



Test Report issued under the responsibility of:



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

Report Number. : **3508855.52**

Date of issue : 2022-10-18

Total number of pages : 81

**Name of Testing Laboratory
preparing the Report** : DEKRA Testing and Certification S.r.l.

Applicant's name : Fumagalli S.r.l.

Address : Via Ca' Bassa 29,
21100 Varese (VA) Italy

Test specification:

Standard : IEC 60598-2-1:2020 used in conjunction with IEC 60598-1:2020

Test procedure : CB Scheme

Non-standard test method : N/A

TRF template used : IECEE OD-2020-F1:2021, Ed.1.4

Test Report Form No. : IEC60598_2_1l

Test Report Form(s) Originator : Intertek Semko AB

Master TRF : Dated 2022-04-14

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General disclaimer:

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

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Test item description..... :	Fixed general purpose luminaires	
Trademark(s)..... :	Fumagalli	
Manufacturer..... :	Fumagalli S.r.l. Via Ca' Bassa 29 – 21100 Varese (VA) - Italy	
Model/Type reference..... :	Series: BEPPE 400, ECOBEPPE 400, VIVI 400, ECOVIVI 400, REMO 400, GINO 400, LUIGI 400 LUIGI 400-DR, BEPPE 500, ECOBEPPE 500, VIVI 500, ECOVIVI 500, REMO 500, GINO 500, LUIGI 500, LUIGI 500-DR	
Ratings..... :	ECOVIVI 500 EV6.000.D9L 100 -240 V~, 50/60 Hz, 90 W GX53, Class II, IP55 (See pages from 7 to 11 for other ratings)	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	CB Testing Laboratory:	DEKRA Testing and Certification S.r.l. CBTL of DEKRA Certification B.V., The Netherlands
Testing location/ address		Via Martiri della Liberazione, 12 23875 Osnago (LC) - Italy
Tested by (name, function, signature)..... :		Gabriel Granato Freitas (ENG)
Approved by (name, function, signature).... :		Davide Porta (REW)
☐	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature).... :		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature).... :		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature).... :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):				
Test results:		51 pages		
CENELEC Common Modifications (EN)		Attachment 1: 2 pages		
National Difference for Saudi Arabia		Attachment 2: 2 pages		
Photographs		Attachment 3: 18 pages		
Instructions		Attachment 4: 6 pages		
Testing and measuring equipment list		Attachment 5: 2 pages		
Summary of testing:				
Tests performed (name of test and test clause):				Testing location:
0.5	Components	Applicable	Pass	DEKRA
1.5	Marking	Applicable	Pass	DEKRA
1.6	Construction	Applicable	Pass	DEKRA
1.7	Creepage distances and clearances	Applicable	Pass	DEKRA
1.8	Provision for earthing	Not Applicable	N/A	—
1.9	Screw terminals and screwless terminals and electrical connection	Not Applicable	N/A	—
1.10	External and internal wiring	Applicable	Pass	DEKRA
1.11	Protection against electrical shock	Applicable	Pass	DEKRA
1.12	Endurance test and thermal test	Applicable	Pass	DEKRA
1.13	Resistance to dust, solid objects, and moisture	Applicable	Pass	DEKRA
1.14	Insulation resistance and electrical strength	Applicable	Pass	DEKRA
1.15	Resistance to heat, fire, and tracking	Applicable	Pass	DEKRA
TESTING LOCATION DEKRA Testing and Certification S.r.l. Via Martiri della Liberazione, 12 23875 Osnago (LC) - Italy				
TEST RESULTS WERE FAVOURABLE				
Summary of compliance with National Differences (List of countries addressed):				
Evaluation according to the National Differences and Common Differences to IEC 60598-2-1:2020 and IEC 60598-1:2020 are applicable for CENELEC member countries: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom; declared on the latest version of CB Bulletin published on IECEE website.				
These luminaires have been evaluated for the conformity in accordance with the National Deviations of the following country: Saudi Arabia				

- ☒ The product fulfils the requirements of IEC 60598-2-1:2020 used in conjunction with IEC 60598-1:2020 and EN IEC 60598-2-1:2021 used in conjunction with EN IEC 60598-1:2021 + EN IEC 60598-1:2021/A11:2022

Fixed general purpose luminaires also complies with the following standards:

BS EN IEC 60598-1:2021 +A11:2022

BS EN IEC 60598-2-1:2021

SASO IEC 60598-1:2021

SASO IEC 60598-2-1:2021

If not differently stated, the test is performed at the frequency of 50 Hz and are considered representative also for frequency at 60 Hz.

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☐ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☒ Statement not required by the standard used for type testing

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

In this report the accuracy method "procedure 2" of the IEC GUIDE 115 and the Instrument Accuracy Limits of the IEC EE OD 5014 are being used.

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IEC EE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IEC EE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

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

Representative label

L **N** are marked on the connecting device

FUMAGALLI

Via Cà Bassa 29 - 21100 Varese (VA) - Italy

Modello **BEPPE 400 P50.000.D6K**MAX **60W GX53**

100-240 V ~ 50/60 Hz

Made in Italy

**IP55****FUMAGALLI**

Via Cà Bassa 29 - 21100 Varese (VA) - Italy

Modello **BEPPE 500 P60.000.D9K**MAX **90W GX53**

100-240 V ~ 50/60 Hz

Made in Italy

**IP55****FUMAGALLI**

Via Cà Bassa 29 - 21100 Varese (VA) - Italy

Modello **REMO 400 R50.000.H1L**MAX **50W E27**

100-240 V ~ 50/60 Hz

Made in Italy

**IP55****FUMAGALLI**

Via Cà Bassa 29 - 21100 Varese (VA) - Italy

Modello **REMO 500 R60.000.W1L**MAX **60W E27**

100-240 V ~ 50/60 Hz

Made in Italy

**IP55**

Test item particulars :	
Classification of installation and use	Luminaires suitable for normally flammable surface, for normal use.
Supply Connection	Screw terminal block or supply cord (optional)
Possible test case verdicts:	
- test case does not apply to the test object.....	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement.....	F (Fail)
Testing.....	
Date of receipt of test item	2022-09-01
Date (s) of performance of tests.....	2022-09-05 to 2022-09-17
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☒ comma / ☐ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....	☐ Yes ☒ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factories Fumagalli S.r.l. Via Ca' Bassa 29 21100 Varese (VA) - Italy	
General product information and other remarks: Fixed luminaire for self-ballasted compact fluorescent lamps or LED lamps. Luminaire is provided with E27 or Gx53 lampholder Class of insulation: II, protection degree: IP55. The body is made of shockproof resin. The protective screen is made of polymethyl methacrylate (PMMA) The complete tests have been carried out on the models BEPPE 400 P50.000.D6K, GINO 400 F50.000.H1L, ECOVIVI 500 EV6.000.D9L, BEPPE 500 P60.000.D9K, GINO 500 F60.000.W1L These models were considered as representative of the whole models. The differences among the models in the series consist in lamps wattage and the decorative frame. See below the luminaire models' shape.	

Report history:**1) Original report Ref. No. 3507056.50 dated 2020-04-03****2) Report Ref. No.: 3508855.52 dated 2022-10-04**

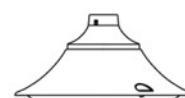
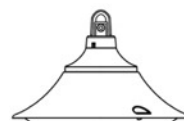
This test report updates and replaces DEKRA 3507056.50 dated 2020-04-03.

This report covers the compliance to the new standard IEC 60598-2-1:2021 and IEC 60598-1:2020

Marking, construction, and creepage distances and clearances compliance are checked by inspection.

The following tests have been completed: endurance test clause 12.3, and IP testing clause 9.2.7.

No following tests have been carried out.

**BEPPE 400****ECOBEPPE 400****VIVI 400****ECOVIVI 400****REMO 400****GINO 400****LUIGI 400****LUIGI 400-DR**

Series	Type reference	Supply Voltage	Frequency	N° Lamps / lamp holder	Max Wattage
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Models with lamp holders GX53

BEPPE 400	P50.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
BEPPE 400	P50.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

ECOBEPPE 400	EP5.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
ECOBEPPE 400	EP5.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

Series	Type reference	Supply Voltage	Frequency	N° Lamps / lamp holder	Max Wattage
VIVI 400	V50.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
VIVI 400	V50.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

ECOVIVI 400	EV4.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
ECOVIVI 400	EV4.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

REMO 400	R50.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
REMO 400	R50.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

GINO 400	F50.xxx.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
GINO 400	F50.xxx.G53	100-240 V	50/60 Hz	6 / GX53	10 W

LUIGI 400	L4F.128.D6y	100-240 V	50/60 Hz	6 / GX53	10 W
LUIGI 400	L4F.128.G53	100-240 V	50/60 Hz	6 / GX53	10 W

Models with lamp holders E27

BEPPE 400	P50.xxx.Q1y	100-240 V	50/60 Hz	1 / E27	30 W
BEPPE 400	P50.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
BEPPE 400	P50.xxx.H27	100-240 V	50/60 Hz	1 / E27	50 W

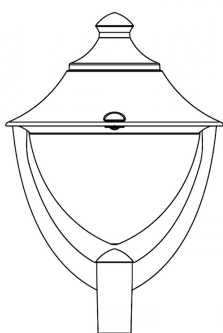
VIVI 400	V50.xxx.Q1y	100-240 V	50/60 Hz	1 / E27	30 W
VIVI 400	V50.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
VIVI 400	V50.xxx.H27	100-240 V	50/60 Hz	1 / E27	50 W

ECOVIVI 400	EV4.xxx.E27	100-240 V	50/60 Hz	1 / E27	23 W
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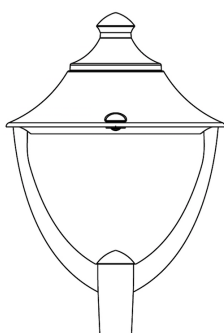
REMO 400	R50.xxx.Q1y	100-240 V	50/60 Hz	1 / E27	30 W
REMO 400	R50.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
REMO 400	R50.xxx.H27	100-240 V	50/60 Hz	1 / E27	50 W

GINO 400	F50.xxx.Q1y	100-240 V	50/60 Hz	1 / E27	30 W
GINO 400	F50.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
GINO 400	F50.xxx.H27	100-240 V	50/60 Hz	1 / E27	50 W

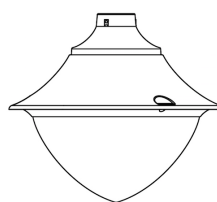
LUIGI 400-DR	L41.128.Q1y	100-240 V	50/60 Hz	1 / E27	30 W
LUIGI 400-DR	L41.128.H1y	100-240 V	50/60 Hz	1 / E27	50 W
LUIGI 400-DR	L41.128.H27	100-240 V	50/60 Hz	1 / E27	50 W



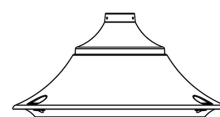
BEPPE 500



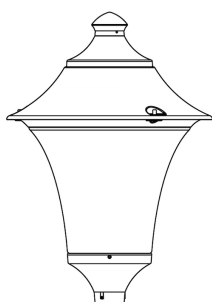
ECOBEPPE 500



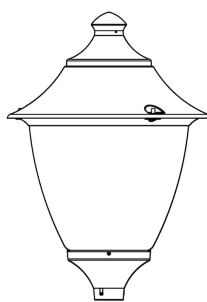
VIVI 500



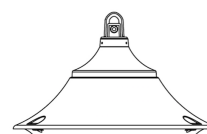
ECOVIVI 500



REMO 500



GINO 500



LUIGI 500

Series	Type reference	Supply Voltage	Frequency	N° Lamps / lamp holder	Max Wattage
Models with lamp holders GX53					
BEPPE 500	P60.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
BEPPE 500	P60.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W
ECOBEPPE 500	EP6.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
ECOBEPPE 500	EP6.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W
VIVI 500	V60.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
VIVI 500	V60.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W
ECOVIVI 500	EV6.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
ECOVIVI 500	EV6.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W

Series	Type reference	Supply Voltage	Frequency	N° Lamps / lamp holder	Max Wattage
REMO 500	R60.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
REMO 500	R60.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W

GINO 500	F60.xxx.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
GINO 500	F60.xxx.G53	100-240 V	50/60 Hz	9 / GX53	10 W

LUIGI 500	L5F.128.D9y	100-240 V	50/60 Hz	9 / GX53	10 W
LUIGI 500	L5F.128.G53	100-240 V	50/60 Hz	9 / GX53	10 W

Models with lamp holders E27

BEPPE 500	P60.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
BEPPE 500	P60.xxx.W1y	100-240 V	50/60 Hz	1 / E27	60 W
BEPPE 500	P60.xxx.H27	100-240 V	50/60 Hz	1 / E27	60 W

VIVI 500	V60.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
VIVI 500	V60.xxx.W1y	100-240 V	50/60 Hz	1 / E27	60 W
VIVI 500	V60.xxx.H27	100-240 V	50/60 Hz	1 / E27	60 W

ECOVIVI 500	EV6.xxx.E27	100-240 V	50/60 Hz	1 / E27	23 W
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REMO 500	R60.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
REMO 500	R60.xxx.W1y	100-240 V	50/60 Hz	1 / E27	60 W
REMO 500	R60.xxx.H27	100-240 V	50/60 Hz	1 / E27	60 W

GINO 500	F60.xxx.H1y	100-240 V	50/60 Hz	1 / E27	50 W
GINO 500	F60.xxx.W1y	100-240 V	50/60 Hz	1 / E27	60 W
GINO 500	F60.xxx.H27	100-240 V	50/60 Hz	1 / E27	60 W

LUIGI 500-DR	L51.128.H1y	100-240 V	50/60 Hz	1 / E27	50 W
LUIGI 500-DR	L51.128.W1y	100-240 V	50/60 Hz	1 / E27	60 W
LUIGI 500-DR	L51.128.H27	100-240 V	50/60 Hz	1 / E27	60 W

LEGEND

xxx. Stands for any letter or number indicating different colours of the luminaire for marketing purpose only. No safety related impact.		
y	Colour temperature of LED	R = 3000 K L = 4000 K K = CCT settable 3000K / 4000K / 6500K
H27 or E27	Type of the lamp holder	E27
G53	Type of the lamp holder	GX53

Additional information common to all the models:

Insulation class	Class II
Protection degree	IP55
Ambient temperature	25 °C
Installation	Pole / wall / suspension
Mains connections	Screw terminal block or supply cord
Class in respect to mounting surface	Luminaires suitable for direct mounting on normally flammable surfaces

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.4 (0)	GENERAL TEST REQUIREMENTS		Pass
1.4 (0.3)	More sections applicable	Yes ☐ No ☒ Section/s:	—
1.4 (0.5)	Components	(See Annex 1)	—
1.4 (0.7)	Information for luminaire design in light sources standards		—
1.4 (0.7.2)	Light source safety standard		—
	Luminaire design in the light source safety standard		Pass

1.5 (2)	CLASSIFICATION OF LUMINAIRES		Pass
1.5 (2.2)	Type of protection	Class II	Pass
1.5 (2.3)	Degree of protection	IP55	—
1.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☒ No ☐	—
1.5 (2.5)	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—

1.6 (3)	MARKING		Pass
1.6 (3.2)	Mandatory markings	Fumagalli, marked on the enclosure.	Pass
	Position of the marking	The label is on the body of the luminaire.	Pass
	Format of symbols/text	Symbols > 5 mm. Letters > 2 mm.	Pass
1.6 (3.3)	Additional information	On the instruction sheet	Pass
	Language of instructions	Checked Italian, will be translated according to the destination market.	Pass
1.6 (3.3.1)	Combination luminaires		N/A
1.6 (3.3.2)	Nominal frequency in Hz	On the label 50/60 Hz	Pass
1.6 (3.3.3)	Operating temperature		N/A
1.6 (3.3.5)	Wiring diagram	On the instructions sheet	Pass
1.6 (3.3.6)	Special conditions		N/A
1.6 (3.3.7)	Metal halide lamp luminaire – warning	LED lamps	N/A
1.6 (3.3.8)	Limitation for semi-luminaires		N/A
1.6 (3.3.9)	Power factor and supply current		N/A
1.6 (3.3.10)	Suitability for use indoors		Pass

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (3.3.11)	Luminaires with remote control		N/A
1.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
1.6 (3.3.13)	Specifications of protective shields		N/A
1.6 (3.3.14)	Symbol for nature of supply	On the label ~	Pass
1.6 (3.3.15)	Rated current of socket outlet		N/A
1.6 (3.3.16)	Rough service luminaire		N/A
1.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Y when the cable cord is supplied by the manufacturer	Pass
1.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
1.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
1.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
1.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		N/A
1.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
1.6 (3.3.23)	Luminaires without control gear provided with necessary information for selection of appropriate component		N/A
1.6 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
1.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
1.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		N/A
1.6 (3.4)	Test with water	The marking plates are adhesive polyester labels. Data are written by thermal transfer	Pass
	Test with hexane		Pass
	Legible after test		Pass
	Label attached		Pass

1.7 (4)	CONSTRUCTION		Pass
1.7 (4.2)	Components replaceable without difficulty		Pass
1.7 (4.3)	Wireways smooth and free from sharp edges	No sharps edges or similar hazards	Pass

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.4)	Lamp holders		Pass
1.7 (4.4.1)	Integral lamp holder		N/A
1.7 (4.4.2)	Wiring connection		N/A
1.7 (4.4.3)	Lamp holder for end-to-end mounting		N/A
1.7 (4.4.4)	Positioning		Pass
	- pressure test (N)	30 N only for GX53	—
	After test the lamp holder complies with relevant standard sheets and shows no damage		Pass
	After test on single-capped lamp holder the lamp holder has not moved from its position and shows no permanent deformation	GX53	Pass
	- bending test (N)	2 N, E27	—
	After test the lamp holder has not moved from its position and shows no permanent deformation		Pass
1.7 (4.4.5)	Peak pulse voltage	Ignitors not used	N/A
1.7 (4.4.6)	Centre contact		N/A
1.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
1.7 (4.4.8)	Lamp connectors		N/A
1.7 (4.4.9)	Caps and bases correctly used		N/A
1.7 (4.4.10)	Light source for lamp holder or connection according to IEC 60061 not connected any other way		N/A
1.7 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II	Starter holder not used	N/A
	Starter holder class II construction		N/A
1.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
1.7 (4.7)	Terminals and supply connections		Pass
1.7 (4.7.1)	Contact to metal parts	Plastic enclosure	N/A
1.7 (4.7.2)	Test 8 mm live conductor		Pass
	Test 8 mm earth conductor	Luminaire in class II	N/A
1.7 (4.7.3)	Terminals for supply conductors	Screw terminal block	Pass
1.7 (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

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Clause	Requirement + Test	Result - Remark	Verdict
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
1.7 (4.7.4)	Terminals other than supply connection		N/A
1.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
1.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
1.7 (4.8)	Switches		N/A
	- adequate rating	Switches not used.	N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
1.7 (4.9)	Insulating lining and sleeves		N/A
1.7 (4.9.1)	Retainment		N/A
	Method of fixing..... :		N/A
1.7 (4.9.2)	Insulated linings and sleeves:		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C)..... :		N/A
1.7 (4.10)	Double or reinforced insulation		Pass
1.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		Pass
	Safe installation fixed luminaires		Pass
	Capacitors and switches	Capacitors and switches not used.	N/A
1.7 (4.10.2)	Assembly gaps:		Pass
	- not coincidental		Pass
	- no straight access with test probe		Pass
1.7 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- lining in lamp holder		N/A
1.7 (4.10.4)	Protective impedance device		N/A
	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor		N/A
	Double or reinforced insulation bridged by at least two separate resistors in series or appropriate capacitor(s)		N/A
	Capacitors comply with IEC 60384-14	Not used	N/A
	Resistors comply with test (a) in 14.2 of IEC 60065		N/A
1.7 (4.11)	Electrical connections and current-carrying parts		Pass
1.7 (4.11.1)	Contact pressure		Pass
1.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
1.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
1.7 (4.11.4)	Material of current-carrying parts	Relevant components are separately certified.	Pass
1.7 (4.11.5)	No contact to wood or mounting surface		Pass
1.7 (4.11.6)	Electro-mechanical contact systems		N/A
1.7 (4.12)	Screws and connections (mechanical) and glands		Pass
1.7 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material	Fixing the cover of the luminaire	Pass
	Torque test: torque (Nm); part :	0,5 Nm; Ø 2,9 x 12 mm self-tapping screws, fixing the lamp holder to components plate and fixing the flat glass to the frame.	Pass
	Torque test: torque (Nm); part :	By hands Ø 4,8 x 18 mm metric screws, fixing the cover	Pass
1.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
1.7 (4.12.4)	Locked connections:		Pass
	- fixed arms; torque (Nm) :		N/A
	- lamp holder; torque (Nm) :	2 Nm, E27	Pass
	- push-button switches; torque 0,8 Nm :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.12.5)	Screwed glands; force (Nm)		N/A
1.7 (4.13)	Mechanical strength		Pass
1.7 (4.13.1)	Impact tests:		Pass
	- fragile parts; energy (Nm)	0,20 Nm; Flat glass, where mounted.	Pass
	- other parts; energy (Nm).....	0,35 Nm; Enclosure of the luminaire. 0,35 Nm; Translucent cover.	Pass
	1) live parts		Pass
	2) linings		N/A
	3) protection		Pass
	4) covers		Pass
1.7 (4.13.2)	Metal parts have adequate mechanical strength		N/A
1.7 (4.13.3)	Straight test finger	30 N; Enclosure of the luminaire	Pass
1.7 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
1.7 (4.13.6)	Tumbling barrel		N/A
1.7 (4.14)	Suspensions, fixings and means of adjusting		Pass
1.7 (4.14.1)	Mechanical load:		Pass
	A) four times the weight	Models ECOVIVI 400 Mounting on the ceiling. Weight 7 kg, luminaire Tested with additional 28 kg for one hour. Models ECOVIVI 500 Mounting on the ceiling. Weight 8 kg, luminaire Tested with additional 36 kg for one hour.	Pass
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)		N/A
	D) load track-mounted luminaires		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	E) clip-mounted luminaires, glass-shelf thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
1.7 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		—
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire		N/A
1.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
1.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
1.7 (4.14.5)	Guide pulleys		N/A
1.7 (4.14.6)	Strain on socket-outlets		N/A
1.7 (4.15)	Flammable materials		Pass
	- glow-wire test 650 °C	See Test Table 1.15 (13.3.2)	Pass
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		Pass
	- thermal protection		N/A
	- electronic circuits exempted		N/A
1.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
1.7 (4.16)	Luminaires for mounting on normally flammable surfaces		Pass
	No lamp control gear	(Compliance with Section 12)	Pass
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
1.7 (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
1.7 (4.16.3)	Design to satisfy the test of 12.6	(See clause 12.6)	N/A
1.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
1.7 (4.18)	Resistance to corrosion		Pass
1.7 (4.18.1)	- rust-resistance	Plastic enclosure	N/A
1.7 (4.18.2)	- season cracking in copper	Separately approved	Pass
1.7 (4.18.3)	- corrosion of aluminium		N/A
1.7 (4.19)	Igniters compatible with ballast	Not used	N/A
1.7 (4.20)	Rough service vibration		N/A
1.7 (4.21)	Protective shield		N/A
1.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
1.7 (4.21.2)	Particles from a shattering lamp does not impair safety		N/A
1.7 (4.21.3)	No direct path		N/A
1.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment	See Test Table 1.15 (13.3.2)	N/A
1.7 (4.22)	Attachments to lamps does not cause overheating or damage		N/A
1.7 (4.23)	Semi-luminaires comply Class II		N/A
1.7 (4.24)	Photobiological hazards		N/A
1.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
1.7 (4.24.2)	Retinal blue light hazard		N/A
	Class of risk group assessed according to IEC/TR 62778	Used LED Lamps only RG0 or RG1	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Luminaires with E_{thr} :		N/A
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 ...:		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
1.7 (4.25)	Mechanical hazard		Pass
	No sharp points or edges		Pass
1.7 (4.26)	Short-circuit protection		N/A
1.7 (4.26.1)	Adequate means of uninsulated accessible SELV / PELV parts		N/A
1.7 (4.26.2)	Short-circuit test with test chain according 4.26.3:		N/A
	Supply source ES1 PSE		N/A
	Test chain does not melt through		N/A
	Test sample does not exceed values of Table 12.1 and 12.2		N/A
1.7 (4.27)	Terminal blocks with integrated screwless protective earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
1.7 (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 ($^{\circ}\text{C}$):		—
	100 cycles between t min and t max		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Temperature sensing control still in position		N/A
1.7 (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
1.7 (4.30)	Luminaires with non-user replaceable light source		N/A
	If protective cover provides protection against electric shock, it is to be marked with "caution, electric shock risk" symbol:		N/A
	At least one fixing means requiring use of tool		N/A
1.7 (4.31)	Insulation between circuits		N/A
	Circuits insulated from LV supply fulfil requirements according to 4.31.1 – 4.31.3		N/A
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according to 4.31.1 – 4.31.3		N/A
1.7 (4.31.1)	SELV or PELV circuits		N/A
	Used SELV/PELV source		N/A
	Voltage $\leq$ ELV		N/A
	Insulating of SELV/PELV circuits from LV supply		N/A
	Insulating of SELV/PELV circuits from other non SELV/PELV circuits		N/A
	Insulating of SELV/PELV circuits from FELV		N/A
	Insulating of SELV/PELV circuits from other SELV/PELV circuits		N/A
	SELV/PELV circuits insulated from accessible parts according to Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets do not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets do not have protective conductor contact		N/A
1.7 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage $\leq$ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	FELV circuits insulated from accessible parts according to Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets do not admit plugs of other voltage systems		N/A
	Socket-outlets do not have protective conductor contact		N/A
1.7 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according to Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contact with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according to 7.2.3		N/A
	- conductive part does not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
1.7 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11	Not used in the luminaire	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
1.6 (4.33)	Luminaire powered via information technology communication cabling		N/A
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(See Annex 2)	N/A
1.6 (4.34)	Electromagnetic fields (EMF)		Pass
	No harmful electromagnetic fields	Comply without test (According to clause 4.2.2 and Annex H of IEC 62493: 2015)	Pass
1.6 (4.35)	Protection against moving fan blades		N/A
	Test with a standard test finger		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	Blades rounded with radius ≥ 0.5 mm and:		N/A
	-hardness less than D60 Shore		N/A
	-peripheral speed less than 15 m/s		N/A
	-input power of fan ≤ 2 W at rated voltage		N/A
1.6 (4.36)	Track-mounted luminaires		N/A
	Test in accordance with Annex A of IEC 60570:2003/AMD2:2019		N/A

1.8 (11)	CREEPAGE DISTANCES AND CLEARANCES		Pass
1.8 (11.2.1)	Impulse withstands category (Normal category II)	Category II ☒ Category III ☐	—
	Category III according to Annex U		N/A
	Protected against pollution, reduced creepage and clearance according to Annex P of IEC 61347-1		N/A
1.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 1.7 (11.2) I	Pass
	Creepage distances for frequency over 30 kHz:		N/A
	- Control gear marked with $\hat{U}_{OUT}$ and f_{UOUT} according to IEC 61347-1, clause 7.1, item w	See Test Table 1.7 (11.2) II	N/A
	- Requirements according to IEC 60664-4 for control gear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N/A
1.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 1.7 (11.2) I	Pass
	Clearance distances for frequency over 30 kHz:		N/A
	- Control gear marked with U_P	See Test Table 1.7 (11.2) II	N/A
	- Requirements according to IEC 60664-4 for control gear not covered by IEC 61347	See Test Table 1.7 (11.2) II	N/A

1.9 (7)	PROVISION FOR EARTHING		N/A
1.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance $< 0,5 \Omega$		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Protective earth makes contact first		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Terminal blocks with integrated screwless protective earthing contacts tested according to Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
1.9 (7.2.2 + 7.2.3)	Protective earth continuity in joints, etc.		N/A
1.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
1.9 (7.2.5)	Protective earth terminal integral part of connector socket		N/A
1.9 (7.2.6)	Protective earth terminal adjacent to mains terminals		N/A
1.9 (7.2.7)	Electrolytic corrosion of the protective earth terminal		N/A
1.9 (7.2.8)	Material of protective earth terminal		N/A
	Contact surface bare metal		N/A
1.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
1.9 (7.2.11)	Protective earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
1.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

1.10 (14)	SCREW TERMINALS		Pass
	Separately approved; component list	(See Annex 1)	Pass
	Part of the luminaire	(See Annex 3)	N/A

1.10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		Pass
	Separately approved; component list..... :	(See Annex 1)	Pass
	Part of the luminaire..... :	(See Annex 4)	N/A

1.11 (5)	EXTERNAL AND INTERNAL WIRING		Pass
1.11 (5.2)	Supply connection and external wiring		Pass
1.11 (5.2.1)	Means of connection..... :	Screw terminal block or Supply cord; supply wiring once installed with its accessories is not exposed	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
	Outdoor luminaire not having PVC insulated external wiring if not Class III or SELV/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10 Hz -200 Hz or protected from outdoor environment		N/A
1.11 (5.2.2)	Type of cable :	H05RN-F	Pass
	Nominal cross-sectional area (mm ²) :	2 x 1 mm ²	Pass
	Cables equal to IEC 60227 or IEC 60245		Pass
1.11 (5.2.3)	Type of attachment X, Y or Z	Type Y	Pass
1.11 (5.2.5)	Type Z not connected to screws		N/A
1.11 (5.2.6)	Cable entries:		Pass
	- suitable for introduction	By means of grommet or cable gland	Pass
	- adequate degree of protection		Pass
1.11 (5.2.7)	Cable entries through rigid material have rounded edges		Pass
1.11 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
1.11 (5.2.9)	Locking of screwed bushings		N/A
1.11 (5.2.10)	Cord anchorage:		Pass
	- covering protected from abrasion		Pass
	- clear how to be effective		Pass
	- no mechanical or thermal stress		Pass
	- no tying of cables into knots etc.		Pass
	- insulating material or lining		Pass
1.11 (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

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Clause	Requirement + Test	Result - Remark	Verdict
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
1.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	Type Y	Pass
1.11 (5.2.10.3)	Tests:		Pass
	- impossible to push cable; unsafe		Pass
	- pull test: 25 times; pull (N) :	60 N	Pass
	- torque test: torque (Nm)..... :	0,35 Nm	Pass
	- displacement ≤ 2 mm	No displacement	Pass
	- no movement of conductors		Pass
	- no damage of cable or cord		Pass
	- function independent of electrical connection		Pass
1.11 (5.2.10.4)	Luminaire with/without designed for use with supply cord with maximum current of 2 A:		N/A
	- Ordinary Class III luminaire supplied with SELV ≤ 25 V RMS/60V DC		N/A
	- Ordinary Class III luminaire supplied with PELV ≤ 12 V RMS/30V DC		N/A
	- Other than ordinary Class III luminaire supplied with voltage ≤ 12 V RMS/30V DC		N/A
	Pull test of 30N		N/A
1.11 (5.2.11)	External wiring passing into luminaire		N/A
1.11 (5.2.12)	Looping-in terminals		N/A
1.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
1.11 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
1.11 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
1.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Installation couplers (IEC 61535)		N/A
	Appliance inlet or connector systems (IEC 61984)		N/A
1.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
1.11 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- another standard		N/A
1.11 (5.3)	Internal wiring		Pass
1.11 (5.3.1)	Internal wiring of suitable size and type	1 x 0,75 mm ² (H05S-K) 1 x 0,75 mm ² (H05SJ-K) 2 x 0,75 mm ² (H03VVH2-F)	Pass
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		Pass
	- socket outlet loaded (A)		N/A
	- temperatures.....	(See Annex 2)	N/A
	Green-yellow for protective earth only		N/A
1.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		Pass
	Cross-sectional area (mm ²)	0,75 mm ²	Pass
	Insulation thickness (mm)	Separately approved	Pass
	Extra insulation added where necessary		N/A
1.11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Cross-sectional area (mm ²)		N/A
1.11 (5.3.1.3)	Double or reinforced insulation for class II		Pass
1.11 (5.3.1.4)	Conductors without insulation		N/A
1.11 (5.3.1.5)	SELV/PELV current-carrying parts		Pass
1.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
1.11 (5.3.2)	Sharp edges etc.		Pass
	No moving parts of switches etc.	Not used	N/A
	Joints, raising/lowering devices		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Telescopic tubes etc.		N/A
	No twisting over 360°		N/A
1.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
1.11 (5.3.4)	Joints and junctions effectively insulated		N/A
1.11 (5.3.5)	Strain on internal wiring		N/A
1.11 (5.3.6)	Wire carriers		N/A
1.11 (5.3.7)	Wire ends not tinned	The wires have metal tips or solid wiring	N/A
	Wire ends tinned: no cold flow		N/A
1.11 (5.4)	Test to determine suitability of conductors having a reduced cross-sectional area		N/A
	Under test the temperature of the luminaire wiring insulation does not exceed the limits stated in Table 12.2	(See Annex 2)	N/A
	No damage to luminaire wiring after test		N/A

1.12 (8)	PROTECTION AGAINST ELECTRIC SHOCK		Pass
1.12 (8.2.1)	Live parts not accessible	Live parts are not accessible when the luminaire has been installed.	Pass
	Basic insulated parts not used on the outer surface without appropriate protection		Pass
	Basic insulated parts not accessible with standard test finger on portable, settable, and adjustable luminaires		Pass
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		Pass
	Lamp and starter holders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		Pass
	Protection in any position		Pass
	Double-ended tungsten filament lamp		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Insulation lacquer not reliable	Not used in the luminaire	N/A
	Double-ended high-pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
1.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
1.12 (8.2.3.a)	Class II luminaire:		Pass
	- basic insulated metal parts not accessible during starter or lamp replacement		Pass
	- basic insulation not accessible other than during starter or lamp replacement		Pass
	- glass protective shields not used as supplementary insulation		N/A
1.12 (8.2.3.b)	BC lamp holder of metal in class I luminaires shall be connected to protective earth		N/A
1.12 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)		N/A
	- voltage under load/ no-load DC (V).....		N/A
	- interrupted DC voltage (V)		N/A
	- touch current if applicable (mA)		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)		N/A
	- voltage under load/ no-load DC (V).....		N/A
	- interrupted DC voltage (V)		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
1.12 (8.2.3.d)	PELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)		N/A
	- voltage under load/ no-load DC (V).....		N/A
	Other than ordinary luminaire:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- voltage under load/ no-load AC (V)		N/A
	- voltage under load/ no-load DC (V).....		N/A
	One pole insulated if required		N/A
1.12 (8.2.4)	Portable luminaire has protection independent of supporting surface		N/A
1.12 (8.2.5)	Compliance with the standard test finger or relevant probe	10 N, inspections by means of test finger.	Pass
1.12 (8.2.6)	Covers reliably secured	Enclosure of the luminaire (See 4.13)	Pass
1.12 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F does not exceed 50 V 1 min after disconnection	No additional capacitors in luminaire.	N/A
	Portable luminaire with capacitor > 0,1 μ F (0.25) does not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors do not exceed 60 V 5 s after disconnection		N/A

1.13 (12)	ENDURANCE TEST AND THERMAL TEST		Pass
1.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) before (9.3) as specified in 1.14		—
1.13 (12.2)	Selection of lamps and ballasts		—
	Lamp used according to Annex B	(Lamp used see Annex 2)	—
	Control gear if separate and not supplied	(Control gear used see Annex 2)	—
1.13 (12.3)	Endurance test		Pass
	a) mounting-position	Pole	—
	b) test temperature (°C)	35 °C	—
	c) total duration (h)	240 h	—
	d) supply voltage (V)	ECOBEPPE 400 EP5.000D6K 6 x 10 W, GX53 Fumagalli BEPPE 400 P50.000.H1L 1 x 50 W, E27 H. LED.HIP 4K 264 V Un factor 1,1 supply voltage	—

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Clause	Requirement + Test	Result - Remark	Verdict
	d) supply voltage (V)	GINO 400 F50.000.H1L 1 x 50 W, E27 H. LED.HIP 4K ECOBEPPE 500 EP6.000.D9K 9 x 10 W, GX53 Fumagalli GINO 500 F60.000.W1L 1x60 W, E27 W H4.LED.HIP 4K 264 V Un factor 1,1 supply voltage	—
	d) if not equipped with control gear, constant voltage/current (V) or (A)		—
1.13 (12.3.1d)	d) Class III luminaires powered via information technology communication cable:		N/A
	- voltage under normal operation (V).....		—
	- voltage under abnormal operation (V).....		—
	e) luminaire ceases to operate		—
	f) luminaire with constant light output function		N/A
1.13 (12.3.2)	After endurance test:		Pass
	- no part unserviceable		Pass
	- luminaire not unsafe		Pass
	- no damage to track system		N/A
	- marking legible		Pass
	- no cracks, deformation etc.		Pass
1.13 (12.4)	Thermal test (normal operation)	(See Annex 2)	Pass
1.13 (12.5)	Thermal test (abnormal operation)	(See Annex 2)	N/A
1.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
1.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
1.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C) :		N/A
	- track-mounted luminaires		N/A
1.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
1.13 (12.7.1)	Luminaire without temperature sensing control		N/A
1.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W :		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions :		—
	- Ballast failure at supply voltage (V) :		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		N/A
	- case of abnormal conditions :		—
	- measured winding temperature (°C): at 1,1 Un :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un :		—
	- calculated temperature of fixing point/exposed part (°C)..... :		—
	Ball-pressure test :	See Test Table 1.15 (13.2.1)	N/A
1.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions :		—
	- measured winding temperature (°C): at 1,1 Un :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un :		—
	- calculated temperature of fixing point/exposed part (°C)..... :		—
	Ball-pressure test :	See Test Table 1.15 (13.2.1)	N/A
1.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions :		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
1.13 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link : Yes ☐ No ☐		—
	- manual reset cut-out : Yes ☐ No ☐		—
	- auto reset cut-out : Yes ☐ No ☐		—
	- case of abnormal conditions :		—
	- highest measured temperature of fixing point/ exposed part (°C):..... :		—
	Ball-pressure test: :	See Test Table 1.15 (13.2.1)	N/A

1.14 (9)	RESISTANCE TO DUST AND MOISTURE		Pass
1.14 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		Pass
1.14 (9.2)	Tests for ingress of dust, solid objects, and moisture:		Pass
	- classification according to IP :	IP55 Models tested: ECOBEPPE 400 EP5.000D6K BEPPE 400 P50.000.H1L GINO 400 F50.000.H1L ECOBEPPE 500 EP6.000.D9K GINO 500 F60.000.W1L	—
	- mounting position during test :	Pole	—
	- fixing screws tightened; torque (Nm) :	Screws were tightened to 2/3 of table 4.1	—
	- tests according to clauses :	9.2.1; 9.2.6	—
	- electric strength test afterwards	(See 10.2.2)	Pass
	a) no deposit in dust-proof luminaire		Pass
	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	No water inside optical case	Pass
	c.1) For luminaires without drain holes – no water entry		Pass
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		Pass
1.14 (9.3)	Humidity test 48 h	24 °C; 94% Relative humidity	Pass

1.15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		Pass
1.15 (10.2.1)	Insulation resistance test		Pass
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		—
	Insulation resistance (MΩ):		N/A
	SELV/PELV:		N/A
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		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
	Other than SELV/PELV:		Pass
	- between live parts of different polarity	>10 MΩ (Min. required: 2 MΩ)	Pass
	- between live parts and mounting surface	>10 MΩ (Min. required: 4 MΩ)	Pass
	- between live parts and metal parts	No metal parts in the luminaire	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	>10 MΩ (Min. required: 2 MΩ)	Pass
	- Insulation bushings as described in Section 5		N/A
1.15 (10.2.2)	Electric strength test		Pass
	Dummy lamp		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V):		Pass
	SELV/PELV:		N/A
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		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
	Other than SELV/PELV:		Pass
	- between live parts of different polarity	1480 V	Pass
	- between live parts and mounting surface	2960 V	Pass
	- between live parts and metal parts	No metal parts in the luminaire	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	1480 V	Pass
	- Insulation bushings as described in Section 5		N/A
1.15 (10.3)	Touch current (mA).....	Measured 0,002 mA (Limit 0,7 mA peak)	Pass
	Protective conductor current (mA).....		N/A

1.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		Pass
1.16 (13.2.1)	Ball-pressure test	See Test Table 1.16 (13.2.1)	Pass
1.16 (13.3.1)	Needle-flame test (10 s).....	See Test Table 1.16 (13.3.1)	N/A
1.16 (13.3.2)	Glow-wire test (650 °C).....	See Test Table 1.16 (13.3.2)	Pass
1.16 (13.4)	Proof tracking test (IEC 60112).....	See Test Table 1.16 (13.4)	N/A

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Clause	Requirement + Test				Result - Remark		Verdict
1.8 (11.2)	TABLE I: Creepage distances and clearances						Pass
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						Pass
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						Pass
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	> 3 mm	1,5 mm	11.1.B	> 5 mm	2,5 mm	11.1.A
Working voltage (V).....:					220 - 240 Vac		—
PTI.....:					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information: between live parts of different polarity.							
Distance 2:	R	> 6 mm	3 mm	11.1.B	> 10 mm	5 mm	11.1.A
Working voltage (V).....:					220 - 240 Vac		—
PTI.....:					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information: between live parts and the outer surface of insulating parts.							
Distance 3:	S	> 3 mm	1,5 mm	11.1.B	> 5 mm	2,5 mm	11.1.A
Working voltage (V).....:					220 - 240 Vac		—
PTI.....:					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information: between supply cable and anchorage							
Distance 4:	R	> 6 mm	3,0 mm	11.1.B	> 10 mm	5,0 mm	11.1.A
Working voltage (V).....:					220 - 240 Vac		—
PTI.....:					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information: between live parts and the supporting surface.							

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

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Clause	Requirement + Test				Result - Remark		Verdict
1.8 (11.2)	TABLE II: Creepage distances and clearances						N/A
Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages							
Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2							
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:							
Working voltage (V)..... :							—
Frequency if applicable (kHz)..... :							—
PTI..... :					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) :							—
Supplementary information:							
Distance 2:							
Working voltage (V)..... :							—
Frequency if applicable (kHz)..... :							—
PTI..... :					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) :							—
Supplementary information:							
Distance 3:							
Working voltage (V)..... :							—
Frequency if applicable (kHz)..... :							—
PTI..... :					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) :							—
Supplementary information:							

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

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Clause	Requirement + Test	Result - Remark	Verdict
1.16 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics		Pass
Allowed impression diameter (mm)		2 mm	—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
Enclosure / polycarbonate	Bayer / Makrolon 2405	125	1,7 mm
Supplementary information:			

1.16 (13.3.1)	TABLE: Needle-flame test				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:					

1.16 (13.3.2)	TABLE: Resistance to heat and fire - Glow wire tests						Pass
Object/ Part No./ Material	Manufacturer/ trademark	Glow wire test (°C)					Verdict
		650		750		850	
		te	ti	te	ti		
Enclosure / polycarbonate (PC)	Bayer / Makrolon 2405	0	0	—	—	—	Pass
Translucent cover / polymethyl methacrylate (PMMA)	LG / HP210	0	0	—	—	—	Pass
Ignition of the specified layer placed underneath the test specimen (Yes/No) :							No
Supplementary information:							

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Clause	Requirement + Test	Result - Remark	Verdict

1.16 (13.4)	TABLE: Proof tracking test			N/A
Test voltage PTI		175 V		—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens		Verdict
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Description:	Plastic enclosure						
Base, reflector, decorative frame	C	Bayer	Makrolon 2405	Polycarbonate GWFI 1- 3 mm 850 °C Vicat temperature 145 °C	IEC 60598-1:2020	Tested in the luminaire	
Translucent cover.	C	LG	HP210	Polymethyl methacrylate HB	IEC 60598-1:2020	Tested in the luminaire	
Description:	Lamp holder						
Edison screw Lampholder	A	Fujian Mingqing Mcwong Ceramics & Electronic Co. Ltd.	F519	E27, 4 A, 500 V, T 180 °C	EN 60238:2018 +A1:2018	VDE (121802)	
Lampholder for fluorescent lamps	A	Zhongshan Gaori Electrical	GR-X53	GX53, 2 A, 250 V, T 180 °C	EN 60400:2017	VDE (40039595)	
Description:	Supply Wiring for version with supply cord						
Internal wiring	A	I.C.E.L. S.C. P.A.	H05RN-F	2 x 1 mm ² 300 / 500 V T 90 °C	EN 50525-2-21 EN 60332-1-2	HAR-IMQ A2109	
Description:	Internal Wiring						
Internal wiring	A	Jiang Yin Tianqi	H05S-K H05SJ-K	1 x 0,75 mm ² 300 / 500 V T 180 °C	EN 50525-2- 41:2011	VDE (40017265)	
Description:	Screw terminal block						
Screw terminal block	A	Jiangxi Gaochao Industrial / Kimbe	500	2,5 mm ² , 450 V, T 110 °C,	EN 60998-1:2004 EN 60998-2- 1:2004	VDE (40025212)	
Supplementary information:							
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.							
The codes above have the following meaning:							
A - The component is replaceable with another one, also certified, with equivalent characteristics							
B - The component is replaceable if authorised by the test house							
C - Integrated component tested together with the appliance							
D - Alternative component							

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Clause	Requirement + Test	Result - Remark	Verdict				
ANNEX 2	TABLE: Thermal tests of Section 12		Pass				
	Type reference :	ECOBEPPE 400 EP5.000D6K	—				
	Lamp used :	Fumagalli 10 W H3 LED G53 (V3)	—				
	Lamp control gear used :	—	—				
	Mounting position of luminaire :	Pole	—				
	Supply wattage (W)..... :	59,6 W at 220 V, 50 Hz 59,7 W at 230 V, 50 Hz 59,9 W at 240 V, 50 Hz	—				
	Supply current (A) :	0,286 A at 220 V, 50 Hz 0,276 A at 230 V, 50 Hz 0,267 A at 240 V, 50 Hz	—				
	Temperatures in test 1 - 4 below are corrected for ta (°C) :	25 °C	—				
	- abnormal operating mode :	—	—				
1.12 (12.4)	- test 1: rated voltage :	240 V, 50 Hz	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :	254,4 V, 50 Hz	—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage :	—	—				
	Through wiring or looping-in wiring loaded by a current of A during the test :	—	—				
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :	—	—				
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Supply wiring	25	57,7	57,8	—	90	—	—
Screw terminal block	25	56,8	56,8	—	110	—	—
Contact of the lampholder GX53	25	66,4	70,7	—	180	—	—
Plastic of the lampholder	25	65,7	66,7	—	180	—	—
Wiring lampholder GX53	25	62,9	62,9	—	180	—	—
LED lamp enclosure	25	67,5	68,3	—	—	—	—
Plastic cover	25	41,3	41,9	—	—	—	—
Plastic diffuser	25	47,1	47,9	—	125**	—	—
ta internal enclosure	25	51,8	51,9	—	—	—	—
Supplementary information:							
** Ball pressure see 13.2.1							

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Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						Pass
	Type reference :				BEPPE 400 P50.000.H1L		—
	Lamp used :				Fumagalli 50 W H.LED.HIP.4K		—
	Lamp control gear used :				—		—
	Mounting position of luminaire :				Pole		—
	Supply wattage (W)..... :				46,1 W at 220 V, 50 Hz 46,2 W at 230 V, 50 Hz 46,4 W at 240 V, 50 Hz		—
	Supply current (A) :				0,214 A at 220 V, 50 Hz 0,206 A at 230 V, 50 Hz 0,199 A at 240 V, 50 Hz		—
	Temperatures in test 1 - 4 below are corrected for ta (°C) :				25 °C		—
	- abnormal operating mode :				—		—
1.12 (12.4)	- test 1: rated voltage :				240 V, 50 Hz		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :				254,4 V, 50 Hz		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage :				—		—
	Through wiring or looping-in wiring loaded by a current of A during the test :				—		—
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :				—		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Supply wiring	25	55,3	59,1	—	90	—	—
Screw terminal block	25	55,3	59,1	—	110	—	—
Supply wiring under anchorage	25	47,7	48,0	—	75	—	—
Contact of the lampholder E27	25	59,4	61,1	—	180	—	—
Lamp enclosure, near heat sink	25	91,1	93,7	—	—	—	—
Plastic cover	25	41,3	41,9	—	125**	—	—
Plastic diffuser	25	37,1	37,9	—	—	—	—
ta internal enclosure	25	50,4	53,0	—	—	—	—
Supplementary information:							
** Ball pressure see 13.2.1							

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Clause	Requirement + Test	Result - Remark	Verdict				
ANNEX 2	TABLE: Thermal tests of Section 12		Pass				
	Type reference	BEPPE 400 P50.000.Q1L	—				
	Lamp used	Fumagalli 30 W H.LED.HIP.4K	—				
	Lamp control gear used	—	—				
	Mounting position of luminaire	Pole	—				
	Supply wattage (W).....	29,1 W at 220 V, 50 Hz 29,2 W at 230 V, 50 Hz 29,4 W at 240 V, 50 Hz	—				
	Supply current (A)	0,135 A at 220 V, 50 Hz 0,130 A at 230 V, 50 Hz 0,126 A at 240 V, 50 Hz	—				
	Temperatures in test 1 - 4 below are corrected for ta (°C)	25 °C	—				
	- abnormal operating mode	—	—				
1.12 (12.4)	- test 1: rated voltage	240 V, 50 Hz	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	254,4 V, 50 Hz	—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	—	—				
	Through wiring or looping-in wiring loaded by a current of A during the test	—	—				
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	—	—				
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Supply wiring	25	51,8	53,8	—	90	—	—
Contact of the lampholder E27	25	56,1	57,9	—	180	—	—
Lamp enclosure, near heat sink	25	82,6	84,9	—	—	—	—
Plastic cover	25	41,3	41,9	—	125**	—	—
Plastic diffuser	25	35,6	36,0	—	—	—	—
ta internal enclosure	25	46,7	48,2	—	—	—	—
Supplementary information:							
** Ball pressure see 13.2.1							

IEC 60598-2-1							
Clause	Requirement + Test	Result - Remark	Verdict				
ANNEX 2	TABLE: Thermal tests of Section 12		Pass				
	Type reference	GINO 400 F50.000.H1L	—				
	Lamp used	Fumagalli 50 W H.LED.HIP.4K	—				
	Lamp control gear used	—	—				
	Mounting position of luminaire	Pole	—				
	Supply wattage (W).....	45,63 W at 220 V, 60 Hz 45,54 W at 230 V, 60 Hz 45,48 W at 240 V, 60 Hz	—				
	Supply current (A)	0,212 A at 220 V, 60 Hz 0,203 A at 230 V, 60 Hz 0,195 A at 240 V, 60 Hz	—				
	Temperatures in test 1 - 4 below are corrected for ta (°C)	25 °C	—				
	- abnormal operating mode	—	—				
1.12 (12.4)	- test 1: rated voltage	240 V, 50 Hz	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	254,4 V, 50 Hz	—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	—	—				
	Through wiring or looping-in wiring loaded by a current of A during the test	—	—				
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	—	—				
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Supply wiring	25	52,1	52,2	—	90	—	—
Screw terminal block	25	52,8	52,8	—	110		
Contact of the lampholder E27	25	60,5	60,7	—	180	—	—
Internal wiring	25	53,5	53,5	—	180	—	—
Lamp enclosure, near heat sink	25	74,4	74,4	—	—	—	—
Plastic near lampholder	25	57,3	57,4	—	125**	—	—
Gasket	25	41,1	41,1	—	80	—	—
ta internal enclosure	25	49,2	49,2	—	—	—	—
Supplementary information:							
** Ball pressure see 13.2.1							

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

ANNEX 2	TABLE: Thermal tests of Section 12			Pass			
	Type reference	ECOVIVI 500 EV6.000.D9L		—			
	Lamp used	9 x 10 W LED lamps by Fumagalli GX53 1000 Lumen		—			
	Lamp control gear used	—		—			
	Mounting position of luminaire	Suspension		—			
	Supply wattage (W).....	85,4 W at 100 V, 50 Hz 85,0 W at 220 V, 50 Hz 85,1 W at 230 V, 50 Hz 85,6 W at 240 V, 50 Hz		—			
	Supply current (A)	0,92 A at 100 V, 50 Hz 0,46 A at 220 V, 50 Hz 0,45 A at 230 V, 50 Hz 0,44 A at 240 V, 50 Hz		—			
	Temperatures in test 1 - 4 below are corrected for ta (°C)	25 °C		—			
	- abnormal operating mode	—		—			
1.12 (12.4)	- test 1: rated voltage	240 V, 50 Hz		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	254,4 V, 50 Hz		—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	—		—			
	Through wiring or looping-in wiring loaded by a current of A during the test	—		—			
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	—		—			
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Screw terminal block	23,5	51,1	53,4	—	100	—	—
Supply cable	23,5	51,7	54,2	—	90	—	—
Supply cable under anchorage	23,5	30,5	32,5	—	75	—	—
Wiring the lampholder	23,5	66,3	69,1	—	180	—	—
Lampholder	23,5	74,4	75,4	—	180	—	—
Contact of the lampholder	23,5	75,1	76,1	—	180	—	—

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

Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Plastic near the heat-sink	23,5	72,3	75,4	—	100**	—	—
Lamp heat-sink	23,5	76,6	79,4	—	—	—	—
Gasket	23,5	35,5	36,5	—	80	—	—
Internal temperature	23,5	51,9	54,7	—	—	—	—
Flat glass	23,5	49,3	51	—	—	—	—
Mounting surface	23,5	28,2	28,2	—	90	—	—
Supplementary information: ** Ball pressure see 13.2.1							

IEC 60598-2-1							
Clause	Requirement + Test	Result - Remark	Verdict				
ANNEX 2	TABLE: Thermal tests of Section 12		Pass				
	Type reference	BEPPE 500 P60.000H1L	—				
	Lamp used	Fumagalli 50 W H.LED.HIP.4K	—				
	Lamp control gear used	—	—				
	Mounting position of luminaire	Pole	—				
	Supply wattage (W)	46,1 W at 220 V, 50 Hz 46,2 W at 230 V, 50 Hz 46,4 W at 240 V, 50 Hz	—				
	Supply current (A)	0,214 A at 220 V, 50 Hz 0,206 A at 230 V, 50 Hz 0,199 A at 240 V, 50 Hz	—				
	Temperatures in test 1 - 4 below are corrected for ta (°C)	25 °C	—				
	- abnormal operating mode	—	—				
1.12 (12.4)	- test 1: rated voltage	240 V, 50 Hz	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	254,4 V, 50 Hz	—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage	—	—				
	Through wiring or looping-in wiring loaded by a current of A during the test	—	—				
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	—	—				
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		Test 1	Test 2	Test 3	Limit	Test 4	Limit
Supply wiring	25	55,3	59,1	—	90	—	—
Contact of the lampholder E27	25	59,4	61,1	—	180	—	—
Lamp enclosure, near heat sink	25	91,1	95,7	—	—	—	—
Plastic cover	25	41,3	41,9	—	125**	—	—
Plastic diffuser	25	37,1	37,9	—	—	—	—
ta internal enclosure	25	50,4	53,0	—	—	—	—
Supplementary information:							
** Ball pressure see 13.2.1							

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal		—
	Rated current (A)		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm ²)		—
(14.3.3)	Conductor space (mm)		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread)		N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm)		N/A
	Torque (Nm).....		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N).....		N/A
(14.4.8)	Without undue damage		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal		—
	Rated current (A)		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples)		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples)		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A

IEC 60598-2-1											
Clause	Requirement + Test					Result - Remark					Verdict
15.6.2	Mechanical tests										N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)										N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)										N/A
(15.6.3)	Electrical tests										N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1										N/A
(15.6.3.1) (15.6.3.2)	TABLE: Contact resistance test / Heating tests										N/A
	Voltage drop (mV) after 1 h										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										
	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:											

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

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Customer's Testing Facility according to CTF stage 1 or CTF stage 2 procedure has been used.

Note: This page may be removed when CTF stage 1 or CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
		See attachment 5			

Attachment 1	CENELEC COMMON MODIFICATIONS (EN)		
IEC60598_2_1I ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60598-2-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Luminaires Part 2: Particular requirements Section 1: Fixed general purpose luminaires			
Differences according to: EN IEC 60598-2-1:2021 used in conjunction with EN IEC 60598-1:2021 + AMD11:2022			
TRF template used: IECEE OD-2020-F2:2020, Ed. 1.1			
Attachment Form No: EU_GD_IEC60598_2_1I			
Attachment Originator: UL(Demko)			
Master Attachment: 2022-05-13			
Copyright © 2022 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
	CENELEC COMMON MODIFICATIONS (EN)		Pass
1.6 (3)	MARKING		N/A
1.6 (3.2.12)	Note 4 deleted		N/A
1.7 (4)	CONSTRUCTION		N/A
1.7 (4.11.6)	Electro-mechanical contact systems: electric strength test at 1500 V		N/A
1.11 (5)	EXTERNAL AND INTERNAL WIRING"		N/A
1.11 (5.2.2)	Cables equal to EN 50525 (all parts)		N/A
	Paragraph 2 deleted		N/A
	Replace table 5.1 – Supply cord		N/A
1.13 (12)	ENDURANCE TESTS AND THERMAL TESTS		Pass
1.13 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		Pass

Attachment 1	CENELEC COMMON MODIFICATIONS (EN)		
IEC60598_2_11 ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N/A
(3.3)	DK: power supply cords of class I luminaires with label	Luminaire in class II	N/A
(5.2.1)	CY, DK, FI, UK: type of plug		N/A
(5.2.18)	DK: socket-outlets		N/A

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		Pass
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N/A
	FR: Safety requirements for high buildings <i>(Decree of 30 December 2011 on safety regulations for the construction of high-rise buildings and their protection against fire and panic risks; Section VIII; Article GH 48, Lighting)</i> Glow-wire test for outer parts of luminaires:		N/A
	- 850 °C for luminaires in stairways and horizontal travel paths		N/A
	- 650 °C for indoor luminaires		Pass
	UK: Requirements according to United Kingdom Building Regulation		N/A

Attachment 2	National differences		
IEC60598_2_1H - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

	National Differences for (country name) or Group Differences	
This test report refers to the complete tests carried out on the following luminaires: evaluation according to the National Differences and Common Differences between: IEC 60598-2-1:2021 used in conjunction with IEC 60598-1:2020 and SASO IEC 60598-2-1:2021 used in conjunction with SASO IEC 60598-1:2020		
Country	National Differences and Common Differences	Last modification
SAUDI ARABIA.	National differences	2022-04-04
Declared on the latest version of CB Bulletin published on IECEE website on 2022-10-14		

RATED VOLTAGE AND FREQUENCY			—
	Rated voltage or rated voltage range, for equipment intended to be connected to the supply mains, shall cover:		—
	- for single-phase: 220 V, or 230 V, or 127 V for spare parts and components only	220 -240 V	Pass
	- for multi-phase: 380 V or 400 V		N/A
	Rated frequency or frequency range shall cover 60 Hz	50/60 Hz	Pass
POWER CORDS AND PLUGS			—
	Where applicable, electrical equipment shall be supplied with the following plug type:		—
	IEC Type G plugs configurations in conformity with SASO 2203 and/or BS 1363		N/A
MARKING AND INSTRUCTIONS			—
	All products must bear an un-removable fixed indication for the country of origin. Acceptable wordings are "Made in..." or "Manufactured in...". (MoCI Royal Decree No. M/5)		Pass
	Markings on the name plate shall be either in Arabic or English language or both.	English Checked	Pass
	Safety instructions and Manuals shall be in both Arabic and English language.	English Checked. Arabic provided with the product	Pass

Attachment 2	National differences		
IEC60598_2_1H - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Cautionary and warnings marking, if applicable, shall be marked at least in Arabic language.		N/A
	Any pictures, text or objects that are offensive to the Islamic religion shall not appear on the product, markings or accompanying instructions.		Pass
	Pictures, text or objects that are offensive to the Islamic religion shall not appear on the product packaging too, but packages are not in scope of the present investigation.		

Attachment 3	Photographs
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Photograph No. 1 Model ECOVIVI 400 EV4.000D6L



Photograph No. 2 Model LUIGI 400 L4F.128.D6L



Attachment 3	Photographs
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Photograph No. 3 Model GINO 400 F50.000.D6L



Photograph No. 4 Model REMO 400 R50.000.D6L



Attachment 3	Photographs
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Photograph No. 5 Model LUIGI 400-DR L41.128.H1L



Photograph No. 6 Model VIVI 400 E27



Attachment 3	Photographs
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Photograph No. 7 Model VIVI 400 V50.000.D6L**Photograph No. 8** Model ECOBEPPE 400 EP5.000D6L, optical view

Attachment 3	Photographs
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Photograph No. 9 Model ECOBEPPE 400 EP5.000D6L, bottom view



Photograph No. 10 Model ECOBEPPE 400 EP5.000D6L, lateral side

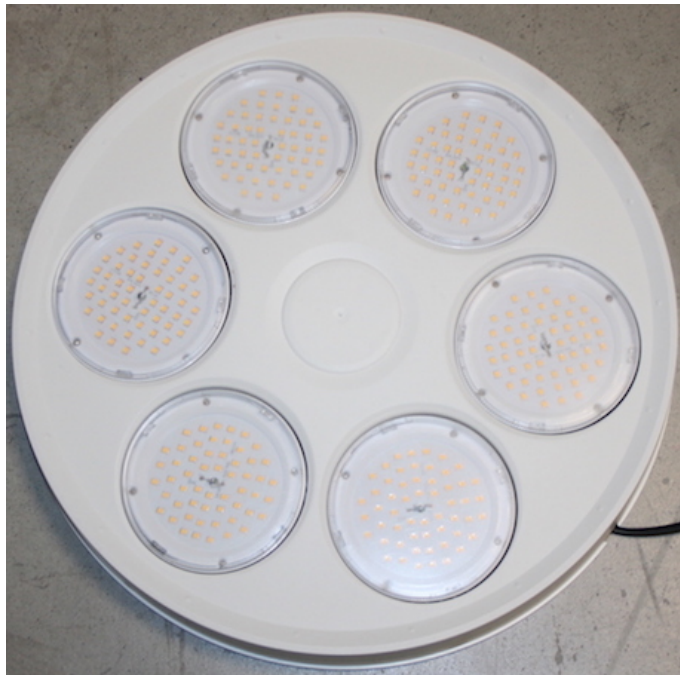


Attachment 3	Photographs
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Photograph No. 11 Model ECOBEPPE 400 EP5.000D6L, after removed the cover



Photograph No. 12 Lamp support



Attachment 3	Photographs
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Photograph No. 13 Model BEPPE 400 P50.000.D6L, optical view

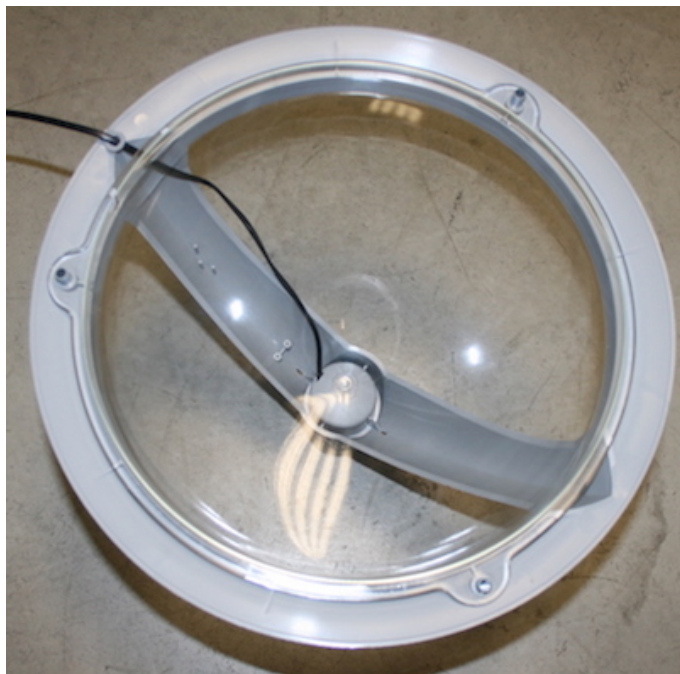


Photograph No. 14 Model BEPPE 400 P50.000.D6L, after removed the cover



Attachment 3	Photographs
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Photograph No. 15 Optical diffuser, with supply cable 2 x 1 mm² H05RN-F



Photograph No. 16 Model BEPPE 400 P50.000.Q1L with lamps 30 W

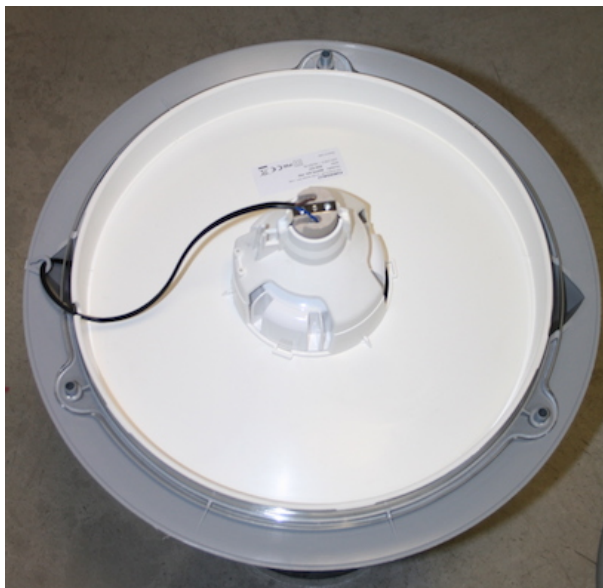


Attachment 3	Photographs
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Photograph No. 17 Model BEPPE 400 P50.000.H1L with lamps 50 W



Photograph No. 18 Lamp support, after removed the anchorage



Attachment 3	Photographs
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Photograph No. 19 Lamp support**Photograph No. 20** Model BEPPE 500 P60.000.D9L with lampholder GX53

Attachment 3	Photographs
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Photograph No. 21 Model ECOBEPPE 500 EP6.000.D9L with lampholder GX53



Photograph No. 22 Model ECOVIVI 500 EV6.000.D9L with lampholder GX53



Attachment 3	Photographs
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Photograph No. 23 Model GINO 500 F60.000.D9L with lampholder GX53



Photograph No. 24 Model REMO 500 R60.000.D9L with lampholder GX53



Attachment 3	Photographs
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Photograph No. 25 Model VIVI 500 V60.000.D9L GX53 with lampholder GX53



Photograph No. 26 Model ECOVIVI 500



Attachment 3	Photographs
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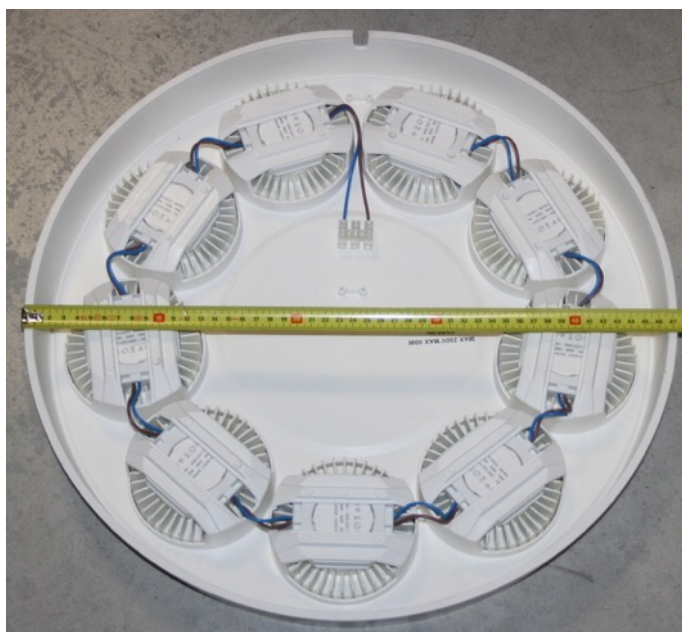
Photograph No. 27 Model ECOVIVI with 9 LED lamps 10 W



Photograph No. 28 Internal frame, flat glass

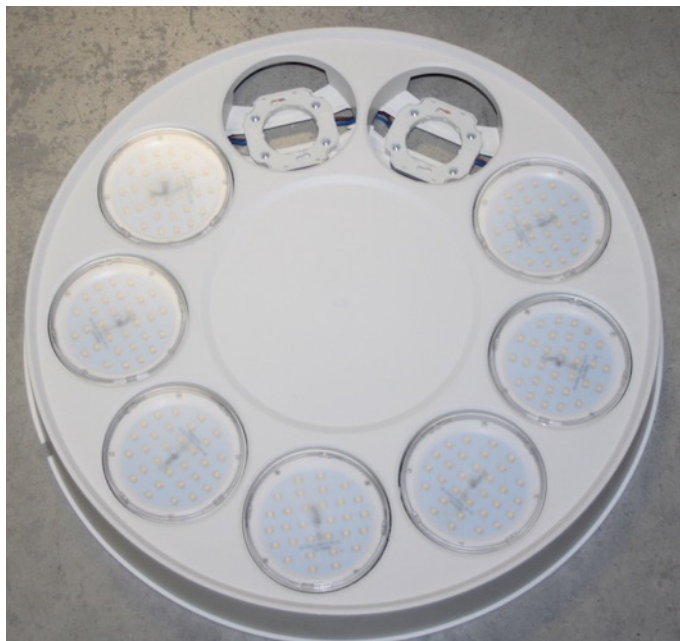


Attachment 3	Photographs
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Photograph No. 29 External frame**Photograph No. 30** Components plate, bottom view.

Attachment 3	Photographs
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Photograph No. 31 Components plate, top view.



Photograph No. 32 Internal view of the body



Attachment 3	Photographs
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Photograph No. 33 Fixing hook and cable gland

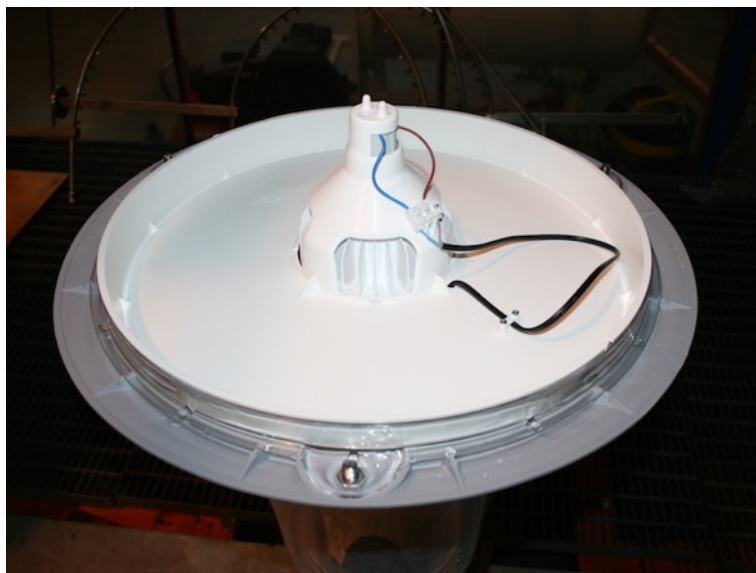


Photograph No. 34 Model GINO 500 F60.000.W1L after IPX5

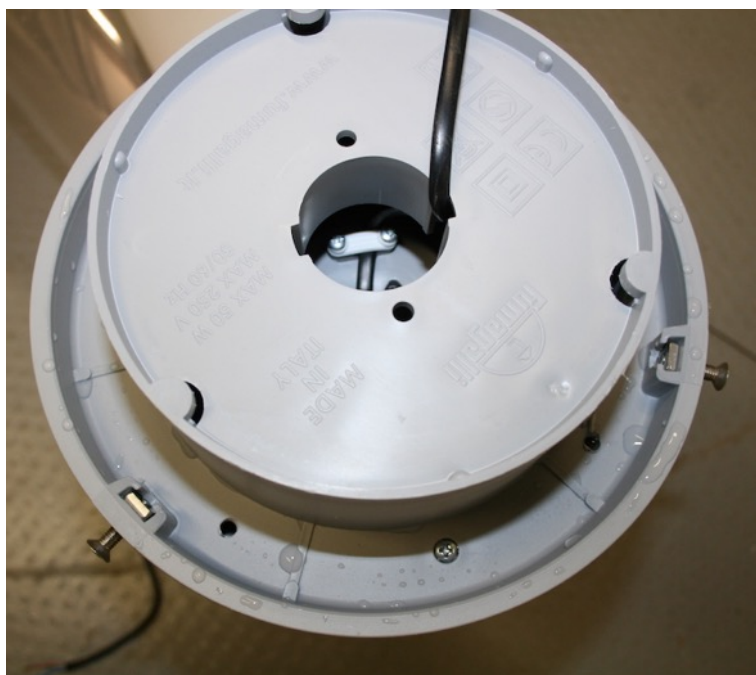


Attachment 3	Photographs
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Photograph No. 35 Internal luminaire after removed the cover.



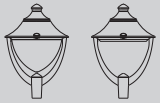
Photograph No. 36 Base of the luminaire.



Attachment 4 Instruction



BEPPE400 - ECOBEPPE400
BEPPE500 - ECOBEPPE500



VERSIONS:
E27 HIGH POWER LED
GX53 LED
E27 - E40

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MADE IN ITALY
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CAUTION! Installation and maintenance procedures must be carried out only after switching off the electricity supply. If present, fit the gasket properly inside the diffuser, to ensure the IP protection. Fumagalli Srl accepts no responsibility whatsoever for damages caused by incorrect installation, misuse or when used by combining it with non-original spare parts. If in doubt, consult a qualified electrician. Keep the instructions.

ATTENZIONE! L'installazione e la manutenzione dell'apparecchio devono essere eseguite solo dopo aver disinserito l'energia elettrica. Laddove presente, assicurarsi del corretto posizionamento della guarnizione all'interno dell'apparecchio al fine di garantire il grado di protezione IP. Fumagalli Srl non accetta responsabilità per danni causati da incorretta installazione, incorretto uso o dall'utilizzo di parti di ricambio che non appartengono al prodotto originale. Per qualsiasi dubbio, consultare un elettricista qualificato. Conservare le istruzioni.

ATTENTION! Les opérations de montage et d'entretien ne doivent être effectuées que lorsque le courant électrique est coupé. Si présent, assurer le positionnement correct de la joint dans l'appareil, afin de garantir le degré de protection IP. Fumagalli Srl n'accepte pas aucun responsabilité pour toutes les dommages causés par une mauvaise installation, par un' utilisation incorrecte or par l'utilisation des pièces de rechange qui ne sont pas originales. En cas de doutes, faites appel à un électricien qualifié. Conserver les instructions.

PRECAUCIÓN! Lleve a cabo la instalación y mantenimiento tras cortar la tensión de la instalación eléctrica. Si se incluye, juste correctamente el aro de goma con el producto para asegurar la protección IP indicada en el producto. En cualquier caso Fumagalli Srl no aceptará responsabilidad alguna por instalación incorrecta, mal uso o por su uso con accesorios no originales del fabricante. En caso de duda consulte con un electricista cualificado. Guarde estas instrucciones.

تحذير! إجراءات التركيب والصيانة يجب تنفيذها إلا بعد إيقاف تشغيل التيار الكهربائي. إذا كان موجوداً، قم بتركيب الحشوة كما ينبغي بصورة صحيحة داخل الغطاء المخصص لنشر الضوء بشكل متساوي. لضمان الحماية من تدفق الماء. الشركة المصنعة فوماجالي لا تقبل أي مسؤولية عن الأضرار الناجمة عن التركيب غير الصحيح، سوء الاستخدام، أو عند استخدام قطع غيار غير أصلية عند الجمع. إذا إنتابك أي شك، قم باستشارة كهربائي مختص. قم بتتبع التعليمات.

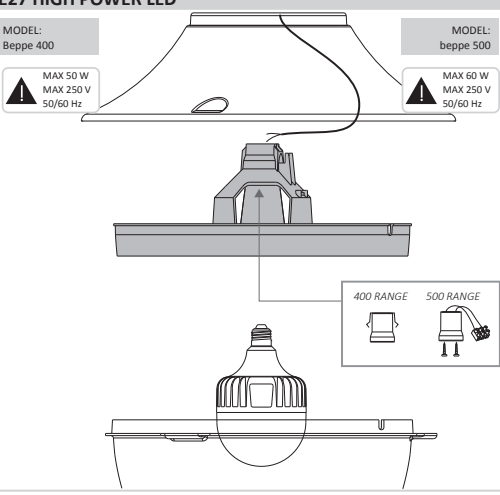
E27 HIGH POWER LED

MODEL: Beppe 400

MAX 50 W
MAX 250 V
50/60 Hz

MODEL: beppe 500

MAX 60 W
MAX 250 V
50/60 Hz



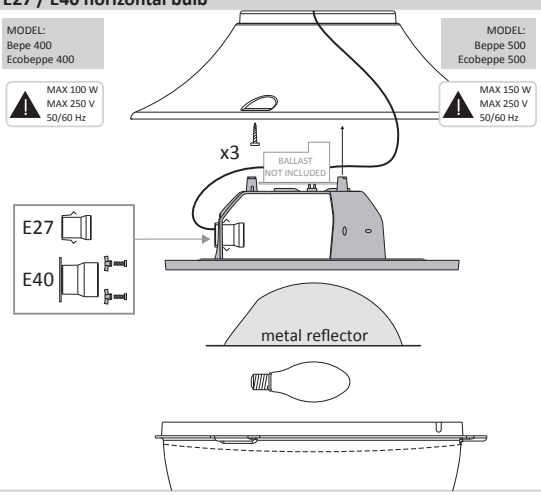
E27 / E40 horizontal bulb

MODEL: Bepe 400 Ecobeppe 400

MAX 100 W
MAX 250 V
50/60 Hz

MODEL: Beppe 500 Ecobeppe 500

MAX 150 W
MAX 250 V
50/60 Hz



GX53 LED

MODEL: Beppe 400 Ecobeppe 400

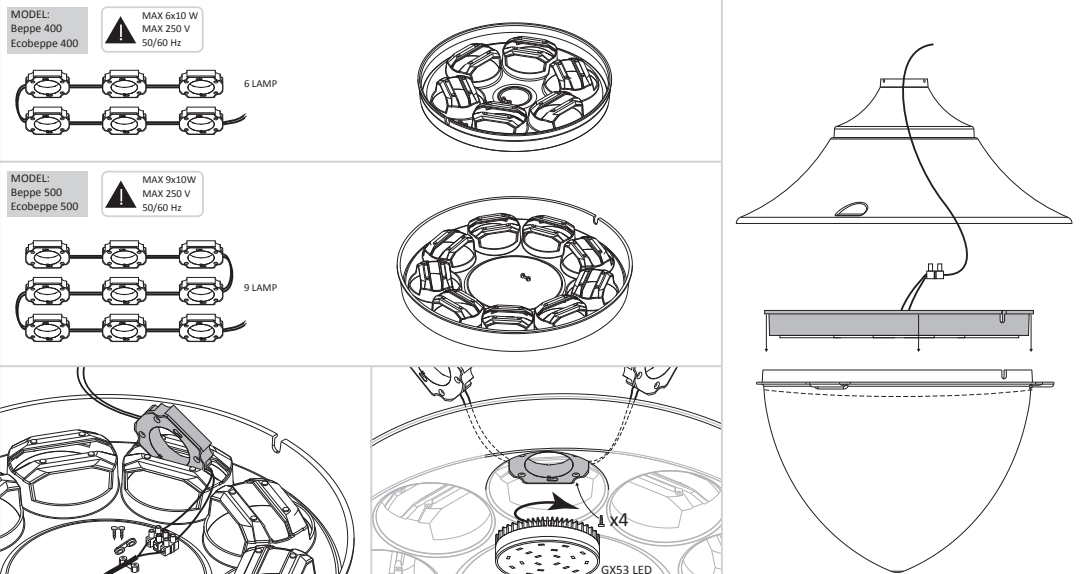
MAX 6x10 W
MAX 250 V
50/60 Hz

6 LAMP

MODEL: Beppe 500 Ecobeppe 500

MAX 9x10W
MAX 250 V
50/60 Hz

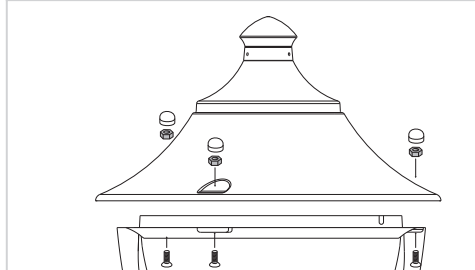
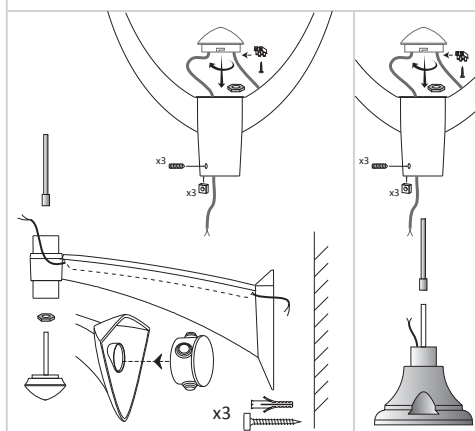
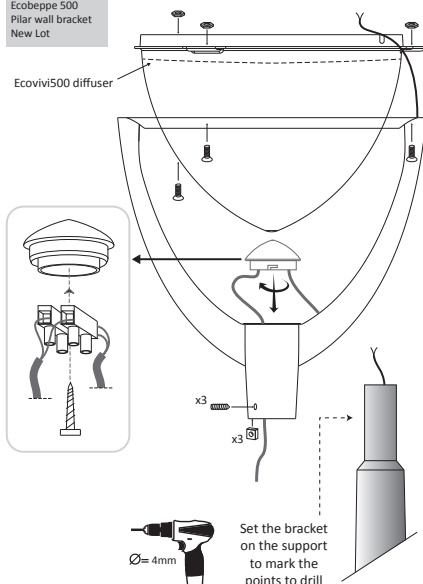
9 LAMP



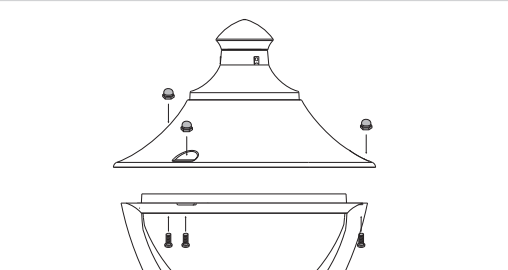
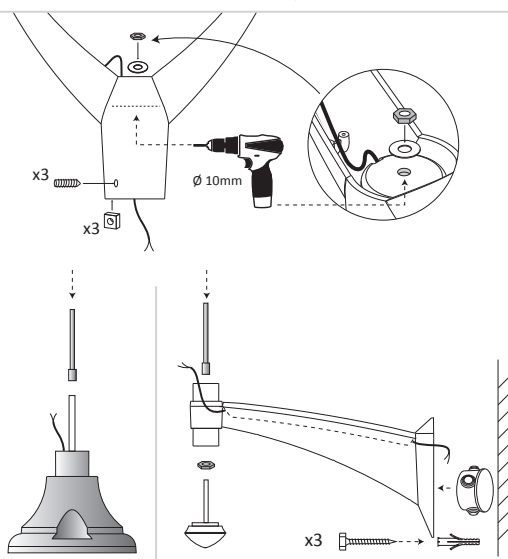
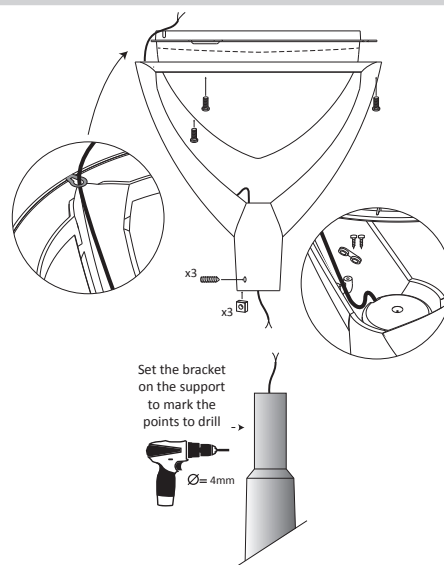
Attachment 4 Instruction

BEPPE 500 - ECOBEPPE 500

MODEL:
Beppe 500
Ecobeppe 500
Pillar wall bracket
New Lot

**BEPPE 400 - ECOBEPPE 400**

MODEL:
Beppe 400
Ecobeppe 400
Midipillar wall bracket
New Lot



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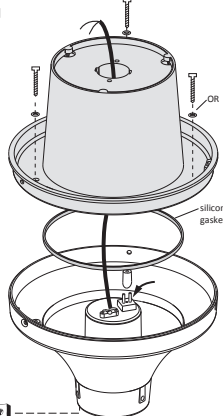
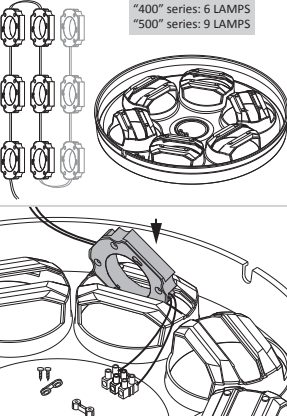
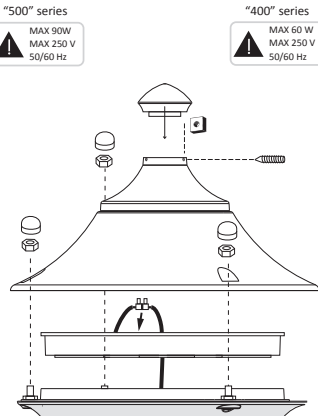
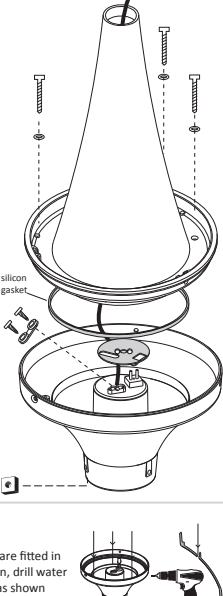
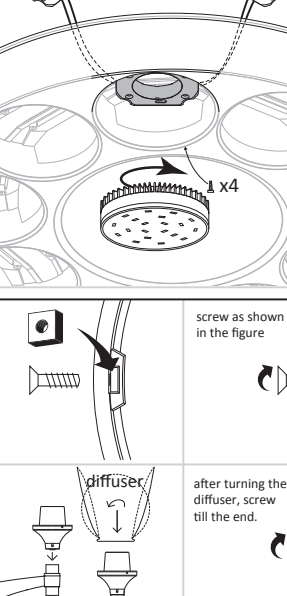
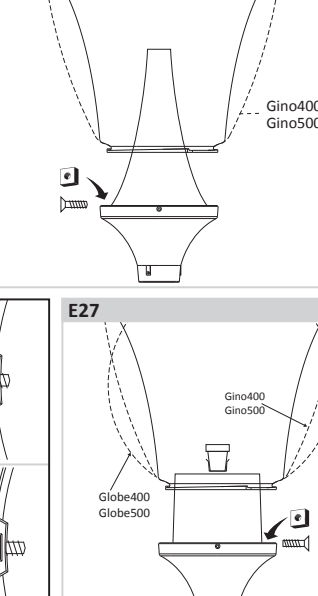
[GARANZIA] I prodotti Fumagalli sono marchiati CE. La Dichiarazione CE di conformità è disponibile su www.fumagalli.it/company. I prodotti Fumagalli godono di una garanzia di legge di 1 anno. Nel caso di evidenti difetti di fabbricazione Fumagalli Srl, a suo insindacabile giudizio, procederà alla sua riparazione o sostituzione. In nessun caso l'acquirente potrà reclamare rimborsi o spese sostenute per l'installazione, la disinstallazione, il trasporto o lo smaltimento del materiale.

0719

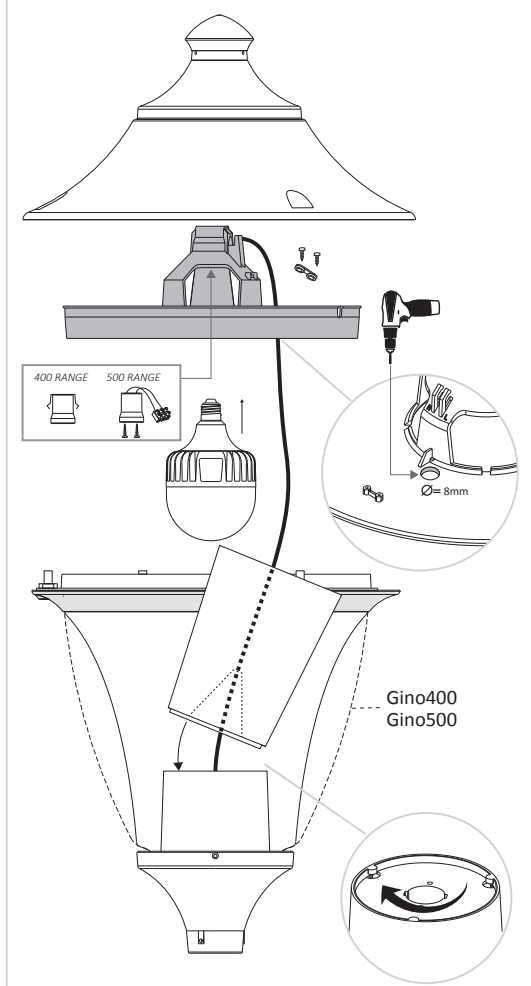
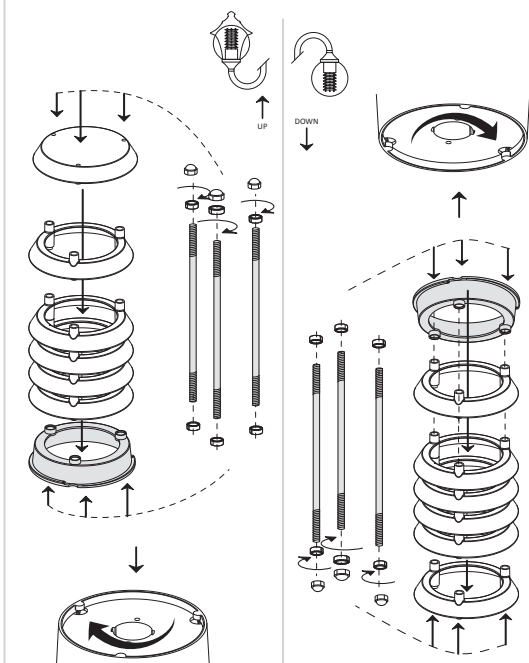
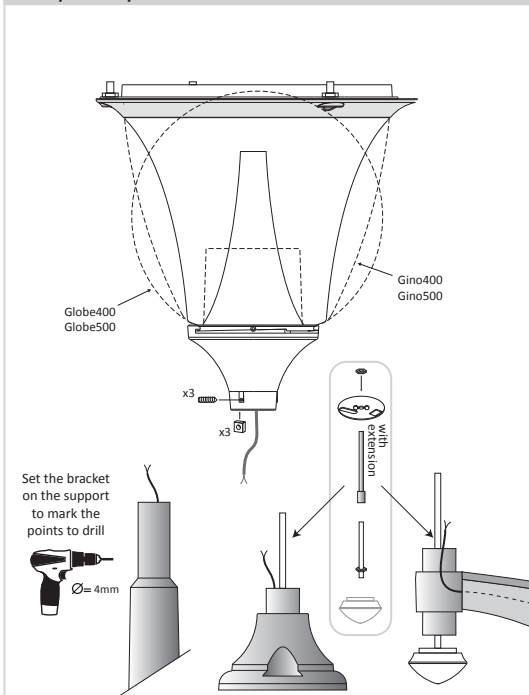
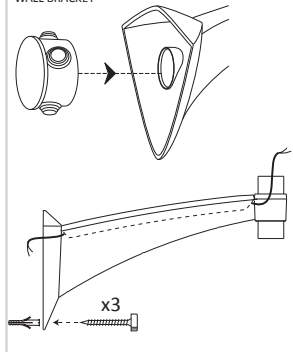
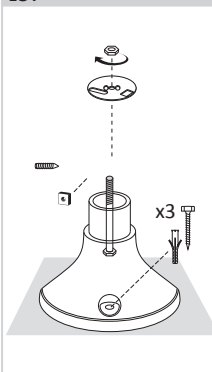
Attachment 4 Instruction

	GINO400 - REMO400 GINO500 - REMO500 GLOBE400 - GLOBE500		VERSIONS: E27 HIGH POWER LED GX53 LED E27 - E40	 MADE IN ITALY www.fumagalli.it
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	CAUTION! Installation and maintenance procedures must be carried out only after switching off the electricity supply. If present, fit the gasket properly inside the diffuser, to ensure the IP protection. Fumagalli Srl accepts no responsibility whatsoever for damages caused by incorrect installation, misuse or when used by combining it with non-original spare parts. If in doubt, consult a qualified electrician. Keep the instructions.
	ATTENZIONE! L'installazione e la manutenzione dell'apparecchio devono essere eseguite solo dopo aver disinserito l'energia elettrica. Laddove presente, assicurarsi del corretto posizionamento della guarnizione all'interno dell'apparecchio al fine di garantire il grado di protezione IP. Fumagalli Srl non accetta responsabilità per danni causati da incorretta installazione, incorretto uso o dall'utilizzo di parti di ricambio che non appartengono al prodotto originale. Per qualsiasi dubbio, consultare un elettricista qualificato. Conservare le istruzioni.
	ATTENTION! Les opérations de montage et d'entretien ne doivent être effectuées que lorsque le courant électrique est coupé. Si présent, assurer le positionnement correct de le joint dans l'appareil, afin de garantir le degré de protection IP. Fumagalli Srl n'accepte pas aucun responsabilité pour toutes les dommages causés par une mauvaise installation, par un' utilisation incorrecte ou par l'utilisation des pièces de rechange qui ne sont pas originales. En cas de doutes, faites appel à un électricien qualifié. Conserver les instructions.
	PRECAUCIÓN! Lleve a cabo la instalación y mantenimiento tras cortar la tensión de la instalación eléctrica. Si se incluye, juste correctamente el aro de goma con el producto para asegurar la protección IP indicada en el producto. En cualquier caso Fumagalli Srl no aceptará responsabilidad alguna por instalación incorrecta, mal uso o por su uso con accesorios no originales del fabricante. En caso de duda consulte con un electricista cualificado. Guarde estas instrucciones.
	تعليمات! إجراءات التركيب والصيانة يجب تنفيذها إلا بعد إيقاف تشغيل التيار الكهربائي. إذا كان موجوداً، قم بتركيب الحشوة كما ينبغي بصورة صحيحة داخل الغطاء المخصص لنشر الضوء بشكل متساوي، لضمان الحماية من تدفق الماء. الشركة المصنعة فوماجالي لا تقبل أي مسؤولية عن الأضرار الناجمة عن التركيب غير الصحيح، سوء الاستخدام، أو عند استخدام قطع غيار غير أصلية عند الجمع. إذا إنتابك أي شك، فم باستشارة كهربائي مختص. فم بتتبع التعليمات.

BASE E27 VERSION  x3	GX53 LED "400" series: 6 LAMPS "500" series: 9 LAMPS 	"500" series  MAX 90W MAX 250 V 50/60 Hz "400" series  MAX 60 W MAX 250 V 50/60 Hz  Gino400 Gino500
GX53 LED VERSION  x3  If the diffuser is fitted in the UP position, drill water escape holes as shown  $\varnothing = 6$	 screw as shown in the figure diffuser after turning the diffuser, screw till the end.	E27  Gino400 Gino500 Globe400 Globe500

Attachment 4 Instruction

E27 - HIGH POWER LED**BREAKLIGHT****GINO / REMO / GLOBE****PILAR - MIDIPILAR****WALL BRACKET****LOT**

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[GARANZIA] I prodotti Fumagalli sono marchiati CE. La Dichiarazione CE di conformità è disponibile su www.fumagalli.it/company. I prodotti Fumagalli godono di una garanzia di legge di 1 anno. Nel caso di evidenti difetti di fabbricazione Fumagalli Srl, a suo insindacabile giudizio, procederà alla sua riparazione o sostituzione. In nessun caso l'acquirente potrà reclamare rimborsi o spese sostenute per l'installazione, la disinstallazione, il trasporto o lo smaltimento del materiale.

0220

Attachment 4 Instruction



VIVI400 - ECOVIVI400
VIVI500 - ECOVIVI500
LUIGI400 - LUIGI500



VERSIONS:
E27 HIGH POWER LED
GX53 LED
E27 - E40



MADE IN ITALY
www.fumagalli.it

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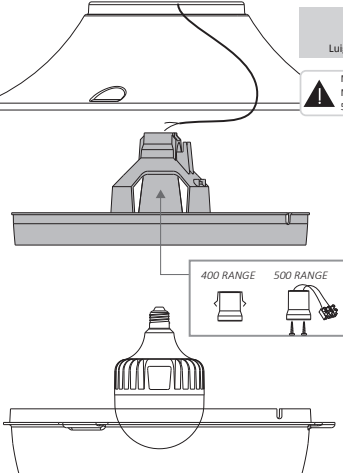
PRECAUCIÓN! Lleve a cabo la instalación y mantenimiento tras cortar la tensión de la instalación eléctrica. Si se incluye, juste correctamente el aro de goma con el producto para asegurar la protección IP indicada en el producto. En cualquier caso Fumagalli Srl no aceptará responsabilidad alguna por instalación incorrecta, mal uso o por su uso con accesorios no originales del fabricante. En caso de duda consulte con un electricista cualificado. Guarde estas instrucciones.

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E27 HIGH POWER LED

MODEL:
Vivi 400
Luigi 400 DR

MAX 50 W
MAX 250 V
50/60 Hz



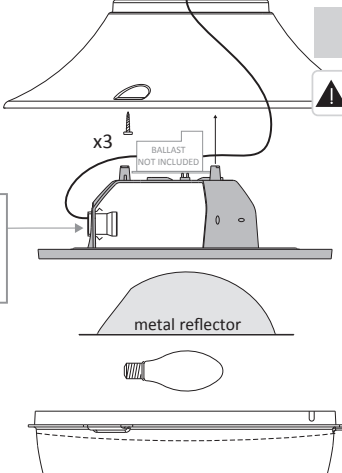
MODEL:
Vivi 500
Luigi 500-DR

MAX 60 W
MAX 250 V
50/60 Hz

E27 / E40 horizontal bulb

MODEL:
Vivi 400
Ecovivi 400

MAX 100 W
MAX 250 V
50/60 Hz



MODEL:
Vivi 500
Ecovivi 500

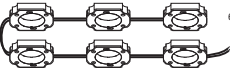
MAX 150 W
MAX 250 V
50/60 Hz

GX53 LED

MODEL:
Vivi 400 - Ecovivi 400
Luigi 400

MAX 6x10 W
MAX 250 V
50/60 Hz

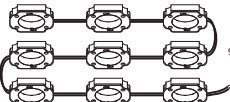
6 LAMP

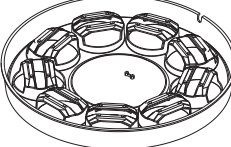


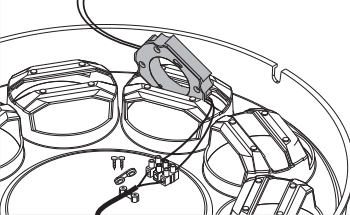
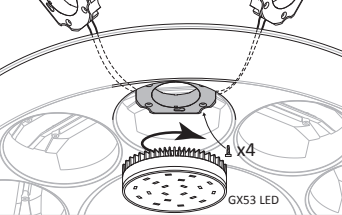
MODEL:
Vivi 500 - Ecovivi 500
Luigi 500

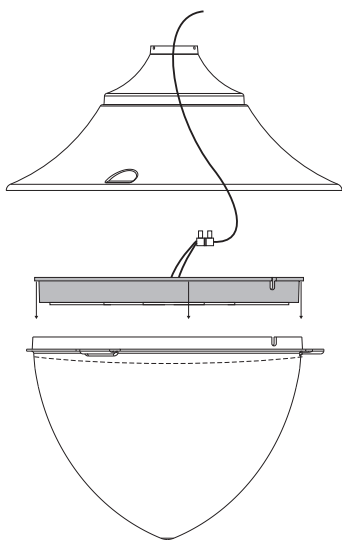
MAX 9x10W
MAX 250 V
50/60 Hz

9 LAMP



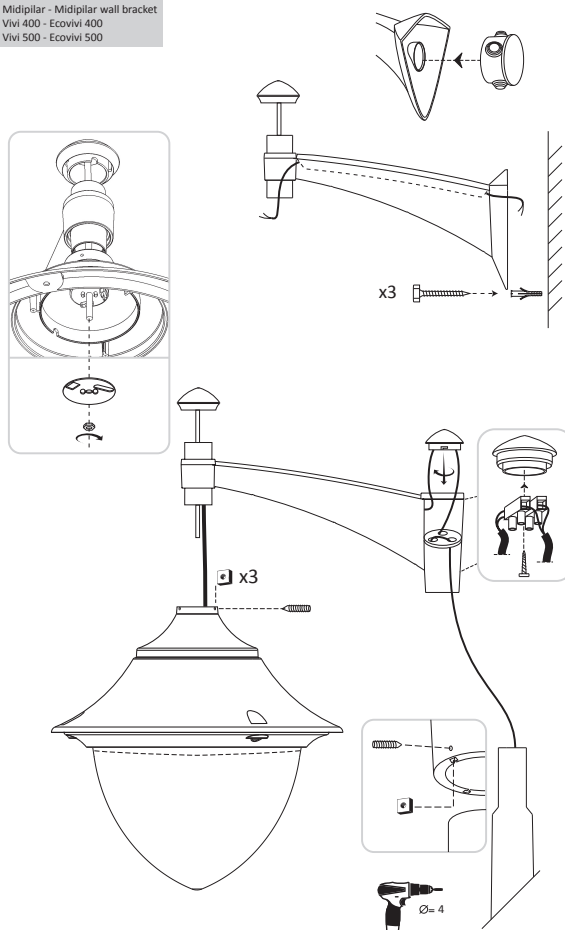





Attachment 4 Instruction

PILAR bracket

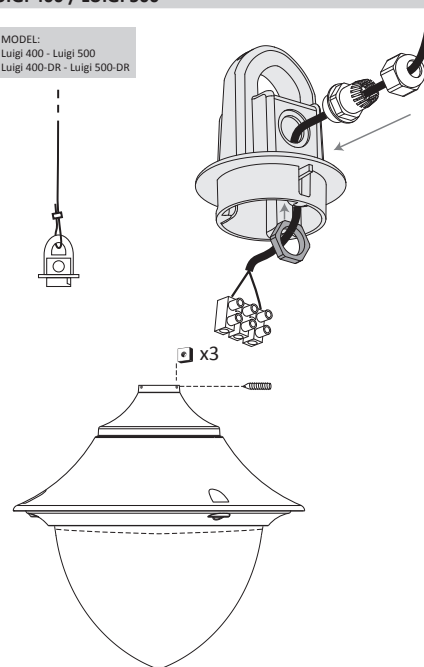
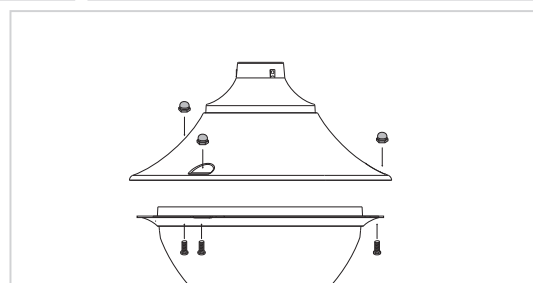
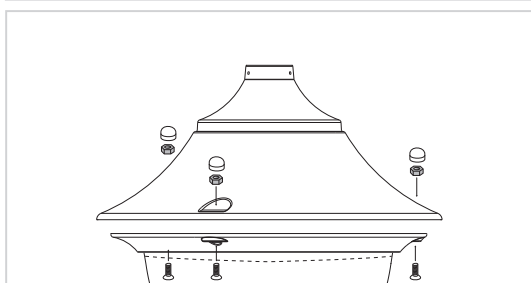
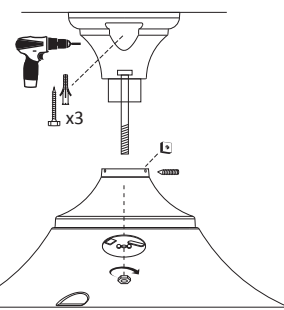
MODEL:
 Pilar - Pilar wall bracket
 Midipilar - Midipilar wall bracket
 Vivi 400 - Ecovivi 400
 Vivi 500 - Ecovivi 500



Set the bracket
 on the support
 to mark the
 points to drill

LUIGI 400 / LUIGI 500

MODEL:
 Luigi 400 - Luigi 500
 Luigi 400-DR - Luigi 500-DR

**NEW LOT**

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0220

Enclosure 5	Testing and measuring equipment list
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The following equipment has been used for project 3507056.50

Dekra Ref.	Type	Manufacturer	Model	Calibration mm/yy		Norm(s) Clauses
				Last date	Due date	
AT 0021	Glow wire test apparatus	F.Ili Galbusera	Art 02.06	08/18	08/19	13.3.2
AT 0041	Rigid Sphere 50 mm	F.Ili Galbusera	Art.01.01	07/16	07/20	8.2.1,8.2.2
AT 0042	Test finger adjustable	F.Ili Galbusera	Art.01.01	07/16	07/20	8.2.1,8.2.2
AT 0043	Rigid Test finger	F.Ili Galbusera	Art.01.02	11/16	11/20	8.2.1,8.2.2
AT 0050	Box for IPX1 - IPX6	F.Ili Galbusera	Art. 03.39	10/18	10/19	9.2.6, 9.2.7
AT 0052	Hose nozzle 6,3 mm IPX5	F.Ili Galbusera	Art. 03.22	10/18	10/19	9.2.7
AT 0058	Dust chamber	F.Ili Galbusera	Art. 03.01	01/19	01/20	9.2.2
AT 0079	Impact test pendulum + masses	F.Ili Galbusera	AT0079	10/16	10/19	EN 62262
AT 0102	Oven	F.Ili Galli	2100	08/18	08/19	13.2.1
AT 0367	Mass N 10	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0368	Mass N 30	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0369	Mass N 10	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0370	Mass N 50	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0381	Mass N 50	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0379	Support mass N 1	F.Ili Galbusera	—	11/16	11/20	5.2.10
AT 0398	Torque Test Apparatus	SIF	01.22	10/16	10/19	5.2.10
AT 0988	Climatic test chamber	Angelantoni	WZH39A1	11/18	11/20	9.3
AT 0989	Test chamber 5-50 °C	Angelantoni	WZH39A1	11/18	11/20	12.3,
AT 0990	Test chamber 5-50 °C	Angelantoni	WZH39A1	11/18	11/20	12.4.1
ST 0006	Thermocouple	Tersid	K TEX/TEX-30-KK	11/18	11/19	12.3; 12.4.1
ST 0013	Torque meter 0-250cNm	MHH-Eng.Co.	Quickset	07/18	07/20	4.12.1
ST 0088	Impact Test- Spring Hammer	PTL	F.2250	07/18	07/20	4.13.1
ST 0197	Multi test Apparatus	HT Italia	HT2036	06/19	06/20	10.2.1, 10.2.2

Enclosure 5	Testing and measuring equipment list
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Dekra Ref.	Type	Manufacturer	Model	Calibration mm/yy		Norm(s) Clauses
				Last date	Due date	
ST 0262	Caliper (Digital)	LTF	327.00	06/19	06/20	4.12.1; 11.1
ST 0420	Digital thermometer + thermocouples	FLUKE	50D	08/18	08/19	12.3, 12.4.1
ST 0450	Multimeter	FLUKE	85/III	08/18	08/19	12.3, 12.4.1
ST 0482	Stabilized power supply	Chroma	61605	05/19	05/20	12.3, 12.4.1
ST 0942	Digital power meter	Yokogawa	WT310	07/19	05/20	12.3, 12.4.1 12.4.5
ST 0944	Chrono meter	Oregon Scientific	500 Lap memory	05/19	05/20	5.2.10.3, 13.3.2, 13.2.1
ST 0434	Temperature recorder	Yokogawa	MX100-E-1F	05/19	05/20	12.4.1 12.4.5

The following equipment has been used for project 3508855.52

Dekra Ref.	Type	Manufacturer	Model	Calibration mm/yy		Norm(s) Clauses
				Last date	Due date	
ST 0013	Torque meter 0-250cNm	MHH-Eng.Co.	Quickset	08/22	08/24	4.12.1
ST 0088	Impact Test- Spring Hammer	PTL	F.2250	06/22	06/24	4.13.1
ST 0197	Multi test Apparatus	HT Italia	HT2036	08/22	08/23	10.2.1, 10.2.2
ST 0262	Caliper (Digital)	LTF	327.00	08/22	08/23	4.12.1; 11.1
AT 0050	Box for IPX1 - IPX6	F.Ili Galbusera	Art. 03.39	10/21	10/22	9.2.6, 9.2.7
AT 0052	Hose nozzle 6,3 mm IPX5	F.Ili Galbusera	Art. 03.22	08/21	08/23	9.2.7
AT 0989	Test chamber	Angelantoni	WZH39A1	08/22	08/23	12.3