

LM-79

Test Report

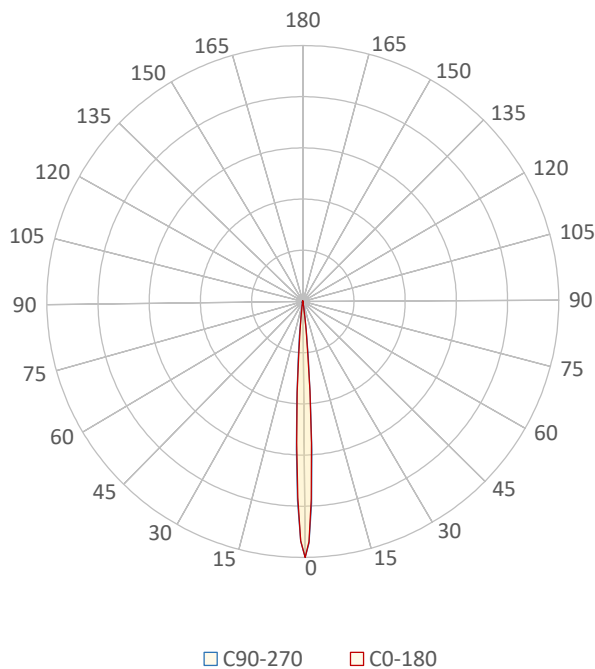
LM79-FOCUS-MICRO-3500K-CRI95-SPOT

General Description

Item number	FM-X-X-3595-Z
Date and time	16-10-2020 14:13:48
CCT (Kelvin)	3416 K
Beam angle	6,8°
Luminous flux	9,57 lm
Efficiency	9 lm/watt
Weighted energy	1,0 kWh/1000h
Power factor	1,0
CRI (RA)	94,4
Fidelity index Rf	Rf 92,6
Gammut index Rg	Rg 103,6
Peak	457 cd



Polar diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	457 lx	114 lx	51 lx	29 lx	18 lx																			
*measured at center of beam																								
Footcandles*	42,4 fcd	10,6 fcd	4,7 fcd	2,7 fcd	1,7 fcd																			
Beam width (meter)	0,1 m	0,2 m	0,3 m	0,5 m	0,6 m																			
Beam width (Feet)	0,4 ft	0,8 ft	1,1 ft	1,5 ft	1,9 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
457lx	114lx	51lx	29lx	18lx	13lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx					
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					
42,4fcd	10,6fcd	4,7fcd	2,7fcd	1,7fcd	1,2fcd	0,9fcd	0,7fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd					
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°					
457	429	353	253	160	93	50	27	15	8	5	4	3	2	2	1	1	1	1	1					
100%	94%	77%	55%	35%	20%	11%	6%	3%	2%	1%	1%	1%	0%	0%	0%	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°					
457	432	361	266	173	102	56	30	16	9	6	4	3	2	2	1	1	1	1	1					
100%	95%	79%	58%	38%	22%	12%	6%	3%	2%	1%	1%	1%	0%	0%	0%	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°					
457	427	350	252	162	94	51	28	16	9	6	4	3	2	2	1	1	1	1	1					
100%	94%	77%	55%	35%	21%	11%	6%	3%	2%	1%	1%	1%	0%	0%	0%	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°					
457	427	356	264	175	106	62	35	21	13	9	7	5	4	3	3	2	2	2	2					
100%	94%	78%	58%	38%	23%	13%	8%	5%	3%	2%	1%	1%	1%	1%	1%	1%	0%	0%	0%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
6,6°					12,6°					17,4°					97,5%					95,3%				



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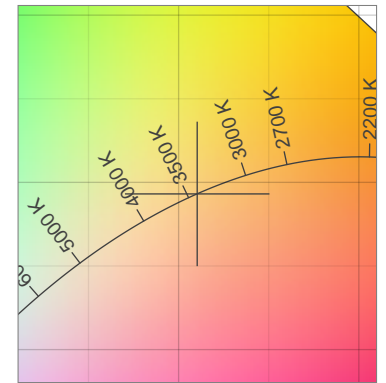
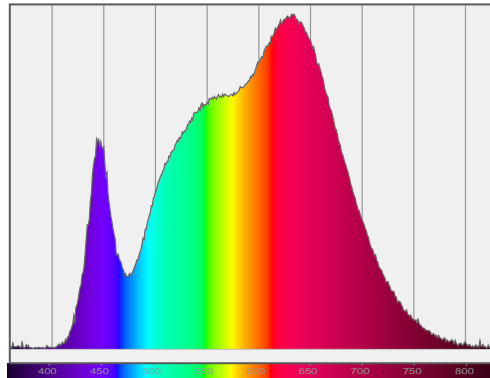
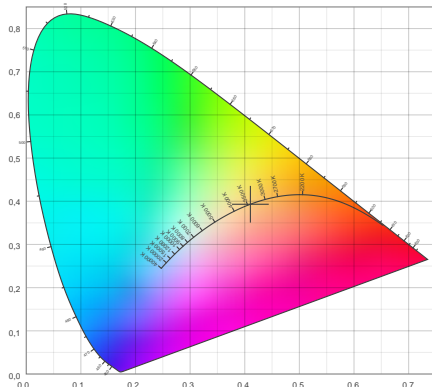
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Color details



CIE 1931

x: 0,410



Spectra

CIE 1931 ZOOM

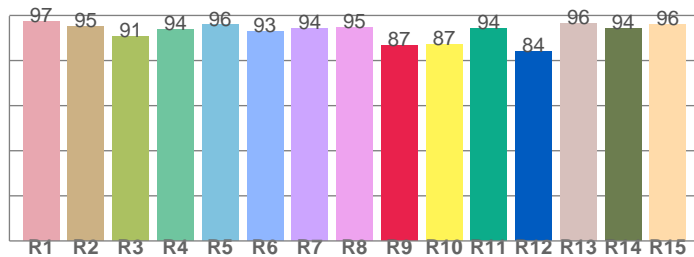
3416 K

y: 0,393

Δuv : 0,0001

CRI: 94,4 (R1-R8)

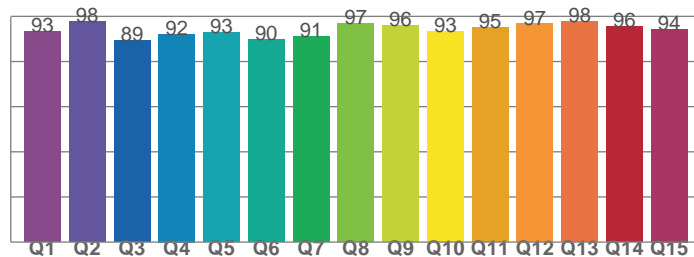
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
97,3	95,0	90,8	94,0	95,8	92,9	94,4	94,7
R9	R10	R11	R12	R13	R14	R15	
86,8	87,0	94,2	83,9	96,4	94,2	96,2	

CQS: 93,5

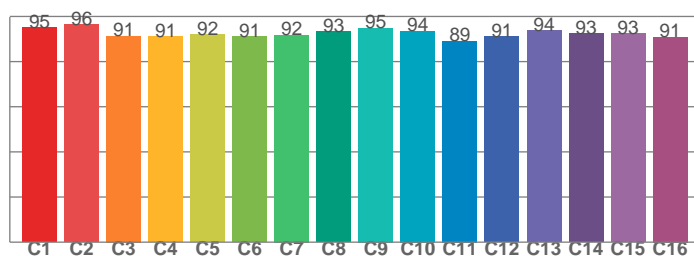
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
93,4	97,8	89,2	92,2	92,7	89,7	91,3	96,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,0	93,4	95,0	96,7	97,8	95,5	94,4	

TM30: 92,6

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



C1	C2	C3	C4	C5	C6	C7	C8
95,1	96,3	91,3	91,1	91,9	91,0	91,8	93,2
C9	C10	C11	C12	C13	C14	C15	
94,9	93,5	89,1	91,2	93,9	92,5	92,5	

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
3416 K	94,4	86,8	92,6	103,6	93,5	0,410	0,393	0,238	0,342	0,0001



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TM30 details

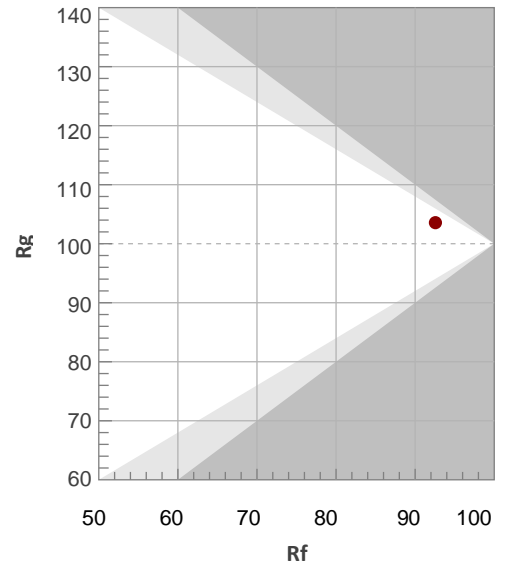
Rf 92,6

Fidelity index Rf

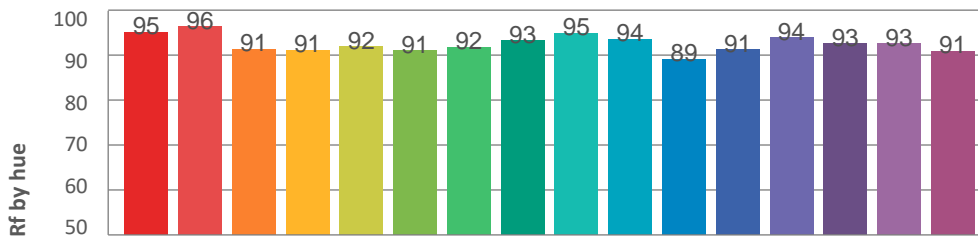
Rg 103,6

Gamut index Rg

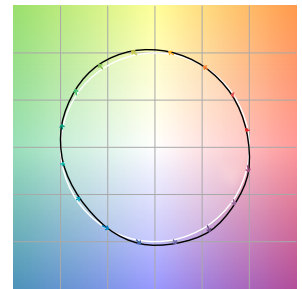
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	-2%
2	96	-2%	1%
3	91	0%	4%
4	91	2%	5%
5	92	5%	4%
6	91	6%	1%
7	92	4%	-4%
8	93	1%	-4%
9	95	-1%	-3%
10	94	-4%	0%
11	89	-1%	7%
12	91	3%	5%
13	94	4%	2%
14	93	6%	-1%
15	93	4%	-4%
16	91	2%	-6%



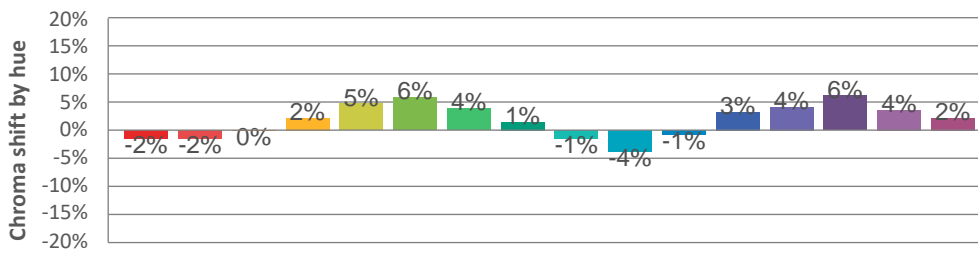
Hue binH



Color vector graphics



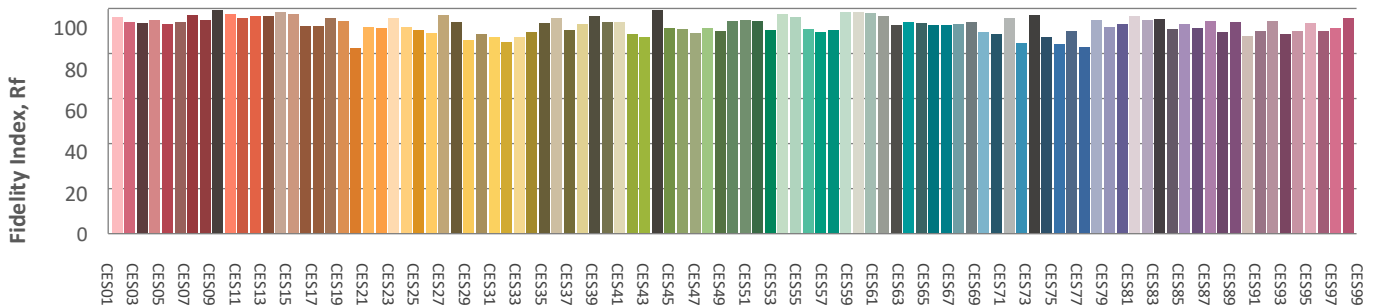
Hue bin



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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Variation of the observer position for the luminaire distance S

n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 9,57lm total luminous flux



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