

LM-79

Test Report

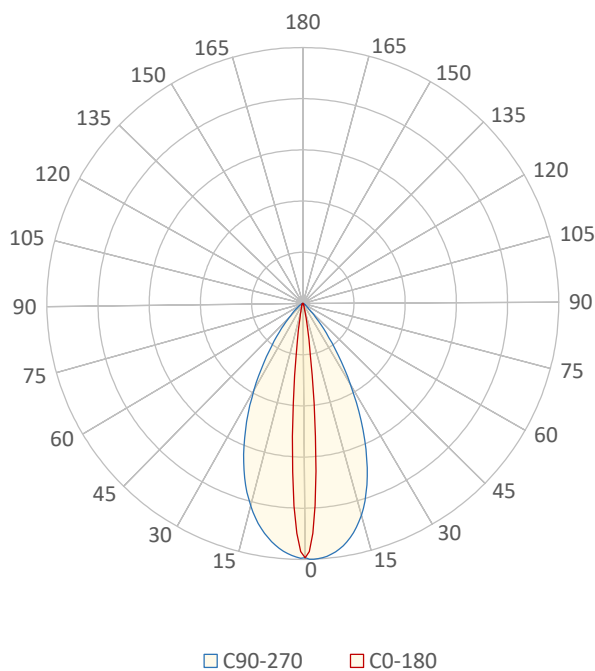
LM79-FOCUS-GIII-3500K-CRI95-SPOT-ELLIPTICAL BEAMSHAPER

General Description

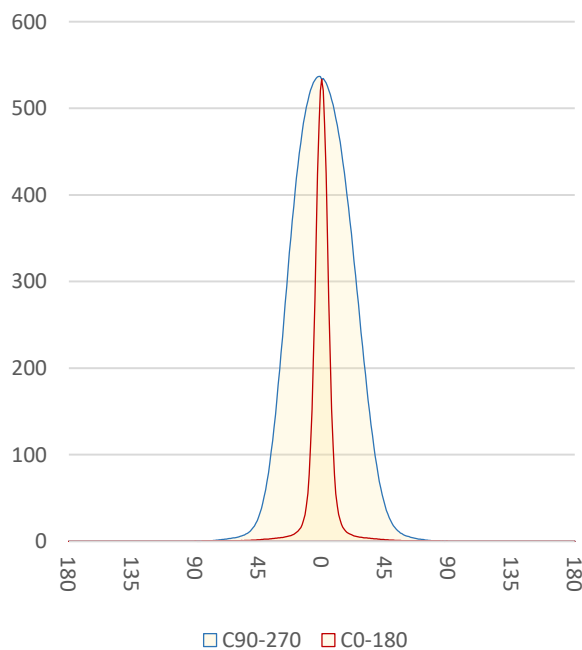
Item number	F3-XX-X-3595-Z
Date and time	23-9-2022 12:17:10
CCT (Kelvin)	3443 K
Beam angle	52,7 x 10,3°
Luminous flux	114 lm
Efficiency	17 lm/watt
Weighted energy	6,8 kWh/1000h
Power factor	0,8
CRI (RA)	83,6
Fidelity index Rf	Rf 84,7
Gammut index Rg	Rg 97,5
Peak	537 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	534 lx	133 lx	59 lx	33 lx	21 lx																			
*measured at center of beam																								
Footcandles*	49,6 fcd	12,4 fcd	5,5 fcd	3,1 fcd	2,0 fcd																			
Beam width (meter)	0,4 m	0,7 m	1,1 m	1,5 m	1,8 m																			
Beam width 90° (meter)	1 m	2 m	3 m	4 m	5 m																			
Beam width (Feet)	1,2 ft	2,4 ft	3,6 ft	4,8 ft	6 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
534lx	133lx	59lx	33lx	21lx	15lx	11lx	8lx	7lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	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					
49,6fcd	12,4fcd	5,5fcd	3,1fcd	2fcd	1,4fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	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°					
534	520	483	424	353	279	210	152	109	77	55	41	31	24	19	16	14	12	10	9					
100%	98%	90%	80%	66%	52%	39%	29%	20%	14%	10%	8%	6%	4%	4%	3%	3%	2%	2%	2%					
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°					
534	537	537	536	535	533	529	526	521	515	509	501	493	483	472	461	448	434	419	404					
100%	101%	101%	101%	100%	100%	99%	99%	98%	97%	95%	94%	92%	91%	89%	86%	84%	81%	79%	76%					
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°					
534	520	482	425	354	279	210	152	109	77	55	41	31	24	19	16	14	12	10	9					
100%	98%	90%	80%	66%	52%	39%	29%	20%	14%	10%	8%	6%	5%	4%	3%	3%	2%	2%	2%					
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°					
534	535	532	529	525	521	516	510	504	497	489	480	471	461	450	438	426	413	400	386					
100%	100%	100%	99%	98%	98%	97%	96%	94%	93%	92%	90%	88%	86%	84%	82%	80%	77%	75%	72%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
20,8°					37,9°					54°					98,4%					94,7%				



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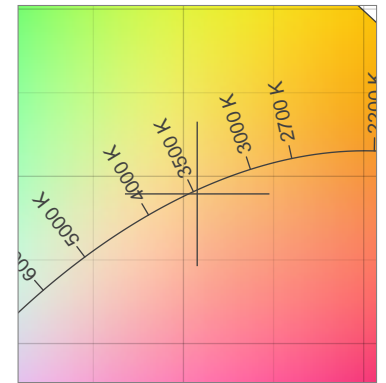
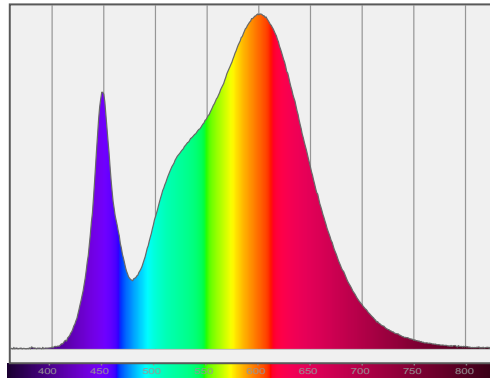
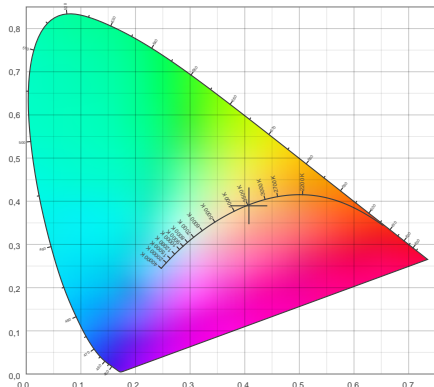
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Color details



CIE 1931

x: 0,408



Spectra

CIE 1931 ZOOM

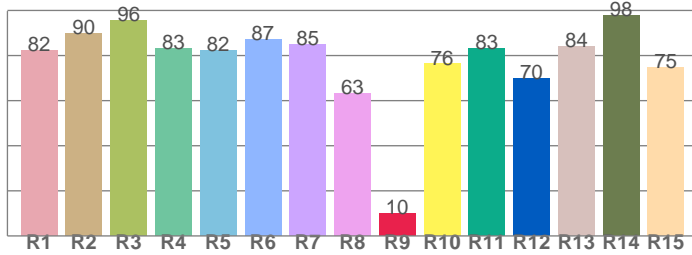
3443 K

y: 0,389

Δuv : -0,0010

CRI: 83,6 (R1-R8)

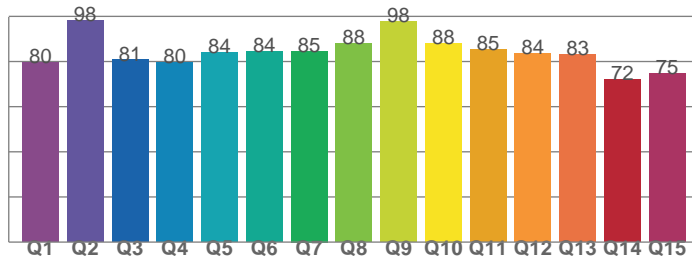
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
82,2	89,8	95,8	83,4	82,4	87,0	84,8	63,1
R9	R10	R11	R12	R13	R14	R15	
10,0	76,3	83,3	70,0	84,0	97,7	74,7	

CQS: 82,8

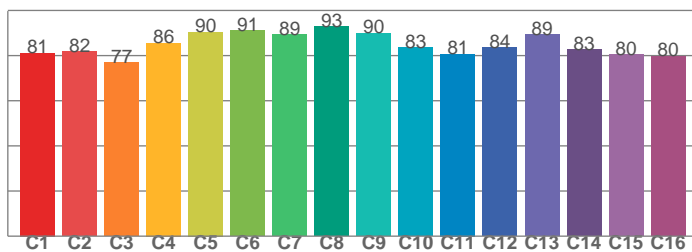
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
79,7	98,2	80,7	79,7	83,9	84,4	84,6	87,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,7	88,2	85,4	83,6	83,2	72,1	74,6	

TM30: 84,7

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



C1	C2	C3	C4	C5	C6	C7	C8
81,1	81,8	76,8	85,6	90,5	91,0	89,4	92,8
C9	C10	C11	C12	C13	C14	C15	
89,9	83,5	80,7	83,5	89,3	82,6	80,5	

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
3443 K	83,6	10,0	84,7	97,5	82,8	0,408	0,389	0,238	0,341	-0,0010



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TM30 details

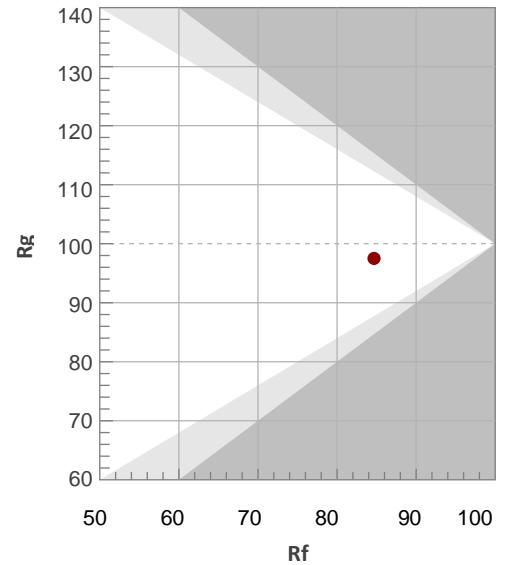
Rf 84,7

Fidelity index Rf

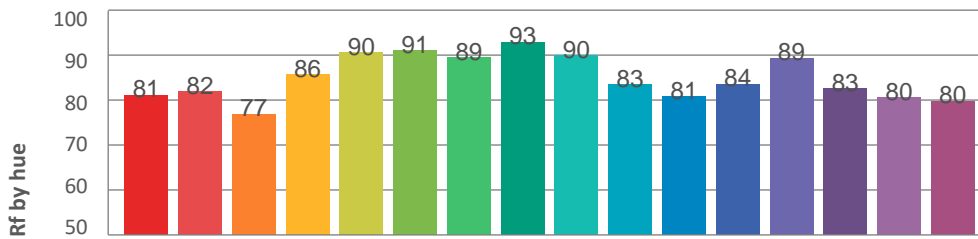
Rg 97,5

Gamut index Rg

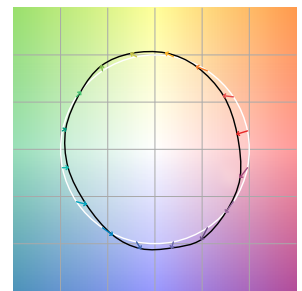
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-11%	-1%
2	82	-8%	7%
3	77	-3%	12%
4	86	2%	9%
5	90	5%	5%
6	91	5%	-2%
7	89	-1%	-7%
8	93	-3%	-3%
9	90	-6%	1%
10	83	-7%	8%
11	81	0%	13%
12	84	6%	6%
13	89	6%	-3%
14	83	7%	-12%
15	80	-1%	-14%
16	80	-6%	-12%



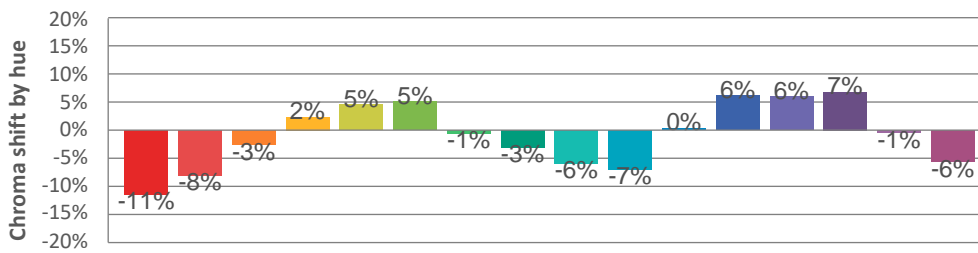
Hue binH



Color vector graphics



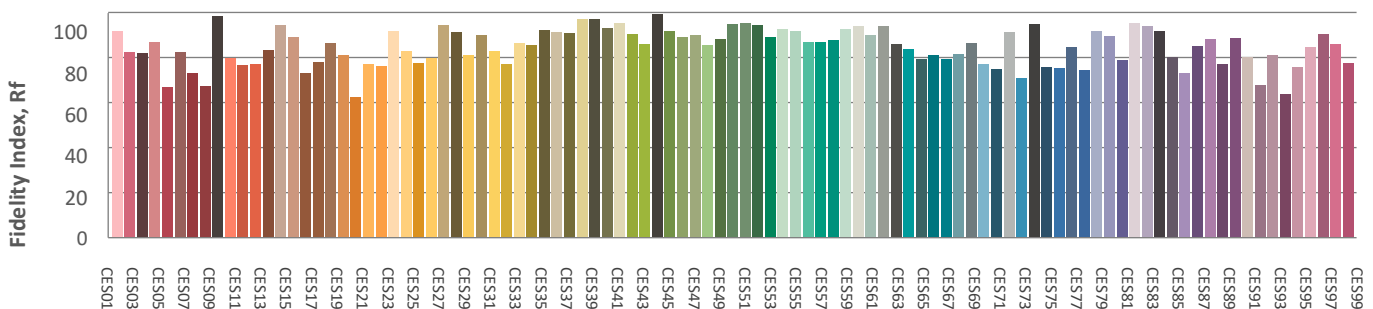
Hue bin



Color distortion graphics



Color Evaluation Sample



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