

Sports lighting

Part 1: General principles



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The following are represented on Committee LG-009:

- Australian Football League
- Australian Industry Group
- Baseball Australia
- CIE Australia
- Cricket Australia
- Department of National Parks, Sport and Racing
- IES: The Lighting Society
- Lighting Council Australia
- Parks and Leisure Australia
- Sports and Play Industry Association
- Sport and Recreation Victoria
- Tennis Australia

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Australian Standard®

Sports lighting

Part 1: General principles

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PREFACE

This Standard was prepared by the Standards Australia Committee LG-009 Sports Lighting, to supersede AS 2560.1—2002.

The AS 2560 series is in two main parts. Part 1 deals with the lighting of places, both indoors and outdoors, where sport is played. Part 2 addresses the lighting of a specific sport or associated sporting venue.

When revision is completed, the series will consist of the following:

| AS | |
|----------|--|
| 2560 | Sports lighting |
| 2560.1 | Part 1: General principles (this Standard) |
| 2560.2.1 | Part 2.1: Specific applications—Lighting for outdoor tennis |
| 2560.2.2 | Part 2.2: Specific applications—Lighting of multipurpose indoor sports centres |
| 2560.2.3 | Part 2.3: Specific applications—Lighting for football (all codes) |
| 2560.2.4 | Part 2.4: Specific applications—Lighting for outdoor netball and basketball |
| 2560.2.5 | Part 2.5: Specific applications—Swimming pools |
| 2560.2.6 | Part 2.6: Specific applications—Baseball and softball |
| 2560.2.7 | Part 2.7: Specific applications—Outdoor hockey |
| 2560.2.8 | Part 2.8: Specific applications—Bowling greens |

The AS 2560 series is not intended to apply to lighting systems for television coverage. Generally, specialist lighting requirements are needed for these installations; usually requiring relatively higher vertical illuminance levels, and higher uniformity. However, the general principles of AS 2560 should be applied to such venues, specifically (but not limited to): the methods of calculation, glare limitation, and the assessment of the installation. For guidance on TV lighting requirements, refer to the following documents:

- (a) Free TV Australia Operation Practice OP-31, Lighting Requirements for Television.
- (b) CIE 169:2005 Practical guidelines for the lighting of sport events for colour television and filming, International Commission on Illumination (CIE), Vienna, 2005.
- (c) CIE Publication No. 83, Guide for the lighting of sports events for colour television and film systems, International Commission on Illumination (CIE), Vienna.

The various sporting organisations often publish their own technical recommendations.

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

CONTENTS

| SECTIO | N 1 SCOPE AND GENERAL | |
|------------|--|------|
| 1.1 | SCOPE | 4 |
| 1.2 | APPLICATION | 4 |
| 1.3 | REFERENCED DOCUMENTS | 4 |
| 1.4 | DEFINITIONS | |
| | | |
| SECTIO | N 2 GENERAL RECOMMENDATIONS FOR SPORTS LIGHTING | |
| 2.1 | OBJECTIVES OF SPORTS LIGHTING | . 14 |
| 2.2 | VISUAL REQUIREMENTS OF THE PARTICIPANTS | . 15 |
| 2.3 | VISUAL REQUIREMENTS OF THE SPECTATORS | . 15 |
| 2.4 | CONTRAST REQUIREMENTS | . 15 |
| 2.5 | AMOUNT OF LIGHT (ILLUMINANCE) | . 16 |
| 2.6 | LIGHT UNIFORMITY. | . 17 |
| 2.7 | LIGHT DISTRIBUTION | . 18 |
| 2.8 | FLICKER | |
| 2.9 | GLARE CONTROL | . 18 |
| 2.10 | OTHER CONSIDERATIONS | . 20 |
| 2.11 | DESIGN | |
| | | |
| SECTIO | N 3 LIGHTING EQUIPMENT | |
| 3.1 | LIGHT SOURCES. | . 22 |
| 3.2 | LUMINAIRES | . 26 |
| 3.3 | Lighting control | . 27 |
| | | |
| SECTIO | N 4 MAINTENANCE OF OUTDOOR LIGHTING EQUIPMENT | |
| 4.1 | SCOPE | . 28 |
| 4.2 | MAINTENANCE MANUAL | . 28 |
| 4.3 | DESIGNING FOR MAINTENANCE | . 28 |
| 4.4 | DESIGN AND CONSTRUCTION OF EQUIPMENT | . 28 |
| 4.5 | SERVICING EQUIPMENT | . 29 |
| 4.6 | CHOICE OF LIGHT LOSS FACTOR | . 29 |
| 4.7 | EXAMPLE CALCULATIONS | . 31 |
| | | |
| | N 5 DESIGN, MEASUREMENT AND REPORTING OF SPORTS LIGHTING | |
| INSTAL | LATIONS | |
| 5.1 | GENERAL | . 33 |
| 5.2 | DESIGN | . 33 |
| 5.3 | INSTALLATION REPORT | . 33 |
| | | |
| APPENDICES | | |
| А | ESTIMATION OF THE RELATIVE COSTS OF SPORTS LIGHTING | |
| | INSTALLATIONS | |
| В | ILLUSTRATION OF FLOODLIGHT CLASSIFICATIONS | . 36 |

STANDARDS AUSTRALIA

Australian Standard Sports lighting

Part 1: General principles

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard contains recommendations and requirements for the lighting of places, both indoors and outdoors, where sport is played. It includes general principles and recommendations for sports lighting, descriptions of suitable types of lighting equipment, and requirements regarding methods for the assessment or measurement of sports lighting installations.

This Standard is intended to be read in conjunction with the applicable section of AS 2560.2 covering the sport of interest. Taken together, these Standards cater for the requirements of different levels of play, e.g. recreational, training, club, national and international, and provide for the visual requirements of participants, officials and spectators, as appropriate.

This Standard does not detail the special requirements of lighting for television coverage.

This Standard makes recommendations, but does not set requirements, regarding obtrusive light released into the environment from sports lighting installations (See Clause 2.10.4.).

1.2 APPLICATION

For this Standard to be applied, the lighting needs of sports areas should be considered at the design and layout stage of the planning of such venues, in order that lighting equipment and supporting structures may be located so as to provide the required uniformity of illumination, to minimize glare and obstruction to participants and play respectively and to minimize the obtrusive effects of outdoor lighting.

For each type of sport there are preferred locations for the mounting of lighting equipment. These locations are related to the nature of the sport, the direction of play and other factors. Early consultation between the architect (venue designer) and the lighting designer is desirable to ensure provision is made for suitable locations and mountings for lighting equipment. A completely satisfactory installation is often difficult to achieve when limited by physical constraints, which can be avoided if lighting is considered at the design stage.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

| AS 1680 1680.1 | Interior and workplace lighting Part 1: General principles and recommendations |
|----------------------|---|
| 2560 2560.2 | Sports lighting Part 2: Specific applications |
| 4282 | Control of the obtrusive effects of outdoor lighting |