

**Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 1: Measurement and file format file format**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13032-1:2004 sisaldab Euroopa standardi EN 13032-1:2004+AC:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 26.10.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13032-1:2004 consists of the English text of the European standard EN 13032-1:2004+AC:2005.</p> <p>This document is endorsed on 26.10.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This European Standard establishes general principles for the measurement of basic photometric data for lighting application purposes. It establishes the measurement criteria needed for the standardisation of basic photometric data and details of the CEN file format for electronic data transfer</p>	<p><b>Scope:</b></p> <p>This European Standard establishes general principles for the measurement of basic photometric data for lighting application purposes. It establishes the measurement criteria needed for the standardisation of basic photometric data and details of the CEN file format for electronic data transfer</p>
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English version

**Light and lighting - Measurement and presentation of  
photometric data of lamps and luminaires - Part 1: Measurement  
and file format**

Lumière et éclairage - Mesure et présentation des données  
photométriques des lampes et des luminaires - Partie 1:  
Mesurage et format de données

Licht und Beleuchtung - Messung und Darstellung  
photometrischer Daten von Lampen und Leuchten - Teil 1:  
Messung und Datenformat

This European Standard was approved by CEN on 16 January 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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## Foreword

This document (EN 13032-1:2004) has been prepared by Technical Committee CEN/TC 169 "Light and Lighting", 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 January 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

Acknowledgement is given to CIE for their help in the preparation of this standard.

The European Standard 13032 *Light and lighting - Measurements and presentation of photometric data of lamps and luminaires* is published in the following parts:

*Part 1: Measurement and file format.*

*Part 2: Presentation of data for indoor and outdoor work places.*

*Part 3: Emergency lighting (in preparation).*

*Part 4: Sports lighting (in preparation).*

*Part 6: Tunnel lighting (in preparation).*

The annexes A and E are informative. The annexes B, C and D are normative.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

The provision of reliable and accurate photometric data is a basic requirement for any lighting engineer in order to design a good lighting scheme.

This European Standard aims to put on a common basis current European lighting practices so that a luminaire with its associated performance data, purchased in one country, can be directly compared and accurately employed in another country.

The standard is a guide to procedures referring where necessary to the relevant CIE, ISO and CEN publications.

The reliability of these data depends also on well defined qualifications about the management, the organisation and the metrological referability of the Laboratory and the skill of the staff.

## 1 Scope

This European Standard establishes general principles for the measurement of basic photometric data for lighting application purposes.

It establishes the measurement criteria needed for the standardisation of basic photometric data and details of the CEN file format for electronic data transfer.

This is part 1 of a multi part standard. Part 1 deals with the basic photometric measurement and file format. Other parts deal with lamps and luminaires data depending on the applications.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12665:2002, *Light and lighting - Basic terms and criteria for specifying lighting requirements*.

ISO 9660, *Information processing – Volume and file structure of CD-ROM for information interchange*.

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12665 together with the following apply.

### 3.1

#### **light source**

lamp or luminaire

### 3.2

#### **photometric centre**

point in a luminaire or lamp from which the photometric distance law operates most closely in the direction of maximum intensity

NOTE It is the origin of the coordinate system used for the measuring of luminous intensity distribution and should be specified.

### 3.3

#### **limiting photometric distance**

minimum distance for deriving the luminous intensity from the measured illuminance

### 3.4

#### **relative measurement**

measurement obtained as a ratio of two quantities of the same type expressed in arbitrary units. Photometric measurement in SI units relative to specified bare lamp flux

[CIE 121:1996, definition 2.3.2]