5.1 General.....	5
5.2 Reference wavelength.....	5
5.3 Performance requirement.....	5
6 Test procedures	8
6.1 General.....	8
6.2 Checking the indication errors.....	8
6.3 Checking the axis marker for the optical centre of lens.....	8
6.4 Checking the alignment of the axis marker.....	9
6.5 Checking the adjusting rail.....	9
6.6 Checking the non-symmetric error for automated focimeters.....	9
6.7 Checking the repeatability of vertex power measurement for automated focimeters.....	10
6.8 Checking for the centration error.....	10
6.9 Checking the capability of focimeters to measure tinted lenses.....	10
6.10 Checking the astigmatic axis repeatability for low-powered cylinder lens.....	10
6.11 Special procedures for eyepiece focimeters.....	11
6.12 Criterion for image focusing in manual focusing focimeters.....	11
7 Marking	11
7.1 Reference to ISO 8598-1.....	11
7.2 General information to be supplied by the manufacturer.....	11
7.3 Additional information to be supplied by the manufacturer.....	12
Annex A (informative) Use of correction values when measuring spectacle lenses	13
Annex B (informative) Example for evaluation of uncertainty of measurement for automated focimeters for general use	18
Annex C (normative) Specifications of special reference lenses	24
Annex D (informative) Information for users on the performance of general purpose focimeters covered by this part of ISO 8598	26
Bibliography	27