

Australian/New Zealand Standard™

**Lighting system performance—
Accuracies and tolerances**

Part 2: Compliance requirements

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee LG/12, Specification and Assessment of Lighting Performance. It was approved on behalf of the Council of Standards Australia on 15 May 1998 and on behalf of the Council of Standards New Zealand on 16 August 1998. It was published on 5 October 1998.

The following interests are represented on Committee LG/12:

Association of Consulting Engineers Australia
Australian Electrical and Electronic Manufacturers Association
CSIRO—Division of Telecommunications and Industrial Physics
Illuminating Engineering Society of Australia and New Zealand
Queensland University of Technology
Standards Australia/Standards New Zealand Committee LG/1—Interior Lighting
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee LG/12, Specification and Assessment of Lighting Performance, in response to a request by the Illuminating Engineering Society of Australia and New Zealand.

The objective of this Standard is to set out minimum requirements for indoor and outdoor lighting systems, in order to ensure that calculated or measured values of lighting performance parameters are of an acceptable accuracy.

AS/NZS 3827.1* provides a comprehensive overview of the factors that influence variability in lighting performance and provides advice and recommendations on how such variability may be contained within tolerable limits.

This Standard has been developed as a companion to AS/NZS 3827.1 and is intended for reference in Standards covering particular lighting applications and in contract specifications that involve the assessment of compliance with specified values of lighting performance parameters. For ease of reference, the requirements of this Standard are set out under the same section headings and, where applicable, clause titles as those used within AS/NZS 3827.1.

The requirements of this Standard are limited to those attributes/characteristics for which it is reasonable to specify requirements in mandatory form. There are many other attributes/characteristics of lighting systems for which requirements cannot be expressed in mandatory form, due to the present state of knowledge or for other reasons. Nevertheless, it is equally important that attention be given to these attributes/characteristics and that the advice and recommendations provided in AS/NZS 3827.1 be followed.

* AS/NZS 3827 Lighting system performance—Accuracies and tolerances
AS/NZS 3827.1 Part 1: Overview and general recommendations

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CONTENTS

	<i>Page</i>
FOREWORD	4
 SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	5
1.2 APPLICATION	5
1.3 REFERENCED DOCUMENTS	5
1.4 DEFINITIONS	5
1.5 BASIS OF COMPLIANCE	7
 SECTION 2 UNCERTAINTY IN LIGHTING DESIGN AND MEASUREMENT	
2.1 ROUNDING OF CALCULATION RESULTS AND LIGHT MEASUREMENTS	8
2.2 TREATMENT OF INDETERMINATE VALUES IN MEASUREMENT	8
 SECTION 3 INPUT INFORMATION	
3.1 MANUFACTURE OF LIGHTING EQUIPMENT	9
3.2 LAMP AND LUMINAIRE PHOTOMETRIC DATA	9
 SECTION 4 DESIGN METHODS AND SENSITIVITIES	
4.1 CALCULATION METHODS	9
4.2 DESIGN ASSUMPTIONS	9
4.3 MAINTENANCE ASSUMPTIONS	9
 SECTION 5 DESIGN DOCUMENTATION	
5.1 INFORMATION ON DESIGN BASIS	10
5.2 INSTALLATION DOCUMENTATION	10
5.3 INFORMATION FOR THE CLIENT	10
 SECTION 6 INSTALLATION	
6.1 EVALUATION OF PROPOSED ALTERATIONS	10
 SECTION 7 VERIFICATION	
7.1 METHODS OF VERIFICATION	11
7.2 VERIFICATION BASED ON LIGHTING CALCULATIONS	11
7.3 VERIFICATION BASED ON LIGHTING MEASUREMENTS	11
 SECTION 8 LIGHTING SYSTEM MANAGEMENT	
15	
 SECTION 9 EXPECTED ACCURACIES	
15	

FOREWORD

The requirements set out in this Standard are the minimum that are considered acceptable to enable assessment of compliance with specified or target values of lighting performance. It may be possible to improve the accuracy of the design of the lighting system with respect to some aspect and this should be encouraged. It is unlikely, however, that this will compensate for not meeting other requirements of the Standard.

The purpose of compliance with the Standard is not only to achieve an acceptable relationship between the design intent and the installed lighting system but also to document the design in such a form that the calculation process can be verified.

The uncertainties stated in this Standard are statistical and represent levels of uncertainty that can be reasonably expected if the design and installation processes comply with the requirements of this Standard. This assumes that all the errors are not concurrently at their maximum and that some cancel each other out. However, there is a finite probability that all the errors could be cumulative, in which case a result outside those assumed in this Standard would occur. Allowing for the worst possible occurrence would result in overdesign to an excessive degree in the vast majority of cases.

The designer should apply this Standard by compensating for the uncertainty assumed in assessing compliance by selecting a design parameter, be it illuminance or otherwise, that ensures that the limiting tolerance is within the requirement of the applicable design Standard.