

AS 2144—1995

Australian Standard<sup>®</sup>

---

**Traffic signal lanterns**

---

This Australian Standard was prepared by Committee LG/6, Road Traffic Signals. It was approved on behalf of the Council of Standards Australia on 23 June 1995 and published on 5 November 1995.

---

The following interests are represented on Committee LG/6:

Australian Chamber of Manufactures  
Australian Electrical and Electronic Manufacturers Association  
Australian Road Research Board  
AUSTROADS  
Brisbane City Council  
Department of Road Transport, S.A.  
Department of Urban Services, A.C.T.  
Metal Trades Industry Association of Australia  
Roads and Traffic Authority, N.S.W.  
Vic Roads

---

**Review of Australian Standards.** *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

*Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.*

*Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.*

---

*This Standard was issued in draft form for comment as DR 93262.*

AS 2144—1995

Australian Standard<sup>®</sup>

---

**Traffic signal lanterns**

---

PUBLISHED BY STANDARDS AUSTRALIA  
(STANDARDS ASSOCIATION OF AUSTRALIA)  
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 9947 2

## PREFACE

This Standard was prepared by the Standards Australia Committee on Road Traffic Signals to supersede AS 2144—1989. It is one of a number of Standards which set out requirements for the equipment associated with traffic signal installations. As at the date of publication of this Standard, these include the following:

### AS

- 2144 Traffic signal lanterns (this Standard)
- 2339 Traffic signal posts and attachments
- 2353 Pedestrian push-button assemblies
- 2578 Traffic signal controllers
- 2578.1 Part 1: Physical and electrical compatibility
- 2703 Vehicle loop detector sensors
- 2979 Traffic signal mast arms
- 4113 Traffic signal lamps
- 4113.1 Part 1: Lamps for 240 V a.c. operation
- 4113.2 Part 2: Lamps for a.c. operation at extra-low voltage
- 4191 Portable traffic signal systems

### AS/NZS

- 4192 Illuminated flashing arrow signs

In this Standard the photometric requirements for vehicular lanterns have been derived from the considerable body of research which has been conducted in Australia, into factors affecting the visibility of these signals (see references in Appendix C).

The Standard includes requirements for the dimensions of certain features of traffic signal lanterns and associated components, arising from a specific desire on the part of road and traffic authorities for uniformity in the appearance of traffic signalling equipment to road users, and from the need to facilitate the compatibility of equipment from different manufacturers. In particular, Appendix E gives recommended dimensions for the attachment of visors and target boards which have the objective of achieving interchangeability between components supplied by different manufacturers.

The requirements of this Standard have the objective of ensuring that, with the exception of replaceable items such as lamps, lanterns will continue to function effectively for a period of at least 20 years; furthermore, that surface finishes applied to the exterior of lanterns (e.g. powder coatings, paint) will last for at least 10 years without the need for further treatment.

The photometric requirements of this Standard apply to new lanterns. In service the photometric performance will deteriorate, sometimes appreciably. Therefore to ensure that the lanterns continue to perform at a satisfactory level a maintenance program will be necessary; see Ref. 3 in Appendix C.

It is recommended that the tests necessary to determine compliance with this Standard be conducted by laboratories that are independently accredited as having competence to carry out the type of measurements involved.

A number of changes have been introduced in this edition of the Standard, the most significant being as follows:

- (a) Revised requirements for the colours of signal lights, to correspond with more recent recommendations of the International Commission on Illumination (see Table 2.1 and Figure 2.1).

- (b) Amended requirements for the intensity/luminance of yellow signals (see Clauses 3.2.1 and 3.2.2, and Tables 3.1 and 3.2).
- (c) Amended requirements for luminous intensities at positions 20° left/right of the beam axis (see Tables 3.1 and 3.2).
- (d) Amended requirements for intrinsic sun-phantom (see Clause 3.2.3.1).
- (e) Amended requirements for operating temperatures (see Clause 4.7).
- (f) Amended requirements for the dimension of target boards (see Table 6.1 and Figure E3, Appendix E).
- (g) Inclusion of a new 'U-turn' symbolic display (see Figure 6.8).
- (h) Inclusion of recommendations for alternative forms of pedestrian signal displays that utilize light emitting diodes (see Appendix F).

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-