

Light and lighting - Sports lighting

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EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-EN 12193:2008 sisaldab Euroopa standardi EN 12193:2007 ingliskeelset teksti.</p>	<p>This Estonian standard EVS-EN 12193:2008 consists of the English text of the European standard EN 12193:2007.</p>
<p>Standard on kinnitatud Eesti Standardikeskuse 27.02.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p>	<p>This standard is ratified with the order of Estonian Centre for Standardisation dated 27.02.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p>
<p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.12.2007.</p>	<p>Date of Availability of the European standard text 12.12.2007.</p>
<p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>The standard is available from Estonian standardisation organisation.</p>

ICS 91.160.01, 97.220.10

Võtmesõnad: light, lighting, sports lighting

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English Version

Light and lighting - Sports lighting

Éclairagisme - Éclairage des installations sportives

Licht und Beleuchtung - Sportstättenbeleuchtung

This European Standard was approved by CEN on 25 October 2007.

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 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 12193:2007) 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 June 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

This document supersedes EN 12193:1999.

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, 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.

Introduction

This European standard deals with sports lighting to ensure good visual conditions for players, athletes, referees, spectators and CTV transmission. The objective of this document is to provide recommendations and specify requirements for good quality sports lighting by:

- optimising the perception of visual information used during sports events;
- maintaining the level of visual performance;
- providing acceptable visual comfort;
- restricting obtrusive light.

1 Scope

This standard specifies lighting for those indoor and outdoor sports events most practised in Europe. It provides lighting values for the design and control of sports lighting installations in terms of illuminances, uniformity, glare restriction and colour properties of the light sources. All requirements are meant to be as minimum requirements. It also gives methods by which these values are measured. For the limitation of glare, it also points out restrictions on the location of the luminaires for specific applications.

For emergency lighting this standard refers to the requirements of EN 1838.

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 12464-1, *Light and lighting – Lighting of work places – Part 1: Indoor work places*

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

EN 13032-1, *Light and lighting – Measurement and presentation of photometric data of lamps and luminaires – Part 1: Measurement and file format*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12665:2002 and the following apply.

3.1

principal area

PA

actual playing area needed for the performance of a certain sport

NOTE 1 Usually this means the actual marked out "field" area for that sport (for instance football), but in some cases this area comprises an extra playing area around the marked area (e. g. tennis, volleyball, table tennis).

NOTE 2 In all tables in Annex A examples of area sizes are given which are most commonly used for that sport. The particular area dimensions should be checked at the time when designing a lighting installation.

3.2

total area

TA

area generally comprising the principal area (PA) plus an additional safety area outside the principal area

3.3

reference area

area defined per sports on which the main lighting requirements apply including the marking lines and any extra area centred around the marked area

NOTE The dimensions of this area are generally based on PA, for the relevant sport and level of competition. For most sports this reference area is limited by a rectangle in the horizontal plane of the ground. An example of reference area is given in Figure 1 where l and w stand respectively for the length and the width of the rectangular reference area. Where a total area (TA) is specified, it will also be necessary to fulfil the requirements as defined in 5.3 a).