

**VALGUSTID. OSA 2-11: ERINÕUDED.
AKVAARIUMIVALGUSTID**

**Luminares - Part 2-11: Particular requirements -
Aquarium luminaires (IEC 60598-2-11:2013 +
IEC 60598-2-11:2013/AMD1:2022)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 60598-2-11:2013+A1:2022 sisaldab Euroopa standardi EN 60598-2-11:2013 ja selle muudatuse A1:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 60598-2-11:2013+A1:2022 consists of the English text of the European standard EN 60598-2-11:2013 and its amendment A1:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.08.2013, muudatused A1 16.09.2022.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 02.08.2013, for A1 16.09.2022.
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English Version
**Luminaires - Part 2-11: Particular requirements - Aquarium
luminaires**
(IEC 60598-2-11:2013 + IEC 60598-2-11:2013/AMD1:2022)

Luminaires - Partie 2-11: Exigences particulières -
Luminaires pour aquarium
(CEI 60598-2-11:2013 + IEC 60598-2-11:2013/AMD1:2022)

Leuchten - Teil 2-11: Besondere Anforderungen -
Aquarienleuchten
(IEC 60598-2-11:2013 + IEC 60598-2-11:2013/AMD1:2022)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Foreword

The text of document 34D/1046/CDV, future edition 2 of IEC 60598-2-11, prepared by SC 34D "Luminaires" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60598-2-11:2013.

The following dates are fixed:

- latest date by which the document has to (dop) 2014-03-20
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publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2016-06-20
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document have to be withdrawn

This document supersedes EN 60598-2-11:2005 + corrigendum August 2005.

EN 60598-2-11:2013 includes the following significant technical changes with respect to EN 60598-2-11:2005:

- a) Subclause 11.1, change of the scope to open the standard for all kinds of electrical light sources;
- b) Subclause 11.4.2 (former 11.3.2), change of the definition in order to clarify non-permanently attached aquarium luminaire;
- c) Subclause 11.11.3 (former 11.10.3), for indoor operated aquarium luminaire, change of the size of conductors to at least 0,75 mm² instead of 1,0 mm² in the former edition.

This standard is to be read in conjunction with EN 60598-1.

NOTE In this standard, the following print types are used:

- requirements: in roman type.
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This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

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The text of the International Standard IEC 60598-2-11:2013 was approved by CENELEC as a European Standard without any modification.

A1 Amendment A1 European foreword

The text of document 34D/1612/CDV, future IEC 60598-2-11/AMD1, prepared by SC 34D "Luminaires" of IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60598-2-11:2013/A1:2022.

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

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



Luminaires –

Part 2-11: Particular requirements – Aquarium luminaires

Luminaires –

Partie 2-11: Exigences particulières – Luminaires pour aquarium



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CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Luminaire –

Part 2-11: Particular requirements – Aquarium luminaire

Luminaire –

Partie 2-11: Exigences particulières – Luminaire pour aquarium

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LUMINAIRES –

**Part 2-11: Particular requirements –
Aquarium luminaires**

FOREWORD

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International Standard IEC 60598-2-11 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

This standard is to be read in conjunction with IEC 60598-1.

This second edition cancels and replaces the first edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Subclause 11.1, change of the scope to open the standard for all kinds of electrical light sources.
- b) Subclause 11.4.2, change of the definition in order to clarify non-permanently attached aquarium luminaire.
- c) Subclause 11.11.3, for indoor operated aquarium luminaire, change of the size of external cable to at least 0,75 mm² instead of 1,0 mm² in the former edition.

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

FDIS	Report on voting
34D/1046/FDIS	34D/1089/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 60598 series, published under the general title *Luminaires* can be found on the IEC website.

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A1 Amendment A1 FOREWORD

Amendment 1 to IEC 60598-2-11:2013 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lighting.

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

Draft	Report on voting
34D/1612/CDV	34D/1632/RVC

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

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications/.

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INTRODUCTION

Aquarium luminaires are predominantly used on the topside of an aquarium tank to achieve an effective illumination and are, therefore, very close to the water inside the tank. Because constant refilling of water is required as a consequence of evaporation and regular servicing, e.g. feeding the fish, it is necessary to open the top cover or to remove the aquarium luminaire frequently in order to have a good and sufficient access to the water surface.

The requirements of this standard are necessary to prevent any dangerous contact between current-carrying parts of the aquarium luminaire and the water inside the tank during refilling or maintenance. Another aspect is to prevent any accidental immersion of the aquarium luminaire into the water.

LUMINAIRES –

Part 2-11: Particular requirements – Aquarium luminaires

11.1 Scope

This part of the IEC 60598 series specifies requirements for household aquarium luminaires incorporating electric light sources on supply voltages not exceeding 1 000 V.

NOTE In the U.S., electrical equipment used on or in aquariums must be supplied by voltages not exceeding 300 V.

11.2 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.

IEC 60598-1, *Luminaires – Part 1: General requirements and tests*

11.3 General test requirements

The provisions of Section 0 of IEC 60598-1 apply. The tests described in each appropriate section of IEC 60598-1 shall be carried out in the order listed in this part of IEC 60598-2.

11.4 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60598-1, as well as the following apply.

11.4.1

aquarium luminaire

luminaire intended to illuminate the inside of an aquarium and which is placed in close proximity of the top of the tank or in/on the tank

11.4.2

non-permanently attached aquarium luminaire

luminaire which can be positioned on top of an aquarium tank, or on a removable top cover frame or on a fixed top cover frame, and which is removable by hand; a luminaire which must be detached from the aquarium for lamp replacement and/or for maintenance is considered as a non-permanently attached luminaire

Note 1 to entry: Non-permanently attached aquarium luminaires can contain provisions for fixing.

11.4.3

permanently attached aquarium luminaire

luminaire which is mounted on the tank of the aquarium or on a fixed top cover frame of the aquarium and which is only removable by the use of a tool

Note 1 to entry: Luminaires and their parts can be mounted separately by the user.