DECLARAȚIE DE CONFORMITATE

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, în calitate de furnizori de aparate de iluminat marca SCHRÉDER

Declarăm pe propria răspundere că aparatul de iluminat: **VOLTANA 0**

Versiune: max. 8 LED-uri
Clasă electrică: I sau II
Balast: electronic
Tensiune nominală: 230V / 50Hz
Caracteristici: Max. 1000mA
Etanşeitate compartiment optic: IP 66
Etanşeitate compartiment aparataj: IP 66

Cu condiția ca acesta să fie instalat, întreținut și utilizat în conformtate cu standardele de instalare și instrucțiunile producătorului. Este în conformitate cu urmatoarele directive sau standarde:

- EN 60598-1 (2015)
- EN 60598-2-1 (1979)
- EN 60598-2-3 (2003 + A1 2011)
- EN 61547 (2009)
- EN 61347 (2015)
- EN 55015 (2013)
- EN 61000-3-2 (2014) & 3-3 (2013)
- EN 62471 (2008)
- EN 62493 (2010)
- Directiva 2014/30/EU
- Directiva 2014/35/EU
- Directiva 2009/125/EC
- Directiva 2012/19/EU
- Directiva 2003/108/EC
- Directiva RoHS 2011/65/EU (RoHS 2)
- R.D. 1890/2008, 14 Noiembrie
- R.D. 154/1.995, 3 Februarie
- R.D. 842/2002, 2 August

SCHRÉDER ROMANIA S.R.L.
Director General,

Alexandru SIRCA

Digitally signed by Rotari Dmitrii
Date: 2020.07.17 19:01:02 EEST
Reason: MoldSign Signature
Location: Moldova

Eliberat,
Martie 2019, Cluj-Napoca

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_52.xml**

LEDs

Trademark : **Samsung**

Entry number : **39R004-2**

Type : **LH351C**

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

Flux : **0** lm/LED

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

Part number : **Unknown**

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

Number of LEDs : **6**

Lenses

Trademark : **None**

Type : **None**

Power & Print

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

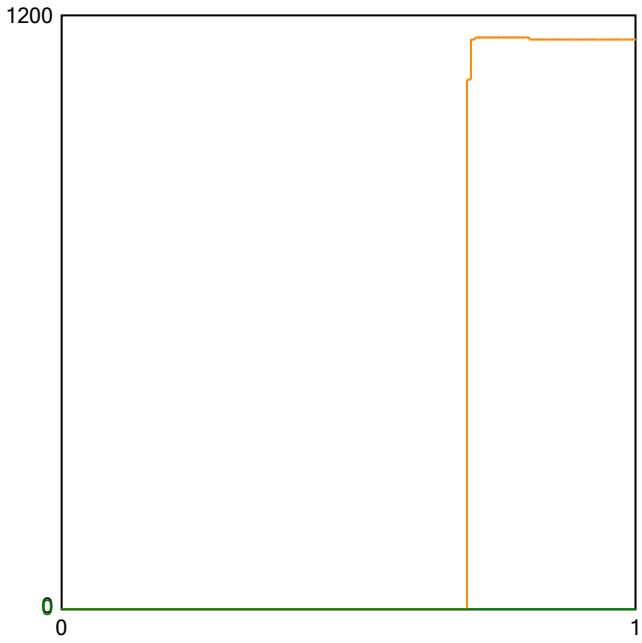
Print description : **00-71-626 A - Voltana 0**

Active ☐

Picture

Sphere photometric measurement

Maximum flux : **1157** lumens



Operating condition

Position in sphere :

Ambient sphere T ° : **24,6**

Electrical measurement

- Secondary electrical measurement

Voltage :	**16,93**	V
Current :	**0,350**	A
Power :	**5,92**	Watt

→ LEDs light efficiency at 25° :

	195,4	lm/W
	192,9	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°/350mA - pcb Voltana 0 - 6 Samsung LH351C - pcb N°2

Comment :

FORM-L-41 ED1 REV 2

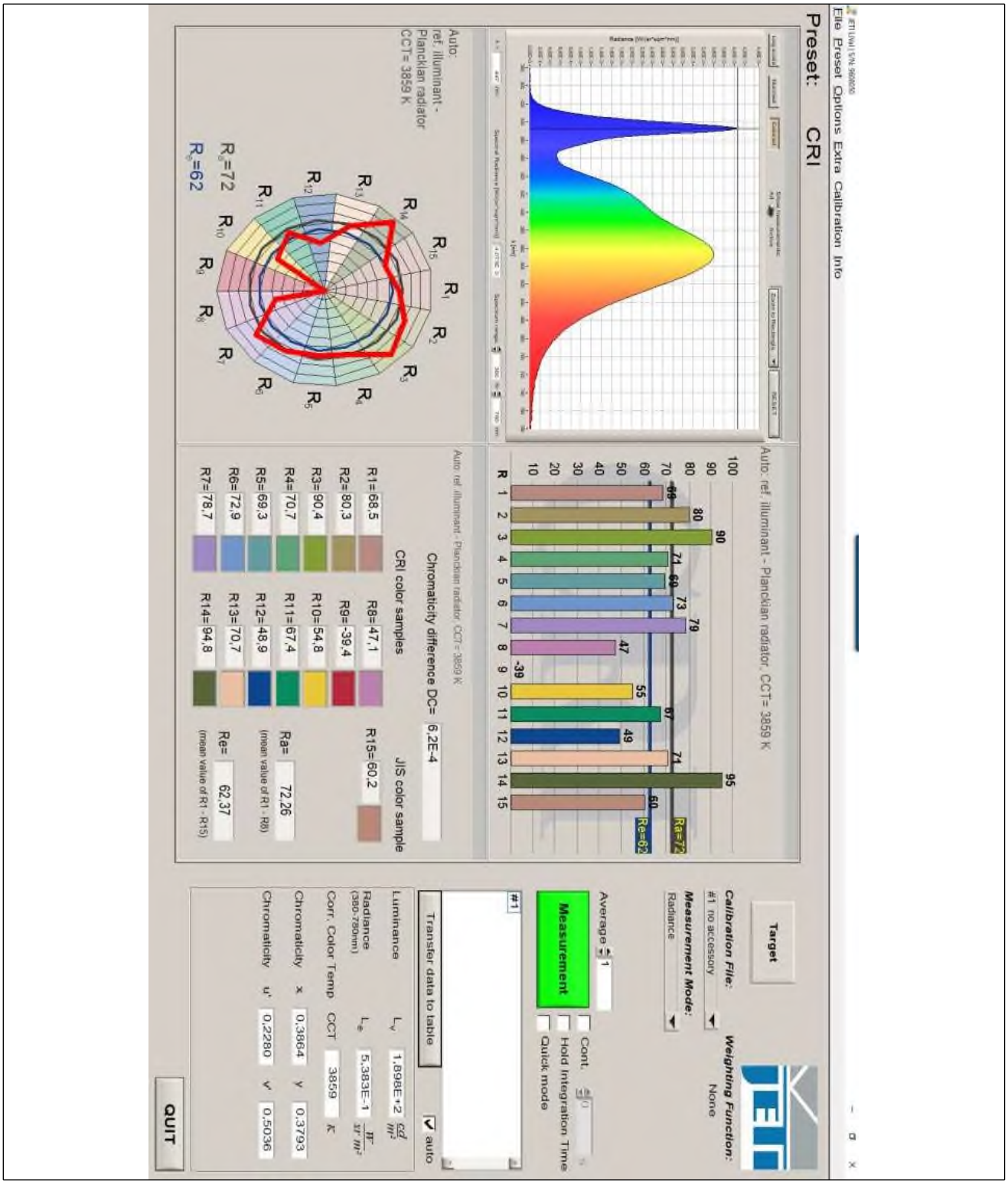
226 - TEST

Approved by :

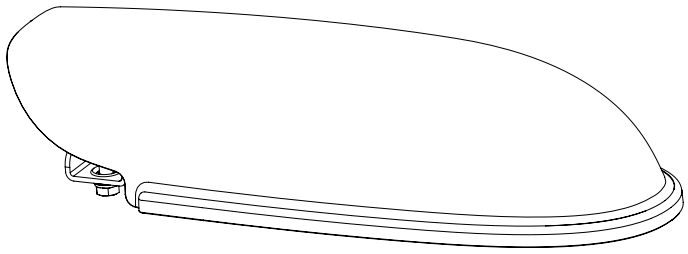
Colorimetry

226 - TEST

NBN EN ISO/IEC 17025 : 2005



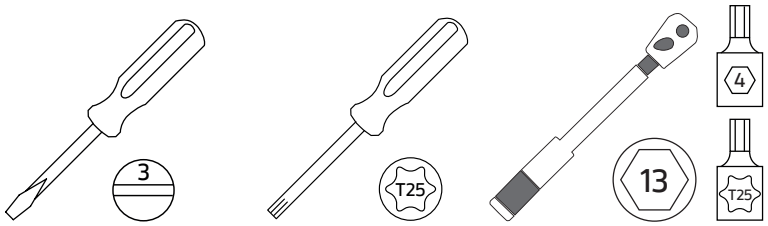
Schréder

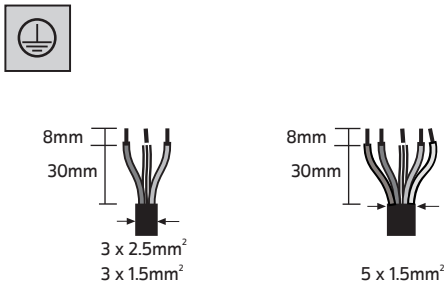


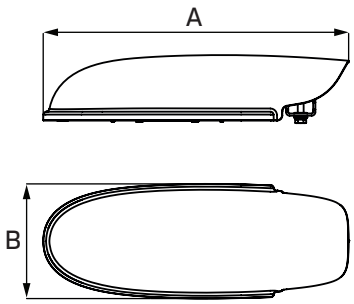
VOLTANA 0

Installation instructions

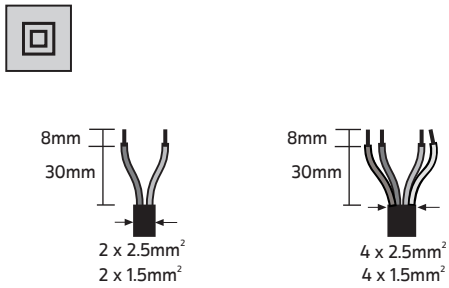
PLUS EN 02	CE			IEC EN60598				4-8m	350-1250mA 8-38W	220-240V 50/60Hz	IP 66 / IK 08







	Voltana0
A	416mm
B	156mm
C	91mm
	2.6kg
CxS	0.012m²



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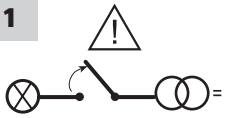

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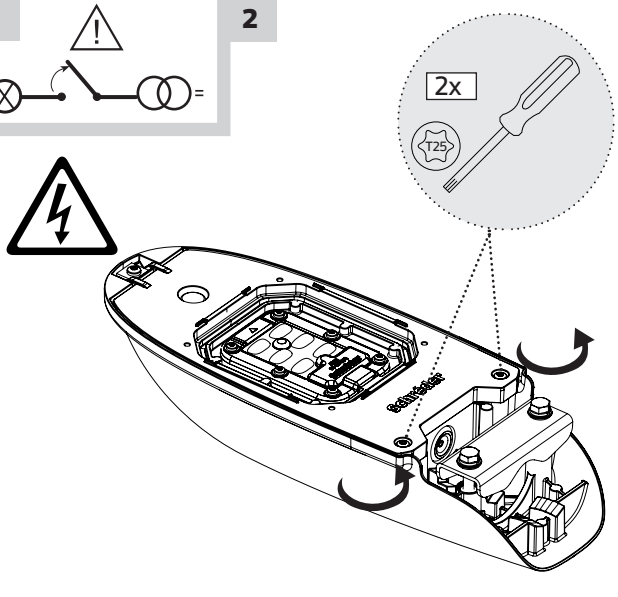

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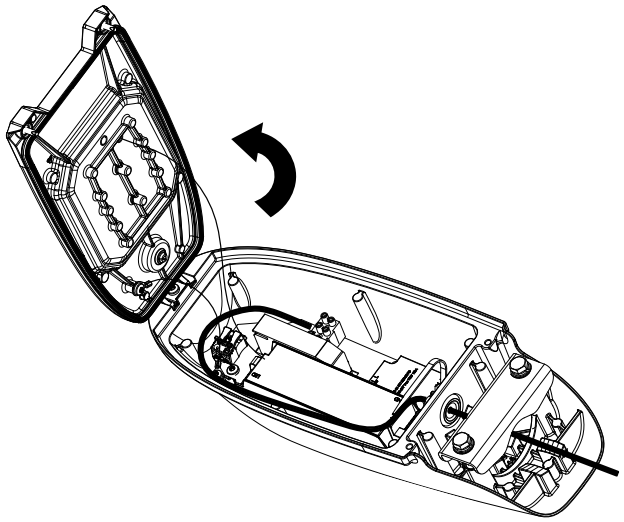
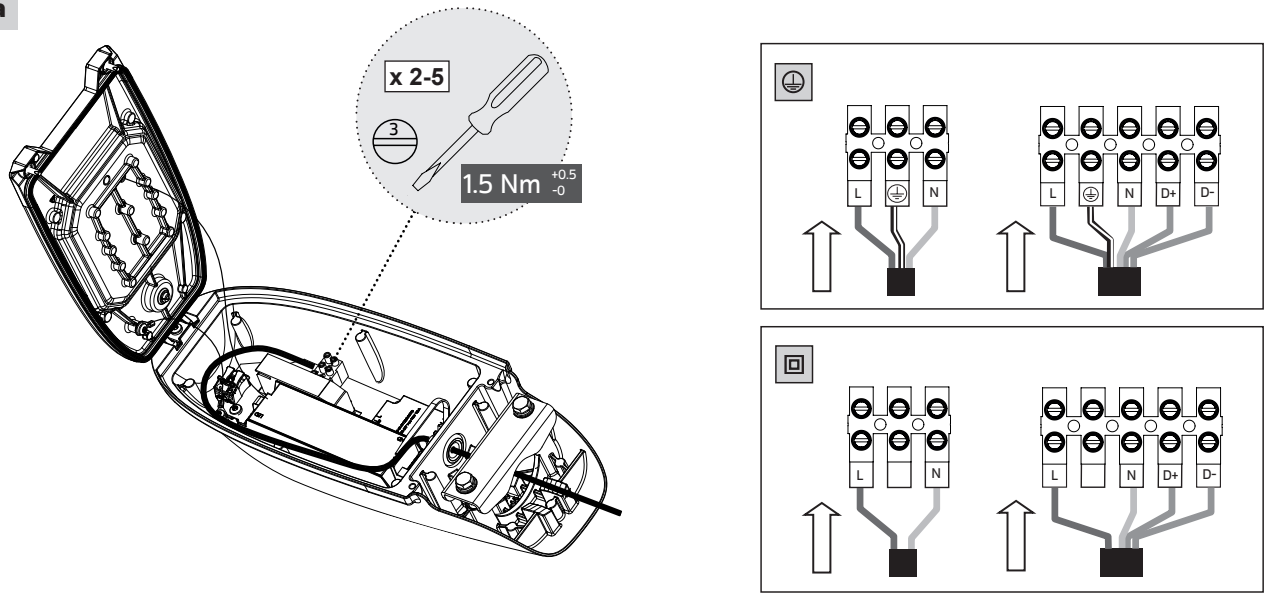
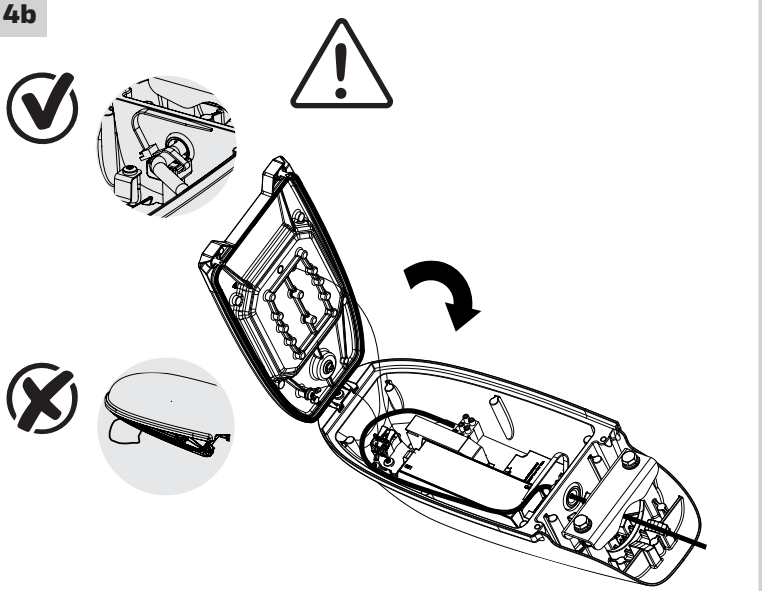


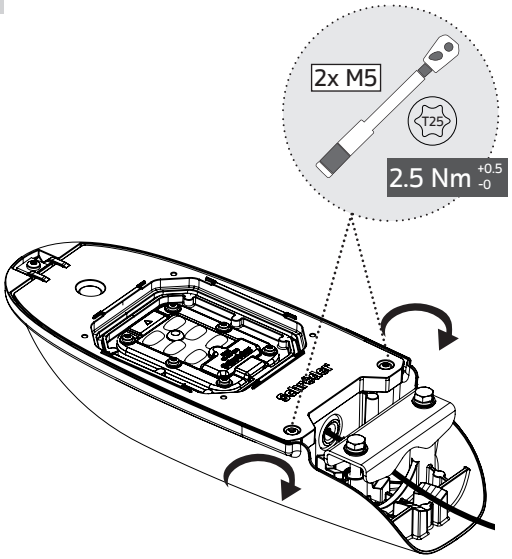
4a



4b



4c



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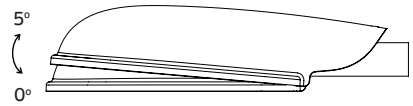
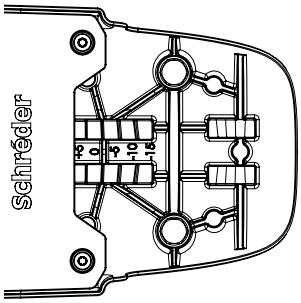
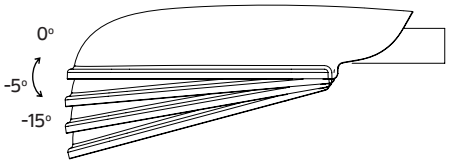
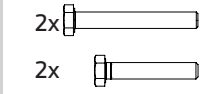
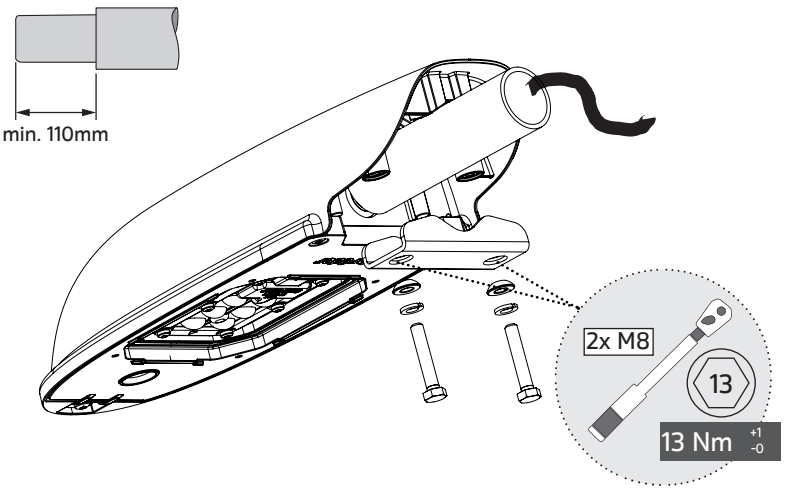


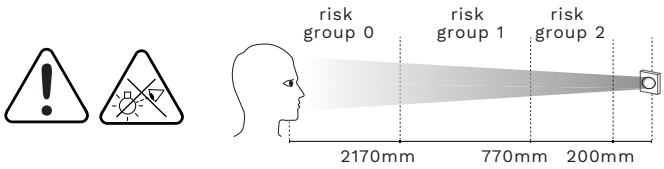






	Ø42	Ø48	Ø60
-10°	M8 x 45		M8 x 70
-5°			
0°			
+5°			





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 0.77m 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 0.77m.

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 0.77meter 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 0.77m, 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 0.77m 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 0.77m.

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 0.77м.

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 deține calificări similare.

Opriți întotdeauna alimentarea electrică înainte de lucrările de instalare, întreținere sau reparații.

GRUP DE RISC 2 - ATENȚIE! Este posibil ca acest produs să emită radiații optice periculoase. Nu priviți direct înspre lampa aflată în stare de funcționare. Acest lucru poate fi dăunător ochilor. Aparatul de iluminat trebuie să fie poziționat astfel încât să nu fie posibil, în mod normal, privitul directă înspre lampă, la o distanță mai mică de 0.77m.

În cazul cablului de alimentare cu izolație din PVC, instalatorul TREBUIE să se asigure că TOT cablul este protejat împotriva condițiilor climatice, mai ales împotriva razelor UV și a ploii, asigurându-se că acest cablu este plasat în interiorul aparatului de iluminat și 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 0.77m.

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 0.77m 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 0.77m.

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 0.77m 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 0.77m-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0.77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 безпекі
Джерело світла, що міститься у цьому світильнику, повинен замінятн 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 0.77м.

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 0.77m.

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 0.77 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.

15/04/2020

Lumen maintenance report

LED information

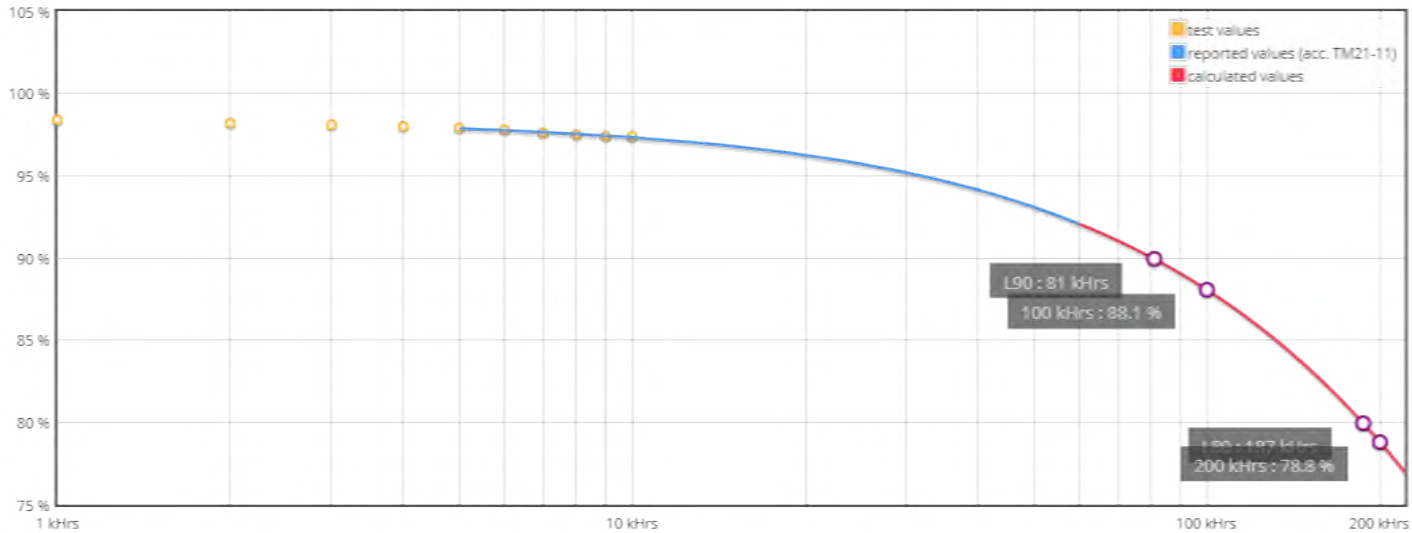
LED type	LH351C
LED current	1000 mA
Ts	55°C
Description	SLED-17-017 ISSUE Revision 1

Projection data

Test duration	10000 hrs	**α**	1.112E-006
Time used for projection	5000 to 10000hrs	**β**	0.984

L (%)	Time (kHrs)
78.8	200
80.0	186
88.1	100
90.0	80

Projection graphic



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

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

LICENCE

No. 20254 replaces No.20142

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, street, flood lighting
Trade name(s)	:	SCHREDER
Type(s)/model(s)	:	VOLTANA0 6 LED xx, VOLTANA0 8 LED xx

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: 15/03/2017

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, street, flood lighting
Trade name(s)	:	SCHREDER
Type(s)/Model(s)	:	VOLTANA0 6 LED xx, VOLTANA0 8 LED xx
description	:	Street lighting
rated voltage (Un)	:	200-240 V
rated frequency	:	50-60 Hz
class	:	class I
degree of protection	:	IP66
additional information	:	IK08
rated output current (In out)	:	max. 1050 mA

Additional information

xx = Color Temperature can be :
NW neutral white
CW cool white
WW warm white

Product data - type VOLTANA0 6 LED xx

rated power	:	8-10-15-23 W
lamp(s)	:	6 LED
temperature class	:	Ta max.50°C

Product data - type VOLTANA0 8 LED xx

rated power	:	11-14-20-31 W
lamp(s)	:	8 LED
temperature class	:	Ta max. 40°C

TESTS

Test requirements

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

Test results

The test results are laid down in test report(s) ref. P-1560-Ia

Remarks

This certificate is based on test reports Nos. P1560-Ia

Conclusion

The examination proved that all test requirements were met.

Checked by, project leader : Christian Maes - 15/03/2017

Department Manager, Product Certification :

Certification Manager : 2017-03-15

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)

Schréder do Brasil Iluminação Ltda.
Rua Iracema Lucas, 415
Distrito Industrial Vinhedo
13280-000 SAO PAULO
Brazil

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

Tungsram-Schréder Világitási Berendezések Zrt
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: **VOLTANA-0 / 6 led's / Moons PU025H105AQ 0-10V driver**
Sample n°: P-E16371, P-E16375

Test purpose: **Electrical measurements @ 1.05A**

Remarks:
Test request n°: P-D16542
Folder n°: P-F16041

TEST CONDITIONS:

Operator: CLOSSET Frédérick

Load: 6 Led's
Typical Vf: 3,1 V

Driver: Moon's PU025H105AQ_0-10V Series

Power supply: Elgar ET3500 230V 50Hz

Measurement device: Fluke Norma 4000 HF power meter

CONCLUSIONS:

PF: 0.97

Efficiency: 82.1 %

THD: 9.1 %

Harmonics we are under the 25W => no measurements

Duplicate to: Mr M. Thijs
LAB 05/10/2016
L. Maghe

//P-16CR542

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: **VOLTANA-0 8 led's class II PHILIPS driver 40 W**
Sample n°: P-E17149

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

Remarks:
Test request n°: P-D17187
Folder n°: P-F16041

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	
EN 61000-3-2	Class C a)	X	

Immunity

Standard	Limit / Level	Result	
		PASS	FAIL
EN 61000-4-2	4 kV at contact 2, 4 & 8 kV in the air Criteria B required	X	
EN 61000-4-3	3 V/m 80 MHz – 1 GHz AM 80 % 1 kHz Criteria A required	X	
EN 61000-4-4	1 kV 5 kHz Criteria B required	X	
EN 61000-4-5	0.5 & 1 kV MD Criteria C required	X	
EN 61000-4-5	Complementary levels 2, 4, 8 & 10 in MD Criteria C required	X	
EN 61000-4-6	3 V 150 kHz – 80 MHz AM 80 % 1 kHz Criteria A required	X	
EN 61000-4-11	0% U 0.5 period 70% U 10 periods Criteria B/C required	X	

VOLTANA-0 8 led's class II PHILIPS driver 40 W

Driver: Philips FP 40W 0.3-1A

EMC Auxiliaries: Varistors

CONCLUSIONS:

VOLTANA 0 8 led's driven by PHILIPS FP 40 W driver complies with the CISPR/EN 55015 and EN 61547 Standards.

Remark: Surge protection tested OK up to 10 KV for Differential mode for the equipment with eventual Fuse replacement.

Duplicate to: Mr Ph. Verbeeck
LAB 24/04/2014 //P-17CR187
G. Cheuvart

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: **VOLTANA-0 with Glass protector**
Sample n°: P-E16420

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

Remarks:
Test request n°: P-D16604
Folder n°: P-F16041

TEST CONDITIONS:

Operator: BOMBIL Patrick

Glass thickness: 5 mm

At pendulum hammer
5 impact points distributed on protector surface
1 impact on clamp
One impact on each point

Test on 5 samples

Test	**Result**
IK08 : Impact energy: 5 joules Hammer weight: 1,7 kg Height of fall: 29,4 cm	OK for the 5 samples for all tested points

CONCLUSIONS:

VOLTANA 0 equipped with glass protector complies with IK08 test following IEC/EN 62262 Standard.

Duplicate to: Mr M. Thijs
LAB 07/11/2016
L. Maghe

//P-16CR604

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: **VOLTANA-0 equipped with 5205 & 5206 lenses**
Sample n°: P-E16393, P-E16460

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

Remarks:
Test request n°: P-D16655
Folder n°: P-F16041

TEST CONDITIONS:

Operator: BOMBIL Patrick

VOLTANA-0 equipped with 6 led's

At pendulum hammer
5+2 impact points distributed on lens protector surface
One impact on each point

Test on 5 samples

Test	**Result**
IK08 : Impact energy: 5 joules Hammer weight: 1,7 kg Height of fall: 29,4 cm	OK for all tested samples

CONCLUSIONS:

VOLTANA 0 equipped with 5205 & 5206 lenses complies with IK08 test following IEC/EN 62262 Standard.

Duplicate to: Mr M. Thijs
LAB 23/11/2016
L. Maghe

//P-16CR655

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: **VOLTANA 0 – 8 led's – Flat glass protector**
Sample n°: P-E16377, P-E16394

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

Remarks:
Test request n°: P-D16575
Folder n°: P-F16041

TEST CONDITIONS: Operator: BOMBIL Patrick

VOLTANA-0 8 led's with flat glass protector

Pre-conditioning: 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:

VOLTANA-0 8 led's with flat glass protector complies with IP66 test following IEC/EN 60598-1 Standard.

Duplicate to: Mr M. Thijs
LAB 21/11/2016
L. Maghe

//P-16CR575

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: **VOLTANA 0 – 6 led's NW @ 1050 mA**
Sample n°: P-E16418

Test purpose: **Photobiological safety tests following IEC-EN 62471 Standard**

Remarks:
Test request n°: P-D17045
Folder n°: P-F16041

TEST CONDITIONS:

Operator: Laborelec

VOLTANA 0 – 6 led's NW @ 1050 mA

Test program:
Spectral radiance and irradiance measurements of the device under test in the following wavelength ranges:
- 200 to 400 nm : « Actinic UV skin & eye » irradiance
- 315 to 400 nm : « Eye UV-A » irradiance
- 300 to 700 nm : « Blue Light » radiance
- 380 to 1400 nm : « Thermal Retinal » radiance
- 780 to 1400 nm : « Thermal Retinal » radiance (weak visual stimulus)

Determination of the Risk Group classification for each hazard and recommendation about the marking of the product.

CONCLUSIONS:

RG2 @ 20 cm

RG1 @ 30 cm

Duplicate to: Mr Ph. Verbeeck
LAB 08/06/2017
G. Cheuvart

//P-17CR045

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

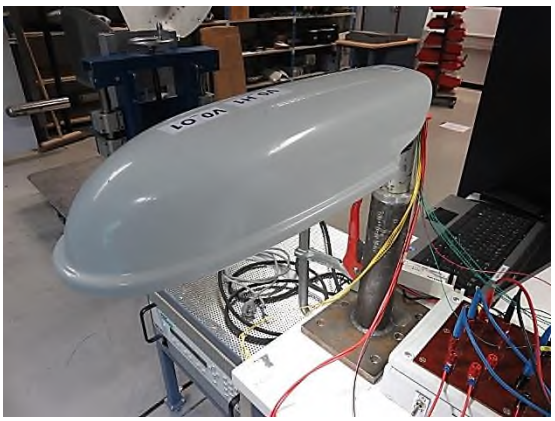
Subject: **VOLTANA-0 / 6 led's / Moons PU025H105AQ 0-10V driver**
Sample n°: P-E16371, P-E16375

Test purpose: **Thermal test @ 1050 mA following IEC/EN 60598-1 Standard**

Remarks:
Test request n°: P-D16541
Folder n°: P-F16041

TEST CONDITIONS:

Operator: CLOSSET Frédérick



Load: 6 Led's

Driver: Moon's PU025H105AQ_0-10V Series
Tc: 90°C
Working temperature: -40 ~ +60°C according
To datasheet.

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

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

Tq given for 100 khrs of lifetime
T° given without wind effect to comply with IEC 62722-2-1

Duplicate to: Mr M. Thijs
LAB 06/10/2016
L. Maghe

//P-16CR541

07/07/2020

Schréder
Experts in lightability™

VOLTANA 0

5206

Optic	5206
Protector	Integrated lenses
Source	6 Samsung LH351C
Matrix	425722

Characteristics

416	156	91	2.6	IP 66	IK 08	I EU	0.012
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 ultimate, cost-effective, performing family of luminaires that pays for itself

- Cost-effective and efficient lighting solution for a fast return on investment
- High performance with safety and comfort
- 5 sizes for flexibility
- IP 66 tightness level
- ThermiX® to withstand high temperatures
- Designed to incorporate the Owlet range of control solutions

Types of application

- Square and park
- Roundabout
- Residential road
- Urban road

Information for 1000 lm matrix

Efficacy (%)	89.9
DLOR (%)	89.9
ULOR (%)	0.0
ULR (%)	0.0
Incl ULR 4%	-45/45°

G Class (EN 13201-2)	G3
G* (EN 13201 2015)	G*3
Imax (cd)	625
Aperture 0-180°	74 - 74
Aperture 90-270°	22 - 2

I 70-80-90-95 (cd)	503 - 28 - X - X
CIE flux code N 1→5 (%)	47.4 - 81.3 - 98.6 - 100.0 - 89.9
Gradient 90°	15cd
Gradient 270°	10cd

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	350	8	1140	1025	128	712	B0 U0 G0	230
6	NW 740	500	11	1572	1413	128	982	B1 U0 G0	230
6	NW 740	700	15	2104	1891	126	1315	B1 U0 G0	230
6	NW 740	1000	22	2793	2510	114	1745	B1 U0 G1	230
6	NW 740	1050	23	2896	2602	113	1809	B1 U0 G1	230
6	WW 730	350	8	1080	971	121	675	B0 U0 G0	230
6	WW 730	500	11	1489	1338	122	930	B1 U0 G0	230
6	WW 730	700	15	1994	1792	119	1245	B1 U0 G0	230
6	WW 730	1000	22	2646	2378	108	1653	B1 U0 G1	230
6	WW 730	1050	23	2743	2465	107	1714	B1 U0 G1	230

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

Summary

CONCEPT

Family of 6 road LED luminaires

Recommended installlation height: between 4.00 and 12.00m

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
- Colour: RAL 7038

INSTALLATION

- Luminaire can be fixed by side-entry with a clamp, suitable for 42-60mm diameter
- Built-in inclination steps: -10°, -5°, 0°, 5°
- Post-top adapter diameter 48-60mm or 76mm, tightened with 2 stainless steel screws
- Direct access to the driver compartment with screws for easy maintenance on-site

OPTICAL UNIT

- Protected against lens degradation by 5mm thick extra-clear hardened glass
- Flatbed PCB with acrylic lens overlay principle
- Various photometric distributions: from narrow road to motorway, medium and large area
- CRI > 70
- ULOR: 0%

LED lumen depreciation

- Lifetime residual flux @ Tq=25°C @ 100.000 hrs: 350mA & 500mA; 90%; 700mA: 80%; 1A: 70%

ELECTRICAL

- Class I or Class II
- Input voltage: 120-277V - 50-60Hz
- Power factor > 90% at full load
- Surge protection: 4kV minimum (10kV + 10kA optional)
- Thermal protection on LED PCBA (see Thermix concept)

STANDARDS & CERTIFICATIONS

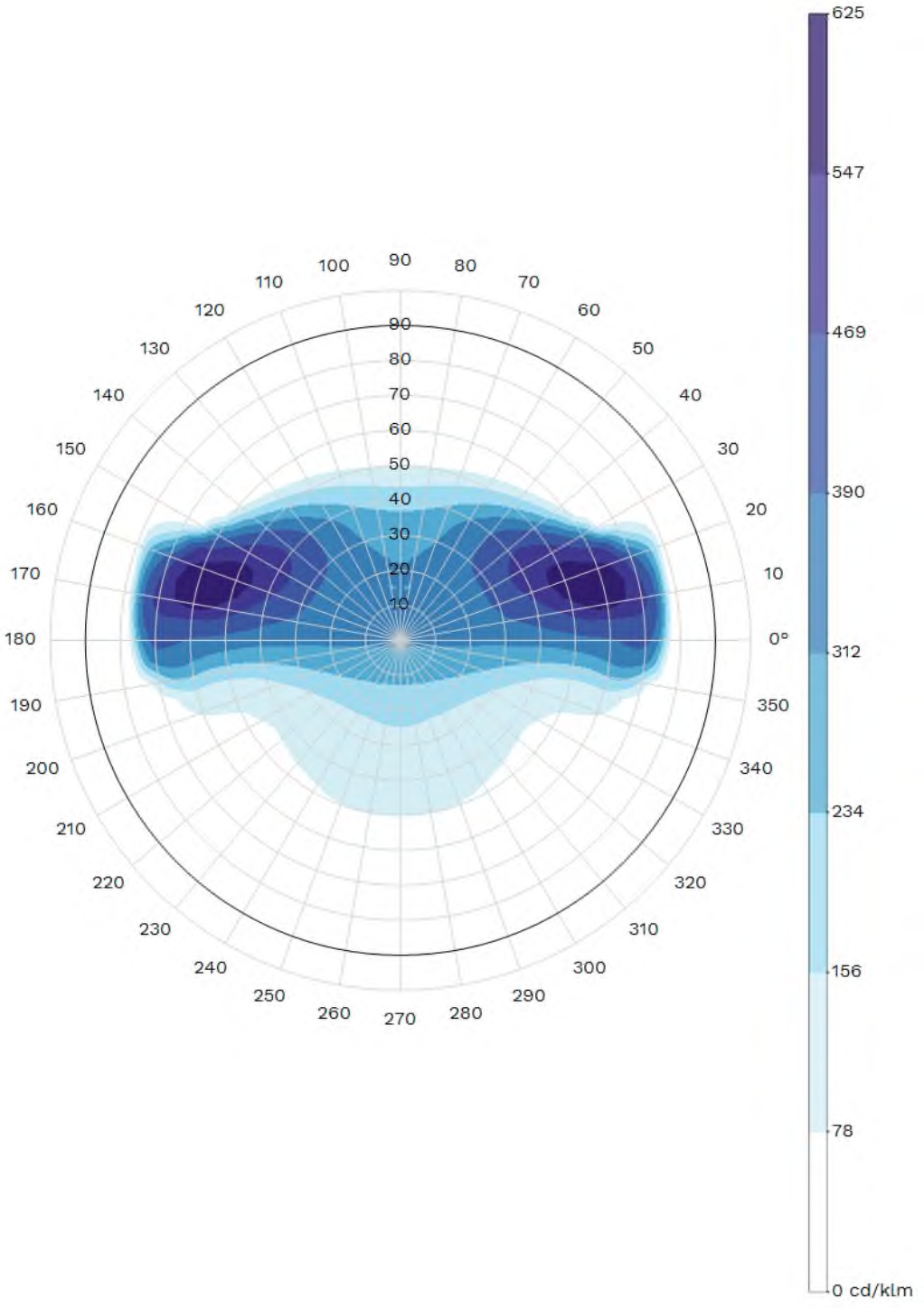
- CE
- ENEC
- LM79-80
- ROHS
- Certified for 3G vibration
- All measurements in ISO17025 accredited laboratory

OPTIONS

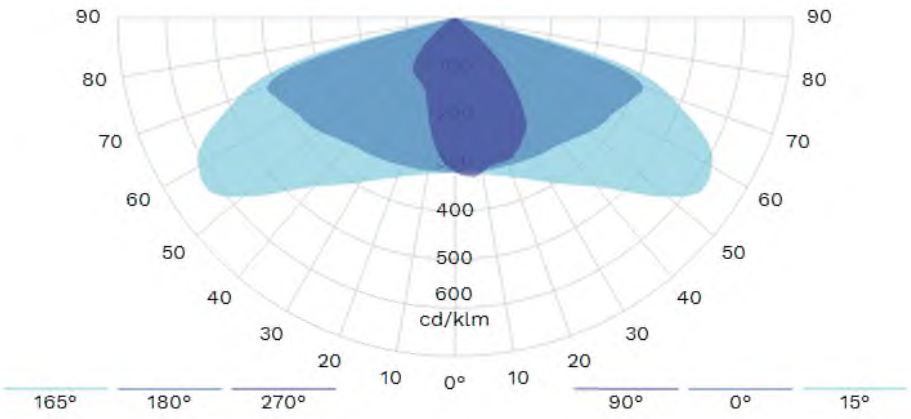
- Other RAL or AKZO colours
- Back Light control system
- OWLET remote management
- Custom dimming profile

- Photocell

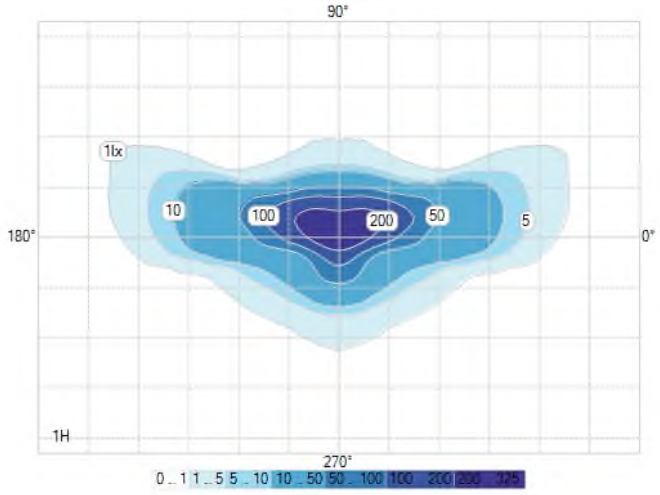
Hypergon view



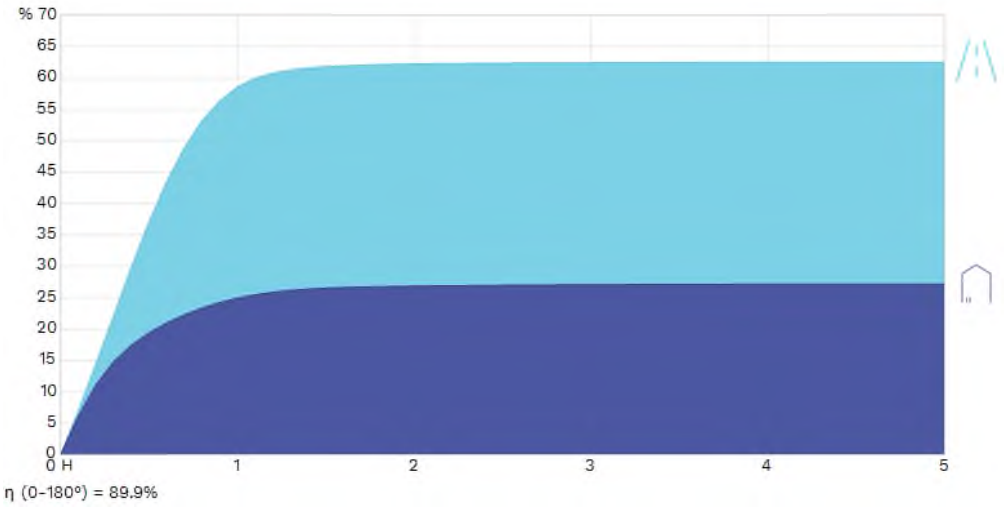
Polar/Cartesian diagram



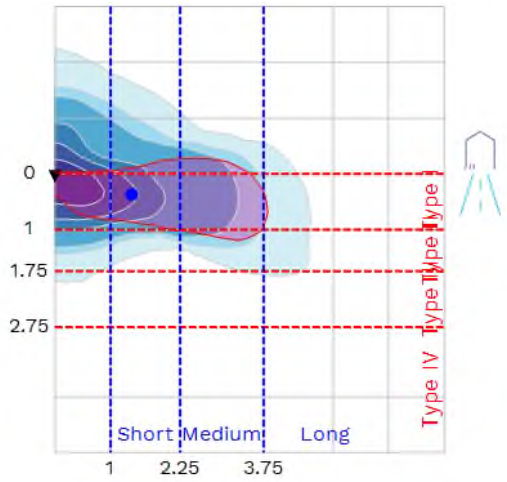
Isolux



K-Curve

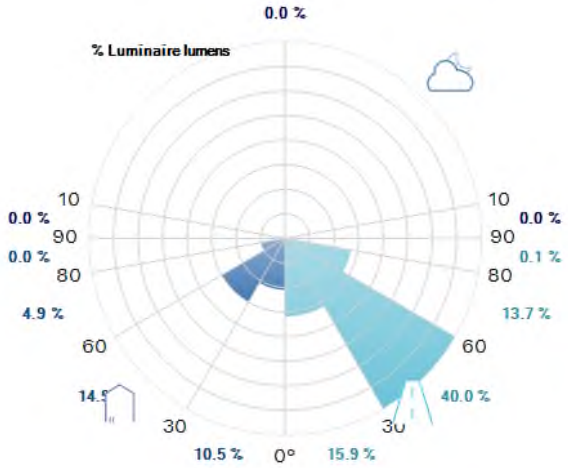


IES Roadway Classification / Nema Classification

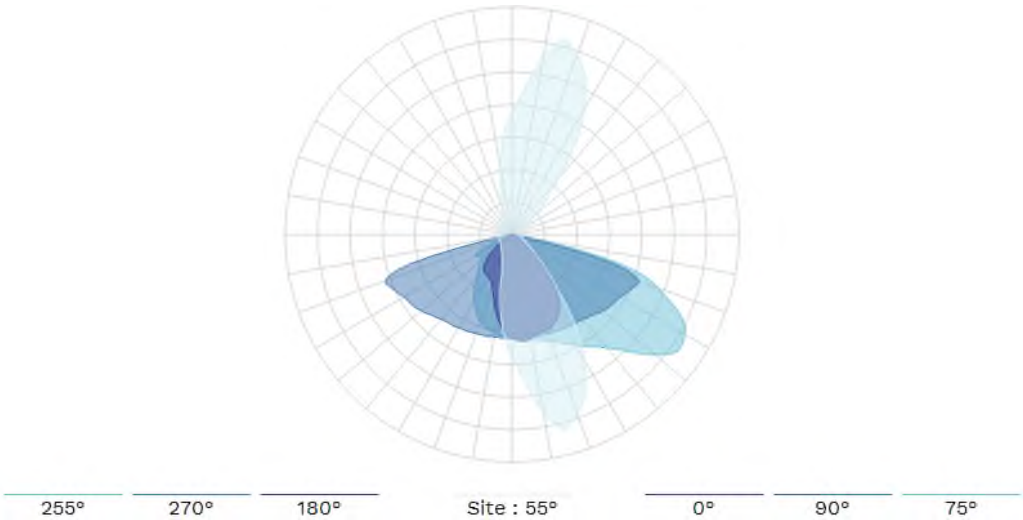


II - Short

Luminaire classification system (LCS)



Intensity diagram in max Cone and in CPlane



http://www.schreder.com

Voltana

Designer : Thomas Coulbeaut

owlet® PRO FLEX™ LENSO FLEX™ 2

The ultimate, cost-effective, performing family of luminaires that pays for itself

Voltana delivers sustainable solutions that dramatically reduce energy consumption and improve lighting levels with the lowest investment. The Voltana family is available with multiple lumen packages thanks to the various sizes, driving currents and numerous light distributions - from very narrow to extra wide - to light all rural and urban landscapes. This luminaire is designed for side-entry and post-top mounting and can be adapted on-site thanks to an incorporated inclination system to optimise the photometry. Voltana can be managed by several control systems. It can operate in a closed independent network with sensors or in a global network of a city through wireless communication.

IP 66 | IK 08

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

Voltana | SUMMARY

Concept

Voltana is composed of a high-pressure die-cast aluminium body and a fixation piece in steel with one or two fixation clamps. Voltana is equipped with LensoFlex®2 photometric engines, offering optimised photometrical performance with a minimum total cost of ownership. This highly efficient luminaire is available in five sizes to provide towns and cities with the ideal tool to improve lighting levels, generate energy savings, reduce their ecological footprint and bring aesthetic coherence.

Depending on the size of the model, Voltana incorporates different numbers of LEDs, from 6 to 32, to provide a wide range of lumen packages. This family of luminaires can be mounted using a standard side-entry clamp fixation for Ø42-60mm spigots. Thanks to an incorporated inclination system, the angle can be adjusted on-site.

As an option, universal fixation pieces are available for spigots from Ø42 to Ø76mm for post-top and side-entry mounting.

Precise on-site adjustment thanks to an incorporated inclination system

Voltana provides easy access 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
- High performance with safety and comfort
- 5 sizes for flexibility
- IP 66 tightness level
- ThermiX® to withstand high temperatures
- Designed to incorporate the Owlet range of control solutions

The Voltana range is available with a wide range of LensoFlex®2 photometries

Voltana is available with universal fixation pieces for spigots ranging from Ø42 to Ø76mm (optional)

LensoFlex®2

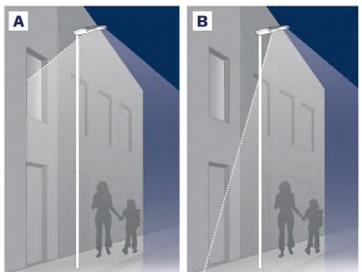
LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire.The number of LEDs in combination with the driving current determines the intensity level of the light distribution.The proven LensoFlex®2 concept includes a glass protector to seal the LEDs and lenses into the luminaire body.

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.

Back Light control

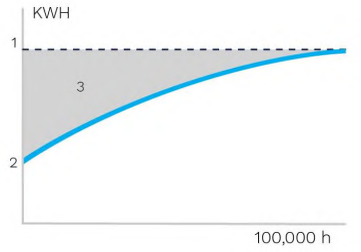
As an option, the LensoFlex®2 modules can be equipped with a Back Light control system.This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.



A. Without Back Light control | B. With Back Light control

Constant Light Output (CLO)

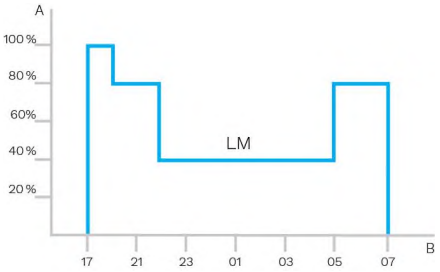
This system compensates for the depreciation of luminous flux to avoid excess lighting at the beginning of the installation's service life. Luminous depreciation over time must be taken into account to ensure a predefined lighting level during the luminaire's useful life. Without a CLO feature, this simply means increasing the initial power upon installation in order to make up for luminous depreciation. By precisely controlling the luminous flux, the energy needed to reach the required level can be maintained throughout the luminaire's life.



1. Standard lighting level | 2. LED lighting consumption with CLO | 3. Energy savings

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

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.

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.

Voltana | CHARACTERISTICS

GENERAL INFORMATION

Recommended installation height	4m to 12m | 13' to 39'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE Mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA Polycarbonate
Protector	Tempered glass Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	RAL 7038
Tightness level	IP 66
Impact resistance	IK 08
Vibration test	Compliant with ANSI C 136-31 standard, 3G load 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

· Polycarbonate (ProflexTM) protector only for 6 LED version of Voltana 0

OPERATING CONDITIONS

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

· 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 61547 / EN 61000-4-2, -3, -4, -5, -6, -8, -11
Control protocol(s)	1-10V, DALI
Control options	Bi-power, Custom dimming profile, Remote management
Socket option(s)	NEMA 7-pin (optional)
Associated control system(s)	Owlet Nightshift Owlet IoT

· 7-pin Nema socket only available for Voltana 2-3-4

OPTICAL INFORMATION

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

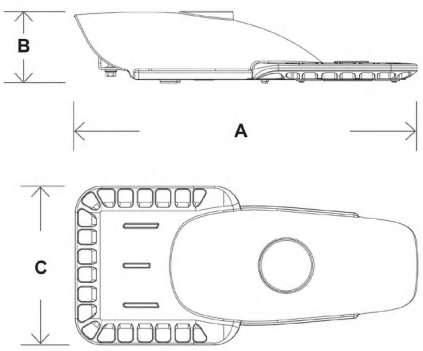
LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L80

Voltana | CHARACTERISTICS

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	VOLTANA 0 - 416x91x156 | 16.4x3.6x6.1 VOLTANA 1 - 501x87x181 | 19.7x3.4x7.1 VOLTANA 2 - 518x108.5x240 | 20.4x4.3x9.4 VOLTANA 3 - 641x111x240 | 25.2x4.4x9.4 VOLTANA 4 - 555x112x380 | 21.9x4.4x15.0 VOLTANA 5 - 705x109x480 | 27.8x4.3x18.9
Weight (kg | lbs)	VOLTANA 0 - 2.6 | 5.7 VOLTANA 1 - 3.5 | 7.7 VOLTANA 2 - 4.6 | 10.1 VOLTANA 3 - 5.6 | 12.3 VOLTANA 4 - 7.5 | 16.5 VOLTANA 5 - 12.2 | 26.8
Aerodynamic resistance (CxS)	VOLTANA 0 - 0.01 VOLTANA 1 - 0.02 VOLTANA 2 - 0.02 VOLTANA 3 - 0.02 VOLTANA 4 - 0.03 VOLTANA 5 - 0.04
Mounting possibilities	Side-entry slip-over – Ø42mm Side-entry slip-over – Ø48mm Side-entry slip-over – Ø60mm Post-top slip-over – Ø42mm Post-top slip-over – Ø48mm Post-top slip-over – Ø60mm Post-top slip-over – Ø76mm



Voltana | PERFORMANCE

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
VOLTANA 0	6	350	800	800	700	700	7.8	8	103	PRO FLEX™
	6	500	1100	1100	1000	1000	10.7	11	103	PRO FLEX™
	6	700	1400	1400	1300	1300	15	15.6	93	PRO FLEX™
	6	1000	1900	1900	1700	1700	21.9	22.5	87	PRO FLEX™
	8	350	800	1000	800	900	10	10.1	100	LENSO FLEX™2
	8	500	1100	1400	1000	1300	13.9	14.1	101	LENSO FLEX™2
	8	700	1500	1900	1400	1700	19.5	20.1	97	LENSO FLEX™2
	8	1000	2000	2400	1800	2200	29.4	30.6	82	LENSO FLEX™2

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

Voltana | PERFORMANCE

			Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	
Luminaire	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Up to	Photometry
VOLTANA 1	8	350	900	1100	800	1000	10.1	10.6	109	LENSO FLEX 2
	8	500	1200	1500	1100	1300	14.1	14.5	106	LENSO FLEX 2
	8	700	1600	1900	1400	1800	20.1	20.2	95	LENSO FLEX 2
	8	1000	2100	2500	1900	2300	29.4	30.6	85	LENSO FLEX 2

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

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
VOLTANA 2	16	350	2300	2400	2000	2100	18.9	21.7	127	LENSO FLEX 3
	16	350	1800	2200	1600	2000	18.9	19.4	116	LENSO FLEX 2
	16	500	3200	3300	2800	2900	26.7	28.8	124	LENSO FLEX 3
	16	500	2400	3000	2200	2700	27.1	28.8	111	LENSO FLEX 2
	16	700	4400	4500	3800	4000	37.4	40	120	LENSO FLEX 3
	16	700	3200	3900	2900	3500	38.3	40.5	102	LENSO FLEX 2
	16	1000	5900	6100	5200	5400	52	54	117	LENSO FLEX 3
	16	1000	4200	5100	3800	4700	58	58	88	LENSO FLEX 2

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

Voltana | PERFORMANCE

Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
			Min	Max	Min	Max	Min	Max	Up to	
VOLTANA 3	24	350	3500	3600	3100	3200	27.5	27.5	131	LENSO FLEX 3
	24	350	2700	3300	2500	3000	27.1	27.4	122	LENSO FLEX 2
	24	500	4900	5000	4300	4400	39.3	39.3	127	LENSO FLEX 3
	24	500	3600	4500	3300	4100	39.1	39.4	115	LENSO FLEX 2
	24	700	6600	6800	5800	6000	55.5	55.5	123	LENSO FLEX 3
	24	700	4800	5900	4300	5300	56	56.5	105	LENSO FLEX 2
	24	1000	9000	9200	7900	8100	79	79	116	LENSO FLEX 3
	24	1000	6100	7500	5600	6800	82	85	91	LENSO FLEX 2

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

Voltana | PERFORMANCE

			Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	
Luminaire	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Up to	Photometry
VOLTANA 4	32	350	4800	5000	4200	4300	35.7	36.6	140	LENSO FLEX 3
	32	350	3700	4500	3400	4100	35.7	36.5	126	LENSO FLEX 2
	32	500	6800	6900	5900	6100	51.5	52	134	LENSO FLEX 3
	32	500	5100	6100	4600	5500	51.5	52	118	LENSO FLEX 2
	32	700	9100	9300	8000	8200	73	73	127	LENSO FLEX 3
	32	700	6600	7900	6000	7200	74	74	107	LENSO FLEX 2
	32	1000	12400	12700	10900	11100	99	103	128	LENSO FLEX 3
	32	1000	8600	10300	7800	9400	106	111	97	LENSO FLEX 2

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

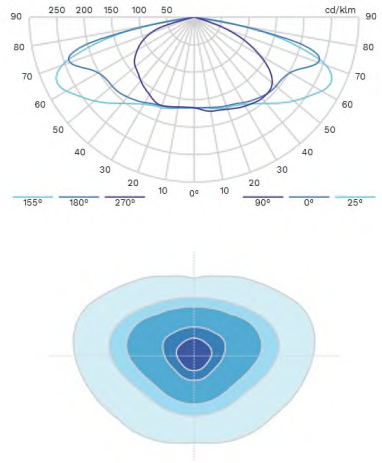
Voltana | PERFORMANCE

			Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Power consumption (W)		Luminaire efficacy (lm/W)	
Luminaire	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Up to	Photometry
VOLTANA 5	64	350	9700	9900	8500	8700	70	70	141	LENSO FLEX 3
	64	350	7500	9000	6800	8300	70	70	129	LENSO FLEX 2
	64	500	13500	13800	11800	12100	101	101	137	LENSO FLEX 3
	64	500	10100	12200	9200	11200	101	101	121	LENSO FLEX 2
	64	700	18100	18600	15900	16300	143	143	130	LENSO FLEX 3
	64	700	13100	15900	12000	14500	145	145	110	LENSO FLEX 2
	64	1000	24500	25200	21500	22100	206	206	122	LENSO FLEX 3
	64	1000	16900	20500	15400	18700	222	222	92	LENSO FLEX 2

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

LENSO FLEX 2

5068



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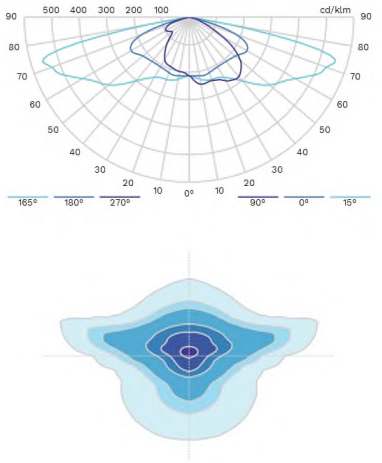
5096



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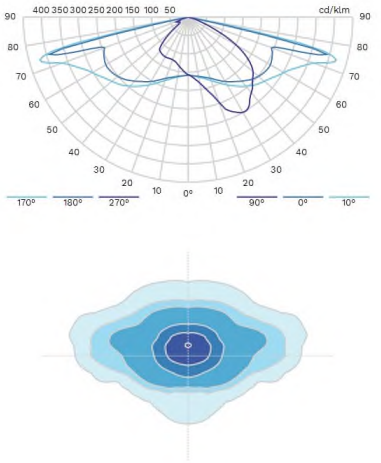

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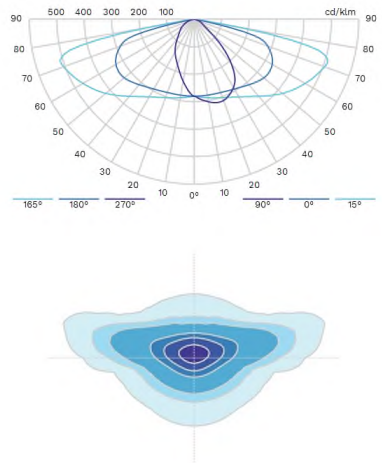

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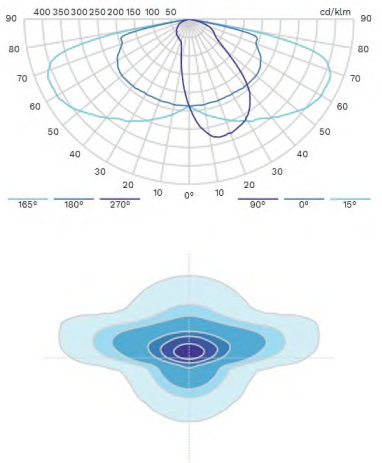
5102 - BL



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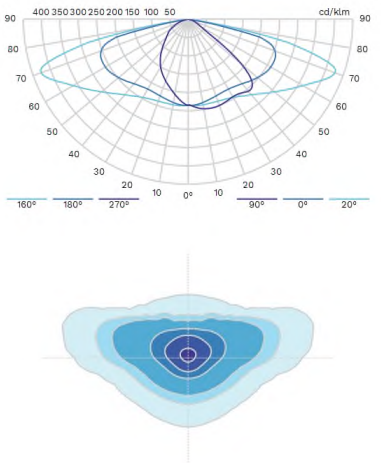

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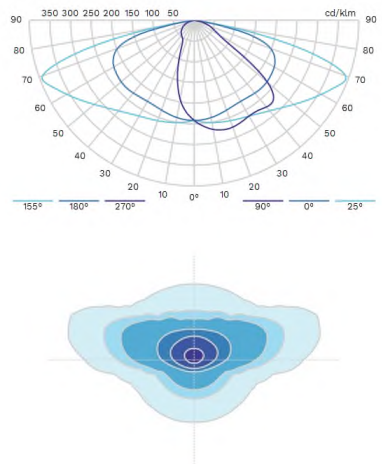

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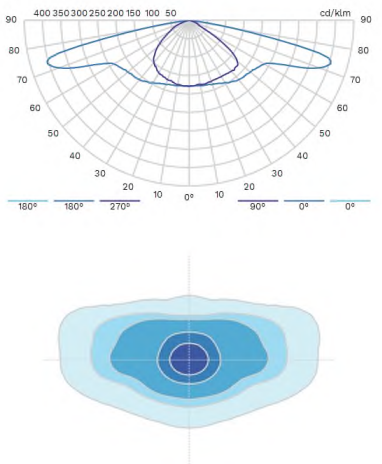
5112



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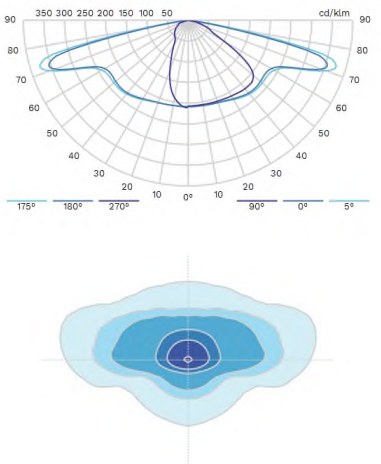
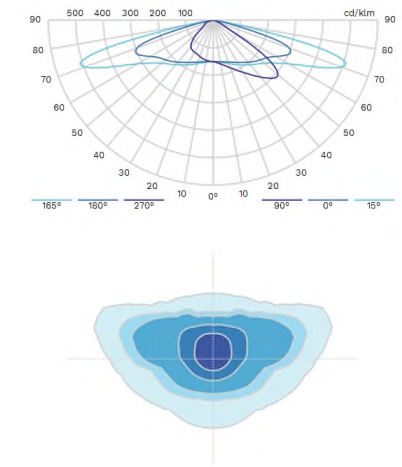
5112 - BL



LENSO FLEX 2

5117



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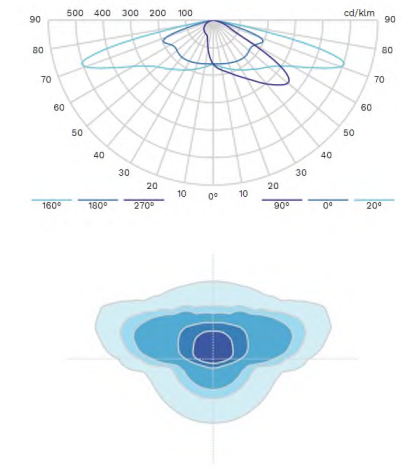
5117 - BL



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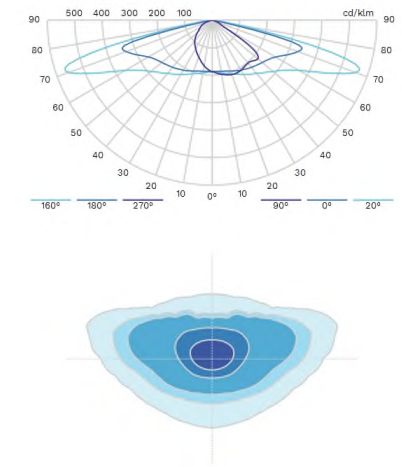

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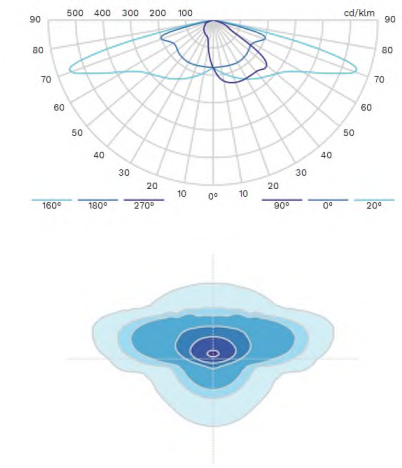
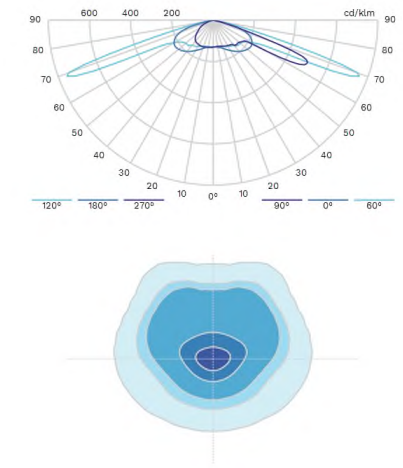
5118 - BL



LENSO FLEX 2

5119



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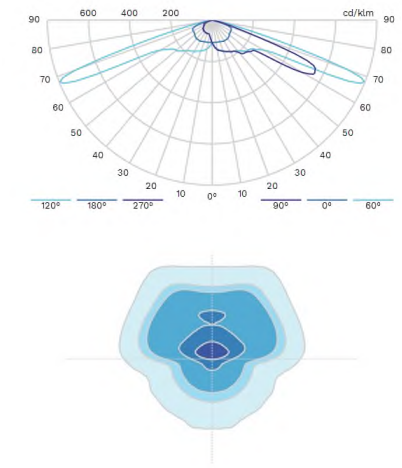
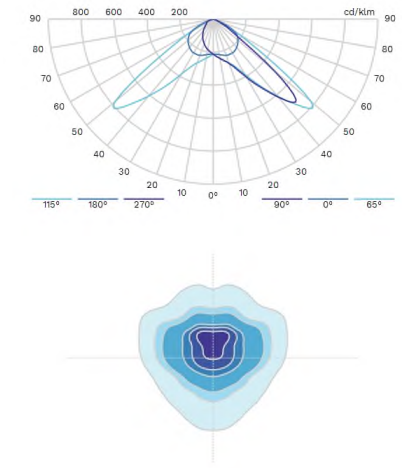
5119 - BL



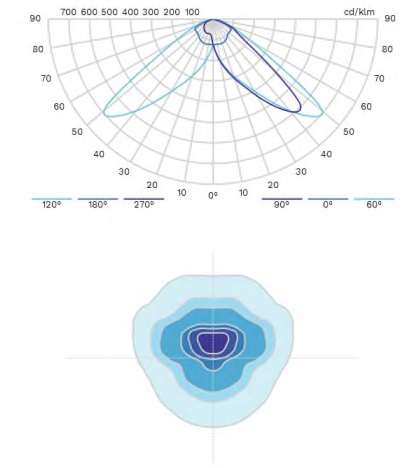
LENSO FLEX 2

5120



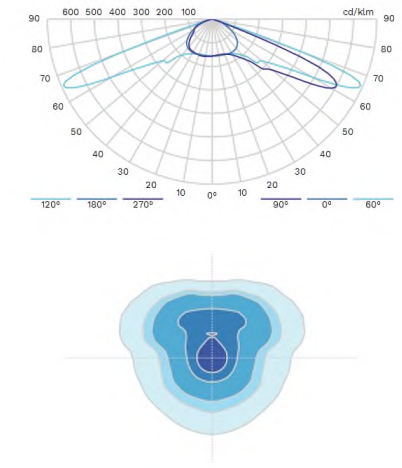
LENSO FLEX 2

5120 - BL



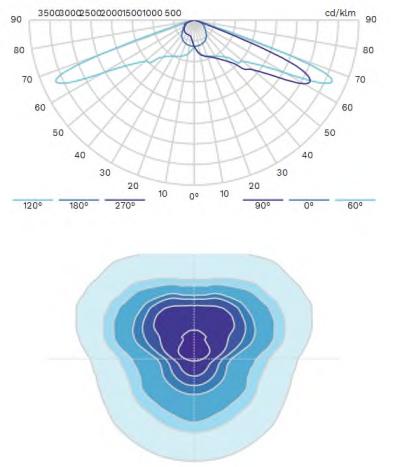
LENSO FLEX 2

5121



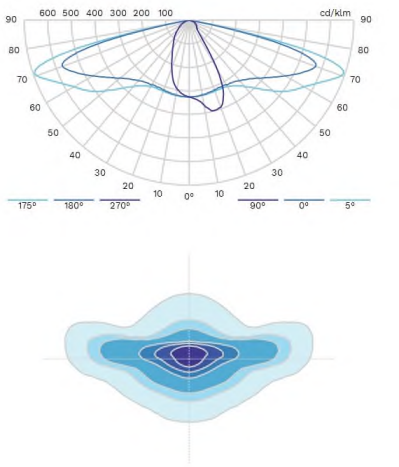
LENSO FLEX²2

5121 - BL



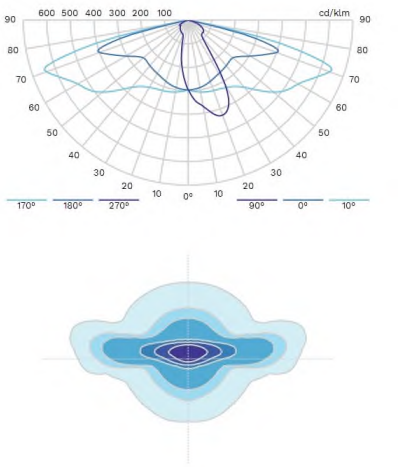
LENSO FLEX²2

5136



LENSO FLEX²2

5136 - BL



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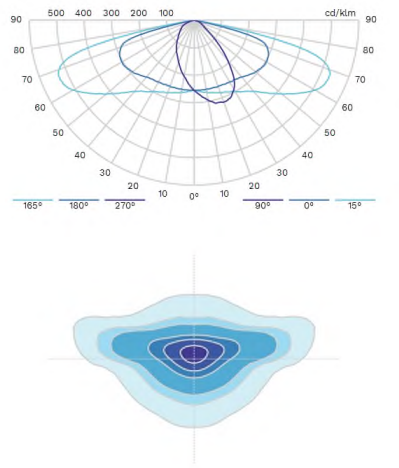
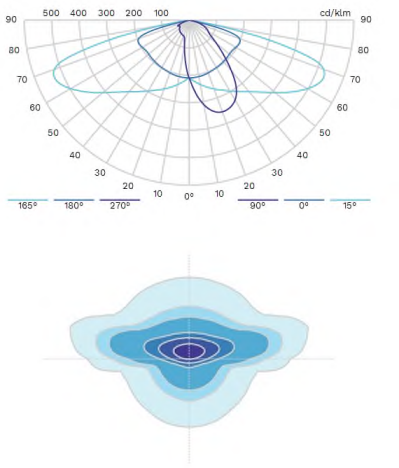
5137



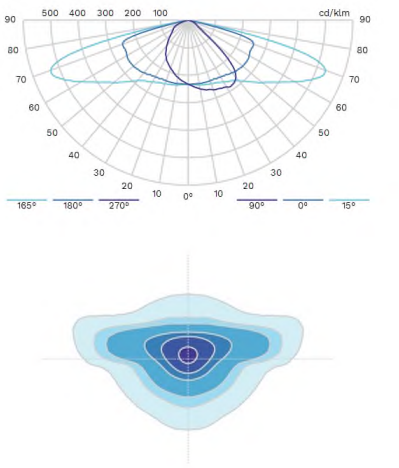
LENSO FLEX²2

5137 - BL



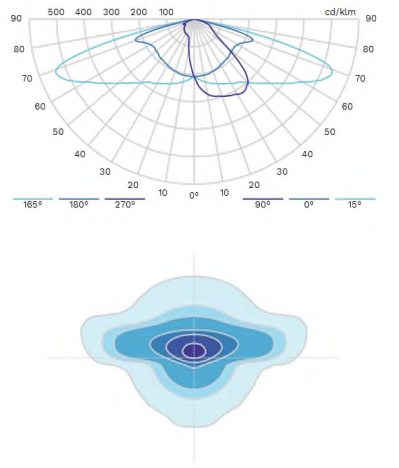
LENSO FLEX²2

5138



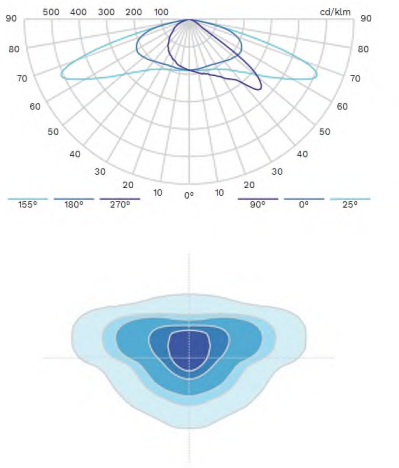
LENSO FLEX²2

5138 - BL



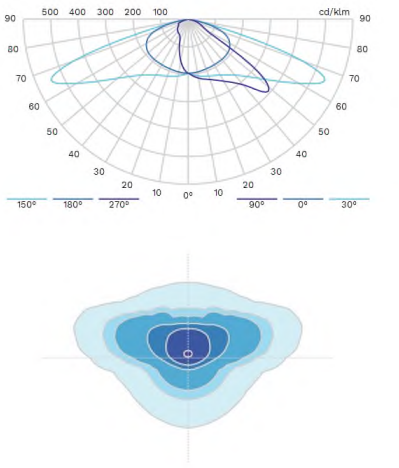
LENSO FLEX²2

5139



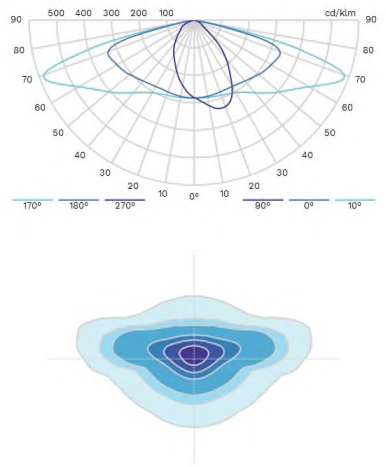
LENSO FLEX²2

5139 - BL



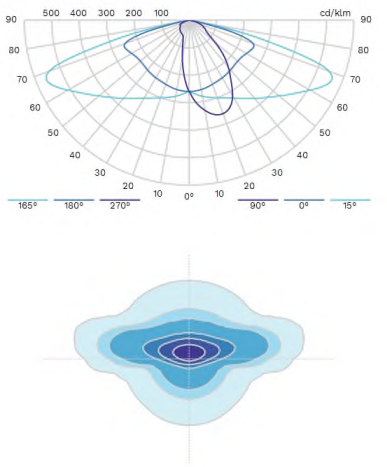
LENSO FLEX 2

5140



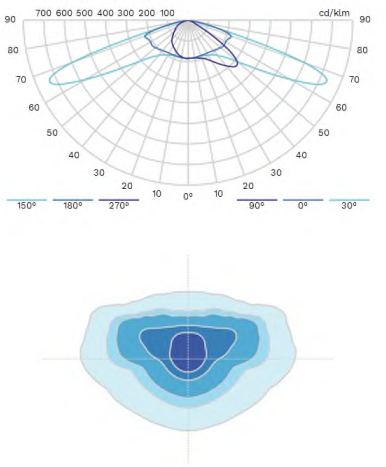
LENSO FLEX 2

5140 - BL



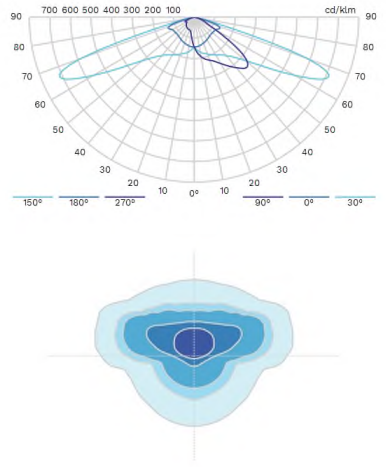
LENSO FLEX 2

5141



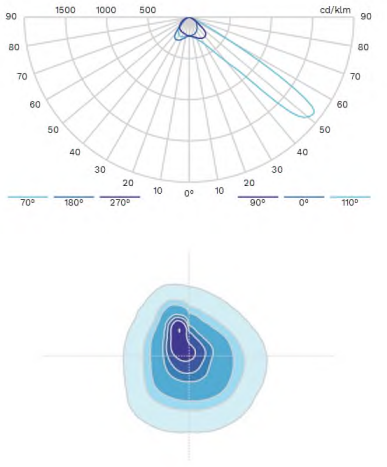
LENSO FLEX 2

5141 - BL



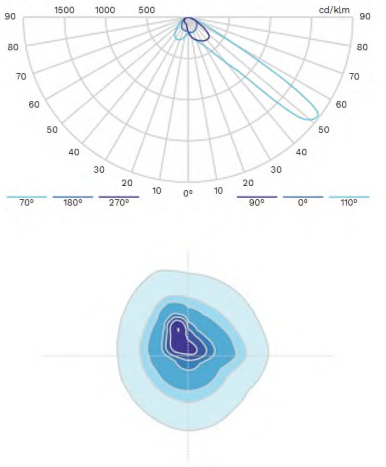
LENSO FLEX 2

5144 Zebra left



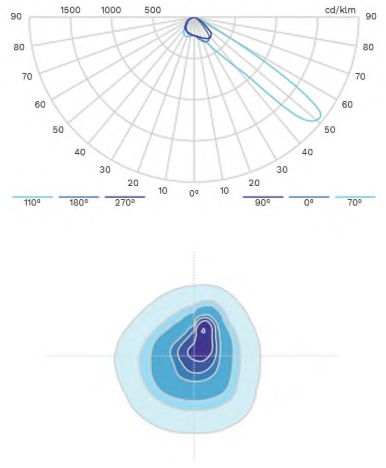
LENSO FLEX 2

5144 Zebra left BL



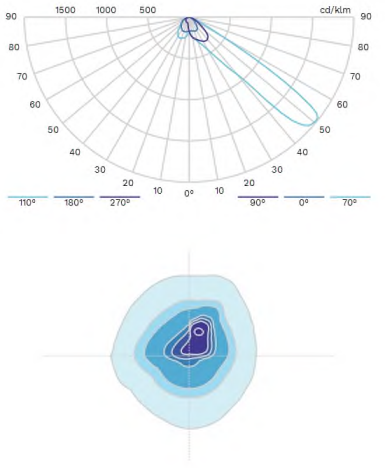
LENSO FLEX 2

5145 Zebra right



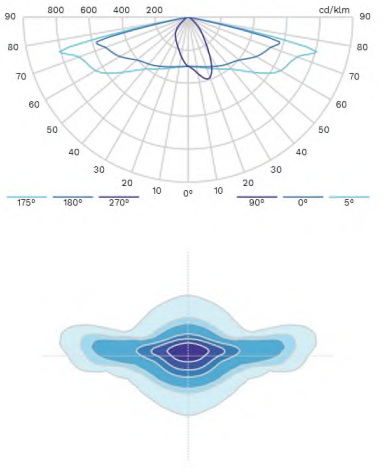
LENSO FLEX 2

5145 Zebra right BL



PRO FLEX

5205



PRO FLEX™

5206