

LM-79

Test Report

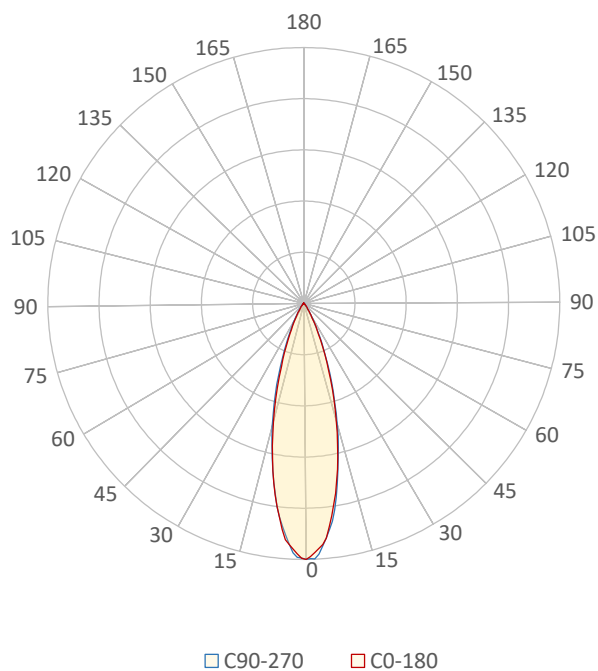
LM79-REVO-XXL-4000K-CRI80-30DEG

General Discription

Item number	RXX-1N-X-2222-3333
Date and time	29-6-2018 15:28:12
CCT (Kelvin)	3854 K
Beam angle	29,6°
Luminous flux	6278 lm
Efficiency	85 lm/watt
Weighted energy	73,6 kWh/1000h
Power factor	0,95
CRI (RA)	82,8
Fidelity index Rf	Rf 82,6
Gammut index Rg	Rg 98,1
Peak	20150 cd



Polar diagram



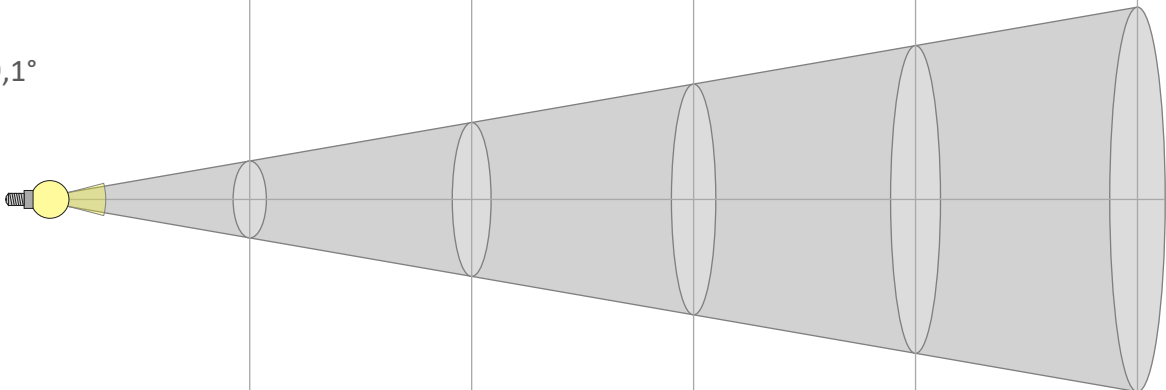
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Beam details					1m		2m		3m		4m		5m										
Lux*					19985 lx		4996 lx		2221 lx		1249 lx		799 lx										
29,1° 																							
*measured at center of beam																							
Footcandles*					1856,6 fcd		464,2 fcd		206,3 fcd		116,0 fcd		74,3 fcd										
Beam width (meter)					0,5 m		1 m		1,6 m		2,1 m		2,6 m										
Beam width (Feet)					1,7 ft		3,4 ft		5,1 ft		6,8 ft		8,5 ft										
Beam intensities																							
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m				
19985lx	4996lx	2221lx	1249lx	799lx	555lx	408lx	312lx	247lx	200lx	165lx	139lx	118lx	102lx	89lx	78lx	69lx	62lx	55lx	50lx				
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				
1856,6fcd	464,2fcd	206,3fcd	116fcd	74,3fcd	51,6fcd	37,9fcd	29fcd	22,9fcd	18,6fcd	15,3fcd	12,9fcd	11fcd	9,5fcd	8,3fcd	7,3fcd	6,4fcd	5,7fcd	5,1fcd	4,6fcd				
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°				
20,0K	19,5K	18,9K	17,6K	15,9K	14,1K	12,3K	10,4K	8,7K	7,1K	5,6K	4,4K	3,1K	2,4K	1,7K	1,2K	0,9K	0,6K	0,5K	0,4K				
100%	97%	94%	88%	79%	71%	61%	52%	44%	35%	28%	22%	16%	12%	9%	6%	5%	3%	2%	2%				
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°				
20,0K	20,0K	19,0K	17,8K	16,3K	14,4K	12,5K	10,7K	8,9K	7,3K	5,8K	4,3K	3,4K	2,4K	1,8K	1,3K	0,9K	0,7K	0,5K	0,4K				
100%	100%	95%	89%	82%	72%	62%	54%	45%	37%	29%	22%	17%	12%	9%	7%	4%	3%	2%	2%				
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°				
20,0K	19,5K	18,8K	17,7K	16,0K	14,3K	12,3K	10,4K	8,6K	6,9K	5,2K	4,1K	3,1K	2,3K	1,7K	1,2K	0,9K	0,7K	0,5K	0,4K				
100%	98%	94%	89%	80%	71%	62%	52%	43%	34%	26%	21%	15%	11%	9%	6%	5%	3%	3%	2%				
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°				
20,0K	19,8K	18,8K	17,5K	16,0K	14,2K	12,4K	10,7K	9,0K	7,4K	5,9K	4,5K	3,5K	2,6K	1,9K	1,5K	1,0K	0,8K	0,6K	0,5K				
100%	99%	94%	87%	80%	71%	62%	53%	45%	37%	30%	22%	18%	13%	10%	7%	5%	4%	3%	2%				
Beam angle 50%					Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone						
29,1°					54,3°				72,5°				98,4%				96,3%						



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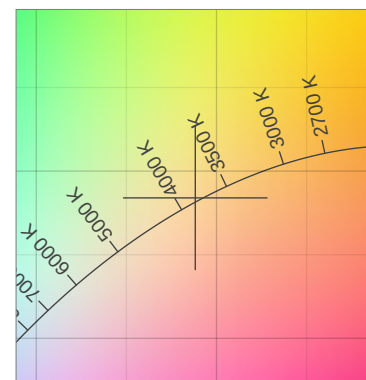
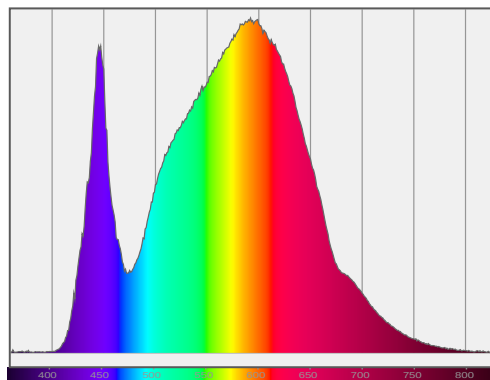
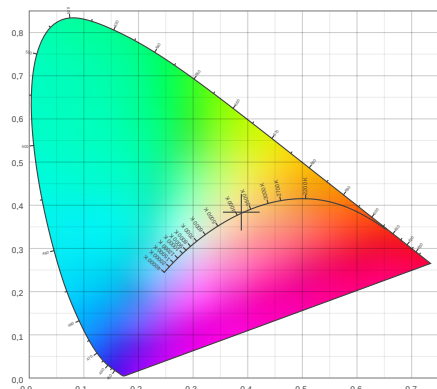
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Color details



CIE 1931

x: 0,388

3854 K

y: 0,384

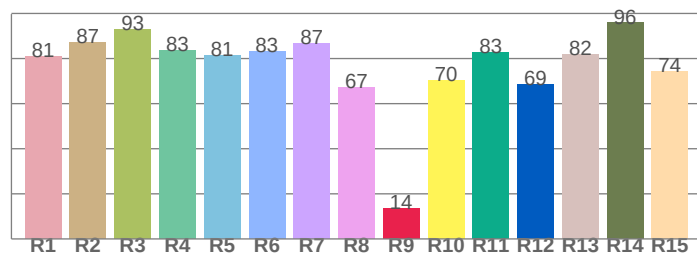


Spectra

CIE 1931 ZOOM

Δuv : 0,0012

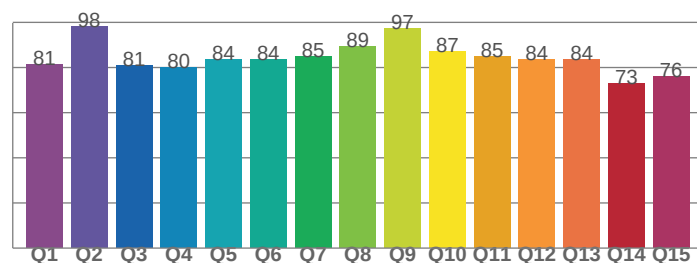
CRI: 82,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,0	87,1	92,7	83,5	81,3	83,2	86,6	67,1
R9	R10	R11	R12	R13	R14	R15	
13,7	70,3	82,9	68,6	82,0	95,8	74,4	

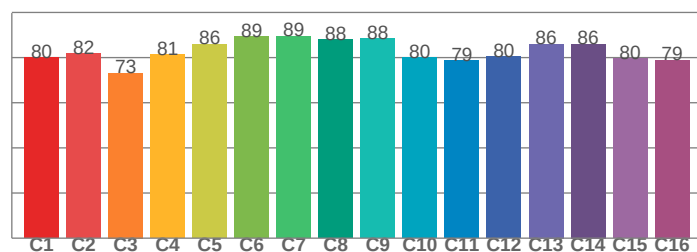
CQS: 83,2



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
81,2	98,1	80,9	80,1	83,6	83,5	84,9	89,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,3	87,1	84,7	83,8	83,7	73,0	75,9	

TM30: 82,6



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

C1	C2	C3	C4	C5	C6	C7	C8
80,0	81,7	73,2	81,3	85,9	89,2	89,5	87,9
C9	C10	C11	C12	C13	C14	C15	
88,4	80,0	78,7	80,5	86,0	86,0	79,6	

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
3854 K	82,8	13,7	82,6	98,1	83,2	0,388	0,384	0,227	0,337	0,0012



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TM30 details

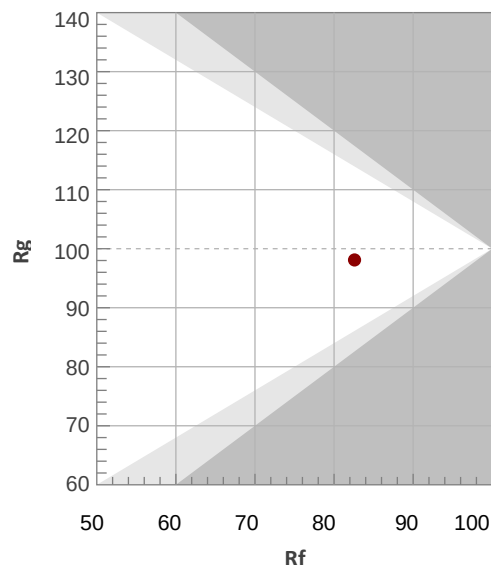
Rf 82,6

Fidelity index Rf

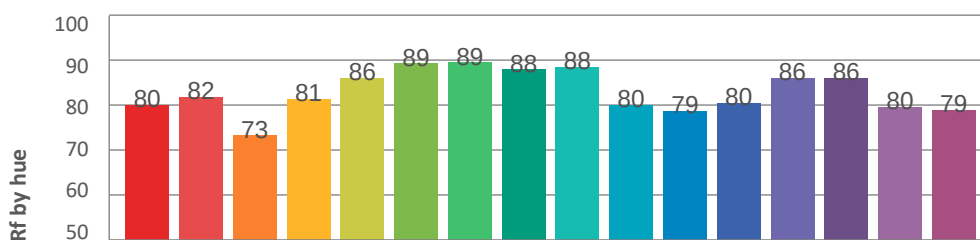
Rg 98,1

Gamut index Rg

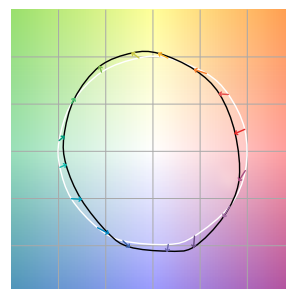
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	82	-8%	6%
3	73	-4%	13%
4	81	3%	10%
5	86	7%	6%
6	89	6%	-2%
7	89	0%	-6%
8	88	-4%	-5%
9	88	-7%	-1%
10	80	-8%	6%
11	79	-1%	13%
12	80	5%	8%
13	86	7%	-3%
14	86	9%	-7%
15	80	1%	-13%
16	79	-5%	-12%



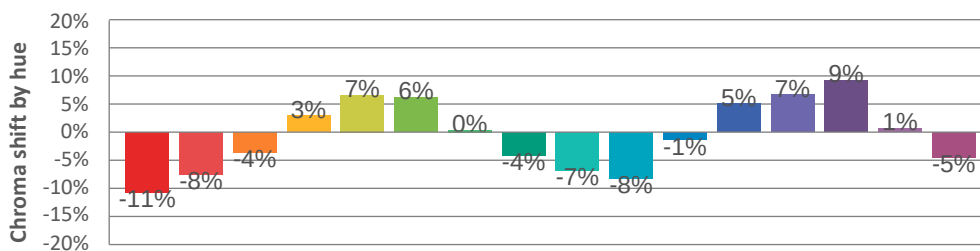
Hue binH



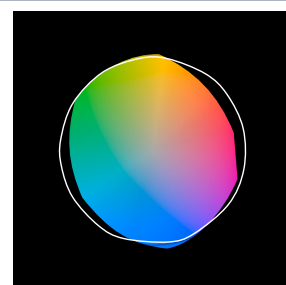
Color vector graphics



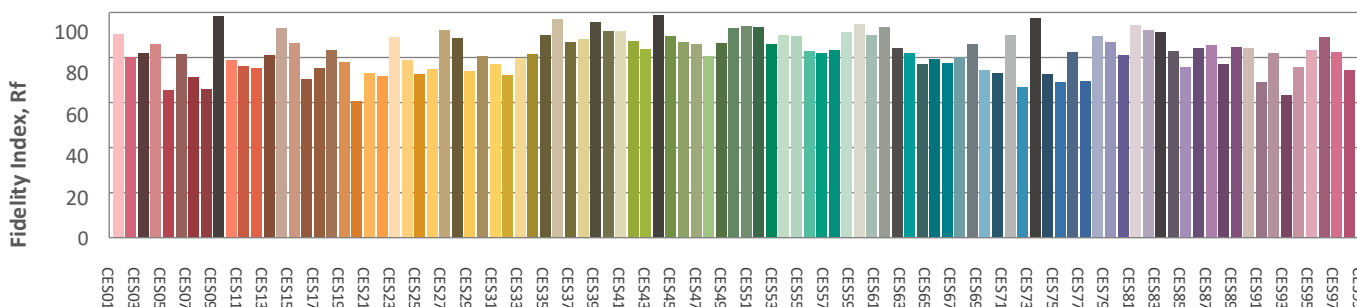
Hue bin



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	11,8	12,4	12,0	12,6	12,8	11,6	12,3	11,9	12,5	12,7
	3H	12,1	12,7	12,4	12,9	13,2	11,9	12,5	12,2	12,8	13,0
	4H	12,1	12,7	12,4	13,0	13,2	12,1	12,6	12,4	12,9	13,2
	6H	12,1	12,7	12,5	12,9	13,2	12,1	12,6	12,4	12,9	13,2
	8H	12,1	12,6	12,4	12,9	13,2	12,1	12,6	12,4	12,9	13,2
	12H	12,1	12,6	12,4	12,9	13,2	12,0	12,5	12,4	12,8	13,2
4H	2H	11,9	12,4	12,2	12,7	13,0	11,7	12,3	12,0	12,6	12,8
	3H	12,3	12,8	12,6	13,1	13,4	12,2	12,6	12,5	13,0	13,3
	4H	12,4	12,8	12,8	13,1	13,5	12,3	12,8	12,7	13,1	13,5
	6H	12,4	12,8	12,8	13,1	13,5	12,4	12,8	12,8	13,1	13,5
	8H	12,4	12,7	12,8	13,1	13,5	12,4	12,7	12,8	13,1	13,5
	12H	12,4	12,6	12,8	13,1	13,5	12,4	12,7	12,8	13,1	13,5
8H	4H	12,4	12,7	12,8	13,1	13,5	12,4	12,7	12,8	13,1	13,5
	6H	12,4	12,6	12,9	13,1	13,5	12,5	12,7	12,9	13,1	13,6
	8H	12,4	12,6	12,9	13,1	13,5	12,4	12,6	12,9	13,1	13,6
	12H	12,4	12,6	12,9	13,0	13,5	12,4	12,6	12,9	13,1	13,6
12H	4H	12,3	12,6	12,8	13,0	13,5	12,3	12,6	12,8	13,0	13,4
	6H	12,4	12,6	12,9	13,0	13,5	12,4	12,6	12,9	13,1	13,5
	8H	12,4	12,5	12,9	13,0	13,5	12,4	12,6	12,9	13,0	13,5
Variation of the observer position for the luminaire distance S											
S = 1,0H		+3,1 / -2,1					+3,0 / -1,9				
S = 1,5H		+5,3 / -2,7					+5,2 / -2,4				
S = 2,0H		+7,1 / -3,5					+7,0 / -3,3				
Standard table		BK01					BK02				
Correction summand		-5,8					-5,4				
Corrected glare indices referring to 6278lm total luminous flux											



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