

## საქართველოს სტანდარტი

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სანათები - ნაწილი 2-3: განსაკუთრებული მოთხოვნები - გზისა და ეზოს  
გასანათებელი სანათები (იეკ 60598-2-3:2002/A1:2011)

საქართველოს სტანდარტებისა და მეტროლოგიის  
ეროვნული სააგენტო  
თბილისი

სსტ ენ 60598-2-3:2003 /A1:2011/2017

### საინფორმაციო მონაცემები

1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს 2017 წლის 13 ნოემბრის № 77 და 2017 წლის 27 ივნისის № 47 განკარგულებებით

2 მიღებულია თავფურცლის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 60598-2-3:2003 /A1:2011 „სანათები - ნაწილი 2-3: განსაკუთრებული მოთხოვნები - გზისა და ეზოს გასანათებელი სანათები (იეკ 60598-2-3:2002/A1:2011)“

### 3 პირველად

4 რეგისტრირებულია საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2017 წლის 13 ნოემბერი №268-1.3-011803

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

English version

**Luminaire -  
Part 2-3: Particular requirements -  
Luminaire for road and street lighting  
(IEC 60598-2-3:2002/A1:2011)**

Luminaire -  
Partie 2-3: Règles particulières -  
Luminaire d'éclairage public  
(CEI 60598-2-3:2002/A1:2011)

Leuchten -  
Teil 2-3: Besondere Anforderungen -  
Leuchten für Straßen- und  
Wegebeleuchtung  
(IEC 60598-2-3:2002/A1:2011)

This amendment A1 modifies the European Standard EN 60598-2-3:2003; it was approved by CENELEC on 2011-05-19. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 34D/989/FDIS, future amendment 1 to IEC 60598-2-3:2002, prepared by SC 34D, Luminaires, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60598-2-3:2003 on 2011-05-19.

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

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-02-19
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2014-05-19

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## Endorsement notice

The text of amendment 1:2011 to the International Standard IEC 60598-2-3:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

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**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

*Addition to Annex ZA of EN 60598-2-3:2003*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62262	2002	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	2002

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

**Luminaire –  
Part 2-3: Particular requirements – Luminaire for road and street lighting**

**Luminaire –  
Partie 2-3: Règles particulières – Luminaire d'éclairage public**





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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

**Luminaires –  
Part 2-3: Particular requirements – Luminaires for road and street lighting**

**Luminaires –  
Partie 2-3: Règles particulières – Luminaires d'éclairage public**

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## FOREWORD

This amendment has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

The text of this amendment is based on the following documents:

FDIS	Report on voting
34D/989/FDIS	34D/1003/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

### 3.1.1 Normative references

*Add the following new publication to the existing list:*

IEC 62262: 2002, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

### 3.5 Marking

*Add the following new item i) to the existing list:*

- i) maximum mounting height relevant to the selected method for protection against the falling of glass particles.

### 3.6.5

*Replace the existing Subclause 3.6.5 with the following:*

**3.6.5** In order to reduce the risk of injury caused by breaking glass, the following requirements, in relation to the intended mounting height of the luminaire, are applicable.

When luminaires are installed below 5 m, no additional requirements are requested on glass covers.

For tunnel luminaires, the requirements of 3.6.5.1 apply without exception.

When luminaires are installed above 5 m, glass covers shall be:

- a) constituted with a glass that fractures into small pieces, or
- b) constituted with a glass having a high impact shock resistance, or
- c) protected by any means to retain glass fragments in case of breakage (e.g. guard, film coating).

*Compliance is checked:*

- for a) by test and inspection according to 3.6.5.1;
- for b) by test and inspection according to 3.6.5.2;
- for c) by inspection.

The luminaire manufacturer shall declare to the testing laboratory the method of protection used.

### **3.6.5.1 Protection by the use of glass that fractures into small pieces**

Preconditioning of the luminaire and glass cover before testing is not required.

For flat glass, the glass component is supported over the whole area to ensure that particles will not be scattered upon fragmentation and that movement of the particles is prevented. Shatter the glass with a centre punch at a point 30 mm from the mid-point of one of the longer edges of glass towards the centre.

NOTE 1 A centre punch is a tool made of steel with a sharp point.

For formed glass, the glass component part shall be supported on all the surfaces (example of testing method could be the use of material like sand or a mould). The thickness of the material used as a support surface shall be more than 30 mm. The face of the glass shall be completely covered with an adhesive film in order to avoid any move of the broken particles. Shatter the glass (from the inside or the outside) with a centre punch in the middle of the glass cover.

Within 5 min of fracture, count the particles in a 50 mm square, located approximately at the centre of the area of the coarsest fracture but always within the confines of the glass.

*Compliance: A glass is deemed to have passed the test if the number of particles in the 50 mm square is more than 40; glass splinters and pieces less than the full thickness of the glass being excluded from the count. For glass of smaller size where a 50 mm × 50 mm area is not possible, the number of pieces necessary in the count is proportionately reduced. The size of the particles shall be less than 50 mm for all the dimensions.*

In the count of the total number of particles in the 50 mm square, the particles in the centre of the square plus those at the edge shall be taken into account. In order to count particles at the edge of the square, it is recommended that all pieces intersected by two adjacent sides be included and all particles intersected by the two other sides be ignored (see Figure 2).

NOTE 2 A suitable method of counting the particles is to place a square of 50 mm side, of transparent material over the glass and mark a spot of ink as each particle within the square counted.

NOTE 3 When the test sample remains as one sheet, the fragmentation lines would normally be used to indicate fractures and the size and number of particles would thus be evaluated, unless reinforcing or a film were employed.

NOTE 4 Where possible, the area of measurement should not be within 30 mm of any edge, hole or machining of the glass or in a circle of 50 mm around the impact.

### 3.6.5.2 Protection by the use of high impact resistant glass

#### 3.6.5.2.1 Glass covers shall have high mechanical strength.

The luminaire and glass cover shall be preconditioned by the thermal endurance test of 12.3 of IEC 60598-1.

The test is performed on one sample and on the external face (opposite side of the lamp) of the glass mounted on the luminaire.

The testing procedure shall be in accordance with the IEC 62262, and the test apparatus used is the pendulum hammer or vertical hammer according to IEC 60068-2-75.

*Compliance: The glass shall not be broken after a shock with impact energy of 5 J (IK08).*

#### 3.6.5.2.2 Glass covers shall not break into large pieces.

Glass covers shall be tested according the same testing procedure as 3.6.5.1.

*Compliance: A glass is deemed to have passed the test if the number of particles in the 50 mm square is more than 20, glass splinters and pieces less than the full thickness of the glass being excluded from the count. For glass of smaller size where a 50 mm × 50 mm area is not possible, the number of pieces necessary in the count is proportionately reduced. The size of the particles shall be less than 50 mm for all the dimensions.*

### 3.12 Endurance tests and thermal tests

Add the following new subclause after 3.12.3:

**3.12.3** Glass covers shall be used within the thermal limits declared by the glass manufacturer. Thermal limits shall include the minimum and maximum temperature and the maximum  $\Delta t$  allowed on the glass.

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