

Australian/New Zealand Standard™

Lighting for roads and public spaces

Part 6: Luminaires



AS/NZS 1158.6:2010

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG-002, Lighting for roads and public spaces. It was approved on behalf of the Council of Standards Australia on 16 December 2009 and on behalf of the Council of Standards New Zealand on 23 December 2010. This Standard was published on 5 February 2010.

The following are represented on Committee LG-002:

Astronomical Society of Australia
Australian Industry Group
Australian Local Government Association
CIE Australia Inc.
Energy Networks Association
IES: The Lighting Society
Ingenium
Lighting Council of Australia
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Main Roads Department, Queensland
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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, as a revision of AS/NZS 1158.6—2004, *Lighting for roads and public spaces, Part 6: Luminaires*.

This Standard forms part of the AS/NZS 1158 series, which covers lighting schemes for the generality of roads and outdoor public areas.

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 installation design requirements
- 1158.1.3 Part 1.3: Vehicular traffic (Category V) lighting—Guide to design, installation, operation and maintenance
- 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 design requirements
- 1158.4 Part 4: Lighting at pedestrian crossings
- 1158.5 Part 5: Tunnels and underpasses
- 1158.6 Part 6: Luminaires (this Standard)

The objective of this Standard is to set out the requirements for the design, construction, performance and testing of road lighting luminaires to ensure that they will be suitable for the operating and environmental conditions to which they will be subjected in service.

Road lighting luminaires must withstand, and be capable of operating under, adverse conditions, including the effects of salt spray, industrially contaminated atmospheres, fog, smoke, dust storms, snow, ultraviolet radiation, driving rain, wind and traffic-induced vibration.

The requirements of this Standard have been formulated on the basis that luminaires will have a target service life of at least 20 years. These requirements specify the use of materials recognized at the time of writing to be effective for the relevant application. This is not intended to discourage the introduction of new technology, but new materials and methods of construction will be considered for future inclusion only after evidence of satisfactory long-term performance has been provided.

The significant technical change made in this Standard is to include specifications for other than what have been, until recently, the traditional road lighting luminaires. There is a growing emphasis on energy efficiency in road lighting and the consequential reduction in greenhouse gas emissions. Of particular interest is the availability of luminaires with T5 linear or compact fluorescent lamps. The use of these lamps and the associated electronic control gear offers significant energy savings in Category P lighting schemes. Major trials of these luminaires suggest that these luminaires are as reliable as those currently installed and that there is no technical reason preventing their wide-scale installation*.

Other emerging technology, not yet proven for general use by field experience, is discussed in Appendix A. These include new generation metal halide and LED lamps, and centralised electronic internet based road lighting control systems for monitoring lighting schemes.

* Alec Fisher, Michael Brien and Karman Wang. *Energy efficient luminaires for local road lighting—a trial*, (IESANZ,28,4,2008).

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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