AS/NZS 60598.1:2017
(Incorporating Amendment No. 1)

AS/NZS 60598.1:2017

Australian/New Zealand Standard™

Luminaires

Part 1: General requirements and tests (IEC 60598-1, Ed. 8.0 (2014) MOD)

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-041, Lamps and Related Equipment. It was approved on behalf of the Council of Standards Australia on 5 February 2017 and by the New Zealand Standards Approval Board on 7 March 2017.
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The following are represented on Committee EL-041:

Australian Industry Group
Consumers Federation of Australia
Department of the Environment and Energy
Electrical Compliance Testing Association
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
IES: The Lighting Society
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Australasian Fire and Emergency Service Authorities Council

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of Standards Australia or the New Zealand Standards Executive at the address shown on the back cover.

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Part 1: General requirements and tests (IEC 60598-1, Ed. 8.0 (2014) MOD)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment, to supersede AS/NZS 60598.1:2013, *Luminaires*, Part 1: *General requirements and tests (IEC 60598-1, Ed. 7.0 (2008) MOD)* two years after publication. Until that time, both editions of the Standard will operate in parallel. It is anticipated that the 2013 edition will then be withdrawn.

This Standard incorporates Amendment No. 1 (November 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to specify general requirements for luminaires, incorporating electric light sources, for operation from supply voltages up to 1 000 V. The requirements and related tests of this Standard cover: classification, marking, mechanical construction and electrical construction.

This Standard is an adoption with national modifications and has been reproduced from IEC 60598-1, Ed. 8.0 (2014), *Luminaires*, Part 1: *General requirements and tests*. The source document has been varied as indicated to take account of Australian/New Zealand conditions. The modifications are specified in Appendix ZZ.

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

(a) Requirements to support the construction methods for new LED luminaires entering the market.

(b) Photobiological requirements extended.

(c) More precise requirements for insulation between different types of electrical circuit.

(d) Other general updates and improvements.

The major changes which may affect certification are given in Annex R. Annex R shows where new text has been included which contains more serious/critical requirements requiring products to be re-tested.

This Standard is structured as follows:

(i) Preface (including Australian and New Zealand references).

(ii) IEC 60598-1 (unedited from the contents page to the final clause of the IEC Standard).

(iii) Appendix ZZ—Australian/New Zealand variations to the IEC Standard.

The variations in Appendix ZZ include the following:

(A) Clarifying that the Standard includes LED light sources within its scope.

(B) Testing requirements for 240 V supply.

(C) Requirements for capacitors.

(D) Details of means of connection to supply.

(E) Assessment for access to live parts.

(F) Resistance to fire tests.

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

The variations described in Appendix ZZ form the Australian and New Zealand variations for the purposes of the IECEE CB Scheme for the recognition of testing to standards for safety of electrical equipment.

In this Standard, the following print types are used:

— Requirements: in roman type.

— *Test specifications: in italic type.*

— Notes: in small roman type.

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

(1) In the source text 'this part of IEC 60598' should read 'this Australian/New Zealand Standard'.

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

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian or Australian/New Zealand Standard*	
IEC		AS/NZS	
60065	Audio, video and similar electronic apparatus—Safety requirements	60065	Audio, video and similar electronic apparatus—Safety requirements (IEC 60065, Ed. 7.2 (2011) MOD)
		AS	
60068	Environmental testing	60068	Environmental testing
60068-2-75	Part 2-75: Tests—Test Eh: Hammer tests	60068.2.75	Part 2.75: Tests—Test Eh: Hammer tests
		AS/NZS	
60112	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	60112	Method for the determination of the proof and the comparative tracking indices of solid insulating materials
60155	Glow-starters for fluorescent lamps	60155	Glow-starters for fluorescent lamps
60238	Edison screw lampholders	60238	Edison screw lampholders (IEC 60238, Ed. 8.2 (2011) MOD)
60245	Rubber-insulated cables—Rated voltages up to and including 450/750 V (series)	60245	Rubber-insulated cables—Rated voltage up to and including 450/750 V (series)
60320	Appliance couplers for household and similar general purposes (series)	60320	Appliance couplers for household and similar general purposes (series)
60432	Incandescent lamps—Safety specifications	60432	Incandescent lamps—Safety specifications
60432-1	Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	60432.1	Part 1: Tungsten filament lamps for domestic and similar general lighting purposes
60432-2	Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes	60432.2	Part 2: Tungsten-halogen lamps for domestic and similar general lighting purposes
60432-3	Part 3: Tungsten-halogen lamps (non-vehicle)	60432.3	Part 3: Tungsten halogen lamps (non-vehicle)
		AS	
60529	Degrees of protection provided by enclosures (IP Code)	60529	Degrees of protection provided by enclosures (IP Code)

IEC		AS/NZS	
60598	Luminaires	60598	Luminaires
60598-2	Part 2: Particular requirements (series)	60598.2	Part 2: Particular requirements (series)
60990	Methods of measurement of touch current and protective conductor current	60990	Methods of measurement of touch current and protective conductor current
61184	Bayonet lampholders	61184	Bayonet lampholders (IEC 61184, Ed. 3.1 (2011) MOD)

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The terms ‘normative’ and ‘informative’ have been used in this Standard 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.

CONTENTS

Page

Page

Page

Page

Page

Page

AUSTRALIAN/NEW ZEALAND STANDARD

Luminaires

Part 1:
General requirements and tests (IEC 60598-1, Ed. 8.0 (2014) MOD)

0.1 Scope

This Part 1 of IEC 60598 specifies general requirements for luminaires, incorporating electric light sources for operation from supply voltages up to 1 000 V. The requirements and related tests of this standard cover: classification, marking, mechanical construction, electrical construction and photobiological safety.

Each section of this Part 1 is read in conjunction with this Section 0 and with other relevant sections to which reference is made.

Each part of IEC 60598-2 details requirements for a particular type of luminaire or group of luminaires on supply voltages not exceeding 1 000 V. These parts are published separately for ease of revision and additional sections will be added as and when a need for them is recognized.

The presentation of photometric data for luminaires is under consideration by the International Commission on Illumination (CIE) and is not, therefore, included in this Part 1.

Requirements are included in this Part 1 for luminaires incorporating ignitors with nominal peak values of the voltage pulse not exceeding those of Table 11.2. The requirements apply to luminaires with ignitors built into ballasts and to luminaires with ignitors separate from ballasts. For luminaires with ignitors built into lamps, the requirements are under consideration.

Requirements for semi-luminaires are included in this Part 1.

In general, this Part 1 covers safety requirements for luminaires. The object of this Part 1 is to provide a set of requirements and tests which are considered to be generally applicable to most types of luminaires and which can be called up as required by the detail specifications of IEC 60598-2. This Part 1 is thus not regarded as a specification in itself for any type of luminaire, and its provisions apply only to particular types of luminaires to the extent determined by the appropriate part of IEC 60598-2.

The parts of IEC 60598-2, in making reference to any of the sections of Part 1, specify the extent to which that section is applicable and the order in which the tests are to be performed; they also include additional requirements as necessary.

The order in which the sections of Part 1 are numbered has no particular significance as the order in which their provisions apply is determined for each type of luminaire or group of luminaires by the appropriate part of IEC 60598-2. All parts of IEC 60598-2 are self-contained and therefore do not contain references to other parts of IEC 60598-2.