DIN EN 14255-2:2006-03 (E)

Measurement and assessment of personal exposures to incoherent optical radiation - Pa rt 2: Visible and infrared radiation emitted by artificial sources in the workplace

Contents

Page

Foreword 4

Introduction 5

1 Scope 7

2 Normative references 7

3 Terms and definitions 8
3.1 Quantities, symbols and units 8
3.2 Definitions and relationships between quantities 9

4 General procedure 11

5 Preliminary review 12

6 Work task analysis 12

7 Measurement of the exposure 13
7.1 Planning 13
7.2 Quantities to be determined 14
7.3 Selection of method 14
7.4 Requirements for the measurement methods 17
7.5 Implementation 19
7.6 Expression of results 20

8 Assessment of the exposure 20
8.1 Comparison 20
8.2 Statement 20
8.3 Additional information 20

9 Decision about protective measures 21

10 Repetition of measurement and assessment 21

11 Report 21
11.1 Short Report 21
11.2 Full Report 22

Annex A (informative) Flow chart of procedure 23

Annex B (informative) Tables (examples) for work task analysis 24

Annex C (informative) Commonly used radiation measurement devices 26

Annex D (informative) Examples of protective measures 28

Annex E (informative) Examples of methods for the determination of the quantities Lr, Lb, Gb, Hb, Eb, E, H and the assessment of associated hazards 29

Table 1 - Quantities, symbols and units 8

Table 2 - Suitable methods for the measurement of the quantities Lr, Gb, Hb, Eb, E and H in dependence of the measurement aim and the exposure conditions (see Annex E) 16

Table B.1 - Basic information 24

Table B.2 - Detailed information concerning activities at a single location 25

Table E.1 - Survey of suitable measurement methods 30

Table E.2 - Advantages and disadvantages of method A 31

Table E.3 - Advantages and disadvantages of method B 32

Table E.4 - Advantages and disadvantages of method C 33

Table E.5 - Advantages and disadvantages of method D 34

Table E.6 - Advantages and disadvantages of method E 35

Table E.7 - Advantages and disadvantages of method F 36

Table E.8 - Advantages and disadvantages of method G 37

Table E.9 - Advantages and disadvantages of method H 38

Table E.10 - Advantages and disadvantages of method I 40

Table E.11 - Advantages and disadvantages of method J 41

Table E.12 - Advantages and disadvantages of method K 42

Table E.13 - Advantages and disadvantages of method L 42

Table E.14 - Advantages and disadvantages of method M 43

Table E.15 - Advantages and disadvantages of method N 44

Table E.16 - Advantages and disadvantages of method O 45

Table E.17 - Advantages and disadvantages of method P 46

Table E.18 - Advantages and disadvantages of method Q 46

Table E.19 - Advantages and disadvantages of method R 47

Table E.20 - Advantages and disadvantages of method S 48

Table E.21 - Advantages and disadvantages of method T 48

Table E.22 - Advantages and disadvantages of method U 49

Table E.23 - Advantages and disadvantages of method V 50

Table E.24 - Advantages and disadvantages of method W 51

Table E.25 - Advantages and disadvantages of method X 51

Table E.26 - Advantages and disadvantages of method Y 52

Bibliography 53