

Australian Standard[®]

Interior lighting

**Part 2.3: Educational and training
facilities**

This Australian Standard was prepared by Committee LG/1, Interior Lighting. It was approved on behalf of the Council of Standards Australia on 28 October 1993 and published on 17 January 1994.

The following interests are represented on Committee LG/1:

Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Building Owners and Managers Association of Australia
Department of Arts and Administrative services—Australian Construction Services
Electricity Supply Association of Australia
Illuminating Engineering Society of Australia and New Zealand
The Association of Consulting Engineers Australia
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Interior lighting

Part 2.3: Educational and training facilities

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PREFACE

This Standard was prepared by the Standards Australia Committee on Interior Lighting to supersede the recommendations given in Table 3 of AS 1680.2.0—1990*. It forms part of the AS 1680.2 series and has been developed to provide specific advice on the lighting of educational and training facilities.

The Standard is intended to be read in conjunction with the general recommendations of AS 1680.1* and with other specific recommendations in the AS 1680.2 series which may apply depending on the nature of the building or the visual tasks involved. It is anticipated that the AS 1680.2 series will, when complete, comprise separate Standards covering specific recommendations for the following:

- (a) Circulation spaces and other general areas (see AS 1680.2.1*)
- (b) Offices and screen-based tasks (see AS 1680.2.2*)
- (c) Educational and training facilities (this Standard—AS 1680.2.3*)
- (d) Industrial buildings and processes.
- (e) Hospitals and medical premises.

This Standard maintains a parallelism with the structure of AS 1680.1 and contains recommendations that either add to or amend the recommendations of that Standard. While the Sections of this Standard correspond with those of AS 1680.1, the Clauses within each Section are numbered consecutively and do not directly relate to the Clauses in AS 1680.1.

In the preparation of this Standard particular reference was made to the following publications:

ANSI/IES RP3 *Guide for educational facilities lighting*, Illuminating Engineering Society of North America, New York, 1988.

CIBSE Code for interior lighting, Chartered Institution of Building Services Engineers, London, 1984.

CIE Publication No. 29.2, *Guide on interior lighting*, International Commission on illumination, Vienna, 1986.

Grateful acknowledgment is made of the assistance derived from these sources.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

* AS

1680	Interior lighting
1680.1	Part 1: General principles and recommendations
1680.2.0	Part 2.0: Recommendations for specific tasks and interiors
1680.2.1	Part 2.1: Circulation spaces and other general areas
1680.2.2	Part 2.2: Office and screen-based tasks
1680.2.3	Part 2.3: Educational and training facilities

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FOREWORD

This Standard sets out recommendations for the creation of good seeing conditions in educational and training facilities by means of appropriate lighting and interior colour treatment. The aim of the recommendations is to create a visual environment in which essential task details are made easy to see and adverse features which may cause visual fatigue are either excluded or appropriately controlled.

While the provision of sufficient illuminance on the task is necessary in many instances task visibility depends more on the way in which the light is applied. Furthermore, the creation of the comfortable visual conditions required in order to maintain efficiency throughout the whole work period depends less on the quantity of light than on factors such as the distribution of light throughout the workplace; the use of suitable finishes on the walls, ceiling and equipment; the choice of luminaries with adequate glare control; and the elimination of unwanted reflections.

The Committee is of the view that the greatest scope for better lighting in educational and training facilities lies with improvements in lighting quality rather than in the provision of higher illuminances.

The Standard is primarily intended for reference by those professionally concerned with interior lighting in educational and training facilities. It does not purport to specify the precise types and arrangements of light equipment necessary to meet the recommendations; the technical knowledge and experience of a qualified lighting engineer will normally be required for designing the lighting systems best suited to any particular interior.

An effort has been made to write a Standard that can be readily understood and used by those interested in the problems of lighting educational and training facilities, even though they may not be engineers or architects. Detailed technical knowledge is available in the bibliographic literature and some can be found in the references.

This is not a code to be followed rigidly, allowing no room for individual choice. It is a Standard that indicates paths to be followed and gives reasons for the advisability of following them. In some cases, it mentions limits within which lighting systems should be kept. Within these limits designers and engineers have great latitude in creating energy efficient and pleasing lighting designs.

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Australian Standard**Interior lighting****Part 2.3: Educational and training facilities**

SECTION 1 SCOPE AND GENERAL

This Section of AS 1680.1 applies except as follows:

1.1 SCOPE This Standard sets out recommendations for the lighting of educational and training facilities. It is intended to be read in conjunction with the general recommendations of AS 1680.1 and with any applicable specific recommendations in the AS 1680.2 series.

NOTE: Separate Standards covering the lighting of specific tasks and interiors will progressively be issued to form the AS 1680.2 series (see Preface).

This Standard, in general, contains material that adds to or amends the recommendations in AS 1680.1. The use of this Standard without reference to AS 1680.1 is a misapplication of the Standard.

1.2 APPLICATION The lighting system should comply with the general recommendations of AS 1680.1 and with the applicable recommendations of this Standard and other appropriate Standards in the AS 1680.2 series.

If any recommendation in this Standard differs from the general recommendations of AS 1680.1, the recommendation in this Standard should prevail.

Attention should be paid to Section 1 of AS 1680.1 with regard to the information that may be needed to correctly apply this Standard.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 1318 SAA Industrial Safety Colour Code
- 1485 Safety and health in workrooms of educational establishments
- 1680 Interior lighting
- 1680.1 Part 1: General principles and recommendations
- 1680.2.1 Part 2.1: Circulation spaces and other general areas
- 1680.2.2 Part 2.2: Office and screen-based tasks
- 2293 Emergency evacuation lighting in buildings
- 2293.1 Part 1: Design and installation
- 2560 Guide to sports lighting
- 2560.2.2 Part 2.2: Lighting of multipurpose indoor sports centres

AUBRCC

BCA Building Code of Australia