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: **AXIA 2.1 / 24 led's @ 890 mA**
Sample n°: P-E15479

Test purpose: **Electrical measurements**

Remarks:
Test request n°: P-D15688
Folder n°: P-F15070

TEST CONDITIONS:

Operator: ABRY Marc

Load: 24 led's
Typical Vf: 2,94 V

Driver: OSRAM OPTOTRONIC OT90
Set on 890mA

Owlet: Luco LC-ADP UV1 06C

Surge Protector: CITEL MLPC1-230L-R / SCH

Digitally signed by Galciuc Igor
Date: 2020.07.17 12:30:00 EEST
Reason: MoldSign Signature
Location: Moldova

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

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

CONCLUSIONS:

- Efficiency: 90.1 %
- PF: 0.97
- THD: 10.8 %
- Harmonics distribution complies with the IEC/EN 61000-3-2 Standard.

Duplicate to: Mr M. Thijs
LAB 25/09/2015
L. Maghe

//P-15CR688

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Subject: **AXIA 2.1 / 24 led's @ 890mA + NEMA 7P – class I**
Sample n°: P-E15472

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

Remarks:
Test request n°: P-D15800
Folder n°: P-F15070

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, 1, 2 & 4 kV M.D. & M.C. Criteria C required	X	

Driver : Osram OT 90/170-240/ 1A0 4DIM LT2 E set 890mA

EMC Auxiliaries: Citel MLPC 1-230L-P/SCH
Luco P7 + Nema Socket
PIR detector

CONCLUSIONS:

AXIA 2.1 24 led's driven by OT90 driver @ 890 mA 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-15CR800

Laboratory Service PHYSICAL TEST REPORT

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Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
Member of Schréder Group

Subject: **AXIA 2.1**
Sample n°: P-E16101, P-E16102, P-E16103, P-E16104, P-E16105, P-E16106, P-E16107

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

Remarks:
Test request n°: P-D16158
Folder n°: P-F15070

TEST CONDITIONS:

Operator: LEONARD Philippe

At pendulum hammer
7 impact points distributed on protector surface
One impact on each point

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

IK09 : Impact energy: 10 joules
Hammer weight: 5 kg
Height of fall: 20 cm

IK10: Impact Energy: 20 joules
Hammer Weight: 5 Kg
Height of fall: 40 cm

Results:

Lens	5165	5166	5167	5177	5178	5179	5187
Level	IK09	IK10	IK09	IK10	IK09	IK08	IK09

CONCLUSIONS:

AXIA 2.1 complies with Mechanical impact resistance test following IEC/EN 62262 Standard, according to levels indicated here above.

Duplicate to: Mr M. Thijs
LAB 09/03/2016
L. Maghe

//P-16CR158

Laboratory Service PHYSICAL TEST REPORT

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Tel.: +32 4 224 71 40 – Fax: +32 4 224 25 90
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Subject: **AXIA 2.1 / 24 led's @ 890mA + Photocell 20 mm HL**
Sample n°: P-E15476

Test purpose: **Tightness test IP66 following IEC/EN 60598-1 Standard**

Remarks:
Test request n°: P-D15792
Folder n°: P-F15070

TEST CONDITIONS: Operator: BOMBIL Patrick

Preconditioning: endurance test

Test	Result
IP6X : -Luminaire switched ON until stable T° -Talcum in suspension (blowing ON) -After 1', luminaire OFF -Talcum for 3 hours	OK
IPX6 : - Luminaire switched ON until stable T° - Luminaire switched OFF and immediately sprayed with water jet - Hose Φ 12,5 mm - Water pressure: 1 kg/cm2 - Spraying distance: 3 m - Duration of test: 3 minutes	OK

CONCLUSIONS:

AXIA 2.1 / 24 led's @ 890mA + Photocell 20 mm HL complies with IP66 test following IEC/EN 60598-1 Standard.

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

//P-15CR792

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Subject: **AXIA 2.1 / 24 led's @ 890 mA**
Sample n°:P-E15479

Test purpose: **Thermal test evaluation following IEC/EN 60598-1 Standard**

Remarks:
Test request n°: P-D15687
Folder n°: P-F15070

TEST CONDITIONS:

Operator: ABRY Marc

Load: 24 led's

Driver: OSRAM Optotronic
OT90/170-240/1A0 4DIM LT2 E
Set on 890mA
Tc 90°C

OWLET: LUCO LC-ADP UV1 06C
Ta -40/+80°C

SPD: CITEL MLPC1-230L-R / SCH

Measurement device:
Yokogawa TX10: thermal measurement
Yokogawa WT 210: primary EM
Fluke 87: secondary & Led 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:

Ta (IEC): 55 °C limited by Driver
Tq (IEC): 35 °C limited by Driver

Tq given for 85 khrs of lifetime
T° given without wind effect to comply with IEC 62722-2-1

Duplicate to: Mr M. Thijs
LAB 25/09/2015
L. Maghe

//P-15CR687

07/07/2020

Schréder
Experts in lightability™

AXIA 2.1

5178

Optic	5178
Protector	Integrated lenses
Source	24 Nichia NVSL219CT
Matrix	383422

Characteristics

650	250	103	6.7	IP 66	IK 09	I EU, II EU	0.054
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 most comprehensive and economical LED lighting solution

- Cost-effective and efficient lighting solution for a fast return on investment
- Smart City connectivity
- Photometric engine with light distributions adapted to various applications
- ThermiX® for long lasting performance
- FutureProof: follows the principles of circular economy
- Universal fixation adapted for side-entry and post-top mounting
- Adjustable inclination in steps of 2.5°

Types of application

- Square and park
- Bridge
- Park
- Roundabout
- Pedestrian crossing
- Car park
- Road and highway
- Residential road
- Train station
- Bike path
- Urban road

Information for 1000 lm matrix

Efficacy (%)	90.4
DLOR (%)	90.4
ULOR (%)	0.0
ULR (%)	0.0
Incl ULR 4%	-41/40°

G Class (EN 13201-2)	G1
G* (EN 13201 2015)	Unclassified
Imax (cd)	656
Aperture 0-180°	24 - 24
Aperture 90-270°	X - X

I 70-80-90-95 (cd)	649 - 199 - X - X
CIE flux code N 1→5 (%)	43.6 - 74.1 - 95.4 - 100.0 - 90.4
Gradient 90°	15cd
Gradient 270°	15cd

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°						
24	NW 740	490	38	5638	5094	134	3697	B2 U0 G1	230
24	NW 740	540	41	6097	5509	134	3998	B2 U0 G1	230
24	NW 740	630	48	6932	6264	131	4545	B2 U0 G1	230
24	NW 740	690	53	7517	6792	128	4929	B2 U0 G1	230
24	NW 740	750	57	8018	7245	127	5257	B2 U0 G1	230
24	NW 740	890	68	9187	8301	122	6024	B2 U0 G2	230

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

Summary

CONCEPT

Luminaire specifically designed for LEDs

Recommended installation height: between 5-8m for AXIA 2.1and 6-10m for AXIA 2.2

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, with a flat area for a photoelectric cell.
- Housing is surrounded by lateral cooling fins for optimal heat extraction.
- Colour: RAL grey 7040 or black RAL 9005.

INSTALLATION

- Incorporated universal fixation with adjustable inclination in 2.5° steps
- Fixation with tiltable clamp and 2 Allen grub screws M8x45 in stainless steel
- Post-top 48-60mm and 76mm spigot at 5° inclination, allows tilt on a vertical pole from 0 to +10° by 2.5° steps
- Lateral mounting on 32 (with sleeve), 42, 48 or 60mm spigot at 0°, allows tilt on horizontal spigot from +5° to -10° by 2.5° steps
- Cover opens via 2 stainless screws positioned on the lower side of the housing to prevent dirt and corrosion build up

OPTICAL UNIT

- Flatbed PCB with polycarbonate lens overlay principle offering various photometric distributions from narrow, medium to wide road; the IP 66 level allows long lasting performance
- CRI > 70
- ULOR: 0%
- Lifetime residual flux @ Tq=25°C @ 100.000 hrs: 90%

ELECTRICAL

- Class I or Class II (size 2 only)
- Input voltage: 230V ± 10% - 50-60Hz
- Power factor > 85% at full load
- 10kV, 10kA surge protection

STANDARDS & CERTIFICATIONS

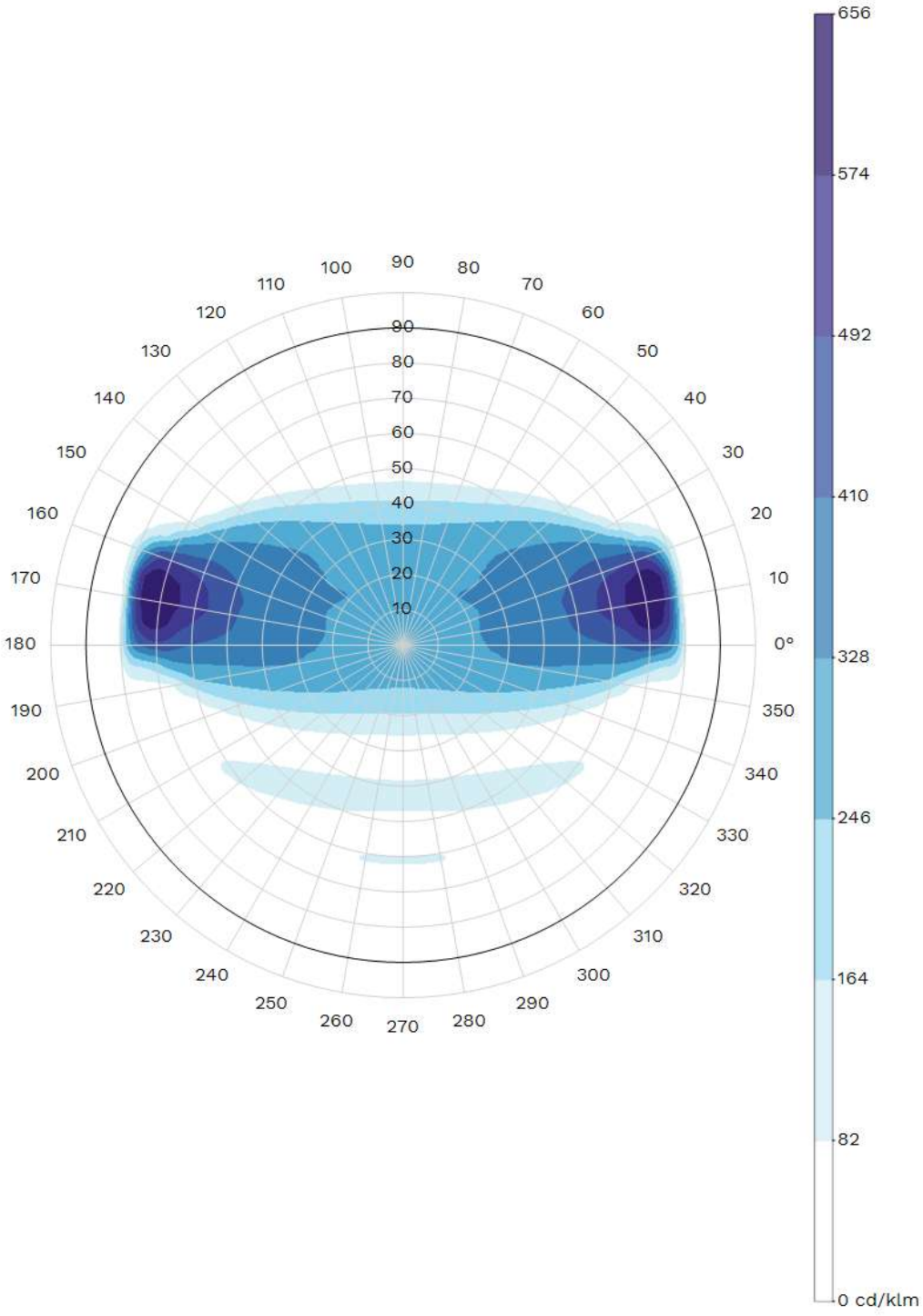
- CE
- ENEC
- LM79-80
- ROHS
- All measurements in ISO17025 accredited laboratory

OPTIONS

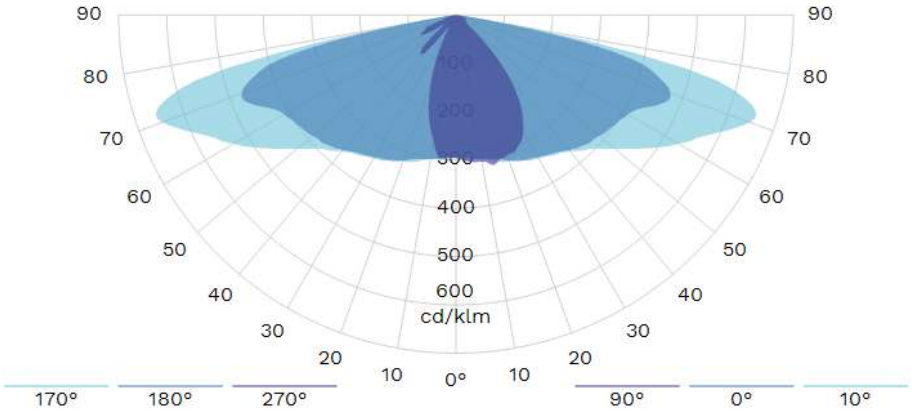
- Other RAL or AKZO colours
- Owlet remote management
- Custom dimming profile; Constant Light Output (CLO); Dali; 0-10V
- Photocell
- Presence detection

- External light control louvres
- Supplied pre-cabled for easy installation

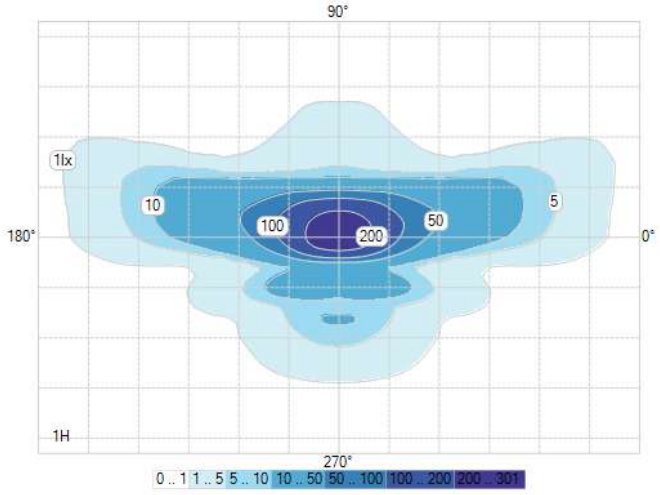
Hypergon view



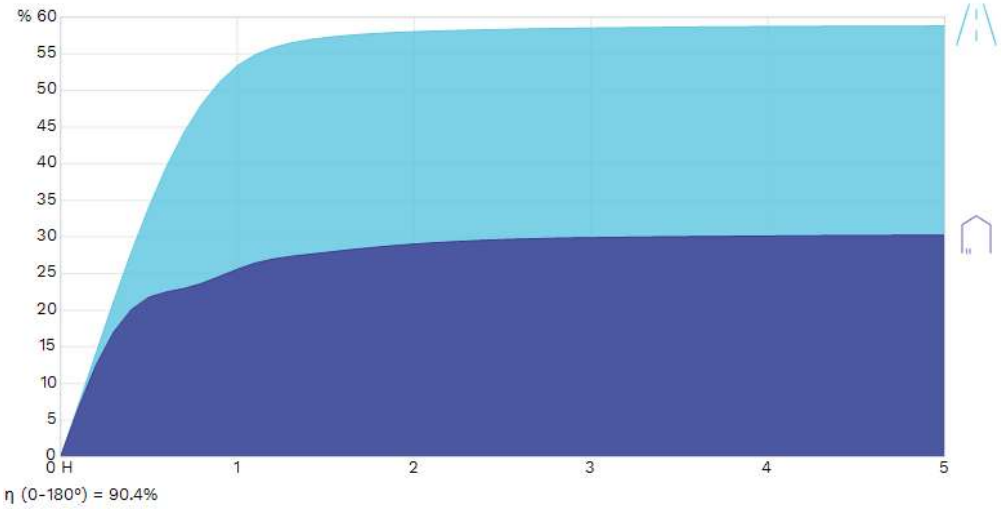
Polar/Cartesian diagram



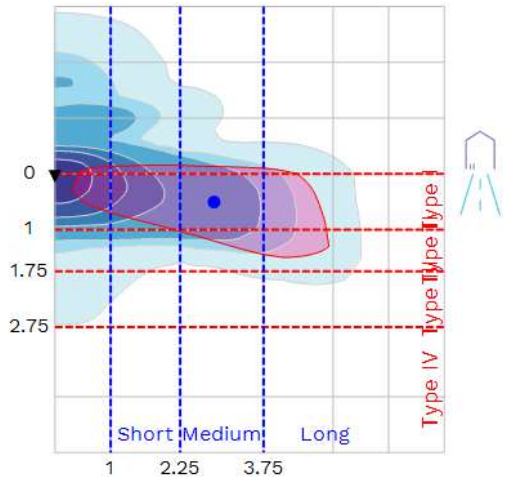
Isolux



K-Curve

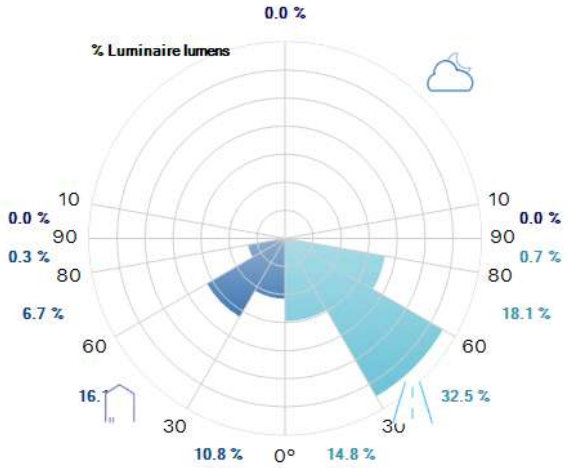


IES Roadway Classification / Nema Classification

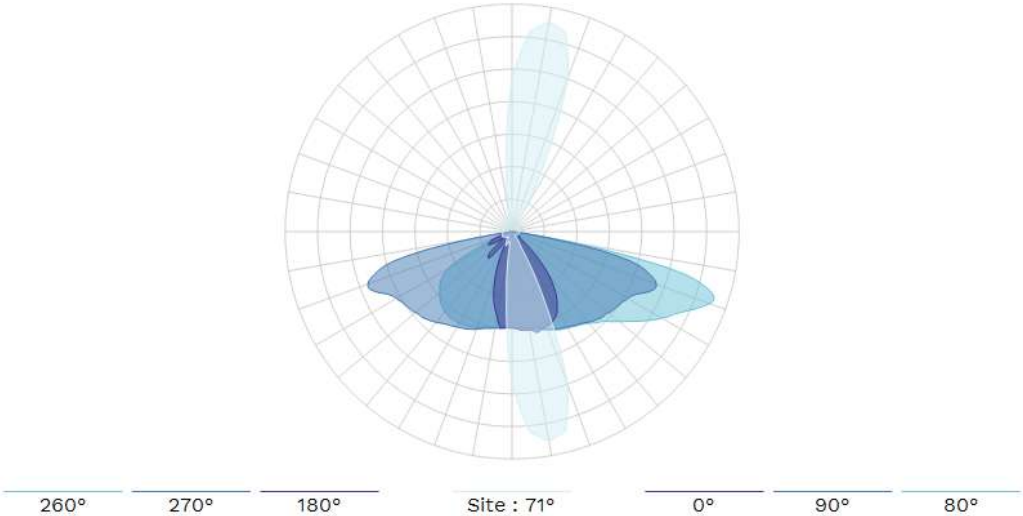


II - Medium

Luminaire classification system (LCS)



Intensity diagram in max Cone and in CPlane



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Member of Schréder Group

Subject: **AXIA-1 Gen 2 24 led's 890mA**
Sample n°: P-E16005

From: ESS

Test purpose: **Flux variation in function of Temperature**

Remarks:
Test request n°: P-D16004
Folder n°: P-F15070

TEST CONDITIONS:

Operator: CLOSSET Frédérick

Load: 24 led's NICHIA 219C

Driver: Osram Optotronic OT 90/170-240-1A0 4DIMLT2 E
Set on 890mA

Test: Flux measurement in function of ambient T°
Test voltage: 230 V – 50 Hz
The luminaire is tested in isothermal room from -40°C to 40 °C
Thermal stabilization time between each step: 2 hours

Measuring devices:
ME: Fluke Norma 4000 (n° 43)
Cellule LMT n° 1195483 in thermostatic box at 25 °C
Ampli LMT Iph Meter I1000

Results and graph: here after.

CONCLUSIONS:

See curve.

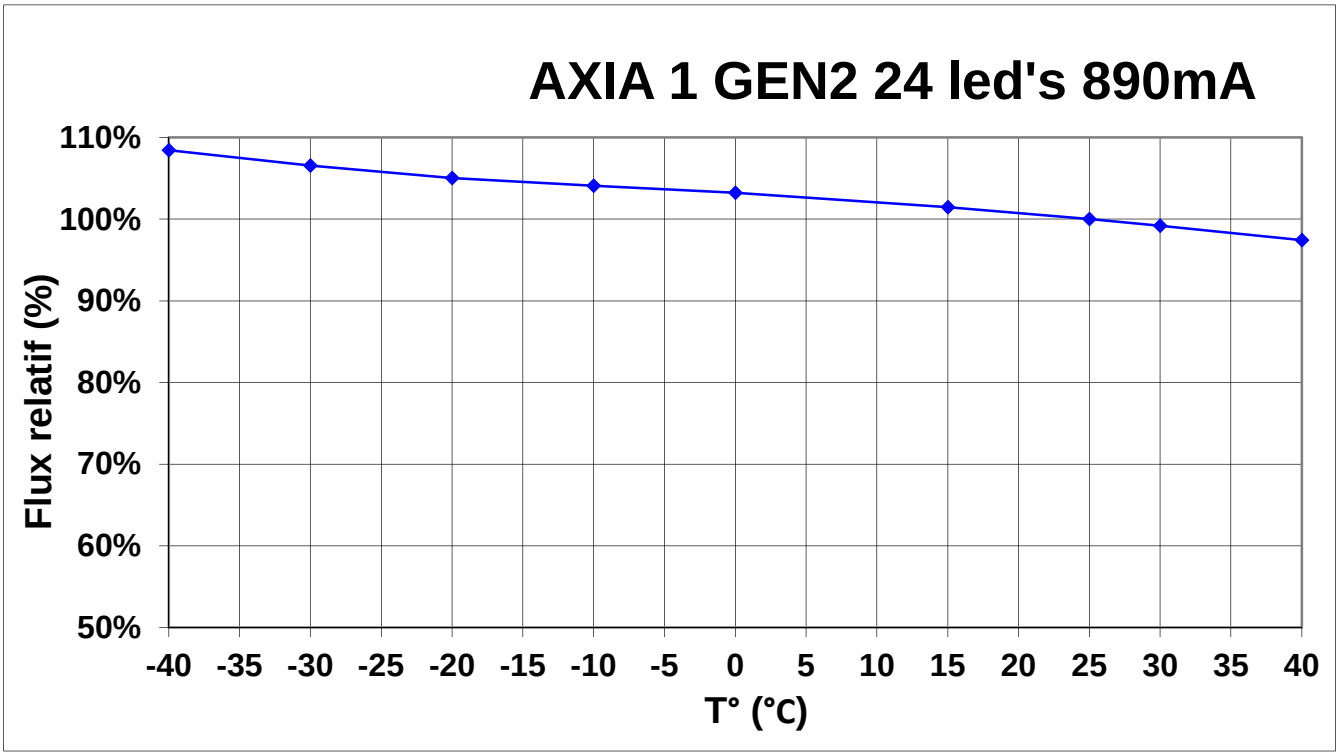
Between 1 and 2 % by step.

Duplicate to: Mrs M. Vulcani, MM Ph. Joris , M. Thijs
LAB 11/01/2016
L. Maghe

P-16E004

AXIA-1 Gen 2 24 led's 890mA

Axia 1 Gen2 24 led's 890mA									
T°	Ep (V)	Ip (mA)	Pp (W)	PF	Es1 (V)	Is1 (mA)	Ps1 (W)	Flux relatif	Flux relatif (%)
-40	230.0	331.4	72.8	0.96	73.2	891.2	65.2	1.617	108%
-30	230.0	325.3	71.8	0.96	72.6	889.3	64.5	1.589	107%
-20	230.0	321.8	70.9	0.96	72.0	887.1	63.8	1.566	105%
-10	230.0	320.5	70.2	0.95	71.5	886.2	63.3	1.552	104%
0	230.0	317.5	69.7	0.95	71.1	885.3	62.9	1.539	103%
15	230.0	314.8	68.9	0.95	70.5	882.8	62.3	1.513	101%
25	230.0	305.9	68.3	0.96	70.1	881.8	61.8	1.491	100%
30	230.0	305.8	68.0	0.96	70.0	880.8	61.6	1.479	99%
40	230.0	304.7	67.7	0.96	67.7	879.5	61.3	1.453	97%



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Experts in lightability™

ROAD

Axia 2

owlet®

PRO FLEX™

The most comprehensive and economical LED lighting solution

Axia 2 provides the most comprehensive and best value LED solution for lighting any road, street or pedestrian area. It offers all the advantages of LED lighting, without the high cost associated with LEDs.

With its photometric engine providing light distributions adapted to various applications, Axia 2 is one of the highest performing luminaires available on the market to offer a fast return on investment.

Building on the strengths of the ground breaking Axia, this second-generation luminaire, is designed to be the ultimate multi-purpose fixture, providing a cost-effective solution for those looking to reduce their energy costs.

IP 66 | IK 10 | IK 09

IK 08

RoHS

URBAN & RESIDENTIAL STREETS | BRIDGES | BIKE & PEDESTRIAN PATHS | RAILWAY STATIONS & METROS | CAR PARKS | LARGE AREAS | SQUARES & PEDESTRIAN AREAS | ROADS & MOTORWAYS

Concept

Axia 2 is composed of a high-pressure, die-cast aluminium body, universal fixation and a polycarbonate protector with integrated lenses.

For optimised heat dissipation, the electronical components and the LED engine are in separate compartments and juxtaposed in a horizontal section. The body integrates cooling fins to maintain performance in the long term.

Available in two sizes, Axia 2 is a very efficient LED lighting solution for streets, roads and any other outdoor environments where it is crucial to maximise energy savings.

The complete range is available with a universal fixation adapted for side-entry (Ø32, Ø42, Ø48 or Ø60mm) and post-top (Ø60 or Ø60mm) mounting. The inclination angle can be adjusted on-site in steps of 2.5°.

With its high ingress protection (IP 66) and strong resistance to impacts (IK 08 to IK 10), Axia 2 is built to withstand harsh conditions and to deliver a quality lighting with the minimum power consumption over decades.

Universal fixation for side-entry or post-top mounting with adjustable inclination in steps of 2.5°.

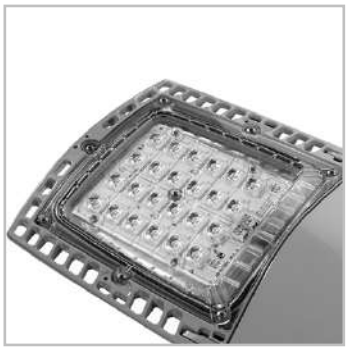
Easy access to the electronical compartment for maintenance.

Types of application

- URBAN & RESIDENTIAL STREETS
- BRIDGES
- BIKE & PEDESTRIAN PATHS
- RAILWAY STATIONS & METROS
- CAR PARKS
- LARGE AREAS
- SQUARES & PEDESTRIAN AREAS
- ROADS & MOTORWAYS

Key advantages

- Cost-effective and efficient lighting solution for a fast return on investment
- Smart City connectivity
- Photometric engine with light distributions adapted to various applications
- ThermiX® for long lasting performance
- FutureProof: follows the principles of circular economy
- Universal fixation adapted for side-entry and post-top mounting
- Adjustable inclination in steps of 2.5°



ProFlex™ photometric engine for precise light distributions with the highest efficiency.

Cooling fins for optimised thermal management and long lasting performance.

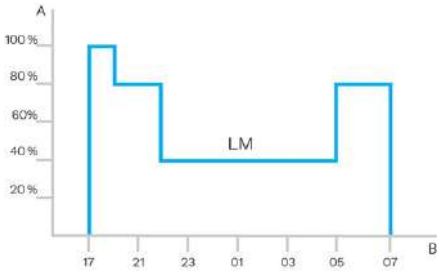
ProFlex™

The ProFlex™ photometric engine integrates the lenses into a polycarbonate protector. This integration increases the output and reduces the reflection inside the optical unit. The polycarbonate used for the ProFlex™ photometric engine offers essential characteristics such as high optical clarity for a superior light transmission, better impact resistance compared to glass and a long life span with UV-stabilisation treatment. The ProFlex™ concept enables a compact design with a thin optical compartment. It provides extensive light distributions so that the spacing between the luminaires can be increased.

Custom dimming profile

Intelligent luminaire drivers can be programmed with complex dimming profiles. Up to five combinations of time intervals and light levels are possible. This feature does not require any extra wiring.

The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. Performance | B. Time

Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at nightfall so as to provide safety and comfort in public spaces.

PIR sensor: motion detection

In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area.

Each luminaire level can be configured individually with several parametres such as minimum and maximum light output, delay period and ON/OFF duration time. PIR sensors can be used in an autonomous or interoperable network.

Owlet IoT

Owlet IoT remotely controls luminaires in a lighting network, creating opportunities for improved efficiency, accurate real-time data and energy savings of up to 85%.

ALL-IN-ONE

The LUCO P7 CM controller includes the most advanced features for optimised asset management. It also provides an integrated photocell and operates with an astronomical clock for seasonal dimming profile

adaptations.

EASY TO DEPLOY

Thanks to wireless communication, no cabling is needed. The network is not subject to physical constraints or limitations.

From a single control unit to an unlimited network, you can expand your lighting scheme at any time.

With real-time geolocation and automatic detection of luminaire features, commissioning is quick and easy.

USER-FRIENDLY

Once a controller is installed on a luminaire, the luminaire automatically appears with its GPS coordinates on a web-based map.

An easy-to-use dashboard enables each user to organise and customise screens, statistics and reports. Users can gain relevant, real-time insights.

The Owlet IoT web application can be accessed at all times from anywhere in the world with a device connected to the Internet. The application adapts to the device to offer an intuitive and user-friendly experience.

Real-time notifications can be pre-programmed to monitor the most important elements of the lighting scheme.

Plugging the LUCO P7 CM controller onto the 7-pin NEMA socket.

SECURE

The Owlet IoT system uses a local wireless mesh communication networks to control the on-site luminaires combined with a remote control system utilising the cloud to ensure smooth data transfers to and from the central management system.

The system uses encrypted IP V6 communication to protect data transmission in both directions. Using a secure APN, Owlet IoT ensures a high level of protection.

In the exceptional case of a communication failure, the built-in astronomical clock and photocell will take over to switch the luminaires on and off, thus avoiding a complete blackout at night.

EFFICIENT

Thanks to sensors and/or pre-programmed settings, lighting scenarios can be easily adapted to cope with live events, providing the right lighting levels at the right time and in the right place.

The integrated utility grade meter offers the highest accuracy available on the market today, enabling decisions based on real figures.

Accurate real-time feedback and clear reporting ensures that the network operates efficiently and maintenance is optimised.

When LED luminaires are switched on, the inrush current can create problems for the electricity grid. Owlet IoT incorporates an algorithm to preserve the grid at all times.

OPEN

The LUCO P7 CM controller can be plugged onto the standard 7 pin NEMA socket and operates through either a DALI or 1-10V interface to control the luminaire.

Owlet IoT is based on the IPv6 protocol. This method for addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

Through open APIs, Owlet IoT can be integrated into existing or future global management systems.

GENERAL INFORMATION

Recommended installation height	5m to 10m | 16' to 33'
Driver included	Yes
CE Mark	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	Polycarbonate
Protector	Polycarbonate (with integrated lenses)
Housing finish	Polyester powder coating
Standard colour(s)	RAL 7040 window grey
Tightness level	IP 66
Impact resistance	IK 08, IK 09, IK 10
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	By loosening screws on the bottom cover

· Any other RAL or AKZO colour upon request

· IK may be different according to the size/configurations. Please consult us.

OPERATING CONDITIONS

Operating temperature range (Ta)	-30 °C up to +50 °C / -22 °F up to 122 °F

· Depending on the luminaire configuration. For more details, please contact us.

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Power factor (at full load)	0.9
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-4-5 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
Socket	NEMA 3-pin (optional) NEMA 6-pin (optional) NEMA 7-pin (optional)
Associated control system(s)	Owlet Nightshift Owlet IoT
Sensor	PIR (optional)

OPTICAL INFORMATION

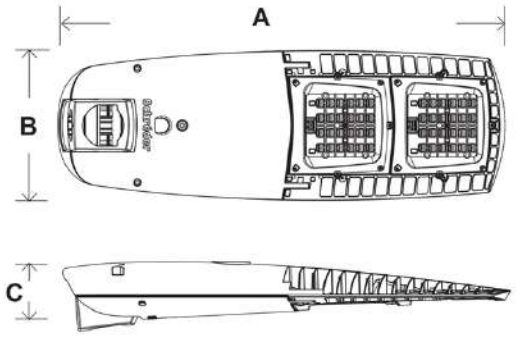
LED colour temperature	3000K (Warm White 830) 4000K (Neutral White 740)
Colour rendering index (CRI)	>80 (Warm White 830) >70 (Neutral White 740)
Upward Light Output Ratio (ULOR)	0%

LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	AXIA 2.1 - 650x132x250 | 25.6x5.2x9.8 AXIA 2.2 - 895x132x300 | 35.2x5.2x11.8
Weight (kg | lbs)	AXIA 2.1 - 6.7 | 14.7 AXIA 2.2 - 9.5 | 20.9
Aerodynamic resistance (CxS)	AXIA 2.1 - 0.05 AXIA 2.2 - 0.07
Mounting possibilities	Side-entry slip-over – Ø32mm Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm



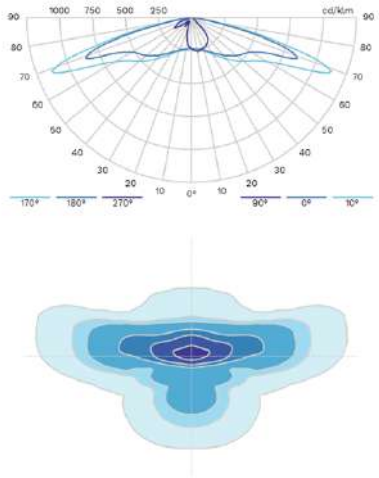
Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 830 Min	Luminaire output flux (lm) Warm White 830 Max	Luminaire output flux (lm) Neutral White 740 Min	Luminaire output flux (lm) Neutral White 740 Max	Power consumption (W)	Luminaire efficacy (lm/W) Up to	Photometry
AXIA 2.1	4	680	300	900	400	1100	10.3	110	PRO FLEX
	8	480	500	1400	600	1600	13.9	123	PRO FLEX
	8	690	700	1900	800	2300	20	121	PRO FLEX
	8	820	800	2200	1000	2600	23.7	118	PRO FLEX
	16	390	900	2400	1000	2800	21.2	134	PRO FLEX
	16	480	1100	2900	1300	3300	25.6	129	PRO FLEX
	16	600	1300	3500	1500	4100	31.8	129	PRO FLEX
	16	690	1500	3900	1700	4600	36.5	126	PRO FLEX
	16	760	1600	4200	1900	4900	40	122	PRO FLEX
	24	490	1700	4400	2000	5100	37.9	136	PRO FLEX
	24	540	1800	4800	2200	5600	41.5	135	PRO FLEX
	24	630	2100	5400	2500	6300	49	130	PRO FLEX
	24	690	2300	5900	2700	6900	54	129	PRO FLEX
	24	750	2400	6300	2800	7300	58.5	125	PRO FLEX
	24	890	2800	7200	3300	8400	69.5	122	PRO FLEX

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

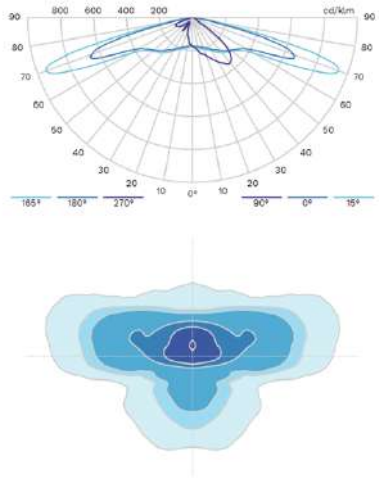
Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 830 Min	Luminaire output flux (lm) Warm White 830 Max	Luminaire output flux (lm) Neutral White 740 Min	Luminaire output flux (lm) Neutral White 740 Max	Power consumption (W)	Luminaire efficacy (lm/W) Up to	Photometry
AXIA 2.2	32	690	3100	7900	3600	9200	71	131	PRO FLEX
	32	860	3700	9400	4300	11000	89	128	PRO FLEX
	32	960	4000	10300	4700	12000	100	124	PRO FLEX
	40	370	2200	5700	2600	6700	47.5	146	PRO FLEX
	40	410	2500	6200	2900	7300	52	145	PRO FLEX
	40	450	2700	6800	3100	7900	57	142	PRO FLEX
	40	480	2800	7200	3300	8400	60.5	142	PRO FLEX
	40	760	4200	10700	4900	12500	96	133	PRO FLEX
	40	920	4900	12500	5800	14600	118	127	PRO FLEX
	40	1000	5300	13300	6200	15600	129	122	PRO FLEX
	48	460	3300	8300	3800	9700	69	144	PRO FLEX
	48	530	3700	9400	4400	11000	80	143	PRO FLEX
	48	590	4100	10300	4800	12100	89	141	PRO FLEX
	48	660	4500	11400	5300	13300	100	137	PRO FLEX
	48	730	4900	12400	5800	14500	110	134	PRO FLEX
	48	800	5300	13400	6200	15600	121	130	PRO FLEX
	48	890	5800	14600	6800	17100	136	127	PRO FLEX
	48	960	6200	15500	7200	18100	147	124	PRO FLEX
	48	1000	6400	16000	7400	18700	152	123	PRO FLEX

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

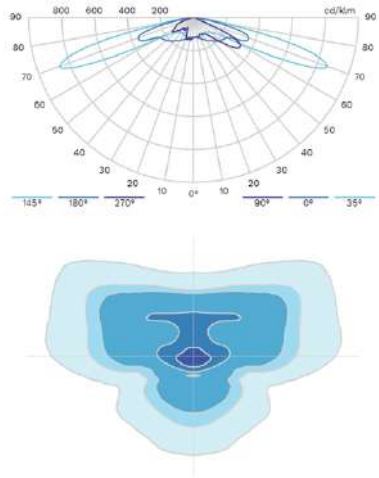
PRO FLEX™ 5165



PRO FLEX™ 5166



PRO FLEX™ 5167



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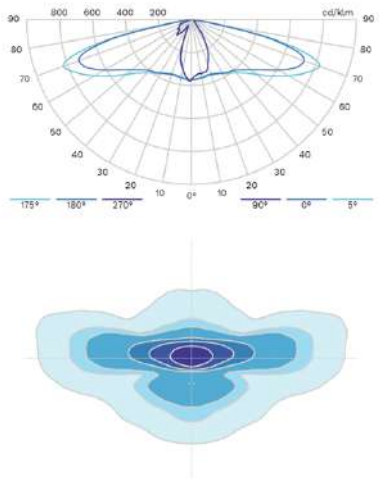

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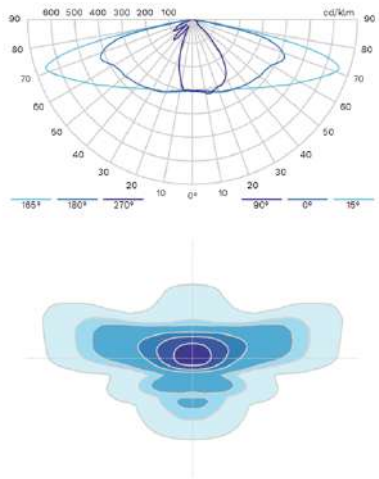

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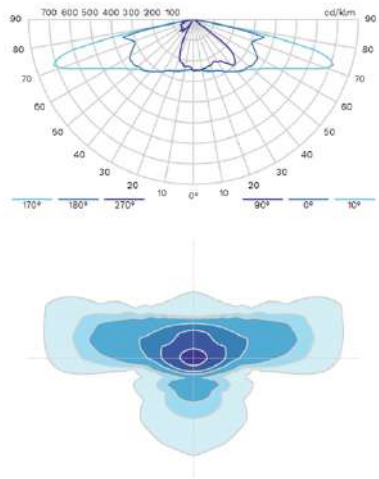
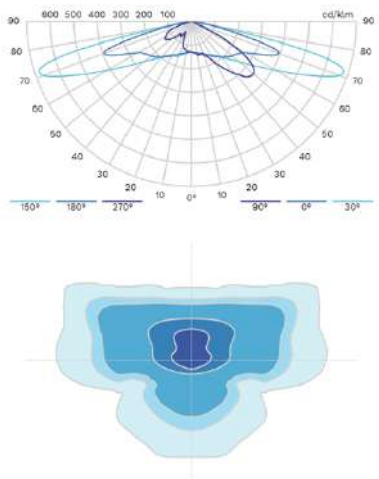
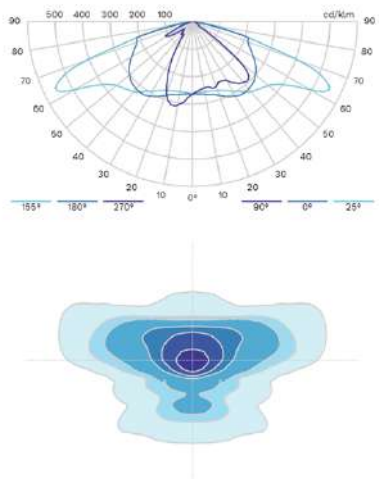


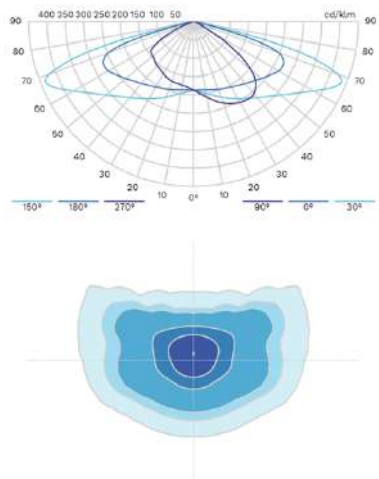
PRO FLEX™ 5187



PRO FLEX™ 5221

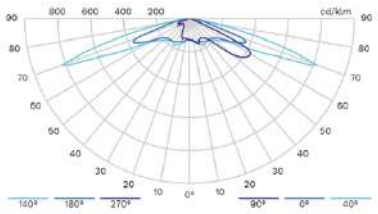


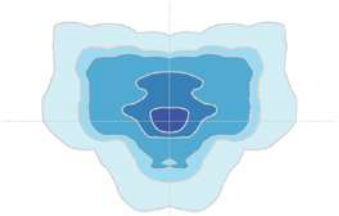
PRO FLEX™ 5233



PRO FLEX™

5241





AENOR

ENEC Certification Body registered under ID # 01. For further information, please consult www.enec.com

LICENCE

to use the European Mark

ENEC 01

Licence Nr. ENEC/001028

Under the conditions given in the following pages of this document, the licence to use the ENEC Mark in conjunction with the suffix 01, as shown above, has been issued to:

SCHRÉDER GROUP
RUE DE LUSAMBO, 67
B-1190 BRUXELLES (Bélgica *Belgium*)

For the product(s):

Luminaire for road and street lighting

Trade name(s):

SCHRÉDER

Complying with the following European Standards:

EN 60598-1:2015; EN 60598-2-3:2003;
EN 60598-2-3:2003/A1:2011; EN 62262:2002

Date: 2017-02-01

Signature:

Name: Avelino Brito
Position: Chief Executive Officer

This licence has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the product presented for testing and certification.

AENOR INTERNACIONAL, S.A.U.
Cl Génova, 6
28004 MADRID (Spain)

AENOR

CERTIFICADO ENEC DE PRODUCTO

Tipo de producto / Type of Product	LUMINARIA PARA ALUMBRADO PÚBLICO
r1) Nº Certificado / Certificate nº	ENEC/001028
r2) Fecha Certificado / Date of the Certificate	2017-02-01
r3) Nº de Informe de ensayo / Test report nº	2016050306B1
r4) Nombre y dirección del licenciatario Name and address of the licensee	SCHRÉDER GROUP RUE DE LUSAMBO, 67 B-1190 BRUXELLES (Bélgica)
r5) Dirección de la factoría Address of the factory	AV ROANNE 66 - PI EL HENARES 19130 MARCHAMALO (Guadalajara - España)
r6) Referencia de la Norma Española Spanish Standard	UNE-EN 60598-1:2015; UNE-EN 60598-2-3:2003; UNE-EN 60598-2-3:2003/A1:2011; UNE-EN 62262:2002
r7) Referencia de la Norma Europea European Standard	EN 60598-1:2015; EN 60598-2-3:2003; EN 60598-2-3:2003/A1:2011; EN 62262:2002
r8) Referencia / Type reference	Ver Anexo I *refer to Annex I*
r9) Marca comercial / Trade mark	SCHRÉDER
r10) Tensión y frecuencia asignadas Rated voltage and frequency	230 V~; 50/60 Hz
r11) Nº de lámparas x potencia asignada Nº of lamps x rated wattage	Ver Anexo I *refer to Annex I*
r12) Tipo de lámparas y portalámparas Type of lamps and lampholder	LED (module); SMD
r13) Grado de protección / Degree of protection (IP)	IP 66; IK 08
r14) Medios de conexión a la red Means for power supply connection	Terminals
r15) Clasif. por material superficie apoyo Class. respect supporting material	Suitable for normally flammable surfaces
r16) Protección contra choques eléctricos (clase) Protection against electric shock (class)	Class I
r17) Limitaciones / Limitations	Horizontal mounting. Fixed to post or arm. Ta max. = 50 ºC. Min. clearance to illum. objects: 0,2 m
r18) Características generales / Technical data	AXIA 2.1 Series. Neutral white
Fecha de caducidad / Date of expiry	2021-06-14

Este certificado anula y sustituye al 007/001028, de fecha 2016-06-14.
This certificate supersedes certificate 007/001028, dated 2016-06-14.

Original Electrónico

AENOR INTERNACIONAL S.A.U.
Génova, 6. 28004 Madrid. España
Tel. 91 432 60 00.- www.aenor.es

Entidad de certificación de producto acreditada por ENAC con nº 01/C-PR275
Product certification body accredited by ENAC, number 01/C-PR275

AENOR

CERTIFICADO ENEC DE PRODUCTO

ANEXO I AL CERTIFICADO ENEC/001028
ANNEX I TO CERTIFICATE ENEC/001028

REFERENCIA *Type reference*	**Nº DE LÁMPARAS X POTENCIA ASIGNADA** *Nº of lamps x rated wattage*
AXIA 2.1 16 LED 21 W Cl. I	16 LED; 21 W; 390 mA
AXIA 2.1 16 LED 26 W Cl. I	16 LED; 26 W; 480 mA
AXIA 2.1 16 LED 32 W Cl. I	16 LED; 32 W; 600 mA
AXIA 2.1 16 LED 36 W Cl. I	16 LED; 36 W; 690 mA
AXIA 2.1 16 LED 40 W Cl. I	16 LED; 40 W; 760 mA
AXIA 2.1 24 LED 38 W Cl. I	24 LED; 38 W; 490 mA
AXIA 2.1 24 LED 41 W Cl. I	24 LED; 41 W; 540 mA
AXIA 2.1 24 LED 48 W Cl. I	24 LED; 48 W; 630 mA
AXIA 2.1 24 LED 53 W Cl. I	24 LED; 53 W; 690 mA
AXIA 2.1 24 LED 57 W Cl. I	24 LED; 57 W; 750 mA
AXIA 2.1 24 LED 68 W Cl. I	24 LED; 68 W; 890 mA
AXIA 2.1 4 LED 10 W Cl. I	4 LED; 10 W; 680 mA
AXIA 2.1 8 LED 13 W Cl. I	8 LED; 13 W; 480 mA
AXIA 2.1 8 LED 19 W Cl. I	8 LED; 19 W; 690 mA
AXIA 2.1 8 LED 22 W Cl. I	8 LED; 22 W; 820 mA

AENOR INTERNACIONAL S.A.U.
Génova, 6. 28004 Madrid. España
Tel. 91 432 60 00.- www.aenor.es

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: **AXIA 2.1**

Echipare:
8, 16, 24 LED-uri de Mare Putere (High Power LED) monocromatic

Caracteristici principale:
Balast**:** Electronic programabil
Etanşeitate compartiment optic: IP 66
Etanşeitate compartiment aparataj: IP 66
Tensiune nominală: 230 V – 50 Hz
Clasa electrică: I sau II

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: 16

Produsul este realizat în confomitate cu directivele 2011/65/EU – Joasă Tensiune, 2002/95/CE - RoHS şi 2002/96/CE – DEEE.

SCHRÉDER ROMANIA S.R.L.
Director Comercial,

Eliberat,
August 2018, Cluj-Napoca

Ovidiu GROZA

13/09/2019

Schréder

Lumen maintenance report

LED information

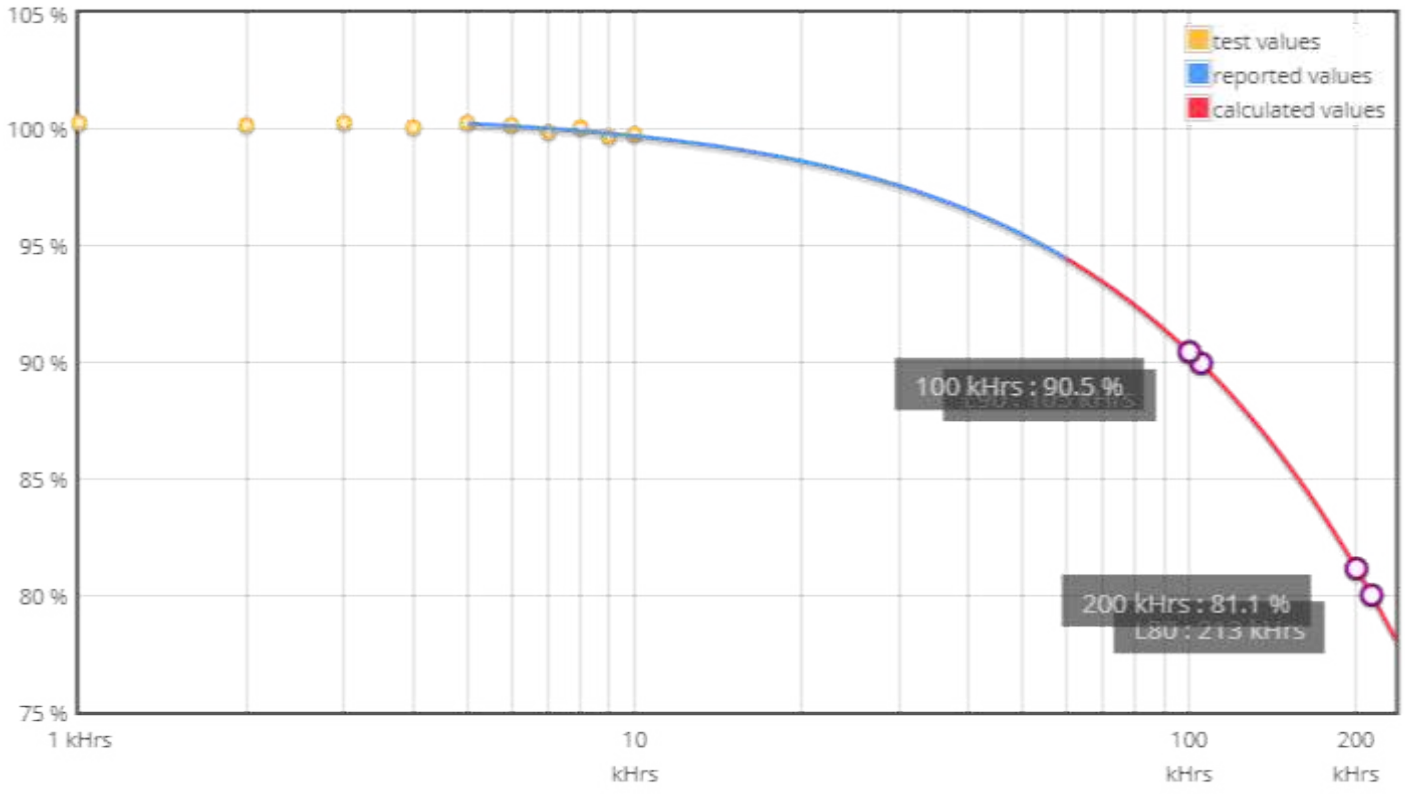
LED type	NVSL219CT
LED current	700 mA
Ts	55°C
Description	SQETMOJ75401

Projection data

Test duration	10000 hrs	**α**	1.086E-006
Time used for projection	5000 to 10000hrs	**β**	1.008

L (%)	Time (kHrs)
80.0	213
81.1	200
90.0	104
90.5	100

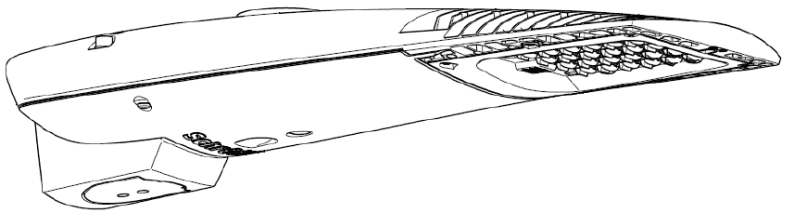
Projection graphic



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

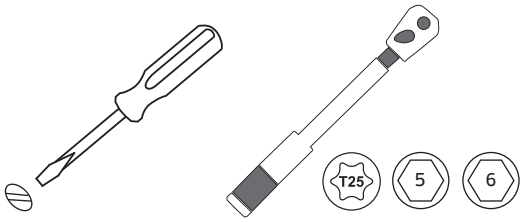
LxBy results derived from LxB50 according to IEC 62717 Annex C.

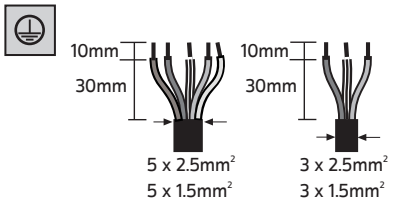
Schréder

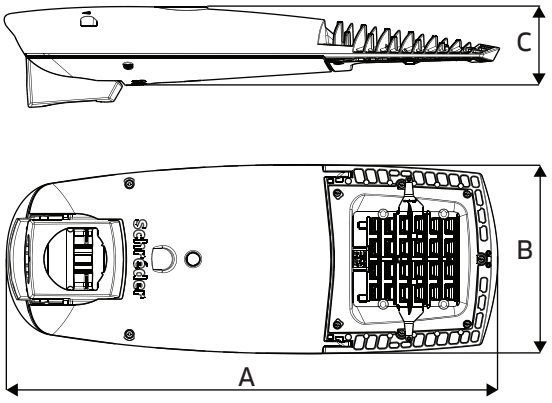


AXIA 2
Size 1
Installation instructions

									IP	IK
PLUS 02 CE		IEC EN60598				5-8m	390-890mA 10-68W	220-240V 50/60Hz	66	08

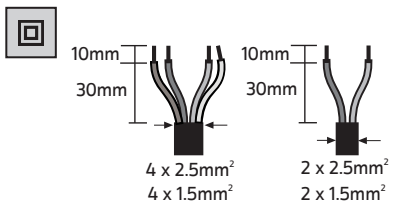




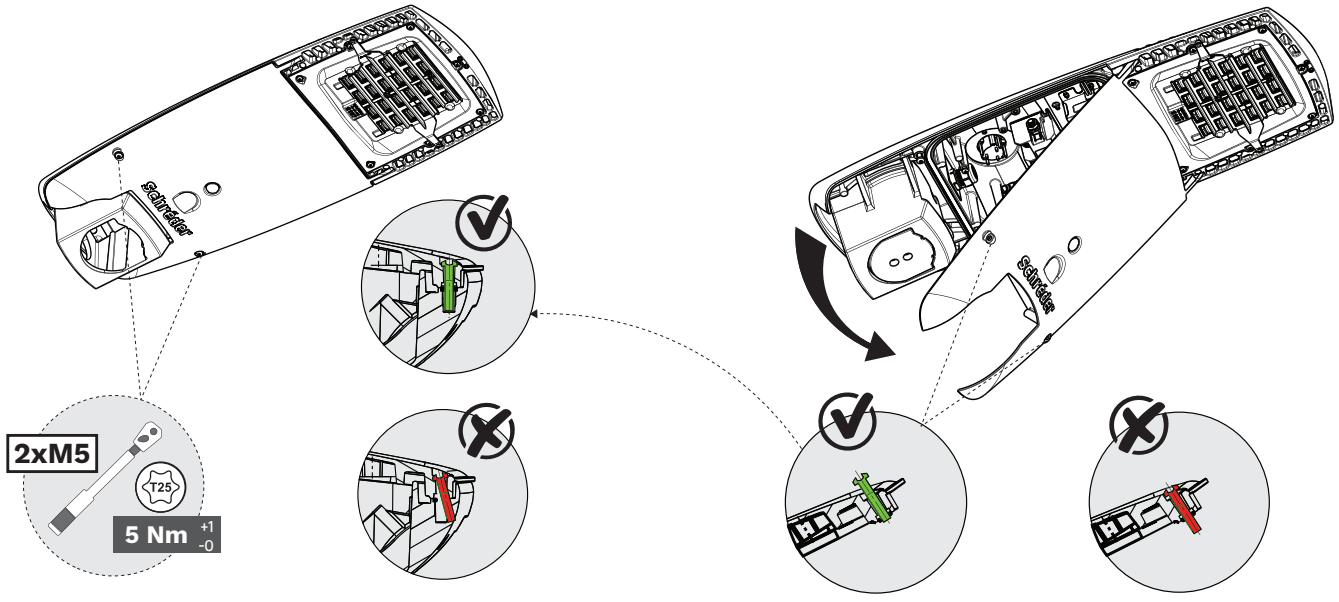


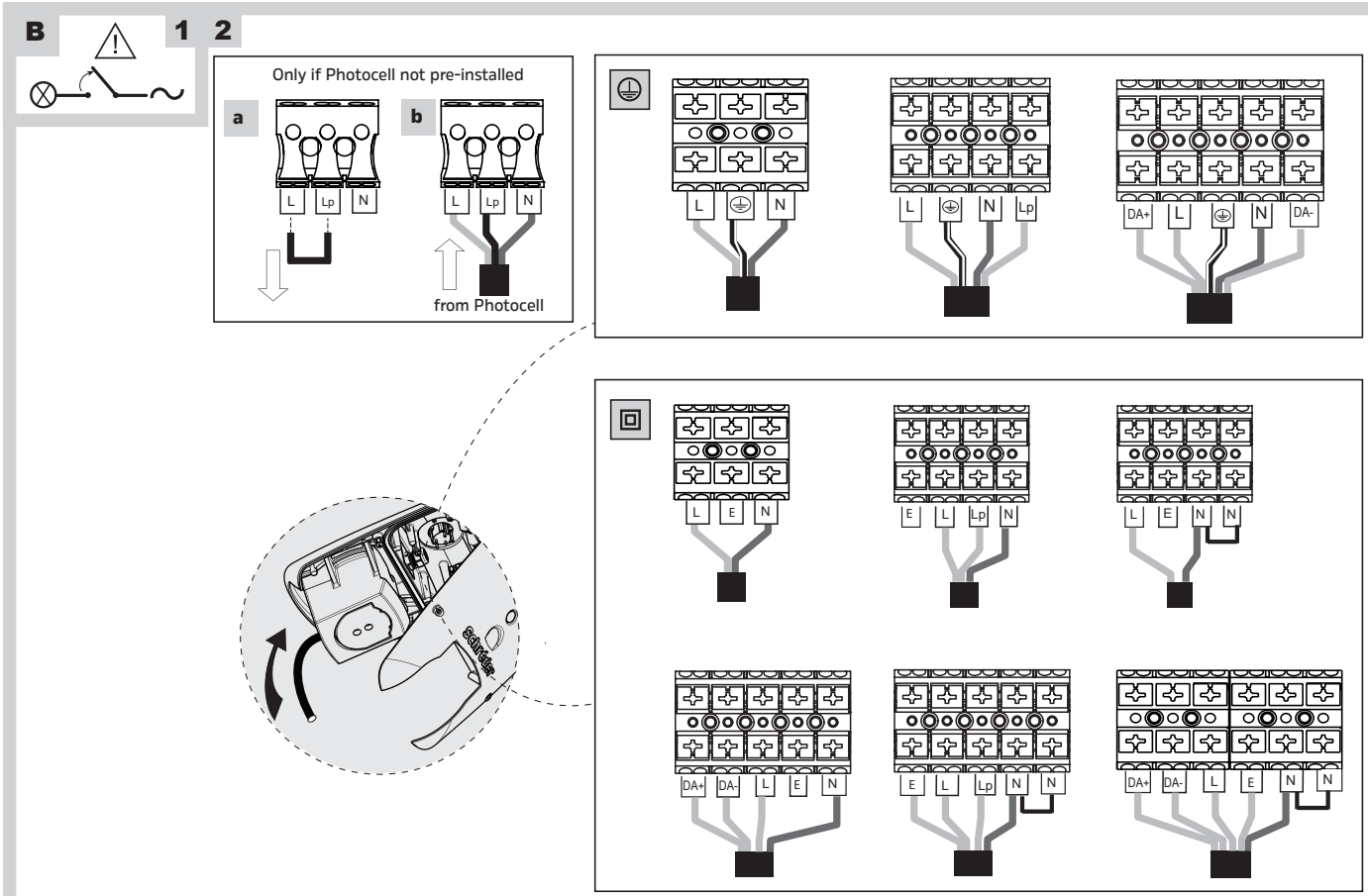
6.7 kg

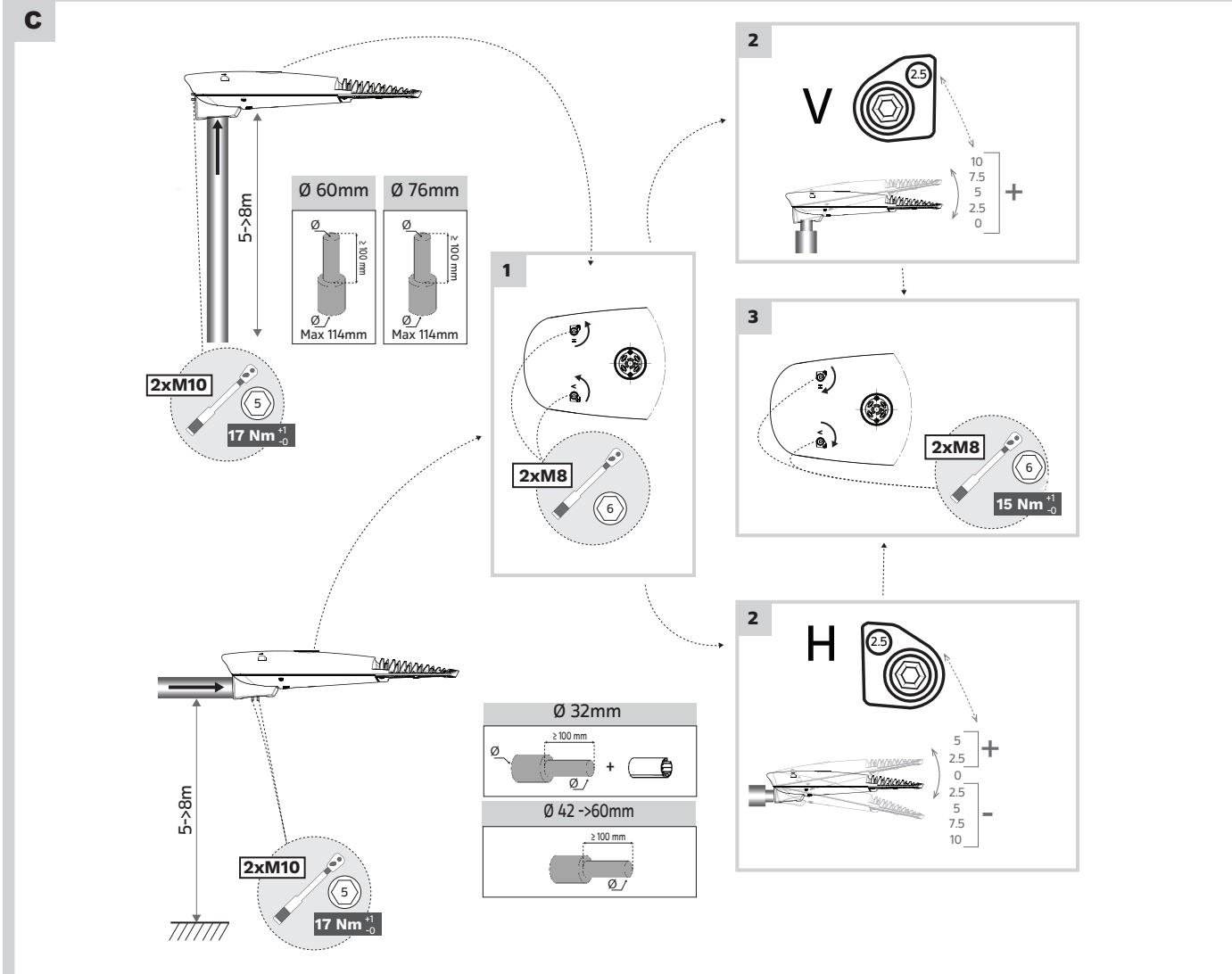
	Size 1
A	650mm
B	250mm
C	103mm
C_xS	0.054m²

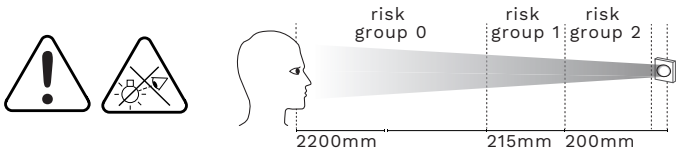


A









ENG

SAFETY INSTRUCTIONS
The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person. Always switch off the power prior to installation, maintenance or repair activities.

RISK GROUP 2 - CAUTION! Hazardous optical radiation may be emitted from this product. Do not stare at the luminaire when operating as it may be harmful to the eyes. The luminaire should be positioned so that prolonged staring at the luminaire at a distance of less than 0.215m is not expected.

In case of PVC insulated mains cable, the installer MUST ensure that the WHOLE cable is protected against climatic conditions, especially UV rays and rain, by making sure that the cable is contained inside the luminaire and pole

Y-connection: In case of damage to the wire, it has to be replaced only by the manufacturer, distributor or by an expert, to avoid risks.

ITA

ISTRUZIONI DI SICUREZZA
La sorgente di luce contenuta in questo sistema di illuminazione dovrà essere sostituita solo dal produttore, dal suo agente di servizio o da una persona con qualifica similare.

Staccare sempre il filo della corrente prima di iniziare operazioni di installazione, manutenzione o riparazione.

GRUPPO DI RISCHIO 2 - ATTENZIONE! Questo prodotto può emettere radiazioni ottiche potenzialmente pericolose. Non fissare la sorgente accesa. Potrebbe essere dannoso per gli occhi. L'apparecchio dovrebbe essere posizionato in modo da non permettere di fissare a lungo l'apparecchio a una distanza inferiore di 0.215m.

In caso di cavo di alimentazione isolato in PVC, l'installatore DEVE garantire che il cavo INTERO sia protetto dalle condizioni climatiche, in particolare dai raggi UV e dalla pioggia, assicurandosi che il cavo sia contenuto all'interno del corpo illuminante e del palo

Collegamento Y: in caso di danneggiamento, il cavo deve essere sostituito esclusivamente dal costruttore, dal distributore o da un tecnico esperto per evitare rischi.

NLD

VEILIGHEIDSINSTRUCTIES
De lichtbron in deze armatuur dient uitsluitend door de fabrikant, diens onderhoudsvertegenwoordiger of een persoon met vergelijkbare kwalificaties te worden vervangen.

Schakel altijd de stroom uit voordat u aan installatie, onderhoud of reparaties begint.

RISICOGROEP 2 - LET OP! Bij dit product kan eventueel gevaarlijke optische straling voorkomen. Staar niet in de brandende lamp. Dit kan schadelijk zijn voor de ogen. Het armatuur moet worden geplaatst zodat staren in het armatuur op een afstand kleiner dan 0.215meter niet verwacht wordt.

In het geval van PVC-geïsoleerde voedingskabels MOET de installateur ervoor zorgen dat de GEHELE kabel wordt beschermd tegen klimaatomstandigheden, met name UV-stralen en regen, door ervoor te zorgen dat de kabel zich in het armatuur en de paal bevindt

Y-verbinding: in geval van schade aan de draad dient deze te worden vervangen door de fabrikant, de distributeur of door een expert, om risico's te vermijden.

DAN

SIKKERHEDSINSTRUKTIONER
Lyskilden i dette armatur må kun udskiftes af producenten, af en vedligeholdelsesvirksomhed udpeget af producenten eller af en tilsvarende kvalificeret virksomhed.

Sluk altid for strømmen inden påbegyndelse af installation, vedligeholdelse eller reparation.

Risikogruppe 2 - ADVARSEL! Produktet kan muligvis udsende farlig optisk stråling. Kig ikke direkte ind i armaturet under drift, det kan være skadeligt for øjnene. Armaturet skal placeres således så langvarig stirren ind i armaturet, på en afstand der er tættere end 0.215m, undgås.

I tilfælde af PVC-isoleret ledning SKAL elektrikeren sikre, at HELE kablet er beskyttet mod klimatiske forhold, dette gælder især UV-stråler og regn. Elektrikeren skal derfor sørge for, at kablet forbliver inde i armaturet og masten.

Type Y montering: Hvis det eksterne kabel eller ledning på dette armatur er beskadiget, må det kun udskiftes af producenten
eller af en servicepartner til producenten eller tilsvarende kvalificeret person, for at undgå skader.

DEU

SICHERHEITSHINWEISE
Die Lichtquelle in dieser Leuchte darf nur vom Hersteller bzw. von dessen
Kundendienst oder einer ähnlich qualifizierten Person ausgetauscht werden.

Schalten Sie die Stromversorgung vor Installations-, Wartungs- und
Reparaturarbeiten stets ab.

Risikogruppe 2 - VORSICHT! Von diesem Produkt kann möglicherweise gefährliche optische Strahlung ausgehen. Es ist darauf zu achten, dass man im eingeschaltetem Zustand der Leuchte nicht innerhalb einer Distanz von 0.215m direkt in die Leuchte schaut. Dies könnte schädlich für Ihre Augen sein.

Bei Verwendung eines PVC-isolierten Netzkabels MUSS der Installateur sicherstellen, dass das GESAMTE Kabel vor klimatischen Bedingungen -insbesondere vor UV-Strahlen und Regen- geschützt ist, indem sichergestellt wird, dass das Kabel in der Leuchte und dem Mast verschlossen ist

Y-Verbindung: Falls die Leitung beschädigt ist, darf diese nur vom Hersteller, dem Händler oder einem Experten ersetzt werden, um Risiken zu vermeiden.

POL

INSTRUKCJA BEZPIECZEŃSTWA
źródło światła zamontowane w tej oprawie może być wymieniane wyłącznie przez producenta, pracownika serwisu lub inną wykwalifikowaną osobę.

Przed rozpoczęciem instalacji, konserwacji lub naprawy należy bezwzględnie odłączyć zasilanie elektryczne.

GRUPA RYZYKA 2 - OSTRZEŻENIE Produkt może emitować niebezpieczne
promieniowanie optyczne szkodliwe dla oczu. Nie należy patrzeć bezpośrednio na pracujące źródło światła. Oprawa powinna być tak zamontowana, aby jej długotrwała obserwacja była możliwa z odległości nie mniejszej niż 0.215m.

W przypadku kabla sieciowego izolowanego PCV instalator MUSI upewnić się, że kabel CAŁY jest chroniony przed warunkami klimatycznymi, w szczególności przed promieniowaniem UV i deszczem, upewniając się, że kabel znajduje się wewnątrz oprawy i słupa.

Połączenie Y: ze względów bezpieczeństwa uszkodzony przewód powinien zostać wymieniony wyłącznie przez producenta, dystrybutora lub wykwalifikowanego elektryka.

RUS

инструкция безопасности
замену источника света для этого светильника должен выполнять только произ водитель, сервисный агент производителя или специалист с аналогичной квалификацией.

Перед проведением установки, сервисного обслуживания или ремонта всегда отключайте питание устройства.

ГРУППА РИСКА 2 - ВНИМАНИЕ! Возможно опасное оптическое излучение от этого изделия. Не смотрите на источник света. Может быть вредно для глаз. Светильник должен быть расположен таким образом, чтобы было невозможно смотреть на него с расстояния менее 0.215м.

В случае кабеля питания с ПВХ изоляцией, монтажник ДОЛЖЕН обеспечить защиту ВСЕГО кабеля от воздействия климатических условий, особенно от ультрафиолетовых лучей и дождя, убедившись, что кабель находится внутри светильника и опоры.

Подключение Y: в случае повреждения кабеля его замена производится только производителем, дистрибьютором или экспертом.

RON

INSTRUCŢIUNI DE EXPLOATARE
Sursa de lumină din acest corp de iluminat trebuie înlocuită numai de producător sau de reprezentantul său de service sau o persoană ce deţine calificări similare.

Opriţi întotdeauna alimentarea electrică înainte de lucrările de instalare, întreţinere sau reparaţii.

GRUP DE RISC 2 - ATENŢIE! Este posibil ca acest produs să emită radiaţii optice periculoase. Nu priviţi direct înspre lampa aflată în stare de funcţionare. Acest lucru poate fi dăunător ochilor. Aparatul de iluminat trebuie să fie poziţionat astfel încât să nu fie posibil, în mod normal, privitul directă înspre lampă, la o distanţă mai mică de 0.215m.

În cazul cablului de alimentare cu izolaţie din PVC, instalatorul TREBUIE să se asigure că TOT cablul este protejat împotriva condiţiilor climatice, mai ales împotriva razelor UV şi a ploii, asigurându-se că acest cablu este plasat în interiorul aparatului de iluminat şi al stâlpului

Conexiune Y: În caz de deteriorare a firului, acesta trebuie înlocuit numai de către producător, distribuitor sau un expert, pentru evitarea riscurilor.

FRA

INSTRUCTIONS DE SECURITE
La source lumineuse contenue dans ce luminaire doit être uniquement remplacée par le fabricant, son agent de maintenance ou une autre personne disposant des qualifications appropriées.

Mettez toujours l'appareil hors tension avant toute opération d'installation, d'entretien ou de réparation.

RISQUE GROUPE 2 - ATTENTION ! Ce produit émet potentiellement des rayons dangereux pour la vue. Regarder directement la source lumineuse et de manière continue pourrait causer des lésions aux yeux. Le luminaire doit être installé de façon à ne pas pouvoir regarder la source lumineuse directement de manière continue à moins de 0.215m.

Dans le cas d'un câble secteur isolé en PVC, l'installateur DOIT s'assurer que le câble ENTIER est protégé contre les conditions climatiques, en particulier les rayons UV et la pluie, en s'assurant que le câble est contenu à l'intérieur du luminaire et du poteau

Connexion Y : si le câble est endommagé, il ne peut être remplacé que par le fabricant, par le distributeur ou par un expert, afin d'éviter tout risque.

SPA

INSTRUCCIONES DE SEGURIDAD
Solo el fabricante, un agente del servicio técnico o persona con cualificación similar puede sustituir la fuente de luz de este sistema de iluminación.

Apague siempre el interruptor de alimentación antes de realizar tareas de instalación, mantenimiento o reparación.

GRUPO DE RIESGO 2 - ¡PRECAUCIÓN! radiación óptica posiblemente peligrosa emitida por este producto. No mire a la lámpara en funcionamiento. Puede ser dañino para los ojos. El sistema de iluminación debe instalarse de modo que la mirada fija prolongada a la luminaria, a una distancia menor de 0.215m no se espere.

En el caso de un cable aislado de PVC, el instalador DEBE asegurarse de que todo el cable esté protegido contra las condiciones climáticas, especialmente los rayos UV y la lluvia, asegurándose de que el cable esté dentro de la luminaria y el poste

Conexión en Y: si el cable se daña, solo debe reemplazarlo el fabricante, un distribuidor o un experto para evitar riesgos.

POR

INSTRUÇÕES DE SEGURANÇA
A fonte de luz no interior deste candeeiro deve ser substituída apenas pelo
fabricante, pelo seu técnico de assistência ou por uma pessoa com qualificação equivalente.

Desligue sempre a alimentação antes de proceder a actividades de instalação, manutenção ou reparação.

GRUPO DE RISCO 2 - ATENÇÃO! Possível risco ótico por radiação emitida a partir deste produto. Não olhar para a luz em funcionamento. Pode ser prejudicial para os olhos. A luminária deve ser posicionada de modo a que não seja expectável um olhar prolongado para a luminária em funcionamento a uma distância inferior a 0.215m.

No caso de cabo de alimentação com isolamento em PVC, o instalador DEVE assegurar que TODO o cabo é protegido das condições climáticas, especialmente raios UV e chuva, certificando-se que o cabo está contido dentro da luminária e da coluna.

Ligação Y: em caso de danos no fio, este tem de ser substituído apenas pelo fabricante, distribuidor ou por um técnico especializado, para evitar riscos.

SWE

SÄKERHETSINSTRUKTIONER
Ljuskällan som monteras i denna armatur får endast ersättas av en Schréder-anställd eller annan kvalificerad person.

Stäng alltid av strömmen före installation, underhåll eller reparation.

Riskgrupp 2 - VARNING! Eventuellt farlig optisk strålning från denna produkt. Stirra ej på driftlampan. Kan vara skadligt för ögonen. Armaturen bör placeras så att långvarigt stirrande in i armaturen på ett avstånd som är närmare än 0.215m ej är möjligt.

Vid PVC-isolerad kabel måste installatören se till att hela kabeln är skyddad mot klimatförhållanden, särskilt UV-strålar och regn, genom att se till att kabeln monteras inuti armaturen och stolpen

Typ Y-anslutning:
Om den externa kabeln eller ledningen på denna armatur är skadad, får den endast bytas ut av tillverkaren eller av en servicepartner till tillverkaren eller motsvarande kvalificerad person, för att undvika skador

HUN

BIZTONSÁGI ÚTMUTATÓ
A lámpatestben található fényforrást kizárólag a gyártó, szervizképviselője vagy hivatalos szakszervíz szakembere cserélheti ki.

A szerelés, karbantartás és javítás előtt minden esetben végezzen áramtalanítást.

KOCKÁZATI CSOPORT 2 - VIGYÁZAT! A berendezés veszélyes optikai sugárzást bocsáthat ki! Ne nézzen bele a bekapcsolt lámpatestbe! Szemet károsító hatás léphet fel. A lámpatestet úgy ajánlott pozícionálni, hogy rálátás esetén a lámpatest ne legyen 0.215m-nél közelebb!

PVC szigetelésű tápkábel esetén a telepítőnek biztosítania KELL, hogy a TELJES kábel védett legyen az éghajlati viszonyoktól, különösen az UV sugárzástól és az esőtől, ügyelve arra, hogy a kábel a lámpatest és az oszlop belsejében legyen.

Y-csatlakozó: A sérült vezetéket kizárólag a gyártó, forgalmazó vagy szakember cserélheti ki a kockázatok elkerülése végett.

CHI

安全守则

该灯具内的光源仅可由施莱德员工、指定代理商或具备类似资质的人员进行更换。

在安装、维护和维修灯具之前必须首先切断电源。

风险群体 2 - 注意！有害的光学射线有可能从产品中发出。不要凝视正在工作的光源。有可能对眼睛产生危害。灯具应当选择合理位置安装，尽可能避免长时间在0.215米以内凝视。

如果选择PVC主电缆，必须确保整个电缆被很好的保护以抵御恶略气候状况，尤其是紫外线和雨水，而且要确保电缆被灯具和灯杆完全覆盖。

Y类附件：
如果灯具外部电缆被破坏，电缆必须被制造商或服务代理商或者有资质的人员及时更换从而避免伤害。

UKR

інструкція безпеки
Джерело світла, що міститься у цьому світильнику, повинен заміняти лише виробник, його сервісний агент або кваліфікована особа.

Завжди вимикайте живлення перед встановленням, доглядом або ремонтом.

ГРУПА РИЗИКУ 2 - УВАГА! Можливість небезпечного оптичного випромінювання від цього продукту. Уникайте прямого погляду на ввімкнене джерело світла. Може бути шкідливо для очей. Світильник має бути розташований так, щоб уникнути його тривалого споглядання з відстані ближче, ніж 0.215м.

У випадку кабелю живлення із ПВХ ізоляцією, монтажник ПОВИНЕН забезпечити захист ВСЬОГО кабелю від впливу кліматичних умов, особливо від ультрафіолетових променів та дощу, переконавшись, що кабель знаходиться всередині світильника та опори

У-з'єднання: у разі пошкодження дроту його має замінити лише виробник, дистриб`ютор чи експерт, щоб запобігти ризикам.

SRP

UPUTSTVA
Izvor svetla u ovom rasvetnom telu može da zameni samo proizvođač, njegov servisni agent ili na sličan način kvalifikovana osoba.

Uvek isključite napajanje pre instalacije, održavanja ili popravke.

GRUPA RIZIKA 2 - PAŽNJA! Proizvod može emitovati štetno optičko zračenje.
Izbegavati vizuelni kontakt sa svetlosnim izvorom dok je u radu. Moguće oštećenje vida. Svetiljku treba pozicionirati tako da se ne očekuje duži vizuelni kontakt sa izvorom sa razdaljine manje od 0.215m.

U slučaju napojnog kabla sa PVC izolacijom, izvođač MORA obezbediti zaštitu CELOG kabla od klimatskih uslova, posebno UV zračenja i kiše, tako što će osigurati da se kabal nalazi unutar svetiljke i stuba.

Y-veza: U slučaju oštećenja žice zamenu mora da obavi isključivo proizvođač, distributer ili stručnjak kako bi se izbegao rizik.

AR

تعليمات السلامه:
في حاله الحاجه لتغير مصدر الضوء، يتم ذلك من خلال الشركه المصنعه او الوكيل المخول لعمل ذلك او شخص موهل لذلك.
دائما افصل الدائره الكهربائيه قبل تركيب او صيانه الجهاز.
تحذير: هذا المنتج مصنف ضمن مجموعه المخاطر 2
.خطر انبعاث اشعاع ضوئي , لا تنظر مباشره الى الجهاز و هو مضاء لان ذلك مؤذي للعين. الجهاز يجب ان يركب بشكل يضمن ان التحديق بمصدر الضوء من مسافه اقل من 0.215 م غير متوقعه.
يجب على الشخص الذي يوصل الجهاز بالدائره الكهربائيه التاكد من ان محمي من التاثيرات المناخيه و خاصه الاشعه فوق البنفسجيه و المطر من خلال التاكد ان الكابل محوي بداخل العمود و الجهاز
في حاله الحاجه لتغير الاسلاك الداخليه , يتم ذلك من خلال الشركه المصنعه او الوكيل المخول لعمل ذلك او شخص مخول لذلك.
دائما افصل الدائره الكهربائيه قبل تركيب او صيانه الجهاز.

LED Flux measurement

FORM-L-41 ED1 REV 0

Date : **20/11/2015**

Operator : **FC**

Filename : **2015_1424.xml**

226 - TEST

NBN EN ISO/IEC 17025 : 2005

LEDs

Trademark : **Nichia**

Entry number : **35R264**

Type : **NVSL219CT**

Power (Catalogue) : **1.01** W

Flux : **170** lm/LED

BIN Description : **SM405D300R70**

Part number : **Unknown**

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

Number of LEDs : **24**

Lenses

Trademark : **None**

Type : **None**

Power & Print

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

Print description : **00-17-504 REV.A**

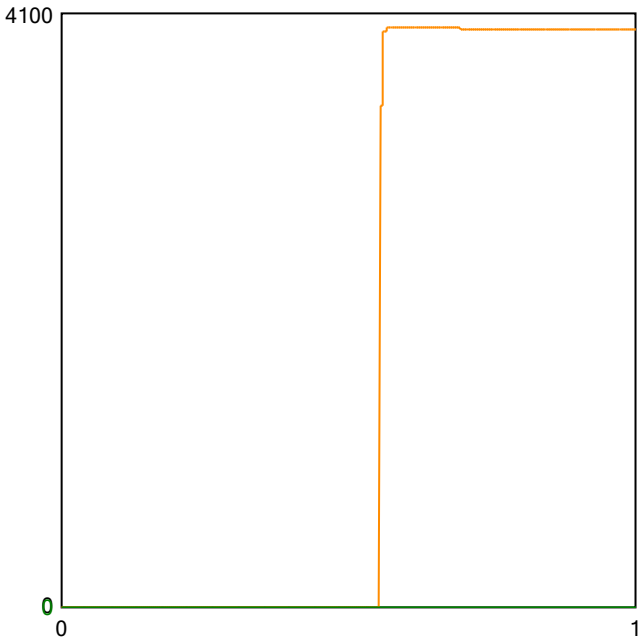
Active ☐

Picture

Sphere photometric measurement

Average flux : **1791** lumens

Maximum flux : **4006** lumens



Position in sphere : 

Electrical measurement

● Secondary electrical measurement

Voltage : **67.74** V

Current : **0.350** A

Power : **23.69** Watt

→ LEDs light efficiency at thermal stabilization :

75.6 lm/W

74.6 lm/Led

→ LEDs light efficiency at 25° :

169.1 lm/W

166.9 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°C/350mA - PCB 24 Nichia pour AXIA1 Gen2 - ctr of 2015/1194 + ctr lied to PH37681

Comment :

FORM-L-41 ED1 REV 0

226 - TEST

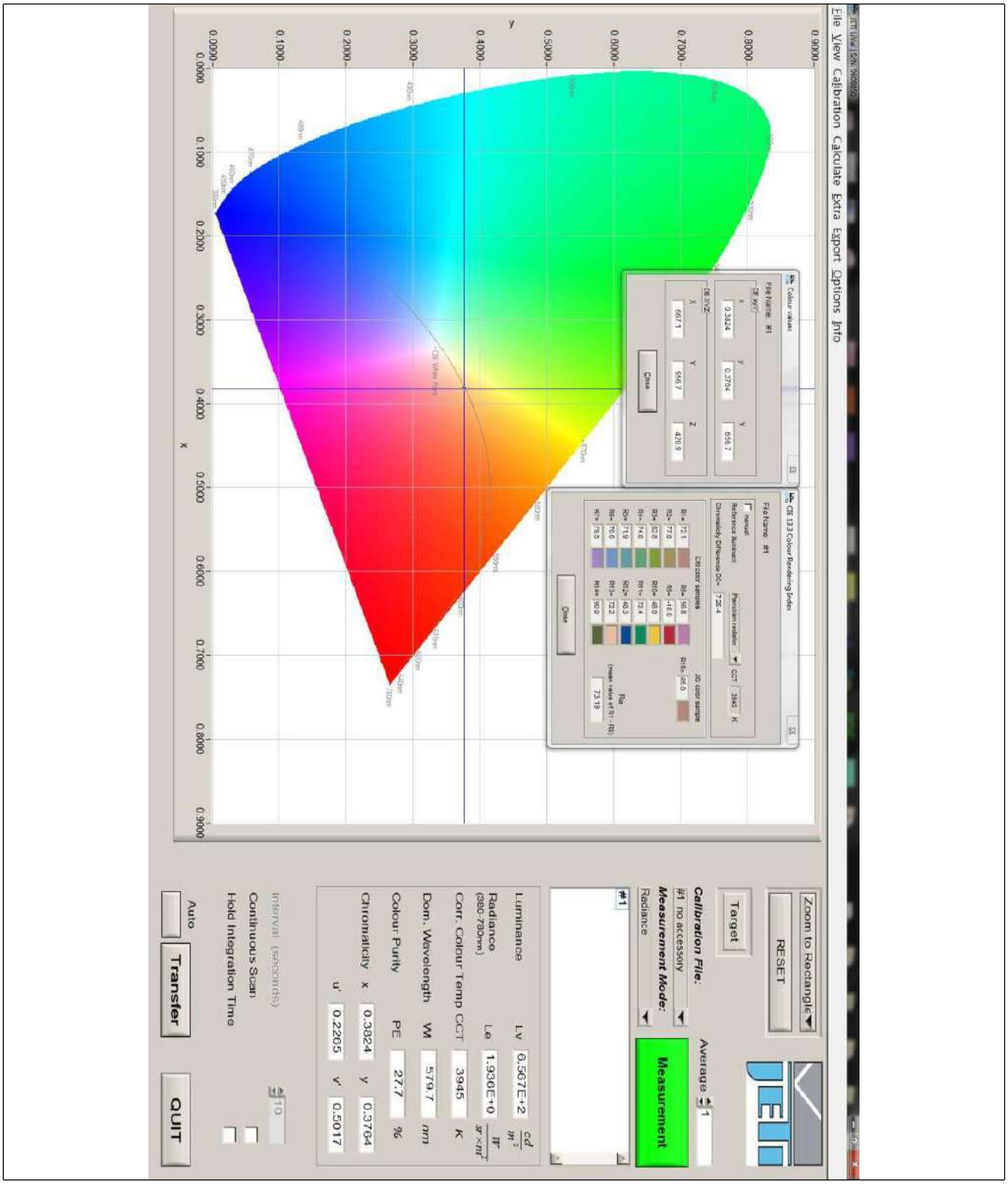
NBN EN ISO/IEC 17025 : 2005

Approved by :

Colorimetry

226 - TEST

NBN EN ISO/IEC 17025 : 2005



RTECH-PHOTOMETRY LABORATORY

Testreport : Measurement of luminous intensity distribution related to the standard NBN-EN 13032-1; CIE 121-1996; 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.

LED

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source

Type	BIN	Trademark	Reference	# LEDs	Reflector
LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Master Reflector

Gaggione Led assembly Road lighting Assembled 0,0° No 5178

Protector Refractor Lens

Protector Without protector

Lens Gaggione 5178 PC

Laboratory observation

Axia 2.1 with 24 Nichia NVSL219CT
Mounting screws tightened : 1.5Nm
Used flux for efficiency matrix calculation = 4006lm - CCT = 3945K - CRI = 73,19 (see sphere test report 2015/1424 on appendix)

Purpose	Sample date	Sample #
DOC	30/09/2015	35R264

Observation

Axia 2.1 with lenses 5178

Flux coefficient multiplicator (only for efficiency matrix):
From 350 to 500 mA : 1,373
From 350 to 700 mA : 1,825
From 350 to 1000 mA : 2,428

Fixture powered with driver OSRAM optotronic OT60/120-240/1A0 4DIMLT2E for matrix @350/500/700mA
Fixture powered with driver OSRAM optotronic OT90/120-240/1A0 4DIMLT2E for matrix @1000mA

Asked by	Measured by	Approved by	Appendix		
PVN	CLD	LME	1	226-TEST NBN EN ISO/IEC 17025 : 2005	38342

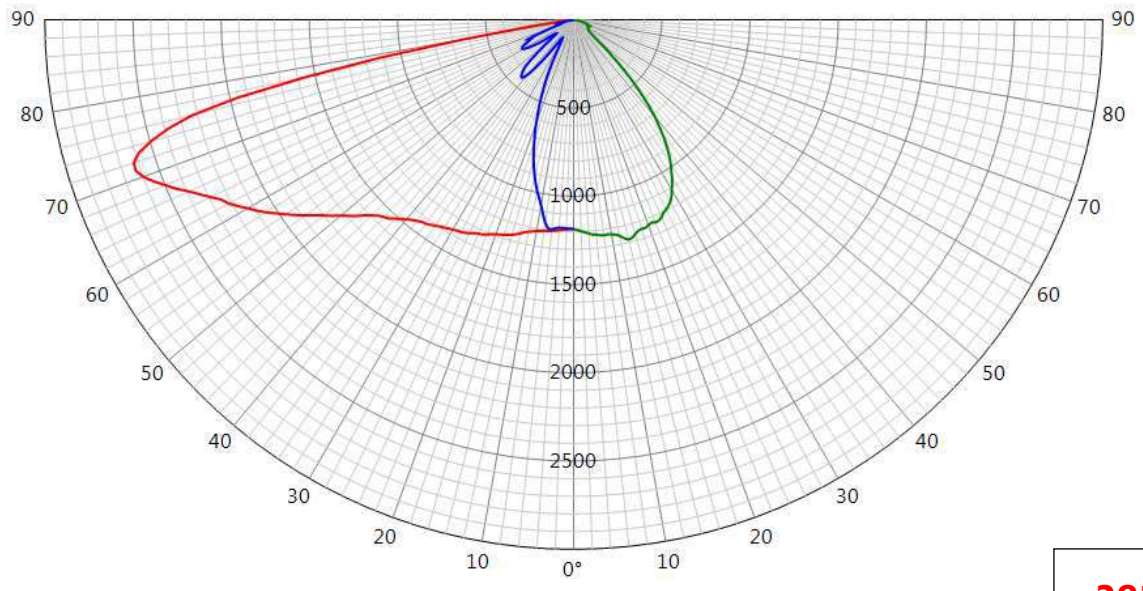
LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Reflector	Gaggione Led assembly Road lighting Assembled 0,0°	No	5178
Matrices	**383421** Φ 0-90° = 3620lm - 90-180° = 0lm		Absolute measurement
Protector Refractor Lens	Protector Without protector Lens 24 x Gaggione 5178 PC		
Observation	Matrix in total flux @350 mA Electrical measurement on LED (#1) : Voltage = 67,43 V Current = 0,350 A Power = 23,63 W Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,128 A Power = 27,80 W PF = 0,942 **Total luminaire power = 27,80 W : Lm/Watt = 130,21 lm/W** Driver #1 : See observations for driver details - Pcb Réf.: 00-17-504-Rev.A		

Plane	I Peak	Peak position	Index	I zero	Laboratory ambiant t°	Measurement date
10	2627	71	G	1185	25,0°	17/03/2016
90	1283	14	D			
270	1193	6	G			



38342

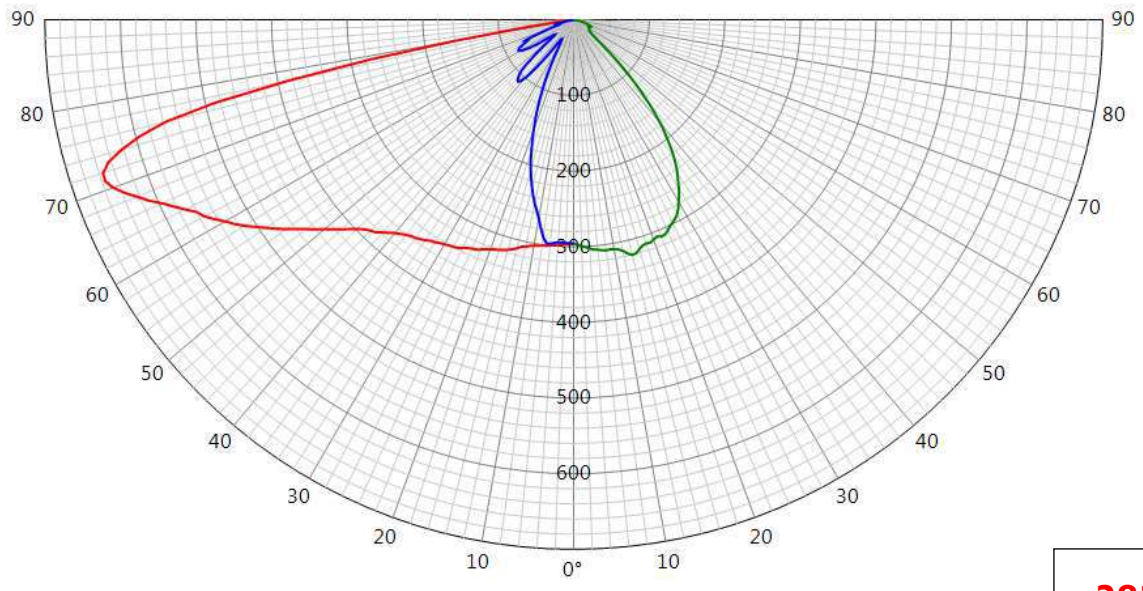
LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Reflector	Gaggione Led assembly Road lighting Assembled 0,0°	No	5178
Matrices	**383422** η 0-90° = 90,4% - 90-180° = 0,0%	Relative measurement	
Protector Refractor Lens	Protector Without protector Lens 24 x Gaggione 5178 PC		
Observation	Matrix in efficiency @350 mA Electrical measurement on LED (#1) : Voltage = 67,43 V Current = 0,350 A Power = 23,63 W Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,128 A Power = 27,80 W PF = 0,942 **Total luminaire power = 27,80 W** Driver #1 : See observations for driver details - Pcb Réf.: 00-17-504-Rev.A		

Plane	I Peak	Peak position	Index	I zero	Laboratory ambiant t°	Measurement date
10	656	71	G	296	25,0°	17/03/2016
90	320	14	D			
270	298	6	G			



38342

LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Reflector	Gaggione Led assembly Road lighting Assembled 0,0°	No	5178
Matrices	**383423** Φ 0-90° = 4970lm - 90-180° = 0lm		Absolute measurement
Protector Refractor Lens	Protector Without protector Lens 24 x Gaggione 5178 PC		

Observation

Matrix in total flux @500 mA

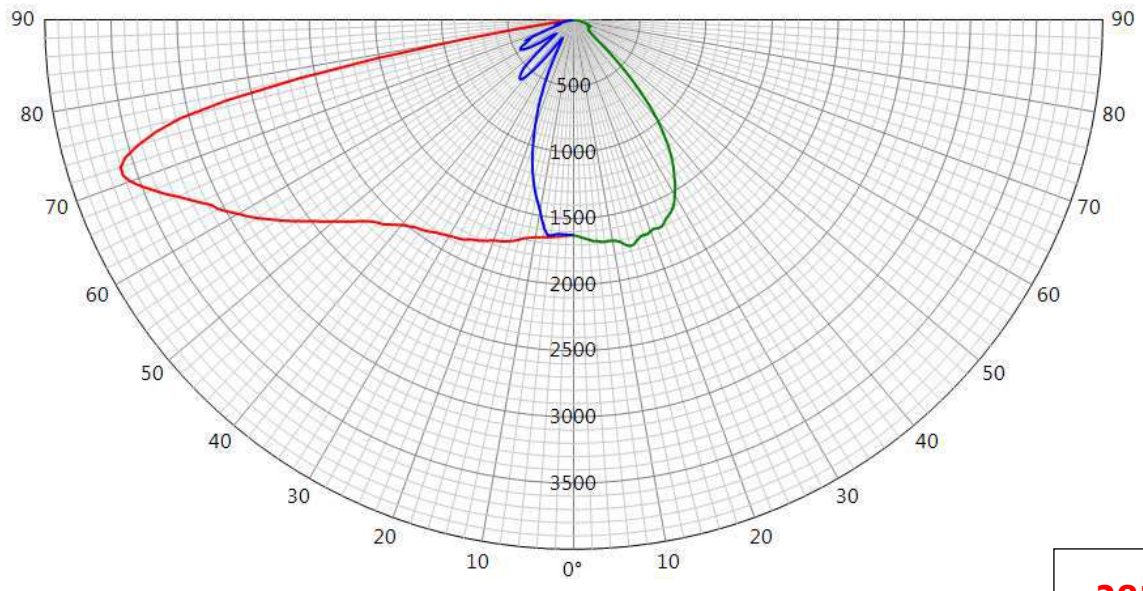
Electrical measurement on LED (#1) : Voltage = 68,59 V Current = 0,500 A Power = 34,26 W

Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,175 A Power = 38,85 W PF = 0,965

Total luminaire power = 38,85 W : Lm/Watt = 127,93 lm/W

Driver #1 : See observations for driver details - Pcb Réf.: 00-17-504-Rev.A

Plane	I Peak	Peak position	Index	I zero	Laboratory ambiant t°	Measurement date
10	3607	71	G	1627	25,0°	17/03/2016
90	1762	14	D			
270	1638	6	G			



38342

LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Reflector	Gaggione Led assembly Road lighting Assembled 0,0°	No	5178
Matrices	**383424** Φ 0-90° = 6606lm - 90-180° = 0lm		Absolute measurement
Protector Refractor Lens	Protector Without protector Lens 24 x Gaggione 5178 PC		

Observation

Matrix in total flux @700 mA

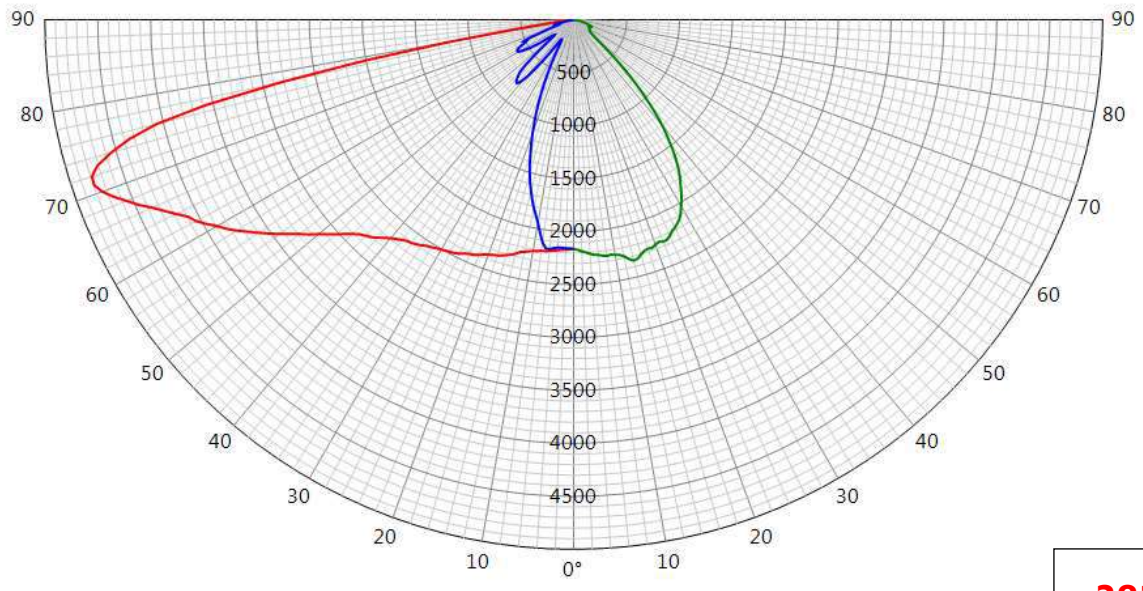
Electrical measurement on LED (#1) : Voltage = 69,88 V Current = 0,700 A Power = 48,96 W

Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,240 A Power = 54,30 W PF = 0,984

Total luminaire power = 54,30 W : Lm/Watt = 121,66 lm/W

Driver #1 : See observations for driver details - Pcb Réf.: 00-17-504-Rev.A

Plane	I Peak	Peak position	Index	I zero	Laboratory ambiant t°	Measurement date
10	4794	71	G	2162	25,0°	17/03/2016
90	2341	14	D			
270	2177	6	G			



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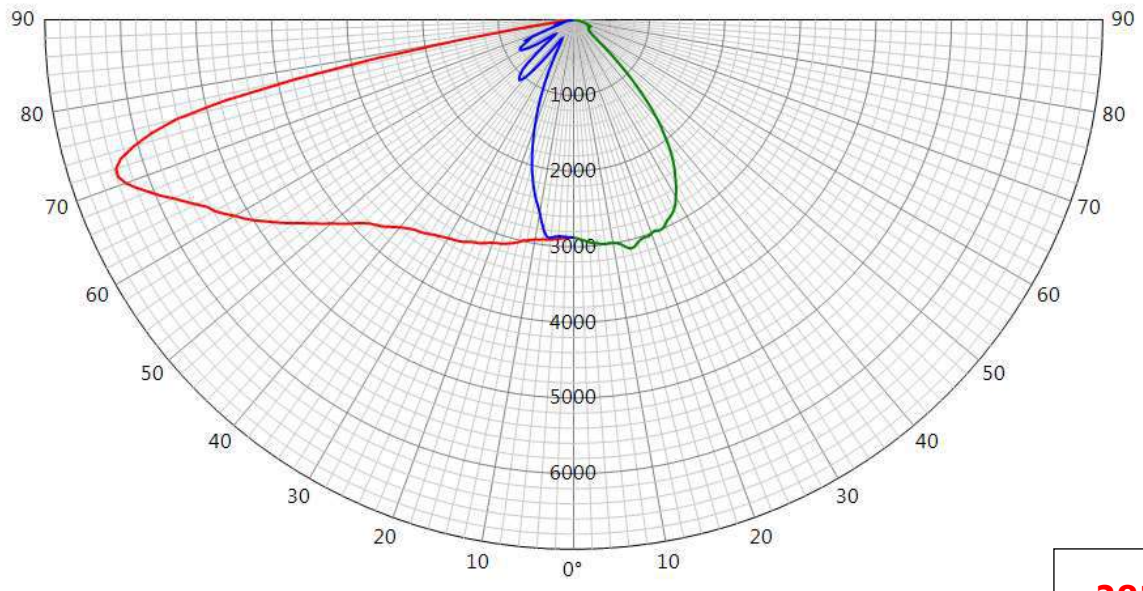
LUMINOUS INTENSITY DIAGRAM

Origin	Production	Luminaire	Request #
Socelec SA	Socelec SA	AXIA 2.1	FD36045

Source	Type	BIN	Trademark	Reference	# LEDs	Reflector
	LED	SM405D300R70	Nichia	NVSL219CT	24	5178

Reflector	Gaggione Led assembly Road lighting Assembled 0,0°	No	5178
Matrices	**383425** Φ 0-90° = 8789lm - 90-180° = 0lm		Absolute measurement
Protector Refractor Lens	Protector Without protector Lens 24 x Gaggione 5178 PC		
Observation	Matrix in total flux @1000 mA Electrical measurement on LED (#1) : Voltage = 71,36 V Current = 1,000 A Power = 71,36 W Electrical measurement on driver (#1) : Voltage = 230,00 V Current = 0,350 A Power = 78,60 W PF = 0,974 **Total luminaire power = 78,60 W : Lm/Watt = 111,82 lm/W** Driver #1 : See observations for driver details - Pcb Réf.: 00-17-504-Rev.A		

Plane	I Peak	Peak position	Index	I zero	Laboratory ambiant t°	Measurement date
10	6378	71	G	2877	25,0°	17/03/2016
90	3115	14	D			
270	2897	6	G			



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CONFORMITY STATEMENT

Measurement fulfil Standards:

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

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 measurment, If not specified:

- Primary values are AC with 50Htz frequency
- Secondary values on SSL are DC

CCT, CRI and chromaticity coordinates: are Measured on sphere.
if specified Main test report refer to sphere extra test report.

Light distribution : are measured on gonio.

Number of hours operated prior to measurement: If no other specified, 0 hours (no aging)

Stabilization time: If no other specified, a minimal stabilization time of 1 hour is applied.

Total operating time of the product including stabilization:
45 minutes have to be added by measurement.
Minimal operating time is 105 minutes

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

Statement of uncertainties (K=2 95% of confidence level):

Intensity measurement: +/- 3%
Angle: +/- 0.5°
Flux: +/- 2.5%
Electrical DC
Power: +/- 0.25%
Voltage: +/- 0.1%
Current: +/- 0.2%
Electrical AC
Power: +/- 0.1%

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Voltage: +/- 0.1%
Current: +/- 0.4%
Temperature: +/- 1.5%
CCT: +/- 5%
CRI: +/- 2%
x/y: +/- 2%

Measuring instruments in use:

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

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

Thermometers
Voltcraft K101 (Sphere IS2000)
LMT U1000 (Sphere LMT)
Gossen digem f96x48 CK/EK (gonio)
Calibration: traceable to PTB (Physikalisch-Technische Bundesanstalt)

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