

# vizulo



# MINI MARTIN



RoHS





**Architectural & Landscape**

**Sports Lighting**

**Large Outdoor Industrial Area**

**Agricultural Area**

#### **Ventilation cable gland**

Combines pressure equalization and cable gland in a single unit. It ensures high air flow rates as well as high water protection capacity

#### **Glass**

Flat glass. Glass is fixed to die-cast aluminium frame with metal clips and can easily be replaced

#### **LED module**

High quality LED's with optimal thermal resistance and energy consumption characteristic, for high lumen output and long expected life time. Color temperature available: 3000K, 4000K

*(5000K, 5700K available on customer request)*

#### **Intelligent light control system**

Power line or radio frequency

#### **Protection**

IP66 for the complete luminaire

#### **Module temperature control**

The LED driver will start reducing the light output when the LED's approach critical temperature. The temperature is measured via a sensor placed on the PCB

*(function available on customer request)*

#### **Body**

Die-cast aluminium

#### **Lighting protection**

Built-in surge protection starting from 3 kV till 10 kV

#### **Light regulation**

MINI MARTIN drivers offer integrated midnight dimming and network-controlled 1-10V and DALI protocols

#### **Impact resistance**

IK08 (Vandal protected)  
for the complete luminaire





Traffic roads

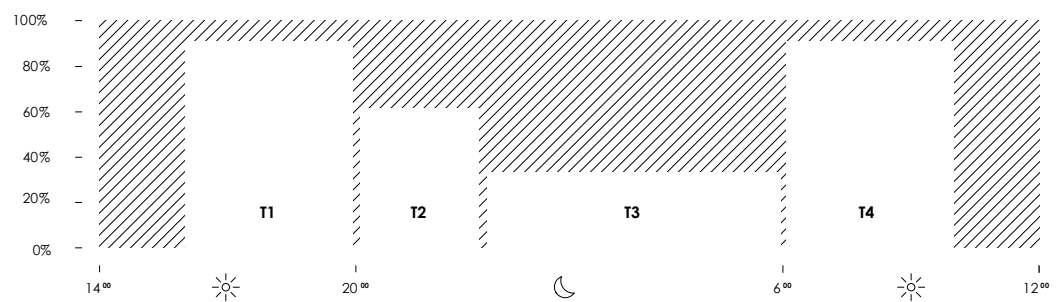
Pedestrian Roads

Residential Street/Area

City Centre

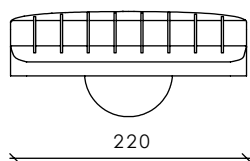
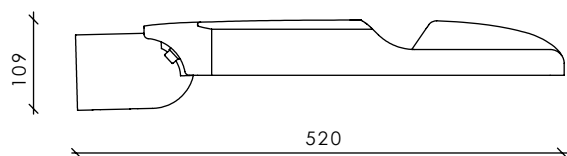
## Midnight dimming

Midnight dimming provides multi-stage night-time power reduction based on an internal timer referenced to the power on/off time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power on / off times.



# Mini martin with fins



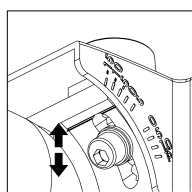
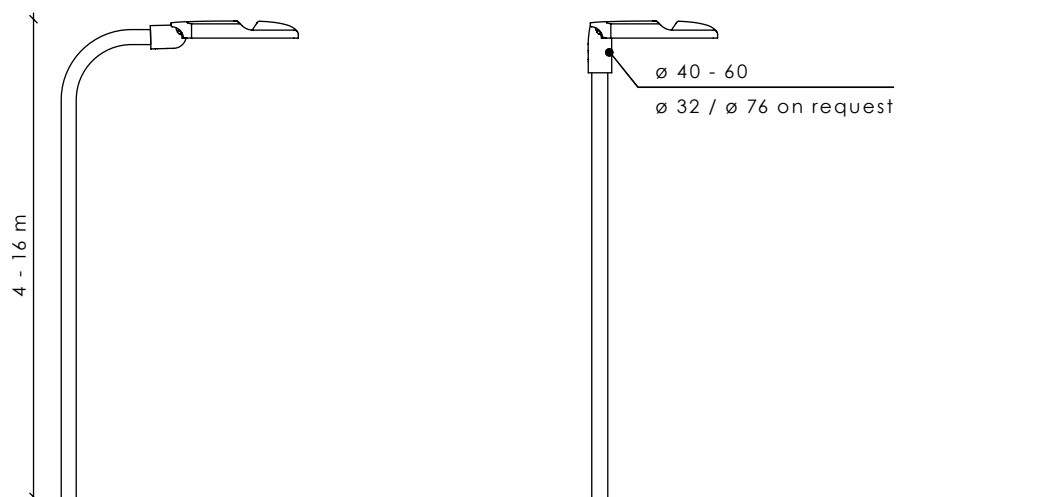


DB703

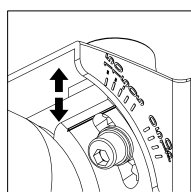


RAL9006

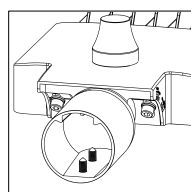
Other colors  
available on request



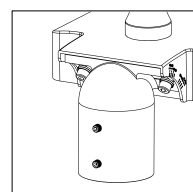
$\leq 5 \dots -20$



$\leq 0 \dots 20$

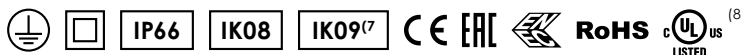


Horizontal entry



Vertical entry

## Technical information



<b>V</b>	220 - 240	1-10V; DALI; Midnight dimming
<b>Hz</b>	50 - 60	Radio frequency <sup>(3)</sup>
<b>W</b>	10 - 110	3; 6; 10 kV (optional) <sup>(4)</sup>
<b>lm</b>	1100 - 13550	Warranty 5 years
<b>lm/W</b>	110 - 136	100 000h (L80B10C10) <sup>(5)</sup>
<b>K</b>	3000 / 4000 <sup>(1)</sup>	100 000 h (L95B10C10) <sup>(6)</sup>
<b>°C</b>	-40 to +50	
<b>CRI</b>	>70 / >80 <sup>(2)</sup>	

<i>Body:</i>	Die-cast aluminum
<i>Spigot:</i>	ø 40-60, with accessories ø 32; ø 76
<i>Neto weight:</i>	5,5 - 6,5 kg
<i>Max.wind load area, SCd, m²:</i>	0,038

<sup>(1)</sup> 5000; 5700 K available on request

<sup>(2)</sup> Luminaries with color rendering index (CRI): Ra >90 on request

<sup>(3)</sup> Optional. Available only with DALI ; 1 - 10 V

<sup>(4)</sup> 10 kV ( L-N; L/N-PE ) surge protection device available on request

<sup>(5)</sup> Average lifetime value for ECO model at Ta = 25°C is 100 000h L80/B10\*

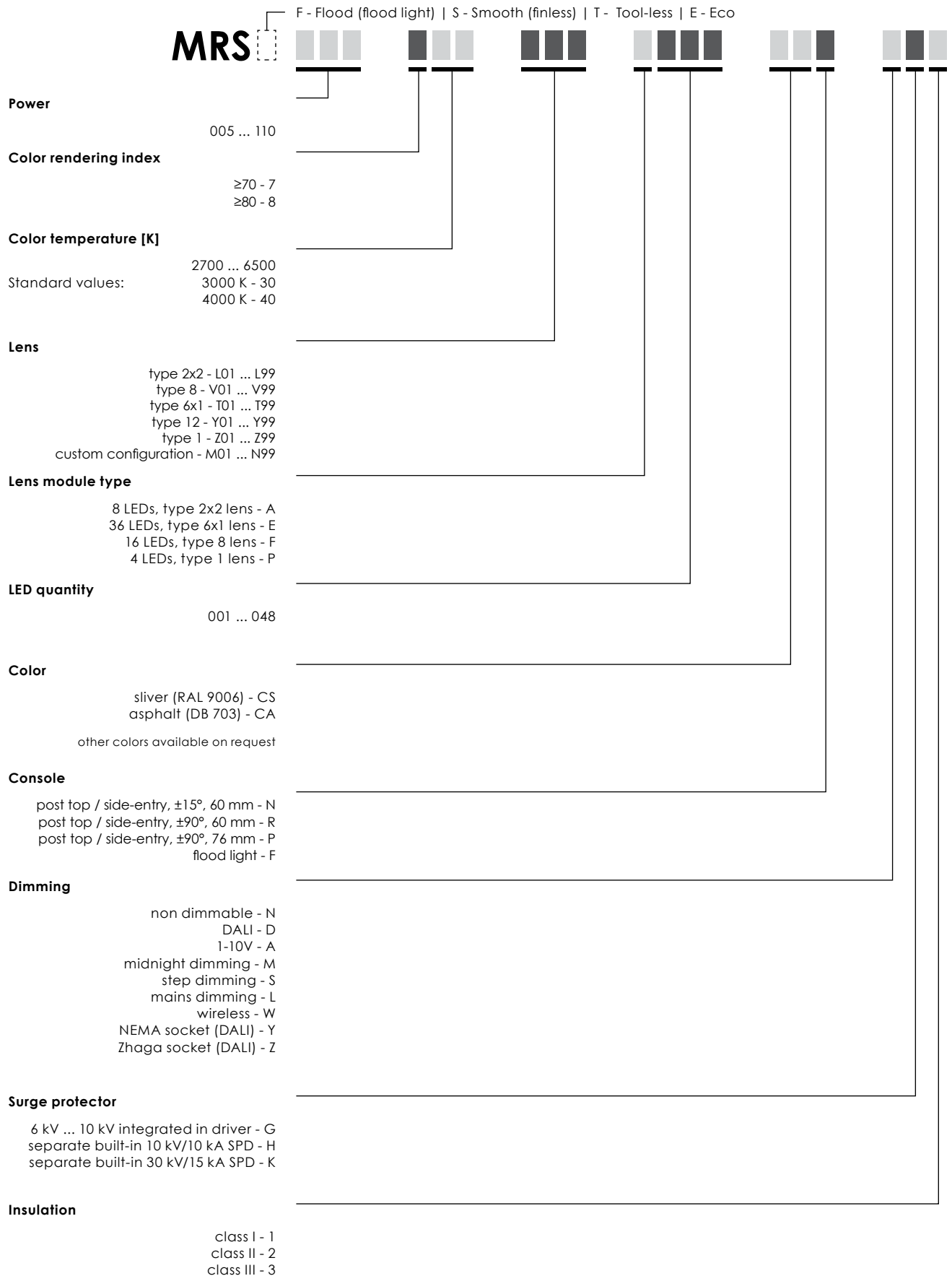
\*This value is only informative and may change according to selected article. LED Lifetime is strongly depending from LEDs current and junction temperature – increase in LED current and luminaire power lead to increase of junction temperature and as consequence lifetime decrease. Thus, luminaire models with lower power, lower current (and lower junction temperature) will have higher lifetime than standard models and will reach 100 000h L90/B10. And high power and high current luminaire models may have negative lifetime deviation comparing to standard models. To receive precise value please contact VIZULO export representatives.

<sup>(6)</sup> Standard / High Density at Ta=25°C, this value is only informative and may change according to selected article

<sup>(7)</sup> IK09 - screw version with tempered unprinted glass

<sup>(8)</sup> Coming soon

## Model name principles



EXAMPLE MRS 050 740 L01 A024 CSN DG1

## Standard modules

\*Only with optic 01 / 02 / 03

4000K

Number of LED's	8			16			24			36*		
Nominal current, mA	350	520	700	350	500	700	350	500	700	350	500	710
Power, W	10	15	19	20	26	35	29	39	52	40	55	78
Luminous Flux, lm	1220	1820	2260	2550	3310	4350	3810	5060	6580	5470	7390	9930
Efficacy, lm/W	122	121	119	128	127	124	131	130	127	137	134	127
Power factor, PF	0,84	0,92	0,96	0,91	0,95	0,97	0,93	0,95	0,97	0,95	0,98	0,98

Luminaire efficacy	3000 K	10 - 78 W	1060 - 9610 lm	102 - 124 lm/W
	4000 K	10 - 78 W	1220 - 9930 lm	119 - 137 lm/W
	5000 K	10 - 78 W	1220 - 9930 lm	119 - 137 lm/W

## High density modules

Only with optic 01 / 04 / 05 / 20 / 22 / 35

4000K

Number of LED's	16			32			48		
Nominal current, mA	350	500	700	370	500	700	350	500	700
Power, W	20	26	35	37	50	68	51	72	102
Luminous Flux, lm	2550	3310	4350	5010	6650	8690	7120	9710	13190
Efficacy, lm/W	128	127	124	135	133	128	140	135	129
Power factor, PF	0,91	0,95	0,97	0,95	0,97	0,98	0,95	0,97	0,98

Luminaire efficacy	3000 K	20 - 110 W	2470 - 13620 lm	114 - 131 lm/W
	4000 K	20 - 110 W	2550 - 13550 lm	124 - 140 lm/W
	5000 K	20 - 110 W	2550 - 14070 lm	134 - 140 lm/W



4000K

Number of LED's	8			16			24		
Nominal current, mA	350	500	700	350	500	700	350	500	700
Power, W	19	26	38	37	52	75	54	76	110
Luminous Flux, lm	2580	3390	4460	5120	6770	8920	7680	10070	13270
Efficacy, lm/W	136	130	117	138	130	119	142	133	121
Power factor, PF	0,85	0,9	0,91	0,94	0,97	0,98	0,97	0,98	0,99

# Logistic information

Carton size/cm L*W*H	Quantity per carton/pcs	Pallet quantity in 20' sea container	Pallet quantity in 40' sea container	QTY per pallet/pcs	Full pallet size/cm L*W*H	Number of luminaires per row	Number of rows
54,5 x 23,5 x 16,5	1	20	25	70	120 x 80 x 177	7	10

	NETO WEIGHT/KG		BRUTO WEIGHT/KG	
	Per 1 pcs	Per pallet	Per 1 pcs	Per pallet
MINI MARTIN 1 module luminaires	5,5	385	6,1	427
MINI MARTIN 2 module luminaires	5,55	388,5	6,15	430,5
MINI MARTIN 3 module luminaires	5,6	392	6,2	434
MINI MARTIN 4 module luminaires	5,65	395,5	6,25	437,5

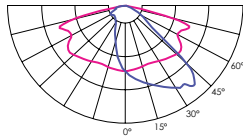
# Pole height proposition



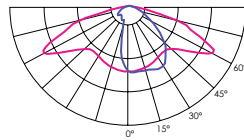
Pole height	4m	6 - 8 m	8 m	8 - 10 m	10 m	14 - 16 m
Standard modules	18 W	37 W	52 W			
High-power modules				78 W		
High-density modules		37 W		68 W	102 W	110 W

# Optics

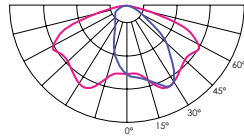
01



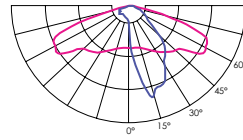
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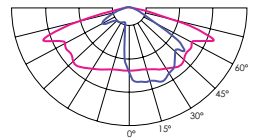
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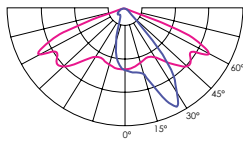
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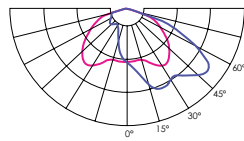
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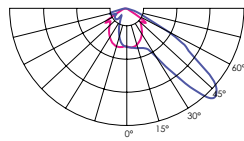
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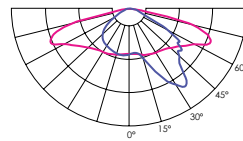
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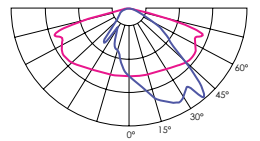
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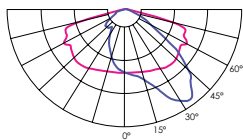
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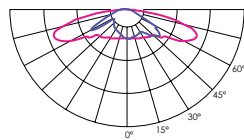
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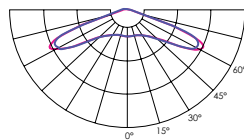
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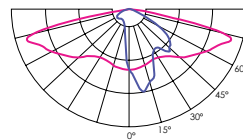
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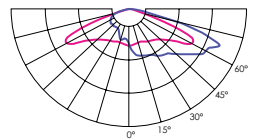
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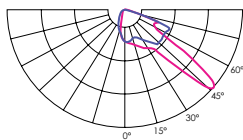
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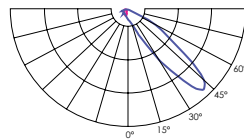
35



36



37





Reykjavik | Iceland







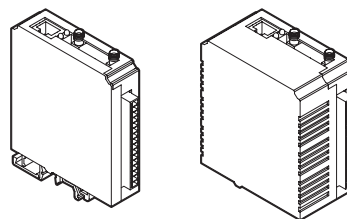
Hestheimar horse farm | Iceland

# Accessories

## Citintelly Segment controller

Art. 70010004

Segment Controller receives commands from Citintelly server via GSM and transmits tasks to Luminaire Controller via radio frequency communication.

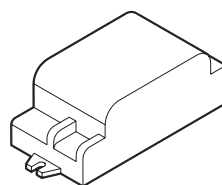


## Citintelly Luminaire controller

Art. 70010001 /  
LC2M-23-05-R Luminaire  
Controller - 2 relays

Luminaire Controller is wireless mesh-networking device that uses 868 MHz for communication with Segment Controller and other Luminaire Controllers. It is delivered in various configurations to meet the needs of your applications.

Art. 70010002 /  
LC2M-12-05-R Luminaire  
Controller - 1 relay



## Citintelly Surge Protection device

Art. 70020001

Surge Protection device offers protection against lighting surges;

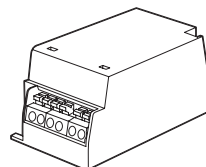
Voltage Protection level up (L-N)  $\leq 1,5$  kV

Voltage Protection level up (L/N-PE)  $\leq 2,0$  kV

$U_{oc} = 10$  kV

$I_{max} = 10$  kA

$I_{nom} = 5$  kA



## Radio Frequency Antenna

Art. 70000108

Heavy duty IP67 enclosure  
Mounted in cabinet or luminaire body  
with 14 mm screw  
SMA connector



## NEMA Socket

2213362-3, 5 pin NEMA socket 105°C wires

Art. 70000362

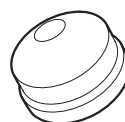
2213362-4, 7 pin NEMA socket 105°C wires

Art. 70000333



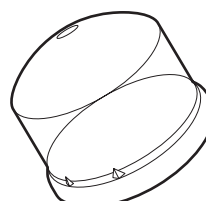
## Dummy Link for NEMA Socket

Art. 70000113



## MSLC205RGL Luminaire controller, Zhaga, 80mm

Art. 70010029



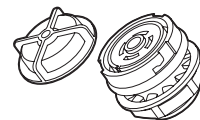
### Zhaga socket no cap

Art. 70000612



### Zhaga socket with cap

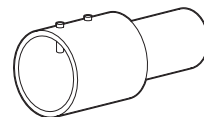
Art. 70000613



### Console adapter

Spigot size 60 - 76mm

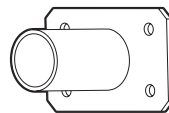
Art. 70044002



### Wall mounting bracket

Spigot size 40 - 60 mm

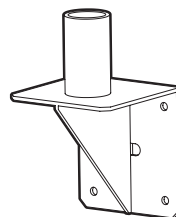
Art. 70044001



### Wall mounting bracket

Vertical

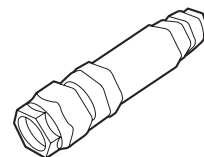
Art. 70044004



### Connector

IP66 rated connector offers easy installation of the street luminaires.  
3 wire cable connector

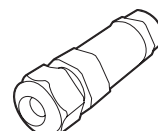
Art. 70000313



### Connector

IP66 rated connector offers easy installation of the street luminaires.  
5 wire cable connector

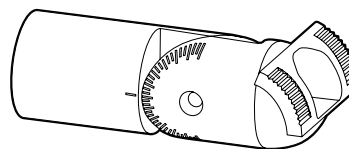
Art. 70000304



## Adjustable Console $\pm 90^\circ$

60 mm - Mini Martin / Micro Martin

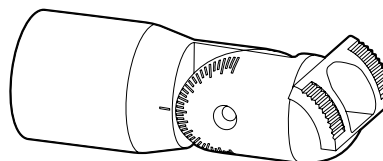
Art. 70055005



## Adjustable Console $\pm 90^\circ$

76 mm - Mini Martin / Micro Martin

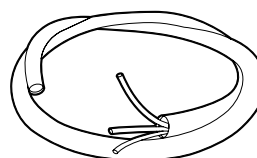
Art. 70055006



## Pre-installed cable sets

For internal power supply:

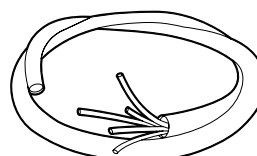
3 x 1,5 mm - 0,5 m long cable.....	Art. 70000319
3 x 1,5 mm - 5 m long cable.....	Art. 70000320
3 x 1,5 mm - 6 m long cable.....	Art. 70000321
3 x 1,5 mm - 8 m long cable.....	Art. 70000322
3 x 1,5 mm - 10 m long cable.....	Art. 70000323
3 x 1,5 mm - 12 m long cable.....	Art. 70000324
3 x 1,5 mm - 18 m long cable.....	Art. 70000325
3 x 1,5 mm - 20 m long cable.....	Art. 70000425
3 x 1,5 mm - 22 m long cable.....	Art. 70000426
3 x 1,5 mm - 25 m long cable.....	Art. 70000427
3 x 1,5 mm - 32 m long cable.....	Art. 70000430
3 x 1,5 mm - 42 m long cable.....	Art. 70000431
3 x 1,5 mm - 50 m long cable.....	Art. 70000432



## Pre-installed cable sets

For internal power supply:

5 x 1,5 mm - 0,5 m long cable.....	Art. 70000305
5 x 1,5 mm - 5 m long cable.....	Art. 70000316
5 x 1,5 mm - 6 m long cable.....	Art. 70000317
5 x 1,5 mm - 8 m long cable.....	Art. 70000318
5 x 1,5 mm - 10 m long cable.....	Art. 70000306
5 x 1,5 mm - 12 m long cable.....	Art. 70000307
5 x 1,5 mm - 18 m long cable.....	Art. 70000308
5 x 1,5 mm - 20 m long cable.....	Art. 70000428
5 x 1,5 mm - 22 m long cable.....	Art. 70000429
5 x 1,5 mm - 25 m long cable.....	Art. 70000429
5 x 1,5 mm - 32 m long cable.....	Art. 70000433
5 x 1,5 mm - 42 m long cable.....	Art. 70000434
5 x 1,5 mm - 50 m long cable.....	Art. 70000435





## VIZULO

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Production: + 371 67 383 024

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www.vizulo.com



VIZULO



VIZULO\_PHOTO



VIZULO SIA  
Mukusalas street 41,  
Riga, LV-1004, Latvia

## EU DECLARATION OF CONFORMITY

Riga, 04.04.2017.

Internal reference No: DC-MRS-040417-EN

Manufacturer: VIZULO SIA, Mukusalas street 41, Riga, LV-1004, Latvia  
Product name: VIZULO MINI MARTIN  
Type: LED street luminaire  
Model: MRS 000 000 000 0000 00 001 (see anex): 220 ... 240 V, 8 ... 110 W, 2700 ... 6500 K, Class I, IP66  
MRS 000 000 000 0000 00 002 (see anex): 220 ... 240 V, 8 ... 110 W, 2700 ... 6500 K, Class II, IP66

The product (range) is in conformity with the provisions:

**1. Electromagnetic Compatibility Directive**  
**EN 55015**

**EN 61547**  
**EN 61000-3-2**  
**EN 61000-3-3**

**EMC 2014/30/EU**

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment  
Equipment for general lighting purposes - EMC immunity requirements  
Electromagnetic compatibility (EMC) - Limits - Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)  
Electromagnetic compatibility (EMC) - Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection

**2. Low Voltage Directive**  
**EN 60598-1**  
**EN 60598-2-3**

**EN 62031**  
**EN 61347-1**  
**EN 61347-2-13**  
**EN 62493**  
**EN 62384**

**LVD 2014/35/EU**

Luminaires - General requirements and tests  
Luminaires - Particular requirements - Luminaires for road and street lighting  
LED modules for general lighting - Safety specifications  
Lamp controlgear - General and safety requirements  
Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules  
Assessment of lighting equipment related to human exposure to electromagnetic fields  
DC or AC supplied electronic control gear for LED modules - Performance requirements

**3. Restriction of Hazardous Substances in Electrical and Electronic Equipment**  
**EN 62321**

**ROHS 2011/65/EU**

Electrotechnical products - Determination of levels of six regulated substances

**4. Radio equipment directive**

**RED 2014/53/EU**

**5. Other**

**EN 60068-2-6**  
**EN 60068-2-27**  
**EN 62717**

Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)  
Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock  
LED modules for general lighting - Performance requirements

Other qualifications:

The management system of VIZULO SIA including the implementation meets the requirements of the standards:  
ISO9001:2008; ISO14001:2004

The Mini Martin range has been successfully tested to photobiological safety according EN 62471:

8 ... 110 W,  $\leq 4000$  K      RG1 (risk group 1)  
8 ... 78 W,  $> 4000$  K      RG1 (risk group 1) after 3.61 m

Authorized signature

  
Sergejs Burtovojs  
Senior Research and Development Engineer

The CE marking was affixed in: 15



## Annex

### Models and description

	MRS	□□□	□□□	□□□	□□□□	□□	□□□
Power [W]	008 ... 110						
Color rendering index	≥70 - 7 ≥80 - 8						
Color temperature [K]	2700 ... 6500 Standard values: 3000 K - 30 4000 K - 40						
Lens	standard - L01 ... L99 custom configuration - M01 ... Z99						
LED module type	8 LEDs, type 2x2 lens - A 36 LEDs, type 6x1 lens - E 16 LEDs, type 8 lens - F 24 LEDs, type 12 lens - H						
LED quantity	001 ... 072						
Body color*	silver (RAL 9006) - S asphalt (DB 703) - A <i>*other colors available on request</i>						
Console	60 mm - N						
Dimming	non dimmable - N DALI - D 1-10V - A midnight dimming - M wireless - W						
Surge protection	6 kV ... 10 kV integrated in driver - G separate built-in 10 kV/10 kA SPD - H						
Insulation	class I - 1 class II - 2 class III - 3						

Authorized signature

  
Sergejs Burtovojs

Senior Research and Development Engineer



# CERTIFICATE

Issued to:  
Applicant:  
**SIA VIZULO**  
**Ganibu dambis 7a**  
**LV-1045 Riga**  
**Latvia**

Manufacturer/Licensee:  
**SIA VIZULO**  
**Ganibu dambis 7a**  
**LV-1045 Riga**  
**Latvia**

Product : Street luminaires with LED light source  
Trade name : VIZULO  
Model : MINI MARTIN  
Type reference key : MRS □□□ □□□ □□□ □□ □□ (See Appendix I for more details).

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

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

- a type test according to the standard EN 60598-1:2015, EN 60598-2-3:2003
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2171759

DEKRA hereby grants the right to use the ENEC KEMA-KEUR certification mark.

The ENEC KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the ENEC KEMA-KEUR certification agreement and under the conditions of the ENEC KEMA-KEUR certification agreement.

This certificate is issued on: 14 June 2016 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 2193409.03

DEKRA Certification B.V.



drs. G.J. Zoetbrood  
Managing Director



Danielle Trijbels  
Certification Manager

© Integral publication of this certificate is allowed

ACCREDITED BY THE  
DUTCH ACCREDITATION  
COUNCIL





**SPECIFICATION OF THE CERTIFIED PRODUCT****Product data**

product	: Street luminaires with LED light source
trade name	: VIZULO
model	: Mini Martin LED street luminaire
type reference key	: MRS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> (See Appendix I for more details)
rated voltage	: 220-240 V
nature of supply	: ac
rated frequency	: 50-60 Hz
rated current	: 40mA - 340mA
rated input power range	: 8 - 78 W
ambient temperature range (ta)	: -30 ... +50 °C (for ROAL and Tridonic LED drivers only) -40 ... +50 °C (for all other LED drivers)
class	: I
degree of protection against dust and moisture	: IP66
degree of protection against external mechanical impact	: IK08 for glass cover, IK09 for housing.
description	: Street lighting luminaire for post or pole mounting

**Additional information**

- For explanation of the type reference product key code, see Appendix I.
- These products have been tested according the EN 62471:2008 - Photo-biological safety.  
8 W up to 78 W, up to 4000 K versions comply with non-GLS - Risk-group1 (no labeling required).  
8 W up to 78 W, 5000 K and higher versions comply with non-GLS – Risk Group 2 (warning label required). RG2 to RG1 threshold distance is 3.61m (based upon evaluation of whole luminaire according to IEC TR 62778).

**TESTS****Test requirements**Main test requirements:

EN 60598-1:2015

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

Additional test requirements:

EN 62031:2008 + A1:2013 + A2:2015

**Test results**

The test results are laid down in DEKRA test file 2193409.00.

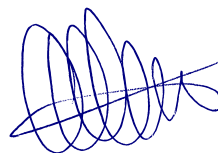
**Remark**

This certificate supersedes certificate no. 2187670.03, dated 13 January 2016 which is herewith declared invalid.


**Conclusion**

The examination proved that all test requirements were met.

Tested by : A.P. van der Veen

A blue ink signature consisting of several overlapping loops and a long horizontal stroke at the end.

Checked by : T.H.J.M. Michels

A blue ink signature that appears to read 'Michels' in a cursive script, with a long horizontal stroke extending from the end.**Factory location**

SIA VIZULO  
Ganibu dambis 7a  
LV-1045, Riga  
Latvia

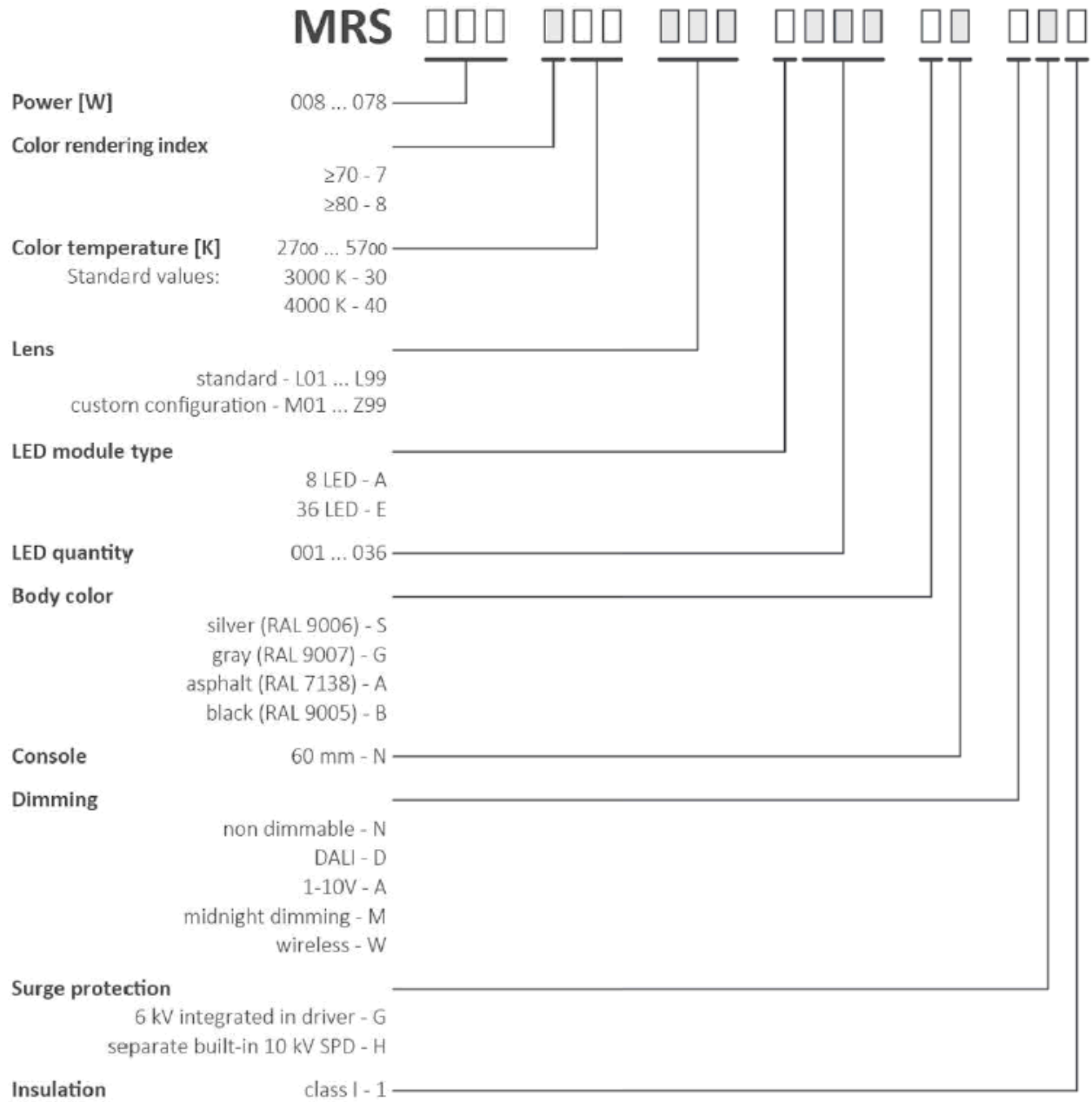
### List of components

Component	Trade name	Type/model	Approval mark
LED driver	Osram	OT 40/120...277/1A0 4DIMLT2 E	ENEC
LED driver	Osram	OT 60/170...240/1A0 4DIMLT2 E	ENEC
LED driver	Osram	OT 90/170...240/1A0 4DIMLT2 E	ENEC
LED driver	Osram	OT 165/170...240/1A0 4DIMLT2 E	ENEC
LED driver	Osram	OT 50/120...277/800 2DIMLT2 P	ENEC
LED driver	Osram	OT 100/120...277/800 2DIMLT2 P	ENEC
LED driver	Osram	OT 50/120...277/700 P5	ENEC
LED driver	Osram	OT 100/120...277/700 P5	ENEC
LED driver	Tridonic	LCA 30W 250–700mA one4all C PRE OTD	ENEC
LED driver	Tridonic	LCA 60W 350–1050mA one4all C PRE OTD	ENEC
LED driver	Tridonic	LCA 75W 250–750mA one4all C PRE OTD	ENEC
LED driver	Tridonic	LCA 120W 350–1050mA one4all C PRE OTD	ENEC
LED driver	Tridonic	LCA 30W 200–550mA 1–10 V C ADV OTD	ENEC
LED driver	Tridonic	LCA 60W 300–1050mA 1–10 V C ADV OTD	ENEC
LED driver	Tridonic	LCA 120W 300–1050mA 1–10 V C ADV OTD	ENEC
LED driver	Roal	RSOZ70, 70W 0.35-2.1A	ENEC
Surge protection device	Philips	929000886906, Xtreme Surge Protector I, Uc = 255 V, Uoc = 10 kV	KEMA-KEUR
LED module	Vizulo	VBSR-013-L-01 (8 LEDs, class I) VBSR-014-L-01 (8 LEDs, class I/II) VBSR-014-L-02 (36 LEDs, class I)	*
Cable	E.M.C. Colosio	H05RR-F - 3/5 x 0,75/1/1,5 mm <sup>2</sup>	<HAR>
Cable	LAPP cable	H05RR-F - 3/5 x 0,75/1/1,5 mm <sup>2</sup>	<HAR>
Cable	EUPEN	H05RR-F - 3/5 x 0,75/1/1,5 mm <sup>2</sup>	<HAR>
Cable	ICC	H05RR-F - 3/5 x 0,75/1/1,5 mm <sup>2</sup>	<HAR>
Cable	IRCE	H05RR-F - 3/5 x 0,75/1/1,5 mm <sup>2</sup>	<HAR>
Wiring	Alphawire	1855; 6715	*
Wiring	E.M.C. Colosio	H05V2-U, 0,75 mm <sup>2</sup> , 90°C, 300 V	<HAR>
Connector	Wago	2061 series, 320 V, 12 A	*
Terminal block	Stucchi	1673/A/43, 2 pole with PE	ENEC
Connector	Colosio	M140MN/3, 2 pole with PE, IP68	ENEC
Connector	Colosio	M140MN/6, 5 poles with PE, IP68	ENEC

Component	Trade name	Type/model	Approval mark
MCPCB	Polytronic Technology Corp	-	*
LED	Lumileds	Luxeon T; Luxeon TX	*/UL
LED	Cree	XT-E	*/UL
1) * indicates a component tested as part of the appliance			



# APPENDIX I - Type reference key code:





**FROM: SIA "VIZULO Solutions"**  
**Reg.Nr: 40103841199**  
**Mukusalas iela 41**  
**Riga, LV-1004,**  
**Latvia, European Union**

### **Warranty**

Riga, March 23rd, 2017

VIZULO SOLUTIONS confirms FIVE (5) year warranty for VIZULO outdoor luminaires Vizulo Stork, Vizulo Stork Little Brother, Vizulo Mini Martin, Vizulo Owl which are being sold in Estonian Market.

Five (5) years warranty is in force if installation and exploitation instructions from VIZULO have been followed.

Export Manager



/ Ingus Priedītis /

Vizulo Solutions SIA,  
7a Ganību dambis, Rīga,  
Latvia, LV-1045

**Confirmation to: Elektrilevi tānavavalgustuse osakond, Tallinn.**

All components used in VIZULO Stork and VIZULO Stork little brother street luminaires will be able to replace with the same components or they alternatives in the period of 10 years after sales.

In order to keep sufficient stock we will need Tallin City prognoses how many luminaires or they components they will need for each realized project separately.

Research & Development

Department Director



Linda Zeltiņa



# For every project where light really matters, simply efficient street lighting

## CoreLine Malaga LED

The Philips CoreLine Malaga LED family consists of two sizes for urban street lighting. Both use a Philips LED engine as a light source and a Philips Xitanium driver – a combination that results in energy savings of 50%. CoreLine Malaga LED has been designed to be as efficient as possible. It offers the same performance as the SON-T 50, 70, 100 and 150W luminaires it replaces, providing the right amount of light in the right place. Furthermore, as the LED light engine in CoreLine Malaga LED will last for the lifetime of the luminaire, it will return your investment simply by saving on the multiple lamp replacements required with SON-T. With its extended gland feature, the CoreLine Malaga LED luminaire is easy to install with no need to open the luminaire to connect the power cable. At the same time, the flat glass cover can be removed to allow access to the driver for maintenance, if required. Special versions of Malaga lighting are available with extra options. However, these specials are manufactured to order only, and have a longer delivery time. The options include: Wide beam (DW) optic, additional surge protection device (10kV), Marine Salt Protection (MSP) paint finish, Micro Mini Pro photocell 35 Lux, a built-in (glass) 6A fuse, and a 3-meter external flying lead cable (H07RN-F). Not all these options can always be combined with each other. For more advice, please consult your Philips partner.

# CoreLine Malaga LED

## Benefits

- Reliable quality: aluminum die-cast housing, tempered flat glass
- Easy return on investment: fewer lamp replacements (than SON-T) to save on costs, plus 50% energy savings to reduce annual running costs
- Durable operation (IP65, IK08)
- Easy maintenance, installation and spare part information with Signify Service tag (unique QR identification)

## Features

- Direct, 1:1 replacement for SON-T lamps in road lighting, street lighting and urban lighting applications.
- Robust design with Philips standardized LED light platform and fixed output Philips Xitanium outdoor driver.
- Easy installation with extended gland - no need to open luminaire.
- 100,00 hours lifetime L70 (or 75,000 hours L80) at Tq +25 °C).
- 5-year warranty

## Application

- Parking lots
- Industrial areas
- Public transport such as bus or tramway stops

## Dimensional drawing

## Product details



CoreLine\_Malaga\_LED-  
BRP101\_102-1DPP.TIF



CoreLine\_Malaga\_LED-  
BRP101\_102-2DPP.TIF

# CoreLine Malaga LED

## Product details



CoreLine\_Malaga\_LED-  
BRP101\_102-3DPP.TIF



CoreLine\_Malaga\_LED-  
BRP101\_102-4DPP.TIF



CoreLine\_Malaga\_LED-  
BRP101\_102-5DPP.TIF



CoreLine\_Malaga\_LED-BRP101-  
DPP.TIF



CoreLine\_Malaga\_LED-BRP102-  
DPP.TIF



CoreLine Malaga LED

General Information	
CE mark	Yes
Driver included	Yes
Flammability mark	-
Light source replaceable	No
Number of gear units	1 unit
Light Technical	
Luminaire light beam spread	-
Light source color	740 neutral white
Correlated Color Temperature (Nom)	4000 K
Optical cover type	Flat glass
Color rendering index (CRI)	70
Standard tilt angle side entry	0°
Standard tilt angle posttop	-
Upward light output ratio	0
Controls and Dimming	
Dimmable	No
Mechanical and Housing	
Housing Color	Gray
Approval and Application	
Mech. impact protection code	IK08
Ingress protection code	IP65
Application Conditions	
Maximum dim level	Not applicable

General Information

Order Code	Full Product Name	Lamp family code	Product family code	Service tag
910925865338	BRP101 LED37/740 I DM	LED37	BRP101	Yes
910925865339	BRP101 LED37/740 II DM	LED37	BRP101	-
910925865552	BRP101 LED37/740 II DW SDM10	LED37	BRP101	-
910925865553	BRP101 LED37/740 DM FU	LED37	BRP101	-
910925867783	BRP101 LED37/740 II DM MSP	LED37	BRP101	-
910925865340	BRP102 LED55/740 I DM	LED55	BRP102	-
910925865341	BRP102 LED55/740 II DM	LED55	BRP102	-
910925865342	BRP102 LED75/740 I DM	LED75	BRP102	-
910925865343	BRP102 LED75/740 II DM	LED75	BRP102	-
910925865344	BRP102 LED110/740 I DM	LED110	BRP102	-
910925865345	BRP102 LED110/740 II DM	LED110	BRP102	-
910925865554	BRP102 LED55/740 DW PZM-35	LED55	BRP102	-
910925865555	BRP102 LED75/740 II DM SDM10	LED75	BRP102	-
910925865556	BRP102 LED110/740 II DW FU	LED110	BRP102	-
910925868133	BRP102 LED55/740 II DM MSP	LED55	BRP102	-
910925868134	BRP102 LED75/740 II DM MSP	LED75	BRP102	-
910925868135	BRP102 LED110/740 II DM MSP	LED110	BRP102	-

Light Technical

Order Code	Full Product Name	Luminous Flux	Optic type outdoor
910925865338	BRP101 LED37/740 I DM	3,054 lm	Distribution medium
910925865339	BRP101 LED37/740 II DM	3,054 lm	Distribution medium
910925865552	BRP101 LED37/740 II DW SDM10	3,054 lm	Distribution wide
910925865553	BRP101 LED37/740 DM FU	3,054 lm	Distribution medium
910925867783	BRP101 LED37/740 II DM MSP	3,054 lm	Distribution medium
910925865340	BRP102 LED55/740 I DM	4,600 lm	Distribution medium
910925865341	BRP102 LED55/740 II DM	4,600 lm	Distribution medium
910925865342	BRP102 LED75/740 I DM	6,133 lm	Distribution medium
910925865343	BRP102 LED75/740 II DM	6,133 lm	Distribution medium

Order Code	Full Product Name	Luminous Flux	Optic type outdoor
910925865344	BRP102 LED110/740 I DM	9,006 lm	Distribution medium
910925865345	BRP102 LED110/740 II DM	9,006 lm	Distribution medium
910925865554	BRP102 LED55/740 DW PZM-35	4,600 lm	Distribution wide
910925865555	BRP102 LED75/740 II DM SDM10	6,133 lm	Distribution medium
910925865556	BRP102 LED110/740 II DW FU	9,006 lm	Distribution wide
910925868133	BRP102 LED55/740 II DM MSP	4,600 lm	Distribution medium
910925868134	BRP102 LED75/740 II DM MSP	6,133 lm	Distribution medium
910925868135	BRP102 LED110/740 II DM MSP	9,006 lm	Distribution medium

Operating and Electrical

Order Code	Full Product Name	Power Consumption
910925865338	BRP101 LED37/740 I DM	29.5 W
910925865339	BRP101 LED37/740 II DM	29.5 W
910925865552	BRP101 LED37/740 II DW SDM10	29.5 W
910925865553	BRP101 LED37/740 DM FU	29.5 W
910925867783	BRP101 LED37/740 II DM MSP	29.5 W
910925865340	BRP102 LED55/740 I DM	39.0 W

Order Code	Full Product Name	Power Consumption
910925865341	BRP102 LED55/740 II DM	39 W
910925865342	BRP102 LED75/740 I DM	56.5 W
910925865343	BRP102 LED75/740 II DM	56.5 W
910925865344	BRP102 LED110/740 I DM	83.0 W
910925865345	BRP102 LED110/740 II DM	83.0 W
910925865554	BRP102 LED55/740 DW PZM-35	39.0 W

CoreLine Malaga LED

Order Code	Full Product Name	Power Consumption
910925865555	BRP102 LED75/740 II DM SDM10	56.5 W
910925865556	BRP102 LED110/740 II DW FU	83 W
910925868133	BRP102 LED55/740 II DM MSP	39 W

Order Code	Full Product Name	Power Consumption
910925868134	BRP102 LED75/740 II DM MSP	56.5 W
910925868135	BRP102 LED110/740 II DM MSP	83.0 W

Approval and Application

Order Code	Full Product Name	Surge Protection (Common/Differential)
910925865338	BRP101 LED37/740 I DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865339	BRP101 LED37/740 II DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865552	BRP101 LED37/740 II DW SDM10	Surge protection level until 10 kV differential mode
910925865553	BRP101 LED37/740 DM FU	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925867783	BRP101 LED37/740 II DM MSP	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865340	BRP102 LED55/740 I DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865341	BRP102 LED55/740 II DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865342	BRP102 LED75/740 I DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865343	BRP102 LED75/740 II DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode

Order Code	Full Product Name	Surge Protection (Common/Differential)
910925865344	BRP102 LED110/740 I DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865345	BRP102 LED110/740 II DM	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865554	BRP102 LED55/740 DW PZM-35	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925865555	BRP102 LED75/740 II DM SDM10	Surge protection level until 10 kV differential mode
910925865556	BRP102 LED110/740 II DW FU	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925868133	BRP102 LED55/740 II DM MSP	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925868134	BRP102 LED75/740 II DM MSP	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode
910925868135	BRP102 LED110/740 II DM MSP	Luminaire surge protection level until 4 kV differential mode and 4 kV common mode

Over Time Performance (IEC Compliant)

Order Code	Full Product Name	Driver failure rate at 5000 h
910925865338	BRP101 LED37/740 I DM	-
910925865339	BRP101 LED37/740 II DM	-
910925865552	BRP101 LED37/740 II DW SDM10	0.05 %
910925865553	BRP101 LED37/740 DM FU	0.05 %
910925867783	BRP101 LED37/740 II DM MSP	-
910925865340	BRP102 LED55/740 I DM	-
910925865341	BRP102 LED55/740 II DM	-
910925865342	BRP102 LED75/740 I DM	-
910925865343	BRP102 LED75/740 II DM	-

Order Code	Full Product Name	Driver failure rate at 5000 h
910925865344	BRP102 LED110/740 I DM	-
910925865345	BRP102 LED110/740 II DM	-
910925865554	BRP102 LED55/740 DW PZM-35	0.05 %
910925865555	BRP102 LED75/740 II DM SDM10	0.05 %
910925865556	BRP102 LED110/740 II DW FU	0.05 %
910925868133	BRP102 LED55/740 II DM MSP	-
910925868134	BRP102 LED75/740 II DM MSP	-
910925868135	BRP102 LED110/740 II DM MSP	-

