



LOW VOLTAGE DIRECTIVE TEST REPORT

For

LASER LIGHT

**Model: X-RGB; X-G; X-B; X-R; X-P; X-GO; X-SP; X-U ; X-LR; X-LG; X-LB;
X-LL1-LL50**

Brand Name: XLIGHTING

Report No.: ENC161213GZ12L1

Date of Issue: Dec. 15, 2016

Prepared For

X Lighting Co., Limited

Fourth Industrial, Jiaoxin, Shijing Town, Baiyun District, Guangzhou, China

TEL: +86-20-86020600

Prepared By

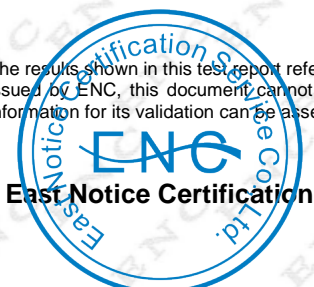
East Notice Certification Service Co., Ltd.

**1/F, Haohui Commercial Building, Zhuji Street, Dongpu Town, Tianhe District,
Guangzhou City, China**

TEL: +86-20-2331 4234

FAX: +86-20-8256 8534

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.

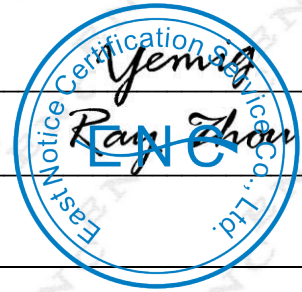


1/F, Haohui Commercial Building, Zhuji Street,
Dongpu Town, Tianhe District, Guangzhou City

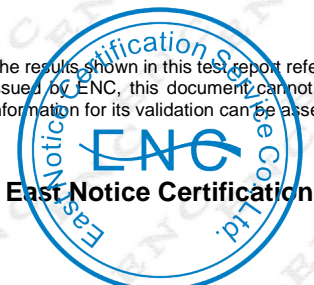
Tel:+86-020-2331 4234
E-mail: enc@enc-lab.com

Fax:+86-020-8256 8534
[Http:// www.enc-lab.com](http://www.enc-lab.com)

TEST REPORT EN 60598-2-17 Luminaires - Part 2: Particular requirements Section Seventeen - Luminaires for stage lighting, television and film studios (outdoor and indoor)	
Report reference No.	ENC161213GZ12L1
Tested by	Samliu
Review by (+ Signature)	Yemig
Approved by (+ signature)	Ray zhou
Date of issue	Dec. 15, 2016
Contents	Total 26 pages
Testing laboratory	
Name	East Notice Certification Service Co., Ltd.
Address	1/F, Haohui Commercial Building, Zhuji Street, Dongpu Town, Tianhe District, Guangzhou City, China
Testing location	Same as above
Application	
Name	X Lighting Co., Limited
Address	Fourth Industrial, Jiaoxin, Shijing Town, Baiyun District, Guangzhou, China
Manufacturer	
Name	Guangzhou X Lighting Co., Limited
Address	Fourth Industrial, Jiaoxin, Shijing Town, Baiyun District, Guangzhou, China
Test specification	
Standard	EN 60598-2-17:1989+A2:1991, EN 60598-1:2015, EN 62493:2010, EN 60825-1: 2007
Test procedure	CE-LVD
Procedure deviation	N/A
Non-standard test method	N/A
Test Report Form/blank test report	
Test Report Form No.	ENC60598-2-17A2
TRF originator.	ENC
Test item	
Description	LASER LIGHT
Brand name	XLIGHTING
Model and/or type reference	X-RGB
Series models	X-RGB; X-G; X-B; X-R; X-P; X-GO; X-SP; X-U ; X-LR; X-LG; X-LB; X-LL1-LL5037, LD038, LD039, LD040, LD041, LD042, LD043, LD044, LD045, LD046, LD047, LD048, LD049, LD050
Rating(s)	100-240V~, 50/60Hz, 120W



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



Test case verdicts

Test case does not apply to the test object.....: N(/A)
 Test item does meet the requirement: P(ass)
 Test item does not meet the requirement.....: F(ail)

Testing

Date of receipt of test item: Dec. 9, 2016
 Date(s) of performance of test: Dec. 9, 2016 – Dec. 15, 2016

General remarks

This test report shall not be reproduced except in full without the written approval of the testing laboratory.
 The test results presented in this report relate only to the item tested.
 "(see remark #)" refers to a remark appended to the report.
 "(see appended table)" refers to a table appended to the report.
 Throughout this report a comma is used as the decimal separator.
 When determining the test result, measurement uncertainty has been considered.
 Note:
 This report shall not be altered, increase and deleted.
 The results relate only to the items tested.
 This report shall not be published as advertisement without the approval of ENC.
 This report shall not be copied partly without the written approval of ENC.
 Should any objections to the test reports occurred, should submit it to the company within ten days since the issuing of the report, Fail to accept.

Special description:

1. All tests are basic on model X-RGB.
2. All models have similar structure as X-RGB, except for the different appearance and power.
3. If not otherwise specified, the tests were performed on model X-RGB to represent the other similar models.
4. Specified maximum ambient temperature is 40°C.

Summary of testing

All tests were found satisfactory in accordance with EN 60598-2-17:1989+A2:1991, EN 60598-1:2015, EN 62493:2010.
 The product was classified as Class IIIb Laser product according to EN 60825-1: 2007.

Marking on the appliance:

LASER LIGHT

Model: X-RGB
Rated Voltage: 100-240V~, 50/60Hz
Rated Power: 120W
X Lighting Co., Limited

RoHS    

MADE IN CHINA



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



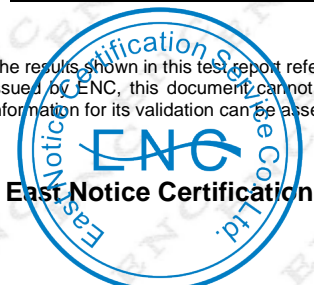
EN 60598-2-17


Clause	Requirement - Test	Result	Verdict
17.1 (0)	SCOPE		--
17.1 (0.2)	More sections applicable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	P

17.4 (2)	CLASSIFICATION		--
17.4 (2.2)	Type of protection	Class I	--
17.4 (2.3)	Degree of protection	IP20	--
17.4 (2.4)	Portable and handheld luminaires	No	--
	Fixed luminaire suitable for normally flammable surfaces	Yes	--
	Fixed luminaire suitable for noncombustible materials only	No	--
17.4 (2.5)	Luminaire for normal use	Yes	--
	Luminaire for rough service	No	--

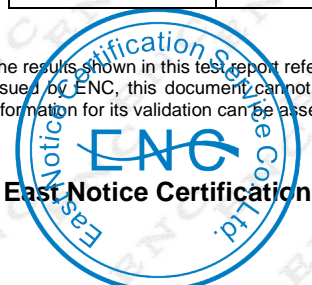
17.5 (3)	MARKING		--
17.5 (3.2)	Mandatory markings		P
17.5 (-)	Additional marking 17.5.1 to 17.5.7	See below.	P
	Position of the marking	Affixed on enclosure.	P
	Format of symbols/text		P
17.5(3.2.1)	Mark of origin / Trade mark	X Lighting Co., Limited	P
17.5(3.2.2)	Rated voltage	100-240V	P
17.5(3.2.3)	Rated maximum ambient temperature t_a		N
17.5(3.2.4)	Symbol for Class II luminaires		N
17.5(3.2.5)	Symbol for Class III luminaires		N
17.5(3.2.6)	Marking with IP numbers	IP20	N
17.5(3.6.7)	Model number or type reference	X-RGB	P
17.5(3.2.8)	Rated wattage or the type of lamp	120W	P
17.5(3.2.9)	The symbol for suitability or non-suitability for direct mounting on normally flammable surfaces		N
17.5(3.2.10)	Information concerning special lamps		N
17.5(3.2.11)	Symbol for lamps of similar shape to "cool beam"		N
17.5(3.2.12)	Terminations clearly marked or otherwise identified to give a clear indication as to which termination should be connected to the live side of the supply. Earthing terminations is clearly indicated by the symbol shown in IEC 60417	Compliance.	P
17.5(3.2.13)	Symbol for minimum distance from lighted objects		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.5(3.2.14)	Symbol for rough service luminaires	Ordinary luminaire.	N
17.5(3.2.15)	Symbol for use with bowl mirror lamps	Not applicable.	N
17.5(3.2.16)	Marking for luminaires incorporating a glass protective shield		N
17.5(3.2.17)	The maximum number of luminaires that provided for looping-in connection to the mains supply		N
17.5(3.2.18)	A warning symbol or notice for luminaires with ignitors		N
17.5(3.2.19)	Symbol for luminaires which are designed for use with self-shielded tungsten halogen lamps		N
17.5(3.2.20)	The adjustment not obvious, need to be identify.		P
17.5(3.2.21)	Symbol for luminaires not suitable for covering with thermally insulated material		N
17.5(3.2.22)	Symbol for luminaires with internal replaceable fuses		N
17.5 (3.3)	Additional information	See below.	P
	Language of instructions	Additional	P
17.5 (3.3.1)	Combination luminaire(IPX)	IP20	N
17.5 (3.3.2)	Nominal frequency in Hz	50/60Hz	P
17.5 (3.3.3)	Operating temperature		N
17.5 (3.3.4)	Warning notice	See marking plate	P
17.5 (3.3.5)	Wiring diagram		N
17.5 (3.3.6)	Special conditions		N
17.5 (3.3.7)	Metal halide lamp		N
17.5 (3.3.8)	Limitation for semi-luminaires		N
17.5 (3.3.9)	Power factor and supply current		N
17.5(3.3.10)	Suitability for use indoors		P
17.5(3.3.11)	Luminaires with remote control		N
17.5(3.3.12)	Clip-mounted luminaire-warning		N
17.5(3.3.13)	Specifications of all protective		N
17.5(3.3.14)	Symbol for nature of supply	~	P
17.5(3.3.15)	The rated current		N
17.5(3.3.16)	The information about rough service		N
17.5(3.3.17)	Attachments of type	Type X attachment	P
17.5(3.3.18)	Non-ordinary luminaires with PVC cable		N
17.5(3.3.19)	For luminaires protective conductor current greater than 10 mA, clearly stated in the manufacturers' instructions.		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.5(3.3.20)	Wall mounted and adjustable luminaires provided with information to advise their correct installation.	Account on user's manual.	N
17.5 (3.4)	Test of marking See below		P
	Test with water 15s	15S	P
	Test with hexane 15s	15S	P
	Legible after test Still legible	No any curling.	P
	Label attached Still attached	No any curling.	P

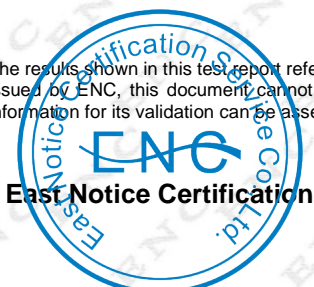
17.6 (4)	CONSTRUCTION		--
17.6.1 (-)	Lamp replacement		P
17.6.2 (-)	Explosion risk	No explosion risk.	N
17.6.3 (-)	Protective shield	Compliance.	P
17.6.4 (-)	Hanger (stirrup)		P
17.6.5 (-)	Removable accessories	No such device	N
17.6.6 (-)	Secondary suspension		N
17.6.7 (-)	Handles		N
17.6 (4.2)	Components replaceable without difficulty		N
17.6 (4.3)	Wireways smooth and free from sharp edges		N
17.6 (4.4)	Lampholders		N
17.6 (4.4.1)	Integral lampholder		N
17.6 (4.4.2)	Wiring connection		N
17.6 (4.4.3)	Lampholder for end-to-end mounting		N
17.6 (4.4.4)	Positioning		N
	Pressure test (N)		N
	After test the lampholder comply with relevant standard sheets and show no damage		N
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N
	Bending test(N)		N
	After test the lampholder have not moved from its position and show no permanent deformation		N
17.6 (4.4.5)	Peak pulse voltage		N
17.6 (4.4.6)	Centre contact		N
17.6 (4.4.7)	Rough service luminaires		N
17.6 (4.4.8)	Lamp connectors		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.6 (4.4.9)	Caps and bases correctly used		N
17.6 (4.5)	Starter holders	No starter	N
	Starter holder in luminaires other than Class II		N
	Starter holder Class II construction		N
17.6 (4.6)	Terminal blocks		P
	Tails		P
	Unsecured blocks		P
17.6 (4.7)	Terminals and supply connections		P
17.6 (4.7.1)	Contact to metal parts		P
17.6 (4.7.2)	Location stranded wires		N
	8 mm test live conductor		N
	8 mm test earth conductor		N
17.6 (4.7.3)	Terminals for supply cord		N
	Welded connections:		--
	- stranded or solid conductor		N
	- spot welding		N
	- welding between wires		N
	- Type Z attachment		N
	- mechanical test according to 15.8.2		N
	- electrical test according to 15.9		N
	- heat test according to 15.9.2.3 and 15.9.2.4		N
17.6 (4.7.4)	Terminals other than supply connection		N
17.6 (4.7.5)	Heat-resistant wiring/sleeves		N
17.6 (4.7.6)	Multi-pole plug		N
17.6 (4.8)	Switches:		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		P
	- compliance with 61058-1 for electronic switches		P
17.6 (4.9)	Insulating lining and sleeves		P
17.6 (4.9.1)	Retention		P
	Method of fixing :		P
17.6 (4.9.2)	Insulated linings and sleeves		P
	Resistant to a temperature >20°C to the wire temperature or		P

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	a) & c) Insulation resistance and electric strength		P
	b) Ageing test. Temperature (°C)		N
17.6 (4.10)	Double and reinforced insulation		--
17.6(4.10.1)	No contact metal-basic insulation		P
	Safe installation fixed luminaires		P
	Capacitors		P
	Interference suppression capacitors according to IEC 60384-14		N
17.6(4.10.2)	Assembly joints:		N
	- not coincidental		N
	- no straight access		N
	- degree of protection		N
17.6(4.10.3)	Retention of insulation:		N
	- fixed		N
	- unable to be replaced; luminaire inoperative		N
	- sleeves retained in position		N
	- lining in lampholder		N
17.6 (4.11)	Electrical connections		P
17.6(4.11.1)	Contact pressure		P
17.6(4.11.2)	Screws:		N
	- spaced threaded screws		N
	- thread-cutting screws		N
	- earth continuity		N
17.6(4.11.3)	Screw locking:		--
	- spring washer		N
	- rivets		N
17.6(4.11.4)	Material of current-carrying parts	Cu	P
17.6(4.11.5)	No contact to wood	No wood.	P
17.6(4.11.6)	Electro-mechanical contact systems		N
17.6 (4.12)	Mechanical connections and glands		--
17.6(4.12.1)	Mechanical stress		P
	Not made of soft metal		P
	Screws of insulating material		N
	Torque test : torque (N·m) ; part		P
17.6(4.12.2)	Screw diameter up to 3 mm	No such terminal.	N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.6(4.12.4)	Locked connections:		P
	- fixed arms; torque (N·m)		P
	- lampholder; torque (N·m)		N
	- push-button switches; torque (N·m):		P
17.6(4.12.5)	Screwed glands; force (N)		N
17.6 (4.13)	Mechanical strength		P
17.6(4.13.1)	Impact tests:		P
	- fragile parts ; energy (N·m)		N
	- other parts; energy (N·m)	Exceed 0,7Nm	P
	1) live parts	Inaccessible.	P
	2) linings		N
	3) protection		P
	4) covers		N
17.6(4.13.3)	Straight test finger	30N	P
17.6(4.13.4)	Rough service luminaires		N
	a) fixed		N
	b) hand-held		N
	c) delivered with a stand		N
	d) for temporary installations and suitable for mounting on a stand		N
17.6(4.13.6)	Tumbling barrel		N
17.6 (4.14)	Suspensions and adjusting devices		P
17.6(4.14.1)	Mechanical load:		P
	A) four times the weight	X4	P
	B) torque 2,5 N·m		P
	C) bracket arm; force (N)	10N	P
	D) load track-mounted luminaires		N
	E) clip-mounted luminaires, glass-shelve; thickness (mm)		N
	metal rod; diameter (mm)		N
17.6(4.14.2)	Load to flexible cables:		N
	- mass (kg)		N
	- stress in conductors (N/mm ²)		N
	- semi-luminaires; mass (kg)		N
	- semi-luminaires ; bending moment (N·m) :		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.6(4.14.3)	Adjusting devices:		--
	- rotating test; number of cycles :		N
	- strands broken		N
	- high voltage test and insulation resistance Test		N
17.6(4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N
17.6(4.14.5)	Guide pulleys		N
17.6(4.14.6)	Strain on socket-outlets		N
17.6 (4.15)	Flammable materials:		N
	- glow-wire test 65°C		N
	- spacing ≥ 30 mm		N
	- screen withstanding test of 13.3.1		N
	- screen dimensions		N
	- no fiercely burning material		N
	- thermal protection		N
	- electronic circuits exempted		N
17.6(4.15.2)	Luminaires made of thermoplastic material		N
	a) construction		N
	b) temperature sensing control		N
	c) surface temperature		N
17.6 (4.16)	Luminaires for mounting on normally flammable surfaces		N
	No lamp control gear		N
17.6(4.16.1)	Lamp control gear spacing:		N
	- spacing 35 mm		N
	- spacing 10 mm		N
17.6(4.16.2)	Thermal protection:		N
	- in ballast or transformer		N
	- external		N
	- fixed position		N
	- temperature marked lamp control gear		N
17.6(4.16.3)	Design to satisfy the test of 12.6	(see 12.6)	N
17.6 (4.17)	Drain holes		N
	Clearance at least 5 mm		N
17.6 (4.18)	Resistance to corrosion:		--

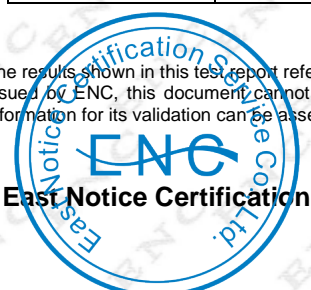
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.6(4.18.1)	- rust-resistance		N
17.6(4.18.2)	- season cracking in copper		N
17.6(4.18.3)	- corrosion of aluminium		N
17.6 (4.19)	Igniters compatible with ballast		N
17.6 (4.20)	Rough service vibration :	No such requirement	N
17.6 (4.21)	Protective shield		N
17.6(4.21.1)	Appropriate symbol		N
	Shield fitted		N
17.6(4.21.2)	Particles from a shattering lamp not impair safety		N
17.6(4.21.3)	- no direct path		N
17.6(4.21.4)	Impact test on shield		N
	Glow-wire test on lamp compartment		N
17.6 (4.22)	Attachments to lamps		N
17.6 (4.23)	Semi-luminaires comply with Class II		N
17.6 (4.24)	UV radiation, metal halide lamps	No UV radiation	N
17.6 (4.25)	No sharp point or edges		P
17.6 (4.26)	Short-circuit protection		N
17.6(4.26.1)	- uninsulated accessible SELV parts		N
17.6(4.26.2)	Short-circuit test		N
17.6(4.26.3)	Test chain		N
17.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		N

17.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		--
	Class of protection :	Class I	--
	Working voltage (V) :	100-240V	--
	Voltage form :	Sinusoidal	--
	PTI :	< 600	--
	Impulse withstand category	Category II	--
	Rated pulse voltage (Kv) :		--
	(1) Live parts of different polarity: cr (mm); cl (mm)	Cr > 2,5 mm; Cl >1.5 mm	P
	(2) Live parts and accessible parts: cr (mm); cl (mm)	Cr > 2,5 mm; Cl >1.5 mm	P
	(3) Parts becoming live: cr (mm); cl (mm) ... :	Cr > 2,5 mm; Cl >1.5 mm	P

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	(4) Outer surface of cable: cr (mm); cl (mm) :		N
	(5) Live parts of switches: cr(mm); cl(mm) .. :	Cr > 2,5 mm; Cl >1.5 mm	P
	(6) Live parts and supporting surface: cr (mm); cl (mm)	Cr > 2,5 mm; Cl >1.5 mm	P

17.8 (7)	PROVISION FOR EARTHING		--
17.8(7.2.1+7.2.3)	Metal parts	Dependable earthing.	P
	Accessible metal parts		P
	Metal parts and supporting surface		P
	Resistance < 0.5Ω	0,036Ω	P
	Two spaced threaded screws used		N
	Thread-forming screws		N
	Connector earthing first		P
17.8(7.2.2+7.2.3)	Earth continuity	Compliance.	P
17.8 (7.2.4)	Locking of clamping means		P
	Compliance with 4.7.3		P
	Adequate locking		P
	Loosening of clamping means		P
17.8 (7.2.5)	Connector socket		P
17.8 (7.2.6)	Position of the earth terminal		P
17.8 (7.2.7)	Corrosion of the earth terminal		P
17.8 (7.2.8)	Material of earth terminal	Cu	P
	Contact surface bare metal		P
17.8 (7.2.10)	Class II luminaire for looping-in		N
17.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor	More than L/N.	P

17.9 (14)	SCREW TERMINALS		--
	Separately approved; component list		N
	Part of the luminaire	(See Annex 3)	N

17.9 (15)	SCREWLESS TERMINALS		--
	Separately approved; component list		N

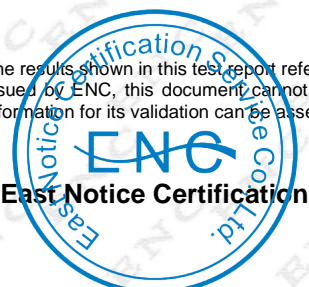
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.9 (-)	Part of the luminaire (restriction)	(See Annex 4)	N

17.10 (5)	EXTERNAL AND INTERNAL WIRING		--
17.10 (5.2)	Supply connection and external wiring		P
17.10(5.2.1)	Means of connection :		P
17.10(5.2.2)	Type of cable :	H05VV-F	P
17.10.1 (-)	Nominal cross-sectional area(mm ²) :	3x0,75 mm ²	P
17.10(5.2.3)	Replacement of non- detachable cable and cords.	Type X attachment	P
17.10 (5.2.5)	Non-screw connection of type Z.		N
17.10 (5.2.6)	Cable entries		--
	- suitable for introduction		N
	- adequate degree of protection		N
17.10 (5.2.7)	Cable entries through rigid material have rounded edges		N
17.10 (5.2.8)	Insulating bushings:		--
	- suitably fixed		N
	- material in bushings		N
	- tubes or guard made of insulating material		N
17.10 (5.2.9)	Locking of bushings		N
17.10(5.2.10)	Cord anchorage:		--
	- covering protected from abrasion		N
	- clear how to be effective		N
	- no mechanical or thermal stress		N
	- no tying of cables into knots etc.		N
	- insulating material or lining		N
17.10(5.2.10.1)	Cord anchorages of type X attachment		P
	a) at least one part fixed		P
	b) types of cable		P
	c) no damaging of the cable		P
	d) whole cable can be mounted		P
	e) no touching of clamping screws		P
	f) metal screw not directly on cable		P
	g) replacement without special tool		P
	Glands not used as anchorage		P

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	Labyrinth type anchorages		P
17.10(5.2.10.2)	Type Y and Z attachments have adequate cord anchorages	Type X attachment	N
17.10(5.2.10.3)	Tests:		N
	- impossible to push cable; unsafe		N
	- pull test: 25 times; pull (N)		N
	- torque test: torque (Nm)		N
	- displacement < 2 mm		N
	- no movement of conductors		N
	- no damage of cable or cord		N
17.10(5.2.11)	External wiring passing into luminaire	No such parts	N
17.10(5.2.12)	Looping-in terminals		N
17.10(5.2.13)	Wire ends not tinned		N
	Wire ends tinned: no cold flow		N
17.10(5.2.14)	Plug against electric shock protection		P
	Class III luminaire plug	No this plug	N
17.10(5.2.16)	Appliance inlets (IEC 320)		P
	Appliance couplers of class II type		N
17.10(5.2.17)	Inter-connecting cables not made of standardized insulated and sheathed cables		N
17.10(5.2.18)	Portable luminaires with socket outlet		N
17.10.2 (-)	Plugs and sockets		P
17.10 (5.3)	Internal wiring		P
17.10 (5.3.1)	Internal wiring of suitable size and type	VW-1	P
	Through wiring		--
	- not delivered/ mounting instruction		N
	- factory assembled		N
	- socket outlet loaded (A)		N
	- temperatures		N
	Green-yellow for earth only	Green/yellow	N
17.10(5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²)		P
	Insulation thickness	>0,6mm ²	P
	Extra insulation added where necessary		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
17.10(5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N
	Adequate cross-sectional area and insulation thickness		N
17.10(5.3.1.3)	Double or reinforced insulation for class II		N
17.10(5.3.1.4)	Conduct without insulation		N
17.10(5.3.1.5)	SELV current-carrying parts		N
17.10(5.3.1.6)	Insulation thickness other than PVC or rubber		N
17.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		N
	Telescopic tubes etc.		N
	No twisting over 360°		P
17.10 (5.3.3)	Openings		N
	Bushings not removable		N
	Cables with protective sheath		N
17.10 (5.3.4)	Joints and junctions:		P
	- easily accessible		P
	- effectively insulated		P
17.10 (5.3.5)	Strain on internal wiring No such wiring		N
17.10 (5.3.6)	Wire carriers		N
17.10 (5.3.7)	Wire ends not tinned		N
	Wire ends tinned:		P

17.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		--
17.11(8.2.1+8.2.5)	Live parts are not accessible		P
	Protection in any position		P
	Insulation lacquer not reliable		P
	Double-ended tungsten filament lamp		N
	Double-ended high pressure discharge lamp		N
	Ø 50 mm probe according to Figure 1 in IEC 61032 for wall-mounted luminaires		P
17.11 (8.2.2)	Portable luminaire		--
	a)Class II luminaire:		P

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	-basic insulated metal parts not accessible during starter or lamp replacement		N
	-basic insulation not accessible other than during starter or lamp replacement		N
	-glass protective shields not used as supplementary insulation		N
	- glass protective shields not used as supplementary insulation		N
	b).Class I luminaire with BC lampholder		N
	c). Class III luminaires with exposed SELVS:		N
	Ordinary luminaire:		N
	- touch current		N
	- no-load voltage		N
	Other than ordinary luminaire:		N
	- nominal voltage		N
17.11 (8.2.4)	Portable luminaire:		N
	- protection independent of supporting surface		N
	- terminal block completely covered		N
17.11(8.2.5)	Compliance with the standard test finger or relevant probe		P
17.11 (8.2.6)	Covers have adequate strength	(see 4.13)	P
	Covers reliably secured		P
17.11 (8.2.7)	Discharging of capacitors 0,5 <i>U_f</i>		N
	Plug connected luminaire with capacitor		N
	Other plug connected luminarie with capacitor		N
	Discharge device on or within capacitor		N
	Discharge device mounted separately		N

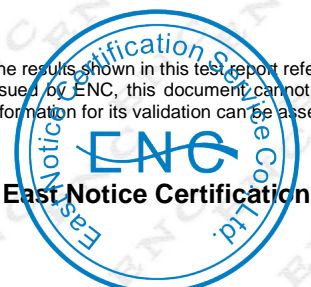
17.12 (12)	ENDURANCE TEST AND THERMAL TEST		--
17.12 (12.3)	Endurance test:		P
	- mounting-position	(see Annex 2)	P
	- test temperature (°C)	25 °C	P
	- total duration (h)	168h	P
	- supply voltage: <i>U_n</i> factor; calculated voltage (V)	1,10×240 V	P
	- lamp used	Laser	P
17.12(12.3.2)	After endurance test:		P

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



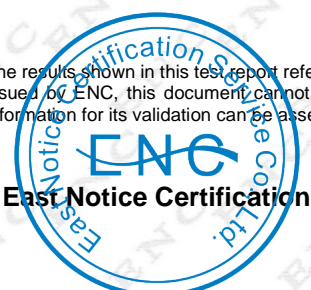
EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N
	- marking legible		P
	- no cracks, deformation etc.		P
17.12 (12.4)	Thermal test (normal operation)		P
17.12.1 (-)	Exterior surface temperature	40°C	P
17.12 (12.5)	Thermal test (abnormal operation)		P
17.12 (12.6)	Thermal test (failed ballast or transformer condition):		--
17.12(12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		N
	- case of abnormal conditions		N
	- electronic ballast		N
	- measured winding temperature (°C): at1,1 Un		N
	- measured mounting surface temperature (°C): at 1,1 Un		N
	- calculated mounting surface temperature(°C)		N
	- track-mounted luminaires		N
17.12(12.6.2)	Temperature sensing control		--
	- case of abnormal conditions		N
	- thermal links:		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured mounting surface temperature (°C) :		N
	- track-mounted luminaires		N
17.12 (12.7)	Thermal test (failed ballast or transformer in plastic luminaires):		--
17.12(12.7.1)	Test for luminaires without temperature sensing controls:		N
17.12(12.7.1.1)	Test for luminaires incorporating ballast(s) of fluorescent lamps with a lamp load ≤70 W		N
	Test method 12.7.1.1 or Annex V		N
	Test according to 12.7.1.1:		N
	- case of abnormal conditions		N
	- Ballast failure at supply voltage(V)		N
	- Components retained in place after the test		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	- Test with standard test finger after the test		N
	Test according to Annex V:		N
	-case of abnormal conditions		N
	-measured winding temperature(°C): at 1.1Un.:		N
	-measured temperature of fixing point/exposed part(°C): at 1.1Un		N
	-calculated temperature of fixing /esposed part(°C):		N
	Ball-pressure test:		N
	-part tested; temperature(°C):		N
	-part tested; temperature(°C):		N
17.12(12.7.1.2)	Test for luminaires incorporating discharge lamps, fluorescent lamps (>70 W),transformer of power >10 VA		N
	- case of abnormal conditions		N
12.7.1	-measured winding temperature(°C) at1.1Un		N
	- measured mounting surface temperature (°C) at 1,1 Un		N
	- calculated mounting surface temperature (°C)		N
	Ball-pressure test:		N
	-part tested; temperature(°C):		N
17.12(12.7.1.3)	Test for luminaires with inherently short-circuit proof transformer of power ≤10 VA		N
	-case of abnormal conditions		N
	-components retained in place after the test		N
	-test with standard test finger after the test		N
17.12(12.7.2)	Temperature sensing control:		N
	- thermal link		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured temperature of fixing point/ exposed part (°C)		N
	Ball-pressure test:		N
	-part tested; temperature(°C):		N
17.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		--
17.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		--

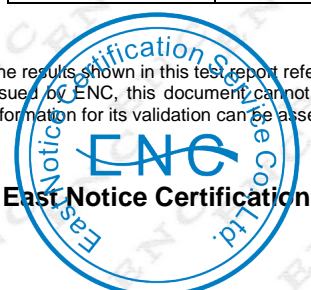
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	- classification according to IP	IP20	--
	- mounting position during test		--
	- fixing screws tightened; torque (Nm)		--
	- tests according to clauses		--
	- electric strength		--
	a) no deposit in dust-proof luminaire		N
	b) no talcum in dust-tight luminaire		N
	c) no trace of water on live parts		N
	d) no accumulation of water in waterproof luminaire		N
	e) no water in watertight luminaire		N
	f) no contact with live parts		N
	g) no trace of water on any part of a lamp		N
	h) no damage		N
17.13 (9.3)	Humidity test	30°C, 95%RH, 48h	P

17.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		--
17.14(10.2.1)	Insulation resistance test:		--
	Class of protection	Class I	--
	Insulation resistance (MΩ):		--
	SELV:		--
	- between current-carrying parts of different polarity		N
	- between current-carrying parts and mounting surface		N
	- between current-carrying parts and metal parts of the luminaire		N
	Other than SELV:		--
	- between live parts of different polarity	>2 MΩ	P
	- between live parts and mounting surface	>2 MΩ	P
	- between live parts and metal parts	>2 MΩ	P
	- between live parts of different polarity through action of a switch		P
17.14(10.2.2)	Electric strength test:		--
	Class of protection	Class I	--
	Luminaires with ignitors after 24 h test		--
	Luminaires with manual ignitors	Compliance.	--

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



EN 60598-2-17			
Clause	Requirement - Test	Result	Verdict
	Test voltage (V):		--
	SELV:		--
	- between current carrying parts of different polarity		N
	- between current carrying parts and mounting surface		N
	- between carrying parts and metal parts of the luminaire		N
	Other than SELV:		--
	- between live parts of different polarity	1480 V	P
	- between live parts and mounting surface	1480 V	P
	- between live parts and metal parts	1480 V	P
	- between live parts of different polarity through action of a switch		P
17.14(10.3.1)	Touch current (mA)	0,038mA	P

17.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		--
17.15(13.2.1)	Ball-pressure test:		--
	- part tested; temperature (°C)	Terminal: 125°C; 0,6mm	P
17.15(13.3.1)	Needle flame test (10 s):		--
	- part tested	Terminal	P
17.15(13.3.2)	Glow-wire test (650 °C):		--
	- part tested	PCB	P
17.15(13.4.1)	Tracking test: part tested		N

ANNEX EMF			
	The tested product also complies to the requirements of EN 62493:2010		P
	Measuring distance:	50 cm	--
	Applied limit:	F<0,85	--
	Measuring result:	Fmax=0,06	P

EN 60825-1			
Model	Laser wave length (nm)	Radiant Power under operation condition (mW)	Class
X-RGB	405-658	Max. 80mW	<IIIb

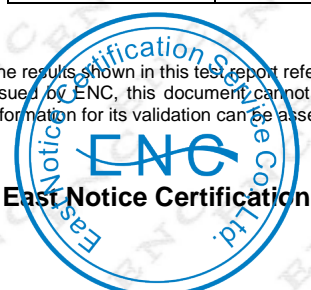
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



ANNEX 2: Temperature measurements, thermal tests of Section 12.4		P
Type reference	X-RGB	--
Lamp used	Laser	--
Ballast used		
Mounting position of luminaire	Normal mounting	--
Supply wattage (W)	116,3W	--
Supply current (A)	0,605A	--
Calculated power factor	0,836	--
Table: measured temperatures corrected for Ta = 25°C:		--
- abnormal operating mode		--
- test 2: 1.06 times rated voltage		--
- test 2: 1.06 times rated voltage		1,06×240V
Temperature (°C) of part	Testing temperature (°C)	Limit (°C)
Plug	28,1	70
Supply cord	29,3	75
Inside wiring	36,9	105
Terminal	28,5	90
Enclosure	27,6	85
Power supply	46,4	120
PCB	36,0	130
Mounting surface	26,5	90
Ambient	26,1	--

ANNEX 3: screw terminals (part of the luminaire)		P
(14)	SCREW TERMINALS	N
(14.2)	Type of terminal	N
	Rated current (A)	N
(14.3.2.1)	One or more conductors	N
(14.3.2.2)	Special preparation	N
	Cross-sectional area (mm ²)	N
(14.3.3)	Conductor space (mm)	N
(14.4)	Mechanical tests	N
(14.4.1)	Minimum distance	N
(14.4.2)	Cannot slip out	N
(14.4.3)	Special preparation	N
(14.4.4)	Nominal diameter of thread (metric ISO thread) .	N
	External wiring	N

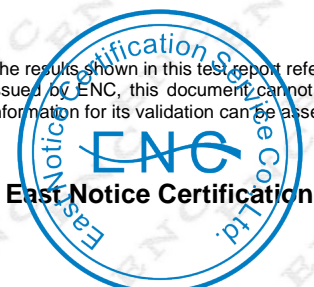
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



	No soft metal		N
(14.4.5)	Corrosion		N
(14.4.6)	Nominal diameter of thread (mm)		N
	Torque (Nm)		N
(14.4.7)	Between metal surfaces N		N
	Lug terminal N		N
	Mantle terminal N		N
	Pull test; pull (N)		N

	ANNEX 4: screwless terminals (part of the luminaire)		N
(15)	SCREWLESS TERMINALS N		N
(15.2)	Type of terminal	No such terminals	N
	Rated current (A)		N
(15.3.1)	Material		N
(15.3.2)	Clamping		N
(15.3.3)	Stop		N
(15.3.4)	Unprepared conductors		N
(15.3.5)	Pressure on insulating material		N
(15.3.6)	Clear connection method		N
(15.3.7)	Clamping independently		N
(15.3.8)	Fixed in position		N
(15.3.10)	Conductor size		N
	Type of conductor		N
(15.5.1)	Terminals internal wiring		N
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples)		N
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N
	Insertion force not exceeding 50 N		N
(15.5.2)	Permanent connections: pull-off test (20 N)		N
(15.6)	Electrical tests		N
	Voltage drop (mV) after 1 h (4 samples)		N
	Voltage drop of two inseparable joints		N
	Number of cycles		N
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)										N
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)										N
(15.7)	Terminals external wiring										N
	Terminal size and rating										N
(15.8.1)	Pull test spring-type terminals (4 samples); pull (N)										N
	Pull test pin or tab terminals (4 samples); pull (N)										N
(15.9)	Contact resistance test										N
	Voltage drop (mV) after 1 h										--
terminal	1	2	3	4	5	6	7	8	9	10	--
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	N
	Voltage drop of two inseparable joints										N
	Voltage drop after 10th alt. 25th cycle										N
	Max. allowed voltage drop (mV) ..										--
terminal	1	2	3	4	5	6	7	8	9	10	--
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	N
	Voltage drop after 50th alt. 100th cycle										N
	Max. allowed voltage drop (mV)..:										--
terminal	1	2	3	4	5	6	7	8	9	10	--
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	N
	Continued ageing: voltage drop after 50th alt. 100th cycle										N
	Max. allowed voltage drop (mV) ..										--
terminal	1	2	3	4	5	6	7	8	9	10	--
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	N

	ANNEX 5: National Differences for (country name) or Group Differences	N
	CENELEC COMMON MODIFICATIONS (EN)	N
17.5 (3)	MARKING	N
17.5(3.3.101)	Adequate warning on the package	N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



17.10 (5)	EXTERNAL AND INTERNAL WIRING		N
17.10 (5.2.1)	Connecting leads		N
	- without a means for connection to the supply		N
	- terminal block specified		N
	- relevant information provided		N
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N
	Cables not lighter than the types in this clause		N

	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N
(3.3)	DK: power supply cord with label		N
	IT: warning label on Class 0 luminaire		N
(4.5.1)	DK: socket-outlets		N
(5.2.1)	CY, DK, FI, SE, GB: type of plug		N

	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N
(13.3)	DK: Needle flame test during 30 s		N
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N
(13.3.2)	FR: Glow-wire test 850°C alt. 750°C for luminaires in premises open to public or 960°C for luminaires in emergency exits		N

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



APPENDIX A
PHOTOS OF PRODUCT
Front view



Back View



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.

Right View



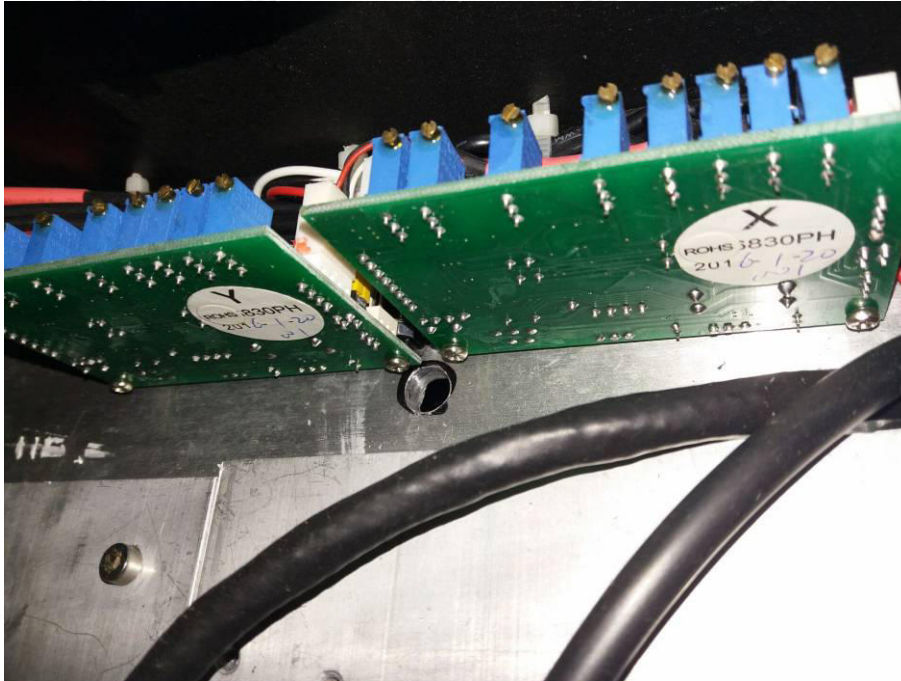
Left View



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.



Internal view



Internal view



----- End of Report -----

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by ENC, this document cannot be reproduced except in full with our prior written permission. The document is available on request and the brief information for its validation can be assessable and confirmed at <http://www.enc-lab.com>.

