



**NSAI**  
Standards

Irish Standard  
I.S. EN 15153-1:2020

# Railway applications - External visible and audible warning devices - Part 1: Head, marker and tail lamps for heavy rail

**I.S. EN 15153-1:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN 15153-1:2020

*Published:*

2020-01-15

*This document was published under the authority of the NSAI and comes into effect on:*

2020-02-03

ICS number:

45.060.10

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN 15153-1:2020 is the adopted Irish version of the European Document EN 15153-1:2020, Railway applications - External visible and audible warning devices - Part 1: Head, marker and tail lamps for heavy rail

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

EUROPEAN STANDARD

EN 15153-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2020

ICS 45.060.10

Supersedes EN 15153-1:2013+A1:2016

English Version

## Railway applications - External visible and audible warning devices - Part 1: Head, marker and tail lamps for heavy rail

Applications ferroviaires - Dispositifs externes d'avertissement optiques et acoustiques - Partie 1 : Feux avant, feux de position et feux arrière pour systèmes ferroviaires lourds

Bahnanwendungen - Äußere optische und akustische Warneinrichtungen - Teil 1: Leuchten für Fernlichter, Spitzen- und Schlussignale für Vollbahnen

This European Standard was approved by CEN on 6 October 2019.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Symbols and abbreviations</b> .....	<b>6</b>
<b>5 Requirements</b> .....	<b>7</b>
5.1 <b>General</b> .....	<b>7</b>
5.2 <b>Provision of lamps</b> .....	<b>7</b>
5.3 <b>Head lamps</b> .....	<b>7</b>
5.4 <b>Marker lamps</b> .....	<b>10</b>
5.5 <b>Tail lamps</b> .....	<b>13</b>
5.6 <b>Control of lamps</b> .....	<b>14</b>
5.7 <b>Operational check</b> .....	<b>15</b>
<b>6 Test requirements</b> .....	<b>15</b>
6.1 <b>General</b> .....	<b>15</b>
6.2 <b>General test requirements</b> .....	<b>15</b>
6.3 <b>Specific requirements for the colorimetric tests</b> .....	<b>17</b>
6.4 <b>Specific requirements for the photometric tests</b> .....	<b>17</b>
<b>Annex A (normative) Contractual statements - Information and requirements to be agreed and documented</b> .....	<b>19</b>
<b>Annex B (informative) Summary of testing requirements</b> .....	<b>20</b>
<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2016/797/EC aimed to be covered</b> .....	<b>21</b>
<b>Bibliography</b> .....	<b>24</b>

## European foreword

This document (EN 15153-1:2020) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, 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 July 2020, and conflicting national standards shall be withdrawn at the latest by July 2020.

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

This document supersedes EN 15153-1:2013+A1:2016.

The main changes with respect to the previous edition are:

- clarification of scope,
- revised alignment of head lamps according to the ‘alternative method’,
- clarification of the criteria for assessing the lit area of lamps,
- new Annex A, containing a summary of items for agreement between contractors, and
- re-working of the summary of testing requirements (now Annex B) to permit inspection of drawings / design documents, and to mandate the testing of interoperability constituents.

This series of documents *Railway applications — External visible and audible warning devices* consists of the following parts:

- Part 1: *Head, marker and tail lamps for heavy rail* (this document);
- Part 2: *Warning horns for heavy rail*;
- Part 3: *Visible warning devices for urban rail*;
- Part 4: *Audible warning devices for urban rail*.

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 2016/797/EC.

For relationship with EU Directive 2016/797/EC, see informative Annex ZA which is an integral part of this document.

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

**EN 15153-1:2020 (E)**

**Introduction**

This document was produced following the creation of EN 15153-3 for urban rail.

This document was re-named to make a clear distinction between heavy rail and urban rail.

Additionally, Annex ZA was updated for the current status of TSIs.



## 1 Scope

This document defines the functional and technical requirements for head, marker and tail lamps for heavy rail units, excluding road, metro and self-contained systems.

This document also defines the requirements for testing and conformity assessment.

Lamps designed for special purposes, for example illumination of third rail, are excluded from the scope of this document.

Portable lamps are excluded from the scope of this document.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 16186-2:2017, *Railway applications - Driver's cab – Part 2: Integration of displays, controls and indicators*

EN ISO/CIE 11664-1:2019, *Colorimetry — Part 1: CIE standard colorimetric observers*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

NOTE For general railway terms and definitions, refer to EN 17343<sup>1</sup>.

### 3.1

#### **heavy rail systems**

see EN 17343<sup>1</sup>

### 3.2

#### **head lamp**

device fitted to the front of the train that emits white light, intended to provide visual warning of an approaching train, and/or to illuminate the line and lineside

### 3.3

#### **marker lamp**

device fitted to the front of the train that emits white light, intended to indicate the presence of a train, to provide visual warning of an approaching train and/or to illuminate retro-reflective lineside signs

Note 1 to entry: The front end signal light (detectability) as set out in TSI OPE comprises three marker lamps.

---

<sup>1</sup> Under preparation. Stage at the time of publication: prEN 17343.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-