

CALUMMA™ M MC

Featuring an optical design using 7 high efficacy multi-chip LEDs and available with optional LED colour variants and various beam angles, the medium-sized Calumma M 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 M 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 seven high-power, multi-chip LEDs provides up to 2316 lumen output. Multiple LED colour variants. No light spills. Perfectly homogenised light output with efficacy up to 35 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 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.

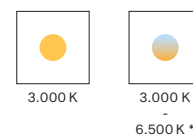
COLOURS

* UPON REQUEST



COLOUR TEMPERATURE

* UPON REQUEST

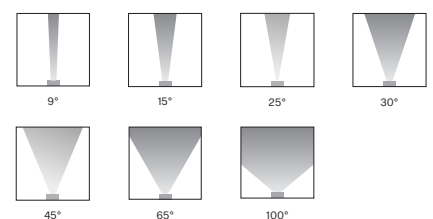


CONTROL & PROTOCOLS

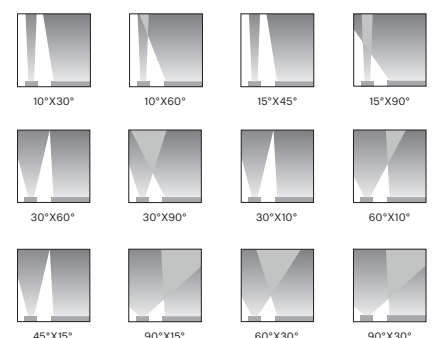


OPTIC OPTIONS

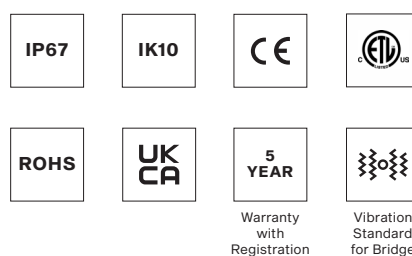
SYMMETRICAL



BI-SYMMETRICAL



STANDARD & SPECIFICATION



FINISH OPTIONS

* CLOSEST RAL TONE
* HE = Harsh Environment



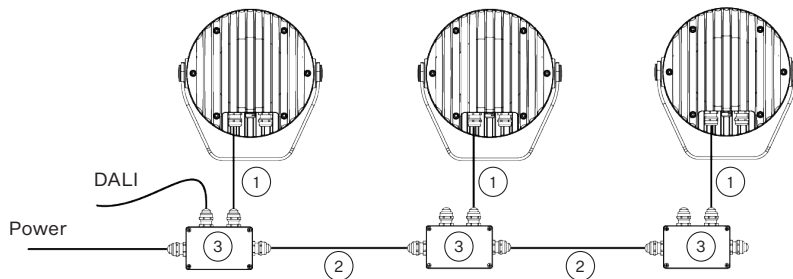
SPECIFICATION

ELECTRICAL	Input Voltage	120–277 V AC 50/60 Hz (US)		
	Typical Power Consumption	65 W +/-10 %		
OPTICAL	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	2316 lm (@9° RGBW)		
	Projected Lumen Maintenance	L90B10 >90.000 hrs, Ta = 25°C / 77°F		
CONTROL	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		
PHYSICAL	Width x Height x Depth Weight	264 x 278 x 106 mm (10.4 x 10.94 x 4.17 in.) 5.77 kg (12.72 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	IN/OUT (for E- Box version): - 0,5 m cables with hybrid connectors - Jumper cables		IN (for DMX, DALI): - 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		
CERTIFICATION	Operating Ambient Temperature	-20°C / +50°C (-4°F / +122°F)		
	Listings	ETL / cETL, CE, RoHS, UKCA		
ACCESSORIES	Not Included Items			
	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			
	Tenon Adapter			
	Pole Adaptor (ø 102mm) (Yoke for Pole Adaptor Required)			

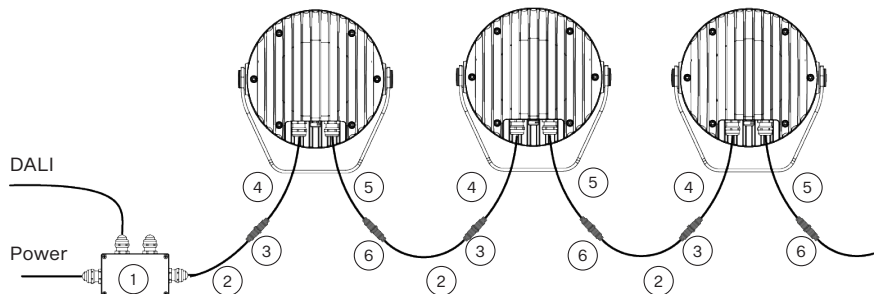
CONTROL AND CONNECTION OPTIONS - CE

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



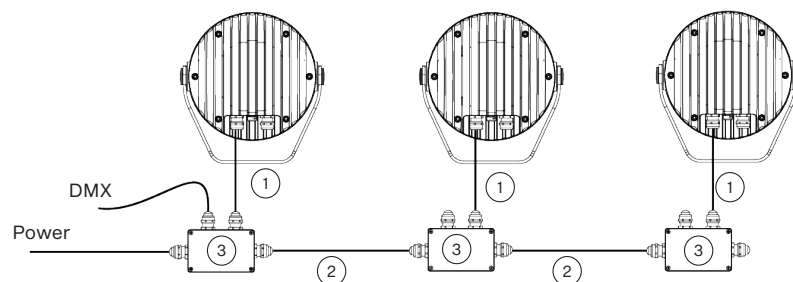
- 1) Junction Box
- 2) Hybrid Cable (13053693) Standard 1 m with bare-end, black or on request Hybrid cable (13053697), 1 m with bare-end, white
- 3) Field Installable Connector FF DC-05 (13053971)
- 4) Hybrid Cable (13053693), black, standard 0,5 m with Field Installable Connector MM DC-05 (13053972),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

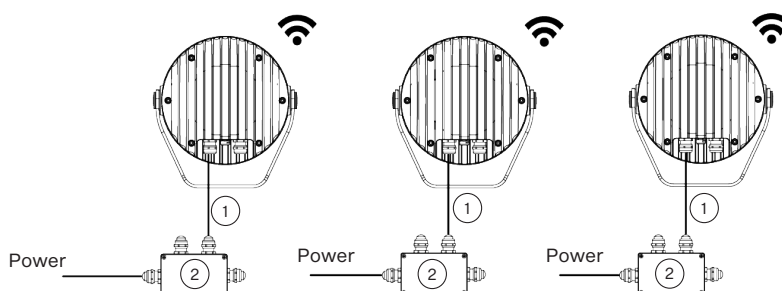
- 1) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), Standard 1 m with bare-end, black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white
- 2) Flamar 3x16 AWG + 1x(2x24 AWG) - (13051508), black or HYB-5731ZH LSZH (13053694), Hybrid Cable, white or Scope of Others
- 3) Junction Box



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.

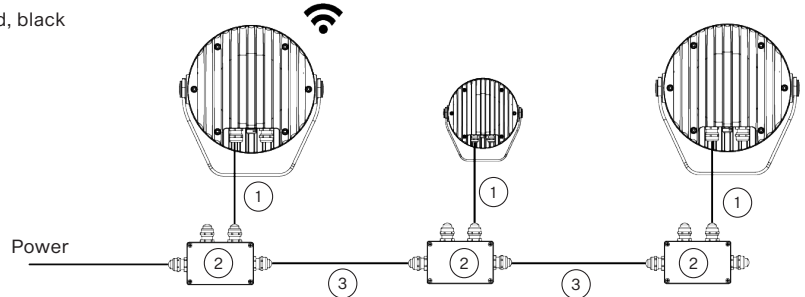


CONTROL AND CONNECTION OPTIONS - CE

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.

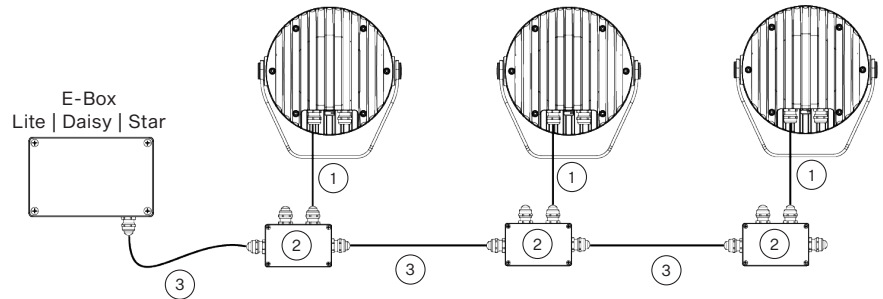


DMX or ETHERNET via E-BOX

- 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.

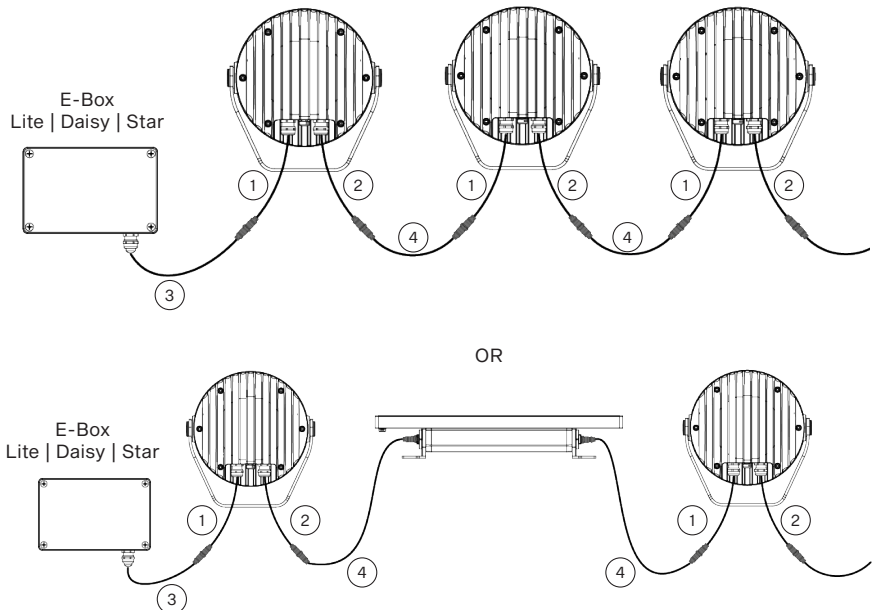
E-Box
Lite | Daisy | Star



- 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.

E-Box
Lite | Daisy | Star

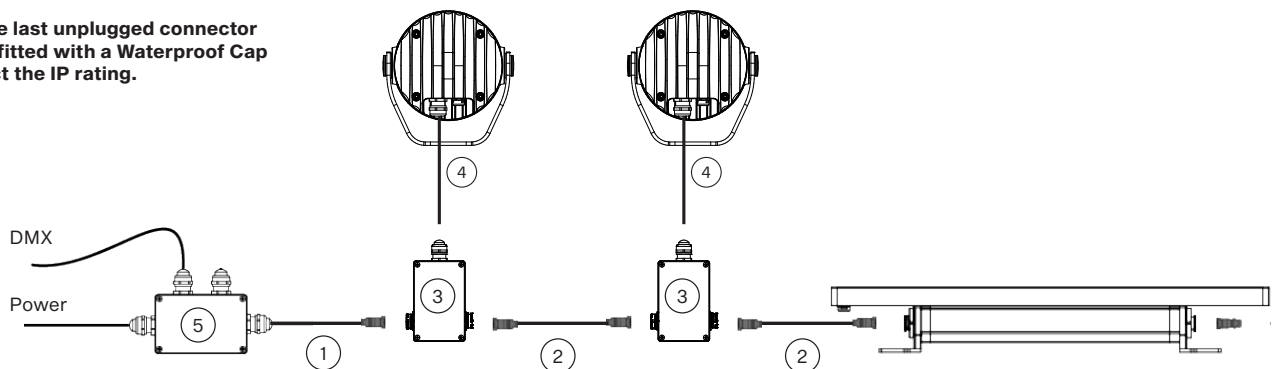


CONTROL AND CONNECTION OPTIONS - CE

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

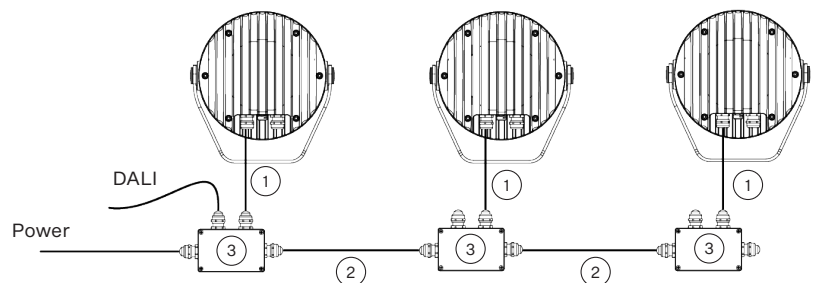
Note: The last unplugged connector must be fitted with a Waterproof Cap to protect the IP rating.



CONTROL AND CONNECTION OPTIONS - US

DALI

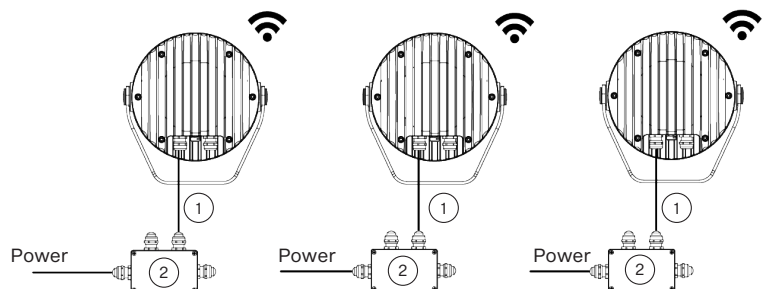
- 1) SJTW 5x14 AWG (13053693), Standard 1 m with bare-end, black or Cable SJTW 5x14 AWG (13053697), white
- 2) SJTW 5x14 AWG (13053693), black or Cable SJTW 5x14 AWG (13053697), white or Scope of Others
- 3) Junction Box



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

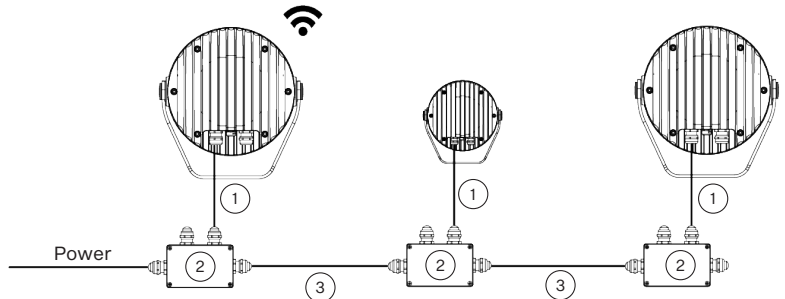


CONTROL AND CONNECTION OPTIONS - US

WIRELESS DMX

- 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

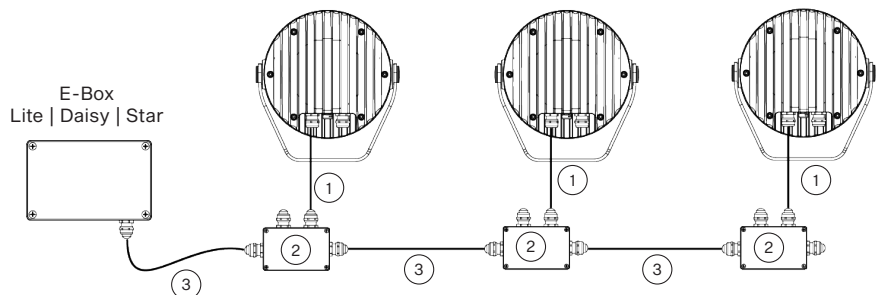
Note: This type of connection must have M, L or XL versions as the first luminaire. Next luminaires in a row could be chosen from S, M, L or XL versions.



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

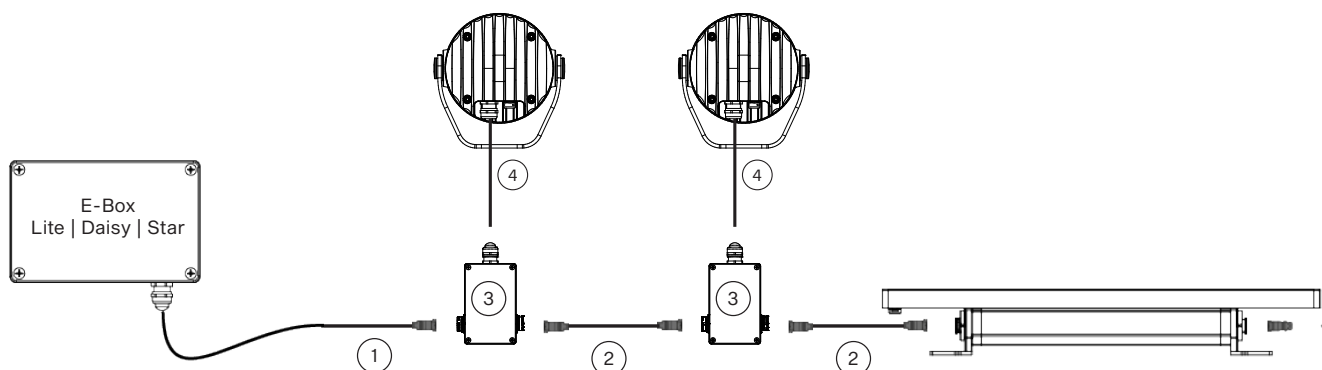
Note: This type of connection is available for S, M, L, and XL versions. E-Box has to be in Pass Through mode only.



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.



CONNECTIVITY

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

STANDARD MODE		Cable length (m)	Voltage (V)			
			120	190	230	277
CALUMMA M MC	10	28	44	54	65	
	20	28	44	54	65	
	30	20	44	54	65	
	50	12	30	43	63	
	70	8	21	31	45	
	100	6	15	22	32	
	200	3	7	11	16	
	500	1	3	4	6	

PASS-THROUGH MODE		Cable length (m)	Voltage (V)			
			120	190	230	277
CALUMMA M MC	10	28	32	32	32	32
	20	28	32	32	32	32
	30	20	32	32	32	32
	50	12	30	32	32	32
	70	8	21	31	32	32
	100	6	15	22	32	32
	200	3	7	11	16	16

PROJECTED AREA

	Front (rear) - m²	Front (rear) ft²	Side - m²	Side - ft²	Top - m²	Top - ft²
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

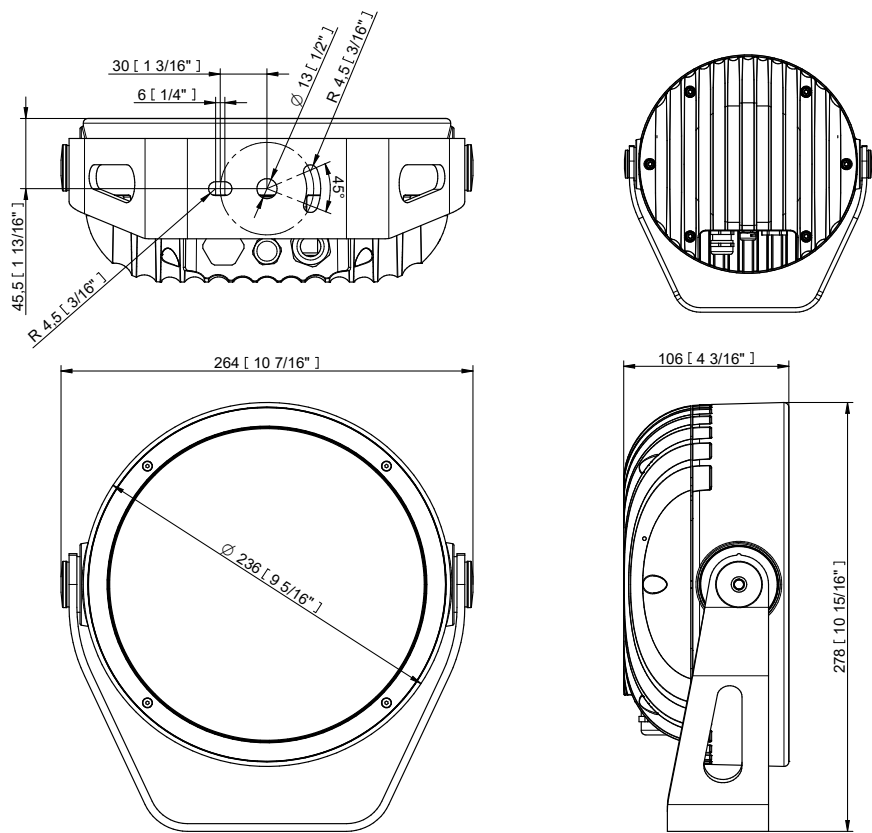
BOOSTER BOX POSITIONS

		Cable length (m)	Max. number of Calummas M MC= 191 (in Standard mode)			
			120 V	190 V	230 V	277 V
CALUMMA M MC	10 m	28	-	-	-	-
	20 m	28, 56	44	54	65	
	30 m	20, 40, 60, 80, 100	44, 88	54, 108	65	
	50 m	12, 24, 48, 56, 64, 76, 88, 100..	30, 60, 90, 120, 150, 180	43, 86, 129, 172	63, 126	
	70 m	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96....	21, 42, 63, 84, 105, 126...	31, 62, 93, 124, 155, 176...	45, 90, 135, 180, 225...	
	100 m	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102....	15, 30, 45, 60, 75, 90, 105, 120, 135...	22, 44, 66, 88, 110, 132, 154...	32, 64, 96, 128, 160, 192	
	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...	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105...	11, 22, 33, 44, 55, 66, 77, 88, 99, 110...	16, 32, 48, 64, 80, 96, 112, 128, 144...	
	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, 51, 54, 57, 60, 63, 66...	4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80....	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96...	

NOTE: For more detail see the User manual.

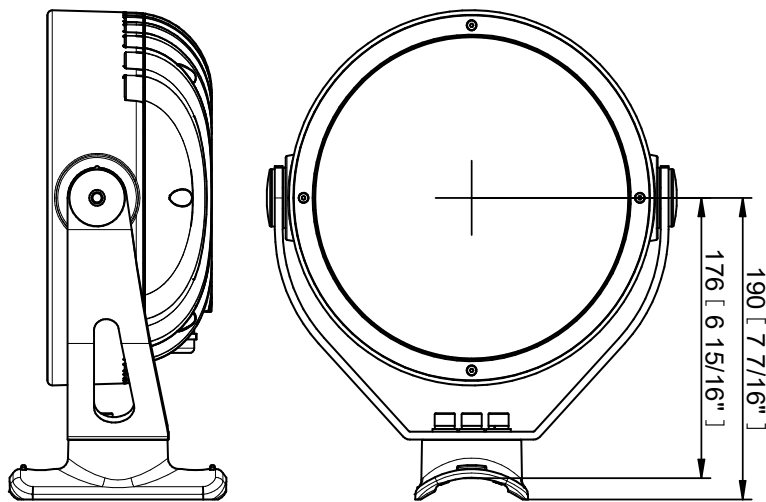
DIMENSIONS

Standard Yoke



Yoke for Pole Adaptor (with Pole Adaptor / PA)

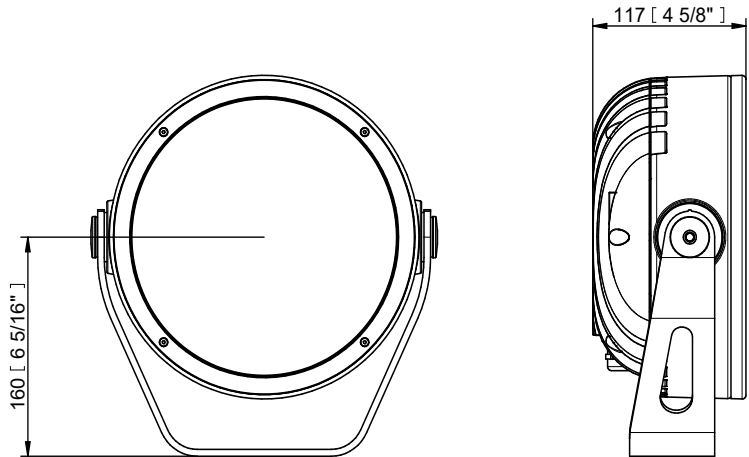
Example of ordering code: Calumma M SC RGBW 15° PA



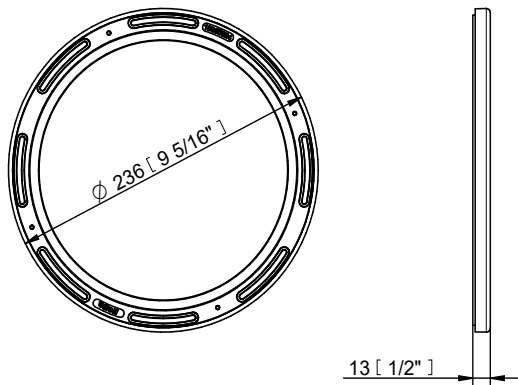
ACCESSORIES

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

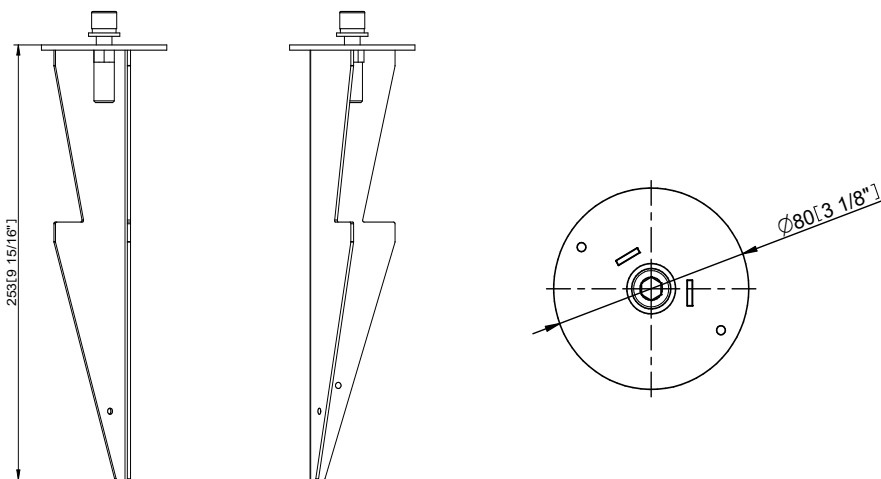
Example of ordering code: Calumma M SC CE RGBCW 10° RAL9007 OFH



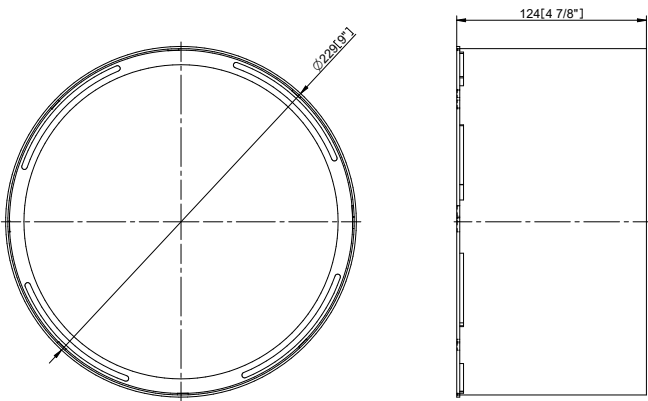
Outdoor Foil Holder for Calumma M



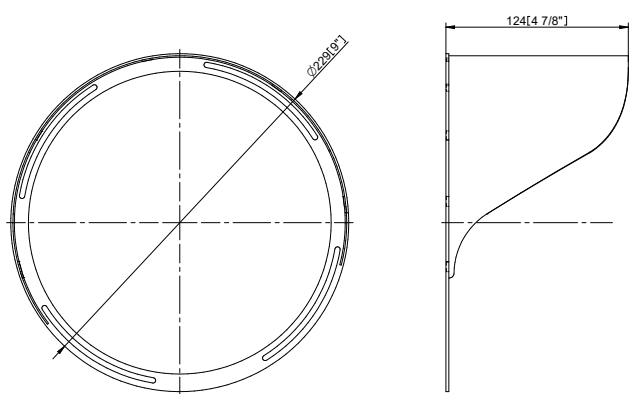
Land Spike for Calumma (S, M, L, XL)



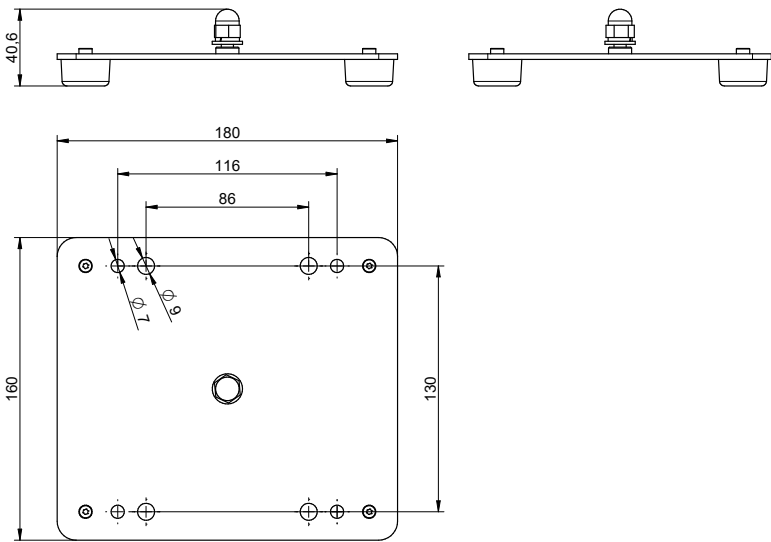
Top Hat



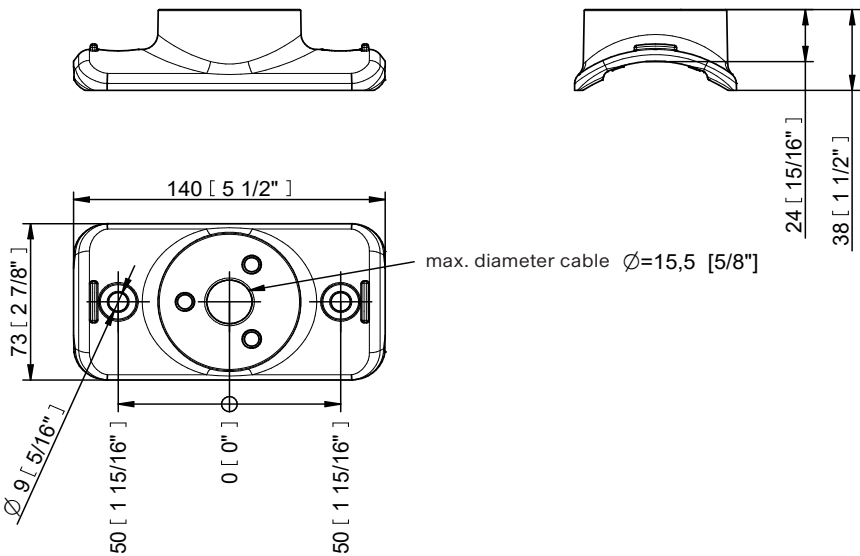
Half Top Hat



Floor Stand



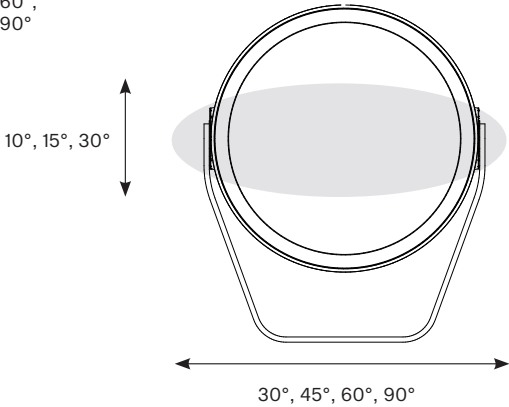
Pole Adaptor (ø 102mm)



BI-SYMMETRICAL BEAM ANGLES

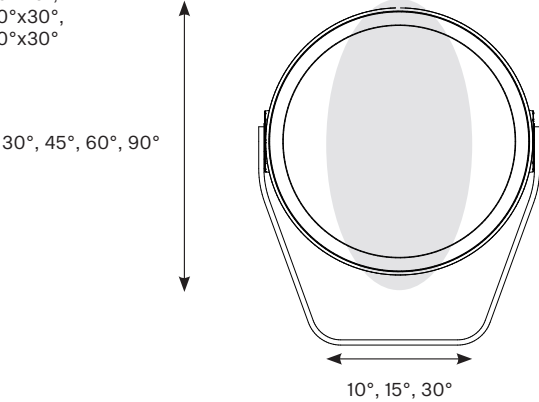
Bi-symmetrical:

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°



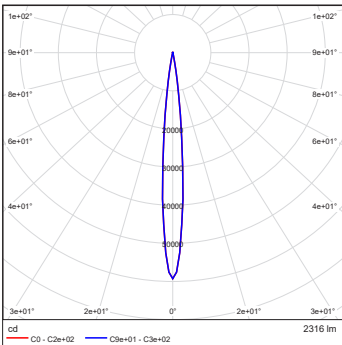
PHOTOMETRIC OVERVIEW

Lumen Output (lm)

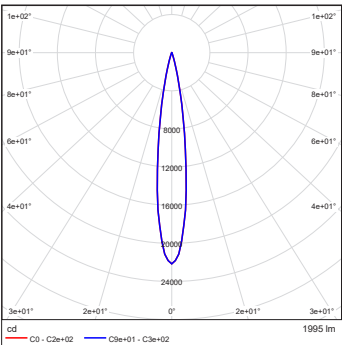
	RGBCW (W 6500 K)	RGBA	WW (W 3000 K)
10°	3478	2439	4305
15°	3169	2222	3923
25°	3097	2172	3834
30°	3040	2132	3763
45°	3104	2177	3842
65°	3043	2134	3767
100°	3081	2160	3814
10°x30°, 30°x10°	3060	2146	3788
10°x60°, 60°x10°	3045	2135	3769
15°x45°, 45°x15°	3177	2228	3933
30°x60°, 60°x30°	3027	2123	3747
30°x90°,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

PHOTOMETRIC DATA

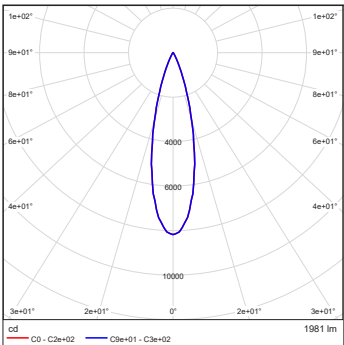
Calumma M MC RGBW 6500K 10dg



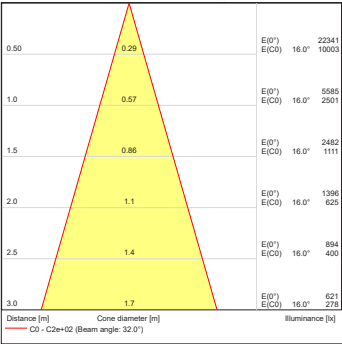
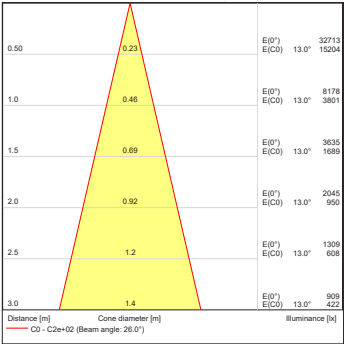
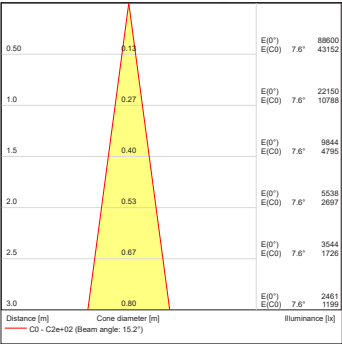
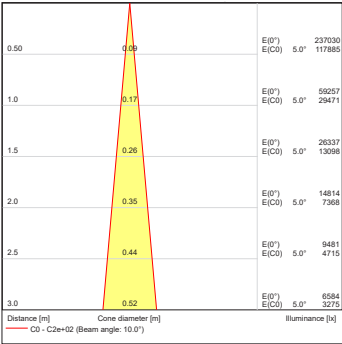
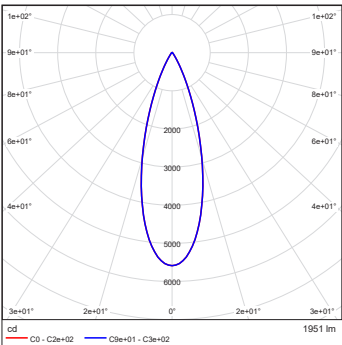
Calumma M MC RGBW 6500K 15dg



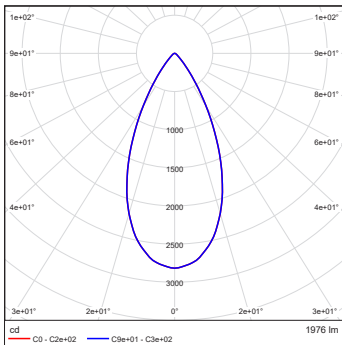
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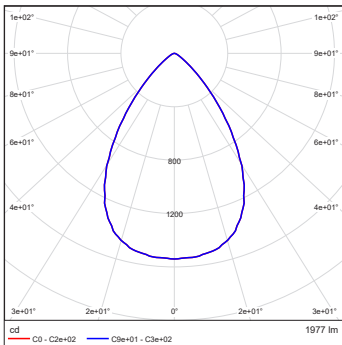
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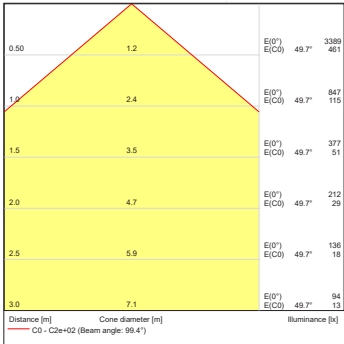
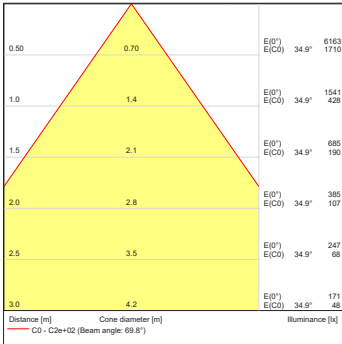
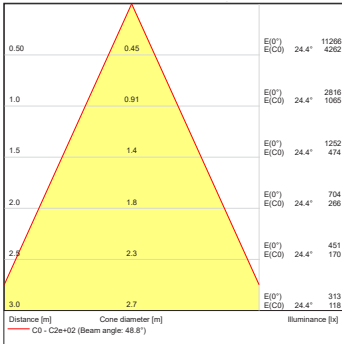
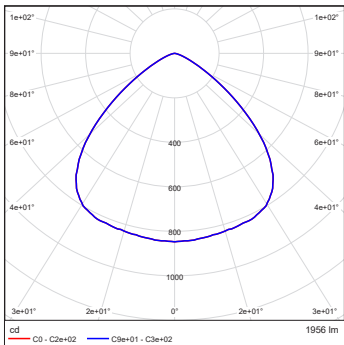
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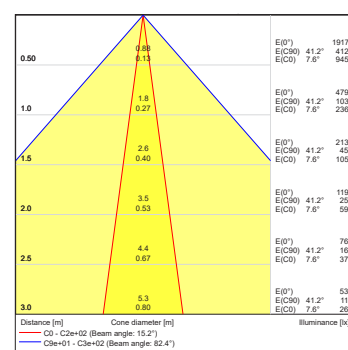
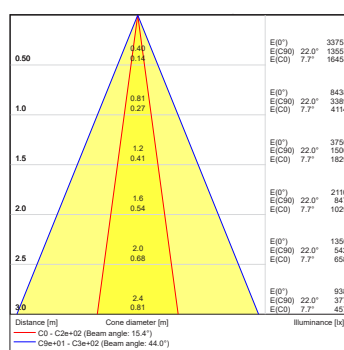
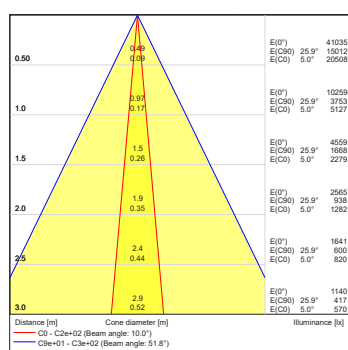
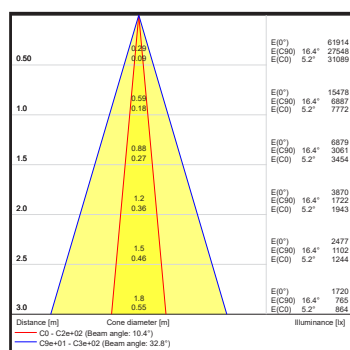
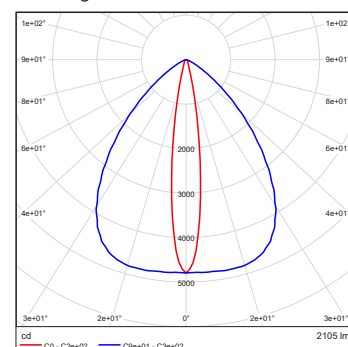
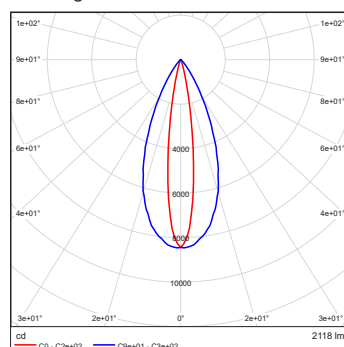
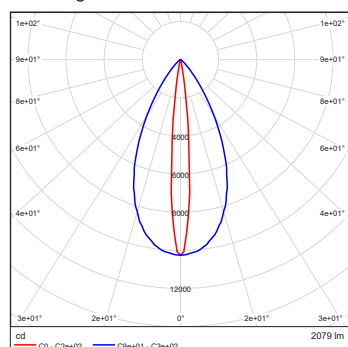
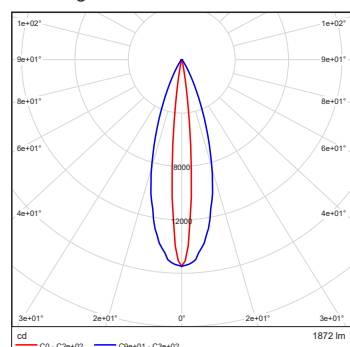
Calumma M MC RGBW 6500K 65dg



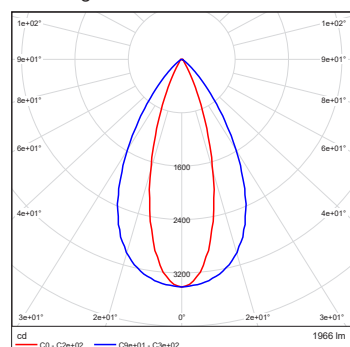
Calumma M MC RGBW 6500K 100dg



Calumma M MC RGBW 6500K
10x30dq



Calumma M MC RGBW 6500K
30x60dq



Calumma M MC RGBW 6500K
30x90dq

