



TEST REPORT
IEC 60598-2-1
Luminaires
Part 2: Particular requirements
Section 1: Fixed general purpose luminaires

Report Number.....: AOC250425025S

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Name of Testing Laboratory preparing the Report.....: Shenzhen AOCE Electronic Technology Service Co., Ltd
 Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

Applicant's name.....: PLATA INC

Address.....: 〒542-0081 2-7-26-5F MINAMISENBA CHUO-KU Osala JAPAN

Test specification:

Standard.....: IEC 60598-2-1:2020
 IEC 60598-1:2020
 Japan National Differences

Test procedure.....: Type testing

Non-standard test method.....: N/A

Test Report Form No.....: IEC60598_2_1G

Test Report Form(s) Originator.....: Intertek Semko AB

Master TRF.....: Dated 2020-06-02

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Test item description :	LED Track Light	
Trade Mark(s) :	PLATA	
Manufacturer :	DongGuan HongRun Electrical Co.,LTD 15, xingsheng road, Huangniupu village, Huangjiang Town,DongGuan City. GuangDong. CHINA	
Model/Type reference :	led188cw, led188cw-bk, led188ww, led188ww-bk	
Ratings :	85-265 V~, 50/60 Hz, 12.4 W, Class I, IP 20, ta:25°C	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	Testing Laboratory:	Shenzhen AOCE Electronic Technology Service Co., Ltd
	Testing location/ address :	Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
	Tested by (name, function, signature) :	ZhiCong Xian Technical Engineer <i>ZhiCong Xian</i>
	Approved by (name, function, signature) ... :	Robin Liu Technical Manager <i>Robin Liu</i>
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
	Testing location/ address :	
	Tested by (name, function, signature) :	
	Approved by (name, function, signature) ... :	
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
	Testing location/ address :	
	Tested by (name + signature) :	
	Witnessed by (name, function, signature) .. :	
	Approved by (name, function, signature) ... :	
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
	Testing location/ address :	
	Tested by (name, function, signature) :	
	Witnessed by (name, function, signature) .. :	
	Approved by (name, function, signature) ... :	
	Supervised by (name, function, signature) :	

List of Attachments (including a total number of pages in each attachment): Attachment No.1: Japan National Differences Attachment No.2: Photo document.	
Summary of testing:	
Tests performed (name of test and test clause): - J60598-1(H29) - J60598-2-1(H29)	Testing location: Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Summary of compliance with National Differences (List of countries addressed): <input checked="" type="checkbox"/> The product fulfils the requirements of <u>J60598-1(H29) & J60598-2-1(H29)</u>	
Statement concerning the uncertainty of the measurement systems used for the tests N/A	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

**Remark:**

1. The mark as above is the minimum requirements required by the safety standard. For the final production, the additional marks which do not give rise to misunderstanding may be added.
2. The marking of not suitable for covering with thermally insulated material, the minimum size of the symbol shall be 25 mm for each side. Other graphical symbols shall not be less than 5 mm.
3. The height of letters shall not be less than 2 mm.

Test item particulars :	
Classification of installation and use :	Fixed luminaire
Supply Connection :	adapters for engagement with supply tracks
..... :	
Possible test case verdicts:	
- 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)
Testing :	
Date of receipt of test item :	2025-04-11
Date (s) of performance of tests :	2025-04-11 to 2025-5-27
General remarks:	
<p>The tested sample(s) and the sample information are provided by the client. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Note: EN Group Differences together with National Differences and Special National Conditions, if any, are in the Appendix to the main body of this TRF. Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid. When determining for test conclusion, measurement uncertainty of tests has been considered.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60598-2:	
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
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) :	DongGuan HongRun Electrical Co.,LTD 15, xingsheng road, Huangniupu village, Huangjiang Town,DongGuan City. GuangDong. CHINA

General product information:

Class I luminaires, all models have the same electrical structure and mechanical structure, only appearance color and CCT are different, all testing were carried on model led188cw.

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.2 (0)	GENERAL TEST REQUIREMENTS		P
1.2 (0.3)	More sections applicable.....:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—
1.2 (0.5)	Components	(see Annex 1)	—
1.2 (0.7)	Information for luminaire design in light sources standards		—
1.2 (0.7.2)	Light source safety standard		—
	Luminaire design in the light source safety standard		P

1.4 (2)	CLASSIFICATION OF LUMINAIRES		P
1.4 (2.2)	Type of protection	Class I	P
1.4 (2.3)	Degree of protection.....:	IP 20	—
1.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces.....:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
1.4 (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"/>	—

1.5 (3)	MARKING		P
1.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
1.5 (3.3)	Additional information		P
	Language of instructions		P
1.5 (3.3.1)	Combination luminaires		N/A
1.5 (3.3.2)	Nominal frequency in Hz		P
1.5 (3.3.3)	Operating temperature		N/A
1.5 (3.3.5)	Wiring diagram		N/A
1.5 (3.3.6)	Special conditions		N/A
1.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
1.5 (3.3.8)	Limitation for semi-luminaires		N/A
1.5 (3.3.9)	Power factor and supply current		P
1.5 (3.3.10)	Suitability for use indoors		P
1.5 (3.3.11)	Luminaires with remote control		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
1.5 (3.3.13)	Specifications of protective shields		N/A
1.5 (3.3.14)	Symbol for nature of supply		P
1.5 (3.3.15)	Rated current of socket outlet		N/A
1.5 (3.3.16)	Rough service luminaire		N/A
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
1.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
1.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
1.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		N/A
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
1.5 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component		N/A
1.5 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
1.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

1.6 (4)	CONSTRUCTION		P
1.6 (4.2)	Components replaceable without difficulty		P
1.6 (4.3)	Wireways smooth and free from sharp edges		P
1.6 (4.4)	Lampholders		N/A
1.6 (4.4.1)	Integral lampholder		N/A
1.6 (4.4.2)	Wiring connection		N/A
1.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
1.6 (4.4.4)	Positioning		N/A
	- pressure test (N)		—

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	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)		—
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
1.6 (4.4.5)	Peak pulse voltage		N/A
1.6 (4.4.6)	Centre contact		N/A
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
1.6 (4.4.8)	Lamp connectors		N/A
1.6 (4.4.9)	Caps and bases correctly used		N/A
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
1.6 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
1.6 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
1.6 (4.7)	Terminals and supply connections		N/A
1.6 (4.7.1)	Contact to metal parts		N/A
1.6 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
1.6 (4.7.3)	Terminals for supply conductors		N/A
1.6 (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

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Clause	Requirement + Test	Result - Remark	Verdict
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
1.6 (4.7.4)	Terminals other than supply connection		N/A
1.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
1.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
1.6 (4.8)	Switches		N/A
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
1.6 (4.9)	Insulating lining and sleeves		N/A
1.6 (4.9.1)	Retainment		N/A
	Method of fixing.....:		N/A
1.6 (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
1.6 (4.10)	Double or reinforced insulation		N/A
1.6 (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
	Interference suppression capacitors according to IEC 60384-14		N/A
1.6 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
1.6 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- lining in lampholder		N/A
1.6 (4.10.4)	Protective impedance device		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Y1 or Y2 capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
1.6 (4.11)	Electrical connections and current-carrying parts		P
1.6 (4.11.1)	Contact pressure		P
1.6 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
1.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
1.6 (4.11.4)	Material of current-carrying parts		P
1.6 (4.11.5)	No contact to wood or mounting surface		P
1.6 (4.11.6)	Electro-mechanical contact systems		N/A
1.6 (4.12)	Screws and connections (mechanical) and glands		P
1.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....: Fixed the enclosure: Ø2.89 mm, 0.5 Nm		P
	Torque test: torque (Nm); part.....:		N/A
	Torque test: torque (Nm); part.....:		N/A
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
1.6 (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
1.6 (4.12.5)	Screwed glands; force (Nm).....:		N/A
1.6 (4.13)	Mechanical strength		P

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Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)..... :		N/A
	- other parts; energy (Nm)..... :	0.35	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
1.6 (4.13.2)	Metal parts have adequate mechanical strength		P
1.6 (4.13.3)	Straight test finger		P
1.6 (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
1.6 (4.13.6)	Tumbling barrel		N/A
1.6 (4.14)	Suspensions, fixings and means of adjusting		P
1.6 (4.14.1)	Mechanical load:		P
	A) four times the weight		P
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires		P
	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
1.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		—
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.14.3)	Adjusting devices:		P
	- flexing test; number of cycles..... :	45	P
	- strands broken..... :	No broken	P
	- electric strength test afterwards		P
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
1.6 (4.14.5)	Guide pulleys		N/A
1.6 (4.14.6)	Strain on socket-outlets		N/A
1.6 (4.15)	Flammable materials		N/A
	- glow-wire test 650°C..... :	See Test Table 1.15 (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
1.6 (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
1.6 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear..... :	(compliance with Section 12)	P
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
1.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
1.6 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
1.6 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
1.6 (4.18)	Resistance to corrosion		N/A
1.6 (4.18.1)	- rust-resistance		N/A
1.6 (4.18.2)	- season cracking in copper		N/A
1.6 (4.18.3)	- corrosion of aluminium		N/A
1.6 (4.19)	Igniters compatible with ballast		N/A
1.6 (4.20)	Rough service vibration		N/A
1.6 (4.21)	Protective shield		N/A
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
1.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
1.6 (4.21.3)	No direct path		N/A
1.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....:	See Test Table 1.15 (13.3.2)	N/A
1.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
1.6 (4.23)	Semi-luminaires comply Class II		N/A
1.6 (4.24)	Photobiological hazards		P
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
1.6 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778	RG0	—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	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
1.6 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
1.6 (4.26)	Short-circuit protection		N/A
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
1.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
1.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		N/A
	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
1.6 (4.28)	Fixing of thermal sensing control		N/A
	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):		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
1.6 (4.29)	Luminaires with non-replaceable light source		P
	Not possible to replace light source		P
	Live part not accessible after parts have been opened by hand or tools		P
1.6 (4.30)	Luminaires with non-user replaceable light source		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		N/A
	Minimum two fixing means		N/A
1.6 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		P
	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
1.6 (4.31.1)	SELV circuits		P
	Used SELV source		P
	Voltage \leq ELV		P
	Insulating of SELV circuits from LV supply		P
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to enter 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
1.6 (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 enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Socket-outlets does not have protective conductor contact		N/A
1.6 (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
	- 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
1.6 (4.32)	Overvoltage protective devices		N/A
	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

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
1.7 (11.2.1)	Impulse withstand category (Normal category II)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—
	Category III according Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
1.7 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 1.7 (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 1.7 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N/A
1.7 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 1.7 (11.2) I	P
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with U_P	See Test Table 1.7 (11.2) II	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N/A
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1.8 (7)	PROVISION FOR EARTHING		P
1.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω.....: 0.043		P
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		P
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		P
1.8 (7.2.4)	Locking of clamping means		P
	Compliance with 4.7.3		P
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
1.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
1.8 (7.2.6)	Earth terminal adjacent to mains terminals		P
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal		P
1.8 (7.2.8)	Material of earth terminal		P
	Contact surface bare metal		P
1.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
1.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

1.9 (14)	SCREW TERMINALS		N/A
	Separately approved; component list	(see Annex 1)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Part of the luminaire	(see Annex 3)	N/A
1.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		N/A
	Separately approved; component list.....	(see Annex 1)	N/A
	Part of the luminaire.....	(see Annex 4)	N/A
1.10 (5)	EXTERNAL AND INTERNAL WIRING		P
1.10 (5.2)	Supply connection and external wiring		P
1.10 (5.2.1)	Means of connection.....	adapters for engagement with supply tracks	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N/A
1.10 (5.2.2)	Type of cable.....		N/A
	Nominal cross-sectional area (mm ²).....		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
1.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
1.10 (5.2.5)	Type Z not connected to screws		N/A
1.10 (5.2.6)	Cable entries:		N/A
	- suitable for introduction		N/A
	- adequate degree of protection		N/A
1.10 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
1.10 (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
1.10 (5.2.9)	Locking of screwed bushings		N/A
1.10 (5.2.10)	Cord anchorage:		N/A
	- covering protected from abrasion		N/A
	- clear how to be effective		N/A
	- no mechanical or thermal stress		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- no tying of cables into knots etc.		N/A
	- insulating material or lining		N/A
1.10 (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
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
1.10 (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 ≤ 2 mm		N/A
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
	- function independent of electrical connection		N/A
1.10 (5.2.11)	External wiring passing into luminaire		N/A
1.10 (5.2.12)	Looping-in terminals		N/A
1.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
1.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	No unsafe compatibility		N/A
1.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
1.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
1.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
1.10 (5.3)	Internal wiring		P
1.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)..... :		N/A
	- temperatures..... :	(see Annex 2)	N/A
	Green-yellow for earth only		P
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²)..... :	> 0.5 mm ²	P
	Insulation thickness (mm)..... :	> 0.6 mm	P
	Extra insulation added where necessary		N/A
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Cross-sectional area (mm ²)..... :		N/A
1.10 (5.3.1.3)	Double or reinforced insulation for class II		N/A
1.10 (5.3.1.4)	Conductors without insulation		N/A
1.10 (5.3.1.5)	SELV current-carrying parts		N/A
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
1.10 (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
1.10 (5.3.4)	Joints and junctions effectively insulated		P
1.10 (5.3.5)	Strain on internal wiring		N/A
1.10 (5.3.6)	Wire carriers		N/A
1.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
1.10 (5.4)	Test to determine suitability of conductors having a reduced cross-sectional area		N/A
	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

1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
1.11 (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		P
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		P
	Double-ended high-pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		P
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
1.11 (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
1.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
1.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load (V).....:		N/A
	- no-load 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
	- nominal 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
1.11 (8.2.4)	Portable luminaire has protection independent of supporting surface		N/A
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
1.11 (8.2.6)	Covers reliably secured		P

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Clause	Requirement + Test	Result - Remark	Verdict
1.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A

1.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 1.13		—
1.12 (12.2)	Selection of lamps and ballasts		—
	Lamp used according Annex B	(Lamp used see Annex 2)	—
	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	—
1.12 (12.3)	Endurance test		P
	a) mounting- position	Ceiling mounting	—
	b) test temperature ($^{\circ}$ C).....	35	—
	c) total duration (h)	240	—
	d) supply voltage (V).....	291.5	—
	d) if not equipped with controlgear, constant voltage/current (V) or (A)		—
	e) luminaire ceases to operate		—
1.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		P
	- marking legible		P
	- no cracks, deformation etc.		P
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
1.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
1.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions.....:		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
1.12 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions.....:		—
	- 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
1.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
1.12 (12.7.1)	Luminaire without temperature sensing control		N/A
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions.....:		—
	- Ballast failure at supply voltage (V)		—
	- 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.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		—
	- calculated temperature of fixing point/exposed part (°C).....:		—
	Ball-pressure test.....:	See Test Table 1.15 (13.2.1)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		—
	- calculated temperature of fixing point/exposed part (°C).....:		—
	Ball-pressure test.....:	See Test Table 1.15 (13.2.1)	N/A
1.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions.....:		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
1.12 (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.....:		—
	- highest measured temperature of fixing point/exposed part (°C):.....:		—
	Ball-pressure test:.....:	See Test Table 1.15 (13.2.1)	N/A

1.13 (9)	RESISTANCE TO DUST AND MOISTURE		P
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		N/A
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP.....:	IP 20	—
	- mounting position during test.....:		—
	- fixing screws tightened; torque (Nm).....:		—
	- tests according to clauses.....:		—
	- electric strength test afterwards		N/A
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire		N/A
	e) no contact with live parts (IP 2X)		P
	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		N/A
1.13 (9.3)	Humidity test 48 h		P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
1.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		—
	Insulation resistance (MΩ).....		—
	SELV		P
	- between current-carrying parts of different polarity:	>100 MΩ	P
	- between current-carrying parts and mounting surface.....	>100 MΩ	P
	- between current-carrying parts and metal parts of the luminaire.....	>100 MΩ	P
	- 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		P
	- between live parts of different polarity.....	>100 MΩ	P
	- between live parts and mounting surface.....	>100 MΩ	P

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Clause	Requirement + Test	Result - Remark	Verdict
	- between live parts and metal parts..... :	>100 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 :		N/A
1.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)..... :		N/A
	SELV		P
	- between current-carrying parts of different polarity:	500 V	P
	- between current-carrying parts and mounting surface..... :	500 V	P
	- between current-carrying parts and metal parts of the luminaire..... :	500 V	P
	- 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		P
	- between live parts of different polarity..... :	1530 V	P
	- between live parts and mounting surface..... :	1530 V	P
	- between live parts and metal parts..... :	1530 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 :		N/A
1.14 (10.3)	Touch current or protective conductor current (mA):	Max. 0.03 mA	P

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Clause	Requirement + Test	Result - Remark	Verdict
1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
1.15 (13.2.1)	Ball-pressure test..... :	See Test Table 1.15 (13.2.1)	P
1.15 (13.3.1)	Needle-flame test (10 s)..... :	See Test Table 1.15 (13.3.1)	P
1.15 (13.3.2)	Glow- wire test (650°C)..... :	See Test Table 1.15 (13.3.2)	N/A
1.15 (13.4)	Proof tracking test (IEC 60112)..... :	See Test Table 1.15 (13.4)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.7 (11.2)	TABLE I: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						P
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						P
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>1.6	1.6	11.1B	>2.7	2.7	11.1A
Working voltage (V)..... :					265		—
PTI..... :					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Between L and N							
Distance 2:	R	>3.2	3.2	11.1B	>2.7	2.7	11.1A
Working voltage (V)..... :					265		—
PTI..... :					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Live parts and accessible							
Distance 3:	R	>3.2	3.2	11.1B	>2.7	2.7	11.1A
Working voltage (V)..... :					265		—
PTI..... :					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Live parts to mounting surface							

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

1.7 (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:							

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
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.

1.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm)	2			—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
LED module PCB	See Annex 1	125	0.2	
Plastic material for support COB	See Annex 1	125	0.7	
Supplementary information:				

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				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
LED module PCB	See Annex 1	10 s	No	0	pass
Plastic material for support COB	See Annex 1	10 s	No	0	pass
Supplementary information:					

1.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				N/A
Glow wire temperature : 650°C					—
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Supplementary information:					

1.15 (13.4)	TABLE: Proof tracking test (IEC 60112)			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 60598-2-1			
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 ¹⁾	
Electric wire	B	Shenzhen Yixiantong Cable Co Ltd	3239	180°C,600V	DIN EN 50525-2-11; EN 50525-2-11 IEC/EN 60598-2-1	UL E506915	
Electric wire	B	Dongguan Rizhan Electronics Co Ltd	1332	200°C,600V	DIN EN 50525-2-11; EN 50525-2-11 IEC/EN 60598-2-1	UL E528300	

Supplementary information:

¹⁾ 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 60598-2-1							
Clause	Requirement + Test	Result - Remark				Verdict	
ANNEX 2	TABLE: Thermal tests of Section 12						P
	Type reference.....:	led188cw				—	
	Lamp used.....:	LEDs				—	
	Lamp control gear used.....:	-				—	
	Mounting position of luminaire.....:	Ceiling mounting				—	
	Supply wattage (W).....:	12.4 W				—	
	Supply current (A).....:					—	
	Temperatures in test 1 - 4 below are corrected for ta (°C)	25				—	
	- abnormal operating mode.....:					—	
1.12 (12.4)	- test 1: rated voltage					—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	1.06×265 V				—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....:					—	
	Through wiring or looping-in wiring loaded by a current of A during the test					—	
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current.....:					—	
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Internal wire	25	-	76.2	-	90	-	-
LED PCB	25	-	84.2	-	Cl.13.1	-	-
Plastic material for support COB	25	-	80.7	-	Cl.13.1	-	-
Glass cover	25	-	65.6	-	Ref.	-	-
Enclosure	25	-	41.1	-	Ref.	-	-
LED driver tc	25	-	55.2	-	80	-	-
mounting surface	25	-	46.1	-	90	-	-
Supplementary information:							

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Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal..... :		—
	Rated current (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 ²)..... :		—
(14.3.3)	Conductor space (mm)..... :		N/A
(14.4)	Mechanical tests		N/A
(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 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal.....:		—
	Rated current (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

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Clause	Requirement + Test	Result - Remark	Verdict
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A
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

(15.6.3.1) (15.6.3.2)	TABLE: Contact resistance test / Heating tests										N/A
	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										N/A
	Voltage drop after 10th alt. 25th cycle										N/A
	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										N/A
	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										N/A
	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										N/A

IEC 60598-2-1										
Clause	Requirement + Test					Result - Remark				Verdict
	Max. allowed voltage drop (mV) :									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										
Supplementary information:										

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Clause	Requirement + Test	Result - Remark	Verdict
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ATTACHMENT TO TEST REPORT IEC 60598-2-1 JAPAN NATIONAL DIFFERENCES Luminaires Part 2: Particular requirements Section 1: Fixed general purpose luminaires			
Differences according to: J60598-2-1(H29) used in conjunction with J60598-1(H29)			
Attachment Form No: JP_ND_IEC60598_2_1F			
Attachment Originator: TUV Rheinland Japan Ltd.			
Master Attachment: Date 2019-06-25			
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	National Differences - Japan	-
1.1 (0.1)	Scope	-
1.1 (-)	Replace this sub-clause by the following. This standard specifies requirements for fixed general purpose luminaires for use with electrical light source on supply voltages not exceeding 1000V. (J60598-2-1(H29))	P
1.1A (-)	After sub-clause 1.1, add the following new sub-clause. 1.1A The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. The latest edition of the referenced document (including any amendments) applies. JIS C 8105-1, Luminaires – Part 1: General requirements for safety (IEC 60598-1:MOD) (J60598-2-1(H29))	P
1.1 (0.1)	At the beginning of the tenth paragraph, add the following. Except for 10.2.1 Test – Insulation resistance, (J60598-1(H29))	P
-- (0.2)	Normative references	-

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Clause	Requirement + Test	Result - Remark	Verdict
-- (0.2)	<p>Replace the standards with the following.</p> <ul style="list-style-type: none"> - JIS A 9521:2014, Thermal insulation materials for buildings - JIS A 9523:2011, Loose fill thermal insulation materials - JIS B 1007:2003, Tapping screws thread - JIS C 0366:1997, Voltage bands for electrical installations of buildings corresponding to IEC 60449:1973 and Amendment 1:1979 (IDT) - JIS C 0617-2:2011, Graphical symbols for diagrams - Part 2: Symbol elements, qualifying symbols and other symbols having general application - JIS C 0920:2003, Degrees of protection provided by enclosures (IP Code) corresponding to IEC 60529 (IDT) - JIS C 0922:2002, Protection of persons and equipment by enclosures for electrical apparatus- Probes for verification corresponding to IEC 61032:1997 (IDT) - JIS C 1302:2014, Insulation resistance testers - JIS C 1602:2015, Thermocouples - JIS C 1609-1:2006, Illuminance meters - Part 1: General measuring instruments - JIS C 2134:2007, Method for the determination of the proof and the comparative tracking indices of solid insulating materials corresponding to IEC 60112:2003 (IDT) - JIS C 3301, Rubber insulated flexible cords - JIS C 3306, Polyvinyl chloride insulated flexible cords - JIS C 3307, 600 V Polyvinyl chloride insulated wires - JIS C 3312, 600 V Grade polyvinyl chloride insulated and sheathed portable power cables - JIS C 3315, Rubber insulated lead wires for electric machinery and apparatus - JIS C 3316, Electric polyvinyl chloride insulated wires for electrical apparatus - JIS C 3317, 600V Grade heat-resistant polyvinyl chloride insulated wires - JIS C 3323, 600 V Silicone rubber insulated wires - JIS C 3327, 600V Rubber insulated flexible cables - JIS C 3605, 600V Polyethylene insulated cables - JIS C 3612, 600V Flame retardant polyethylene 		P

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Clause	Requirement + Test	Result - Remark	Verdict
	insulated wires - JIS C 3662-5, Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 5 Flexible cables (cords) - JIS C 3663-4, Rubber insulated cables - Rated voltages up to and including 450/750V - Part 4: Cords and flexible cables - JIS C 4003:2010, Thermal evaluation and classification of electrical insulation corresponding to IEC 60085 (MOD) - JIS C 4526-1:2013, Switches for appliances - Part 1: General requirements corresponding to IEC 61058-1:2000 (IDT) - JIS C 4908, Capacitors for electrical apparatus - JIS C 5101-14:2014, Fixed capacitors for use in electronic equipment - Part 14: Sectional specification-Fixed capacitors for electromagnetic interference suppression and connection to the supply mains corresponding to IEC 60384-14 (IDT) - JIS C 5381-11:2014, Low-voltage surge protective devices—Part 11: Surge protective devices connected to low-voltage power systems— Requirements and test methods, corresponding to IEC 61643-11 (IDT) - JIS C 6065:2013, Audio, video and similar electronic apparatus - Safety requirements corresponding to IEC 60065:2001 (MOD) - JIS C 6950-1, Information technology equipment-Safety - Part 1: General requirements - JIS C 7527, Tungsten halogen lamps (non-vehicle) - Performance specifications corresponding to IEC 60357 (MOD) - JIS C 7550:2014, Photobiological safety of lamps and lamp systems - JIS C 7551-2, Incandescent lamps-Safety specifications - Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes corresponding to IEC 60432-2 (MOD) - JIS C 7618-1:2008, Single-capped fluorescent lamps - Part 1: Safety specifications corresponding to IEC 61199 (MOD) - JIS C 7619, Glow-starters for fluorescent lamps corresponding to IEC 60155 (MOD) - JIS C 7621, High-pressure sodium vapour lamps - Performance specification corresponding to IEC 60662 (MOD)		

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> - JIS C 7623, Metal halide lamps - Performance specification corresponding to IEC 61167 (MOD) - JIS C 7624, Discharge lamps (excluding fluorescent lamps) - Safety specifications corresponding to IEC 62035 (MOD) - JIS C 7709-1, Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps corresponding to IEC 60061-1 (MOD) - JIS C 7709-2, Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders corresponding to IEC 60061-2 (MOD) - JIS C 7709-3, Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges corresponding to IEC 60061-3 (MOD) - JIS C 7802:1999, Method of measuring the pinch temperature of quartz glass lamps corresponding to IEC 60682 (MOD) - JIS C 8105-2 (all parts), Luminaires - Part 2 corresponding to IEC 60598-2 (all parts) (MOD) - JIS C 8105-2-4, Luminaires - Part 2: Particular requirements for safety - Section 4: Portable general purpose luminaires corresponding to IEC 60598-2-4 (IDT) - JIS C 8105-2-12, Luminaires - Part 2: Particular requirements for safety - Section 12: Mains socket-outlet mounted nightlights - JIS C 8105-3:2011, Luminaires - Part 3: General requirements for performance - JIS C 8108, Ballasts for fluorescent lamps - JIS C 8117, AC supplied electronic ballasts for fluorescent lamps - JIS C 8121 (all parts), Miscellaneous lampholders corresponding to IEC 60838 (all parts) (MOD) - JIS C 8122, Bayonet lampholders corresponding to IEC 61184 (MOD) - JIS C 8147 (all parts), Lamp controlgear corresponding to IEC 61347 (all parts) - JIS C 8147-2-3, Lamp controlgear - Part 2-3: Particular requirements for a.c. supplied electronic ballasts for fluorescent lamps - JIS C 8147-2-8, Lamp controlgear - Part 2-8: Particular requirements for ballasts for fluorescent lamps 		

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> - JIS C 8147-2-9, Lamp controlgear - Part 2-9: Particular requirements for ballasts for discharge lamps (excluding fluorescent lamps) corresponding to IEC 61347-2-9 (MOD) - JIS C 8147-2-13, Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules - JIS C 8269 (all parts), Low-voltage fuses - JIS C 8280, Edison screw lampholders corresponding to IEC 60238 (MOD) - JIS C 8282 (all parts), Plugs and socket-outlets for household and similar purposes - JIS C 8283-1, Appliance couplers for household and similar general purposes - Part 1: General requirements corresponding to IEC 60320 (all parts) (MOD) - JIS C 8303, Plugs and receptacles for domestic and similar general use - JIS C 8324, Lampholders and starterholders for fluorescent lamps corresponding to IEC 60400 (MOD) - JIS C 8472:2005, Lighting busways - Particular safety requirements for luminaires use corresponding to IEC 60570:2003 (MOD) - JIS C 9335-1:2014, Household and similar electrical appliances-Safety Part 1: General requirements - JIS C 60068-2-6:2010, Environmental testing - Test Fc: Vibration (sinusoidal) corresponding to IEC 60068-2-6:2007 (IDT) - JIS C 60068-2-14:2011, Environmental testing – Test N: Change of temperature corresponding to IEC 60068-2-14:2009 (IDT) - JIS C 60068-2-75:2004, Environmental testing – Test Eh: Hammer tests corresponding to IEC 60068-2-75 (IDT) - JIS C 60664-1, Insulation coordination for equipment within low-voltage systems-Part 1: Principles, requirements and tests - JIS C 60695-2-11:2004, Fire hazard testing - Part 2-11: Glowing-wire flammability test methods for end-products, corresponding to IEC 60695-2-11 (IDT) - JIS C 60695-2-12:2013, Fire hazard testing - Part 2-12: Glowing-wire flammability test methods for materials - JIS C 60695-2-13:2013, Fire hazard testing - Part 2-13: Glowing-wire ignition test methods for materials 		

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> - JIS C 60695-11-5:2007, Fire hazard testing - Part 11-5: Test flames-Needle-flame test method - Apparatus, confirmatory test arrangement and guidance corresponding to IEC 60695-11-5 (IDT) - JIS C 60695-11-10:2015, Test flames – 50 W horizontal and vertical flame test methods - JIS C 61558-1:2008, Safety of power transformers, power supply units, reactors and similar products - Part 1: General requirements and tests corresponding to IEC 61558-1:2005 (MOD) - JIS C 61558-2 (all parts), Safety of power transformers, power supplies, reactors and similar products-Part 2 corresponding to IEC 61558-2 (all parts) (MOD) - JIS C 61558-2-5, Safety of power transformers, power supply units, reactors and similar products - Part 2-5: Particular requirements for shaver transformers and shaver supply units corresponding to IEC 61558-2-5 (MOD) - JIS C 61558-2-6, Safety of power transformers, power supply units, reactors and similar products - Part 2-6: Particular requirements for safety isolating transformers for general use corresponding to IEC 61558-2-6 (MOD) - JIS K 7341, Plastics- Determination of burning behaviour of thin flexible vertical specimens in contact with a small-flame ignition source - JIS P 0001:1998, Paper, board and pulp - Vocabulary - IEC 60227 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - IEC 60245 (all parts), Rubber insulated cables - Rated voltages up to and including 450/750 V - IEC 60417, Graphical symbols for use on equipment - IEC 60634:1993, Heat test source (H.T.S.) lamps for carrying out heating tests on luminaires - IEC 60684-2, Flexible insulating sleeving – Part 2: Methods of test - IEC 60989, Separating transformers, autotransformers, variable transformers and reactors - IEC 60990:1999, Methods of measurement of touch current and protective conductor current - IEC 61249 (all parts), Materials for printed boards and other interconnecting structures 		

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>- IEC 61535, Installation couplers intended for permanent connection in fixed installations</p> <p>- IEC 80416-1:2008, Basic Principles for graphical symbols for use on equipment – Part 1: Creation of graphical symbols for registration</p> <p>(J60598-1(H29))</p>		
1.3 (1.2)	Terms and definitions		-
1.3 (1.2.8)	<p>Add the following after NOTE 1</p> <p>NOTE 1A Fixed luminaire includes track-mounted luminaires and luminaires using ceiling rosette.</p> <p>(J60598-1(H29))</p>		P
1.3 (1.2.21)	<p>In the second paragraph, delete the second sentence on Class 0.</p> <p>(J60598-1(H29))</p>		P
	<p>Delete NOTE 4.</p> <p>(J60598-1(H29))</p>		P
1.3 (1.2.21A)	<p>After sub-clause 1.2.21, add the following new sub-clause.</p> <p>1.2.21A class 0I luminaires luminaires having at least basic insulation for protection against electric shock, having an earthing terminal or earthing lead for connecting the accessible conductive part, which becomes to a live part if the basic insulation is damaged, to the earthing conductor of the fixed-wiring of the building, and using a supply cord without earthing core and a plug without earthing pole. Luminaires using a supply cord set of which an earthing lead is provided in the plug or using a plug adaptor for transforming from 3 pins to 2 pins are also considered as class 0I luminaires.</p> <p>NOTE 1 Luminaires with insulated enclosure, which have earthing means for the internal parts, are regarded as Class 0I or I. NOTE 2 Class 0I luminaires may have double or reinforced insulated parts. NOTE 3 .Luminaires using ceiling rosette and having earth terminal are regarded as Class 0I.</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
1.3 (1.2.23)	In the first sentence of NOTE 4, replace “class I construction” with “class I luminaire or class 0I luminaire”. (J60598-1(H29))		P
1.3 (1.2.35)	In the second paragraph, replace “with contact tubes” with “with contact tubes or blade contacts”, and “with contact pins” with “with contact pins or blades”. (J60598-1(H29))		P
1.3 (1.2.49)	Delete NOTE 1. (J60598-1(H29))		P
1.3 (1.2.68)	In the paragraph, replace “step-down convertors” with “step-down convertors (including electronic step-down convertors)”. (J60598-1(H29))		P
	Replace NOTE with the following. NOTE LED module controlgear includes the control of LED lamps in addition to those of LED module. Converter and step-down converter do not include LED module control gear. This definition does not include devices for the switching of lamps or the control of brightness such as dimmers and daylight sensors. (J60598-1(H29))		P
1.2.77.2	In the first paragraph, replace “converter or” with “convertor (including electronic convertor) or”. (J60598-1(H29))		P
1.2.82	Replace the whole including NOTE with the following. arms reach for examples, - if indoors, the place being the height of 2,3 m or less from the floor; - if outdoors, the place being the height of 2,5 m or less from the ground surface etc.;; - the area where is reachable by a stretched hand from the place like a middle of the stairs, a windows, a laundry hanging balcony. (J60598-1(H29))		P
1.2.86A	After sub-clause 1.2.86, add the following new sub-clause.		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>1.2.86A Accessible Test probe B specified in JIS C 0922 is accessible.</p> <p>NOTE Conventional expressions were, for example, “persons could be touched”, “there is a fear of contacting with hand”, “touchable by persons”, or “easily accessible”. (J60598-1(H29))</p>		
1.2.88A	<p>After sub-clause 1.2.88.3, add the following new sub-clause.</p> <p>1.2.88A Lamp Light source provided with one or more lamp cap (J60598-1(H29))</p>		P
1.2.91A	<p>After sub-clause 1.2.91, add the following new sub-clause.</p> <p>1.2.91A LED light source Units which are supplied as LED modules or LED lamps (J60598-1(H29))</p>		P
1.2.91B	<p>After sub-clause 1.2.91A, add the following new sub-clause.</p> <p>1.2.91B LED luminaire Luminaires provided with a LED light source (J60598-1(H29))</p>		
1.4 (2)	Classification of luminaires		-
1.4 (2.2)	<p>Replace the first paragraph with the following.</p> <p>Luminaires shall be classified according to the type of protection against electric shock provided, as class 0, class 0I class I, class II or class III (see definitions in Section 1). However, class 0 is applicable only to ordinary luminaires with a rated voltage 150 V or less (including the rated secondary voltage in the case of suspended fluorescent luminaires for household). Luminaires with</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	protection class of IPX1 or higher, moisture-proof luminaires and rough service luminaires shall not be of class 0. (J60598-1(H29))		
	In the second paragraph, replace "class I" with "class I or class 0I". (J60598-1(H29))		P
1.4 (2.3)	Except for the title, replace the whole with the following. Luminaires shall be classified in accordance with the "IP number" system of classification described in JIS C 0920 and Annex 2 (Degrees of protection against high temperature and high moisture for luminaires) of JIS C 0920. Tests for the degrees of protection are given in Section 9. NOTE 1 Luminaires classified as watertight are not necessarily suitable for operation under water. Pressure watertight luminaires should be used for such applications. NOTE 1A Annex 2 of JIS C 0920 specifies the degrees of protection against high temperature and high moisture and also specifies the conditions for the tests and conformity for the degrees of protection. (J60598-1(H29))		P
1.5 (3)	Marking		-
1.5 (3.2)	In the left column of the Table 3.1, delete "3.2.23 Do not stare at light source". (J60598-1(H29))		P

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Clause	Requirement + Test	Result - Remark	Verdict																																		
	<p>In Table 3.1, replace the center columns of table with the following.</p> <table border="1"> <thead> <tr> <th colspan="2">Markings belonging to b)</th> </tr> </thead> <tbody> <tr> <td>3.2.1</td> <td></td> </tr> <tr> <td>3.2.2^b</td> <td></td> </tr> <tr> <td>3.2.3</td> <td>Ambient temperature</td> </tr> <tr> <td>3.2.4</td> <td></td> </tr> <tr> <td>3.2.5</td> <td></td> </tr> <tr> <td>3.2.6</td> <td>Corresponding IP number, and for moisture-proof luminaire marking of “防湿” or “防湿形”</td> </tr> <tr> <td>3.2.7</td> <td>Maker's model number or type reference</td> </tr> <tr> <td>3.2.9</td> <td>Symbols The relevant symbol for luminaires not suitable for direct installation on normally flammable surface</td> </tr> <tr> <td>3.2.12</td> <td>Termination</td> </tr> <tr> <td>3.2.17^c</td> <td>For interconnected luminaires, the maximum connectable number of luminaires or the maximum current</td> </tr> <tr> <td>3.2.19A</td> <td>The rated frequency</td> </tr> <tr> <td>3.2.19B</td> <td>The rated secondary voltage, the rated secondary circuit current</td> </tr> <tr> <td>3.2.19C</td> <td>The type of thermally insulating material construction</td> </tr> <tr> <td>3.2.19D</td> <td>The rated power consumption or the rated input power</td> </tr> <tr> <td>3.2.19E</td> <td>The restriction for use of class I track-mounted luminaires</td> </tr> <tr> <td>3.2.21</td> <td>The relevant symbol for not suitable for covering with thermally insulating material</td> </tr> </tbody> </table> <p>(J60598-1(H29))</p>	Markings belonging to b)		3.2.1		3.2.2 ^b		3.2.3	Ambient temperature	3.2.4		3.2.5		3.2.6	Corresponding IP number, and for moisture-proof luminaire marking of “防湿” or “防湿形”	3.2.7	Maker's model number or type reference	3.2.9	Symbols The relevant symbol for luminaires not suitable for direct installation on normally flammable surface	3.2.12	Termination	3.2.17 ^c	For interconnected luminaires, the maximum connectable number of luminaires or the maximum current	3.2.19A	The rated frequency	3.2.19B	The rated secondary voltage, the rated secondary circuit current	3.2.19C	The type of thermally insulating material construction	3.2.19D	The rated power consumption or the rated input power	3.2.19E	The restriction for use of class I track-mounted luminaires	3.2.21	The relevant symbol for not suitable for covering with thermally insulating material		P
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	<p>In Item c in the bottom column of Table 3.1, replace “Interconnected luminaires” with “For interconnected luminaires, the maximum connectable number of luminaires or the maximum current”.</p> <p>(J60598-1(H29))</p>		P																																		
	<p>In the last paragraph, replace “the base plate” with “the base plate or connector”.</p> <p>(J60598-1(H29))</p>		P																																		
1.5 (3.2.2)	<p>In the first paragraph, delete the second sentence.</p> <p>(J60598-1(H29))</p>		P																																		
1.5 (3.2.6)	<p>After the first paragraph, add the following.</p>		P																																		

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Clause	Requirement + Test	Result - Remark	Verdict
	Moisture-proof luminaires shall be marked with “防湿” or “防湿形”. (J60598-1(H29))		
1.5 (3.2.12)	Delete NOTE 4. (J60598-1(H29))		P
1.5 (3.2.18)	In the paragraph, delete “and luminaires with double-capped Fa8 tubular lamps”. (J60598-1(H29))		P
	(only informative) The following is an example of Japanese text corresponding to the English warning notice specified in b) of sub-clause 3.2.18. 注意： ランプ交換に先立ち、イグナイタ又はスイッチング素子 ランプ交換の後に取り外した部品を取り付ける。 (J60598-1(H29))		P
1.5 (3.2.19A)	After sub-clause 3.2.19, add the following new sub-clause. 3.2.19A Rated frequency in hertz (limited to those having a discharge lamp, transformer or motor) (J60598-1(H29))		P
1.5 (3.2.19B)	After sub-clause 3.2.19A, add the following new sub-clause. 3.2.19B Luminaires shall be marked with: - the rated secondary voltage, if the rated secondary voltage exceeds 150 V; - the rated secondary short-circuit current, if the rated secondary voltage exceeds 300 V and the rated secondary current exceeds 1 A. The rated secondary voltage, the rated secondary current and the rated secondary short-circuit current are the values marked on the lamp controlgear used or the values measured in accordance with the relevant JIS standard for the lamp controlgear used. (J60598-1(H29))		P
1.5 (3.2.19C)	After sub-clause 3.2.19B, add the following new sub-clause.		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>3.2.19C For luminaires suitable for covering with thermally insulating materials, the type of thermally insulating material construction, and the declared value of the thermal resistance if required.</p> <p>However, this does not apply to the luminaires subjected to the test of a) specified in Annex D.</p> <p>NOTE In Japan, for recessed luminaires which the thermally insulating material construction is done, there is JIL 5002 of a group standard published by the Japan Lighting Manufacturers Association. The standard specifies the type of thermally insulating material construction.</p> <p>(J60598-1(H29))</p>		
1.5 (3.2.19D)	<p>After sub-clause 3.2.19C, add the following new sub-clause.</p> <p>3.2.19D Rated power consumption in watt or rated input power in watt(limited to those having a discharge lamp, transformer or motor)</p> <p>The rated power consumption or rated input power is the value specified by the manufacturer, based on the value measured in accordance with 7.5 (Input) of JIS C 8105-3 or A8.3 of JIS C 8105-3.</p> <p>(J60598-1(H29))</p>		P
1.5 (3.2.19E)	<p>After sub-clause 3.2.19D, add the following new sub-clause.</p> <p>Class I track-mounted luminaires shall be marked with the substance that this luminaire shall not be mounted to class 0 tracks.</p> <p>(J60598-1(H29))</p>		P
1.5 (3.2.21)	<p>Replace the whole with the following.</p> <p>The relevant Symbol a), b) or c) (see Figure 1) for luminaires not suitable for covering with thermally insulated material shall be explained on the luminaire or in the manufacturer's instructions provided with the luminaire. (See Table N.1.) The dimensions of the rectangle which is circumscribed to the symbol a) in Figure 1 shall be at least 25 mm for each side. The dimensions of the rectangle which is circumscribed to the symbol b) shall be at least 20 mm for each side. And, the area of the rectangle which is circumscribed to the symbol c)</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>shall be at least 4 cm². However, for small luminaires, if ensuring of a space for marking is not possible, it may be explained on the packaging of the luminaire or in the instructions.</p> <p>A warning notice and symbol is required when a luminaire is not suitable for covering with thermally insulated material. (J60598-1(H29))</p>		
1.5 (3.2.22)	<p>In the paragraph, replace the first sentence with the following.</p> <p>Luminaires with internal replaceable fuses may be marked with symbol (see Figure 1 from IEC 61558-1) shown in Figure 1 at the end of marking of the rating of fuse, if required. (J60598-1(H29))</p>		P
1.5 (3.2.23)	<p>In the first paragraph, replace the first sentence with the following.</p> <p>Warning symbol “Do not stare at the operating light source” (see Figure 1) for portable and handheld luminaires that have been classified as risk group RG1 according to 4.24.2. (J60598-1(H29))</p>		P
	<p>Replace the all paragraph from the second one with the following.</p> <p>For fixed luminaires that have been classified as risk group RG1 according to 4.24.2, the manufacturer’s instructions provided with the luminaire shall give the following or equivalent text,</p> <p>“照明器具を長時間見続けることがないように照明器具 (J60598-1(H29))</p>		P
1.5 (3.2.24)	<p>Add the following to the end of the paragraph.</p> <p>However where it is not possible to mark the symbol in height of 15mm on the cover due to the construction of luminaires, it may be marked in adjacent to the cover which can draw well attention. Nevertheless where it is no possible to mark it in height of 15mm, it shall be marked on cover or in adjacent to cover in the maximum height as possible.</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
1.5 (3.3)	In the first sentence of the paragraph, replace “all details” with “all details (shown in sub-clauses 3.3.1 to 3.3.22)” (J60598-1(H29))		P
1.5 (3.3.2)	Replace “Nominal frequency in hertz” with “(See 3.2.19A.)” (J60598-1(H29))		P
1.5 (3.3.3)	In the first sentence of the Item c), replace “The maximum temperature” with “The type of cable useable or the maximum temperature”, and replace “90 °C” with “60 °C”. (J60598-1(H29))		P
1.5 (3.3.9)	Add the following after NOTE 1. NOTE 1A If the power factor is 0,85 or more, the value of the power factor shall be marked. Instead of the value, it may be marked with “高力率”. NOTE 1B An example of luminaires suitable for both resistive and inductive loads is the luminaire which both incandescent and self-ballasted lamps are usable. (J60598-1(H29))		P
1.5 (3.3.11)	Replace the paragraph with the following. For luminaires using remote control gear, e.g., ballast, the range of lamps for which the luminaire is designed. For luminaires which high-pressure mercury vapour lamps, metal halide lamps and high pressure sodium vapour lamps are usable as HID lamp, those may be marked with, for example, “HID 200 ~ 400”. (J60598-1(H29))		P
1.5 (3.3.15)	In the paragraph, replace “The rated current” with “The rated current or maximum wattage”. (J60598-1(H29))		P
1.5 (3.3.16)	Replace the first dash with the following. - the connection to socket outlets of which the degree of protection against ingress of water is rated with IPX4;		P

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
1.5 (3.3.18A)	<p>After sub-clause 3.3.18, add the following new sub-clause.</p> <p>3.3.18A For luminaires which secondary-processing is required for the luminaire itself or the component of the luminaire when a constructor mounts the luminaire, the following shall be explained in the instructions etc.:</p> <ul style="list-style-type: none"> - the substance that depending on the processing method there is a possibility causing a hazard; - the processing method for protection which is made not to cause injuries <p>Knockout is an example of secondary-processing. (J60598-1(H29))</p>		P
1.5 (3.3.20)	<p>(only informative)</p> <p>The following is an example of Japanese text corresponding to English text for advice specified in sub-clause 3.3.20.</p> <p>人が触れるおそれのある場所に取り付けてはならない (J60598-1(H29))</p>		P
1.6 (4)	Construction		-
1.6 (4.4.1)	<p>Add the end of the second paragraph, add the following.</p> <p>However, if lampholders which complies with JIS C 8280 or lampholders equivalent to those are used, this does not apply to the part of cap of the lamp. (J60598-1(H29))</p>		N/A
1.6 (4.4.4)	<p>In the second sentence of the second paragraph of Item i), replace “in IEC 60061-3:” with “in IEC 60061-3 or shall be caps equivalent to these:”. (J60598-1(H29))</p>		N/A
	<p>In Item b), replace the first paragraph with the following.</p> <p>Mounting brackets for Edison screw or bayonet-capped lampholders are subjected to testing for 1 min, to the following bending moments: for E14 and B15 lampholders 1,2 Nm;</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>for E26 and B22 lampholders 2,0 Nm; for E39 lampholders 4,0 Nm; for E12 lampholders 0,5 Nm; for E17 lampholders 1,2 Nm; The values for other lampholders are under consideration. (J60598-1(H29))</p>		
1.6 (4.4.5)	<p>At the end of this sub-clause, add the following.</p> <p>For lampholders having other rated voltage than mentioned above, it is considered that the lampholder complies with this requirement, if it withstands the test voltage specified in Table 10.2. (J60598-1(H29))</p>		N/A
1.6 (4.4.6)	<p>At the end of the first paragraph, add the following.</p> <p>For workshop luminaires provided with Edison Screw lampholders, the shell of base shall be connected to the neutral of the supply terminals. (J60598-1(H29))</p>		N/A
1.6 (4.4.9A)	<p>After sub-clause 4.4.9, add the following new sub-clause.</p> <p>4.4.9A E26 and E40 lampholders shall not be used. (J60598-1(H29))</p>		N/A
1.6 (4.4.9B)	<p>After sub-clause 4.4.9A, add the following new sub-clause.</p> <p>4.4.9B Mechanical strength of Edison screw lampholders is checked according to JIS C 8280. (J60598-1(H29))</p>		N/A
1.6 (4.5)	<p>Replace the whole with the following except for the title of sub-clause.</p> <p>Starter holders in luminaires other than class II shall accept starters which comply with JIS C 7619.</p> <p>Class II luminaires shall have a structure that the starter can not be touched with the standard test finger, after removing the components removable by hand. And the starter incorporated shall be provided</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>with cap of Type P and with enclosure other than metal.</p> <p>If an E17 starterholder and an E17 lampholder for incandescent lamps are used for same luminaire, the starterholder and the lampholder shall be located with a suitable distance for preventing misuse when mounting a starter or incandescent lamp or replacing those, or markings indicating clearly that it is for either of starter or incandescent lamp shall be provided adjacent to the starterholder and the lampholder.</p> <p>Compliance is checked by inspection. (J60598-1(H29))</p>		
1.6 (4.6)	<p>After the first paragraph, add the following.</p> <p>NOTE 0A "Within a box specified by the manufacturer" includes outlet boxes etc. (J60598-1(H29))</p>		N/A
1.6 (4.7.1)	<p>In the first paragraph, replace "In portable luminaires of class I and class II and in fixed luminaires of class I and class II that are frequently adjusted" with "In portable luminaires of class 0, class 0I, class I and class II and in fixed luminaires of class 0, class 0I, class I and class II that are frequently adjusted" (J60598-1(H29))</p>		N/A
	<p>In Item c) of the second paragraph for NOTE, replace "is anchored to" with "is anchored (for example, by passing through a hole, by tying) to". (J60598-1(H29))</p>		N/A
	<p>In the second paragraph for NOTE, add a new item after Item h) as follows.</p> <p>hA) the wire conductor is fixed by a screw or nut, by using washer(s) for prevention against loosening. However, this applies to the part which its removal is not required, when the supply cord is replaced or when other protective inspection work is performed. (J60598-1(H29))</p>		N/A
	<p>In the last paragraph for NOTE, replace "a) to h)" with "a) to hA)", and "a) and b)" with "a), b) and hA)". (J60598-1(H29))</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.7.2)	At the beginning of the first paragraph, replace "Supply terminals" with "Supply terminals of luminaires having a type X attachment supply cord" (J60598-1(H29))		N/A
	In the last paragraph, replace "IEC standard" with "IEC standard, JIS standard or the relevant regulations", and "a shorter length" with "a shorter length 8 mm or less" (J60598-1(H29))		N/A
1.6 (4.7.3)	In NOTE 3, replace "snap-on connectors" with "snap-on connectors and welding". (J60598-1(H29))		P
1.6 (4.7.4)	At the end of the second paragraph, replace "external wiring" with "external wiring of luminaires which are intended for connection to fixed wirings and for replacement of cables/cords or components by users". (J60598-1(H29))		N/A
1.6 (4.8)	At the end of this sub-clause, add the following. The fixing part for a pull-cord of pull-switch and the pull-cord shall withstand the test which a pull force of 70 N for a period of 1 minute applies to the fixing part for pull-cord after mounting the luminaire as in normal use. And, after the test, when a pull force of 150 N for a period of 1 minute applies to the tip of the pull-cord, the pull-cord shall be cut. Otherwise, it shall be come off from the switch. And, any abnormality (for example, the state which the electrical connection of the ceiling rosette is subjected to a force or the state which electric shock or fire may be caused) shall not be caused in the body. Moreover, there shall be no fear of damaging of the glass part like lamp by the pull-cord tab subjected to a repulsive force of the pull-cord. (J60598-1(H29))		P
1.6 (4.11.2)	After the second paragraph, add the following. Even if locking device against loosening, the interconnection of such metals shall not be used. (J60598-1(H29))		P
	After the third paragraph, add the following. Class 2 self-tapping screw according to JIS B 1007 may be used to provide conductive parts and earth		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	continuity. (J60598-1(H29))		
1.6 (4.11.6)	After the second paragraph, add the following NOTE. NOTE A cycle consisting of making of the contact and breaking is repeated 50 times in total. (J60598-1(H29))		P
1.6 (4.12.1)	In Table 4.1, replace the title with "Torque to be applied to screws". (J60598-1(H29))		P
1.6 (4.12.4)	In the third paragraph, replace the existing five dashes with the following. - 4,0 Nm for E39 lampholders; - 2,0 Nm for E26 and B22 lampholders; - 1,2 Nm for E17 lampholders; - 0,6 Nm for E17 starterholders; - 1,2 Nm for E14 and B15 lampholders (except candle type); - 0,5 Nm for E14 and B15 candle lampholders; - 0,5 Nm for E10, E11 and E12 lampholders; (J60598-1(H29))		N/A
1.6 (4.12.5)	In Table 4.2, replace the title with "Table 4.2 - Moment to be applied to test rod". (J60598-1(H29))		P
1.6 (4.13.1)	At the beginning of the first sentence of the sixth paragraph, replace "Three blows" with "One blow against the fragile points and three blows against other points". (J60598-1(H29))		P
	In the last sentence of the sixth paragraph, replace "three blows" with "blows of the above specified respective number". (J60598-1(H29))		P
1.6 (4.14.1)	In the paragraph for Test A, add the following after the first sentence. For luminaires provided with ceiling rosette, the load shall be added so that a load equal to four times the weight of the luminaire is applied to the ceiling		P

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Clause	Requirement + Test	Result - Remark	Verdict
	rosette. (J60598-1(H29))		
1.6 (4.14.2)	In the first paragraph, add the following after the first sentence. However, for luminaires provided with a textile braided or round braided cord without reinforcement core, the weight of the luminaire shall be 3 kg or less. (J60598-1(H29))		N/A
	In Table 4.4, replace the title with "Table 4.4 – Maximum mass of semi-luminaires and maximum bending moment". (J60598-1(H29))		N/A
	In the left column of Table 4.4, replace "E14 and B15" with "E14, E17 and B15", and "E26 and B22" with "E26 and B22". (J60598-1(H29))		N/A
1.6 (4.14.3)	In Table 4.5, replace the title with "Number of cycles of operation of adjusting devices". (J60598-1(H29))		P
	In the left column of Table 4.5, replace "for example shop-window spotlights" with "for example shop-window spotlights and luminaires provided with a flexible tube". (J60598-1(H29))		N/A
1.6 (4.15.2)	In the second sentence of Item b), replace "or a thermal link" with "or a thermal link (a thermal cut-out which operates only once and then requires replacement)". (J60598-1(H29))		N/A
	In Item c), replace "the relevant auxiliary standard" with "the relevant auxiliary standard, e.g., JIS C 8147-2-3, JIS C 8147-2-8, JIS C 8147-2-9, JIS C 8108, JIS C 8117, etc." (J60598-1(H29))		P
1.6 (4.16.2)	In the second sentence of the first paragraph, replace "the relevant auxiliary standard" with "the relevant auxiliary standard, e.g., JIS C 8147-2-3, JIS C 8147-2-8, JIS C 8147-2-9, JIS C 8147-2-13, JIS C 8108, JIS C 8117, etc." (J60598-1(H29))		P

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Clause	Requirement + Test	Result - Remark	Verdict
	In the fifth paragraph, replace as follows: - “the relevant auxiliary standard” with “the relevant auxiliary standard, e.g., JIS C 8147-2-3, JIS C 8147-2-8, JIS C 8147-2-9, JIS C 8147-2-13, JIS C 8147-2-13, JIS C 8108, JIS C 8117, etc.”; - “temperature declared thermally protected ballast/transformer(s)” with “temperature declared thermally protected ballast/transformer/LED module controlgear(s)”, and; - “or below 130 °C” with “or below 130 °C, and thermally protected ballast(s) marked with the symbol ∇_{TB} or ∇_{TAB} ”. (J60598-1(H29))		N/A
	In the last paragraph, replace “value above 130 °C” with “value above 130 °C or with the symbol ∇_{TC} or ∇_{DF} ”. (J60598-1(H29))		N/A
1.6 (4.17)	In the first paragraph, replace “and jet-proof” with “, jet-proof and powerful water jet-proof”. (J60598-1(H29))		N/A
1.6 (4.18.1)	In the first paragraph, replace “, jet-proof,” with “, jet-proof, powerful water jet-proof,”. (J60598-1(H29))		N/A
1.6 (4.18.3)	In the paragraph, replace “, jet-proof,” with “, jet-proof, powerful water jet-proof,”. (J60598-1(H29))		N/A
1.6 (4.19)	Replace the second paragraph with “Compliance is checked by inspection, in addition to check of marking of ballasts and ignitors etc.” (J60598-1(H29))		N/A
1.6 (4.20)	Replace the part of “Sweep rate” with the following. Sweep rate: approximately one octave per minute (speed rate which a frequency reaches to two times or half of the original in one minute) (J60598-1(H29))		N/A
1.6 (4.21.1)	After NOTE 2, add the following. The requirements of this sub-clause do not apply to luminaires like emergency lighting exclusive-use luminaires, which a lighting time is obviously of		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	short. (J60598-1(H29))		
1.6 (4.21.4)	<p>Add the following new dash after NOTE 2.</p> <p>- the following test or Annex JA applies, except for metal halide lamps</p> <p>Luminaires are operated, by using the tungsten halogen lamp of the maximum rated power for which the luminaire is designed, until the stable condition of temperature is reached. After that, the tungsten halogen lamp is burst by applying an electrical overload, which is the minimum energy being enough to burst. Adjustable luminaires shall be adjusted in the most suitable position where fragments of glass fly out from the luminaire. During the test, a wrapping tissue specified in No. 6228 of JIS P 0001 is spread out horizontally at the 500 mm below of the luminaire. For luminaires recessed, the tissue is spread out so as to cover on the surface of the ceiling suspended. After burst of the tungsten halogen lamp, the luminaire and the protective shield shall show no damage in the part other than the surface. The wrapping tissue shall not ignite by the fragments of glass which flied out from the luminaire. After inspection of the luminaire, the luminaire shall be possible to mount a new tungsten halogen lamp, and the protective shield and components, which were removed for mounting of the tungsten halogen lamp, shall be possible to mount again. That time, the luminaire shall light with same state. And, this tungsten halogen lamp is broken in the same manner mentioned above. The luminaire shall be in the state of conformity with the requirements, except for the damage of the protective shield. The part of the protective shield shall not be discrete.</p> <p>(J60598-1(H29))</p>		N/A
1.6 (4.24.2)	<p>Replace "IEC/TR 62778." of the first paragraph with "Annex JC"</p> <p>(J60598-1(H29))</p>		P
	<p>Replace a) with the following.</p> <p>For fixed mounted luminaires, the risk group shall not exceed RG1 at the distance obtaining 500 lx.</p> <p>(J60598-1(H29))</p>		P
	<p>Replace b) with the following.</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For mains socket-outlet mounted nightlights specified in JIS C 8105-2-12, portable and handheld luminaires, the risk group shall not exceed RG1 at the distance of 200 mm. (J60598-1(H29))		
1.6 (4.25)	At the end of the first paragraph, add the following. However, if secondary-processing is required for the luminaire or the component of luminaire when a constructor mounts the luminaire, the hazards of the following part described in the instructions etc. shall be checked in the state where processing for protection was made. - the part for which the substance that there is a fear of causing a hazard by the process method is described - the part for which the method for the protection-processing for not causing injury is described (J60598-1(H29))		P
1.6 (4.26.1)	In the second sentence of NOTE, replace “this transformer/converter” with “this transformer/convertor (including electronic convertor)”. (J60598-1(H29))		N/A
1.6 (4.26A)	After sub-clause 4.26, add the following new sub-clause. 4.26A Luminaires which the thermally insulating material construction by the blowing method is made Luminaires, which the thermally insulating material construction by the blowing method is made, shall not have openings where the test probe for the first IP number 3 specified in Table 9.1 can be inserted. During test, no load is applied to the test probe. (J60598-1(H29))		N/A
1.6 (4.27A)	After sub-clause 4.27, add the following new sub-clause. 4.27A Optical output Optical outputs of LED luminaires for general lighting shall be of the output which people do not feel a flicker. However, this does not apply to the following.		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>a) luminaires for lighting the feet; b) luminaires for lighting at stages or studios (limited to those intended for the special effect like stroboscopic effect); c) ground recessed luminaires; d) luminaires for underwater lighting; e) luminaires for showcases; f) Indicating lights; g) nightlights; h) in addition to Items a) to g), luminaires not used for lighting for a long time at ordinary houses, offices etc.</p> <p>If a luminaire is complying with the following Items i) or j), the luminaire is considered that it complies with this requirement.</p> <p>i) the optical output does not have any missed-part which is less than 5 % of the peak value of the optical output, and the repeated frequency of the optical output is 100 Hz or more. j) the repeated frequency of the optical output is 500 Hz or more.</p> <p>(J60598-1(H29))</p>		
1.6 (4.27B)	<p>After sub-clause 4.27A, add the following new sub-clause.</p> <p>4.27B Prevention of smoking, flaming, etc. during the period of use LED luminaires shall be designed so that failures relating to fire (for example, smoking, flaming, etc.) are not caused during the period of use of the luminaire.</p> <p>The luminaires complying with the following Items a) and b) are considered to be in conformity with this requirement.</p> <p>a) During the following test was carried out, flame, smoke or flammable gas shall not be generated. The input power is increased to 150 % rated value, by adjusting the input voltage. After the temperature was stabilized, the state is kept for 15 minutes. If the input power is not possible to increase to 150 %</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>rated value, the input voltage or input current is increased to 150 % rated value concerned. However, if the input power is limited by a protective device or circuit, it is increased up to the power value limited. (For luminaires having surge-absorbers etc., the test may be carried out by removing of it from the circuit, during testing.) Atomized spraying of electrolytic solution generated by operation of the safety valve of electrolytic capacitor is not considered as smoking. Flammability of gases generated by components of luminaires is checked by the test of a high-frequency spark generator.</p> <p>b) Luminaire enclosures protecting live parts of electric circuits against electric shock or enclosures for supply circuits installed inside luminaires shall be constructed with:</p> <ul style="list-style-type: none"> - metal; - materials complying with the test at 650 °C test temperature, specified in JIS C 60695-2-11 or JIS C 60695-2-12, or; - materials of 675 °C or better glow-wire ignition temperature (GWIT), confirmed by the test specified in JIS C 60695-2-13 <p>However, this does not apply to the part of luminaire enclosure, which has translucency and which is a unavoidable part for the optical properties of the luminaire.</p> <p>(J60598-1(H29))</p>		
1.6 (4.30A)	<p>After sub-clause 4.30, add the following new sub-clause.</p> <p>4.30A Lamps other than fluorescent lamps having caps for fluorescent lamps</p> <p>For luminaires having a structure which lamps are removable, lampholders (except for GX53) for fluorescent lamps, which are specified in JIS C8324, shall not be supplied with electricity if they are connected with other lamps than fluorescent lamps. However, if the lamp is a non-removal lamp other than fluorescent lamps, this excludes the lamp. Here, non-removal lamps are the lamps of which the mounting or removing is possible only by use of a tool. The lamps which the mounting or removing is possible in accordance with the instruction manual although a tool is required for the mounting or</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict																																																																								
	<p>removing are considered not to be non-removable lamp. If a tool is required for the mounting or removing and if the instruction for mounting or removing is available only in the construction manual for the constructors, the lamp is considered to be non-removable lamp.</p> <p>Compliance is checked by inspection. (J60598-1(H29))</p>																																																																										
1.6 (4.32)	<p>Add the following after the paragraph.</p> <p>Overvoltage protective devices shall not be used to connect between live parts and accessible metal parts of Class 0I luminaires. (J60598-1(H29))</p>		N/A																																																																								
1.7 (11)	Creepage distances and clearances		-																																																																								
1.7 (11.2.1)	<p>In the seventh paragraph, replace “IEC publications” with “Appendix (except for Appendix 12) of “Interpretation of METI Ordinance establishing Technical Requirements for Electrical Appliances and Materials”, IEC standards or JIS standards harmonizing with IEC standards”.</p> <p>(J60598-1(H29))</p>		P																																																																								
	<p>Replace Table 11.1 with the following.</p> <p>Table 11.1 – Minimum distances for a.c. (50/60 Hz) sinusoidal voltages (to be used in conjunction with Annex M)</p> <table border="1"> <thead> <tr> <th>RMS working voltage^a Not exceeding V^f</th> <th>50^a</th> <th>100^a</th> <th>150^a</th> <th>200^a</th> <th>250^a</th> </tr> </thead> <tbody> <tr> <td>Distances^g mm^a</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Creepage distances^b</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>- Basic insulation..... PTI^a ≥ 600^f</td> <td>0,6^g</td> <td>0,71^g</td> <td>0,8^g</td> <td>1,5^g</td> <td>1,5^g</td> </tr> <tr> <td>..... PTI^a < 600^f</td> <td>1,2^g</td> <td>1,4^g</td> <td>1,6^g</td> <td>2,0^g</td> <td>2,5^g</td> </tr> <tr> <td>- Supplementary insulation..... PTI^a ≥ 600^f</td> <td>-^g</td> <td>0,71^g</td> <td>0,8^g</td> <td>1,5^g</td> <td>1,5^g</td> </tr> <tr> <td>..... PTI^a < 600^f</td> <td>-^g</td> <td>1,4^g</td> <td>1,6^g</td> <td>2,0^g</td> <td>2,5^g</td> </tr> <tr> <td>- Reinforced insulation^a</td> <td>-^a</td> <td>2,8^a</td> <td>3,2^a</td> <td>4,0^a</td> <td>5^a</td> </tr> <tr> <td>Clearances^c</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>- Basic insulation^g</td> <td>0,2^g</td> <td>0,5^g</td> <td>0,8^g</td> <td>1,5^g</td> <td>1,5^g</td> </tr> <tr> <td>..... Supplementary insulation^g</td> <td>-^g</td> <td>0,5^g</td> <td>0,8^g</td> <td>1,5^g</td> <td>1,5^g</td> </tr> <tr> <td>..... Reinforced insulation^a</td> <td>-^a</td> <td>1,5^a</td> <td>1,6^a</td> <td>3^a</td> <td>3^a</td> </tr> </tbody> </table> <p>a: PTI (proof tracking index) in accordance with JIS-C2134. b: For creepage distances, the equivalent d.c. voltage is equal to the r.m.s. value voltage. c: For clearances, the equivalent d.c. voltage is equal to the peak of the a.c. voltage. d: For insulation material with PTI ≥ 600, this is reduced to twice that of the base material. e: For insulation material with PTI ≥ 600, this is reduced to 1,5 mm. f: The values in the parentheses apply to basic insulation of class 0 luminaires, except parts of different polarity. g: The values in the parentheses apply to basic insulation of class 0 luminaires, except parts of different polarity.</p>	RMS working voltage ^a Not exceeding V ^f	50 ^a	100 ^a	150 ^a	200 ^a	250 ^a	Distances ^g mm ^a						Creepage distances ^b						- Basic insulation..... PTI ^a ≥ 600 ^f	0,6 ^g	0,71 ^g	0,8 ^g	1,5 ^g	1,5 ^g PTI ^a < 600 ^f	1,2 ^g	1,4 ^g	1,6 ^g	2,0 ^g	2,5 ^g	- Supplementary insulation..... PTI ^a ≥ 600 ^f	- ^g	0,71 ^g	0,8 ^g	1,5 ^g	1,5 ^g PTI ^a < 600 ^f	- ^g	1,4 ^g	1,6 ^g	2,0 ^g	2,5 ^g	- Reinforced insulation ^a	- ^a	2,8 ^a	3,2 ^a	4,0 ^a	5 ^a	Clearances ^c						- Basic insulation ^g	0,2 ^g	0,5 ^g	0,8 ^g	1,5 ^g	1,5 ^g Supplementary insulation ^g	- ^g	0,5 ^g	0,8 ^g	1,5 ^g	1,5 ^g Reinforced insulation ^a	- ^a	1,5 ^a	1,6 ^a	3 ^a	3 ^a		P
RMS working voltage ^a Not exceeding V ^f	50 ^a	100 ^a	150 ^a	200 ^a	250 ^a																																																																						
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- Reinforced insulation ^a	- ^a	2,8 ^a	3,2 ^a	4,0 ^a	5 ^a																																																																						
Clearances ^c																																																																											
- Basic insulation ^g	0,2 ^g	0,5 ^g	0,8 ^g	1,5 ^g	1,5 ^g																																																																						
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..... Reinforced insulation ^a	- ^a	1,5 ^a	1,6 ^a	3 ^a	3 ^a																																																																						

Attachment No.1

IEC60598_2_1G - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
1.8 (7)	Provision for earthing		-
1.8 (7.2.1)	In the first paragraph, replace “class I luminaires” with “class I luminaires and class 0I luminaires”, “a lamp or replaceable starter” with “a replaceable light source or starter”, and “an earthing terminal or earthing contact” with “an earthing terminal, earthing contact or earthing lead”. (J60598-1(H29))		N/A
	In the second paragraph, replace “the earthing terminal or earthing contact” with “the earthing terminal, earthing contact or earthing lead”. (J60598-1(H29))		N/A
	At the end of the third paragraph, replace “an earthing terminal” with “an earthing terminal, earthing contact or earthing lead”. (J60598-1(H29))		N/A
1.8 (7.2.3)	At the end of NOTE, add the following. In the case of class 0I luminaires with a earthing lead, the earthing contact is at the end of the earthing lead. (J60598-1(H29))		N/A
1.8 (7.2.5)	At the end of paragraph, add the following. However, this does not apply to class 0I luminaires. (J60598-1(H29))		N/A
1.8 (7.2.6)	At the end of paragraph, add the following. For class 0I luminaires, the earthing terminal or earthing lead shall be provided in the easily visible place of enclosure. (J60598-1(H29))		N/A
1.8 (7.2.8)	Add the following at the end. NOTE Bare metal includes metals for which conductive surface treatment was made. (J60598-1(H29))		N/A
1.8 (7.2.9)	At the end of paragraph, add the following. And the compliance to the requirement of clause		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	7.2.7 is judged by referring Annex F of JIS C 6065. (J60598-1(H29))		
1.8 (7.2.11)	In the first paragraph, replace “coloured green-yellow” with “coloured green-yellow or an earthing core marked with the purport for earthing by means of not easily erased”. (J60598-1(H29))		N/A
	In the second paragraph, replace “of a supply cord” with “of a supply cord or the earthing core marked with the purport for earthing by means of not easily erased”. (J60598-1(H29))		N/A
	In the third paragraph, replace “the green and yellow colour combination” with “the green and yellow colour combination or which are marked with the purport for earthing,” (J60598-1(H29))		N/A
	In the fourth paragraph, replace “with supply cords” with “with supply cords having an earthing core”. (J60598-1(H29))		N/A
	Add the following after the second paragraph. Class 0I luminaires shall be provided with any of the following: - an earthing lead coloured green-yellow; - an earthing lead marked with the purport for earthing by means of not easily erased, or; - an earthing terminal. (J60598-1(H29))		N/A
1.9 (14 & 15)	Terminals		-
1.9 (14.3.1)	After the first paragraph, add the following. The requirement based on terminal sizes applies to only terminals intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts). (J60598-1(H29))		N/A
1.9 (14.3.2.3)	After the first sentence of the first paragraph, add the following. And, this requirement applies to only terminals		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts). (J60598-1(H29))		
1.9 (14.3.3)	At the beginning of the first paragraph, replace "Terminals" with "Terminals intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts)". (J60598-1(H29))		N/A
	Replace the last paragraph with the following. Compliance is checked by inspection, by measurement and by fitting conductors of the smallest and largest nominal cross-sectional areas specified in Table 14.2 or conductors of the smallest and largest nominal cross-sectional areas specified by the manufacturer. (J60598-1(H29))		N/A
1.9 (14.4.1)	At the beginning of the first paragraph, replace "For pillar terminals" with "For pillar terminals intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts)". (J60598-1(H29))		N/A
	At the beginning of the third paragraph, replace "For mantle terminals" with "For mantle terminals intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts)". (J60598-1(H29))		N/A
1.9 (14.4.2)	Replace the fifth paragraph with the following. Terminals intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts), are fitted with a conductor having the composition given in Table 14.3, and other terminals are fitted with a standard conductor of the cable/cord specified. (J60598-1(H29))		N/A
1.9 (14.4.3)	At the beginning of the first paragraph, replace "Terminal sizes up to and including size 5" with "Terminal sizes up to and including size 5, which are intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts)". (J60598-1(H29))		N/A
1.9 (14.4.6)	In the first sentence of the fifth paragraph, replace "Table 14.2" with "Table 14.2 or of the largest		N/A

Tel: (86)755-85277785

Fax: (86)755-23705230

E-mail: postmaster@aoc-cert.comWebsite: <http://www.aoc-cert.com>

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Attachment No.1

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Clause	Requirement + Test	Result - Remark	Verdict														
	nominal cross-sectional area specified by the manufacturer". (J60598-1(H29))																
	In the second sentence of the fifth paragraph, replace "Table 14.4 or" with "Table 14.4 or, if terminals are intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts)," (J60598-1(H29))		N/A														
1.9 (14.4.7)	In the second paragraph, replace "For lug terminals" with "For lug terminals and terminals intended for connection by crimp terminals". (J60598-1(H29))		N/A														
	Replace the fourth paragraph with the following. Compliance is checked by inspection and, by the following test if terminals are other than terminal intended for connection by crimp terminals. (J60598-1(H29))		N/A														
	In the fifth paragraph, replace "in Table 14.2" with "in Table 14.2 or of the smallest and largest nominal cross-sectional areas specified by the manufacturer". (J60598-1(H29))		N/A														
	Replace seventh paragraph with the following. Each conductor is then subjected to a full of the value, a pull , given in Table 14.5 if the terminals are intended for connecting cables/cords complying with IEC standards, e.g., IEC 60227 (all parts), and a pull given in Table 14.5A if terminals are provided with marking of the applicable cables/cords. (J60598-1(H29))		N/A														
	After Table 14.5, add the following table. Table 14.5A – Pull to be applied to conductor <table border="1"> <tbody> <tr> <td>Nominal cross-sectional areas of applicable cables/cords mm²</td> <td>≤ 1,0</td> <td>1,0 < and ≤ 1,5</td> <td>1,5 < and ≤ 2,5</td> <td>2,5 < and ≤ 4</td> <td>4 < and ≤ 6</td> <td>6 < and ≤ 8</td> </tr> <tr> <td>Pull (N)</td> <td>35</td> <td>40</td> <td>50</td> <td>60</td> <td>80</td> <td>90</td> </tr> </tbody> </table> (J60598-1(H29))	Nominal cross-sectional areas of applicable cables/cords mm ²	≤ 1,0	1,0 < and ≤ 1,5	1,5 < and ≤ 2,5	2,5 < and ≤ 4	4 < and ≤ 6	6 < and ≤ 8	Pull (N)	35	40	50	60	80	90		N/A
Nominal cross-sectional areas of applicable cables/cords mm ²	≤ 1,0	1,0 < and ≤ 1,5	1,5 < and ≤ 2,5	2,5 < and ≤ 4	4 < and ≤ 6	6 < and ≤ 8											
Pull (N)	35	40	50	60	80	90											
1.9 (14.4.8)	In the second paragraph, replace "in Table 14.2" with "in Table 14.2 or of the smallest and largest nominal cross-sectional areas specified by the		N/A														

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Clause	Requirement + Test	Result - Remark	Verdict		
	manufacturer". (J60598-1(H29))				
1.9 (15.2.6)	In the paragraph, replace "terminals" with "terminals, lampholders, etc." (J60598-1(H29))		N/A		
1.9 (15.3.10)	In the paragraph, replace "Manufacturers shall state" with "For terminals intended for connection to the fixed wiring and for replacement by users, manufacturers shall state". (J60598-1(H29))		N/A		
1.9 (15.5.2.2.1)	In the first sentence of the paragraph, replace "at a temperature of $T \pm 5 \text{ }^\circ\text{C}$ or $100 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$, whichever is the higher," with "at a temperature of $T \pm 5 \text{ }^\circ\text{C}$ or $100 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$, whichever is the higher, if it is a T -marked component, and at a temperature of $t \pm 5 \text{ }^\circ\text{C}$ if it is a t -marked component". (J60598-1(H29))		N/A		
	Replace NOTE with the following. NOTE The temperatures T and t are the marked maximum rated temperature for T -marked or t -marked components such as lampholders. (J60598-1(H29))		N/A		
1.9 (15.6.1)	In the first paragraph, replace "in Table 15.1" with "in Table 15.1 or with the nominal cross-sectional areas specified by the manufacturer". (J60598-1(H29))		N/A		
	Add the following values at the bottom of Table 15.1. <table border="1" data-bbox="507 1496 949 1541"> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">> 2,0 to</td> </tr> </table> (J60598-1(H29))	20	> 2,0 to		N/A
20	> 2,0 to				
	At the end of the last paragraph, replace "cross-sectional areas specified" with "cross-sectional areas specified or of the smallest and largest nominal cross-sectional areas specified by the manufacturer". (J60598-1(H29))		N/A		
1.9 (15.6.2.1)	Replace "specified in 15.6." in the first paragraph with "specified in 15.6 or by the manufacturer". (J60598-1(H29))		N/A		

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Clause	Requirement + Test	Result - Remark	Verdict			
	Replace “each terminal five times” in the first paragraph with “each terminal five times with solid copper conductors having the largest and then the smallest cross-sectional areas alternately”. (J60598-1(H29))		N/A			
1.9 (15.6.2.2)	Add the following values at the bottom of Table 15.2. <table border="1" data-bbox="504 678 871 725"> <tr> <td>20</td> <td>30</td> <td></td> </tr> </table> (J60598-1(H29))	20	30			N/A
20	30					
1.9 (15.6.3.2.3)	In the first sentence of the paragraph, replace “at a temperature of $T \pm 5 \text{ }^\circ\text{C}$ or $100 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$, whichever is the higher,” with “at a temperature of $T \pm 5 \text{ }^\circ\text{C}$ or $100 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$, whichever is the higher, if it is a T -marked component, and at a temperature of $t \pm 5 \text{ }^\circ\text{C}$ if it is a t -marked component”. (J60598-1(H29))		N/A			
	Replace NOTE with the following. NOTE The temperatures T and t are the marked maximum rated temperature for T -marked or t -marked components, such as lampholders. (J60598-1(H29))		N/A			
1.10 (5)	External and internal wiring		P			
1.10 (5.2.1)	Add “Ceiling rosette” after “appliance inlets;” in dashed paragraph of “fixed luminaires”. (J60598-1(H29))		P			
1.10 (5.2.2)	In the first paragraph, replace “those specified in IEC 60227 and IEC 60245, as indicated in Table 5.1” with “JIS C 3662-5, JIS C 3663-4 and IEC 60245, as indicated in Table 5.1, or those specified in Table 5.1A or Appendix 1 of “Interpretation of METI Ordinance establishing Technical requirements for Electrical Appliances and Materials””. (J60598-1(H29))		P			
	Add the following after the third paragraph. The use of cords without sheath is not acceptable for Luminaires other than ordinary class 0 luminaires (J60598-1(H29))		N/A			
	In the left column of the Table 5.1, replace “Ordinary		P			

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Clause	Requirement + Test	Result - Remark	Verdict																																	
	class I luminaires” with “Ordinary class I luminaires, ordinary class 0I luminaires”, and “Ordinary class II luminaires” with “Ordinary class II luminaires, class 0 luminaires”. (J60598-1(H29))																																			
	After Table 5.1, add the following. Table 5.1A – Cables/cords for external wiring <table border="1" data-bbox="316 680 948 1787"> <thead> <tr> <th data-bbox="316 680 443 788">Service voltage V</th> <th data-bbox="443 680 820 788">Type of cable/cord</th> <th data-bbox="820 680 948 788">Symbol for cable/cord</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 788 443 864">≤ 150</td> <td data-bbox="443 788 820 864">Indoor silicone rubber insulated cords</td> <td data-bbox="820 788 948 864">-</td> </tr> <tr> <td data-bbox="316 864 443 981" rowspan="2">≤ 300</td> <td data-bbox="443 864 820 909">Rubber insulated flexible cords</td> <td data-bbox="820 864 948 909">-</td> </tr> <tr> <td data-bbox="443 909 820 981">Polyvinyl chloride insulated flexible cords</td> <td data-bbox="820 909 948 981">-</td> </tr> <tr> <td data-bbox="316 981 443 1711" rowspan="7">≤ 600</td> <td data-bbox="443 981 820 1057">600 V Polyvinyl chloride insulated wires</td> <td data-bbox="820 981 948 1057">IV</td> </tr> <tr> <td data-bbox="443 1057 820 1155">600 V Grade polyvinyl chloride insulated and sheathed portable power cables</td> <td data-bbox="820 1057 948 1155">VCT</td> </tr> <tr> <td data-bbox="443 1155 820 1254">Rubber insulated lead wires for electric machinery and apparatus</td> <td data-bbox="820 1155 948 1254">600V LKGB</td> </tr> <tr> <td data-bbox="443 1254 820 1352">Electric polyvinyl chloride insulated wires for electrical apparatus</td> <td data-bbox="820 1254 948 1352">KIV</td> </tr> <tr> <td data-bbox="443 1352 820 1429">600V Grade heat-resistant polyvinyl chloride insulated wires</td> <td data-bbox="820 1352 948 1429">HIV</td> </tr> <tr> <td data-bbox="443 1429 820 1505">600 V Silicone rubber insulated wires</td> <td data-bbox="820 1429 948 1505">600V KGB</td> </tr> <tr> <td data-bbox="443 1505 820 1581">600V Rubber insulated flexible cables</td> <td data-bbox="820 1505 948 1581">2CT, 2RNCT</td> </tr> <tr> <td data-bbox="316 1581 443 1635" rowspan="3">≤ 1 000</td> <td data-bbox="443 1581 820 1635">600V Polyethylene insulated cables</td> <td data-bbox="820 1581 948 1635">600VEE</td> </tr> <tr> <td data-bbox="443 1635 820 1711">600V Flame retardant polyethylene insulated wires</td> <td data-bbox="820 1635 948 1711">1E/F</td> </tr> <tr> <td data-bbox="443 1711 820 1787">1 000 V Fluorescent discharge lamps wires</td> <td data-bbox="820 1711 948 1787">1 000V FL</td> </tr> </tbody> </table> (J60598-1(H29))	Service voltage V	Type of cable/cord	Symbol for cable/cord	≤ 150	Indoor silicone rubber insulated cords	-	≤ 300	Rubber insulated flexible cords	-	Polyvinyl chloride insulated flexible cords	-	≤ 600	600 V Polyvinyl chloride insulated wires	IV	600 V Grade polyvinyl chloride insulated and sheathed portable power cables	VCT	Rubber insulated lead wires for electric machinery and apparatus	600V LKGB	Electric polyvinyl chloride insulated wires for electrical apparatus	KIV	600V Grade heat-resistant polyvinyl chloride insulated wires	HIV	600 V Silicone rubber insulated wires	600V KGB	600V Rubber insulated flexible cables	2CT, 2RNCT	≤ 1 000	600V Polyethylene insulated cables	600VEE	600V Flame retardant polyethylene insulated wires	1E/F	1 000 V Fluorescent discharge lamps wires	1 000V FL		P
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	In the third paragraph, replace the second and third dash with the following.		P																																	

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Clause	Requirement + Test	Result - Remark	Verdict
	- 1,0 mm ² for rough service luminaires; - 0,75 mm ² for other luminaires. (J60598-1(H29))		
	Replace the last paragraph with the following. Flexible conductors of luminaires having a socket-outlet shall have sufficient nominal cross-sectional areas corresponding to the capacity supplied from wall-sockets. (J60598-1(H29))		N/A
1.10 (5.2.8)	After NOTE 2, add the following. NOTE 2A Bushing includes tubes. (J60598-1(H29))		P
1.10 (5.2.10.3)	In Table 5.2, replace the title with "Table 5.2 – Pull-force applied to cables/cords". (J60598-1(H29))		N/A
1.10 (5.2.14)	After the second paragraph, add the following. NOTE 0A In Appendix 4 of "Interpretation of METI Ordinance establishing Technical requirements for Electrical Appliances and Materials", protection class against electric shock for plugs has not been defined. Therefore, if the luminaire including the plug fulfills the protection class against electric shock, the plug is considered to be in compliance with the requirement of this sub-clause. (J60598-1(H29))		P
	In the fourth paragraph, replace "IEC 60083" with "Table 1 of JIS C 8303". (J60598-1(H29))		P
1.10 (5.2.18)	In the first paragraph, replace "IEC 60083, or with regional or national standards where applicable" with "JIS C 8282 (all parts), or with Appendix 4 of "Interpretation of METI Ordinance establishing Technical requirements for Electrical Appliances and Materials". (J60598-1(H29))		P
1.10 (5.3.1)	Replace the sixth paragraph with the following. When stable conditions are reached, the voltage is increased to the voltage specified in d) of 12.4.1		P

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
1.10 (5.3.3)	At the end of this paragraph, add the following. For class 0, class 0I and class I luminaires, if the metal parts for passing have smoothly rounded edges, they are considered to be in conformity with this requirement. (J60598-1(H29))		P
1.11 (8)	Protection against electric shock		-
1.11 (8.2.1)	In the first sentence of the first paragraph, replace "for replacing lamps or (replaceable) starters" with "for replacing replaceable light sources or (replaceable) starters". (J60598-1(H29))		P
	At the beginning of the second sentence of the first paragraph, add "Except for class 0 luminaires," (J60598-1(H29))		N/A
	In the second sentence of the paragraph before item a), replace "except lamps and" with "except lamps, starters and". (J60598-1(H29))		N/A
	At the beginning of the fifth paragraph from the last, replace "Class I and class II" with "Class 0, class 0I, class I and class II". (J60598-1(H29))		P
	In the last paragraph, replace "double-capped Fa8 tubular lamps" with "double-capped FaX6 fluorescent lamps". (J60598-1(H29))		N/A
1.11 (8.2.3)	In the second sentence of item a), replace "cap" with " cap and accessible metal parts other than cap". (J60598-1(H29))		N/A
	In Item b), replace "class I" with "class 0I and class I". (J60598-1(H29))		N/A
1.11 (8.2.6)	In the fourth paragraph, replace "20 N" with " at least 20 N", and "80 N" with "at least 80 N", (J60598-1(H29))		P
1.12 (12)	Endurance tests and thermal tests		-
1.12(-)	Replace the first and second paragraph with the		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>following.</p> <p>The provisions of Section 12 of JIS C 8105-1 apply. Luminaires with an IP classification greater than IP20 shall be subjected to the relevant tests of Clauses 12.4 Thermal test (normal operation), 12.5 Thermal test (abnormal operation), 12.6 Thermal test (failed windings in lamp control gear) and 12.7 Thermal test in regard to fault conditions in lamp control gear or electronic devices incorporated in thermoplastic luminaires of JIS C 8105-1 after the test(s) of Clause 9.2 but before the test(s) of Clause 9.3 of JIS C 8105-1 (J60598-2-1(H29))</p>		
1.12 (12.2)	<p>In the second sentence of the third paragraph, replace “the ballast” with “the ballast (reference ballast)” (J60598-1(H29))</p>		N/A
1.12 (12.3.1)	<p>In 1) of Item e), replace “cyclic protective devices” with “cyclic thermal protective devices”, and “(thermal links)” with “(thermal links, ballasts marked with the symbol ∇_{TC} or ∇_{OF})” (J60598-1(H29))</p>		N/A
	<p>In 2) of Item e), replace “the protective device” with “the thermal protective device” in both the first and second sentences, and “adjustment below” with “adjustment of the supply voltage or ambient temperature at that time below” in the second sentence. (J60598-1(H29))</p>		N/A
	<p>In the NOTE, replace “the intended protection” with “the intended thermal protection”. (J60598-1(H29))</p>		P
1.12 (12.3.2)	<p>In the second sentence of paragraph, replace “a chance failure” with “a chance failure (including operation of thermal protective device)”. (J60598-1(H29))</p>		N/A
1.12 (12.4.1)	<p>At the end of the second dash of Item d), add the following.</p> <p>However, for tubular fluorescent and other discharge lamp luminaires, using electronic ballasts, the most unfavourable value in the range of 0,94 and 1,06 times of the rated voltage (the range of</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	0,94 times of the minimum and 1,06 times of the maximum, for the rated voltage range) (J60598-1(H29))		
	At the end of the second dash of Item d), add the following. - Tubular fluorescent, other discharge lamp luminaires and Filament lamp luminaires for ELV may be as follows instead of above second dash. However luminaires with electronic ballasts are excluded. For luminaires using protected ballasts and luminaires with ballasts/transformers which are classified by the winding insulation system, 1,0 times may be applied. For luminaires not incorporating ballast, the rated voltage marked on the ballast may be applied, by using the ballast specified by the manufacturer. For luminaires for which plural ballasts are specified, the rated voltage marked on the ballast may be applied, by using the ballast presenting the most unfavourable condition. (J60598-1(H29))		N/A
	After the third dash of Item d), add the following new dash. - For LED luminaires: the most unfavourable value in the range of 0,94 and 1,06 times of the rated voltage (the range of 0,94 times of the minimum and 1,06 times of the maximum, for the rated voltage range) (J60598-1(H29))		P
	In Item j), replace "in Annex D" with "in Annex D, and the maximum temperature of the surface subjected to the light beam is measured". (J60598-1(H29))		P
1.12 (12.4.2)	Add the following after the first sentence of item a). This is not applied to the test according to test condition third dash of 12.4.1 d). (J60598-1(H29))		P
	Add the following to the end of item b). .For the permissible maximum temperature of the		P

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Clause	Requirement + Test	Result - Remark	Verdict
	material, Appendix JB is available. (J60598-1(H29))		
	In item c), replace “for example clamped)” with “for example clamped), limited to the case where cables/cords listed in Table 5.1 complying with the relevant IEC standard are used” (J60598-1(H29))		N/A
	Replace Table 12.1 with the following except for the bottom column. Table 12.1 – Maximum temperatures under the test conditions 12.4.1, for principal parts		P

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Clause	Requirement + Test	Result - Remark	Verdict																																																															
	<table border="1"> <tr> <td colspan="2" data-bbox="320 389 895 423">Part^a</td> <td data-bbox="895 389 948 423">Max</td> </tr> <tr> <td colspan="2" data-bbox="320 427 895 483">Lamp-caps^a</td> <td data-bbox="895 427 948 483">A ap^a</td> </tr> <tr> <td data-bbox="320 488 448 622" rowspan="4">Windings^a</td> <td data-bbox="448 488 895 510">Ballasts or transformers with Δ marking^a</td> <td data-bbox="895 488 948 510"></td> </tr> <tr> <td data-bbox="448 510 655 622" rowspan="4">Windings in ballasts, transformers, motors, etc., if the winding insulation system according to JIS-C-4003^a</td> <td data-bbox="655 510 895 533">--of class-A material^a</td> </tr> <tr> <td data-bbox="655 533 895 555">--of class-E material^a</td> </tr> <tr> <td data-bbox="655 555 895 577">--of class-B material^a</td> </tr> <tr> <td data-bbox="655 577 895 600">--of class-F material^a</td> </tr> <tr> <td data-bbox="320 622 655 701" rowspan="2">Case (of capacitor, starting device, electronic ballast or converter (including electronic step-down converter), LED-module control gear, etc.)^a</td> <td data-bbox="655 622 895 645">If Δ is marked^a</td> <td data-bbox="895 622 948 645"></td> </tr> <tr> <td data-bbox="655 645 895 701">For capacitor if Δ is not marked^a</td> <td data-bbox="895 645 948 701"></td> </tr> <tr> <td colspan="2" data-bbox="320 701 895 734">Insulation of winding^a</td> <td data-bbox="895 701 948 734">See Item</td> </tr> <tr> <td data-bbox="320 741 448 1077" rowspan="4">Contacts of ceramic lampholders and insulating material of lampholders and starterholders other than ceramic lampholders^a</td> <td data-bbox="448 741 560 864" rowspan="2">With T-marking^a</td> <td data-bbox="560 741 895 819">(B15, B22)^d-(JIS-C-8122)^a Others (JIS-C-8280, JIS-C-8324, JIS-C-8121 (all parts)^e and JIS-C-8122)^a</td> </tr> <tr> <td data-bbox="560 819 895 864">Others^a</td> </tr> <tr> <td data-bbox="448 864 560 1077" rowspan="2">Without T- or f-marking^a</td> <td data-bbox="560 864 895 976">(E14, B15) (JIS-C-8121 (all parts) and JIS-C-8122)^a (B22, E26, E17) (JIS-C-8280 and JIS-C-8122)^a E39, E11^a E12^a</td> </tr> <tr> <td data-bbox="560 976 895 1077">Fluorescent lampholders/ starterholders (JIS-C-8324) and miscellaneous lampholders (JIS-C-8121 (all parts)^e)^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1077 624 1122">Switches marked with individual ratings^a</td> <td data-bbox="624 1077 895 1122">Switches with T-marking^a Switches without T-marking^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1122 895 1155">Other parts of the luminaire (according to material and use)^a</td> <td data-bbox="895 1122 948 1155">See-</td> </tr> <tr> <td colspan="2" data-bbox="320 1155 624 1200" rowspan="2">Mounting surface^a</td> <td data-bbox="624 1155 895 1178">Normally flammable surface^a</td> </tr> <tr> <td data-bbox="624 1178 895 1200">Non-combustible surface^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1200 624 1245">Means of adjustment and its surrounding space^a</td> <td data-bbox="624 1200 895 1245">Metal parts^a Non-metal parts^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1245 624 1290" rowspan="2">Accessible parts of enclosure^a</td> <td data-bbox="624 1245 895 1267">Metal parts^a</td> </tr> <tr> <td data-bbox="624 1267 895 1290">Non-metal parts^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1290 895 1312">Enclosure to which a person is not easily accessible^a</td> <td data-bbox="895 1290 948 1312"></td> </tr> <tr> <td colspan="2" data-bbox="320 1312 895 1402">Objects lighted by spotlights (see 12.4.1-j)^a</td> <td data-bbox="895 1312 948 1402">90 the v man the v</td> </tr> <tr> <td colspan="2" data-bbox="320 1402 895 1435">Track (for track-mounted luminaires)^a</td> <td data-bbox="895 1402 948 1435">As-</td> </tr> <tr> <td colspan="2" data-bbox="320 1435 624 1536" rowspan="3">Mains socket-outlet-mounted luminaire and plug-ballast/transformer^a</td> <td data-bbox="624 1435 895 1469">--case parts intended to be gripped by hand^a</td> </tr> <tr> <td data-bbox="624 1469 895 1503">--the plug/socket interface^a</td> </tr> <tr> <td data-bbox="624 1503 895 1536">--all other parts^a</td> </tr> <tr> <td colspan="2" data-bbox="320 1536 895 1559">Replaceable glow-starting devices^a</td> <td data-bbox="895 1536 948 1559"></td> </tr> </table> <p>(J60598-1(H29))</p>	Part ^a		Max	Lamp-caps ^a		A ap ^a	Windings ^a	Ballasts or transformers with Δ marking ^a		Windings in ballasts, transformers, motors, etc., if the winding insulation system according to JIS-C-4003 ^a	--of class-A material ^a	--of class-E material ^a	--of class-B material ^a	--of class-F material ^a	Case (of capacitor, starting device, electronic ballast or converter (including electronic step-down converter), LED-module control gear, etc.) ^a	If Δ is marked ^a		For capacitor if Δ is not marked ^a		Insulation of winding ^a		See Item	Contacts of ceramic lampholders and insulating material of lampholders and starterholders other than ceramic lampholders ^a	With T-marking ^a	(B15, B22) ^d -(JIS-C-8122) ^a Others (JIS-C-8280, JIS-C-8324, JIS-C-8121 (all parts) ^e and JIS-C-8122) ^a	Others ^a	Without T- or f-marking ^a	(E14, B15) (JIS-C-8121 (all parts) and JIS-C-8122) ^a (B22, E26, E17) (JIS-C-8280 and JIS-C-8122) ^a E39, E11 ^a E12 ^a	Fluorescent lampholders/ starterholders (JIS-C-8324) and miscellaneous lampholders (JIS-C-8121 (all parts) ^e) ^a	Switches marked with individual ratings ^a		Switches with T-marking ^a Switches without T-marking ^a	Other parts of the luminaire (according to material and use) ^a		See-	Mounting surface ^a		Normally flammable surface ^a	Non-combustible surface ^a	Means of adjustment and its surrounding space ^a		Metal parts ^a Non-metal parts ^a	Accessible parts of enclosure ^a		Metal parts ^a	Non-metal parts ^a	Enclosure to which a person is not easily accessible ^a			Objects lighted by spotlights (see 12.4.1-j) ^a		90 the v man the v	Track (for track-mounted luminaires) ^a		As-	Mains socket-outlet-mounted luminaire and 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	<p>At the end of Item b in the bottom column of Table 12.1, add the following sentence.</p> <p>If capacitors comply with JIS C 4908 and are marked with the symbol expressing the maximum allowable temperature, the marked symbol is replaced with the value of maximum temperature.</p> <p>(J60598-1(H29))</p>		P																																																															
	<p>At the end of Item f in the bottom column of Table</p>		P																																																															

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	<p>12.1, add the following sentence.</p> <p>Part of the enclosure is not considered to be a means of adjustment, except for the part for which the manufacturer's instructions explains the purport that the part is an operation part for adjusting the luminaire during use.</p> <p>(J60598-1(H29))</p>		
	<p>In the bottom column of Table 12.1, add the following new items after Item h.</p> <p>i For lampholders complying with only the relevant regulations, the maximum temperatures specified in the regulations apply.</p> <p>j In this table, "enclosure" is the enclosure in the state of normal use, except for the following part.</p> <ul style="list-style-type: none"> - upper surface of the electric installation part of the suspended fluorescent luminaires for household - lamps in the light source part inside the cover, and the part of inner surface of reflecting shades, globes and lighting covers etc. - road lighting luminaires, floodlights (including projectors, however, limited to floodlights with marking of the purport of luminaires for exhibition business on the surface of the body), luminaires for high ceiling (limited to those with marking of the purport on the surface of body, except for those to be used by contacted with (or by recessed into) the building materials), and reflecting shades, globes and lighting covers of luminaires for stages or studios <p>k Examples of the enclosure to which a person is not easily accessible:</p> <ul style="list-style-type: none"> - for recessed luminaires, the enclosure of the part of chassis recessed - the enclosure of the luminaires providing a clear guidance, which an instruction for mounting the luminaire out of arms reach is available in the installation instructions. <p>(J60598-1(H29))</p> 		N/A
	<p>In the title of Table 12.2, replace "12.4.2" with "12.4.1".</p> <p>(J60598-1(H29))</p>		P
1.12 (12.5.1)	<p>At the end of the third paragraph of Item b), add the following.</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>However, for tubular fluorescent and other discharge lamp luminaires, using electronic ballasts, the most unfavourable value in the range of 0,9 and 1,1 times of the rated voltage (the range of 0,9 times of the minimum and 1,1 times of the maximum, for the rated voltage range)</p> <p>(J60598-1(H29))</p>		
	<p>After the third paragraph of Item b), add the following.</p> <p>- For tubular fluorescent, other discharge lamp luminaires and Filament lamp luminaires for ELV, the rated voltage(in case of rated voltage range, maximum voltage) can be applied instead of above second dash, provided that luminaires using protected ballasts and luminaires with ballasts/transformers which are classified by the winding insulation system. However luminaires with electronic ballasts are excluded.</p> <p>(J60598-1(H29))</p>		N/A
	<p>After the fourth paragraph of Item b), add the following.</p> <p>- For LED luminaires: the most unfavourable value in the range of 0,9 and 1,1 times of the rated voltage (the range of 0,9 times of the minimum and 1,1 times of the maximum, for the rated voltage range).</p> <p>(J60598-1(H29))</p>		P
	<p>In the fifth paragraph of Item b), replace “transformer/convertors” with “transformer/convertors (including electronic convertor)”.</p> <p>(J60598-1(H29))</p>		N/A
	<p>In the paragraph of Item e), replace “metal halide lamps” with “metal halide lamps ¹⁾”</p> <p>(J60598-1(H29))</p>		N/A
	<p>At the end of Item e), add the following.</p> <p>However, for luminaires which the one-shot type protective device operates, the assessment for the winding temperatures of ballasts is not carried out.</p> <p>NOTE ¹⁾ Lamps which the purport is stated clearly in the manufacturer’s specifications etc.</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
	<p>After Item e), add the following new item.</p> <p>eA) For luminaires which an one-shot type protective device operates during the test, assessment for capacitors is not carried out if the capacitor is;</p> <ul style="list-style-type: none"> - capacitors with a built-in safety device specified in JIS C 4908; - capacitors with safety mechanism, specified in JIS C 4908, or; - capacitors protected by the enclosure of ballast, except for power factor improvement capacitors and phase-advanced capacitors <p>(J60598-1(H29))</p>		N/A
1.12 (12.5.2)	<p>Add the following after the first paragraph.</p> <p>This is not applied to the test according to test condition third dash of 12.5.1 b).</p> <p>(J60598-1(H29))</p>		P
	<p>In Item a in the bottom row of Table 12.3, replace “marked on” with “marked with S on”.</p> <p>(J60598-1(H29))</p>		P
	<p>Replace the title of Table 12.4 with the following.</p> <p>Table 12.4 – Maximum temperature of windings under abnormal operating conditions and at 110 % of rated voltage for lamp control gear (the case of use of protected ballasts: at 100 % of rated voltage)</p> <p>(J60598-1(H29))</p>		P
	<p>Replace the title of Table 12.5 with the following.</p> <p>Table 12.5 – Maximum temperature of windings under abnormal operating conditions and at 110 % of rated voltage for lamp control gear marked “D6” (the case of use of protected ballasts: at 100 % of rated voltage)</p> <p>(J60598-1(H29))</p>		P
	<p>In the last paragraph, replace “the relevant IEC auxiliary standard” with “clause 13 (Thermal endurance test for windings of ballasts) of JIS C8147-1”.</p>		P

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Clause	Requirement + Test	Result - Remark	Verdict
	(J60598-1(H29))		
	In the sentence with parentheses after the last paragraph, replace "the relevant IEC auxiliary standard" with "clause 13 of JIS C8147-1". (J60598-1(H29))		P
1.12 (12.6.1)	The end of the second sentence of Item b), add "(See Figure 9)". (J60598-1(H29))		P
1.12 (12.6.2)	In the title, replace "above 130 °C" with "above 130 °C, or symbol ∇_{TC} or ∇_{OP} ". (J60598-1(H29))		N/A
1.12 (12.7.1.2)	In the fifth paragraph, add the following after the second sentence. The best straight line through these points is drawn. (J60598-1(H29))		N/A
1.13 (9)	Resistance to dust and moisture		-
1.13 (9.2)	In this sub-clause, replace "9.2.9" with "9.2.9A". (J60598-1(H29))		P
	In the seventh paragraph, add the following after the first sentence. If the manufacturer specifies the method for mounting to the mounting surface, the test is carried out after mounting in accordance with the method specified. (J60598-1(H29))		P
	After Item e), add the following new item. eA) For moisture-proof luminaires used in bathroom etc., after the moisture-proof test specified in 9.2.9A, the luminaire tested shall be fulfill the following. - that entry of moisture which inhibits normal operation is not inside the luminaire; and - that the insulation resistance between all live parts and the earthed part is at least 1 M Ω , by measuring with an insulation resistance tester of DC 500 V rated measurement voltage which is specified in JIS C 1302. (J60598-1(H29))		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.13 (9.2.4)	At the end of NOTE, add the following. However, the state of lighting-on and lighting-off of the luminaire and the test duration shall be of as mentioned above. (J60598-1(H29))		P
1.13 (9.2.5)	At the end of NOTE, add the following. However, the state of lighting-on and lighting-off of the luminaire and the test duration shall be of as mentioned above. (J60598-1(H29))		P
1.13 (9.2.9A)	After sub-clause 9.2.9, add the following new sub-clause. 9.2.9A For luminaires usable in bath rooms etc., the luminaire under test is placed in the most unfavourable position of normal use, in the thermostatic chamber generating gentle breeze and maintained at 91 to 95 % relative humidity. In the thermostatic chamber, the temperatures at all positions where the luminaire under test is placed shall be kept at the appropriate temperature of $t \text{ }^{\circ}\text{C} \pm 1 \text{ }^{\circ}\text{C}$, within the range of 35 to 40 $^{\circ}\text{C}$. The luminaire shall be kept the state of lighting-on for a period of 8 h, and then the luminaire is placed in the state of lighting-off for a period of 16 h in the room of normal temperature and normal humidity. This cyclic operation is repeated 10 times. (J60598-1(H29))		P
1.14 (10)	Insulation resistance and electric strength		-
1.14 (10.2)	Add the following to the end of last paragraph. Note 1A U_{out} specified in JIS C 8147-1 means the maximum voltage generated between output terminals of control gear or output terminal and earth. (J60598-1(H29))		P
1.14 (10.2.1)	In the first paragraph, replace "after the application of the voltage" with "immediately after humidity test and thermal test (normal operation)". (J60598-1(H29))		P
	In the second row of Table 10.1, replace "class I luminaires" with "class 0, class 0I and class I		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	luminaires”. (J60598-1(H29))		
1.14 (10.2.2)	At the end of the second paragraph, add the following. In this case, the applied time after reaching to the specified voltage is considered as the specified time. (J60598-1(H29))		N/A
	In the 11th paragraph, replace “the ignitor operating” with “the ignitor operating (without fitting of lamp in the circuit)”. (J60598-1(H29))		N/A
	In the 13th paragraph after NOTE 2, replace “100 % rated voltage” with “100 % rated voltage, without fitting of lamp”. (J60598-1(H29))		N/A
	In the 15th paragraph, replace “with ignitors provided” with “with ignitors (including ignitors incorporated in ballasts) provided” (J60598-1(H29))		N/A
	Add the following to the end of last paragraph. Note 2A Uout specified in JIS C 8147-1 means the maximum voltage generated between output terminals or output terminal and earth of control gear. (J60598-1(H29))		N/A
	In the second row of Table 10.2, replace “class I luminaires” with “class 0, class 0I and class I luminaires”. (J60598-1(H29))		N/A
	In the bottom of Table 10.2, replace the second footnote with “U: working voltage”. (J60598-1(H29))		N/A
1.14 (10.3)	In the second row of Table 10.3, replace the text with the following. All luminaires of class 0, class 0I and class II (J60598-1(H29))		P
	In the third row of Table 10.3, replace the text with		P

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>the following.</p> <p>Class I luminaires rated up to and including 16 A fitted with a plug connectable to a mains socket-outlet (J60598-1(H29))</p>		
	<p>In the fourth row of Table 10.3, replace “Class I luminaires” with “Class 0I and class I luminaires”. (J60598-1(H29))</p>		N/A
	<p>In the fifth row of Table 10.3, replace “Class I luminaires” with “Class 0I and class I luminaires”. (J60598-1(H29))</p>		N/A
	<p>In the sixth row of Table 10.3, add ^{a)} to the value of 10 mA. (J60598-1(H29))</p>		P
	<p>By creating a column in the bottom of Table 10.3, add the following NOTE.</p> <p>NOTE ^{a)} Luminaires fitted with plural electronic lamp control gears may exceed 10 mA. In such case, marking specified in 3.3.19 is required. (J60598-1(H29))</p>		P

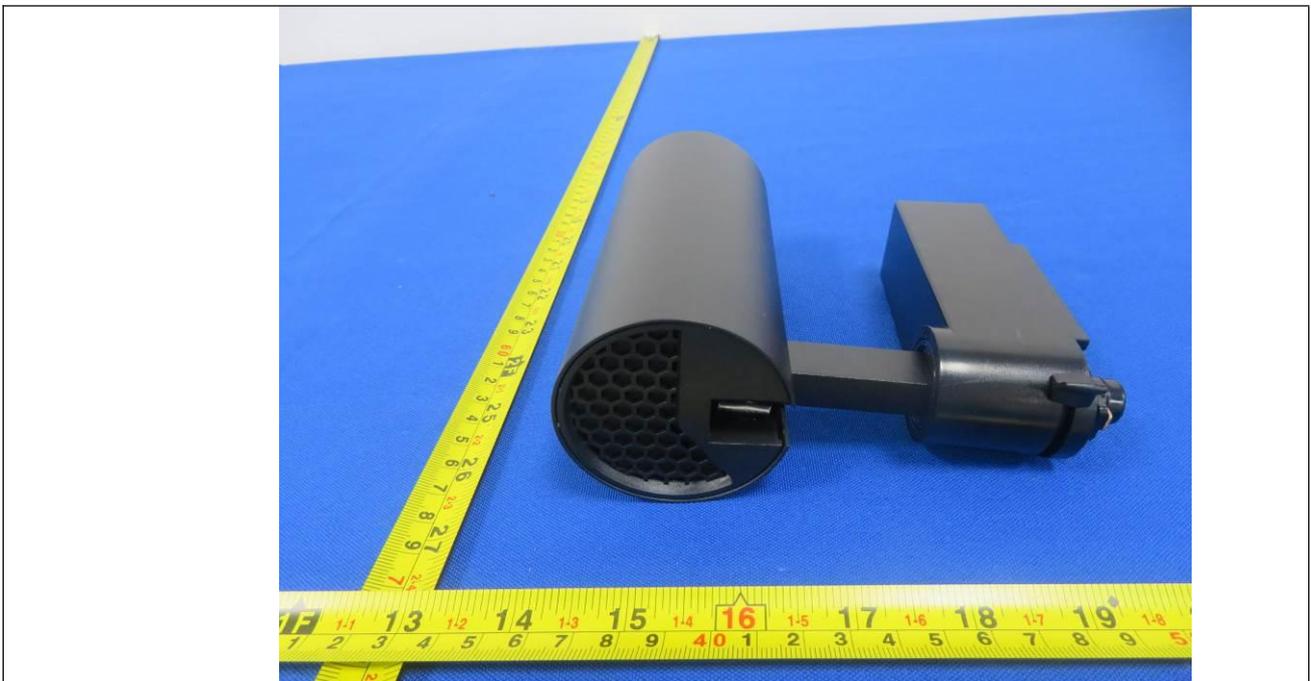
Attachment No.2

Product Photos

Details of: Fig. 1



Details of: Fig. 2



Attachment No.2

Product Photos

Details of: Fig. 3



Details of: Fig. 4



Attachment No.2

Product Photos

Details of: Fig. 5



- End of test report -