

LM-79

Test Report

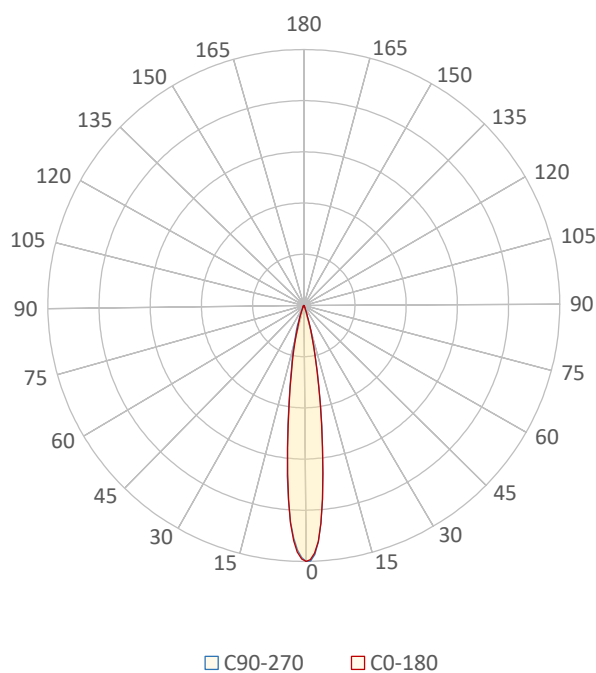
LM79-REVO-2200K-CRI80-DEG12

General Discription

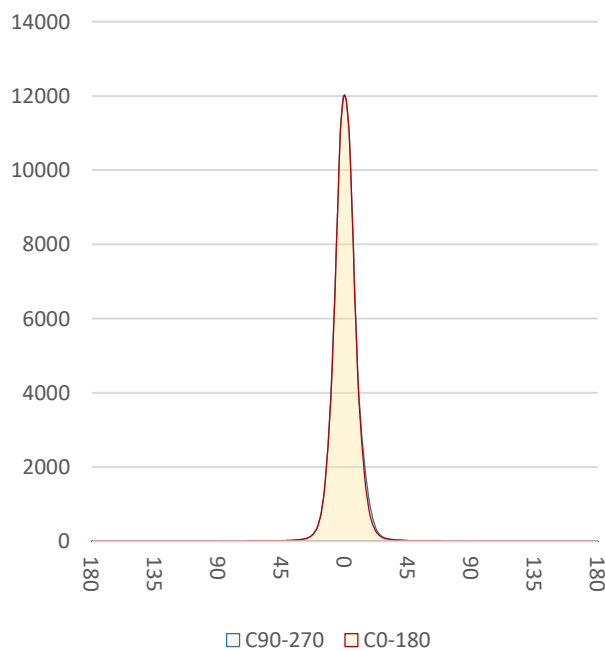
Item number	R-X-X-10-1
Date and time	11-6-2021 15:26:22
CCT (Kelvin)	2198 K
Beam angle	15,4°
Luminous flux	1233 lm
Efficiency	65 lm/watt
Weighted energy	18,9 kWh/1000h
Power factor	0,95
CRI (RA)	85,1
Fidelity index Rf	Rf 87,9
Gammut index Rg	Rg 96,2
Peak	12043 cd



Polar diagram



Cartesian diagram



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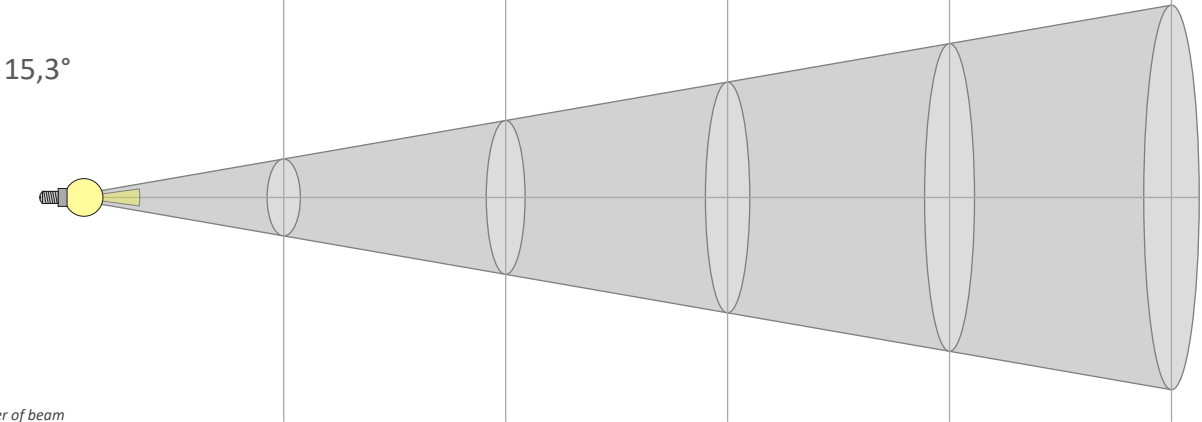
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Beam details	1m	2m	3m	4m	5m
Lux*	12026 lx	3007 lx	1336 lx	752 lx	481 lx



15,3°

*measured at center of beam

Footcandles*	1117,3 fcd	279,3 fcd	124,1 fcd	69,8 fcd	44,7 fcd
Beam width (meter)	0,3 m	0,5 m	0,8 m	1,1 m	1,3 m
Beam width (Feet)	0,9 ft	1,8 ft	2,6 ft	3,5 ft	4,4 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
12026lx	3007lx	1336lx	752lx	481lx	334lx	245lx	188lx	148lx	120lx	99lx	84lx	71lx	61lx	53lx	47lx	42lx	37lx	33lx	30lx
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
1117,3fcd	279,3fcd	124,1fcd	69,8fcd	44,7fcd	31fcd	22,8fcd	17,5fcd	13,8fcd	11,2fcd	9,2fcd	7,8fcd	6,6fcd	5,7fcd	5fcd	4,4fcd	3,9fcd	3,4fcd	3,1fcd	2,8fcd

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°
12,0K	12,0K	11,7K	11,1K	10,3K	9,2K	7,9K	6,7K	5,6K	4,6K	3,8K	3,1K	2,6K	2,0K	1,6K	1,2K	1,0K	0,7K	0,6K	0,4K
100%	99%	97%	92%	85%	76%	66%	56%	47%	39%	32%	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°
12,0K	12,0K	11,7K	11,1K	10,2K	9,1K	7,9K	6,8K	5,7K	4,8K	3,9K	3,2K	2,5K	2,0K	1,6K	1,2K	0,9K	0,7K	0,6K	0,4K
100%	100%	97%	93%	85%	76%	66%	56%	48%	40%	33%	27%	21%	17%	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°
12,0K	11,9K	11,6K	11,1K	10,2K	9,2K	7,9K	6,7K	5,6K	4,7K	3,9K	3,2K	2,7K	2,2K	1,8K	1,4K	1,1K	0,9K	0,7K	0,6K
100%	99%	96%	92%	85%	76%	66%	56%	47%	39%	32%	27%	22%	18%	15%	12%	9%	7%	6%	5%

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°
12,0K	11,8K	11,5K	10,9K	10,2K	9,2K	8,1K	6,8K	5,7K	4,7K	4,0K	3,4K	2,9K	2,5K	2,1K	1,8K	1,4K	1,2K	1,0K	0,8K
100%	98%	96%	91%	85%	77%	67%	57%	47%	39%	33%	28%	24%	21%	17%	15%	12%	10%	8%	6%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,3°	31,4°	42,7°	99,5%	98,3%



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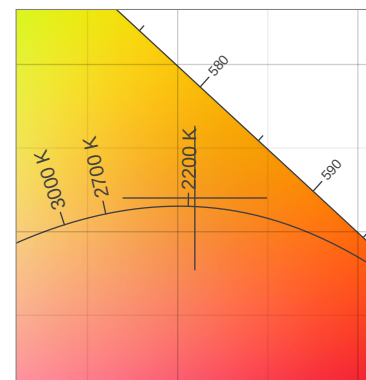
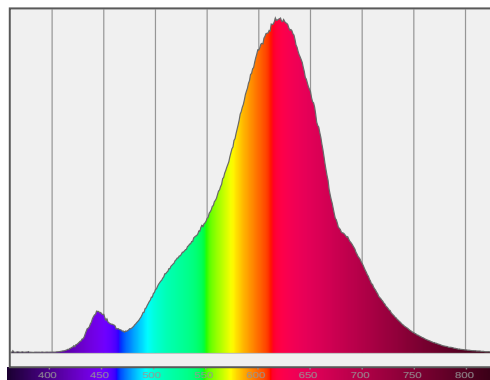
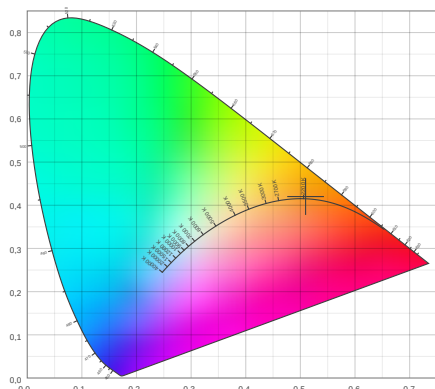
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Color details



CIE 1931

x: 0,510



Spectra

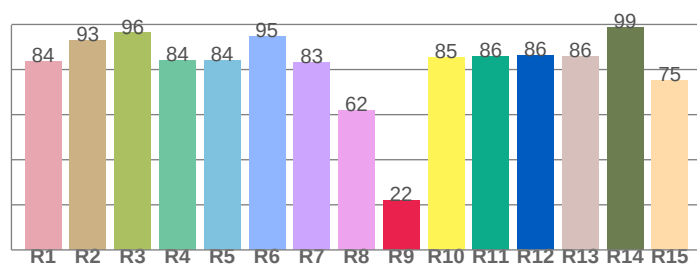
CIE 1931 ZOOM

2198 K

y: 0,420

 $\Delta uv: 0,0016$

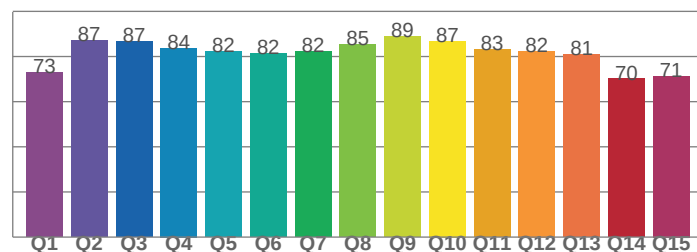
CRI: 85,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
83,7	93,0	96,3	84,1	84,0	94,7	83,1	61,7
R9	R10	R11	R12	R13	R14	R15	
22,1	85,4	85,8	86,4	85,7	98,9	75,2	

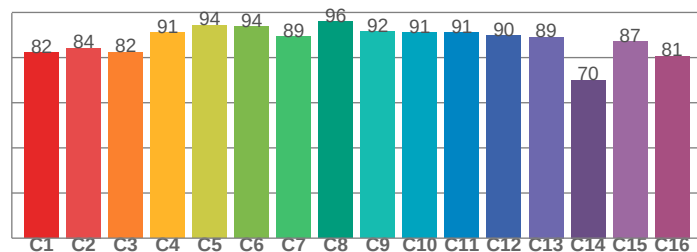
CQS: 80,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
72,9	87,1	86,8	83,7	82,2	81,5	82,1	85,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
89,0	86,9	83,1	82,4	81,1	70,1	71,4	

TM30: 87,9



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

C1	C2	C3	C4	C5	C6	C7	C8
82,3	84,3	82,4	91,0	94,3	93,8	89,4	96,0
C9	C10	C11	C12	C13	C14	C15	
91,6	91,0	91,1	89,9	89,1	70,1	87,2	

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
2198 K	85,1	22,1	87,9	96,2	80,3	0,510	0,420	0,290	0,359	0,0016

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info@cls-led.com
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TM30 details

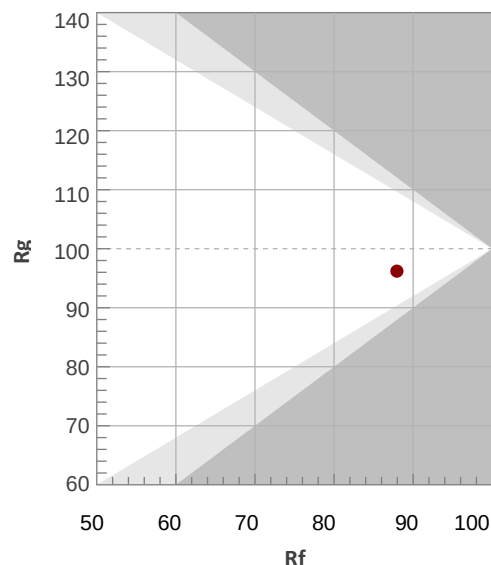
Rf 87,9

Fidelity index Rf

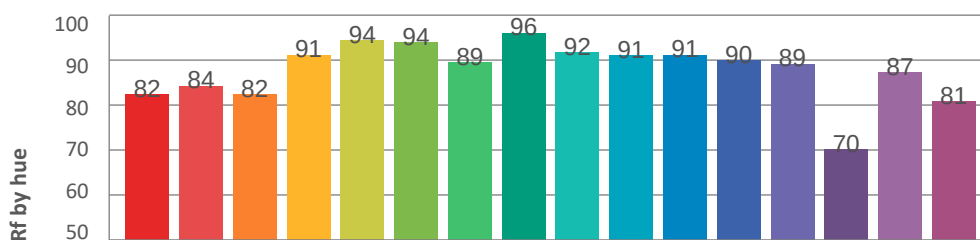
Rg 96,2

Gamut index Rg

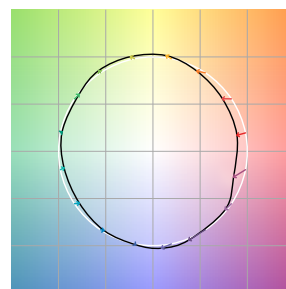
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-9%	-1%
2	84	-8%	5%
3	82	-4%	8%
4	91	2%	6%
5	94	3%	4%
6	94	3%	0%
7	89	-1%	-7%
8	96	-2%	-1%
9	92	-4%	-1%
10	91	-5%	2%
11	91	-1%	4%
12	90	1%	2%
13	89	2%	-11%
14	70	-1%	-21%
15	87	-2%	-9%
16	81	-11%	-10%



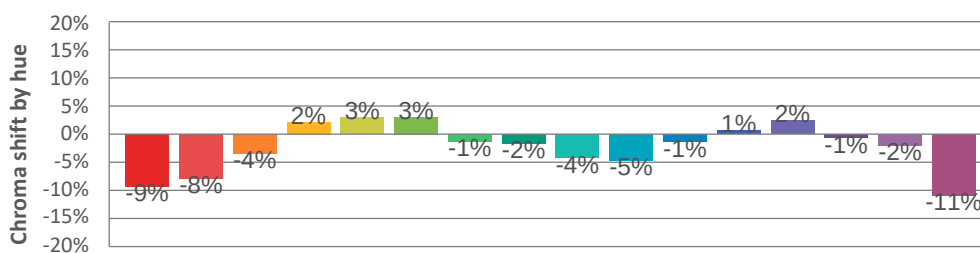
Hue binH



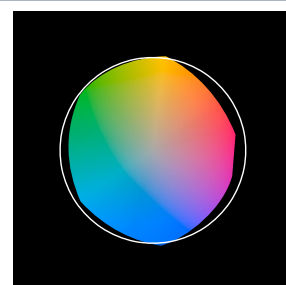
Color vector graphics



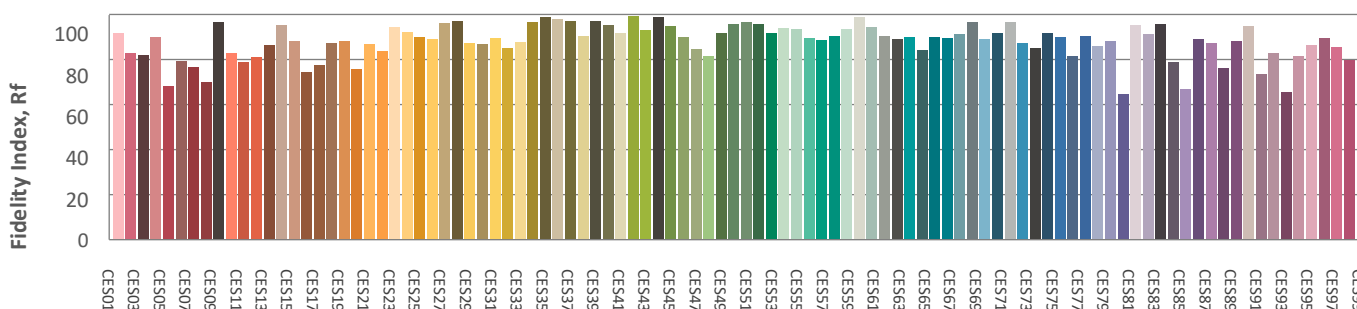
Hue bin



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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 1233lm total luminous flux										



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