

LM-79

Test Report

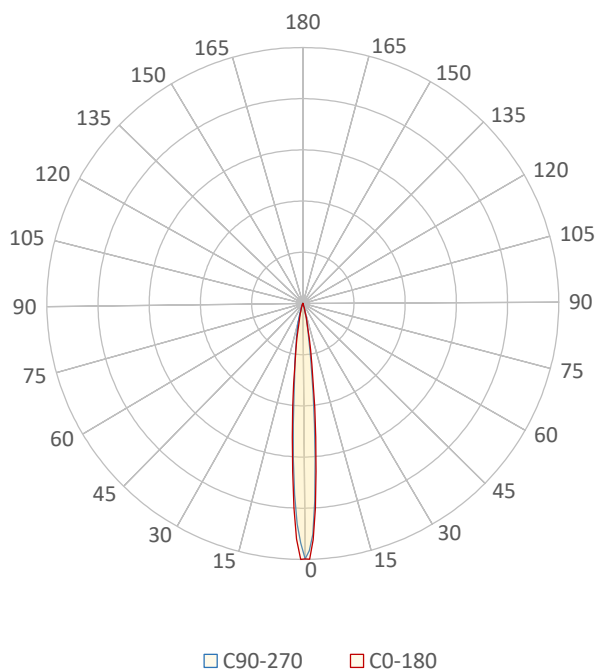
LM79-REVO-XL-4000K-CRI80-8DEG

General Discription

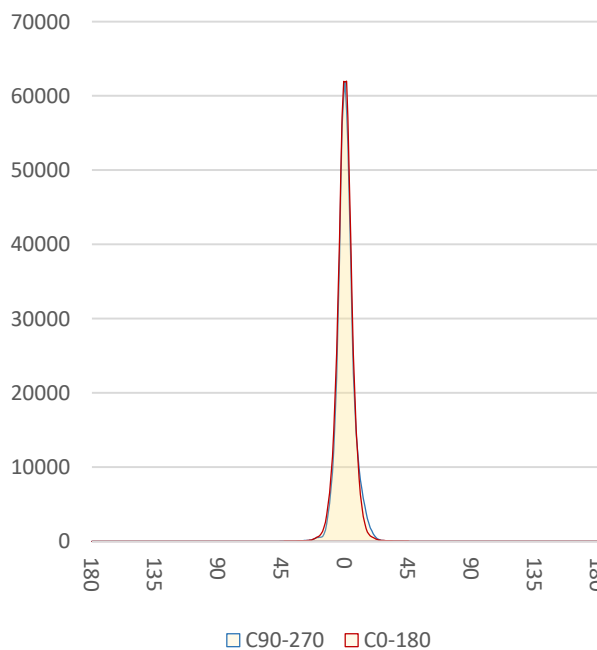
Item number	RX-1N-22-55
Date and time	28-6-2018 14:29:20
CCT (Kelvin)	3826 K
Beam angle	9,8°
Luminous flux	3151 lm
Efficiency	85 lm/watt
Weighted energy	37,0 kWh/1000h
Power factor	0,95
CRI (RA)	82,8
Fidelity index Rf	Rf 82,3
Gammut index Rg	Rg 98,4
Peak	63445 cd



Polar diagram



Cartesian diagram



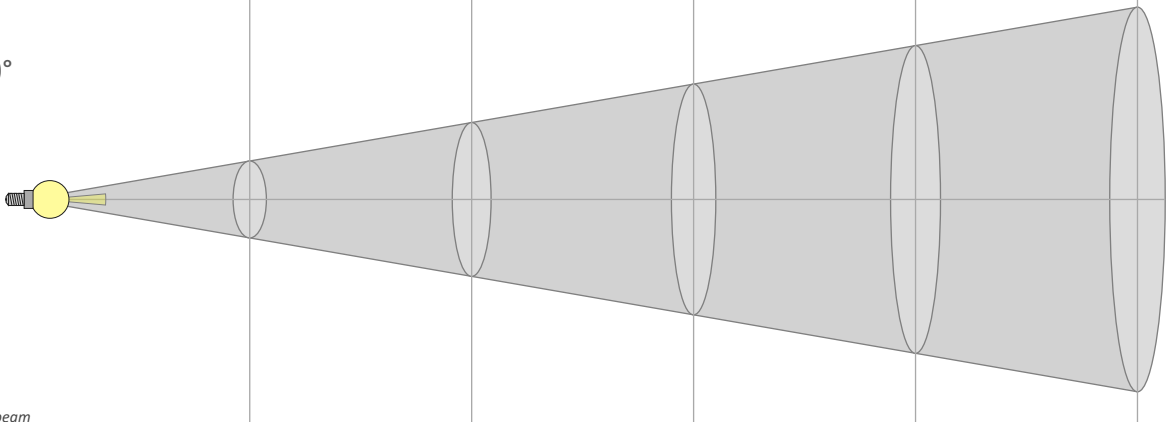
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Beam details					1m		2m		3m		4m		5m						
Lux*					61867 lx		15467 lx		6874 lx		3867 lx		2475 lx						
10° 																			
*measured at center of beam																			
Footcandles*					5747,6 fcd		1436,9 fcd		638,6 fcd		359,2 fcd		229,9 fcd						
Beam width (meter)					0,2 m		0,3 m		0,5 m		0,7 m		0,9 m						
Beam width (Feet)					0,6 ft		1,1 ft		1,7 ft		2,3 ft		2,9 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
61867lx	15467lx	6874lx	3867lx	2475lx	1719lx	1263lx	967lx	764lx	619lx	511lx	430lx	366lx	316lx	275lx	242lx	214lx	191lx	171lx	155lx
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
5747,6fcd	1436,9fcd	638,6fcd	359,2fcd	229,9fcd	159,7fcd	117,3fcd	89,8fcd	71fcd	57,5fcd	47,5fcd	39,9fcd	34fcd	29,3fcd	25,5fcd	22,5fcd	19,9fcd	17,7fcd	15,9fcd	14,4fcd
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°
61,9K	62,0K	57,3K	49,6K	40,8K	32,5K	25,4K	19,5K	15,0K	11,4K	8,7K	6,5K	4,9K	3,6K	2,6K	1,9K	1,3K	1,0K	0,8K	0,7K
100%	100%	93%	80%	66%	52%	41%	32%	24%	18%	14%	11%	8%	6%	4%	3%	2%	2%	1%	1%
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°
61,9K	59,9K	56,0K	47,9K	38,2K	29,4K	22,1K	16,4K	12,3K	9,3K	7,0K	5,1K	3,6K	2,4K	1,5K	1,0K	0,6K	0,6K	0,6K	0,5K
100%	97%	90%	77%	62%	48%	36%	27%	20%	15%	11%	8%	6%	4%	2%	2%	1%	1%	1%	1%
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°
61,9K	62,0K	57,1K	49,5K	40,8K	32,5K	25,3K	19,5K	15,0K	11,4K	8,6K	6,3K	4,7K	3,4K	2,4K	1,7K	1,2K	0,9K	0,7K	0,6K
100%	100%	92%	80%	66%	53%	41%	32%	24%	18%	14%	10%	8%	5%	4%	3%	2%	2%	1%	1%
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°
61,9K	58,0K	53,4K	46,4K	37,8K	29,4K	22,7K	17,9K	14,4K	11,9K	9,9K	8,3K	7,0K	5,8K	4,8K	3,9K	3,1K	2,4K	1,8K	1,4K
100%	94%	86%	75%	61%	48%	37%	29%	23%	19%	16%	13%	11%	9%	8%	6%	5%	4%	3%	2%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
10°				22,7°				31,8°				98,9%				98,2%			



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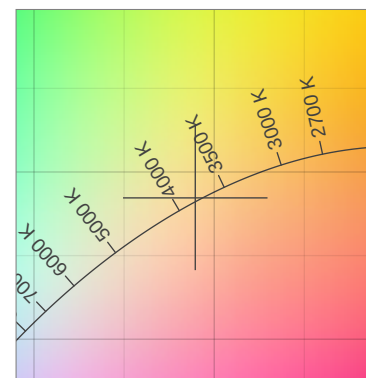
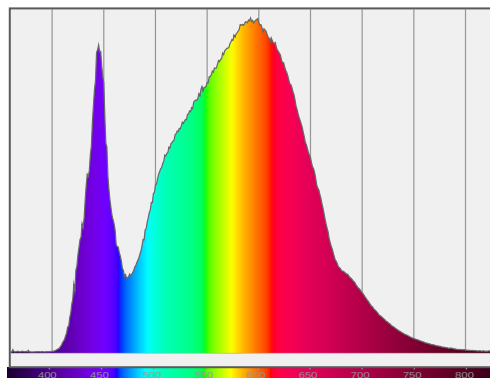
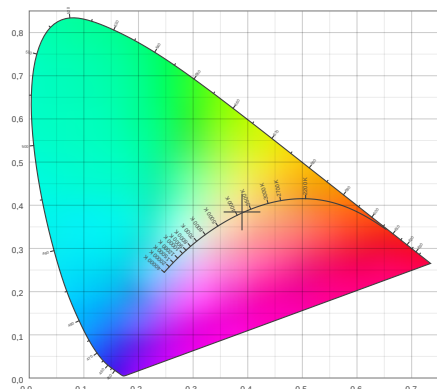
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Color details



CIE 1931

x: 0,389

3826 K

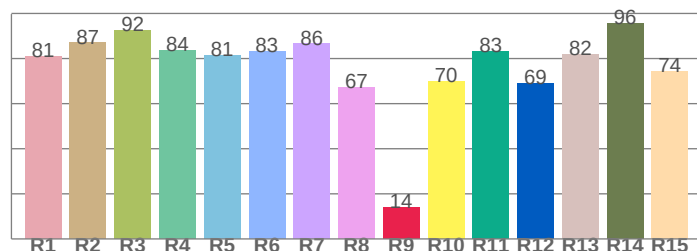
y: 0,385

Spectra

CIE 1931 ZOOM

Δuv : 0,0011

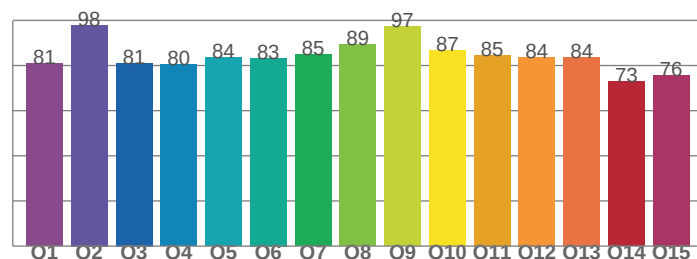
CRI: 82,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,0	87,0	92,4	83,6	81,4	83,1	86,5	67,2
R9	R10	R11	R12	R13	R14	R15	
14,0	70,0	83,2	69,2	81,9	95,6	74,4	

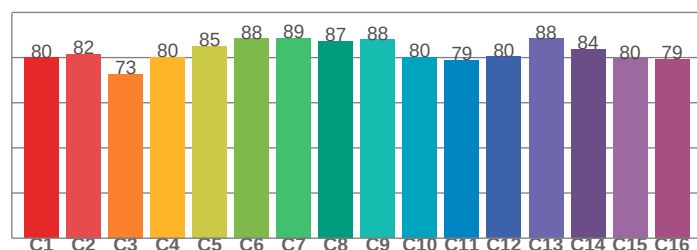
CQS: 83,2



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
80,8	97,9	81,1	80,5	83,7	83,3	84,8	89,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,2	86,9	84,7	83,8	83,7	73,0	75,8	

TM30: 82,3



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

C1	C2	C3	C4	C5	C6	C7	C8
80,1	81,6	72,7	80,3	85,1	88,3	88,7	87,3
C9	C10	C11	C12	C13	C14	C15	
87,9	80,3	79,0	80,3	88,4	83,8	79,7	

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
3826 K	82,8	14,0	82,3	98,4	83,2	0,389	0,385	0,228	0,338	0,0011



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TM30 details

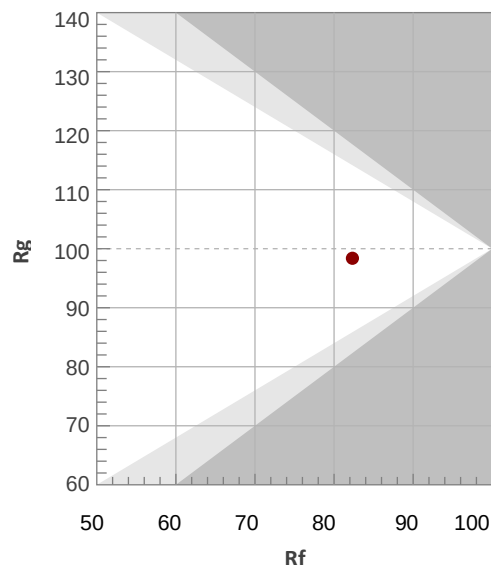
Rf 82,3

Fidelity index Rf

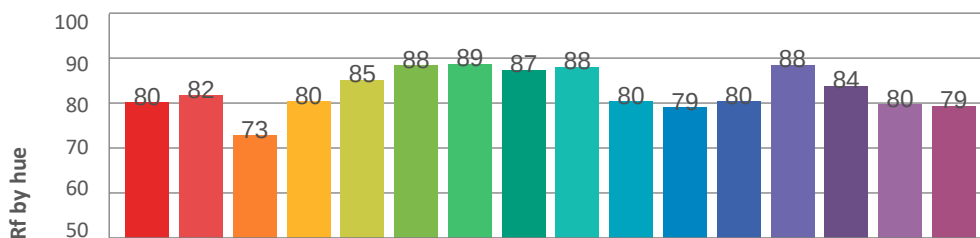
Rg 98,4

Gamut index Rg

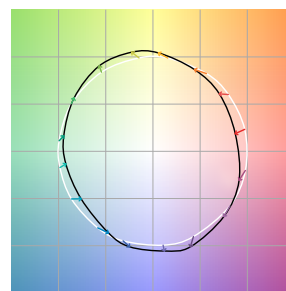
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	82	-8%	6%
3	73	-4%	13%
4	80	3%	11%
5	85	7%	6%
6	88	7%	-2%
7	89	1%	-7%
8	87	-4%	-6%
9	88	-7%	-2%
10	80	-9%	6%
11	79	-2%	12%
12	80	5%	8%
13	88	6%	0%
14	84	7%	-9%
15	80	1%	-13%
16	79	-4%	-11%



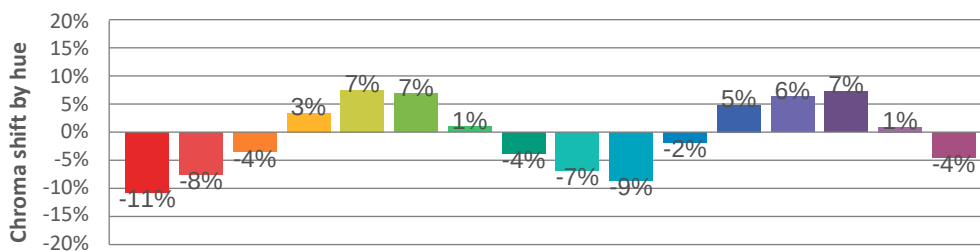
Hue binH



Color vector graphics



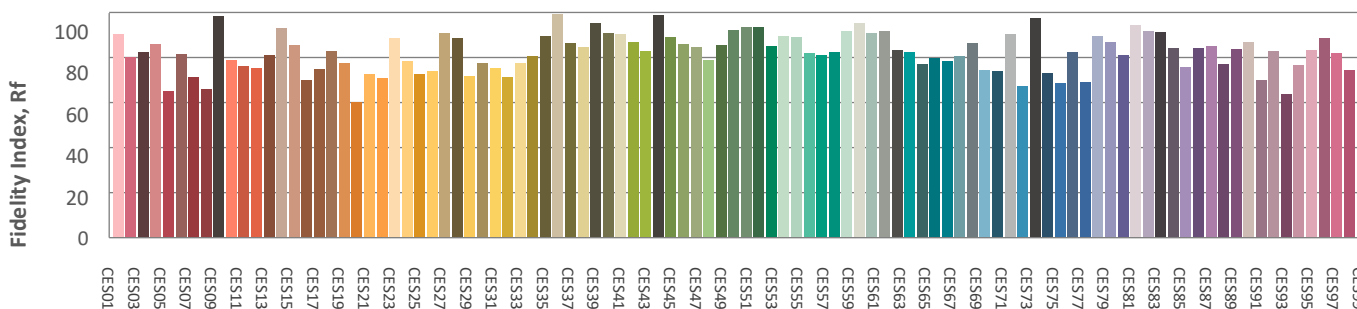
Hue bin



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	3,4	4,1	3,7	4,3	4,5	3,6	4,2	3,8	4,4	4,6
	3H	4,2	4,8	4,5	5,1	5,3	4,3	4,8	4,5	5,1	5,3
	4H	4,5	5,1	4,8	5,4	5,6	4,8	5,4	5,1	5,6	5,9
	6H	4,7	5,2	5,0	5,5	5,8	5,1	5,6	5,4	5,9	6,2
	8H	4,8	5,3	5,1	5,6	5,9	5,2	5,7	5,6	6,0	6,3
	12H	4,9	5,3	5,2	5,6	6,0	5,3	5,8	5,7	6,1	6,4
4H	2H	3,8	4,3	4,1	4,6	4,8	3,8	4,3	4,1	4,6	4,9
	3H	4,7	5,2	5,1	5,5	5,8	4,7	5,2	5,1	5,5	5,8
	4H	5,2	5,6	5,5	5,9	6,3	5,4	5,8	5,8	6,2	6,5
	6H	5,4	5,7	5,8	6,1	6,5	5,8	6,2	6,2	6,5	6,9
	8H	5,5	5,8	6,0	6,2	6,6	6,0	6,3	6,4	6,7	7,1
	12H	5,7	5,9	6,1	6,4	6,8	6,2	6,4	6,6	6,8	7,3
8H	4H	5,3	5,6	5,7	6,0	6,4	5,6	5,9	6,0	6,3	6,7
	6H	5,7	5,9	6,1	6,3	6,8	6,1	6,3	6,5	6,7	7,2
	8H	5,9	6,0	6,3	6,5	7,0	6,3	6,5	6,8	6,9	7,4
	12H	6,1	6,3	6,6	6,7	7,3	6,6	6,7	7,1	7,2	7,7
12H	4H	5,3	5,6	5,8	6,0	6,4	5,6	5,8	6,0	6,2	6,7
	6H	5,7	5,9	6,2	6,3	6,8	6,1	6,3	6,6	6,7	7,2
	8H	5,9	6,1	6,4	6,6	7,1	6,4	6,5	6,8	7,0	7,5
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,8 / -0,6					+0,9 / -0,5				
S = 1,5H		+1,9 / -0,8					+2,0 / -1,2				
S = 2,0H		+3,0 / -1,4					+3,3 / -1,8				
Standard table		BK04					BK04				
Correction summand		-11,7					-11,5				
Corrected glare indices referring to 3151lm total luminous flux											



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