

# **TEST REPORT**

Reference No...... WTZ20F07049674X1L

Applicant...... : Zhongshan Songwei Lighting Electrical Co., LTD

Address ...... No. 502, Dong'an North Road, Cao Er, Guzhen Town, Zhongshan,

Guangdong

Manufacturer ...... The same as above

Address...... The same as above

Product Name ..... : Bread lamp

Model No. ..... : See model list on page 3.

Standards.....: Luminaires

Part 2-1: Fixed general purpose luminaries

EN 60598-2-1:1989

EN 60598-1:2015+A1:2018

Date of Receipt sample .... : 2020-07-30

Date of Test ...... : 2020-08-01 to 2020-08-20

Date of Issue ..... 2020-08-31

**Test Report Form No. .....** : WSL-6059821A-01A

Test Result..... : Pass

#### Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

# Prepared By:

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Compiled by:

Dixon Li / Project Engineer

Oren Kang / Manager



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W

Test item description..... Fixed lamps

Trade Mark....: --

Model/Type reference .....: See model list on page 3.

Ratings .....: See model list on page 3.

### Copy of marking plate:

Bread lamp Model No.: 191244005-1 220-240VAC 50Hz 18W 4000K







Zhongshan Songwei Lighting Electrical Co;LTD

On the luminaries surface



On the LED cover

#### Note

- 1. The marking labels for other models are identical as above, expect the model No. and rated wattage.
- 2. As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.
- 3. The marking for other models are identical except the model name and wattage.

## Summary of testing:

- 1. All tests were performed on models 191244005-1 the tests results complied with the requirements of the standards mentioned in page one.
- 2. The LED driver was assessed acc. to EN 61347-2-13:2014+A1:2017 and EN 61347-1:2015, found to comply with the requirement.
- 3. Integral LED module was assessed according to EN 62031:2008+A1:2013+A2:2015 and found to comply with the requirement.
- 4. Retinal blue light hazard was assessed according to IEC/TR 62778:2014, lamp classification group: RG0 unlimited.
- 5. Assessment of lighting equipment related to human exposure to electromagnetic fields was evaluated and fulfilled the requirements of EN 62493:2015 and found to comply with the requirement.
- 6. Only the most unfavorable results are recorded in this report.



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## Test items particulars:

Classification of installation and use.....:

Supply Connection .....: Terminal block

#### 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)

#### General remarks:

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

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

## 2020.08.31

This report is based on report WTZ20F07049674L for delete two models, the report WTZ20F07049674L was become invalid after issuing of this report.

# General product information:

- 1. Fixed general purpose luminaries, for indoor use only.
- 2. All models have the same structure, except for rated power and 191244005-1 with switch.

### Model list

Item	Model	Rated voltage (VAC)	Rated frequency (Hz)	Rated power (W)	Protection against electric shock	IP degree
1 1	191244005-1	220-240	50Hz	18W	Class I	IP20
2	191144001-1	220-240	50Hz	18W	Class I	IP20
3	191143001-1	220-240	50Hz	12W	Class I	IP20

<sup>&</sup>quot;(see appended table)" refers to a table appended to the report.



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F JEF	IEC 60598-2-1	the state of	CENT OF
Clause	Requirement + Test	Result - Remark	Verdict
1.2 (0)	GENERAL TEST REQUIREMENTS	THE STEE WITH SINIFE	N P
1.2 (0.3)	More sections applicable	Yes 🗌 No 🖂	1
1.2 (0.5)	Components	(see Annex 1)	2 /2 _ 2
1.2 (0.7)	Information for luminaire design in light sourc	es standards	cet-
1.2 (0.7.2)	Light source safety standard	IEC 62031	<u></u>
MUTIEK MU	Luminaire design in the light source safety standard	NIEK WIFEK WHIFEK WHIF	PIE
at a set	Street Steet With Mr. Mr. And And	The second second	CIEX .
1.4 (2)	CLASSIFICATION	Will Mar My	Р
1.4 (2.2)	Type of protection (Class 0 excluded):		1568
1.4 (2.3)	Degree of protection (Requirement: Ordinary):	70 A.	7 -20
1.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes 🛛 No 🗌	ZEK ANDLI
1.4 (2.5)	Luminaire for normal use:	Yes ⊠ No □	*
MUT. MUT	Luminaire for rough service:	Yes □ No ⊠	M
TEX JE	NITE MIT MIT	a st set set	TEX
1.5 (3)	MARKING	LIE WALL MALL WALL	P V
1.5 (3.2)	Mandatory markings	See "Copy of marking plate"	Р
70,	Position of the marking	MULL MULL MUR MI	Р
- LIEK IN	Format of symbols/text	LEK TEK STEK SI	Р
1.5 (3.3)	Additional information	Mer Mur Mur Mr.	Р
ALTEK INT	Language of instructions	In English	Р
1.5 (3.3.1)	Combination luminaires	W. M. M.	N
1.5 (3.3.2)	Nominal frequency in Hz	50Hz	Р
1.5 (3.3.3)	Operating temperature	in in	N
1.5 (3.3.4)	Symbol or warning notice	t jet liet niet an	N
1.5 (3.3.5)	Wiring diagram	11/2, 111, 12,	N
1.5 (3.3.6)	Special conditions	LIER NITER WITE, WALT	N
1.5 (3.3.7)	Metal halide lamp luminaire – warning	m m x	N
1.5 (3.3.8)	Limitation for semi-luminaires	LIER WILL MILE WHILE	n N
1.5 (3.3.9)	Power factor and supply current		N
1.5 (3.3.10)	Suitability for use indoors	THE WALTE WALTE WALTE	No.
1.5 (3.3.11)	Luminaires with remote control	The state of the s	+ N
1.5 (3.3.12)	Clip-mounted luminaire – warning	White Mile Mile Mile	N
1.5 (3.3.13)	Specifications of protective shields	at at all	No.
1.5 (3.3.14)	Symbol for nature of supply	~I'E WIT WIT WILL	√″ P

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IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	at the other will and will be		ex cex
1.5 (3.3.15)	Rated current of socket outlet	alter alter walk wal	MN
1.5 (3.3.16)	Rough service luminaire		- N
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	TER WHITE WALL WILL	S N S
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable	A LIER NITER WITE !	IN NO
1.5 (3.3.19)	Protective conductor current in instruction if applicable	the text step as	TE NE
1.5 (3.3.20)	Provided with information if not intended to be mounted within arms reach	me in the second	N
1.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided	non-user replaceable	Р
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided	EX WHITE WHITE WHITE	"IN N'IL
1.5 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component	Whitek Whitek Whiteh	
1.5 (3.3.24)	If not supplied with terminal block, information on the packaging	INTER WALTE WALL WAL	ANN ANN
1.5 (3.4)	Test with water	TEX LIER SLIER MILE	P
.t .t	Test with hexane	1 M M 2 M	Р
NALI	Legible after test	H LIER ALTER WITE	n Pin
.4	Label attached	1/1/2 1/1/1 10.	L P

1.6 (4)	CONSTRUCTION	P
1.6 (4.2)	Components replaceable without difficulty	TET INTE WIN V
1.6 (4.3)	Wireways smooth and free from sharp edges	P
1.6 (4.4)	Lampholders	Nan Italian
1.6 (4.4.1)	Integral lampholder	L N
1.6 (4.4.2)	Wiring connection	with whi New
1.6 (4.4.3)	Lampholder for end-to-end mounting	N.
1.6 (4.4.4)	Positioning	LI WILL WIN
at de	- pressure test (N):	A N
ur mu	After test the lampholder comply with relevant standard sheets and show no damage	W N N
t TEX	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation	unit un Nunt
my m	- bending test (Nm):	in in 1
WALTER WALT	After test the lampholder have not moved from its position and show no permanent deformation	TEL WALTER WAL



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Clause	Requirement + Test	Result - Remark	Verdict
Olduse A	Trequience Test	result remain	Verdio
1.6 (4.4.5)	Peak pulse voltage	LIER WILL MULTER MAI	N N
1.6 (4.4.6)	Centre contact		← N
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking	LIE MILL WHILL MALL	N N
1.6 (4.4.8)	Lamp connectors	ix liet oliet onlie	an's Nr
1.6 (4.4.9)	Caps and bases correctly used	111 111 11	N
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way	White white white w	N.
1.6 (4.5)	Starter holders	LET LET LIET OU	N N
1 *	Starter holder in luminaires other than class II	No starter holder used	N
IE. WALTE	Starter holder class II construction	EX LIEK OLIEK WILE	Not Not
1.6 (4.6)	Terminal blocks	age. An an	Р
. Walite wa	Tails	LIER OLIER WITE	n <sup>L</sup>
it is	Unsecured blocks	The the	N
1.6 (4.7)	Terminals and supply connections	SLIER WILL MULTER WA	Au b
1.6 (4.7.1)	Contact to metal parts		P
1.6 (4.7.2)	Test 8 mm live conductor	LIER WILL WALL WALL	P.
et let	Test 8 mm earth conductor	L A A	P
1.6 (4.7.3)	Terminals for supply conductors	THE WALL WALL	n Bu
1.6 (4.7.3.1)	Welded connections:		N.
Mr. Mr.	- stranded or solid conductor	MALL WALL WALL W	N
TEX TE	- spot welding	- at the	N*
n. m.	- welding between wires	or, by my my	20 N
TEX CITER	- Type Z attachment	TEX ITE	JEN .
20,	- mechanical test according to 15.8.2	in my my	N
ALTER OF	- electrical test according to 15.9	et let let liet	N
10. 1	- heat test according to 15.9.2.3 and 15.9.2.4	Mur. Aur. Aur.	N
1.6 (4.7.4)	Terminals other than supply connection	. Tet Itet Will o	N.
1.6 (4.7.5)	Heat-resistant wiring/sleeves	We we we we	N
1.6 (4.7.6)	Multi-pole plug	TEX ITEX SITEX MIT	N CON
1 1	- test at 30 N	11 - Mr. 211 - 211	N
1.6 (4.8)	Switches:	TEX LIEX SLIER SLIER	Pur
L at	- adequate rating	111 111 211	Р
WALL WA	- adequate fixing	Y SLIEN WIFE WILLIAM	NLI VBIL
	- polarized supply	2/1, 2/1, 2,	∠ N.←



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	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdic
Mriter Write	- compliance with IEC 61058-1 for electronic switches	UNLIEF WALTER WALTER WALT	WP
1.6 (4.9)	Insulating lining and sleeves	TEX LIEX SLIER WIFE	Р
1.6 (4.9.1)	Retainement	The the transfer	Р
E. WALLE	Method of fixing:	Heat-shrink	n' Bri
1.6 (4.9.2)	Insulated linings and sleeves		Р
	Resistant to a temperature > 20 °C to the wire temperature or	Whitek Milies Milies Mil	NP.
NITE WALTE	a) & c) Insulation resistance and electric strength	TEX ITEX SITES INLIE	N
L .*	b) Ageing test. Temperature (°C)	he me me	N
1.6 (4.10)	Insulation of Class II luminaires	TEX LIER NITER WITE	Pu
1.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation	For Class II construction	P
70, 1	Safe installation fixed luminaires	mur mur mir m	Р
WILL WALL	Capacitors and switches	TEX STEX STER ON	N
TEX SITEX	Interference suppression capacitors according to IEC 60384-14	ing the text item	N
1.6 (4.10.2)	Assembly gaps:	The Muli Mul Mul	N
EK STEK	- not coincidental	at lest lest lites	N
10, 1	- no straight access with test probe	Mur. Mr. Mr.	N
1.6 (4.10.3)	Retainment of insulation:	t tex tex tiek o	P
70.	- fixed	Mur. Mur. Mur. Mr.	Р
WILL WATE	- unable to be replaced; luminaire inoperative	TEV STEEL OUT	P
· · · · · · · · · · · · · · · · · · ·	- sleeves retained in position		N
ITE. WALTE	- lining in lampholder	TER MITE	N <sub>N</sub>
1.6 (4.10.4)	Protective impedance device		N
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	et united while while a	
Mrs. Mrs.	Y1 or Y2 capacitors comply with IEC 60384-14	WALLE WALLE WALL WAS	N
nliek walter	Resistors comply with test (a) in 14.1 of IEC 60065	TEX WIFE WIFE SINTE	Y INTEN
1.6 (4.11)	Electrical connections	in the same	Р
1.6 (4.11.1)	Contact pressure	TER WILL MULTER WALLE	M Bu
1.6 (4.11.2)	Screws:	The set	+ N
MUL M	- self-tapping screws	White white white our	N N
TEX IN	- thread-cutting screws	t at at a	Not
1.6 (4.11.3)	Screw locking:	alite with wall was	N

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F CIEN	IEC 60598-2-1	the set set of	
Clause	Requirement + Test	Result - Remark	Verdict
WILLER WALLE	- spring washer	TEX ITEX OLITER MINER	N N
t et	- rivets		N
1.6 (4.11.4)	Material of current-carrying parts	> 50% Cu	Р
1.6 (4.11.5)	No contact to wood or mounting surface	The state of the s	P
1.6 (4.11.6)	Electro-mechanical contact systems	WILL WILL MALLE WA	Р
1.6 (4.12)	Mechanical connections and glands	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P
1.6 (4.12.1)	Screws not made of soft metal	Write Mrite Marie Marie	P
TEX JE	Screws of insulating material	at at let let	N
it ist	Torque test: torque (Nm); part:	Screw fixed LED board :0.5 Nm	Р
r nu.	Torque test: torque (Nm); part:	Screw fixed Terminal block :0.5 Nm	P
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal	lifet aller while whi	N
1.6 (4.12.4)	Locked connections:		N
WULL WULL	- fixed arms; torque (Nm):	-ITEK NITER MITE MITE	WN
et et	- lampholder; torque (Nm):		N
in wit	- push-button switches; torque 0,8 Nm:	CHE WILL MILL MULL	w`N ⊲
1.6 (4.12.5)	Screwed glands; force (Nm):	- L A 15	N.
1.6 (4.13)	Mechanical strength	ier weit weit weit	P
1.6 (4.13.1)	Impact tests:		
m. m.	- fragile parts; energy (Nm)	-Will Mr. Mur. Mur.	N
UNLIEK WATE	- other parts; energy (Nm):	All enclosure and cover: 0.35 Nm	NI P.K
LET LET	1) live parts		P
, MUL	2) linings	The Marin M	N-0
* TEX	3) protection		A P
Mr. M	4) covers	White White White Whi	Р
1.6 (4.13.3)	Straight test finger	All enclosure and cover: 30 N	Р
1.6 (4.13.4)	Rough service luminaires	Write Mrs. Mrs. Mus.	A,N
JEK JE	- IP54 or higher	I SHE SET SET	N
1. m	a) fixed	itt mut mut mu	N
EK CLIEK	b) hand-held	at let tet tet	N
10, 1	c) delivered with a stand	Mer Mer Mr. M.	N
WALTER WA	d) for temporary installations and suitable for mounting on a stand	INTEX MITER WALTER	NI
1.6 (4.13.6)	Tumbling barrel	at at let text	N
1.6 (4.14)	Suspensions and adjusting devices	write while while where	√n P

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Clause	IEC 60598-2-1	Decult Decreate	1/24-11-4
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.14.1)	Mechanical load:	aliek oliek opliek	UNITE UNITE
et et	A) four times the weight		→ P
LT WILL	B) torque 2,5 Nm	TEL MILE WALTER WA	N
it Text	C) bracket arm; bending moment (Nm)	- 1 1 1	H N
my n	D) load track-mounted luminaires	The work with	W N
WALLEK WAL	E) clip-mounted luminaires, glass-shelve. Thickness (mm)	- VIEW NIEW MITER	TALLE - N.E.
at all	Metal rod. diameter (mm)		N-
VI AVE	Fixed luminaire or independent control gear without fixing devices	LIFE MLIE WALLE V	W. N
1.6 (4.14.2)	Load to flexible cables	TEX ITEX SLITER ON	N. N
. Writh	Mass (kg)		N
	Stress in conductors (N/mm²)	- TEX STEE WITE	NI NI
at a	Mass (kg) of semi-luminaire	-41, 44, 4	N
NULL WILL	Bending moment (Nm) of semi-luminaire:	-LIER WILL WILL	anti ann
1.6 (4.14.3)	Adjusting devices:		N-
it. Will	- flexing test; number of cycles	TEX INTER WAITE W	N A
et let	- strands broken	- " + *	# CHN
4/20 1	- electric strength test afterwards	ex write write wri	Mu Nu
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors	liet oliet outer	White White
1.6 (4.14.5)	Guide pulleys	141, 141, 14	N+
1.6 (4.14.6)	Strain on socket-outlets	ati bulling	min an'N
1.6 (4.15)	Flammable materials:		P P
MUL	- glow-wire test 650 °C	Lamp cover	N PW
t TEX	- spacing ≥ 30 mm	t at at	+ N
11/2 11/	- screen withstanding test of 13.3.1	WILL WALL MALL	W N
UEK NI	- screen dimensions	at let let	N.C
m m	- no fiercely burning material	WUTT MUTT MUTT	N <sub>U</sub> N <sub>U</sub> P
LIEK OLIEK	- thermal protection	et let let	JEL JN
10,	- electronic circuits exempted	er, wer, were a	N
1.6 (4.15.2)	Luminaires made of thermoplastic material with lan	mp control gear	SE N
75.	a) construction	Mur. Mr. M.	N
INLIES OF	b) temperature sensing control	TEX TEX TE	N.T
70	c) surface temperature	Mr. Mr. M.	N
1.6 (4.16)	Luminaires for mounting on normally flammable su	rfaces	JIE NP



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- III	IEC 60598-2-1	the set set	TEN IT
Clause	Requirement + Test	Result - Remark	Verdict
NULLE WALL	No lamp control gear	LIEK SLIEK WLIEK SU	N N
1.6 (4.16.1)	Lamp control gear spacing:		+ N
White	- spacing 35 mm	TEX CLIER WITER WILL	N S
it let	- spacing 10 mm		. N .
1.6 (4.16.2)	Thermal protection:	er writer write write	w N
TEX (	- in lamp control gear	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N.
my my	- external	WILL MULL AND A	N N
TEX ITE	- fixed position		A N
in The	- temperature marked lamp control gear	THE WILL MUT AN	N
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see 12.6)	N N
1.6 (4.17)	Drain holes	THE WALL WITH	N
CLIER OF	Clearance at least 5 mm	LET TEX LIER	NO NO
1.6 (4.18)	Resistance to corrosion:	Mrs. Mrs. Mrs.	Р
1.6 (4.18.1)	- rust-resistance	TEX TEX TEX	LIE N
1.6 (4.18.2)	- season cracking in copper	mer and any	Р
1.6 (4.18.3)	- corrosion of aluminium	TEX JEX LIFE OUT	N
1.6 (4.19)	Ignitors compatible with ballast	. Mr. M. 21.	N
1.6 (4.20)	Rough service vibration	H LIEK NIEK MIE	NA NA
1.6 (4.21)	Protective shield:	Mr. Mr. Mr.	L N
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps	WALLER WHILE WHILE	Wer AN
WILL MY	Shield of glass if tungsten halogen lamps	TE SLIFE OF	JEN N
1.6 (4.21.2)	Particles from a shattering lamp not impair safety	Un an	N
1.6 (4.21.3)	No direct path	I HE MIT	N
1.6 (4.21.4)	Impact test on shield	24, 25, 25	N
WALL M	Glow-wire test on lamp compartment	t with with with	Mr. Nr.
1.6 (4.22)	Attachments to lamps not cause overheating or damage	Tet Tet Tet	NITE NEW
1.6 (4.23)	Semi-luminaires comply Class II	me me me	N
1.6 (4.24)	Photobiological hazards	TEX STEX STEEL ON	TP NYP
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)	at at alt al	N
1.6 (4.24.2)	Retinal blue light hazard	MULL MULL MULL	An Par
WALLEY WA	Class of risk group assessed according to IEC/TR 62778	RG0 unlimited	WUTTER MUTT
TEX I	Luminaires with E <sub>thr</sub> :	The state of	Net Net
NU UNI	a) Fixed luminaires	SLIFE MITE SIDE AN	an N

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Clause	Requirement + Test	Result - Remark	Verdict
et d	et the street nite with with		et set
MULL MULL	- distance x m, borderline between RG1 and RG2.	alter miter white	IN N
LET LEX	- marking and instruction according 3.2.23	(h)	N N
ir. Mur	b) Portable and handheld luminaires	TER WITE WALLE WA	N S
ek writek w	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778	et itet sitet mit	AN LEX N
whitek whi	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	Whitek whitek whitek	WILLE WINTE
1.6 (4.25)	Mechanical hazard	TEX TEX STER	nii niiP
at at	No sharp point or edges	1 14 14	Р
1.6 (4.26)	Short-circuit protection:	TEX STEE WITE WAY	N <sub>M</sub>
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts	TEX TEX TIE	L N N
1.6 (4.26.2)	Short-circuit test with test chain according 4.26.3	Mr. Mr. M.	N
WILL WILL	Test chain not melt through	TEX LIFE OUTER	IN N
LIEK RLIEK	Test sample not exceed values of Table 12.1 and 12.2	it the tex	TEK N
1.6 (4.27)	Terminal blocks with integrated screwless earthing	contacts	N
EK WILL	Test according Annex V	ex sex sex si	N. N.
	Pull test of terminal fixing (20 N)	Mr. Mr. M.	N
INLIE MA	After test, resistance < 0.05 $\Omega$	TEX TEX STER	N
- L 2	Pull test of mechanical connection (50 N)	Mr. M. M.	N
INITE WAS	After test, resistance < 0.05 $\Omega$	TE NITE	NITE ON N
at at	Voltage drop test, resistance < 0.05 $\Omega$		N
1.6 (4.28)	Fixing of thermal sensing control	TE ON	NN
t sit	Not plug-in or easily replaceable type		L N
MULL M	Reliably kept in position	et aliet mile antie	un' N'
INLIEK NINL	No adhesive fixing if UV radiations from a lamp can degrade the fixing	TEX TEX STEX	INLIES NEW
7 VA	Not outside the luminaire enclosure	Mr. Mr. M.	N
NITE WALTE	Test of adhesive fixing:	LEK TEK STEK	JUN N
+ .t	Max. temperature on adhesive material (°C)	1 n n n n	1 X
IE NALIE	100 cycles between t min and t max	et liet aliet al	Nu Circulation
- <i>*</i>	Temperature sensing control still in position	24 24 24 24	N
1.6 (4.29)	Luminaires with non-replaceable light source	LIER NIER NIE	N <sup>L</sup>
1	Not possible to replace light source	111, 10, 0,	N.



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Clause	Requirement + Test	Result - Remark	Verdict
Clause	Requirement + Test	Result - Remark	Verdici
WILL MUT	Live part not accessible after parts have been opened by hand or tools	UNLIER WALTER WALTER WALT	W N
1.6 (4.30)	Luminaires with non-user replaceable light source	TEX TEX LIER OLIER	P
ex stex	If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol:		
10, 1	Minimum two fixing means	MULL MULL MULL	Р
1.6 (4.31)	Insulation between circuits	- LEK TEK TEK	IE PIE
TEX JE	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3	MUST AND THE AND	P
IEK WAITEK	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	INTER WHITE WHITEK WHITEK	WALTER WI
1.6 (4.31.1)	SELV circuits	L IN THE	N N
my m	Used SELV source	White white white w	N
JEK J	Voltage ≤ ELV	at at at a	Nex
ne m	Insulating of SELV circuits from LV supply	write mure and and	-2 <sub>0</sub> , N
LIEK WALTER	Insulating of SELV circuits from other non SELV circuits	TEK NIEK WILEK WALES	UNIT N
et let	Insulating of SELV circuits from FELV	L A ST	.e⊬N
we v	Insulating of SELV circuits from other SELV circuits	let white write whi	N <sub>1</sub>
MULLE MU	SELV circuits insulated from accessible parts according Table X.1	WALTER WALTER WALTER WA	N
INLIEK WATE	Plugs not able to enter socket-outlets of other voltage systems	ALL STEE WALTER WALTE	MININ
TEX WITEK	Socket outlets does not admit plugs of other voltage systems	TEX NATER	WITCH N
K NITEK N	Plugs and socket-outlets does not have protective conductor contact	t let let liet	N AND
1.6 (4.31.2)	FELV circuits	mr. m. m.	N
WILL WALL	Used FELV source	TEX TEX STEX NO	N
7	Voltage ≤ ELV	me me me	N
LIENNITE	Insulating of FELV circuits from LV supply	TEX TEX STEX WITE	N C
iek jiek	FELV circuits insulated from accessible parts according Table X.1	it all all the	TEXN
- 18x	Plugs not able to enter socket-outlets of other voltage systems	must must my	N
Mr. M.	Socket outlets does not admit plugs of other voltage systems	WALTE WALL WALL ON	N



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Clause	Requirement + Test	Result - Remark	Verdict
antiex anti	Socket-outlets does not have protective conductor contact	INLIER WALLER WALLER	N N
1.6 (4.31.3)	Other circuits	TEX TEX TEX STE	U P
ex liex	Other circuits insulated from accessible parts according Table X.1	t at let let	P
- LEX .	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N
mer me	- conductive parts are connected together	WILL WILL MALL MAL	√N
LEX JE	- test according 7.2.3 of above	a st st st	⊢ N <sup>⊢</sup>
ing when	- conductive part not cause an electric shock in case of an insulation fault	The Marie Marie Marie	N
The Wali	- equipotential bonding in master/slave applications	EX WALTER WALTER WALTER	Mar.
White M	- master luminaire provided with terminal for accessible conductive parts of slave luminaires	UNITER WATER WAITER ON	S NS
JEX J	- slave luminaire constructed as class I	at at at a	Net Net
1.6 (4.32)	Overvoltage protective devices	WILL MULL MULL MULL	A.N
TEX LIE	Comply with IEC 61643-11	at at all the	√N N
1/1	External to control gear and connected to earth:	TIL MULT MULT MULT	N
EX SITER	- only in fixed luminaires	at left test test	N
70,	- only connected to protective earth	Mur Mur Mur A	N

√P	MITE MALL WALL WALL	CREEPAGE DISTANCES AND CLEARANCES	1.7 (11)
- July	Category II   Category III	Impulse withstand category (Normal category II)	1.7 (11.2.1)
en N	WITH THE MINE WAY	Category III according Annex U	my my
N N	THE WALTER W	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1	LIER WALTER
P	See Test Table 1.7 (11.2) I	Creepage distances for frequency up to 30 kHz	1.7 (11.2.2)
N	The Mr. Mr.	Creepage distances for frequency over 30 kHz:	, t
N,	See Test Table 1.7 (11.2) II	- Controlgear marked with $\hat{U}_{\text{OUT}}$ and $f_{\text{UOUT}}$ according IEC 61347-1, clause 7.1, item w	MULL MULL
JINI N	See Test Table 1.7 (11.2) II	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	NIEK WALTER
P	See Test Table 1.7 (11.2) I	Clearances for frequency up to 30 kHz	1.7 (11.2.3)
N	TE WITE WITE MY W	Clearances distances for frequency over 30 kHz:	1/1/2 1/
N	See Test Table 1.7 (11.2) II	- Controlgear marked with U <sub>P</sub>	+ ITEX
N	See Test Table 1.7 (11.2) II	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	ale ale
		- Controlgear marked with <i>U</i> <sub>P</sub> - Requirements according IEC 60664-4 for	t weight was



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Clause	Requirement + Test	Result - Remark	Verdict
1.8 (7)	PROVISION FOR EARTHING	TEE STEE NITES	NI NP
1.8 (7.2.1 + 7.2.3)	Accessible metal parts	let test steet w	TEL P
, , , , t	Metal parts in contact with supporting surface		Р
MALICA	Resistance < 0,5 Ω	0.04Ω	Pul But
	Self-tapping screws used	My And	N
WALL WA	Thread-forming screws	LIEK OLIER WITER	WILL WIN
at di	Thread-forming screw used in a grove	The state of the s	N-
int, mut	Earth makes contact first	LIER WITE WALTER WA	N N
TEX NATEX	Terminal blocks with integrated screwless earthing contacts tested according Annex V	EL TEL STEEL WIT	EX STEIN SUL
y alter i	Protective earthing of the luminaire not via built-in control gear	LEK TEK ITEK	N N
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints etc.	Mer we we	N N
1.8 (7.2.4)	Locking of clamping means	WILL MULL MALL A	u. h
TEX LIER	Compliance with 4.7.3	at at alt .	P
ex ex	Terminal blocks with integrated screwless earthing contacts tested according Annex V	its must mer my	N
1.8 (7.2.5)	Earth terminal integral part of connector socket	ex wife wife while	an Na
1.8 (7.2.6)	Earth terminal adjacent to mains terminals	The state of	P.
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal	WILL MULT MULL	Mr W
1.8 (7.2.8)	Material of earth terminal		P. P.
in in	Contact surface bare metal	Wr. Myr. M	All P
1.8 (7.2.10)	Class II luminaire for looping-in	at A TEXT OF	CEN .
7/1	Double or reinforced insulation to functional earth	The The The	N <sub>22</sub>
1.8 (7.2.11)	Earthing core coloured green-yellow	t et let let	P
	Length of earth conductor	Mur. Mur. Mur.	Р
1.9 (14)	SCREW TERMINALS	WILL MILLER	W WP
TEX JEX	Separately approved; component list	(see Annex 1)	TEL P
v. m	Part of the luminaire	(see Annex 3)	N

1.9 (15) SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		Non	
t all s	Separately approved; component list	(see Annex 1)	+ N
Mr. Mr.	Part of the luminaire	(see Annex 4)	N



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+ TEX	IEC 6	0598-2-1	TEX TEX
Clause	Requirement + Test	Result - Remark	Verdict
1.10 (5)	EXTERNAL AND INTERNAL WIRIN	GX ALL THE THE MICE	nii Jrp s

Clause	Requirement + Test	Result - Remark	Verdic
1.10 (5)	EXTERNAL AND INTERNAL WIRING	TER TER WIFE WILL	N P
1.10 (5.2)	Supply connection and external wiring	West Application of the Applicat	Р
1.10 (5.2.1)	Means of connection	Terminal block	Р
EK WUTTER MU	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	A MULTER MULTER MULTER	N W
1.10 (5.2.2)	Type of cable	See annex 1	N
74	Nominal cross-sectional area (mm²)	See annex 1	N
NITE WITE	Cables equal to IEC 60227 or IEC 60245	TEX TEX TIER OUTE	N
1.10 (5.2.3)	Type of attachment, X, Y or Z	or Mr. All An	N
1.10 (5.2.5)	Type Z not connected to screws	Et JEX STER WILL	N
1.10 (5.2.6)	Cable entries:	The An In	N
" White Wh	- suitable for introduction	LIEK ALTER WALTER W	N
at de	- adequate degree of protection	111 121	N
1.10 (5.2.7)	Cable entries through rigid material have rounded edges	INTER WATER WATER WAL	W.N.
1.10 (5.2.8)	Insulating bushings:	TEX TEX LITER SLITER	N
t	- suitably fixed	n m m	N
E NILLE W	- material in bushings	it the liter wife.	N.
	- material not likely to deteriorate	44. 24. 22.	L N
White whi	- tubes or guards made of insulating material	LIER OLIER WIFE ON	N
1.10 (5.2.9)	Locking of screwed bushings	111 111 111	N
1.10 (5.2.10)	Cord anchorage:	THE MITTER WALL	an'N
et et	- covering protected from abrasion		N
MUC	- clear how to be effective	The Marine	J N
+ LEX	- no mechanical or thermal stress	the state of	Ø <sup>L</sup> N
me m	- no tying of cables into knots etc.	WITE WILL WILL W	N
TEX ST	- insulating material or lining	A A A A	N N
1.10 (5.2.10.1)	Cord anchorage for type X attachment:	MULTE MULT MULT MILL	→ N
VIII WALL	a) at least one part fixed	LIEK OLIEK WILLE WALLE	N N
at at	b) types of cable	Th. 12 12	N
Mur. A	c) no damaging of the cable	ex while ouries while	NO NO
- All	d) whole cable can be mounted	4 4 4	+ N
mir, mr	e) no touching of clamping screws	WHITE WALLE WALL WA	N
TEK TE	f) metal screw not directly on cable		Nº
Mr. Mr.	g) replacement without special tool	WILL MULL MULL MULL	Z N



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Clause	Requirement + Test	Result - Remark	Verdict
WITER WITE	Glands not used as anchorage	THE THE LIER	CLI WN
7 %	Labyrinth type anchorages	1401. 2101. 111. 1	L N
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	itet white while wh	N N
1.10 (5.2.10.3)	Tests:	EX WALTER WALTER WALTE	In No.
SLIFE WILL	- impossible to push cable; unsafe	et let let	N'E
77, 2,,	- pull test: 25 times; pull (N):	Aur. Mur. Aur.	N
NITE NITE	- torque test: torque (Nm):	Et JET JET	JE N
	- displacement ≤ 2 mm	hry Mr. My M	N
IET NAITE N	- no movement of conductors	CENT TENT STEEL ST	N
, ,t	- no damage of cable or cord	ALL TOP IN	N
1.10 (5.2.11)	External wiring passing into luminaire	LIEK SLIEF MITE	N <sup>L</sup>
1.10 (5.2.12)	Looping-in terminals	41, 41, 5,	N
1.10 (5.2.13)	Wire ends not tinned	LIEK NIEK MITER	UNI SUN
et et	Wire ends tinned: no cold flow	11 24 2	, N
1.10 (5.2.14)	Mains plug same protection	ITEL NITE WILLE WA	N N
et let	Class III luminaire plug		* AN
1.10 (5.2.16)	Appliance inlets (IEC 60320)	THE WALL WALL	n Nn
- TEX S	Appliance couplers of class II type		N.
1.10 (5.2.17)	No standardized interconnecting cables properly assembled	White Marie Mari	AN AN
1.10 (5.2.18)	Used plug in accordance with	AL STE MATE IN	N O
LEK LEK	- IEC 60083	4	A CN
in with	- other standard	The Walt	N CO
1.10 (5.3)	Internal wiring	1 1 1 10	P
1.10 (5.3.1)	Internal wiring of suitable size and type	(see Annex 1)	ALL PIL
TEX LI	Through wiring	at at all	N. C.
m. m.	- not delivered/ mounting instruction	White white white	n nN
LIEK LIEK	- factory assembled	at at at	TEL TH
1, 1,	- socket outlet loaded (A)	The Mar Mar M	N
EX CLIER	- temperatures	at let set s	ET NO
70, 7,	Green-yellow for earth only	Mur Mur Mur	Р
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring	t get get get	P.II
10.	Cross-sectional area (mm²)	(see Annex 1)	Р
LIET OLIE	Insulation thickness	et et let	ALTE COPE



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IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
NULLEX MULLE	Extra insulation added where necessary	LIET SLIE MIN MAIN	N N
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via interna	l current-limiting device	Р
ili mi	Adequate cross-sectional area and insulation thickness	TER MITER WATER MITE	Р
1.10 (5.3.1.3)	Double or reinforced insulation for class II	y tex ster when on	N
1.10 (5.3.1.4)	Conductors without insulation	The same	N
1.10 (5.3.1.5)	SELV current-carrying parts	LIER SLIER WILL MILL	N
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber	PVC	N-
1.10 (5.3.2)	Sharp edges etc.	LIER MITE WHITE WHITE	W P
et let	No moving parts of switches etc.		N
MUT A	Joints, raising/lowering devices	EL OLIE MALL WALL OF	Na
* TEXT	Telescopic tubes etc.		× N
mr. m.	No twisting over 360°	antic will with whi	Р
1.10 (5.3.3)	Insulating bushings:	A GH GH JE	N
me m	- suitable fixed	Write Muri Mur Mur	n N
LIEN CLIER	- material in bushings	at let let let	Ä.
77	- material not likely to deteriorate	The me me	N
EX WITE N	- cables with protective sheath	at the the the	N N
1.10 (5.3.4)	Joints and junctions effectively insulated	Mus. Mr. Mr. Mr. Ang.	N
1.10 (5.3.5)	Strain on internal wiring	TEX TEX STEX OUT	N
1.10 (5.3.6)	Wire carriers	me me me	N
1.10 (5.3.7)	Wire ends not tinned	TE ALTER OLITE	P
, t , ; t	Wire ends tinned: no cold flow		N
1.10 (5.4)	Test to determine suitability of conductors having a	reduced cross-sectional area	P
ANTIEK AN	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2	(see Annex 2)	EX P
Alt A	No damage to luminaire wiring after test	The state of	P

1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK	In the set	P
1.11 (8.2.1)	Live parts not accessible with standard test finger	LIER WITE WHITE WHITE	WE D W
IEK WALTER	Basic insulated parts not used on the outer surface without appropriate protection	ex lifex wifex writer on	ITEP IT
k slift in	Basic insulated parts not accessible with standard test finger on portable and adjustable luminaires	et set set set	N N
TEN C	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires	whi with the till	Р



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Clause	Requirement + Test	Result - Remark	Verdict
Olduse A	requirement From	result remain	Verdice
ing was	Lampholder and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements	INTER WITE WATER	JOHN JOHN
t let	Basic insulation only accessible under lamp or starter replacement	it must me m	N N
Mr. M.	Protection in any position	MITE WALL WALL	nu Bu
TEX J	Double-ended tungsten filament lamp	1 t t	- N
me me	Insulation lacquer not reliable	WILL MULL MULL	W W
JEK JEK	Double-ended high pressure discharge lamp		Nt Nt
ile and	Relevant warning according to 3.2.18 fitted to the luminaire	TIL MULL MULL M	N
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position	ER WHITE MUTTE MA	N
1.11 (8.2.3.a)	Class II luminaire:	TEX LIFE WITE	P.
ALTEK ALTE	- basic insulated metal parts not accessible during starter or lamp replacement	THE TEX TEX	N N
M. The	- basic insulation not accessible other than during starter or lamp replacement	ing his my	ON P
it in	- glass protective shields not used as supplementary insulation	TE WILL MILL W	N A
1.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed	White White whi	IN NI
1.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:	- TEK ITEK LITEK	N.T.
	Ordinary luminaire:	Mr. Mr. M.	N
NITE WATE	- voltage under load (V)	- IF LIFE	NITE NON
. L . K	- no-load voltage (V)	- 10 10 1	N
TE WALTE	- touch current if applicable (mA)	THE WAY	JE NN
L 11	One conductive part insulated if required	14, 10,	L N
Whi M	Other than ordinary luminaire:	EX SLIER WITE WITE	uni Nr
et d	- nominal voltage:	-201	N.
MULL MULL	Class III luminaire only for connection to SELV	WITE WITE WITE	Wr. WN
NITEK WALTER	Class III luminaire not provided with means for protective earthing	TEX ITEX LITER	NITER NO.
1.11 (8.2.4)	Portable luminaire:	V. M. M. M.	N
NATE OF	- protection independent of supporting surface	EX LIEX CLIER WI	N'U
- 0+	- terminal block completely covered	70, 70, 70	N
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe	WHITE WHITE WHITE	int Ib
1.11 (8.2.6)	Covers reliably secured	at at at	JE OP



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Clause	Requirement + Test	Result - Remark	Verdict		
1.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 μF not exceed 50 V 1 min after disconnection	Writer Whiter Whitek W	P		
Et TEX	Portable luminaire with capacitor > 0,1 μF (0.25) not exceed 34 V 1 s after disconnection	The sure of the	N		
WALL W	Other luminaires with capacitor $>$ 0,1 $\mu$ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection	est test itest	WE N'		

1.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12. specified in 1.13	6) after (9.2) before (9.3)	. W
1.12 (12.2)	Selection of lamps and ballasts	TER OLIER WALTE WALTE OF	1, -1,
y TEX	Lamp used according Annex B	(Lamp used see Annex 2)	( - C
mr. m	Controlgear if separate and not supplied	NUTTE WALL MAL WA	- m
1.12 (12.3)	Endurance test:	at let set se	Р
1/1 1/1	a) mounting-position	Acc. to user manual	10,
LIER NITER	b) test temperature (°C)	35 °C	CLIER.
	c) total duration (h)	240 h	<b>"</b> _
IER WITE W	d) supply voltage (V)	1.1Un	11E
- SITEK KI	d) if not equipped with controlgear, constant voltage/current (V) or (A)	- Mr Wr Wr	
10, 20,	e) luminaire ceases to operate	MULL MULL MULL AND	100
1.12 (12.3.2)	After endurance test:		Р
, , , , , , , , , , , , , , , , , , ,	- no part unserviceable	The same	Р
LIENNITE	- luminaire not unsafe	TER OLITE	Р
	- no damage to track system	Mr. M. D.	N
" WALTE WA	- marking legible	e lifet aliek milet an	Р
*	- no cracks, deformation etc.	m m m	Р
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	NP.
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N-
1.12 (12.6)	Thermal test (failed lamp control gear condition):	LIEX MITER MITE MILL	in N
1.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A):	et itet litet nitet i	MIEK W
L .*	- case of abnormal conditions:	my m m	<u>,                                     </u>
White My	- electronic lamp control gear	t liet wife with whi	N
,t .0	- measured winding temperature (°C): at 1,1 Un .:	-Mr. Mr. A.	الح



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Clause	Requirement + Test	Result - Remark	Verdic
Olause	requirement . Test	TCSuit - TCTIunt	Verdie
MULT MALE	- measured mounting surface temperature (°C) at 1,1 Un	Wite Mile Mile Anti	JUN N
Lie Mile	- calculated mounting surface temperature (°C):	TEX LIER SLIER WIFE	N
* at	- track-mounted luminaires	74 74	μN
1.12 (12.6.2)	Temperature sensing control	ex wifex while while w	L, NL
et a	- case of abnormal conditions	-70	0 - X
MULT. MULT	- thermal link	alier wife wall was	√N.
et let	- manual reset cut-out		t Nt
ur m	- auto reset cut-out	LITER WALLE WALL WALL	N N
CEX JEX	- measured mounting surface temperature (°C):	- A Cit Cit	N
1/1/2 1	- track-mounted luminaires	E WILL MULL MULL	N <sub>2,</sub>
1.12 (12.7)	Thermal test (failed lamp control gear in plastic lum	ninaires):	S N
1.12 (12.7.1)	Luminaire without temperature sensing control	White Mur. Mur. M.	N
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W	OLIEK MITER WALTER WAL	AN N C
TEX TEX	Test method 12.7.1.1 or Annex V		- Cart
The Market	Test according to 12.7.1.1:	LIE WILL WILL WALL	N A
EX TEX	- case of abnormal conditions	L of the text	JEX-
11, 1,	- Ballast failure at supply voltage (V):	- MUTIL MUTI MUTICAL	11 - 20,
NIEK NI	- Components retained in place after the test	et let let o	N.
70, 70	- Test with standard test finger after the test	Mr. Mr. M. M.	N
WILL WAS	Test according to Annex V:	the life out	N
, ,	- case of abnormal conditions	VI MI AN	T.
TE NATE.	- measured winding temperature (°C): at 1,1 Un:	TEN MITE	N/1/6-N
K WITEK OU	- measured temperature of fixing point/exposed part (°C): at 1,1 Un:	t et set set	N. E.K. —
TEK SLI	- calculated temperature of fixing point/exposed part (°C):	-We we we we	
m m	Ball-pressure test:	white mur and any	N
LIEK OLIEK	- part tested; temperature (°C)	-of the text itel	N
100	- part tested; temperature (°C)	Tr. Mrs. Mrs. Mrs.	N
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp >	70W, transformer > 10 VA	TE N
LIEK	- case of abnormal conditions	at the fit.	11 11 - 11
41, 41,	- measured winding temperature (°C): at 1,1 Un:	-Mer Mer Mer Me	7,
NALTER WALTE	- measured temperature of fixing point/exposed part (°C): at 1,1 Un:	SLIER WILER WILL	NOTE:

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t TEX	IEC 60598-2-1	a at at at a	EX TEX
Clause	Requirement + Test	Result - Remark	Verdict
et le	the till with the way the	the state of	, EF
white with	- calculated temperature of fixing point/exposed part (°C)	INTER WHITE MUTTE WHITE	nut 1
LIE MILL	Ball-pressure test:	TEX LIFE NITER MITE	N W
at at	- part tested; temperature (°C)	- 1/11 1/11 1/11	N
WALL WI	- part tested; temperature (°C):	E OLIER WILL MILL M	N
1.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA	TEX LIEX SLIEX WILL	NEX
* * * * * * * * * * * * * * * * * * *	- case of abnormal conditions	Mer My Mr Mr	_t
Write Will	- Components retained in place after the test	TEX STEX WITE WITE	ar N'a
it let	- Test with standard test finger after the test	. W. W.	N
1.12 (12.7.2)	Luminaire with temperature sensing control	TEX SITER WITE WITE W	Na
et let	- thermal link	Yes No D	
Mr. M	- manual reset cut-out	Yes No No	- in
TEX TE	- auto reset cut-out	Yes No D	- Tex
mr m	- case of abnormal conditions	WITE WALL MALL WALL	m.
NITEK WALTER	- highest measured temperature of fixing point/exposed part (°C)::	THE MITTER MILITER WHITER	nri <u>ek</u> m
et set	Ball-pressure test:	See Table 1.15 (13.2.1)	N ≤

1.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		Inti InPi
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		
inti vin	- classification according to IP	IP20	IL MUL
et le	- mounting position during test	Acc. to user manual	* 12
MUL	- fixing screws tightened; torque (Nm)	- In the state of	11/2 -
t TEX	- tests according to clauses	Cl.9.2.0	et —
m.	- electric strength test afterwards	WALLE WALL WALL	An bu
TEX	a) no deposit in dust-proof luminaire	at at at	N.
11, 11,	b) no talcum in dust-tight luminaire	Write Mur Mur M	N
ALTEK WALT	c) no trace of water on current-carrying parts or on insulation where it could become a hazard	stiek witek whitek whi	TEK MIT N
EX NATES	c.1) For luminaires without drain holes – no water entry	Et JET LIET SLIE	L TEN
LIEK	c.2) For luminaires with drain holes – no hazardous water entry	THE THE TEX	N
ZEX _	d) no water in watertight or pressure watertight luminaire	mer mer mer.	N
NUT OIL	e) no contact with live parts (IP 2X)	WITE WITE WALL W	υ P



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	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
Writek W	e) no entry into enclosure (IP 3X and IP 4X)	- Life out the out of	THE N
LIEK WIF	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)	TEX TEX STEX OUT	EK NIEN
EK JEK	f) no trace of water on part of lamp requiring protection from splashing water	* it let let	N N
n,	g) no damage of protective shield or glass envelope	MULLI MULL MULL	v <sub>n</sub> N
1.13 (9.3)	Humidity test 48 h	25°C, 93%R.H.	P. P.

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STR	ENGTH	Р
1.14 (10.2.1)	Insulation resistance test	With Mile Mile Mile	Р
iek whilek	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø	EX LIEX WILEX WILES	
t dit .	Insulation resistance (MΩ)	The state of the s	<u>+</u> -
MUE MU	SELV:	niter white white whi	N
NALIEK WALTE	- between current-carrying parts of different polarity	TEX SITES NITES WHITE	N
LIEK WILEK	- between current-carrying parts and mounting surface:	in an area that still	N
et det	- between current-carrying parts and metal parts of the luminaire	the sure with the	N
المالية المالي	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	- while while whe wi	N
1112	- Insulation bushings as described in Section 5:	The man we was	N
LIEK WIE	Other than SELV:		Р
10.	- between live parts of different polarity:	100 ΜΩ	Р
TEX MITER	- between live parts and mounting surface:	100 ΜΩ	ГР
74	- between live parts and metal parts:	100 ΜΩ	Р
WALTER VIA	- between live parts of different polarity through action of a switch	the writes writes wh	N
WATER WALL	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	onitek unitek whitek white	'n' N
JEK JIEK	- Insulation bushings as described in Section 5:	100 ΜΩ	Р
1.14 (10.2.2)	Electric strength test	VILL AND MUT. AND	Р
ex allex	Dummy lamp	et et tet stet	N
in a	Luminaires with ignitors after 24 h test	Mer, Mer Mr. M.	N
NITER OF	Luminaires with manual ignitors	TEX TEX JEX	N
711	Test voltage (V):	Mur. Mr. Mr.	Р
alter alte	SELV:	et tet tet it	N



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IEC 60598-2-1				
Clause	Requirement + Test	Result - Remark	Verdict	
at a	THE THE SLITE MET WALL AND THE		- LET	
	- between current-carrying parts of different polarity	INTER WHITE WHITE WHITE	W.V	
LIE WALTE	- between current-carrying parts and mounting surface:	Tex writer writer writer	N N	
EK WALTER	- between current-carrying parts and metal parts of the luminaire:	SE OUTER MUTER MULTER ON	SEE NAT	
WALLEY WA	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	"THE MITTER WHITE WHITE	N.E.	
et d	- Insulation bushings as described in Section 5:	- 1 1 1	N	
With Aug	Other than SELV:	NITER MILIE WALLE WALLE	Р	
TEX TEX	- between live parts of different polarity:	1480V	Р	
11/2	- between live parts and mounting surface:	1480V	Р	
X WITEK	- between live parts and metal parts:	1480V ;2960V For Class II construction	PIL	
	- between live parts of different polarity through action of a switch	we at the the	N	
LIEX OLIE	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	of the text	N	
10.	- Insulation bushings as described in Section 5:	1480V	Р	
1.14 (10.3)	Touch current or protective conductor current (mA)	Touch current: Max. 0.09mA, Protective conductor current: Max. 0.950mA	P	

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)	m'P
1.15 (13.3.1)	Needle-flame test (10 s)	See Test Table 1.15 (13.3.1)	Р
1.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 1.15 (13.3.2)	P.M
1.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 1.15 (13.4)	e⊬ N



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t TEX	JEC 6	0598-2-1	- TEX TE
Clause	Requirement + Test	Result - Remark	Verdict

1.7 (11.2)	TABLE I: C	reepage dista	ances and clea	arances			WP.
at di	Minimum d	istances (mn	n) for a.c. up to	o 30 kHz sin	usoidal voltag	jes	Р
in with	Applicable	part of IEC 6	0598-1 Table 1	1.1* and 11.	2*	UNLIE WALLE	P ·
et let	Insulation	Measured	Requ	ired	Measured	Requi	red
	type **	clearance	clearance	*Table	creepage	creepage	*Table
Distance 1:	TEL B TE	3.0	1.5	11.1B	3.0	2.5	11.1A
Working vo	Itage (V)				240VAC	MULT MU	7/12
PTI				:	< 600 ⊠	≥ 600 □	t set
Pulse voltaç	ge if applicab	le (kV)		<u> </u>	LITE WILL	MULL MULL	711
Supplement	tary information	on: between li	ve parts of diffe	erent polarity	at at	TEX TEX	LIFER
Distance 2:	R	5.5	3.0	11.1B	5.5	5.0	11.1A
Working vo	Itage (V)			:	240VAC	CEX TEX	1 EF - 11
PTI				:	< 600 ⊠	≥ 600 □	
Pulse voltag	ge if applicab	le (kV)		:	11 16	t with all	E NUE
Supplement	tary information	on: between li	ve parts and m	ounting surfa	ce	1/10 1/11	- N
Distance 3:	"IR v	5.5	3.0	11.1B	5.5	5.0	11.1A
Working vol	Itage (V)	(t) (t)		:	240VAC	70, 2,,	
PTI	W. W.				< 600 ⊠	≥ 600 □	il <sub>ri</sub>
Pulse voltaç	ge if applicab	le (kV)			- 11/2 11/1		* -
			ve parts and m	- J	TEN S	E CLIEB ON	A NOT

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



≥ 600 □

< 600 🗌

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			IEC 6	0598-2-1			
Clause	Requirem	ent + Test	et set	CITER INLI	Result - Rem	nark	Verdict
	EX TEX		ant a	1. 2.		<del>,                                    </del>	CH CEX
1.7 (11.2)	TABLE II: (	Creepage di	stances and o	learances	alle all	WILL MY	- MN
LEX LEX	Minimum	distances (ı	mm) for a.c. h	igher than 3	30 kHz sinusoi	idal voltages	t let
TI WILL	Applicable	part of IEC	61347-1 Table	e 7 and 8* o	r IEC 60664-4	Table 1 and 2	Mr. M
Distances	Insulation	Measured	Requ	ired	Measured	Requ	uired
	type **	clearance	clearance	*Table	creepage	creepage	*Table
Distance 1:	VEK CLIER	WITE OF	The WALL	111. 21.		at alt	TEX TEX
Working volt	tage (V)				INLIE MIL	MUL. M	1/1/2
Frequency if	f applicable (k	(Hz)	7/1/2			t dit is	er Jer
PTI	7, 7				: < 600 🗌	≥ 600 □	1 1/1 - 1
Peak value	of the working	g voltage Û <sub>out</sub>	t if applicable (	kV)	at at	TEX TEX	LIFE N
Supplementa	ary informatio	n:		ALTE ME	A STATE OF THE STA	ne me	10, 10,
Distance 2:	neite aneite	MUL		1,4	all the same of th	TEX JEX	CLIER WIT
Working volt	tage (V)				Why wh	1/1 1	
Frequency if	f applicable (k	(Hz)			LEK J	ex liex "	LE WILL
PTI	·············				: < 600 🗌	≥ 600 □	
Peak value	of the working	g voltage Û <sub>out</sub>	if applicable (	kV)	TEX TEX	CLIER WIFE	WILL W
Supplementa	ary information	n:	all an	MILL	, which	10.	at .
Distance 3:	alury, alury,	2			TEX LIEK	LIE NALIE	White Whi
Working volt	tage (V)				: 10, 1		x - 1

Frequency if applicable (kHz)....:

Peak value of the working voltage  $\hat{U}_{out}$  if applicable (kV) .....:

1.15 (13.2.1)	TABLE: Ba	II Pressure Test of	Thermoplastics	white and any
Allowed impression diameter (mm)		≤2.0	et let let the	
Object/ Part No	o./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
LED cover	in in	(see Annex 1)	125	1.6 W
PCB of LED dr	iver	(see Annex 1)	125	0.9
Bobbin	- 10	(see Annex 1)	125	anti un 1.1 un un
Quick connect	EX JET	(see Annex 1)	125	(1.3
Supplementary	information	St JEK JE	X NITEX WITE WALTER	arti auri auri auri

Supplementary information:

<sup>\*\*</sup> Insulation type: B – Basic; S – Supplementary; R – Reinforced.



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t TEX	THE STATE OF THE S	0598-2-1	- TEX JEX
Clause	Requirement + Test	Result - Remark	Verdict

1.15 (13.3.1) <b>TA</b>	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
PCB of LED driver	See Annex 1	10	No	÷ 0.+	P
Quick connect	See Annex 1	y 10 00 mi	No No	m o m	Р
Bobbin	See Annex 1	10	No	×0 ×	P.

1.15 (13.3.2)	TAE	BLE: Glow-wire test (	(IEC 6069	5-2-11)			Р
Glow wire ten	npera	ture		650°C	at at	CENT TEXT	17EK
Object/ Part No Material	0./	Manufacturer/ trademark	арр	Duration of lication of test low (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Fish paper	Ļ	(see Annex 1)	IN THE	30	N N	0	P
LED cover	M	(see Annex 1)		30	JE N JE	alle Online	Mr.b
Insulation tape		(see Annex 1)	150	30	N	0	Р
		g of the sample exting molten drop did not ig					Yes
Supplementary	y infor	mation:			et det d	EX OLIER OF	TE. WIL

1.15 (13.4) <b>TABLE: Pro</b>	oof tracking test (IEC	60112)	SIN
Test voltage PTI		with the the tent of the	<del></del>
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens	Verdict
LITE MALTE VI			LIET
Supplementary information:	TEX OLITER WAY	THE WE WE TO	A A



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	t it it	THE CLE WILL WAY		
et det	alier with white	IEC 60598-2-1	t ext ext	LEK TEN
Clause	Requirement + Test	ex rex street mires	Result - Remark	Verdict

	ANNE	X 1 components				Р
object/part No.	Code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Terminal block	В	Heavy Power Co., Ltd.	PA7	450VAC; T110; 0.75-1.5mm <sup>2</sup>	EN 60998-1 EN 60998-2-1	VDE 40019839
Fish paper	В	CHANGSHU SHI LIANTANG JUEYUAN CAILIAO CHANG	6051	Pl. V-0, 130°C	Tier miles	UL E236441
Lead wire to LED driver	В	DongGuan Nistar Transmitting Technology Co.Inc.	H05SJ-K	T180; 1x0.75 mm <sup>2</sup>	VDE 0285- 525-2-41	VDE 40017570
Earth wire	В	Zhongshan Dingtai Electric Co., Ltd.	H05V-K	1x0.75mm <sup>2</sup> ; 300/500V	VDE 0285- 525-2-31	VDE 40048743
Switch for 191244005- 1	B	Shenzhen Mairui intelligent Technology Co. LTD	MC002D6	12V~,25mA, 1E4	IEC 61058	CE WILLIER
Fuse	B	Littelfuse Inc.	369	250VAC; 2A	EN 60127-1 EN 60127-3	VDE 40037351
X2 capacitor	MITER	Dongguan City Jurcc ELECTRONICS CO. LTD	MPX/MKP	275VAC; T110; 0.022μF	EN 60384-14	VDE 40034920
Bobbin	В	CHANG CHUN PLASTICS CO LTD	T375HF	150°C	NITER MITER	UL E59481
Magnet Wire	← B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW(AL)/1 30	130°C	EY WALTER WA	UL E344055
Insulation tape	В	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ* (b)	130°C	in the mil	UL E165111
Quick connector	B	PINGDINGSHAN SHENMA ENGINEERING PLASTICS CO LTD	EPR27	PA66	MILE WILL	UL E231964
PCB WITE	B	INTERNATIONAL LAMINATE MATERIAL LTD	DL-C3	V-0	EX MITEX MAN	UL E134893
Heat- shrinkable tube	B	SHENZHEN WOLIDA TRADING CO LTD	RSFR-H	600VAC; 125°C	- MITEK WALTE	UL E329530
Alternative	D	DONGGUAN SALIPT CO LTD	SALIPT S- 901-300	300VAC; 125°C	TEX TEX	UL E209436
Lead wire to LED board	B	SHINESTATE INTERNATIONAL LTD	1007	24AWG; 80°C; 300V	TEX SITEX	UL E213431



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t alt	TEX LIET SLIET	IEC 60598-2-1		et let
Clause	Requirement + Test	ex cex sites with	Result - Remark	Verdict

LED	C	Guangzhou Hongli Opto-Electronic Co.,Ltd	2835	IF=150mA, VF=3.0-3.2V,	IEC/TR 62778	Test with appliance
LED board	√B √Et	WODE ELECTRONICS TECHNOLOGY (ZHUHAI)CO., LTD	WD-16	Al. V-0; 130°C	MULL MULL	UL E323980
LED cover	В	NAN YA PLASTICS (HUI ZHOU) CORP LTD	5410G1	PC; V-0	ant and	UL E235269

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





Р

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**ANNEX 2** 

			N. 712. 711. 22. 2	
t TEX		IEC 60598-2-1		TEX TEX
Clause	Requirement + Test	L CH JER JI	Result - Remark	Verdict

Temperature measurements, thermal tests of Section 12

ANNEX 2-1	Type reference				191244005-1				
EX NITER	Lam	_amp used:			LED 18W			NI 15 - 11 1	
10.	Lam	Lamp control gear used				Inte	gral drive	111 1	
INLIES NA	Mou	Mounting position of luminaire				Acc	. to user man	ual	IE WITE
- L	Supp	oly wattage	(W)		:21	-111	M	10, 10,	L <del></del>
INLIE WALT	Supp	oly current (A	A)			<	X LIEK	WILL WILL	Juli .
at at	Calc	ulated powe	er factor	1	:214	1/2	70, 7	1 A	
MULL	Tabl	e: measured	d temperatu	res corrected	for ta = 2	5 °C:	CLIER ON	TE WALTE	Mr. Bu
t let	- abr	normal opera	ating mode		<u> </u>		ST.	tt	∠* <del>-</del> .≺
145 1	- tes	t 1: rated vo	Itage		:	<del>-</del>	NITE WITE	mr. m	r m
NNLTEK WAL				tage or 1,05 t		1.06	times rated	voltage	EX WALLEY
LIEK MIE				ocket-outlet, 1 je		<u>-</u> 111	t TEX	TEX TEX	NLIE!
				age or 1,05 tir					
" "Ex				wiring loaded		<u></u>	while whi	, m, 1	ir <u>vi</u> i
Mury M		mr. m	+ 1+	Temperatu	re measu	reme	nts, (°C)	White My	MUL
- 17 EX		TE WIT		Clause 12	2.4 – norn	nal	t d	Clause 12.5	– abnorma
Part		Ambient	test 1	test 2	test	3 💎	limit	test 4	limit
Terminal blo	ck	25.0	<u>-</u> '	34.6	×	,J	110	TEX - JEX	NLTER N
Lead wire to driver	LED	25.0	18th .C	42.7	المن المان		180	70	7-
LED driver F	СВ	25.0		68.1	# - A	EX	130	1 11 CT	الرزق المارز
Lead wire to switch	TEX	25.0	IEK WILLEY	43.6	ni-		90		et -Je
Switch		25.0		40.2	C CLIE	11.	55	mr - m	1/1
Switch ambi	ent	25.0	Will.	39.7	J.		55	16x- 16	- LEE
Fuse		25.0	et .	57.0	MITE-	MILL	130	7/11/2	<u></u>
X2	المالية	25.0	mi - n	56.2		_t	110	Et -JEX	OLIE .
CE1	٠, ٢	25.0	16t J	78.9	LICE NO		105	'n	23,
Winding	NITE	25.0	10/10	78.1	, <del>,</del>	*	130	- Lifet	LIET JOLI
Bobbin	.*	25.0	et - 17E	68.6	MULL	10	150	20, - 2,	
Lead wire to board	LED	25.0		50.3	· 14		80	INLIEK WAL	NALICA

Waltek Testing Group (Foshan) Co., Ltd. http://www.waltek.com.cn



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t TEX	TEX	alie	NALL WALL	IEC 6059	8-2-1		t set .	TEX JE
Clause F	Requir	ement + T	est	TEX SIT	ek niter	Result - Rema	ırk.m. m	Verdict
LED board	, L	25.0	7,011	62.2	- /*	Ref.	154 15	y TEX
LED cover		25.0		70.1	1/11 - V	Ref.	10 - 14	<del></del>
Quick connec	ton	25.0	710- 11	60.5	(1EK 1)	Ref.	LIEK WALTER	mi- n
Mounting surf	ace	25.0	NITE- UNI	35.4	n -701	90	x it	18t- S
Illuminated surface (0.1m	) (	25.0	(E) - (E)	25.3	TEK NICITE	90,00	11/2	- m

ANNEX 3	Screw terminals (part of the luminaire)	N
JE J	the write our way and the text	THE THE LIFE
(14)	SCREW TERMINALS	N
(14.2)	Type of terminal:	EX STEX STEX
70.	Rated current (A)	
(14.3.2.1)	One or more conductors	NET NET N
(14.3.2.2)	Special preparation	N
(14.3.2.3)	Terminal size	NITE INLIE NON
	Cross-sectional area (mm²)	N
(14.3.3)	Conductor space (mm)	TEN NOTE WITH
(14.4)	Mechanical tests	N
(14.4.1)	Minimum distance	NO JUNE WALL
(14.4.2)	Cannot slip out	N N
(14.4.3)	Special preparation	White mill MN
(14.4.4)	Nominal diameter of thread (metric ISO thread):	N+
ivr. "nv.	External wiring	Vin Mur. Augu
ret je	No soft metal	A A N
(14.4.5)	Corrosion	an an No
(14.4.6)	Nominal diameter of thread (mm):	- N
The .	Torque (Nm)	In In M
(14.4.7)	Between metal surfaces	NE DEL
11, 11	Lug terminal	mr mr m
LIER OLI	Mantle terminal	TEL TELL IT N
70	Pull test; pull (N)	N
(14.4.8)	Without undue damage	N <sub>0</sub>



Reference	No.: W1Z20F07049674X1L	Page 31 01 56		
t TEX	LIEK WILE WILE MALL	IEC 60598-2-1		LEK LIEK
Clause	Requirement + Test	TEX SLIER WITE	Result - Remark	Verdict

Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 4	Screwless terminals (part of the luminaire)	THE WALTER WALTER WALTER	N N
(15)	SCREWLESS TERMINALS	TEK ITEK LITEK MITEK	N N N
(15.2)	Type of terminal	- 1/1 1/1	X- X
WALTE.	Rated current (A)	E THE RUTER WITE	We The
(15.3.1)	Material	111 111 111	N.
(15.3.2)	Clamping	alier with white whi	JIN
(15.3.3)	Stop		- N-
(15.3.4)	Unprepared conductors	LIER WILL MULLE WALL	N A
(15.3.5)	Pressure on insulating material		N
(15.3.6)	Clear connection method	CELL WILL WALLE	In Nin
(15.3.7)	Clamping independently		N.C
(15.3.8)	Fixed in position	Write Muli Muli Mu	N
(15.3.10)	Conductor size	at the state of	et Net
m. m	Type of conductor	VILL MULL MULL MUT	Z <sub>II</sub> , N
(15.5)	Terminals and connections for internal wiring	at at all tell	N
(15.5.1)	Mechanical tests	IT WILL AND WAY	1 N
(15.5.1.1.1	Pull test spring-type terminals (4 N, 4 samples):	t miter whiter whiter	IN THE NOW
(15.5.1.1.2	Pull test pin or tab terminals (4 N, 4 samples):	THE STEEL STEEL STEEL	TE- NEW
	Insertion force not exceeding 50 N	m, m, m	N
(15.5.1.2)	Permanent connections: pull-off test (20 N)	TE MITE MALTE	JI'N ,
(15.5.2)	Electrical tests	To the second	N
LILL	Voltage drop (mV) after 1 h (4 samples)	TEL MALTE	IN NOW
* et	Voltage drop of two inseparable joints	W A X	N X
	Number of cycles:	CLIER WILLE WALTER	Ur. Aller
MITEX	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)	TEK STEK WITEK WI	IEK NEK
SITEK RITE	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)	ar an ar ar	N
iek lek	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)	The second	N
t "it	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)	MULLE MILL MULL	N <sub>11</sub>
(15.6)	Terminals and connections for external wiring	LIER NITER WITE NO	N
(15.6.1)	Conductors	111. 111. 121.	, N+
anti ant	Terminal size and rating	LIER ALTER MITE MALI	M'N.



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	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
15.6.2	Mechanical tests	STEE STEE WITCH	N N
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)	et tet tet di	EK JIJEN
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)	L EX LEX LEX	N
(15.6.3)	Electrical tests	WALL MAL MAR	N N
TEX	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1	at at all	NE NE

(15.6.3.1) (15.6.3.2)	TABLE	E: Contact	resistar	nce test	/ Heating	g tests					INLE N
LEX LEX	Voltage	e drop (mV	') after 1	h	m.	Mr.	u,		t	, EK	\E\ <del>L</del>
terminal	7/1	1	2	3	4	5	6	7 0	8,0	9.0	10
voltage dro	p (mV)	LIFER	LILE					.L	+ 4	* 1	N
m,	1	/oltage dro	p of two	insepara	ble joints	EL	أنامان	MILL	MULL	M	N
TEX	TEK 1	/oltage dro	p after 1	0th alt. 2	5th cycle	:	٠. ل	z*	et	TEX	N
m. m	N	Max. allowe	ed voltag	e drop (r	nV)	1	WILLE	WILL	MI	Me	$a_0$
terminal 1 2 3 4 5 6 7 8 9					10						
voltage drop (mV)		- X	ex			NITE		N <sup>i</sup>	1, 11	7	N
EX SITES	الالتام	/oltage dro	p after 5	0th alt. 1	00th cycl	le	_x+	LEX.	CEP C	EX L	N
10	N	Max. allowe	ed voltag	e drop (r	nV)		11	M	1/1	711	
terminal	terminal 1 2 3 4 5 6 7 8 9					10					
voltage dro	p (mV)	* *	× 16	+ ni	MILI	White	MUL	M	14	74.	N
WITE WA		Continued a	ageing: v	oltage d	rop after	10th alt.	25th cycl	е	LIER	CLIER	N
	N	Max. allowe	ed voltag	e drop (r	nV)		100		in i	h. T	, <u> </u>
terminal	i	1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	TEX	TEX	NLTER	Vr. 7	Vr. M	" "	. 4			N
MALT	ur.	Continued a	ageing: v	oltage d	rop after	50th alt.	100th cy	cle	ET INLI	NALT	N
t	N A	Max. allowe	ed voltag	e drop (r	nV)	;	- In-	20,	7		_
terminal	Tr. 111	1207	2	3	4 .0	- 5	6	7	8	9	. 10
voltage dro	p (mV)	E JE	CLIE	MULI	MUL	m.	40.	10.	14	.et	N
W. W.	"VIL"	711	10.	.4	1	EX	TEX	TE	LIFE		N



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		EN 60598-2-1		
Clause	Requirement + Test	CEX NIEK	Result - Remark	Verdict
ANNEX 5	National Differences for (co	untry name) or Gr	oup Differences	IN P
J.E. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	CENELEC COMMON MODIF	LOATIONS (EN)		OF POS

# ATTACHMENT TO TEST REPORT IEC 60598-2-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Luminaires

Part 2: Particular Requirements:

Section One – Fixed general purpose luminaires

Differences according to...... EN 60598-2-1:1989 used in conjunction with

EN 60598-1:2015+A1:2018

Annex Form No.....: --Annex Form Originator .....: -Master Annex Form....: --

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ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		
(3.3)	DK: power supply cords of class I luminaires with label	Murran Mar N An	
(4.5.1)	DK: socket-outlets	atiet mile un't Not	
(5.2.1)	CY, DK, FI, GB: type of plug	N	

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N.
(4 & 5)	FR: Shuttered socket-outlets 10/16A	all life white white	WN -
itek mutek	FR: Safety requirements for high buildings  (Arrêté du 30 décembre 2011 portant règlement de des immeubles de grande hauteur et leur protectio et de panique; Section VIII; Article GH 48, Eclairag Glow-wire test for outer parts of luminaires:	n contre les risques d'incendie	STEK WE
Mr. Mr.	- 850°C for luminaires in stairways and horizontal travel paths	WALTER WALL WALL WALL	N
VILL MULL	- 650°C for indoor luminaires	TER STEE STEEL STATES	In In
IEK MITEK	GB: Requirements according to United Kingdom Building Regulation	at all the talk of	TEN N

10			20	
	A		A	۱
U		V		
M				

	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdic
ANNEX 6	Lamp controlgear - Part 2-13: Particular requirem electronic controlgear for LED modules IEC 6134		P
4 (4)	GENERAL REQUIREMENTS	UNITER WHITE WHITE.	Р
- (4)	Insulation materials according requirements in Annex N of IEC 61347-1	(see Annex N)	I N
- (4)	Compliance of independent controlgear enclosure with IEC 60 598-1	- itek stiek mitek mi	e N
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1	(see Annex O)	our Inc
4 (4)	SELV controlgear comply with Annex I of this part 2 and Annex L of IEC 61347-1	(see Annex L)	USLIEN N
4 (-)	Transformer comply with IEC 61558	30, 2, 2	↓ P
MUL	Dielectric strength test of insulated winding wires is limited to 3 kV if input voltage ≤ 300 V	White White White My	Р
6 (6)	CLASSIFICATION	WILL MULES MULES MILLS	Р
ITEK OUT	Built-in controlgear	Yes 🗌 No 🖂	LIE
	Independent controlgear:	Yes \( \square\) No \( \square\)	_
IET WITE	Integral controlgear:	Yes ⊠ No □	176 <del>1</del>
6 (-)	Auto-wound controlgear	Yes ⊠ No □	
antition.	Separating controlgear:	Yes ⊠ No □	The state of the s
*	Isolating controlgear:	Yes  No	
intip in	SELV controlgear:	Yes □ No ⊠	MUTT
7 (7)	MARKING	THE MITTER	J. L. N.
7.1 (7.1)	Mandatory markings	W. My My	, N
WALTE.	a) mark of origin	See copy of marking plate	N
et	b) model number or type reference	See copy of marking plate	N
MU M	c) symbol for independent controlgear, if applicab	le alle mil mi	JN
NITEK NAL	d) correlation between interchangeable parts and controlgear marked	TEX LIEX SLIEN MITES	N-N-
, L , C, Y	e) rated supply voltage (V)	Mrs. Mr. Mr. A.	N
in Will	supply frequency (Hz)	LEX SLIER WILL WILL A	N.
+ 4	supply current (A)	See copy of marking plate	L N
WILL Y	f) earthing symbol	EK CITER WITE MUITE MUI	N
.*	k) wiring diagram	20 20	( Ne

See copy of marking plate

Ν

I) value of tc



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Ν

Max. 12V

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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
Write M	m) symbol for declared temperature	LIEK NIEK MITEK	N N
it is	t) LUM earthing symbol		, N
Lit While	u) if not SELV maximum working voltage Uout between	een: with white	N V
et let	- output terminals (V)		- N
MU	- output terminals and earth (V)	is write white war	The Nine
7.1 (-)	Constant voltage type:	Yes No No	TE TE
my n	- rated output power P <sub>rated</sub> (W)	NUTTE MULL MULL	N N
LIEK N	- rated output voltage U <sub>rated</sub> (V)	A AT ACT	JEK JIN'T
11. 11.	Constant current type:	Yes No No	2, —
TEK NITE	- rated output power P <sub>rated</sub> (W)	et let itet it	N
- 22	- rated output current I <sub>rated</sub> (A):	ithe Mrs. My	N
NITE	Indication if for LED modules only	TEX JEX STEE	N.C.
7.1 (7.2)	Marking durable and legible	Mr. Mr. Mr.	N
Write M	Rubbing 15 s water, 15 s petroleum; marking legible	UNITER WHITER WHITER W	NITE WIN
7.2 (7.1)	Information to be provided, if applicable	et et set	SEL N
EX TEX	h) declaration of protection against accidental contact	the sure sure	N
M	i) cross-section of conductors (mm²)	LE WALLE WALLE MALL	n Nn
- JEX	j) number, type and wattage of lamp(s)	a state	N.
1112 1	s) SELV symbol	White whi whi	N N
7.2 (-)	- declaration of mains connected windings	The state of the s	N N
8 (10)	PROTECTION AGAINST ACCIDENTAL CONTAC	T WITH LIVE PARTS	P
- (10.1)	Controlgear protected against accidental contact with live parts	Rely on enclosure	W PW
- (A2)	Voltage measured with 50 kΩ	(see Annex A)	mi Nr
- (A3)	Voltage > 35 V peak or > 60 V d.c. or protective impendance device	(see Annex A)	NITE NATE
- (10.1)	Lacquer or enamel not used for protection or insulation	me me me	N_

protection

- (10.2)

(10.3)

Adequate mechanical strength on parts providing

Capacitors > 0,5  $\mu$ F: voltage after 1 min (V):

Controlgear providing SELV



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
MULITEE NO TEE LI	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear	INTER WALTER	SUPLY SUPN
t let	No connection between output circuit and the body or protective earthing circuit	The Maria Maria M	N
WAL	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts	MULTER WATER WALE	JIP N
The A	SELV outputs separated by at least basic insulation	Murit Murit Muri	AN N
ve m	ELV conductive parts insulated as live parts	LIE WILL WILL V	N. N.
et je	Tests according Annex L of IEC 61347-1	(see Annex L)	A N
- (10.4)	Accessible conductive parts in SELV circuits	TEN WHITE WA	N <sub>20</sub>
MALTER	Output voltage under load $\leq$ 25 V r.m.s. or $\leq$ 60 V d.c.	OLIEK WILEK WALTE	* JULY WIT
WUTEK M	If output voltage > 25 V r.m.s. or > 60 V d.c.;  No load output ≤ 35 V peak or ≤ 60 V d.c and touch current does not exceed 0,7 mA (peak) or 2 mA d.c.	MITER WHITER WHITER	WATER WALLEY
EK WILEK	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V	the man which we	N SEEK NEW
WALTER	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	Whit will will will a will be	white white
EX	Y1 or Y2 capacitors comply with IEC 60384-14	7) - 1 - 1x	N.
ines un	Resistors comply with test (a) in 14.1 of IEC 60065	all Jif White	In In N

9 (8)	TERMINALS		N
A INLIE	Screw terminals according section 14 of IEC 60598-1:		
7	Separately approved; component list	(see Annex 1)	N
MITE	Part of the controlgear	(see Annex 2)	NITE NIN
.L	Screwless terminals according section 15 of	IEC 60598-1:	N
NITE W	Separately approved; component list	(see Annex 1)	JAN N
	Part of the controlgear	(see Annex 3)	N

10 (9)	PROVISION FOR PROTECTIVE EARTHING		
- (9.1)	Provisions for protective earthing	N	
	Terminal complying with clause 8	N	



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Olavia	IEC 61347-2-13	Vardia
Clause	Requirement + Test Result - Remark	Verdic
NUTIE M	Locked against loosening and not possible to loosen by hand	N N
LIENNI	Not possible to loosen clamping means unintentionally on screwless terminals	shir N
ex white	All parts of material minimizing the danger of electrolytic corrosion	N N
TEX	Made of brass or equivalent material	- N
mr.	Contact surface bare metal	~N
TEX	Test according 7.2.3 of IEC 60598-1	N
- (9.2)	Provision for functional earthing	2 <sub>N</sub> N
TEX SITE	Comply with clause 8 and 9.1	√°N
* Tex	Functional earth insulated from live parts by double or reinforced insulation	N
- (9.3)	Lamp controlgear with conductors for protective earthing by tracks on printed circuit board	N
	Test with a current of 25 A between earthing terminal or earthing contact and each of the accessible metal parts; measured resistance ( $\Omega$ ) at $\geq$ 10 A according 7.2.3 of IEC 60598-1: < 0,5 $\Omega$	WIN W
- (9.4)	Earthing of built-in lamp controlgear	N
LIEK	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1	N
'm'	Earthing terminal only for earthing the built-in controlgear	N
- (9.5)	Earthing via independent controlgear	n N
- (9.5.1)	Earth connection to other equipment	N
t "Ex	Looping or through connection, conductor min. 1,5 mm² and of copper or equivalent	N V
WALT	Protective earthing wires in line with 5.3.1.1 and clause 7 of IEC 60598-1	N
- (9.5.2)	Earthing of the lamp compartments powered via the independent lamp controlgear	N
nitek wa	Test with a current of 25 A between input and output earth terminals; measured resistance $(\Omega)$ between earthing terminal or earthing contact and each of the accessible metal parts at $\geq$ 10 A according 7.2.3 of IEC 60598-1: < 0,5 $\Omega$	N.
L ix	Output earthing terminal marked as in 7.1 t) of IEC 61347-1	N

11 (11) N	MOISTURE RESISTANCE AND INSULATION	P.+
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IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict	
- (11)	After storage 48 h at 91-95% relative humidity and 2 resistance:	0-30 °C measuring of insulation	P	
LIE WILL	For basic insulation $\geq$ 2 M $\Omega$	> 100 MΩ	NI P W	
.t .d	For double or reinforced insulation $\geq$ 4 M $\Omega$ :	L 14 14	N	
WAL	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	TER MUTEL ANTE MUTE AN	N	

12 (12)	ELECTRIC STRENGTH		P
- (12)	Immediately after clause 11 electric strength test for 1 min	united united while while	W. B 2
I'E WALL	Basic insulation for SELV, test voltage 500 V	TEX LIEX SLIER WITE W	N <sup>u</sup> L
t ct	Working voltage ≤ 50 V, test voltage 500 V	And An	N
WILL	Working voltage > 50 V ≤ 1000 V, test voltage (V):	alter outer outer wall	Р
WALTEK W	Basic insulation, 2U + 1000 V	Between L & N (remove fuse): 1480V (Working voltage: 240V)	PEK
LITER INLY	Supplementary insulation, 2U + 1000 V	et tet tet tiet stiet	N N
, <u> </u>	Double or reinforced insulation, 4U + 2000 V	y my my m	N
IEE INLIE	No flashover or breakdown	CEL TEX LIER SLIER OF	Poul
WALTER	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	* OTEX MILER MULTER MULT	* N

14 (14)	FAULT CONDITIONS	TE RITE WITE	un'P u
- (14.1)	When operated under fault conditions the controlgea	ar:	Р
ILLIAN TO	- does not emit flames or molten material	TE MITE IN	P.M.
at let	- does not produce flammable gases	, y, x	A P
i will	- protection against accidental contact not impaired	IEK OLIEK WILLE WILL AND	Р
A STATE AND	Thermally protected controlgear does not exceed the marked temperature value	- TEK STEK OSTEK OSTE	- Net
NALTEK WALT	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P. W
- (14.2)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (after any reduction in 14.2 - 14.5)	(see appended table)	N. N.
- (14.3)	Short-circuit or interruption of semiconductor devices	(see appended table)	Р



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	IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict		
at the same of the	THE THE THE WIT ON THE		LET LET		
- (14.4)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	N N		
- (14.5)	Short-circuit across electrolytic capacitors	(see appended table)	P		
14 (-)	Reversed voltage polarity if d.c. supplied control gear	(see appended table)	N N		
- (14.6)	After the tests has been carried out on three samples:		An P		
CLIER	The insulation resistance $\geq$ 1 M $\Omega$	>100 MΩ	RIE BIE		
74	No flammable gases	Mur Mr Mi	Р		
INLIE WA	No accessible parts have become live	TEX TEX STEX OF	JEP .		
TEX SITE	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	and any any	P		
- (14.7)	Relevant fault condition tests with high-power a.c. supply	and the same	764 -7		
14 (-)	Temperature declared thermally protected lamp controlgear fulfil requirements in Annex C	write write write	W. N.		

15 (-)	TRANSFORMER HEATING	Р
15.1	General	CLÍP U
EK JE	Transformer comply with clause L.6 and L.7 of IEC 61347-1	P
- WITEK	Output voltage of SELV controlgear not exceed limits in 10.4 of IEC 61347-1 during the test of 15.1 and 15.2	ITEX WALTER
15.2 (-)	Normal operation	Р
INLIE WI	Comply with clause L.6 of IEC 61347-1	UNN U
15.3 (-)	Abnormal operation	Р
LIE WAL	Comply with clause L.7 of IEC 61347-1	W TO N W
ix Muliex	Double LED modules or equivalent load connected in parallel to the output terminals of constant voltage type	NIEK N
WALTER	Double LED modules or equivalent load connected in parallel to the output terminals of constant current type	E PER
15 (-)	During and at the end of the tests no defect impairing safety, nor any smoke or flammable gases produced	m <sup>U</sup> P w

16 (15)	CONSTRUCTION	lifet white wall wall we	P
- (15.1)	Wood, cotton, silk, paper and similar fibrous material	at at all a	P
"IL"	Wood, cotton, silk, paper and similar fibrous material not used as insulation	MULL WILL WILL WILL	P
- (15.2)	Printed circuits	LIER MIE MIE WHILE	w'P



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- TEX	IEC 61347-2-13		TEX IT
Clause	Requirement + Test	Result - Remark	Verdict
Write M	Printed circuits used as internal connections complies with clause 14	WHITEK WHITEK WALTER WAL	JIP P
- (15.3)	Plugs and socket-outlets used in SELV or ELV circuit	ts the tier wife	N N
et unitest	No dangerous compatibility between output socket- outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies	TEX WITEX MUTER MUTER	un EEL N
White A	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4	Whitek whitek white wh	N
ivrier mur	Plugs and socket-outlets for SELV $\leq$ 3 A, $\leq$ 25 V r.m.s. or $\leq$ 60 V d.c. and $\leq$ 72 W comply with IEC 60906-3 and IEC 60884-2-4 or:	WHITEK WHITEK WHITEK WHI	N N
MUL	- plugs not able to enter socket-outlets of other standardised system	TEX WALTER WALTER WALTER	No.
WALTER	- socket-outlets not admit plugs of other standardised system	WILLER WHILE WHILE A	ni Ni
LIEK	- socket-outlets without protective earth	at let let	Nº
- (15.4)	Insulation between circuits and accessible parts	Write Aug Aug Au	N
- (15.4.2)	SELV circuits	et et tet tet	N
72.	Source used to supply SELV circuits:	The Mar Mr. Mr.	N
ERWALTER	- safety isolating transformer in accordance with relevant part 2 of IEC 61558	TEX WALTER WALTER	on the Nati
WILLER	- controlgear providing SELV in accordance with relevant part 2 of IEC 61347	A STIER WIFER SWIFER IN	NIT NITE
et.	- another source		of Not
ivr. an	Voltage in the circuit not higher than ELV	ILL STE MALL WAL	OL N
ITEX WALTE	SELV circuits insulated from LV by double or reinforced insulation	TEX MUTES	- JULEN
* NIEX	SELV circuits insulated from non SELV circuits by double or reinforced insulation	of left the treet	N N
ZEX.	SELV circuits insulated from FELV circuits by supplementary insulation	What we will	N
ny n	SELV circuits insulated from other SELV circuits by basic insulation	Murit Murit Mur M.	* N
Vr. Mur	SELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	WHITE WHITE WHITE WALL	N N
- (15.4.3)	FELV circuits	TEX TEX LIER WITH	No.
	Source used to supply FELV circuits:	is my my my	N
Write.	- separating transformer in accordance with relevant part 2 of IEC 61558	EX MITEX MILIER MILIER W	N <sup>C</sup>



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Clause	Poquiroment + Teet	Result - Remark	Verdic
Clause	Requirement + Test	Result - Remark	verdic
narie an	- separating controlgear providing basic insulation between input and output circuits in accordance with relevant part 2 of IEC 61347	MUNITER MULTER MULTER MULT	SUN N
. W	- another source	VILL MULL MULL MULL	N N
ek whiteh	- source in circuits separated by the LV supply by basic insulation	TEK OLIEK MILIEK MALIEK	an ite N
LEX.	Voltage in the circuit not higher than ELV	L A A	- N
me a	FELV circuits insulated from LV supply by at least basic insulation	MULLE MILL MULL MU	N
iniz mi	FELV circuits insulated from other FELV circuits if functional purpose	WHITE WHITE WHITE WHI	N N
TER WALTE	FELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	TEX WHITEK WHITEK WHITEK	N
t LIER	Plugs and socket-outlets for FELV system comply with	th:	of No
THE .	- plugs not able to enter socket-outlets of other voltage systems	MILL MUT MUT A	N
nur nu	- socket-outlets not admit plugs of other voltage systems	Writer Mulie Auril AN	MN
LIFE	- socket-outlets have a protective conductor contact	TEX LIEX NITER ANTE	N N
- (15.4.4)	Other circuits	141 141 14	P
WILL	Insulation between circuits other than SELV or FELV and accessible conductive parts in according Table 6 in 15.4.5.	TEX WHITE WHITE WHITE	ur's Pur
- (15.4.5)	Insulation between circuits and accessible conductive	e parts	Р
unlifek wh	Accessible conductive parts insulated from active parts of electric circuits by insulating according Table 6	ALL WALTER WALL	WU P.K
LIE WALTE	Requirements for Class II construction with equipoter against indirect contact with live parts:	ntial bonding for protection	Р
X SLIER	- all conductive parts are connected together	at all test itest	N
ZEX.	- conductive parts are reliably connected together according test of IEC 60598-1 cl. 7.2.3	me me me	N
ne n	- conductive parts comply with requirements of Annex A in case of insulation fault	WHITE WHITE WHI WE	N N

17 (16)	CREEPAGE DISTANCES AND CLEARANCES	mer mer me m	Р
- (16)	Creepage distances and clearances according to 16.2 and 16.3	LIEK WITEK WILLER WITER WE	LIE PINL
EN WILLEY	Controlgears providing SELV comply with additional requirements in Annex L	EX WIFEX WIFEX WAITER WALL	N.TE
- KEY	Insulating lining of metallic enclosures		N



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
- CEX	THE MITTER WILL WALL WALL AND THE		TEX SEX
	Controlgear protected against pollution comply with Annex P	(see Annex P)	T WLN
- (16.2)	Creepage distances	TEX LIEK ALTER WIT	Р
- (16.2.2)	Minimum creepage distances for working voltages	in in in in	Р
WALT	Creepage distances according to Table 7	(see appended table)	W. Bu
- (16.2.3)	Creepage distances for working voltages with frequencies above 30 kHz		N
WALL A	Creepage distances according to Table 8	(see appended table)	N. N.
- (16.3)	Clearances	14. 20. A	A P
- (16.3.2)	Clearances for working voltages		W P
et le	Clearances distances according to Table 9	(see appended table)	Р
- (16.3.3)	Clearances for ignition voltages and working voltages with higher frequencies		A Na
INLIEK.	Clearances distances for basic or supplementary insulation according to Table 10	(see appended table)	uni ex N
LIEK	Clearances distances for reinforced insulation according to Table 11	(see appended table)	N N

18 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	ET TET TE
Cit (Cit	Screws, current-carrying parts and connections in compliance with IEC 60 (clause numbers between parentheses refer to IEC 60598-1)	D598-1 P
(4.11)	Electrical connections	
(4.11.1)	Contact pressure	
(4.11.2)	Screws:	
TEX.	- self-tapping screws	NY NY
10 m	- thread-cutting screws	n n n N
(4.11.3)	Screw locking:	A CON
40	- spring washer	n n
X CLIER	- rivets	THE NO
(4.11.4)	Material of current-carrying parts	P P
(4.11.5)	No contact to wood or mounting surface	LIEK ALTE PE
(4.11.6)	Electro-mechanical contact systems	Р
(4.12)	Mechanical connections and glands	SER STER STN
(4.12.1)	Screws not made of soft metal	N
IE WITE	Screws of insulating material	No.
	Torque test: torque (Nm); part	N
WITTE	Torque test: torque (Nm); part	MITE MILL NILL
24	Torque test: torque (Nm); part	N.
(4.12.2)	Screws with diameter < 3 mm screwed into metal	LITE WIN



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Clause	Requirement + Test	Result - Remark	Verdict
(4.12.4)	Locked connections:	A SLITER WILLER MALTER WALTER	N N
et i	- fixed arms; torque (Nm):	The same of	N
ir with	- lampholder; torque (Nm):	TIET WITE WITE WILL	N N
X LEX	- push-button switches; torque 0,8 Nm:	- L H	N S
(4.12.5)	Screwed glands; force (Nm):	The still will will will	N

19 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING	RESISTANCE TO HEAT, FIRE AND TRACKING		
- (18.1)	Ball-pressure test	See Test Table 19 (18.1)	P	
- (18.2)	Test of printed boards:	See Test Table 19 (18.2)	<sup>™</sup> P <sup>→</sup>	
- (18.3)	Glow-wire test	See Test Table 19 (18.3)	Р	
- (18.4)	Needle flame test:	See Test Table 19 (18.4)	Pall	
- (18.5)	Tracking test:	See Test Table 19 (18.5)	N N	

20 (19	9)	RESISTANCE TO CORROSION	Zin Zin Tit Tit	N
MUL	n,	- test according 4.18.1 of IEC 60598-1	alter wife white wall	WN.
I EX	. 16	- adequate varnish on the outer surface	at at at	N

21 (-)	MAXIMUM WORKING VOLTAGE (Uout) IN ANY LOAD CONDITION			
MULL	Not exceed declared maximum working voltage Uout in any load condition	Pur		

14	TABLE: tests of fault conditions	TE LIFE NITE OF P
LED drive	er A A G	mer and the
Part	Simulated fault	Hazard
IC1	Short circuit	YES/NO
D1	Short circuit	YES/NO
D2	Short circuit	YES/NO
C3	Short circuit	YES/NO
Output	Short circuit	YES/NO



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t set	TEX LIET SLIET	IEC 61347-2-13		+ 1t 10
Clause	Requirement + Test	EX TEX SITES MITE	Result - Remark	Verdict

17 (16)	TABLE: cle	earance and	creepage dis	tance meas	urements (mm		WILL Y	ſ P
Applicable p	art of IEC 61	347-1 Table	7 – 11*	Vir.	10, 10		J.	et.
Distances	Insulation Measured Required		Measured	Re	equired			
et let	type **	clearance	clearance	*Table	creepage	creepage	*Ta	ble
Distance 1:	В	3.0	1.5	9	3.0	2.5	W.	· 7/1
Working volt	tage (V)			71, 7,	240	it let	LE*	_
Frequency if	f applicable (	kHz)	<u></u>		e- nite in	LI WALL	Mir	an.
PTI			<u> </u>	40	< 600 🖂	× (1 > 6	600 🔲	JEX.
Peak value of the working voltage Ûout if applicable (kV)					12.	_		
Pulse voltage if applicable (kV)					SEX S	EL.		
Supplement	ary informati	on: between	opposite polar	rity of live na	rts(L and N, Tw	o pins of fuse	on PCF	()

<sup>\*\*</sup> Insulation type: B – Basic; S – Supplementary; R – Reinforced

19 (18.1)	TABLE: Bal	I Pressure Test	LIE / WITE	MULL MULL MULL	Р
Allowed impi	ression diamete	er (mm)	: ≤2,0	et set set	TEX
Object/ Part	No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (	mm)
See table 1.	15 (13.2.1)	" it	TE- NITE WALT	MULL MULL MULL	7/
		WITTER TO		EX TEX TEX	
Supplementa	ary information:	it at it	LIFE DITE WHITE	MULL MULL MULL	111

19 (18.2)	TABLE: Test of	printed boards	الله الله	LIE WALL WALL	on P ≺
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (s)	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict
PCB of LED driver	See Annex 1	30	No	TE - WITER OF TEX	PAT
Supplementar	ry information:	MULL ME M	10. 0.	t at alt a	y JEK

19 (18.3)	TABLE: Glow-wire test			P
Glow wire tem	perature	: 650°C	WITE WALLE	'nur_ '
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict
See table 1.1	5 (13.3.2)	70. 2	et set set	TEX OUT
Supplementar	ry information:	LIER WILL WALL MAL	in me me	4,



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t Tex	LIER OLIER MITE	IEC 613	347-2-13	at at at a	EX JEX
Clause	Requirement + Test	et et	LIER OLIER	Result - Remark	Verdict
19 (18.4)	TABLE: Needle-fl	ame test	et Jet	tifet outer oprifer while	P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (s)	Ignition of specified layer Yes/No	Duration of burning (s)	Verdict

See table 1.15 (13.3.1)

Supplementary information:

9 (18.5) TABLE: Proof tracking test			N	
Test voltage PTI		THE MILE WALL MALL WALL WALL THE	2 <sub>0</sub> , —	
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens	Verdict	
See table 1.15 (13.	4) (18		Et o	
Supplementary infor	rmation:	EX LIER WILL WALL WALL WALL WALL	1/1	

(A)	ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK		MIN
(A.1)	Comply with A.2 or A.3	TEX TEX STEE WITER	N N
(A.2)	Voltage ≤ 35 V peak or ≤ 60 V d.c:	The sure sure	N
(A.3)	If voltage measured according Clause A.2 exceeds the limit value;	THE WALLEY WHILE WA	Nu
	touch current does not exceed 0,7 mA (peak) or 2 mA d.c.	et altest writest and test and it	WALTER
ut.	Comply with Annex G.2 of IEC 60598-1	The state of	N

(C)	ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING	
(C3)	GENERAL REQUIREMENTS	N N
(C3.1)	Thermal protection means integral with the convertor, protected against mechanical damage	THE MITTER WATER WATER WATER
TEX	Renewable only by means of a tool	t at at set New
MILE	If function depending on polarity, for cord-connected equipment protection means in both leads	THE THE TANK
ing in	Thermal links comply with IEC 60691	with will war will in N vi
et s	Electrical controls comply with IEC 60730-2-3	N
(C3.2)	No risk of fire by breaking (clause C7)	THE MULT MUT AND NOW
(C5)	CLASSIFICATION	A A A NOT
M	a) automatic resetting type	The Mer Mer Mer
TEX	b) manual resetting type	et tet tet tet



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t TEX	IEC 61347-2-13	t it it	TEX JE
Clause	Requirement + Test	Result - Remark	Verdict
NULLER ON	c) non-renewable, non-resetting type	LIEK NITER MUTER	WILL MULLE
LEX A	d) renewable, non-resetting type	Contract of the Contract of th	et de
The Mark	e) other type of thermal protection; description:	LIER WALLER WALLER WA	1/1 _ 1/
(C6)	MARKING	at at at all	+ N
(C6.1)	Symbol for temperature declared thermally protected ballasts	white mer war	W N
(C6.2)	Declaration of the type of protection provided	WITE WALLE WALLE	ar an
(C7)	LIMITATION OF HEATING	The state of	Nt Nt
(C7.1)	Preselection test:	INLIER WALTE WALL WI	an N
IEX WALT	Test sample placed for at least 12 h in an oven having temperature (tc - 5) K	TEX SIEK MITER SIMI	Et JUEN
t at	No operation of the protection device	70. 20.	N
(C7.2)	Functioning of protection means:	aliek aliek waite	We No
	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that (tc +0; -5) °C is obtained		WILL WILL
LIEK N	No operation of the protection device	et est set	TEN SIN
et e	Introducing of the most onerous test condition determined during test of clause 14.2 to 14.5	it with the the	N
WITEK ALTER	Output of windings connected to the mains supply short-circuited, and other part of the controlgear operated under normal conditions	the water water water	NU NU
TEX.	Increasing of the current through the windings continuously until operation of the protection means	Mur Aug Aug	N
in m	Continuous measuring of the highest surface temperature	WIT THE MANY W	N N
in Mur	Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved	The The The	N N
MULLE	Automatic-resetting thermal protectors working 3 times	EK WHITEK WHITEK WHITE	Mrs. Ner
LIEK	Ballasts according to C5 b) working 6 times	at at let	JE NE
VII.	Ballasts according to C5 c) and C5) d) working once	mer mer mer	N TEX
.x	Highest temperature does not exceed the marked value	NITE WALTE WALL WA	N O
MULL	Any overshoot of 10% over the marked value within 15 min	TEX WALTER WALTER WALT	n Nu
TE	After 15 min value not exceed marked value	t et et et	N.C

(D)	ANNEX D – REQUIREMENTS FOR CARRY OUT THE HEATING TESTS OF	N
WUT. MUT	THERMALLY PROTECTED LAMP CONTROLGEAR	W.



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	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
untille v	Tests in C7 performed in accordance with Annex D, if applicable	WHITE WHITE WHITE	N N
(F)	ANNEX F – DRAUGHT-PROOF ENCOSURE	LIFE WALLER WATER	Р
ex white	Draught-proof enclosure in accordance with the description	EX NUTEX MULEX WHITEK W	TEL PAL
- LEX	Dimensions of the enclosure		P
mr.	Other design; description	White Muli And And	N
(H)	ANNEX H - TESTS	TER LIER MILE MILER	JO P
IEK MIT	All tests performed in accordance with the advice given in Annex H, if applicable	TEK TEK TILEK BITEK.	LIEP NO
I (L)	ANNEX I IN THIS PART 2 – PARTICULAR ADDITI SELV D.C. OR A.C. SUPPLIED ELECTRONIC COI MODULES		SEE NALLY
MITE	Requirements not applicable to the evaluated produ	uct the state of t	NAL!

J (-)	ANNEX J IN THIS PART 2 – PARTICULAR ADDITIONAL SAFETY REQUIREMENTS FOR A.C., A.C./D.C. OR D.C. SUPPLIED ELECTRONIC CONTROLGEAR FOR EMERGENCY LIGHTING	
	Requirements not applicable to the evaluated product	
(N)	ANNEX N: REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION	N
LIEK	Requirements not applicable to the evaluated product	TEL

(O)	WALTER	ANNEX O: ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION	LIE'N WA
*	et .	Requirements not applicable to the evaluated product	.t — .t

(	P)	Creepage distances and clearances and distance through isolation (DTI) for lamp controlgear which are protected against pollution by the use of coating or potting	
	LET JET	Requirements not applicable to the evaluated product	Total Control

# ATTACHMENT TO TEST REPORT IEC 61347-2-13 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

Differences according to ..... EN 61347-2-13:2014+A1:2017 used in conjunction with

EN 61347-1:2015



t TEX	LIER WILL WILL	IEC 61347-2-13	i it et et e	EX JEX
Clause	Requirement + Test	- TEX SLIFE WLIFE	Result - Remark	Verdict

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	L * 1	CENELEC COMMON MODIFICATIONS (EN)	Р
50	" WITH W	No Common modifications	Punti





t TEX	EN 62031	t at at	TEX IN
Clause	Requirement + Test	Result - Remark	Verdic
ANNEX 7	LED modules for general lighting – Safety specifi EN 62031:2008+A1:2013+A2:2015	cations	nu P
4	GENERAL REQUIREMENTS	The write was	Р
4.4	Integral modules treated as part of luminaires defined in clause 0.5 of IEC 60598-1	Et Writer Writer Write	Whi Phi
4.5	Independent modules complies with requirements in IEC 60598-1	MITEL WHITEK WHITEK	WILL AND
5 Little MA	GENERAL TEST REQUIREMENTS	THE STEE STEEL OF	uriet unriest
5.5	SELV-operated LED modules comply with Annex I of IEC 61347-2-13	(see Annex 1)	EL TEN
7 %	General conditions for tests in Annex A	(see Annex A)	N
6	CLASSIFICATION	White White White	anti mer
CLIEF II	Built-in module	Yes □ No ⊠	ality ality
<u> </u>	Independent module:	Yes □ No ⊠	11. 22.
NITE WALL	Integral module	Yes ⊠ No □	
IEX WILLEX	For Integral module; Note to 1.2.1 in IEC 60598-1 applies.	of the tree with	y inite
	MADKING OF THE STATE OF THE STA	Mr. All Carlot	
7,112 3	MARKING  Deguirements not applicable to the evaluated product	" The Aller Aller	an an
Willy 10	Requirements not applicable to the evaluated produc		LICK THE
8	TERMINALS	Wr. M. M.	A N
LIER NAIR	Screw terminals according section 14 of IEC 60598-1:	TEX IN	N N
<u> </u>	Separately approved; component list	(see Annex 2)	- N
C. VILLE	Part of the luminaire	(see Annex 3)	ALL N
et	Screwless terminals according section 15 of IEC 6059		NO NO
<u> </u>	Separately approved; component list	(see Annex 2)	N N
Alt S	Part of the luminaire	(see Annex 4)	A KN
W. W.	Connectors according IEC 60838-2-2:	VII WUIT MUIT M	N
TEX SOLIE	Separately approved; component list	(see Annex 2)	N
	THE THE STEEL WITTER WHITE WHITE WAS	Mr. Mr. M.	4
9 (9)	PROVISION FOR PROTECTIVE EARTHING	t TEX TEX TEX	N.
	Requirements not applicable to the evaluated product.		



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Requirements not applicable to the evaluated product.

t TEX	LIER WILL WILL MALL MALLE	N 62031	TEX JE
Clause	Requirement + Test	Result - Remark	Verdict
10 (10)	PROTECTION AGAINST ACCIDENTA	AL CONTACT WITH LIVE PARTS	N WN

11 (11)	MOISTURE RESISTANCE AND INSULATION	i sk et et e	P O
MU	After storage 48 h at 91-95% relative humidity and 20 resistance with d.c. 500 V ( $M\Omega$ ):	0-30 °C measuring of insulation	P
MULL	For basic insulation $\geq$ 2 M $\Omega$	100ΜΩ	√P
LEX.	For double or reinforced insulation $\geq$ 4 M $\Omega$ :	- 1 St St SET	N
TEX NI	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	ex rex rex riex riex.	N N

12 (12)	ELECTRIC STRENGTH	TEX ITEX STEEL OUT	P
CIEN	Immediately after clause 11 electric strength test for 1 min	AND	P
111 1	Basic insulation for SELV, test voltage 500 V	ner me me	N
LIEK N	Working voltage ≤ 50 V, test voltage 500 V	ex rex itex liter	ζÑ
70.	Working voltage > 50 V ≤ 1000 V, test voltage (V):	in my my min	Р
IER WITE	Basic insulation, 2U + 1000 V	A TEX TEX STEET ON	P
. *	Supplementary insulation, 2U + 1000 V	Mr. M. M.	N
WITE	Double or reinforced insulation, 4U + 2000 V	IFF STEE WIFE MILE	N
*	No flashover or breakdown	m m m	P
NUTER IN	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	ALL STEE WHITE WHITE	WN V

13 (14)	FAULT CONDITIONS	P
- (14)	When operated under fault conditions the controlgear:	n P
LIER	- does not emit flames or molten material	TE PIE
711	- does not produce flammable gases	Р
LIEK N	- protection against accidental contact not impaired	LIP .
	Thermally protected controlgear does not exceed the marked temperature value	N
k whitek	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected (see appended table)	Nu Nu



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	EN 62031	EN 62031				
Clause	Requirement + Test	Result - Remark	Verdict			
- (14.1)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (except between live parts and accessible metal parts)	MITEL WHITE WHITEL WHI	IN P			
EK WITEN	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3	t tet itet aut	N N			
- (14.2)	Short-circuit or interruption of semiconductor devices	LED	P			
- (14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	N Et ZET			
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table)	W N			
- (14.5)	After the tests has been carried out on three samples:		P			
-un-	The insulation resistance $\geq$ 1 M $\Omega$	100 ΜΩ	1/1 P1/1			
y JEY	No flammable gases	at at let	P			
m	No accessible parts have become live	Mrs. Mrs. Mrs. 2	Р			
WALTER W	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	WILER WILLER MY	IE PE			
- (14.6)	Relevant fault condition tests with high-power supply	s state	t (4)			
13.2	Module withstands overpower condition >15 min.	LIE WILL WILL WILL	An P			
EXWALTE	Module with automatic protective device or power limiter, test performed 15 min. at limit.	* OLIEK WIFEK WALTER	IN TEXN			
MITEK	During the tests, tissue paper, spread below module, does not ignite	THE THE STATE	LIT & P. C.			

15	CONSTRUCTION		un'P u
X	Wood, cotton, silk, paper and similar fibrous material		Р
LIE MILE	not used as insulation	TEX LIFE	WITE WAY

16	CREEPAGE DISTANCES AND CLEARANCES	P.L.
4.	Creepage and distances and clearances in compliance with IEC 60598-1	Р

17 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	P
	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)	in A

18 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING	N
WALTER	Resistance to Heat, Fire and Tracking in compliance with IEC 61347-1 (clause numbers between parentheses refer to IEC 61347-1)	N
(18.1)	Ball-pressure test:	N



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	EN 62031				
Clause	Requirement + Test	Result - Remark	Verdict		
Let .	THE THE WIT WILL WILL WILL WILL WILL WILL WILL				
	- part tested; temperature (°C):	CITED WITE WALL WALL	MN		
(18.2)	Test of printed boards	t at at	N		
in me	- part tested	A FEE MALTE MALL MALL	N W		
(18.3)	Glow-wire test (650°C):		P		
me	- part tested	See Test Table 4.15 (13.3.2)	Р		
(18.4)	Needle flame test (10 s):	L at let tet st	P		
Mr.	- part tested	See Test Table 4.15 (13.4)	Р		
(18.5)	Tracking test:	et set set set	N		
11. 20.	- part tested	" Tr. Mer. Mer. Mer.	N		

19 (19)	RESISTANCE TO CORROSION	L. M. M. M. M.	N
CHALLE	Rust protection:	TEX ITEX SITES ON	N
7	- test according 4.18.1 of IEC 60598-1	Mr. Mr. Mr. Mr.	N
NALTE N	- adequate varnish on the outer surface	TEX LIFE OLIFE MITE	N.

20	INFORMATION FOR LUMINAIRE DESIGN	N W
ct ct	Information in Annex D	- N

21	HEAT MANAGEMENT	
21.1	General	ner une un
LEX.	Exchangeability is safeguarded by cap or base	N. N.
21.2	Heat-conducting foil and paste	in In N
LIEK	Heat-conducting foil delivered with the module if necessary	* NUTER WILLEN
21.4	Construction	L N
MUL	Electrical connection and mechanical holding are separate	White Mr. No.

22	Photobiological safety Photobiological safety		
22.1	UV radiation	et tex lies with with	JALLAN W
22.2	Blue light hazard	The This The	Р
ic wi	RG at 200 mm according to IEC/TR 62778	RG0 Unlimited	Mr. Puri
22.3	Infrared radiation	Mr. Mr. A. T.	N N



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	EN 62031					
Clause	Requirement + Test	Result - Remark	Verdict			
A	ANNEX A - TESTS	alter witer white white	JI P			
LIEK IN	All tests performed in accordance with the advice given in Annex H of IEC 61347-1, if applicable	et to the state	P			

Þ	MILL	ANNEX 1 - SELV-operated LED modules	N
	at-	SELV-operated LED modules in compliance with Annex I of IEC 61347-2-13	N



10		- 3	
	77	$\checkmark$	۱

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9			Tr. Mr. Mr. Mr.	
t TEX	LIEK WIFE WIFE WAL	IEC 62778	i it it it	t TEX TE
Clause	Requirement + Test	- LEK LITEK KLI	Result - Remark	Verdict

Annex 8	Retinal blue lig	ht hazard Of	Lamps And Lamp S	ystems IEC TR 62778:2014	Р
TIE WILLE	TARLE: Coos	(N) (N)	- (	The state of the s	NI D
L A			c measurement	Mr. Mr. M. A.	P
antiex an	Measurement	performed o	n: w	☐ LED package ☐ LED module ☐ Lamp ☐ Luminaire	MILEK WINTE
LET 18	Model number	r	:	191244005-1	et th
NUT. MUT	Test voltage (	V)		240V	, <u>////</u>
TEX JEX	Test current (	mA)			t John
1/1/2	Test frequence	y (Hz)		A TE MULL MULL MULL	nr n
et liet	Ambient, t (°C	5)	:	25.3	(1EX- (1
Measurement distance:					
TEK TE	Source size .	ali E		Non-small     Small : mm	EN LEX
iek auriek	Field of view	n franti	an and	☐ 100 mrad ☐ 11 mrad ☐ 1,7 mrad (for small sources)	Willey W
nite It	em	Symbol	Units	Result	Remark
Correlated co	olour	CCT	onith okith one	6381	THE THEK
x/y colour co	ordinates	/ -	nii nii	0.3140/0.3377	1/1
Blue light haz	zard radiance	L <sub>B</sub>	W/(m <sup>2</sup> •sr <sup>1</sup> )	7.340e+000	Y CENT
Blue light hazard irradiance E <sub>B</sub> W/m <sup>2</sup>		2.198e+000	10, - 2		
Luminance	ALTE WALTE	nur L An	cd/m <sup>2</sup>	9.104e+003	NITE NI
Illuminance	at at	TEXTE TE	lx - i	6567	
Lamp classifi	cation group: R0	30 Unlimited		et let let liet	LIE MIR

9		27	7
	V	1	
1		9	

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F JEE	EN 62493	e et et et	JEF J
Clause	Requirement + Test	Result - Remark	Verdic
ANNEX 9	Assessment Of Lighting Equipment Related To Electromagnetic Fields according to standard E		N P
4	LIMITS	write writer writer	Р
4.1	General	at at att	Р
MULIER	Comply with Van der Hoofden test limit in 4.2.3 o inherently compliant in 4.2.2 and pass assessment procedure for intentional radiators in 4.3	the state of	P
4.2	Unintentional radiating part of lighting equipn	nent A	P
4.2.2	Lighting equipment deemed to comply with the V testing	an der Hoofden test without	Р
Mil	1) electronic controlgear	Yes □ No ⊠	$n_{\nu}$ $\overline{-n_{\nu}}$
X TEX	2) incandescent-lamp technology	Yes No No	11 <sup>94</sup> -11
Mr.	3) LED-light-source technology	Yes 🛛 No 🖂	7/1
LIEK	4) OLED-light-source technology	Yes □ No ⊠	er Jer
761 JU	5) high-pressure discharge lamp LED-light-source technologies	Yes No 🖂	TEX
est est	6) low-pressure discharge lamp technologies with exposure distance ≥ 50 cm	Yes No 🖂	1 1 - 1
MUL	7) independent auxiliary	Yes □ No ⊠	$w_i$ , $\overline{w}$
- LEX	Not fulfil any of 1-7 above subject to 4.2.3	The state of	A - 1
4.2.3	Applications of limits	TER NITER WALTE WALLE ON	√N
NALTEK NA	Not fulfil any of 1-7 in 4.2.2 but the compliance factor <i>F</i> is ≤ 1	TEN STEEL SHITE	* WIN
4.3	Intentional radiating part of lighting equipmer	nt 15	N
ill whi	Comply with one of methods in Clause 7 if intentional radiator	W THE WALL	W NV
6 411	MEASUREMENT PROCEDURE FOR THE VAN	DER HOOFDEN TEST	N
6.1	General	at at all of	N <sup>E</sup>
THE TO	Measurements carried out under conditions according Clause 6.1 – 6.6	See Table 6	- N
7	ASSESSMENT PROCEDURE INTENTIONAL RA	DIATORS	N
7.2	Low-power exclusion method	TEX LIEX OLIER WITE	an Na
7.2.1	Input P <sub>int,rad</sub>	L My An By	, t —,
MULT	Exclusion level P <sub>max</sub>		an an
, Et	Input power P <sub>int,rad</sub> < exclusion level P <sub>max</sub>	40. 40	, N
7.3	Application of the EMF product standard for bo	ody worn-equipment	N

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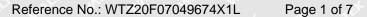
Reference No.: WTZ20F0	)7049674X1L	Page 56 of 56

EN 62493			
Clause	Requirement + Test	Result - Remark	Verdict
unlifik v	If not Clause 7.2 is met and expose distance ≤ 0 m, comply with IEC 62209-2	0.05 June 19 J	W N
7.4	Application of the EMF product standard for base stations		N N
EK NITE	If not Clause 7.2 is met and if intentional radiator base station, comply with IEC 62232	ris	N N
7.5	Application of another EMF standard	WE ME ME AND	N
MULLE	If not Clause 7.2 is met and if intentional radiator cannot be considered as in Clause 7.3 or 7.4, comply with IEC 62311	LIEK WHITEK WHITEK WHI	K N

6 <b>TAB</b>	TABLE: Measurement results with Van der Hoofden test head				N
Location of EUT	Test model	Measuring distance	Result(F)	Limit(F)	Verdict
Reference Annex EN 62493:2015	B of	EK JEK	- NITEK WALT	≤1.0	N

===== End of Report =====

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#### **Photo Documentation**

Model: 191244005-1



Photo 1

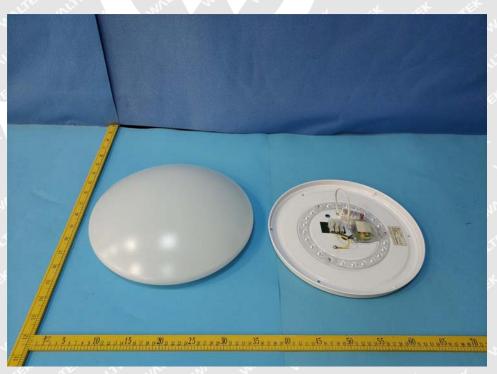


Photo 2





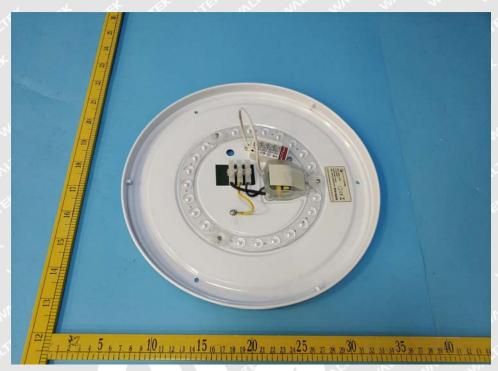


Photo 3



Photo 4







Photo 5

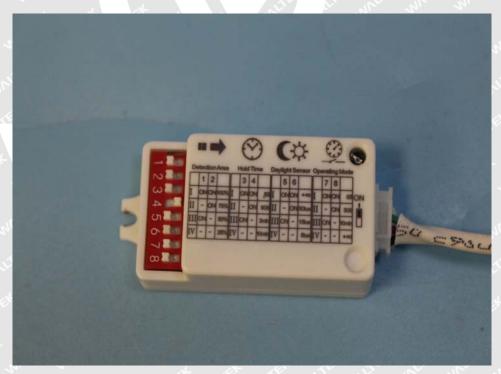


Photo 6







Photo 7



Photo 8





Photo 9



Photo 10







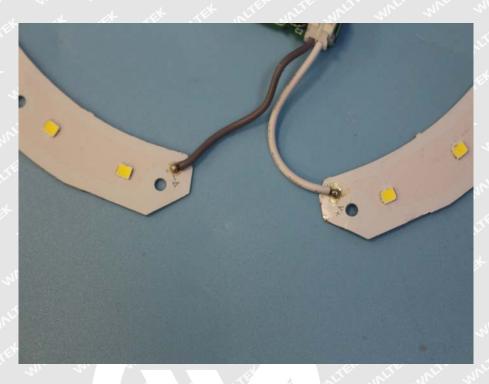


Photo 11





Photo 12

#### Page 7 of 7

#### **Photo Documentation**



Photo 13

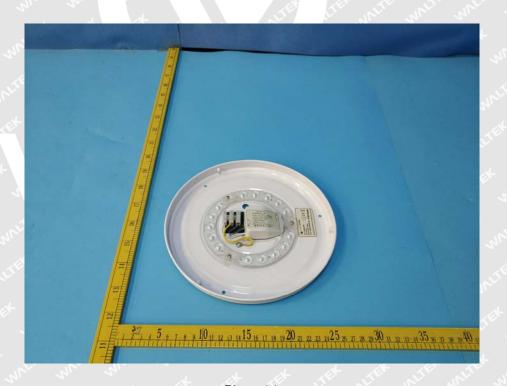


Photo 14 ====End of Photo=====

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