Schréder
Experts in lightability™
F_8.2.4 DC-CE-02

Digitally signed by Eni Maria
Date: 2020.06.10 11:54:19 EEST
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Location: Moldova

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 Comerţului 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
Etanşeitate compartiment optic: IP 65
Etanşeitate compartiment aparataj: IP 65
Tensiune nominală: 230 V – 50 Hz
Clasa electrică: I

Tipul laboratorului de testare: SMT (Surpervised 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 şi 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 marcajului CE: 14

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

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

Eliberat,
Aprilie 2019, Cluj-Napoca

12/05/2020

Schréder

Lumen maintenance report

LED information

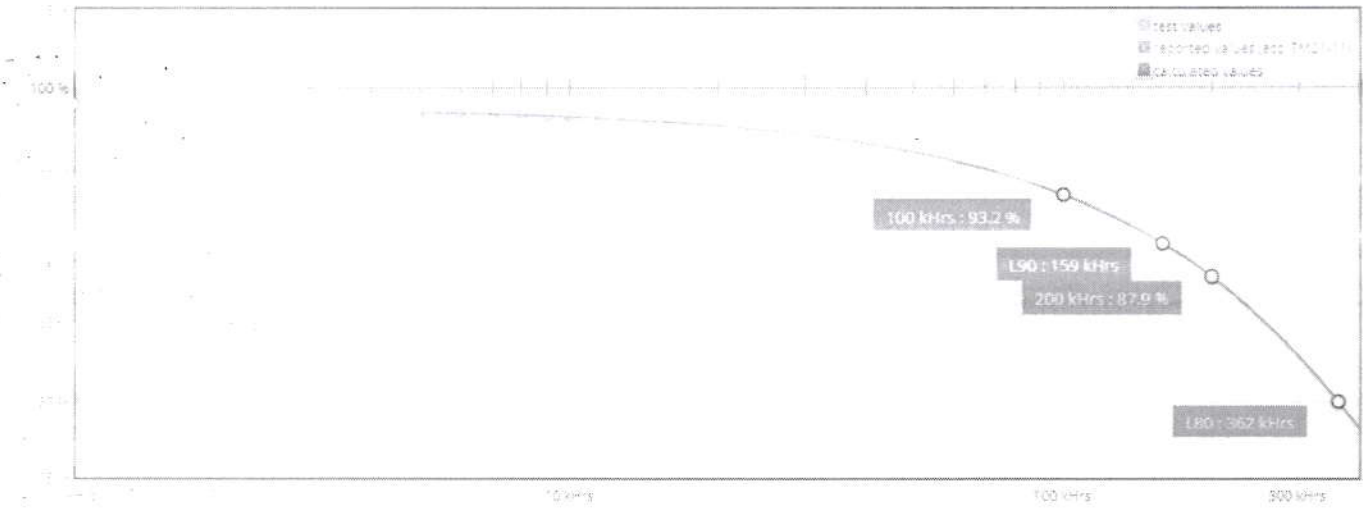
LED type	LH351C
LED current	1000 mA
Ts	55°C
Description	SLED-19-031

Projection data

Test duration	10000 hrs	**α**	5.811E-007
Time used for projection	5000 to 10000hrs	**β**	0.987

L (%)	Time (kHrs)
80.0	362
87.9	200
90.0	159
93.2	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.

REPUBLICA MOLDOVA, CHISINĂU, SOC. «COMPANIA ELECTRICĂ» S.A. 1003600092733

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 Schréder Group

Subject: **SKIDO 6 led's @ 1,05 A - class I protection**
Sample n°: P-E15329

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

Remarks:
Test request n°: P-D15613
Folder n°: P-F14083

TEST CONDITIONS:

Operator: EMC - ULg

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-25-1050 @ 1050mA

EMC Auxiliaries: Varistor

CONCLUSIONS:

SKIDO 6 led's driven @ 1.05A by Mean Well PLD-25-1050 driver 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 16/09/2015
L. Maghe

//P-15CR613

REPUBLICA MOLDOVA, CHISINAU, SOCIETATEA DE ACTIUNI «COMPANIA ELECTRICA» S.A. 1003600092733

LED Flux measurement

FORM-L-41 ED1 REV 2

226 - TEST

NBN EN ISO/IEC 17025 : 2005

Date : **16-01-19**

Operator : **FCE**

Filename : **2019_53.xml**

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 (Theorical) : **NW**

Number of LEDs : **6**

Lenses

Trademark : **None**

Type : **None**

Power & Print

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

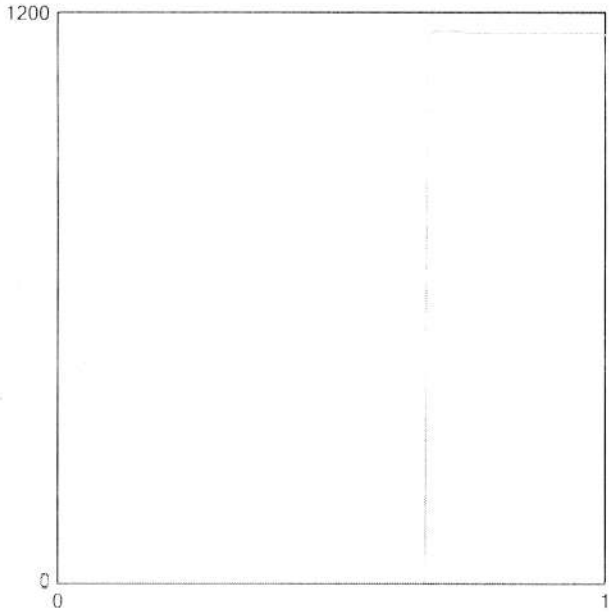
Print description : **00-71-626 A - Voltana 0**

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 :

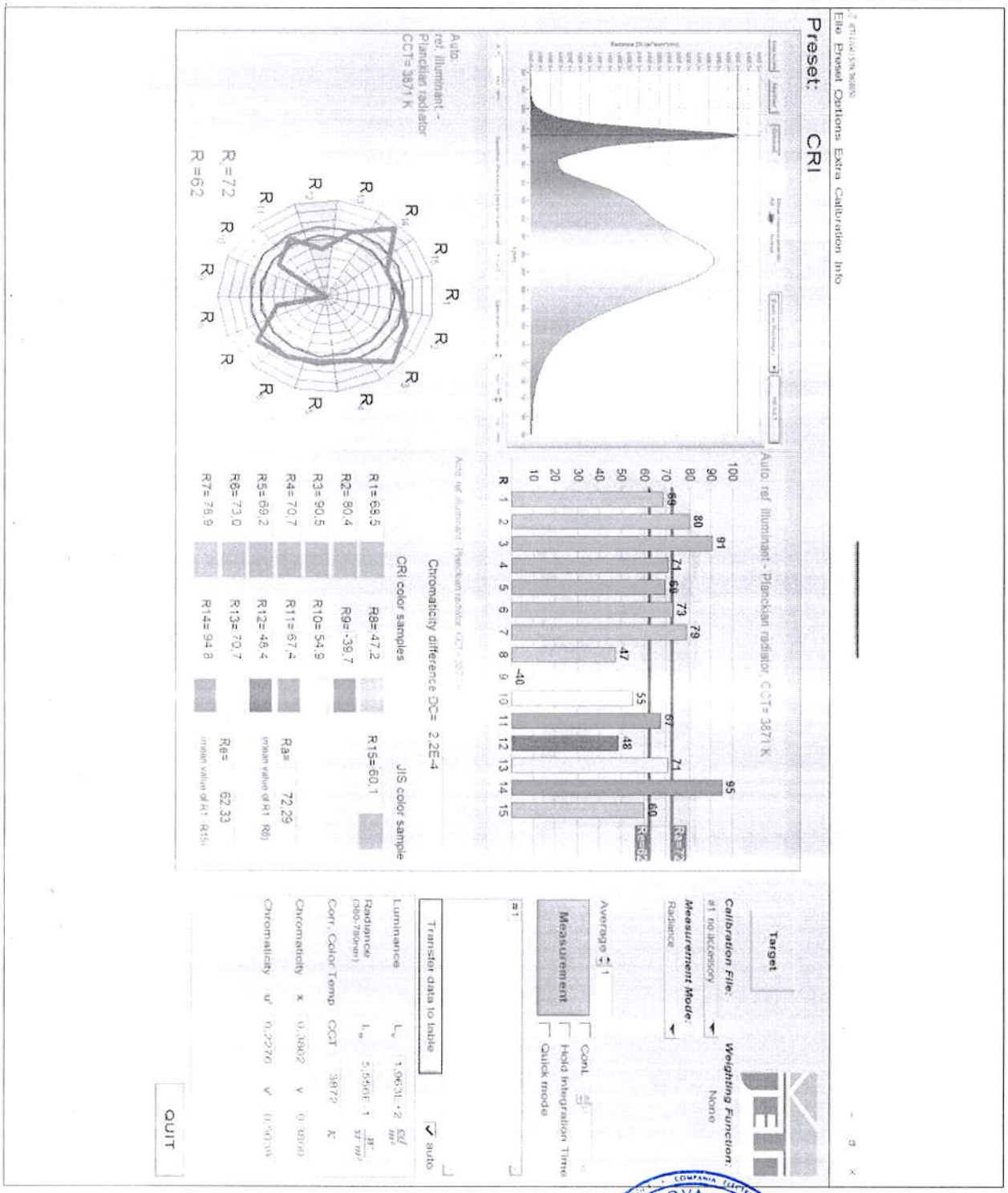
FORM-L-41 ED1 REV 2

226 - TEST

Approved by :

REPUBLICA MOLDOVA, CHISINAU, SOCIETATEA PE ACTIUNI «COMPANIA ELECTRICA» S.A. 1003600092733

Colorimetry



RTECH-PHOTOMETRY LABORATORY

LED

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 Schréder group.

Origin	Production	Luminaire	Inclination	Request #
R-Tech	Schréder TOV	SKIDO	0°	FD39062

Source

Type	BIN	Trademark	Reference	# LEDs	Reflector
LED	40-70M-4-TB-RB	Samsung	LH351C	6	5122

Master	Reflector	No
	Schreder TOV-Ukraine Led assembly Road lighting Assembled 0,0°	5122

Protector Refractor Lens

Protector integrated lenses

Lens Schreder 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	Sample date	Sample #
DOC	08-01-2019	39R004

Observation

DOC Skido with optic 5122

Flux coefficient multiplicator (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 wit driver MeanWell PLD-16-700B for matrix @700mA
Fixture powered wit driver MeanWell PLD-25-1050 for matrix @1050mA

Notes

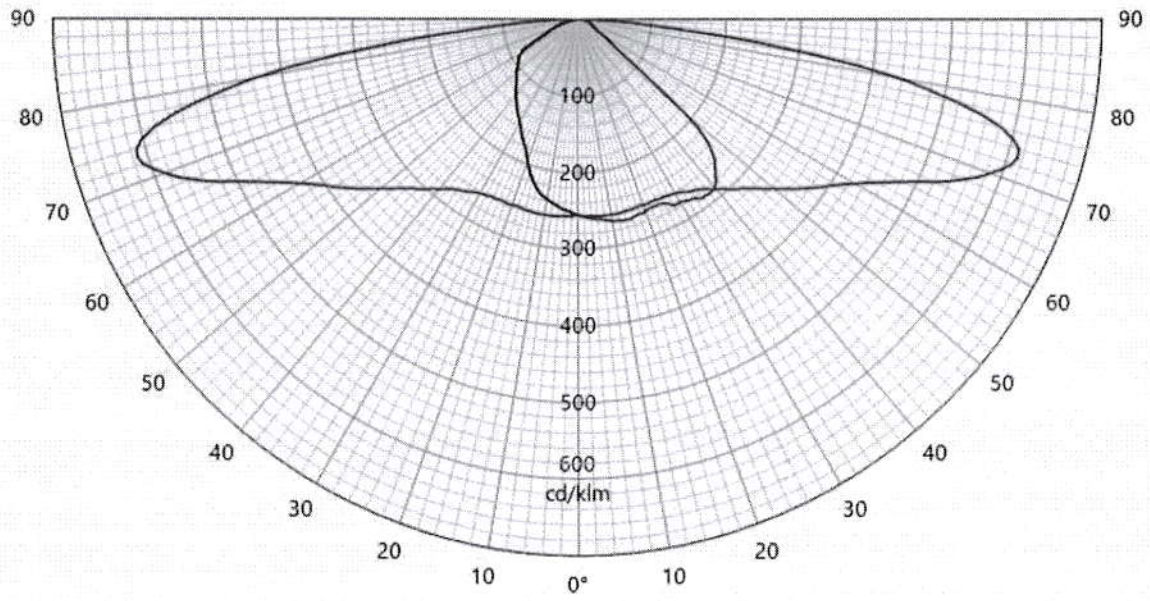
Asked by	Measured by	Approved by	Appendix		
GGS	CLD	RLABO	1	226-TEST NBN EN ISO/IEC 17025 : 2005	42935

LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Inclination	Request #
R-Tech	Schréder TOV	SKIDO	0°	FD39062

	Type	BIN	Trademark	Reference	# LEDs	Reflector
Source	LED	40-70M-4-TB-RB	Samsung	LH351C	6	5122
Reflector	Schreder 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 Schreder 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 ambiant t°	Measurement date
10 - 170	613	73	S	255	24,9°	25-03-2019
90	288	38	D			
270	255	0	G			



42935

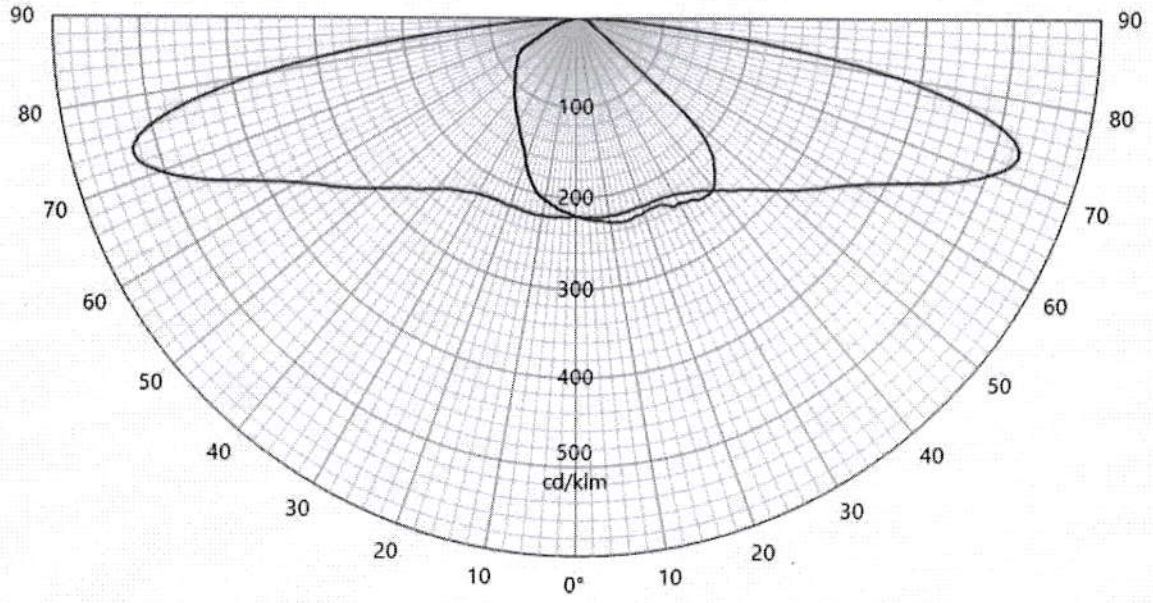
LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Inclination	Request #
R-Tech	Schréder TOV	SKIDO	0°	FD39062

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	40-70M-4-TB-RB	Samsung	LH351C	6	5122

Reflector	Schreder 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 Schreder 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 ambiant 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	Production	Luminaire	Inclination	Request #
R-Tech	Schréder TOV	SKIDO	0°	FD39062

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	40-70M-4-TB-RB	Samsung	LH351C	6	5122

Reflector	Schreder 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 Schreder 5122 PC		

Observation

in total flux @700mA.

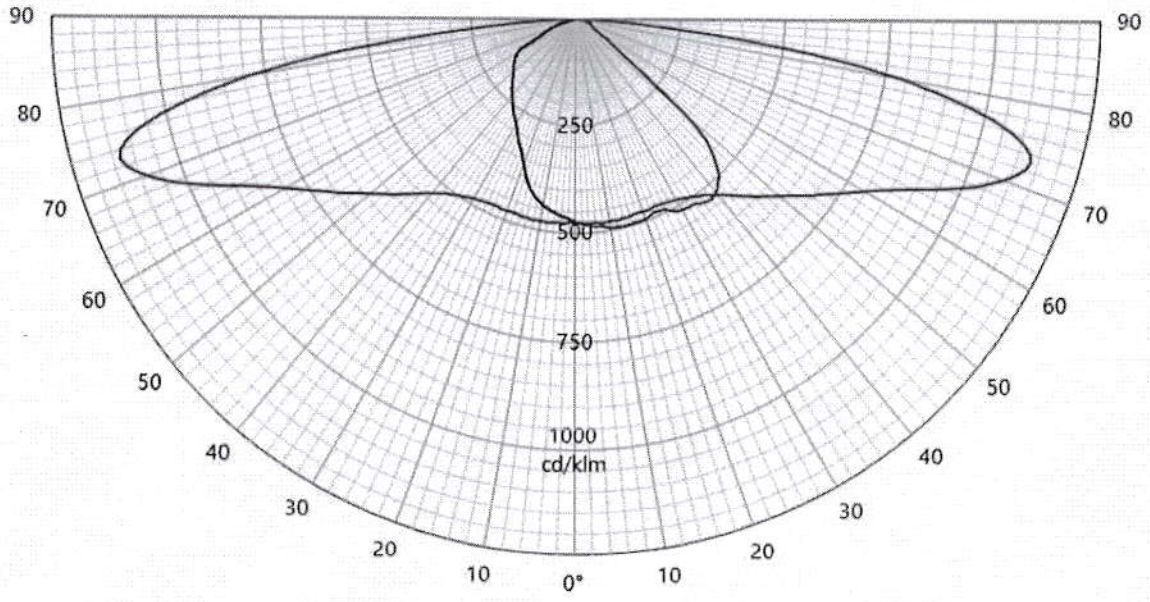
Electrical measurement on LED (#1) : Voltage = 18,20 V Current = 0,701 A Power = 12,76 W

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 ambiant 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	Production	Luminaire	Inclination	Request #
R-Tech	Schréder TOV	SKIDO	0°	FD39062

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	40-70M-4-TB-RB	Samsung	LH351C	6	5122

Reflector	Schreder 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 Schreder 5122 PC		

Observation

in total flux @1050mA.

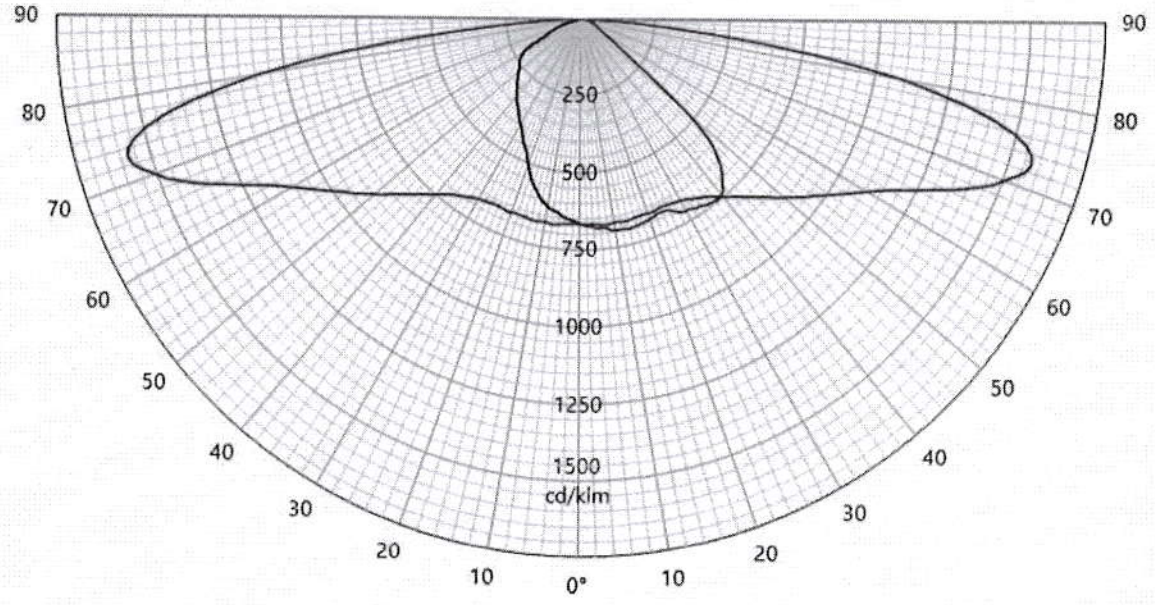
Electrical measurement on LED (#1) : Voltage = 18,97 V Current = 1,061 A Power = 20,22 W

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 ambiant 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 50Htz 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 Schréder format)
.ldt format (European standard)
.IES format (American standard)

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

15/04/2020

Schréder

Lumen maintenance report

LED information

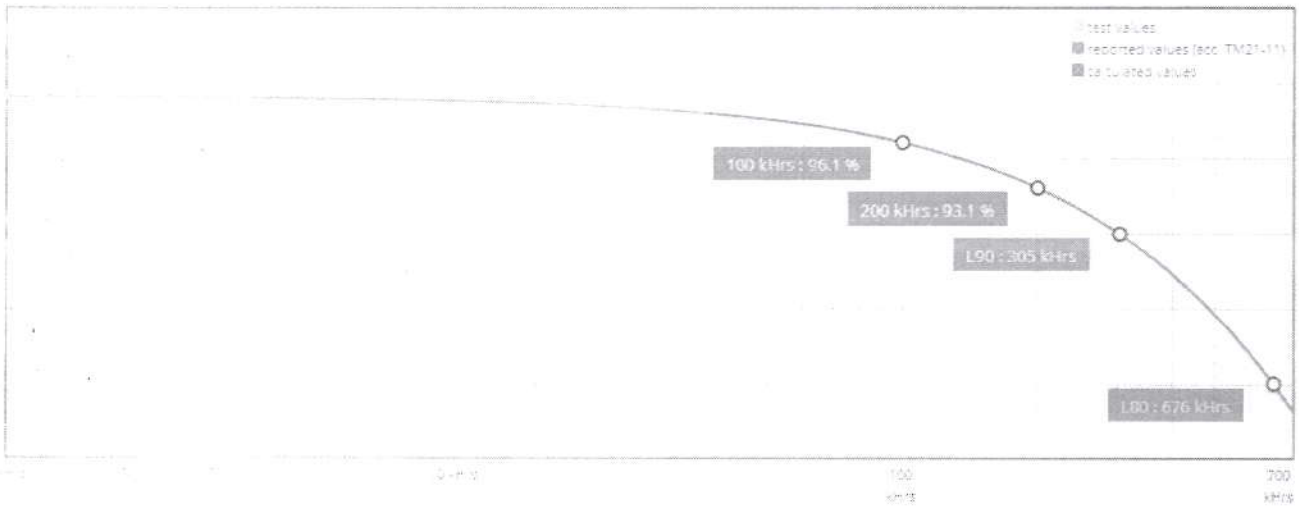
LED type	LH351C
LED current	700 mA
Ts	55°C
Description	SLED-18-015

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.

REPUBLICA MOLDOVA, CHISINAU, SOCIETATEA PE ACTIUNI «COMPANIA ELECTRICA» S.A. 1003600092733

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

SGS Belgium NV-Division SGS CEBEC
Business Riverside Park
Bld Internationalelaan 55 Build. D
B-1070 Brussels
Tel.+32(0)2 556 00 20 Fax.+32(0)2 556 00 36

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.

SGS Belgium NV-Division SGS CEBEC
Business Riverside Park
Bld Internationalelaan 55 Build. D
B-1070 Brussels
Tel.+32(0)2 556 00 20 Fax.+32(0)2 556 00 36

Conclusion

The examination proved that all certification requirements were met.

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

Certification Manager : 2019-04-23

SGS Belgium NV-Division SGS CEBEC
Business Riverside Park
Bld Internationalelaan 55 Build. D
B-1070 Brussels
Tel.+32(0)2 556 00 20 Fax.+32(0)2 556 00 36

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

Schréder 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

Schréder 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 Schréder 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 Frédérick

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

REPUBLICA MOLDOVA, CHISINAU, SOCIETATEA PE ACTIUNI «COMPANIA ELECTRICA» S.A. 1003600092733

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 Schréder 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**

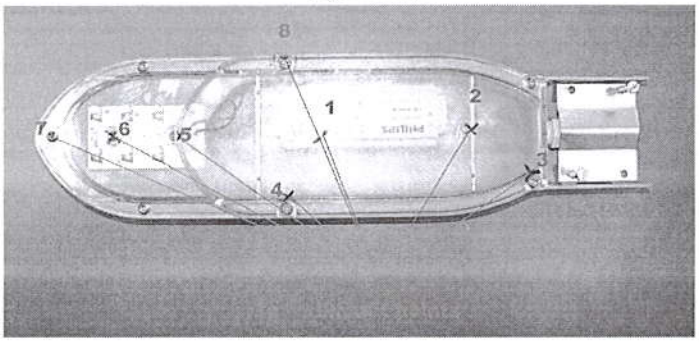
Remarks:
Test request n°: P-D13182
Folder n°: P-F13034

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		Result
IK05 :	Impact energy: 0,7 joules Hammer weight: 0,2 kg Height of fall: 35 cm	OK, nothing to indicate
IK06 :	Impact energy: 1 joule Hammer weight: 0,5 kg Height of fall: 22 cm	OK, nothing to indicate
IK07 :	Impact energy: 2 joule Hammer weight: 0,5 kg Height of fall: 40 cm	OK, nothing to indicate
IK08 :	Impact energy: 5 joules Hammer weight: 1,7 kg Height of fall: 29,4 cm	OK for the protector, but a deformation of the alu sheet clamp allows the release of the fitting. See pictures here after.

CONCLUSIONS:

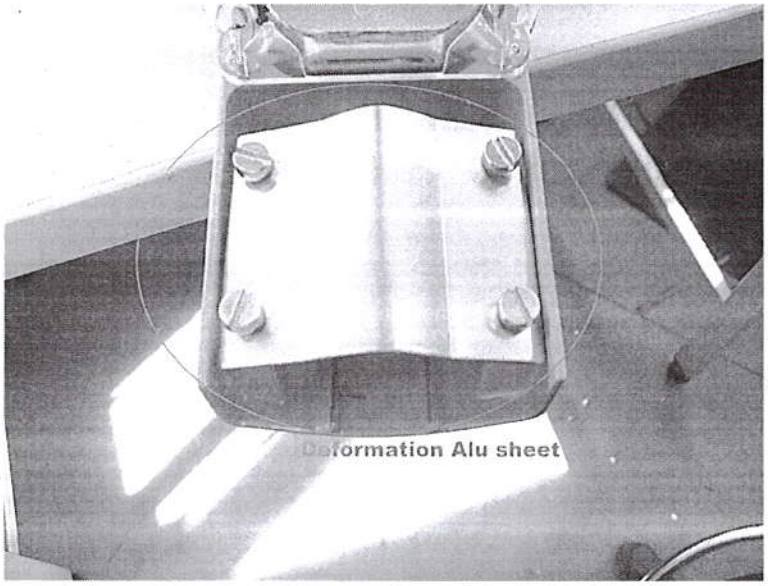
SKIDO satisfies the IK07 test in accordance with IEC/EN 62262 Standard.

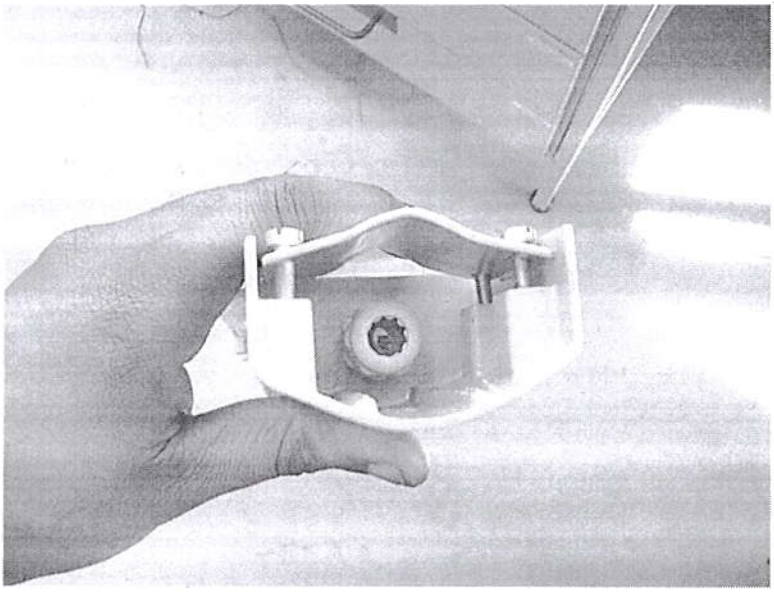
Duplicate to: MM C. Horvath, C. Marville, Y. Borlez
LAB 19/04/2013
J.P. Harchies

REPUBLICA MOLDOVA, CHISINAU, SOCIETATEA PE ACTIUNI «COMPANIA ELECTRICA» S.A. 1003600092733

P-13E182

I.S. SKIDO (hand made by HUS)





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 Schréder 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

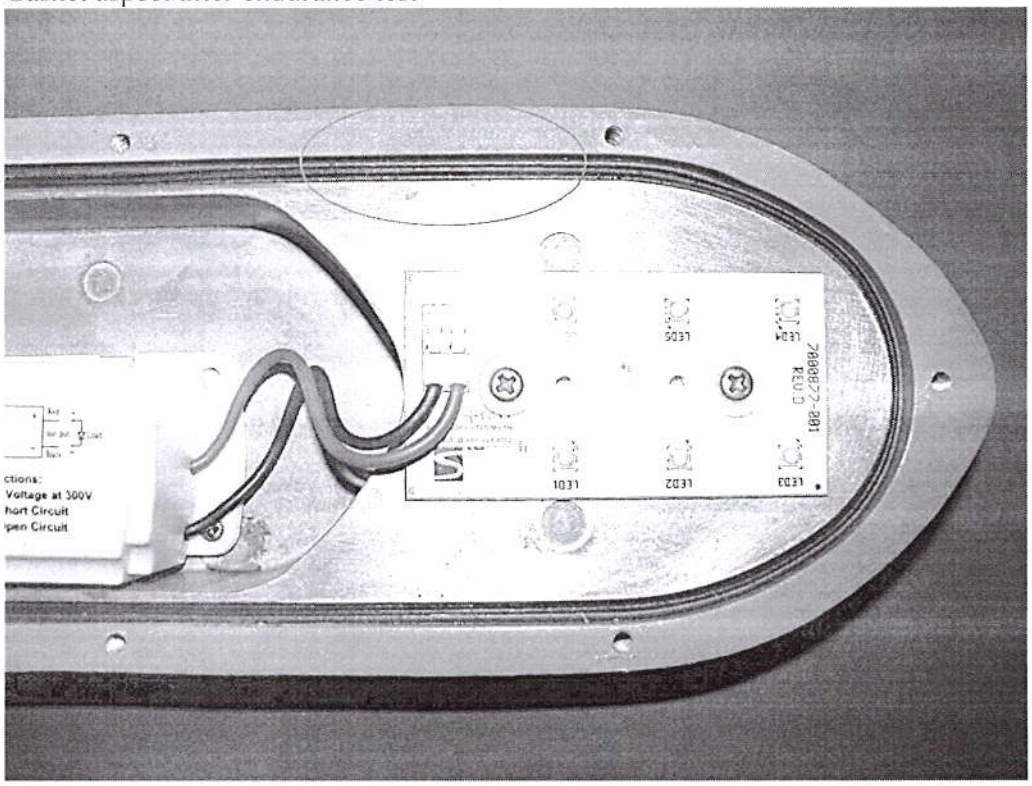
Duplicate to: MM C. Faujdar, P. Shah, S. Pujari, C. Horvath, C. Marville, Y. Borlez
LAB 14/05/2013
J.P. Harchies

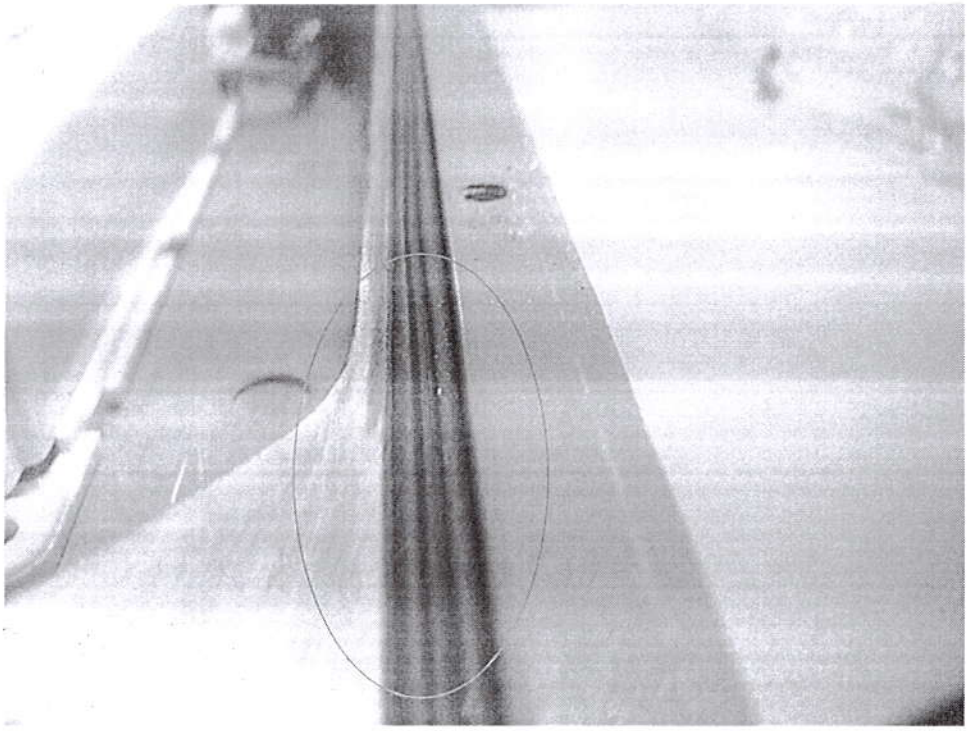
P-13E207

REPUBLICA MOLDOVA, CHIŞINĂU, SOCIETATEA PE ACŢIUNI «COMPANIA ELECTRICĂ» S.A. 1003600092733

Serial 0 SKIDO 6 led's Nichia @ 700 mA

Gasket aspect after endurance test





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 Schréder 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 Frédérick

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.
$T°_j = T°_b + R_{jb} \times P_{led}$

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

//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 Schréder 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-E15541
Folder n°: P-F14083

TEST CONDITIONS:

Operator: CLOSSET Frédérick

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.
$T°_j = T°_b + R_{jb} \times P_{led}$

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

//P-15CR544

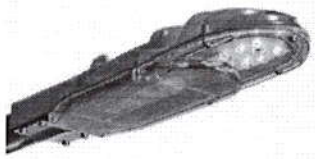
15/04/2020

Schréder
Experts in lightability™

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
DLOR (%)	89.0
ULOR (%)	0.1
ULR (%)	0.1
Incl ULR 4%	-40/32°

G Class (EN 13201-2)	Unclassified
G* (EN 13201 2015)	Unclassified
Imax (cd)	528
Aperture 0-180°	51 - 51
Aperture 90-270°	X - X

I 70-80-90-95 (cd)	509 - 384 - 7 - 4
CIE flux code N 1→5 (%)	35.8 - 69.0 - 92.2 - 99.9 - 89.1
Gradient 90°	32cd
Gradient 270°	9cd

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 @ Tq=25°C @ 50.000 hrs: 700mA: 90%

ELECTRICAL

- Class I
- Input voltage: 230V - 50Hz
- Power factor > 90% at full load
- Surge protection: 4kV minimum, optional10kV & 15kV

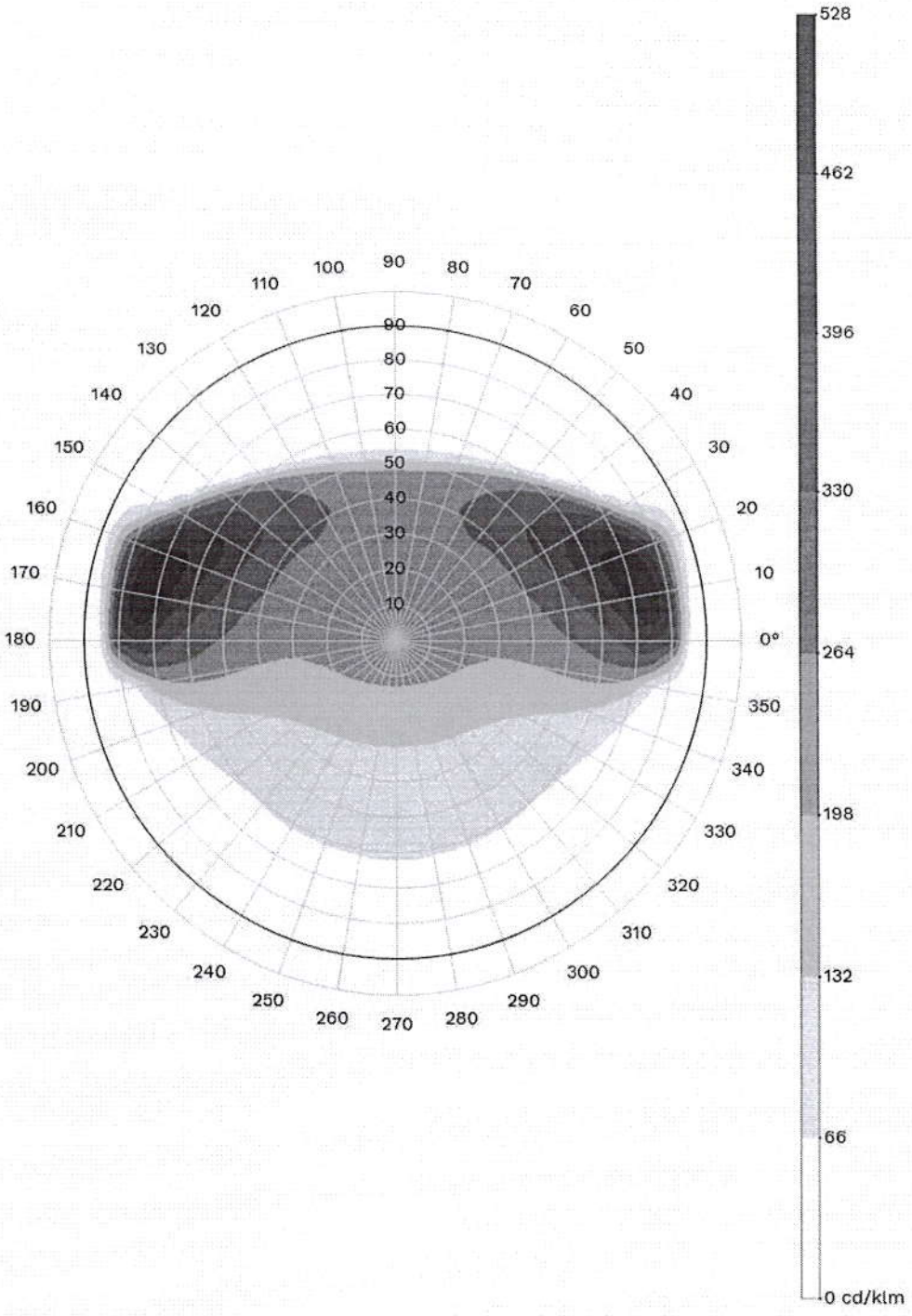
STANDARDS & CERTIFICATIONS

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

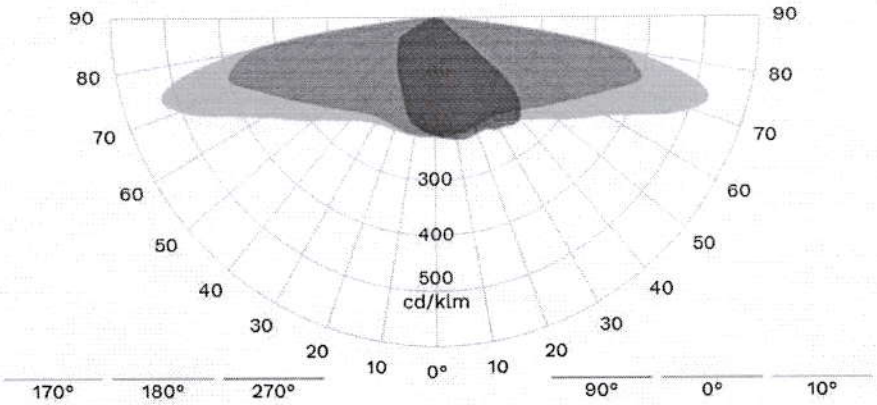
OPTIONS

- Other RAL or AKZO colours

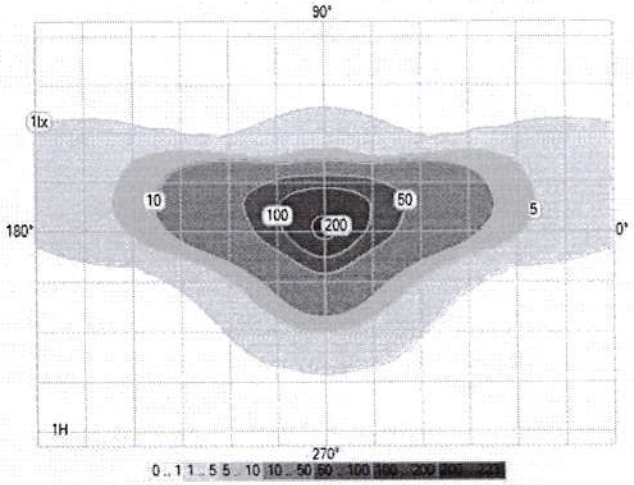
Hypergon view



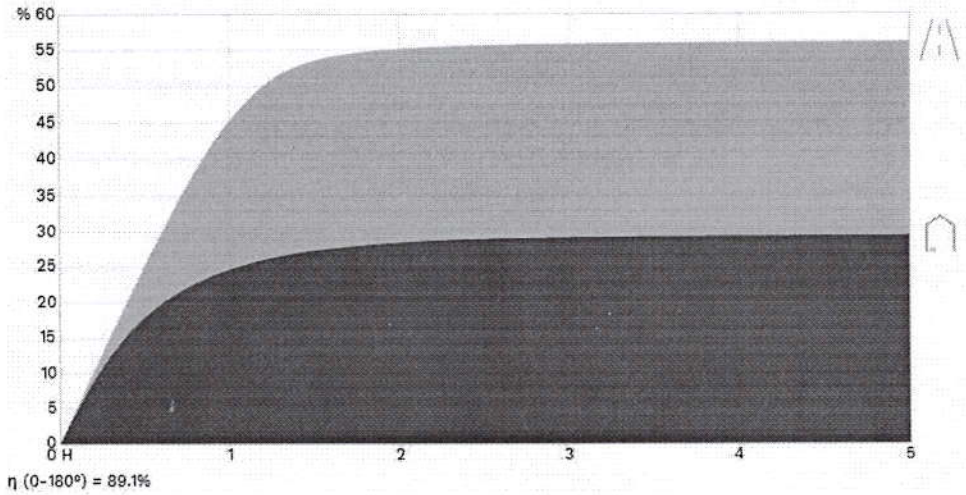
Polar/Cartesian diagram



Isolux

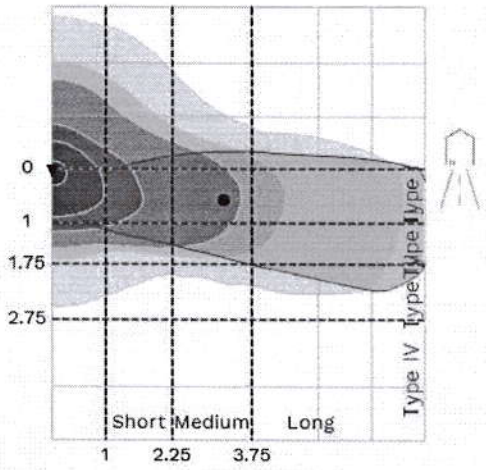


K-Curve



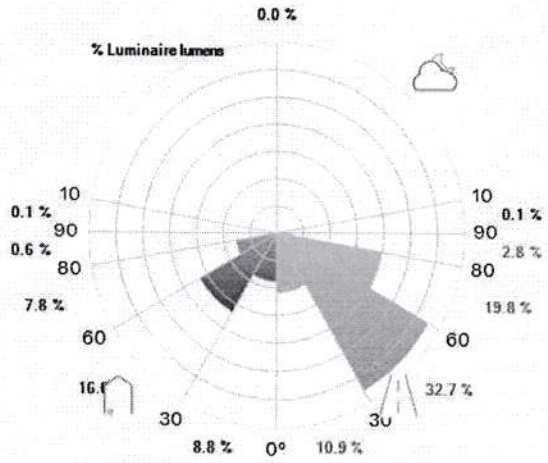
η (0-180°) = 89.1%

IES Roadway Classification / Nema Classification

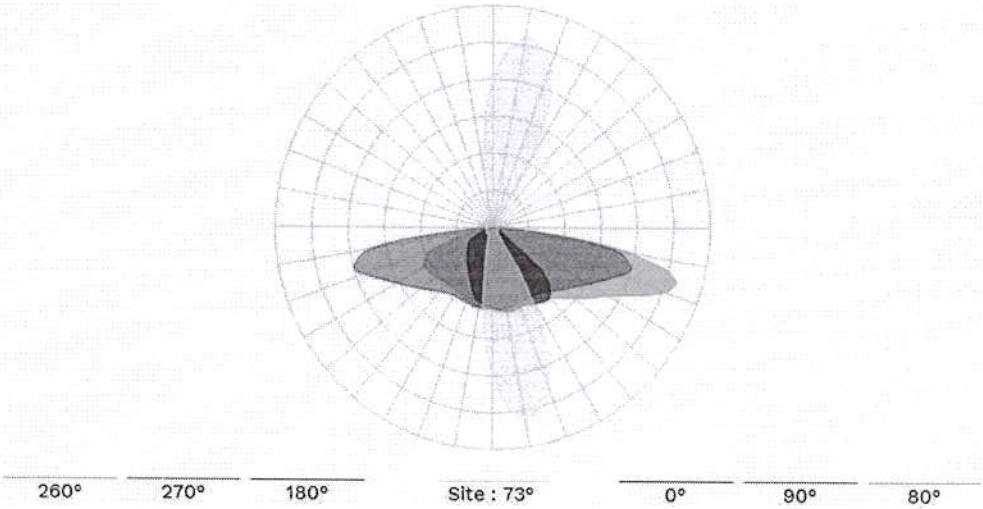


III - Medium

Luminaire classification system (LCS)



Intensity diagram in max Cone and in CPlane



http://www.schreder.com

ECS
European Certification System

OD ECS 040-1
ed. May 2013

Responsible CB:
OVE

TEST REPORT SUMMARY

Report Reference No. ..... :	TGM-VA EE 36464 ECS
Date of issue ..... :	2016-01-21
Tested by (name + signature) ..... :	Ing. J. Noori
Witnessed by (name + signature) ..... :	
Approved by (name + signature) ..... :	Mag. Thomas THUN
Supervised by (name + signature) ..... :	
Testing Laboratory ..... :	Staatliche Versuchsanstalt – TGM / Elektrotechnik und Elektronik
Address ..... :	A-1200 Wien, Wexstrasse 19-23
Testing procedure ..... :	☒ ENEC/CCA-TL ☐ IECEE-CBTL ☐ TMP ☐ WMT ☐ SMT
Testing location ..... :	As above
Address ..... :	
Applicant ..... :	Schréder SA
Address ..... :	1190 Brussels , Belgium , Rue de Lusambo 67
Manufacturer ..... :	Tungsram-Schréder Világítási Berendezések Zrt Tópart 2
Address ..... :	2084 Pilisszentivan HUNGARY
Product ..... :	Luminaire for road and street lighting
Model/Type reference ..... :	SKIDO
Trademark ..... :	Schréder SA
Ratings ..... :	100-240V, 50/60Hz, Cl.I, IP65, IK08, Ta 50°C
Certification Scheme ..... :	☒ ENEC ☐ CCA ☐ Other: _____
Standard(s) ..... :	**EN 60598-2-3: 2003+A1:2011 used in conjunction with EN 60598-1:2015**

☐ The text of the a.m. European Standard was approved by CENELEC under the Unique Acceptance Procedure and is identical with the corresponding IEC Publication.

☒ The text of the a.m. European Standard was approved by CENELEC with agreed common modifications and is not identical with the corresponding IEC Publication.

This EN test report consists of the following parts:

☒ IEC TRF No. IEC60598_2_3J... :	Report Reference No. ..... :	TGM-VA EE 36464 SFT-1
☒ CENELEC-Addendum Form No. EU_GD_ IEC60598_2_3J..... :	Report Reference No. or Annex No... :	See Test Report TGM-VA EE 36464 SFT-1

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