Australian/New Zealand Standard™

Luminaires

Part 1: General requirements and tests (IEC 60598-1:2003, MOD)

Standards Australia

STANDARDS NEW ZEALAND
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The following are represented on Committee EL-041:

Association of Consulting Engineers, Australia
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Consumer Federation of Australia
Electrical Compliance Testing Association of Australia
Electrical Regulatory Authorities Council
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and related equipment.

The objective of this Standard is to provide the lighting industry with general safety requirements for luminaires with tests related to classification, marking, mechanical and electrical construction. This edition of AS/NZS 60598.1 will supersede AS/NZS 60598.1:2001 on publication.

This Standard is reproduced from the Lumex WG draft Edition 6 of IEC 60598.1, *Luminaires* Part 1: *General requirements and tests* as produced by SC34D and is varied to include the contents of 34D/755/CD and other national variations. The variations have been made for reasons of protection of human health and safety, a legitimate reason under the WTO agreement on Technical Barriers to Trade (TBT).

AS/NZS variations to draft Edition 6 of IEC 60598.1:2003 are identified separately. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian/New Zealand Standard, are deleted. Where text, tables or figures 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.

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 2.2	Particular requirements—Recessed luminaires
Part 2.4:	Particular requirements—Portable general purpose luminaires
Part 2.5	Particular requirements—Floodlights
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 2.19	Particular requirements—Air handling luminaires (Safety requirements)
Part 2.20:	Particular requirements—Lighting chains
Part 2.23	Particular requirements—Extra low voltage lighting systems for filament lamps
Part 2.25	Particular requirements—Luminaires for use in clinical areas of hospitals and health care buildings

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’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex 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 CISPR 15, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*. AS/NZS CISPR 15 has been reproduced from CISPR 15 (same title) and some modifications have been made to reflect local conditions.

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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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

SECTION 0: GENERAL INTRODUCTION

0.1 Scope and object

This part 1 of the Standard AS/NZS 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 and electrical construction.

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.

Each section 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 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 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 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.

The sections of part 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.