

Australian/New Zealand Standard™

## Traffic signal lanterns



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## **AS/NZS 2144:2002**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG-006, Road Traffic Signals. It was approved on behalf of the Council of Standards Australia on 25 March 2002 and on behalf of the Council of Standards New Zealand on 14 March 2002. It was published on 2 May 2002.

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The following interests are represented on Committee LG-006:

ARRB Transport Research  
Australian Electrical and Electronic Manufacturers Association  
Australian Industry Group  
AUSTROADS  
Brisbane City Council  
Road and Traffic Authority of N.S.W.  
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## Traffic signal lanterns

Originated as AS E32-1947.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee LG-006 Road Traffic Signals to supersede AS 2144—1995. It is one of a number of Standards which set out requirements for the equipment associated with traffic signal installations. These include the following:

AS	
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	
2144	Traffic signal lanterns (this Standard)
4192	Illuminated flashing arrow signs

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 F 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 have the objective of ensuring that, with the exception of replaceable items such as lamps and LED arrays, 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 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 photometric requirements 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.

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, all with the objective of enlarging the scope of the Standard to cover traffic signals using light emitting diodes (LEDs) as the light source.

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