

Australian/New Zealand Standard™

**Incandescent lamps—Safety
specifications**

**Part 2: Tungsten-halogen lamps for
domestic and similar general lighting
purposes**



AS/NZS 60432.2:2007

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-041, Lamps and Related Equipment. It was approved on behalf of the Council of Standards Australia on 1 June 2007 and on behalf of the Council of Standards New Zealand on 4 May 2007.

This Standard was published on 31 August 2007.

The following are represented on Committee EL-041:

Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Certification Interests (New Zealand)
Consumers' Federation of Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
IES: The Lighting Society
Institution of Professional Engineers New Zealand
Ministry of Economic Development (New Zealand)

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 07125.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 60432.2:2007

**Incandescent lamps–Safety specifications
Part 2: Tungsten-halogen lamps for domestic and similar
general lighting purposes**

RECONFIRMATION NOTICE

Technical Committee EL-041 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 13 July 2018.

Approved for reconfirmation in New Zealand on behalf of the New Zealand Standards Approval Board on 20 July 2018.

The following are represented on Technical Committee EL-041:

Australian Industry Group
Consumers Federation of Australia
Department of the Environment and Energy (Australian Government)
Electrical Compliance Testing Association of Australia
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
Energy Efficiency & Conservation Authority of New Zealand
IES: The Lighting Society
Joint Accreditation System of Australia and New Zealand
Joint Accreditation System of Australia and New Zealand - New Zealand
Lighting Council Australia
Lighting Council New Zealand
Master Electricians Australia
NSW Fair Trading
Worksafe New Zealand

NOTES

Australian/New Zealand Standard™

**Incandescent lamps—Safety
specifications**

**Part 2: Tungsten-halogen lamps for
domestic and similar general lighting
purposes**

First published as AS/NZS 60432.2:2007.

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 8338 4

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment.

The objective of this Standard is to specify safety requirements for tungsten-halogen lamps for domestic and general lighting purposes.

This Standard is identical with, and has been reproduced from IEC 60432-2, Ed. 2.1 (2005), *Incandescent lamps—Safety specifications – Part 2: Tungsten-halogen lamps for domestic and similar general lighting purposes*.

This Standard is Part 2 of a series which, when complete, will consist of the following:

AS/NZS

60432	Incandescent lamps—Safety specifications
60432.1	Part 1: Tungsten filament lamps for domestic and similar general lighting purposes
60432.2	Part 2: Tungsten-halogen lamps for domestic and similar general lighting purposes (this Standard)
60432.3	Part 3: Tungsten-halogen lamps (non-vehicle)

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'IEC 60432-2' should read 'AS/NZS 60432.2'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

CONTENTS

	<i>Page</i>
1 General.....	1
1.1 Scope	1
1.2 Normative references.....	1
1.3 Definitions.....	2
2 Requirements.....	2
2.1 General.....	2
2.2 Marking.....	2
2.3 Protection against accidental contact in screw lampholders	2
2.4 Lamp cap temperature rise (Δt_s)	3
2.5 Resistance to torque	3
2.6 Insulation resistance of B15d, B22d, E26/50×39 and E27/51×39 capped lamps and other lamps having insulated skirts	3
2.7 Accidentally live parts	4
2.8 Creepage distance for B15d and B22d capped lamps	4
2.9 Safety at end of life	4
2.10 Interchangeability	4
2.11 UV radiation.....	4
2.12 Information for luminaire design	4
3 Assessment	4
Annex A (normative) Alternative induced failure test.....	6
Annex B (normative) Symbols.....	7
Annex C (informative) Information for luminaire design.....	8
Annex D (informative) Bibliography	9

NOTES

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Incandescent lamps—Safety specifications**
Part 2: Tungsten-halogen lamps for domestic and similar general lighting purposes

1 General

This standard shall be used in conjunction with IEC 60432-1.

1.1 Scope

This part of IEC 60432 specifies the safety and the related interchangeability requirements of tungsten-halogen lamps for general lighting service. It covers those tungsten-halogen lamps that are used as direct replacements for conventional tungsten filament lamps as well as new tungsten-halogen lamps which have no correspondence in IEC 60432-1, but for which the safety and interchangeability requirements are treated by this standard in conjunction with IEC 60432-1. These tungsten-halogen lamps have the following characteristics:

- rated wattage up to and including 250 W;
- rated voltage of 50 V to 250 V inclusive;
- caps B15d, B22d, E12, E14, E17, E26, E26d, E26/50x39, E27 or E27/51x39.

Lamps complying with this standard are self-shielded, but need not be marked with a special symbol. As they are direct replacements for conventional tungsten filament lamps, there will be no corresponding luminaire marking.

NOTE 1 There is no implication that a tungsten-halogen lamp used as a substitute for an incandescent tungsten filament lamp would use the same bulb shape as the original incandescent lamp.

NOTE 2 There are two variations of E26 caps which are not fully compatible: E26/24 caps used in North America and E26/25 caps used in Japan.

NOTE 3 Self-shielded lamps are lamps for which the luminaire needs no protective shield.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60432. For dated references, subsequent amendments to, or revisions of, these publications do not apply. However, parties to agreements based on this part of IEC 60432 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

References to International Standards that are struck through in this Clause are replaced by references to equivalent Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is appropriately identified.

~~IEC 60050(845), *International Electrotechnical Vocabulary (IEV)—Chapter 845: Lighting*~~

AS 1852.845—1989, *International electrotechnical vocabulary Part 845: Lighting* (identical to IEC 60050(845):1987)

IEC 60410, *Sampling plans and procedures for inspection by attributes*