

LM-79

Test Report

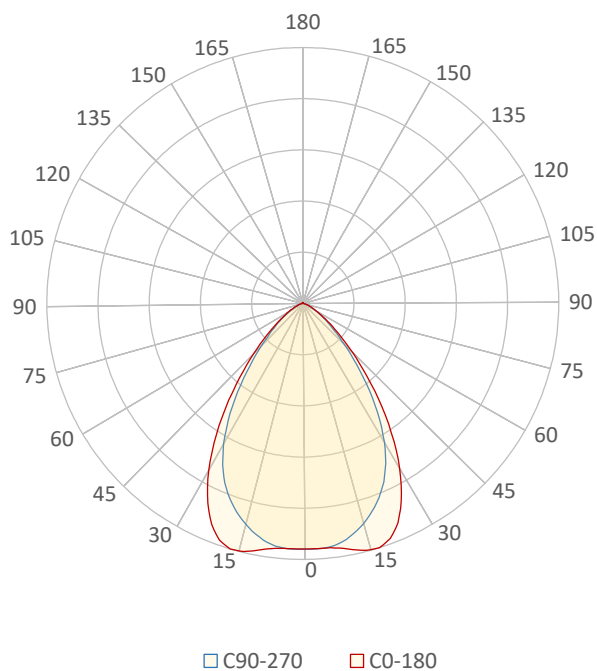
LM79-REVO-XL-4000K-CRI80-80DEG

General Discription

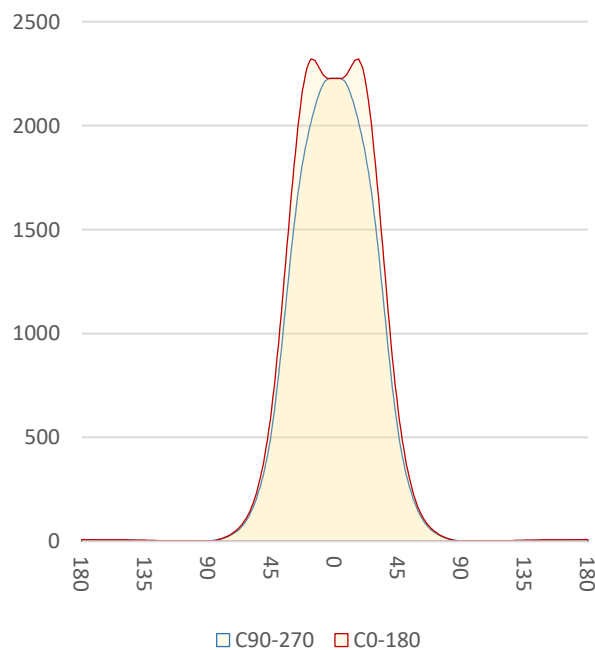
Item number	RX-1N-22-66
Date and time	28-6-2018 15:54:02
CCT (Kelvin)	3873 K
Beam angle	70,5°
Luminous flux	3280 lm
Efficiency	89 lm/watt
Weighted energy	37,0 kWh/1000h
Power factor	0,95
CRI (RA)	81,7
Fidelity index Rf	Rf 81,7
Gammut index Rg	Rg 97,5
Peak	2321 cd



Polar diagram



Cartesian diagram



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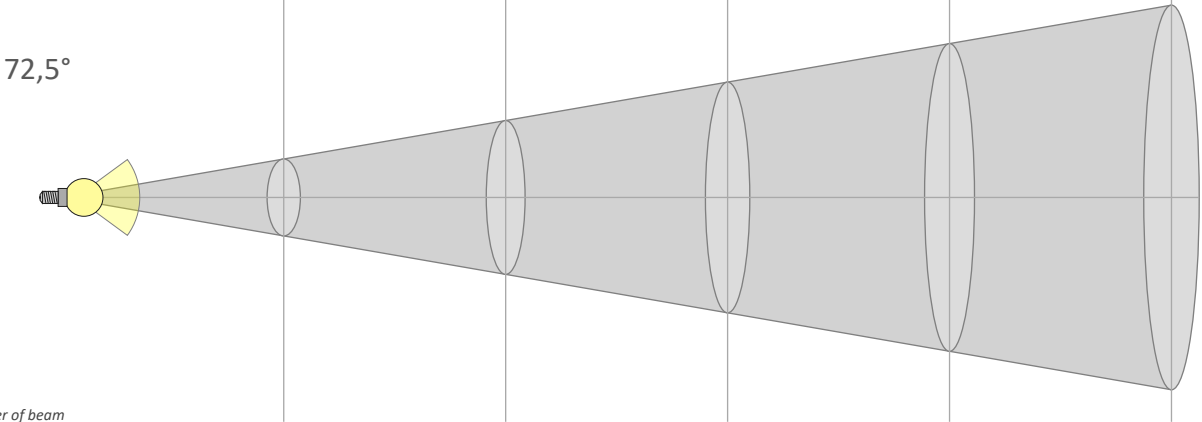
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Beam details		1m	2m	3m	4m	5m
Lux*		2227 lx	557 lx	247 lx	139 lx	89 lx



72,5°

*measured at center of beam

Footcandles*		206,9 fcd	51,7 fcd	23,0 fcd	12,9 fcd	8,3 fcd
Beam width (meter)		1,5 m	2,9 m	4,4 m	5,9 m	7,3 m
Beam width (Feet)		4,8 ft	9,6 ft	14,4 ft	19,2 ft	24,1 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2227lx	557lx	247lx	139lx	89lx	62lx	45lx	35lx	27lx	22lx	18lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx	6lx
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
206,9fcd	51,7fcd	23fcd	12,9fcd	8,3fcd	5,7fcd	4,2fcd	3,2fcd	2,6fcd	2,1fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd

Intensities in 0° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2227	2227	2265	2317	2274	2063	1733	1342	953	636	408	252	151	91	53	29	14	5	2	1
100%	100%	102%	104%	102%	93%	78%	60%	43%	29%	18%	11%	7%	4%	2%	1%	1%	0%	0%	0%

Intensities in 90° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2227	2224	2176	2068	1924	1729	1461	1129	801	532	344	221	136	81	47	26	14	6	2	1
100%	100%	98%	93%	86%	78%	66%	51%	36%	24%	15%	10%	6%	4%	2%	1%	1%	0%	0%	0%

Intensities in 180° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2227	2227	2265	2317	2274	2063	1733	1342	953	636	408	252	151	91	53	29	14	5	2	1
100%	100%	102%	104%	102%	93%	78%	60%	43%	29%	18%	11%	7%	4%	2%	1%	1%	0%	0%	0%

Intensities in 270° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2227	2224	2176	2068	1924	1729	1461	1129	801	532	344	221	136	81	47	26	14	6	2	1
100%	100%	98%	93%	86%	78%	66%	51%	36%	24%	15%	10%	6%	4%	2%	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	
72,5°		110,8°		137,7°		95,5%		83,1%	



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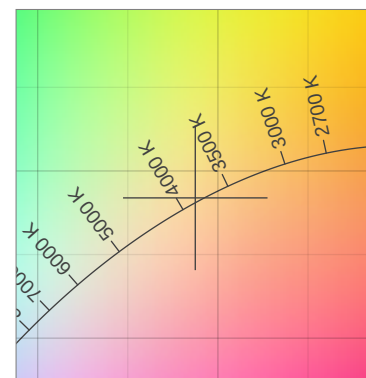
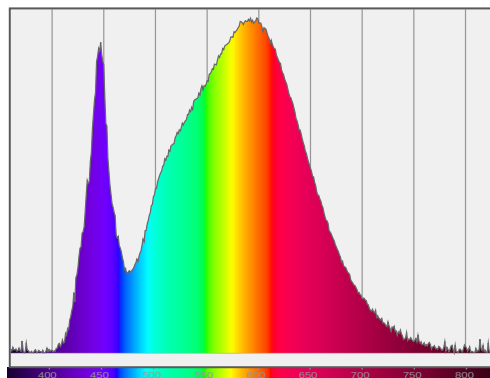
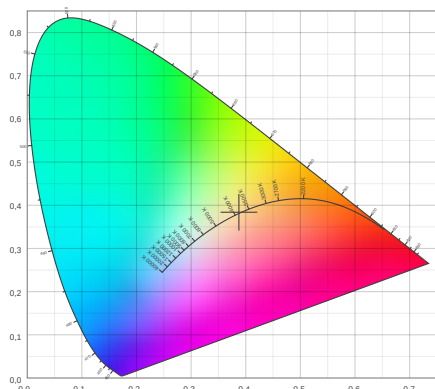
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Color details



CIE 1931

x: 0,387

3873 K

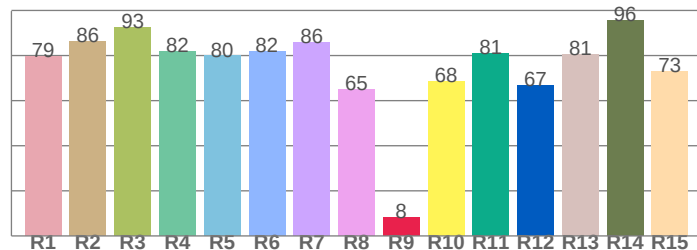
y: 0,384

Spectra

CIE 1931 ZOOM

Δuv : 0,0013

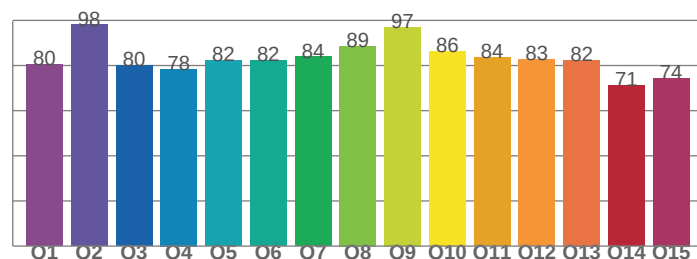
CRI: 81,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
79,5	86,4	92,5	82,0	79,9	82,0	86,0	65,1
R9	R10	R11	R12	R13	R14	R15	
8,1	68,5	80,9	66,6	80,6	95,7	72,8	

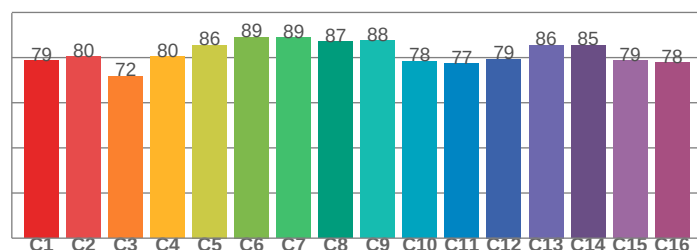
CQS: 82,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
80,4	98,0	79,9	78,5	82,2	82,3	83,8	88,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,1	86,4	83,6	82,5	82,5	71,2	74,5	

TM30: 81,7



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

C1	C2	C3	C4	C5	C6	C7	C8
78,8	80,4	71,8	80,5	85,6	89,2	88,9	87,1
C9	C10	C11	C12	C13	C14	C15	
87,6	78,4	77,3	79,4	85,6	85,5	78,6	

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
3873 K	81,7	8,1	81,7	97,5	82,1	0,387	0,384	0,227	0,337	0,0013



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TM30 details

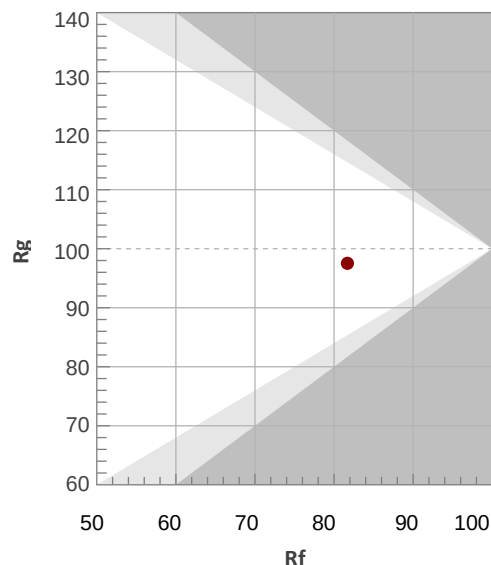
Rf 81,7

Fidelity index R_f

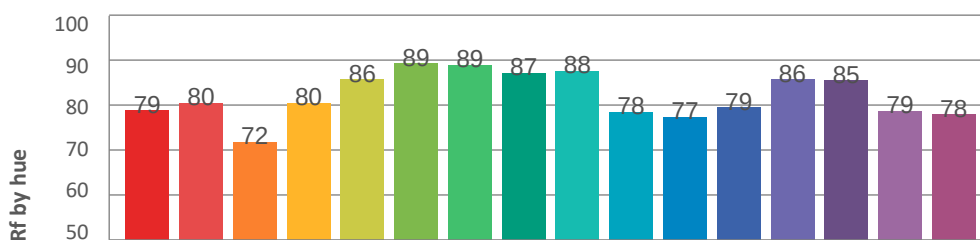
Rg 97,5

Gammut index Rg

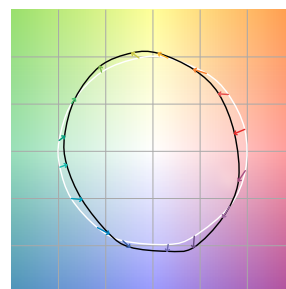
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-12%	-2%
2	80	-8%	6%
3	72	-4%	13%
4	80	3%	11%
5	86	7%	6%
6	89	6%	-2%
7	89	0%	-7%
8	87	-5%	-5%
9	88	-8%	-1%
10	78	-9%	7%
11	77	-2%	14%
12	79	5%	8%
13	86	7%	-3%
14	85	10%	-8%
15	79	1%	-14%
16	78	-5%	-12%



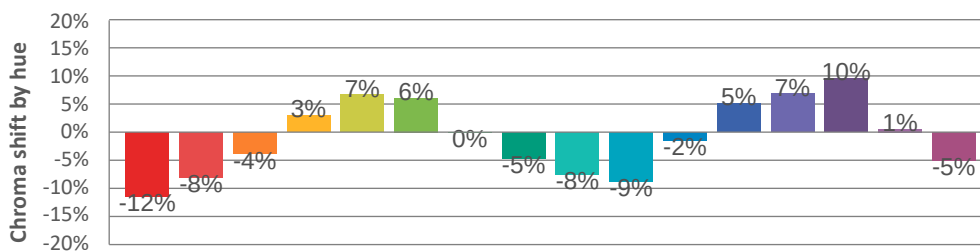
Hue binH



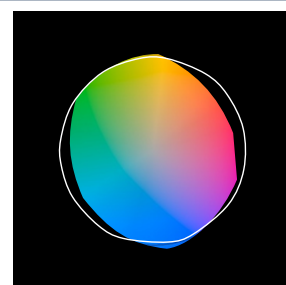
Color vector graphics



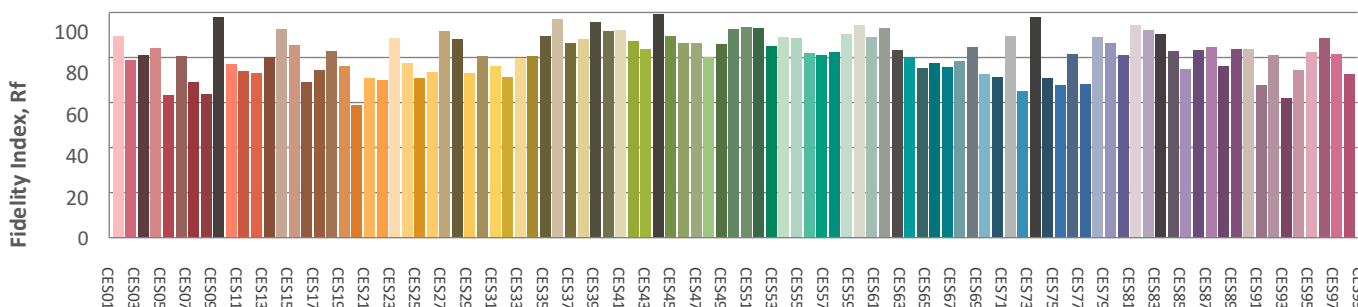
Hue bin



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	23,9	24,8	24,2	25,0	25,3	23,3	24,2	23,6	24,4	24,6
	3H	24,0	24,8	24,3	25,1	25,3	23,4	24,2	23,7	24,5	24,7
	4H	24,0	24,8	24,3	25,0	25,3	23,4	24,2	23,7	24,4	24,7
	6H	24,0	24,7	24,3	25,0	25,3	23,4	24,1	23,7	24,4	24,7
	8H	24,0	24,6	24,3	24,9	25,3	23,4	24,0	23,7	24,3	24,7
	12H	23,9	24,6	24,3	24,9	25,2	23,3	24,0	23,7	24,3	24,6
4H	2H	23,9	24,7	24,2	24,9	25,2	23,3	24,1	23,7	24,4	24,7
	3H	24,1	24,7	24,4	25,0	25,4	23,5	24,1	23,9	24,5	24,8
	4H	24,1	24,7	24,5	25,0	25,4	23,6	24,1	23,9	24,4	24,8
	6H	24,1	24,6	24,5	25,0	25,4	23,6	24,0	24,0	24,4	24,8
	8H	24,1	24,5	24,5	24,9	25,3	23,5	24,0	24,0	24,4	24,8
	12H	24,1	24,4	24,5	24,9	25,3	23,5	23,9	24,0	24,3	24,8
8H	4H	24,1	24,5	24,5	24,9	25,3	23,5	23,9	23,9	24,3	24,7
	6H	24,1	24,4	24,5	24,8	25,3	23,5	23,9	24,0	24,3	24,8
	8H	24,1	24,3	24,5	24,8	25,3	23,5	23,8	24,0	24,3	24,7
	12H	24,0	24,3	24,5	24,7	25,3	23,5	23,7	24,0	24,2	24,7
12H	4H	24,0	24,4	24,5	24,8	25,2	23,5	23,8	23,9	24,3	24,7
	6H	24,0	24,3	24,5	24,8	25,3	23,5	23,8	24,0	24,2	24,7
	8H	24,0	24,3	24,5	24,7	25,3	23,5	23,7	24,0	24,2	24,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+1,4 / -2,1					+1,3 / -2,1				
S = 1,5H		+3,2 / -3,8					+2,9 / -3,7				
S = 2,0H		+5,0 / -5,1					+4,6 / -5,1				
Standard table		BK01					BK01				
Correction summand		6,1					5,5				
Corrected glare indices referring to 3280lm total luminous flux											



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