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STN	**Osvetlenie pozemných komunikácií. Časť 3: Svetelnotechnický výpočet.**	**STN EN 13201-3** 36 0410

Road lighting - Part 3: Calculation of performance

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. 04/16

Obsahuje: EN 13201-3:2015

Oznámením tejto normy sa ruší
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Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13201-3

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Supersedes EN 13201-3:2003

English Version

Road lighting - Part 3: Calculation of performance

Eclairage public - Partie 3: Calcul des performances

Straßenbeleuchtung - Teil 3: Berechnung der Gütemerkmale

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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Ref. No. EN 13201-3:2015 E

Contents

Page

European foreword

This document (EN 13201-3:2015) 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of an identical text or by endorsement, at the latest by June 2016 and conflicting national standards shall be withdrawn at the latest by June 2016.

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 13201-3:2003.

In comparison with EN 13201-3:2003, three significant changes were made:

— in the veiling luminance calculation, L_v, there is no more test about the contribution of at least 2 % of the next luminaire in the row to end the calculation before reaching a distance of 500 m (this is to avoid ambiguous interpretations that can produce different results from different software);

— the default option is about 500 m, but there is an alternative to retain only the luminaires of a shorter installation. This last case should be clearly mentioned in the lighting design by the number of luminaires involved in calculation of f_{TI};

— there is a new formula for calculating veiling luminance L_v, for a wider range of θ values. Thus the case where luminaires could be very near to the axis of vision of the observer: $0{,}1° < \theta < 1{,}5°$ can be evaluated with Formula (38).

NOTE for programmers: Calculation of threshold increment f_{TI}, (*new symbol for TI designation*) has changed in the revision of EN 13201-3:2003.

This European Standard was worked out by the Joint Working Group of CEN/TC 169 “Light and lighting” and CEN/TC 226 “Road Equipment”, the secretariat of which is held by AFNOR.

EN 13201, *Road lighting* is a series of documents that consists of the following parts:

— *Part 1: Guidelines on selection of lighting classes* [Technical Report]*;*

— *Part 2: Performance requirements;*

— *Part 3: Calculation of performance* [present document]*;*

— *Part 4: Methods of measuring lighting performance;*

— *Part 5: Energy performance indicators.*

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.

Introduction

The calculation methods described in this part of EN 13201 enable road lighting quality characteristics to be calculated by agreed procedures so that results obtained from different designers will have a uniform basis.

1 Scope

This European Standard specifies the conventions and mathematical procedures to be adopted in calculating the photometric performance of road lighting installations designed in accordance with the parameters described in EN 13201-2 to ensure that every lighting calculation is based on the same mathematical principles.

The design procedure of a lighting installation also requires the knowledge of the parameters involved in the described model, their tolerances and variability. These aspects are not considered in this part of EN 13201 but a procedure to analyse their contribution in the expected results is suggested in EN 13201-4 and it can also be used in the design phase.

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.

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

EN 13201-2, *Road lighting — Part 2: Performance requirements*

EN 12665:2011, *Light and lighting — Basic terms and criteria for specifying lighting requirements*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN