DIN EN 12352:2024-08 (E)

Traffic control equipment - Warning and safety light devices

Contents

Page

European foreword 4

Introduction 6

1 Scope 7

2 Normative references 7

3 Terms and definitions 8

4 Requirements 10
4.1 Photometric and colorimetric performance 10
4.1.1 Luminous intensity 10
4.1.2 Light emitting surface 11
4.1.3 Uniformity of luminance 11
4.1.4 Colorimetric performance 12
4.1.5 Retro-reflective devices 12
4.2 Electrical and functional requirements 13
4.2.1 Electrical requirements 13
4.2.2 Continuity of emitted light and on-time 14
4.2.3 Electromagnetic compatibility EMC 15
4.3 Construction 15
4.3.1 Performance under impact (Mechanical strength) 15
4.3.2 Weather resistance 16
4.3.3 Secure fastening and locking 16
4.3.4 Passive safety 17
4.3.5 Dangerous substances 17

5 Test methods 17
5.1 General 17
5.2 Luminous intensity 17
5.3 Uniformity of luminance 19
5.3.1 Testing Conditions 19
5.3.2 Testing Warning Lights classes L2 to L5 19
5.3.3 Testing Warning Lights classes L6 to L9 19
5.4 Colour of the light of the warning light 19
5.5 On/Off and variable intensity photosensitive switches 21
5.5.1 General 21
5.5.2 Natural ambient light test 22
5.5.3 Uni-directional artificial light test 23
5.6 Mechanical strength 23
5.6.1 Impact test A 23
5.6.2 Impact test B 25
5.6.3 Impact test C 26
5.7 Flash rate and on-time 26
5.8 Durability of markings and labels 26

6 Assessment and verification of constancy of performance - AVCP 26
6.1 General 26
6.2 Type testing 27
6.2.1 General 27
6.2.2 Test samples, testing and compliance criteria 27

6.2.3 Test reports 28
6.2.4 Shared other party results 28
6.2.5 Cascading determination of the product type results 29
6.3 Factory production control (FPC) 30
6.3.1 General 30
6.3.2 Requirements 30
6.3.3 Product specific requirements 32
6.3.4 Initial inspection of factory and of FPC 33
6.3.5 Continuous surveillance of FPC 33
6.3.6 Procedure for modifications 34
6.3.7 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity 34

7 Designation 35

8 Marking, labelling and product information 35
8.1 Marking and labelling 35
8.2 Product information 36

Bibliography 37