



Test Report issued under the responsibility of:  
Łukasiewicz - IMiF PREDOM Division

**TEST REPORT**  
**IEC 60598-2-3**  
**Luminaires**  
**Part 2: Particular requirements**  
**Section 3: Luminaires for road and street lighting**

**Report Number**..... : **B10-3/093/B/22**  
**Date of issue**..... : 2022-07-08  
**Total number of pages** ..... 56 + Appendix No.1 – Summary LED modules - Control gears – on CD

**Name of Testing Laboratory preparing the Report** ..... Łukasiewicz - IMiF PREDOM Division  
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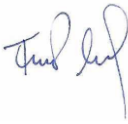
**Applicant's name** ..... LUG Light Factory Sp z.o.o.  
**Address**..... 65-127 Zielona Góra, ul. Gorzowska 11, Poland

**Test specification:**  
**Standard** ..... IEC 60598-2-3:2002, IEC 60598-2-3:2002/AMD1:2011 used in conjunction with IEC 60598-1:2020  
**Test procedure** ..... CB Scheme  
**Non-standard test method** ..... N/A

**TRF template used**..... IECEE OD-2020-F1:2021, Ed.1.4  
**Test Report Form No.** ..... IEC60598\_2\_3M  
**Test Report Form(s) Originator** .... Intertek Semko AB  
**Master TRF** ..... 2021-11-11

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<b>Test item description</b> .....	Luminaires for road and street lighting	
<b>Trade Mark(s)</b> .....	LUG	
<b>Manufacturer</b> .....	<b>LUG Light Factory Sp z.o.o.</b> Gorzowska 11; 65-127 Zielona Góra - Poland	
<b>Model/Type reference</b> .....	<b>URBINO LED S family cl I – series</b> – see also “General product information	
<b>Ratings</b> .....	220-240V, 50/60Hz, IP66, IK10, cl.I – details see pages 4-10	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input type="checkbox"/>	<b>CB Testing Laboratory:</b>	Łukasiewicz - IMiF PREDOM Division
<b>Testing location/ address</b> .....		02-255 Warszawa, ul. Krakowiaków 53, Poland
<b>Tested by (name, function, signature)</b> .....		K. Lisowski 
<b>Approved by (name, function, signature)</b> ...		T. Małyska 
<b>Supervised by (+ signature)</b> .....		F. Walczak 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature)</b> .....		
<b>Approved by (name, function, signature)</b> ...		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name + signature)</b> .....		
<b>Witnessed by (name, function, signature) .:</b>		
<b>Approved by (name, function, signature)</b> ...		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature)</b> .....		
<b>Witnessed by (name, function, signature) .:</b>		
<b>Approved by (name, function, signature)</b> ...		
<b>Supervised by (name, function, signature) :</b>		

<b>List of Attachments (including a total number of pages in each attachment):</b>	
– Attachment No. 1 (Report Reference No. B10-3/093/B/1/22- 2 pages)	
<b>Summary of testing: Positive</b>	
<i>According to ISO / IEC Guide 98-4 for the assessment of compliance of the measurement result with the requirements, criterion B was chosen. 50% risk of incorrect assessment decision belongs to the customer and 50% risk of incorrect assessment belongs to the laboratory</i>	
<b>Tests performed (name of test and test clause):</b>	<b>Testing location:</b>
IEC 60598-2-3:2002, IEC 60598-2-3:2002/AMD1:2011 used in conjunction with IEC 60598-1:2020 - all clauses	Łukasiewicz - IMiF PREDOM Division 02-255 Warszawa, ul. Krakowiaków 53, Poland
<b>Summary of compliance with National Differences (List of countries addressed):</b>	
See Attachment No. 1 to this Test Report (Report Reference No. B10-3/093/B/1/22 - 2 pages)	
<input checked="" type="checkbox"/> <b>The product fulfils the requirements of EN 60598-2-3:2003 + A1:2011 used in conjunction with EN IEC 60598-1:2021 + A11:2022</b>	
<b>Use of uncertainty of measurement for decisions on conformity (decision rule) :</b>	
<input checked="" type="checkbox"/> No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").	
<input type="checkbox"/> Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)	
<b>Information on uncertainty of measurement:</b>	
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.	
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.	
Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.	

Copy of marking plate:



1.2(0), 1.4(2), 1.5(3), 1.6(4), 1.7(11), 1.8(7), 1.11(8), 1.12(12), 1.14(10).

<b>Test item particulars</b> .....: Luminaire for road and street lighting	
<b>Classification of installation and use</b> .....: Normal use	
<b>Supply Connection</b> .....: Connector	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object.....: N/A	
- test object does meet the requirement.....: P (Pass)	
- test object does not meet the requirement.....: F (Fail)	
<b>Testing</b> .....:	
<b>Date of receipt of test item</b> .....: 2022-06-06	
<b>Date (s) of performance of tests</b> .....: 2022-06-06 - 2022-07-08	
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	
Clause numbers between brackets refer to clauses in IEC 60598-1	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies)</b> .....	LUG Light Factory Sp. z o.o. ul. Gorzowska 11 65-127 Zielona Góra Poland

**General product information and other remarks:**

<b>Name and address of the license holder:</b>	<b>LUG Light Factory Sp. z o.o.</b> <b>ul. Gorzowska 11, 65-127 Zielona Góra - Poland</b>	
<b>Address of the factory:</b>	<b>LUG Light Factory Sp. z o.o.</b> <b>ul. Gorzowska 11, 65-127 Zielona Góra - Poland</b>	
<b>Name of product:</b>	<b>URBINO LED S</b>	
<b>Trade mark :</b>	<b>LUG</b>	
<b>Technical data:</b>		
<b>Rated voltage</b>	<b>220-240V</b>	
<b>Rated frequency:</b>	<b>50/60Hz</b>	
<b>Max Power</b>	<b>74W</b>	
<b>Protection against electric shock:</b>	<b>Class I</b>	
<b>Degree of protection:</b>	<b>IP66; IK10</b>	
<b>ta</b>	4,5W - 36W	Ta= -40°C / -35°C* / -30°C** ... +55°C
	37W - 51W	Ta= -40°C / -35°C* / -30°C**/-25°C*** ... +50°C
	52W - 74W	Ta= -40°C / -35°C* / -30°C**/-25°C*** ... +40°C

\* - For luminaires equipped with:

- Vossloh Schwabe SP/230/10K/i

\*\* - For luminaires equipped with:

- SPD Vossloh Schwabe SP/230/10K
- Xi FP 110W 0.3-0.1A NLP C150 230V
- Tridonic LCA 120W 300-1050mA

\*\*\* - For luminaires equipped with:

- LACROIX DL-PAK 70

**Choice sheet of the luminaires URBINO LED S family cl I – series:****Example of symbol:**

**130772.7LR7B40S895.101.N.P**

1
2
3
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9

Designations used on the marking of luminaires (some designation may not appear in the name) :

<b>1</b>	<b>13077</b> <b>13078</b>	-	Code of the series URBINO LED S - XPG3 SERIES Code of the series URBINO LED S - LUXEON SERIES
<b>2</b>	<b>2</b>	-	Color: 2: grey 5: graphite 0: another
<b>3</b>	<b>7L</b>	-	Type of power supply: 2L - DIMM 1-10V 3L - DALI 5L - on-off 6L - on-off / DALI 7L - ZHAGA D4i PL - programmable
<b>4</b>	<b>R7</b>	-	CRI: R7 = 70-79 R8 = 80-89

<b>5</b>	<b>B40</b>	-	Color temperature: B22 = 2200 B27 = 2700 B30 = 3000 B40 = 4000 B57 = 5700 B65 = 6500
<b>6</b>	<b>S895</b>	-	Max. luminous flux (e.g. S895 = 8950lm)
<b>7</b>	<b>1</b>	-	Safety Class I
<b>8</b>	<b>01</b>	-	Optic: 01 O1 - for road lighting type O1 02 O2 - for road lighting type O2 ... 99 O99 - for road lighting type O99
<b>9</b>	<b>N.P</b>	-	Additional equipment A - additional corrosion protection B - Tool-free access to the LED Driver U - $\phi$ 76mm pole N - NEMA Socket Z - ZHAGA Socket T - NTC Sensor W - Twilight Sensor V - Surge Device Protector 10kV P- Anti pressure vent I- iBloc ("URBAN" smart city system) K- Knife switch connector

List of LED's and electronic led driver's system:

Control gear's	P [W]	U min [V]	U compatible [V]	I compatible [mA]	Module's*
Osram OT 165/170-240/1A0 4DIMLT2 E	165	90	285	1050	<p><b>Choice sheet of the URBINO LED S series modules:</b></p> <p><b>Example of symbol:</b></p> <p><b>ML21XXXYY.WQQQ.UUV</b></p> <p style="text-align: center;"> <span style="margin-right: 10px;">1</span> <span style="margin-right: 10px;">2</span> <span style="margin-right: 10px;">3</span> <span style="margin-right: 10px;">4</span> <span style="margin-right: 10px;">5</span> <span style="margin-right: 10px;">6</span> <span style="margin-right: 10px;">7</span> <span style="margin-right: 10px;">8</span> </p> <p>Designations used on the marking of LED boards:</p> <p><b>1. ML</b> - PCB designation (ML – LED module):</p> <p><b>2. 21</b> - Year of the project:</p> <p><b>3. XXX</b> - Number of the project:                      Luxeon modules: 660, 661, 663, 670, 671, 672, 673, 680, 681, 682, 683, 690, 691, 692, 693                      Cree modules: 600, 601, 610, 611</p> <p><b>4. YY</b> - Project variant (PCB design, milling, dimensions, soldermask color, laminate thickness, LED configuration):                      00...99                      Light color:                      W: White</p> <p><b>6. QQQ</b> - CRI and CCT:                      722: CRI 70 and 2200K                      727: CRI 70 and 2700K                      730: CRI 70 and 3000K                      735: CRI 70 and 3500K                      740: CRI 70 and 4000K                      750: CRI 70 and 5000K                      757: CRI 70 and 5700K                      765: CRI 70 and 6500K                      822: CRI 80 and 2200K                      827: CRI 80 and 2700K                      830: CRI 80 and 3000K                      835: CRI 80 and 3500K                      840: CRI 80 and 4000K                      850: CRI 80 and 5000K                      857: CRI 80 and 5700K                      865: CRI 80 and 6500K</p> <p><b>7. UU</b> - Assembly variant (selected components not mounted):                      01...99</p> <p><b>8. V</b> - NTC Thermistor type:                      A - none                      B – 10K                      C – 47K</p>
Osram OT 60/170-240/1A0 4DIMLT2 E	60	30	115	1050	
OT180W/UNV/800C/2DIMLT2/P6	180	82	280	800	
OT100W/UNV/800C/2DIMLT2/P6	100	50	185	800	
OT 110/170...240/1A0 1DIMLT2 G1 CE	110	80	220	1050	
OT 20/170-240/1A0 1DIM LT2 G1 CE	22	10	38	1050	
OT 75/170...240/1A0 1DIMLT2 G1 CE	75	35	115	1050	
Philips Xi LP 150W 0.3-1.0A S1 230V S240 sXt	150	70	214	1050	
Tridonic LCA 120W 300-1050mA 1-10V ADV	120	40	114	1050	
Tridonic LCA 75W 250-750mA one4all C	75	45	130	750	
Tridonic LCA 120W 350-1050mA o	120	105	320	1050	
Tridonic LCA 160W 350-1050mA o	160	105	320	1050	
OT DX 40/220...240/1A0 DIMA LT2 E	40	15	56	1050	
OT DX 75/220...240/1A0 DIMA LT2 E	75	35	115	1050	
OT DX 110/220...240/1A0 DIMA LT2 E	110	75	220	1050	
OT 20/170...240/1A0 4DIMLT2 G2 CE	20	10	38	1050	
OT 40/170...240/1A0 4DIMLT2 G2 CE	40	15	56	1050	
OT 75/170...240/1A0 4DIMLT2 G2 CE	75	35	115	1050	
OT 110/170...240/1A0 4DIMLT2 G2 CE	110	80	220	1050	
OT 20/170...240/1A0 1DIMLT2 G1 CE	20	10	38	1050	
OT 40/170...240/1A0 1DIMLT2 G1 CE	40	15	56	1050	
OT 40/120...277/1A0 4DIMLT2 E	40	15	56	1050	
OT 60/170...240/1A0 4DIMLT2 E	60	30	115	1050	
OT 90/170...240/1A0 4DIMLT2 E	90	57	186	1050	
OT 165/170...240/1A0 4DIMLT2 E	165	90	285	1050	
OT 50/120...277/800 2DIMLT2 P	50	30	115	800	
OT 50/120...277/1A2 2DIMLT2 P	50	20	55	1250	
OT 100/120...277/800 2DIMLT2 P	100	50	186	800	
OT 110/120...277/1A4 2DIMLT2 P	110	35	85	1400	
OT 60/220...240/1A4 1DIMA P7	60	43	86	1400	
OT 100/220...240/1A4 1DIMA P7	100	72	144	1400	
OT 150/220...240/1A4 1DIMA P7	150	91	350	1400	
Xitanium 40W 0.7A Prog+ GL-J sXt	40	29	57	700	
Xitanium 75W 0.35-0.70A GL Prog+ sXt	75	80	152	700	
Xitanium 75W 0.1-1.05A Prog GL F sXt	75	36	75	1050	
Xitanium 100W 0.7A Prog+ GL-Z sXt	100	71	143	700	
Xitanium 150W 0.1-1.05A Prog+ GL F sXt	150	70	148	1050	
Xitanium 300W 1.5A Prog+ GL-R sXt	300	80	280	1050	
Xi BP 12W 0.1-0.5A S 230V C100	12	13	39	500	
Xi BP 22W 0.2-0.7A S 230V C123	22	16	48	700	
Xi BP 40W 0.2-0.7A S 230V C123	40	25	77	700	
Xi BP 40W 0.3-1.0A S 230V C123	40	20	54	1000	
Xi LP 22W 0.2-0.7A S1 230V C123 sXt	22	16	48	700	
Xi LP 22W 0.3-1.0A S1 230V C123 sXt	22	8	32	1000	
Xi LP 40W 0.2-0.7A S1 230V C123 sXt	40	25	77	700	
Xi LP 40W 0.3-1.0A S1 230V C123 sXt	40	20	54	1000	
Xi LP 75W 0.2-0.7A S1 230V C133 sXt	75	50	150	700	
Xi LP 75W 0.3-1.0A S1 230V C133 sXt	75	35	108	1000	
Xi LP 75W 0.5-1.5A S1 230V C133 sXt	75	25	75	1500	
Xi LP 110W 0.2-0.7A S1 230V C133 sXt	110	70	220	700	
Xi LP 110W 0.3-1.0A S1 230V C133 sXt	110	50	160	1000	
Xi LP 165W 0.2-0.7A S1 230V C170 sXt	165	100	300	700	
Xi LP 165W 0.3-1.0A S1 230V C170 sXt	165	80	235	1000	
Xi LP 165W 0.5-1.5A S1 230V C170 sXt	165	54	157	1500	
Xi LP 22W 0.2-0.7A S1 230V S175 sXt	22	16	48	700	
Xi LP 22W 0.3-1.0A S1 230V S175 sXt	22	8	32	1000	
Xi LP 40W 0.2 -0.7A S1 230V S175 sXt	40	23	77	700	
Xi LP 40W 0.2-0.7A SL 230V S175 sXt	40	25	77	700	
Xi LP 40W 0.3-1.0A S1 230V S175 sXt	40	20	54	1000	
Xi LP 40W 0.3-1.0A SL 230V S175 sXt	40	20	54	1000	
Xi LP 40W 0.2-0.7A SN 230V S175 sXt	40	25	77	700	
Xi LP 75W 0.2-0.7A S1 230V S240 sXt	75	50	150	700	
Xi LP 75W 0.2-0.7A SL 230V S240 sXt	75	50	150	700	
Xi LP 75W 0.3-1.0A S1 230V S240 sXt	75	35	108	1000	
Xi LP 75W 0.3-1.0A SL 230V S240 sXt	75	35	108	1000	
Xi LP 75W 0.2-0.7A SN 230V S240 sXt	75	50	150	700	
Xi LP 75W 0.5-1.5A S1 230V S240 sXt	75	25	75	1500	
Xi LP 150W 0.2-0.7A S1 230V S240 sXt	150	90	283	700	
Xi LP 150W 0.2-0.7A SL 230V S240 sXt	150	90	283	700	
Xi LP 150W 0.3-1.0A SL 230V S240 sXt	150	70	214	1000	
Xi LP 150W 0.5-1.5A S1 230V S240 sXt	150	50	142	1500	
Xi LP 150W 0.2-0.7A SN 230V S240 sXt	150	90	283	700	
Xi FP 22W 0.2-0.7A SNLDAE 230V C123 sXt	22	16	48	700	
Xi FP 22W 0.3-1.0A SNLDAE 230V C123 sXt	22	8	32	1000	
Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt	40	25	77	700	
Xi FP 40W 0.3-1.0A SNLDAE 230V C123 sXt	40	20	54	1000	
Xi FP 70W 0.3-1.0A NLD C150 230V sXt	70	30	100	1000	



Control gear's	P [W]	U min [V]	U compatible [V]	I compatible [mA]	Module's*
Xi FP 75W 0.2-0.7A SNLDAE 230V C133 sXt	75	50	150	700	
Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt	75	35	108	1000	
Xi FP 75W 0.5-1.5A SNLDAE 230V C133 sXt	75	25	71	1500	
Xi FP 100W 0.2-0.7A SNLDAE 230V C165 sXt	100	50	150	700	
Xi FP 110W 0.2-0.7A SNLDAE 230V C133 sXt	110	70	220	700	
Xi FP 110W 0.3-1.0A NLD C150 230V sXt	110	60	200	1000	
Xi FP 110W 0.3-1.0A SNLDAE 230V C133 sXt	110	50	160	1000	
Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt	165	80	235	1000	
Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	165	100	300	700	
Xi FP 330W 0.2-0.75A SNDAE 230V C240 sXt	330	100	300	750	
Xi FP 22W 0.2-0.7A SNLDAE 230V S175 sXt	22	16	48	700	
Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	22	8	32	1000	
Xi FP 40W 0.2-7.0A SNLDAE 230V S175 sXt	40	25	77	700	
Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt	40	20	54	1000	
Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	75	50	150	700	
Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt	75	35	108	1000	
Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	150	90	283	700	
Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt	150	70	214	1000	
Xi SR 12W 0.2-0.7A SNEMP 230V C133 sXt	12	8	32	700	
Xi SR 22W 0.2-0.7A SNEMP 230V C133 sXt	22	16	48	700	
Xi SR 40W 0.2-0.7A SNEMP 230V C133 sXt	40	25	77	700	
Xi SR 75W 0.2-0.7A SNEMP 230V C150 sXt	75	50	150	700	
Xi SR 75W 0.2-0.7A SNEMP 230V S240 sXt	75	50	150	700	
Xi SR 110W 0.2-0.7A SNEMP 230V C150 sXt	110	70	220	700	
Xi SR 150W 0.2-0.7A SNEMP 230V S240 sXt	150	90	283	700	
Xitanium 100W 2.1-4.2A AOC 230V I220	100	12	48	4200	
Xitanium 150W 2.5-4.9A AOC 230V I220	150	15	61	4900	
Xitanium 200W 2.8-5.6A AOC 230V I250	200	18	71	5600	
Xi LP 100W 0.3-1.05A S1 230V I175	100	46	143	1000	
Xi LP 150W 0.3-1.05A S1 230V I175	150	72	214	1000	
Xi LP 220W 0.3-1.05A S1 230V I230	220	104	314	1000	
Xi LP 220W 0.5-1.5A S1 230V I230	220	73	210	1500	
Xitanium Dim 35W 0.7A 1-10V TWE I175	35	18	50	700	
Xitanium Dim 100W 0.7A 1-10V TWE I220	100	71	143	700	
Xitanium Dim 150W 0.7A 1-10V TWE I220	150	90	214	700	
Xitanium 75W 0.7A TWE I175	75	40	117	700	
Xitanium 150W 0.7A TWE I220	150	90	214	700	
Xitanium 75W 1.05A 1-10V 230V C165 sXt	75	36	75	1000	
Xitanium 75W 0.70A 1-10V 230V C165 sXt	75	52	107	700	
Xitanium 150W 0.70A 1-10V 230V S240 sXt	150	100	214	700	
Xitanium 150W 1.05A 1-10V 230V S240 sXt	150	72	150	1000	
Xitanium Dim 75W 0.70A 1-10V 230V I220	75	52	107	700	
Xitanium Dim 150W 0.70A 1-10V 230V I220	150	90	214	700	
Xitanium 75W 1-10V 230V C165	75	52	107	700	
LCO 14/100-500/38 NF C ADV3	14	12	38	500	
LCO 24/200-1050/39 NF C ADV3	24	11	39	1050	
LCO 40/200-1050/64 NF C ADV3	40	18	64	1050	
LCO 60/200-1050/100 NF C ADV3	60	28	100	1050	
LCO 90/200-1050/165 NF C ADV3	90	46	165	1050	
LCO 135/200-1050/220 NF C ADV3	135	62	220	1050	
LCO 200/200-1050/355 NF C ADV3	200	100	355	1050	
LCO 14/100-500/38 o4a NF C EXC3	14	12	38	500	
LCO 24/200-1050/39 o4a NF C EXC3	24	11	39	1050	
LCO 40/200-1050/64 o4a NF C EXC3	40	18	64	1050	
LCO 60/200-1050/100 o4a NF C EXC3	60	28	100	1050	
LCO 90/200-1050/165 o4a NF C EXC3	90	46	165	1050	
LCO 135/200-1050/220 o4a NF C EXC3	135	62	220	1050	
LCO 200/200-1050/355 o4a NF C EXC3	200	100	355	1050	
LCO 100/1050/95 fixC L SNC2	100	29	95	1050	
LCO 100/1400/71 fixC L SNC2	100	21	71	1400	
LCO 100/500/200 fixC L SNC2	100	60	200	500	
LCO 100/700/143 fixC L SNC2	100	43	143	700	
LCO 150/1050/142 fixC L SNC2	150	43	142	1050	
LCO 150/1400/107 fixC L SNC2	150	32	107	1400	
LCO 150/500/300 fixC L SNC2	150	90	300	500	
LCO 150/700/214 fixC L SNC2	150	64	214	700	
LCO 200/1050/190 fixC L SNC2	200	63	190	1050	
LCO 200/1400/142 fixC L SNC2	200	47	142	1400	
LCO 200/700/285 fixC L SNC2	200	95	285	700	
LCO 75/1050/72 fixC L SNC2	75	22	72	1050	
LCO 75/1400/53 fixC L SNC2	75	16	53	1400	
LCO 75/500/150 fixC L SNC2	75	45	150	500	
LCO 75/700/108 fixC L SNC2	75	32	108	700	
LCO 135W 200-1050mA 220V pD+ NFC C PRE3	135	104	220	1050	
LCO 90W 200-1050mA 165V pD+ NFC C PRE3	90	78	165	1050	
OT 100/UNV/1A0 2DIM P7	100	75	150	1050	
OT 150/UNV/1A0 2DIM P7	150	107	214	1050	
OT 100/220-240/1A4 2DIM P7	100	61	144	1400	

Control gear's	P [W]	U min [V]	U compatible [V]	I compatible [mA]	Module's*
OT 150/ 220-240/1A4 2DIM P7	150	91	214	1400	
EBS-040S105BT2	40	19	57	1050	
EUM-075S	75	18	54	2100	
EBS-080S105BT2	80	38	114	700	
EBS-040S070BT2	40	28	89	700	
EBS-080S070BT2	80	57	178	530	
EUM – 100S	100	17	143	2100	
EUM – 150S	150	18	214	3150	
EUM – 200S	200	18	286	4200	
EUM – 240S	240	18	453	4900	
IT DALI 20/220...240/1A0 E	20	1	60	1050	
IT DALI 40/220...240/1A0 E	40	1	60	1050	
IT DALI 75/220...240/1A0 E	75	1	120	1050	
IT DALI 110/220...240/1A0 E	110	1	200	1050	
IT DALI 150/220...240/1A0 E	150	1	310	1050	
DL-PAK 70	70	18	115	700	
EUCI-040105GLA	40	28	77	1050	
EUCI-075105GLA	75	54	110	1050	
EUCI-130105GLA	130	60	200	1050	
EUCI-170105GLA	170	80	340	1050	
OT 75 /220...240/1A0 1DIM G2 CE	75	1	150	1050	
EUCI-022105GLB	22	8	48	1050	
EUCI-040105GLB	40	20	77	1050	

\* - Detailed data about the compatibility of control gear and led modules - see the Appendix No.1 – Summary LED modules - control gears – on CD

After review of technical documentation, model series, characteristic of particular models, differences between models, technical parameters, class of luminaires, IP code, light sources, components, etc., luminaire 130772.3LR7B30S895.101.B has been tested as the representative of all models of luminaires.

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>3.2 (0)</b>	<b>GENERAL TEST REQUIREMENTS</b>		<b>P</b>
3.2 (0.3)	More sections applicable..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—
3.2 (0.5)	Components	(see Annex 1)	—
<b>3.2 (0.7)</b>	<b>Information for luminaire design in light sources standards</b>		—
3.2 (0.7.2)	Light source safety standard .....	EN62031	—
	Luminaire design in the light source safety standard		<b>P</b>

<b>3.4 (2)</b>	<b>CLASSIFICATION OF LUMINAIRES</b>		<b>P</b>
3.4 (2.2)	Type of protection .....	Class I	<b>P</b>
3.4 (2.3)	Degree of protection .....	IP66	<b>P</b>
3.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces .....	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
3.4 (2.5)	Luminaire for normal use .....	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	Luminaire for rough service .....	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
3.4 (-)	Modes of installation of road or street lighting		—
	a) on a pipe	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	b) on a mast arm	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	c) on a post top	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	d) on span or suspension wires	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	e) on a wall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

<b>3.5 (3)</b>	<b>MARKING</b>		<b>P</b>
3.5 (3.2)	Mandatory markings		<b>P</b>
	Position of the marking		<b>P</b>
	Format of symbols/text		<b>P</b>
3.5 (3.3)	Additional information		<b>P</b>
	Language of instructions		<b>P</b>
3.5 (3.3.1)	Combination luminaires		<b>N/A</b>
3.5 (3.3.2)	Nominal frequency in Hz		<b>P</b>
3.5 (3.3.3)	Operating temperature		<b>P</b>
3.5 (3.3.5)	Wiring diagram		<b>P</b>
3.5 (3.3.6)	Special conditions		<b>N/A</b>
3.5 (3.3.7)	Metal halide lamp luminaire – warning		<b>N/A</b>
3.5 (3.3.8)	Limitation for semi-luminaires		<b>N/A</b>

<b>IEC 60598-2-3</b>			
Clause	Requirement + Test	Result - Remark	Verdict
3.5 (3.3.9)	Power factor and supply current		P
3.5 (3.3.10)	Suitability for use indoors		N/A
3.5 (3.3.11)	Luminaires with remote control		N/A
3.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
3.5 (3.3.13)	Specifications of protective shields		N/A
3.5 (3.3.14)	Symbol for nature of supply		P
3.5 (3.3.15)	Rated current of socket outlet		N/A
3.5 (3.3.16)	Rough service luminaire		N/A
3.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
3.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
3.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
3.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
3.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		P
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
3.5 (3.3.23)	Luminaires without control gear provided with necessary information for selection of appropriate component		N/A
3.5 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
3.5 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
3.5 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		N/A
3.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
3.5 (-)	Additional information in instruction leaflet		P
	a) Design attitude		P
	b) Weight		P
	c) Overall dimensions		P
	d) Maximum projected area if applicable		N/A
	e) Cross-sectional area of wires if applicable		N/A
	f) Suitability for indoors use		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	g) Dimensions of the compartment		N/A
	h) Torque setting to be applied to bolts or screws		P
	i) Maximum mounting height		P

<b>3.6 (4)</b>	<b>CONSTRUCTION</b>		P
3.6 (4.2)	Components replaceable without difficulty		P
3.6 (4.3)	Wireways smooth and free from sharp edges		P
<b>3.6 (4.4)</b>	<b>Lampholders</b>		N/A
3.6 (4.4.1)	Integral lampholder		N/A
3.6 (4.4.2)	Wiring connection		N/A
3.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
3.6 (4.4.4)	Positioning		N/A
	- pressure test (N) .....	N/A	—
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N) .....	N/A	—
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
3.6 (4.4.5)	Peak pulse voltage		N/A
3.6 (4.4.6)	Centre contact		N/A
3.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
3.6 (4.4.8)	Lamp connectors		N/A
3.6 (4.4.9)	Caps and bases correctly used		N/A
3.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
<b>3.6 (4.5)</b>	<b>Starter holders</b>		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
<b>3.6 (4.6)</b>	<b>Terminal blocks</b>		<b>N/A</b>
	Tails		N/A
	Unsecured blocks		N/A
<b>3.6 (4.7)</b>	<b>Terminals and supply connections</b>		<b>P</b>
3.6 (4.7.1)	Contact to metal parts		N/A

<b>IEC 60598-2-3</b>			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
3.6 (4.7.3)	Terminals for supply conductors		P
3.6 (4.7.3.1)	Welded method and material		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
3.6 (4.7.4)	Terminals other than supply connection		N/A
3.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
3.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
<b>3.6 (4.8)</b>	<b>Switches</b>		<b>N/A</b>
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
<b>3.6 (4.9)</b>	<b>Insulating lining and sleeves</b>		<b>N/A</b>
3.6 (4.9.1)	Retainment		N/A
	Method of fixing .....		N/A
3.6 (4.9.2)	Insulated linings and sleeves:		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C) .....		N/A
<b>3.6 (4.10)</b>	<b>Double or reinforced insulation</b>		<b>N/A</b>
3.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
3.6 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- no straight access with test probe		N/A
3.6 (4.10.3)	Retention of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
3.6 (4.10.4)	Protective impedance device		N/A
	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
<b>3.6 (4.11)</b>	<b>Electrical connections and current-carrying parts</b>		<b>P</b>
3.6 (4.11.1)	Contact pressure		P
3.6 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
3.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
3.6 (4.11.4)	Material of current-carrying parts		P
3.6 (4.11.5)	No contact to wood or mounting surface		P
3.6 (4.11.6)	Electro-mechanical contact systems		N/A
<b>3.6 (4.12)</b>	<b>Screws and connections (mechanical) and glands</b>		<b>N/A</b>
3.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :	control gear, screws: 1,2 Nm glass: 1,2 Nm	P
	Torque test: torque (Nm); part..... :	connector: 0,5 Nm led module: 0,5 Nm earthing: 0,5 Nm	P
	Torque test: torque (Nm); part..... :	spigot: 20 Nm	P
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm) .....		N/A
	- lampholder; torque (Nm) .....		N/A
	- push-button switches; torque 0,8 Nm .....		N/A
3.6 (4.12.5)	Screwed glands; force (Nm).....		N/A
<b>3.6 (4.13)</b>	<b>Mechanical strength</b>		<b>P</b>
3.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm) .....	0,5 Nm	P
	- other parts; energy (Nm) .....	0,7 Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
3.6 (4.13.2)	Metal parts have adequate mechanical strength		N/A
3.6 (4.13.3)	Straight test finger		P
3.6 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
3.6 (4.13.6)	Tumbling barrel		N/A
<b>3.6 (4.14)</b>	<b>Suspensions, fixings and means of adjusting</b>		<b>P</b>
3.6 (4.14.1)	Mechanical load:		P
	A) four times the weight		P
	B) torque 2,5 Nm		P
	C) bracket arm; bending moment (Nm).....		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm) .....		N/A
	Metal rod. diameter (mm) .....		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
3.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg) .....	N/A	—



<b>IEC 60598-2-3</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	Stress in conductors (N/mm <sup>2</sup> ) .....		N/A
	Mass (kg) of semi-luminaire .....		N/A
	Bending moment (Nm) of semi-luminaire .....		N/A
3.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles.....		N/A
	- strands broken .....		N/A
	- electric strength test afterwards		N/A
3.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
3.6 (4.14.5)	Guide pulleys		N/A
3.6 (4.14.6)	Strain on socket-outlets		N/A
<b>3.6 (4.15)</b>	<b>Flammable materials</b>		<b>N/A</b>
	- glow-wire test 650°C .....	See Test Table 3.15 (13.3.2)	N/A
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
3.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
<b>3.6 (4.16)</b>	<b>Luminaires for mounting on normally flammable surfaces</b>		<b>P</b>
	No lamp control gear .....	(compliance with Section 12)	N/A
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
3.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
3.6 (4.16.2)	Thermal protection:		P
	- in lamp control gear		P
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear	130°C	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
<b>3.6 (4.17)</b>	<b>Drain holes</b>		<b>N/A</b>
	Clearance at least 5 mm		N/A
<b>3.6 (4.18)</b>	<b>Resistance to corrosion</b>		<b>P</b>
3.6 (4.18.1)	- rust-resistance		N/A
3.6 (4.18.2)	- season cracking in copper		P
3.6 (4.18.3)	- corrosion of aluminium		P
3.6 (4.19)	Igniters compatible with ballast		N/A
3.6 (4.20)	Rough service vibration		N/A
<b>3.6 (4.21)</b>	<b>Protective shield</b>		<b>N/A</b>
3.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
3.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
3.6 (4.21.3)	No direct path		N/A
3.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment..... :	See Test Table 3.15 (13.3.2)	N/A
3.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
3.6 (4.23)	Semi-luminaires comply Class II		N/A
<b>3.6 (4.24)</b>	<b>Photobiological hazards</b>		<b>P</b>
3.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
3.6 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778 .....	Risk Group 0 for distances $\geq 2,15$ m Risk Group 1 Unlimited	—
	Luminaires with $E_{thr}$ :		N/A
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 .. :		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
<b>3.6 (4.25)</b>	<b>Mechanical hazard</b>		<b>P</b>

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	No sharp point or edges		P
<b>3.6 (4.26)</b>	<b>Short-circuit protection</b>		<b>N/A</b>
3.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
3.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Supply source ES1 PSE		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
<b>3.6 (4.27)</b>	<b>Terminal blocks with integrated screwless earthing contacts</b>		<b>N/A</b>
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
<b>3.6 (4.28)</b>	<b>Fixing of thermal sensing control</b>		<b>N/A</b>
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C) ..... :	N/A	—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
<b>3.6 (4.29)</b>	<b>Luminaires with non-replaceable light source</b>		<b>N/A</b>
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
<b>3.6 (4.30)</b>	<b>Luminaires with non-user replaceable light source</b>		<b>P</b>
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		P
	At least one fixing means requiring use of tool		P
<b>3.6 (4.31)</b>	<b>Insulation between circuits</b>		<b>N/A</b>
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
3.6 (4.31.1)	SELV or PELV circuits		N/A
	Used SELV/PELV source		N/A
	Voltage $\leq$ ELV		N/A
	Insulating of SELV/PELV circuits from LV supply		N/A
	Insulating of SELV/PELV circuits from other non SELV/PELV circuits		N/A
	Insulating of SELV/PELV circuits from FELV		N/A
	Insulating of SELV/PELV circuits from other SELV/PELV circuits		N/A
	SELV/PELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
3.6 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage $\leq$ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
3.6 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
<b>3.6 (4.32)</b>	<b>Overvoltage protective devices</b>		<b>N/A</b>
	Comply with IEC 61643-11		N/A
	External to controlgear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
<b>3.6 (4.33)</b>	<b>Luminaire powered via information technology communication cabling</b>		N/A
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N/A
<b>3.6 (4.34)</b>	<b>Electromagnetic fields (EMF)</b>		N/A
	No harmful electromagnetic fields		N/A
<b>3.6 (4.35)</b>	<b>Protection against moving fan blades</b>		N/A
	Test with a standard test finger		N/A
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	-hardness less than D60 Shore		N/A
	-peripheral speed less than 15 m/s		N/A
	-input power of fan $\leq$ 2 W at rated voltage		N/A
<b>3.6 (4.36)</b>	<b>Track-mounted luminaires</b>		N/A
	Test in accordance with Annex A of IEC60570:2003/AMD2:2019		N/A
3.6.1 (-)	At least IP X3 or X5 respectively. IP .....	IP66	P
	Column-integrated luminaires:		N/A
	- parts below 2,5 m. IP .....		N/A
	- parts above 2,5 m. IP .....		N/A
3.6.2 (-)	Suspension on span wires		N/A
3.6.3 (-)	Means for attaching the luminaire or external parts to its support appropriate to the weight		N/A
3.6.3.1 (-)	Static load test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- drag coefficient.....:	1,2	P
	- loaded area (m <sup>2</sup> ).....:	0,09 m <sup>2</sup>	P
	- used load (N).....:	179 N	P
	- measured deformation (cm/m) .....	< 1 cm/m	P
	- no rotation		P
3.6.4 (-)	Adjustable lampholders		N/A
3.6.5 (-)	Luminaires installed above 5 m, glass covers shall be:		P
	a) glass that fractures into small pieces (test according to 3.6.5.1), or	Side glass	N/A
	b) glass having a high impact shock resistance (test according to 3.6.5.2), or		P
	c) protected by any means to retain glass fragments		N/A
	For tunnel luminaires 3.6.5.1 apply		N/A
	Method of protection declared by the manufacturer		N/A
3.6.5.1 (-)	Protection by the use of glass that fractures into small pieces		N/A
	- number of particles is more than 40.....:		N/A
3.6.5.2 (-)	Protection by the use of high impact resistant glass		P
3.6.5.2.1 (-)	Glass covers have high mechanical strength		P
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample	IK10 (see the Test Report No. B10-3/096/B/22 dated 08.07.2022 carried out by Łukasiewicz-IMIIF PREDOM Division)	P
3.6.5.2.2 (-)	Glass covers not break into large pieces		N/A
	- test according 3.6.5.1, number of particles is more than 20 .....		N/A
3.6.6 (-)	Connection compartment of column-integrated luminaire		N/A
	- provides adequate space		N/A
	- means for attachment		N/A
	- means for attachment of metal corrosion-resistant		N/A
3.6.7 (-)	Compliance with ISO standard or other .....		N/A
3.6.8 (-)	Doors of column-integrated luminaires:		N/A
	- corrosion-resistant		N/A
	- opening only possible for an authorized person		N/A
	- impact test 5 Nm		N/A
	- sample show no damage		N/A
3.6.9 (-)	Column-integrated luminaire:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- dimension of the cable entry slot (mm) .....		N/A
	- cable path from the slot to the connection compartment (mm) .....		N/A
	- cable path free from obstruction that might cause abrasion of the cable		N/A

3.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
3.7 (11.2)	Creepage distances and clearances .....	See Table 3.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
3.7 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 3.7 (11.2) I	P
	Creepage distances for frequency over 30 kHz:		N/A
	- Controlgear marked with $\hat{U}_{OUT}$ and $f_{UOUT}$ according IEC 61347-1, clause 7.1, item w	See Test Table 3.7 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 3.7 (11.2) II	N/A
3.7 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 3.7 (11.2) I	N/A
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with $U_P$	See Test Table 3.7 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 3.7 (11.2) II	N/A

3.8 (7)	PROVISION FOR EARTHING		P
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 $\Omega$ .....	0,05 $\Omega$	P
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Protective earth makes contact first		P
	Terminal blocks with integrated screwless protective earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		P
3.8 (7.2.2 + 7.2.3)	Protective earth continuity in joints, etc.		P

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Clause	Requirement + Test	Result - Remark	Verdict
3.8 (7.2.4)	Locking of clamping means		P
	Compliance with 4.7.3		P
3.8 (7.2.5)	Protective earth terminal integral part of connector socket		N/A
3.8 (7.2.6)	Protective earth terminal adjacent to mains terminals		P
3.8 (7.2.7)	Electrolytic corrosion of the protective earth terminal		P
3.8 (7.2.8)	Material of protective earth terminal		P
	Contact surface bare metal		N/A
3.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
3.8 (7.2.11)	Protective earthing core coloured green-yellow		P
	Length of earth conductor		P
3.8 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

<b>3.9 (14)</b>	<b>SCREW TERMINALS</b>		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 3)	N/A

<b>3.9 (15)</b>	<b>SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS</b>		P
	Separately approved; component list..... :	(see Annex 1)	P
	Part of the luminaire .....	(see Annex 4)	N/A

<b>3.10 (5)</b>	<b>EXTERNAL AND INTERNAL WIRING</b>		P
<b>3.10 (5.2)</b>	<b>Supply connection and external wiring</b>		<b>P</b>
3.10 (5.2.1)	Means of connection .....	Connector BJB 46.413	P
	Outdoor luminaire has not PVC insulated external wiring if not Class III or SELV/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10Hz -200 Hz or protected from outdoor environment		N/A
3.10 (5.2.2)	Type of cable .....		N/A
	Nominal cross-sectional area (mm <sup>2</sup> ) .....		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
3.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
3.10 (5.2.5)	Type Z not connected to screws		N/A
3.10 (5.2.6)	Cable entries:		P



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Clause	Requirement + Test	Result - Remark	Verdict
	- suitable for introduction		P
	- adequate degree of protection		P
3.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
3.10 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
3.10 (5.2.9)	Locking of screwed bushings		N/A
3.10 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
3.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
3.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
3.10 (5.2.10.3)	Tests:		N/A
	- impossible to push cable; unsafe		N/A
	- pull test: 25 times; pull (N) .....		N/A
	- torque test: torque (Nm) .....		N/A
	- displacement $\leq 2$ mm		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
	- function independent of electrical connection		N/A
3.10 (5.2.10.4)	Luminaire with/ designed for use with supply cord with maximum current of 2A:		N/A
	- Ordinary Class III luminaire supplied with SELV ≤ 25V RMS/60V DC		N/A
	- Ordinary Class III luminaire supplied with PELV ≤ 12V RMS/30V DC		N/A
	- Other than ordinary Class III luminaire supplied with voltage ≤ 12V RMS/30V DC		N/A
	Pull test of 30N		N/A
3.10 (5.2.11)	External wiring passing into luminaire		N/A
3.10 (5.2.12)	Looping-in terminals		N/A
3.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
3.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
3.10 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
3.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Appliance inlet or connector systems (IEC 61984)		N/A
3.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
3.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
<b>3.10 (5.3)</b>	<b>Internal wiring</b>		<b>P</b>
3.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- factory assembled		N/A
	- socket outlet loaded (A) .....		N/A
	- temperatures .....	(see Annex 2)	N/A
	Green-yellow for protective earth only		P
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm <sup>2</sup> ).....	0,5 mm <sup>2</sup>	P
	Insulation thickness	0.6 mm	P
	Extra insulation added where necessary		P
3.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Cross-sectional area (mm <sup>2</sup> ).....		N/A
3.10 (5.3.1.3)	Double or reinforced insulation for class II		N/A
3.10 (5.3.1.4)	Conductors without insulation		N/A
3.10 (5.3.1.5)	SELV/PELV current-carrying parts		N/A
3.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
3.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
3.10 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
3.10 (5.3.4)	Joints and junctions effectively insulated		N/A
3.10 (5.3.5)	Strain on internal wiring		N/A
3.10 (5.3.6)	Wire carriers		N/A
3.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
<b>3.10 (5.4)</b>	<b>Test to determine suitability of conductors having a reduced cross-sectional area</b>		<b>N/A</b>

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Clause	Requirement + Test	Result - Remark	Verdict
	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2	(see Annex 2)	N/A
	No damage to luminaire wiring after test		N/A
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N) .....	60 N	P
	- torque test: torque (Nm) .....	0,25 Nm	P

<b>3.11 (8)</b>	<b>PROTECTION AGAINST ELECTRIC SHOCK</b>		P
3.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		N/A
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
3.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
3.11 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
3.11 (8.2.3.b)	BC lamp holder of metal in class I luminaires shall be connected to protective earth		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V) ..... :		N/A
	- touch current if applicable (mA) ..... :		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V) ..... :		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
3.11 (8.2.3.d)	PELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	One pole insulated if required		N/A
3.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
3.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
3.11 (8.2.6)	Covers reliably secured		P
3.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 $\mu$ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 $\mu$ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 $\mu$ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>3.12 (12)</b>	<b>ENDURANCE TEST AND THERMAL TEST</b>		<b>P</b>
3.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) before (9.3) as specified in 3.13		—
<b>3.12 (12.2)</b>	<b>Selection of lamps and ballasts</b>		<b>—</b>
	Lamp used according Annex B	(Lamp used see Annex 2)	—
	Control gear if separate and not supplied	(Control gear used see Annex 2)	—
<b>3.12 (12.3)</b>	<b>Endurance test:</b>		<b>P</b>
	a) mounting-position .....	as normal use	—
	b) test temperature (°C) .....	40 + 10°C	—
	c) total duration (h) .....	240	—
	d) supply voltage (V) .....	264	—
	d) if not equipped with control gear, constant voltage/current (V) or (A) .....	N/A	—
3.12 (12.3.1d)	d) Class III luminaires powered via information technology communication cable:		N/A
	- voltage under normal operation (V).....	N/A	—
	- voltage under abnormal operation (V).....	N/A	—
	e) luminaire ceases to operate	N/A	—
	f) luminaire with constant light output function		N/A
3.12 (12.3.2)	After endurance test:		<b>P</b>
	- no part unserviceable		<b>P</b>
	- luminaire not unsafe		<b>P</b>
	- no damage to track system		N/A
	- marking legible		<b>P</b>
	- no cracks, deformation etc.		<b>P</b>
<b>3.12 (12.4)</b>	<b>Thermal test (normal operation)</b>	(see Annex 2)	<b>P</b>
<b>3.12 (12.5)</b>	<b>Thermal test (abnormal operation)</b>	(see Annex 2)	N/A
<b>3.12 (12.6)</b>	<b>Thermal test (failed lamp control gear condition):</b>		N/A
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) .....	N/A	—
	- case of abnormal conditions .....	N/A	—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un .....	N/A	—
	- measured mounting surface temperature (°C) at 1,1 Un .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- calculated mounting surface temperature (°C) .....		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions .....	N/A	—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C) .....		N/A
	- track-mounted luminaires		N/A
<b>3.12 (12.7)</b>	<b>Thermal test (failed lamp control gear in plastic luminaires):</b>		N/A
3.12 (12.7.1)	Luminaire without temperature sensing control		N/A
3.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W .....	N/A	—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions .....	N/A	—
	- Ballast failure at supply voltage (V) .....	N/A	—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		N/A
	- case of abnormal conditions .....	N/A	—
	- measured winding temperature (°C): at 1,1 Un .....	N/A	—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un .....	N/A	—
	- calculated temperature of fixing point/exposed part (°C) .....	N/A	—
	Ball-pressure test .....	See Table 3.15 (13.2.1)	N/A
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions .....	N/A	—
	- measured winding temperature (°C): at 1,1 Un .....	N/A	—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un .....	N/A	—
	- calculated temperature of fixing point/exposed part (°C) .....	N/A	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test .....	See Table 3.15 (13.2.1)	N/A
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions .....	N/A	—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
3.12 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link .....	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out .....	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out .....	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions .....	N/A	—
	- highest measured temperature of fixing point/ exposed part (°C): .....	N/A	—
	Ball-pressure test: .....	See Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		N/A

<b>3.13 (9)</b>	<b>RESISTANCE TO DUST AND MOISTURE</b>		<b>P</b>
3.13.1 (-)	If IP > IP 20 the order of tests as specified in clause 3.12		<b>P</b>
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		<b>P</b>
	- classification according to IP .....	IP66	—
	- mounting position during test .....	down-lighting	—
	- fixing screws tightened; torque (Nm) .....	See mounting instruction	—
	- tests according to clauses .....	9.2.2, 9.2.7	—
	- electric strength test afterwards		<b>P</b>
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire	IP6X	<b>P</b>
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard	IPX6	<b>P</b>
	c.1) For luminaires without drain holes – no water entry	IPX6	<b>P</b>
	c.2) For luminaires with drain holes – no hazardous water entry		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		P
3.13 (9.3)	Humidity test 48 h		P

3.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
3.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø .....	12	—
	Insulation resistance (MΩ) .....	> 10 MΩ	—
	SELV/PELV:		N/A
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface..... :		N/A
	- between current-carrying parts and metal parts of the luminaire..... :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 .....		N/A
	Other than SELV/PELV:		P
	- between live parts of different polarity .....	> 10 MΩ	P
	- between live parts and mounting surface .....	> 10 MΩ	P
	- between live parts and metal parts .....	> 10 MΩ	P
	- between live parts of different polarity through action of a switch..... :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 .....	> 10 MΩ	P
3.14 (10.2.2)	Electric strength test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V) .....	See below	P
	SELV/PELV:		N/A
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface .....		N/A
	- between current-carrying parts and metal parts of the luminaire .....		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts .....		N/A
	- Insulation bushings as described in Section 5 .....		N/A
	Other than SELV/PELV:		P
	- between live parts of different polarity .....	1480 V	P
	- between live parts and mounting surface .....	1480 V	P
	- between live parts and metal parts .....	1480 V	P
	- between live parts of different polarity through action of a switch .....		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts .....		N/A
	- Insulation bushings as described in Section 5 .....	1480 V	P
3.14 (10.3)	Touch current (mA).....		N/A
	Protective conductor current (mA).....	0,21 mA	P

<b>3.15 (13)</b>	<b>RESISTANCE TO HEAT, FIRE AND TRACKING</b>		<b>P</b>
3.15 (13.2.1)	Ball-pressure test .....	See Test Table 3.15 (13.2.1)	N/A
3.15 (13.3.1)	Needle-flame test (10 s) .....	See Test Table 3.15 (13.3.1)	P
3.15 (13.3.2)	Glow-wire test (650°C) .....	See Test Table 3.15 (13.3.2)	N/A
3.15 (13.4)	Proof tracking test (IEC 60112) .....	See Test Table 3.15 (13.4)	N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

<b>3.7 (11.2)</b>	<b>TABLE I: Creepage distances and clearances</b>						P
	<b>Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages</b>						P
	<b>Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*</b>						P
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	7,5	1,5 mm	11.1.B	13,5	220V - 2,2 mm 240V - 2,4 mm	11.1.A
Working voltage (V) .....					220-240		—
PTI .....					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or $U_p$ if applicable (kV) .....							—
Supplementary information:							
Distance 2:							
Working voltage (V) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or $U_p$ if applicable (kV) .....							—
Supplementary information:							
Distance 3:							
Working voltage (V) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or $U_p$ if applicable (kV) .....							—
Supplementary information:							

\*\* Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

3.7 (11.2)	TABLE II: Creepage distances and clearances						N/A
Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages							
Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2							
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:							
Working voltage (V) .....							—
Frequency if applicable (kHz) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) .....							—
Supplementary information:							
Distance 2:							
Working voltage (V) .....							—
Frequency if applicable (kHz) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) .....							—
Supplementary information:							
Distance 3:							
Working voltage (V) .....							—
Frequency if applicable (kHz) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) .....							—
Supplementary information:							

\*\* Insulation type: B – Basic; S – Supplementary; R – Reinforced.

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

3.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm) .....	2			—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Supplementary information:				

3.15 (13.3.1)	TABLE: Needle-flame test				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Connector	BJB (46.413)	10	No	-	P
Supplementary information:					

3.15 (13.3.2)	TABLE: Resistance to heat and fire - Glow wire tests					N/A	
Object/ Part No./ Material	Manufacturer/ trademark	Glow wire test (°C)				Verdict	
		650		750			850
		te	ti	te	ti		
Ignition of the specified layer placed underneath the test specimen (Yes/No)..... :							
Supplementary information:							

3.15 (13.4)	TABLE: Proof tracking test			N/A
Test voltage PTI .....	175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens		Verdict
Supplementary information:				

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information	P
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Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
LED Module	A	LUG	ML21XXYY.WQQQ.UUV (LUXEON 5050 modules) (choice sheet below)	Tc -40°C to +85°C	EN 62031	ENEC

**ML21XXYY.WQQQ.UUV**

1 2 3 4 5 6 7 8

Designations used on the marking of LED boards:

1. **ML** - PCB designation (ML – LED module):
2. **21** - Year of the project:
3. **XXX** - Number of the project:  
Luxeon modules: 660, 661, 663, 670, 671, 672, 673, 680, 681, 682, 683, 690, 691, 692, 693
4. **YY** - Project variant (PCB design, milling, dimensions, soldermask color, laminate thickness, LED configuration): 00...99
5. **W** - Light color:  
W: White
6. **QQQ** - CRI and CCT:  
722: CRI 70 and 2200K  
727: CRI 70 and 2700K  
730: CRI 70 and 3000K  
735: CRI 70 and 3500K  
740: CRI 70 and 4000K  
750: CRI 70 and 5000K  
757: CRI 70 and 5700K  
765: CRI 70 and 6500K  
822: CRI 80 and 2200K  
827: CRI 80 and 2700K  
830: CRI 80 and 3000K  
835: CRI 80 and 3500K  
840: CRI 80 and 4000K  
850: CRI 80 and 5000K  
857: CRI 80 and 5700K  
865: CRI 80 and 6500K
7. **UU** - Assembly variant (selected components not mounted): 01...99
8. **V** - NTC Thermistor type:  
A - none  
B - 10K  
C - 47K

LED Module	B	LUG	ML21XXYY.WQQQ.UUV (CREE XPG3 modules) (choice sheet below)	Tc -40°C to +85°C	EN 62031	Tested and accepted by IMiF PREDOM Division TR No. B10-3/089/B/22
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**ML21XXYY.WQQQ.UUV**

1 2 3 4 5 6 7 8

Designations used on the marking of LED boards:

1. **ML** - PCB designation (ML – LED module):
2. **21** - Year of the project:
3. **XXX** - Number of the project:  
Cree modules: 600, 601, 610, 611
4. **YY** - Project variant (PCB design, milling, dimensions, soldermask color, laminate thickness, LED configuration): 00...99
5. **W** - Light color:  
W: White
6. **QQQ** - CRI and CCT:  
722: CRI 70 and 2200K  
727: CRI 70 and 2700K  
730: CRI 70 and 3000K  
735: CRI 70 and 3500K  
740: CRI 70 and 4000K  
750: CRI 70 and 5000K  
757: CRI 70 and 5700K  
765: CRI 70 and 6500K  
822: CRI 80 and 2200K  
827: CRI 80 and 2700K  
830: CRI 80 and 3000K  
835: CRI 80 and 3500K  
840: CRI 80 and 4000K  
850: CRI 80 and 5000K  
857: CRI 80 and 5700K  
865: CRI 80 and 6500K
7. **UU** - Assembly variant (selected components not mounted): 01...99
8. **V** - NTC Thermistor type:  
A - none  
B - 10K  
C - 47K

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	OSRAM	OT 165/170-240/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 60/170-240/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT180W/UNV/800C/2DIMLT 2/P6	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT100W/UNV/800C/2DIMLT 2/P6	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 110/170...240/1A0 1DIMLT2 G1 CE	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 20/170-240/1A0 1DIM LT2 G1 CE	220..240V, 50-60Hz, ta= -40...+60°C, tc max=75°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 75/170...240/1A0 1DIMLT2 G1 CE	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Philips Xi LP 150W 0.3-1.0A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 165W 0.3-1.0A S1 230V C170 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	Tridonic LCA 120W 300-1050mA	220..240V, 50-60Hz, ta= -30...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	Tridonic LCA 75W 250-750mA one	220..240V, 50-60Hz, ta= -40...+70°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	Tridonic LCA 120W 350-1050mA o	220..240V, 50-60Hz, ta= -40...+70°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	Tridonic LCA 160W 350-1050mA o	220..240V, 50-60Hz, ta= -40...+70°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT DX 40/220...240/1A0 DIMA LT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT DX 75/220...240/1A0 DIMA LT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT DX 110/220...240/1A0 DIMA LT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 20/170...240/1A0 4DIMLT2 G2 CE	220..240V, 50-60Hz, ta= -40...+60°C, tc max=75°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 40/170...240/1A0 4DIMLT2 G2 CE	220..240V, 50-60Hz, ta= -40...+60°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 75/170...240/1A0 4DIMLT2 G2 CE	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	OSRAM	OT 110/170...240/1A0 4DIMLT2 G2 CE	220..240V, 50-60Hz, ta= -40...+60°C, tc max=75°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 20/170...240/1A0 1DIMLT2 G1 CE	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 40/170...240/1A0 1DIMLT2 G1 CE	220..240V, 50-60Hz, ta= -40...+60°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 40/120...277/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...+60°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 60/170...240/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...+60°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 90/170...240/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 165/170...240/1A0 4DIMLT2 E	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 50/120...277/800 2DIMLT2 P	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 50/120...277/1A2 2DIMLT2 P	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 100/120...277/800 2DIMLT2 P	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 110/120...277/1A4 2DIMLT2 P	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 60/220...240/1A4 1DIMA P7	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 100/220...240/1A4 1DIMA P7	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 150/220...240/1A4 1DIMA P7	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 40W 0.7A Prog+ GL-J sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 75W 0.35-0.70A GL Prog+ sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 75W 0.1-1.05A Prog GL F sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 100W 0.7A Prog+ GL-Z sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 150W 0.1-1.05A Prog+ GL F sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 300W 1.5A Prog+ GL-R sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi BP 12W 0.1-0.5A S 230V C100	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi BP 22W 0.2-0.7A S 230V C123	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi BP 40W 0.2-0.7A S 230V C123	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi BP 40W 0.3-1.0A S 230V C123	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 22W 0.2-0.7A S1 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Philips	Xi LP 22W 0.3-1.0A S1 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.2-0.7A S1 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.3-1.0A S1 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.2-0.7A S1 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.3-1.0A S1 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.5-1.5A S1 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 110W 0.2-0.7A S1 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 110W 0.3-1.0A S1 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 165W 0.2-0.7A S1 230V C170 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 165W 0.5-1.5A S1 230V C170 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 22W 0.2-0.7A S1 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 22W 0.3-1.0A S1 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.2-0.7A S1 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.2-0.7A SL 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.3-1.0A S1 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.3-1.0A SL 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 40W 0.2-0.7A SN 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.2-0.7A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.2-0.7A SL 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.3-1.0A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.3-1.0A SL 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.2-0.7A SN 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 75W 0.5-1.5A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 150W 0.2-0.7A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 150W 0.2-0.7A SL 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Philips	Xi LP 150W 0.3-1.0A SL 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 150W 0.5-1.5A S1 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 150W 0.2-0.7A SN 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 22W 0.2-0.7A SNLDAE 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 22W 0.3-1.0A SNLDAE 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 40W 0.2-0.7A SNLDAE 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 40W 0.3-1.0A SNLDAE 230V C123 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 70W 0.3-1.0A NLD C150 230V sXt	220..240V, 50-60Hz, ta= -30...+60°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 75W 0.2-0.7A SNLDAE 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 75W 0.5-1.5A SNLDAE 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 100W 0.2-0.7A SNLDAE 230V C165 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 110W 0.2-0.7A SNLDAE 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 110W 0.3-1.0A NLD C150 230V sXt	220..240V, 50-60Hz, ta= -30...+60°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 110W 0.3-1.0A SNLDAE 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 165W 0.3-1.0A SNLDAE 230V C170 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 165W 0.2-0.7A SNLDAE 230V C170 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 330W 0.2-0.75A SNDAE 230V C240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 22W 0.2-0.7A SNLDAE 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 22W 0.3-1.0A SNLDAE 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 40W 0.2-7.0A SNLDAE 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 40W 0.3-1.0A SNLDAE 230V S175 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 75W 0.2-0.7A SNLDAE 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 75W 0.3-1.0A SNLDAE 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi FP 150W 0.2-0.7A SNLDAE 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Philips	Xi FP 150W 0.3-1.0A SNLDAE 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 12W 0.2-0.7A SNEMP 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 22W 0.2-0.7A SNEMP 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 40W 0.2-0.7A SNEMP 230V C133 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 75W 0.2-0.7A SNEMP 230V C150 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 75W 0.2-0.7A SNEMP 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 110W 0.2-0.7A SNEMP 230V C150 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi SR 150W 0.2-0.7A SNEMP 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 100W 2.1-4.2A AOC 230V I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 150W 2.5-4.9A AOC 230V I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 200W 2.8-5.6A AOC 230V I250	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 100W 0.3-1.05A S1 230V I175	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 150W 0.3-1.05A S1 230V I175	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 220W 0.3-1.05A S1 230V I230	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xi LP 220W 0.5-1.5A S1 230V I230	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium Dim 35W 0.7A 1-10V TWE I175	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium Dim 100W 0.7A 1-10V TWE I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium Dim 150W 0.7A 1-10V TWE I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 75W 0.7A TWE I175	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 150W 0.7A TWE I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 75W 1.05A 1-10V 230V C165 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 75W 0.70A 1-10V 230V C165 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 150W 0.70A 1-10V 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium Dim 75W 0.70A 1-10V 230V I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium Dim 150W 0.70A 1-10V 230V I220	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	

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ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Philips	Xitanium 75W 1-10V 230V C165	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Philips	Xitanium 150W 1.05A 1-10V 230V S240 sXt	220..240V, 50-60Hz, ta= -40...+55°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 14/100-500/38 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 24/200-1050/39 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 40/200-1050/64 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 60/200-1050/100 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 90/200-1050/165 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=100°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 135/200-1050/220 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=100°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 200/200-1050/355 NF C ADV3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 14/100-500/38 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 24/200-1050/39 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 40/200-1050/64 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 60/200-1050/100 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=95°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 90/200-1050/165 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=100°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 135/200-1050/220 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=100°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 200/200-1050/355 o4a NF C EXC3	220..240V, 50-60Hz, ta= -40...+70°C, tc max=100°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 100/1050/95 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 100/1400/71 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 100/500/200 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 100/700/143 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 150/1050/142 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 150/1400/107 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 150/500/300 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 150/700/214 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 200/1050/190 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	

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ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Tridonic	LCO 200/1400/142 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 200/700/285 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 75/1050/72 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 75/1400/53 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 75/500/150 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 75/700/108 fixC L SNC2	220..240V, 50-60Hz, ta= -40...+65°C, tc max=80°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 135W 200-1050mA 220V pD+ NFC C PRE3	220..240V, 50-60Hz, ta= -40...+700C, tc max=950C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Tridonic	LCO 90W 200-1050mA 165V pD+ NFC C PRE3	220..240V, 50-60Hz, ta= -40...+700C, tc max=850C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 100/UNV/1A0 2DIM P7	120..277V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 150/UNV/1A0 2DIM P7	120..277V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 100/ 220-240/1A4 2DIM P7	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	OT 150/ 220-240/1A4 2DIM P7	220..240V, 50-60Hz, ta= -40...+55°C, tc max=85°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EBS-040S105BT2	176..305V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EBS-080S070BT2	176..305V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EBS-080S105BT2	176..305V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EBS-040S070BT2	176..305V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EUM-075S	90..305V, 50-60Hz, ta= -40...+80°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EUM - 100S	100..277V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EUM - 150S	100..277V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Inventronics	EUM - 200S	100..277V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Control gear	A	Inventronics	EUM – 240S	100..277V, 50-60Hz, ta= -40...+75°C, tc max=90°C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	IT DALI 20/220...240/1A0 E	220...240 V/50/60Hz, Ta =-40...+60 °C, Tc max =75 °C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	OSRAM	IT DALI 40/220...240/1A0 E	220...240 V/50/60Hz, Ta =-40...+60 °C, Tc max =85 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	OSRAM	IT DALI 75/220...240/1A0 E	220...240 V/50/60Hz, Ta =-40...+60 °C, Tc max =100 °C	EN 61347-2-13	ENEC	
Control gear	A	OSRAM	IT DALI 110/220...240/1A0 E	220...240 V/50/60Hz, Ta =-40...+60 °C, Tc max =90 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	OSRAM	IT DALI 150/220...240/1A0 E	220...240, 50/60Hz, Ta =-40...+55 °C, Tc max =85 °C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	LACROIX	DL-PAK 70	220...240 50/60Hz, Ta =-25...+60 °C, Tc max =90 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	DELTA	EUCI-040105GLA	220...240 V/50/60Hz, Ta =-40...+60 °C, Tc max =85 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	DELTA	EUCI-075105GLA	220...240 V/50/60Hz, Ta =-40...+55 °C, Tc max =85 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	DELTA	EUCI-130105GLA	220...240 V/50/60Hz, Ta =-40...+55 °C, Tc max =85 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	DELTA	EUCI-170105GLA	220...240 V/50/60Hz, Ta =-40...+55 °C, Tc max =90 °C	EN 61347-2-13, EN 61347-1	ENEC	
Control gear	A	Osram	OT 75 /220...240/1A0 1DIM G2 CE	220...240V, 50/60Hz, Ta =-40...+55 °C, Tc max =85 °C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Delta	EUCI-022105GLB	220...240V, 50/60Hz, Ta =-40...+55 °C, Tc max =85 °C	EN 61347-1 EN 61347-2-13	ENEC	
Control gear	A	Delta	EUCI-040105GLB	198...264V, 50/60Hz, Ta =-40...+55 °C, Tc max =90 °C	EN 61347-1 EN 61347-2-13	ENEC	
Wires LED	B	Mrowiec	H05V-U	500 V; 0,5 mm2	EN 50525	BBJ	
Internal wires	B	Mrowiec	H05V-K	500 V; 0,5 mm2	EN 50525	BBJ	
Terminal block	B	Stucchi	651/652	16A; 400 V	EN-61984	IMQ	
Terminal block	B	Stucchi	661/662	6A; 400 V	EN-61984	IMQ	
Connector	B	BJB	48.281	16A; 400 V	EN 60998-2-2	VDE	
Connector	B	BJB	46.412	16A; 450 V	EN 60998-2-2	VDE	
Connector	B	BJB	46.413	16A; 450 V	EN 60998-2-2	VDE	
Connector	B	BJB	46.414	16A; 450 V	EN 60998-2-2	VDE	
Connector	B	BJB	46.415	16A; 450 V	EN 60998-2-2	VDE	
Connector	B	BJB	46.455	16A; 450 V	EN 60998-2-2	VDE	

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Connector	B	WAGO	224-101	24A; 400 V	EN 60998-2-2	VDE	
Connector	B	WAGO	224-112	24A; 400 V	EN 60998-2-2	VDE	
Terminal block	B	Wieland	GST18I4S	20A; 400 V	EN 61535	VDE	
Terminal block	B	Wieland	GST 15I2	16A; 250 V	EN 61535	VDE	
Connector	B	EMC Colosio	M26B	17A; 300 V	EN 60598-1	IMQ	
Knife switch (connector)	B	Longran	M29 M29 mini	16A; 450 V 16A; 250 V	EN 61984 EN 60998-2-1 EN 60998-1	TUV	
Connector	B	LONGJOING	JL-700	1.5A, 30V	EN 61984	DEKRA	
Connector system	B	Tyco Electronics Corp.	2213795, 2213831, 2213837, 2213858, 2328823, 2329013	30V AC/DC 50/60Hz, 1.5A	EN 61984	UL	
Connector system	B	Tyco Electronics Corp.	1-2213871-1, 1-2213871-2, 2213871-1, 2213871-2, X-2213362-X, X-2213627-X	t= -40...+80°C, tc max=80°C 150/240/300VAC, 50/60Hz, 15/7.5/6 A, Signal Contacts: 30VDC, 1.5A	EN 61984	UL	
Connector system	B	LUG	iBlock	230V, 50Hz, Ta = -40°C do 70°C	EN61347-2-11	Tested and accepted by ITE PREDOM Division TR No. Z7-2/016/B/20	
Connector system	B	LONGJOING Nema	JL-240XA	t= -40...+700C, 480VAC, 50/60Hz, Signal Contacts: 30VDC, 0,25A	EN 61984	DEKRA	
Luminaire protection	B	Vossloh schwabe	SP / 230 / 10K	220-240V, 50/60Hz, Ta = -30°C do 80°C	EN 61643-11	VDE	
Luminaire protection	B	Inventronics	PU-20KX10KTXX	320Vac, 8A, 47-63Hz, Ta = -40°C do 85°C	EN 61643-11, EN 61643-21	CE, VDE	
Luminaire protection	B	Inventronics	PU-20Kx10KBx	320Vac, 15A, 47-63Hz, Ta = -40°C do 85°C	EN 61643-11, EN 61643-21	CE, VDE	
Luminaire protection	B	Inventronics	PU-10Kx05KBx	320Vac, 8A, 47-63Hz, Ta = -40°C do 85°C	EN 61643-11, EN 61643-21	CE, VDE	
Luminaire protection	B	Linoya Electronic Technology	LYSPD10D	300Vac, 50Hz, IP67	EN 61643-11	TUV	

Supplementary information:

<sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039.

The codes above have the following meaning:

- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by the test house
- C - Integrated component tested together with the appliance
- D - Alternative component

IEC 60598-2-3							
Clause	Requirement + Test	Result - Remark				Verdict	
<b>ANNEX 2</b>	<b>TABLE: Thermal tests of Section 12</b>						<b>P</b>
	Type reference .....	130772.3LR7B30S895.101.B				—	
	Lamp used.....	ML2160032.W730.01A				—	
	Lamp control gear used .....	Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt				—	
	Mounting position of luminaire .....	as normal use				—	
	Supply wattage (W) .....	73,9				—	
	Supply current (A) .....	0,326				—	
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	40 °C				—	
	- abnormal operating mode .....	N/A				—	
3.12 (12.4)	- test 1: rated voltage .....	N/A				—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254,4 V; 50 Hz				—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	N/A				—	
	Through wiring or looping-in wiring loaded by a current of A during the test .....	N/A				—	
3.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage .....	N/A				—	
<b>Temperature measurements (°C)</b>							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED Module ML2160032.W730.01A	40	N/A	79,5	N/A	85	N/A	N/A
Control gear Xi FP 75W 0.3-1.0A SNLDAE 230V C133 sXt	40	N/A	77,1	N/A	80	N/A	N/A
Connector 46.413	40	N/A	66,7	N/A	85	N/A	N/A
Internal wires H05V-K	40	N/A	68,2	N/A	90	N/A	N/A
Supplementary information: The luminaire has been tested on 50 and 60 Hz. The table chose the worst case.							



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ANNEX 3</b>	<b>Screw terminals (part of the luminaire)</b>		N/A
<b>(14)</b>	<b>SCREW TERMINALS</b>		
(14.2)	Type of terminal..... :	N/A	—
	Rated current (A)..... :	N/A	—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm <sup>2</sup> )..... :	N/A	—
(14.3.3)	Conductor space (mm)..... :		N/A
(14.4)	Mechanical tests		
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread) ..... :	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm) ..... :		N/A
	Torque (Nm)..... :		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N)..... :		N/A
(14.4.8)	Without undue damage		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ANNEX 4</b>	<b>Screwless terminals (part of the luminaire)</b>		N/A
<b>(15)</b>	<b>SCREWLESS TERMINALS</b>		N/A
(15.2)	Type of terminal..... :	N/A	—
	Rated current (A)..... :	N/A	—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples) .....		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples) .....		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples)..... :		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples) .....		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples) .....		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A

**IEC 60598-2-3**

Clause	Requirement + Test	Result - Remark	Verdict
15.6.2	Mechanical tests		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) .....		N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N) .....		N/A
(15.6.3)	Electrical tests		N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1		N/A

<b>(15.6.3.1)</b>	<b>TABLE: Contact resistance test / Heating tests</b>										N/A
<b>(15.6.3.2)</b>											
	Voltage drop (mV) after 1 h										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										
	Voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV) .....										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV) .....										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV) .....										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV) .....										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Supplementary information:											

**List of test equipment used:**

A completed list of used test equipment shall be provided in the Test Reports when a Customer's Testing Facility according to CTF stage 1 or CTF stage 2 procedure has been used.

Note: This page may be removed when CTF stage 1 or CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date

Photos

130772.3LR7B30S895.101.B



TRF No. IEC60598\_2\_3M

