

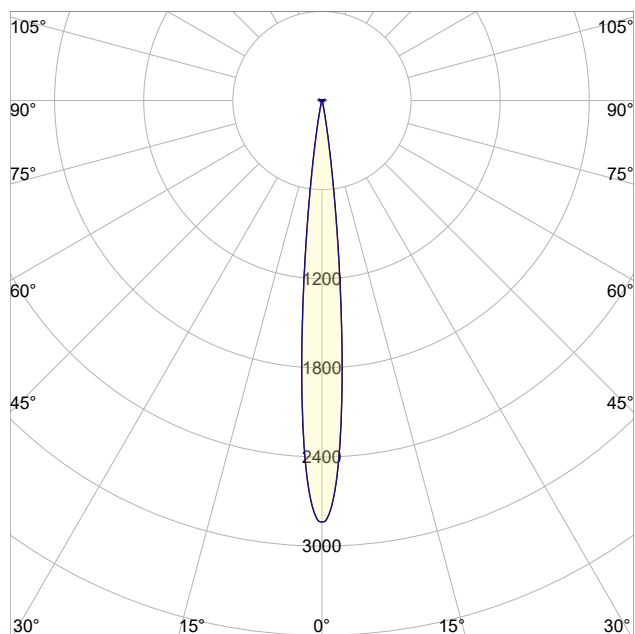
LM-79

Test Report

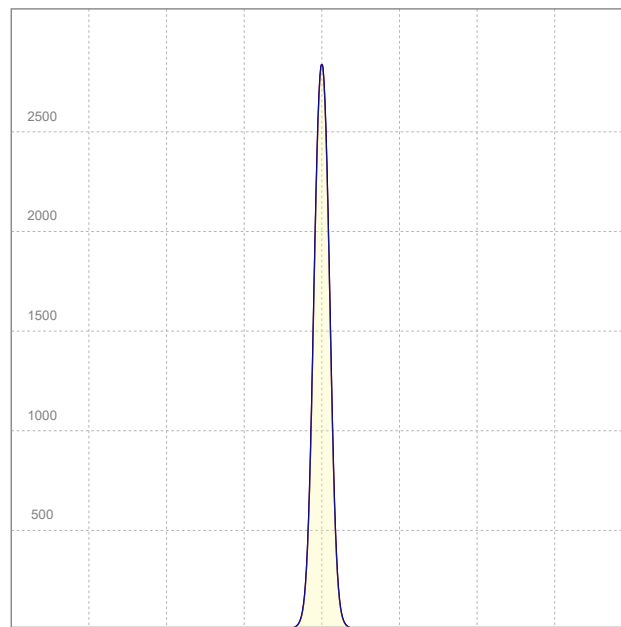
LM79-FOCUS-G4-3000K-CRI95-SPOT

General Discription

Item number	FS-XX-X-3095-Z
Date and time	14-9-2022 15:50:35
CCT (Kelvin)	3107 K
Beam angle	10,4°
Luminous flux	107 lm
Efficiency	16 lm/watt
Weighted energy	6,6 kWh/1000h
Power factor	0,8
CRI (RA)	93,8
Fidelity index Rf	Rf 91,8
Gammut index Rg	Rg 101,3
Peak	2834 cd



Polar curve



Linear distribution diagram



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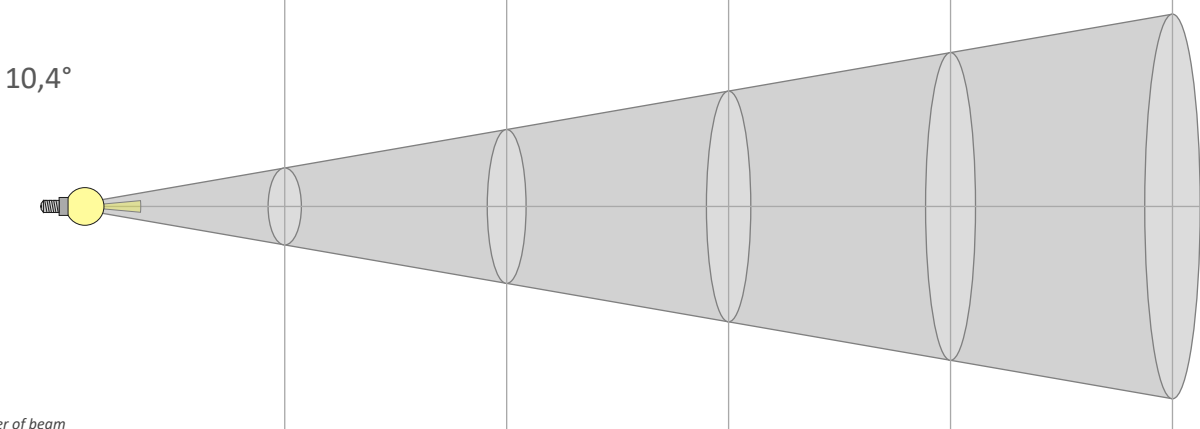
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Beam details	1m	2m	3m	4m	5m
Lux*	2834 lx	708 lx	315 lx	177 lx	113 lx



10,4°

*measured at center of beam

Footcandles*	263,2 fcd	65,8 fcd	29,2 fcd	16,5 fcd	10,5 fcd
Beam width (meter)	0,2 m	0,4 m	0,5 m	0,7 m	0,9 m
Beam width (Feet)	0,6 ft	1,2 ft	1,8 ft	2,4 ft	3 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2834lx	708lx	315lx	177lx	113lx	79lx	58lx	44lx	35lx	28lx	23lx	20lx	17lx	14lx	13lx	11lx	10lx	9lx	8lx	7lx
3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	19,7ft	23ft	26,2ft	29,5ft	32,8ft	36,1ft	39,4ft	42,7ft	45,9ft	49,2ft	52,5ft	55,8ft	59,1ft	62,3ft	65,6ft
263,2fcd	65,8fcd	29,2fcd	16,5fcd	10,5fcd	7,3fcd	5,4fcd	4,1fcd	3,2fcd	2,6fcd	2,2fcd	1,8fcd	1,6fcd	1,3fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,7fcd

Intensities in 0° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
2834	2780	2603	2310	1932	1509	1097	747	479	295	176	105	63	40	26	18	13	10	8	6
100%	98%	92%	82%	68%	53%	39%	26%	17%	10%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%

Intensities in 90° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
2834	2780	2603	2310	1932	1509	1097	747	479	295	176	105	63	40	26	18	13	10	8	6
100%	98%	92%	82%	68%	53%	39%	26%	17%	10%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%

Intensities in 180° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
2834	2780	2603	2310	1932	1509	1097	747	479	295	176	105	63	40	26	18	13	10	8	6
100%	98%	92%	82%	68%	53%	39%	26%	17%	10%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%

Intensities in 270° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
2834	2780	2603	2310	1932	1509	1097	747	479	295	176	105	63	40	26	18	13	10	8	6
100%	98%	92%	82%	68%	53%	39%	26%	17%	10%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,4°	18,2°	23,6°	99,7%	98,9%



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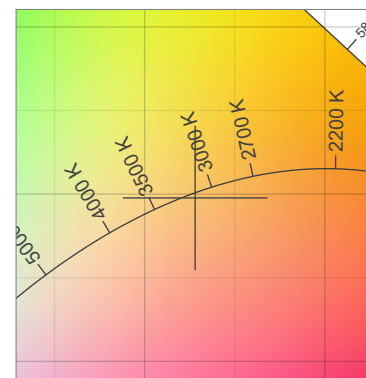
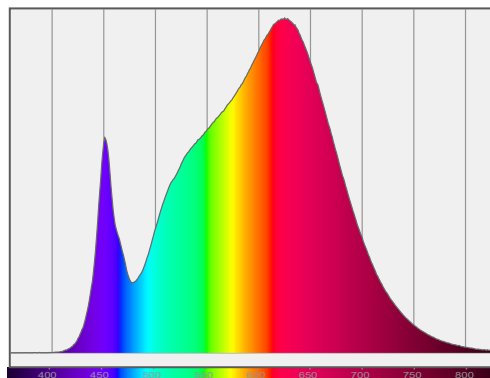
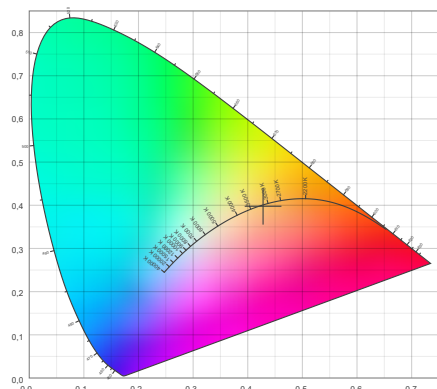
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Color details



CIE 1931

x: 0,428

3107 K

y: 0,398

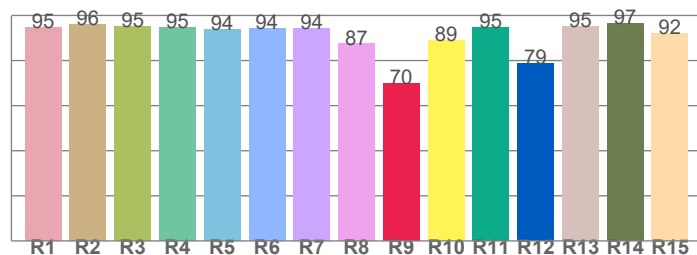


Spectra

CIE 1931 ZOOM

Δuv : -0,0013

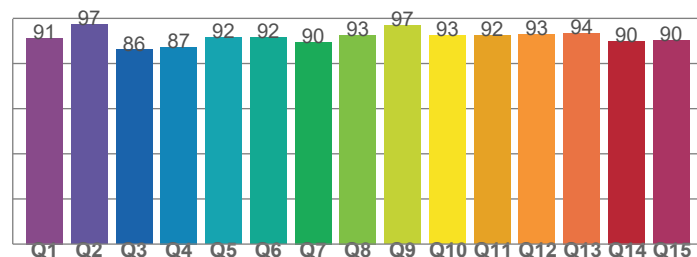
CRI: 93,8 (R1-R8)



CRI values, R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8
94,8	96,0	95,2	94,6	94,0	94,1	94,4	87,4
R9	R10	R11	R12	R13	R14	R15	
69,9	89,1	94,7	78,6	95,2	96,5	92,2	

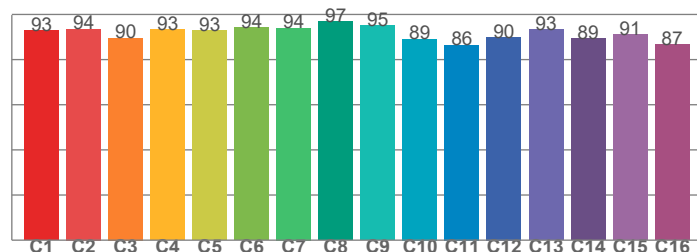
CQS: 91,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
91,3	97,4	86,1	87,3	91,6	91,5	89,5	92,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,9	92,6	92,4	92,8	93,5	89,9	90,2	

TM30: 91,8



TM30 values, 16 binned values out of total of 99 values

C1	C2	C3	C4	C5	C6	C7	C8
92,8	93,6	89,5	93,4	92,9	94,1	94,0	97,0
C9	C10	C11	C12	C13	C14	C15	
95,0	89,2	86,4	90,0	93,4	89,4	91,0	

Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3107 K	93,8	69,9	91,8	101,3	91,1	0,428	0,398	0,248	0,345	-0,0013



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TM30 details

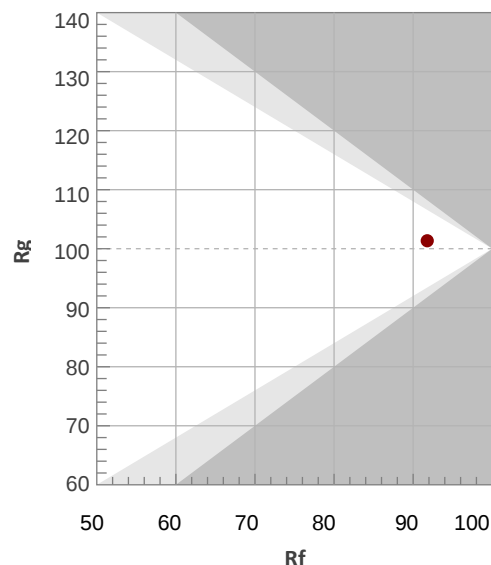
Rf 91,8

Fidelity index Rf

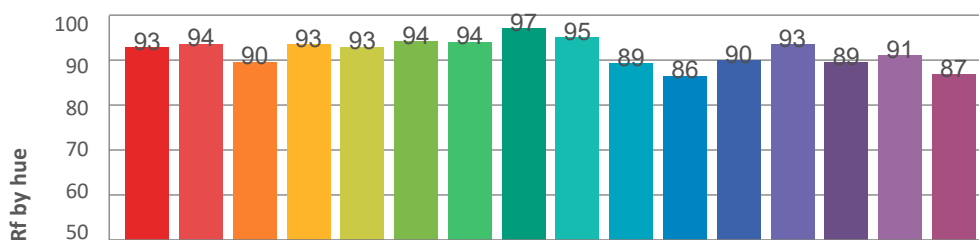
Rg 101,3

Gamut index Rg

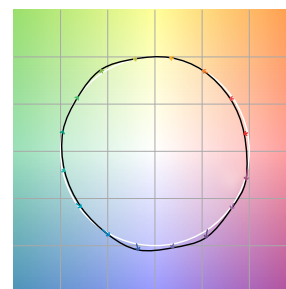
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-4%	-1%
2	94	-3%	2%
3	90	-1%	5%
4	93	0%	4%
5	93	0%	3%
6	94	4%	0%
7	94	0%	-2%
8	97	0%	-2%
9	95	-2%	2%
10	89	-2%	6%
11	86	1%	9%
12	90	6%	3%
13	93	4%	-2%
14	89	6%	-6%
15	91	1%	-6%
16	87	0%	-11%



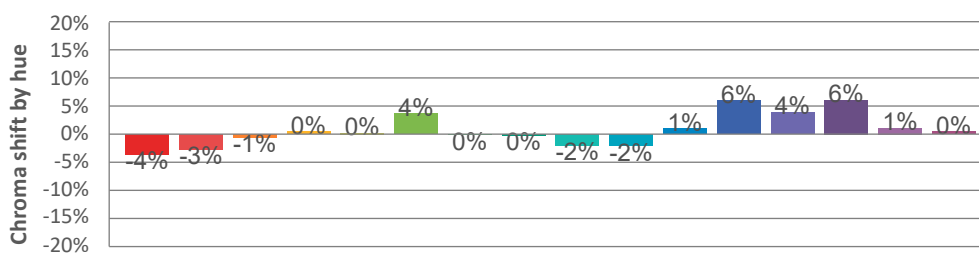
Hue binH



Color vector graphics



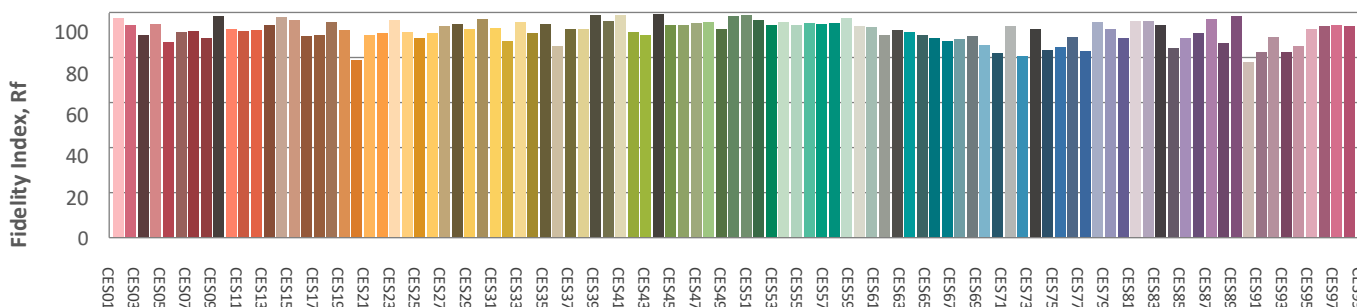
Hue bin



Color distortion graphics



Color Evaluation Sample



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Glare Evaluation According to UGR

p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	2,1	2,3	2,1	2,5	2,7	2,1	2,3	2,1	2,5	2,7
	3H	1,9	2,3	2,2	2,5	2,6	1,9	2,3	2,2	2,5	2,6
	4H	1,9	2,3	2,2	2,5	2,7	1,9	2,3	2,2	2,5	2,7
	6H	2,0	2,3	2,3	2,6	2,9	2,0	2,3	2,3	2,6	2,9
	8H	2,1	2,4	2,4	2,7	3,1	2,1	2,4	2,4	2,7	3,1
	12H	2,1	2,4	2,4	2,8	3,2	2,1	2,4	2,4	2,8	3,2
4H	2H	1,8	2,3	2,2	2,5	2,7	1,8	2,3	2,2	2,5	2,7
	3H	1,9	2,2	2,2	2,5	2,9	1,9	2,2	2,2	2,5	2,9
	4H	1,8	2,1	2,2	2,5	3,0	1,8	2,1	2,2	2,5	3,0
	6H	1,9	2,3	2,4	2,6	3,0	1,9	2,3	2,4	2,6	3,0
	8H	2,1	2,4	2,6	2,7	3,1	2,1	2,4	2,6	2,7	3,1
	12H	2,2	2,5	2,7	2,9	3,3	2,2	2,5	2,7	2,9	3,3
8H	4H	1,7	2,1	2,2	2,4	2,8	1,7	2,1	2,2	2,4	2,8
	6H	2,0	2,2	2,5	2,6	3,1	2,0	2,2	2,5	2,6	3,1
	8H	2,3	2,4	2,8	2,9	3,6	2,3	2,4	2,8	2,9	3,6
	12H	2,5	2,7	3,1	3,2	3,8	2,5	2,7	3,1	3,2	3,8
12H	4H	1,7	1,9	2,2	2,3	2,8	1,7	1,9	2,2	2,3	2,8
	6H	2,0	2,2	2,5	2,7	3,3	2,0	2,2	2,5	2,7	3,3
	8H	2,3	2,4	2,9	2,9	3,5	2,3	2,4	2,9	2,9	3,5
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,6 / -1,0					0,6 / -1,0				
S = 1.5H		1,9 / -2,8					1,9 / -2,8				
S = 2.0H		3,3 / -3,0					3,3 / -3,0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 107lm total luminous flux											