

TESTING LABORATORY

Nr

034/16 (EN)

Date of Edition

2016-02-29

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Applicant

BISELARTE – Sociedade de Vidros, Lda.
Zona Industrial de Oiã – Apartado 100
3770-908 – OIÃ - PORTUGAL

Date of Entry

2016-01-19

Appliance / Product Tested**Nr of Samples**

Designation: Fixed luminaire - Bathroom mirror.
Manufacturer/Trademark ..: XPCS
Reference: ANAYA 1200x700
Ratings: 230V; 50Hz; 6,42W LED + 1x21W G5; IP44; Class II, 24W (heating)
Observations: Variants: ANNA 1000x700

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Manufacturer / Representative

BISELARTE – Sociedade de Vidros, Lda.
Zona Industrial de Oiã – Apartado 100
3770-908 – OIÃ - PORTUGAL

Standards / Reference Documents

EN 60598-1 (2015)
EN 60598-2-1 (1989)

**Type / Scope of Test**

Tests for verification of compliance with the requirements of the referenced standards.

Test Result

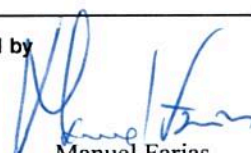
The tested sample is in accordance with the standards requirements.

The test results are described in the following pages.

Test Performed by


João Lopes
(Laboratory Technical)

Approved by


Manuel Farias
(Executive Director)

Date

2016-02-29

Date

2016-02-29

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Photographs:

See the remark

General remarks:

Clause numbers between brackets refer to clauses in EN 60598-1.

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

Test case verdicts:

- test case does not apply to the test object : N/A
- test item does meet the requirement : P
- test item does not meet the requirement : F

Marking plate:

See the remark

Summary of the test results:

All applicable tests have been carried out on the tested sample.

The tested sample is a fixed luminaire with built-in convertor and integral non-replaceable LED modules.

The LED modules have been tested as integral components, assembled in the luminaire, and as far as applicable with the requirements of EN 62031.

According a declaration of conformity from LED manufacturer, the LED strip complies with the requirements for photobiological safety given in EN 62471.

The tests have been carried out in the order listed in EN 60589-2-1, in accordance with the IP classification of the tested sample.

(0.5) COMPONENTS

Components	Manufacturer	Model	Ratings	Standard	Conformity
Control gear (ANAYA 1200x700)	SHANXI TIANLI JINRUN	DSLED/12CV-15/SF02	220-240V~; 50/60Hz; 12V _{DC} ; 15W; Ta 50°C Tc 80	EN 61347-2-13	CE
Fluorescent lamp kit	DFLIGHTH	TL2001-21W	220-240V; 50Hz; Class II	EN 60598-2-1	SEMKO
LED strip	SHANXI TIANLI JINRUN	3528-600leds/5m/roll	12Vdc; IP20; 9,6W/m	IEC 62031	CE
Flexible cable	DongGuan Kelin Wire	FEP 6YI1	2x0,3mm ²	DIN VDE 0207 part 6:	<VDE>
Electronic switch	EDM	3120180024	100-240V~; 50/60Hz; µ; Class II; 250VA	EN 60669-2-1	CE
Terminal block	EBIR	603/3 2C	250V; 2x1,5mm ² ; IP44	EN 60998-1	CE
Mirror heater	XPCS	500x300mm	230V; 50Hz; Classe II; IP44; 24W; 600x400mm	EN 60335-1 EN 50366 EN 60598-1	CE
Alternative					
Control gear (ANAYA 1200x700) (ANAYA 1000x700)	SHANXI TIANLI JINRUN	DSLED/12CV-20/SF03	220-240V~; 50/60Hz; 12V _{DC} ; 20W; Ta 50°C Tc 80	EN 61347-2-13	CE
Control gear (ANAYA 1200x700) (ANAYA 1000x700)	MEAN WELL	LPH-18-12	100-240V~; 50/60Hz; 12V _{DC} ; 18W; 1,5A Tc 65	EN 61347-2-13	CE
Control gear (ANAYA 1200x700) (ANAYA 1000x700)	MEAN WELL	LPV-20-12	100-240V~; 50/60Hz; 12V _{DC} ; 20W; 1,67A Tc 65	EN 61347-2-13	CE
Mirror heater	ILOTEC	FMIR300300	230V; 50Hz; Classe II; IP44; 45W; 500x300mm	EN 60335-1 EN 50366 EN 60598-1	CE

(2) CLASSIFICATION OF LUMINAIRES

Section	Description	Classification
(2.2)	Classification according to type of protection against electric shock	Class I [] Class II [x] Class III []
(2.3)	Classification according to degree of protection against ingress of dust, solid	IP 44

Section	Description	Classification
	objects and moisture	
(2.4)	Classification according to material of supporting surface for which the luminaire is designed	Fixed luminaires suitable for normally flammable surfaces Yes ☒ No ☐
		Fixed luminaires suitable for non-combustible materials only Yes ☐ No ☒
(2.5)	Classification according to the circumstances of use	Normal use Yes ☒ No ☐
		Rough service Yes ☐ No ☒

(3) MARKING

Section	Description	Observations	Result
(3.2)	Marking on luminaires		P
(3.3)	Additional information		P
(3.4)	Test of marking		P

(4) CONSTRUCTION

Section	Description	Observations	Result
(4.2)	Replaceable components		P
(4.3)	Wireways		P
(4.4)	Lampholders		P
(4.5)	Starter holders		N/A
(4.6)	Terminal blocks		P
(4.7)	Terminals and supply connections		P
(4.8)	Switches		N/A
(4.9)	Insulating lining and sleeves		N/A
(4.10)	Double and reinforced insulation		P
(4.11)	Electrical connections and current-carrying parts		P
(4.12)	Screws and connections (mechanical) and glands	1,2Nm	P
(4.13)	Mechanical strength	0,20Nm; 0,35Nm	P
(4.14)	Suspensions and means of adjustment		P
(4.15)	Flammable materials		N/A
(4.16)	Mounting on normally flammable surfaces		P
(4.17)	Drain holes		N/A
(4.18)	Resistance to corrosion		P

Section	Description	Observations	Result
(4.19)	Ignitors		N/A
(4.20)	Rough service luminaires		N/A
(4.21)	Protective shield		N/A
(4.22)	Attachments to lamps		N/A
(4.23)	Semi-luminaires		N/A
(4.24)	UV radiation	Separately approved diode light	P
(4.25)	Mechanical hazard		P
(4.26)	Short-circuit protection		N/A
(4.27)	Terminal blocks with integrated earthing contacts		N/A
(4.28)	Fixing of thermal sensing control		N/A
(4.29)	Luminaires with non-replaceable light source		N/A
(4.30)	Luminaires with non-user replaceable light source		P
(4.31)	Insulation between circuits		P
(4.32)	Overvoltage protective devices		N/A

(5) EXTERNAL AND INTERNAL WIRING

Section	Description	Observations	Result
(5.2)	Supply connection and external wiring		P
(5.3)	Internal wiring		P

(7) PROVISION FOR EARTHING

Section	Description	Observations	Result
(7.2)	Provision for earthing	Class II	N/A

(8) PROTECTION AGAINST ELECTRIC SHOCK

Section	Description	Observations	Result
	Class of protection	Class II	
(8.2)	Protection against electric shock		P

(9) RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE

Section	Description	Observations	Result
	IP Classification	IP 44	
(9.2)	Tests for ingress of dust, solid objects and moisture		P
(9.3)	Humidity test		P

(10) INSULATION RESISTANCE AND ELECTRIC STRENGTH

Section	Description	Observations	Result
(10.2.1)	Insulation resistance		P

MEASURED VALUES:

Measured between parts:	Measured values (MΩ)	Minimum allowed (MΩ)
SELV:		
- Current-carrying parts of different polarity	>199,9	1
- Current-carrying parts and mounting surface	>199,9	1
- Current-carrying parts and metal parts	>199,9	1
Other than SELV:		
- Live parts of different polarity	>999	2
- Live parts and mounting surface	>999	4
- Live parts and metal parts	>999	4
- Outer surface of a cable and metal parts	>999	2

Section	Description	Observations	Result
(10.2.2)	Electric strength		P

MEASURED VALUES:

Tested between parts:	Test voltage (V)	Result
SELV:		
- Current-carrying parts of different polarity	500	P
- Current-carrying parts and mounting surface	500	P
- Current-carrying parts and metal parts	500	P
Other than SELV:		
- Live parts of different polarity	1460	P
- Live parts and mounting surface	2920	P
- Live parts and metal parts	2920	P
- Outer surface of a cable and metal parts	1460	P

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Tested between parts:	Test voltage (V)	Result
- Input and output windings	2920	P

Section	Description	Observations	Result
(10.3)	Touch current		P
(10.3)	Protective conductor current		N/A

MEASURED VALUES:

Tested parts	Measured values	Maximum allowed
Between earth and accessible parts	0,22 mA (peak)	0,7 mA (peak)

(11) CREEPAGE DISTANCES AND CLEARANCES

Section	Description	Observations	Result
(11.2)	Creepage distances and clearances		P
	Minimum distances for sinusoidal or non-sinusoidal pulse voltages		N/A

MEASURED VALUES:

Measurements between	Creepage distances (mm)		Clearances (mm)	
	Measured values	Minimum allowed	Measured values	Minimum allowed
Live parts of different polarity	1,9	1,2	1,5	0,2
Live parts and accessible parts	8,5 / 8,5	5,0 / 1,2	8,5 / 8,5	3,0 / 0,2
Parts which may become live due to the breakdown of basic ins. and metal parts	5,5	2,5	5,5	1,5

(12) ENDURANCE TEST AND THERMAL TEST

Section	Description	Observations	Result
(12.2)	Selection of lamps and ballasts		P
(12.3)	Endurance test		P
(12.4)	Thermal test (normal operation)		P
(12.5)	Thermal test (abnormal operation)		P

MEASURED VALUES:

Measured parts	Normal operation (°C)	Abnormal operation (°C)
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	Measured values	Maximum allowed	Measured values	Measured values
Convertors	58	tc80	---	---
LED strip	55	tc70	---	---
Lamp caps	90	120	---	---
Fluorescent lampholder	72	80	---	---
Appliance inlets	44	80	---	---
Electronic switch	29	35	---	---
Terminal block	32	105	---	---
Flexible cable	46	90	---	---
Internal wiring (heater)	32	90	---	---
Fixed wiring	32	90	---	---
Mounting surface	30	90	35	130

Section	Description	Observations	Result
(12.6)	Thermal test (failed lamp controlgear conditions)		N/A
(12.7)	Thermal test (failed lamp controlgear in plastic luminaires of electronic devices)		N/A

(13) RESISTANCE TO HEAT, FIRE AND TRACKING

Section	Description	Observations	Result
(13.2)	Resistance to heat	Separately approved components	P
(13.3.1)	Resistance to flame	Separately approved components	P
(13.3.2)	Resistance to ignition	Separately approved components	P
(13.4)	Resistance to tracking	Separately approved components	P

(14) SCREW TERMINALS

Section	Description	Observations	Result
(14.2)	Definitions		N/A
(14.3)	General requirements and basic principles		N/A
(14.4)	Mechanical tests		N/A

(15) SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS

Section	Description	Observations	Result
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Section	Description	Observations	Result
(15.2)	Definitions		N/A
(15.3)	General requirements		N/A
(15.4)	General instructions on tests		N/A

TERMINALS AND CONNECTIONS FOR INTERNAL WIRING

(15.5)	Mechanical tests		N/A
(15.6)	Electrical tests		N/A

TERMINALS AND CONNECTIONS FOR EXTERNAL WIRING

(15.7)	Conductors		N/A
(15.8)	Mechanical tests		N/A
(15.9)	Electrical tests		N/A

NOTES

Mirrors of the same family with the same components

ANAYA 1000x700 (230V; 50Hz; 6,42W LED + 1x21W G5; IP44; CL II, 30W heating)

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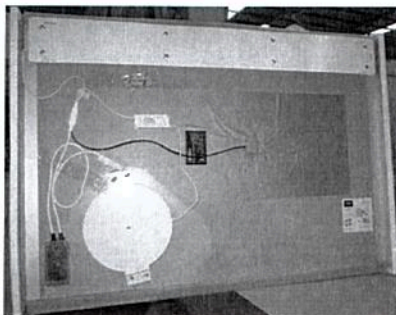
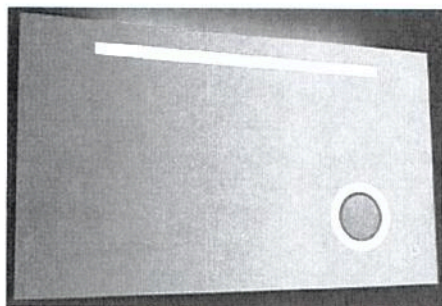
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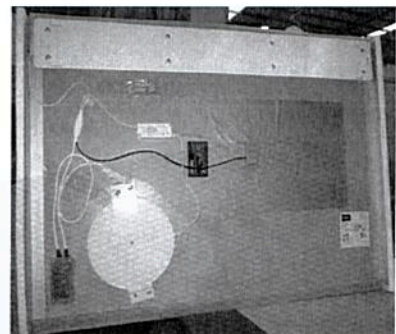
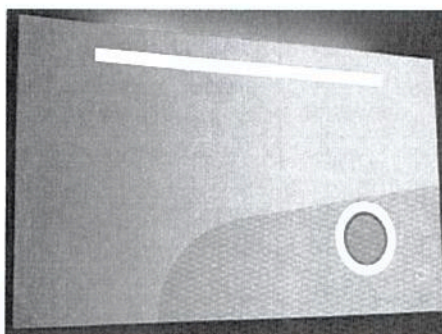
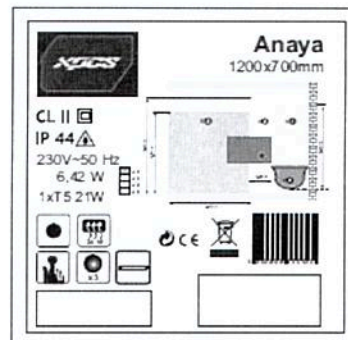
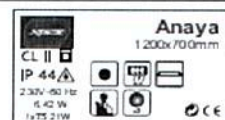
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REMARK

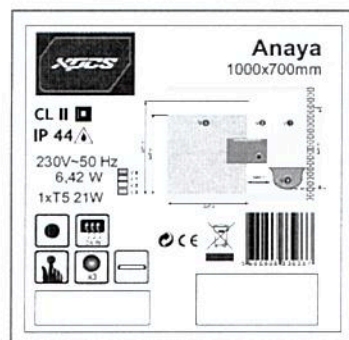
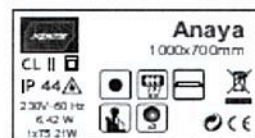
Marking plate:



ANAYA 1200x700



ANAYA 1000x700



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