

LM-79

Test Report

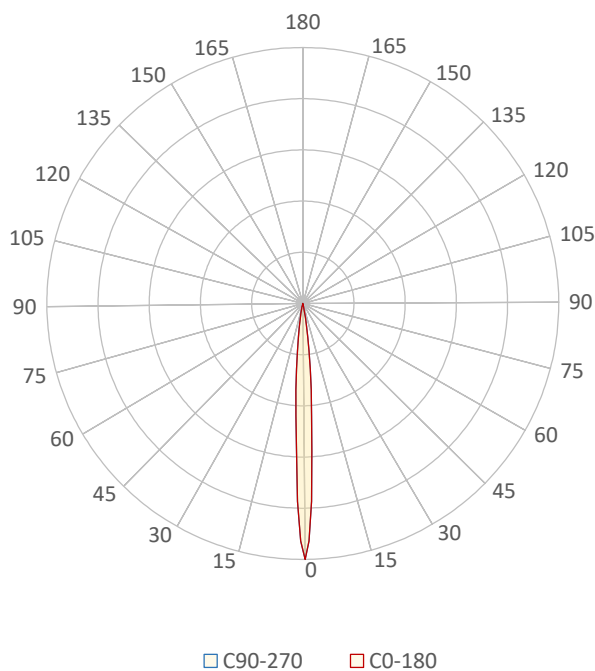
LM79-REVO-COMPACT-2200K-CRI80-DEG8

General Description

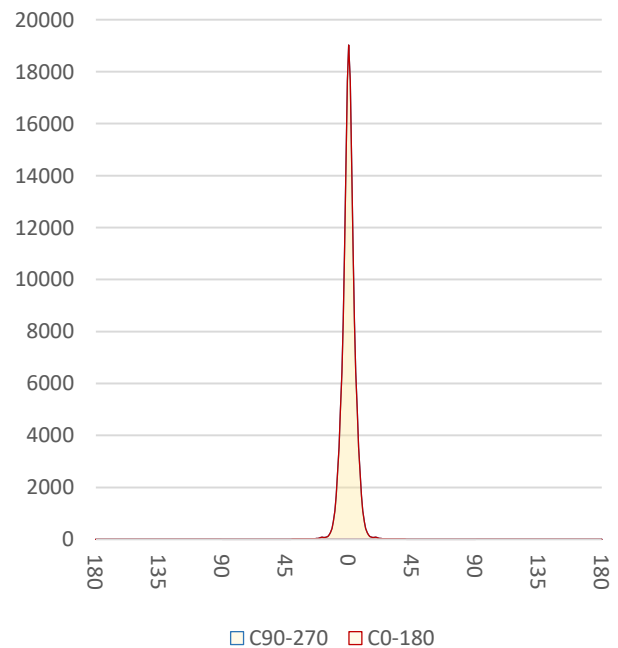
Item number	RC-X-X-08-5
Date and time	29-10-2021 11:41:39
CCT (Kelvin)	2172 K
Beam angle	7°
Luminous flux	544 lm
Efficiency	55 lm/watt
Weighted energy	10,0 kWh/1000h
Power factor	0,95
CRI (RA)	85,9
Fidelity index Rf	Rf 88,2
Gammut index Rg	Rg 96,2
Peak	19027 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	19027 lx	4757 lx	2114 lx	1189 lx	761 lx														
*measured at center of beam																			
Footcandles*	1767,6 fcd	441,9 fcd	196,4 fcd	110,5 fcd	70,7 fcd														
Beam width (meter)	0,1 m	0,2 m	0,4 m	0,5 m	0,6 m														
Beam width (Feet)	0,4 ft	0,8 ft	1,2 ft	1,6 ft	2 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
19027lx	4757lx	2114lx	1189lx	761lx	529lx	388lx	297lx	235lx	190lx	157lx	132lx	113lx	97lx	85lx	74lx	66lx	59lx	53lx	48lx
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
1767,6fcd	441,9fcd	196,4fcd	110,5fcd	70,7fcd	49,1fcd	36,1fcd	27,6fcd	21,8fcd	17,7fcd	14,6fcd	12,3fcd	10,5fcd	9fcd	7,9fcd	6,9fcd	6,1fcd	5,5fcd	4,9fcd	4,4fcd
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°
19,0K	17,7K	14,7K	11,0K	8,4K	6,4K	4,9K	3,6K	2,5K	1,7K	1,1K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,1K	0,1K
100%	93%	77%	58%	44%	34%	26%	19%	13%	9%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%
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°
19,0K	17,7K	14,7K	11,0K	8,4K	6,4K	4,9K	3,6K	2,5K	1,7K	1,1K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,1K	0,1K
100%	93%	77%	58%	44%	34%	26%	19%	13%	9%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%
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°
19,0K	17,7K	14,7K	11,0K	8,4K	6,4K	4,9K	3,6K	2,5K	1,7K	1,1K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,1K	0,1K
100%	93%	77%	58%	44%	34%	26%	19%	13%	9%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%
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°
19,0K	17,7K	14,7K	11,0K	8,4K	6,4K	4,9K	3,6K	2,5K	1,7K	1,1K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,1K	0,1K
100%	93%	77%	58%	44%	34%	26%	19%	13%	9%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
7°		17,4°				23,5°				99,7%				99,4%					



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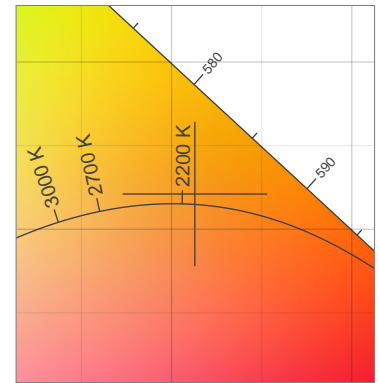
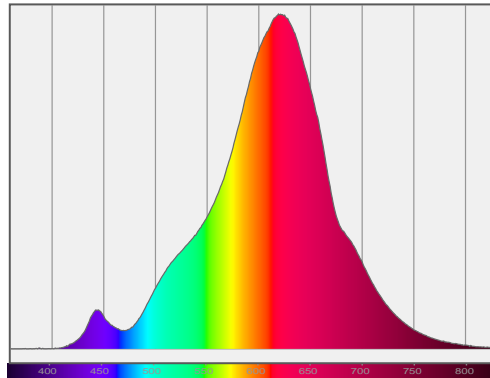
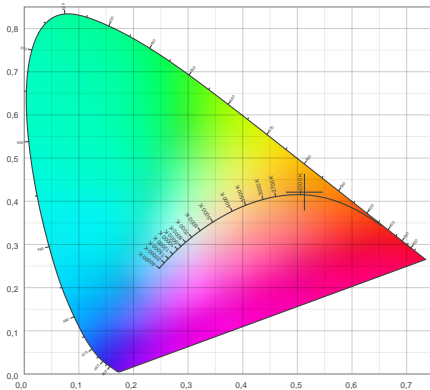
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Color details



CIE 1931

x: 0,513



Spectra

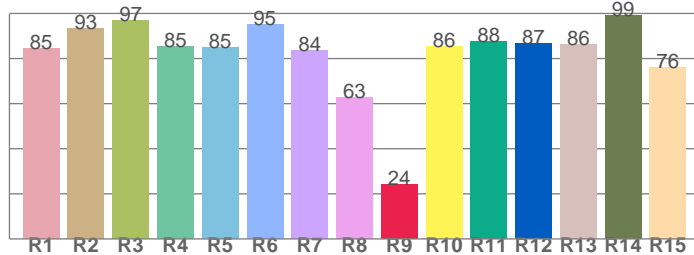
CIE 1931 ZOOM

2172 K

y: 0,421

Δuv : 0,0019

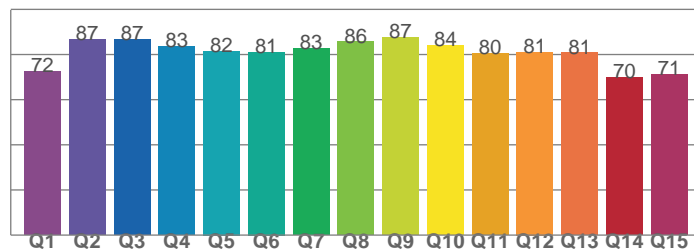
CRI: 85,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
84,5	93,2	97,0	85,5	84,9	95,1	83,8	62,9
R9	R10	R11	R12	R13	R14	R15	
24,2	85,6	87,7	86,7	86,4	99,3	75,9	

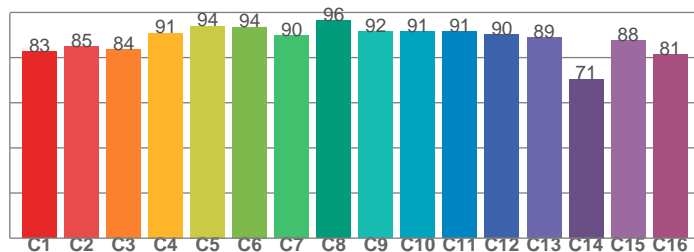
CQS: 79,7



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
72,4	86,6	86,5	83,5	81,6	81,1	82,7	85,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
87,5	84,1	80,3	81,1	80,7	69,7	71,2	

TM30: 88,2



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

C1	C2	C3	C4	C5	C6	C7	C8
82,8	85,0	83,6	90,9	94,0	93,6	89,7	96,4
C9	C10	C11	C12	C13	C14	C15	
91,5	91,4	91,5	90,1	89,0	70,5	87,6	

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
2172 K	85,9	24,2	88,2	96,2	79,7	0,513	0,421	0,292	0,360	0,0019



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TM30 details

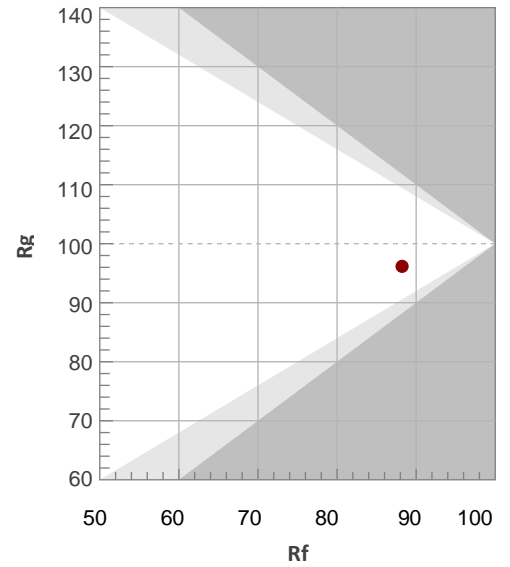
Rf 88,2

Fidelity index Rf

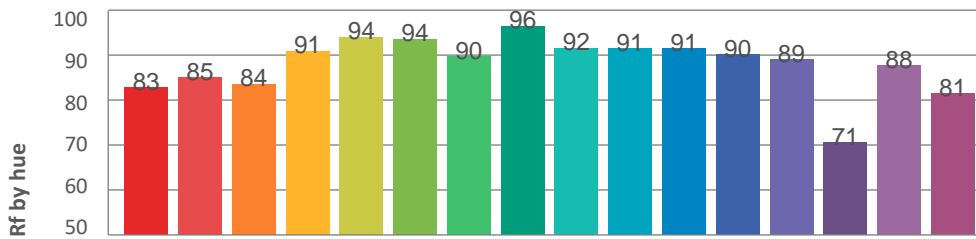
Rg 96,2

Gamut index Rg

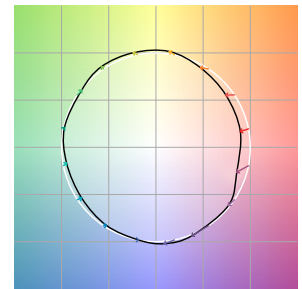
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	83	-9%	-1%
2	85	-8%	5%
3	84	-4%	8%
4	91	2%	6%
5	94	3%	4%
6	94	3%	1%
7	90	-1%	-7%
8	96	-1%	-2%
9	92	-4%	-2%
10	91	-5%	1%
11	91	-2%	2%
12	90	0%	1%
13	89	2%	-11%
14	71	-1%	-20%
15	88	-2%	-9%
16	81	-11%	-9%



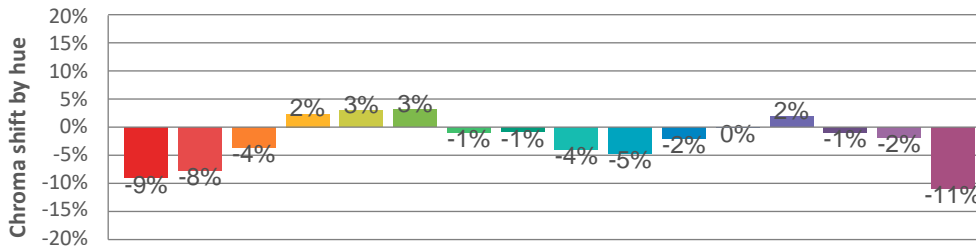
Hue binH



Color vector graphics



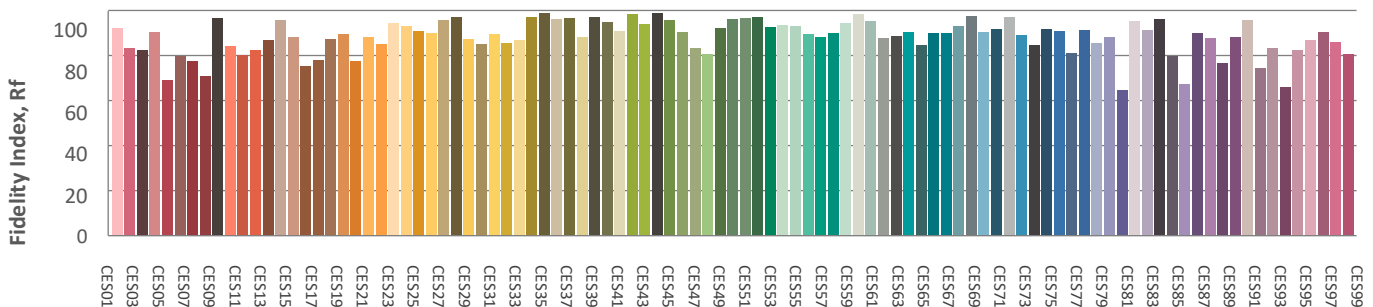
Hue bin



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	-0,4	-0,2	-0,4	0,0	0,2	-0,4	-0,2	-0,4	0,0	0,2
	3H	-0,2	0,2	0,2	0,4	0,6	-0,2	0,2	0,2	0,4	0,6
	4H	0,1	0,6	0,5	0,8	1,0	0,1	0,6	0,5	0,8	1,0
	6H	0,6	0,9	0,9	1,2	1,5	0,6	0,9	0,9	1,2	1,5
	8H	0,9	1,2	1,2	1,5	1,9	0,9	1,2	1,2	1,5	1,9
	12H	1,2	1,5	1,6	1,9	2,3	1,2	1,5	1,6	1,9	2,3
4H	2H	-0,5	-0,1	-0,1	0,1	0,4	-0,5	-0,1	-0,1	0,1	0,4
	3H	0,2	0,5	0,5	0,8	1,2	0,2	0,5	0,5	0,8	1,2
	4H	0,6	0,9	1,0	1,3	1,8	0,6	0,9	1,0	1,3	1,8
	6H	1,1	1,5	1,6	1,8	2,1	1,1	1,5	1,6	1,8	2,1
	8H	1,5	1,9	2,0	2,2	2,6	1,5	1,9	2,0	2,2	2,6
	12H	2,0	2,3	2,5	2,7	3,2	2,0	2,3	2,5	2,7	3,2
8H	4H	0,7	1,1	1,2	1,4	1,8	0,7	1,1	1,2	1,4	1,8
	6H	1,5	1,7	2,0	2,2	2,7	1,5	1,7	2,0	2,2	2,7
	8H	2,1	2,3	2,6	2,8	3,4	2,1	2,3	2,6	2,8	3,4
	12H	2,9	3,0	3,5	3,5	4,1	2,9	3,0	3,5	3,5	4,1
12H	4H	0,7	1,0	1,2	1,4	1,8	0,7	1,0	1,2	1,4	1,8
	6H	1,7	1,8	2,2	2,3	3,0	1,7	1,8	2,2	2,3	3,0
	8H	2,3	2,4	2,9	2,9	3,5	2,3	2,4	2,9	2,9	3,5
Variation of the observer position for the luminaire distance S											
S = 1.0H	0,9 / -0,5					0,9 / -0,5					
S = 1.5H	2,0 / -0,7					2,0 / -0,7					
S = 2.0H	3,2 / -1,0					3,2 / -1,0					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 544lm total luminous flux											