Australian/New Zealand Standard™

International lamp coding system (ILCOS)

Standards Australia

STANDARDS NEW ZEALAND

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 2 October 2001 and on behalf of the Council of Standards New Zealand on 12 October 2001. It was published on 29 November 2001.

The following interests are represented on Committee EL-041:

Association of Consulting Engineers, Australia
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Electrical Compliance Testing Association of Australia
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
Energy Safety Services, New Zealand
Illuminating Engineering Society of Australia and New Zealand
International Accreditation New Zealand (IANZ)

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 Standards may also be withdrawn.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 Australia web site 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 International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 01211.

Australian/New Zealand Standard™

International lamp coding system (ILCOS)

Originated as AS/NZS 4293:1995.
Jointly revised and redesignated as AS/NZS 61231:2001.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 4169 X

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and related equipment, to supersede AS/NZS 4293:1995.

The objective of this Standard is to provide manufacturers, suppliers, consumers and regulators with technical specifications on international lamp coding systems (ILCOS).

This Standard is identical with IEC TS 61231 1999-06, *International lamp coding system* and is reproduced from it.

In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

The IEC Committee has decided that IEC TS 61231, the source of this document, is valid until September 2003 beyond which date the publication is subject to review by IEC. In this context Committee EL-041 will review this document after September 2003.

CONTENTS

INTRODUCTION

The lamp industry strives continuously to meet customers' needs. Its innovative power has lead to a tremendous variety of different light sources. To enable customers and experts to find their way within the diversity of products, a general system for the coding of lamps has been developed.

The code does not replace specific markings used by individual manufacturers on their lamps or their catalogues, but it is promoted for cross-referencing purposes and, in due course, to replace national and regional lamp coding systems which already exist.

NOTE – The code does not give all the characteristics necessary to specify a lamp fully. For this the relevant lamp standard and/or the manufacturer's literature have to be consulted.

The coding of this document has influenced the following:

- The standardization part is deleted, and thereby ILCOS T, because this version has found no application in practice.
- For nearly all lamp categories, the possibility of including further technical details in ILCOS L is extended.
- An extended short version ILCOS LE is introduced for tungsten filament, tungsten halogen and fluorescent lamps because of the need to make the application of the short code more flexible.
- For tungsten halogen and metal halide lamps, a new letter S is introduced in ILCOS L for self-shielded lamps, i.e. lamps designed to be suitable for use in open luminaires.
- For tungsten halogen lamps with integral front cover the letter I is replaced by the letter S in ILCOS L.
- For tungsten halogen lamps with double envelope, the code HE is deleted in ILCOS L, because these lamps are now covered as being single-ended self-shielded HSGS.
- For tungsten halogen lamps, the floodlight lamps are included in the general purpose type of lamps because of their general application. So the letter F is replaced by G in ILCOS L.
- For tungsten halogen lamps with integral metal (proximity) reflector, the code HI is replaced by HP in ILCOS L.
- For fluorescent lamps, the new development of 'induction type lamps' is introduced in ILCOS L by the letter I.
- For fluorescent lamps, the circular lamps are coded in ILCOS L as single-capped lamps, i.e. FSC instead of FC.
- For fluorescent lamps, the U-shaped lamps are coded in ILCOS L as double-capped lamps, i.e. FDU instead of FU.
- For metal halide lamps that are not standardized by the IEC, the full ILCOS D coding is kept under consideration, because of the complexity of the different lamp types and associated circuitry on the market.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard

International lamp coding system (ILCOS)

Any IEC table, figure or passage of text that is struck-through is not part of this Standard. Any Australian/New Zealand table, figure or passage of text that is added (and identified by shading) is part of this Standard.

1 Scope and object

This technical specification gives the rules for the international lamp coding system and covers all lamp categories, excluding vehicle lamps. Coding for the main lamp types in specified and, for the others, will follow by amendments to this technical specification as appropriate.

The object of the international lamp coding system is:

- to improve communication about the different types of lamps;
- to help in discussions concerning interchangeability and compatibility of products;
- to create a closer relationship between international standards and manufacturers' literature (for example the code could be given in future in the relevant parts of a standard);
- to enable correct replacements of lamps;
- to be used as a complementary marking on the luminaire;
- to replace national and regional coding systems.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this technical specification. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this technical specification 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.

IEC 60357, *Tungsten halogen lamps (non-vehicle)*

IEC 60432-1, *Safety specifications for incandescent lamps – Part 1: Tungsten filament lamps for domestic and similar general lighting purposes*

IEC 60432-2, *Safety specifications for incandescent lamps – Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes*

IEC 60887, *Glass bulb designation system for lamps*

IEC 61167, *Metal halide lamps*

CIE publication 29.2, *Guide on interior lighting*