AS/NZS 1158.1.2:2010

Australian/New Zealand Standard™

Lighting for roads and public spaces

Part 1.2: Vehicular traffic (Category V) lighting—Guide to design, installation, operation and maintenance

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG-002, Lighting for Roads and Public Space. It was approved on behalf of the Council of Standards Australia on 26 March 2010 and on behalf of the Council of Standards New Zealand on 29 March 2010.
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The following are represented on Committee LG-002:

Astronomical Society of Australia
Australian Industry Group
Australian Local Government Association
CIE Australia Inc.
Department of Transport and Main Roads, Queensland
Energy Networks Association
IES: The Lighting Society
Ingenium
Lighting Council Australia
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This Standard was issued in draft form for comment as DR 08181.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee LG-002, Lighting for Roads and Public Spaces, to supersede AS/NZS 1158.1.3–1997 *Road Lighting* Part 1.3: *Vehicular traffic (Category V) lighting–Guide to design, installation, operation and maintenance*, now designated as Part 1.2.

This Standard is part of the AS/NZS 1158 series, *Lighting for roads and public spaces*, which covers lighting schemes for most roads and public spaces.

The performance criteria for such lighting schemes may include any or all of the following:

(a) Facilitation of safe movement.

(b) The discouragement of illegal acts.

(c) Contributing to the amenity of an area through increased aesthetic appeal.

The series has divided road lighting into the following two broad categories:

(i) *Category V lighting* Lighting that is applicable to roads on which the visual requirements of motorists are dominant, e.g. traffic routes.

(ii) *Category P lighting* Lighting that is applicable to roads on which the visual requirements of pedestrians are dominant, e.g. local roads and lighting that is applicable to outdoor public areas, other than roads, where the visual requirements of pedestrians are dominant, e.g. outdoor shopping precincts.

This Standard applies to Category V lighting.

Its objective is to provide guidance to those concerned with design, installation, operation and maintenance of such lighting, to facilitate compliance with the requirements of AS/NZS 1158.1.1.

The following Standards have been issued in the AS/NZS 1158 series:

AS/NZS		
1158		Lighting for roads and public spaces
1158.0	Part 0:	Introduction
1158.1.1	Part 1.1:	Vehicular traffic (Category V) lighting—Performance and design requirements
1158.1.2	Part 1.2:	Vehicular traffic (Category V) lighting—Guide to design, installation, operation and maintenance (this Standard)
1158.2	Part 2:	Computer procedures for the calculation of light technical parameters for Category V and Category P lighting
1158.3.1	Part 3.1:	Pedestrian area (Category P) lighting—Performance and installation design requirements
1158.4	Part 4:	Lighting of pedestrian crossings
1158.5	Part 5:	Tunnels and underpasses
1158.6	Part 6:	Luminaires

Road lighting is acknowledged to be an effective crash counter-measure. The costs involved in providing road lighting can be demonstrated to provide significant financial and community benefits in terms of reductions in road crashes at night. Studies in Australia and New Zealand, and in other countries, have led to the conclusion that traffic route lighting is likely to reduce night time casualty crashes by about 30%, taken over the road network. A summary of the findings of lighting and crashes is given in Appendix C. (See also Ref. 9, 20 and 21 in Paragraph A2.)

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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FOREWORD

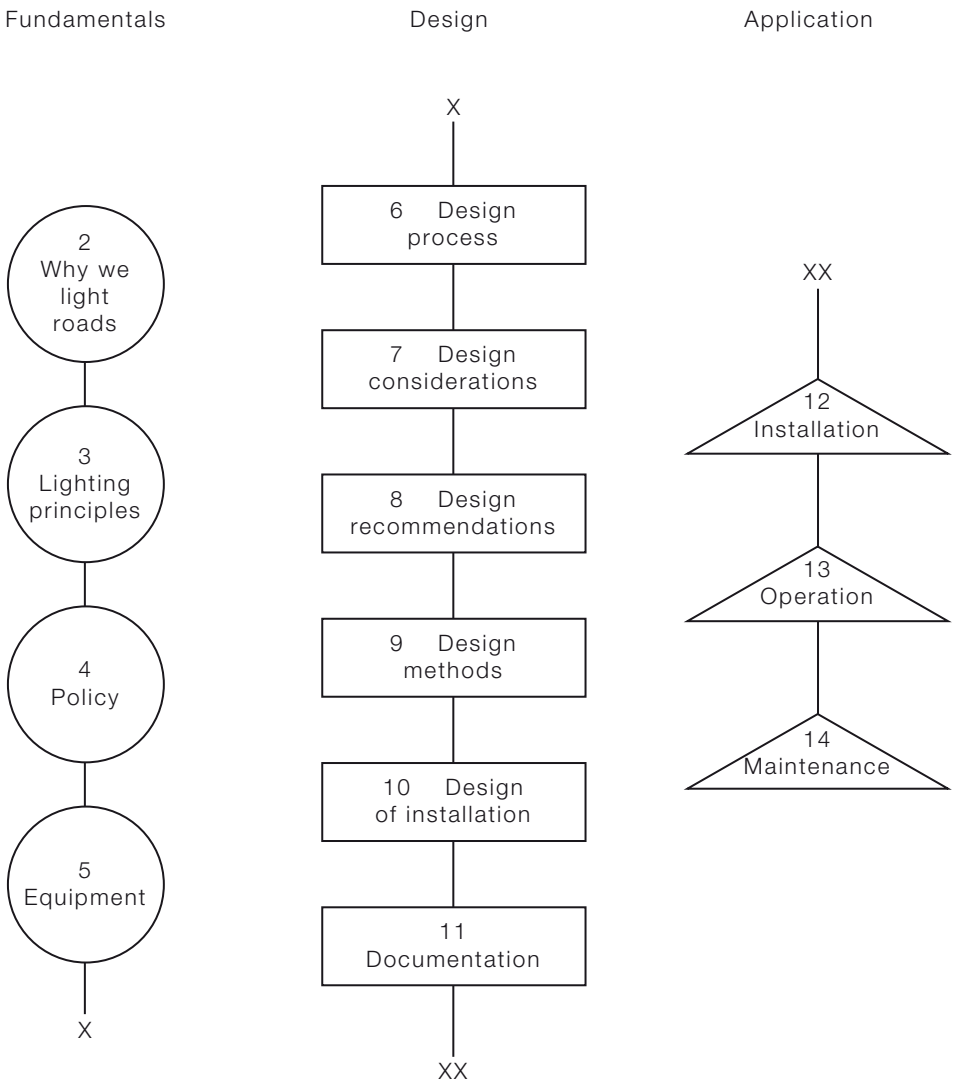
The subject matter covered in this Standard is divided into three main elements, as follows:

(a) *Fundamentals* The information that must be known before engaging in a road lighting design.

(b) *Design* The considerations and processes involved in the development of a design for a road lighting scheme.

(c) *Application* Advice relating to the installation, operation and maintenance of a road lighting scheme.

These three broad subject areas are further divided into sections within this Standard as shown in the flow chart below.



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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements, background information, guidelines and other relevant information for the design, installation, operation and maintenance of Category V lighting schemes intended to comply with AS/NZS 1158.1.1. It should be read in conjunction with that Standard. For the purpose of this Standard, the lighting categories set out in AS/NZS 1158.1.1 apply. Table 2.1 of that Standard describes typical applications for each of the lighting categories given.

The Standard does not purport to cover every possible means of ensuring compliance with AS/NZS 1158.1.1.

Much of this Standard is also applicable to lighting schemes intended to comply with AS/NZS 1158.3.1 and reading of it in conjunction with that Standard is recommended.

The appropriate lighting category for a particular road is a matter for determination in consultation with the road or traffic authority concerned.

1.2 REFERENCED DOCUMENTS

A list of the Standards and other documents referred to in this Standard is given in Appendix A. The Appendix also lists a number of additional documents that are considered useful sources of information on the subject of this Standard.

1.3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS/NZS 1158.0 apply.

NOTE: See Paragraph B3 of Appendix B for definitions of terms related to the use and placement of road lighting poles.

AS/NZS 1158.1.2:2010 Road lighting - Vehicular traffic (Category V) lighting - Guide to design, installation, operation and maintenance