

DENEY RAPORU
TEST REPORT

AB-1374-T

2021-PTC-
0882-2

05-21

Müşteri Adı / Adresi:
Customer name / address

YAKOPS BİLİŞİM SAN. VE TİC. LTD. ŞTİ.
Yunus Emre Mah. Yunus Emre Bulvarı Kat:4 No: 49/A Sultangazi / İSTANBUL

İstek Numarası
Order No.

2021-PTC-0882

Numunenin adı ve tarifi
Name and identity of test item

ŞARJLI MASA LAMBASI / CHARGING TABLE LAMP

Numunenin kabul tarihi
The date of receipt of test item

06.04.2021

Açıklamalar
Remarks

Ürün ilgili testlerden geçmiştir, lütfen raporu inceleyiniz.
The product passes related tests, see report below.

Deneyin yapıldığı tarih
Date of Test

07.04.2021 - 22.04.2021

Raporun Sayfa Sayısı
Number of pages of the Report

39

Deney laboratuvarı olarak faaliyet gösteren **PTC Ürün Test ve Belgelendirme San. Tic. Ltd. Şti.**, TÜRKAK'tan AB-1374-T akreditasyon dosya numarası ile **TS EN ISO IEC 17025:2017** standardına göre akredite edilmiştir.
PTC Ürün Test ve Belgelendirme San. Tic. Ltd. Şti. accredited by TÜRKAK under registration number AB-1374-T accreditation file no for **TS EN ISO IEC 17025:2017** as test laboratory"
Türk Akreditasyon Kurumu(TÜRKAK) deney raporlarının tanınırlığı konusunda **Avrupa Akreditasyon Birliği(EA)** ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği(ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.
Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports
Deney ve /veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metotları bu sertifikanın tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir.
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.



Deneyi Yapan Personel
Person in Performing the Test

Emine Nur ÇİDEM

Deney Sorumlusu
Person in Charge of Test

Muhammed Emin
COŞKUN

Laboratuvar Teknik
Yöneticisi
Laboratory Technical
Manager

Murat ÇİTİL

DENEY RAPORU / TEST REPORT

PTC Ürün Test ve Belgelendirme San. Tic. Ltd. Şti.
Aydınlı Mah. Patlayıcı Maddeler Yolu Cad. Beyoğlu Sanayi Sitesi. D1 Blok No:26 Tuzla/İstanbul-Turkey
Tel:+90 216 225 03 41 e-mail:info@ptctesting.com web: www.ptctesting.com

	PTC ÜRÜN TEST VE BELGELENDİRME SAN. TİC. LTD. ŞTİ DENEY RAPORU TEST REPORT	<table><tr><td>AB-1374-T</td></tr><tr><td>2021-PTC-0882-2</td></tr><tr><td>05-21</td></tr></table>	AB-1374-T	2021-PTC-0882-2	05-21
AB-1374-T					
2021-PTC-0882-2					
05-21					
Deney Standardı / Test Standard: TS EN 60598-2-4 Aydınlatma armatürleri-Bölüm 2:Özel kurallar-Kısım 4:Genel amaçlı, taşınabilir / Luminaires-Part 2:Particular requirements-Section 4:Portable General purpose Luminaires					
Akreditasyon Kapsamında Uygulanan Deneyler <i>List of Tests applied under Accreditation Scope:</i>	Akreditasyon Kapsamı Dışında Uygulanan Deneyler <i>List of Tests not applied under Accreditation Scope:</i>				

- 4.5(3.4) İşaretleme Deneyi / Durability
- 4.6(4.12.4) Tork Testi / Torque Test
- 4.6(4.13.1) Mekanik Dayanım Darbe Testi / Impact Test
- 4.6.3 Denge Kararlılığı Testi / Stability Test
- 4.10.1(5.2.10.3) Kablo Çekme deneyi/ Cable Pull test
- 4.11(8.2.5) Elektrik Çarpmasına Karşı Koruma /
Protection Against Electric Shock
- 4.12(12.3.1) Dayanıklılık Deneyi/Endurance Test
- 4.12(12.4.1) Isıl Deney(Normal Çalışma)/
Thermal Test(Normal Operation)
- 4.13(9.2) IP Testi/ IP Test
- 4.13(9.3) Nem Deneyi / Humidity Test
- 4.14(10.2.1) Yalıtım Direnci / Insulation Resistance Test
- 4.14(10.2.2) Elektriksel Dayanım / Electric Strength Test
- 4.14(10.3) Dokunma Akımı/Touch Current Test
- 4.15(13.2.1) Bilye Basmıç Deneyi/ Ball-Pressure Test
- 4.15(13.3.1) İğne Alevi Deneyi / Needle Flame Test
- 4.15(13.3.2) Kızaran Tel Deneyi/ Glow Wire Test

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DENEY RAPORU / TEST REPORT
TS EN 60598-1 TS EN 60598-2-4

Rapor Numarası <i>Report number</i>	: 2021-PTC-0882-2
Veriliş Tarihi <i>Date of issue</i>	: 03.05.2021
Toplam Sayfa Sayısı <i>Total number of pages</i>	: 39
Deneyi Yapan Laboratuvar <i>Testing Laboratory</i>	: PTC ÜRÜN TEST VE BELGELENDİRME
Adres <i>Address</i>	: Aydınli Mah. Patlayıcı Maddeler Yolu Cad. Beyoğlu Sanayi Sitesi D1 Blok No.26 Aydınli-TUZLA/İSTANBUL
Deney Adresi <i>Testing Location</i>	: Aydınli Mah. Patlayıcı Maddeler Yolu Cad. Beyoğlu Sanayi Sitesi D1 Blok No.26 Aydınli-TUZLA/İSTANBUL
Başvuranın Adı <i>Applicant's name</i>	: YAKOPS BİLİŞİM SAN. VE TİC. LTD. ŞTİ.
Adresi <i>Address</i>	: Yunus Emre Mah. Yunus Emre Bulvarı Kat:4 No: 49/A Sultangazi / İSTANBUL
Deney Ayrıntıları <i>Test Specifications</i>	
Standard	: TS EN 60598-2-4 ; TS EN 60598-1/Nisan 2015
Deney Prosedürü <i>Test procedure</i>	: Uygunluk Testi / <i>Compliance Test</i>
Standard Dışı Deney Yöntemi <i>Non-standard test method</i>	: -
Deney Raporu Form No <i>Test report form no</i>	: PR.20-RP.04
Deney Rapor Form(ları) Oluşturan <i>Test report form(s) originator</i>	: PTC
Ana TRF <i>Master TRF</i>	: 2018-01
Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metotları bu sertifikanın tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir. Bu rapor laboratuvar gönderilen numunelere uygulanan deney/deneyler sonucu hazırlanmıştır. Müşteriye ait diğer numuneleri kapsamaz. <i>The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report. This report was prepared according to test results of specimens sent to laboratory. It doesn't contain other specimens belonging to customer.</i>	
Deney Numunesi Açıklaması <i>Test item description</i>	: ŞARJLI MASA LAMBASI / <i>CHARGING TABLE LAMP</i>
Marka <i>Trade Mark</i>	: 17 AYDINLATMA
Üretici <i>Manufacturer</i>	: YAKOPS BİLİŞİM SAN. VE TİC. LTD. ŞTİ.
Model/Tip <i>Model /Type reference</i>	: KABLOSUZ ŞARJ EDİLEBİLİR PİLLİ MASA LAMBASI
Beyan Değerleri <i>Ratings</i>	: 5/12 V DC ; 50/60 Hz

Bu rapor, Laboratuvarımızın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.
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DENEY RAPORU / TEST REPORT

PTC Ürün Test ve Belgelendirme San. Tic. Ltd. Şti.

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Dok.No: PR.20-RP.01 / Rev.Tarihi: 30.03.2021 / Rev. No: 03

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Ek Dosya Listesi (Eklerin içerdiği sayfa sayısı dahil) :

List of attachments (including a total number of pages in each attachment) :

Ek.1 / Attachment.1 - Ölçüm Cihazları / Measuring Equipments

Ek.2 / Attachment.2 - Görsel Dökümanlar / Photo Documentation

Deney Özeti / Summary of testing : Uygulanan deneyler aşağıdaki listede verilmiştir. / The applied tests are in the list below

Gerçekleştirilen testler (test adı ve test maddesi)

ITests performed (name of test and test clause):

- 4.5(3.4) İşaretleme Deneyi / Durability
4.6(4.12.4) Tork Testi / Torque Test
4.6(4.13.1) Mekanik Dayanım Darbe Testi / Impact Test
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4.15(13.3.1) İğne Alevi Deneyi / Needle Flame Test
4.15(13.3.2) Kızaran Tel Deneyi/ Glow Wire Test

Test yeri / Testing location:

Aydınlı mah.Patlayıcı Maddeler Yolu
Cad. Beyoğlu Sanayi Sitesi D1 Blok
No.26 Aydınlı-TUZLA/İSTANBUL

DENEY RAPORU / TEST REPORT

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Dok.No: PR.20-RP.01 / Rev.Tarihi: 30.03.2021 / Rev. No: 03

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Etiket plakasının kopyası / Copy of marking plate:

Üretici / Manufacturer	Yakops Bilişim San. Ve Tic. Ltd.Şti.
Adres / Address	Yunusemre Mah. Yunusemre Bulvarı No:49A 34260 Sultangazi – İstanbul
Ürün / Product	Şarjlı Masa Lambası
Marka / Brand	17 Aydınlatma
Model / Type	Kablosuz Şarjedilebilir Pili Masa Lambası
Çalışma Gerilimi / Working Voltage	5/12Volt 1 Amper
Frekans / Frequency	50/60Hz
Üretim yılı / Year of Production	2021
Made in Turkey 	

DENEY RAPORU / TEST REPORT

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Deney Numunesinin Ayrıntıları.....: <i>Test item particulars</i>	ŞARJLI MASA LAMBASI / CHARGING TABLE LAMP
Kurulum ve kullanım sınıflandırması.....: <i>Classification of installation and use</i>	Sınıf III / Class III
Besleme Bağlantısı.....: <i>Supply Connection</i>	Besleme Kablosu / Supply Cord
Olası Deney Durumu Kararları/ Possible test case verdicts:	
- deney durumu deney numunesi için geçerli değildir...: <i>test case does not apply to the test object</i>	N/A
- deney numunesi gereksinimi karşılıyor.....: <i>test object does meet the requirement</i>	P (Pass / Geçti)
- deney numunesi gereksinimi karşılamıyor.....: <i>test object does not meet the requirement</i>	F (Fail / Kaldı)
-deney akreditasyon kapsamında bulunmamaktadır...: <i>test not within the scope of the accreditation</i>	O/S (Out of Scope / Kapsam Dışı)
Deney / Testing :	
Numunenin Alındığı Tarih/ : <i>Date of receipt of test item</i>	06.04.2021
Test(ler)in Gerçekleştirilme Tarihi..... : <i>Date (s) of performance of tests</i>	07.04.2021 - 22.04.2021
Genel Açıklamalar / General Remarks	
Bu raporda sunulan test sonuçları yalnızca test edilen nesneyle ilgilidir. Bu rapor, yayınlayan test laboratuvarının yazılı onayı olmaksızın tamamen veya kısmen çoğaltılamaz. "(Bakınız Kutu #)" rapora eklenen ek bilgilere işaret etmektedir. "Ekli tabloya bakınız", rapora eklenen bir tabloya atıfta bulunmaktadır. Parantez içerisindeki madde numaraları, ilgili deney standardında geçen maddelere karşılık gelir. The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Bu rapor boyunca ☐ nokta / ☒ virgül ondalık ayracı olarak kullanılır. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Genel Ürün Bilgileri / General Product Information:	
Numune 5/12 V DC gerilimle çalışmaktadır. / The sample is operating at 5/12 V DC voltage.	

DENEY RAPORU / TEST REPORT

TS EN 60598-1 & TS EN 60598-2-4

Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.2 (0)	GENERAL TEST REQUIREMENTS		P
4.2 (0.1)	Information for luminaire design considered	Standard Yes ☒ No ☐	-
4.2 (0.3)	More sections applicable	Yes ☒ No ☐	-

4.4 (2)	CLASSIFICATION		P
4.4 (2.2)	Type of protection	Class III	P
4.4 (2.3)	Degree of protection	IP 20	P
4.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☐ No ☒	-
4.4 (2.5)	Luminaire for normal use	Yes ☒ No ☐	-
	Luminaire for rough service	Yes ☐ No ☒	-

4.5 (3)	MARKING		P
4.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
4.5 (3.3)	Additional information		P
	Language of instructions		P
4.5 (3.3.1)	Combination luminaires		N/A
4.5 (3.3.2)	Nominal frequency in Hz		P
4.5 (3.3.3)	Operating temperature		N/A
4.5 (3.3.4)	Symbol or warning notice		N/A
4.5 (3.3.5)	Wiring diagram		N/A
4.5 (3.3.6)	Special conditions		N/A
4.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
4.5 (3.3.8)	Limitation for semi-luminaires		N/A
4.5 (3.3.9)	Power factor and supply current		N/A
4.5 (3.3.10)	Suitability for use indoors		N/A
4.5 (3.3.11)	Luminaires with remote control		N/A
4.5 (3.3.12)	Clip-mounted luminaire – warning		N/A

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TS EN 60598-1 & TS EN 60598-2-4

Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
4.5 (3.3.13)	Specifications of protective shields		N/A
4.5 (3.3.14)	Symbol for nature of supply		N/A
4.5 (3.3.15)	Rated current of socket outlet		N/A
4.5 (3.3.16)	Rough service luminaire		N/A
4.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
4.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
4.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
4.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
4.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided		N/A
	Cautionary symbol		N/A
4.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
4.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

4.6 (4)	CONSTRUCTION		P
4.6 (4.2)	Components replaceable without difficulty		N/A
4.6 (4.3)	Wireways smooth and free from sharp edges		P
4.6 (4.4)	Lampholders		N/A
4.6 (4.4.1)	Integral lampholder		N/A
4.6 (4.4.2)	Wiring connection		N/A
4.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
4.6 (4.4.4)	Positioning		N/A
	- pressure test (N)		N/A
	After test the lampholder comply with relevant standard sheets and show no damage		N/A

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TS EN 60598-1 & TS EN 60598-2-4

Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N)		N/A
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
4.6 (4.4.5)	Peak pulse voltage		N/A
4.6 (4.4.6)	Centre contact		N/A
4.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
4.6 (4.4.8)	Lamp connectors		N/A
4.6 (4.4.9)	Caps and bases correctly used		N/A
4.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
4.6 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
4.6 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
4.6 (4.7)	Terminals and supply connections		N/A
4.6 (4.7.1)	Contact to metal parts		N/A
4.6 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
4.6 (4.7.3)	Terminals for supply conductors		N/A
4.6 (4.7.3.1)	Welded method and material		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.8.2		N/A
	- electrical test according to 15.9		N/A
	- heat test according to 15.9.2.3 and 15.9.2.4		N/A

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TS EN 60598-1 & TS EN 60598-2-4

Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
4.6 (4.7.4)	Terminals other than supply connection		N/A
4.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
4.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
4.6 (4.8)	Switches		P
	- adequate rating		N/A
	- adequate fixing		P
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
4.6 (4.9)	Insulating lining and sleeves		P
4.6 (4.9.1)	Retainment		N/A
	Method of fixing		N/A
4.6 (4.9.2)	Insulated linings and sleeves:		P
	Resistant to a temperature > 20 °C to the wire temperature or		P
	a) & c) Insulation resistance and electric strength		P
	b) Ageing test. Temperature (°C)		N/A
4.6 (4.10)	Double or reinforced insulation		P
4.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		P
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
4.6 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
4.6 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A

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TS EN 60598-1 & TS EN 60598-2-4

Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	- lining in lampholder		N/A
4.6 (4.11)	Electrical connections and current-carrying parts		N/A
4.6 (4.11.1)	Contact pressure		N/A
4.6 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
4.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
4.6 (4.11.4)	Material of current-carrying parts		N/A
4.6 (4.11.5)	No contact to wood or mounting surface		N/A
4.6 (4.11.6)	Electro-mechanical contact systems		N/A
4.6 (4.12)	Screws and connections (mechanical) and glands		N/A
4.6 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part		N/A
	Torque test: torque (Nm); part		N/A
	Torque test: torque (Nm); part		N/A
4.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
4.6 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)		N/A
	- lampholder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm		N/A
4.6 (4.12.5)	Screwed glands; force (Nm) :		P
4.6 (4.13)	Mechanical strength		P
4.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)	0,35 J	P
	- other parts; energy (Nm)	0,50 J	P
	a) live parts		P
	b) linings		N/A
	c) protection		P

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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	d) covers		P
4.6 (4.13.3)	Straight test finger		P
4.6 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
4.6 (4.13.6)	Tumbling barrel		N/A
4.6 (4.14)	Suspensions, fixings and means of adjusting		N/A
4.6 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
4.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		N/A
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire		N/A
4.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
4.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A

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4.6 (4.14.5)	Guide pulleys		N/A
4.6 (4.14.6)	Strain on socket-outlets		N/A
4.6 (4.15)	Flammable materials		P
	- glow-wire test 650°C..... :	See Test Table 4.15 (13.3.2)	P
	- spacing 30 mm		P
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
4.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
4.6 (4.16)	Luminaires for mounting on normally flammable surfaces		N/A
	No lamp control gear	(compliance with Section 12)	N/A
4.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
4.6 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
4.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
4.6 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
4.6 (4.18)	Resistance to corrosion		N/A
4.6 (4.18.1)	- rust-resistance		N/A
4.6 (4.18.2)	- season cracking in copper		N/A

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4.6 (4.18.3)	- corrosion of aluminium		N/A
4.6 (4.19)	Igniters compatible with ballast		N/A
4.6 (4.20)	Rough service vibration		O/S
4.6 (4.21)	Protective shield		N/A
4.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
4.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
4.6 (4.21.3)	No direct path		N/A
4.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment	See Test Table 4.15 (13.3.2)	N/A
4.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
4.6 (4.23)	Semi-luminaires comply Class II		N/A
4.6 (4.24)	Photobiological hazards		O/S
4.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		O/S
4.6 (4.24.2)	Retinal blue light hazard		O/S
	Luminaires with Ethr :		O/S
	a) Fixed luminaires		O/S
	- distance x m, borderline between RG1 and RG2 .. :		O/S
	- marking and instruction according 3.2.23		O/S
	b) Portable and handheld luminaires		O/S
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		O/S
	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		O/S
4.6 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
4.6 (4.26)	Short-circuit protection		N/A
4.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A

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4.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
4.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
4.6 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C)		N/A
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
4.6 (4.29)	Luminaires with non-replaceable light source		N/A
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
4.6 (4.30)	Luminaires with non-user replaceable light source		P
	If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol:		N/A
	Minimum two fixing means		N/A
4.6 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		P

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
4.6 (4.31.1)	SELV circuits		P
	Used SELV source		P
	Voltage ≤ ELV		P
	Insulating of SELV circuits from LV supply		P
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
4.6 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage ≤ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
4.6 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3 of above		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
4.6 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11		N/A
	External to control gear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
4.6.1 (-)	Insulation not damaged when placing on support		P
4.6.2 (-)	Wiring fixed, to avoid rubbing		N/A
4.6.3 (-)	Stability 6°		P
4.6.4 (-)	Candlestick luminaires with switch		N/A
4.6.5 (-)	E5 lampholders		N/A

4.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		N/A
4.7 (11.2)	Creepage distances and clearances	See Table 4.7 (11.2)	N/A
	Working voltage (V)		N/A
	Rated pulse voltage (kV)		N/A
	Voltage form	Sinusoidal ☐ Non-sinusoidal ☐	N/A
	PTI	< 600 ☐ ≥ 600 ☐	N/A
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II ☐ Category III ☐	N/A

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4.8 (7)	PROVISION FOR EARTHING		N/A
4.8 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
4.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
4.8 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
4.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
4.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
4.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
4.8 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
4.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
4.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.9 (14)	SCREW TERMINALS		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 3)	N/A

4.9(15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 4)	N/A

4.10 (5)	EXTERNAL AND INTERNAL WIRING		P
4.10 (5.2)	Supply connection and external wiring		P
4.10 (5.2.1)	Means of connection..... :		P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		P
4.10 (5.2.2)	Type of cable :		N/A
	Nominal cross-sectional area (mm ²) :		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
4.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
4.10 (5.2.5)	Type Z not connected to screws		N/A
4.10 (5.2.6)	Cable entries:		N/A
	- suitable for introduction		N/A
	- adequate degree of protection		N/A
4.10 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
4.10 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
4.10 (5.2.9)	Locking of screwed bushings		N/A
4.10 (5.2.10)	Cord anchorage:		N/A

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	- covering protected from abrasion		N/A
	- clear how to be effective		N/A
	- no mechanical or thermal stress		N/A
	- no tying of cables into knots etc.		N/A
	- insulating material or lining		N/A
4.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
4.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
4.10 (5.2.10.3)	Tests:		N/A
	- impossible to push cable; unsafe		N/A
	- pull test: 25 times; pull (N) :		N/A
	- torque test: torque (Nm)..... :		N/A
	- displacement ≤ 2 mm		N/A
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
	- function independent of electrical connection		N/A
4.10 (5.2.11)	External wiring passing into luminaire		N/A
4.10 (5.2.12)	Looping-in terminals		N/A
4.10 (5.2.13)	Wire ends not tinned		N/A

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	Wire ends tinned: no cold flow		N/A
4.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
4.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
4.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
4.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
4.10 (5.3)	Internal wiring		P
4.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		P
	- not delivered / mounting instruction		N/A
	- factory assembled		P
	- socket outlet loaded (A)		N/A
	- temperatures.....	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
4.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²)		P
	Insulation thickness		N/A
	Extra insulation added where necessary		N/A
4.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Adequate cross-sectional area and insulation thickness		P

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4.10 (5.3.1.3)	Double or reinforced insulation for class II		P
4.10 (5.3.1.4)	Conductors without insulation		P
4.10 (5.3.1.5)	SELV current-carrying parts		P
4.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
4.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		N/A
4.10 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
4.10 (5.3.4)	Joints and junctions effectively insulated		N/A
4.10 (5.3.5)	Strain on internal wiring		N/A
4.10 (5.3.6)	Wire carriers		N/A
4.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A

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Madde Clause	İstenen Deneylemler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
4.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		N/A
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		P
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
4.11 (8.2.2)	Portable luminaire adjusted in most unfavorable position		N/A
4.11 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
4.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
4.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- touch current		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	- no-load voltage		N/A
	Other than ordinary luminaire:		
	- nominal voltage		N/A
4.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
4.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
4.11 (8.2.6)	Covers reliably secured		N/A
4.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu F$		N/A
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A
4.11.1 (-)	Class I luminaire with bayonet lampholder:		N/A
	- cap not accessible with test finger		N/A
	- metal lampholder is earthed		N/A

4.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
4.12 (12.3)	Endurance test:		N/A
	- mounting-position		P
	- test temperature (°C)	35°C	P
	- total duration (h).....	240h	P
	- supply voltage: Un factor; calculated voltage(V)	13,2V	P
	- lamp used		N/A
4.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
4.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
4.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
4.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
4.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		N/A
	- case of abnormal conditions		N/A
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		N/A
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
4.12 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions		N/A
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
4.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
4.12 (12.7.1)	Luminaire without temperature sensing control		N/A
4.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W		N/A
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions		N/A
	- Ballast failure at supply voltage (V)		N/A
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	- case of abnormal conditions		N/A
	- measured winding temperature (°C): at 1,1 Un:		N/A
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		N/A
	- calculated temperature of fixing point/exposed part (°C).....		N/A
	Ball-pressure test	See Table 4.15 (13.2.1)	N/A
4.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions		N/A
	- measured winding temperature (°C): at 1,1 Un		N/A
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		N/A
	- calculated temperature of fixing point/exposed part (°C).....		N/A
	Ball-pressure test:	See Table 4.15 (13.2.1)	N/A
4.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		N/A
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
4.12 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link.....	Yes ☐ No ☐	N/A
	- manual reset cut-out	Yes ☐ No ☐	N/A
	- auto reset cut-out.....	Yes ☐ No ☐	N/A
	- case of abnormal conditions		N/A
	- highest measured temperature of fixing point/exposed part (°C).....		N/A
	Ball-pressure test::	See Table 4.15 (13.2.1)	N/A
4.12 (-)	Test overturned position (overturns < 15°)		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
4.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP :	IP20	P
	- mounting position during test..... :		P
	- fixing screws tightened; torque (Nm) :		P
	- tests according to clauses :		P
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	d) i) For luminaires without drain holes – no water entry		N/A
	d) ii) For luminaires with drain holes – no hazardous water entry		N/A
	e) no water in watertight luminaire		N/A
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N/A
	f) no contact with live parts (IP3X and IP4X)		N/A
	g) no trace of water on part of lamp requiring protection from splashing water		N/A
	h) no damage of protective shield or glass envelope		N/A
4.13 (9.3)	Humidity test 48 h		P

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
4.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
4.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø :		N/A
	Insulation resistance (MΩ) :	999,9 MΩ	P
	SELV		P
	- between current-carrying parts of different polarity :		P
	- between current-carrying parts and mounting surface :		P
	- between current-carrying parts and metal parts of the luminaire..... :		P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts :		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		P
	- between live parts of different polarity :		P
	- between live parts and mounting surface :		P
	- between live parts and metal parts..... :		P
	- between live parts of different polarity through action of a switch :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts :		N/A
	- Insulation bushings as described in Section 5		N/A
4.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)..... :	500V	P
	SELV		P
	- between current-carrying parts of different polarity :		N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
	- between current-carrying parts and mounting surface		P
	- between current-carrying parts and metal parts of the luminaire		P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		N/A
	- between live parts of different polarity		N/A
	- between live parts and mounting surface		N/A
	- between live parts and metal parts		N/A
	- between live parts of different polarity through action of a switch		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
4.14 (10.3)	Touch current or protective conductor current (mA) :	0,01 mA	P

4.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
4.15 (13.2.1)	Ball-pressure test	See Test Table 4.15 (13.2.1)	P
4.15 (13.3.1)	Needle-flame test (10 s)..... :	See Test Table 4.15 (13.3.1)	N/A
4.15 (13.3.2)	Glow-wire test (650°C)..... :	See Test Table 4.15 (13.3.2)	P
4.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 4.15 (13.4)	N/A

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.7 (11.2)	TABLES: / Creepage distances and clearances						N/A
Table 11.1	a.a (50/60 Hz) Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						N/A
RMS working voltage (V) not exceeding		50	150	250	500	750	1000
Creepage distances							
Required basic insulation, PTI $\geq$ 600		0,6	0,8	1,5	3	4	5,5
Measured							
Required basic insulation, PTI < 600		1,2	1,6	2,5	5	8	10
Measured							
Required supplementary insulation, PTI $\geq$ 600		-	0,8	1,5	3	4	5,5
Measured							
Required supplementary insulation, PTI < 600		-	1,6	2,5	5	8	10
Measured							
Required reinforced insulation		-	3,2	5	6	8	11
Measured							
Clearances							
Required basic insulation		0,2	0,8	1,5	3	4	5,5
Measured							
Required supplementary insulation,		-	0,8	1,5	3	4	5,5
Measured							
Required reinforced insulation		-	1,6	3	6	8	11
Measured							
Table 11.2	Minimum distances (mm) for non-sinusoidal pulse voltages						N/A
Rated pulse voltage (peak kV)		2,0	2,5	3,0	4,0	5,0	6,0
Required clearances		1,0	1,5	2	3	4	5,5
Measured							
Rated pulse voltage (peak kV)		10	12	15	20	25	30
Required clearances		11	14	18	25	33	40
Measured							

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Measured							
Rated pulse voltage (peak kV)	50	60	80	100	-	-	-
Required clearances	75	90	130	170	-	-	-
Measured							

4.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm)				
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm) <2mm	
Supplementary information: -				

4.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)					N/A
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Supplementary information:						

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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4.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)					N/A
Glow wire temperature						
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No).....					No	
Supplementary information: -						

4.15 (13.4)	TABLE: Proof tracking test (IEC 60112)				N/A
Test voltage PTI :					-
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
Supplementary information:					

ANNEX 1	TABLE: Critical components information				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Led	17 LIGHTING	M.2714-06	12/24V	TS EN 62031	CE
Switch	Örgün	PT 1644	250V	TS EN 61058-2-1	CE
Cable	Ünal Kablo	H03VVH2-F	300V 2x0,5mm	TS EN 50525-2-11	CE
Supplementary information: -					

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		P				
	Type reference :		-				
	Lamp used :		-				
	Lamp control gear used :		-				
	Mounting position of luminaire :		-				
	Supply wattage (W)..... :		-				
	Supply current (A) :		-				
	Calculated power factor:		-				
	Table: measured temperatures corrected for ta = 23,6 °C:						
	- abnormal operating mode..... :		-				
	- test 1: rated voltage :		-				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage..... :	12,72 V	-				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		-				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage		-				
	Through wiring or looping-in wiring loaded by a current of A during the test:		-				
Temperature measurements, (°C)							
Part	Clause 12.4 – normal					Clause 12.5 – abnormal	
	ambient	test1	test 2	test 3	limit	test 4	limit
Metal Surface	23,6 °C		24,2 °C		-		
Led	23,6 °C		49,1 °C		-		
Switch	23,6 °C		23,7 °C		-		
Cable	23,6 °C		23,8 °C		90 °C		
Plastic Enclosure	23,6 °C		28,6 °C		-		
Supplementary information:							

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

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Madde Clause	İstenen Deneyler Test Requirements	Açıklamalar Remarks	Sonuç Verdict
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ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal		N/A
	Rated current (A)		N/A
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5.1)	Terminals internal wiring		N/A
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples):		N/A
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples) :		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples):		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		N/A
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
(15.6)	Terminals external wiring		N/A

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	Terminal size and rating		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N/A
	Pull test pin or tab terminals (4 samples); pull (N)....		N/A

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

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EK DOSYA 1 / ATTACHMENT 1

Ölçüm Cihazları / Measuring Equipments

Cihaz Adı Device name	Model Tipi Model Type	Üretici Manufacturer	Son Kalb. Tarihi Last Cal. Date	Gelecek Kalb. Tarihi Future Cal. Date	Test Maddesi Test Item
AC Güç Kaynağı/AC Power Supply	-	Baysallar	13.07.2020	13.07.2021	4.12(12.3.1) and 4.12(12.4)
Multitester	M12094	Metrel	13.03.2020	13.03.2021	4.14(10.2.1),4.14(10.2.2) ve 4.14(10.3)
IP 2X Parmak Probu / IP 2X Finger Probe	-	Teknik Med. ve Mekat. Teknolojileri	16.07.2018	16.07.2021	4.13(9.2.0)
Klimatik Test Kabini /Climatic Test Cabinet	TK 252	Nüve	06.03.2020	06.03.2021	4.13(9.3.1)
Yüksek Gerilim Test Cihazı/High Voltage Test Device	MT-78X	Multitech	24.02.2020	24.02.2021	4.14(10.2.1)
Yaylı Darbe Çekicileri /Spring impact Hammers	MT-SH-X	Multitech	17.07.2018	17.07.2021	4.6(4.13.1)
Dijital Kumpas/Digital Caliper	MC090-51	TorQ	09.03.2020	09.03.2021	-
Torkmetre/Torkmeter	TS120HX		16.07.2020	16.07.2021	4.6(4.12.1)
Kuvvet Ölçer/ Force Meter	FK 500	Sauter	23.01.2020	23.01.2021	4.10(5.2.10.3)
Gerilim Atlama Mesafesi Test Kartı / Clearance and Creepage Test Card	FU-CK5	-	25.02.2019	25.02.2022	4.7(11)
IP Elektriksel Temas Devresi/ IP Electrical Touch Circuit	-	Teknik Med. ve Mekat. Teknolojileri	06.03.2020	06.03.2021	4.11(8.2.5)
32 Kanallı Tarayıcı Sıcaklık Ölçer/ 32 Channel Scanner Temperature Meter	MT-32U	Multitech	19.03.2020	19.03.2021	4.12(12.4.1)
Rüzgara Dayanıklı Kabin	-	-	-	-	4.12(12.4)
Petrol Eteri/Petroleum Ether	ASO-46-L50	Liva	-	-	4.5(3.4)
Sterilizatör / Sterilizer		Nüve	16.03.2021	16.03.2022	4.15(13.2.1)
Bilye Basıncı Test Aparatı	-	Medikal Mek.	07.03.2019	07.03.2022	4.15(13.2.1)
Kızaran Tel Cihazı / Glow Wire Test	RH15120	Multitech	05.02.2021	05.02.2022	4.15(13.3.2)

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EK DOSYA 2 / ATTACHMENT 2

Görsel Dökümanlar / Photo Documentation



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