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Originalul documentului prezentat adaugator.

FORM-L-01 ED 3 REV 9

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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.

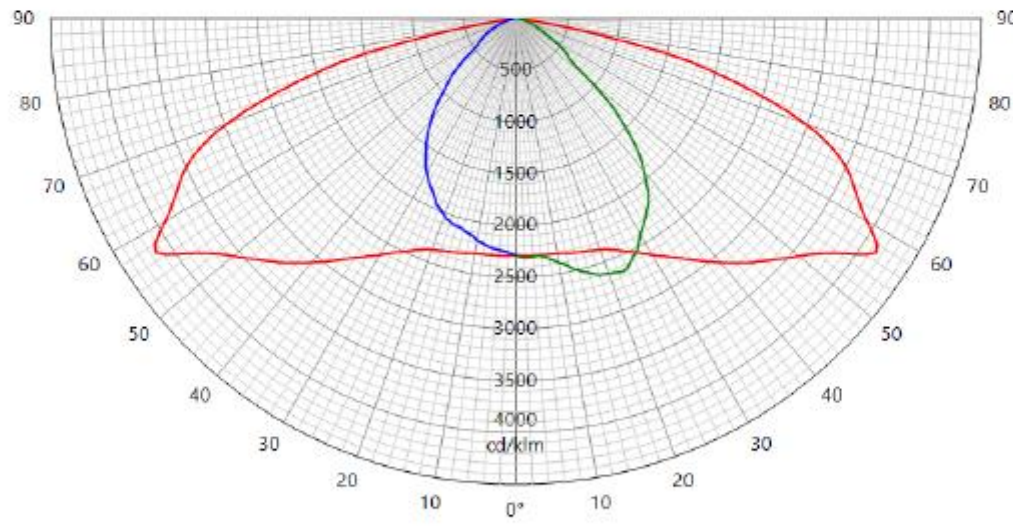
LED

Origin Schröder Magyarország Zrt.		Production Schröder Magyarország Zrt.		Luminaire IZYLUM LT 1		Inclination 0°		Request # FD42310			
Source											
Type LED		BIN LVL2 F35		Trademark Seoul		Reference 5050		# LEDs 24		Reflector 5424	
Master				Reflector Schreder Led assembly Narrow Assembled 0,0°						No 5424	
Protector Refractor Lens											
Light Exhauster		Plastic Lum. shape-related White									
Protector		Glass Extra Clear Flat Smooth									
Lens		Seoul 5424									
Laboratory observation											
IZYLUM LT1 with 24 Seoul 5050 bin F35 (NW740) Used flux for efficiency matrix calculation = 5383 lm - CCT = 3853 K - CRI = 71,91 measured in sphere @600mA/25°C (see sphere test report 2022/540 on appendix).											
Purpose DOC						Sample date 14/11/2022		Sample # 42R371			
Observation											
DOC IZYLUM LT1 with lenses 5424 + Light exhauster											
Flux coefficient multiplicator (only for efficiency matrix): From 600 to 200 mA : 0,345 From 600 to 350 mA : 0,598 From 600 to 500 mA : 0,843 From 600 to 700 mA : 1,154 From 600 to 1000 mA : 1,590 From 600 to 1050 mA : 1,663											
Fixture powered with driver Signify XiFP 22W 0,2-0,7A SNLDAE 230V C123 SxT for matrix @200/350/500mA Fixture powered with driver Signify XiFP 40W 0,3-1,05A SNLDAE 230V C123 SxT for matrix @600/700mA Fixture powered with driver Signify XiFP 75W 0,3-1,05A SNLDAE 230V C133 SxT for matrix @1000/1050mA											
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. All information but the measurements results are provided by the customer.											

Asked by RCA	Measured by CLD	Approved by RLABO	Appendix 1	  226-TEST NBN EN ISO/IEC 17025 :2017	54205
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LUMINOUS INTENSITY DIAGRAM

Origin Schröder Magyarország Zrt.		Production Schröder Magyarország Zrt.		Luminaire IZYLUM LT 1		Inclination 0°		Request # FD42310	
Source	Type LED	BIN LVL2 F35	Trademark Seoul	Reference 5050	# LEDs 24	Reflector 5424			
Reflector	Schröder Led assembly Narrow Assembled 0,0°					No	5424		
Matrices	542058 Φ 0-90° = 8053lm - 90-180° = 0lm					Absolute measurement			
Protector Refractor Lens	Light Exhauster Plastic Lum. shape-related White - IZYLUM LT 1 Protector Glass Extra Clear Flat Smooth - IZYLUM LT 1 Lens 24 x Seoul 5424								
Observation	Matrix in total flux @1050mA Electrical measurement on LED (#1): Voltage = 45,44 V Current = 1,050 A Power = 47,71 W Electrical measurement on driver (#1): Voltage = 230,00 V Current = 0,240 A Power = 53,65 W PF = 0,971 Total luminaire power = 53,65 W : Lm/Watt = 150,10 lm/W Driver #1 : OTHER Driver - ,								
Plane	I Peak	Peak position	Index	I zero	Laboratory ambient t°	Measurement date			
0	4150	57	S	2290	25,2°	21/11/2022			
90	2655	23	D						
270	2290	0	G						



54205

INFORMATION

Measurement fulfil Standards:

NBN-EN 13032-1
 NBN-EN 13032-4
 NBN-EN 17025:2017
 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: +/- 3.5%
 Angle: +/- 0.5°
 Flux: +/- 2.5%
 Electrical DC
 Power: +/- 0.15%
 Voltage: +/- 0.10%
 Current: +/- 0.20%
 Electrical AC
 Power: +/- 0.20%
 Voltage: +/- 0.10%
 Current: +/- 0.15%
 Temperature: +/- 0.65%

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

Im/Watt: +/-3.4%

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)

End of test report

