AS/NZS 2293.1:1998

Australian/New Zealand Standard™

Emergency evacuation lighting for buildings

Part 1: System design, installation and operation

Building Code of Australia primary referenced Standard

ABCB
Australian Building Codes Board

STANDARDS AUSTRALIA

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG/7, Emergency Lighting in Buildings. It was approved on behalf of the Council of Standards Australia on 25 February 1998 and on behalf of the Council of Standards New Zealand on 27 February 1998. It was published on 5 May 1998.

The following interests are represented on Committee LG/1:

The Association of Consulting Engineers Australia
Australian Building Codes Board
Australian Electrical and Electronic Manufacturers Association
Australian Institute of Building Surveyors
Building Control Commission, Victoria
Building Industry Authority, New Zealand
Department of Public Works and Housing, Queensland
Department of Public Works and Services, New South Wales
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This Standard was issued in draft form for comment as DR 97362.

Australian/New Zealand Standard™

Emergency evacuation lighting for buildings

Part 1: System design, installation and operation

Originated in Australia as part of AS 2293.1 — 1979.
Final Australian edition AS 2293.1 — 1987.
Originated in New Zealand as part of NZS 6742:1971.
AS 2293.1 — 1987 and NZS 6742:1971 jointly revised,
in part, and designated AS/NZS 2293.1:1995.
Second edition 1998.

Published jointly by:

Standards Australia
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Homebush NSW 2140 Australia

Standards New Zealand
Level 10, Radio New Zealand House,
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Wellington 6001 New Zealand

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee LG/7, Emergency Lighting in Buildings, to supersede AS/NZS 2293.1:1995 *Emergency lighting for buildings*, Part 1: *System design, installation and operation*.

The Standard sets out requirements for the design, installation and operation of emergency evacuation lighting systems for buildings. The objective of these requirements is to ensure the provision of visual conditions that will alleviate panic and facilitate safe evacuation of the building occupants should this be necessary in the event of failure of the normal lighting.

The objective of this edition is to introduce a number of necessary changes, particularly those sought by the Australian Building Codes Board, with a view to the Standard being in a form that is suitable for reference in the Building Code of Australia.

Attention is drawn to the need for emergency evacuation lighting systems to be regularly maintained. In this regard it should be noted that AS/NZS 2293.2* specifies the periodic inspection and maintenance checks that should be carried out to ensure that emergency evacuation lighting systems will continue to function effectively.

For direct lighting systems, two alternative methods are specified for deriving the required spacings for emergency luminaires, viz.

(a) A set of rules involving the classification of emergency luminaires according to their light output distribution (see AS/NZS 2293.3*) coupled with requirements relating the luminaire mounting height and maximum spacing (see Clauses 5.3.2.2 and 5.3.2.3, and Tables 5.1 to 5.5).

(b) Calculations of the illuminance at floor level conducted in a specified manner (see Clause 5.3.2.4).

There are differences in the way in which the methods described in Items (a) and (b) are specified for separate application in Australia and New Zealand, as explained below.

For Australian purposes, the spacing rules continue to be based on illuminance calculations in which only the luminous flux that reaches the floor directly from the emergency luminaires is taken into account.

For New Zealand purposes, similar spacing rules apply to those for use in Australia except that a separate luminaire classification is calculated for each room or space that is to be provided with emergency lighting. For illuminance calculations, the luminous flux that reaches the floor both directly and indirectly (by reflection from room surfaces) is taken into account.

The above differences arise in part from different regulatory positions in Australia and New Zealand. In particular, the different requirements arise from the following:

(i) *In New Zealand* The underlying basis for the requirements is the provision of an illuminance of not less than 1 lx at any point, as required by the New Zealand Building Code. Both the direct and inter-reflected luminous flux components are taken into account.

(ii) *In Australia* The underlying basis for the requirements is the provision of an illuminance not less than 0.2 lx at the mid-point between adjacent luminaires. Only the direct component of luminous flux is taken into account.

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* AS/NZS

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The differences between the New Zealand and Australian positions are, in practice, not as large as they appear. For a number of practical reasons, emergency lighting systems designed in accordance with the Australian spacing rules (i.e. Tables 5.1 to 5.5) have, by measurement, been observed to provide illuminances comparable to those required by the New Zealand Building Code.

Differences also exist with respect to the installation of exit signs. For Australia, the requirements of Clause 5.6 are similar to those of AS 2293.1—1987 but with some changes. For New Zealand, Clause 5.7 requires compliance with Approved Document F8 of the New Zealand Building Code.

The abovementioned differences will be given further attention in a future revision of the Standard, having regard to any developments with respect to international recommendations covering this subject.

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.

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