

# CALUMMA™ M SC

Featuring an optical design using 37 high efficacy single-chip LEDs and available with optional LED colour variants and various beam angles, the medium-sized Calumma M SC 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 M SC 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 37 high-power, singlechip LEDs provides up to 3478 lumen output. Multiple LED colour variants. No light spills. Well homogenised light output with great efficacy up to 57 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

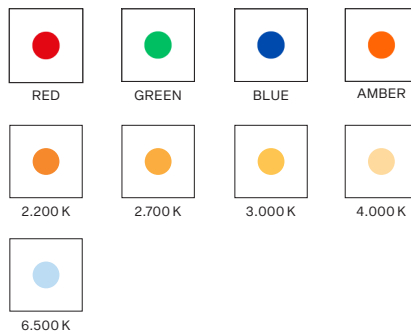
Utilising the innovative E-Box series of power and data interfaces, Calumma M SC can communicate via numerous wired, wireless, and Ethernet based control protocols. Various wiring topologies are supported using hybrid power / data cables with Plug & Play connectors or standard connection options.

## COLOURS

### STANDARD

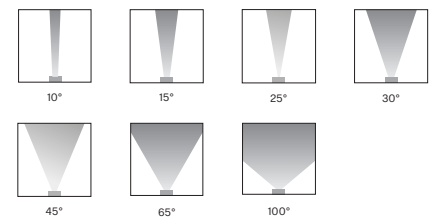


### UPON REQUEST

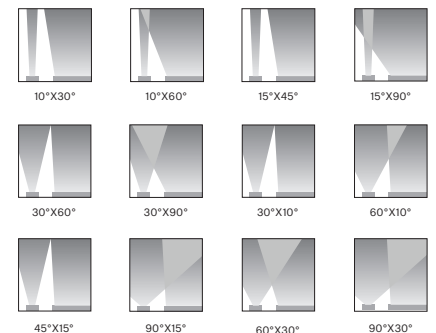


## OPTIC OPTIONS

### SYMMETRICAL



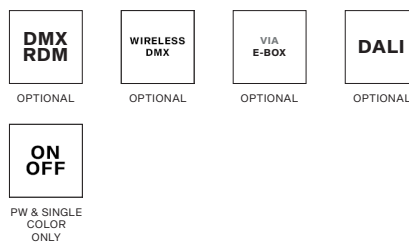
### BI-SYMMETRICAL



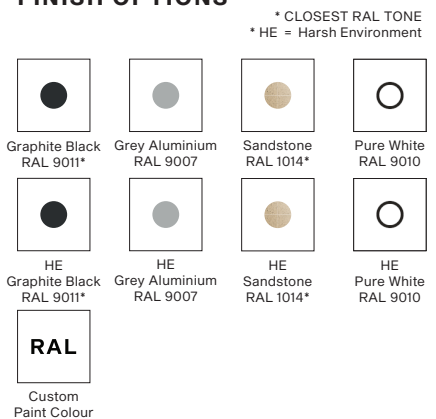
## STANDARD & SPECIFICATION



## CONTROL & PROTOCOLS



## FINISH OPTIONS



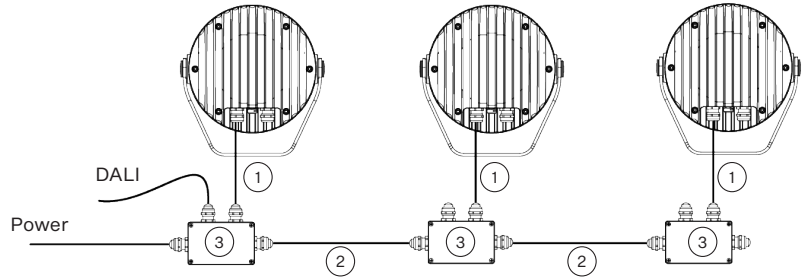
**SPECIFICATION**

<b>ELECTRICAL</b>	Input Voltage	120–277 V AC 50/60 Hz (US)		
	Typical Power Consumption	60 W +/-10 %		
<b>OPTICAL</b>	Light Source	37x High Power Single Chip LEDs		
	Colour Variants	RGBW (W - 6500 K)   RGBA   Pure White (W - 3000 K)   Tuneable White (2200–3000 K) <b>Custom Setup On Request:</b> Red, Green, Blue, Amber, 2200 K, 2700 K, 3000 K, 4000 K, 6500 K		
	Beam Angle	10°   15°   25°   30°   45°   65°   100° 10°x30°   30°x10°   10°x60°   60°x10°   15°x45°   45°x 15° 15°x90°   90°x15°   30°x60°   60°x30°   30°x90°   90°x30°		
	Lumen Output Delivered	3478 lm (@10° 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 or ON/OFF (PW & single color only)		
	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 or third party DALI 2 controllers, Ethernet		
	Operating Modes	DMX, Stand-alone		
	Settings / Addressing	E-Box, RDM communicator		
	Power Supply	Integrated		
<b>PHYSICAL</b>	Width x Height x Depth   Weight	264 x 278 x 106 mm (10.4 x 10.94 x 4.17 in.)   5.9 kg (13 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, ON/OFF):</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 M (for demo purposes)			
	Outdoor Foil Holder for Calumma M „OFH“ version only (for permanent installation)			
	Optical Foil Set for Outdoor Foil Holder Calumma M			
	Land Spike for Calumma M			
	Top Hat Calumma M			
	Half Top Hat Calumma M			
	Re-enterable Electrical Insulating Resin			
	Floor Stand for Calumma S, M			
Pole Adaptor (ø 102mm) (Yoke for Pole Adaptor Required)				

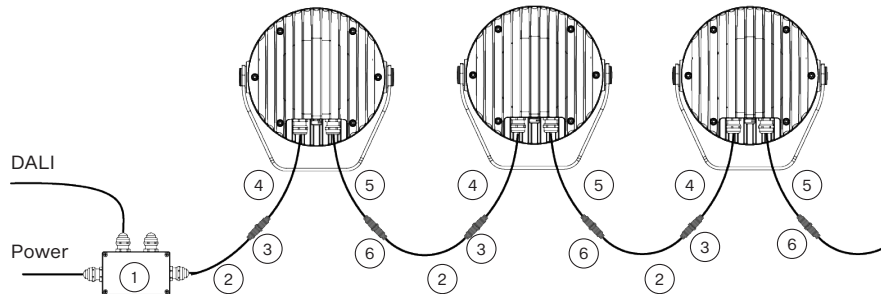
**CONTROL AND CONNECTION OPTIONS - CE**

**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



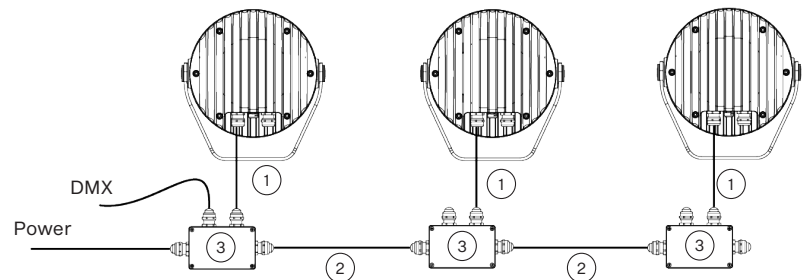
- 1) Junction Box
- 2) Hybrid Cable (13053693) Standard 1 m with bare-end, black or on request Hybrid cable (13053697), 1 m with bare-end, white
- 3) Field Installable Connector FF DC-05 (13053971)
- 4) Hybrid Cable (13053693), black, standard 0,5 m with Field Installable Connector MM DC-05 (13053972), 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**

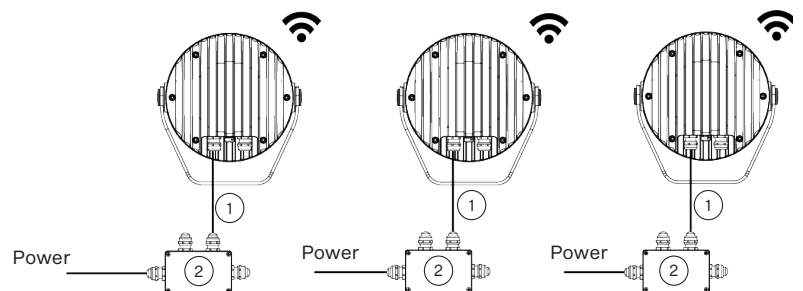
- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white
- 2) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white or Scope of Others
- 3) Junction Box



**WIRELESS 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) Junction Box

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

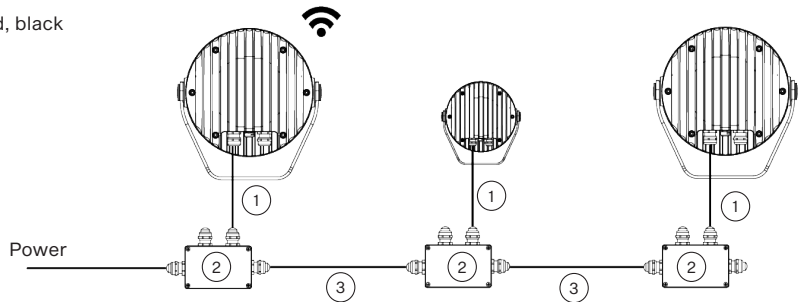


**CONTROL AND CONNECTION OPTIONS - CE**

**WIRELESS DMX**

- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m 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

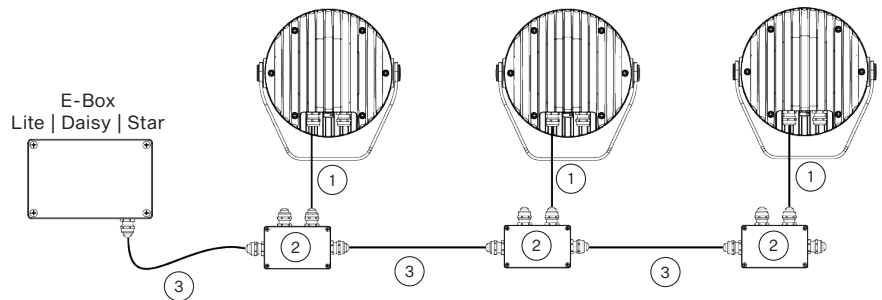
**Note: This type of connection must have M, L or XL versions as the first luminaire. Next luminaires in a row could be chosen from S, M, L or XL versions.**



**DMX 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

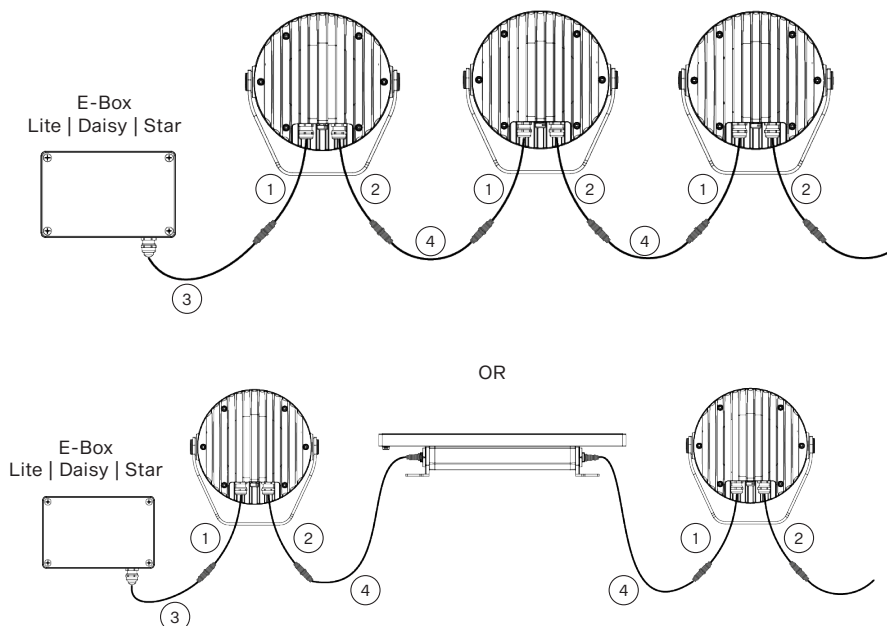
**Note: This type of connection is available for S, M, L, and XL versions. E-Box has to be in Pass Through mode only.**



- 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.**

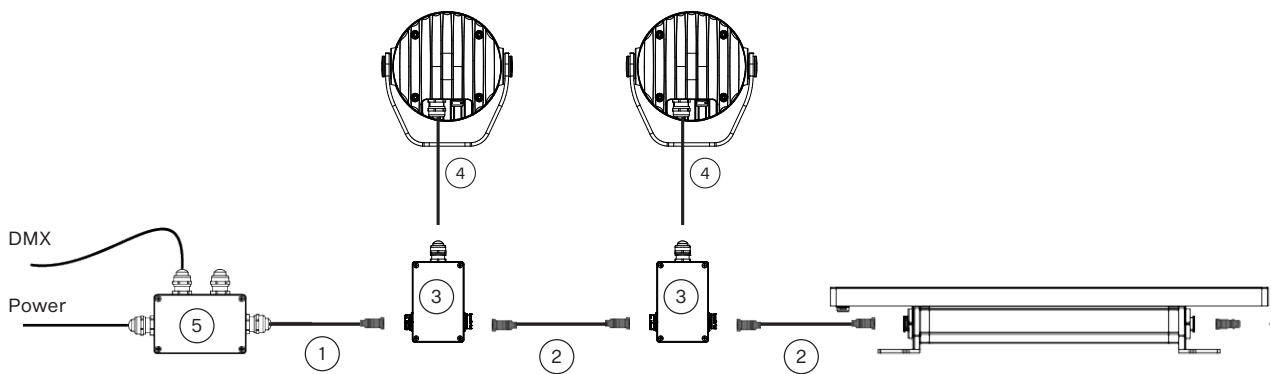


**CONTROL AND CONNECTION OPTIONS - CE**

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

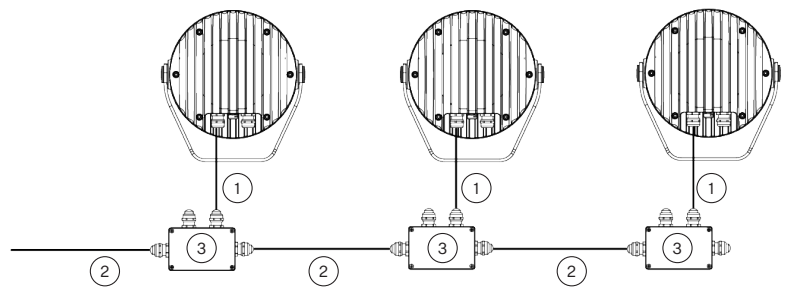
- 1) Leader Cables FF - 2 | 5 | 10 | 25 | 50 m
- 2) Jumper Cables FF/FM - 0,25 | 0,5 | 1 | 2 | 3 | 5 | 10 m
- 3) Junction Box for Calumma S-XL / Eminere CE (10981268 for RAL9011)
- 4) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid cable, white
- 5) Junction Box

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



**ON/OFF**

- 1) H07BB-F 3G 1.5 (13050919), 3-cored cable, Standard 1 m with bare-end, black
- 2) H07BB-F 3G 1.5 (13050919), 3-cored cable, Standard 1 m with bare-end, black or Scope of Others
- 3) Junction Box or Scope of Others

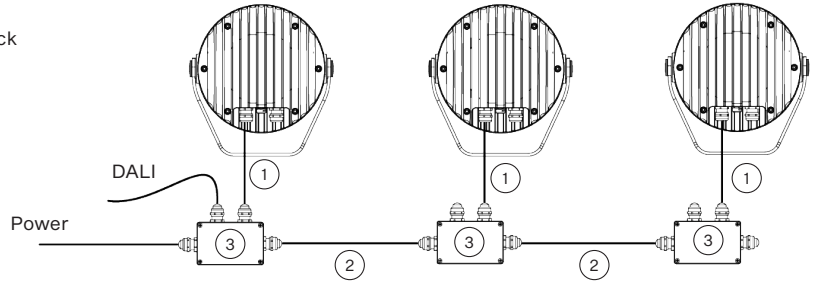


**Note: This type of connection is available for Pure White and single color version only. Non dimmable.**

**CONTROL AND CONNECTION OPTIONS - US**

**DALI**

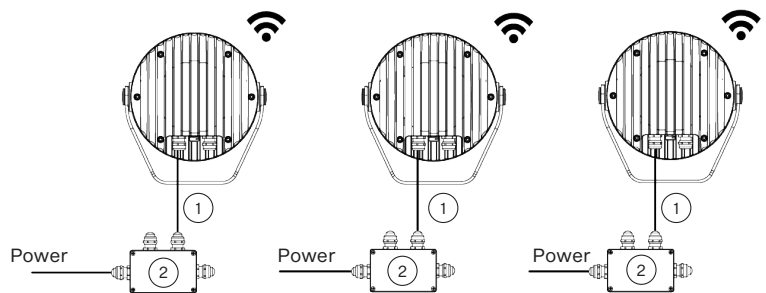
- 1) SJTW 5x14 AWG (13053693), Standard 1 m with bare-end, black or Cable SJTW 5x14 AWG (13053697), white
- 2) SJTW 5x14 AWG (13053693), black or Cable SJTW 5x14 AWG (13053697), white or Scope of Others
- 3) Junction Box



**WIRELESS DMX**

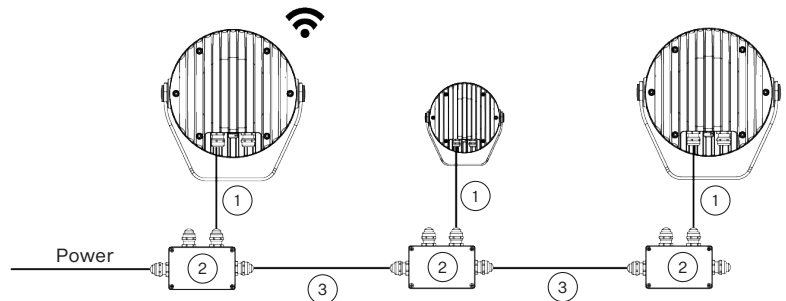
- 1) SJTW 6x14 AWG (13053480), Standard 1 m with bare-end, black or Cable SJTW 6x14 AWG (13053695), white
- 2) Junction Box

**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

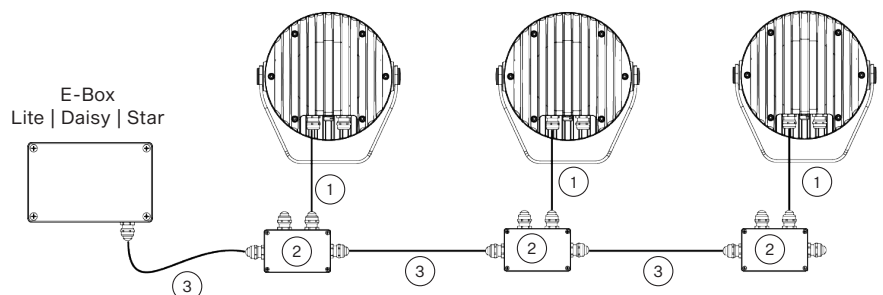
**Note: This type of connection must have M, L or XL versions as the first luminaire. Next luminaires in a row could be chosen from S, M, L or XL versions.**



**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.**

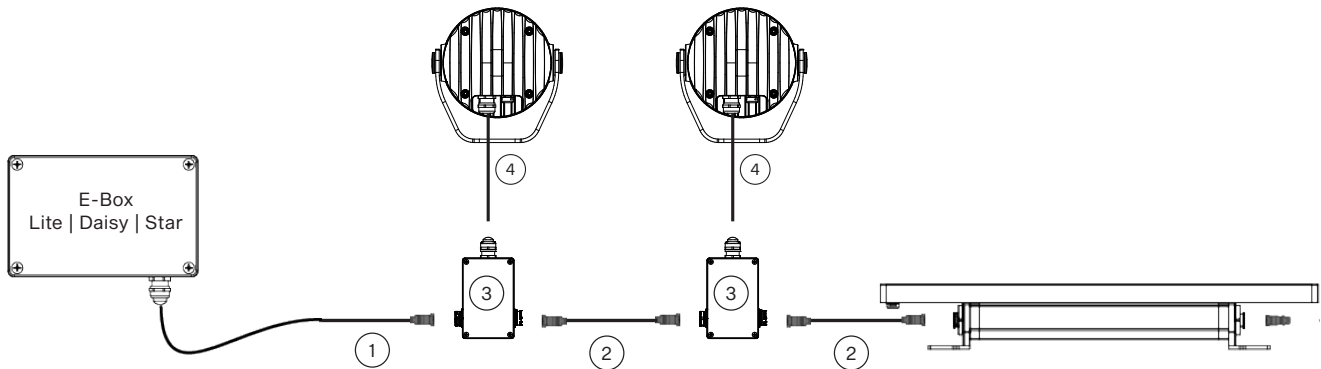


**CONTROL AND CONNECTION OPTIONS - US**

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

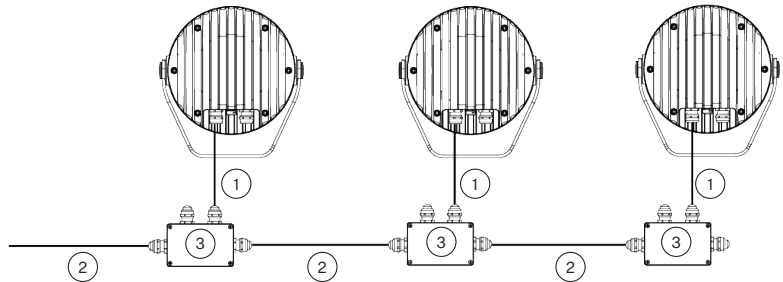
- 1) Leader Cables FF - 2 | 5 | 10 | 25 | 50 m
- 2) Jumper Cables FF/FM - 0,25 | 0,5 | 1 | 2 | 3 | 5 | 10 m
- 3) Junction Box for Calumma S-XL / Eminere US (10981269 for RAL9011)
- 4) SJTW 6x14 AWG (13053480) Standard 1 m with bare-end, black or Cable SJTW 6x14 AWG (13053695), white

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



**ON/OFF**

- 1) SEOOW power 3x16 AWG (13051558-01), 3-cored cable, standard 1 m with bare-end, black
- 2) SEOOW power 3x16 AWG (13051558-01), 3-cored cable, standard 1 m with bare-end, black or Scope of Others
- 3) Junction Box or Scope of Others



**Note: This type of connection is available for Pure White & single color version only. Non dimmable.**

## CONNECTIVITY

Following table shows maximum connected Calummas M SC in a row with respect of cable length.

STANDARD MODE	Cable length (m)	Voltage (V)				PASS-THROUGH MODE	Cable length (m)	Voltage (V)				
		120	190	230	277			120	190	230	277	
CALUMMA M SC	10	30	48	58	70	CALUMMA M SC	10	30	32	32	32	
	20	30	48	58	70		20	30	32	32	32	
	30	21	48	58	70		30	21	32	32	32	
	50	13	32	47	68		50	13	32	32	32	
	70	9	23	34	49		70	9	23	32	32	
	100	6	16	24	34		100	6	16	24	32	
	200	3	8	12	17							
	500	1	3	5	7							

## 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 M	0,047	0,500	0,026	0,280	0,024	0,258
with Top Hat	0,047	0,500	0,054	0,581	0,052	0,559
with Half Top Hat	0,047	0,500	0,037	0,398	0,052	0,559

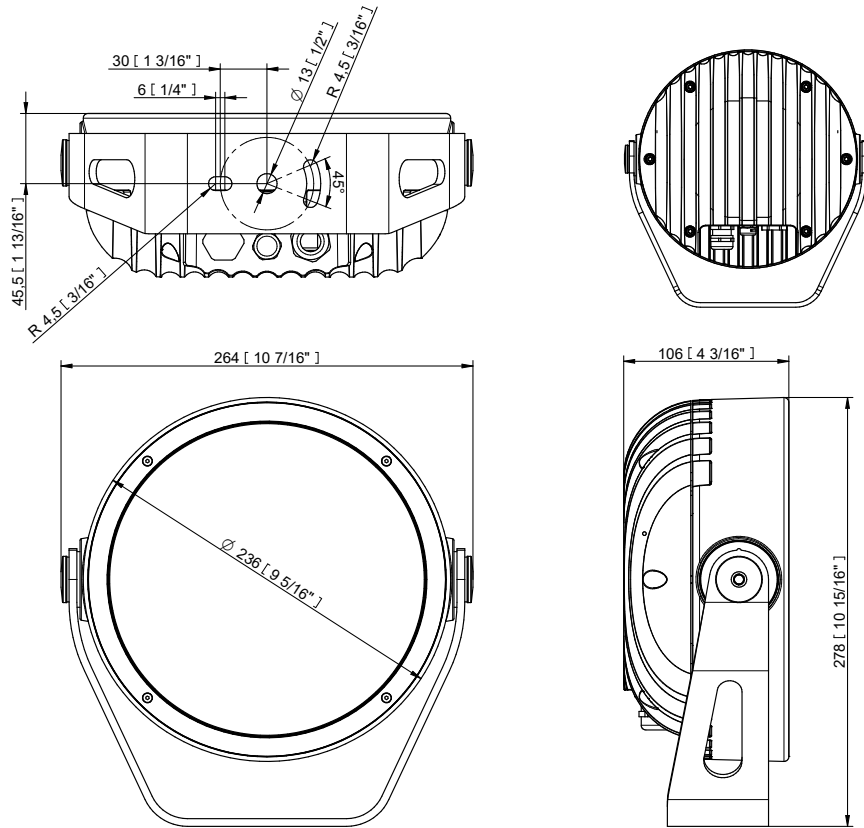
## BOOSTER BOX POSITIONS

Cable length (m)	Max. number of Calummas M SC= 191 (in Standard mode)			
	120 V	190 V	230 V	277 V
10 m	30	-	-	-
20 m	30, 60	48	58	70
30 m	21, 42, 63, 84, 105, ...	48, 96	58	70
50 m	13, 26, 39, 52, 65, 78, 91...	32, 64, 96, 128, 158, 180...	47, 94, 141, 188...	68, 136
70 m	9, 18, 27, 36, 45, 54, 63....	23, 46, 69, 92, 115...	34, 68, 102, 136...	49, 98, 147, 196..
100 m	16, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102....	16, 32, 48, 64, 80, 96, 112, 128, 144...	24, 48, 72, 96, 120...	34, 68, 102, 136...
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...	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96....	12, 24, 48, 56, 64, 76, 88, 100...	17, 34, 51, 68, 85, 102
500 m	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11....	3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48....	5, 10, 15, 20, 25, 30, 35, 40...	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77...

NOTE: For more detail see the User manual.

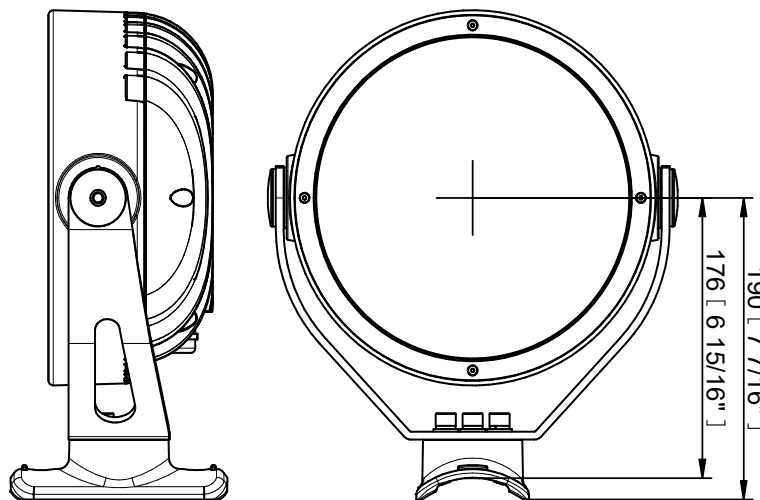
**DIMENSIONS**

**Standard Yoke**



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

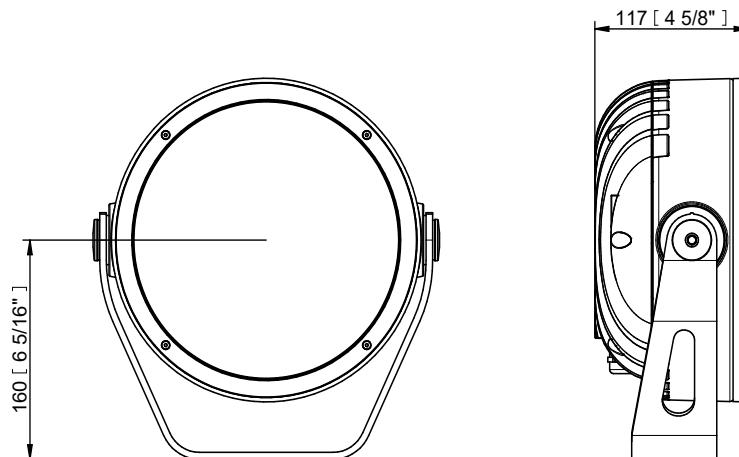
Example of ordering code: Calumma M SC RGBCW 15° PA



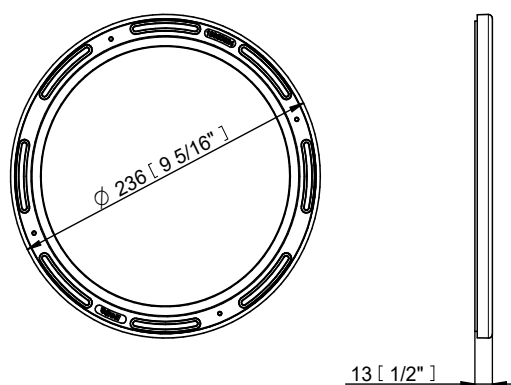
**ACCESSORIES**

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

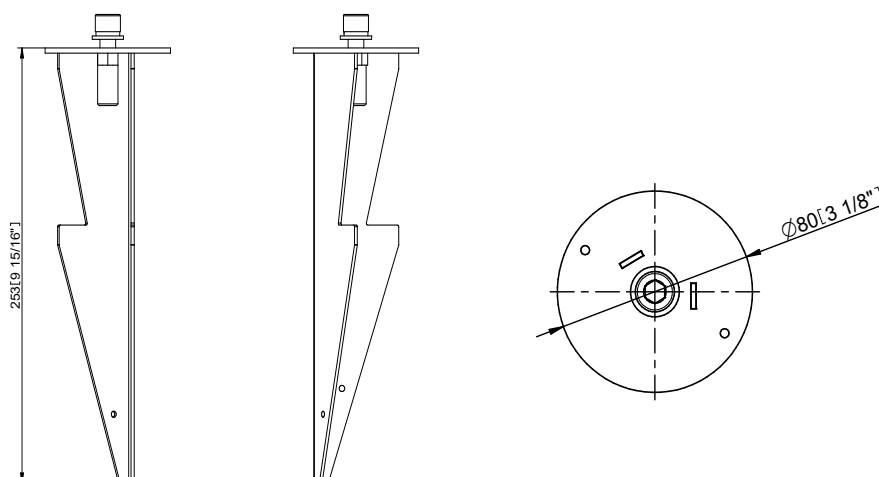
**Example of ordering code:** Calumma M SC CE RGBCW 10° RAL9007 OFH



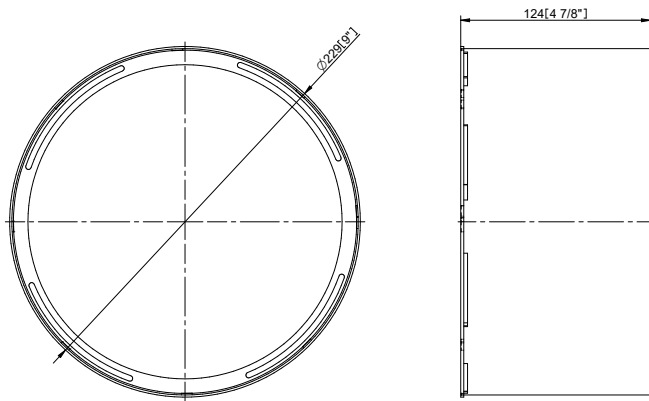
**Outdoor Foil Holder for Calumma M**



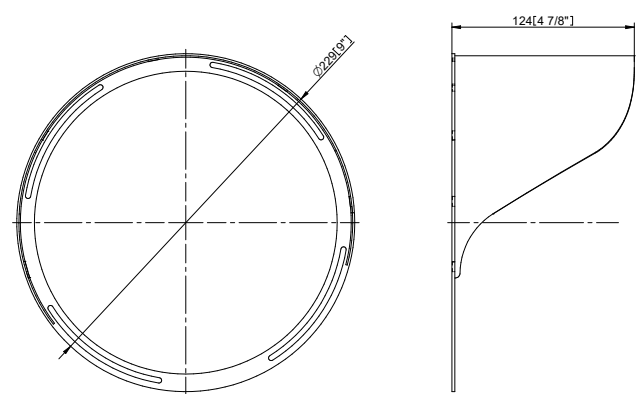
**Land Spike for Calumma (S, M, L, XL)**



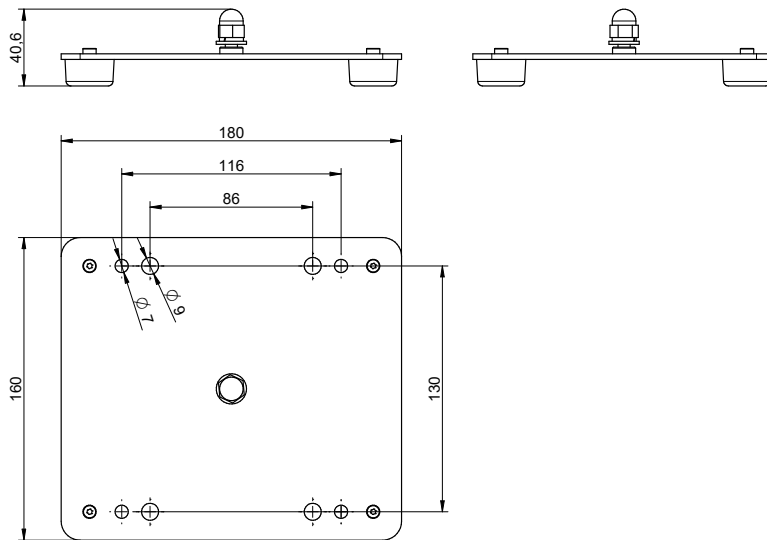
Top Hat



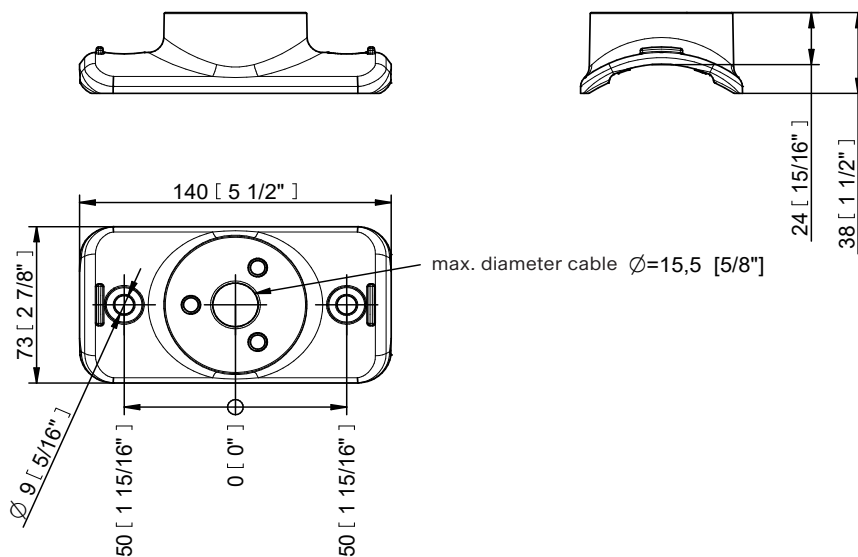
Half Top Hat



Floor Stand



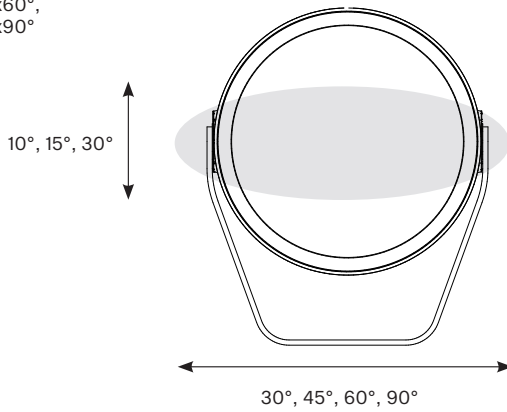
Pole Adaptor (ø 102mm)



**BI-SYMMETRICAL BEAM ANGLES**

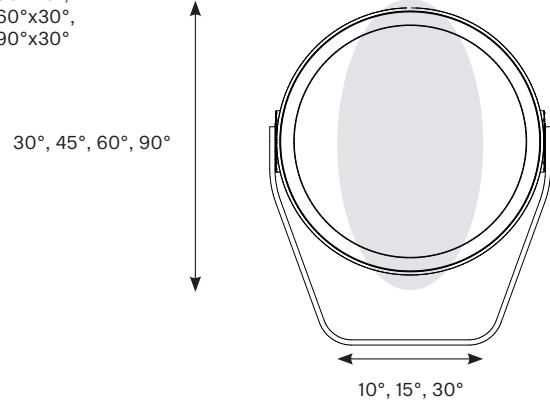
**Bi-symmetrical:**

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°



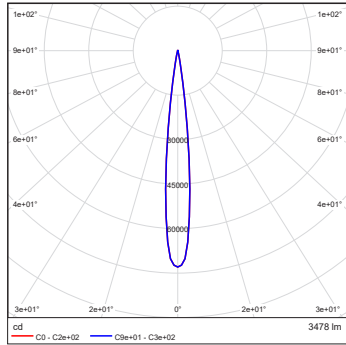
**PHOTOMETRIC OVERVIEW**

Lumen Output (lm)

	RGBCW (W 6500 K)	RGBA	WW (W 3000 K)
10°	3478	2439	4305
15°	3169	2222	3923
25°	3097	2172	3834
30°	3040	2132	3763
45°	3104	2177	3842
65°	3043	2134	3767
100°	3081	2160	3814
10°x30°, 30°x10°	3060	2146	3788
10°x60°, 60°x10°	3045	2135	3769
15°x45°, 45°x15°	3177	2228	3933
30°x60°, 60°x30°	3027	2123	3747
30°x90°, 90°x30°	2853	2001	3532
15°x90°, 90°x15°	2996	2101	3709

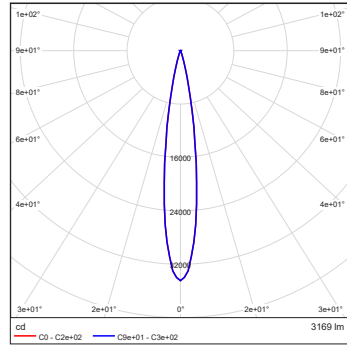
PHOTOMETRIC DATA

Calumma M SC RGBW 6500K 10dg



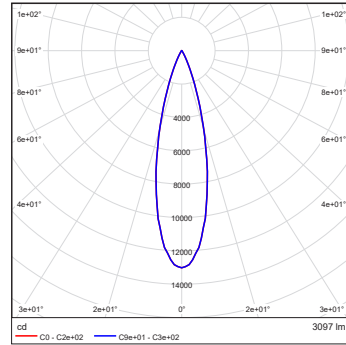
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.11	291757	144055
1.0	0.21	72939	36914
1.5	0.32	32417	16006
2.0	0.42	18235	9003
2.5	0.53	11070	5762
3.0	0.63	8104	4092

Calumma M SC RGBW 6500K 15dg



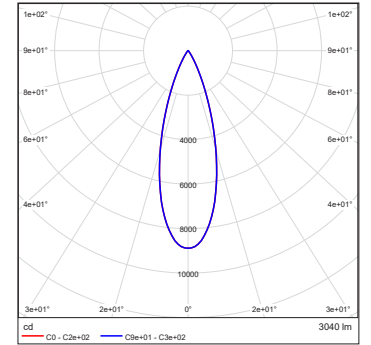
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.14	137843	67334
1.0	0.28	34461	16833
1.5	0.42	15316	7482
2.0	0.56	8615	4208
2.5	0.69	5514	2693
3.0	0.83	3629	1870

Calumma M SC RGBW 6500K 25dg



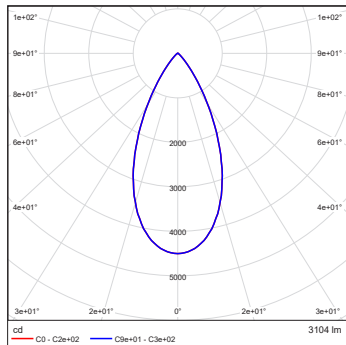
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.23	52053	24074
1.0	0.47	13013	6018
1.5	0.70	5784	2675
2.0	0.94	3253	1505
2.5	1.2	2082	963
3.0	1.4	1446	693

Calumma M SC RGBW 6500K 30dg



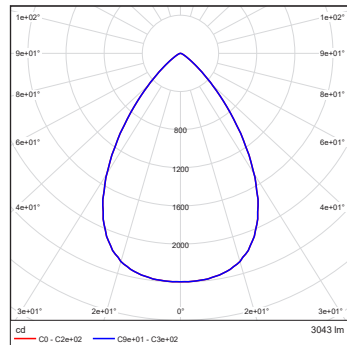
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.29	22341	10003
1.0	0.57	5585	2501
1.5	0.86	2482	1111
2.0	1.1	1396	625
2.5	1.4	884	400
3.0	1.7	621	278

Calumma M SC RGBW 6500K 45dg



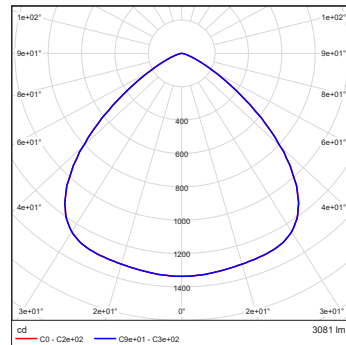
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.45	18003	8831
1.0	0.90	4501	1708
1.5	1.4	2000	758
2.0	1.8	1125	427
2.5	2.3	720	273
3.0	2.7	500	190

Calumma M SC RGBW 6500K 65dg



Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	0.70	9583	2656
1.0	1.4	2398	664
1.5	2.1	1065	296
2.0	2.8	599	166
2.5	3.5	383	106
3.0	4.2	266	74

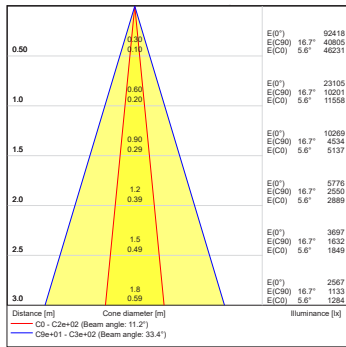
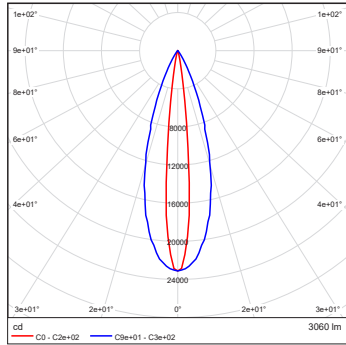
Calumma M SC RGBW 6500K 100dg



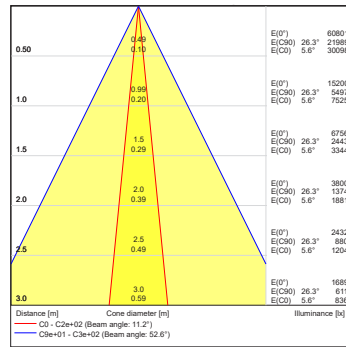
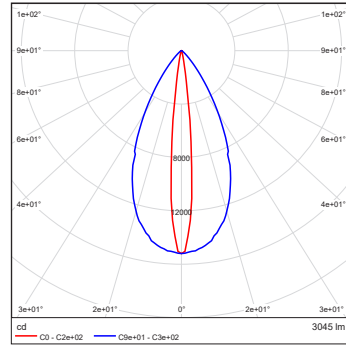
Distance [m]	Cone diameter [m]	E(0°) [lx]	E(C0) [lx]
0.50	1.2	5345	725
1.0	2.4	1336	181
1.5	3.5	594	81
2.0	4.7	334	45
2.5	5.9	214	29
3.0	7.1	148	20

PHOTOMETRIC DATA

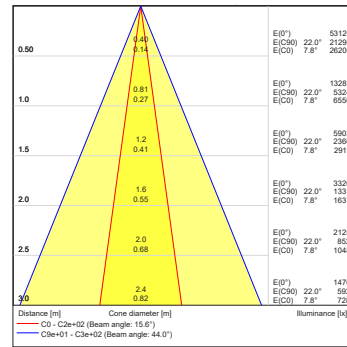
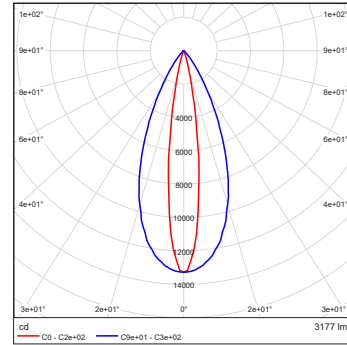
Calumma M SC RGBW 6500K  
10x30dg



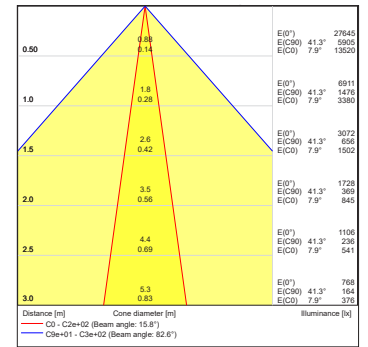
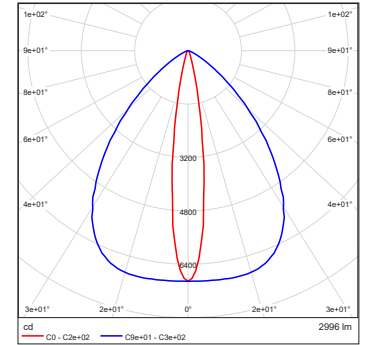
Calumma M SC RGBW 6500K  
10x60dg



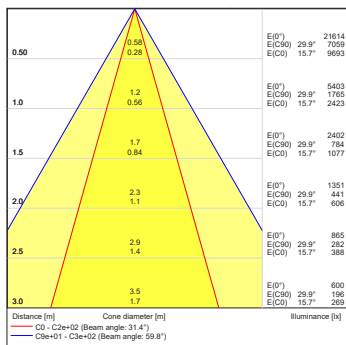
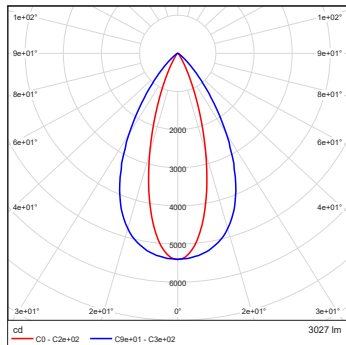
Calumma M SC RGBW 6500K  
15x45dg



Calumma M SC RGBW 6500K  
15x90dg



Calumma M SC RGBW 6500K  
30x60dg



Calumma M SC RGBW 6500K  
30x90dg

