

LM-79

Test Report

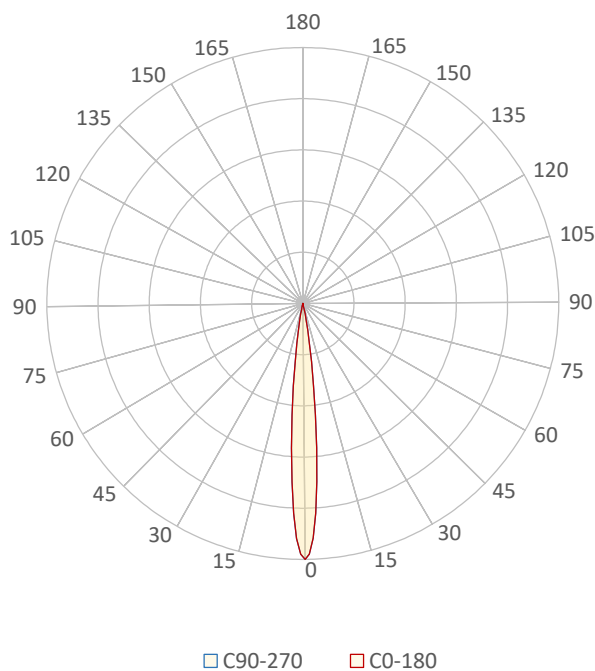
LM79-JADE-ZOOM-XICATO-XTM-3000K-CRI98-SPOT

General Description

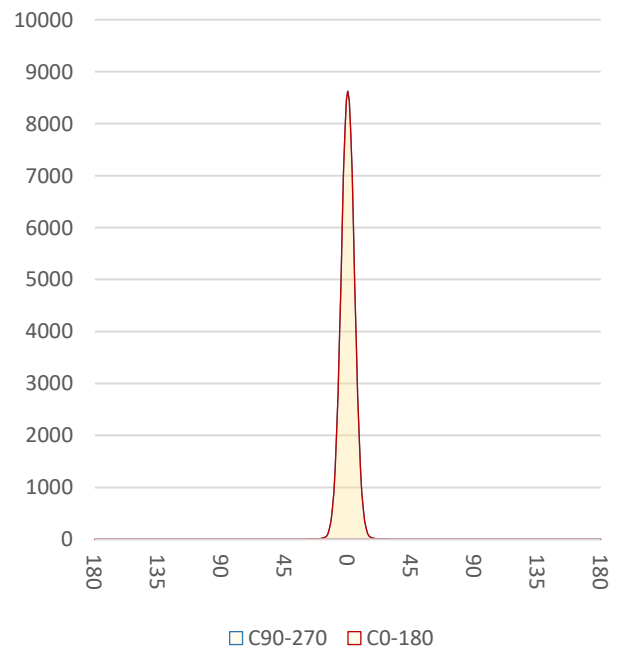
Item number	
Date and time	13-5-2019 11:47:28
CCT (Kelvin)	2987 K
Beam angle	11°
Luminous flux	378 lm
Efficiency	17 lm/watt
Weighted energy	22,6 kWh/1000h
Power factor	0,96
CRI (RA)	96,8
Fidelity index Rf	Rf 95,4
Gammut index Rg	Rg 103,9
Peak	8624 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	8624 lx	2156 lx	958 lx	539 lx	345 lx																			
<i>*measured at center of beam</i>																								
Footcandles*	801,2 fcd	200,3 fcd	89,0 fcd	50,1 fcd	32,0 fcd																			
Beam width (meter)	0,2 m	0,4 m	0,6 m	0,8 m	1 m																			
Beam width (Feet)	0,6 ft	1,3 ft	1,9 ft	2,5 ft	3,2 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
8624lx	2156lx	958lx	539lx	345lx	240lx	176lx	135lx	106lx	86lx	71lx	60lx	51lx	44lx	38lx	34lx	30lx	27lx	24lx	22lx					
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					
801,2fcd	200,3fcd	89fcd	50,1fcd	32fcd	22,3fcd	16,4fcd	12,5fcd	9,9fcd	8fcd	6,6fcd	5,6fcd	4,7fcd	4,1fcd	3,6fcd	3,1fcd	2,8fcd	2,5fcd	2,2fcd	2fcd					
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°					
8624	8451	7917	7075	6026	4890	3782	2795	1984	1360	903	574	350	206	118	69	43	30	22	17					
100%	98%	92%	82%	70%	57%	44%	32%	23%	16%	10%	7%	4%	2%	1%	1%	1%	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°					
8624	8451	7917	7075	6026	4890	3782	2795	1984	1360	903	574	350	206	118	69	43	30	22	17					
100%	98%	92%	82%	70%	57%	44%	32%	23%	16%	10%	7%	4%	2%	1%	1%	1%	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°					
8624	8451	7917	7075	6026	4890	3782	2795	1984	1360	903	574	350	206	118	69	43	30	22	17					
100%	98%	92%	82%	70%	57%	44%	32%	23%	16%	10%	7%	4%	2%	1%	1%	1%	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°					
8624	8451	7917	7075	6026	4890	3782	2795	1984	1360	903	574	350	206	118	69	43	30	22	17					
100%	98%	92%	82%	70%	57%	44%	32%	23%	16%	10%	7%	4%	2%	1%	1%	1%	0%	0%	0%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
11°					20,2°					25,8°					98,6%					98,2%				



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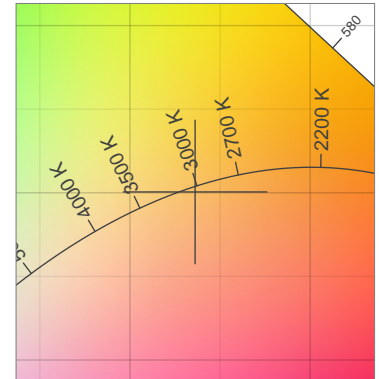
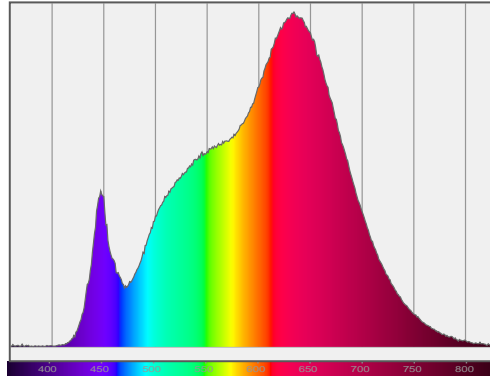
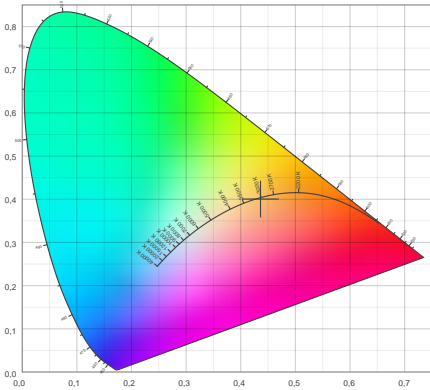
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Color details



CIE 1931

x: 0,436



Spectra

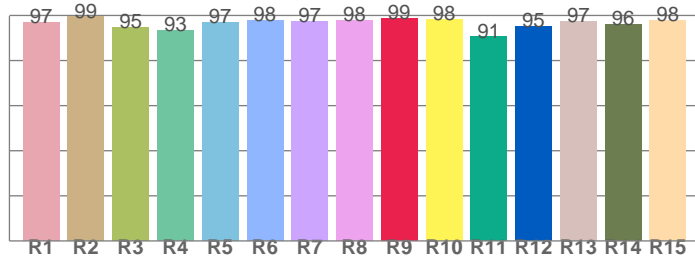
CIE 1931 ZOOM

2987 K

y: 0,401

Δuv : -0,0013

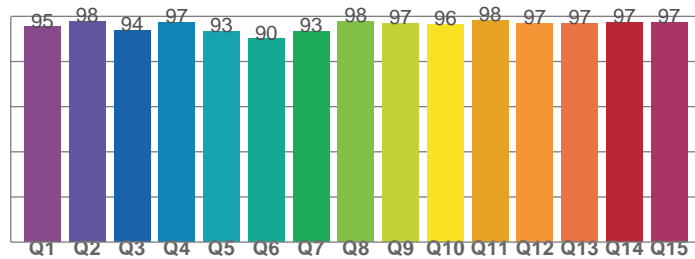
CRI: 96,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
96,8	99,3	94,7	93,5	96,9	97,9	97,3	98,0
R9	R10	R11	R12	R13	R14	R15	
98,8	98,4	90,5	95,2	97,4	96,0	98,0	

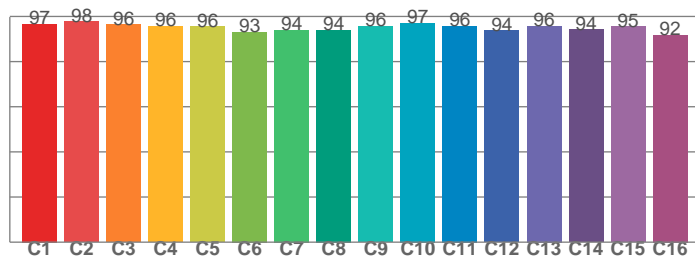
CQS: 95,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,4	97,9	93,7	97,4	93,3	90,0	93,2	97,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	96,4	98,0	97,1	97,0	97,1	97,2	

TM30: 95,4



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

C1	C2	C3	C4	C5	C6	C7	C8
96,6	97,7	96,5	95,7	95,6	93,1	94,0	94,0
C9	C10	C11	C12	C13	C14	C15	
95,7	97,1	95,8	93,7	95,8	94,2	95,4	

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
2987 K	96,8	98,8	95,4	103,9	95,0	0,436	0,401	0,252	0,347	-0,0013



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TM30 details

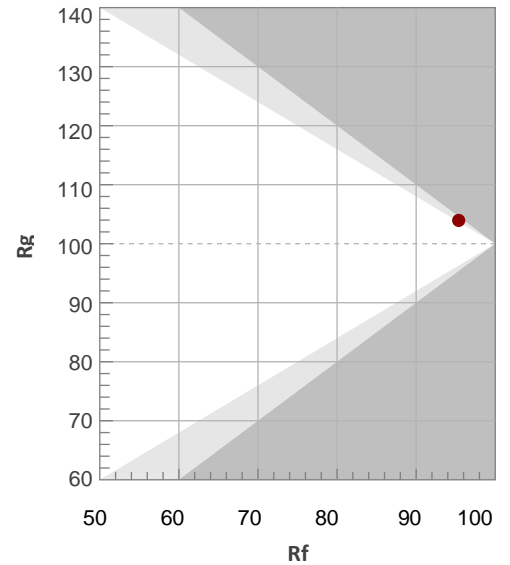
Rf 95,4

Fidelity index Rf

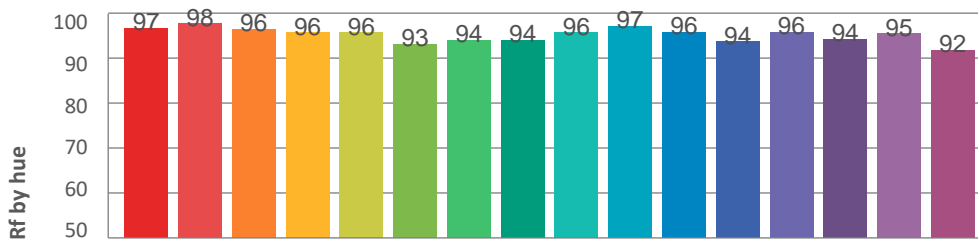
Rg 103,9

Gamut index Rg

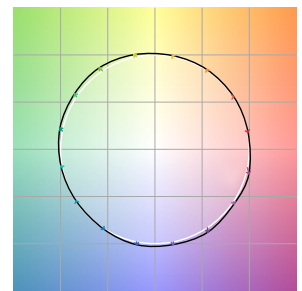
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	0%
3	96	1%	1%
4	96	1%	1%
5	96	3%	3%
6	93	5%	1%
7	94	4%	-2%
8	94	3%	-2%
9	96	1%	-2%
10	97	0%	-1%
11	96	0%	2%
12	94	3%	1%
13	96	3%	-1%
14	94	4%	-2%
15	95	2%	-1%
16	92	3%	-6%



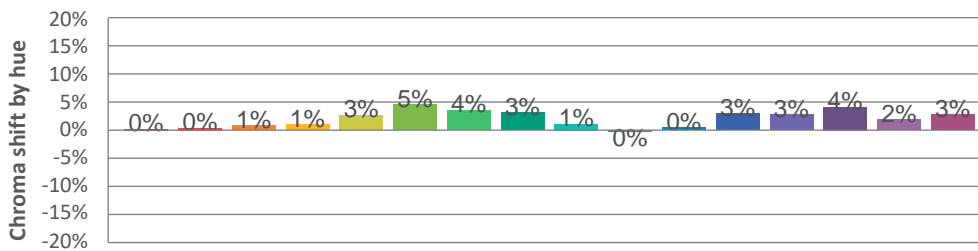
Hue binH



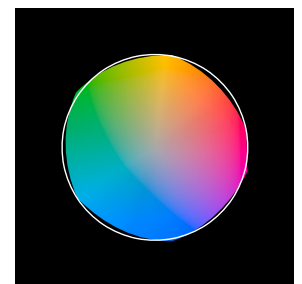
Color vector graphics



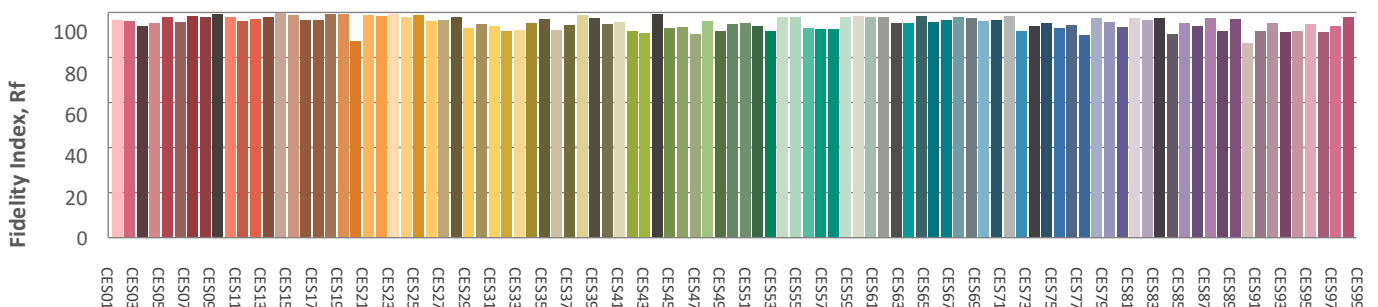
Hue bin



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	-5,0	-4,8	-5,0	-4,6	-4,4	-5,0	-4,8	-5,0	-4,6	-4,4
	3H	-3,1	-2,7	-2,8	-2,5	-2,4	-3,1	-2,7	-2,8	-2,5	-2,4
	4H	-1,5	-1,1	-1,1	-0,9	-0,6	-1,5	-1,1	-1,1	-0,9	-0,6
	6H	0,2	0,5	0,5	0,8	1,2	0,2	0,5	0,5	0,8	1,2
	8H	0,9	1,2	1,2	1,5	1,9	0,9	1,2	1,2	1,5	1,9
	12H	1,8	2,1	2,2	2,5	2,9	1,8	2,1	2,2	2,5	2,9
4H	2H	-4,6	-4,1	-4,2	-3,9	-3,7	-4,6	-4,1	-4,2	-3,9	-3,7
	3H	-2,0	-1,7	-1,6	-1,3	-0,9	-2,0	-1,7	-1,6	-1,3	-0,9
	4H	-0,2	0,1	0,3	0,6	1,1	-0,2	0,1	0,3	0,6	1,1
	6H	1,6	2,0	2,1	2,3	2,7	1,6	2,0	2,1	2,3	2,7
	8H	2,4	2,7	2,9	3,1	3,4	2,4	2,7	2,9	3,1	3,4
	12H	3,4	3,7	3,9	4,1	4,6	3,4	3,7	3,9	4,1	4,6
8H	4H	0,6	0,9	1,1	1,3	1,6	0,6	0,9	1,1	1,3	1,6
	6H	2,5	2,7	3,0	3,2	3,7	2,5	2,7	3,0	3,2	3,7
	8H	3,5	3,7	4,0	4,2	4,8	3,5	3,7	4,0	4,2	4,8
	12H	4,8	4,9	5,4	5,4	6,0	4,8	4,9	5,4	5,4	6,0
12H	4H	0,7	0,9	1,2	1,3	1,8	0,7	0,9	1,2	1,3	1,8
	6H	2,8	2,9	3,3	3,5	4,1	2,8	2,9	3,3	3,5	4,1
	8H	3,8	4,0	4,4	4,5	5,1	3,8	4,0	4,4	4,5	5,1

Variation of the observer position for the luminaire distance S

S = 1.0H	0,1 / -0,1	0,1 / -0,1
S = 1.5H	0,2 / -0,1	0,2 / -0,1
S = 2.0H	0,2 / -0,2	0,2 / -0,2
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 378lm total luminous flux



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