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Luminaires

Part 2.18: Particular requirements — Luminaires for swimming pools and similar applications (IEC 60598-2-18:2022 (ED. 3.0) MOD)



AS 60598.2.18:2025

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IES: The Lighting Society
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Preface

This Standard was prepared by the by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-041, Lighting, to supersede AS 60598.2.18:2019.

The objective of this document is to specify requirements for fixed luminaires intended for use in the water, or in contact with the water, in areas such as the basins of swimming pools, fountains, paddling pools, and garden pools, and for use with electric light sources.

This document is to be read in conjunction with AS/NZS 60598.1.

A list of all parts in the AS 60598.2 series can be found in the Standards Australia online catalogue.

This document is an adoption with national modifications and has been reproduced from IEC 60598-2-18:2022, *Luminaires — Part 2-18: Particular requirements — Luminaires for swimming pools and similar applications*. The modifications are set out in national variations boxes which give instructions where the IEC text is to be modified for use in Australia. Due to IEC copyright policy, it is not possible to directly modify the IEC content.

The modifications made to IEC 60598-2-18:2022 (ED. 3.0) form the Australian modifications for the purpose of the IECEE CB Scheme for recognition of testing to standards for safety of electrical equipment.

The modifications apply to the following:

(a) Foreword.

(b) Introduction.

(c) Clauses 18.1, 18.2, 18.3, 18.5.2, 18.5.4, 18.6.2, 18.6.3, 18.6.4, 18.7.4 (new), 18.9, 18.10, 18.11.4, 18.11.5 and 18.15.

For the purposes of the IECEE CB Scheme, the national variations made to IEC 60598-2-18:2022 (ED. 3.0) will be published in the IECEE CB Bulletin.

The essential safety requirements of AS/NZS 3820 which could be applicable to lighting products within the scope of AS 60598.2.18 are covered by this document.

As this document has been reproduced from an International document, the following apply:

(i) In the source text “this part of IEC 60598” should read “this document”.

(ii) A full point substitutes for a comma when referring to a decimal marker.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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FOREWORD

NATIONAL VARIATION

Delete Item f).

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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IEC 60598-2-18 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition published in 1993 and Amendment 1:2011. This edition constitutes a technical revision.

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

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a) references to Part 1 have been updated;

b) some subclauses have been renumbered;

c) the standard has been redrafted such that it is applicable to both filament lamps and LED light sources;

d) marking requirements have been updated and 18.5.3 of the previous edition has been deleted;

e) 18.10.3 of the previous edition has been deleted, as it is no longer relevant, following the update of requirements for cross-sectional areas of external and internal cables in Section 5 of Part 1;

f) 18.10.4 and 18.10.5 of the previous edition renumbered as 18.11.4 and 18.11.5 in this edition have been adapted to allow the use of an alternative waterproof multi-core cable that conforms to the waterproof test of Annex D and Annex E of EN 50525-2-21:2011 or to an equivalent regional standard;

g) in 18.11 (18.10 in the previous edition), the cross-sectional area of wiring has been aligned with Part 1;

h) in 18.11 (18.10 in the previous edition), the types of cables have been updated with alternative regional cables.

The text of this International Standard is based on the following documents:

Draft	Report on voting
34D/1663/FDIS	34D/1667/RVD

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 International Standard 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.

This Part 2-18 is to be used in conjunction with the latest edition of IEC 60598-1 and its amendment(s). It was established on the basis of the ninth edition (2020) of that standard.

NOTE 1 When “Part 1” is mentioned in this document, it refers to IEC 60598-1.

NOTE 2 In this document, the following print type is used:

— compliance statements: *in italic type*.

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

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INTRODUCTION

NATIONAL VARIATION

Third paragraph, *delete* second sentence.

For this third edition of IEC 60598-2-18, the main technical changes comprise the following.

For LED luminaires with bus control, multi-core cables which are suitable for the transmission of data streams are often used. These cables are not standardized. Subclauses 18.10.4 and 18.10.5 of the previous edition allowed the use of H05 RN-F cables but this type of cable is not suitable for the transmission of data streams.

Table 5.1 of Part 1 does not specify a special cable type for luminaires of protection class III. Therefore 18.10.4 and 18.10.5 of the previous edition renumbered as 18.11.4 and 18.11.5 in this edition have been adapted to allow an alternative waterproof multi-core cable that conforms to the waterproof test of Annex D and Annex E of EN 50525-2-21:2011 or to an equivalent regional standard.

Due to the update of Section 5 of IEC 60598-1 regarding cross-sectional areas of external and internal cables, 18.10.3 of the previous edition is no longer relevant. Subclause 18.10.3 was given as a less stringent requirement but in the meantime the requirements of IEC 60598-1 have become less stringent. Therefore 18.10.3 has been deleted.

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18.1 Scope

NATIONAL VARIATION

Delete the note.

This part of IEC 60598 specifies requirements for fixed luminaires intended for use in water, or in contact with water, in, for example, the basins of swimming pools, fountains, paddling pools, and garden pools, and for use with electric light sources.

NOTE Electrical installation rules for swimming pools are given in IEC 60364-7-702.

This document does not cover luminaires not in contact with water (e.g. mounted behind a glass panel which is separate from the luminaire) or hand-held or portable luminaires.

18.2 Normative references

NATIONAL VARIATION

Delete clause content and *replace* with the following:

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.

AS/NZS 60598.1, *Luminaires, Part 1: General requirements and tests*

AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*

AS/NZS 61558 (all parts), *Safety of power transformers, power supplies, reactors and similar products*

AS/NZS 61347 (all parts), *Lamp control gear*

Where IEC normative references are replaced by Australian or Australian/New Zealand Standards, all references in the source text to those IEC normative references shall be replaced by references to the corresponding Australian/New Zealand Standards.

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.

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

IEC 60364-7-702, *Low-voltage electrical installations – Part 7-702: Requirements for special installations or locations – Swimming pools and fountains*

EN 50525-2-21:2011, *Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U) – Part 2-21: Cables for general applications – Flexible cables with crosslinked elastomeric insulation*

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