

LM-79

Test Report

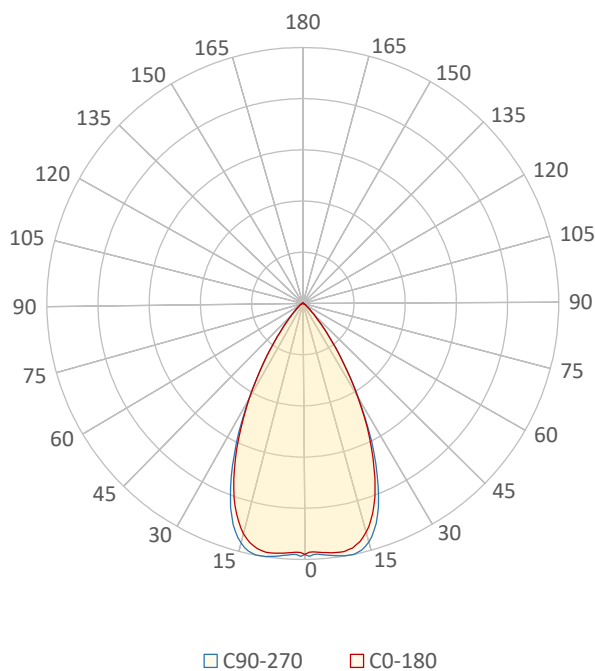
LM79-REVO-XL-4000K-CRI80-54DEG

General Discription

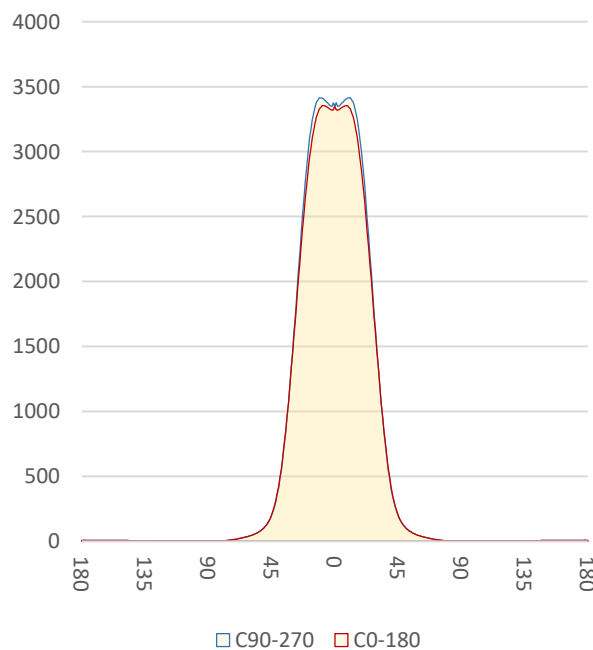
Item number	RX-1N-22-44
Date and time	28-6-2018 15:46:40
CCT (Kelvin)	3867 K
Beam angle	56,7 x 56,7°
Luminous flux	3022 lm
Efficiency	82 lm/watt
Weighted energy	36,9 kWh/1000h
Power factor	0,95
CRI (RA)	82,7
Fidelity index Rf	Rf 82,4
Gammut index Rg	Rg 98,0
Peak	3415 cd



Polar diagram



Cartesian diagram



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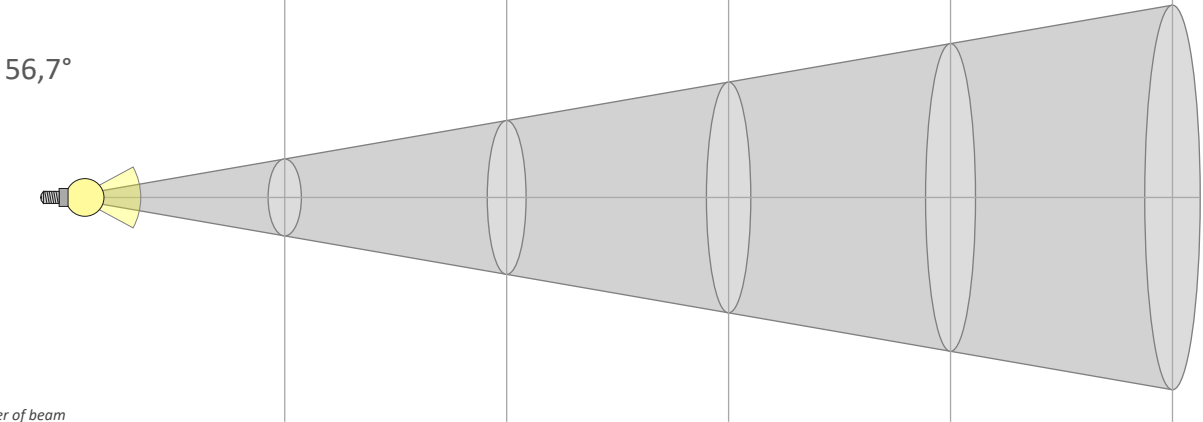
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Beam details	1m	2m	3m	4m	5m
Lux*	3348 lx	837 lx	372 lx	209 lx	134 lx



*measured at center of beam

Footcandles*	311,0 fcd	77,8 fcd	34,6 fcd	19,4 fcd	12,4 fcd
Beam width (meter)	1,1 m	2,2 m	3,2 m	4,3 m	5,4 m
Beam width (Feet)	3,5 ft	7,1 ft	10,6 ft	14,2 ft	17,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3348lx	837lx	372lx	209lx	134lx	93lx	68lx	52lx	41lx	33lx	28lx	23lx	20lx	17lx	15lx	13lx	12lx	10lx	9lx	8lx
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
311fcd	77,8fcd	34,6fcd	19,4fcd	12,4fcd	8,6fcd	6,3fcd	4,9fcd	3,8fcd	3,1fcd	2,6fcd	2,2fcd	1,8fcd	1,6fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd

Intensities in 0° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3348	3318	3332	3347	3354	3341	3299	3222	3106	2948	2752	2519	2265	1998	1725	1456	1197	958	747	566
100%	99%	100%	100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	60%	52%	43%	36%	29%	22%	17%

Intensities in 90° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3348	3350	3361	3384	3404	3414	3399	3346	3245	3094	2890	2637	2356	2062	1762	1470	1196	947	729	550
100%	100%	100%	101%	102%	102%	102%	100%	97%	92%	86%	79%	70%	62%	53%	44%	36%	28%	22%	16%

Intensities in 180° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3348	3318	3332	3347	3354	3341	3299	3222	3106	2948	2752	2519	2265	1998	1725	1456	1197	958	747	566
100%	99%	100%	100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	60%	52%	43%	36%	29%	22%	17%

Intensities in 270° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3348	3350	3361	3384	3404	3414	3399	3346	3245	3094	2890	2637	2356	2062	1762	1470	1196	947	729	550
100%	100%	100%	101%	102%	102%	102%	100%	97%	92%	86%	79%	70%	62%	53%	44%	36%	28%	22%	16%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
56,7°	82,8°	104,9°	98,0%	94,0%



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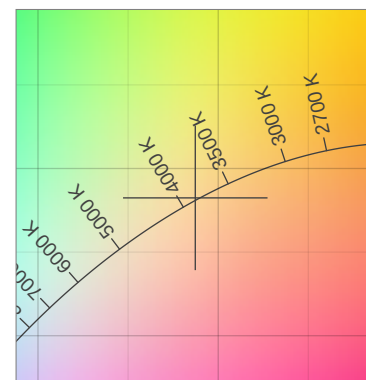
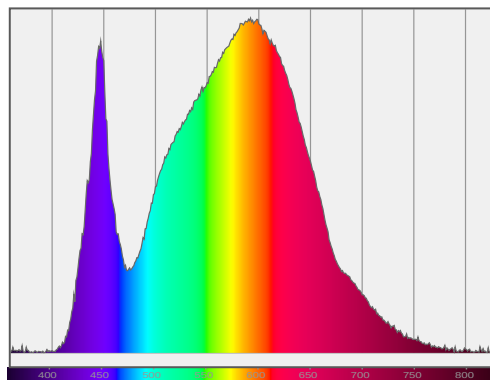
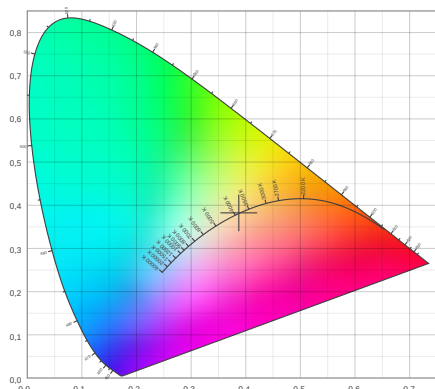
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Color details



CIE 1931

x: 0,387

3867 K

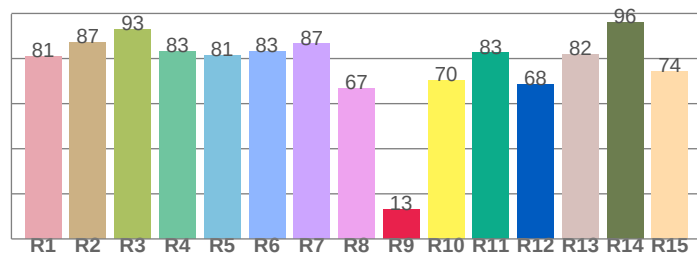
y: 0,382

Spectra

CIE 1931 ZOOM

Δuv : 0,0007

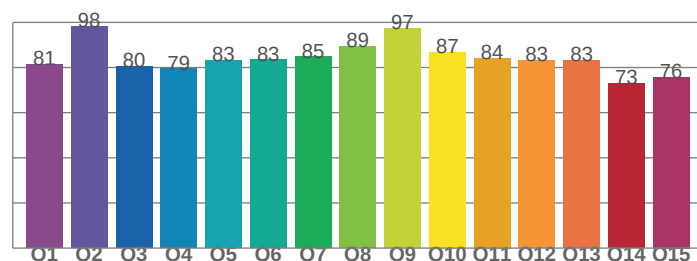
CRI: 82,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,9	87,2	92,8	83,2	81,3	83,2	86,5	66,9
R9	R10	R11	R12	R13	R14	R15	
13,3	70,4	82,5	68,4	82,0	95,9	74,5	

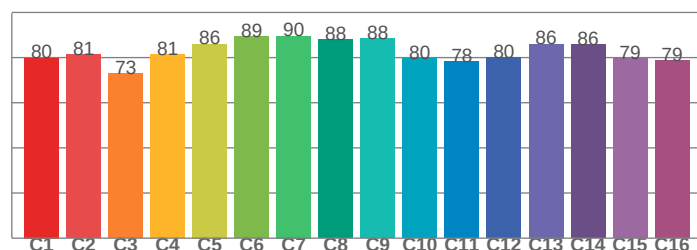
CQS: 82,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
81,3	98,1	80,4	79,4	83,2	83,4	84,7	89,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,2	86,9	84,2	83,3	83,3	72,8	75,8	

TM30: 82,4



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

C1	C2	C3	C4	C5	C6	C7	C8
79,9	81,4	72,9	81,3	86,0	89,4	89,5	88,0
C9	C10	C11	C12	C13	C14	C15	
88,4	79,5	78,1	80,1	86,0	85,8	79,5	

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
3867 K	82,7	13,3	82,4	98,0	82,9	0,387	0,382	0,227	0,337	0,0007



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TM30 details

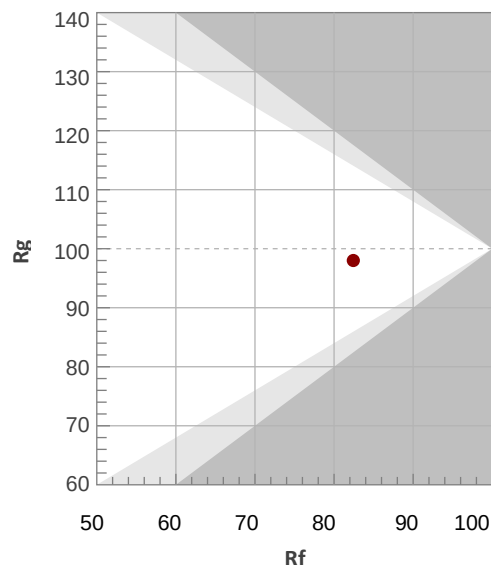
Rf 82,4

Fidelity index Rf

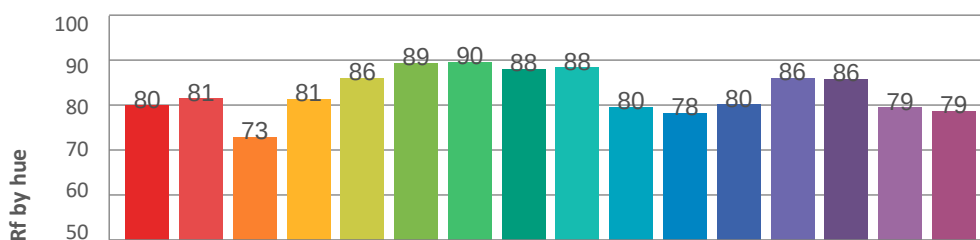
Rg 98,0

Gamut index Rg

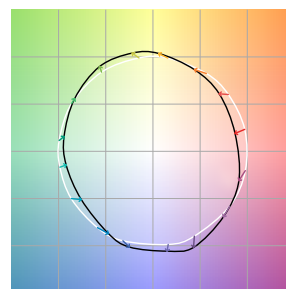
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	81	-8%	6%
3	73	-4%	13%
4	81	3%	10%
5	86	6%	6%
6	89	6%	-2%
7	90	0%	-6%
8	88	-4%	-5%
9	88	-7%	-1%
10	80	-8%	7%
11	78	-1%	13%
12	80	5%	8%
13	86	7%	-3%
14	86	9%	-7%
15	79	1%	-13%
16	79	-5%	-12%



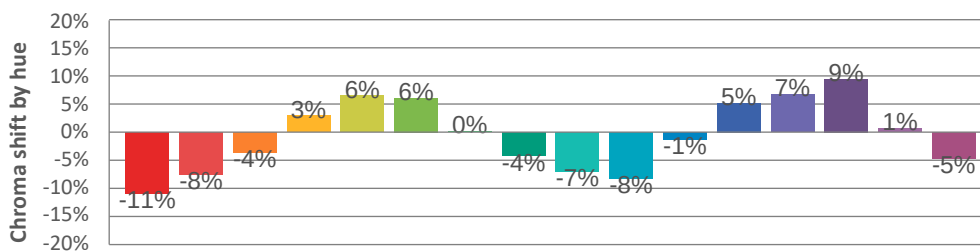
Hue binH



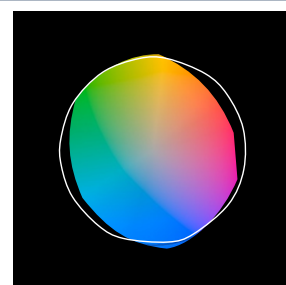
Color vector graphics



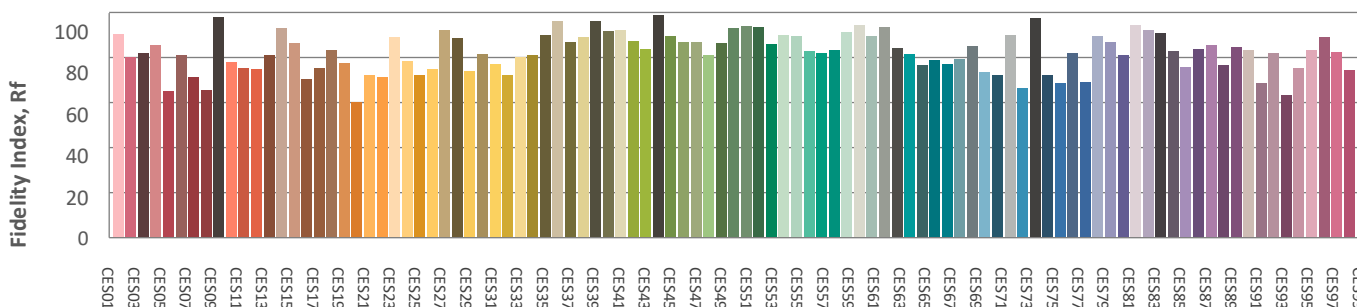
Hue bin



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	18,8	19,5	19,1	19,8	20,0	18,8	19,5	19,0	19,7	19,9
	3H	18,8	19,5	19,1	19,7	20,0	18,8	19,4	19,1	19,7	19,9
	4H	18,8	19,4	19,1	19,7	19,9	18,7	19,3	19,0	19,6	19,9
	6H	18,7	19,3	19,1	19,6	19,9	18,7	19,2	19,0	19,5	19,8
	8H	18,7	19,2	19,0	19,5	19,9	18,6	19,2	19,0	19,5	19,8
	12H	18,7	19,2	19,0	19,5	19,8	18,6	19,1	19,0	19,4	19,8
4H	2H	18,7	19,3	19,0	19,6	19,9	18,7	19,3	19,0	19,5	19,8
	3H	18,7	19,3	19,1	19,6	19,9	18,7	19,2	19,1	19,5	19,8
	4H	18,7	19,2	19,1	19,5	19,9	18,7	19,1	19,1	19,5	19,8
	6H	18,7	19,1	19,1	19,4	19,8	18,6	19,0	19,0	19,4	19,8
	8H	18,7	19,0	19,1	19,4	19,8	18,6	18,9	19,0	19,3	19,7
	12H	18,6	18,9	19,1	19,3	19,8	18,6	18,9	19,0	19,3	19,7
8H	4H	18,6	19,0	19,1	19,4	19,8	18,6	18,9	19,0	19,3	19,7
	6H	18,6	18,8	19,1	19,3	19,7	18,5	18,8	19,0	19,2	19,7
	8H	18,6	18,8	19,0	19,2	19,7	18,5	18,7	19,0	19,2	19,7
	12H	18,5	18,7	19,0	19,2	19,7	18,5	18,6	19,0	19,1	19,6
12H	4H	18,6	18,9	19,1	19,3	19,7	18,6	18,8	19,0	19,3	19,7
	6H	18,6	18,8	19,0	19,2	19,7	18,5	18,7	19,0	19,2	19,6
	8H	18,5	18,7	19,0	19,2	19,7	18,5	18,6	19,0	19,1	19,6
Variation of the observer position for the luminaire distance S											
S = 1,0H		+4,1 / -4,8					+4,1 / -4,8				
S = 1,5H		+6,7 / -6,0					+6,8 / -6,0				
S = 2,0H		+8,7 / -7,0					+8,7 / -7,1				
Standard table		BK00					BK00				
Correction summand		0,4					0,3				
Corrected glare indices referring to 3022lm total luminous flux											



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