

**PIMESTAMISVASTASED SÜSTEEMID TEEDELE. OSA 1:
TOIMIVUS JA OMADUSED**

**Anti-glare systems for roads - Part 1: Performances and
characteristics**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 12676-1:2000 sisaldab Euroopa standardi EN 12676-1:2000 ingliskeelset teksti.	This Estonian standard EVS-EN 12676-1:2000 consists of the English text of the European standard EN 12676-1:2000.
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English version

Anti-glare systems for roads - Part 1: Performance and characteristics

Systèmes anti-éblouissement routiers - Partie 1:
Performances et caractéristiques

Blendschutzsysteme für Straßen - Teil 1: Anforderungen
und Eigenschaften

This European Standard was approved by CEN on 18 February 2000.

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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.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 226 "Road equipment" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard consists of the following Parts under the general title :

Anti-glare systems for roads :

- Part 1 : Performance and characteristics ;
- Part 2 : Test methods.

NOTE This draft standard was submitted to the CEN Enquiry as prEN 12676:1999.

Annex A of this European Standard is informative.

Introduction

Anti-glare systems consist of manufactured equipment which reduces the glare of approaching headlights or of other external light sources.

Anti-glare systems are generally installed on public roads when it is considered beneficial to reduce the effect of glare. Common situations where anti-glare systems may be used are as follows :

- a) in the central reservation of dual carriageway roads and motorways ;
- b) between parallel or converging roads where traffic is travelling in opposing directions ;
- c) glaring light sources reflecting on installations and buildings adjacent to the road ;
- d) glaring light from installations and buildings adjacent to the road.

The test methods for verification of conformity to the performance requirements of this standard are given in EN 12676-2.

1 Scope

This Part of EN 12676 specifies the characteristics of an anti-glare system in terms of its optical effectiveness and of the mechanical performance of its elements. It gives a method for the determination of the optical performance of anti-glare systems by calculation. Requirements and recommendations for the design of anti-glare systems to minimize maintenance are also given.

This Part of EN 12676 does not apply to :

- types of anti-glare systems other than those attached to safety barriers;
- regulatory characteristics which might be required to ensure that anti-glare systems are compatible with road signs;
- specific requirements resulting from extreme environmental conditions experienced in some European countries.

2 Normative references

This Part of EN 12676 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 Part of EN 12676 only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

- EN 1317-2 Road restraint systems - Part 2 : Performance classes, impact test acceptance criteria and test methods for safety barriers

ISO 1043-1	Plastics - Symbols and abbreviated - Part 1 : Basic polymers with their special characteristics
ISO 1043-2	Plastics – Symbols - Part 2 : Fillers and reinforcing materials
ISO 9227	Corrosion tests in artificial atmospheres - Salt spray tests
EN 12676-2	Anti-glare systems for roads – Part 2 : Test methods

3 Definitions and symbols

For the purposes of this Part of EN 12676, the following definitions apply :

3.1 occluding element: element of the anti-glare system blocking out light which would be distracting to road users

3.2 support: element onto which occluding elements are mounted

3.3 base: structure (safety barrier) to which the support is attached

3.4 fixing element: component, e.g. screw and nut, which enables the fastening of the occluding elements onto the support, or the support onto its base

NOTE The fixing elements of the anti-glare system are part of the system.

3.5 light transmission factor, C_{ti} : the proportion of incident light which passes through the anti-glare system at a particular angle of incidence i

3.6 limiting angle, α_1 : angle of incidence below which incident light is completely blocked out by the anti-glare system ($C_{ti} = 0$)

4 Requirements

4.1 Design and fixation

The anti-glare system design shall consist of occluding elements which are mounted on a support (figure 1) or directly on the base. Anti-glare systems shall only be fixed in the lower part and shall be designed to be compatible with safety barriers fulfilling the requirements of EN 1317-2.

The complete fixed anti-glare system, or parts of it, even fixing elements, may not project over the edge of the safety barrier. Nevertheless, it is allowed that the plastic parts of an anti-glare system fixed on a concrete barrier may project up to 100 mm beyond the edge of the upper part of the barrier.