SLOVENSKI STANDARD
oSIST prEN 13272-1:2017

01-november-2017

Železniške naprave - Električna razsvetljava v železniških vozilih za javne prevozne sisteme - 1. del: Glavni tir

Railway applications - Electrical lighting for rolling stock in public transport systems - Part 1: Mainline Rail

Bahnanwendungen - Elektrische Beleuchtung in Schienenfahrzeugen des öffentlichen Verkehrs - Teil 1: Vollbahnen

Applications ferroviaires - Éclairage électrique pour matériel roulant des systèmes de transport public - Partie 1 : Matériel de grande ligne

Ta slovenski standard je istoveten z: **prEN 13272-1**

ICS:

45.060.01	Železniška vozila na splošno	Railway rolling stock in general
91.160.10	Notranja razsvetljava	Interior lighting

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 13272-1

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ICS 45.060.01; 91.160.10

Will supersede EN 13272:2012

English Version

Railway applications - Electrical lighting for rolling stock in public transport systems - Part 1: Mainline Rail

Applications ferroviaires - Eclairage électrique pour matériel roulant des systémes de transport public - Part 1 Grandes lignes

Bahnanwendungen - Elektrische Beleuchtung in Schienenfahrzeugen des öffentlichen Verkehrs

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 13272-1:2017) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document, together with prEN 13272-2, will supersede EN 13272:2012.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The main changes with respect to the previous edition are: technical requirements have been brought in line with the applicable TSIs; and requirements permitting new lighting technologies.

This series of documents Railway applications — Electrical lighting for rolling stock in public transport systems consists of the following parts:

— Part 1: *Mainline rail* (this document);

— Part 2: *Urban rail*.

Introduction

This European Standard sets out the requirements for interior lighting for mainline rail vehicles.

This European Standard was produced following the creation of prEN 13272-2 for urban rail vehicles. This European Standard was re-named to make a clear distinction between mainline rail and urban rail. Additionally, Annex ZA was updated for the current status of TSIs.

1 Scope

This European Standard contains performance requirements and recommendations for electrical lighting systems in the interiors of public transport railway rolling stock under all operating and emergency conditions. This European Standard does not address lighting installed in instruments or controls.

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 45545 (all parts), *Railway applications — Fire protection on railway vehicles*

EN 50153:2014, *Railway applications - Rolling stock - Protective provisions relating to electrical hazards*

ISO 8995-1:2002, *Lighting of Work Places — Part 1: Indoor*

CIE 17.4:1987, *International Lighting Vocabulary*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 General

3.1.1
high speed train
train which is designed to operate at speeds equal to or greater than 190 km/h

Note 1 to entry: This includes Class 1 and Class 2 high speed trains as defined in Directive 2008/57/EC Annex I.

3.1.2
conventional train
train which is designed to operate at a maximum speed lower than 190 km/h and designed to travel on all or part of the conventional lines of the TEN (Trans-European rail system Network)

Note 1 to entry: See also LOC&PAS TSI, §2.2.

3.1.3
passenger area
area designed for passenger use

3.1.4
service area
area intended to be occupied by service personnel only

3.1.5
seating area
passenger area intended for seated persons, including wheelchair spaces

3.1.6
open gangway
wide gangway designed to be occupied by travelling passengers

Note 1 to entry: This excludes the gangways that are only to be used to pass from one vehicle to another.

3.1.7
vehicle access step
first fixed part of the floor threshold inside the vehicle

3.1.8
luminance
L
<in a given direction at a given point of surface> luminous intensity of the light emitted in a given direction from an element of the surface, divided by the area of the element projected in the same direction

Note 1 to entry: Unit: candela per square metre (cd/m^2).

Note 2 to entry: Adapted from EN 12665.

3.1.9
luminous flux
Φ
quantity derived from radiant flux (radiant power) by evaluating the radiation according to the spectral sensitivity of the human eye (as defined by the CIE standard photometric observer)

Note 1 to entry: Unit: lumen (lm).

Note 2 to entry: It is the light power emitted by a source.

Note 3 to entry: Adapted from EN 12665.

3.1.10
Illuminance
E
ratio of the luminous flux incident on a surface to the area of the illuminated surface

Note 1 to entry: Unit: lux (lx) = lm/m^2.

Note 2 to entry: Illuminance was previously known as the illumination level or value.

Note 3 to entry: The orientation of the surface may be defined, e.g. horizontal, vertical.

3.1.11
average illuminance
E_{av}
illuminance averaged over the specified surface

Note 1 to entry: Unit: lux (lx)

Note 2 to entry: Adapted from EN 12665.

Note 3 to entry: In practice this may be derived either from the total luminous flux falling on the surface divided by the total area of the surface, or alternatively from an arithmetic average of the illuminances at a representative number of points on the surface.