

TEST REPORT	
EN 60598-1:2015+A1:2018 LUMINAIRES --- SAFETY--- PART 1: GENERAL REQUIREMENTS AND TESTS	
EN 60598-2-1:1989 LUMINAIRES Part 2: Particular Requirements Section 1: Fixed General Purpose Luminaires	
Report reference No: CTR2206140095S	
Compiled by (+ signature).....: John Lee	
Approved by (+ signature): Andy Zang	
Date of issue: June 14, 2022	
Testing laboratory: CTC Compliance Service Co., Ltd.	
Address: 7F, Xingzhong Building, Xingzhong Road, Shiqi District, Zhongshan, Guangdong, P.R.C. (528400)	
Applicant: Artdon Lighting Limited	
Address: NO.15, Zhihe 3rd street, Yumin Dongsheng Town, zhongshan, China	
Manufactory Artdon Lighting Limited	
Address: NO.15, Zhihe 3rd street, Yumin Dongsheng Town, zhongshan, China	
Standard.....: EN 60598-2-1:1989 used conjunction with EN 60598-1:2015+A1:2018	
Test procedure: LVD Scheme	
Procedure deviation: N.A.	
Non-standard test method: N.A.	
This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of CTC Lab.	
Type of test object: LED Track Light	
Trademark: ARTDON	
Model/type reference: 32.06219	
Rating.....: AC220-240V, 50/60Hz, 15W	

Possible test case verdicts:

- test case does not apply to the test object..... : N (Not applicable)
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement..... : F (Fail)

Testing

Date of receipt of test item..... : May 31, 2022

Date(s) of performance of test..... : May 31, 2022 – June 14, 2022

General remarks:

"(see remark #)" refers to a remark appended to the report.

(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

The test results presented in this report relate only to the object tested.

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General product information:

1. The product covers models:

31.012XX, 31.015XX, 31.020XX, 31.025XX, 31.030XX, 31.035XX, 31.040XX, 31.045XX, 31.053XX, 31.055XX, 31.058XX, 31.062XX, 31.065XX, 31.073XX, 31.075XX, 31.080XX, 31.084XX, 31.085XX, 31.090XX, 31.100XX, 31.105XX, 31.110XX, 31.120XX, 31.130XX, 31.140XX, 31.150XX, 32.012XX, 32.015XX, 32.020XX, 32.025XX, 32.030XX, 32.035XX, 32.040XX, 32.045XX, 32.053XX, 32.055XX, 32.058XX, 32.062XX, 32.065XX, 32.073XX, 32.075XX, 32.080XX, 32.084XX, 32.085XX, 32.090XX, 32.100XX, 32.105XX, 32.110XX, 32.120XX, 32.130XX, 32.140XX, 32.150XX, 33.012XX, 33.015XX, 33.020XX, 33.025XX, 33.030XX, 33.035XX, 33.040XX, 33.045XX, 33.053XX, 33.055XX, 33.058XX, 33.062XX, 33.065XX, 33.073XX, 33.075XX, 33.080XX, 33.084XX, 33.085XX, 33.090XX, 33.100XX, 33.105XX, 33.110XX, 33.120XX, 33.130XX, 33.140XX, 33.150XX, 35.012XX, 35.015XX, 35.020XX, 35.025XX, 35.030XX, 35.035XX, 35.040XX, 35.045XX, 35.053XX, 35.055XX, 35.058XX, 35.062XX, 35.065XX, 35.073XX, 35.075XX, 35.080XX, 35.084XX, 35.085XX, 35.090XX, 35.100XX, 35.105XX, 35.110XX, 35.120XX, 35.130XX, 35.140XX, 35.150XX, 36.012XX, 36.015XX, 36.020XX, 36.025XX, 36.030XX, 36.035XX, 36.040XX, 36.045XX, 36.053XX, 36.055XX, 36.058XX, 36.062XX, 36.065XX, 36.073XX, 36.075XX, 36.080XX, 36.084XX, 36.085XX, 36.090XX, 36.100XX, 36.105XX, 36.110XX, 36.120XX, 36.130XX, 36.140XX, 36.150XX

Note: The XX(01-99) of the above model number represents the serial number of our model number.

2. All covered models are series product with different appearance and rate power.

3. Full tests are carried out on model 32.06219.

Copy of Label:



CODE NO : 32.06219
LAMP: 15W Citizen chips and
Tridonic driver
220-240V~ 50/60Hz
Artdon Lighting Limited

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
0	GENERAL TEST REQUIREMENTS		P
0.1	Information for luminaire design considered	Standard Yes ☒ No ☐	—
0.3	More sections applicable	Yes ☒ No ☐	—
2	CLASSIFICATION		P
2.2	Type of protection.....	Class I luminaires	—
2.3	Degree of protection.....	IP20	—
2.4	Luminaire only suitable for non-combustible surfaces	Yes ☐ No ☒	—
	Luminaire suitable for normally flammable surfaces	Yes ☒ No ☐	—
	Luminaire suitable to be covered by insulating material.....	Yes ☐ No ☒	—
2.5	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—
3	MARKING		P
3.2	Marking on luminaires		P
3.2.1	Mark of origin	Artdon Lighting Limited	P
3.2.2	Rated voltage(s) in volts	220-240V	P
3.2.3	The rated maximum ambient temperature t_a		N
3.2.4	Symbol for class II luminaires	Class I luminaires	N
3.2.5	Symbol for class III luminaires	Class I luminaires	N
3.2.6	IP numbers	IP20	N
3.2.7	Maker's model number or type reference	32.06219	P
3.2.8	Rated wattage	15W	P
3.2.9	The symbol for mounting on flammable surface		P
3.2.10	Information concerning special lamps		N
3.2.11	Similar shape to "cool beam" lamps		N
3.2.12	Terminations' mark		P
3.2.13	Minimum distance from lighted objects		N
3.2.14	For rough service luminaires		N
3.2.15	For use with bowl mirror lamps		N
3.2.16	Luminaires incorporating a glass protective shield		N
3.2.17	The maximum number of interconnecting luminaires		N
3.2.18	For luminaires with ignitors		N
3.2.19	for use with self-shielded tungsten halogen lamps only		N
3.3	Additional information		P
	Language of instructions	English	P

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
3.3.1	Combination luminaires		N
3.3.2	Nominal frequency in Hz	50/60Hz	P
3.3.3	Operating temperature		N
3.3.4	Symbol or warning notice		N
3.3.5	Wiring diagram	Provided in instruction	P
3.3.6	Special conditions		N
3.3.7	Metal halide lamp luminaire – warning		N
3.3.8	Limitation for semi-luminaires		N
3.3.9	Power factor and supply current		P
3.3.10	Suitability for use indoors		P
3.3.11	Luminaires with remote control		N
3.3.12	Clip-mounted luminaire – warning		N
3.3.13	Specifications of protective shields		N
3.3.14	Symbol for nature of supply	~	P
3.3.15	Rated current of socket outlet		N
3.3.16	Rough service luminaires		N
3.3.17	Mounting instruction for type Y, type Z and some type X attachments		N
3.3.18	Non-ordinary luminaires with PVC cable	Ordinary luminaire	N
3.4	Test of marking		P
	- Test with water	15s	P
	- Test with hexane	15s	P
	- Legible after test	Legible	P
	- Label attached	Not be easily removable, no curling	P
4	CONSTRUCTION		P
4.2	Components replaceable without difficulty		P
4.3	Wire ways smooth and free from sharp edges		P
4.4	Lampholders		P
4.4.1	Integral lampholder		P
4.4.2	Wiring connection		N
4.4.3	Lampholder for end- to- end mounting		N
4.4.4	Positioning		N
	- pressure test (N)	:	N
	- bending test (Nm).....	:	N
4.4.5	Peak pulse voltage	Without ignitors	N
4.4.6	Centre contact		N
4.4.7	Parts in rough service luminaires resistance to tracking	Normal use luminaires	N
4.4.8	Lamp connectors		N
4.4.9	Caps and bases correctly used		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
4.5	Starter holders		N
	Starter holder in luminaires other than class II		N
	Starter holder class II construction		N
4.6	Terminal blocks		N
	Tails		N
	Unsecured blocks		N
4.7	Terminals and supply connections		P
4.7.1	Contact to metal parts		P
4.7.2	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
4.7.3	Terminals for supply conductors		P
4.7.3.1	Welding method and material		N
	- stranded or solid conductor		N
	- spot welding		N
	- welding between wires		N
	- mechanical test according to 15.8.2		N
	- electrical test according to 15.9		N
	- ageing test according to 15.9.2.3 and 15.9.2.4		N
4.7.4	Terminals other than supply connection		P
4.7.5	Heat-resistant wiring/sleeves		N
4.7.6	Multi-pole plug	No plug provided	N
	- test at 30 N		N
4.8	Switches:	No switch provided	N
	- adequate rating		N
	- adequate fixing		N
	- polarized supply		N
	- compliance with 61058-1 for electronic switches		N
4.9	Insulating lining and sleeves		P
4.9.1	Retainment		P
	Method of fixing.....:		P
4.9.2	Insulated linings and sleeves		P
	a) & c) Insulation resistance and electric strength	Accord with IEC 60684 require.	P
	b) Ageing test. Temperature (°C)		N
4.10	Insulation of Class II luminaires		N
4.10.1	No contact, mounting surface – accessible metal parts – wiring of basic insulation	Class I luminaires, no such requirements	N
	Safe installation fixed luminaires		N
	Capacitors and switches		N
	Interference suppression capacitors according to IEC 60384-14		N
4.10.2	Assembly gaps:		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	- not coincidental		N
	- no straight access with test probe		N
4.10.3	Retainment of insulation:		N
	- fixed		N
	- unable to be replaced; luminaire inoperative		N
	- sleeves retained in position		N
	- lining in lampholder		N
4.11	Electrical connections		P
4.11.1	Contact pressure		P
4.11.2	Screws:		N
	- self-tapping screws		N
	- thread-cutting screws		N
	- at least two self-tapping screws		N
4.11.3	Screw locking:		N
	- spring washer		N
	- rivets		N
4.11.4	Material of current-carrying parts		P
4.11.5	No contact to wood		N
4.11.6	Electro-mechanical contact systems		N
4.12	Mechanical connections and glands		P
4.12.1	Screws not made of soft metal		P
	Screws of insulating material		N
	Torque test: torque (Nm); part..... :		P
4.12.2	Screws with diameter < 3 mm screwed into metal		P
4.12.4	Locked connections:		N
	- fixed arms; torque (Nm)..... :		N
	- lampholder; torque (Nm)..... :		N
	- push-button switches; torque 0,8 Nm..... :		N
4.12.5	Screwed glands; force (N)..... :		N
4.13	Mechanical strength		P
4.13.1	Impact tests:		P
	Part to be tested:		P
	- fragile parts; energy (Nm)..... :	0,2 Nm	P
	- other parts; energy (Nm)..... :	0,35 Nm	P
4.13.2	Metal parts enclosing live parts shall have adequate mechanical strength.		P
4.13.3	Straight test finger	30N	P
4.13.4	Rough service luminaires		N
	- IP54 or higher		N
	a) fixed luminaires		N
	Impact tests on three samples		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	- test steel sphere		-
	- test height		-
	b) hand-held		N
	c) delivered with a stand		N
	- stability test		N
	- Impacts resulting from overturning		N
	- weight load force test (4 times the weight of the luminaire)		N
	d) for temporary installations and suitable for mounting on a stand		N
4.13.6	Plug-ballast/transformers and mains socket-outlet-mounted luminaires shall have adequate mechanical strength		N
4.14	Suspensions and adjusting devices		N
4.14.1	Mechanical load:		N
	A) four times the weight		N
	B) torque 2,5 Nm :		N
	C) bracket arm; bending moment (Nm)..... :		N
	D) load track- mounted luminaires		N
	E) clip-mounted luminaires, glass-shelve. Thickness (mm) :		N
	metal rod. Diameter (mm) :		N
	Fixed luminaire or independent control gear without fixing devices		N
4.14.2	Load to flexible cables		N
	Mass (kg)..... :		N
	Stress in conductors (N/mm ²)..... :		N
	Semi-luminaires – mass (kg) :		N
	Semi-luminaires – bending moment (Nm)..... :		N
4.14.3	Adjusting devices:		N
	- flexing test; number of cycles..... :		N
	- strands broken		N
	- electric strength test afterwards		N
4.14.4	Telescopic tubes: cords not fixed to tube; no strain on conductors		N
4.14.5	Guide pulleys		N
4.14.6	Plug-ballast/transformers and mains socket-outlet-mounted luminaires shall not impose undue strain on socket-outlets.		N
4.15	Flammable materials:		N
	- glow- wire test 650 °C		N
	- spacing ≥ 30 mm		N
	- screen withstanding test of 13.3.1		N
	- screen dimensions		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	- no fiercely burning material		N
	- thermal protection		N
	- electronic circuits exempted		N
4.15.2	Luminaires made of thermoplastic material with lamp control gear		N
	a) construction		N
	b) temperature sensing control		N
	c) surface temperature		N
4.16	Luminaires marked with F-symbol		P
	No lamp control gear		N
	Electronic lamp control gear		N
4.16.1	Lamp control gear spacing:		N
	- spacing 35 mm		N
	- spacing 10 mm		N
4.16.2	Thermal protection:		N
	- in lamp control gear		N
	- external		N
	- fixed position		N
	- temperature marked lamp control gear		N
4.16.3	"F" curve measured		N
4.17	Drain holes		N
	Clearance at least 5 mm		N
4.18	Resistance to corrosion:		N
4.18.1	- rust-resistance		N
4.18.2	- season cracking in copper		N
4.18.3	- corrosion of aluminium		N
4.19	Ignitors compatible with ballast	No ignitors	N
4.20	Rough service vibration	Normal use luminaire	N
	Duration:		N
	Amplitude:		N
	Frequency range:		N
	Sweep rate:		N
4.21	Protective shield:		N
4.21.1	Shield fitted		N
4.21.2	Particles from a shattering lamp not impair safety		N
4.21.3	No direct path		N
4.21.4	Impact test on shield		N
	Glow-wire test on lamp compartment		N
4.22	Attachments to lamps		N
4.23	Semi-luminaires comply class II		N
4.24	UV radiation, metal halide lamps		N
4.25	No sharp point or edges		P

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
4.26	Short-circuit protection:		N
4.26.1	Uninsulated accessible SELV parts		N
4.26.2	Short-circuit test		N
4.26.3	Test chain according to Figure 29		N
5	EXTERNAL AND INTERNAL WIRING		P
5.2	Supply connection and external wiring		P
5.2.1	Means of connection.....:		P
	Connecting leads (tails)		N
	- without a means for connection to the supply		N
	- terminal block specified		N
	- relevant information provided		N
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N
5.2.2	Type of cable		N
	Cables equal to HD21 S3 or HD22 S2 (EN)		N
	Nominal cross-sectional area (mm ²).....:		N
5.2.3	Type of attachment, X, Y or Z		N
5.2.5	Type Z not connected to screws		N
5.2.6	Cable entries:		N
	- suitable for introduction		N
	- adequate degree of protection		N
5.2.7	Cable entries through rigid material have rounded edges		P
5.2.8	Insulating bushings:		N
	- suitably fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- tubes or guards made of insulating material		N
5.2.9	Locking of screwed bushings		N
5.2.10	Cord anchorage:		N
	- covering protected from abrasion		N
	- clear how to be effective		N
	- no mechanical or thermal stress		N
	- no tying of cables into knots etc.		N
	- insulating material or lining		N
5.2.10.1	Cord anchorage for type X attachment:		N
	a) at least one part fixed		N
	b) types of cable		N
	c) no damaging of the cable		N
	d) whole cable can be mounted		N
	e) no touching of clamping screws		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	f) metal screw not directly on cable		N
	g) replacement without special tool		N
	Glands not used as anchorage		N
	Labyrinth type anchorages		N
5.2.10.2	Adequate cord anchorage for type Y and type Z attachment		N
5.2.10.3	Tests:		N
	- impossible to push cable; unsafe		N
	- pull test: 25 times; pull (N).....:		N
	- torque test: torque (Nm).....:		N
	- displacement ≤ 2 mm		N
	- no movement of conductors		N
	- no damage of cable or cord		N
5.2.11	External wiring passing into luminaire		N
5.2.12	Looping-in terminals		N
5.2.13	Wire ends not tinned		N
	Wire ends tinned: no cold flow		N
5.2.14	Mains plug same protection		N
	Class III luminaire plug		N
5.2.15	Colour code low voltage (EN)		N
5.2.16	Appliance inlets (IEC 60320)		N
	Appliance couplers of class II type		N
5.2.17	No standardized interconnecting cables properly assembled		N
5.2.18	Used plug in accordance with		N
	- IEC 60083		N
	- other standard		N
5.3	Internal wiring		P
5.3.1	Internal wiring of suitable size and type		P
	Through wiring		N
	- not delivered / mounting instruction		N
	- factory assembled		N
	- socket outlet loaded (A).....:		N
	- temperatures.....:		N
	Green-yellow for earth only		P
5.3.1.1	Internal wiring connected directly to fixed wiring		N
	Cross-sectional area (mm ²).....:		N
	Insulation thickness		N
	Extra insulation added where necessary		N
5.3.1.2	Internal wiring connected to fixed wiring via internal current-limiting device		N
	Adequate cross-sectional area and insulation thickness		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
5.3.1.3	Double or reinforced insulation for class II		N
5.3.1.4	Conductors without insulation		N
5.3.1.5	SELV current-carrying parts		N
5.3.1.6	Insulation thickness other than PVC or rubber		P
5.3.2	Sharp edges etc.		P
	No moving parts of switches etc.		N
	Joints, raising/lowering devices		N
	Telescopic tubes etc.		N
	No twisting over 360°		N
5.3.3	Insulating bushings:		N
	- suitable fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- cables with protective sheath		N
5.3.4	Joints and junctions effectively insulated		N
5.3.5	Strain on internal wiring		N
5.3.6	Wire carriers		N
5.3.7	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N
7	PROVISION FOR EARTHING		P
7.2.1 + 7.2.3	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0.5 Ω		P
	Two self-tapping screws used		N
	Thread-forming screws		N
	Thread-forming screw used in a groove		N
	Earth makes contact first		N
7.2.2 + 7.2.3	Earth continuity in joints etc.		P
7.2.4	Locking of clamping means		P
	Compliance with 4.7.3		P
7.2.5	Earth terminal integral part of connector socket		N
7.2.6	Earth terminal adjacent to mains terminals		P
7.2.7	Electrolytic corrosion of the earth terminal		N
7.2.8	Material of earth terminal	Non-rusting metal	P
	Contact surface bare metal		P
7.2.10	Class II luminaire for looping-in		N
	Double or reinforced insulation to functional earth		N
7.2.11	Earthing core coloured green-yellow		P
	Length of earth conductor		N

EN 60598-2-1:1989

Clause	Requirement – Test	Result	Verdict
8	PROTECTION AGAINST ELECTRIC SHOCK		P
8.2.1	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Protection in any position		P
	Double-ended tungsten filament lamp		N
	Insulation lacquer not reliable		N
	Double-ended high pressure discharge lamp		N
	Relevant warning according to 3.2.18 fitted to the luminaire		N
8.2.2	Portable luminaire adjusted in most unfavourable position		N
8.2.3	Class II luminaire:		N
	- basic insulated metal parts not accessible during starter or lamp replacement		N
	- basic insulation not accessible other than during starter or lamp replacement		N
	- glass protective shields not used as supplementary insulation		N
	Class I luminaire with BC lampholder		N
8.2.4	Portable luminaire:		N
	- protection independent of supporting surface		N
	- terminal block completely covered		N
8.2.5	Compliance with the standard test finger or relevant probe		P
8.2.6	Covers reliably secured		P
8.2.7	Discharging of capacitors $\geq 0.5 \mu\text{F}$	No capacitor	N
	Portable plug connected luminaire with capacitor		N
	Other plug connected luminaire with capacitor		N
	Discharge device on or within capacitor		N
	Discharge device mounted separately		N
9	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
9.2	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP.....: Without IP code		—
	- mounting position during test.....:		—
	- fixing screws tightened; torque (Nm).....:		—
	- tests according to clauses.....:		—
	- electric strength test afterwards		N
	a) no deposit in dust-proof luminaire		N
	b) no talcum in dust-tight luminaire		N
	c) no trace of water on current-carrying parts or where it could become a hazard		N

EN 60598-2-1:1989

Clause	Requirement – Test	Result	Verdict
	d) i) For luminaires without drain holes – no water entry		N
	d) ii) For luminaires with drain holes – no hazardous water entry		N
	e) no water in watertight luminaire		N
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N
	f) no contact with live parts (IP3X and IP4X)		N
9.3	Humidity test 48 h	95%, 48h, 25°C	P

10	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
10.2.1	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of Ø (mm)		—
	Insulation resistance (MΩ):		—
	SELV:		N
	- between current-carrying parts of different polarity.....		N
	- between current-carrying parts and mounting surface.....		N
	- between current-carrying parts and metal parts of the luminaire.....		N
	Other than SELV:		P
	- between live parts of different polarity.....	>100 MΩ	P
	- between live parts and mounting surface.....	>100 MΩ	P
	- between live parts and metal parts.....	>100 MΩ	P
	- between live parts of different polarity through action of a switch.....		N
10.2.2	Electric strength test		P
	Dummy lamp		N
	Luminaires with ignitors after 24 h test		N
	Luminaires with manual ignitors		N
	Test voltage (V):		P
	SELV:		N
	- between current-carrying parts of different polarity.....		N
	- between current-carrying parts and mounting surface.....		N
	- between current-carrying parts and metal parts of the luminaire.....		N
	Other than SELV:		P
	- between live parts of different polarity.....	1480V	P
	- between live parts and mounting surface.....	1480V	P
	- between live parts and metal parts.....	1480V	P

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	- between live parts of different polarity through action of a switch..... :		N
10.3	Leakage current (mA)..... :	< 0,06mA	P
11	CREEPAGE DISTANCES AND CLEARANCES		P
	Working voltage (V)..... :	220-230V~	—
	Voltage form	Sinusoidal ☒ Non-sinusoidal ☐	—
	PTI	< 600 ☒ ≥ 600 ☐	—
	Rated pulse voltage (kV)		—
	1) Current-carrying parts of different polarity: Cr (mm); CI (mm)..... :	Cr>2,5mm, CI>1,7mm	P
	2) Current-carrying parts and accessible parts: Cr (mm); CI (mm)..... :	Cr>2,5mm, CI>1,7mm	P
	3) Parts becoming live due to breakdown of basic insulation and metal parts: Cr (mm); CI (mm)..... :		N
	4) Outer surface of cable where it is clamped and metal parts: Cr (mm); CI (mm)..... :		N
	5) Not used		—
	6) Current-carrying parts and supporting surface: Cr (mm); CI (mm)..... :	Cr>2,5mm, CI>1,7mm	P
12	ENDURANCE TEST AND THERMAL TEST		P
12.3	Endurance test:		P
	- mounting- position..... :	(See Annex 2)	—
	- test temperature (°C)..... :	35°C	—
	- total duration (h)..... :	240h	—
	- supply voltage: Un factor; calculated voltage (V)...	264V	—
	- lamp used..... :	(See Annex 2)	—
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
12.4	Thermal test (normal operation)	(See Annex 2)	P
12.5	Thermal test (abnormal operation)		N
12.6	Thermal test (failed lamp control gear condition):		N
12.6.1	Test for luminaires without thermal cut-outs..... :		—
	- case of abnormal conditions..... :		—
	- electronic lamp control gear		N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
	- measured winding temperature (°C) at 1,1 Un.....:		—
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N
	- calculated mounting surface temperature (°C).....:		N
	- track- mounted luminaires		N
12.6.2	Temperature sensing control		N
	- case of abnormal conditions.....:		—
	- thermal link		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured mounting surface temperature (°C):		N
	- track- mounted luminaires		N
12.7	Thermal test (failed lamp control gear in plastic luminaires):		N
12.7.1	Through wiring or lopping-in wiring loaded by a current of (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.....:		N
	- calculated temperature of fixing point/ exposed part (°C).....:		N
12.7.2	Temperature sensing control		N
	- thermal link		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured temperature of fixing point/ exposed part (°C):		N
	Wiring, for connection to the supply, which passes into or can touch the luminaire shall not reach unsafe temperature		N
	Checked by specified tests		N
	Luminaires with an IP classification greater than IP20 shall be subjected to the relevant tests		N
13	RESISTANCE TO HEAT, FIRE AND TRACKING		P
13.2.1	Ball-pressure test:		P
	- part tested; temperature (°C).....:	PCB: 125°C 1,03mm	P
	- part tested; temperature (°C).....:	Plastic enclosure: 75°C 1,13mm	P
13.3.1	Needle flame test (10 s):		P
	- part tested.....:	PCB	P
13.3.2	Glow wire test (650 °C):		P
	- part tested.....:	Plastic enclosure	P

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
13.4	Tracking test: part tested.....:		N
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N
(2.2)	Class 0 not accepted		N
(3.3)	DK: power supply cord with label		N
	IT: warning label on Class 0 luminaire		N
(4.5.1)	DK: socket-outlets		N
(4.5.1)	FR: socket-outlets		N
(5.2.1)	CY, DK, FI, SE, GB: type of plug		N
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N
(13.3)	DK: Needle flame test during 30 s		N
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N
(13.3.2)	FR: Glow-wire test 850°C alt. 750°C for luminaires in premises open to public or 960°C for luminaires in emergency exits		N

EN 60598-2-1:1989						
Clause		Requirement – Test		Result		Verdict
ANNEX 2		Temperature measurements, thermal tests of Section 12				P
		Type reference..... :	32.06219		—	
		Lamp used..... :	LED chip		—	
		Lamp control gear used..... :	LED driver		—	
		Mounting position of luminaire..... :	Track system		—	
		Supply wattage (W)..... :	15W		—	
		Supply current (A)..... :			—	
		Table: measured temperatures corrected for 25°C:				—
		- abnormal operating mode..... :			—	
		- test 1: rated voltage..... :			—	
		- test 2: 1.06 times the rated voltage or 1,05 times Rated wattage..... :	1,06×240V=254,4V		—	
		- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :			—	
		- test 4: 1,1 times rated voltage or 1,05 times rated wattage..... :			—	
		Through wiring or looping-in wiring loaded by a current of A during the test			—	
Temperature (°C) of part		Clause 12.4 – normal operation		Clause 12.5 – abnormal operation		
		measured	limits	measured	limit	
1	Surface of controlgear	45,3	75	---	---	
2	Leading wire	43,4	90	---	---	
3	Tube	63,3	125	---	---	
4	Internal wire	67,6	90	---	---	
5	Lampholder	104,6	210			
6	Metal enclosure of lamp	50,6	ref.			
7	Mounting surface	34,6	90			
8	Ambient	24,8	---	---	---	

ANNEX 3		Screw terminals (part of the luminaire)			N
14		SCREW TERMINALS			N
		Separately approved; component list			N
		Part of the luminaire			N
14.2		Type of terminal..... :			N
		Rated current (A)..... :			N
14.3.2.1		One or more conductors			N
14.3.2.2		Special preparation			N
14.3.2.3		Terminal size			N
		Cross-sectional area (mm²)..... :			N
14.3.3		Conductor space (mm)..... :			N
14.4		Mechanical tests			N
14.4.1		Minimum distance			N

EN 60598-2-1:1989			
Clause	Requirement – Test	Result	Verdict
14.4.2	Cannot slip out		N
14.4.3	Special preparation		N
14.4.4	Nominal diameter of thread (metric ISO thread)....:		N
	External wiring		N
	No soft metal		N
14.4.5	Corrosion		N
14.4.6	Nominal diameter of thread (mm)..... :		N
	Torque (Nm)..... :		N
14.4.7	Between metal surfaces		N
	Lug terminal		N
	Mantle terminal		N
	Pull test; pull (N)..... :		N
14.4.8	Without undue damage		N

ANNEX 4	Screwless terminals (part of the luminaire)		N
15	SCREWLESS TERMINALS		N
	Separately approved; component list		N
	Part of the luminaire		N
(15.2)	Type of terminal..... :		N
	Rated current (A)..... :		N
(15.3.1)	Material		N
(15.3.2)	Clamping		N
(15.3.3)	Stop		N
(15.3.4)	Unprepared conductors		N
(15.3.5)	Pressure on insulating material		N
(15.3.6)	Clear connection method		N
(15.3.7)	Clamping independently		N
(15.3.8)	Fixed in position		N
(15.3.10)	Conductor size		N
	Type of conductor		N
(15.5.1)	Terminals internal wiring		N
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples)		N
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N
	Insertion force not exceeding 50 N		N
(15.5.2)	Permanent connections: pull-off test (20 N)		N
(15.6)	Electrical tests		N
	Voltage drop (mV) after 1 h (4 samples).....:		N
	Voltage drop of two inseparable joints		N
	Number of cycles..... :		N
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N

EN 60598-2-1:1989											
Clause	Requirement – Test					Result					Verdict
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :										N
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :										N
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :										N
(15.7)	Terminals external wiring										N
	Terminal size and rating										N
(15.8.1)	Pull test spring-type terminals or wedged connections (4 samples); pull (N) :										N
	Pull test pin or tab terminals (4 samples); pull (N) :										N
(15.9)	Contact resistance test										N
	Voltage drop (mV) after 1 h										N
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)	---	---	---	---	---	---	---	---	---	---	---
	Voltage drop of two inseparable joints										N
	Voltage drop after 10th alt. 25th cycle										N
	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
	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
	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
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)	---	---	---	---	---	---	---	---	---	---	---

ANNEX I - EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 1

View:

- ☒ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☐ Detail



Model No.:
32.06219

Photo 2

View:

- ☐ General
- ☒ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☐ Detail



ANNEX I - EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 3

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☒ Internal
- ☐ Detail



Model No.:
32.06219

Photo 4

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



ANNEX I - EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 5

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



Model No.:
32.06219

Photo 6

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



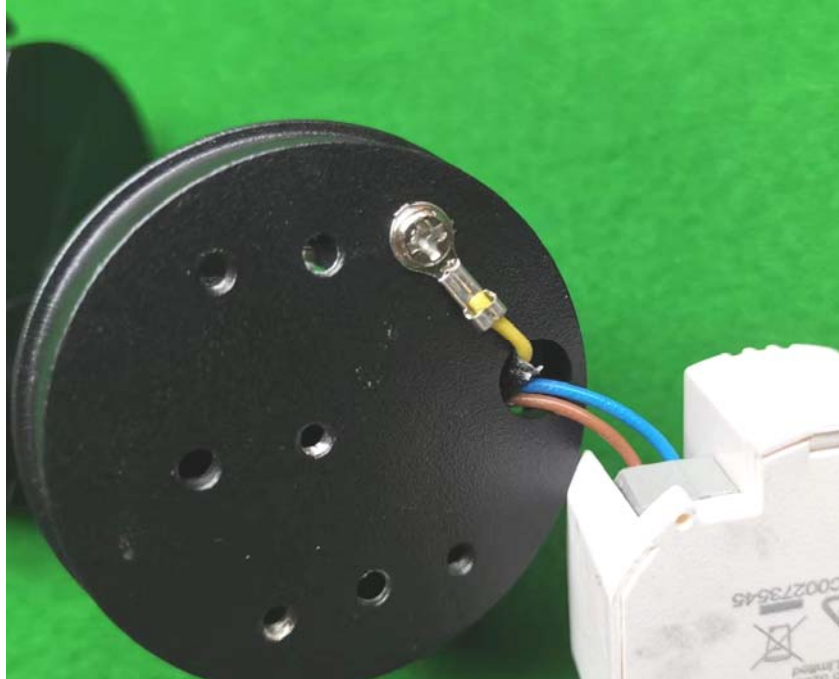
ANNEX I - EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 7

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



~~ END OF THE REPORT ~~