

Contents

Preface

Changes in the *Code*

viii

viii

Part 1

Visual effects of lighting

1.1	Introduction to the visual effects of lighting	1
1.2	Daylight and electric light	2
1.2.1	Providing a view	3
1.2.2	Increasing general room brightness	3
1.2.3	Illumination for task performance	4
1.3	Lighting levels	5
1.3.1	Task performance	5
1.3.2	Satisfaction	6
1.3.3	Appearance	7
1.4	Variation in lighting	8
1.4.1	Illuminance variation: definition	8
1.4.2	Spatial variation of illuminance in working locations	9
1.4.3	Illuminance variation in non-task locations	9
1.4.4	Illuminance, luminance and brightness	10
1.4.5	Luminance in the visual field	10
1.4.6	Adaptation	11
1.5	Glare	12
1.5.1	Disability glare	12
1.5.2	Discomfort glare from electric lighting	13
1.5.3	Discomfort glare from windows	14
1.5.4	Veiling reflections	14
1.6	Directional qualities and modelling	15
1.6.1	Revealing form	16
1.6.2	Revealing texture	18
1.6.3	Display lighting	19
1.7	Surfaces	19
1.7.1	Surface reflectances	19
1.7.2	Surface colours	22
1.7.3	Object colours	24
1.8	Light source radiation	24
1.8.1	Apparent colour of emitted light	25
1.8.2	Colour rendering	25
1.9	Light modulation	25

Part 2

Recommendations

2.1	Introduction	28
2.2	Recommendations for daylighting	28
2.2.1	Daylight for general room lighting	28
2.2.2	Daylight for task illumination	29
2.3	Recommendations for electric lighting with daylighting	29