

LM-79

Test Report

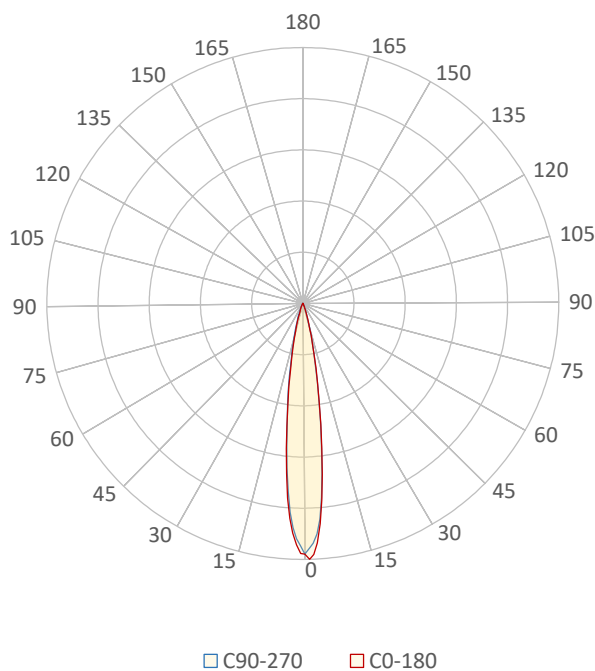
LM79-REVO-XL-4000K-CRI80-12DEG

General Discription

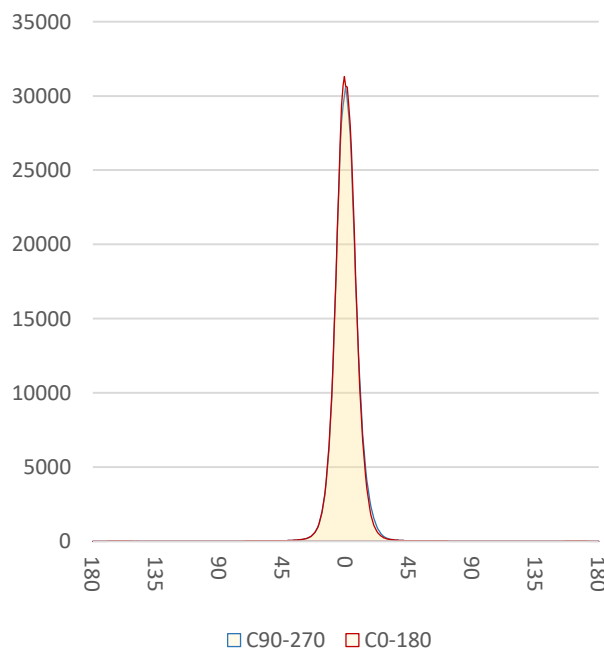
Item number	RX-1N-22-11
Date and time	28-6-2018 15:32:23
CCT (Kelvin)	3871 K
Beam angle	15,7 x 15,5°
Luminous flux	3182 lm
Efficiency	86 lm/watt
Weighted energy	37,0 kWh/1000h
Power factor	0,95
CRI (RA)	83,0
Fidelity index Rf	Rf 82,7
Gammut index Rg	Rg 98,0
Peak	31324 cd



Polar diagram



Cartesian diagram



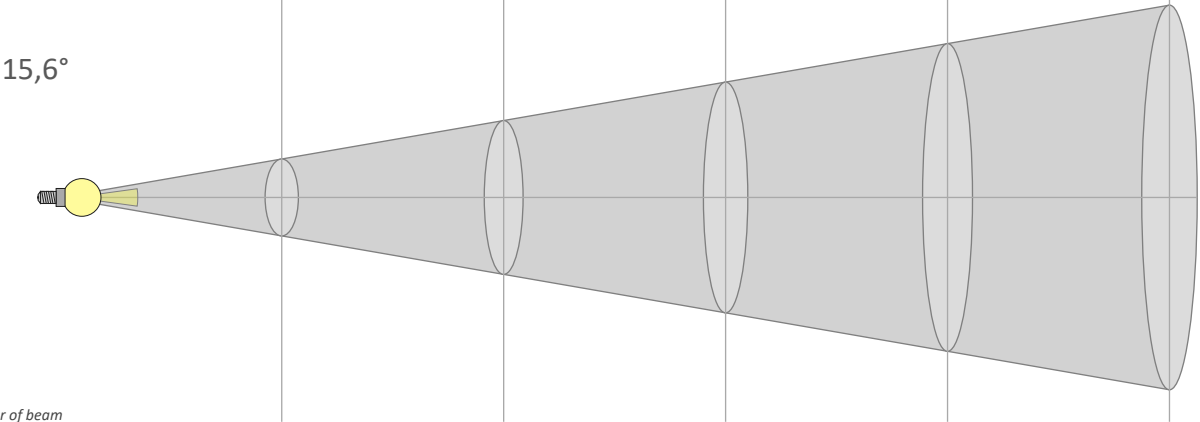
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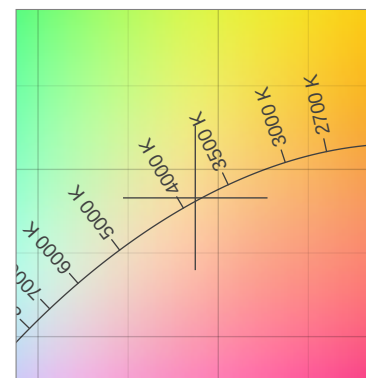
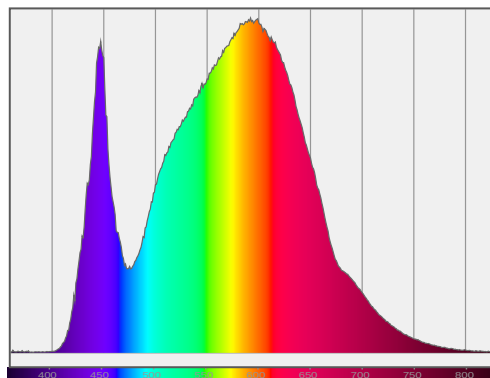
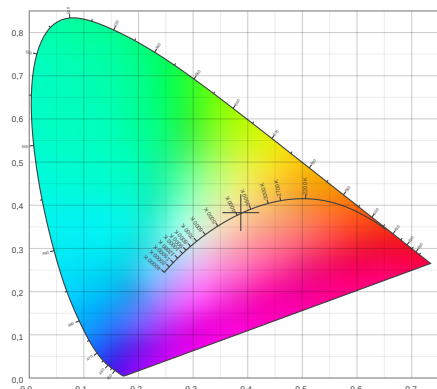
Beam details	1m	2m	3m	4m	5m														
Lux*	30658 lx	7664 lx	3406 lx	1916 lx	1226 lx														
																			
*measured at center of beam																			
Footcandles*	2848,2 fcd	712,0 fcd	316,5 fcd	178,0 fcd	113,9 fcd														
Beam width (meter)	0,3 m	0,5 m	0,8 m	1,1 m	1,4 m														
Beam width (Feet)	0,9 ft	1,8 ft	2,7 ft	3,6 ft	4,5 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
30658lx	7664lx	3406lx	1916lx	1226lx	852lx	626lx	479lx	378lx	307lx	253lx	213lx	181lx	156lx	136lx	120lx	106lx	95lx	85lx	77lx
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
2848,2fcd	712fcd	316,5fcd	178fcd	113,9fcd	79,1fcd	58,1fcd	44,5fcd	35,2fcd	28,5fcd	23,5fcd	19,8fcd	16,9fcd	14,5fcd	12,7fcd	11,1fcd	9,9fcd	8,8fcd	7,9fcd	7,1fcd
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°
30,7K	31,3K	30,7K	29,3K	27,0K	24,2K	21,1K	18,0K	15,0K	12,3K	10,0K	8,1K	6,5K	5,1K	4,1K	3,2K	2,5K	2,0K	1,5K	1,2K
100%	102%	100%	96%	88%	79%	69%	59%	49%	40%	33%	26%	21%	17%	13%	10%	8%	6%	5%	4%
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°
30,7K	30,0K	29,4K	28,2K	26,5K	23,9K	20,8K	17,7K	14,7K	12,0K	9,7K	7,8K	6,2K	4,9K	3,9K	3,1K	2,4K	1,9K	1,5K	1,2K
100%	98%	96%	92%	86%	78%	68%	58%	48%	39%	32%	25%	20%	16%	13%	10%	8%	6%	5%	4%
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°
30,7K	30,6K	29,5K	28,1K	26,3K	23,9K	20,9K	17,9K	15,0K	12,5K	10,3K	8,4K	6,8K	5,5K	4,4K	3,6K	2,8K	2,2K	1,8K	1,4K
100%	100%	96%	92%	86%	78%	68%	58%	49%	41%	34%	27%	22%	18%	14%	12%	9%	7%	6%	4%
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°
30,7K	29,7K	28,8K	27,5K	25,6K	23,0K	20,2K	17,4K	14,7K	12,6K	10,9K	8,9K	7,2K	6,0K	5,0K	4,1K	3,4K	2,8K	2,3K	1,9K
100%	97%	94%	90%	83%	75%	66%	57%	48%	41%	35%	29%	24%	20%	16%	13%	11%	9%	8%	6%
Beam angle 50%		Field angle 10%			Cutoff angle 2,5%			Intensity ratio in 120° cone				Intensity ratio in 90° cone							

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Test Report

LM79-REVO-XL-4000K-CRI80-12DEG

Color details



CIE 1931

x: 0,387

3871 K

y: 0,383

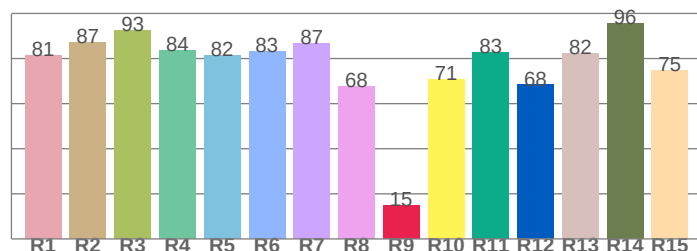
Spectra

CIE 1931 ZOOM

Δuv : 0,0010

CRI: **83,0** (R1-R8)

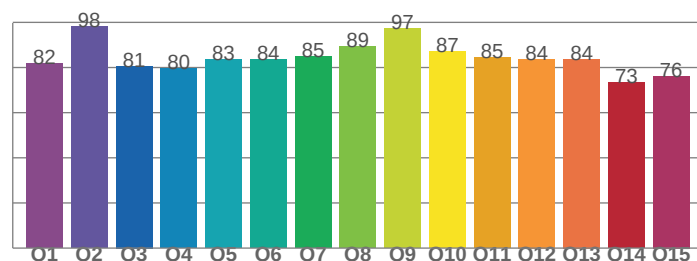
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
81,2	87,4	92,7	83,6	81,5	83,3	86,9	67,6
R9	R10	R11	R12	R13	R14	R15	
14,9	70,6	82,8	68,3	82,3	95,8	74,9	

CQS: **83,2**

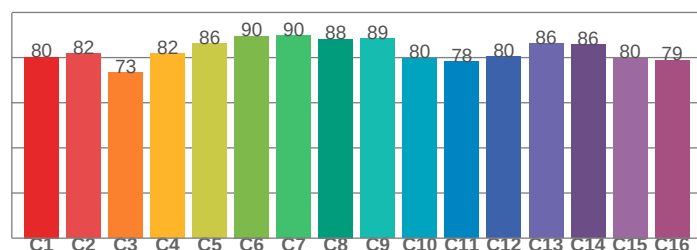
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
81,6	98,1	80,6	79,7	83,5	83,6	85,0	89,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,2	87,1	84,6	83,8	83,8	73,4	76,3	

TM30: **82,7**

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



C1	C2	C3	C4	C5	C6	C7	C8
80,2	81,9	73,5	81,7	86,3	89,6	89,8	88,2
C9	C10	C11	C12	C13	C14	C15	
88,6	79,7	78,3	80,4	86,2	85,9	79,8	

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
3871 K	83,0	14,9	82,7	98,0	83,2	0,387	0,383	0,227	0,337	0,0010



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TM30 details

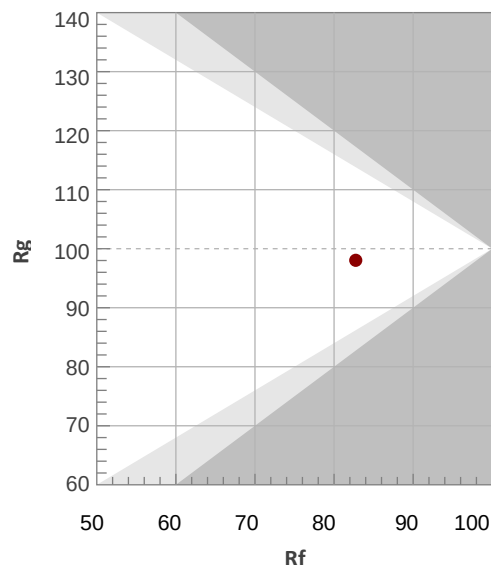
Rf 82,7

Fidelity index Rf

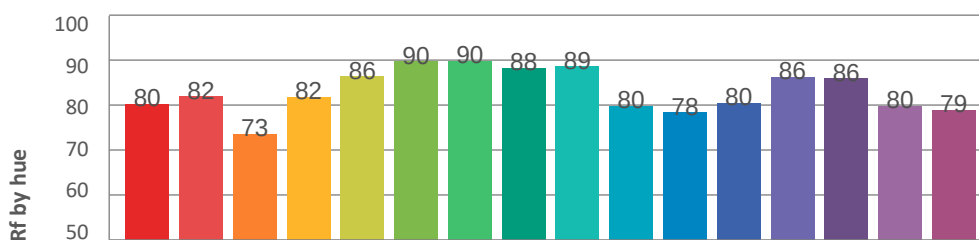
Rg 98,0

Gamut index Rg

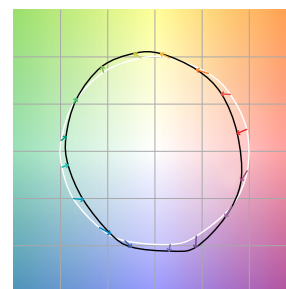
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	82	-7%	6%
3	73	-4%	12%
4	82	3%	10%
5	86	6%	6%
6	90	6%	-2%
7	90	0%	-6%
8	88	-4%	-5%
9	89	-7%	-1%
10	80	-8%	7%
11	78	-1%	13%
12	80	5%	8%
13	86	7%	-3%
14	86	9%	-7%
15	80	1%	-13%
16	79	-4%	-12%



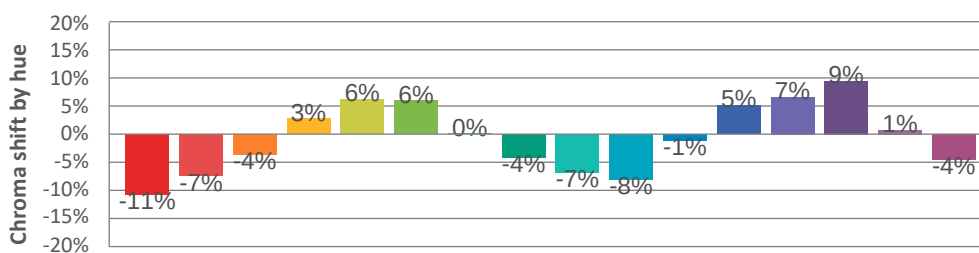
Hue binH



Color vector graphics



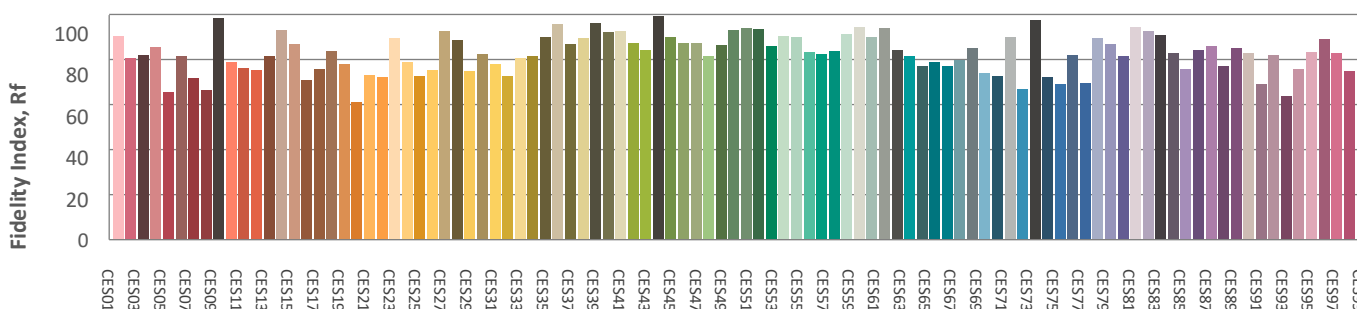
Hue bin



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	6,2	6,9	6,5	7,1	7,3	5,9	6,5	6,1	6,7	6,9
	3H	7,0	7,6	7,3	7,8	8,1	6,5	7,1	6,8	7,3	7,6
	4H	7,1	7,7	7,5	8,0	8,2	6,6	7,2	6,9	7,5	7,7
	6H	7,1	7,7	7,5	7,9	8,2	6,7	7,2	7,1	7,5	7,8
	8H	7,1	7,6	7,5	7,9	8,2	6,8	7,3	7,1	7,6	7,9
	12H	7,1	7,6	7,5	7,9	8,2	6,8	7,3	7,2	7,6	7,9
4H	2H	6,6	7,2	6,9	7,4	7,7	6,2	6,8	6,5	7,0	7,3
	3H	7,5	8,0	7,9	8,3	8,6	7,0	7,5	7,4	7,8	8,1
	4H	7,7	8,1	8,1	8,5	8,8	7,2	7,6	7,6	7,9	8,3
	6H	7,8	8,1	8,2	8,5	8,9	7,3	7,7	7,7	8,0	8,4
	8H	7,8	8,0	8,2	8,4	8,8	7,4	7,7	7,8	8,1	8,5
	12H	7,8	8,0	8,2	8,4	8,9	7,5	7,8	7,9	8,2	8,6
8H	4H	7,8	8,1	8,2	8,5	8,9	7,2	7,5	7,7	7,9	8,3
	6H	7,8	8,1	8,3	8,5	8,9	7,5	7,7	7,9	8,1	8,6
	8H	7,9	8,0	8,3	8,5	9,0	7,6	7,8	8,1	8,2	8,7
	12H	7,9	8,1	8,4	8,5	9,0	7,7	7,9	8,2	8,3	8,8
12H	4H	7,8	8,0	8,2	8,4	8,9	7,2	7,5	7,7	7,9	8,3
	6H	7,8	8,0	8,3	8,5	8,9	7,4	7,6	7,9	8,1	8,6
	8H	7,9	8,0	8,4	8,5	9,0	7,6	7,7	8,1	8,2	8,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+1,0 / -0,9					+1,0 / -0,9				
S = 1,5H		+2,3 / -1,4					+2,4 / -1,6				
S = 2,0H		+3,6 / -2,1					+3,7 / -2,0				
Standard table		BK02					BK03				
Correction summand		-10,3					-10,2				
Corrected glare indices referring to 3182lm total luminous flux											