

LM-79

Test Report

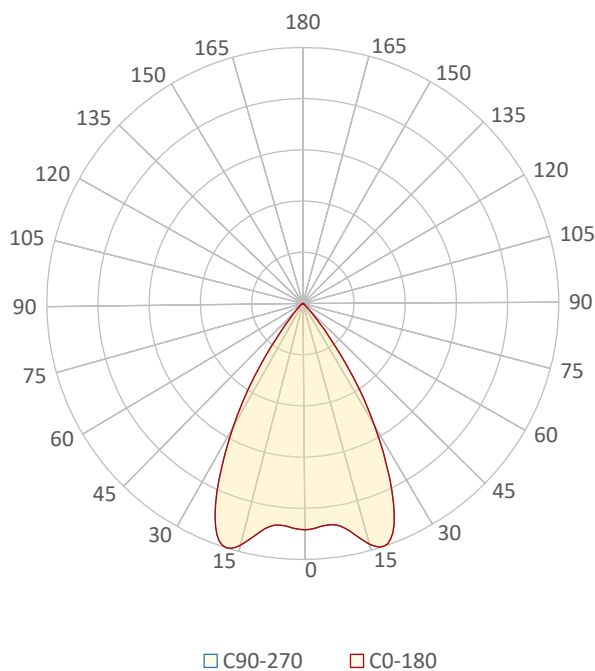
LM79-RUBY-COMPACT-2700K-CRI90-WIDE

General Discription

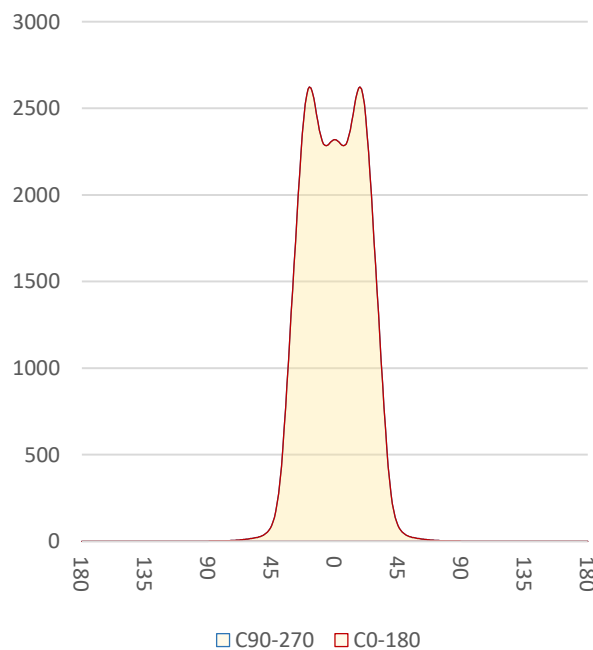
Item number	
Date and time	24-3-2021 14:22:51
CCT (Kelvin)	2739 K
Beam angle	62,1°
Luminous flux	2505 lm
Efficiency	90 lm/watt
Weighted energy	27,8 kWh/1000h
Power factor	0,97
CRI (RA)	92,4
Fidelity index Rf	Rf 91,4
Gammut index Rg	Rg 97,9
Peak	2624 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	2319 lx	580 lx	258 lx	145 lx	93 lx

*measured at center of beam

Footcandles*	215,4 fcd	53,9 fcd	23,9 fcd	13,5 fcd	8,6 fcd
Beam width (meter)	1,2 m	2,4 m	3,6 m	4,8 m	6 m
Beam width (Feet)	4 ft	7,9 ft	11,9 ft	15,8 ft	19,8 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2319lx	580lx	258lx	145lx	93lx	64lx	47lx	36lx	29lx	23lx	19lx	16lx	14lx	12lx	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
215,4fcd	53,9fcd	23,9fcd	13,5fcd	8,6fcd	6fcd	4,4fcd	3,4fcd	2,7fcd	2,2fcd	1,8fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd	0,5fcd

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°
2319	2311	2295	2284	2294	2339	2419	2515	2594	2623	2579	2449	2248	1998	1729	1456	1181	907	649	432
100%	100%	99%	99%	99%	101%	104%	108%	112%	113%	111%	106%	97%	86%	75%	63%	51%	39%	28%	19%

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°
2319	2311	2295	2284	2294	2339	2419	2515	2594	2623	2579	2449	2248	1998	1729	1456	1181	907	649	432
100%	100%	99%	99%	99%	101%	104%	108%	112%	113%	111%	106%	97%	86%	75%	63%	51%	39%	28%	19%

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°
2319	2311	2295	2284	2294	2339	2419	2515	2594	2623	2579	2449	2248	1998	1729	1456	1181	907	649	432
100%	100%	99%	99%	99%	101%	104%	108%	112%	113%	111%	106%	97%	86%	75%	63%	51%	39%	28%	19%

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°
2319	2311	2295	2284	2294	2339	2419	2515	2594	2623	2579	2449	2248	1998	1729	1456	1181	907	649	432
100%	100%	99%	99%	99%	101%	104%	108%	112%	113%	111%	106%	97%	86%	75%	63%	51%	39%	28%	19%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
62,1°	80,4°	93,5°	99,3%	97,4%



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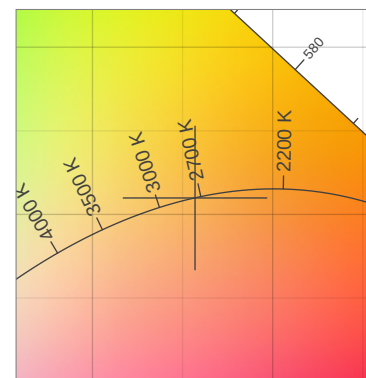
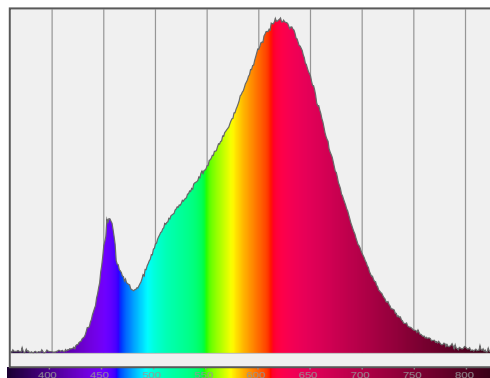
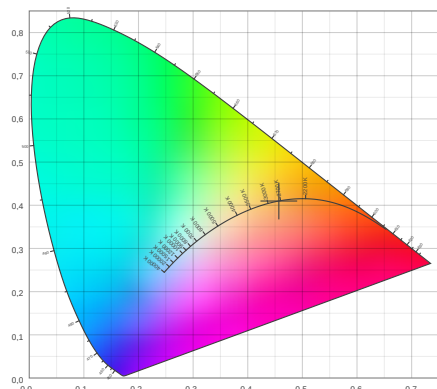
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Color details



CIE 1931

x: 0,457



Spectra

CIE 1931 ZOOM

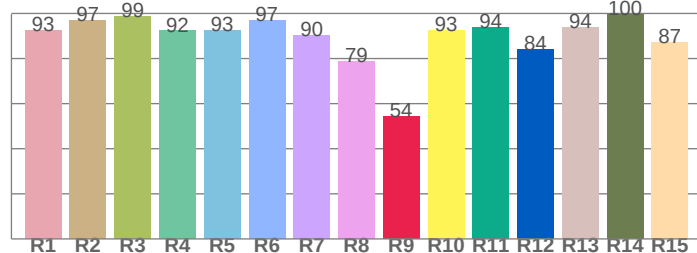
2739 K

y: 0,410

Δuv : -0,0001

CRI: 92,4 (R1-R8)

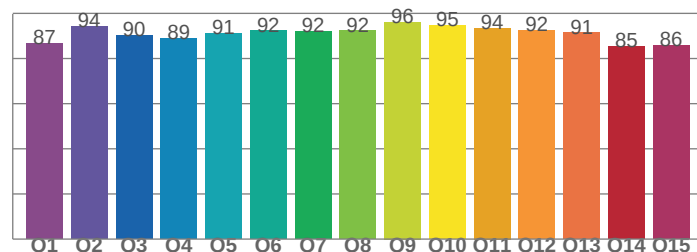
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
92,5	97,1	98,7	92,3	92,6	96,8	90,2	78,8
R9	R10	R11	R12	R13	R14	R15	
54,4	92,6	93,8	84,0	93,9	99,6	87,3	

CQS: 90,4

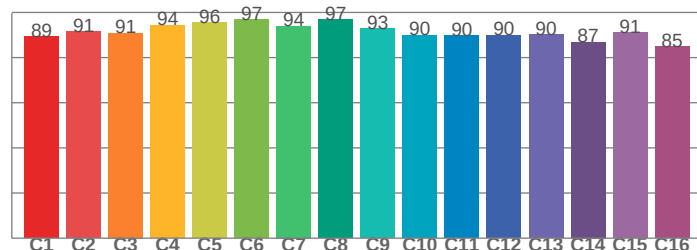
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,8	94,4	90,3	88,9	91,1	92,2	91,9	92,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	94,7	93,6	92,3	91,4	85,2	85,7	

TM30: 91,4

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



C1	C2	C3	C4	C5	C6	C7	C8
89,4	91,5	90,9	94,3	95,5	96,8	94,0	96,8
C9	C10	C11	C12	C13	C14	C15	
92,9	89,9	89,8	89,9	90,3	86,8	91,0	

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
2739 K	92,4	54,4	91,4	97,9	90,4	0,457	0,410	0,261	0,351	-0,0001



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TM30 details

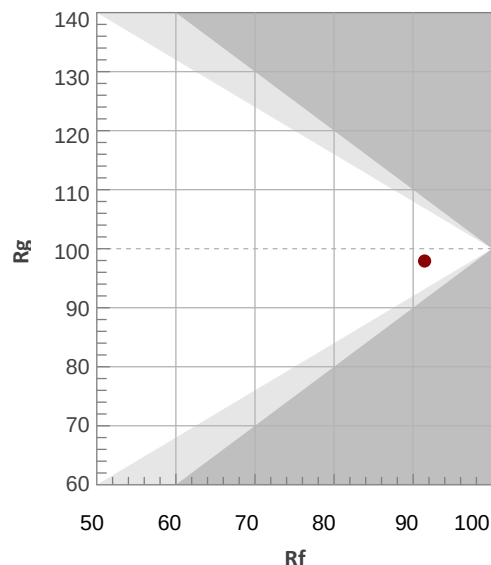
Rf 91,4

Fidelity index Rf

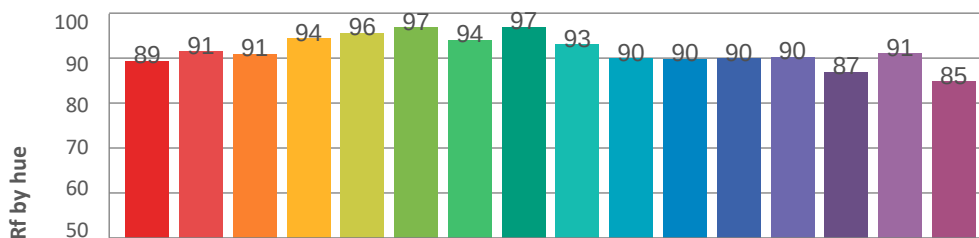
Rg 97,9

Gamut index Rg

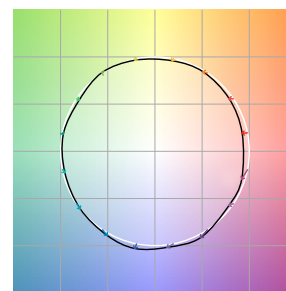
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-6%	1%
2	91	-4%	3%
3	91	-2%	4%
4	94	-2%	1%
5	96	-1%	2%
6	97	1%	0%
7	94	-3%	-1%
8	97	-1%	1%
9	93	-2%	4%
10	90	0%	7%
11	90	2%	7%
12	90	5%	-1%
13	90	2%	-7%
14	87	3%	-10%
15	91	-3%	-4%
16	85	-4%	-11%



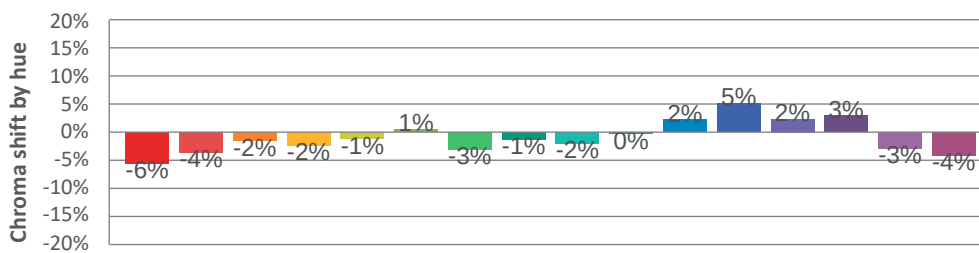
Hue binH



Color vector graphics



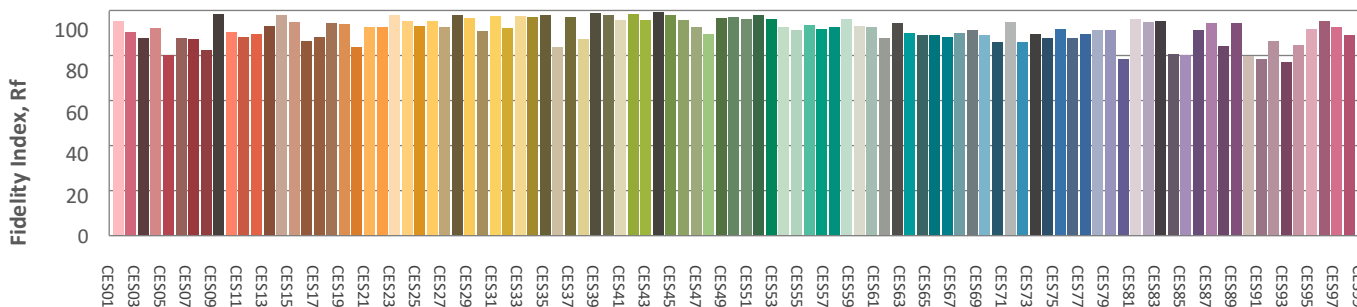
Hue bin



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	22,2	22,8	22,3	23,0	23,2	22,2	22,8	22,3	23,0	23,2
	3H	21,9	22,7	22,3	22,9	23,1	21,9	22,7	22,3	22,9	23,1
	4H	21,8	22,6	22,2	22,8	23,0	21,8	22,6	22,2	22,8	23,0
	6H	21,8	22,4	22,1	22,7	23,1	21,8	22,4	22,1	22,7	23,1
	8H	21,8	22,4	22,1	22,7	23,1	21,8	22,4	22,1	22,7	23,1
	12H	21,7	22,3	22,1	22,7	23,1	21,7	22,3	22,1	22,7	23,1
4H	2H	21,8	22,6	22,2	22,8	23,0	21,8	22,6	22,2	22,8	23,0
	3H	21,7	22,3	22,1	22,7	23,1	21,7	22,3	22,1	22,7	23,1
	4H	21,6	22,1	22,0	22,6	23,1	21,6	22,1	22,0	22,6	23,1
	6H	21,5	22,1	22,0	22,4	22,8	21,5	22,1	22,0	22,4	22,8
	8H	21,5	22,0	22,0	22,3	22,7	21,5	22,0	22,0	22,3	22,7
	12H	21,4	21,8	21,9	22,2	22,7	21,4	21,8	21,9	22,2	22,7
8H	4H	21,5	22,0	22,0	22,3	22,7	21,5	22,0	22,0	22,3	22,7
	6H	21,4	21,8	21,9	22,2	22,8	21,4	21,8	21,9	22,2	22,8
	8H	21,4	21,7	21,9	22,2	22,8	21,4	21,7	21,9	22,2	22,8
	12H	21,4	21,6	22,0	22,1	22,7	21,4	21,6	22,0	22,1	22,7
12H	4H	21,4	21,8	21,9	22,2	22,7	21,4	21,8	21,9	22,2	22,7
	6H	21,4	21,7	21,9	22,2	22,8	21,4	21,7	21,9	22,2	22,8
	8H	21,4	21,6	22,0	22,1	22,7	21,4	21,6	22,0	22,1	22,7
Variation of the observer position for the luminaire distance S											
S = 1.0H		5,7 / -10,1					5,7 / -10,1				
S = 1.5H		8,4 / -11,0					8,4 / -11,0				
S = 2.0H		10,4 / -11,9					10,4 / -11,9				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2505lm total luminous flux											



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