

Australian/New Zealand Standard™

**Emergency lighting and exit signs for
buildings**

**Part 3: Emergency luminaires and exit
signs**



AS/NZS 2293.3:2018

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG-007, Emergency Lighting in Buildings. It was approved on behalf of the Council of Standards Australia on 7 June 2018 and by the New Zealand Standards Approval Board on 3 April 2018.
This Standard was published on 29 June 2018.

The following are represented on Committee LG-007:

Australasian Fire and Emergency Service Authorities Council
Australian Building Codes Board
Australian Industry Group
Business New Zealand
Electrical Trades Union
Employers Chamber of Commerce Central
Engineers Australia
Fire Protection Association Australia
IES: The Lighting Society
Lighting Council Australia
Lighting Council New Zealand
Ministry of Business, Innovation and Employment, New Zealand
National Electrical and Communications Association
Property Council of Australia
Queensland University of Technology
University of Sydney
WorkSafe New Zealand

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia Web Site at www.standards.org.au or Standards New Zealand web site at www.standards.govt.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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.

This Standard was issued in draft form for comment as DR AS/NZS 2293.3:2018.

Australian/New Zealand Standard™

Emergency lighting and exit signs for buildings

Part 3: Emergency luminaires and exit signs

Originated in Australia as part of AS 2293.1—1979.
Originated in New Zealand as part of NZS 6742:1971.
Previous New Zealand edition AS/NZS 2293.3:1995 (withdrawn without replacement).
Previous Australian edition AS 2293.3—2005.
Jointly revised and designated as AS/NZS 2293.3:2018.

COPYRIGHT

© Standards Australia Limited

© The Crown in right of New Zealand, administered by the New Zealand Standards Executive

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee LG-007, Emergency Lighting in Buildings, to supersede AS 2293.3—2005, *Emergency escape lighting and exit signs for buildings, Part 3: Emergency escape luminaires and exit signs*.

The AS/NZS 2293 series comprises three Parts as follows:

AS/NZS

- 2293 Emergency lighting and exit signs for buildings
- 2293.1 Part 1: System design, installation and operation
- 2293.2 Part 2: Routine service and maintenance
- 2293.3 Part 3: Emergency luminaires and exit signs (this Standard)

The objective of the AS/NZS 2293 series of Standards is to provide those associated with the design, construction, installation, certification and maintenance of all the individual components of an emergency lighting and exit signage scheme, and the scheme as a whole, with the requirements and guidelines to provide an installation that will ensure an acceptable level of illumination to the nominated areas for the safe evacuation of occupants from those areas in an emergency situation.

The objective of this Standard is to provide designers, manufacturers and certifiers of emergency luminaires and exit signs with the relevant requirements for such products in order to facilitate the production of luminaires that will provide an acceptable level of emergency lighting to a space when installed to conform with AS/NZS 2293.1.

Changes in this edition of the Standard include the following:

- (a) Introduction of requirements for alternative light sources (i.e. LED) and allowance for the use of emerging battery technologies.
- (b) Inclusion of New Zealand requirements (for publication as AS/NZS Standard).
- (c) Updated references to new pictogram standards.
- (d) Added definition and requirements for dual function exit signs.
- (e) Replacement of AS 3137 with AS/NZS 60598.2.22.

Electronic files of all basic pictorial elements are grouped under the heading 'Image files for exit signs specified in AS/NZS 2293.3' and attached to this document as a CD Rom in the case of a paper copy of the Standard and as a zip file in the case of an electronic copy. These files reproduce the contents of Figure 3.1 in a form suitable for directly creating complying pictorial elements over a range of sizes. These files are provided as an assistance to the user only and do not form part of this Standard.

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.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 APPLICATION	5
1.3 NORMATIVE REFERENCES	5
1.4 DEFINITIONS.....	6
 SECTION 2 GENERAL REQUIREMENTS FOR EMERGENCY LUMINAIRES AND EXIT SIGNS	
2.1 APPLICATION AND CONFORMANCE	8
2.2 LUMINAIRE CLASSIFICATION	8
2.3 SUITABILITY FOR OPERATING CONDITIONS.....	8
2.4 ILLUMINATION AT SWITCH ON.....	8
2.5 LIGHT SOURCES.....	9
2.6 CONVERSION PACKS	9
2.7 MARKING	10
 SECTION 3 PARTICULAR REQUIREMENTS FOR EXIT SIGNS	
3.1 APPLICATION	12
3.2 TYPES OF EXIT SIGN	12
3.3 APPEARANCE OF EXIT SIGN FACE.....	12
3.4 ILLUMINATION	18
3.5 MAXIMUM VIEWING DISTANCES	20
3.6 MARKING	20
 SECTION 4 PARTICULAR REQUIREMENTS FOR SELF-CONTAINED EMERGENCY LUMINAIRES AND EXIT SIGNS	
4.1 APPLICATION	21
4.2 ARRANGEMENT AND CONTROL	21
4.3 BATTERIES.....	22
4.4 BATTERY CHARGERS	23
4.5 SELF-CONTAINED AUTOMATIC DISCHARGE TESTING FACILITIES	24
4.6 MARKING	25
 SECTION 5 PARTICULAR REQUIREMENTS FOR CENTRALLY SUPPLIED EMERGENCY LUMINAIRES AND EXIT SIGNS	
5.1 APPLICATION	26
5.2 ARRANGEMENT AND CONTROL	26
5.3 MARKING	26

APPENDICES

A	ESSENTIAL DATA AND PREFERRED FORMAT FOR TEST REPORTS FOR EMERGENCY LUMINAIRES AND EXIT SIGNS	27
B	SAMPLE DECLARATION OF CONFORMANCE FOR EMERGENCY LUMINAIRES AND EXIT SIGNS	33
C	CLASSIFICATION OF EMERGENCY LUMINAIRES AND DUAL FUNCTION EXIT SIGNS	35
D	TYPE TESTING OF SELF CONTAINED EMERGENCY LUMINAIRES AND EXIT SIGNS	41
E	PROJECTION OF LIGHT SOURCE LIFE (LSL) IN LED EXIT SIGNS	49
	BIBLIOGRAPHY	51

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Emergency lighting and exit signs for buildings

Part 3: Emergency luminaires and exit signs

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design, construction, performance and testing of emergency luminaires and exit signs. It applies both to emergency luminaires and exit signs that are centrally supplied, and to emergency luminaires and exit signs of the self-contained type.

NOTES:

- 1 Appendix A lists the essential data and preferred format of test reports for emergency luminaires and exit signs.
- 2 A sample declaration of the conformance of emergency luminaires and exit signs with this Standard is given in Appendix B.

1.2 APPLICATION

It is anticipated that this Standard will be indirectly referenced, via a direct reference to AS/NZS 2293.1, in the National Construction Code, and in New Zealand to the New Zealand Building Code, Clauses F6 and F8, thereby superseding the previous edition of the AS 2293 series.

Dual function exit signs shall firstly comply with all the requirements of the subsequent clauses 3.3 and 3.4 of this Standard in order to then be classified as an emergency luminaire.

Specific requirements relating to Clauses F6 and F8 of the New Zealand Building Code have been added where it is necessary to alter clauses of this Standard to comply with New Zealand requirements.

1.3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard.

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS/NZS

1680	Interior and workplace lighting
1680.3	Part 3: Measurement, calculation and presentation of photometric data
2293	Emergency lighting and exit signs for buildings
2293.1	Part 1: System design, installation and operation
2293.2	Part 2: Routine service and maintenance
60598	Luminaires
60598.1	Part 1: General requirements and tests (IEC 60598-1, Ed.8.0 (2014) MOD)
60598.2.22	Part 2.22: Particular requirements—Luminaires for emergency lighting (IEC 60598-2-22, Ed. 3.1(2002) MOD)