

Australian/New Zealand Standard™

Luminaires

**Part 1: General requirements and tests
(IEC 60598.1:1996, MOD)**

AS/NZS 60598.1:2001

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 4 April 2001 and on behalf of the Council of Standards New Zealand on 27 April 2001. It was published on 24 July 2001.

The following interests are represented on Committee EL-041:

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Electrical Compliance Testing Association of Australia
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Australian/New Zealand Standard™

Luminaires

Part 1: General requirements and tests (IEC 60598.1:1996, 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, and Subcommittee EL-041-04, Luminaires, to supersede the 1998 edition.

The objective of this Standard is to provide the lighting industry with minimum safety requirements for the classification and marking of luminaires and for their mechanical and electrical construction, together with related tests.

This Standard is an adoption with national modifications and has been reproduced from, IEC 60598.1:1996, *Luminaires Part 1: General requirements and tests* (including Interpretation Sheets IS 02 to IS 12:1997, Amendment 1:1998 and Corrigendum:1998) and has been varied as indicated to take account of Australian/New Zealand conditions.

The IEC amendments incorporated are indicated by marginal bars on the right hand side of the page, circled 1 for Amendment 1 and unnumbered for Interpretation sheets. The interpretations within the text indicated by unnumbered marginal bars are for informative purposes only. The corrigendum applied to all excepting the last paragraph of Clause 8.2.3 is not marked.

An editorial correction has been made to Table 11.1 and reported to IEC.

AS/NZS variations to IEC 60598.1:1996 are identified separately. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand Standard, are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border. These changes are also included in a new Annex ZZ for easy reference.

A reference to an International Standard identified in the Normative References Clause by strikethrough (~~example~~) is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (example). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter.

Technical deviations from IEC 60598-1 Ed.4.1, for reasons of protection of human health and safety, a legitimate reason under the WTO agreement on Technical Barriers to Trade (TBT), have been made as follows:

Clause 2.2: Notice of prohibition of class 0 luminaires.

Clause 3.3: Requirement for instructions in English.

Clause 5.2.2: Concerning properties of flexible cables and cords.

Clause 13.3: Concerning resistance of insulating materials to flame and ignition.

This Standard is Part 1 of a series dealing with luminaires. Currently this series consists of the following Parts; additional Parts will be added from time to time:

AS/NZS 60598	Luminaires
Part 1:	General requirements and tests (this Standard)
Part 2.1:	Particular requirements—Fixed general purpose luminaires
Part 2.4:	Particular requirements—Portable general purpose luminaires
Part 2.6:	Particular requirements—Luminaires with built-in transformers or converters for filament lamps
Part 2.8:	Particular requirements—Handlamps
Part 2.10:	Particular requirements—Portable child-appealing luminaires
Part 2.18:	Particular requirements—Luminaires for swimming pools and similar applications
Part 2.20:	Particular requirements—Lighting chains

Each Standard in Part 2 is intended to be used in conjunction with Part 1 in order to provide a complete Standard for that specific type of luminaire. Where a particular clause of Part 1 is not mentioned in Part 2, that clause applies as far as is reasonable. Where Part 2 states 'addition', 'modification' or 'replacement', the relevant requirements in Part 1 are adapted accordingly.

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

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'this standard' should read 'this Australian/New Zealand Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

In this Standard, the following print types are used:

- requirements proper: in arial type;
- *test specifications: in italic type;*
- explanatory matter: in smaller arial type.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A normative appendix is an integral part of a Standard, whereas an informative appendix is only for information and guidance.

Attention is drawn to Electromagnetic Compatibility (EMC) schemes introduced in their respective countries by the Australian Communications Authority (ACA) and the Ministry of Economic Development New Zealand (MED) to manage the use and performance of devices that either intentionally or unintentionally emit electromagnetic energy in the radiofrequency spectrum. Mandated Standards form an integral part of the EMC compliance schemes. Electrical lighting products fall within the scope of AS/NZS 4051, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*. AS/NZS 4051 has been reproduced from IEC/CISPR 15 (same title) but contains some changes to limits to protect local radio services.

Information on EMC compliance for lighting equipment available on the Internet at <http://www.aca.gov.au/standards/emc/emc.htm> at <http://www.med.govt.nz/rsm>

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Australian/New Zealand Standard**Luminaires****Part 1: General requirements and tests (IEC 60598.1:1996, MOD)**

Any IEC table, figure or passage of text that is struckthrough is not part of this Standard. Any Australian/New Zealand table, figure or passage of text that is added (and identified by shading) is part of this Standard.

SECTION 0 : GENERAL INTRODUCTION

0.1 Scope and object

This Part 1 of International Standard IEC 60598 specifies general requirements for the classification and marking of luminaires and for their mechanical and electrical construction, together with related tests. The standard is applicable to luminaires for use with electric light sources on supply voltages not exceeding 1000 V. Additional sections will be added when a need for them is recognized. ①

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

Each section of IEC 60598-2 details requirements for a particular type of luminaire or group of luminaires on supply voltages not exceeding 1000 V. These sections are published separately for ease of revision and additional sections will be added as and when a need for them is recognized.

Attention is drawn to the fact that this Part 1 covers all aspects of safety (electrical, thermal and mechanical).

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.

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 to be 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 section of Part 2.