

**BRITISH STANDARD**

# **Lighting for buildings –**

## **Part 2: Code of practice for daylighting**

ICS 91.060.50; 91.160.10

**Publishing and copyright information**

The BSI copyright notice displayed in this document indicates when the document was last issued.

© BSI 2008

ISBN 978 0 580 57793 2

The following BSI references relate to the work on this standard:

Committee reference CPL/34/10

Draft for comment 07/30157086 DC

**Publication history**

First published June 1992

Second edition, September 2008

**Amendments issued since publication**

<b>Amd. no.</b>	<b>Date</b>	<b>Text affected</b>
-----------------	-------------	----------------------

---

# Contents

Foreword *iii*

## Section 1: General 1

- 1 Scope 1
- 2 Terms and definitions 1

## Section 2: Aims and criteria for design 4

- 3 The contribution of daylight 4
- 4 Windows and view 5
- 5 Daylight and room brightness 8
- 6 Daylight for task lighting 11

## Section 3: Further design issues 14

- 7 Electric lighting used in conjunction with daylight 14
- 8 Sunlight shading 16
- 9 Energy efficiency 18
- 10 Conservation of materials inside buildings 20
- 11 Statutory and legal requirements affecting the provision of daylight 21

## Section 4: Methods of calculation 23

- 12 Sunlight 23
- 13 Calculation of average daylight factor 29
- 14 Calculation of daylight illuminance 31
- 15 Examples of the calculation of window transmittance 32

## Annexes

- Annex A (informative) Data for daylight and sunlight calculations 33
- Annex B (informative) Climate-based daylight modelling 40

Bibliography 44

## List of figures

- Figure 1 – Solar altitude and solar azimuth 3
- Figure 2 – Views from windows of different shapes and sizes 7
- Figure 3 – Window reveal drawn on a sunpath diagram for London 26
- Figure 4 – Obstructing building superimposed on the sunpath diagram 27
- Figure 5 – Use of sunlight probability diagram to determine sunlight reaching window reference point 27
- Figure 6 – Angle of visible sky used in calculating average daylight factor 30
- Figure 7 – Limiting depth of a side-lit room 31
- Figure A.1 – Sunpath diagram for London (latitude 51° N) 36
- Figure A.2 – Sunpath diagram for Edinburgh (latitude 56° N) 37
- Figure A.3 – Sunlight probability diagram 38
- Figure A.4 – Diffuse illuminance ( $E_h$ ) availability for London 39
- Figure A.5 – Diffuse illuminance ( $E_h$ ) availability for Edinburgh 39
- Figure A.6 – Mean horizontal diffuse illuminances at London (Kew) 40

## List of tables

- Table 1 – Minimum glazed areas for view when windows are restricted to one wall 6
- Table 2 – Minimum average daylight factor 10
- Table A.1 – Approximate values of the reflectance of light 33
- Table A.2 – Mean light transmittance of glazing materials 34