

**SS 531 : Part 3 : 2019**  
**ISO/CIE 8995-3:2018, IDT**  
(ICS 13.180; 91.160.10)

**SINGAPORE STANDARD**

## **Code of practice for lighting of work places**

– Part 3 : Lighting requirements for safety and security of outdoor work places

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The content of this Singapore Standard was approved on 26 August 2019 by the Electrical and Electronic Standards Committee (EESC) under the purview of the Singapore Standards Council.

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	Mr Andrew Yap	<i>Enterprise Singapore</i>
	Mr Nelson Yeap	<i>Singapore Electrical Trades Association</i>

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Ms Corine Wong	<i>National Environment Agency</i>	
Dr Zhou Yi	<i>The Institution of Engineers, Singapore</i>	

The Technical Committee sets up the Working Group on Lamps and Related Equipment to prepare this standard. The Working Group consists of the following experts who contribute in their *individual capacity*:

	<b>Name</b>
<b>Convenor</b>	: Mr K Seshadri
<b>Deputy Convenor</b>	: Mr Tan Heng Khoon
<b>Members</b>	: Assoc Prof Choo Fook Hoong
	Mr Jimmy Kang
	Er. Loh Wah Kay
	Ms Angeline Ng
	Er. Ong Ser Huan
	Maj Tan Chung Yee
Mr Tay Hooi Seng	

**Members** : Dr Ronnie Teo  
Mr James Wong  
Er. Yeo Kok Beng

The organisations in which the experts of the Working Group are involved are:

*Agency for Science, Technology and Research*  
*Enkon International Consulting Engineers Pte Ltd*  
*Gritti Consulting Pte Ltd*  
*Housing & Development Board*  
*Land Transport Authority*  
*M & P Consulting Engineers*  
*Nanyang Technological University*  
*Singapore Civil Defence Force*  
*TLS Design Pte Ltd*  
*TüV Süd PSB Pte Ltd*

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## **National Foreword**

This Singapore Standard was prepared by the Working Group on Lamps and Related Equipment set up by the Technical Committee on Building Facilities and Services under the purview of EESC.

This standard is identical with ISO/CIE 8995-3 : 2018, "Lighting of work places – Part 3: Lighting requirements for safety and security of outdoor work places", published by the International Organization for Standardization.

NOTE – Where numerical values are expressed as decimals, the comma is read as a full point.

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. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*
- 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 and the Singapore Standards Council 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. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
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## **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by CIE and Technical Committee ISO/TC 274, *Light and lighting*.

This first edition cancels and replaces ISO 8995-3:2006/CIE S 016:2005, of which it constitutes a minor revision. (ISO 8995-3:2006/CIE S 016:2005 was prepared by CIE Division 5.)

A list of all parts in the ISO 8995 series can be found on the ISO website.



## **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.

# Lighting of work places — Part 3: Lighting requirements for safety and security of outdoor work places

## 1 Scope

This document specifies the lighting requirements which will contribute to the visual needs for safety and security within outdoor work places.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 S 015, *Lighting of outdoor work places*

CIE S 017, *ILV: International Lighting Vocabulary*

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

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