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**BS 5489-1:2020**



**BSI Standards Publication**

## **Design of road lighting**

Part 1: Lighting of roads and public amenity areas —  
Code of practice

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### Summary of pages

This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 80, an inside back cover and a back cover.

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## Foreword

### Publishing information

This part of BS 5489 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 May 2020. It was prepared by Subcommittee EL/1/2, *Road lighting*, under the authority of Technical Committee EL/1, *Light and lighting*. A list of organizations represented on these committees can be obtained on request to their secretary.

### Supersession

This part of BS 5489 supersedes [BS 5489-1:2013](#), which is withdrawn.

### Relationship with other publications

BS 5489 consists of two parts:

- Part 1: *Lighting of roads and public amenity areas*;
- Part 2: *Lighting of tunnels*.

This part of BS 5489 contains guidance and recommendations that are intended to support the [BS EN 13201](#) series and to assist designers of lighting systems in using that standard.

### Information about this document

This is a full revision of the standard. The principal changes are to align the standard with current best practice and with the BS EN 13201 series. New guidance is provided for lighting design when located within a “smart city” environment or when co-located with electric vehicle (EV) charging points.

The aim of this standard is to promote wider understanding of the lighting of roads and public amenity areas and to give guidance on the design decisions that need to be made. Rather than being prescriptive, it makes recommendations that are essential to the design process and that will enable production of designs that are appropriate and justifiable. The design of lighting for roads and public amenity areas can be a complex process with many different aspects, and therefore it is important that all relevant issues are taken into account.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at [bsigroup.com/standards](https://bsigroup.com/standards), or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

### Use of this document

As a code of practice, this part of BS 5489 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this part of BS 5489 is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people for the task in hand, for whose use it has been produced.

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The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

*Commentary, explanation and general informative material is presented in smaller italic type and does not constitute a normative element.*

The word "should" is used to express recommendations of this standard. The word "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause. The word "can" is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

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## 1 Scope

This part of BS 5489 gives recommendations on the general principles of road lighting and its aesthetic and technical aspects, and provides guidance on operation and maintenance. It also provides guidance on means of minimizing energy consumption and limiting the impact on the environment and adjacent property.

It gives recommendations for the design of lighting for all types of highway and public thoroughfare, including those specifically for pedestrians and cyclists, and for pedestrian subways and bridges. It excludes the lighting of vehicular tunnels and underpasses, which are covered in [BS 5489-2](#).

It gives recommendations for the design of lighting for urban centres and public amenity areas. It gives recommendations and guidance for lighting relating to smart cities.

It gives additional recommendations for lighting around aerodromes, railways, coastal waters, harbours and navigable waterways, in order to minimize the possibility of the lighting interfering with these modes of transport.

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## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document.<sup>1)</sup> For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

### Standards publications

[BS 5266-1](#), *Emergency lighting – Part 1: Code of practice for the emergency escape lighting of premises*

BS 6100-2, *Building and civil engineering – Vocabulary – Part 2: Spaces, building types, environment and physical planning*

[BS 7671](#), *Requirements for Electrical Installations – IET Wiring Regulations*

[BS 8300-2](#), *Design of an accessible and inclusive built environment – Part 2: Buildings – Code of practice*

[BS EN 40](#) (all parts), *Lighting columns*

BS EN 12464-1:2011, *Light and lighting – Lighting of workplaces – Part 1: Indoor work places*

BS EN 12464-2:2014, *Lighting of work places – Part 2: Outdoor work places*

BS EN 12665, *Light and lighting – Basic terms and criteria for specifying lighting requirements*<sup>2)</sup>

BS EN 12767, *Passive safety of support structures for road equipment – Requirements and test methods*

BS EN 13201-2:2015, *Road lighting – Part 2: Performance requirements*

BS EN 13201-3, *Road lighting – Part 3: Calculation of performance*

BS EN 13201-4, *Road lighting – Part 4: Methods of measuring lighting performance*

BS EN 13201-5, *Road lighting – Part 5: Energy performance indicators*

[BS EN 60598-1](#), *Luminaires – Part 1: General requirements and tests*

[BS EN 60598-2-3](#), *Luminaires – Part 2-3: Particular requirements – Luminaires for road and street lighting*

[BS EN 62305](#) (all parts), *Protection against lightning*

<sup>1)</sup> Documents that are referred to solely in an informative manner are listed in the Bibliography.

<sup>2)</sup> This standard also gives an informative reference to BS EN 12665:2018.