

# CALUMMA™ L MC

Featuring an optical design using twelve high efficacy multichip LEDs and available with optional LED colour variants and various beam angles, the large-sized Calumma L MC luminaire creates powerful and beautiful light output for a spot, accent or flood lighting solution. Its durable housing is built to withstand any exterior conditions, and its special finish for harsh and marine environments provides an exceptional outdoor LED luminaire in an elegant design. Additionally, Calumma L MC can be connected in long In/Out daisy-chains via an E-Box and hybrid Plug & Play connections for almost effortless installation. Complemented by wide range of accessories and control protocols, this luminaire is an effective and versatile unit to get the most out of architectural lighting applications.



## KEY FEATURES

### Lumen output & Light source

Luminaire with twelve high-power, multi-chip LEDs provides up to 3990 lumen output. Multiple LED colour variants. No light spills. Perfectly homogenised light output with efficacy up to 36 lm/w.

### Design & Durability

Compact, durable and stylish housing made of high-pressure die cast aluminium. IP67 and IK10 certification; suitable for marine applications (Harsh Environment Finish required) and traffic applications. Supported with a 5 year warranty.

### Flexibility

Exceptional outdoor or indoor LED luminaire with a wide range of accessories, custom colour finishes, multiple light output variants and beam angles.

### Connectivity

Utilising the innovative E-Box series of power and data interfaces, Calumma L MC can communicate via numerous wired, wireless, and Ethernet based control protocols. Various wiring topologies are supported using hybrid power / data cables with Plug & Play connectors or standard connection options.

## COLOURS

\* UPON REQUEST



## COLOUR TEMPERATURE

\* UPON REQUEST

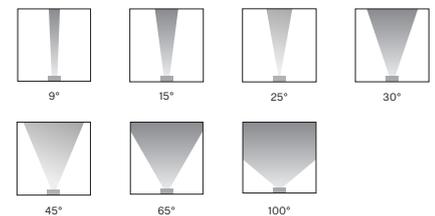


## CONTROL & PROTOCOLS

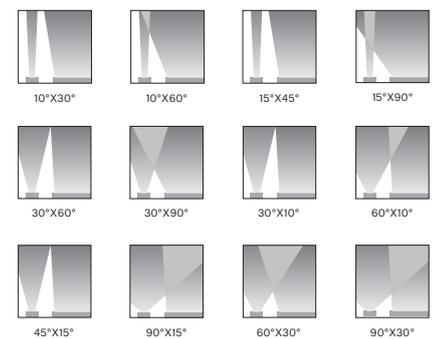


## OPTIC OPTIONS

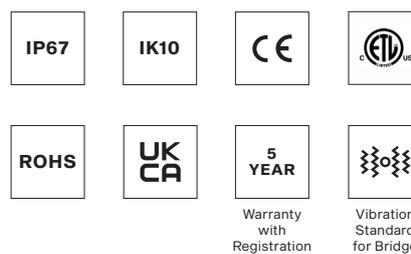
### SYMMETRICAL



### BI-SYMMETRICAL



## STANDARD & SPECIFICATION



## FINISH OPTIONS

\* CLOSEST RAL TONE  
\* HE = Harsh Environment



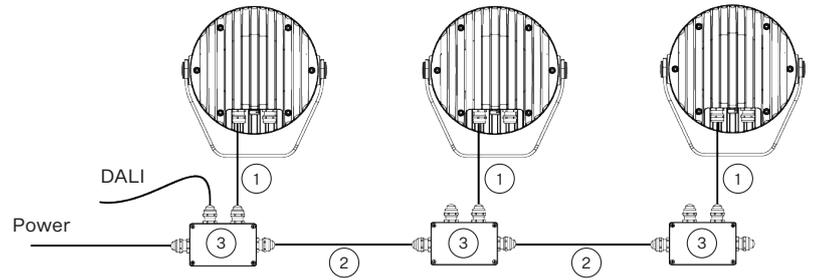
**SPECIFICATION**

<b>ELECTRICAL</b>	Input Voltage	120–277 V AC 50/60 Hz (US)	
	Typical Power Consumption	110 W +/-10 %	
<b>OPTICAL</b>	Light Source	High Power Multichip LEDs	
	Colour Variants	RGBW (W - 6500 K)   RGBA   PW (W - 3000 K)	
		Other Variants On Request (TW 3000 - 6500 K)	
	Beam Angle	9°   15°   25°   30°   45°   65°   100°	
		10°x30°   30°x10°   10°x60°   60°x10°   15°x45°   45°x15° 15°x90°   90°x15°   30°x60°   60°x30°   30°x90°   90°x30°	
Lumen Output Delivered	3990 lm (@9° RGBW)		
Projected Lumen Maintenance	L90B10 >90.000 hrs, Ta = 25°C / 77°F		
<b>CONTROL</b>	Interface Protocol	Via E-box range, DMX/RDM, wireless DMX, DALI 2	
	E-box control protocol	USITT DMX512+RDM, ArtNet, MA Net, MA Net2, sACN, Kling-Net	
	DALI 2 Device Type	DT 8	
	Wireless DMX (Option)	Lumen Radio CRMX Technology	
	Control System	Third Party DMX Controllers	
	Operating Modes	DMX, Stand-alone	
	Settings / Addressing	E-box, RDM communicator	
	Power Supply	Integrated	
<b>PHYSICAL</b>	Width x Height x Depth   Weight	338 x 360 x 116 mm (13.31 x 14.13 x 4.57 in.)   9.43 kg (20.79 lbs)	
	Housing	High Pressure Die-Cast Aluminium Body	
		Tempered Glass	
	Finish Options	Standard Colour	Graphite Black RAL 9011   Grey Aluminium RAL 9007 Pure White RAL 9010   Sandstone RAL 1014
		Standard Colour Harsh Environment	Graphite Black RAL 9011   Grey Aluminium RAL 9007 Pure White RAL 9010   Sandstone RAL 1014
		Cost Option	Custom RAL
	Cables / Connections	<b>IN/OUT (for E- Box version):</b> - 0.5 m cables with hybrid connectors - Jumper cables	<b>IN (for DMX, DALI):</b> - 1 m cable with bare-end - Other cable length - custom - Junction box - optional
	Mounting Method	Yoke or Yoke for Pole Adaptor	
	Adjustability	+180° / -180°	
	Protection Factor	IP67 / Suitable For Wet Locations	
IK Rating	IK10		
Cooling System	Convection		
Operating Ambient Temperature	-20°C / +50°C (-4°F / +122°F)		
<b>CERTIFICATION</b>	Listings	ETL / cETL, CE, RoHS, UKCA	
<b>ACCESSORIES</b>	<b>Not Included Items</b>		
	Junction Box for Calumma S-XL / Eminere (CE or US)		
	Optical Demo Set for Calumma L (for demo purposes)		
	Outdoor Foil Holder for Calumma L „OFH“ version only (for permanent installation)		
	Optical Foil Set for Outdoor Foil Holder Calumma L		
	Land Spike for Calumma L		
	Top Hat Calumma L		
	Half Top Hat Calumma L		
	Re-enterable Electrical Insulating Resin		
	Floor stand for Calumma L, XL		
Pole Adaptor (ø 102mm) (Yoke for Pole Adaptor Required)			

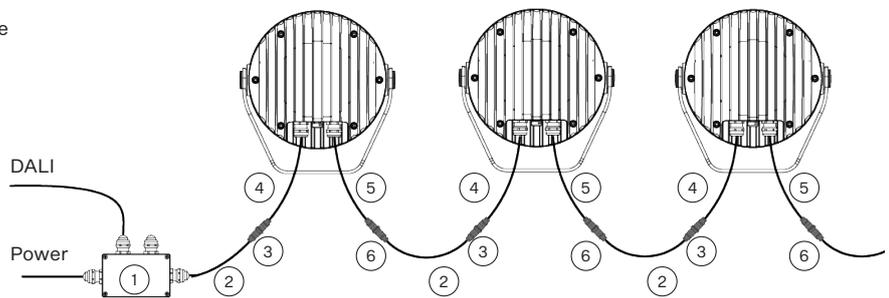
**CONTROL AND CONNECTION OPTIONS - CE**

**DALI**

- 1) Hybrid Cable (13053693) Standard 1 m with bare-end, black or on request Hybrid cable (13053697), 1 m with bare-end, white
- 2) Hybrid Cable (13053693) Standard 1 m with bare-end, black or on request Hybrid cable (13053697), 1 m with bare-end, white or Scope of Others
- 3) Junction Box



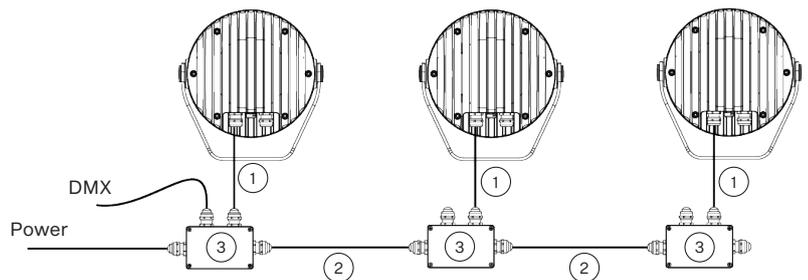
- 1) Junction Box
- 2) Hybrid Cable (13053693) Standard 1 m with bare-end, black or on request Hybrid cable (13053697), 1 m with bare-end, white
- 3) Field Installable Connector FF DC-05 (13053971)
- 4) Hybrid Cable (13053693), black, Standard 0.5 m with Field Installable Connector MM DC-05 (13053972), black  
or on request Hybrid cable (13053697), white, 0.5 m with Field Installable Connector MM DC-05 (13053972), black
- 5) Hybrid Cable (13053693), black, Standard 0.5 m with Field Installable Connector FF DC-05 (13053971), black  
or on request Hybrid cable (13053697), white, 0.5 m with Field Installable Connector FF DC-05 (13053971), black
- 6) Field Installable Connector MM DC-05 (13053972)



**Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.**

**DMX**

- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white
- 2) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white or Scope of Others
- 3) Junction Box



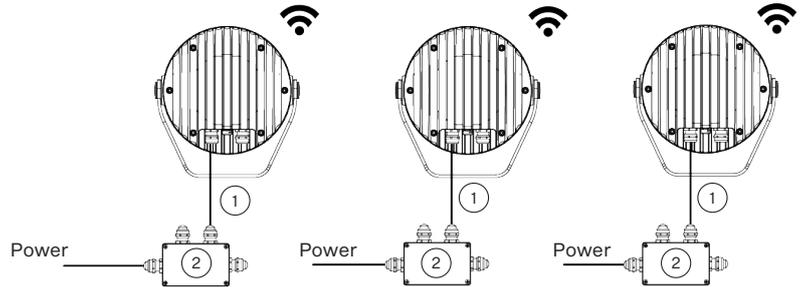
**CONTROL AND CONNECTION OPTIONS - CE**

**WIRELESS DMX**

- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m bare-end, black or Hybrid Cable HYB-5731ZH LSZH (13053694), white

- 2) Junction Box

**Note: This type of connection is available for M, L, XL versions.**

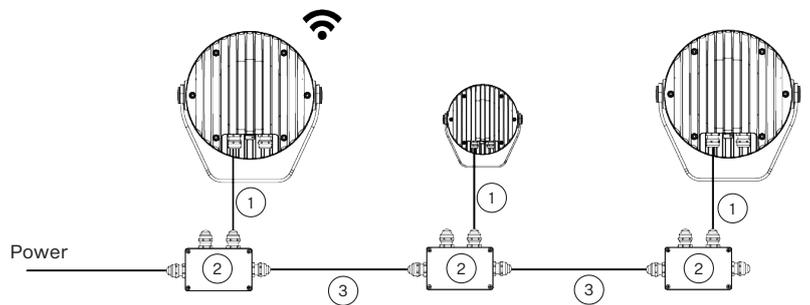


- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m bare-end, black or Hybrid Cable HYB-5731ZH LSZH (13053694), white

- 2) Junction Box

- 3) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508) or HYB-5731ZH LSZH (13053694), Hybrid Cable, white or Scope of Others

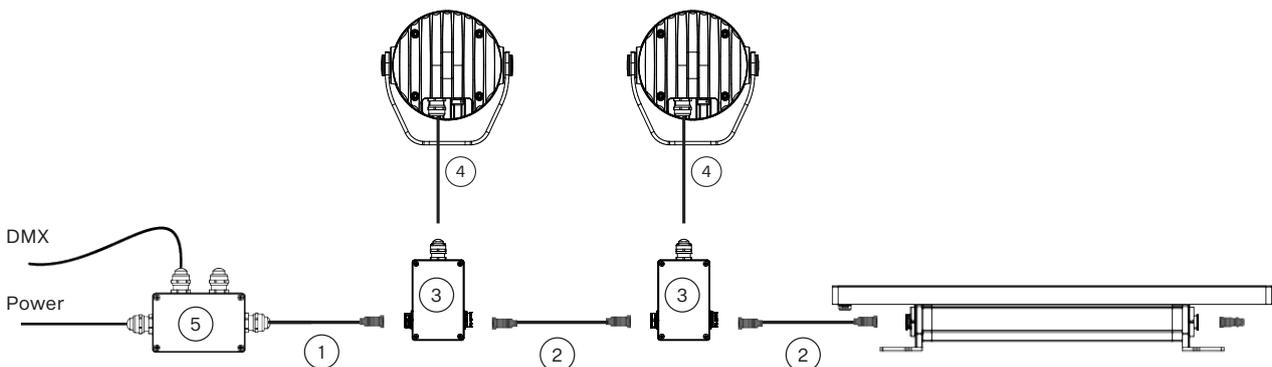
**Note: This type of connection must have M, L or XL versions as the first luminaire. Next luminaires in a row could be chosen from S, M, L or XL versions.**



**DMX WITH JUNCTION BOX FOR CALUMMA L / EMINERE (CE)**

- 1) Leader Cables FF - 2 | 5 | 10 | 25 | 50 m
- 2) Jumper Cables FF/FM - 0.25 | 0.5 | 1 | 2 | 3 | 5 | 10 m
- 3) Junction Box for Calumma S-XL / Eminere CE (10981268 for RAL9011)
- 4) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508) Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white
- 5) Junction Box

**Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.**

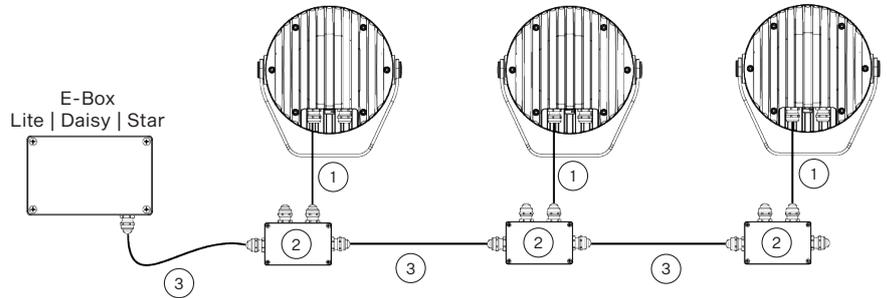


**CONTROL AND CONNECTION OPTIONS - CE**

**DMX or ETHERNET via E-BOX**

- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid cable, white
- 2) Junction Box
- 3) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), black or HYB-5731ZH LSZH (13053694), Hybrid cable, white or Scope of Others

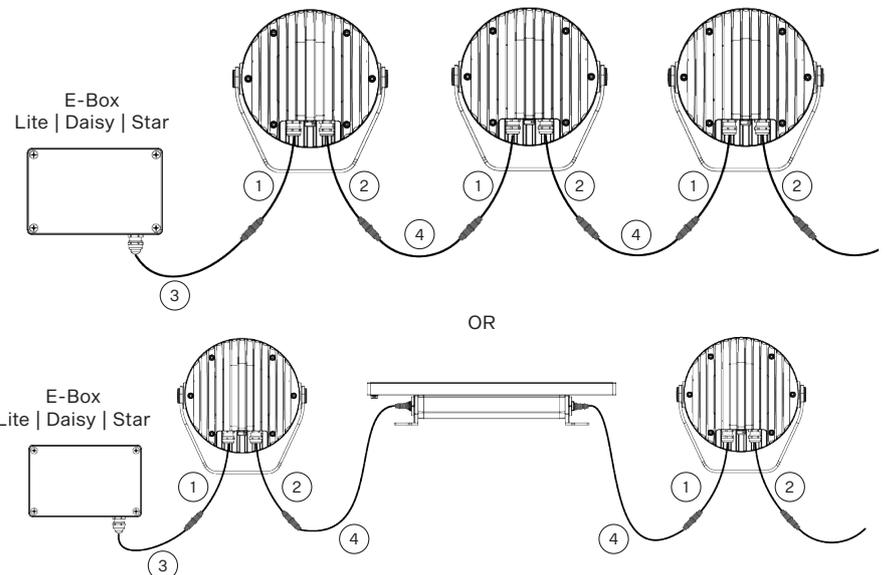
**Note: This type of connection is available for S, M, L, and XL versions. E-Box has to be in Pass Through mode only.**



- 1) Leader Cable MM (13053493)  
Standard 0.5 m with hybrid connector
- 2) Leader Cable MF (13053494)  
Standard 0.5 m with hybrid connector
- 3) Leader Cable FF 2 m (13053438)  
Leader Cable FF 5 m (13053440)  
Leader Cable FF 10 m (13053436)  
Leader Cable FF 25 m (13053437)  
Leader Cable FF 50 m (13053439)

- 4) Jumper Cable FF/FM 0.25 m (13053422)  
Jumper Cable FF/FM 0.5 m (13053423)  
Jumper Cable FF/FM 1 m (13053425)  
Jumper Cable FF/FM 2 m (13053427)  
Jumper Cable FF/FM 3 m (13053428)  
Jumper Cable FF/FM 5 m (13053430)  
Jumper Cable FF/FM 10 m (13053424)

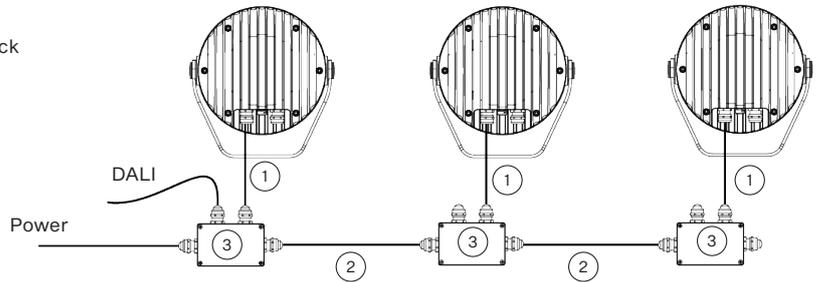
**Note: With this type of connection is possible to connect Calumma (M, L, XL) and Eminere (Eminere, Eminere Side) luminaires in a row.**



CONTROL AND CONNECTION OPTIONS - US

DALI

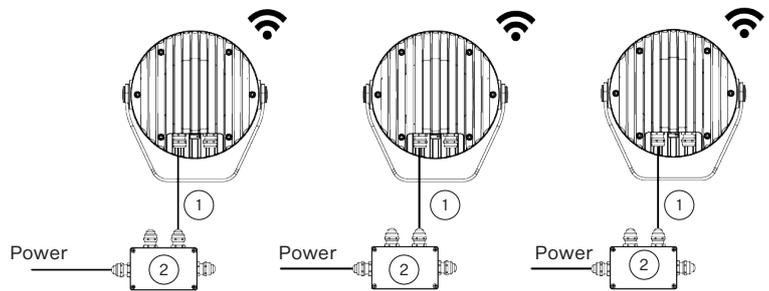
- 1) SJTW 5x14 AWG (13053693), Standard 1 m with bare-end, black or Cable SJTW 5x14 AWG (13053697), white
- 2) SJTW 5x14 AWG (13053693), black or Cable SJTW 5x14 AWG (13053697), white or Scope of Others
- 3) Junction Box



WIRELESS DMX

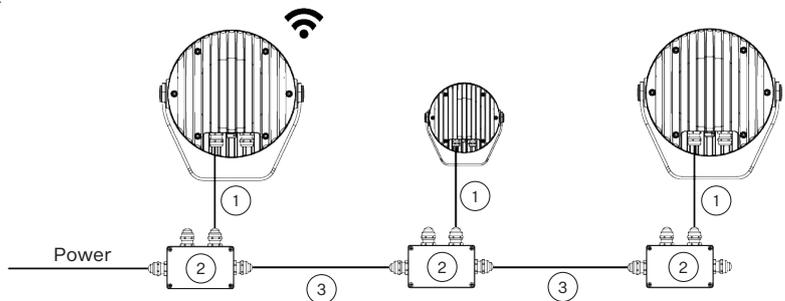
- 1) SJTW 6x14 AWG (13053480), Standard 1 m with bare-end, black or Cable SJTW 6x14 AWG (13053695), white
- 2) Junction Box

**Note: This type of connection is available for M, L, XL versions**



- 1) SJTW 6x14 AWG (13053480), Standard 1 m with bare-end, black or Cable SJTW 6x14 AWG (13053695), white
- 2) Junction Box
- 3) SJTW 6x14 AWG (13053480), black or Cable SJTW 6x14 AWG (13053695), white or Scope of Others

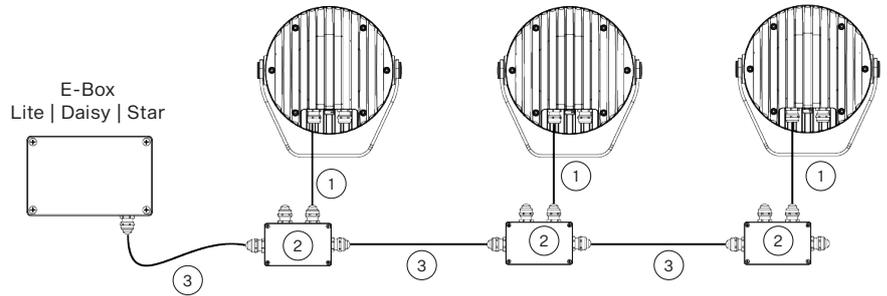
**Note: This type of connection must have M, L or XL versions as the first luminaire. Next luminaires in a row could be chosen from S, M, L or XL versions.**



**CONTROL AND CONNECTION OPTIONS - US**

**DMX or ETHERNET via E-BOX**

- 1) SJTW 6x14 AWG (13053480)  
Standard 1 m with bare-end, black  
or Cable SJTW 6x14 AWG (13053695), white
- 2) Junction Box
- 3) SJTW 6x14 AWG (13053480), black  
or Cable SJTW 6x14 AWG (13053695), white  
or Scope of Others

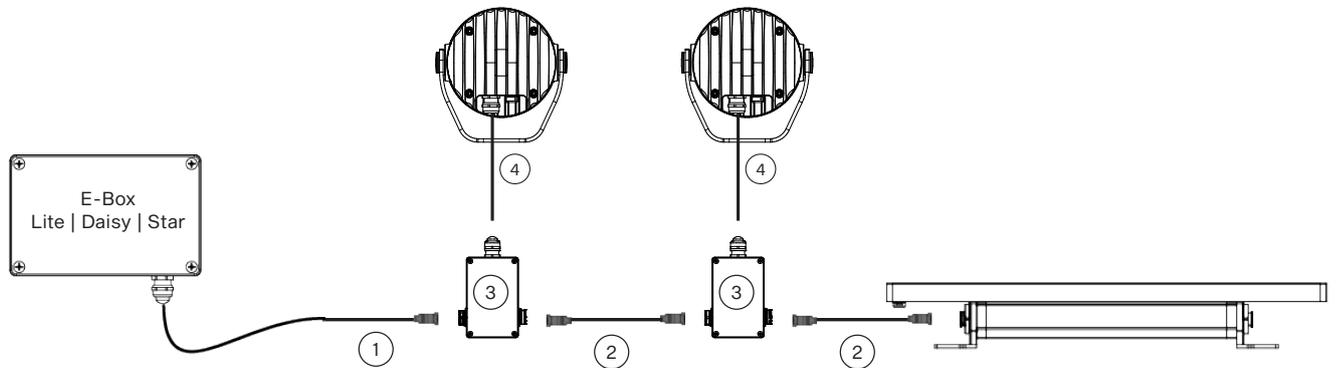


**Note: This type of connection is available for S, M, L and XL versions. E-Box has to be in Pass Through mode only.**

**DMX WITH JUNCTION BOX FOR CALUMMA L / EMINERE (US)**

- 1) Leader Cables FF - 2 | 5 | 10 | 25 | 50 m
- 2) Jumper Cables FF/FM - 0.25 | 0.5 | 1 | 2 | 3 | 5 | 10 m
- 3) Junction Box for Calumma S-XL / Eminere US (10981269 for RAL9011)
- 4) SJTW 6x14 AWG (13053480) Standard 1 m with bare-end, black  
or Cable SJTW 6x14 AWG (13053695), white

**Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.**



## CONNECTIVITY

Following table shows maximum connected Calummas L MC in a row with respect of cable length.

STANDARD MODE	Cable length (m)	Voltage (V)			
		120	190	230	277
CALUMMA L MC	10	17	26	32	38
	20	17	26	32	38
	30	12	26	32	38
	50	7	18	26	37
	70	5	13	18	27
	100	3	9	13	19
	200	3	4	6	9
	500	1	2	3	4

PASS-THROUGH MODE	Cable length (m)	Voltage (V)			
		120	190	230	277
CALUMMA L MC	10	17	26	32	32
	20	17	26	32	32
	30	12	26	32	32
	50	7	18	26	32
	70	5	13	18	27
	100	3	9	13	19

## BOOSTER BOX POSITIONS

Cable length (m)	Max. number of Calummas L MC= 191 (in Standard mode)			
	120 V	190 V	230 V	277 V
10 m	17	26	-	-
20 m	17, 34, 51	26, 32	32	38
30 m	12, 24, 36, 48, 60, 71, 84	26, 52, 78	32, 64	38, 76
50 m	7, 14, 21, 28, 35, 42, 49, 56, 63...	18, 32, 54, 72, 90...	26, 52, 78, 104...	37, 74, 111...
70 m	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80...	13, 26, 39, 52, 65, 78, 91, 104, 117...	18, 36, 54, 72, 90 108...	27, 54, 81, 108, 135...
100 m	3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81...	9, 18, 27, 36, 45, 54, 72, 81, 90, 99, 108, ...	13, 26, 39, 52, 65, 78, 91, 104...	19, 38, 57, 76, 95, 114...
200 m	3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81...	4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84....	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102....	9, 18, 27, 36, 45, 54, 63, 81, 90, 99, 108, 117....
500 m	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11....	2, 4, 6, 8, 10, 12, 14, 16, 18....	3, 6, 9, 12, 15, 18, 21....	4, 8, 12, 16, 20, 24, 28....

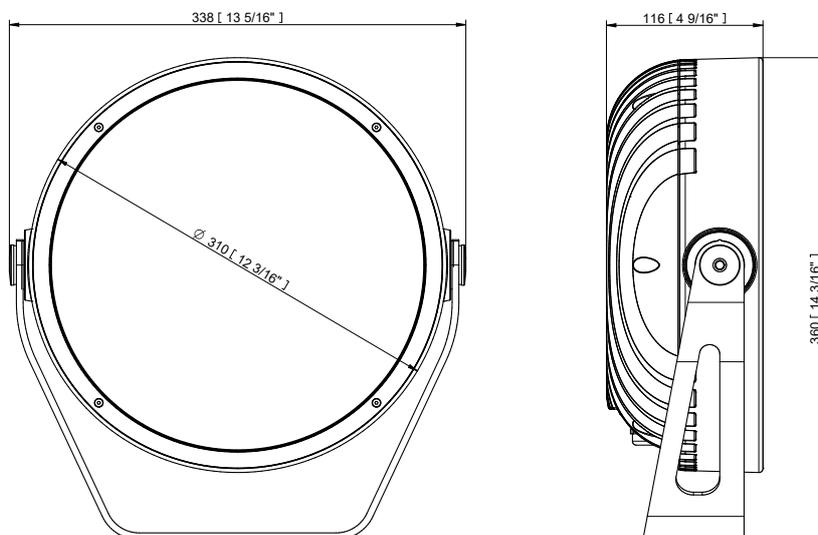
NOTE: For more detail see the User manual.

## PROJECTED AREA

	Front (rear) - m <sup>2</sup>	Front (rear) ft <sup>2</sup>	Side - m <sup>2</sup>	Side - ft <sup>2</sup>	Top - m <sup>2</sup>	Top - ft <sup>2</sup>
Calumma L	0.080	0.861	0.037	0.398	0.035	0.373
with Top Hat	0.080	0.861	0.087	0.936	0.085	0.911
with Half Top Hat	0.080	0.861	0.059	0.635	0.082	0.882

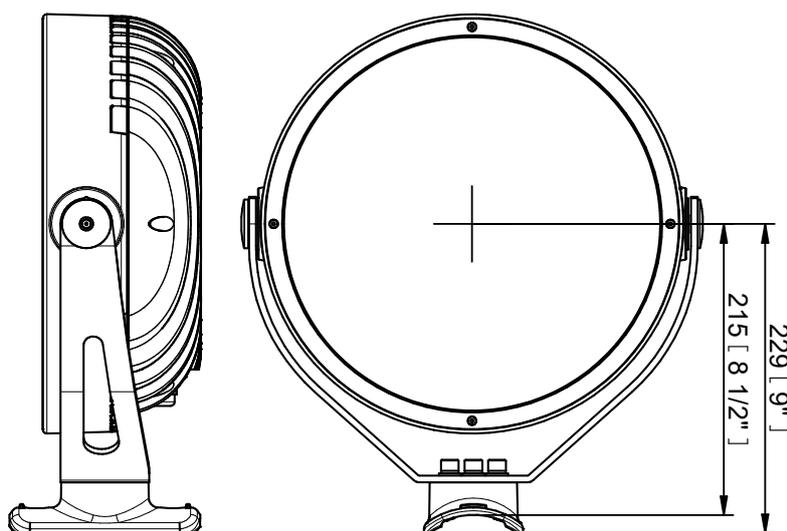
## DIMENSIONS

### Standard Yoke



### Yoke for Pole Adaptor (with Pole Adaptor / PA)

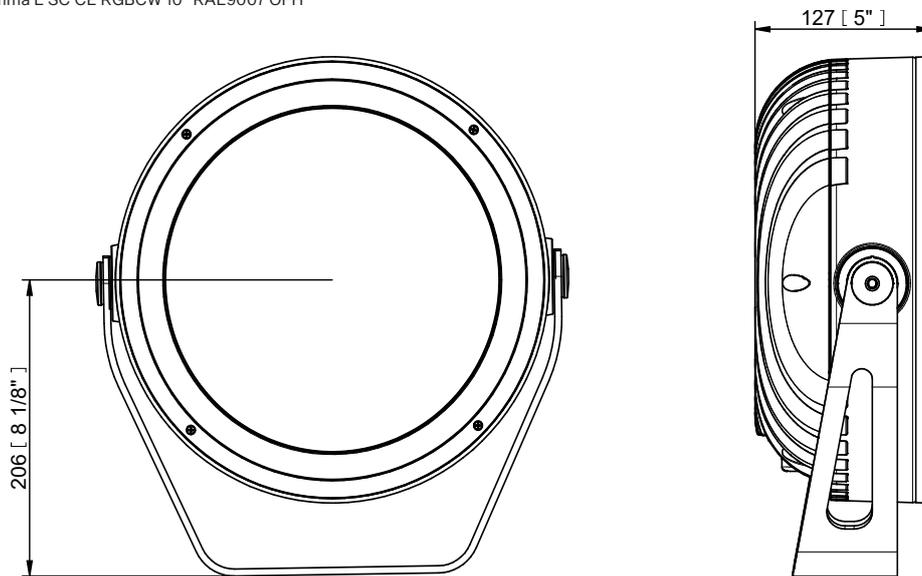
Example of ordering code: Calumma L SC RGCW 15° PA



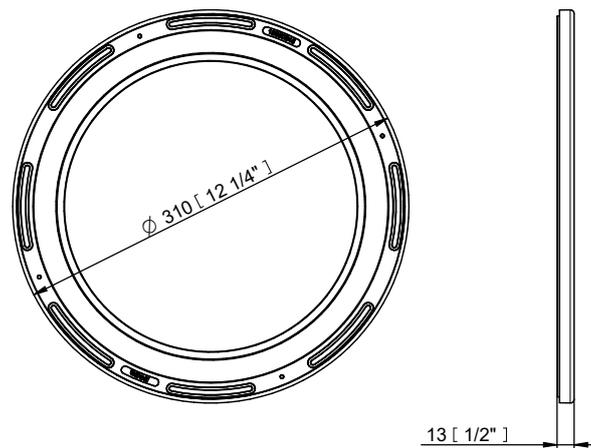
**ACCESSORIES**

**Outdoor Foil Holder for Calumma L „OFH“ version only (for permanent installation)**

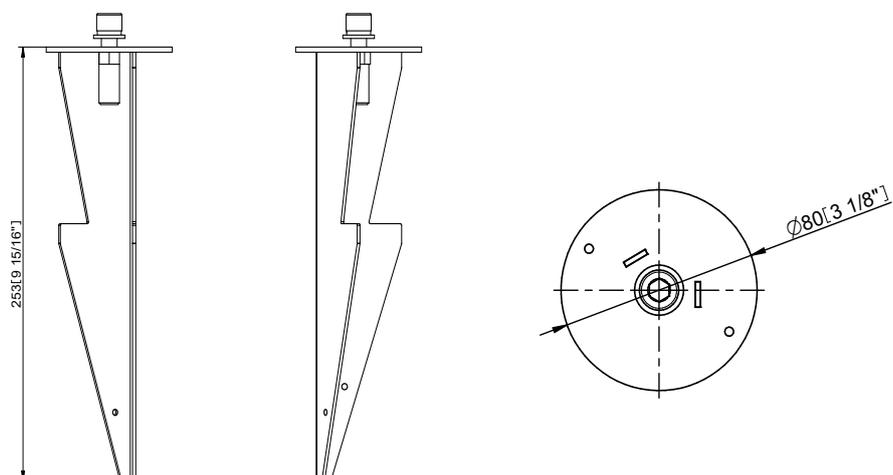
Example of ordering code: Calumma L SC CE RGBCW 10° RAL9007 OFH



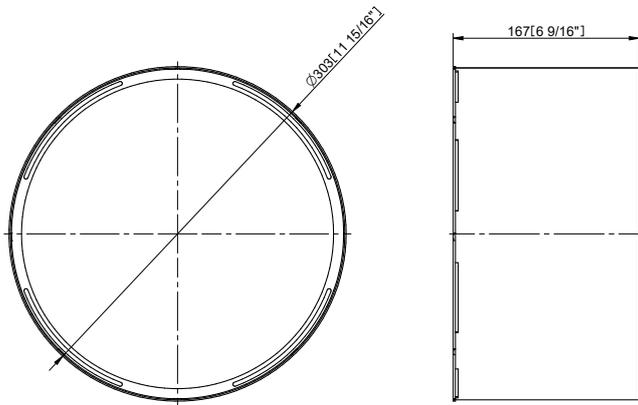
**Outdoor Foil Holder for Calumma L**



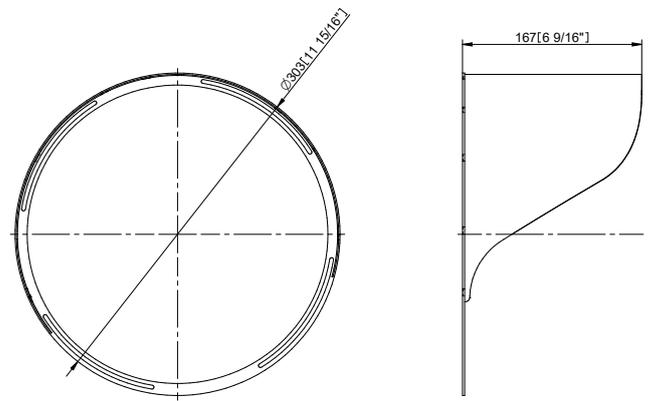
**Land Spike for Calumma (S, M, L, XL)**



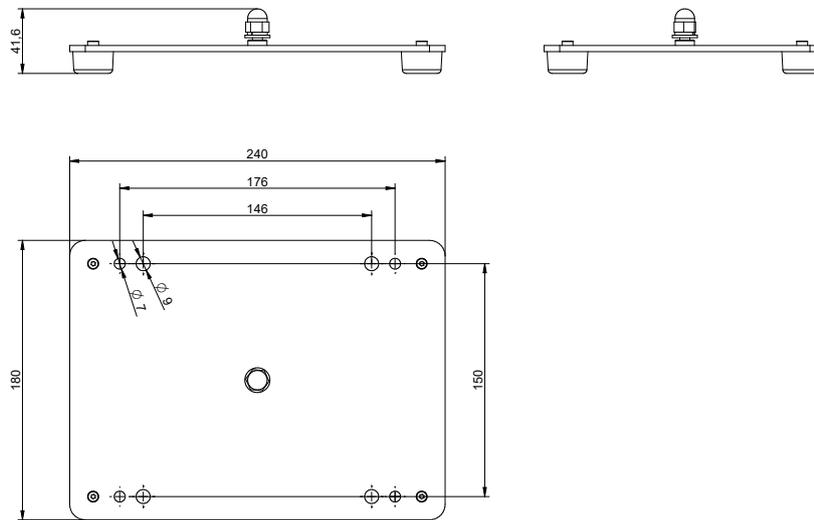
Top Hat



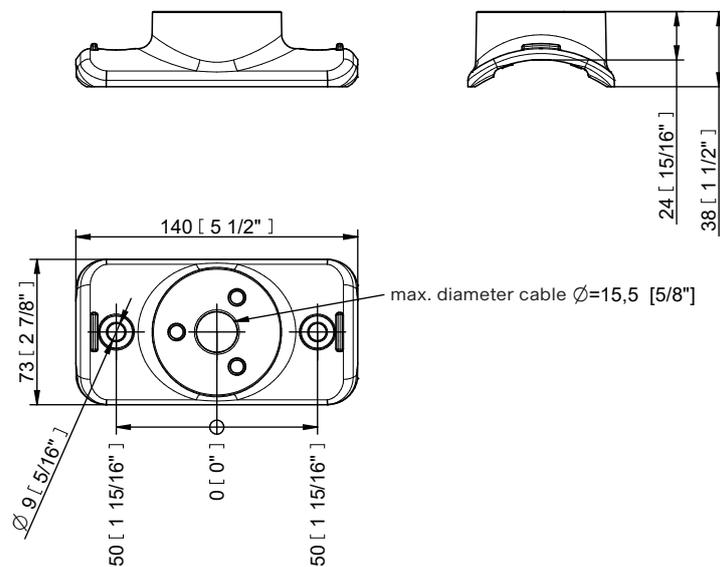
Half Top Hat



Floor Stand



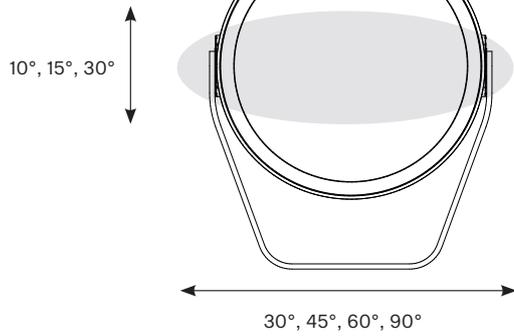
Pole Adaptor



**BI-SYMMETRICAL BEAM ANGLES**

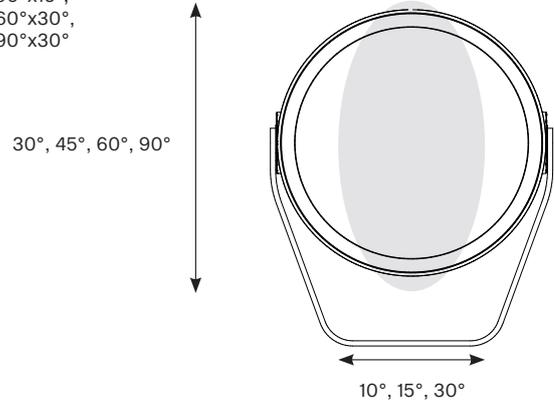
**Bi-symmetrical:**

10°x30°,  
10°x60°,  
15°x45°,  
15°x90°,  
30°x60°,  
30°x90°



**Bi-symmetrical:**

30°x10°,  
60°x10°,  
45°x15°,  
90°x15°,  
60°x30°,  
90°x30°



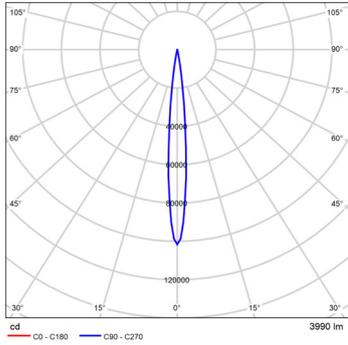
**PHOTOMETRIC OVERVIEW**

Lumen Output (lm)

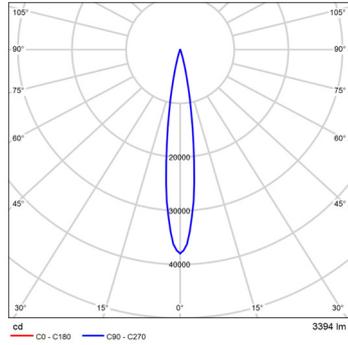
	RGBCW (W 6500 K)	RGBA	WW (W 3000 K)
9°	3990	3421	3402
15°	3394	2911	2894
25°	3395	2911	2894
30°	3340	2864	2847
45°	3386	2904	2887
65°	3390	2907	2890
100°	3351	2873	2856
10°x30°, 30°x10°	3205	2747	2732
10°x60°, 60°x10°	3563	3055	3037
15°x45°, 45°x15°	3629	3111	3093
30°x60°, 60°x30°	3371	2891	2875
30°x90°, 90°x30°	3624	3109	3090
15°x90°, 90°x15°	3609	3095	3077

PHOTOMETRIC DATA

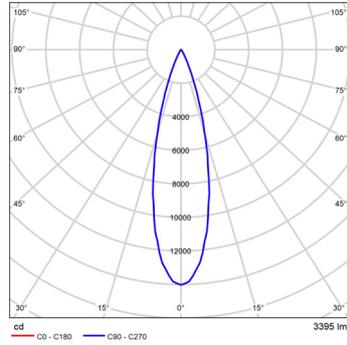
Calumma L MC RGBW 6500K 9dg



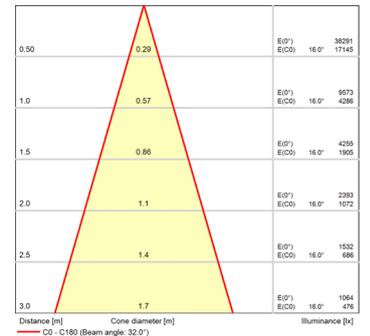
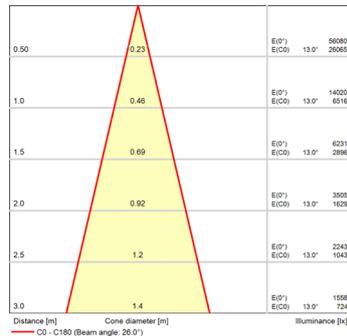
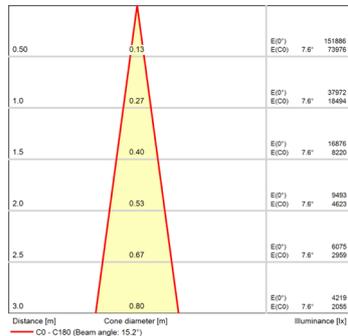
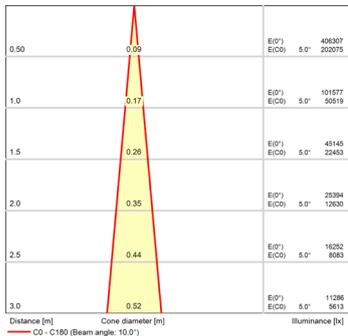
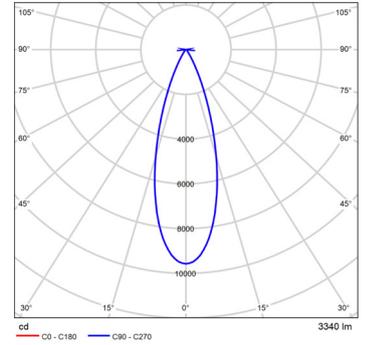
Calumma L MC RGBW 6500K 15dg



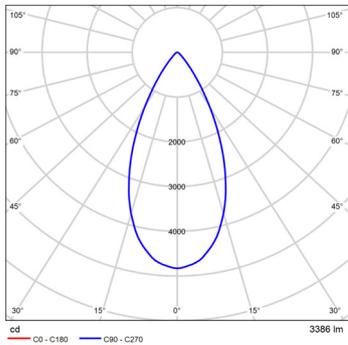
Calumma L MC RGBW 6500K 25dg



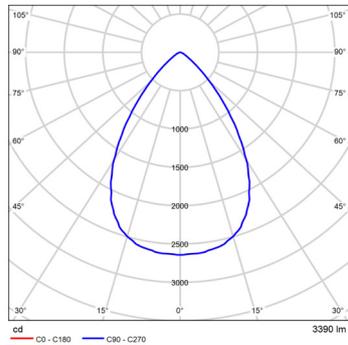
Calumma L MC RGBW 6500K 30dg



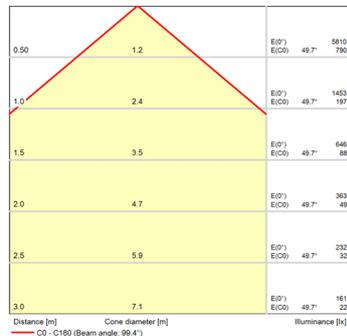
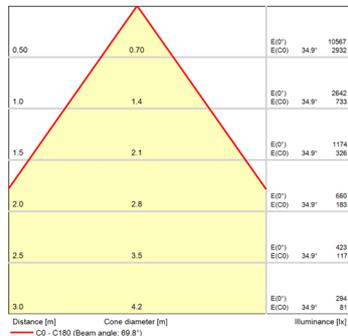
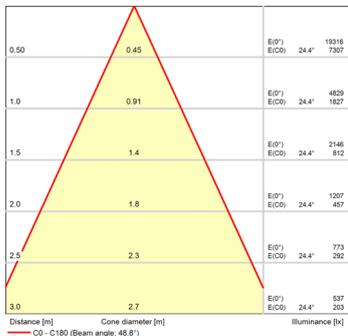
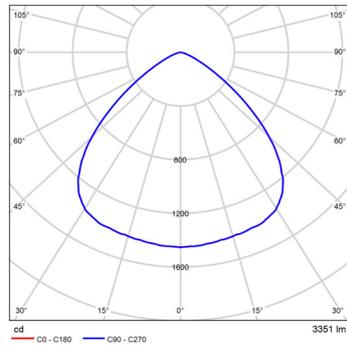
Calumma L MC RGBW 6500K 45dg



Calumma L MC RGBW 6500K 65dg

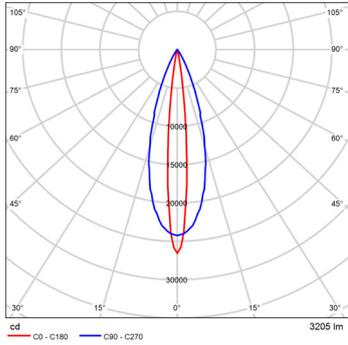


Calumma L MC RGBW 6500K 100dg



PHOTOMETRIC DATA

Calumma L MC RGBW 6500K  
10x30dg

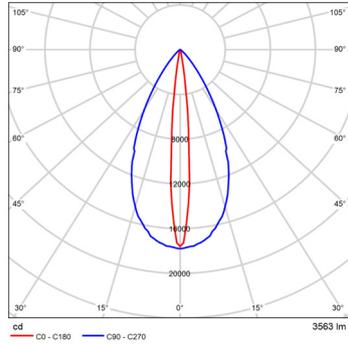


Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	0.35 0.09	106133	16.7° 42792	5.2° 53293
1.0	0.69 0.36	26533	16.7° 10688	5.2° 13333
1.5	0.90 0.27	11793	16.7° 4755	5.2° 5921
2.0	1.2 0.33	6633	16.7° 2875	5.2° 3331
2.5	1.5 0.46	4245	16.7° 1712	5.2° 2132
3.0	1.8 0.55	2948	16.7° 1188	5.2° 1480

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 10.4°)    — C90 - C270 (Beam angle: 33.4°)

Calumma L MC RGBW 6500K  
10x60dg

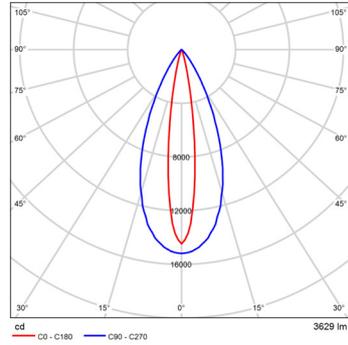


Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	0.50 0.17	70346	26.3° 25796	5.0° 30186
1.0	0.99 0.17	17587	26.3° 6434	5.0° 8789
1.5	1.5 0.26	7816	26.3° 2860	5.0° 3066
2.0	2.0 0.35	4387	26.3° 1609	5.0° 2197
2.5	2.5 0.44	2814	26.3° 1029	5.0° 1406
3.0	3.0 0.52	1954	26.3° 715	5.0° 977

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 10.0°)    — C90 - C270 (Beam angle: 52.6°)

Calumma L MC RGBW 6500K  
15x45dg

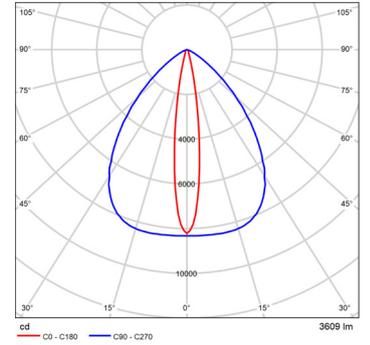


Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	3.00 0.14	57865	22.0° 24259	7.7° 30214
1.0	0.81 0.27	14465	22.0° 6085	7.7° 7054
1.5	1.2 0.41	6429	22.0° 2704	7.7° 3135
2.0	1.6 0.54	3617	22.0° 1521	7.7° 1783
2.5	2.0 0.68	2315	22.0° 974	7.7° 1129
3.0	2.4 0.81	1607	22.0° 676	7.7° 784

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 15.4°)    — C90 - C270 (Beam angle: 44.0°)

Calumma L MC RGBW 6500K  
15x90dg

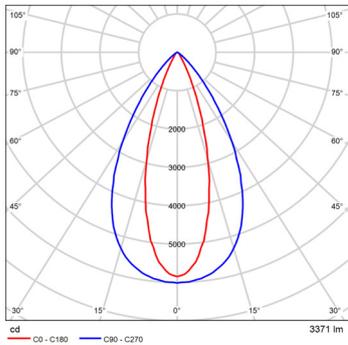


Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	0.88 0.13	33878	41.3° 7113	7.6° 16302
1.0	1.8 0.27	8219	41.3° 1778	7.6° 4051
1.5	2.6 0.40	3653	41.3° 780	7.6° 1000
2.0	3.5 0.53	2055	41.3° 445	7.6° 1013
2.5	4.4 0.67	1515	41.3° 285	7.6° 648
3.0	5.3 0.80	913	41.3° 186	7.6° 450

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 15.2°)    — C90 - C270 (Beam angle: 82.6°)

Calumma L MC RGBW 6500K  
30x60dg

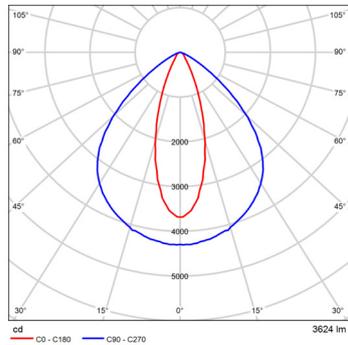


Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	0.58 0.28	23388	29.9° 7859	15.7° 10441
1.0	1.2 0.58	5847	29.9° 1965	15.7° 2610
1.5	1.7 0.84	2599	29.9° 873	15.7° 1160
2.0	2.3 1.1	1462	29.9° 491	15.7° 653
2.5	2.9 1.4	936	29.9° 314	15.7° 418
3.0	3.5 1.7	650	29.9° 218	15.7° 290

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 31.4°)    — C90 - C270 (Beam angle: 58.8°)

Calumma L MC RGBW 6500K  
30x90dg



Distance [m]	Cone diameter [m]	E(0°)	E(C90)	E(C0)
0.50	1.0 0.30	14724	45.3° 3000	16.8° 6469
1.0	2.0 0.60	3681	45.3° 750	16.8° 1617
1.5	3.0 0.91	1636	45.3° 333	16.8° 719
2.0	4.0 1.2	920	45.3° 188	16.8° 404
2.5	5.1 1.5	589	45.3° 130	16.8° 259
3.0	6.1 1.8	409	45.3° 92	16.8° 180

Distance [m]    Cone diameter [m]    Illuminance [lx]

— C0 - C180 (Beam angle: 33.8°)    — C90 - C270 (Beam angle: 50.8°)