



E-mail: webmaster@LCS-cert.com

Report No.: LCS1908180801

EN 60598-1: 2008+A11: 2009 and EN 60529: 1991/A2: 2013

RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE

Report reference No.: LCS1908180801

Compiled by (name+ signature) : Eko Yang

Approved by (name+ signature) : Hart Qiu

Date of issue: August 11, 2019

Contents : 7 pages

Testing laboratory

Name : Shenzhen LCS Compliance Testing Laboratory Ltd.

Address : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue, Bao'an District, Shenzhen, Guangdong, China

Testing location: As above

Client

Name : La Luce Lighting SNC

Address.....: via Monte Nevosa, 20131 Milano, Italy

Manufacturer

Name : La Luce Lighting SNC

Address..... : via Monte Nevosa, 20131 Milano, Italy

Test specification

Standard : EN 60598-1: 2008+A11: 2009; EN 60529: 1991/A2: 2013

Test procedure : Compliance with EN 60598-1: 2008+A11: 2009; EN 60529: 1991/A2: 2013

Non-standard test method : N/A

Procedure deviation : N/A

Test item

Description : LED Down Light

Trademark : La Luce Lighting SNC

Model and/or type reference : LL-DL03-18W-830-65-WH

Rating(s) : For LED Down Light: DC 16-48V, 300mA, 18W, IP65

For LED Driver: PRI: 220-240V~, 50/60Hz, IP20

SEC: 16-45VDC, 300mA

 Testing Lab. Shenzhen LCS Compliance Testing Laboratory Ltd.	Add: 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-82591330 Fax: 0755-82591332 Http: www.LCS-cert.com E-mail: webmaster@LCS-cert.com
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Test case verdicts

Test case does not apply to the test object : N(N/A)

Test item does meet the requirement: P(Pass)

Test item does not meet the requirement ..: F(Fail)

Testing

Date of receipt of test item: August 10, 2019

Date(s) of performance of test.....: August 10, 2019 – August 11, 2019

General remarks

This 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.

Clause numbers between brackets refer to clauses in EN 60598-1: 2008+A11: 2009 and

EN 60529: 1991/A2: 2013

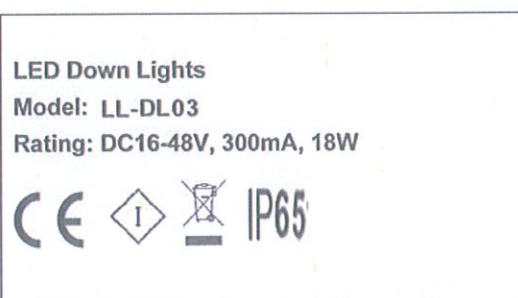
Throughout this report a comma is used as the decimal separator.

Remark:

Models are similar except size, All test continued on model LL-DL03-18W-830-65

All external surfaces passed IP65

Copy of marking plate



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Clause	Requirement - Test	Result - Remark	Verdict
--	Tests for ingress of dust, solid objects and moisture		P
	The enclosure of a luminaire shall provide the degree of protection against ingress of dust, solid objects and moisture in accordance with the classification of the luminaire and the IP number marked on the luminaire.		P
	Check compliance as the described 9.2.0~9.2.9		P
	Before the tests for the second characteristic numeral, with the exception of IPX8, the luminaire complete with lamp(s) shall be switched on and brought to a stable operating temperature at rated voltage.		P
	The water for the tests shall be at a temperature of 15 °C ± 10 °C.		P
	Luminaires shall be mounted compliance as specified		P
	Solid-object-proof luminaires (first characteristic IP numeral 2) shall be tested with the standard test finger specified in IEC 60529 according to the requirements of Sections 8 and 11 of this standard. Solid-object-proof luminaires (first characteristic IP numerals 3 and 4) shall be tested at every possible point (excluding gaskets) with a probe in accordance with test probe C or D of IEC 61032,	IP65	N
	For First characteristic numeral 1-4 test as specified IEC/EN 60529		--
	First characteristic numeral	Ordinary appliance	N
	Test means		N
	Test force		N
	Dust-proof luminaires (first characteristic IP numeral 5) shall be tested in a dust chamber similar to that shown in Figure 6, in which talcum powder is maintained in suspension by an air current. The chamber shall contain 2 kg of powder for every cubic metre of its volume. The talcum powder used shall be able to pass through a square-meshed sieve whose nominal wire diameter is 50 µm and whose nominal free distance between wires is 75 µm. It shall not have been used for more than 20 tests.		N
	Compliance test as specified		N
	Dust-tight luminaires (first characteristic IP numeral 6) are tested in accordance with 9.2.1.		P

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Clause	Requirement - Test	Result - Remark	Verdict
	Drip-proof luminaires (second characteristic IP numeral 1) are subjected for 10 min to an artificial rainfall of 3 mm/min, falling vertically from a height of 200 mm above the top of the luminaire.		N
	Test as the specified for Drip-proof luminaires (second characteristic IP numeral 3)		N
	Tube radius		N
	Number of open holes		N
	Total water flow		N
	Angle of oscillating tube		N
	Test as the specified for Drip-proof luminaires (second characteristic IP numeral 4)		N
	Tube radius		N
	Number of open holes		N
	Total water flow		N
	Angle of oscillating tube		N
	Jet-proof luminaires (second characteristic IP numeral 5) are switched off and immediately subjected to a water jet for 15 min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8. The nozzle shall be held 3 m away the sample.		P
	The water pressure at the nozzle shall be adjusted to achieve a water delivery rate of 12,5 l/min $\pm$ 5 % (approximately 30 kN/m ²).		P
	Powerful water jet-proof luminaires (second characteristic IP numeral 6) are switched off and immediately subjected to a water jet for 3 min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8. The nozzle shall be held 3 m away from the sample.		N
	The water pressure at the nozzle shall be adjusted to achieve a water delivery rate of 100 l/min $\pm$ 5 % (approximately 100 kN/m ²).		N

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Clause	Requirement - Test	Result - Remark	Verdict
	Watertight luminaires (second characteristic IP numeral 7) are switched off and immediately immersed for 30 min in water, so that there is at least 150 mm of water above the top of the luminaire and the lowest portion is subjected to at least 1 m head of water. Luminaires shall be held in position by their normal fixing means. Luminaires for tubular fluorescent lamps shall be positioned horizontally, with the diffuser upwards, 1 m below the water surface.		N
	Pressure watertight luminaires (second characteristic IP numeral 8) are heated either by switching on the lamp or by other suitable means, so that the temperature of the luminaire enclosure exceeds that of the water in the test tank by between 5 °C and 10 °C.		N
	The luminaire shall then be switched off and subjected to a water pressure of 1,3 times that pressure which corresponds to the rated maximum immersion depth for a period of 30 min.		N
	Electric strength test		P
	Between current-carrying parts and mounting surface.	500V for +&- and metal enclosure	P
	There is no flashover or breakdown occurred.		P

Test Equipment

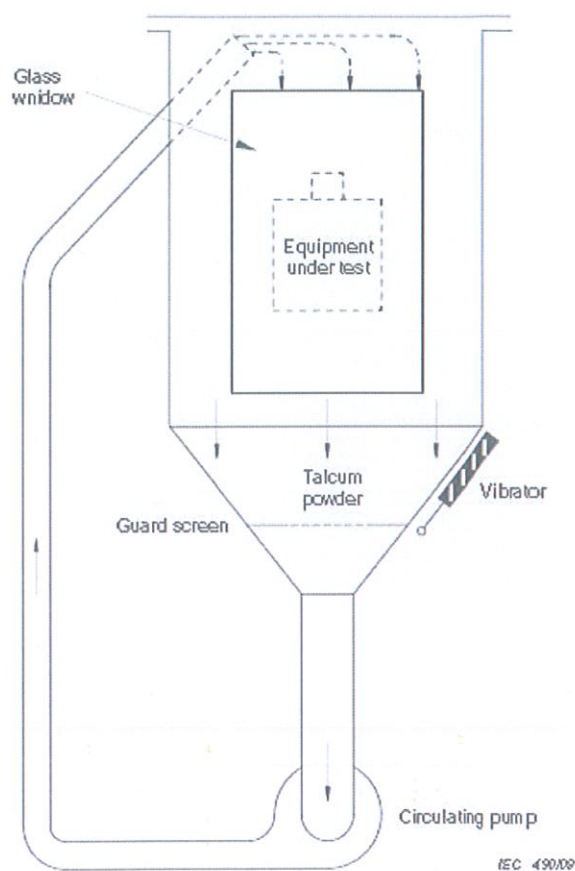
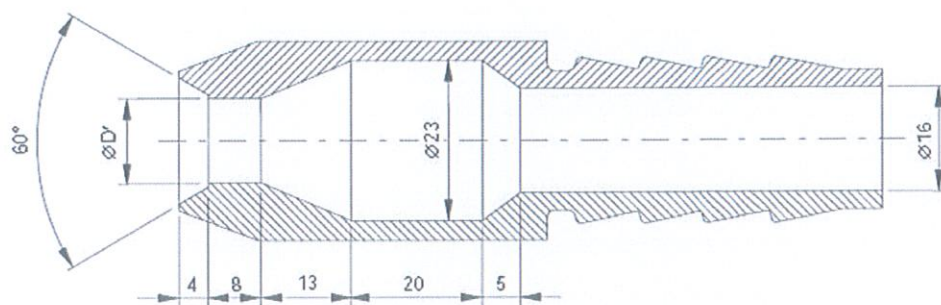


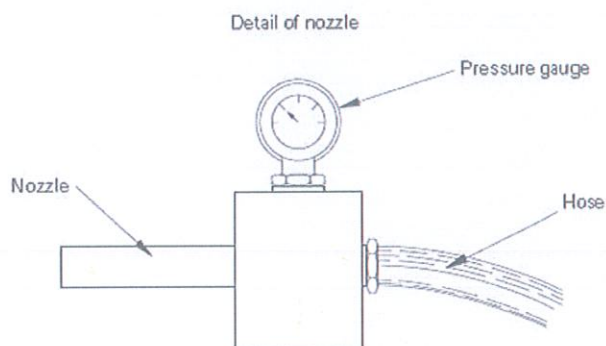
Figure 6 – Apparatus for proving protection against dust

IP 6X Test Equipment

Test Equipment



D' = 6,3 mm for the test of 9.2.6 (second characteristic numeral 5)
 D' = 12,5 mm for the test of 9.2.7 (second characteristic numeral 6)



IEC 49208

Dimensions in millimetres

Figure 8 – Nozzle for spray test

IP 5X Test Equipment

ATTACHMENT 1

Photo Documentation

VIEW:

Model LL-
DL03-18W-830-65-
WH

☐ General

☐ Front

☐ Rear

☐ Internal

☐ Top

☐ Bottom

☐ PWB



VIEW:

Model LL-
DL03-18W-830-65-
WH

☐ General

☐ Front

☐ Rear

☐ Internal

☐ Top

☐ Bottom

☐ PWB



ATTACHMENT 1

Photo Documentation

View:

- ☒ General
- ☐ Front
- ☐ Rear
- ☐ Internal
- ☐ Top
- ☐ Bottom
- ☐ PWB



View:

- ☒ General
- ☐ Front
- ☐ Rear
- ☐ Internal
- ☐ Top
- ☐ Bottom
- ☐ PWB



LIGHT SPECIFICATIONS FOR SSC

DESCRIPTION			
No.	Type	Photo	Qty
1	A		9252
LED Spot Light Size (Diameter,Depth) Wattage Efficacy Lumens Kelvin IP Rating Chip Brand / Origin / Model number MacAdam Ellipse Driver Brand / Origin / Model number Power Factor Schedule Performance current (mA) Total harmonic distortion (THD) Diffuser type Diffuser thickness Body Body Weight and thickness Wire Temperature Operating temperature Finish CRI Beam Angle Reflector Lifetime of LED chip Warranty Brand Model Country of Origin			
LED Spot Light Ø82mm*80mm 6W 100LM/W 600LM 3000K IP44 Osram/Cree 3 SDCM Tridonic-Non Dimmable Driver 0.9 (300-500)mA Less than 15 PMMA 1mm Die Cast Aluminium 100% 3mm 105 °C Operates from -10°C up to 50 °C 9010 Matt White 80 38 ° Aluminium reflector 50,000HRS 5 Years FLUA NIC M DEEP FAR EAST			
2	D		5319
LED Down Light (Lobby & Bathrooms) Size (Diameter,Depth) Wattage Efficacy Lumens Kelvin IP Rating Chip Brand / Origin / Model number MacAdam Ellipse Driver Brand / Origin / Model number Power Factor Schedule Performance current (mA) Total harmonic distortion (THD) Diffuser type Diffuser thickness Body Body Weight and thickness Wire Temperature Operating temperature Finish CRI Beam Angle Reflector Lifetime of LED chip Warranty Brand Model Country of Origin			
LED Down Light (Lobby & Bathrooms) Ø125mm*90mm 10W 100LM/W 1000LM 3000K IP44 Osram/Cree 3 SDCM Tridonic-Non Dimmable Driver 0.9 (300-500)mA Less than 15 PMMA 1mm Die Cast Aluminium 3mm 105 °C Operates from -10°C up to 50 °C 9010 Matt White 80 60 ° Aluminium reflector 50,000HRS 5 Years FLUA NIC L DEEP FAR EAST			

3	D1		567	Description Size (Diameter,Depth) Wattage Efficacy Lumens Kelvin IP Rating Chip Brand / Origin / Model number MacAdam Ellipse Driver Brand / Origin / Model number Power Factor Schedule Performance current (mA) Total harmonic distortion (THD) Diffuser type Diffuser thickness Body Body Weight and thickness Wire Temperature Operating temperature Finish CRI Beam Angle Reflector Lifetime of LED chip Warranty Brand Model Country of Origin	LED Surface Down Light (Store) 305mm, 60mm 16W 100LM/W 1600LM 5000K IP65 Osram/Cree 3 SDCM Tridonic-Non Dimmable Driver 0.9 (300-500)mA Less than 15 PMMA 2mm Shockproof resin 3mm 105 °C Operates from -10°C up to 50 °C 9010 Matt 80 120° Aluminium reflector 50,000HRS 5 Years LA LUCE LL-CEIL-65 FAR EAST
4	F5		549	Description Size (Diameter,Depth) Wattage Efficacy Lumens Kelvin IP Rating Chip Brand / Origin / Model number MacAdam Ellipse Driver Brand / Origin / Model number Power Factor Schedule Performance current (mA) Total harmonic distortion (THD) Diffuser type Diffuser thickness Body Body Weight and thickness Wire Temperature Operating temperature Finish CRI Beam Angle Reflector Lifetime of LED chip Warranty Brand Model Country of Origin	LED Square Light (Kitchen) 60cm*60cm 40W 100LM/W 4000LM 5000K IP44 Osram/Cree 3 SDCM Tridonic-Non Dimmable Driver 0.9 (300-500)mA Less than 15 Opal PMMA 2mm Sheet steel 2mm 105 °C Operates from -10°C up to 50 °C 9010 Matt 80 Diffused Aluminium 50,000HRS 5 Years LA LUCE LL-PNL-40-44 FAR EAST

5	C2		531	Description: LED Wall Light (Stair case) Size (Diameter,Depth): 100X100X100mm Wattage: 2x10W Efficacy: 100L/M/W Lumens: 2x1000LM Kelvin: 3000K IP Rating: IP65 Chip Brand / Origin / Model number: Oram/Cree MacAdam Ellipse: 3 SDCM Driver Brand / Origin / Model number: Tridonic-Non Dimmable Driver Power Factor: 0.9 Schedule Performance current (mA): (300-500)mA Total harmonic distortion (THD): Less than 15 Diffuser type: Glass Diffuser thickness: 2mm Body: Die Cast Aluminium Body Weight and thickness: 3mm Wire Temperature: 105 °C Operating temperature: Operates from -10° C up to 50 °C Finish: 9010 Matt CRI: 80 Beam Angle: 0-40 Adjustable Reflector: Aluminium Lifetime of LED chip: 50,000HRS Warranty: 5 Years Brand: LA LUCE Model: LL-WBL-2x10W-65 Country of Origin: FAR EAST
6	E1		1332	Description: LED Wall Mounted Light (Facade light) Size (Diameter,Depth): H200xW120xD120 MM Wattage: 8W Efficacy: 115L/M/W Lumens: 920LM Kelvin: 4000K IP Rating: IP65 Chip Brand / Origin / Model number: Oram/Cree MacAdam Ellipse: 3 SDCM Driver Brand / Origin / Model number: Tridonic-Non Dimmable Driver Power Factor: 0.9 Schedule Performance current (mA): (300-500)mA Total harmonic distortion (THD): Less than 15 Diffuser type: Tempered Frosted Glass Diffuser thickness: 2mm Body: Die Cast Aluminium Body Weight and thickness: 3mm Wire Temperature: 105 °C Operating temperature: Operates from -10° C up to 50 °C Finish: Charcoal (As per submitted Sample) Rubber & Screw same colour Powerder coating (UV stabilized paint) CRI: 80 Beam Angle: Wide Reflector: Aluminium reflector Lifetime of LED chip: 50,000HRS Warranty: 5 Years Warranty for powder coating: 10 Years Brand: LA LUCE Model: LL-003031 Country of Origin: FAR EAST

7	W1		1251	Description LED Boundary Wall Light Size (Diameter,Depth) W180xD180xH304 MM Wattage 15W Efficacy 100L/M/W Lumens 1500LM Kelvin 4000K IP Rating IP65 Chip Brand / Origin / Model number Osram/Cree MacAdam Ellipse 3 SDCM Driver Brand / Origin / Model number Tridonic-Non Dimmable Driver Power Factor 0.9 Schedule Performance current (mA) (300-500)mA Total harmonic distortion (THD) Less than 15 Diffuser type Tempered Frosted Glass Diffuser thickness 2mm Body Die Cast Aluminium, The screw of the base to be recessed (invisible) Body Weight and thickness 3mm Wire Temperature 105 °C Operating Temperature Operates from -10°C up to 50 °C Finish Charcoal (As per submitted Sample) Powder coating (UV stabilized paint) Comply with UV Stabilized powder coating techniques that requires by: 1) Society for protective coating (SSPC) SP10 and formulated by triglycidyl isocyanurate (TGIC) polyester CRI 80 Beam Angle Wide Reflector Aluminium reflector Lifetime of LED chip 50,000HRS Warranty 5 Years Warranty for powder coating 10 Years Brand LA LUCE Model LL-BKT15-65-2 Country of Origin FAR EAST
8	Strip Light		12348	Description LED Strip Light (5m Roll) with Aluminium Profile Size (Diameter,Depth) 10mmx3.2mmx5000mm Wattage 9.6W/M Efficacy 100L/M/W Lumens 960LM Kelvin 3000K IP Rating IP20 Chip Brand / Origin / Model number Osram MacAdam Ellipse 3 SDCM Diffuser Opal PMMA Diffuser thickness 1mm Body Weight and thickness Aluminium Profile without built-in silicon Operating temperature Operates from -10°C up to 50 °C Finish Aluminium CRI 80 Beam Angle 120° Reflector N/A Lifetime of LED chip 50,000HRS Warranty 5 Years Brand LA LUCE Model SMD 2835 60 LEDs/m Country of Origin FAR EAST
9	Driver		1008	Description LED Driver Driver Brand / Origin / Model number Tridonic-Non Dimmable Driver Wattage 150W Power Factor 0.9 Schedule Performance current (mA) N/A Total harmonic distortion (THD) Less than 15 IP Rating IP20 Warranty 5 Years Country of Origin Austria

10	A		153	LED Spot Light Ø82mm*80mm 6W 100LM/W 600LM 3000K IP44 Osram/Cree 3 SDCM Tridonic-Non Dimmable Driver 0.9 (300-500)mA Less than 15 PMMA 1mm Die Cast Alluminium 100% 3mm 105 °C Operates from -10°C up to 50 °C Silver Matt Ral 7001(As per the approved sample) 80 38 ° Aluminium reflector 50,000HRS 5 Years FLUA NIC M DEEP FAR EAST
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