Singapore Standards Council

SS 531 : Part 2 : 2008 (2014)

(ICS 13.180; 91.160.10)

SINGAPORE STANDARD

Code of practice for lighting of work places

– Part 2 : Outdoor

Confirmed 2014

Published by

Enterprise Singapore

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Code of practice for lighting of work places

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This Singapore Standard was approved by the Electrical and Electronic Standards Committee on behalf of the Standards Council of Singapore on 13 November 2008.

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The Technical Committee on Lamps and Related Equipment appointed by the Electrical and Electronic Standards Committee and responsible for the preparation of this standard consists of representatives from the following organisations:

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		Mr Jimi Wong Yick Chee	*Singapore Electrical Trades Association*
Co-opted Member	:	Mr Jeremy Kwok Chim Min	*National Parks Board*

National Foreword

This Singapore Standard was prepared by the Technical Committee on Lamps and Related Equipment under the direction of the Electrical and Electronic Standards Committee.

This standard is a modified adoption of the CIE S 015/E : 2005 – 'Lighting of outdoor work places', published by International Commission on Illumination. This Singapore Standard, a three-part series, replaces SS CP 38 : 1999 – 'Code of practice for artificial lighting in buildings' and SS CP 87 : 2001 – 'Code of practice for illumination in industrial premises'.

At the time of preparation, reference was also made to the final draft of ISO 8995-2 : 2005/FDIS issued by the International Organisation for Standardisation.

The following deviation applies. A left marginal bar adjacent to the text to be changed indicates the deviation.

Clause

5 Schedule of lighting requirements

5.2 The schedule of areas, tasks and activities

5.12 Railways and tramways
To delete and replace with 'Not Applicable'

Explanation: The Land Transport Authority has its own set of engineering standards, with oversight of owner, operator of mass rapid transit and the stations well set out in these standards. This national standard exclude table 5.12 for the following reasons:

1. To maintain the existing illuminance guidelines used by local authority since 1999;
2. To facilitate the visual comfort and performance.

Editorial amendments are made as follows:

Clauses

3.9 text to read as "ratio of minimum illuminance to average illuminance on a surface."

4.9 to replace 'an maintenance factor' by 'a maintenance factor'

Attention is drawn to the following:

1. The comma has been used throughout as a decimal marker in CIE whereas in Singapore Standards it is a practice to use a full-point on the baseline as the decimal marker.
2. The reference to ISO 3864-1 shall be replaced by SS 508-1.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

CIE S 015/E:2005

COMMISSION INTERNATIONALE DE L'ECLAIRAGE
INTERNATIONAL COMMISSION ON ILLUMINATION
INTERNATIONALE BELEUCHTUNGSKOMMISSION

Standard

Lighting of Outdoor Work Places

Eclairage des lieux de travail extérieurs

Beleuchtung von Arbeitsplätzen im Freien

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CIE S 015/E:2005

UDC: 628.971.9 Descriptor: Lighting for outdoor work

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FOREWORD

Standards produced by the Commission Internationale de l'Eclairage (CIE) are a concise documentation of data defining aspects of light and lighting, for which international harmony requires such unique definition. CIE Standards are therefore a primary source of internationally accepted and agreed data, which can be taken, essentially unaltered, into universal standard systems.

This document CIE S 015/E:2005 has been prepared by a joint Technical Committee of the CIE Division 5 and CEN/TC 169 "Light and lighting", the secretariat of which was held by DIN, and has been approved by the National Committees of the CIE.

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INTRODUCTION

To enable people to perform visual tasks efficiently and accurately, especially during the night, adequate and appropriate lighting has to be provided.

The degree of visibility and comfort required in a wide range of outdoor work places is governed by the type and duration of activity.

This standard specifies requirements for lighting of tasks in most outdoor work places and their associated areas in terms of quantity and quality of illumination. In addition recommendations are given for good lighting practice.

It is important that all clauses of the standard are followed although the specific requirements are tabulated in the schedule of lighting requirements (see clause 5).

1. SCOPE

This standard specifies lighting requirements for outdoor work places, which meet the needs for visual comfort and performance. All usual visual tasks are considered.

This standard does not specify lighting requirements with respect to the safety and health of workers at work, although the lighting requirements, as specified in this standard, usually fulfil safety needs.

This standard neither provides specific solutions, nor restricts the designer's freedom from exploring new techniques nor restricts the use of innovative equipment.

2. NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CIE 112-1994. *Glare evaluation system for use within outdoor sports and area lighting.*

CIE 115-1995. *Recommendations for the lighting of roads for motor and pedestrian traffic.*

CIE 140-2000. *Road lighting calculations.*

CIE 150:2003. *Guide on the limitation of the effects of obtrusive light from outdoor lighting installations.*

CIE 154:2003. *The maintenance of outdoor lighting systems.*