



Luminaires

Part 2.4: Particular requirements — Portable general purpose luminaires (IEC 60598-2-4:2017, (ED. 3.0) MOD)



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- Australian Industry Group
- Consumers' Federation of Australia
- Department of the Environment and Energy (Australian Government)
- Electrical Compliance Testing Association of Australia
- Electrical Regulatory Authorities Council
- Fair Trading NSW
- IES: The Lighting Society
- Joint Accreditation System of Australia and New Zealand
- Lighting Council Australia
- Masters Electricians

Additional Interests:

- Australasian Fire and Emergency Service Authorities Council
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-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard[®]

Luminaires

Part 2.4: Particular requirements — Portable general purpose luminaires (IEC 60598-2-4:2017, (ED. 3.0) MOD)

Originated as AS/NZS 60598.2.4:2005.
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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment, to supersede AS/NZS 60598.2.4:2005, *Luminaires, Part 2.4: Particular requirements — Portable general purpose luminaires (IEC 60598-2-4, Ed. 2.0 (1997) MOD)* and its Amendment 1 (2007) and AS/NZS 60598.2.7:2005, *Luminaires, Part 2.7: Particular requirements — Portable luminaires for garden use (IEC 60598-2-7, Ed. 1.0 (1982) MOD)*. AS/NZS 60598.2.4:2005, *Luminaires, Part 2.4: Particular requirements — Portable general purpose luminaires (IEC 60598-2-4, Ed. 2.0 (1997), MOD)* and its Amendment 1 (2007) and AS/NZS 60598.2.7:2005, *Luminaires, Part 2.7: Particular requirements — Portable luminaires for garden use (IEC 60598-2-7, Ed. 1.0 (1982) MOD)* will also remain current for 12 months and after this time they will be superseded by AS 60598.2.4:2019. Regulatory authorities that reference this Standard in regulation may apply these requirements at a different time. Users of this Standard should consult with these authorities to confirm their requirements.

After consultation with stakeholders, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify minimum safety requirements for portable general purpose luminaires for indoor and/or outdoor use (e.g. garden use), other than handlamps and portable child appealing luminaires, designed to be used with or incorporating electrical light sources on supply voltages not exceeding 250 V.

This Standard is an adoption with national modifications and has been reproduced from IEC 60598-2-4:2017, (ED. 3.0), *Luminaires — Part 2-4: Particular requirements — Portable general purpose luminaires*. The modifications are additional requirements and are set out in Appendices ZZ, ZA and ZB, which have been added at the end of the source text.

This Standard is to be read in conjunction with AS/NZS 60598.1, *Luminaires, Part 1: General requirements and tests (IEC 60598-1, Ed. 7.0 (2008) MOD)*.

The essential safety requirements of AS/NZS 3820, *Essential safety requirements for electrical equipment*, which could be applicable to lighting products within the scope of AS 60598.2.4, are covered by AS 60598.2.4.

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

- (a) Alignment with IEC 60598-1.
- (b) Modification of the scope, classification and requirements to cover portable luminaires for both indoor and outdoor applications, by introducing the requirements already listed in IEC 60598-2-7.
NOTE: In this edition of IEC 60598-2-4 all requirements listed in IEC 60598-2-7 have been incorporated. As a consequence, IEC 60598-2-7 will be withdrawn after publication of this Standard.
- (c) Modification of the scope to cover all electrical light sources (it was previously limited to tungsten filament, tubular fluorescent and other discharge lamps).
- (d) Introduction of the symbol for luminaires which are other than ordinary, but suitable for indoor applications only (e.g. luminaire using PVC cable).
- (e) Modification in the detail of test to clarify that the stability test on an inclined plane see Clause 4.7.3) shall be carried out with the light source(s) in place.

- (f) Modification of the minimum degree of protection against dust and moisture for portable luminaires for outdoor use from IPX3 to IPX4 (see Clause 4.5.2); as a consequence, the requirements for cable entry position, as given in Clause 7.6.3 of IEC 60598-2-7:1982 were deleted as they are covered by IPX4.
- (g) Modification of the requirements for the acceptance criteria of plug and socket outlet.
- (h) Modification of the IP test requiring the most unfavourable of the overturned positions to cover all classes (and not only Class II luminaires as in Clause 7.13.1 of IEC 60598-2-7:1982).

This Standard is structured as follows:

- (i) Preface.
- (ii) IEC 60598-2-4:2017, (ED. 3.0) unedited from the first clause to the Bibliography.
- (iii) Appendix ZZ — Australian variations to the source document.
- (iv) Appendix ZA — Alternative requirements and tests for a simple portable luminaire.
- (v) Appendix ZB — Additional requirements for salt lamps.

As this Standard is reproduced from an International Standard, the following applies:

- (A) In the source text ‘this part of IEC 60598-2’ should read ‘this Australian Standard’.
- (B) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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

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FOREWORD

- 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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International Standard IEC 60598-2-4 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

This third edition cancels and replaces the second edition published in 1997. This edition constitutes a technical revision.

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

- a) alignment with IEC 60598-1;
- b) modification of the scope, classification and requirements to cover portable luminaires for both indoor and outdoor applications, by introducing the requirements already listed in IEC 60598-2-7;

NOTE In this edition of IEC 60598-2-4 all requirements listed in IEC 60598-2-7 have been incorporated. As a consequence, IEC 60598-2-7 will be withdrawn after publication of this standard.

- c) modification of the scope to cover all electrical light sources (it was previously limited to tungsten filament, tubular fluorescent and other discharge lamps);
- d) introduction of the symbol for luminaires which are other than ordinary, but suitable for indoor applications only (e.g. luminaire using PVC cable);
- e) modification in the detail of test to clarify that the stability test on an inclined plane (see 4.7.3) shall be carried out with the light source(s) in place;
- f) modification of the minimum degree of protection against dust and moisture for portable luminaires for outdoor use from IPX3 to IPX4 (see 4.5.2); as a consequence, the requirements for cable entry position, as given in IEC 60598-2-7:1982, 7.6.3 were deleted as they are covered by IPX4;
- g) modification of the requirements for the acceptance criteria of plug and socket outlet;
- h) modification of the IP test requiring the most unfavourable of the overturned positions to cover all classes (and not only class II luminaires as in 7.13.1 of IEC 60598-2-7:1982).

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

| FDIS | Report on voting |
|---------------|------------------|
| 34D/1257/FDIS | 34D/1271/RVD |

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

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

This publication is to be read in conjunction with IEC 60598-1: *Luminaires – Part 1: General requirements and tests*. It was established on the basis of the eight edition (2014) of that standard.

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

NOTE In this standard, the following print type is used:

– *compliance statements: in italic type*

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://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.

A bilingual version of this publication may be issued at a later date.

AUSTRALIAN STANDARD

Luminaires**Part 2.4:
Particular requirements — Portable general purpose luminaires
(IEC 60598-2-4:2017, (ED. 3.0) MOD)****4.1 Scope**

This part of IEC 60598-2 specifies requirements for portable general purpose luminaires for indoor and/or outdoor use (e.g. garden use), other than handlamps, designed to be used with or incorporating electrical light sources on supply voltages not exceeding 250 V.

4.2 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.

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

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

4.3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60598-1 as well as the following 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 <http://www.iso.org/obp>

4.3.1 **candlestick luminaire**

portable luminaire having series connected lamps permanently mounted and separated on a free-standing frame

Note 1 to entry: Candlestick luminaires can incorporate E5 or E10 lampholders.

4.4 General test requirements

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

4.5 Classification of luminaires

Luminaires shall be classified in accordance with the provisions of Section 2 of IEC 60598-1 together with the following additions.

NOTE In Australia and New Zealand, AS/NZS 60598.2.4 introduces Appendix A “Simple Portable Luminaires”.