

Australian/New Zealand Standard™

Luminaires

Part 2.3: Particular requirements— Luminaires for road and street lighting (IEC 60598-2-3, Ed. 3.1 (2011) MOD)



AS/NZS 60598.2.3:2015

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 20 August 2015 and on behalf of the Council of Standards New Zealand on 30 June 2015.

This Standard was published on 14 October 2015.

The following are represented on Committee EL-041:

Australasian Fire and Emergency Service Authorities Council
Australian Industry Group
Consumers Federation of Australia
Department of Industry
Electrical Compliance Testing Association
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
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This Standard was issued in draft form for comment as DR AS/NZS 60598.2.3:2014.



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First published as AS/NZS IEC 60598.2.3:2015.

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Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140.

ISBN 978 1 76035 238 7

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment to supersede the safety requirements in AS/NZS 1158.6:2010, *Lighting for roads and public spaces*, Part 6: *luminaires*.

The objective of this Standard is to specify requirements for luminaires for road, street and other public outdoor area lighting applications, tunnel lighting, and column integrated luminaires, in order to provide a uniform methodology for the assessment and testing of luminaire design.

This Standard is an adoption with national modifications; it has been reproduced from IEC 60598-2-3, Ed. 3.1 (2011), *Luminaires*, Part 2-3: *Particular requirements—Luminaires for road and street lighting*, and has been varied as indicated to take account of Australian/New Zealand conditions. This Edition 3.1 is a consolidated version of Edition 3.0 (2002) together with Amendment 1 (2011). Text and elements affected by Amendment 1 are indicated by redline and strikeout in the source text.

This Standard provides the minimum safety requirements for road lighting luminaires. The Technical Specification SA/SNZ TS 1158.6, *Lighting for roads and public spaces*, Part 6: *Luminaires—Performance*, has been prepared by the Joint Standards Australia/Standards New Zealand Committee LG-002, Lighting for Roads and Public Spaces, to supplement this Standard. The objective of SA/SNZ TS 1158.6 is to provide a specification in Australian and New Zealand conditions for the performance of luminaires for roads and public spaces. AS/NZS 1158.6:2010 will be withdrawn on publication of SA/SNZ TS 1158.6.

The essential safety requirements in AS/NZS 3820, that could be applicable to road and street lighting products are covered by this Standard in conjunction with any other relevant requirements affecting safety.

Variations made to IEC 60598-2-3, Ed.3.1 (2011) form the Australian/New Zealand variations for the purposes of the CB scheme for recognition of testing to standards for safety of electrical equipment. They are listed in Appendix ZZ for easy reference.

This Standard is structured as follows:

- (a) Preface.
- (b) IEC 60598-2-3, Ed.3.1 (2011) (unedited from the contents page to the final clause of the source document).
- (c) Appendix ZZ—(Australian/New Zealand) variations to the source document.

The variations listed in Appendix ZZ address issues including the following:

- (i) Requirement for additional protection from water ingress.
- (ii) Requirements for ambient temperature conditions.

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

- (A) In the source text ‘this part of IEC 60598’ should read ‘this Australian/New Zealand Standard’.
- (B) References to ‘IEC 60598-1’ should read ‘AS/NZS 60598.1’.
- (C) A full point substitutes for a comma when referring to a decimal marker.

The normative references listed in Clause 3.1.1 have not been adopted as Australian or Australian/New Zealand Standards.

It has been assumed in the development of this Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

CONTENTS

3.1	Scope.....	5
3.2	General test requirements	5
3.3	Definitions	5
3.4	Classification of luminaires	6
3.5	Marking	7
3.6	Construction	7
3.7	Creepage distances and clearances	12
3.8	Provision for earthing	12
3.9	Terminals	12
3.10	External and internal wiring	12
3.11	Protection against electric shock	12
3.12	Endurance tests and thermal tests	13
3.13	Resistance to dust and moisture.....	13
3.14	Insulation resistance and electric strength.....	13
3.15	Resistance to heat, fire and tracking	13
	Annex A (informative) Drag coefficient measurement.....	16
	Annex B (normative) Schedule of amended clauses containing more serious/critical requirements which require products to be retested	17
	Figure 1 – Different procedures for the static wind-force test	14
	Figure 2 – Counting particles at the edge of the square	15

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

Luminaires**Part 2.3:****Particular requirements—Luminaires for road and street lighting
(IEC 60598-2-3, Ed. 3.1 (2011) MOD)****3.1 Scope**

This part of IEC 60598 specifies requirements for

- luminaires for road, street lighting and other public outdoor lighting applications;
- tunnel lighting;
- column-integrated luminaires with a minimum total height above normal ground level of 2,5 m;

and for use with electrical lighting sources on supply voltages not exceeding 1 000 V.

NOTE Column integrated luminaires with a total height below 2,5 m are under consideration.

3.1.1 Normative references

The normative references listed in Section 0 of IEC 60598-1 apply to this part as well as the following reference:

IEC 60068-3-76:1997, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60364-7-714, 1996, *Electrical installations of buildings – Part 7: Requirements for special installations or locations – Section 714: External lighting installations*

IEC 62262: 2002, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

3.2 General test requirements

The provisions of Section 0 of IEC 60598-1 apply.

The tests described in each appropriate section of Part 1 shall be carried out in the order listed in this section of Part 2.

In order to facilitate testing, and due to the dimensions of the sample, it is allowed to make use of the appropriate parts of the luminaire only (this is mainly applicable to column-integrated luminaires).

3.3 Definitions

For the purposes of this section, the definitions of Section 1 of IEC 60598-1 apply together with the following definitions.

3.3.1**span wire**

wire between main supports which carries the weight of the complete installation.

NOTE This may include several luminaires, supply cables and a stay wire.

3.3.2**suspension wire**

wire attached to the span wire and carrying the weight of the luminaire

3.3.3**stay wire**

tensioned wire between main supports to limit lateral and rotary movement of the suspended luminaires

3.3.4**column-integrated luminaires**

lighting systems formed with a luminaire integrated in a lighting column fixed in the ground

3.3.5**reflective or decorative external part of a column-integrated luminaire**

device reflecting the light in a fixed direction or with a decorative purpose, mounted outside the lamp compartment generally at the top of the column-integrated luminaire

NOTE Such devices are referred to in this standard as "external parts".

3.3.6**lighting column**

support intended to hold one or more luminaires, consisting of one or more parts: a post, possibly an extension piece, and if necessary a bracket. It does not include columns for catenary lighting

3.3.7**nominal height of a column-integrated luminaire**

distance between the centre line of the point of entry of the external part and the intended ground level, for column-integrated luminaires planted in the ground, or the bottom of the flange plate, for column-integrated luminaires with a flange plate

3.3.8**door opening of a column-integrated luminaire**

opening in the column of a column-integrated luminaire for access to electrical equipment

3.3.9**cable entry slot of a column integrated luminaire**

opening in the part of a column-integrated luminaire below ground for the cable entry

3.3.10**connection box of a column integrated luminaire**

box containing terminal blocks: protecting devices allowing the connection of a column-integrated luminaire to the mains and the looping of electricity supply cables

3.3.11**tunnel luminaires**

luminaires for lighting tunnels which are mounted direct or on frames to the wall or ceiling of the tunnel

3.4 Classification of luminaires

Luminaires shall be classified in accordance with the provisions of Section 2 of IEC 60598-1.

NOTE Luminaires for road and street lighting are normally suitable for one or more of the following modes of installation:

- a) on a pipe (bracket) or the like;
- b) on a mast (column) arm;
- c) on a post top;