



TEST REPORT

Reference No	 14/T700F000F0740L
Mererence No	 WTZ20F08056710L

Applicant.....: EMPIRE OF LIGHT PTY.LTD

Address...... 8 ROWANY CLOSE, BONNYRIGG, NSW,2177, AUSTRALIA

Manufacturer: The same as above

Address..... The same as above

Product Name..... : Panel light

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

Standards.....: Luminaires

Part 2-1: Fixed general purpose luminaries

IEC 60598-2-1:1979+A1:1987 IEC 60598-1:2014+A1:2017

used in conjunction with Australia deviation

Date of Receipt sample.... : 2020-08-27

Date of Test...... 2020-08-27 to 2020-10-09

Date of Issue..... : 2020-10-10

Test Report Form No...... : WSL-6059821A-02A

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:

Waltek Testing Group (Foshan) Co., Ltd.

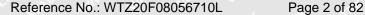
Address: No.13-19, 2/F., 2nd Building, Sunlink International Machinery City, Chencun, Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398 Fax:+86-757-23811381 E-mail:info@waltek.com.cn

Compiled by: Approved by:

Bonn Ding / Project Engineer

Oren Yang / Manager





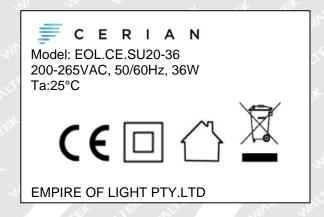
Test item description :: Panel light

Trade Mark :: E C E R I A N

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

Ratings :: See model list on page 3

Copy of marking plate:



On the luminaries surface

Note: The marking label for other models are identical as above, except model No. & rated wattage.

Summary of testing:

- 1. Unless other specified, all tests were performed on model EOL.CE.SU20-36, the results complied with the requirements of the standards mentioned on page one.
- 2. Australian deviation to IEC 60598-1:2014+A1:2017 and AS/NZS 60598.1:2017+A1:2017, IEC 60598-2-1:1979+A1:1987 and AS/NZS 60598.2.1:2014+A1:2016+A2:2019 was considered and found to comply with the requirement.
- 3. The integral LED driver is assessed acc. to IEC 61347-2-13:2014+A1-2016 and IEC 61347-1:2015 +A1:2017 used in conjunction with Australia deviation of AS/NZS 61347.1:2016+A1:2018 and AS 61347.2.13:2018, found to comply with the requirement.
- Integral LED module was assessed according to IEC 62031:2018 and found to comply with the requirement.
- 5. Photobiological safety was assessed according to IEC 62471:2006, classification group: exempt⊠ risk 1 risk 2 risk 3 .
- 6. Only the most unfavorable results are recorded in this report.

Test items particulars:

Classification of installation and use....: Fixed luminaires

Supply Connection....: Power cord

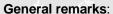
Possible test case verdicts:

- 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)

Reference No.: WTZ20F08056710L Page 3 of 82



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

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

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

General product information:

- 1. The product is Class II fixed luminaires.
- 2. All models are with the similar construction and LED driver circuitry, PCB layout, except rated power
- 3. 200-265VAC, 50/60Hz; for other detail see model list on below:

Model list

				<u>, II </u>
Item	Model	Rated power (W)	Protection against electric shock	IP degree
1,500	EOL.CE.SU20-6	6W	Class II	IP20
2	EOL.CE.SU20-9	9W	Class II	IP20
3	EOL.CE.SU20-12	12W	Class II	IP20
4	EOL.CE.SU20-18	18W	Class II	IP20
5.00	EOL.CE.SU20-24	24W	Class II	IP20
6	EOL.CE.SU20-36	36W	Class II	IP20



Reference No.: WTZ20F08056710L Page 4 of 82

t TEX	IEC 60598-2-1	and the state of	EX JE
Clause	Requirement + Test	Result - Remark	Verdict
1.2 (0)	GENERAL TEST REQUIREMENTS	iter aiter miter annier	P
1.2 (0.3)	More sections applicable	Yes □ No ⊠	<u></u>
1.2 (0.5)	Components	(see Annex 1)	Vr M
1.2 (0.7)	Information for luminaire design in light sources	standards	(E* 1)
1.2 (0.7.2)	Light source safety standard:	IEC 62031	<u>n</u>
TEX	Luminaire design in the light source safety standard	at at all all	P
me m	the fet the street mile	Write Aut Aut My	Jil.
1.4 (2)	CLASSIFICATION	at let let let	P
1.4 (2.2)	Type of protection	Class II	n, — ,
1.4 (2.3)	Degree of protection	IP20	LIE NI
1.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ⊠ No □	EK
1.4 (2.5)	Luminaire for normal use	Yes ⊠ No □	70,
LIEK	Luminaire for rough service	Yes □ No ⊠	A TEN
111, 11,	A SEPT A	Write Aury Aug Aug	20
1.5 (3)	MARKING	TEX TEX TEX STER	NO P
1.5 (3.2)	Mandatory markings	y, mr, mr, m,	Р
LEK WITER	Position of the marking	On the enclosure	P
70	Format of symbols/text	Mur Au Au Au	Р
1.5 (3.3)	Additional information	- TEK TEK MITEK MIT	Р
	Language of instructions	In English	Р
1.5 (3.3.1)	Combination luminaires	TE NITE NITE	N S
1.5 (3.3.2)	Nominal frequency in Hz	50/60Hz	Р
1.5 (3.3.3)	Operating temperature	TEL MITE IN	N. N.
1.5 (3.3.4)	Symbol or warning notice	40, 40	L N
1.5 (3.3.5)	Wiring diagram	ix liex witer write was	N
1.5 (3.3.6)	Special conditions	10 10 1	N
1.5 (3.3.7)	Metal halide lamp luminaire – warning	aliek white wall wall	WN.
1.5 (3.3.8)	Limitation for semi-luminaires	In the state of	N-
1.5 (3.3.9)	Power factor and supply current	LIER MITE WALL WALL	N N
1.5 (3.3.10)	Suitability for use indoors	at at at	N
1.5 (3.3.11)	Luminaires with remote control	TEN WALTE WALTE WILL WILL	N
1.5 (3.3.12)	Clip-mounted luminaire – warning		× N
1.5 (3.3.13)	Specifications of protective shields	all with white white	N



Reference No.: WTZ20F08056710L Page 5 of 82

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	tex lifet life will alor with the		LEX LEX
1.5 (3.3.14)	Symbol for nature of supply	~LIEN WILL WALL WA	W. P
1.5 (3.3.15)	Rated current of socket outlet	10, 20	N
1.5 (3.3.16)	Rough service luminaire	LIER MILE WHILE WALL	N N
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Y	and the P
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable	14. 14. 14.	N
1.5 (3.3.19)	Protective conductor current in instruction if applicable	White white white w	nit NN
1.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach	RITER MITER WHITER WA	TEL OUT (N
1.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided	Non-user replaceable	F JEEP OF
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided	TEK TEK LITEK	N IN THE N
1.5 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component	White wife with the	LIEF WALTER
1.5 (3.3.24)	If not supplied with terminal block, information on the packaging	THE THE LIES OUT	EL NIIN
1.5 (3.4)	Test with water	15s	Р
ELLINITER	Test with hexane	15s	Pol
	Legible after test	My My My	Р
CLITE AN	Label attached	A LEX TEX TEX	P

1.6 (4)	CONSTRUCTION	MITE WITE WIP
1.6 (4.2)	Components replaceable without difficulty	N
1.6 (4.3)	Wireways smooth and free from sharp edges	TE WILL WILL BUT
1.6 (4.4)	Lampholders	LN
1.6 (4.4.1)	Integral lampholder	The Maria Na
1.6 (4.4.2)	Wiring connection	L N
1.6 (4.4.3)	Lampholder for end-to-end mounting	Whi whi WN
1.6 (4.4.4)	Positioning	N-
ur mur	- pressure test (N):	writ wir wir - 1
IEK WALTER	After test the lampholder comply with relevant standard sheets and show no damage	stet with which
MALIEK	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation	EK MITEK WILTER MITE



Reference No.: WTZ20F08056710L Page 6 of 82

t TEX	IEC 60598-2-1		TEX I
Clause	Requirement + Test	Result - Remark	Verdic
Willy W	- bending test (N):	ret . ret . ret . r	TEX TEX
n	After test the lampholder have not moved from its	ance and any	_ N
	position and show no permanent deformation	TEX TEX LIEX WIFE	ALTEN OF
1.6 (4.4.5)	Peak pulse voltage	is me me m	N
1.6 (4.4.6)	Centre contact	EX TEX LIER QUE	Nr.
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking	an an an	N
1.6 (4.4.8)	Lamp connectors	Mr. Mr. Mr. M.	N
1.6 (4.4.9)	Caps and bases correctly used	et let jet si	N N
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way	inch the text text	N
1.6 (4.5)	Starter holders	TE WALL WALL WALL	N ₁
* JEX	Starter holder in luminaires other than class II	No starter holder used	S N
2/12 2	Starter holder class II construction	WILL MULL MULL	N
1.6 (4.6)	Terminal blocks	at let let	Res
m m	Tails	Write Mury Mury My	N N
JEK NIE	Unsecured blocks	at at at a	P
1.6 (4.7)	Terminals and supply connections	The Maria Maria Maria	Р
1.6 (4.7.1)	Contact to metal parts	at let let let	N
1.6 (4.7.2)	Test 8 mm live conductor	Mr. Mr. M.	Р
NLTER SI	Test 8 mm earth conductor	- TEK TEK TEK	N.
1.6 (4.7.3)	Terminals for supply conductors	Mur Mr My M	Р
1.6 (4.7.3.1)	Welded method and material	MI TE MILIER WAL	our N
TEX SIEK	- stranded or solid conductor	LE A TEX STE	U N
7/1	- spot welding	in in m	N
X CLIER	- welding between wires	at let tet tet	N.
20,	- Type Z attachment	Mer Aut Aut	N
CLIER OF	- mechanical test according to 15.8.2	TEX TEX TEX	JE NE
20, 0.	- electrical test according to 15.9	MUT, MUT, MU, M	N
ALTER MIT	- heat test according to 15.9.2.3 and 15.9.2.4	LET TEX STEP ST	N N
1.6 (4.7.4)	Terminals other than supply connection	ir. Mr. M. M.	N
1.6 (4.7.5)	Heat-resistant wiring/sleeves	EL TEX TEX STER	N
1.6 (4.7.6)	Multi-pole plug	mr m m	N
MITE	- test at 30 N	- TEN LIEN LIEN	NU NU
1.6 (4.8)	Switches	Mr. Mr. M.	N



Reference No.: WTZ20F08056710L Page 7 of 82

TEX	IEC 60598-2-1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- TEX I
Clause	Requirement + Test	Result - Remark	Verdict
WILEK WIL	- adequate rating	TEX TEX STEX	WILL ALM
	- adequate fixing	The The The State of	L N
LIERWALTE	- polarized supply	TEX LIET NITER OF	N
EX WITEK	- compliance with IEC 61058-1 for electronic switches	et tex itex sit	at a set N
1.6 (4.9)	Insulating lining and sleeves	mi m m	Р
1.6 (4.9.1)	Retainment	FIFT LIER WITE	ntir nP
, <u> </u>	Method of fixing	: Heat-shrink	P
1.6 (4.9.2)	Insulated linings and sleeves:	TEX LIER WITE	n P
IEK WITEK	Resistant to a temperature > 20 °C to the wire temperature or	et tet tet v	P P
	a) & c) Insulation resistance and electric strength	ALT ALL THE	N
10176	b) Ageing test. Temperature (°C)	TEK LIEK SLIE	N.C.
1.6 (4.10)	Double or reinforced insulation	Mr. Mr. M.	Р
1.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation	WITE WHITE WHITE.	White W. P.
	Safe installation fixed luminaires	et set set	JEH CLIP
23.	Capacitors and switches	The Mer Mer M	N
WALTER	Interference suppression capacitors according to IEC 60384-14	EX WITEX WHITEK WHI	No.
1.6 (4.10.2)	Assembly gaps:	s at let let	N.
111. 11	- not coincidental	WILL AND AND	n N
LIEK OF	- no straight access with test probe	the second	JEK N
1.6 (4.10.3)	Retainment of insulation:	WELL AND A	P P
TEX CLIEN	- fixed	TEX.	TEL TEP
10,	- unable to be replaced; luminaire inoperative	in in min	Р
X OLIER	- sleeves retained in position	at let tex te	N.
72,	- lining in lampholder	, Mr. Mr. Mr.	N
1.6 (4.10.4)	Protective impedance device	TEX JEX JIEK	PIE IP
INLIEK WALT	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	whi while w	NUTEX UNLIER
at set	Y1 or Y2 capacitors comply with IEC 60384-14		A P
MULL	Resistors comply with test (a) in 14.1 of IEC 60065	TER WHITE MALTE WAL	No.
1.6 (4.11)	Electrical connections and current-carrying part	S TEX TEX LIE	PLI PLI
1.6 (4.11.1)	Contact pressure	Mr. Mr. M.	Р



Reference No.: WTZ20F08056710L Page 8 of 82

TEN	IEC 60598-2-1	t at at	JEK JU
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.11.2)	Screws:	TEX TEX STEX NUE	L N
1.0 (4.11.2)	- self-tapping screws	Wer Aver all M.	N
LIER NOTE	- thread-cutting screws	TEX ITEX STEX OUTER	N S
1.6 (4.11.3)		C. The M. M.	A-N
1.0 (1.11.0)	- spring washer	Et LIET NIET NIET	N
	- rivets	1,	o N
1.6 (4.11.4)	Material of current-carrying parts	alter alter antier was	Р
1.6 (4.11.5)	No contact to wood or mounting surface		- P
1.6 (4.11.6)	Electro-mechanical contact systems	alter white white	N
1.6 (4.12)	Screws and connections (mechanical) and gland	s x	P
1.6 (4.12.1)	Screws not made of soft metal	CEL WAITE WAITE	P 10
t (111 <u>-111)</u>	Screws of insulating material	a st st	A N S
Mr. 1	Torque test: torque (Nm); part:	Screws used for fixing enclosure: 0.5Nm	Р
Writing.	Torque test: torque (Nm); part:	Screws used for fixing LED board: 0.5Nm	P
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal	board. O.SIVIII	N
1.6 (4.12.4)	Locked connections:	TEX ALTER MITTER MALTER	N S
	- fixed arms; torque (Nm):	- 4 4	.⊘ ^L N
W. T.	- lampholder; torque (Nm):	E CITE WITE WALL W	N
(EX	- push-button switches; torque 0,8 Nm:	20, 20,	N.
1.6 (4.12.5)	Screwed glands; force (Nm):	- netite unit white whi	N
1.6 (4.13)	Mechanical strength		P
1.6 (4.13.1)	Impact tests:	WELL PER MULT MULT	Р
TEX JEX	- fragile parts; energy (Nm)::	Let tex	√ ^N N
* Cit	- other parts; energy (Nm):	All enclosure & lamp cover: 0.35Nm	Р
White V	1) live parts	ALTER MITTER WALTER W	Р
et .	2) linings		N (
Mr. M.	3) protection	WILL WILL MILL	Р
LET IN	4) covers		Р
1.6 (4.13.2)	Metal parts have adequate mechanical strength	LIFE WALLE WALLE	N
1.6 (4.13.3)	Straight test finger	30 N	Р
1.6 (4.13.4)	Rough service luminaires	TE WILL MILL MILL V	N
TEX	- IP54 or higher	at at all.	N.S
1112 11	a) fixed	Write Mr. My	N



Reference No.: WTZ20F08056710L Page 9 of 82

t JEK	IEC 60598-2-1	and the second	TEX IT
Clause	Requirement + Test	Result - Remark	Verdict
Lift of	ENERGY FOR THE WAY		CH CH
m m	b) hand-held	WILL MUI MUI MU	O N
LIEK LIEK	c) delivered with a stand	A A A A A	N
7 74 74	d) for temporary installations and suitable for mounting on a stand	The marity many many	N N
1.6 (4.13.6)	Tumbling barrel	EX TEX STEEL WILL	Nr'
1.6 (4.14)	Suspensions, fixings and means of adjusting	74. 24. 1. 1.	Р
1.6 (4.14.1)	Mechanical load:	LIEK RITEK MITER W	Р
	A) four times the weight	4x0.53kg=2.12kg for EOL.CE.S20-36 (Max.)	EK PL
h 2.	B) torque 2,5 Nm	ur, mu m, m	N
TEK OLTE	C) bracket arm; bending moment (Nm):	THE TEX STER	N
2,	D) load track-mounted luminaires	ing my my	N
WALTER	E) clip-mounted luminaires, glass-shelve. Thickness (mm):	JUNITER WHITER WHITER	mi Ni
CIEN N	Metal rod. diameter (mm):	- + + + + +	New New
Mr. Mr.	Fixed luminaire or independent control gear without fixing devices	ineries and and an	× N
1.6 (4.14.2)	Load to flexible cables	LIER WILL WALL WALL	N A
et let	Mass (kg):	- 1 1 1	at-
MUL	Stress in conductors (N/mm²):	Et WILL NUT MULT	n Nn
- TEX	Mass (kg) of semi-luminaire:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18th -18
Muz. M	Bending moment (Nm) of semi-luminaire:	WILL MILL MULT M	N
1.6 (4.14.3)	Adjusting devices:		N
m. m.	- flexing test; number of cycles:	THE THE WAY	n N
TEX JEX	- strands broken:	-L) (# 14	√°N
1/1	- electric strength test afterwards	Mr Mr. Mr.	N
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors	* NIET WIFE WITER	an' E N.C
1.6 (4.14.5)	Guide pulleys	The state of the s	N O
1.6 (4.14.6)	Strain on socket-outlets	WITE WILL MALLE WA	N
1.6 (4.15)	Flammable materials		P P
Ve Mer	- glow-wire test 650°C:	See table(13.3.2)	Р
CEY JEX	- spacing ≥30 mm	1 A B	N
M	- screen withstanding test of 13.3.1	is unit wait wait	N N
t JEX	- screen dimensions	at at at	N.
71/2	- no fiercely burning material	White all white	Р



Reference No.: WTZ20F08056710L Page 10 of 82

Clause	Requirement + Test	Result - Remark	Verdict
Olause	requirement i rest	Tresuit Tremain	Verdice
Waring war	- thermal protection	- LIER OLIER WALTER WALTER	W N
LE LE	- electronic circuits exempted	in the city	N
1.6 (4.15.2)	Luminaires made of thermoplastic material with lan	np control gear	N S
et let	a) construction		N N
Mur	b) temperature sensing control	iter with white white we	N
TEX	c) surface temperature		- N
1.6 (4.16)	Luminaires for mounting on normally flammable	e surfaces	√/P
TEX I	No lamp control gear	.: (compliance with Section 12)	N
in witer	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces	onth white white white	N
1.6 (4.16.1)	Lamp control gear spacing:	L. All All All A	N
MITE	- spacing 35 mm	TEX LIER OLIER WA	N
	- spacing 10 mm	Mr. Mr. M.	N
1.6 (4.16.2)	Thermal protection:	TEX LIEX OLIER WIFE	N
. L . D	- in lamp control gear	in the same	N
LIENNLIT	- external	TEX LIEX NITER WITE	N S
at at	- fixed position	711 111	_ N
WALTE	- temperature marked lamp control gear	TEX STEX WITE WITE MILE MI	N
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	L N
1.6 (4.17)	Drain holes	EX SITES WITE WALTE WALTE	N
it s	Clearance at least 5 mm	The state of the s	N/
1.6 (4.18)	Resistance to corrosion	all diff white white	W. P
1.6 (4.18.1)	- rust- resistance		Р
1.6 (4.18.2)	- season cracking in copper	The Main of	P
1.6 (4.18.3)	- corrosion of aluminium	i it it it	P
1.6 (4.19)	Igniters compatible with ballast	No ignitors used	N
1.6 (4.20)	Rough service vibration		N
1.6 (4.21)	Protective shield	White wall wall was	N.N
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps	LIER WIFER WIFER WHIFER	JINLI N.
et set	Shield of glass if tungsten halogen lamps	an at at	N
1.6 (4.21.2)	Particles from a shattering lamp not impair safety	WIER WILL MILL MALLE MAL	No.
1.6 (4.21.3)	No direct path		→ N
1.6 (4.21.4)	Impact test on shield	E LIE WILL WILL WALL	N



Reference No.: WTZ20F08056710L Page 11 of 82

	IEC 60598-2-1		(E. (C)
Clause	Requirement + Test	Result - Remark	Verdict
WILK W	Glow-wire test on lamp compartment:	See Test Table 1.15 (13.3.2)	J N
1.6 (4.22)	Attachments to lamps not cause overheating or	700 1001 10010 1.10 (10.0.2)	N
1.0 (4.22)	damage	TEX JEX WIFE WIFE	NITER
1.6 (4.23)	Semi-luminaires comply Class II	111 111 111	N
1.6 (4.24)	Photobiological hazards	EK LIEK ALTER WITER W	P.
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)	and an are	N
1.6 (4.24.2)	Retinal blue light hazard	Mr. Mr. M. M.	Р
INLIER WILL	Class of risk group assessed according to IEC/TR 62778	RG0 unlimited	un P
TEX TEX	Luminaires with E _{thr} :	t at let let	∠ N
1/1	a) Fixed luminaires	TE WILL MALL MALL O	N
* JEX	- distance x m, borderline between RG1 and RG2:	at at let	N S
m a	- marking and instruction according 3.2.23	MULL MULL MULL MULL	N
LIEK OL	b) Portable and handheld luminaires	et let let lie	N
Mr M	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778	until must must suit	N
EX WILLEX	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	Et outex outex outex	STEEK AND
1.6 (4.25)	Mechanical hazard		P
min m	No sharp point or edges	NITE WALL WALL WAL	Р
1.6 (4.26)	Short-circuit protection	The second second	N
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts	Will There will	an N
1.6 (4.26.2)	Short-circuit test with test chain according 4.26.3	TE WALTER	JUN NU
* E*	Test chain not melt through	The state of the s	N A
MUT. A	Test sample not exceed values of Table 12.1 and 12.2	White White while wh	N
1.6 (4.27)	Terminal blocks with integrated screwless earthi	ng contacts	N
V	Test according Annex V	me me me	N
ULLE WALL	Pull test of terminal fixing (20 N)	TEX STEX WITER WITER	July N
at at	After test, resistance < 0.05Ω	10 10 10 10 10 10 10 10 10 10 10 10 10 1	N
MALIC	Pull test of mechanical connection (50 N)	IEK STEK WILL WILL W	N.
<u> </u>	After test, resistance < 0,05 Ω	201 20 X	L N
WILL M	Voltage drop test, resistance $< 0.05 \Omega$	WITE WITE WALL WAL	N
1.6 (4.28)	Fixing of thermal sensing control	20, 20, 7	- Not



Reference No.: WTZ20F08056710L Page 12 of 82

TEX	IEC 60598-2-1	1 A ST ST	TEX IT
Clause	Requirement + Test	Result - Remark	Verdict
antifik anti	Not plug-in or easily replaceable type	TEX STEE STEEL STEEL	NN
	Reliably kept in position	The The The	N
TILL MUIT	No adhesive fixing if UV radiations from a lamp can degrade the fixing	LIES WALTER WALTER WALTER	N
antica.	Not outside the luminaire enclosure	EX TEX LIEX OLITER	Nr.
	Test of adhesive fixing:	Mrs. Mrs. Mrs.	N
White M	Max. temperature on adhesive material (°C)	TEX STEE STEE OF	ALTE MALITY
× .	100 cycles between t min and t max	Mr. Mr. A. A.	L N-
inlite white	Temperature sensing control still in position	ITEX SITES MITE WAS	N N
1.6 (4.29)	Luminaires with non-replaceable light source	N. 2 3	N
MALI	Not possible to replace light source	TEX NITER WITER WHITE	WN Not
H WILLEY	Live part not accessible after parts have been opened by hand or tools	TEK LIEK BLIEK	INITE NATIONAL
1.6 (4.30)	Luminaires with non-user replaceable light sour	ce when the same	Р
MULLER	If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol:		N. N.
NITER WALTE	Minimum two fixing means	Not for electric shock protection	IN IN
1.6 (4.31)	Insulation between circuits	at at at	P
MU	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3	the write write water	AL PA
whitek wh	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	Whitek white white w	net on the
1.6 (4.31.1)	SELV circuits		Р
LIENNLIE	Used SELV source	TEN MILE	N P N
t et	Voltage ≤ ELV	Ann to	P
MULT	Insulating of SELV circuits from LV supply	XX SIET WITE WALLE	un Pri
MITEX	Insulating of SELV circuits from other non SELV circuits	Tet Itet Witet	LIEV NALIE
	Insulating of SELV circuits from FELV	Mr. Mr. M. 2.	N
ALTE WALT	Insulating of SELV circuits from other SELV circuits	TEX STEX STEE	In In
TEX MITEX	SELV circuits insulated from accessible parts according Table X.1	et set set stet	P
t Tex	Plugs not able to enter socket-outlets of other voltage systems	t it it	N
	Socket outlets does not admit plugs of other voltage systems	MULL MULL MULL	W. W



Reference No.: WTZ20F08056710L Page 13 of 82

Ola Car	IEC 60598-2-1	D. IV D.	
Clause	Requirement + Test	Result - Remark	Verdict
NUTIE MUT	Plugs and socket-outlets does not have protective conductor contact	MULTER WALTER WALTER WAL	MN
1.6 (4.31.2)	FELV circuits	TEX JEX LIFE MITE	N
	Used FELV source	in my my	N
MALTE	Voltage ≤ ELV	EX TEX STER WITE	In Na
	Insulating of FELV circuits from LV supply	Mr. Mr. Mr.	N
MULIL M	FELV circuits insulated from accessible parts according Table X.1	MULIER WHITER MULIES W	N
INLIER WALT	Plugs not able to enter socket-outlets of other voltage systems	WILEK MULTER MULTER MILL	SIN'IN'
TEX WALTER	Socket outlets does not admit plugs of other voltage systems	EX TEX WIFE MILES	- NATEN
H WITEH	Socket-outlets does not have protective conductor contact	TEX TEX LIFE	ni ek N
1.6 (4.31.3)	Other circuits	Mur. Mr. M.	Р
WALTE WAS	Other circuits insulated from accessible parts according Table X.1	DITER WHITER WHITER WY	TE IN P
NITEK WALTE	Class II construction with equipotential bonding for p contacts with live parts:	protection against indirect	NIT N
et let	- conductive parts are connected together		⊬N
MUL	- test according 7.2.3 of above	TEX WITE WALL WALL	n Nn
NALTEX	- conductive part not cause an electric shock in case of an insulation fault	y lift while while is	NITE NITE
*	- equipotential bonding in master/slave applications	Mr. M. M.	L N+
Write Wh	- master luminaire provided with terminal for accessible conductive parts of slave luminaires	White Miles	un'N
LIEF MITE	- slave luminaire constructed as class I	TEV LITE	II N
1.6 (4.32)	Overvoltage protective devices	e m m m	N
T WITE	Comply with IEC 61643-11	at tex tiet tiet	N.
	External to control gear and connected to earth:	m m m	N
INLIE WA	- only in fixed luminaires	TEX LIEX OLIFER IS	I.T. N
7	- only connected to protective earth	The Mr. M. M.	N

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		Р
1.7 (11.2.1)	Impulse withstand category (Normal category II)	Category II ⊠ Category III □	
t et	Category III according Annex U	The state of	L N
wer w	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1	White white white whi	N



Reference No.: WTZ20F08056710L Page 14 of 82

	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
	tet life with with and and		t set
1.7 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 1.7 (11.2) I	n b
	Creepage distances for frequency over 30 kHz:		N
il wat	- Controlgear marked with \hat{U}_{OUT} and f_{UOUT} according IEC 61347-1, clause 7.1, item w	See Test Table 1.7 (11.2) II	N N
WALTE	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N
1.7 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 1.7 (11.2) I	P
10, 10,	Clearances distances for frequency over 30 kHz:	MUT. MUT. ML. M.	N
LIFE OUT	- Controlgear marked with UP	See Test Table 1.7 (11.2) II	N
TEX TEX	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N

1.8 (7)	PROVISION FOR EARTHING	at let set s	N
1.8 (7.2.1 + 7.2.3)	Accessible metal parts	mult mult mult must	N
Mr. M.	Metal parts in contact with supporting surface	alter wife while wall	MN
et le	Resistance < 0,5 Ω:	- 1 1	N
Tr. Mut.	Self-tapping screws used	ATER WITE WALL WALL	N <
et let	Thread-forming screws		N
W.	Thread-forming screw used in a grove	ET INITE WALL WALL ON	N
TEX	Earth makes contact first	at at at a	N
Mr. M	Terminal blocks with integrated screwless earthing contacts tested according Annex V	MULTE MULT MULT MILL	N
WILL AND	Protective earthing of the luminaire not via built-in control gear	White Mile Mile	JUN N
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.	THE WILLE W	N.
1.8 (7.2.4)	Locking of clamping means	x at alt telt is	N
20, 1	Compliance with 4.7.3	Write Mur Mur Mil	N
NALTEK WA	Terminal blocks with integrated screwless earthing contacts tested according Annex V	NITEX WILLER WHITE	NE
1.8 (7.2.5)	Earth terminal integral part of connector socket	The second second	N-
1.8 (7.2.6)	Earth terminal adjacent to mains terminals	LIE WALL WALL WALL	N.
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal	a at at at	N
1.8 (7.2.8)	Material of earth terminal	TE WILL MALL WALL W	N
TEX	Contact surface bare metal	at at at a	N
1.8 (7.2.10)	Class II luminaire for looping-in	all with which with	N



Reference No.: WTZ20F08056710L Page 15 of 82

t TEX	IEC 60598-2-1	a the state of	EX JEY
Clause	Requirement + Test	Result - Remark	Verdict
WALLER	Double or reinforced insulation to functional earth	alies olies united white	UN
1.8 (7.2.11)	Earthing core coloured green-yellow	in the state of	N
II. WILL	Length of earth conductor	CLIEB MILE MILE WALL V	N vi

1.9 (14)	SCREW TERMINALS	
- At	Separately approved; component list (see Annex 1)	- N
111 1	Part of the luminaire (see Annex 3)	∿N

1.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		in b
TEX LIE	Separately approved; component list:	(see Annex 1)	JE P
7/1	Part of the luminaire:	(see Annex 4)	N

1.10 (5)	EXTERNAL AND INTERNAL WIRING		Р
1.10 (5.2)	Supply connection and external wiring		JE PE
1.10 (5.2.1)	Means of connection:	Power cord	Р
itek wate	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	LIET WHITEK WHITEK	IN IN
1.10 (5.2.2)	Type of cable:	(see Annex 1)	n Nu
et	Nominal cross-sectional area (mm²):	(see Annex 1)	, N
Wer in	Cables equal to IEC 60227 or IEC 60245	ALTER MITE WALTE WA	N
1.10 (5.2.3)	Type of attachment, X, Y or Z	An A A	L N+
1.10 (5.2.5)	Type Z not connected to screws	ALL MALL WALL	N N
1.10 (5.2.6)	Cable entries:	A A	P
, MUT	- suitable for introduction	The same	7/ P-/
y TEX	- adequate degree of protection		P
1.10 (5.2.7)	Cable entries through rigid material have rounded edges	Mulie mil will w	N
1.10 (5.2.8)	Insulating bushings:	LIER WIFE WIFE MI	ηP
A 1	- suitably fixed	411 141	, P
VII WILL	- material in bushings	LIEK WILL WILL WALL	Р
at at	- material not likely to deteriorate	t at	P
MUL	- tubes or guards made of insulating material	LEK WILL WALLE	in Bu
1.10 (5.2.9)	Locking of screwed bushings	The second second	+ N
1.10 (5.2.10)	Cord anchorage:	WHITE WHITE WHITE W	N



Reference No.: WTZ20F08056710L Page 16 of 82

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
UNLIER VIN	- covering protected from abrasion	t jet liet miet	UN N
<i>x</i>	- clear how to be effective	The sure of	N
LIE WALL	- no mechanical or thermal stress	LIEF OLIER WITER ON	N
* lit	- no tying of cables into knots etc.		+ N
while	- insulating material or lining	LIER RITER WILLER WALL	u N
1.10 (5.2.10.1)	Cord anchorage for type X attachment:	EX TEX STEX WITH	NITE NIE
<i>**</i>	a) at least one part fixed	14, 14, 25,	L N-
VII MUT	b) types of cable	LIER OLIER WITE O	ni un'N
at all	c) no damaging of the cable	14 14 14	N
, with	d) whole cable can be mounted	TEX SITE WITE WI	Not Not
t set	e) no touching of clamping screws		L N
Wir.	f) metal screw not directly on cable	INITE WALLE WALL	un' N
KEY.	g) replacement without special tool	The state of	No.
nur nu	Glands not used as anchorage	White White	ann ann
TEX S	Labyrinth type anchorages		A N
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	life white while we	N S
1.10 (5.2.10.3)	Tests: White the state of the s	ALTER WALTER WALTER WALT	Pur Pur
NITER	- impossible to push cable; unsafe	et set set siet sites	P
7	- pull test: 25 times; pull (N)	: 60N	Р
NLIEN WY	- torque test: torque (Nm)	: 0.15Nm	ntie nP
	- displacement ≤ 2 mm		Р
IL WULL	- no movement of conductors	THE WAY	PN
L at	- no damage of cable or cord	Mr. Mr. Mr.	P
WALT.	- function independent of electrical connection	THE TIEN NITER WITE	N' N'
1.10 (5.2.11)	External wiring passing into luminaire	of the text they	N N
1.10 (5.2.12)	Looping-in terminals	Mus my m	N
1.10 (5.2.13)	Wire ends not tinned	WILL MILL MULL M	Р
WILL	Wire ends tinned: no cold flow	LIER ALTER WITE WAL	N.U
1.10 (5.2.14)	Mains plug same protection	E- TEK TEK TEK	· N · N
2,, , ,	Class III luminaire plug	Mus. Mrs. Miles	N



Reference No.: WTZ20F08056710L Page 17 of 82

Clause	Requirement + Test	Result - Remark	Verdict
Olduse	Troquicinon 1 Tool	Troodic Tromanc	Volulot
Write Mur	No unsafe compatibility	alter with white we	III WN
1.10 (5.2.16)	Appliance inlets (IEC 60320)	TEX ITEX SITEX OUT	EK NITEN
1 X	Installation couplers (IEC 61535)	in my min m	N
MULT	Other appliance inlet or connector according relevant IEC standard	EX WHITEK WHITEK WHITEK	m, N
1.10 (5.2.17)	No standardized interconnecting cables properly assembled	A MILES MALTER WALTER	INTE NATE
1.10 (5.2.18)	Used plug in accordance with	TEX STEX STEX ON	TEL NET N
* #	- IEC 60083	14. 14. 15.	N
MULLI	- other standard	TEX SIEK WIEL WILL	W. Lin Bin
1.10 (5.3)	Internal wiring	in the	P A
1.10 (5.3.1)	Internal wiring of suitable size and type	(see Annex 1)	unti Pili
et .	Through wiring	In The state of	N _a +
mr, m	- not delivered/ mounting instruction	alies wife while w	N. M. M.
et de	- factory assembled		N-
Vr. Mur	- socket outlet loaded (A)	TER WILL WALL MALL	N N
et jet	- temperatures	: (see Annex 2)	- N
, Mur	Green-yellow for earth only	TER MALTER WALL WALL	n Nn
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring	the state with with	WALT & PIE
it a	Cross-sectional area (mm²)	: (see Annex 1)	P
AUT. AU	Insulation thickness	ALL STE MALTE MA	on P
et et	Extra insulation added where necessary		N
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal	current-limiting device	P
" NLITE V	Cross-sectional area (mm²):	(see Annex 1)	Phil
1.10 (5.3.1.3)	Double or reinforced insulation for class II	and an an	P
1.10 (5.3.1.4)	Conductors without insulation	must mer mer a	N
1.10 (5.3.1.5)	SELV current-carrying parts	Write Murie Muria Mus	P
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber	VIEW WITER WITER WAITE	N.
1.10 (5.3.2)	Sharp edges etc.	- LEK TEK LITEK	PLI PLI
10.	No moving parts of switches etc.	Mer Mr. Mr.	N



Reference No.: WTZ20F08056710L Page 18 of 82

	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
	the state with the soul was the		- CEX
ner me	Joints, raising/lowering devices	alter alter and wall	MN
et et	Telescopic tubes etc.		N
	No twisting over 360°	LIER WHIE WHILE WHILE	P v
1.10 (5.3.3)	Insulating bushings:	i it it it	P
Mr.	- suitable fixed	ter write while we we	Р
TEX	- material in bushings	A A A A	P
m. m	- material not likely to deteriorate	WHITE WALL WALL WALL	△/P
JEX J	- cables with protective sheath	at at all the	Р
1.10 (5.3.4)	Joints and junctions effectively insulated	Will Muri Muri Muri	N N
1.10 (5.3.5)	Strain on internal wiring	at at let let	èN
1.10 (5.3.6)	Wire carriers	The way were	N
1.10 (5.3.7)	Wire ends not tinned	EX TEX ITEX	P
7/1, 1	Wire ends tinned: no cold flow	MUT. MUT. MIL. MIL.	N
1.10 (5.4)	Test to determine suitability of conductors having area	ng a reduced cross-sectional	N.N.
ALTEK WALTE	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2	(see Annex 2)	JALE N
1 st	No damage to luminaire wiring after test		μN

1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK	4, 4	P
1.11 (8.2.1)	Live parts not accessible	alter wife white white	NP.
WITEK WA	Basic insulated parts not used on the outer surface without appropriate protection	TE SLIER WIFE	PK
itek watek	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires	TEK WILLEK W	TEN
ex unitex	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires	# itek altek mitek ami	X P
Writek W	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements	WILE WILES WHITES WHITES	NEX
NITEX WALT	Basic insulation only accessible under lamp or starter replacement	THE STEEL OUTER SPUTER	NI N
+ 4	Protection in any position	L 111 111	Р
NALITY OF THE PARTY OF THE PART	Double-ended tungsten filament lamp	TEX LIFE PALTER MALTER MA	N
t st	Insulation lacquer not reliable	201 201	N
Whi. A	Double-ended high pressure discharge lamp	- LIER ALTER MILE MALE	Ń



Reference No.: WTZ20F08056710L Page 19 of 82

Clause	Requirement + Test	Result - Remark	Verdict
Clause	Trequirement + Test	Tresuit - Tremark	Verdice
White whi	Relevant warning according to 3.2.18 fitted to the luminaire	WALLER WHILE MALLER V	ALL OLIN
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position	LIEK WHITEK WHITEK W	TEN JEN
1.11 (8.2.3.a)	Class II luminaire:	IEK WILEK WILLER	y while Phi
NATIEK W	- basic insulated metal parts not accessible during starter or lamp replacement	TEX TIES MITES	WALTER NE
aliek ali	- basic insulation not accessible other than during starter or lamp replacement	wh the the	TIET PLIES
et tex	- glass protective shields not used as supplementary insulation	hri mri uni v	N
1.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed	TEN WHITE MULTINAL	N V
1.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:	WHITEK WALTER WALTE	unti N
	Ordinary luminaire:		NE NE
<i>y</i> , , , , ,	- voltage under load (V)	Aver Mus Mis	N
LIENNLIE	- no-load voltage:	TEK TEK LIEK O	JEN JEN
	- touch current if applicable (mA)	T. Mr. M. M.	N
E. NALIE	One conductive part insulated if required	EX CIEX SLIEK MIT	N ₁
, *	Other than ordinary luminaire:	m. m. m.	N
White M	- nominal voltage:	- JEK NIEK MIEK	NA NA
	Class III luminaire only for connection to SELV	111. 111. 12.	N.L
intit. The	Class III luminaire not provided with means for protective earthing	White A	nir M
1.11 (8.2.4)	Portable luminaire have protection independent of supporting surface	TER JUL	TER WILLEN
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe	of other writer write	t and other
1.11 (8.2.6)	Covers reliably secured	20, 2,	P
1.11 (8.2.7)	Luminaire other than below with capacitor $> 0.5~\mu F$ not exceed 50 V 1 min after disconnection	WALTER WALTER WALTER.	WILL MA
ALTE WALT	Portable luminaire with capacitor > 0,1 µF (0.25) not exceed 34 V 1 s after disconnection	NIEK MUIEK MUIEK M	LITE JALIN
EX WALTER	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection	LEK WALTER WALTER WALT	EK AN TELN



Reference No.: WTZ20F08056710L Page 20 of 82

t set s	iek alter miter	IEC 60598-2-1		Et JE
Clause	Requirement + Test	ex rex alter mite	Result - Remark	Verdict

1.12 (12)	ENDURANCE TEST AND THERMAL TEST	STIP WITH WALL WALL	₩.P
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6 in 1.13) after (9.2) before (9.3) specified	LTE
1.12 (12.2)	Selection of lamps and ballasts	ur m. m. m.	. -
MALIL	Lamp used according Annex B	(Lamp used see Annex 2)	<u> </u>
ALTEK 10	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	نامان
1.12 (12.3)	Endurance test:	mer me me mi	Р
NITE WALT	a) mounting- position	: Mounted according to the suggestion of manufacturer	nlie.
EX LIEX	b) test temperature (°C)	: 35°C	JEX
70,	c) total duration (h)	: 240h	_
CLIER	d) supply voltage (V)	: 1.1Un	<u></u>
TEX .	d) if not equipped with controlgear, constant voltage/current (V) or (A)	- must must all all	- <u> </u>
e) luminaire ceases to operate			m_
1.12 (12.3.2)	After endurance test:	TEX STEX MITEX MITEX	P
et let	- no part unserviceable		P
MUL	- luminaire not unsafe	LEX WILL MULL MULL AND	P
TEX	- no damage to track system		N
Mr. M	- marking legible	The wall wall wall	√P.
All S	- no cracks, deformation etc.	The set set	Р
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	Р
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	√E'N
1.12 (12.6)	Thermal test (failed lamp control gear condition	in the me in	N
1.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)	t alter miter miler whi	ik —
All the	- case of abnormal conditions		<u>.</u>
nur an	- electronic lamp control gear	Wite Write Mary Mary	Z ₁ N
TEX S	- measured winding temperature (°C): at 1,1 Un	the state of	Til
it ilk	- measured mounting surface temperature (°C) at 1,1 Un	Will mill mill mill a	N
MULL	- calculated mounting surface temperature (°C)	TEX WILL MILL MA	N
- 7	- track-mounted luminaires	7	- N



Reference No.: WTZ20F08056710L Page 21 of 82

	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
WILL W	- case of abnormal conditions:	16t 16t 11th 01	CK CEL
<u> </u>	- thermal link	aires inc. inc. inc.	N
LIER WITE	- manual reset cut- out	TEX TEX STEX NITE	N
<u> </u>	- auto reset cut-out	5. 44. 44. 44.	N N
NATE.	- measured mounting surface temperature (°C):	et itel out of inter-	N N
	- track-mounted luminaires	11 11 12 12 12 12 12 12 12 12 12 12 12 1	N.
1.12 (12.7)	Thermal test (failed lamp control gear in plastic la	uminaires):	N N
1.12 (12.7.1)	Luminaire without temperature sensing control	et set set si	N N
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W	TEK TEK TEK STEK	TE'N
	Test method 12.7.1.1 or Annex W:	an my	
MITEL	Test according to 12.7.1.1:	TEX LIEK OLIEK	N
- V	- case of abnormal conditions:	The My My	<u>_</u>
NUTIE NA	- Ballast failure at supply voltage (V):	TER STEE WITER ON	it. Mrrie
	- Components retained in place after the test		N
LIFTON	- Test with standard test finger after the test	TEX NITER WITER WALTER	N N
et let	Test according to Annex W:	The set set	et N
MUT	- case of abnormal conditions:	EL WILL WILL	nr, Th
TEX	- measured winding temperature (°C): at 1,1 Un:	a at at	16 - 16
Mr. M	- measured temperature of fixing point/exposed part (°C): at 1,1 Un:	MULTE MILL MAL M	ik viji
nu vin	- calculated temperature of fixing point/exposed part (°C):	MILE WALLE WALL	un!—
TEX WITE	Ball-pressure test:	See Table 1.15 (13.2.1)	N
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 7	0W, transformer > 10 VA	N N
70,	- case of abnormal conditions:	Mr. Mr. Mr. 1	1 72
CLIER OF	- measured winding temperature (°C): at 1,1 Un:	LEK LEK LIEK AL	JER JE
TEX IT	- measured temperature of fixing point/exposed part (°C): at 1,1 Un:	and and and and	y CIEN
et let	- calculated temperature of fixing point/exposed part (°C)	NITE WALL WALL WALL	SIT
MUF	Ball-pressure test:	See Table 1.15 (13.2.1)	n Nn
1.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA	LIET STEE WIFE	LIE WIT
	- case of abnormal conditions:	24 24 24	



Reference No.: WTZ20F08056710L Page 22 of 82

t TEX	IEC 60598-2-1	e at at a	EX TEX
Clause	Requirement + Test	Result - Remark	Verdict
EX	The rife pith will all my my		TEX
are ar	- Components retained in place after the test	with with white walk	IN 1
et a	- Test with standard test finger after the test	in the little	N
1.12 (12.7.2)	Luminaire with temperature sensing control		N
E. WALTE	- thermal link:	Yes No C	
. it	- manual reset cut-out	Yes No	L -11
WILL	- auto reset cut-out:	Yes No	Wer.
,et	- case of abnormal conditions:	W W	100
ne m	- highest measured temperature of fixing point/ exposed part (°C)::	Will Multer Multer Mult	'n _ 'n
TE WALL	Ball-pressure test:	See Table 1.15 (13.2.1)	Nuc

1.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MO	OISTURE	JOSEP P
1.13 (-)	If IP > IP 20 the order of tests as specified in clause	1.12	P
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:	SLIER WILL MILLER W.	LT WILL
et s	- classification according to IP:	IP20	* 14
AUT.	- mounting position during test	Acc. to user manual	7/1
Et JEX	- fixing screws tightened; torque (Nm)	- + + +	EX-
M	- tests according to clauses:	Cl.9.2.0	M. N
LIEK	- electric strength test afterwards	et let let	P
111 1	a) no deposit in dust-proof luminaire	MULL MULL MULL A	N
SLIEK W	b) no talcum in dust-tight luminaire	- TEV TEX	N N
TEX TE	c) no trace of water on current-carrying parts or on insulation where it could become a hazard	WE THE THE	k N
r sk	c.1) For luminaires without drain holes – no water entry	An An Anti	A) N
MULT	c.2) For luminaires with drain holes – no hazardous water entry	MULTER WHITE WHITE.	mri N
WALTER	d) no water in watertight or pressure watertight luminaire	MUTER WILLER WILLIAM	LIE WIN
TEX J	e) no contact with live parts (IP 2X)	at the contract of	P
is m	e) no entry into enclosure (IP 3X and IP 4X)	HIL MULL MULL MULL	N
iek walter	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)	JEK DITEK MITEK MAITEK	AN ZEKN
+ MITEX	f) no trace of water on part of lamp requiring protection from splashing water	- Tet liet witet	nije N
	g) no damage of protective shield or glass envelope	Me Me m	N



Reference No.: WTZ20F08056710L Page 23 of 82

		IEC 60598-2-1		
Clause	Requirement + Test	TEK NITEK IN	Result - Remark	Verdict
1.13 (9.3)	Humidity test 48 h	Wer An A	25°C, 93%R.H.	CLICK OF P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRE	NGTH NOT THE STATE OF THE STATE	Р
1.14 (10.2.1)	Insulation resistance test	ex tex strex strex mi	et P
STEK	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		ارين
71, 7	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø	Aur. Mur. Mr. Mr.	
alier al	SELV	et tet tet stet	Р
3)	- between current-carrying parts of different polarity:	Try Mur Mr. M.	N
IEI WALTE		100ΜΩ	Р
MULTER.		100ΜΩ	P
unliek un	cable where it is clamped in a cord anchorage and accessible metal parts:		N. N.
رزويد المراز	- Insulation bushings as described in Section 5:	et et tet tet tet	√ N
10	Other than SELV	The Mar My A	Р
EK CLIER	- between live parts of different polarity:	100ΜΩ	Р
70,	- between live parts and mounting surface:	100ΜΩ	Р
WITE .	- between live parts and metal parts:	100ΜΩ	Р
TEX .		and the text text	N
itek wite		TEX NITER OF	WE N
, J.	- Insulation bushings as described in Section 5:	The The M. M.	N
1.14 (10.2.2)	Electric strength test	at whitet whitet whitet whi	P
LIEN	Dummy lamp	et et tet tet	N
n, 2,	Luminaires with ignitors after 24 h test	White Aut Aut Mus	N
LIEK NU	Luminaires with manual ignitors	EX TEX TEX LIEX	√ Ñ
70	Test voltage (V)	bri Mur Mur Mr.	Р
EK NITE	SELV	ex ret ret ret	Р
70,	- between current-carrying parts of different polarity:	- We also All All	N
WALTER	- between current-carrying parts and mounting surface:	500V	P



Reference No.: WTZ20F08056710L Page 24 of 82

	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdic
MULICIA MA	- between current-carrying parts and metal parts of the luminaire:	500V	N P
ite write	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	LIEX WALTER WALTER	I N
MUT.	- Insulation bushings as described in Section 5:	EX OLIE WILL WILL W	N
, Et	Other than SELV	The second second	P
mr. m	- between live parts of different polarity:	1530V	√P
LEX J	- between live parts and mounting surface:	3060V	P
Vr. Mu	- between live parts and metal parts:	3060V	Р
IEK WALTER	- between live parts of different polarity through action of a switch:	TEX LIFE MITES MITES	UCENN
WALTEK V	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts:	Writer Writer Writer Wri	I W
TEX N	- Insulation bushings as described in Section 5:	A AH AH AH	N
1.14 (10.3)	Touch current or protective conductor current (mA).:	Max. 0.03mA (Touch current)	Р

1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
1.15 (13.2.1)	Ball-pressure test:	See Test Table 1.15 (13.2.1)	PAL
1.15 (13.3.1)	Needle-flame test (10 s):	See Test Table 1.15 (13.3.1)	PIEK
1.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 1.15 (13.3.2)	PL
1.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 1.15 (13.4)	Р



Reference No.: WTZ20F08056710L Page 25 of 82

	at all the	JEO 00500 0 4	- 21/2 - 10/2 - 1/	
	ari ari	IEC 60598-2-1		JET JE
Clause	Requirement + Test	ex lex lies wife	Result - Remark	Verdict

1.7 (11.2)	TABLE: Cre	eepage distar	nces and clear	rances			JU P
et e	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						
LIT WALL	Applicable	Applicable part of IEC 60598-1 Table 11.1* and 11.2*					
et let	Insulation	Measured	Requ	ired	Measured	Requ	ired
	type **	clearance	clearance	*Table	creepage	creepage	*Table
Distance 1:	TEL B TE	2.9	1.5	11.1	2.9	2.5	11.1
Working voltage (V)					Max. 265Vac	MUL. MU	7/1
PTI	РТІ:				< 600 ⊠	≥ 600 □	* J-C*
Pulse voltaç	ge if applicab	le (kV)			ATE WILL	MULT MILL	1/1,
Supplement	tary information	on: Live parts	of different pola	arity	A set	TEX JEX	LIER
Distance 2:	R	6.0	3.0	11.1	6.0	5.0	11.1
Working vo	Itage (V)			:	Max. 265Vac	LET JET	JE
PTI				,:	< 600 ⊠	≥ 600 □	
Pulse volta	ge if applicab	le (kV)		:	11 16	t with all	16 11 11 11 11 11 11 11 11 11 11 11 11 1
Supplement	tary information	on: Current-ca	rrying parts an	d accessible	parts	71/2 1/1	*
Distance 3:	иВ	3.0	1.5	11.1	3.0	2.5	11.1
Working vo	Itage (V)	(A) (C)		:	Max. 265Vac	20, 20	
PTI	WE WE			:	< 600 ⊠	≥ 600 □	ar cir -u
Pulse voltaç	ge if applicab	le (kV)			- 4/2 4/1		* -
		- dr - dr	rrying parts an		- 	Et all a	CI WAS

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

1.7 (11.2)	TABLE II: (Creepage di	stances and o	learances			IN N	
* at	Minimum	distances (mm) for a.c. h	igher than 3	0 kHz sinusoi	dal voltages	at	
WALTE	Applicable	part of IEC	61347-1 Tabl	e 7 and 8* o	r IEC 60664-4	Table 1 and 2	NUTY VI	
Distances	Insulation	Measured	Requ	ired	Measured	Required		
	type **	clearance	clearance	*Table	creepage	creepage	*Table	
Distance 1:	F TEX	LIEK WITE	MUL! W	. Will	41, 22,	.*-	et let	
Working volt	age (V)				LIER MITE	White whi	mr_	
Frequency if	applicable (k	(Hz)				at at	ARK.	
PTI					< 600 □	≥ 600 □	71 _7	
Peak value o	of the working	y voltage Ûou	if applicable (kV):		at let	164 -	
Supplementa	ary informatio	n:	CEX TEX	alter mit	MILLENN	while w	11	
Distance 2:	Et WILLEY	WILL M	10,	3)	1	t let	TEX LIE	



Reference No.: WTZ20F08056710L Page 26 of 82

t det d	IEC 60598-2-1		EX LIEX
Clause	Requirement + Test	Result - Remark	Verdict
	The City Will Mar. M. A.	and the second	TEX
Working voltag	ge (V):	aller while wall wall	11/2 1
Frequency if a	pplicable (kHz):	in the set of	1 th
PTI		< 600 □ ≥ 600 □	12 - 24
Peak value of	the working voltage \hat{U}_{out} if applicable (kV):	at the left of	JEX-178
Supplementary	information:	it will man my m	711
Distance 3:	et mile write up it was in the	at let tet te	x alifek
Working voltage	ge (V):	White Aur. Aur. My	10
Frequency if a	pplicable (kHz):	ex sex sex siex	NITE N
PTI		< 600 □ ≥ 600 □	1, -
Peak value of	the working voltage \hat{U}_{out} if applicable (kV):	tex itex litex with	NITE NOU
Supplementary	information:	ithe American	4 .0

1.15 (13.2.1)	TABLE: Ball P	ressure Test of The	rmoplastics	while while he P	
Allowed in	mpression diame	ter (mm)	: ≤2.0	LIER WILL IN IL. AND	
trademark		Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Lamp cover		See Annex 1	125	0.8	
Plastic end	closure	See Annex 1	125	1.0	
РСВ	AVA	See Annex 1	135.6	1.2	
Bobbin		See Annex 1	125	0.9	
Plastic end	closure of LED	See Annex 1	125	0.8	
Suppleme	ntary information:	at at wife	INTER JALIE JALIE	Mr. Mr. My Any	

1.15 (13.3.1) TABLE: Needle-flame test (IEC 60695-11-5)						
Object/ Part N Material	lo./	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
PCB	.ex	See Annex 1	10	No	3.0	Р
Bobbin	. "	See Annex 1	10	No	JU 0 JU	Р

^{**} Insulation type: B – Basic; S – Supplementary; R – Reinforced.



Reference No.: WTZ20F08056710L Page 27 of 82

et let	ITEK OLIEK MITEK MILI	IEC 60598-2-1		TEX TEX
Clause	Requirement + Test	CEX SLIER MIT	Result - Remark	Verdict

1.15 (13.3.2)	TABLE	: Glow-wire test (IEC	Glow-wire test (IEC 60695-2-11)					
Glow wire temperature 650°C								
Object/ Pa Material	rt No./	Manufacturer/ trademark	арр	Ouration of lication of test ame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Lamp cover		See Annex 1	un'i	30	No	0	- P	
Plastic enclosure		See Annex 1	JE+ 1	30	No	0 0	√P	
Insulation t	tape	See Annex 1		30	No. 18th	STE OLIVE	uri P	
Plastic end LED driver		See Annex 1		30	No	ex Oex	LITE P	
PCB		See Annex 1		30		0	# P	
		of the sample exting nolten drop did not igr					Yes	

1.15 (13.4) TABLE: Proof tracking test (IEC 60112)						
Test voltage PTI		.: 175 V	et set s	EX CLIER IN	TE ON	
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 places or on	Verdict			
Bobbin	See Annex 1	50	50	50	Р	
PCB	See Annex 1	50	50	50	Р	
Supplementary information:	7 A TA TA	LI WILL	(A)	We will	4,	



Reference No.: WTZ20F08056710L Page 28 of 82

t det o	EX NIEK INITER	IEC 60598-2-1		CEX CEX
Clause	Requirement + Test	et set sites with	Result - Remark	Verdict

ANNEX 1	Comp	WILL	WP				
object/part No.	code	manufacturer/ trademark	type/model	technical data	Standard		k(s) of formity
Input wire of LED driver	В	Arditi CN Electric (Huizhou) Co., Ltd.	H03VVH2-F	2x0.75mm ²	AS/NZS 60227.5	SAA11	0188EA
Lead wire of LED	В	GUANGZHOU FENGTAI MEIHUA CABLE CO LTD	3239	60000VDC; 200°C;26AWG	- White	UL E2)4798
LED	В	MSL	SMD2835	60mA, 6500K	EN 62778	Tested appliar	
LED board	В	WING SHING ELECTRONIC & PCB LTD	YS-4	V-0; AI	EX WHITEX	UL E1	90407
Lamp cover	B	FOSHAN NANHAI POLMA ENGINEERING PLASTICS CO LTD	PC-1025	PC; V-0	- whitek whi	UL E2	41821
Plastic enclosure	B	COVESTRO DEUTSCHLAND AG [PC RESINS]	6555 + (z)(f1)	PC; V-2	TEX TEX	UL E4	1613
LED Driver:		EX EX		While I	v. m.	<i>u,</i> ,	
Fuse	В	Suzhou Walter Electronic Co. Ltd.	2010 Serie(s)	250VAC; 2A	EN 60127-1 EN 60127-3	VDE 4	0018781
Varistor	Bir	Shantou High- New Technology Dev. Zone Songtian Enterprise Co., Ltd.	07D511K	510V; T125	EN 61051-1	VDE 4	0023049
Magnet wire	B	SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD	xUEW/130, QA-x/130	130°C	Et Writer Mui	UL E23	39508
Bobbin	В	ZHEJIANG JIAMIN PLASTIC CO LTD	PF2A4-161J	150°C	" NALTEK WALTE	UL E2	31508
Insulation tape	BE	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ* (b)	130°C	THE WALTER	UL E10	35111
Teflon tube for Transformer	В	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-T; CB-TT-L; CB-TT-S	200°C	- with w	UL E18	30908



Reference No.: WTZ20F08056710L Page 29 of 82

et let o	iek aliek milek	IEC 60598-2-1		EX JEX
Clause	Requirement + Test	ex rex alter mite	Result - Remark	Verdict

Y capacitor	В	Rugao Shuangcheng Electronic Co., Ltd.	MKP	275VAC; T100; 0.33uF	EN 60384-14	VDE 40025673
Internal wire	В	Zhongshan jia Lai electronics Co.,Ltd	FEP-102	300/500 V, 0.5 mm ² ; T180, double-insulated	VDE-0250	VDE 40027186
Sleeving	B	LI'S ELECTRONICS CO LTD	HF-001; HF-003	VW-1	W WITE	UL E193292
Plastic enclosure	B	COVESTRO DEUTSCHLAND AG [PC RESINS]	6555 + (z)(f1)	PC; V-2	NIEK WIFEK	UL E41613
Metal output terminal block	В	Xiamen Fulang Enterprise Co., Ltd	LMTS-135- 1-5x5	Cu: 59%; 0.5-3mm ²	IEC 60598-1	Tested with appliance

The codes above have the following meaning:

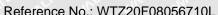
- A The component is replaceable with another one, also certified, with equivalent characteristics
- B The component is replaceable if authorised by the test house
- C Integrated component tested together with the appliance
- D Alternative component





Reference No.: WTZ20F08056710L Page 30 of 82

t JEK J	EL OLIV	المارية المارية	, wije	C 60598-2	-1		A ct	E* . 1	EX CIE
Clause	Requirement	+ Test	y jet	- MITER	MITE	Resul	lt - Remark	M	Verdict
ANNEX 2	Temperature	e measure	easurements, thermal tests of S				Section 12		
LIEN MIEN	Type referen	nce	<u> </u>	<u> </u>	:	EOL.	CE.SU20-36	LIEY	7/1/ / 1/
							ral LED	3	
ex ancies an		100				_	ral LED driver	III N	160
<u> </u>	Mounting po	osition of luminaire				Acc. 1	to user manual	1 1	
White white	Supply watta	age (W)				36.2	et alieit mil	MILIE	WALTE
at at	Supply curre	ent (A)			:	0.168	3		10
WILL WILL	Calculated p	ower facto	r		:	0.98	WILE WILL	WILL.	m
LET LET	Table: meas	ured temp	eratures c	orrected fo	r t _a = 2	5 °C:	7 X	et	P
Mr. 4	- abnormal o	perating m	node		:		NITE WALTE W	UC O	71/1
of the si	- test 1: rate	d voltage			:		at at	CEX C	ex
The Tel		times rated voltage or 1,05 times				1.06 times rated voltage			10 TEX
Mur Mur			d on wiring to socket-outlet, oltage or 1,05 times wattage: imes rated voltage or 1,05 times			UNITED WALTER WALTER WALTER			mri *
White White.									mii— u
iek whilek wh	Through wiri	ng or loopi during the	ng-in wirir	ng loaded b	у а :	·	LIEK WIFEK	LIEK	JEK WA
temperature (°		LIFE		2.4 – norm	415		Clause 12.	5 – abnoi	mal
Mr. M.		test 1	test 2	test 3	lim	ituri	test 4	w lii	nit
Lead wire to LI	ED driver	7	53.9		90		TE- ALTE	CLIER	WITE.
Lead wire to LI LED)	ED (near	<u>.</u>	76.5	initi - jin	20	0		-N'	TEX
LED board			98.6	INIT	Re	f.	n - z n -	ur a	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
Lamp cover	Ter Wille	ing-	68.4	y /11+	Re	f.	TEX CTIEX OF	IEK WAL	iei whi
Plastic enclosu	ire liter	!!!! ! -"\!	59.7	MUL	Re	f.		× 10	- JEY
Mounting surfa	ce	y - 18	46.8	JALLER	90	MULT	MULL MULL	MUC	M
Illuminated sur	face (0.1m)	There	55.1		90	TEX	LIEK CLIEK	MITER	WALTE.
Varistor	TEX JEX	TEN	98.4	Mile was	12	5	My My	*	e. +
E-cap(hottest)	This was		103.5	EX UE	10	5	LIFE WALLER	Trie M	711
			c. '40,	21/2	-70,	31			* .
PCB of LED dr	iver	V 20	110.6		CI.1	3	et et		



Page 31 of 82

Reference inc	0.: W1Z2UFU8	056710L	, t	age 31 of	82			
t JEX	JEK WIER	INLIE WY	unité	C 60598-2	-1	at at	at s	Et JE
Clause	Requiremen	t + Test	* 16*	LIEK	Resu	ult - Remark	ur. Mur	Verdict
LF2 winding	MU; IET M	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102.3	in tex	130	initeit	ILY WILLY	MALTER
T1 winding	NALTER WALT	MULLET	116.7	m	130	18t 18t	LIEK	- CLIEN
Bobbin	LET LET	Jak .	95.4	IEK -WIL	Cl.13	mr. mr.	- W	
Enclosure inn	er surface	111.	72.3	t - JEX	CI.13	LIEK NALTER	W ITE W	LI WILL
Enclosure out	side (tc)	ILLIE WILL	68.5	an,	85	A		H LIEN





Ν

Ν

	IEC 60598-2-1		
Clause	Requirement + Test	Result - Remark	Verdict
- CIT	THE STATE SPATE WALL SHEET AND THE		Et JET
ANNEX 3	Screw terminals (part of the luminaire)	WATE WALL WALL MAL	W.N
(14)	SCREW TERMINALS	TEK TEK LIEK SLITER	N
(14.2)	Type of terminal:	The many many	\
MULT	Rated current (A)	of life wife with	Will Ave
(14.3.2.1)	One or more conductors	The state of the s	_ N
(14.3.2.2)	Special preparation	ALTER MILE WALTE WA	N
(14.3.2.3)	Terminal size	70 x x x	y N+
ivr, mur	Cross-sectional area (mm²)	TIER WITE WALL WALL	nu_
(14.3.3)	Conductor space (mm):	- + + /	∠⊘N
(14.4)	Mechanical tests	TEN MALI WALL	Man.
(14.4.1)	Minimum distance	at at all	N S
(14.4.2)	Cannot slip out	White Whit whi w	N
(14.4.3)	Special preparation	at at all a	Ne Ne
(14.4.4)	Nominal diameter of thread (metric ISO thread):	Maria mi m	N N
JEX NI	External wiring	at at all all	N
711	No soft metal	The Maria Maria	N
(14.4.5)	Corrosion	at let let liet	N
(14.4.6)	Nominal diameter of thread (mm):	- Muri Aur Aur	N
, CLIFER	Torque (Nm):	- LEK TEK TEK	N.
(14.4.7)	Between metal surfaces	MUE, MUE, MU. A.	N
WITE SIN	Lug terminal	TE TEE STEEL STEEL	N
	Mantle terminal	The Tan Tan	N

Pull test; pull (N)....:

Without undue damage

(14.4.8)



Reference No.: WTZ20F08056710L Page 33 of 82

t dt	EX CIEX NITER ANI	IEC 60598-2-1		et et et
Clause	Requirement + Test	TEK SLIEK ML	Result - Remark	Verdict
A		" " " " " " " " " " " " " " " " " " "		1 1

Clause	Requirement + rest	Result - Remark	verdic			
ANNEX 4	Screwless terminals (part of the luminaire)	alies white white white	w P			
(15)	SCREWLESS TERMINALS	at let let let	P			
(15.2)	Type of terminal:	Screwless terminal				
CLIER	Rated current (A):		1) (** <u> </u>			
15.3.1)	Material	1/1 2/10 /ue /ue	Р			
15.3.2)	Clamping	TET ITET ALTER IN	Р			
15.3.3)	Stop	mr mr m. m.	P			
15.3.4)	Unprepared conductors	TEX LIEX OLIEX WILLE	Р			
15.3.5)	Pressure on insulating material	er m. m.	P			
15.3.6)	Clear connection method	TEX LIE OLICE MICE	N N			
15.3.7)	Clamping independently		N N			
15.3.8)	Fixed in position	Liet aliet aliet	P			
15.3.10)	Conductor size		NO			
10.01.10)	Type of conductor	LIE RUE WELL	N			
15.5)	Terminals and connections for internal wiring		P			
15.5.1)	Mechanical tests	LIET WILL WILL WATER	Р.			
15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples):		· N			
15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples):	4N	P			
/(t	Insertion force not exceeding 50 N	- 1	P.			
15.5.1.2)	Permanent connections: pull-off test (20 N)	alien and and and	N			
15.5.2)	Electrical tests					
10.0.2)	Voltage drop (mV) after 1 h (4 samples): 1mV					
CET CET	Voltage drop of two inseparable joints	at a set set	P			
	Number of cycles:	25	34			
MITER	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)	1mV	I PA			
NALTEX NA	Voltage drop (mV) after 50th alt. 100th cycle (4 samples):	THE STEET WITER WATER	e Ne			
LIEK WALTE	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples):	1mV	nite.			
EK SLIEK	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples):	it it let let	N			
15.6)	Terminals and connections for external wiring	Musi Me Me	N			
15.6.1)	Conductors	t let let liet o	N			
11. 1.	Terminal size and rating	me me me m	N			
5.6.2	Mechanical tests	et set set se	N			



	TEX				IEC 60	598-2-1					
Clause	Requ	uirement -	+ Test	ct .	1 EX	LIEK	Resi	ult - Rem	ark	rie mu	Verdict
(15.6.2.1)		t spring-t				EK NITE	on Life	WALTE	WALT	White	MN
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)									UNITE N	
(15.6.3)	Electric	al tests	intit.	W	M	24,	ے۔		, Et	TEX	N
70,2	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1							N			
(15.6.3.1) TABLE: Contact resistance test / Heating tests									N N		
INLIE WAL	Voltage	/oltage drop (mV) after 1 h									Wr.
	rminal 1 2 3 4 5 6 7 8 9									10	

(15.6.3.1) (15.6.3.2)	TABL	.E: Conta	ct resista	nce te	st / Heati	ng tests					NN
inti with	Volta	ge drop (m	V) after 1	h	L LE	TE	LIER	MLIE	WILL	WILL	an' _
terminal	L	1 1 1	2	3	3/4	5	6	7	8	9	10
voltage dro	p (mV)	20	1		- dit	LIEK	O'TEL	NITE.	ال المال	Vr. M	1, 7,
t Tex	LIEK	Voltage di	rop of two	insepa	rable join	nts	, S		J.	at a	N
m.	1/1	Voltage di	rop after 1	0th alt.	25th cyc	le	10.	TE WY	CI WIN	MUT	N
TEX	CIEN	Max. allov	ved voltag	ge drop	(mV)			ر د	* .6	K TEN	
terminal	-	1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)	IE NALT	IN.				1	ex	. Et	TEX	LIEK
111	72,	Voltage di	op after 5	50th alt.	100th cy	cle		WILL	MIL	Me	N
EX LIER	MITE	Max. allov	ved voltag	ge drop	(mV)		1	114	AEX.	TEX	7EK-
terminal	200	1	2	3	4	5	6	7 🗸	8 🕠	9	10
voltage dro	p (mV)	Nr. 11	14			AL .	ct c	et .	EX S	EX CL	
4, 4		Continued	l ageing: v	voltage	drop afte	r 10th al	t. 25th cy	cle S	7/1	20,	N
NLIET NA	1	Max. allov	ved voltag	ge drop	(mV)			- TE	TIE	CLIER	10/16
terminal		1	2	3	4	5	6	7	8	9	10
voltage dro	p (mV)				<u></u>	, Et			TEK	WILLEY V	LIFE
, , , t		Continued	l ageing: v	voltage	drop afte	r 50th al	t. 100th c	ycle	211 -		L N
MILITE.	WILL	Max. allov	ved voltag	ge drop	(mV)		TEX.	JEX .	LIER	ITE ON	701/2
terminal	iet .	1	2	3	4 0	5	6 "	7	8	9	10
voltage dro	p (mV)	14, 21,	101		*		* 5	it all		MALTE	MULT
									- 30		



Reference No.: WTZ20F08056710L Page 35 of 82

+ TEX	Australia deviation		(EK J
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 5	Australia deviation (AS/NZS 60598.2.1 and AS/NZ	'S 60598.1)	W P
LIEX MIR	APPENDIX ZZ	TEX TEX STEE SITES	J.L. L.
EK WILEK	VARIATIONS TO IEC 60598-1, Ed. 8.0 (2014) FOR ZEALAND	AUSTRALIA AND NEW	siex oni
0	GENERAL INTRODUCTION	me me me	Р
0.1	Add: Where the term "lamp" is used in this Standard, it is taken to include electric light sources. LED light sources are subject to the same test parameters as "other discharge lamps".	Whitek Whitek Whitek Whitek	WEITER
TEK WUTER	NOTE Portable rechargeable battery operated lur Annex B, 'Appliances powered by rechargeable batter Household and similar electrical appliances—Safety, (IEC 60335-1 ED. 5, MOD). In addition, portable, recluminaires with lithium ion batteries should have ove	eries' of AS/NZS 60335.1, , Part 1: General requirements chargeable, battery-operated	n ^{liek} wi
0.4.2	Add:	me not me m	Р
	In Australia, for equipment, other than class III equipment, that is intended for connection to the supply mains and not marked with:	INLIER WHITER WHITER WHITE	WALTER
	- a rated voltage of at least 240 V for single-phase equipment or a rated voltage of at least 415 V for three-phase equipment; or	LIEY WHITEK WHITEK WHITEK	onliter v
	- a rated voltage range that includes 240 V for single-phase equipment and 415 V for three-phase equipment,	EX MILEX MULTER MULTER M	vie wh
	the rated voltage is equal to 240 V for single-phase equipment and 415 V for three-phase equipment, and the upper limit of the voltage range is equal to 240 V for single-phase equipment and 415 V for three-phase equipment.	Whitek whitek whitek whitek	MULTER
0.5	Add: Relevant Australian/New Zealand Standard replaces the IEC Standard unless otherwise specified.	THE WHITE A	P
0.5.101	Add: Capacitors	Et aliet mile anile ani	Р
TEX	Capacitors shall be of a type to ensure that any capacitor failure results in a failsafe outcome.	at at at at	N N



Reference No.: WTZ20F08056710L Page 36 of 82

	Australia deviation		
Clause	Requirement + Test	Result - Remark	Verdic
MLIEK WALTER	Capacitors (other than those incorporated in control gear that comply with the relevant standard) shall comply with one of the following: - Capacitors likely to be permanently subjected to the supply voltage, used for radio interference suppression or for voltage dividing shall comply with IEC 60384-14.	Whitek whitek whitek wh	itek whiek wh
	- Other capacitors shall be not less than Type B capacitors with metal body and break action protection in accordance with IEC 61048 and IEC 61049. A capacitor complying with EIA-456-A, Metallized Film Dielectric Capacitors for Alternating Current Applications, shall comply with IEC 61049 and IEC 61048:2006 excluding the endurance test of 18.1.1.		JUNITER WINITE JUNITER JUNIT
WALTER	In addition, capacitors shall have a minimum voltage rating of 250 V at a temperature rating of 100 °C or 280 V at a temperature rating of 85 °C.	WIFE WIFE WHIFE	Y WALT Y WAL
).5.102	Add: Control gear		P ^C
ne n	Power supplies shall comply with the relevant part 2 of the AS/NZS 61558 series.	intil anti uni	an an N
ir who	Control gear shall comply with the relevant part 2 of the AS/NZS 61347 series.	liek writer write on	Р
	Battery chargers used for lighting other than emergency lighting shall comply with AS/NZS 60335.2.29.		No
while v	Sensor switches and similar control circuits, including those incorporated in other equipment, are considered electronic switches (see Clause 4.8).	White white white	WILL WRITER

2	CLASSIFICATION OF LUMINAIRES	Р
2.2	Class 0 luminaires are not permitted in Australia or New Zealand.	EK _NITE

3	MARKING					
3.1	In Australia and New Zealand, instructions and other texts required by this Standard shall at least be written in English.	WILEY WILLEY WILLEY	MITE W			
3.2	Delete the second paragraph beginning with 'Marking may be on ballast provided'.	LEE STEEK WITER WITER WI	ZEXN NIZ			
Table 3.1	Move Item 3.2.21 from the second column to the third column.	e tex tex with with	* NIE			
	3.2.21 The relevant symbol for luminaires not suitable for covering with thermally insulating material	me me m m	, et			



Reference No.: WTZ20F08056710L Page 37 of 82

	Australia deviation		
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	The rated maximum ambient temperature t _a . (see Figure 1).	WATER WALTER WALTER	IN P
3.2.12	Add: In Australia, luminaires for household use and similar with supply cords which are not fitted with a plug shall be marked with a cord tag with the symbol for "must be installed by a licensed electrician".	MUST BE INSTALLED BY A LICENSED ELECTRICIAN	TE WITE MITE
3.2.23	Add: The additional information shall include the symbol "Do not stare at the operating light source" (see Figure 1) along with an explanation of the symbol.	WIET WILET MATER ON	Et TEX
3.3.7	Delete Clause and replace with: Luminaires for use with metal halide lamps shall be provided with instructions that state the substance of the following: To avoid potential unsafe lamp failure, the luminaire shall be switched off for at least 10 minutes at least once a week. In addition, the luminaire shall be operated: - complete with its protective shield; or - with a double jacketed lamp.	JEH WHITEK WHITEK	Whitek whitek
3.3.18	Delete the text ', i.e. for indoor use only'.	ex tex lies out	N _I
3.3.21	Delete the text 'Caution, risk of electric shock' and the symbol.	Mr. Mr. W.	P
3.3.101	The instructions shall contain details of the components in the luminaire that require replacement as part of a maintenance program.	white white	N N
3.3.102	The instructions for luminaires, including for remotes or other accessories containing coin/button cell batteries and batteries designated R1, shall include the safety warnings below.	t let Tex Tex	TEK WELLEN
NI EX	The safety warnings are not required where these batteries are not intended to be replaced or are only accessible after damaging the equipment.	MUT, MIT, MU	NITEY MITER



Reference No.: WTZ20F08056710L Page 38 of 82

t TEX	Australia deviation				
Clause	Requirement + Test	Result - Remark	Verdict		
EX WALTEX WALTEX	The safety warnings: - CAUTION: Do not ingest battery—Che hazard [or equivalent wording]. - [The remote control supplied with] this contains a coin/button cell battery. If the cell battery is swallowed, it can cause se internal burns in just 2 hours and can lead. - Keep new and used batteries away from the battery compartment does not closecurely, stop using the product and keep from children. - If you think batteries might have been or placed inside any part of the body, se immediate medical attention.	product coin/button evere ad to death. m children. cose ep it away swallowed	MILLER WALLER WALLER		

4	CONSTRUCTION	The write with white we	P ₂₀
4.7.2 FE	Delete the first paragraph and replace with the following: Terminals shall be located or shielded in such a way that, if a wire of a stranded conductor escapes from a terminal when the conductors are fitted, there is no risk of contact between live parts and metal parts that can be touched with the standard test finger, nor shall it be possible to touch a live free wire with the standard test finger when the luminaire is fully assembled for use or open for the replacement of replaceable light sources or starters.	JUNITER WHITER W	PLIFE WALTER
4.8	Add: Switches shall comply with AS/NZS 3133, the AS/NZS 60669 series or AS/NZS 61058.1. Switches that indicate an off position shall have contacts with an air break and comply with AS/NZS 3133, AS/NZS 60669.1 or AS/NZS 61058.1.	Whitek Multer Multer Multer	WALTER WALTER
	Electronic switches, when incorporated in or supplied with the luminaire, shall comply with the requirements of AS/NZS 60669.2.1 or IEC 61058-1 classified for 10,000 operating cycles	* LIET WILET WHILE W	EK WILL
4.10.4	Delete the last sentence and replace with the following:: If the working voltage does not exceed the rated voltage of the capacitor, accessible conductive parts separated from live parts by double or reinforced insulation, as above, may be bridged by a single Y1 capacitor with qualification approval as specified in IEC 60384-14.	Whilek Whilek Whilek Whilek	NEX WILLER
4.14.6	Add: A fixed socket-outlet complying with AS/NZS 3112 or AS/NZS 60884.1 is used for the test.	Writek Multer Multer Mult	× N



Reference No.: WTZ20F08056710L Page 39 of 82

Australia deviation			
Clause	Requirement + Test	Result - Remark	Verdict
4.32 N	Add: Metal oxide varistors shall comply with the requirements of AS/NZS 3100 for metal oxide varistors incorporated in accessories.	MULTER MULTER MULTER	TEL METER
4.101.1	Small batteries		× O N
WITER	Batteries that fit wholly within the small parts cylinder as specified in Clause 5.2 of ISO 8124-1 shall not be removable without the aid of a tool.	TEX TEX TEX	N N
INLIEK WA	Luminaires intended for children under the age of three, or parts of such luminaries that contain batteries, shall not fit wholly within the small parts cylinder as specified in Clause 5.2 of ISO 8124-1.	WILE MULTER MULTER	NITES MITE
Y WAITEN	For luminaires or parts of luminaires containing batteries that fit wholly within the small parts cylinder as specified in Clause 5.2 of ISO 8124-1, the batteries shall not be accessible without the aid of a tool.	TEX WHITEK WHITEK WHITE	te with North
LIFEK	Compliance is checked by inspection and by the follow	owing test:	LIFE MEET
LIEK WAL	A force is applied without jerks for 10 s in the most unfavourable direction to parts likely to be weak. The force is as follows: – push force, 50 N; – pull force; 30 N; – if the shape of the part is such that the fingertips cannot easily slip off, 50 N; – if the projection of the part that is gripped is less than 10 mm in the direction of removal, 30 N. While the force is being applied, the test fingernail of Figure 7 of AS/NZS 60335.1 is inserted in any aperture or joint with a force of 10 N. The fingernail is then slid sideways with a force of 10 N but is not twisted or used as a lever.	TEX WHITEK WHITEK WHITEK WHITEK WHITEK WHITEK WHITEK WHITEK WHITEK	on N LIEK NLIEK WALTEK WALTEK WALTEK
y whitek	If the shape of the part is such that an axial pull is unlikely, the pull force is not applied but the test fingernail is inserted in any aperture or joint with a force of 10 N and is then pulled for 10 s by means of the loop with a force of 30 N in the direction of removal.	A MULTER MULTER MULTER	
WIND WALTER WALTER	If the part is likely to be twisted, the following torque is applied at the same time as the pull or push force: - 2 Nm, for major dimensions up to 50 mm. - 4 Nm, for major dimensions over 50 mm. This torque is also applied when the test fingernail is pulled by means of the loop. If the projection of the part that is gripped is less than 10 mm, the torque is reduced by 50 %:	4 Nm whitek whitek whitek whitek whitek whitek whitek whitek whitek	WALLEY WILL
4.101.1	Battery compartment fasteners		N ⁺



Reference No.: WTZ20F08056710L Page 40 of 82

	Australia deviation		
Clause	Requirement + Test	Result - Remark	Verdict
onerek onerek onerek	If screws or similar fasteners are used to secure a door or cover providing access to the battery compartment, the screw or similar fastener shall be captive to ensure that it remains with the door, cover or equipment.	Whitek Multer Multer Mar	NEX WITER W
	Compliance is checked by inspection and by the foll	owing test:	t JEK-J
TIEK	A force of 20 N is applied to the screw or similar fastener without jerks for a duration of 10 s in any direction.	ex lex lex	N N

5	EXTERNAL AND INTERNAL WIRING	at let let let	P
5.2.1 White	First paragraph replaced by: Luminaires shall be provided with only one of the following means of connection and isolation to the supply. Fixed luminaires: - device for the connection of luminaires; - terminals; - plug for engagement with socket-outlets; - connecting leads (tails) in accordance with Clause 4.6 requirements; - supply cord; - supply cord and plug; - adapter for engagement with supply tracks; - appliance inlet; - installation coupler; - luminaire coupler. Portable luminaires: - supply cord with plug; - appliance inlet; - inlet plug complying with AS/NZS 3120. Track-mounted luminaires: - adaptor; - connector.	TEX WILLEY WILLEY WHITEY	LIEK WALTER WALT
11/2	Delete the second and third paragraph.	We the Mill W	
OWN.TEX	In Australia, non-portable luminaires with a supply cord shall be fitted with a plug complying with AS/NZS 3112 or a coupler complying with the relevant standard, except where the luminaire has markings and instructions that comply with Clause 3.2.12, in which case, a plug or coupler is not required. For other than portable luminaires a plug is not required if the luminaire has markings and instructions in accordance with Clause 3.2.12.	ALTER WHITER WHITER WHITER	NET WITE
ri uni	The plug portion of a luminaire with integral pins shall comply with the relevant requirements of AS/NZS 3112.	LEX MILEY MUTEL MUTEL M	N
Mur	NOTE 4 PVC-insulated connection cords should not be used with outdoor luminaires in cold alpine locations.	Write Milit Milit Milit	m



Reference No.: WTZ20F08056710L Page 41 of 82

t TEX	Aust	ralia deviation		et et a	EX JE
Clause	Requirement + Test	altek jalte	Result - Remar	k whi whi	Verdict
5.2.2	First paragraph replaced by : Supply cords used as a means of co supply, when supplied by the lumina manufacturer, shall be at least equal mechanical and electrical properties specified in IEC 60227 and IEC 6024 in Table 5.1, or AS/NZS 3191, and s of withstanding, without deterioration temperature to which they may be exported by the standard conditions of use.	ire in their to those 45, as indicated hall be capable to the highest	MULTER WHITER	Whitek whitek whitek whitek whitek	JUNN .
NITEK	Table 5	i.1 — Supply co	rd		MITEK
1, 1,	Luminaire	Rubber	PVC	No insulation	
IFF OUT	Ordinary class I luminaires	60245 IEC 51S °	60227 IEC 52 °		CLIER AND
40,	Ordinary class II luminaires	60245 IEC 53 °	60227 IEC 52 °		10,
ix whitex	Luminaires which are other than ordinary class I and II	60245 IEC 57 °	60227 IEC 53 ac		I'X WILL
MULTER	Portable rough service luminaires	60245 IEC 66 °	PVC insulated and sheathed heavy duty flexible cord	3	MALTEX
WILLER MU	Class III or with SELV circuits luminaires (up to 25 V a.c./60 V d.c.)			Un-insulated conductor ^b	onliter w
iek walie	Class III or with SELV circuits luminaires (above 25 V a.c./60 V d.c.), including 50 V a.c./120 V d.c.	Unsheathed basic conductor	insulated		I IEK WAL
Whitek.	 For indoor use only. AS/NZS 3000 may restrict the use of un-i For supply voltages greater than 250 V, h the above table may be necessary. 		·		et waiter
itek mur Ek tiek	Third paragraph replaced by : To provide adequate mechanical stre of the conductors shall be not less th — 0,75 mm ² ; — 1,0 mm ² for portable rough service	ian:	al cross-sectiona	al area	
5.2.16	Add: Class II luminaires for fixed wiring incompliance coupler shall not have measturther luminaires to be connected, in looping in by cascading. Luminaire couplers incorporated with shall comply with IEC 61995-1. Luminaires incorporating installation have means to allow further luminair connected by cascading provided the wiring is rated for the current rating coinstallation coupler.	corporating an ans to allow neluding the luminaire couplers may es to be through	White whitek whi	Whitek whitek w	N white hitet whi



Reference No.: WTZ20F08056710L Page 42 of 82

	Australia deviation		
Clause	Requirement + Test	Result - Remark	Verdict
5.2.18 V	Replaced by: All portable luminaires with a flexible supply cord shall be fitted with a plug complying with AS/NZS 3112. Other luminaires with flexible cords shall be fitted with a plug complying with AS/NZS 3112, unless they have the warning allowed by Clause 3.2.12.	united whited whited white	et with w
5.3.1	Third paragraph replaced with the following: Internal wires coloured green, yellow or green/yellow combination shall be used for making protective earth connections only. Functional earth connections shall not be made by wires coloured green, yellow or green/yellow combination.	MULTER MULTER MULTER WA	TEX UNITER
ite. Whi	NOTE 3 Internal wires of other colours are not precluded from making protective earthing connections	TEX WHITE WHITE	Mr. Lite - July
5.3.1.3	Replaced by: In class II luminaires, where the internal wiring has a live conductor and the wiring insulation may touch accessible metal parts under normal operating conditions, the insulation, at least at the places of contact, shall comply with the requirements for double or reinforced insulation, e.g. by applying sheathed cables or sleeves.	MILIER WHITER WHITER	WILLER WALTER

7	PROVISION FOR EARTHING	N
7.2.11	Third paragraph replaced with the following:	N
1	All conductors, whether internal or external, coloured green, yellow or green/yellow combination, shall only be connected to an earthing terminal.	WILLEY .

8	PROTECTION AGAINST ELECTRIC SHOCK	P
		SV - (1)



Reference No.: WTZ20F08056710L Page 43 of 82

	Australia deviation				
Clause	Requirement + Test	Result - Remark	Verdict		
	TEX TEX TIP WITH MY		LET JET		
8.2.1 WELLER WILLER	First two paragraphs including Note 1 replate following: Luminaires shall be so constructed that their parts and basic insulation are not accessible the luminaire has been installed and wired a normal use. Live parts shall not be accessible the luminaire is opened as necessary for us cleaning or maintenance, or for replacementamps, replaceable light sources or (replace starters, even if the operation cannot be ach by hand.	r live e when as in le when er t of able)	UNLY WAY P		
	Luminaires with non-replaceable light source subjected to the tests of Clause 4.29 prior to applying the tests and inspections of Section this Standard.	CITE WILL WILL W	nitek miter. Sek oltek m		
	This does not apply to the non-current-carry parts of caps which comply with the relevan safety standard.		t writing whit		
	Delete "Covers in fixed luminaires that cannot removed by a single action with one hand a removed. However, covers which have to be removed for changing lamps or starters are removed for this test."	re not	unliek whitek		

9	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		N
9.2	Add after NOTE 1:	Mur. Mr. Mr. M.	, – ,
WALTER WALTER	NOTE 101 A designation of IPX7 or IPX8 is considered unsuitable for exposure to water jets (designated by IPX5 or IPX6) and may not comply with requirements for second numeral 5 or 6 unless it is dual coded.	whitek whitek whitek white	

	INSULATION RESISTANCE AND ELECTRIC STRE AND PROTECTIVE CONDUCTOR CURRENT	NGTH, TOUCH CURRENT	LIEP
10.3	Delete the second row beginning with 'Class I luminaires rated up to and including 16 A'.	* TEX STEX STEX SHE	EX —
400	First column, third row, deletes the word 'Metal'.	Wer we will an	

12	ENDURANCE TEST AND THERMAL TEST	- n
Table 12.1	First column, first row, the text replaced by:	NI EL
	'Case (of control gear , capacitor, starting device, electronic ballast or convertor, etc.)'	



Reference No.: WTZ20F08056710L Page 44 of 82

t TEX	Australia deviation				
Clause	Requirement + Test	Result - Remark	Verdict		
ouries mri	Add:	TEX CIENT ONLY	VILLER MUTER		
et united	NOTE 101 Luminaire manufacturers should consider the maximum ambient air temperature in the vicinity of components such as starting devices and electronic ballasts or converters. Component performance specifications advise manufacturers to mark or supply life data as maximum ambient air temperature based on 50,000 h. This t-life is often marked as ta and is the temperature of the air in the vicinity of the component and is not related to the luminaire ta. As such, luminaire manufacturers should measure air temperature in the vicinity of such components, within the luminaire, as even those complying with their tc point measurements can still fail prematurely if t-life is exceeded.	whilet whilek whilet.	SEX WATER OF		

13	RESISTANCE TO	HEAT, FIRE AND TRAC	KING	The Write W	P.M
13.3	Parts of non-metallic material (other than ceramic) shall be resistant to flame and ignition. This Clause applies to all parts, including components, even if they have been tested to their own IEC or equivalent standard.			ek — iték	
13.3.1	Parts of non-metallic material supporting connections that could become an ignition source, and parts of non-metallic material within a distance of 3 mm of such connections shall withstand the test glow-wire at 750 °C and applied to one test sample for 30 s:			MP ALTEK	
iek lie	Welded connections, soldered connections on printed circuit boards and other connections carrying less than 0.2 A during normal operation are not considered to be an ignition source.				
	Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
,t	Bobbin	See Annex 1	No	0	P
Write W	PCB	See Annex 1	No	nut on u	on'P
iet a	Insulation tape	See Annex 1	No	0	P
	Plastic enclosure of LED driver	See Annex 1	No No	0 11	Р
13.3.2	All other parts of non-metallic material which do not support connections that could become an ignition source, but provide protection against electric shock or maintain creepage and clearances shall withstand the glow-wire test at 650 °C and applied to one test sample for 30 s:				
Writek W	Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
et s	See table(13.3.2)	See Annex 1	No	A 00+	P



Reference No.: WTZ20F08056710L Page 45 of 82

			NITE WILL A	ustralia deviation			
Clause	Requi	rement	+ Test	EK STEK MITE	Result - Remark	K Mur. Mur.	Verdict
13.3.3 A	clauses for longe encroac having a above th	13.3.1, er than 2 h within diamet e point pplied t	if a flame is produce s, 'the non-meta' the envelope of a er of 20 mm and	a vertical cylinder a height of 50 mm the glow wire' are	No flame produ	ced whitek	WN N
WULLEY.	Object/ I No./ Mar		Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
IN IN	7/1-	-liv		- At The	TIEF OLIER	ALICH MILIT	JUL 1
iek whii	the glow- the point	wire flan of applic ne needle	ne within the hypotleation of the glow-w	e to be applied to all partical envelope of a value. This applies to all within the cylinder and	ertical cylinder pos parts unless there	sitioned above is a barrier that	





Reference No.: WTZ20F08056710L Page 46 of 82

t TEX	Aus	stralia deviation	- TEX JES
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 6	Variations to AS/NZS 60598.2.1:1998 for application	N P
	in Australia and/or New Zealand (AS/NZS 60598.2.1:2014+A1:2016+A2:2019)	, t

1	SCOPE A SCOPE		
WALTER OUT	This Standard specifies requirements for fixed general purpose luminaires incorporating electric light sources for operation on supply voltages less than 1000V AC RMS or 1500V ripple-free DC (high voltage). It is to be read in conjunction with those sections of AS/NZS 60598.1 to which reference is made. This Standard also specifies requirements for double-capped LED lamps (Appendix A) and T8 to T5 lamp converters (Appendix B). Appendix A is to be read in conjunction with those sections of AS/NZS 60598.1 to which reference is made. Appendix B is to be read in conjunction with those sections of AS/NZS 60598.1 and AS/NZS 61347.2.3 or AS/NZS 61347.1 to which reference is made.	Fixed lamp	Philipping of the state of the
6	MARKING	THE THE STATE OF	, N
MUL.	LED luminaires with G5 or G13 lampholders shall be marked with the following warning: WARNING: NOT FOR USE WITH ANY FLUORESCENT LAMP—FOR USE ONLY WITH TYPE A LED LAMPS	INCIER WHITE WHITE WHITEK	SUN N
7	CONSTRUCTION	at left text text.	N.
White	LED luminaires or new luminaires designed for T8 to T5 converters with G5 and G13 lampholders shall include a fuse to protect a fluorescent lamp that is inadvertently installed.	whit will white whi	N
TEX.	Each fuse shall—	The set set	N
n.	a) be of the 250 V HBC type	WI TILL AMILIANIE	N N
TEX	b) have a 2 A max. quick-acting type rating; and	at the test	N D
77/	c) be used to protect a maximum of two lamps.	m m m	N
13	ENDURANCE TESTS AND THERMAL TESTS	at left test test to	Р
whitek	Luminaires with an IP classification greater than IP20 shall be subjected to the relevant tests of Clauses 12.4, 12.5 and 12.6 of Section 12 of AS/NZS 60598.1 after the test(s) of Clause 9.2 but before the test(s) of Clause 9.3 of Section 9 of AS/NZS 60598.1 specified in Clause 14 of this Standard.	whitek whitek whitek whitek	P WILLEY WILLEY
14	RESISTANCE TO DUST AND MOISTURE	the state of	P
. White	For luminaires with an IP classification greater than IP20 the order of the tests specified in Section 9 of AS/NZS 60598.1 shall be as specified in Clause 13 of this Standard.	LIEX STEK WITER WITE	P. P.



Reference No.: WTZ20F08056710L Page 47 of 82

	Au Au	stralia deviation	
Clause	Requirement + Test	Result - Remark	Verdict

APPENDI X A	SAFETY REQUIREMENTS FOR DOUBLE-CAPPED LED LAMPS	WN V
NIE WALTE	The requirement is not applicable due to the nature of the product.	y Lite whi

APPENDI X B	SAFETY REQUIREMENTS FOR T8 TO T5 LAMP CONVERTERS	JET NALTY
TEX	The requirement is not applicable due to the nature of the product.	t TIEK





	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		W P	
4 (4)	GENERAL REQUIREMENTS	INTER WATER WATER	Р	
- (4)	Insulation materials according requirements in Annex N of IEC 61347-1 (see Annex N)			
- (4)	Compliance of independent controlgear enclosure with IEC 60 598-1	t lifet slifet mites smi	E- NE	
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1	(see Annex O)	MULLINE	
4 (4)	SELV controlgear comply with Annex I of this part 2 and Annex L of IEC 61347-1	(see Annex L)	JUIE P	
4 (-)	Transformer comply with IEC 61558	No. of the state o	L P	
WILL	Dielectric strength test of insulated winding wires is limited to 3 kV if input voltage ≤ 300 V	white white will wh	Р	
6 (6)	CLASSIFICATION	Write Multer Mile Mile	Р	
LIEK OL	Built-in controlgear:	Yes □ No ⊠	CLIER	
30	Independent controlgear:	Yes □ No ⊠		
EK INLIE	Integral controlgear:	Yes 🛛 No 🗆	NIE OF	
6 (-)	Auto-wound controlgear:	Yes □ No ⊠	L -	
MULT	Separating controlgear:	Yes □ No ⊠	N Marin	
at	Isolating controlgear	Yes ⊠ No □	- 	
inti di	SELV controlgear	Yes ⊠ No □	MULL	

7 (7)	MARKING		N
7.1 (7.1)	Mandatory markings	et ret itet itet o	N
200	a) mark of origin	See copy of marking plate	N
WITE OF	b) model number or type reference	See copy of marking plate	N
	c) symbol for independent controlgear, if applicable	Mr. Mr. M. M.	N
NITE WA	d) correlation between interchangeable parts and controlgear marked	WIEK MILE MILE MILE	N.N
EX OLIE	e) rated supply voltage (V)	IN THE THE THE	N
24.	supply frequency (Hz)	into the the	N
NITE	supply current (A)	See copy of marking plate	N
7,	f) earthing symbol	Mr. Mr. My Any	N
WITE.	k) wiring diagram	CEL TEL CIER SUIT	N

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



Reference No.: WTZ20F08056710L Page 49 of 82

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
Clause Requirement + Test Result - Remark Verdi I) value of tc See copy of marking plate N			t jet
nr. nr	I) value of tc	See copy of marking plate	AUN A
set se	m) symbol for declared temperature	in in the left	N
in whi	t) LUM earthing symbol	LIER WHITE WHITE WHITE	A N Au
Et JET	u) if not SELV maximum working voltage Uout betwee	n:	N N
w	- output terminals (V):	it - while while when he	N
TEX	- output terminals and earth (V):	- 1 1 11 11	N. CO.
7.1 (-)	Constant voltage type:	Yes No No	111
LIEK NI	- rated output power P _{rated} (W):	at let let de	N
1, 1,	- rated output voltage U _{rated} (V)	A TIL MIL MIL MILL	N
TEX NITE	Constant current type:	Yes No No	LIE NI
- 37	- rated output power P _{rated} (W):	See copy of marking plate	N
NITE	- rated output current I _{rated} (A):	See copy of marking plate	N
, L	Indication if for LED modules only	my my m	N
7.1 (7.2)	Marking durable and legible	TEX STEEL OUTER SINIT	N
	Rubbing 15 s water, 15 s petroleum; marking legible	14 14 14	N
7.2 (7.1)	Information to be provided, if applicable	TEX SLIEN WITE WITE	N W
IEK MITEK		at the thet state	N JEKN
, J	i) cross-section of conductors (mm²)	Mr. Mr. M. 2	N
antite a	j) number, type and wattage of lamp(s)	t Tex Liex Night IN	N
.4	s) SELV symbol	m m m	N
7.2 (-)	- declaration of mains connected windings	TE STEEL SLIFE	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	P
- (A2)	Voltage measured with 50 kΩ	(see Annex A)	Р
- (A3)	Voltage > 35 V peak or > 60 V d.c. or protective impendance device	(see Annex A)	NIE
- (10.1)	Lacquer or enamel not used for protection or insulation	TEX LIEX SLIEK MILEX	IN IT IN
TEK OUT	Adequate mechanical strength on parts providing protection	it lit the lift	LIE N
- (10.2)	Capacitors > 0,5 μF: voltage after 1 min (V): < 50 V	12 V	P
- (10.3)	Controlgear providing SELV	ite with which was	Р



Reference No.: WTZ20F08056710L Page 50 of 82

	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
4	THE THE WITE WITE WITE WE		- TEX
ynt w	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear	white white white whi	JUL B
ik (li)	No connection between output circuit and the body or protective earthing circuit	with muth muth my	Р
WAL	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts	ter unite mit unit w	PIN
211	SELV outputs separated by at least basic insulation	Muri Aur Au Au	Р
CLIER IN	ELV conductive parts insulated as live parts	EX TEX TEX SITES	N
	Tests according Annex L of IEC 61347-1	(see Annex L)	Р
- (10.4)	Accessible conductive parts in SELV circuits	TEX TEX STEX STEE	LI P
t liet	Output voltage under load ≤ 25 V r.m.s. or ≤ 60 V d.c.	THE THE THE	P
MUTER A	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	White Auties whites mark	N
	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V	TEX WALTER WALTER WALTER	unit N
MILIER	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	Approved Y1 capacitor use	Pun
	Y1 or Y2 capacitors comply with IEC 60384-14	MULL MULL MULL MILL	Р
inliek vii	Resistors comply with test (a) in 14.1 of IEC 60065	TE MITER WAITER	W.N.

9 (8)	TERMINALS		N
	Screw terminals according section 14 of IEC 60598-1:		N
4,	Separately approved; component list	(see Annex 1)	N
MITE	Part of the controlgear	(see Annex 2)	N
, L	Screwless terminals according section 15 of	IEC 60598-1:	N
NITE N	Separately approved; component list	(see Annex 1)	IN IN
_	Part of the controlgear	(see Annex 3)	N

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



Reference No.: WTZ20F08056710L Page 51 of 82

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdic
Write M	Locked against loosening and not possible to loosen by hand	WALTER WALTER WALTER	MN
LIET	Not possible to loosen clamping means unintentionally on screwless terminals	NITER WHITER WHITER WHITE	SALL N
EX WITE	All parts of material minimizing the danger of electrolytic corrosion	TEK WILEK MULTER M	I N
- LEX	Made of brass or equivalent material	4 4 6 6	- N
11/11/1	Contact surface bare metal	WITE WITE WALL WALL	△N
TEX .	Test according 7.2.3 of IEC 60598-1	L A A A	N
- (9.2)	Provision for functional earthing	WILL MALL MALL MAR	N N
TEX LIFE	Comply with clause 8 and 9.1	A LA LET LET	√ [©] N
X TEX	Functional earth insulated from live parts by double or reinforced insulation	and the sure of	N
- (9.3)	Lamp controlgear with conductors for protective earth board	ning by tracks on printed circuit	N
	Test with a current of 25 A between earthing terminal or earthing contact and each of the accessible metal parts; measured resistance (Ω) at \geq 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω		with white
- (9.4)	Earthing of built-in lamp controlgear	EX TEX STEX STEEL	N
LIEX	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1	t at let the	N
'E'X	Earthing terminal only for earthing the built-in controlgear	with my my my	N
- (9.5)	Earthing via independent controlgear	Cat. Lie Watt Mati	n N
- (9.5.1)	Earth connection to other equipment	at at	N
r "it	Looping or through connection, conductor min. 1,5 mm² and of copper or equivalent	In the same	N
MULT	Protective earthing wires in line with 5.3.1.1 and clause 7 of IEC 60598-1	EX WHITE MILIES WHITE WA	N
- (9.5.2)	Earthing of the lamp compartments powered via the in	ndependent lamp controlgear	N
NITEK UN	Test with a current of 25 A between input and output earth terminals; measured resistance (Ω) 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 Ω	WAL MATER MATER ANTIER	N.
L CX	Output earthing terminal marked as in 7.1 t) of IEC 61347-1	TIL MUT. MUT. MIT. A	N

11 (11)	MOISTURE RESISTANCE AND INSULATION	P.
1	MOIOTORE REGIOTATOE AND MODERTION	



Reference No.: WTZ20F08056710L Page 52 of 82

+ TEX	IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict		
- (11)	After storage 48 h at 91-95% relative humidity and 2 resistance:	20-30 °C measuring of insulation	WP.		
NITE WAL	For basic insulation $\geq 2 \ \text{M}\Omega$:	> 100 MΩ	NI P W		
الله المد	For double or reinforced insulation $\geq 4~\text{M}\Omega$	> 100 MΩ	Р		
WAL	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	TER MULTER AND TER AND THE AND THE	No.		

12 (12)	ELECTRIC STRENGTH	The state of	P
- (12)	Immediately after clause 11 electric strength test for 1 min	WALLE MALLE WALLE WALL	on P
IIE WALL	Basic insulation for SELV, test voltage 500 V	TEX LIEX SLIER WILL OF	N
+ 2+	Working voltage ≤ 50 V, test voltage 500 V	and an an	N
White	Working voltage > 50 V ≤ 1000 V, test voltage (V):	LIEK WIE WALLE WAL	P
WITEK	Basic insulation, 2U + 1000 V	Between L & N (remove fuse): 1530V (Working voltage: 265V)	PEK
- L	Supplementary insulation, 2U + 1000 V	n m n	N
VEL MUTER	Double or reinforced insulation, 4U + 2000 V	Between input circuit and output circuit: 3060V Between live parts and enclosure: 3060V (working voltage: 265V)	TEX MI
LITER	No flashover or breakdown	at the the state of	P
NUTER M	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	WILL MALE WILLEY	N N NALTEK

14 (14)	FAULT CONDITIONS	JEN STEE	I P
- (14.1)	When operated under fault conditions the controlges	ar: w w	Р
anlie on the	- does not emit flames or molten material	ex tex tiex alies on	P
	- does not produce flammable gases	The The Anna	P
MITE	- protection against accidental contact not impaired	LIER STER WITE WITE	Р
ALTEK IN	Thermally protected controlgear does not exceed the marked temperature value	the tex tex other	N.
TEX WALTE	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P
- (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)	NITE



Reference No.: WTZ20F08056710L Page 53 of 82

t TEX	IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark	Verdict		
(4.4.0)	Oh and since it we intermediate of a series adverter	(and some and distribute)	CH CH		
- (14.3)	Short-circuit or interruption of semiconductor devices	(see appended table)	P		
- (14.4)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	N N W		
- (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		
- (14.6)	After the tests has been carried out on three sample	S: NITE WILL WILL	W NB		
TEX	The insulation resistance \geq 1 M Ω	>100 MΩ	TET P		
in in	No flammable gases	White White White Wh	P		
TEX SIT	No accessible parts have become live	at at alt of	Et JEP N		
it 18t	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	and the sure	Р		
- (14.7)	Relevant fault condition tests with high-power a.c. supply	Murite Murite Muri	Mus Mus		
14 (-)	Temperature declared thermally protected lamp controlgear fulfil requirements in Annex C	WILLER MATER WATER	W. W.		

15 (-)	TRANSFORMER HEATING	An P An
15.1	General	P II
- CEX	Transformer comply with clause L.6 and L.7 of IEC 61347-1	P
WILL .	Output voltage of SELV controlgear not exceed limits in 10.4 of IEC 61347-1 during the test of 15.1 and 15.2	NITEX
15.2 (-)	Normal operation	Р
LIEK OLI	Comply with clause L.6 of IEC 61347-1	ITEP N
15.3 (-)	Abnormal operation	Р
NITE	Comply with clause L.7 of IEC 61347-1	NIE PALTE
WALTER	Double LED modules or equivalent load connected in parallel to the output terminals of constant voltage type	N
Writek Mu	Double LED modules or equivalent load connected in parallel to the output terminals of constant current type	L MIT W
15 (-)	During and at the end of the tests no defect impairing safety, nor any smoke or flammable gases produced	NI TE PULT



Reference No : WTZ20F08056710L

Reference	e No W1Z20F060567 TUL	Page 54 01 62		an.
t JEX	LIER WILL WALLE	IEC 61347-2-13	i it it it	TEK JEK
Clause	Requirement + Test	LEK MILEK MAL	Result - Remark	Verdict
16 (15)	CONSTRUCTION	T LEX LEX	aliek wher whilek	NI P
(45.4)	Wood gotton sills poper and	Laimilar fibraua mataria	70, 20,	В

Clause	Requirement + Test	Result - Remark	Verdict
16 (15)	CONSTRUCTION	TEL TEL STEEL	N P
- (15.1)	Wood, cotton, silk, paper and similar fibrous material	The the the	P
(10.1)	Wood, cotton, silk, paper and similar fibrous material not used as insulation	NITES WALTER WALTER WA	P
- (15.2)	Printed circuits	CEX TEX LIEX OLIE	P
LIEK	Printed circuits used as internal connections complies with clause 14	t let let let	P P
(15.3)	Plugs and socket-outlets used in SELV or ELV circuit	ts with the min	N
nite uni	No dangerous compatibility between output socket- outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies	MILER MULTER MALTER M	et street
t ITEX	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4	in the state of	N
Mr. Mr.	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:	while whi whi	WALTER THALTER
LIEK NI	- plugs not able to enter socket-outlets of other standardised system	it the the	TEX N.
EX TEX	- socket-outlets not admit plugs of other standardised system	in it is in	N
Mus	- socket-outlets without protective earth	IE WILL WILL WILL	n Nn
(15.4)	Insulation between circuits and accessible parts	e at alt alt	P
(15.4.2)	SELV circuits	White Mur, Mur	n P
CIENT IN	Source used to supply SELV circuits:	- It The	LIEF NP
< E/ . \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- safety isolating transformer in accordance with relevant part 2 of IEC 61558	" In In	P
t six	- controlgear providing SELV in accordance with relevant part 2 of IEC 61347	in in in	P
WILL	- another source	TEX SLIER WILLER WILLE	IN IN
et.	Voltage in the circuit not higher than ELV	7/1 27	N
Wr. M	SELV circuits insulated from LV by double or reinforced insulation	WHITE WALTER WALTE	IN INP
NITE WAL	SELV circuits insulated from non SELV circuits by double or reinforced insulation	UNITER WALTER WALTER WA	I P
ek walte	SELV circuits insulated from FELV circuits by supplementary insulation	LIEK MITEK MALTER WALT	TEN TEN
L NITEX	SELV circuits insulated from other SELV circuits by basic insulation	it lifet alifet miles	ant N
LIEX	SELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	M M M	N.C



Reference No.: WTZ20F08056710L Page 55 of 82

Clause	Requirement + Test	Result - Remark	Verdict
Clause	Requirement + Test	Result - Remark	verdict
- (15.4.3)	FELV circuits	street outer outreet out	M
	Source used to supply FELV circuits:	The state of	- N
T WE	- separating transformer in accordance with relevant part 2 of IEC 61558	NITE WILL WILL WILL	AP N W
WALTER	- separating controlgear providing basic insulation between input and output circuits in accordance with relevant part 2 of IEC 61347	TEX WHITE WHITE WHITE	NA NA
MUT 1	- another source	MITE WALTER WALTE WA	N
nliek whi	- source in circuits separated by the LV supply by basic insulation	ifet suitet strict sour	EK WITH
at di	Voltage in the circuit not higher than ELV	No on the	N
MULL	FELV circuits insulated from LV supply by at least basic insulation	TEL WILLE WILLE WILL	W. Nan
WILL.	FELV circuits insulated from other FELV circuits if functional purpose	WHITEK WHITEK WHITEK W	N.C.
unlifek un	FELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5	SLIEK WILLER WALTER WAY	IE NE
all s	Plugs and socket-outlets for FELV system comply with	th:	C N
it it	- plugs not able to enter socket-outlets of other voltage systems	TE WALL WALL WILL	N N
MULL	- socket-outlets not admit plugs of other voltage systems	TEX WAITER WALTER WHITE	m Nu
WITE.	- socket-outlets have a protective conductor contact	H TEK TEK STEK O	N. N.
- (15.4.4)	Other circuits	Mr. Mr. M.	Р
inrige and	Insulation between circuits other than SELV or FELV and accessible conductive parts in according Table 6 in 15.4.5.	THE WHITE WALL	un'P
- (15.4.5)	Insulation between circuits and accessible conductive	e parts	Mar. Bay
MULLER	Accessible conductive parts insulated from active parts of electric circuits by insulating according Table 6	IEK WALTER WALTER WALTER	IN EX P
WALTER	Requirements for Class II construction with equipoter against indirect contact with live parts:	ntial bonding for protection	TE NIPE
Jet S	- all conductive parts are connected together	s at at a	P
	- conductive parts are reliably connected together according test of IEC 60598-1 cl. 7.2.3	WHITE WHITE WHITE WHITE	P
MUL	- conductive parts comply with requirements of Annex A in case of insulation fault	LIER WHITE WHITE WHITE	July Bur



Reference No.: WTZ20F08056710L Page 56 of 82

t TEX	LIEK WILEY WILEY	IEC 61347-2-13		
Clause	Requirement + Test	- TEX SLIFER INL	Result - Remark	Verdict
٠.		9 M		1 1

17 (16)	CREEPAGE DISTANCES AND CLEARANCES	LIER WILL MILL MI	W P
- (16)	Creepage distances and clearances according to 16.2 and 16.3	TEX ITEX SITES ONTE	P
EK SLIEK	Controlgears providing SELV comply with additional requirements in Annex L	on our of the	P
10,	Insulating lining of metallic enclosures	The me me	Р
WALTER	Controlgear protected against pollution comply with Annex P	(see Annex P)	LTE WY
- (16.2)	Creepage distances		of P
- (16.2.2)	Minimum creepage distances for working voltages		Р
TEX JE	Creepage distances according to Table 7	(see appended table)	J P
- (16.2.3)	Creepage distances for working voltages with frequencies above 30 kHz		2) N2
X LIEX	Creepage distances according to Table 8	(see appended table)	N
- (16.3)	Clearances	MULL MULL MILL A	Р
- (16.3.2)	Clearances for working voltages	LEK TEK JEK	P
7, 2,	Clearances distances according to Table 9	(see appended table)	Р
- (16.3.3)	Clearances for ignition voltages and working voltages with higher frequencies		N
iet wites	Clearances distances for basic or supplementary insulation according to Table 10	(see appended table)	N
	Clearances distances for reinforced insulation according to Table 11	(see appended table)	N N

18 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS	P
Write M	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)	un'P u
(4.11)	Electrical connections	P
(4.11.1)	Contact pressure	N
(4.11.2)	Screws:	N
, L	- self-tapping screws	N
UNLIFE OF	- thread-cutting screws	N
(4.11.3)	Screw locking:	N.
INLIE WA	- spring washer	N N N
x &	- rivets	N
(4.11.4)	Material of current-carrying parts	y Pyr
(4.11.5)	No contact to wood or mounting surface	P
(4.11.6)	Electro-mechanical contact systems	Р
(4.12)	Mechanical connections and glands	+ N



Reference No.: WTZ20F08056710L Page 57 of 82

	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdict
LEX.	THE THE WITE WITE WAS TO		CH CEN
(4.12.1)	Screws not made of soft metal	CLIEB WILL WALL WA	NN .
at a	Screws of insulating material	The state of	N
r. Mur	Torque test: torque (Nm); part:	WILL MULTER WALL MALL	2 N 20
et let	Torque test: torque (Nm); part:	- 1	O N
Me	Torque test: torque (Nm); part:	THE WITE WILL WILL	N N
(4.12.2)	Screws with diameter < 3 mm screwed into metal	- + 1+ 11+	e Net
(4.12.4)	Locked connections:	MALTE MALL WALL WILL	N
LIEK N	- fixed arms; torque (Nm):	- 1 1 1 1 5	N ^t
11 11	- lampholder; torque (Nm):	Write Mur Mur Mur	N
TEX NIT	- push-button switches; torque 0,8 Nm:	- 1 11 11 11	JUN N
(4.12.5)	Screwed glands; force (Nm):	The same of the same	N N
JET JET	SLIFE MILE MALE	at at at	JEE JIV
10 (40)	DECICEANCE TO LIEAT FIRE AND TRACKING		

19 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING	White while while who	Р
- (18.1)	Ball-pressure test	See Test Table 19 (18.1)	P
- (18.2)	Test of printed boards	See Test Table 19 (18.2)	An B
- (18.3)	Glow-wire test:	See Test Table 19 (18.3)	P
- (18.4)	Needle flame test	See Test Table 19 (18.4)	Р
- (18.5)	Tracking test:	See Test Table 19 (18.5)	N

20 (19)	RESISTANCE TO CORROSION	a state of	* Notes
All .	- test according 4.18.1 of IEC 60598-1	MULL MULL MULL MINE	^S N
TEX	- adequate varnish on the outer surface	the Text Stept	N

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

14	TABLE: tests of fault conditions	P III P
TR06-25	of LED driver	let tet tet atter mile
Part	Simulated fault	Hazard
RV1	Short circuit	No No
EC1	Short circuit	w w No
EC2	Short circuit	No S
D1 **	Short circuit	No No
D3	Short circuit	A NO. CO
BD1	Short circuit	No No
U1	Short circuit	L No

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



Reference No.: WTZ20F08056710L Page 58 of 82

t TEX	TEX WILL WILL WILL	IEC 61347-2-13		EX JEX
Clause	Requirement + Test	TEX SITES MIT	Result - Remark	Verdict

17 (16)	TABLE:	clearance a	nd creepage	distance mea	surements (m	nm)		Р
LIE WITE	White M	Applic	able part of I	EC 61347-1 Ta	able 7 – 11*	LIEK NLT	-11	Lie
Distances	Insulation	Measured	Req	uired	Measured	Rec	uired	. L
EL MILLE	type **	clearance	clearance	*Table	creepage	creepage	*	Table
Distance 1:	B B	3.0	1.5	m, 8 m,	3.0	2.5		7
Working volt	tage (V)	\overline{n}			265VAC	ex antier a	NIT	W.L.
Frequency if	applicable (kHz)		:	7711		J.Ł	
PTI				:	< 600 ⊠	≥ 600 □		w
Peak value of the working voltage \hat{U}_{out} if applicable (kV)::					.t .e	Ļ .	ARILL .	
Pulse voltag	e if applicabl	e (kV)		<u> </u>	CE CLIE	WILL WILL	7/1/2	_4
Supplementa	ary information	n: Live parts	of different po	larity	, st	at at	14	ا ال
Distance 2:	R	6.2	3.0	9	6.2	5.0	11/2	750
Working volt	tage (V)			:	265VAC	x rex	TEX	TEK.
Frequency if	f applicable (kHz)		:	Will Mari	mr. m		71,
PTI				:	< 600 ⊠	≥ 600 [LIEF.
Peak value	of the workin	g voltage Ûou	t if applicable	(kV):	r. Mr.	me m	7,	`
Pulse voltag	e if applicabl	e (kV)		<u>:</u>	# 14	JEK STER		<u> </u>
Supplementa	ary information	n: Primary ci	rcuit to secon	dary circuit (Po	CB under CY1)	1/1		
Distance 3:	R	6.0	4.7	13 of IEC 61558-1	6.0	5.0		13 of 61558-
Working volt	tage (V)			:	265VAC	TEK	TEX	CLIER
Frequency if	f applicable (kHz)		:	<u></u>	Mr. Mr.		,
PTI				:	< 600 ⊠	≥ 600 [JE-
Peak value	of the working	g voltage Ûou	t if applicable	(kV):	411 3	20 July		`
Pulse voltag	e if applicabl	e (kV)		;	the set	LIEK NITER	المارا	NAC.
Supplementa	ary information	n: Primary w	inding/core to	secondary wi	nding	4,,	, t	
Distance 4:	R	6.0	3.0	et 9 Let	6.0	5.0		7
Working volt	tage (V)				265VAC	1	۲,	, et
Frequency if	applicable (kHz)		:	TEK DIE	NALTE WAL	11	n'
PTI		<u> </u>			< 600 ⊠	≥ 600 □		EX-
Peak value of	of the working	g voltage Û _{ou}	t if applicable	(kV):	TEL MITE	INCTE WALL	W.	
Pulse voltag	e if applicabl	e (kV)	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	:		at at		<u> </u>
Supplementa	ary information	n: Live part a	and enclosure	JEK JE	Inlie whi	MALI	N.	M

^{**} Insulation type: B – Basic; S – Supplementary; R – Reinforced



Reference No.: WTZ20F08056710L Page 59 of 82

		antit wall will	EC 61347-2-13			
Clause	Requirement	+ Test	Result -	Remark	Verdict	
	LET JET	Life Will Mari	1/11 1/11 1/11	1 1	et let	
19 (18.1)	TABLE: Bal	I Pressure Test	st tex tex tree nites much mail me			
Allowed imp	ression diamete	er (mm)	: ≤2,0		* 15	
Object/ Part No./ Material Manufacturer/ trademark		Test temperature (°C) Impression diame		eter (mm)		
See table 1	.15 (13.2.1)	11 21 1	the Steet Wilet Will	H WALLER WALLE	MULL MUL	
Supplement	tary information:	unite mair mai	The same same	TEN OUTER	NIEX WIE	
Саррістіст	at at	18+ 17E+ 17E	WITH WILL WALL	in in a	<u>, , , , , , , , , , , , , , , , , , , </u>	
19 (18.2)	TABLE: Tes	st of printed boards	at all all	LIEK OLIEK MI	P	

19 (18.2)	TABLE: Test of	orinted boards	t let let	LIER NIER WITE	JIV 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	SE STEEL OUT ON	THE PLANE
Supplementar	ry information:	CLIEB WALLE W	201		x ex

19 (18.3)	TABLE: Glow-wire test	It sign and any	P
Glow wire tem	perature	: 650°C	unlite un
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)		EX JEX
Supplementar	ry information:	THE SLIFE WITE WALL WALL WALL WALL	n.

19 (18.4)	TABLE: Needle-	flame test	d av	LIE MALIE MALIE	WP.
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 1.1	5 (13.3.1)	in my m	* * *	LEK JEK JEK	LIEK WI
20, 20,	1 1 1	* JEK WITER	rite white wh	The Mr. M.	70
Supplementar	y information:	Mr. M.	at at a	of the text	EK WITE

19 (18.5) TAB	LE: Proof tracking te	st the late	Р
Test voltage PTI		with the mile will write with any	n - 1
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens	
See table 1.15 (13.	4)	m m m the	et of
Supplementary infor	mation:	TEX LIER OLITER MILE WALL WALL WILL	2/12



Reference No.: WTZ20F08056710L Page 60 of 82

et let	TEX NITE MITES	IEC 61347-2-13		Et JEY
Clause	Requirement + Test	ex ex sites out	Result - Remark	Verdict

(A)	ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK		
(A.1)	Comply with A.2 or A.3	TEX STEX STEEL POLICE	P W
(A.2)	Voltage ≤ 35 V peak or ≤ 60 V d.c:	Max.55V	Р
(A.3)	If voltage measured according Clause A.2 exceeds the limit value; touch current does not exceed 0,7 mA (peak) or 2 mA d.c.	LIET WHITE WHITE WHITE	NA NATER
CEX.	Comply with Annex G.2 of IEC 60598-1	The state of the s	P.

(C)	ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRO CONTROLGEAR WITH MEANS OF PROTECTION AGAINST		
(C3)	GENERAL REQUIREMENTS	m m N	
(C3.1)	Thermal protection means integral with the convertor, protected against mechanical damage	WILL WILL WILL WILL	
TEX	Renewable only by means of a tool	Net all Net	
Mr 1	If function depending on polarity, for cord-connected equipment protection means in both leads	IN WE WAY	
ir, an	Thermal links comply with IEC 60691	The state of N	
Et 1	Electrical controls comply with IEC 60730-2-3	L AL AL ALN	
(C3.2)	No risk of fire by breaking (clause C7)	while were the North	
(C5)	CLASSIFICATION		
Me	a) automatic resetting type	Mari And Mar And	
LIEK	b) manual resetting type	THE LIER NEEDS	
11 21	c) non-renewable, non-resetting type	in Any Any	
LIEF IN	d) renewable, non-resetting type	A TEX LITER LITER	
	e) other type of thermal protection; description:	14 14 1 1 - 1	
(C6)	MARKING	- ITEL SITE OF THE NAU	
(C6.1)	Symbol for temperature declared thermally protected ballasts	THE THE NEW	
(C6.2)	Declaration of the type of protection provided	n n n N	
(C7)	LIMITATION OF HEATING	THE SELECTION OF SELECTION	
(C7.1)	Preselection test:	N	
IER WALT	Test sample placed for at least 12 h in an oven having temperature (tc - 5) K	et writer writer w	
TEX	No operation of the protection device	THE THE THE NOT	
(C7.2)	Functioning of protection means:	mr mr m N	



Reference No.: WTZ20F08056710L Page 61 of 82

	IEC 61347-2-13		
Clause	Requirement + Test	Result - Remark	Verdic
			F (6)
	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature		20 N
	such that (tc +0; -5) °C is obtained		TEX
, W.	No operation of the protection device	ick write write white	N
EK WALTE	Introducing of the most onerous test condition determined during test of clause 14.2 to 14.5	t writes writes writes w	N N
WALTEK.	Output of windings connected to the mains supply short-circuited, and other part of the controlgear operated under normal conditions	WHITEK WHITEK WHITEK WHI	- N
INLIER WI	Increasing of the current through the windings continuously until operation of the protection means	ITEX MITER MATTER MATTER	MIN
IEX MULI	Continuous measuring of the highest surface temperature	EX LIEX WITER WITER	VIIEN IN
* WITE	Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved	TEX ITEX SITES OF	A N
TEX	Automatic-resetting thermal protectors working 3 times	who we are it	N
111 1	Ballasts according to C5 b) working 6 times	WILL MUST MUST MUST MAN	N.
LIEK WA	Ballasts according to C5 c) and C5) d) working once	IFE WIFE MUTER WHITER	Just N.
EKNALTE	Highest temperature does not exceed the marked value	* Lifet outek mulek w	TEXN WIT
CLIEK	Any overshoot of 10% over the marked value within 15 min	THE THE THE AL	N
70.	After 15 min value not exceed marked value	Mur. My My My	N
(D)	ANNEX D – REQUIREMENTS FOR CARRY OUT THE THERMALLY PROTECTED LAMP CONTROLGEAR	E HEATING TESTS OF	N
	Tests in C7 performed in accordance with Annex D, if applicable	White White	N
(F)	ANNEX F – DRAUGHT-PROOF ENCOSURE	UNLIEK WITTER WITTER	P
WALTER	Draught-proof enclosure in accordance with the description	NITER MILER WALTER WALT	PLE
TEXT .	Dimensions of the enclosure		Р
Vr. In	Other design; description	LIE WALL MALL MALL	N
41)	ASSESSED TO THE STATE OF THE ST	at the total court	O.C.E.K
(H) (H)	ANNEX H - TESTS	Will All Mar 1	P
	All tests performed in accordance with the advice given in Annex H, if applicable		P



Reference No.: WTZ20F08056710L Page 62 of 82

t TEX	IEC 61347-2-13	at let let is	EF TE		
Clause	Requirement + Test	Result - Remark	Verdict		
I (L)	ANNEX I IN THIS PART 2 – PARTICULAR ADDITION SELV D.C. OR A.C. SUPPLIED ELECTRONIC CON		P V		
JEX JI	MODULES	TROLGEARS FOR LED	LIEX		
(L.3)	Classification	THE WALL WALL WALL	Р		
EX OLIER	Class I	Yes □ No ⊠	UER TUIL		
70.	Class II	Yes ⊠ No □			
WITE	Class III	Yes □ No ⊠	NICT P		
- ×	non-inherently short circuit proof controlgear	Yes ⊠ No □			
UNLIE WA	inherently short circuit proof controlgear	Yes □ No ⊠	VINLIT IN		
et d	fail safe controlgear	Yes □ No ⊠	/LI -		
in whi	non-short-circuit proof controlgear	Yes □ No ⊠	ir. Aug		
(L.4)	Marking	A st st	+ P		
MUT	Adequate symbols are used	INITE WITE WILL WILL	P		
(L.5)	Protection against electric shock	at the second	P		
me m	Comply with clause 9.2 of IEC 61558-1	Write Mury Auth Augh	Р		
(L.6)	Heating	t at all the	P		
10	No excessive temperatures in normal use	it will me me	P		
TEX SITES	Value if capacitor t _c marked:	See Annex 1	LIEK - NI		
10	Winding insulation classified as Class:	Class B			
White	Comply with tests of clause 14 of IEC 61558-1 with adjustments	Writer Multer Multer Mult	P		
(L.7)	Short-circuit and overload protection				
	Comply with tests of clause 15 of IEC 61558-1 with adjustments	the state of the s	P		
(L.8)	Insulation resistance and electric strength	The Marin A	N Pan		
(L.8.1)	Conditioned 48 h between 91 % and 95 %	93%	P		
(L.8.2)	Insulation resistance	White while whi wh	Р		
MALIEK W	Between input- and output circuits not less than 5 $M\Omega$	>100 MΩ	PEX		
INITEK WIN	Between metal parts of class II convertors which are separated from live parts by basic insulation only and the body not less than 5 M Ω :	THE MUTER MUTER MUTER	WILL W		
TEX WILLE	Between metal foil in contact with the inner and outer surfaces of enclosures of insulating material not less than 2 M Ω	>100 ΜΩ	P		
(L.8.3)	Electric strength	TEX STEE WITE WAY	Р		
NITER 10	Between live parts of input circuits and live parts of output circuits:	3750V	PL		



Reference No.: WTZ20F08056710L Page 63 of 82

01	IEC 61347-2-13		\/o.rd:	
Clause	Requirement + Test	Result - Remark	Verdic	
NUTIE M	2) Over basic or supplementary insulation between:	TER STER WITER WITER	N P	
<i>*</i>	a) live parts having different polarity:	1875V	Р	
ili mai	b) live parts and body if intended to be connected to protective earth	LEE WHITE MALIER WHITE W	N	
WILL	c) accessible metal parts and a metal rod of the same diameter as the flexible cable or cord:	- WALTER WALTER WALTER WAL	N	
CLIER	d) live parts and an intermediate metal part:	LET TEX STE	N	
20, 2	e) intermediate metal parts and the body	are me me m	N	
NLTER AN	f) each input circuit and all other input circuits:	THE THE LIER WITER	Ń	
SEX JIE	3) Over reinforced insulation between the body and live parts:	3750V	P	
(L.9)	Construction	The Mar My My	Р	
(L.9.1)	Transformer comply with 19.12 of IEC 61558-1 and 19 of IEC 61558-2-6	WILER WILER MILIER WILL	PL	
TEX	HF transformer comply with 19 of IEC 61558-2-16	at the fifth	Р	
(L.10)	Components	WITE WALL WALL WALL	AL P	
LIEK WAL	Protective devices comply with 20.6 – 20.11 of IEC 61558-1	TEX WIFEX WIFEX WIFEX	P	
(L.11)	Creepage distances, clearances and distances through insulation			
whit	Creepage distances and clearances not less than in Clause 16	A MULTER WALTE WALL WAS	P	
MITE	Distance through insulation according Table L.5 in IEC 61347-1			
*	1) Basic distance through insulation			
	Required distance (mm):	- I'MITE MALTE		
et e	Measured (mm):		N	
	Supplementary information	The Maria And	, —n	
y let	2) Supplementary distance through insulation		+ P	
AUL	Required distance (mm):	- Write Mile Mury Mury	-in	
WALTEK W	Measured (mm):	At least 3 layer insulation tape used in transformer, totally thick. 0.15mm	P	
NITER IN	Supplementary information	LEX TEX TEX STEEL	NITE:	
	3) Reinforced distance through insulation	Fr. My My My A	Р	
WALTE	Required distance (mm):	Enclosure(potting compound): 0.83mm	Ite an	
	antite mitte mit my my my my	Insulation tape around transformer: 0.16mm	MALT	



Reference No.: WTZ20F08056710L Page 64 of 82

t TEX	IEC 61347-2-13				
Clause	Requirement + Test	Result - Remark			
unries an	Measured (mm)	: Enclosure(potting compound): Min 1.0mm	N P		
	ex and and and and	Insulation tape around transformer: Used three layers(one layer is 0.06mm)	NATER ON		
MULTER	Supplementary information	TEX TEX LIEX OLITER MITTER WA			

	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	
A ct	Requirements not applicable to the evaluated product	

(N)	ANNEX N: REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION	
(N.4)	General requirements	P
(N.4.1)	Material comply with IEC 60085 and IEC 60216 series	SUN.
(N.4.2)	Solid insulation	N
EK JIEK	Electric strength test at least 5 kV or 1,35 x test voltage in Table N.1	N
WILLER W	If not classified according IEC 60085 and IEC 60216 series: Electric strength test increased 10 % of 5,5 kV or 1,5 x test voltage in Table N.1	N N
(N.4.3)	Thin sheet insulation	P
(N.4.3.1)	Thickness and composition of thin sheet insulation	P P
LIEK WALTE	- Inside the ballast and not subjected to handling or abrasion during the production and during maintenance	W ITE P
ex writex	- Non-separated layers: Min. 3 layers and fulfil mandrel test of 150N	IN THE WALL
MLTEX NO	- Separated layers: Min. 2 layers and each layer fulfil mandrel test of 50N	TEX PEX
CEL SI	- Separated layers (alternative): Min. 3 layers and 2/3 of the layers fulfil mandrel test of 100N	N N
(N.4.3.2)	Mandrel test (electric strength test during mechanical stress)	Р
IEK ALTER	Electric strength test after mandrel test:	P
t Tex	- Non-separated layers: min. 5 kV or 1,35 x test voltage in Table N.1	N
21/2 1	- 2/3 of min. 3 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1	Р



Reference No.: WTZ20F08056710L Page 65 of 82

	IEC 61347-2-13		
Clause	Requirement + Test Result - Remark		Verdict
naries an	- one of 2 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1	MITER WAITER WALTER	N
ITE OUT	No flashover or breakdown occurred	et let let lier	P

(O)	ANNEX O: ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION	
TEX	Requirements not applicable to the evaluated product	- July

(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	niN w
y, my	Requirements not applicable to the evaluated product	, Alu

LED driver Thermal	test under abnormal opera	tion of I.7/L.7	LIFE MITE MALL BALL
Test condition:	Over load		
Teat voltage:	1.1 x 265V=291.5V	TES MITE WAL	1 in: it (00)
NITER WALTER WALTER WA	Measured temperature (°C)		Limit (°C)
Test input voltage	F FF INT SUR	291.5V	The state of the s
Test part	T TELL	LIE MITE	White White White Aut
LF1 winding	LITE - CL	116.4	175
LF2 winding		112.3	175
T1 winding	The write and any	124.5	175
Enclosure outer surface (tc)	A TO MINIT	75.9	105
Ambient		25.0	TEX OLIER WITE WI



Reference No.: WTZ20F08056710L Page 66 of 82

TEX	Australian deviation	1 A CH ALL	TEX II
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 7	Australian deviation	alter outer south	nti wiP
LIEK WALTE	VARIATIONS TO IEC 61347-1 ED.3.0 (2015) FOR APPLICATION IN AUSTRALIA AND NEW ZEALAND (AS/NZS 61347.1:2016+A1:2018)		TEX WITH IN
(1)	SCOPE At Att ME WATER	We Me My An	Р
WALTEX W	At the end of Clause 1, add the following text: Where the term lamp is used within this standard it is taken to include electric light sources. LED light sources are to be subject to the same test parameters as "other discharge lamps".	TEX WHITEK WHITEK WHITEK	white white
NITER WHITES	Amendment 1 specifies additional safety requirements for independent lamp controlgear to provide adequate protection in respect of the fire risk associated with the combination of independent lamp controlgear used with recessed luminaires , flammable building elements, flammable debris and building insulation.	onliek whitek whitek whi	EX WILLEY WA
(3)	TERMS AND DEFINITIONS	The second second	Pet
(3.1.2)	Add: Independent lamp controlgear includes lamp controlgear permanently connected and lamp controlgear able to be disconnected from the light source. Independent lamp controlgear able to be disconnected are considered "separate to the luminaire". NOTE Separate excludes cutting connection wires. Hereafter, "lamp controlgear" will be shown as "controlgear".	MITE WALTER WALTER WALTER	MULTER MULTER
(3.101)	Do-not-cover classification An independent controlgear that can be used where normally flammable materials, including building insulation, are or may be present, but cannot be abutted against any material and cannot be covered in normal use.	THE WATER WATER OF	TEK WATER W
(3.102)	IC classification An independent controlgear that can be abutted against normally flammable materials, including building insulation, and can be covered in normal use. Building elements, building insulation or debris have restricted access to the heated parts of the controlgear.	ALTER WHITER WHITER	on on the



Reference No.: WTZ20F08056710L Page 67 of 82

Australian deviation			
Clause	Requirement + Test	Result - Remark	Verdict
(3.103)	Non IC classification An independent controlgear that cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use. NOTE This classification is not suitable for residential installations.	unties while	nuret wa
(4)	GENERAL REQUIREMENTS	- SLIEB WIFE WALL WALL	, P
INTEX WATER	After the fourth paragraph, add the following new Note: NOTE Test conditions and marking requirements for independent controlgear, for use with building insulation or flammable surfaces, for example when used with recessed luminaires, are under consideration.	NITEK WHITEK WHITEK WHITEK	MULTER WAS
(4.101)	Supply connection wiring	write white man was	Р
WALTEK WA	Independent lamp controlgear shall be provided with only one of the following means of connection to the LV supply.	UNITER MATER MATTER MATE	- WUTER
LIEL WALTER WALTER WALTER WALTER WATER WATER	- Means of connection	□ Device for the connection of controlgears. □ Terminals. □ Connecting lead (tails). □ Supply cord and plug. □ Adaptor for engagement with supply tracks. □ Appliance inlet or inlet plug. □ Installation coupler. □ Luminaire coupler. □ Integral pins for insertion into socket outlets.	TEK WILLER WILLER WILLER
y whitek w	In Australia, equipment with a supply cord shall be fitted with a plug complying with AS/NZS 3112 or a coupler complying with its standard. However for other than controlgear supplying portable luminaire a plug is not required if the controlgear is marked with a cord tag with the symbol for "must be installed by a licensed electrician" in accordance with AS/NZS 60598.1.	MUST BE INSTALLED BY A LICENSED ELECTRICIAN FIGURE 221 MUST BE INSTALLED BY A LICENSED ELECTRICIAN	TEL POTE
(4.102)	General	NITE WALTE WALL WALL	IN N
EK WITEK	The resistance to dust and solid object provisions of Section 9 of AS/NZS 60598.1 apply, excluding the humidity test, along with the following:	IEK WHITEK WHITEK W	TIE K WILL
WALTER	a) For independent controlgear with an IP classification greater than IP20, the tests and compliance criteria of Section 9 of AS/NZS 60598.1 shall be applied.	Whitek whitek whitek whi	NATEL

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



Reference No.: WTZ20F08056710L Page 68 of 82

	Australian deviation		
Clause	Requirement + Test	Result - Remark	Verdict
nntifik wn	b) For independent controlgear with an IC classification, the IP4X probe or IP rating tests of Clause 4.103 and compliance shall be applied.	WALTER WALTER WALTER	OF OF N
(4.103)	Ingress test for IC classified controlgear	THE MUTTE MUTE AN	N
Whitek Whitek	Solid foreign objects shall have restricted access to the hot surfaces of IC classified controlgear. The IP4X probe of AS 60529 shall be applied to the controlgear without appreciable force and shall not enter any area where the temperature of any part or surface exceeds the temperature limit for 'mounting surface: normally flammable surface' of AS/NZS 60598.1, when the surface is measured while the controlgear is operated in accordance with the thermal test conditions of Paragraph ZA1. NOTE This test is intended to ensure fine flammable insulation material or debris is unlikely to enter controlgear and cause a fire.	EX WHITEX	WALTER WALT WALTER WALT
(5)	GENERAL NOTES ON TESTS	The Mr. M.	P
(5.101)	Controlgear voltage	alife of the solies	M MP
	In Australia, for equipment other than Class III equipment, intended for connection to the a.c. supply mains, and that are not marked with: – a rated voltage of at least 240 V for single-phase equipment or a rated voltage of at least 415 V for three-phase equipment; or – a rated voltage range that includes 240 V for single-phase equipment and 415 V for three-phase equipment, The rated supply voltage and the upper limit of the voltage range is 240 V / 415 V.	EX WALTER WALT WALTER W	LIEK WILLER
(5.102)	Independent controlgear for use near or in contact with building material or insulation	THE MAN	TEK WITTEN
* TEX	Independent controlgear shall be —		t (Et - 5
Muriter An		White whitek whitek	unit unit
nliek whir	classified, marked and tested for suitability for use in contact with building materials and coverable with insulation, and classified as "IC".	NITER WHITER WHITER W	et with
(5.103)	Thermal tests for "Do-not-Cover" classified controlgear	t let liet liet	- IN IN NOTE
(5.103.1)	"Do not-Cover" controlgear, normal operation test	Mr. M. M.	N



Reference No.: WTZ20F08056710L Page 69 of 82

	Australian deviation				
Clause	Requirement + Test	Result - Remark	Verdict		
nneife van	Controlgear classified as "Do not Cover" shall be tested in accordance with the requirements of Clause 5.5.	united white united white	WN LIER		
(5.103.2)	"Do-not-Cover" classified controlgear, abnormal operation test	er unit with white	N		
Whitek W	Controlgear classified as "Do not Cover" shall be tested in accordance with the requirements of Paragraph ZA3. When the "Do not Cover" controlgear is tested in accordance with Paragraph ZA3, no temperature shall exceed —	ed white whi	NIA VANITE VALITEE		
,	- a) mounting surface (°C):	hr. mr. m. m.	N		
IE WALTE	- b) outer surface of the controlgear (°C):	TEX LIEX NITER WITER	NUN		
L et	During and after normal operation:	4	N		
While	- no damage to the controlgear such as scorching, deformation or melting	Whitek White White My	N		
INLIER OF	- no thermal protection device operate	TEX TEX LIFE DUTE	N		
20.	- no electronic control operate	ing the said to	N		
(5.104)	Thermal tests for "IC" controlgear	TEX ITEX SLIER SLIER	Ň		
	Controlgear classified as "IC" shall be tested in accordance with the requirements of Paragraph ZA3. When the "IC" controlgear is tested in accordance with Paragraph ZA3, no temperature shall exceed —	EEK WHITEK WHITEK WHITEK W	TEKN WA		
TEX	- a) the controlgear mounting surface (°C):	Limit: 90 °C	N		
TEX MUTER	- b) the lesser of t _c or 90 °C on the outside surface of the controlgear or other places accessible to the relevant test probe of Clause 4.103. (°C)	Limit: tc/90 °C	N N		
A CLIER	During and after normal operation:	at let text text	N		
TEX.	- no damage to the controlgear such as scorching, deformation or melting	mus my my m	N		
mr m	- no thermal protection device operate	intitionally was just	N		
TEX J	- no electronic control operate	at the fifth	N		
(6)	Classification	MITE WALL WALL WALL	e _n N		
(6.101)	Independent controlgear shall be classified as:	□ Do-not-cover□ IC□ Non-IC	LITE'N THE		
(7)	MARKING	A WILL WILL MALL MAL	N		
(7.1)	Language of instructions shall in English	20, 20, 3	N		



Reference No.: WTZ20F08056710L Page 70 of 82

Australian deviation				
Clause	Requirement + Test	Result - Remark	Verdict	
nneife vi	The information provided shall contain details related to components in controlgear requiring replacement as part of a maintenance program.	White white while	W W	
et whilet	FELV control terminals shall be marked with the warning symbol "Risk of electric shock".	Using Maries whites white	N STEEL WALLE	
NITEX WAL	Instructions shall be provided with controlgear that have FELV control terminals that state the following:	WILEY WILEY WILEY	INLIER WALTER	
iek white	WARNING: FELV terminals marked "Risk of electric shock" are not safe to touch.	TEX SITEX MITER WAS	TEX VALLEN VA	
MALTER	WARNING: Circuits connected to any FELV control terminal shall be insulated for the LV supply voltage of the controlgear and any terminals connected to the FELV circuit shall be protected against accidental contact.	Whitek whitek white	A NOTE OF THE STREET	
(7.101)	Controlgear classification symbol	ne me me	N	
ALTE WALTER W	Independent controlgear shall be marked with the symbol shown in the appropriate figure of this clause and the meaning explained in the instructions provided with the controlgear.	Et TEK WITER ON	of the sun	
	Controlgear classified as "Non IC" does not require to be marked.	t at the said	N N N N N N N N N N N N N N N N N N N	
	Controlgear classified as "Do not Cover" shall be marked with the symbol	The suntrest of the suntrest o		
	Controlgear classified as "IC" shall be marked with the symbol	Whitek Whitek Whitek	WALTER WALTER	
	NOTE The independent controlgear symbol and the symbol for "Do not Cover" and "IC" can be combined to be represented as shown above.	TEX MULTER MULTER MULT	iti waliti wa	
(7.102)	Additional information to be supplied with the controlgear	et united united unite	Wei N.	



Reference No.: WTZ20F08056710L Page 71 of 82

Australian deviation				
Clause	Requirement + Test	Result - Remark	Verdic	
untille vin	"Do-not-cover" and "Non-IC" classified controlgear shall be supplied with instructions and diagrams showing all dimensions for safe installation and include, as appropriate, the following:	WATER WHITEK WAITER WA	ITEL WILTER	
MALTEX W	a) The minimum clearance distance from the top and sides of the controlgear to normally flammable building elements (mm)	EX WHITEX WHITEX WHITE TEX STEX WIFEX	anis X wais	
NITEX WAL	b) If the minimum clearance distances from each side of the controlgear are different, then each minimum clearance distance shall be stated separately (mm)	NUTER MUTER MUTER	NLTEK WALTER	
t whilek	b) If there are different minimum clearance distances for various types of normally flammable building element or building insulation, then each minimum clearance distance shall be stated separately (mm)	TEX WHITEX WHITEX WHITE	ice while whi	
Whitek White	c) Where controlgear is required to be mounted on a specific surface or has additional installation requirements, the relevant information shall be supplied with the controlgear. NOTE Installation in a non-combustible enclosed space may include installation in a rebate in a concrete slab, ceiling or wall.	UNLIEK WALTER WALTER	antif whitek	
(7.103)	Independent controlgear	in Muri Muri Muri	n, N,	
	For independent controlgear not supplied with, but intended for use with, a separate lamp or light source container or head, for example, a remote mounted floodlight, the instructions supplied shall specify the independent controlgear parameters for use by the luminaire assembler.	Whitek whitek whitek	MITER WAITER	
(7.104)	Location and durability of marking	TE OUT	N N	
ek mijek	The marking required by Clause 7.101 shall be a minimum size of 5 mm × 5 mm	et let let let	t Willer N	
(7.105)	Compliance	Mr. Mr. M.	N	
WALTER W	Compliance with Clauses 7.101 to 7.104 is checked by inspection.	MITEL WALTER WALTER	WALTER WN.TE	
(10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		TEN IN	
(10.1)	For the purpose of this Clause, FELV circuits are considered a live part.	with many man and	N	
(15)	CONSTRUCTION	TER WITE WALL MAL	No. but	
(15.101)	Power factor correction capacitors		P	



Reference No.: WTZ20F08056710L Page 72 of 82

Australian deviation				
Clause	Requirement + Test	Result - Remark	Verdict	
WHILE WATER	Power factor correction capacitors incorporated into controlgear shall be not less than Type B capacitors with metal body and break action protection in accordance with IEC 61048 and AS/NZS 61049. A capacitor complying with ANCI/EIA-456-A shall comply with AS/NZS 61049 and IEC 61048:2006, excluding the endurance test.	WALTER WALTER WALTER WALTER	TELL STEELS	
White of	In addition capacitors shall have a minimum voltage rating of 250 V at temperature rating of 85 °C or 280 V at temperature rating of 100 °C.	WHITEK WHITEK WHITEK	MIT WATER	
ilek mulie Aurie	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or for voltage dividing, shall comply with IEC 60384-14.	INTER WATER WATER W	itt mitt	
(18)	RESISTANCE TO HEAT, FIRE AND TRACKING	A A A	F P	
(18.2.1)	Parts of non-metallic material shall be resistant to flame and ignition.	MULLE MULL MULL	n P	
	For materials other than ceramic, compliance is checked by the test of sub clauses 18.2.2, 18.2.3, 18.2.4 and 18.2.5 as appropriate.	MITER WALTER WALTER	anti anP	
EK WHITEK	This requirement does not apply to decorative trims, knobs, wiring insulation and other parts not likely to be ignited or to propagate flames from inside the controlgear.	EX WHITEX WHITEX WHI	ex mariex an	
WALTER	This Clause applies to all parts, including components, even if they have been tested to their own standard	Whitek whitek whitek	MUTER MUTE	
(18.2.2)	Parts of non-metallic material supporting connections shall withstand glow-wire test 750 °C.	See table (18.2.2)	nife wh	
(18.2.3)	All other parts of non-metallic material shall withstand glow-wire test 650 °C.	See table (18.2.3)	P	
(18.2.4)	During the application of the glow-wire tests of sub clauses 18.2.2 and 18.2.3, if the duration of the produced flames are ≥ 2s, the non-metallic parts that encroach within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm above the point of application of the glow wire are subjected to the needle-flame test.	See table (18.2.4)	until until	
(18.2.5)	PCBs which other than V-0 classification in controlgear shall be subject to the needle-flame test of AS/NZS 60695.11.5.	See table (18.2.5)	E NITE PIN	
	The needle flame is applied to one test sample for 30 s to an edge of the PCB at least 10 mm from a corner.	MULTER WALTER WALTER	Mur, Aur,	



Reference No.: WTZ20F08056710L Page 73 of 82

t TEX	Austra	lian deviation	TEX JEY
Clause	Requirement + Test	Result - Remark	Verdict

Glow wire temperature	Glow wire temperature: 750°C				
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
PCB	See Annex 1	WILL MULIN WILL	100 10	Р	
Bobbin	See Annex 1	N N	<0 <	P	
Insulation tape	See Annex 1	nii wi Nin	0	Р	
Plastic enclosure	See Annex 1	A NAT	JE 0 JE	P	
	sample extinguished within 30 s drop did not ignite the underlying			Yes	

(18.2.3)	TABLE	E: Glow-wire test (AS/NZ	S 60695.2.11)			Р
Glow wire	tempera	ature	: 650°C	TEX TEX	LIEK NITE	ALCO CO
Object/ Pa Material	rt No./	Manufac tradem		Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Plastic end	closure	See Ann	nex 1	N	0 -	P
Insulation	tape	See Ann	nex 1	N'N MIT	ne O'un	P.II
		ng of the sample extinguish molten drop did not ignite				Yes
Suppleme	ntary info	rmation:	MUL MUL	111, 111,	at at	LEX.
(18.2.4)	TABLE	E: Needle-flame test (AS/	NZS 60695.11.5)	ALI JIE	ALTE WALTE	JIL P
Object/ Pa Material	rt No./	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
PCB	WITE.	See Annex 1	10	N (0	P
Suppleme	ntary info	rmation:	LIER WILL WALL	Mr. Mr.	1112 111	723.
(18.2.5)	TABLE	E: Needle-flame test (AS/	NZS 60695.11.5)	TEX TEX	ALTEK OLTE	Р
Object/ Pa Material	rt No./	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
PCB	LIEN	See Annex 1	10	N	3.0	AP.
Bobbin	Miss	See Annex 1	10	N'N WILL	n On	Pill
Suppleme	ntary info	rmation:	ing my m	* * *	At A	EX I
APPENDIZ ZA	X THEF	RMAL TEST PROCEDURI	E FOR INDEPENDE	NT CONTROLGI	EAR	N



Reference No.: WTZ20F08056710L Page 74 of 82

TER	Australian deviation		- TEX IE
Clause	Requirement + Test	Result - Remark	Verdict
ZA1	GENERAL	Liet aliet miet	UNLIEK WALTER
LIEK WALT	For the purposes of this Appendix, the requirements of Clause 12 of AS/NZS 60598.1 apply, with the following modifications and additions:	TIER MUTER MUTER M	LIET BRITING
VILLER	- (a) Independent controlgear shall be energized at 0.94 or 1.06 times the rated voltage, whichever produces higher temperatures	et unit unit unit	WA NA
41, 1	- (b) total duration (h)	MUTI MUTI MUTI	1/11 12
NITER ON	- (c) mounting-position:	LEK TEK TEK	LITE N'N
iek lie	- (d) The internal surfaces shall be painted matt black.	We are the	N TEL N
y witer	Temperature measurements are conducted in accordance with Annex K of AS/NZS 60598.1 on the hottest points.	TEX LIEX NIE	x mirex mair
ZA2	TEST BOX	Mr. Mr. Mr.	N
	A test box, consisting of a mounting surface on top of which is a rectangular box with vertical sides and a top, shall be constructed as specified.	inlies unlies unlies.	white why
ex when	- (a) The mounting surface shall be made of 15 mm - 20 mm thick porous wood fibre board.	the mile mile m	Er witer m
WALTER V	- (b) The vertical sides and top of the test box shall be made of 15 mm - 20 mm thick porous wood fibre board.	t lifet with white	MALTER MALTER
MITEK WAITER	- (c) The dimensions of the test box shall be a minimum of 450 mm wide x 450 mm long x 300 mm high and shall maintain a minimum horizontal distance of 75 mm from the sides and ends of the controlgear to the sides of the test box, and the minimum vertical distance of 75 mm from the top of the controlgear to the underside of the test box top when placed in accordance with Clause ZA3.2.	THE WALTER WALTER WALTE	unitek unitek un
whi. w	(d) The internal surfaces shall be painted matt black.	Whitek whiteh white	muri mur.
nite whi	Test box shall be supported or suspended in a draught-proof enclosure in accordance with AS/NZS 60598.1, Annex D.	WILEK MUTEK MUTEK M	nice incin
ZA3	CONTROLGEAR TEST PROCEDURE FOR "DO NOT COVER—ABNORMAL OPERATION" AND IC (ALL SITUATIONS)	TER WALLE WALL WALL	L I L LIE
ZA3.1	General	White white white	n N



Reference No.: WTZ20F08056710L Page 75 of 82

	Australian deviation		
Clause	Requirement + Test	Result - Remark	Verdict
Jet L	LET THE STE WITH MALE THE THE	1 1	at let
unt. vin Lifex vinti Ex vintex	This test procedure is for both 'Do not Cover—abnormal operation' and IC controlgear. It assesses the suitability of the control gear to abut normally flammable materials, as specified in the installation instructions, and be covered by insulation, inadvertently (do not cover—abnormal operation) or by intent (IC all situations).	White white white wh	TEX WITEX W
ZA3.2	Test set-up	In the	- N
wir. 2	The controlgear under test is placed in the centre of the test box.	white white while	an' N
inere mure	Thermal insulation is then added to the test box to completely fill the test box. The insulation is pushed around the controlgear to form a close fit to the sides and top without compression.	uniter whiter whiter w	ir N
X WALTEX	The type of thermal insulation is formed insulation where 200 mm is equivalent to an RI 4.0 classification in accordance with AS/NZS 4859.1.	united whitely united	white white
wnitek w	Thermocouples attached to the controlgear (on accessible surfaces, in accordance with the specified classification and access probe), controlgear mounting surface, and any thermal insulation in the most unfavourable positions.	TEX TEX WITEX	WATER WATER
at at	The test box shall have its top added and sealed.	711 211	L KN
whitek whitek	The test set-up is shown in Figure ZA2.	CLI LIFE WHITE WHI	white white hites
, Mr.	Independent controlgear installed as per installation instructions	in in the	4 4



Reference No.: WTZ20F08056710L Page 76 of 82

	Australian deviation		
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 8	VARIATIONS TO IEC 61347-2-13:2014+A1:20 ZEALAND AS 61347.2.13:2018	16 FOR AUSTRALIA/NEW	WP
4	GENERAL REQUIREMENTS	UNITED WALTER WALTER WALTER	Р
EK WALTER.	Where the controlgear has accessible outputs, the controlgear shall be SELV output and conform with Annex I.	LEK MUTER MUTER A	IN THE PART

8	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PA	ARTS P
الل الما	Delete text and replace with the following:	WILL WILL WALL
iek whi	The requirements of Clause 10 of IEC 61347-1 apply except that the text of Clause 10.4 shall be deleted and replaced with the following:	TEK WALTER WITE
MULER	Output circuits of SELV controlgear with accessible outputs shall not exceed 25 V r.m.s. or 60 V d.c. ripple-free d.c. under load except as indicated below.	WALTER WALTER OF PARTY OF THE P
M V	If the voltage exceeds 25 V r.m.s. or 60 V ripple- free d.c. the touch current shall not exceed: - for a.c.: 0,7 mA (peak); - for d.c.: 2,0 mA; the no-load output voltage ≤ 33 √2 V peak or 60 V d.c. ripple-free d.c.	WILLER WHILER WILLER
CLIER	- touch current	TEL NO
43.	- no-load voltage	N N
nlife. W	Insulated terminals if convertor with rated output voltage > 25 V or 60 V d.c. ripple-free d.c.	until until un N
iek war	One capacitor Y1 or two capacitors Y2 complying with IEC 60384-14 of the same values used in series between SELV or SELV-equivalent output and primary circuits	THE WALLES OF P
WILLER.	Other components bridging the separating transformer complying with IEC 60065, clause 14	METER NETE MET
21	After the first sentence, add the following:	P
EX WILL	For SELV controlgear, the voltage at the output terminals shall not exceed the SELV limits of Clause 10.4 of IEC 61347-1 as modified by Clause 8 of this Standard (AS 61347.2.13:2018).	TEX WILEY WILEY



Reference No.: WTZ20F08056710L Page 77 of 82

t TEX	IEC 62031	1 t at at	TEX J
Clause	Requirement + Test	Result - Remark	Verdic
ANNEX 9	LED modules for general lighting – Safety specifi IEC 62031:2018	cations	ni un p
4	GENERAL REQUIREMENTS	White write was	Р
4.4	Integral modules treated as part of luminaires defined in clause 0.5 of IEC 60598-1	E WALTER WALTER WALTE	wat Pat
4.5	Independent modules complies with requirements in IEC 60598-1	SLIEN WILER MUTER	WALLE WALLE
	of the the life with me in		* *
5	GENERAL TEST REQUIREMENTS	LIEX MITEL MITEL IN	
5.5	SELV-operated LED modules comply with Annex I of IEC 61347-2-13	(see Annex 1)	EL OFFIN
	General conditions for tests in Annex A	(see Annex A)	N
NALIE.	anti mit mi	ITEX SITEX MITE	INLIE WAL
6	CLASSIFICATION	Mr. Mr. W.	* * *
Write W	Built-in module:	Yes □ No ⊠	WITE WALL
it is	Independent module:	Yes □ No ⊠	A
NIT WALL	Integral module:	Yes ⊠ No □	11 NU-1
IEK WALTEK	For Integral module; Note to 1.2.1 in IEC 60598-1 applies.	ex liex aliex mil	EX NO EX-
7 102	MARKING	M W	N N
'n 2	Requirements not applicable to the evaluated produc	Harry Mar Aller	7/11 /2/2
WILL NO	Trequiremente net applicable to the evaluated product		ULLER NOTES
8	TERMINALS	"T, b "M, M	L N
LIE WALTE	Screw terminals according section 14 of IEC 60598-1:	1111	N N
<u> </u>	Separately approved; component list	(see Annex 2)	- N
White.	Part of the luminaire	(see Annex 3)	N N
Alt .	Screwless terminals according section 15 of IEC 6059	1, 77, 72,	NO NO
Mr. n	Separately approved; component list	(see Annex 2)	W N
All S	Part of the luminaire	(see Annex 4)	AL AN
ing the	Connectors according IEC 60838-2-2:	MIENNIE WAIT W	N
TEX OLIE	Separately approved; component list	(see Annex 2)	N. S. N.
10	It got get night might which was	mur mr m	20, 0
9 (9)	PROVISION FOR PROTECTIVE EARTHING	t get get age	N.T.
	Requirements not applicable to the evaluated produc	it. who was	



Reference No.: WTZ20F08056710L Page 78 of 82

		IEC 62031		
Clause	Requirement + Test	TEX SLIFER IN	Result - Remark	Verdict

10 (10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS	W N
Let Le	Requirements not applicable to the evaluated product.	1 to 1

11 (11)	MOISTURE RESISTANCE AND INSULATION		P C
- Ex			P
MULL	For basic insulation $\geq 2 \text{ M}\Omega$	100ΜΩ	ΝP
LEX.	For double or reinforced insulation $\geq 4~\text{M}\Omega$:	The second second	N
TEX MIT	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	et tet itet i	W N

12 (12)	ELECTRIC STRENGTH	TEX TEX STEE ONTE	P
CER	Immediately after clause 11 electric strength test for 1 min	Mr. Mr. Mr. JER	P
111 1	Basic insulation for SELV, test voltage 500 V	WILL MUT MUT MY	N
LIEK N	Working voltage ≤ 50 V, test voltage 500 V	LET TEX TEX STER OF	N
	Working voltage > 50 V ≤ 1000 V, test voltage (V):	mr. mr. m.	N
IET WITE	Basic insulation, 2U + 1000 V	t tex tex stex stex with	Р
, t	Supplementary insulation, 2U + 1000 V	Mr. M. M.	N
WITE	Double or reinforced insulation, 4U + 2000 V	TEX SITEX OUTER MALT	N
, +	No flashover or breakdown	Mr. M. M.	P
NUTT W	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	THE WALTER WALTER OF	N

13 (14)	FAULT CONDITIONS	P III
- (14)	When operated under fault conditions the controlgear:	Р
LIEK	- does not emit flames or molten material	P
711.	- does not produce flammable gases	Р
SLIFEK N	- protection against accidental contact not impaired	P
er v	Thermally protected controlgear does not exceed the marked temperature value	N
* WUTER	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	P



Reference No.: WTZ20F08056710L Page 79 of 82

	IEC 62031		
Clause	Requirement + Test	Result - Remark	Verdict
- LEX	THE STATE WALL SHALL THE TOTAL THE TANK		TEX TEX
- (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)	inite anite with an	THE TIEF
ek wite	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3	the main many was	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 AST
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table)	N
- (14.5)	After the tests has been carried out on three samples		P
M	The insulation resistance \geq 1 M Ω :	100 ΜΩ	7/ P.//
y JEK	No flammable gases	at let tet	P
n,	No accessible parts have become live	White Aut Aut	Р
WALTER	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite	WITER WITER WAITER W	LIE NA PET
- (14.6)	Relevant fault condition tests with high-power supply		et set
13.2	Module withstands overpower condition >15 min.	LIE WALL WALL WALL	P o
EX WALTE	Module with automatic protective device or power limiter, test performed 15 min. at limit.	* NITER WITER WAITER	AL THE MAN
MITEK	During the tests, tissue paper, spread below module, does not ignite	TEX TEX LIEX	ALTE ANTE

15	CONSTRUCTION	TE NITER MALTER	un'P u
, L , X	Wood, cotton, silk, paper and similar fibrous material		Р
LIE. NITE	not used as insulation	TEX LITER	الله المال

16	CREEPAGE DISTANCES AND CLEARANCES	Palit
	Creepage and distances and clearances in compliance with IEC 60598-1	Р

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

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



Reference No.: WTZ20F08056710L Page 80 of 82

	IEC 62031		
Clause	Requirement + Test	Result - Remark	Verdict
	and write write white wat we		THE THE
1/2 1/2	- part tested; temperature (°C):		n n
(18.2)	Test of printed boards		A N
ir. Mus	- part tested:	or the marie and	N N
(18.3)	Glow-wire test (650°C):		* CLN
2112	- part tested	II - WILL MULL MULL	ALL N
(18.4)	Needle flame test (10 s):	L it let let	TE NE
111.	- part tested:	" " MULL MULL	w N
(18.5)	Tracking test:	et let let	JEST N
11 20	- part tested:	" The Mar of	N

19 (19)	RESISTANCE TO CORROSION	The Mr. Mr. And A.	N
IN LIE	Rust protection:	TEX LIER NITER ONLY	N
7	- test according 4.18.1 of IEC 60598-1	The The Me	N
WITE	- adequate varnish on the outer surface	TEX STER STIFF SMITE	N.

4	20	INFORMATION FOR LUMINAIRE DESIGN	n N w
	ct ct	Information in Annex D	-EX X

21	HEAT MANAGEMENT	+ N
21.1	General	LU MU M
18th	Exchangeability is safeguarded by cap or base	N. N.
21.2	Heat-conducting foil and paste	IN IN A
LIEK	Heat-conducting foil delivered with the module if necessary	- WITCH WITCH
21.4	Construction	L N
MUL	Electrical connection and mechanical holding are separate	min my No

22	Photobiological safety	in My Mills	P
22.1	UV radiation	t tex citex witer one	IN NUM
22.2	Blue light hazard	M. M. M.	Р
The Wal	RG at 200 mm according to IEC/TR 62778	RG0 unlimited	W Pur
22.3	Infrared radiation	Mr. Co. T. St.	, N



Reference No.: WTZ20F08056710L Page 81 of 82

t JEX	IEC 62031	TEX JE
Clause	Requirement + Test Result - Remark	Verdict
Accept May	ANNEX A - TESTS	U P
LIEK NALTE	All tests performed in accordance with the advice given in Annex H of IEC 61347-1, if applicable	P

1	MILITER	ANNEX 1 - SELV-operated LED modules	Non		
	×	SELV-operated LED modules in compliance with Annex I of IEC 61347-2-13			





Reference No.: WTZ20F08056710L				Page 82 d					
t let	LIEK OU	EFTINITE	WILLIAM	IEC 624	71	- L		et s	IF TEN
Clause	Requireme	ent + Test	et .	cet liet wife F		Result - Remark			Verdict
**************************************	THE TEN	Nille			, , , <u>, , , , , , , , , , , , , , , , </u>		}	*	TEXT .
Annex 10	Photob	iological	safety (IEC 6	524/1:2006	-m-	"LA			
Emission lin α=0.11rad	nits for risk	groups of	continuous w	vave lamps	LIEK N	TEX WITEX	NALTER	WALTER W	NIT P W
et tex	Action spectrum	Symbol	Units	Emission Measurement					CEX I
Risk				Exempt		Low risk		Mod risk	
TEX				Limit	Result	Limit	Result	Limit	Result
Actinic UV	S _{UV} (λ)	Es	W•m⁻²	0.001	4.0e-05	0.003	-1/1/2	0.03	- N
Near UV	MUT	Euva	W•m⁻²	10	1.0e+00	33	WILLE	100	write a
Blue light	Β(λ)	LB	W•m⁻²•sr⁻¹	100	2.1e+01	10000	CLIFE'S	4000000	LIEK-WA
Blue light, small source	Β(λ)	E _B	W•m⁻²	1.0*	7 - 10 1/2	1,0	TE L	400	y Wille
Retinal thermal	R(\lambda)	L _R	W•m ⁻² •sr ⁻¹	28000/α	3.2e+03	28000/α	14 <u>-</u> 1711	71000/α	WILLER
Retinal thermal, weak visual stimulus**	R(λ)	Lir	W•m ⁻² •sr ⁻¹	6000/α	riet.	6000/α	WALTEK ALTEK	6000/α	Priek AN
IR radiation, eye	EX VALL	E _{IR}	W•m⁻²	100	0.0e+00	570	iek -un	3200	VALTER VALTER
			ne with α < 0 -GLS source	,011 radian	. Averagir	ng field of vie	w at 100	00 s is 0,1	radian.

Assessment:	L LX	1	TEL	ALTER A	LIE N
Lamp classification group exempt⊠	risk 1□	risk 2	risk 3□		

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

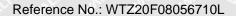






Photo Documentation

Model: EOL.CE.SU20-36

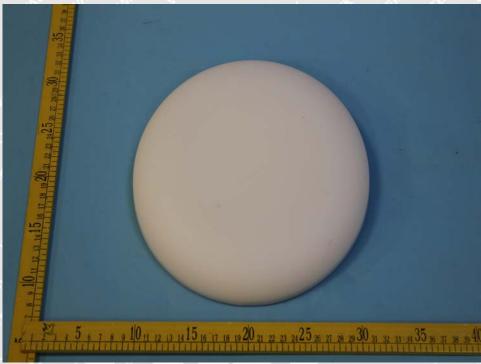


Photo 1

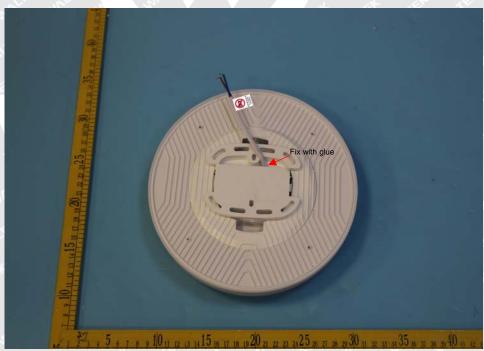


Photo 2

Page 2 of 6





Photo 3



Photo 4

Page 3 of 6





Photo 5

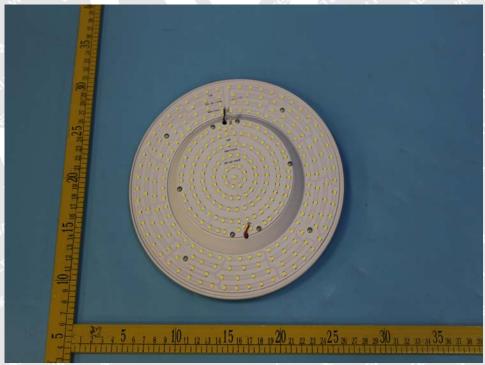


Photo 6

Page 4 of 6





Photo 7

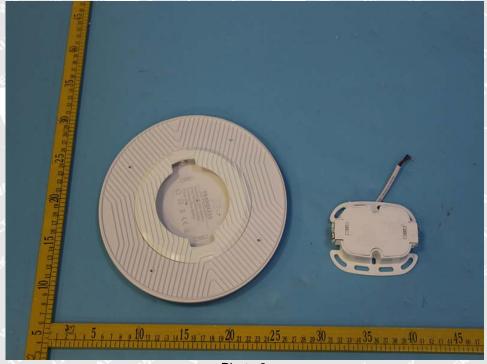


Photo 8

Page 5 of 6



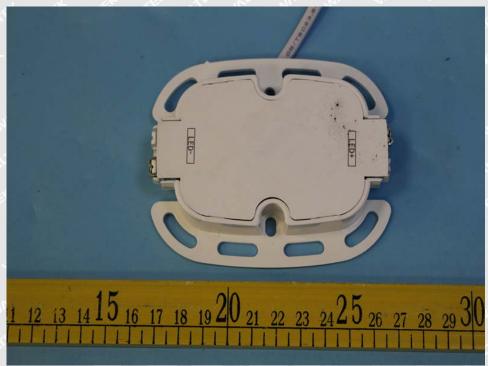


Photo 9

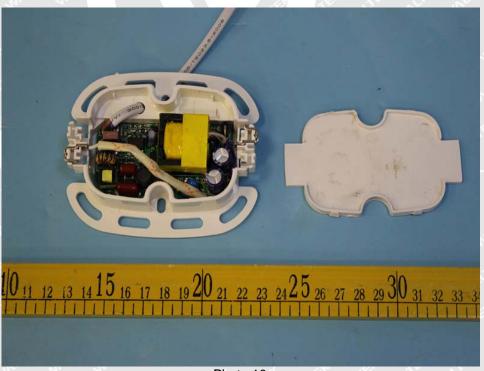


Photo 10

Page 6 of 6

W

Photo Documentation

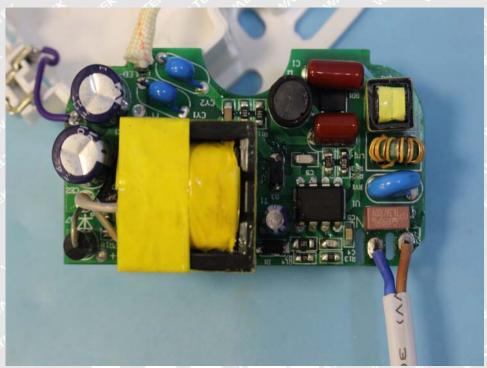


Photo 11



Photo 12

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