

Australian/New Zealand Standard™

**Lighting for roads and public spaces**

**Part 3.1: Pedestrian area (Category P)  
lighting—Performance and design  
requirements**



### **AS/NZS 1158.3.1:2020**

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 11 February 2020 and by the New Zealand Standards Approval Board on 5 February 2020.  
This Standard was published on 21 February 2020.

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The following are represented on Committee LG-002:

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CIE Australia  
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*This Standard was issued in draft form for comment as DR AS/NZS 1158.3.1:2018.*

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# Australian/New Zealand Standard™

## Lighting for roads and public spaces

### Part 3.1: Pedestrian area (Category P) lighting—Performance and design requirements

Originated in Australia as part of CA19—1939.  
Originated in New Zealand in part as NZCP 54:1962.  
Previous edition AS/NZS 1158.3.1:2005.  
Third edition 2020.

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ISBN 978 1 76072 737 6

## 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 1158.3.1:2005, *Lighting for roads and public spaces, Part 3.1: Pedestrian area (Category P) lighting—Performance and design requirements*.

This Standard forms Part 3.1 of the AS/NZS 1158 series, which covers lighting schemes for the generality of roads and outdoor public areas.

The AS/NZS 1158 series consists of the following:

### 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
- 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 (this Standard)
- 1158.4 Part 4: Lighting of pedestrian crossings
- 1158.5 Part 5: Tunnels and underpasses
- 60598 Luminaires
- 60598.2.3 Part 2.3: Particular requirements—Luminaires for road and street lighting (IEC 60598-2-3, Ed.3.1 (2011) MOD)

### SA/SNZ TS

- 1158 Lighting for roads and public spaces
- 1158.6 Part 6: Luminaires—Performance

The significant technical changes that have been made in this Standard in relation to the 2005 edition include the following:

- (a) Separation of previous Table 2.6 into the differing requirements for lighting of ‘local roads’ and ‘cyclist paths’.
- (b) Clarification of glare requirements for high intensity discharge luminaires and new requirements for SSL light sources.
- (b) Additional and revised layout rules for typical road layouts.
- (d) Additional information relating to SSL light sources.
- (e) Additional requirements for surround illuminance.
- (f) Updated data on the specification of minimum ingress protection requirements for various maintenance factors and requirements regarding assumed and actual maintenance regimes and maintenance intervals.
- (g) Additional lighting level for lighting of external car parking areas.
- (h) New requirements relating to energy measures if required.
- (i) Additional option for specifying minimum environmental spill levels for local roads.

This joint Standard is intended to be applied in its entirety in Australia and New Zealand; however, a number of differences exist with respect to the requirements that apply in each country. These are indicated by the qualification 'In Australia' or 'In New Zealand', or similar.

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.

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## FOREWORD

The performance criteria for road and public space lighting schemes can include any or all of the three basic aims of—

- (a) facilitation of safe movement;
- (b) reduction of the fear of crime at night; and
- (c) contributing to the amenity of an area through increased aesthetic appeal.

However, as the most common primary aim of a scheme is that of safe movement of people, the series divides road and public space lighting into two broad categories — Category V lighting and Category P lighting, as defined in AS/NZS 1158.0.

This Standard sets out performance and design requirements for Category P lighting schemes having regard to the safe movement of pedestrians, degree of activity (of pedestrians and vehicles), the fear of crime and the need to enhance the amenity of the locality. It should be read in conjunction with AS/NZS 1158.2, which sets out calculation procedures.

Category P lighting is acknowledged to be an effective counter measure to the fear of crime.

The effects that blue light can have on human melatonin suppression and circadian rhythm disruption have begun to be explored extensively in the literature. However, there seems to be no definitive levels of amount, duration and timing which would give guidance to this document.

For each lighting subcategory described in this Standard, the light technical parameters (LTPs) and their prescribed values are both necessary and sufficient for the particular application. Conformance to this Standard will be achieved by meeting all the required values of the LTPs for the designated subcategory. A higher quality of lighting scheme can be achieved within a subcategory by, for example, increasing the minimum level of uniformity or reducing the glare allowable, or both.