

# FINAL VERSION

# VERSION FINALE



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**Luminaire –  
Part 1: General requirements and tests**

**Luminaire –  
Partie 1: Exigences générales et essais**

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**IEC 60598-1**  
Edition 8.0 2014-05

**LUMINAIRES –**

**Part 1: General requirements and tests**

**INTERPRETATION SHEET 1**

This interpretation sheet has been prepared by subcommittee 34L Luminaires, of IEC technical committee 34: Lamps and related equipment.

The text of this interpretation sheet is based on the following documents:

ISH	Report on voting
34D/1197/ISH	34L/1207/RVD

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

**INTRODUCTION** (not part of the proposal)

Changes introduced in IEC 60598-1 Ed.8.0 were made urgently to address completely new designs of LED luminaire that are entering the market. Some further alignment with the already existing previous requirements of the standard are still needed and this will be addressed for Amendment 1 to Edition 8 that is now in preparation.

**PURPOSE**

To publish Interpretation Sheet on Clause 4.31; Clause 10; Clause 11; Annex M and Annex X of IEC 60598-1:2014 (Ed. 8.0), *Luminaires – Part 1: General requirements and tests*, as follows:

## INTERPRETATION SHEET

Clause 4.31; Clause 10; Clause 11; Annex M and Annex X of  
IEC 60598-1:2014 (Ed. 8.0), *Luminaires – Part 1: General requirements and tests*

For insulation requirements between active (current carrying/live) parts and accessible parts, Table X.1 of Annex X is to be taken as the definitive reference of the required insulation that is to be provided. Furthermore, the details prescribed by Table X.1 are to be used as the basis for establishing the 'working voltage' that is to be considered for application of the electric strength tests of Clause 10 and Creepage and Clearance requirements of Clause 11.

## CONTENTS

FOREWORD.....	9
SECTION 0: GENERAL INTRODUCTION.....	11
0.1 Scope .....	11
0.2 Normative references .....	12
0.3 General requirements.....	15
0.4 General test requirements and verification.....	15
0.5 Components of luminaires .....	16
0.6 List of parts of IEC 60598-2.....	17
0.7 Information for luminaire design in light sources standards .....	17
SECTION 1: TERMS AND DEFINITIONS .....	18
1.1 General.....	18
1.2 Terms and definitions .....	18
SECTION 2: CLASSIFICATION OF LUMINAIRES.....	32
2.1 General.....	32
2.2 Classification according to type of protection against electric shock .....	32
2.3 Classification according to degree of protection against ingress of dust, solid objects and moisture.....	32
2.4 Classification according to material of supporting surface for which the luminaire is designed .....	33
2.5 Classification according to the circumstances of use .....	33
SECTION 3: MARKING .....	33
3.1 General.....	33
3.2 Marking on luminaires .....	33
3.3 Additional information.....	38
3.4 Test of marking.....	41
SECTION 4: CONSTRUCTION.....	42
4.1 General.....	42
4.2 Replaceable components .....	42
4.3 Wireways .....	42
4.4 Lampholders .....	42
4.5 Starter holders .....	44
4.6 Terminal blocks.....	44
4.7 Terminals and supply connections .....	45
4.8 Switches .....	47
4.9 Insulating linings and sleeves .....	47
4.10 Double and reinforced insulation.....	48
4.11 Electrical connections and current-carrying parts .....	49
4.12 Screws and connections (mechanical) and glands .....	50
4.13 Mechanical strength .....	53
4.14 Suspensions, fixings and means of adjustment.....	56
4.15 Flammable materials .....	60
4.16 Luminaires for mounting on normally flammable surfaces .....	61
4.17 Drain holes.....	62
4.18 Resistance to corrosion.....	62
4.19 Ignitors.....	63
4.20 Rough service luminaires – Vibration requirements.....	63

4.21	Protective shield.....	63
4.22	Attachments to lamps.....	64
4.23	Semi-luminaires.....	65
4.24	Photobiological hazards.....	65
4.25	Mechanical hazard.....	66
4.26	Short-circuit protection.....	66
4.27	Terminal blocks with integrated screwless earthing contacts.....	66
4.28	Fixing of thermal sensing controls.....	67
4.29	Luminaire with non replaceable light source.....	67
4.30	Luminaires with non-user replaceable light sources.....	67
4.31	Insulation between circuits.....	68
4.32	Overvoltage protective devices.....	70
SECTION 5: EXTERNAL AND INTERNAL WIRING.....		70
5.1	General.....	70
5.2	Supply connection and other external wiring.....	70
5.3	Internal wiring.....	77
5.4	Test to determine suitability of conductors having a reduced cross-sectional area.....	80
SECTION 6: Not used.....		81
SECTION 7: PROVISION FOR EARTHING.....		81
7.1	General.....	81
7.2	Provision for earthing.....	81
SECTION 8: PROTECTION AGAINST ELECTRIC SHOCK.....		84
8.1	General.....	84
8.2	Protection against electric shock.....	84
SECTION 9: RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE.....		87
9.1	General.....	87
9.2	Tests for ingress of dust, solid objects and moisture.....	87
9.3	Humidity test.....	92
SECTION 10: INSULATION RESISTANCE AND ELECTRIC STRENGTH, TOUCH CURRENT AND PROTECTIVE CONDUCTOR CURRENT.....		93
10.1	General.....	93
10.2	Insulation resistance and electric strength.....	93
10.3	Touch current, protective conductor current and electric burn.....	97
SECTION 11: CREEPAGE DISTANCES AND CLEARANCES.....		97
11.1	General.....	97
11.2	Creepage distances and clearances.....	98
SECTION 12: ENDURANCE TEST AND THERMAL TEST.....		101
12.1	General.....	101
12.2	Selection of lamps and ballasts.....	101
12.3	Endurance test.....	102
12.4	Thermal test (normal operation).....	103
12.5	Thermal test (abnormal operation).....	108
12.6	Thermal test (failed windings in lamp control gear).....	112
12.7	Thermal test in regard to fault conditions in lamp control gear or electronic devices incorporated in thermoplastic luminaires.....	114
SECTION 13: RESISTANCE TO HEAT, FIRE AND TRACKING.....		117
13.1	General.....	117

13.2	Resistance to heat .....	117
13.3	Resistance to flame and ignition .....	117
13.4	Resistance to tracking .....	118
SECTION 14: SCREW TERMINALS .....		119
14.1	General .....	119
14.2	Terms and definitions .....	119
14.3	General requirements and basic principles .....	120
14.4	Mechanical tests .....	122
SECTION 15: SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS .....		125
15.1	General .....	125
15.2	Terms and definitions .....	126
15.3	General requirements .....	126
15.4	General instructions on tests .....	127
15.5	Terminal and connections for internal wiring .....	128
15.6	Terminals and connections for external wiring .....	130
Annex A (normative) Test to establish whether a conductive part may cause		
an electric shock .....		158
Annex B (normative) Test lamps .....		159
B.1	General .....	159
B.2	Filament lamps within the scope of IEC 60432-1 and IEC 60432-2 .....	159
B.2.1	Principal modes of heat transfer and lamps used for testing .....	159
B.2.2	Filament test lamps .....	159
B.3	Halogen lamps within the scope of IEC 60432-3 .....	161
B.4	Tubular fluorescent and other discharge lamps .....	161
B.5	LED modules within the scope of IEC 62031 .....	161
Annex C (normative) Abnormal circuit conditions .....		162
Annex D (normative) Draught-proof enclosure .....		165
Annex E (normative) Determination of winding temperature rises by the increase-in-		
resistance method .....		168
Annex F (normative) Test for resistance to stress corrosion of copper and copper alloys .....		169
F.1	Test cabinet .....	169
F.2	Test solution .....	169
F.3	Test piece .....	169
F.4	Test procedure .....	170
Annex G (normative) Measurement of touch current and protective conductor current .....		171
Annex H (Void) .....		175
Annex I (Void) .....		176
Annex J (informative) Explanation of IP numbers for degrees of protection .....		177
Annex K (informative) Temperature measurement .....		179
K.1	Temperature measurements of the luminaire .....	179
K.2	Temperature measurement of the insulation parts of lampholders .....	180
Annex L (informative) Guide to good practice in luminaire design .....		182
L.1	General .....	182
L.2	Plastics in luminaires .....	182
L.3	Rust resistance .....	183
L.4	Corrosion resistance .....	183
L.5	Chemically corrosive atmospheres .....	184

L.6	Reflector design .....	184
L.7	Components in different kinds of luminaires.....	185
L.8	Recommendations for electromagnetic ballast protection for end of life phenomenon of HID lamps .....	186
L.9	Resistance against the effects of vibration .....	186
L.10	Flammability of components .....	186
Annex M (normative) Determination of creepage distances and clearances.....		187
Annex N (informative) Explanation of marking for luminaires that are not suitable for mounting on normally flammable surfaces and covering with insulation materials.....		188
N.0	General.....	188
N.1	Protection against flame .....	188
N.2	Protection against heat.....	188
N.2.1	Spacing .....	189
N.2.2	Temperature measurements of mounting surface under abnormal or failed ballast conditions .....	189
N.3	Thermal protectors .....	190
N.4	Deletion of the F mark requirements .....	191
Annex O (Void) .....		192
Annex P (normative) Absorption requirements for the protective shield to be fitted to luminaires designed for metal halide lamps which emit a high level of UV radiation .....		193
P.1	General.....	193
P.2	Procedure A .....	193
P.3	Procedure B .....	194
Annex Q (informative) Conformity testing during manufacture .....		195
Q.1	General.....	195
Q.2	Testing.....	195
Annex R (normative) Schedule of amended clauses and subclauses containing more serious/critical requirements which call for products to be retested .....		197
Annex S (normative) Requirements for the identification of a family or range of luminaires for type testing .....		198
S.1	General.....	198
S.2	Range or family of luminaires .....	198
Annex T (Void) .....		199
Annex U (informative) Creepage and clearance distances for luminaires where a higher degree of availability (impulse withstand category III).....		200
U.1	General.....	200
U.2	Requirements for impulse withstand category III .....	200
Annex V (normative) Additional test requirements for terminal blocks with integrated screwless earthing contact for direct connection to the luminaire housing or to parts of the housing .....		202
V.1	Additional requirements to 7.2.1 .....	202
V.2	Additional requirements to 7.2.3 .....	202
Annex W (normative) Alternative thermal test for thermoplastic luminaires.....		204
W.1	Thermal test in regard to fault conditions in lamp controlgear or electronic devices without temperature sensing controls in thermoplastic luminaires for fluorescent lamps $\leq 70$ W.....	204
Annex X (normative) .....		206
Bibliography .....		208

Figure 1 – Symbols (1 of 2) .....	135
Figure 2 – Terminal block arrangement for installation test for luminaires with connecting leads (tails) .....	136
Figure 3 – <i>This figure has been withdrawn from the present edition.</i> .....	137
Figure 4 – Illustration of the requirements of 4.15 .....	137
Figure 5 – <i>This figure has been withdrawn from the present edition.</i> .....	137
Figure 6 – Apparatus for proving protection against dust.....	138
Figure 7 – Apparatus for testing protection against rain and splashing .....	139
Figure 8 – Nozzle for spray test.....	140
Figure 9 – Relation between winding temperature and mounting surface temperature .....	141
Figure 10 – Ball-pressure apparatus .....	142
Figure 11 – Arrangement and dimensions of the electrodes for the tracking test .....	142
Figure 12 – Pillar terminals.....	143
Figure 13 – Screw terminals and stud terminals (1 of 2).....	144
Figure 14 – Saddle terminals.....	146
Figure 15 – Lug terminals.....	147
Figure 16 – Mantle terminals .....	148
Figure 17 – Construction of electrical connections .....	149
Figure 18 – Examples of spring-type screwless terminals .....	149
Figure 19 – Further examples of screwless terminals .....	150
Figure 20 – Illustration of the terms “lopping-in” and “through wiring” .....	151
Figure 21 – Apparatus for ball impact tests.....	152
Figure 22 – Examples of self-tapping, thread-cutting and thread-forming screws (from ISO 1891) .....	152
Figure 23 – <i>This figure has been withdrawn from the present edition.</i> .....	152
Figure 24 – Illustration of creepage and clearance measurements at a supply terminal .....	153
Figure 25 – Tumbling barrel .....	153
Figure 26 – Test circuit for safety wiring insertion.....	154
Figure 27 – Ignition temperatures of wood as a function of time .....	154
Figure 28 – Example of permitted degree of soldering .....	155
Figure 29 – Test chamber .....	155
Figure 30 – Example of a thread forming screw used in a groove of a metallic material.....	156
Figure 31 – Electro-mechanical contact system with plug/socket connection .....	157
Figure 32 – Test circuit for luminaires incorporating fluorescent lamp ≤ 70 W .....	157
Figure 33 – Test to determine suitability of conductors having a reduced cross-sectional area .....	81
Figure C.1 – Circuit for testing rectifying effect (some capacitive starterless ballasts only) .....	163
Figure C.2 – Circuit for testing rectifying effect (ballasts for single pin lamps) .....	163
Figure C.3 – Circuit for testing rectifying effect of some high pressure sodium and some metal halide lamps.....	164
Figure D.1 – Example of test recess where a luminaire comprises separate parts .....	166
Figure D.2 – Correct test box size (insulating ceilings) for settable and adjustable luminaires .....	167
Figure G.1 – Test configuration: single-phase equipment on star TN or TT system.....	173

Figure G.2 – Measuring network, touch current weighted for perception or reaction .....	173
Figure G.3 – Measuring network, touch current weighted for let-go (for portable class I luminaires) .....	173
Figure G.4 – Measuring network, weighted for high frequency protective conductor currents .....	174
Figure K.1 – Placing of thermocouples on a typical lampholder .....	181
Figure V.1 – Arrangement for voltage drop test.....	203
Figure X.1 – Declaration of $LV_{\text{supply}}$ and $U_{\text{out}}$ and the insulation barriers between the light source and accessible parts.....	206
Table 3.1 – Marking .....	34
Table 3.2 – Identification of extra low voltage d.c. leads and terminations .....	36
Table 4.1 – Torque tests on screws .....	51
Table 4.2 – Torque tests on glands.....	53
Table 4.3 – Impact energy and spring compression .....	54
Table 4.4 – Test on semi-luminaires .....	58
Table 4.5 – Test on adjusting devices.....	59
Table 5.1 – Supply cord.....	72
Table 5.2 – Tests for cord anchorage .....	76
Table 5.3 – Wiring dimension .....	73
Table 9.1 – Solid-object-proof luminaire test.....	90
Table 10.1 – Minimum insulation resistance.....	94
Table 10.2 – Electric strength.....	96
Table 10.3 – Limits of touch current or protective conductor current and electric burn .....	97
Table 11.1.A – Minimum creepage distance for a.c. sinusoidal voltages up to 30 kHz (to be used in conjunction with Annex M) .....	99
Table 11.1.B – Minimum clearance for working voltages (to be used in conjunction with Annex M) .....	100
Table 11.2 – Minimum distances for ignition pulse voltages or equivalent peak voltage $U_p$ .....	101
Table 12.1 – Maximum temperatures under the test conditions of 12.4.2, for principal parts (1 of 2).....	106
Table 12.2 – Maximum temperatures under the test conditions of 12.4.2, for common materials used in luminaires (1 of 2).....	107
Table 12.3 – Maximum temperatures under the test conditions of 12.5.1.....	110
Table 12.4 – Maximum temperature of windings under abnormal operating conditions and at 100 % of rated voltage for lamp control gear .....	111
Table 12.5 – Maximum temperature of windings under abnormal operating conditions and at 110 % of rated voltage for lamp control gear marked “D6” .....	111
Table 12.6 – Temperature overshoot time limitation.....	113
Table 14.1 – Nominal cross-sectional areas of conductors according to terminal sizes.....	121
Table 14.2 – Nominal cross-sectional areas of conductors according to maximum current .....	121
Table 14.3 – Composition of conductors .....	122
Table 14.4 – Torque to be applied to screws and nuts .....	124
Table 14.5 – Pull to be applied to conductor .....	125

Table 15.1 – Conductor rating .....	131
Table 15.2 – Conductor pull force.....	131
Table F.1 – pH value of the test solution.....	169
Table G.1 – Position of switch e, n and p for the measurements of the different classes of luminaires .....	172
Table J.1 – Degrees of protection indicated by the first characteristic numeral .....	177
Table J.2 – Degrees of protection indicated by the second characteristic numeral.....	178
Table L.1 – Damaging influences.....	182
Table M.1 – Determination of creepage distances and clearances (see Table 11.1) .....	187
Table N.1 – Guidance on when to use the symbol and its explanation on the luminaire or in the manufacturer’s instructions provided with the luminaire .....	189
Table N.2 – Thermal protection operation .....	190
Table Q.1 – Minimum values for electrical tests .....	196
Table U.1 – Minimum clearance distances for a.c. sinusoidal working voltages in pulse withstand category III .....	201
Table X.1 – Insulation requirements between active parts and accessible non-active parts .....	207

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### LUMINAIRES –

#### Part 1: General requirements and tests

#### FOREWORD

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**This Consolidated version is not an official IEC Standard and has been prepared for user convenience. Only the current versions of the standard and its amendment(s) are to be considered the official documents.**

**This Consolidated version of IEC 60598-1 bears the edition number 8.1. It consists of the eighth edition (2014-05) [documents 34D/1110/FDIS and 34D/1121/RVD], its corrigenda 1 (2015-10), 2 (2015-12) and 3 (2017-05) and the interpretation sheet 1 (2016-05), and its amendment 1 (2017-09) [documents 34D/1292/FDIS and 34D/1298/RVD]. The technical content is identical to the base edition and its amendment.**

**This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.**

International Standard IEC 60598-1 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

This eighth edition constitutes a technical revision and includes the following significant technical changes with respect to the previous edition:

- a) requirements to support the construction methods for new LED luminaires entering the market;
- b) photobiological requirements extended;
- c) more precise requirements for insulation between different types of electrical circuit;
- d) other general updates and improvements.

The major changes which may affect certification are given in Annex R.

Annex R shows where a new text has been included which contains more serious/critical requirements requiring products to be re-tested.

NOTE In this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

A list of all parts of the IEC 60598 series, under the general title: *Luminaires*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## LUMINAIRES –

### Part 1: General requirements and tests

#### SECTION 0: GENERAL INTRODUCTION

##### 0.1 Scope

This Part 1 of IEC 60598 specifies general requirements for luminaires, incorporating electric light sources for operation from supply voltages up to 1 000 V. The requirements and related tests of this standard cover: classification, marking, mechanical construction, electrical construction and photobiological safety.

Each section of this Part 1 is read in conjunction with this Section 0 and with other relevant sections to which reference is made.

Each part of IEC 60598-2 details requirements for a particular type of luminaire or group of luminaires on supply voltages not exceeding 1 000 V. These parts are published separately for ease of revision and additional sections will be added as and when a need for them is recognized.

The presentation of photometric data for luminaires is under consideration by the International Commission on Illumination (CIE) and is not, therefore, included in this Part 1.

Requirements are included in this Part 1 for luminaires incorporating ignitors with nominal peak values of the voltage pulse not exceeding those of Table 11.2. The requirements apply to luminaires with ignitors built into ballasts and to luminaires with ignitors separate from ballasts. For luminaires with ignitors built into lamps, the requirements are under consideration.

Requirements for semi-luminaires are included in this Part 1.

In general, this Part 1 covers safety requirements for luminaires. The object of this Part 1 is to provide a set of requirements and tests which are considered to be generally applicable to most types of luminaires and which can be called up as required by the detail specifications of IEC 60598-2. This Part 1 is thus not regarded as a specification in itself for any type of luminaire, and its provisions apply only to particular types of luminaires to the extent determined by the appropriate part of IEC 60598-2.

The parts of IEC 60598-2, in making reference to any of the sections of Part 1, specify the extent to which that section is applicable and the order in which the tests are to be performed; they also include additional requirements as necessary.

The order in which the sections of Part 1 are numbered has no particular significance as the order in which their provisions apply is determined for each type of luminaire or group of luminaires by the appropriate part of IEC 60598-2. All parts of IEC 60598-2 are self-contained and therefore do not contain references to other parts of IEC 60598-2.

Where the requirements of any of the sections of Part 1 are referred to in the parts of IEC 60598-2 by the phrase "The requirements of section... of IEC 60598-1 apply", this phrase is to be interpreted as meaning that all the requirements of that section of Part 1 apply except those which are clearly inapplicable to the particular type of luminaire covered by that part of IEC 60598-2.