

TESTING LABORATORY

Nr

037/16 (EN)

Date of Edition

2016-02-29

Page

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Applicant

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

Date of Entry

2015-01-19

Appliance / Product Tested**Nr of Samples**

Designation: Fixed luminaire - Bathroom mirror.
Manufacturer/Trademark ..: XPCS
Reference: MORA 500X650
Ratings: 230V~; 50Hz; 2 x MAX 11W E14 (FBG/W-11-230-E14); IP24; CL II ☐
Observations: MORA 550X700; MORA 585X790; ONDA 500X650; ONDA550X700;
ONDA585X790

1

Manufacturer / Representative

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

Standards / Reference Documents

EN 60598-1 (2008) + EN 60598-1/A11 (2009)
EN 60598-2-1 (1989)

**Type / Scope of Test**

Tests for verification of compliance with the requirements of the referenced standards.
Only the tests of clauses 0.5 and 3 were carried out.

Test Result

The tested sample is in compliance with the tested standard requirements.
The test results are described in the following pages.

Test Performed by


João Lopes
(Laboratory Technical)

Date

2016-02-29

Approved by


Manuel Farias
(Director Executive)

Date 2016-02-29

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:**Summary of the test results:**

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

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
Lampholders	ARDITI	60S	250V; 2A; T180; E14	EN 60238	IMQ
Terminal block	KORNER	603	250V; 16A; IP44; T105	EN 60998-1	IMQ, VDE
Internal wiring	---	ICTT	0,75mm ²	---	---

(2) CLASSIFICATION OF LUMINAIRES

Section	Description	Classification
(2.2)	Classification according to type of protection against electric shock	Class I ☐ Class II ☒ Class III ☐
(2.3)	Classification according to degree of protection against ingress of dust, solid objects and moisture	IP 24
(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	1,2N	P

Section	Description	Observations	Result
(4.5)	Starter holders		P
(4.6)	Terminal blocks		P
(4.7)	Terminals and supply connections		P
(4.8)	Switches		P
(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; 2,5Nm	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
(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		N/A
(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		N/A
(4.31)	Insulation between circuits		N/A
(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 24	
(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)
- Live parts of different polarity	>999	2
- Live parts and mounting surface	>999	4
- Live parts and metal parts	>999	4
- Insulating bushings	>999	4

Section	Description	Observations	Result
(10.2.2)	Electric strength		P

MEASURED VALUES:

Tested between parts:	Test voltage (V)	Result
- Live parts of different polarity	1460	P

Tested between parts:	Test voltage (V)	Result
- Live parts and mounting surface	2920	P
- Live parts and metal parts	2920	P
- Insulating bushings	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	0,02 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 and accessible parts	10,0	5,0	10,0	3,0
Parts which may become live due to the breakdown of basic ins. and metal parts	5,0	2,5	5,0	1,5
Live parts and mounting surface	13,0	5,0	13,0	3,0

(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)		N/A

MEASURED VALUES:

Measured parts	Normal operation (°C)	Abnormal operation (°C)
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	Measured values	Maximum allowed	Measured values	Measured values
Lamp caps	62	145	---	---
Lampholders	56	T180	---	---
Terminal block	25	---	---	---
Actuating member	25	75	---	---
Switch	25	T125	---	---
Flat-quick connector	25	145	---	---
Internal wiring (FEP)	43	180	---	---
Internal wiring (H03VVH2-F)	25	90	---	---
Fixed wiring	25	90	---	---
Mounting surface	26	90	---	---

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
(15.2)	Definitions		N/A

Section	Description	Observations	Result
(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

Mirrors of the same family with the same components

MORA 550X700 (230V~; 50Hz; 2 x MAX 11W E14 (FBG/W-11-230-E14); IP24; CL II);

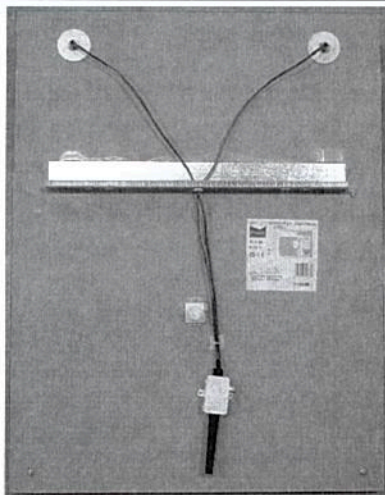
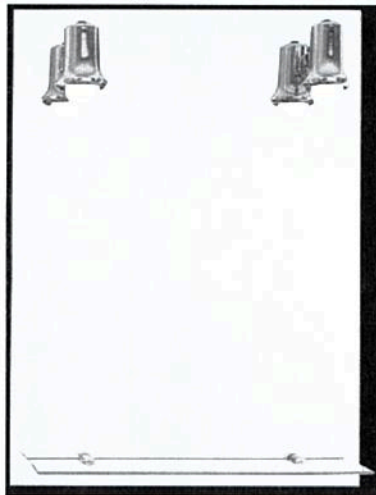
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ONDA 500X650 (230V~; 50Hz; 2 x MAX 11W E14 (FBG/W-11-230-E14); IP24; CL II);

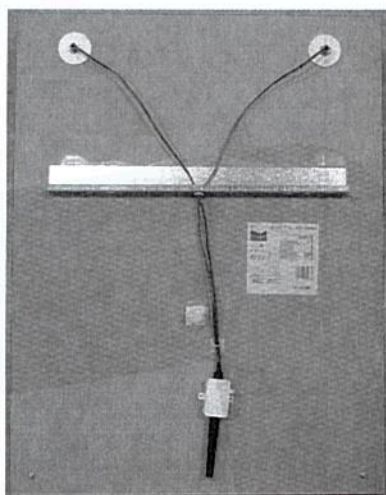
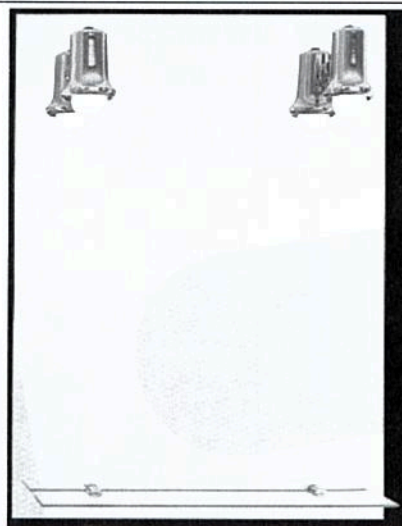
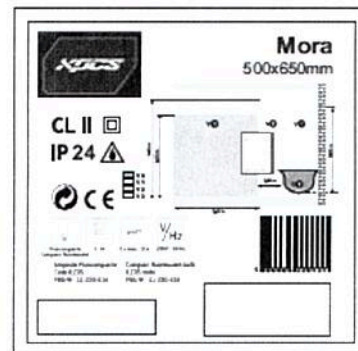
ONDA550X700 (230V~; 50Hz; 2 x MAX 11W E14 (FBG/W-11-230-E14); IP24; CL II);

ONDA585X790 (230V~; 50Hz; 2 x MAX 11W E14 (FBG/W-11-230-E14); IP24; CL II)

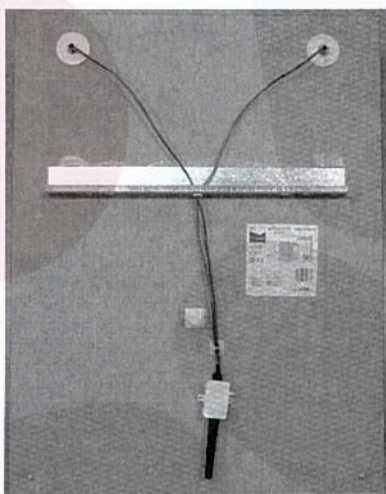
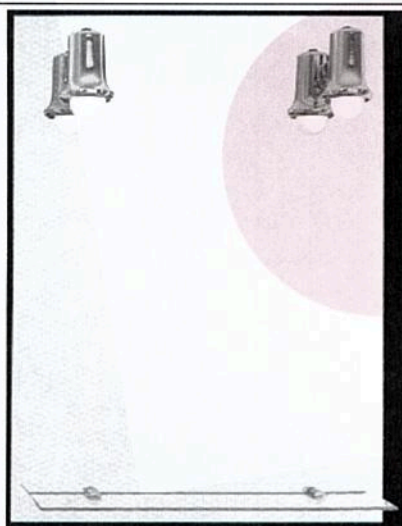
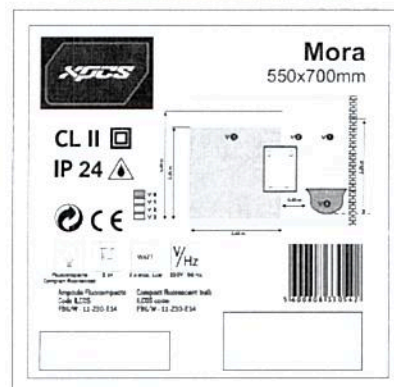
Marking plate:



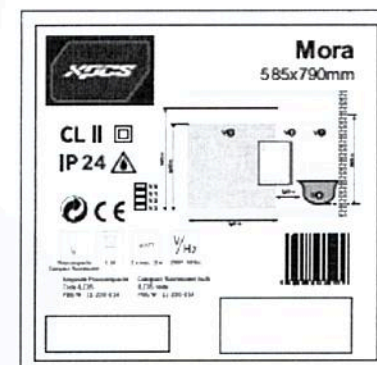
MORA 500X650



MORA 550X700



MORA 585X790



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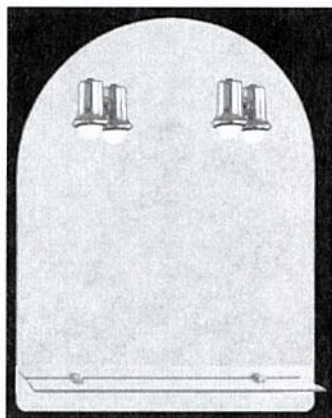
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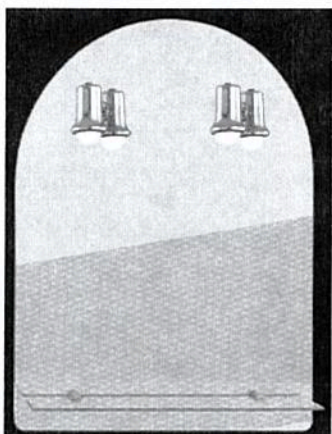
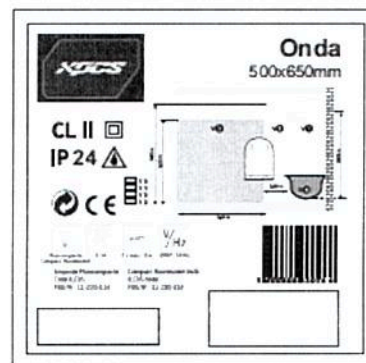
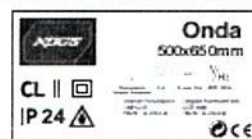
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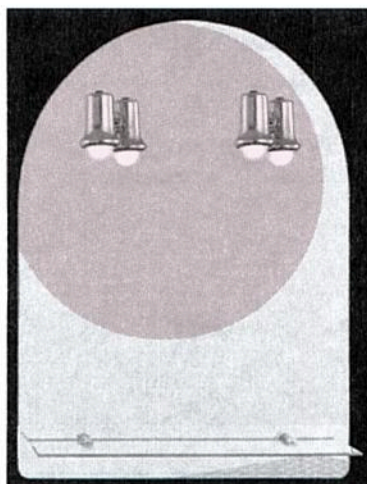
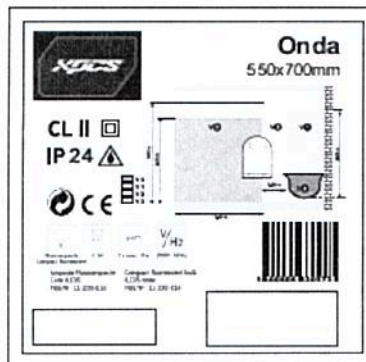
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ONDA 500X650



ONDA 550X700



ONDA 585X790

