AS/NZS 60598.1:2003 Luminaires - Part 1: General requirements and tests

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Description

Specifies general and safety requirements for luminaires with related tests for mechanical and electrical constructions.

This document is reproduced from the Lumex WG draft Edition 6 of IEC 60598-1 and varied for Australian/New Zealand conditions.

Scope

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 1000 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 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 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. 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 section of part 2. All sections of part 2 are self-contained and therefore do not contain references to other sections of part 2.

Where the requirements of any of the sections of part 1 are referred to in the sections of part 2 by the phrase "The requirements of section ... of IEC 60598-1 apply", this phrase is to be interpreted as meaning that all the requirements of that section of part 1 apply except those which are clearly inapplicable to the particular type of luminaire covered by that section of part 2.

For explosion proof luminaires, as covered by IEC 60079, the requirements of IEC 60598 (selecting the appropriate section(s) of Part 2) are applied in addition to the requirements of IEC 60079. In the event of any conflict between IEC 60598 and IEC 60079, the requirements of IEC 60079 are to take priority.

In accordance with IEC guidelines, new IEC standards are divided into those covering either safety or performance. In the lamp safety standards, information for luminaire design is given for the safe operation of lamps; this should be regarded as normative when testing luminaires to this standard. Attention is drawn to lamp performance standards which contain information for luminaire design;

this should be followed for proper lamp operation; however, this standard does not require the testing of lamps performance as part of the type test approval for luminaires. Improvements in safety to take account of the state of the art technology are incorporated in the standards with revisions and amendments on an ongoing basis.

Regional standardisation bodies may include statements in their derived standards to cover products which have complied with the previous document as shown by the manufacturer or standardization body. The statements may require that for such products the previous standard may continue to apply to production until a defined date after which the new standard shall apply.

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