

DECLARATIE DE CONFORMITATE - CE

Noi, SCHRÉDER ROMANIA S.R.L., cu sediul în Cluj - Napoca, str. Corneliu Coposu nr. 167a, Jud. Cluj, România, înregistrată la Registrul Comerțului cu nr. J12/1759/1998, membră a SCHRÉDER GROUP GIE, în calitate de producători de aparate de iluminat marca SCHRÉDER

Declarăm pe propria răspundere că aparatul de iluminat: **SKIDO LED**

Echipare:

6 LED-uri de Mare Putere (High Power LED) monocromatic

Caracteristici principale:

Balast: Electronic

Etanșeitate compartiment optic: IP 65

Etanșeitate compartiment aparataj: IP 65

Tensiune nominală: 230 V – 50 Hz

Clasa electrică: I

Tipul laboratorului de testare: SMT (Supervised Manufacturer's Testing)

este produs în conformitate cu următoarele standarde:

CEI EN 60598-1 – 2005/05 (CEI 34-21 VIII ed.)

CEI EN 60598-2-1 – 1997/10 (CEI 34-23 II ed.)

CEI EN 60598-2-3 – 2003/10 (CEI 34-33 II ed.)

De asemenea acesta este în conformitate și cu standardele:

CEI EN 55015 – 2008/04 (CEI 110-2 VI ed.)

CEI EN 61000-3-2 – 2007/04 (CEI 110-31 IV ed.)

CEI EN 61000-3-3/A1 – 2002/05 (CEI 110-28;V1)

CEI EN 61000-3-3 – 1997/06 (CEI 110-28 I ed.)

CEI EN 61547 – 1996/07 (CEI 34-75)

CEI EN 61547/A1 – 2001/08 (CEI 34-75;V1)

Data aplicării marcatului CE: 14

Produsul este realizat în conformitate cu directivele 2006/95/CE – Joasă Tensiune, 2002/95/CE - RoHS și 2002/96/CE – DEEE.

SCHRÉDER ROMANIA S.R.L.
Director Comercial,
Ovidiu GROZA

Eliberat,
Aprilie 2019, Cluj-Napoca



LED Flux measurement

FORM-L-41 ED1 REV 2

Date : **16-01-19**

Operator : **FCE**

Filename : **2019_53.xml**



226 - TEST

NBN EN ISO/IEC 17025 : 2005

LEDs

Trademark : **Samsung**

Entry number : **39R004-3**

Type : **LH351C**

Power (Catalogue) : **0,00** W

BIN Description : **40-70M-4-TB-RB**

Flux : **0** lm/LED

Part number : **Unknown**

Color or CCT (Theoretical) : **NW**

Number of LEDs : **6**

Lenses

Trademark : **None**

Type : **None**

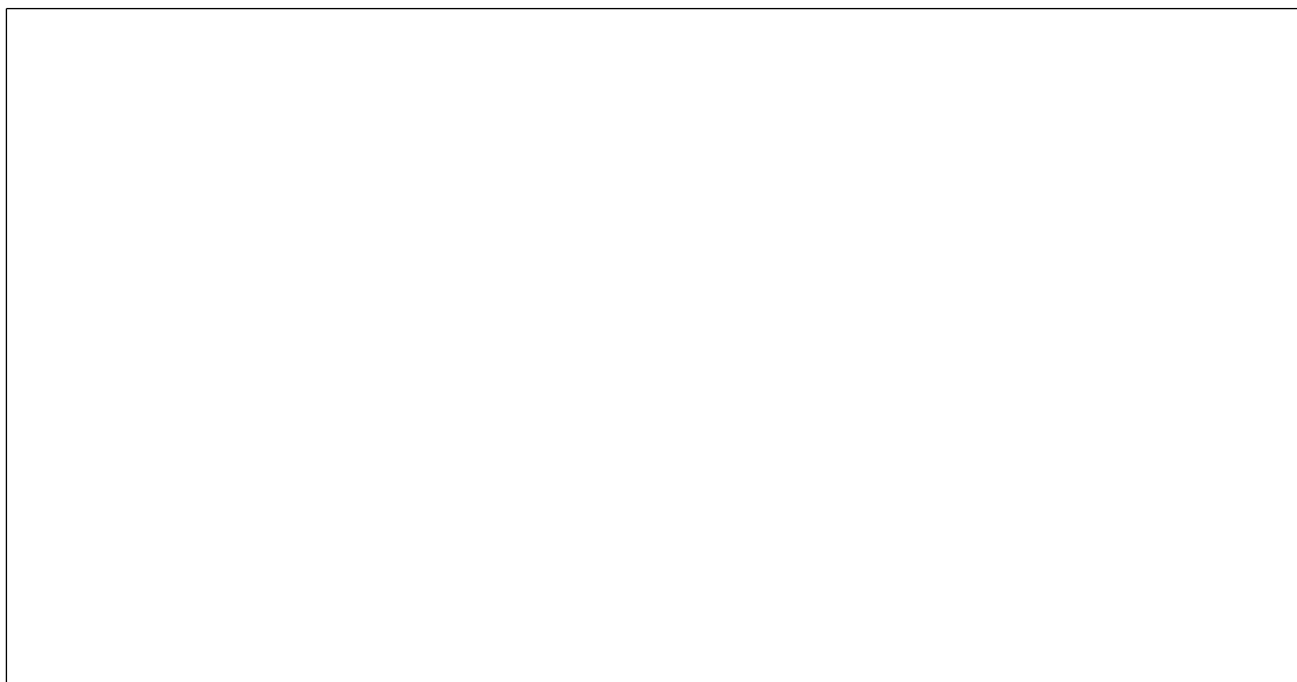
Power & Print

Type : **DELTA SM400-AR-4**

Print description : **00-71-626 A - Voltana 0**

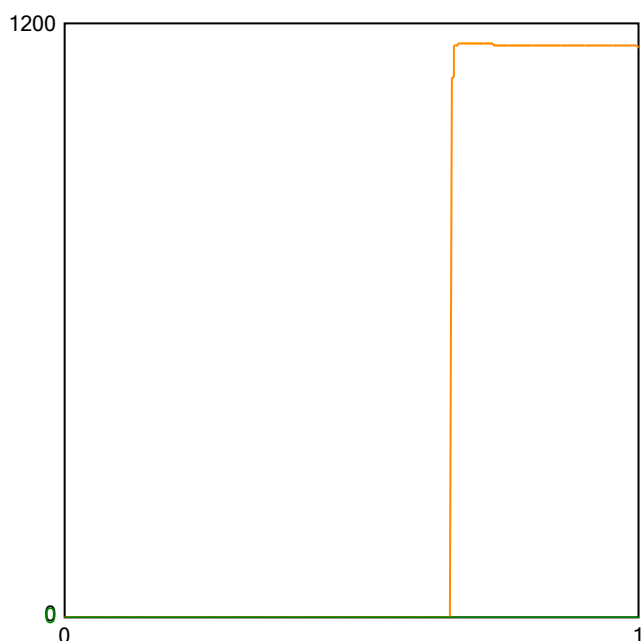
Active ☐

Picture



Sphere photometric measurement

Maximum flux : **1161** lumens



Operating condition

Position in sphere :



Ambient sphere T ° : **24,6**

Electrical measurement

● Secondary electrical measurement

Voltage : **16,80** V

Current : **0,350** A

Power : **5,87** Watt

→ LEDs light efficiency at 25° :

197,6 lm/W

193,5 lm/Led

● Primary electrical measurement

Voltage : **N/A** V

Current : **N/A** A

Power : **N/A** Watt

Cos φ : **N/A**

→ Driver losses : **N/A** %

→ LEDS & Driver light efficiency :

N/A lm/W

Description :

Flux @25°/350mA - pcb Voltana 0 - 6 Samsung LH351C - pcb N°3

Comment :

FORM-L-41 ED1 REV 2



226 - TEST

Approved by :

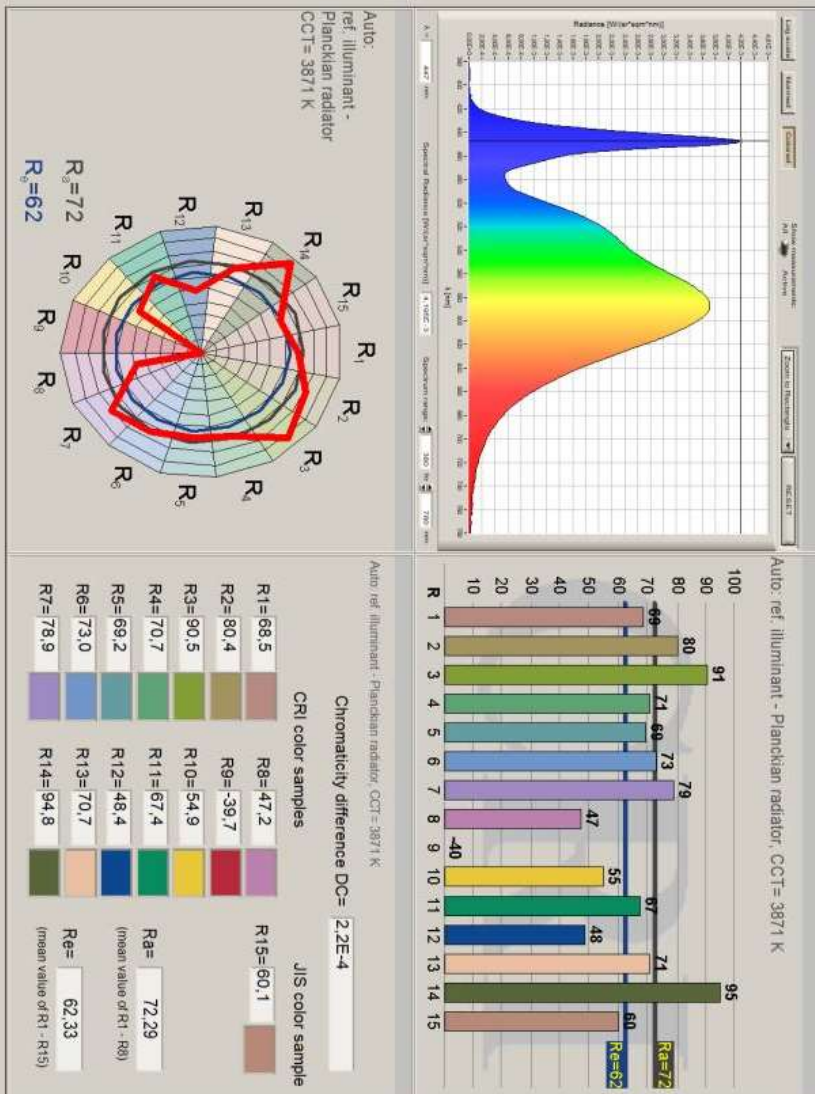
LED 2019/53 2/3



226 - TEST

NBN EN ISO/IEC 17025 : 2005

Colorimetry



Target

Calibration File: #1 no ACCESSORY

Weighing Function: None

Measurement Mode: Radiance

Average $\frac{1}{n}$ 1

Measurement

#1

Transfer data to table

Luminance L_v 1.963E+2 $\frac{\text{cd}}{\text{m}^2}$

Radiance L_e 5.556E-1 $\frac{\text{W}}{\text{sr m}^2}$ (350-750nm)

Corr. Color Temp CCT 3872 K

Chromaticity u' 0.2276 v' 0.5039

QUIT

RTECH-PHOTOMETRY LABORATORY

Testreport : Measurement of luminous intensity distribution related to the standard
NBN-EN 13032-1; NBN-EN 13032-4; CIE 121-1996; CIE S 025/E; IES LM-79-08 and procedures PT-P-01
and PT-P-02
rue de Mons, 3 B-4000 LIEGE - Tel : 04/224.71.40 - Fax : 04/224.25.90
Measurement for Schröder group.

LED

Origin R-Tech	Production Schröder TOV	Luminaire SKIDO	Inclination 0°	Request # FD39062
Source				
Type LED	BIN 40-70M-4-TB-RB	Trademark Samsung	Reference LH351C	# LEDs 6
Reflector No		Reflector 5122		
Master Schröder TOV-Ukraine Led assembly Road lighting Assembled 0,0°				
Protector Refractor Lens				
Protector integrated lenses Lens Schröder 5122 PC				
Laboratory observation SKIDO fitted with 6 Samsung LH351C Used flux for efficient matrix calculation, measured in sphere @350mA / 25°C: 1161 lm - CCT= 3872K - CRI= 72,29 (see sphere test report 2019/53 on appendix)				
Purpose DOC	Sample date 08-01-2019		Sample # 39R004	
Observation DOC Skido with optic 5122 Flux coefficient multiplier (only for efficiency matrix): From 350 to 700 mA : 1,842 From 350 to 1050 mA : 2,562 Fixture powered with DC power supply from the lab for matrix @350mA Fixture powered with driver MeanWell PLD-16-700B for matrix @700mA Fixture powered with driver MeanWell PLD-25-1050 for matrix @1050mA				
Notes The publication of this report in another form than the original one is not allowed without agreement of the laboratory. This report concerns type tests on one or a series of specimens.				

Asked by GGG	Measured by CLD	Approved by RLABO	Appendix 1	  226-TEST NBN EN ISO/IEC 17025 : 2005	42935
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LUMINOUS INTENSITY DIAGRAM

Origin R-Tech		Production Schröder TOV		Luminaire SKIDO		Inclination 0°	Request # FD39062
Source	Type LED	BIN 40-70M-4-TB-RB	Trademark Samsung	Reference LH351C	# LEDs 6	Reflector 5122	
Reflector	Schröder TOV-Ukraine Led assembly Road lighting Assembled 0,0°					No	5122
Matrices	429351 Φ 0-90° = 1033lm - 90-180° = 1lm					Absolute measurement	
Protector Refractor Lens	Protector integrated lenses Lens 6 x Schröder 5122 PC						
Observation	in total flux @350mA Electrical measurement on LED (#1) : Voltage = 17,24 V Current = 0,350 A Power = 6,03 W Driver #1 : See observations for driver details - PCB 00-71-626 A						
Plane	I Peak	Peak position	Index	I zero	Laboratory ambient t°	Measurement date	↕
10 - 170	613	73	S	255	24,9°	25-03-2019	
90	288	38	D				
270	255	0	G				

42935

LUMINOUS INTENSITY DIAGRAM

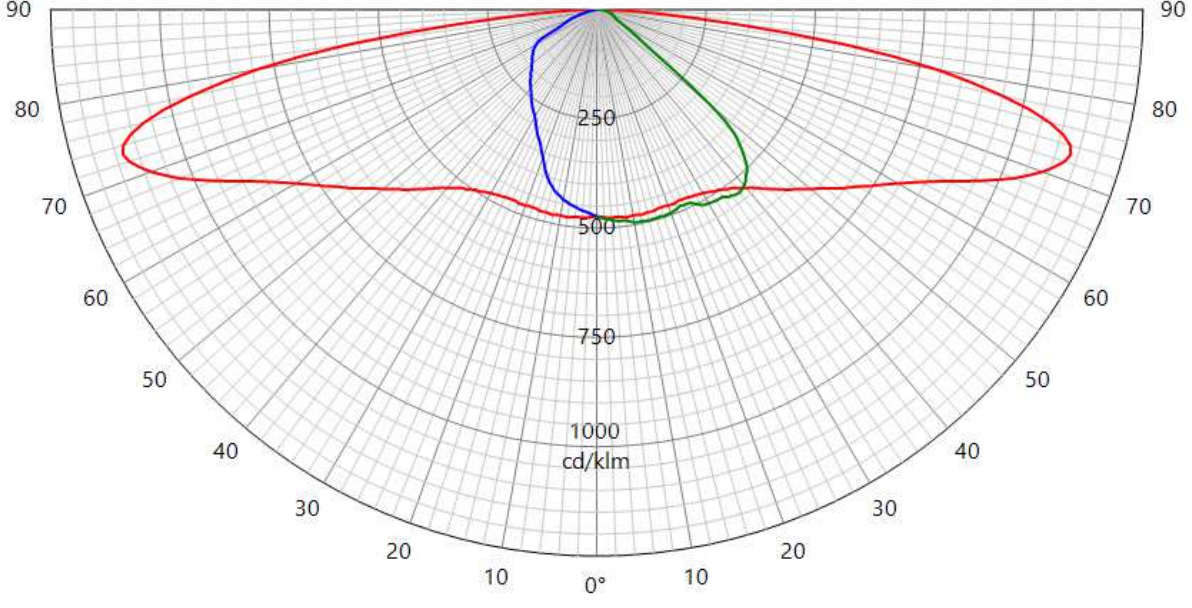
Origin R-Tech		Production Schröder TOV		Luminaire SKIDO		Inclination 0°	Request # FD39062
Source	Type LED	BIN 40-70M-4-TB-RB	Trademark Samsung	Reference LH351C	# LEDs 6	Reflector 5122	
Reflector	Schröder TOV-Ukraine Led assembly Road lighting Assembled 0,0°					No	5122
Matrices	429352 η 0-90° = 89,0% - 90-180° = 0,1%					Relative measurement	
Protector Refractor Lens	Protector integrated lenses Lens 6 x Schröder 5122 PC						
Observation	in efficiency @350mA . Electrical measurement on LED (#1) : Voltage = 17,24 V Current = 0,350 A Power = 6,03 W Driver #1 : See observations for driver details - PCB 00-71-626 A						

Plane	I Peak	Peak position	Index	I zero	Laboratory ambient t°	Measurement date	↕
10 - 170	528	73	S	220	24,9°	25-03-2019	
90	248	38	D				
270	220	0	G				

42935

LUMINOUS INTENSITY DIAGRAM

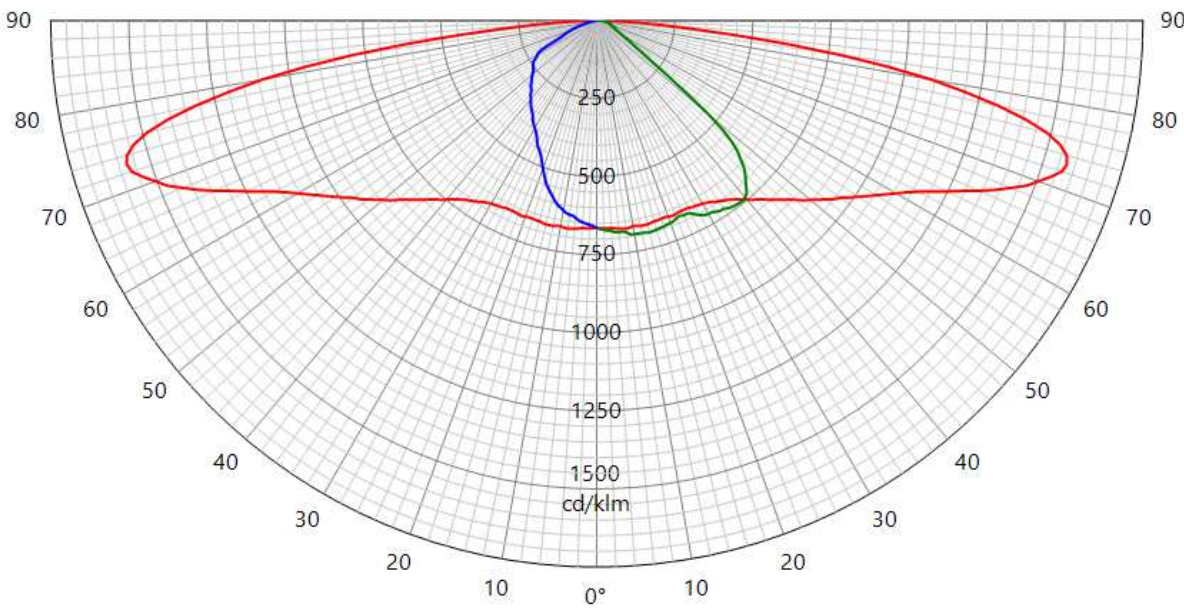
Origin R-Tech		Production Schröder TOV		Luminaire SKIDO		Inclination 0°	Request # FD39062
Source	Type LED	BIN 40-70M-4-TB-RB	Trademark Samsung	Reference LH351C	# LEDs 6	Reflector 5122	
Reflector	Schröder TOV-Ukraine Led assembly Road lighting Assembled 0,0°					No	5122
Matrices	429353 Φ 0-90° = 1904lm - 90-180° = 2lm					Absolute measurement	
Protector Refractor Lens	Protector integrated lenses Lens 6 x Schröder 5122 PC						
Observation	in total flux @700mA. Electrical measurement on LED (#1): Voltage = 18,20 V Current = 0,701 A Power = 12,76 W Electrical measurement on driver (#1): Voltage = 230,00 V Current = 0,068 A Power = 15,21 W PF = 0,971 Total luminaire power = 15,21 W : Lm/Watt = 125,35 lm/W Driver #1 : See observations for driver details - PCB 00-71-626 A						
Plane	I Peak	Peak position	Index	I zero	Laboratory ambient t°	Measurement date	
10 - 170	1134	73	S	473	24,9°	25-03-2019	
90	531	38	D				
270	473	0	G				



42935

LUMINOUS INTENSITY DIAGRAM

Origin R-Tech		Production Schröder TOV		Luminaire SKIDO		Inclination 0°	Request # FD39062
Source	Type LED	BIN 40-70M-4-TB-RB	Trademark Samsung	Reference LH351C	# LEDs 6	Reflector 5122	
Reflector	Schröder TOV-Ukraine Led assembly Road lighting Assembled 0,0°					No	5122
Matrices	429354 Φ 0-90° = 2648lm - 90-180° = 3lm					Absolute measurement	
Protector Refractor Lens	Protector integrated lenses Lens 6 x Schröder 5122 PC						
Observation	in total flux @1050mA. Electrical measurement on LED (#1) : Voltage = 18,97 V Current = 1,061 A Power = 20,22 W Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,108 A Power = 24,14 W PF = 0,975 Total luminaire power = 24,14 W : Lm/Watt = 109,81 lm/W Driver #1 : See observations for driver details - PCB 00-71-626 A						
Plane	I Peak	Peak position	Index	I zero	Laboratory ambient t°	Measurement date	
10 - 170	1575	73	S	664	24,9°	25-03-2019	
90	743	39	D				
270	664	0	G				



42935

CONFORMITY STATEMENT

Measurement fulfil Standards:

NBN-EN 13032-1
NBN-EN 13032-4
NBN-EN 17025:2005
CIE 121-1996
LM79-08
CIE S 025

Measurement quantities measured:

Light distribution in relative or absolute photometry
Led alone cold lumen package
Led CCT and CRI
Power consumption of the fitting
Lm/watt

Electrical measurement, if not specified:

Primary values are AC with 50Hz frequency
Secondary values on SSL are DC

CCT, CRI and chromaticity coordinates: are measured in Ulbricht sphere.
If specified Main test report refer to sphere extra test report.

Light distribution are measured on gonio. If not otherwise specified, measurement is done at 50 Hz

Number of hours operated prior to measurement: if not otherwise specified, 0 hours (no aging).

Stabilization time: If not otherwise specified, a minimal stabilization time of 0.5 hour is applied; and measurement will start when it exists no more variation above 0.5% in 15 minutes

Total operating time of the product including stabilization:
45 minutes have to be added by measurement.
Minimal operating time is 75 minutes

Luminous intensity distribution: available on electronic file with
.mat format (internal Schröder format)
.ldt format (European standard)
.IES format (American standard)

Statement of uncertainties (K=2, 95% of confidence level):
Uncertainties calculated based on a typical Schröder fitting and PCBA

Intensity measurement: +/- 3%

Angle: +/- 0.5°

Flux: +/- 2.5%

Electrical DC

Power: +/- 0.25%

Voltage: +/- 0.15%

Current: +/- 0.15%

Electrical AC

Power: +/- 0.15%

Voltage: +/- 0.3%

Current: +/- 0.3%

Temperature: +/- 0.65%

ISP2000	JETI	
CCT:	+/- 5%	+/-7.5%
CRI:	+/- 2%	+/-2.75%
x/y:	+/- 2%	+/-4.6%

lm/Watt: +/-3.5%

Measuring instruments in use:

Gonio 1

Type C with Moving mirror

Manufacturer: LMT Lichtmesstechnik GmbH Berlin, Helmholtzstrasse 9 10587 Berlin, Germany

Type: GO-DS 2000

Calibration: traceable to PTB (Physikalisch-Technische Bundesanstalt D-Braunschweig) and METAS (Federal Institute of Metrology, CH-Bern)

Photometric test distance: By default 10 meter, on request 30 meter.

Gonio 2

Type C

Manufacturer: Technoteam Bildverarbeitung, Werner-von-Siemens-Strasse 5 98693 Ilmenau, Germany

Calibration: traceable to BIPM (Bureau International des Poids et Mesures F-Sèvres)

Photometric test distance: Near Field

Sphere n°1

4p geometry

Manufacturer: LMT Lichtmesstechnik GmbH, Helmholtzstrasse 9 10587 Berlin, Germany

Type: UL2000 + U1000 V-Lambda photometer

Calibration: traceable to BIPM (Bureau International des Poids et Mesures F-Sèvres)

Sphere n°2

4p geometry

Manufacturer: Instrument Systems GmbH, Neumarkter Str. 83, 81673 Muenchen, Germany

Type ISP2000 + Spectroradiometer CAS120 and CAS140

Calibration: traceable to NIST

Colorimetric portable spectroradiometer

Manufacturer: JETI Technische Instrumente GmbH, Tatzendpromenade 2 07745 Jena

Type: SPECBOS 1201

Calibration: traceable to NIST

Multimeters

Manufacturer: Agilent

Type: 34401A

Calibration: traceable to BIPM (Bureau International des Poids et Mesures F-Sèvres)

Wattmeters

Manufacturer: Yokogawa

Type: WT210 and WT310

Calibration: traceable to BIPM (Bureau International des Poids et Mesures F-Sèvres)

Thermometers

Amarell Precision

Type: Liquid in glass N63833

Calibration: traceable to LBT (Laboratoire Belge de Thermométrie)

Lumen maintenance report

LED information

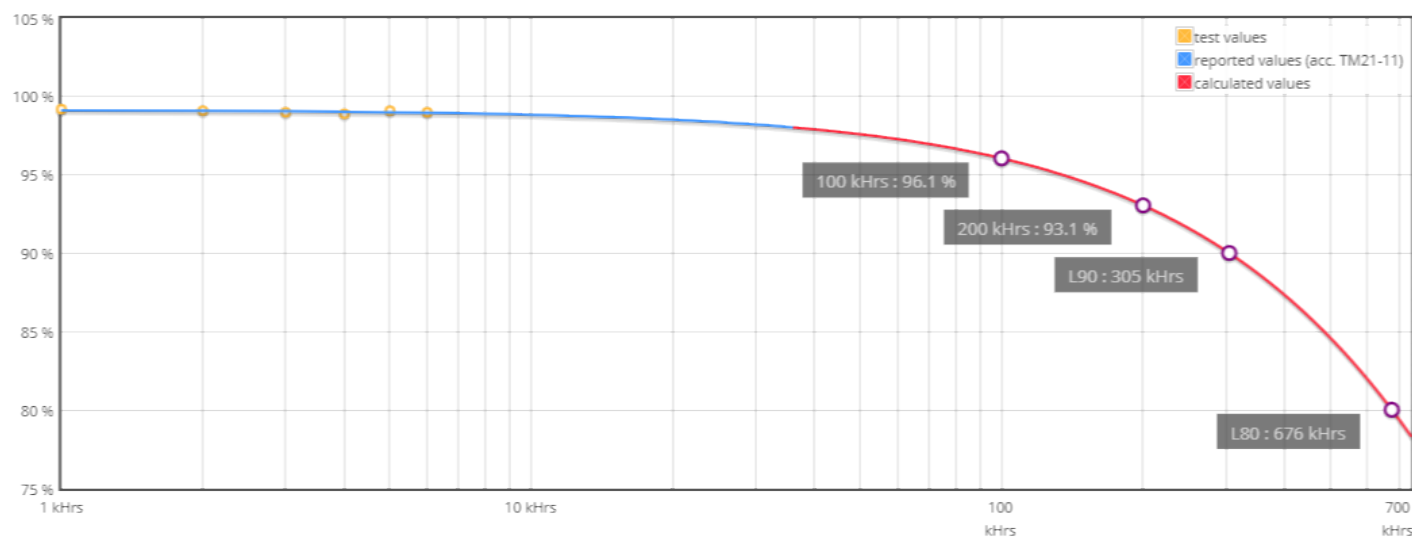
LED type	LH351C
LED current	700 mA
Ts	55°C
Description	SLED-18-015

Projection data

Test duration	6000 hrs	α	3.172E-007
Time used for projection	1000 to 6000hrs	β	0.992

L (%)	Time (kHrs)
80.0	677
90.0	305
93.1	200
96.1	100

Projection graphic



LxB50 results according to LM-80 and TM-21-11 procedures and norms.

LxBy results derived from LxB50 according to IEC 62717 Annex C.

LICENCE

No. 21158 - Issue No 2

Issued to:
Applicant:
R-Tech
Rue de Mons, 3
4000 LIEGE
Belgium

Licensee:
Schreder S.A.
Rue de Lusambo, 67
1190 BRUXELLES
Belgium



Product : road, square and street lighting
Trade name(s) : SCHREDER
Type(s)/model(s) : SKIDO

The product and any acceptable variation thereto is specified in the annex to this licence and the documents therein referred to.

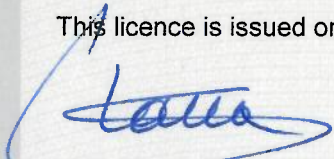
SGS CEBEC hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard specified in annex
- an inspection of the production location
- a certification agreement with the number 1173

SGS CEBEC hereby grants the right to use the CEBEC certification mark

The ENEC/CEBEC certification mark may be applied to the product as specified in this licence for the duration of the ENEC/CEBEC certification agreement and under the conditions of the ENEC/CEBEC certification agreement.

This licence is issued on: 23/04/2019


ir. C. Lana,
Certification Manager

© Only integral publication of this certificate, including the annex, is allowed
This certificate is only valid combined with the publication on the following web address: www.sgs.com/ee



SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

Product	:	road, square and street lighting
Trade name(s)	:	SCHREDER
Type(s)/Model(s)	:	SKIDO
description	:	Street lighting luminaire
rated voltage (Un)	:	220-240 V
nature of supply	:	AC
rated frequency	:	50-60 Hz
rated power	:	max 24 W
temperature limit (t max)	:	Ta 40°C (indoor), Ta 50°C (outdoor)
class	:	class I
degree of protection	:	IP65
mechanical load	:	IK08
rated current (In)	:	max. 1000 mA
lamp(s)	:	LED Nichia 219C, LG G4TOP, SAMSUNG LH351C

TESTS

Test requirements

EN 60598-1:2015 + A1:2018
EN 60598-2-3:2003 + A1:2011

Test results

The test results are laid down in certification file 630020/02.

Remarks

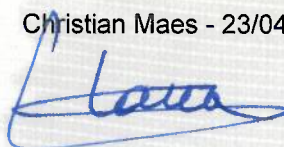
This certificate is based on test reports Nos. TGM-VA EE 36464 SFT-1 and P1533-I.

Conclusion

The examination proved that all certification requirements were met.

Reviewed by, project leader : Christian Maes - 23/04/2019

Certification Manager :

 2019-04-23

FACTORY LOCATION(S)

Schreder TOV
Vul. Mykulynetska 46B
46000 TERNOPIL
Ukraine

Schreder (China) Lighting Industrial Co., Ltd
No.40 Xinye 2 Street, Tianjin Economic Technological Development Zone West Zone,
300462 Tianjin City, P.R.China
China

Socelec S.A.
Av. de Roanne, 66
Poligono Industrial "EL HENARES"
19180 MARCHAMALO (GUADALAJARA)
Spain

Schröder Iluminação S.A.
Rua da Fraternidade Operária, n° 3
2795-491 CARNAXIDE, OEIRAS
Portugal

Comatelec S.A.
Z.I.
18400 SAINT FLORENT S/CHER
France

Schröder Hungary Plc.
Tópart 2
2084 PILISSZENTIVAN
Hungary

Laboratory Service PHYSICAL TEST REPORT



R-Tech
Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: SKIDO 6 led's

Sample n°: P-E15365

Test purpose: Electrical measurements @ 1.05A and 700mA

Remarks:

Test request n°: P-D15545

Folder n°: P-F14083

TEST CONDITIONS:

Operator: CLOSSET Frédéric

Driver: 1.05A: Mean Well PLD-25-1050
700mA: Mean Well PLD-16-700

Load: 6 Led's CW 5700K
Typical Vf: @ 1.05 A: 3,00 V
@ 700 mA: 2,91 V

Power Supply:
Elgar Tw 3500-4
Supply voltage: 230 V 50 Hz

Measurement device:
Fluke Norma 4000 (HF Powermeter, User 10, filter OFF)

CONCLUSIONS:

@ 1.05A:
- Efficiency: 81 %
- PF: 0.96
- THD: 12.7%

@ 700 mA
- Efficiency: 83%
- PF: 0.97
- THD: 13.2%

Duplicate to: Mr M. Thijs
LAB 20/07/2015
L. Maghe

//P-15CR545

A handwritten signature in blue ink, appearing to read "Maghe", with a stylized flourish at the end.

Laborator teste

RAPORT DE

TEST FIZIC



R-Tech

Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Membră a Schréder Group

Subiect: SKIDO 6 LEDuri

Mostra nr: P-E15365

Scopul testului: Măsurători electrice @ 1.05A & 700mA

Observații:

Cerere de efectuare test nr : P-D15545

Dosar nr.: P-F14083

CONDITII TESTARE:

Operator: CLOSSET Frédéric

Balast: 1.05A: Mean Well PLD-25-1050
700mA: Mean Well PLD-16-700

Echipare: 6 LEDuri CW 5700K
Vf Tip.: @ 1.05 A: 3,00 V
@ 700 mA: 2,91 V

Alimentare:

Elgar Tw 3500-4

Tensiune de alimentare: 230 V 50 Hz

Echipament de măsurare:

Fluke Norma 4000 (HF Powermeter, User 10, filter OFF)

CONCLUZII:

@ 1.05A:

- Eficiență: 81 %

- PF: 0.96

- THD: 12.7 %

@ 700 mA:

- Eficiență: 83 %

- PF: 0.97

- THD: 13.2 %

Duplicat pentru: Mr M. Thijs
LAB 20/07/2015
L. Maghe

//P-15CR545

[semnatura indescifrabila]

Laboratory Service PHYSICAL TEST REPORT



R-Tech
Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: SKIDO 6 led's @ 700 mA - class I protection

Sample n°: P-E15546

Test purpose: EMC tests according to EN 55015 & EN 61547 Standards

Remarks:

Test request n°: P-D15777

Folder n°: P-F14083

TEST CONDITIONS:

Operator: ULg - EMC

Test Summary

EN 55015 & EN 61547 Standards

Emission

Standard	Limit / Level	Result	
		PASS	FAIL
EN 55015 Conducted Emission 9kHz- 30 MHz		X	
EN 55015 Annex B 30 MHz – 300 MHz		X	

Immunity

Standard	Limit / Level	Result	
		PASS	FAIL
EN 61000-4-5	0.5 to 4 kV M.D. & M.C. Criteria B required	X	

Driver: Mean-Well PLD-16-700D @ 700 mA

EMC Auxiliaries: Varistor

CONCLUSIONS:

SKIDO 6 led's driven @ 700 mA by MeanWell driver in class I protection complies with the CISPR/EN 55015 and EN 61547 Standards.

Remark: Surge protection tested OK up to 4 KV for both Common and Differential modes (Max ULg facilities)

Duplicate to: Mr M. Thijs
LAB 05/11/2015
L. Maghe

//P-15CR777

Laboratory Service PHYSICAL TEST REPORT



R-Tech

Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: I.S. SKIDO (hand mounted by HUS)

Sample n°: P-E13088

From: HUS

Test purpose: Mechanical impact resistance test following IEC/EN 62262 Standard

Remarks:

Test request n°: P-D13182

Folder n°: P-F13034

TEST CONDITIONS:

Operator: BOMBIL Patrick

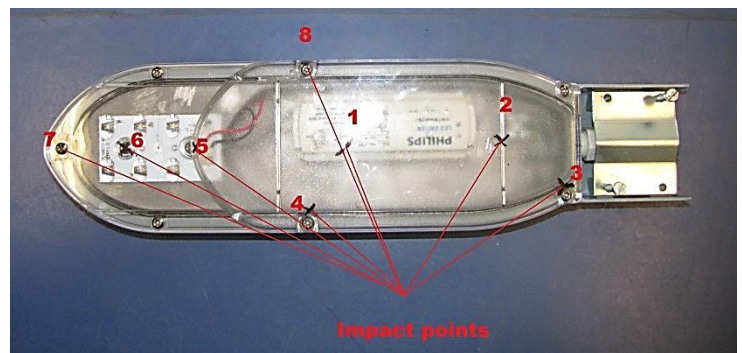
I.S. Skido with PC protector

Info material not received

At pendulum hammer

5+3 impact points distributed on protector surface

One impact on each point



Test

IK05 : Impact energy: 0,7 joules
Hammer weight: 0,2 kg
Height of fall: 35 cm

IK06 : Impact energy: 1 joule
Hammer weight: 0,5 kg
Height of fall: 22 cm

IK07 : Impact energy: 2 joule
Hammer weight: 0,5 kg
Height of fall: 40 cm

IK08 : Impact energy: 5 joules
Hammer weight: 1,7 kg
Height of fall: 29,4 cm

Result

OK, nothing to indicate

OK, nothing to indicate

OK, nothing to indicate

OK for the protector, but a deformation of the alu sheet clamp allows the release of the fitting. See pictures here after.

CONCLUSIONS:

SKIDO satisfies the IK07 test in accordance with IEC/EN 62262 Standard.

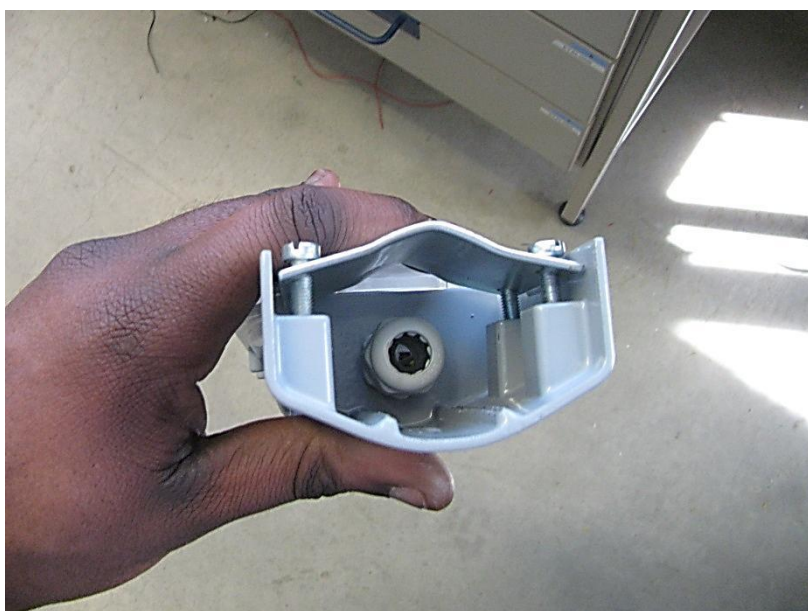
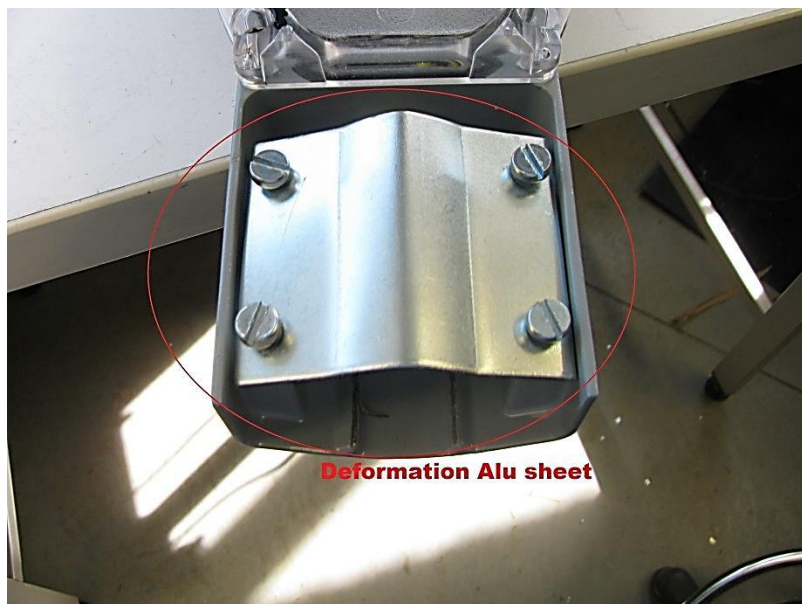
Duplicate to: MM C. Horvath, C. Marville, Y. Borlez

LAB 19/04/2013

J.P. Harchies

P-13E182

I.S. SKIDO (hand made by HUS)



Laborator teste

RAPORT DE TEST FIZIC

R-Tech

Rue de Mons 3 - B-4000 Liège - Belgia

Tel. :+32 4 224 71 40 - Fax :+32 4 224 25 90

Membră Schröder Group

Subiect: I.S. SKIDO (montat manual de HUS)

Nr. mostra: P-E13088

De la: HUS

Scopul testului: Test de rezistență mecanică la impact conform standardului IEC/EN 62262

Observatii:

Cerere de testare nr.: P-D13182

Dosar nr.: P-F13034

CERINTELE TESTULUI:

Operator: BOMBIL Patrick

I.S. Skido cu difuzor din policarbonat

Nu au fost primite informatii despre material

La ciocanul cu pendul

7 puncte de impact, distribuite pe suprafața difuzorului

Câte o lovitură în fiecare punct

Test

IK05: Energie de impact: 0,7 jouli
Greutate ciocan: 0,2 Kg
Înălțime de cădere: 35 cm

Rezultate

OK, nimic de mentionat

IK06 : Energie de impact: 1 joule
Greutate ciocan: 0,5 kg
Înălțime de cădere: 22 cm

OK, nimic de mentionat

IK07: Energie de impact: 2 jouli
Greutate ciocan: 0,5 Kg
Înălțime de cădere: 40 cm

OK, nimic de mentionat

IK08: Energie de impact: 5 jouli
Greutate ciocan: 1,7 Kg
Înălțime de cădere: 29,4 cm

OK pentru difuzor, dar o deformare a clemei din aluminiu permite deblocarea aparatului. Vedeti imaginile de mai jos.

CONCLUZII:

Aparatul de iluminat SKIDO îndeplinește cerințele IEC/ EN 62262 pentru rezistența la impact IK07.

Duplicat: MM C. Horvath, C. Marville, Y. Borlez

LAB, 19/04/2013

J.P. Harchies

[Semnătură indescifrabilă]

P-13E182

I.S. SKIDO (creat manual de HUS)

[fotografii]

Laboratory Service PHYSICAL TEST REPORT



R-Tech

Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: Serial 0 SKIDO 6 led's Nichia @ 700 mA

Sample n°: P-E13112

From: INK

Test purpose: Tightness test IP65 following IEC/EN 60598-1 Standard

Remarks:

Test request n°: P-D13207

Folder n°: P-F13045

TEST CONDITIONS:

Operator: BOMBIL Patrick

Test	Result
IP6X : -Luminaire switched ON until stable T° -Talcum n suspension (blowing ON) -After 1', luminaire OFF -Talcum for 3 hours	OK
IPX5 : - Luminaire switched ON until stable T° - Luminaire switched OFF and immediately sprayed with water jet - Hose Φ 6,3 mm - Water pressure: 300 gr/cm ² - Spraying distance: 3 m - Test duration: 15 minutes	OK

Remark: Silicone gasket remains strongly marked even after a long time the protector removed.

CONCLUSIONS:

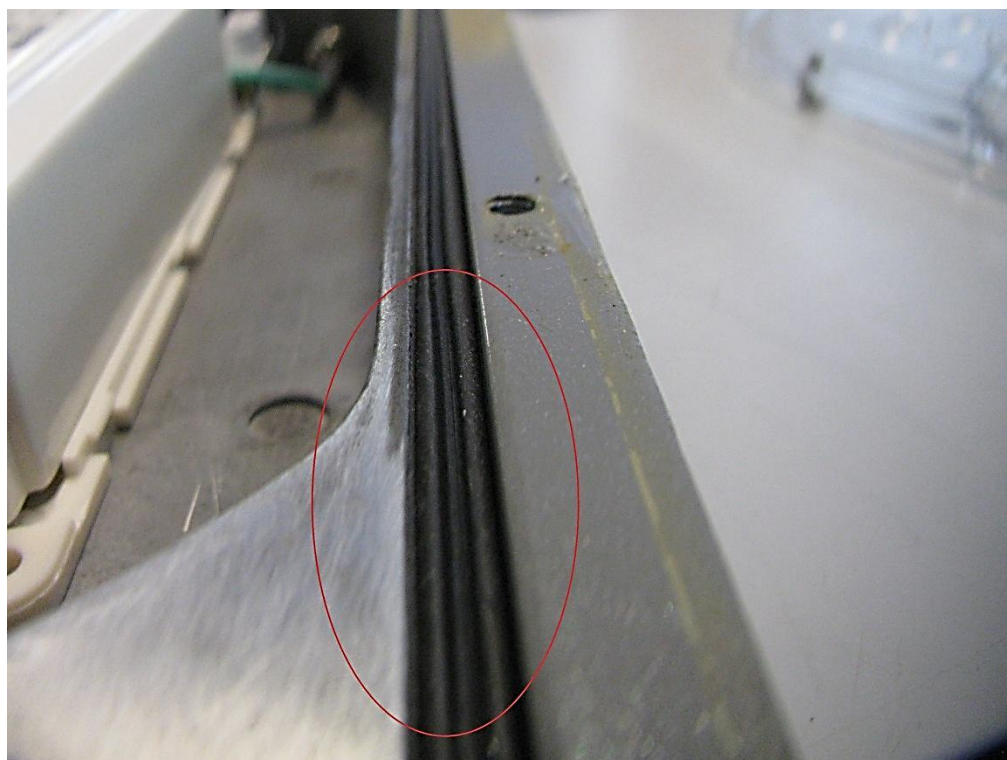
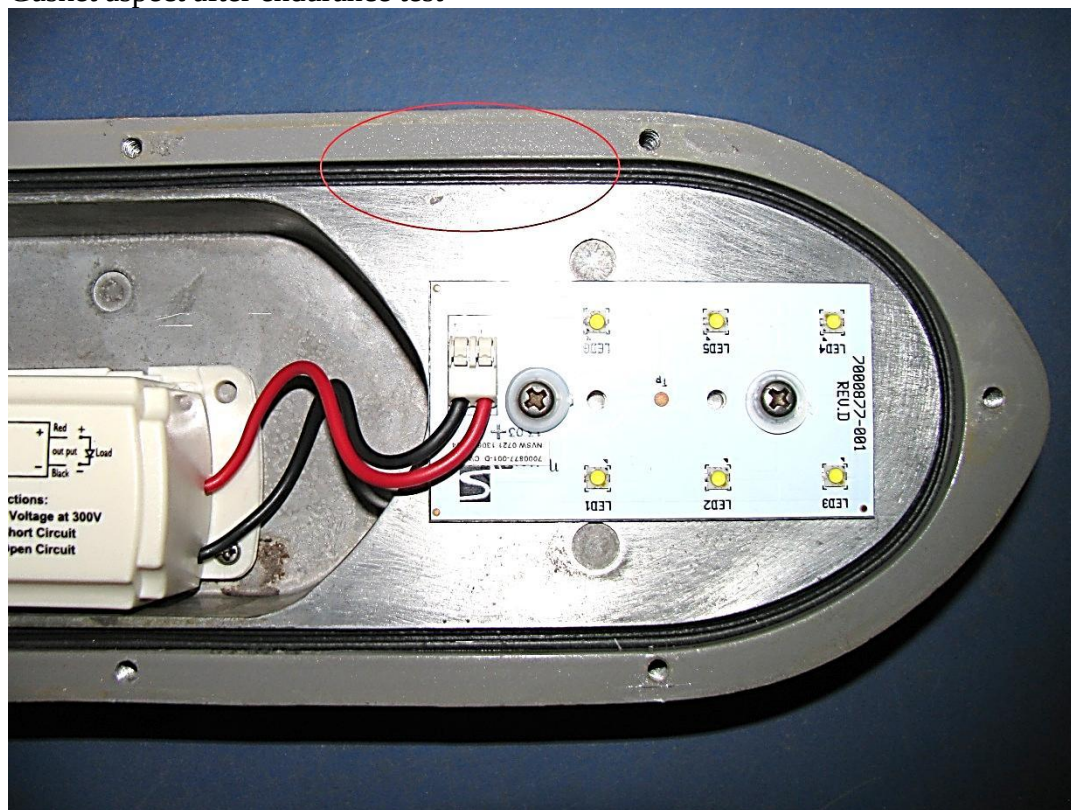
SKIDO 6 led's @ 700 mA satisfies the IP65 test following IEC/EN 60598-1 Standard

Duplicate to: MM C. Faujdar, P. Shah, S. Pujari, C. Horvath, C. Marville, Y. Borlez
LAB 14/05/2013
J.P. Harchies

P-13E207

Serial 0 SKIDO 6 led's Nichia @ 700 mA

Gasket aspect after endurance test



Laborator teste

RAPORT DE

TEST FIZIC



R-Tech

Rue de Mons 3 – B-4000 Liège – Belgium
 Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
 Membră a Schröder Group

Subiect: AXIA 2.2 / 48 LEDuri @ 1000 mA, echipat cu LuCo P7 & Senzor PIR

Eșantion nr.: P-E16117

Scopul testului: Test nivel etanșeitate IP66, conform standardului IEC/EN 60598-1

Observații:

Test solicitat nr.: P-D16173

Document nr.: P-F15100

CONDITII TESTARE:

Operator: BOMBIL Patrick

AXIA 2.2 echipat cu

- LuCo P7
- Priză Nema
- Senzor PIR

Precondiționare: test de rezistență

Test	Rezultat
IP6X : -Aparat de iluminat pornit până la T° stabil -Talc în suspensie -După 1', aparatul este închis -Talc timp de 3 ore	VALIDAT, nimic neobisnuit.
IPX6 : - Aparat de iluminat pornit până la T° stabil - Aparat de iluminat închis și pulverizare imediată cu jet de apă - Furtun cu diametrul de 12,5 mm -Presiunea apei: 1 kg/cm ² -Distanța de pulverizare: 3 m -Durata testului: 3 minute	VALIDAT, nimic neobisnuit.

CONCLUZII:



AXIA 2.2 / 48 LEDuri @ 1A, echipat cu LuCo P7 & senzor PIR satisface cerintele nivelului IP66, conform Standardului IEC/EN 60598-1.

Duplicat pentru: Mr M.

Thijs LAB 09/03/2016

L. Maghe

[semnătură indescifrabilă]

//P-16CR173

Laboratory Service PHYSICAL TEST REPORT



R-Tech
Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: SKIDO 6 led's

Sample n°: P-E15365

Test purpose: Thermal test evaluation @ 1.05A and 700mA following IEC/EN 60598-1 Std

Remarks:

Test request n°: P-D15544

Folder n°: P-F14083

TEST CONDITIONS:

Operator: CLOSSET Frédéric

Load: 6 led's

Driver: Test 1A: Mean Well PLD-25-1050

Test 700mA: Mean Well PLD-16-700

Tc 70 °C

Measurement device:

Yokogawa TX10: thermal measurement

Yokogawa WT 210: primary EM

Fluke 87: secondary and led's EM

Junction Temperature measurement method

Junction temperature measurement by base temperature measurement and electrical measurement.

$$T^{\circ}_j = T^{\circ}_b + R_{jb} \times P_{led}$$

CONCLUSIONS:

@ 1,05A: Ta (IEC): 35 °C
Tq (IEC): 25 °C

@ 700 mA: Ta (CEI): 50 °C
Tq (CEI): 40 °C

Tq given for driver full load

T° given without wind effect to comply with IEC 62722-2-1

Duplicate to: Mr M. Thijs

LAB 01/07/2015

L. Maghe

A handwritten signature in blue ink, appearing to read "L. Maghe", with a stylized flourish at the end.

//P-15CR544

Laboratory Service PHYSICAL TEST REPORT



R-Tech

Rue de Mons 3 – B-4000 Liège – Belgium
Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schröder Group

Subject: SKIDO 6 led's

Sample n°: P-E13112

Test purpose: Vibration test following "Street Lighting Luminaires" testing protocol

Test request n°: P-D13192

Folder n°: P-F13045

TEST CONDITIONS:

Operator: V2i

	<u>Testing protocol</u>	
		"Street Lighting Luminaires" testing protocol
	Test Item	Post-top and Side-entry Luminaire
	Excitation Direction	3 directions
	Search for frequencies and quality factor Q	Excitation: sine sweep Frequency band: 5 - 55 Hz Sweep speed: 1 octave/min. Acceleration: 0.5g
	Test	Q < 2 (no natural frequency) Excitation: RANDOM (*) Frequency band: 5 - 55 Hz Acceleration: 0.84g _{RMS} Duration: 1h
		Q > 2 Excitation : sine dwell Frequency : f0 (Qmax) Acceleration : 0.5g Duration : 30 minutes
	Search for frequencies and quality factor Q	Excitation: sine sweep Frequency band: 5 - 55 Hz Sweep speed: 1 octave/min. Acceleration: 0.5g
	(*) The RANDOM equivalent test consist in an accelerated ageing process of one hour which presents, on a reference one-degree-of-freedom system, an equivalent fatigue damage spectrum than 20 years of mean wind and 90 hours of storms.	

CONCLUSIONS:

SKIDO 6 led's complies with the vibration test following "Street Lighting Luminaires testing protocol".

Duplicate to: Mr M. Thijs

LAB 03/12/2015

L. Maghe

//P-13CR192

SKIDO

5122

Optic	5122
Protector	Integrated lenses
Source	6 Samsung LH351C
Matrix	429352



Characteristics

							
395	101	54	1.2	IP 65	IK 08	I EU	0.033
Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Tightness level*	Impact resistance*	Electrical class*	CxS (m²)

* According to IEC-EN60598 and IEC-EN62262

Features

The efficient LED alternative to low-power fluorescent lighting

- Compact and versatile
- Maximised savings in energy and maintenance costs
- Integrated lenses for performing photometry
- ThermiX® for long lasting performance
- Wide operating temperatures from -20° up to 50°C
- Wide operating voltage range: 198-264V
- Easy to install
- Surge protection 10kV (optional)

Types of application

- Square and park
- Residential road
- Urban road

Information for 1000 lm matrix

Efficacy (%)	89.1	G Class (EN 13201-2)	Unclassified	I 70-80-90-95 (cd)	509 - 384 - 7 - 4
DLOR (%)	89.0	G* (EN 13201 2015)	Unclassified	CIE flux code N 1→5 (%)	35.9 - 69.0 - 92.2 - 99.9 - 89.1
ULOR (%)	0.1	Imax (cd)	528	Gradient 90°	32cd
ULR (%)	0.1	Aperture 0-180°	51 - 51	Gradient 270°	9cd
Incl ULR 4%	-40/32°	Aperture 90-270°	X - X		

Photometrical characteristics

LED count	Colour code	Current (mA)	Luminaire power (W)	Source flux (lm)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)	Peak (cd)	BUG Rating	Voltage (V)
			Ambient temp = 25°						
6	NW 740	700	15	2100	1871	125	1110	B1 U1 G1	230
6	NW 740	1050	23	2921	2603	113	1543	B1 U1 G1	230

Tolerance on flux +- 7% - Tolerance on power +- 5%

Summary

CONCEPT

Luminaire specifically designed for LEDs

Recommended installation height: between 3.00 and 6.00m

For optimal heat dissipation, the driver and LED engine are in separate compartments and juxtaposed in a horizontal section

HOUSING & FINISH

- Housing in high-pressure, die-cast aluminium, polyester powder coated
- Protector in UV resistant polycarbonate
- Colour: RAL grey 7037

INSTALLATION

- Lateral fixation with stainless steel clamp diameter 32-42mm, tightened with 4 stainless steel screws M8
- Supplied with out-going cable (0.3m length 3G1² or 3G1.5²) for easy installation

OPTICAL UNIT

- Flatbed PCB with acrylic lens overlay principle
- CRI > 70
- ULOR: 0%

LED lumen depreciation

- Lifetime residual flux @ T_q=25°C @ 50.000 hrs: 700mA: 90%

ELECTRICAL

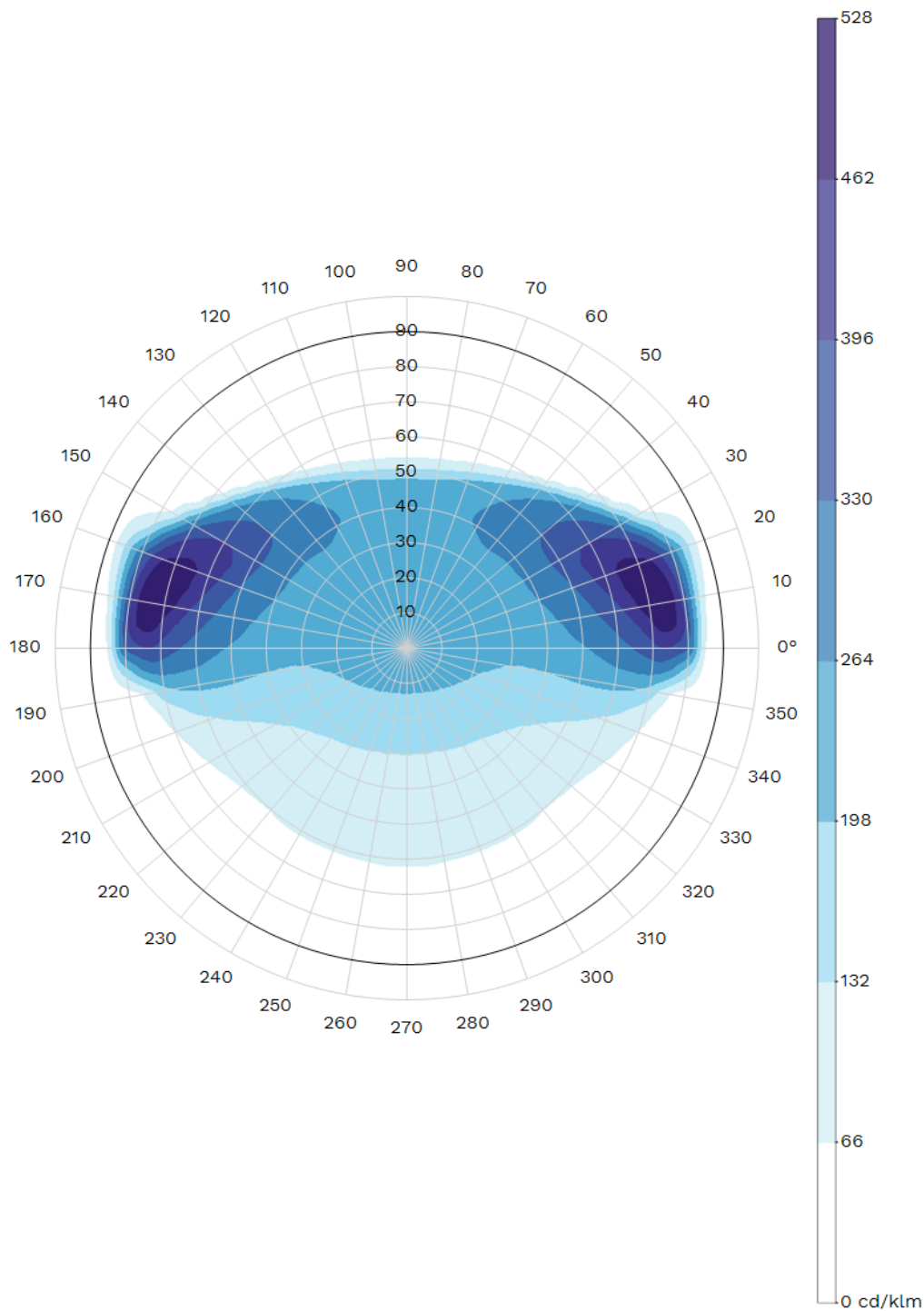
- Class I
- Input voltage: 230V - 50Hz
- Power factor > 90% at full load
- Surge protection: 4kV minimum, optional 10kV & 15kV

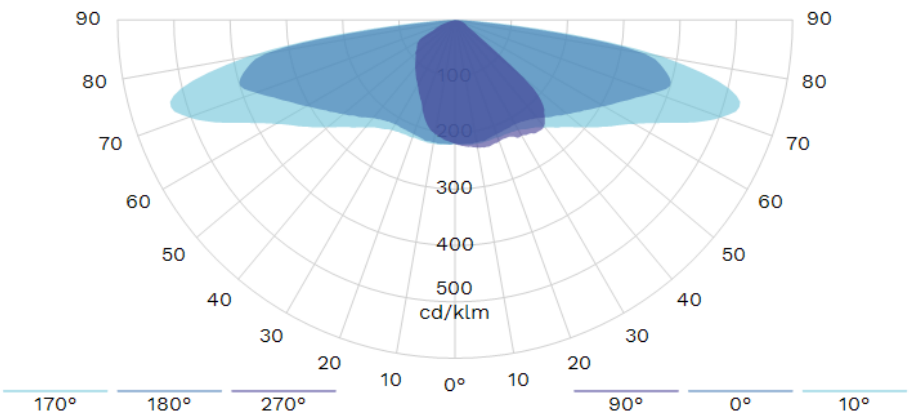
STANDARDS & CERTIFICATIONS

- CE
- ENEC
- LM79-80
- ROHS
- All measurements in ISO17025 accredited laboratory

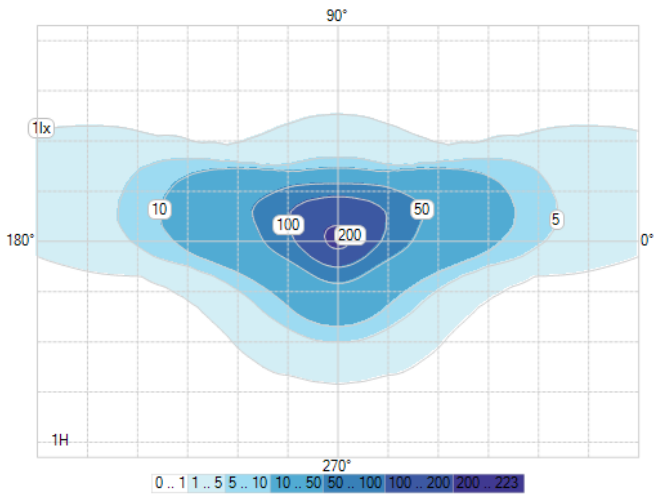
OPTIONS

- Other RAL or AKZO colours

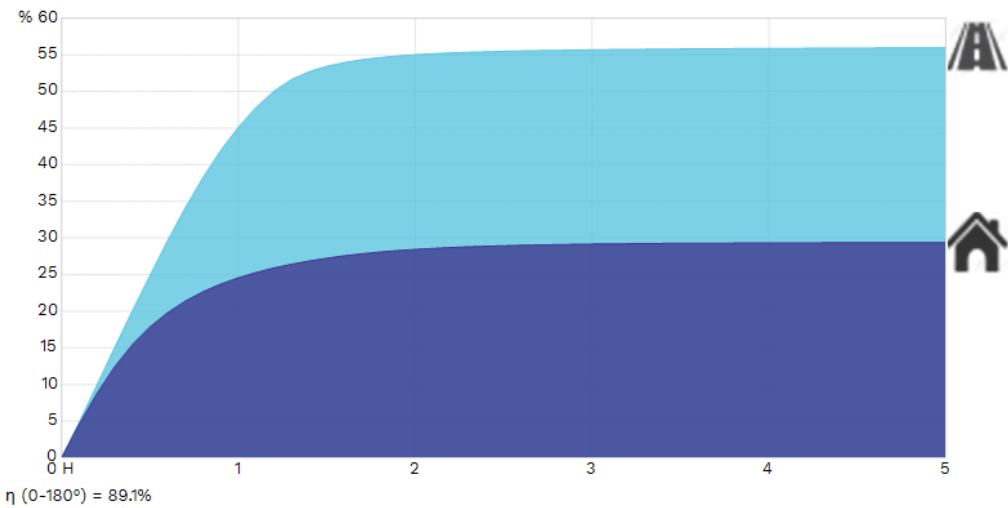




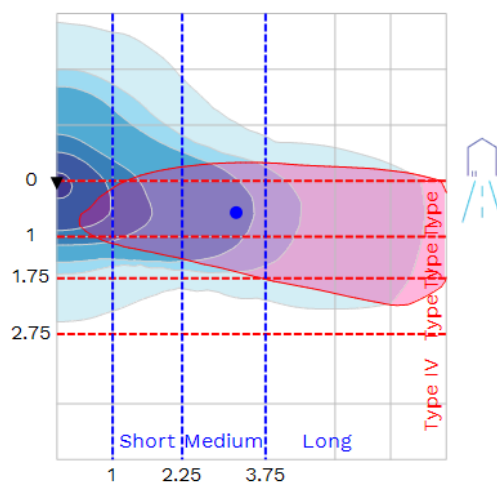
Isolux



K-Curve

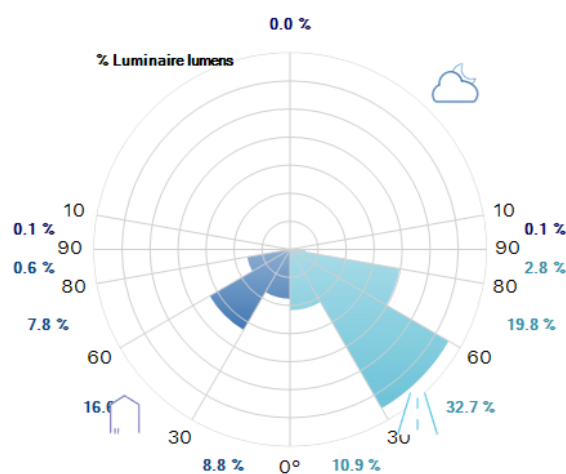


IES Roadway Classification / Nema Classification

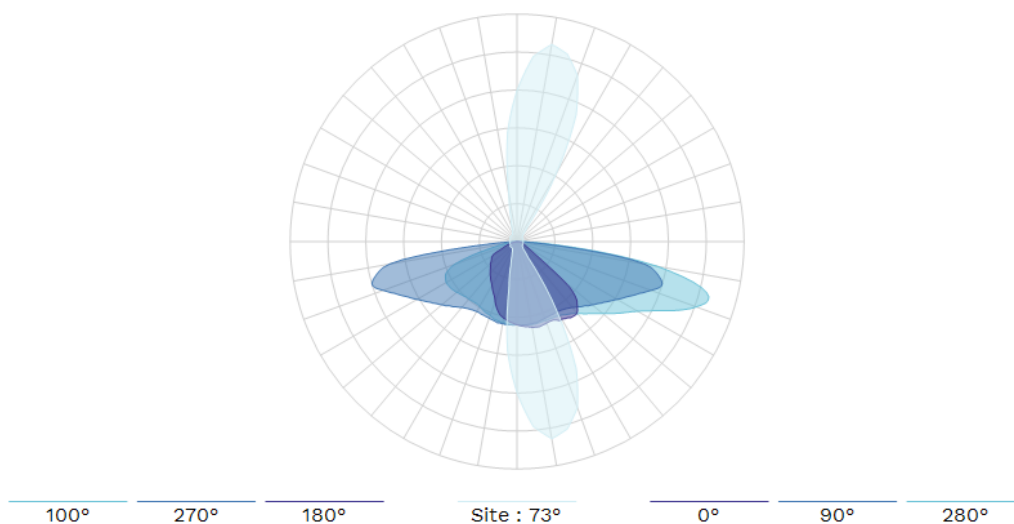


III - Medium

Luminaire classification system (LCS)



Intensity diagram in max Cone and in CPlane



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