

LM-79

Test Report

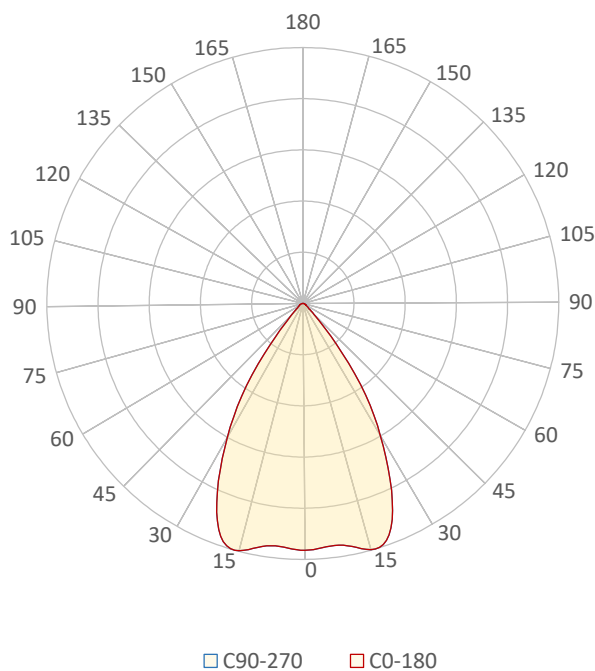
LM79-JADE-HP-3000K-CRI90-WIDE

General Discription

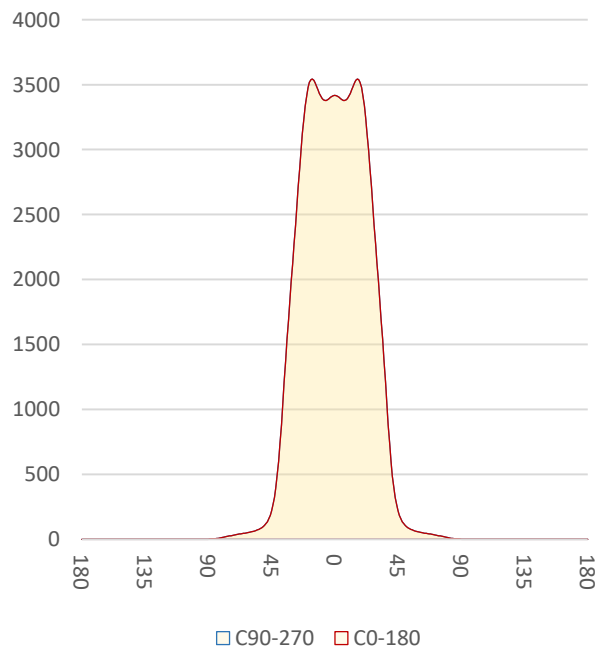
Item number	
Date and time	22-1-2021 15:46:46
CCT (Kelvin)	3054 K
Beam angle	64,9°
Luminous flux	3790 lm
Efficiency	92 lm/watt
Weighted energy	41,1 kWh/1000h
Power factor	0,97
CRI (RA)	93,1
Fidelity index Rf	Rf 91,2
Gammut index Rg	Rg 97,9
Peak	3544 cd



Polar diagram



Cartesian diagram



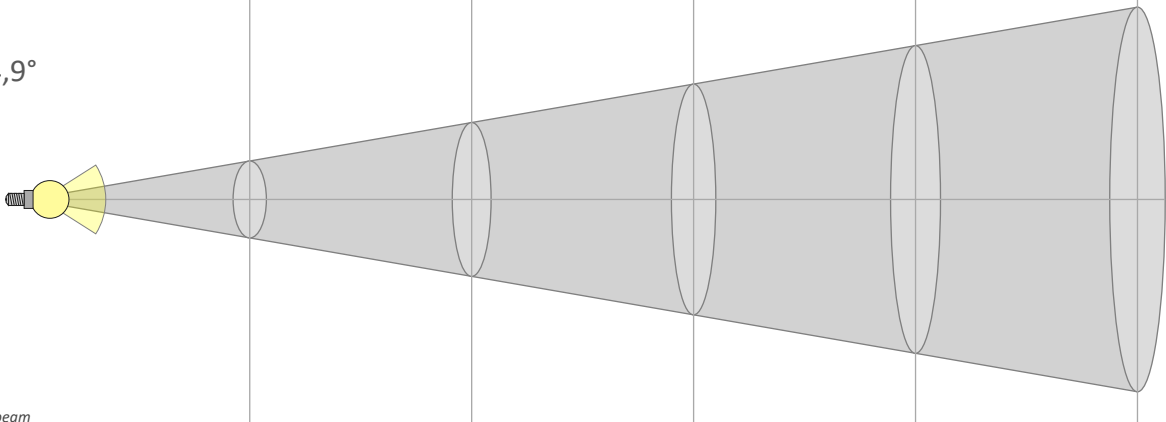
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Beam details					1m		2m		3m		4m		5m										
Lux*					3418 lx		854 lx		380 lx		214 lx		137 lx										
64,9° 																							
*measured at center of beam																							
Footcandles*					317,5 fcd		79,4 fcd		35,3 fcd		19,8 fcd		12,7 fcd										
Beam width (meter)					1,3 m		2,5 m		3,8 m		5,1 m		6,4 m										
Beam width (Feet)					4,2 ft		8,3 ft		12,5 ft		16,7 ft		20,9 ft										
Beam intensities																							
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m				
3418lx	854lx	380lx	214lx	137lx	95lx	70lx	53lx	42lx	34lx	28lx	24lx	20lx	17lx	15lx	13lx	12lx	11lx	9lx	9lx				
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				
317,5fcd	79,4fcd	35,3fcd	19,8fcd	12,7fcd	8,8fcd	6,5fcd	5fcd	3,9fcd	3,2fcd	2,6fcd	2,2fcd	1,9fcd	1,6fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd				
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°				
3418	3410	3394	3379	3382	3410	3461	3515	3544	3518	3418	3239	2997	2716	2419	2126	1836	1537	1210	882				
100%	100%	99%	99%	99%	100%	101%	103%	104%	103%	100%	95%	88%	79%	71%	62%	54%	45%	35%	26%				
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°				
3418	3410	3394	3379	3382	3410	3461	3515	3544	3518	3418	3239	2997	2716	2419	2126	1836	1537	1210	882				
100%	100%	99%	99%	99%	100%	101%	103%	104%	103%	100%	95%	88%	79%	71%	62%	54%	45%	35%	26%				
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°				
3418	3410	3394	3379	3382	3410	3461	3515	3544	3518	3418	3239	2997	2716	2419	2126	1836	1537	1210	882				
100%	100%	99%	99%	99%	100%	101%	103%	104%	103%	100%	95%	88%	79%	71%	62%	54%	45%	35%	26%				
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°				
3418	3410	3394	3379	3382	3410	3461	3515	3544	3518	3418	3239	2997	2716	2419	2126	1836	1537	1210	882				
100%	100%	99%	99%	99%	100%	101%	103%	104%	103%	100%	95%	88%	79%	71%	62%	54%	45%	35%	26%				
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone			
64,9°					85,1°					104,2°					97,9%					94,5%			



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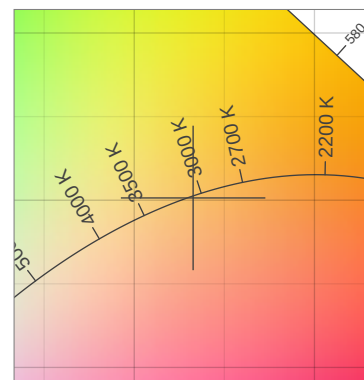
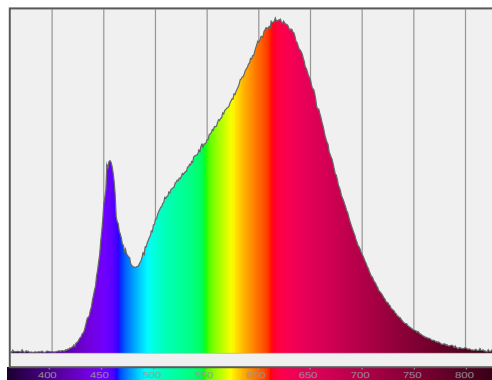
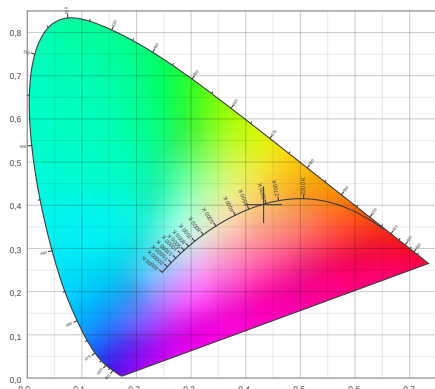
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Color details



CIE 1931

x: 0,433



Spectra

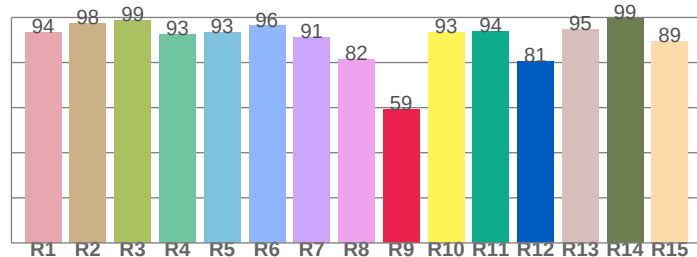
CIE 1931 ZOOM

3054 K

y: 0,401

Δuv : -0,0005

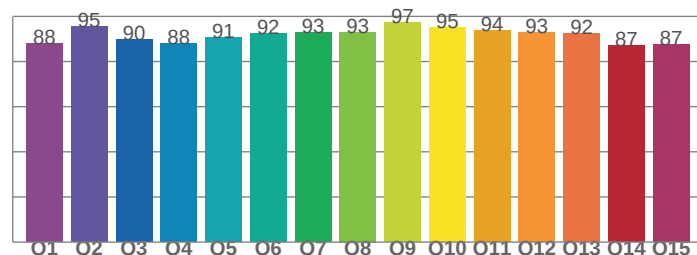
CRI: 93,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
93,5	97,5	98,7	92,7	93,2	96,3	91,3	81,5
R9	R10	R11	R12	R13	R14	R15	
59,3	93,3	93,8	80,7	94,8	99,5	89,2	

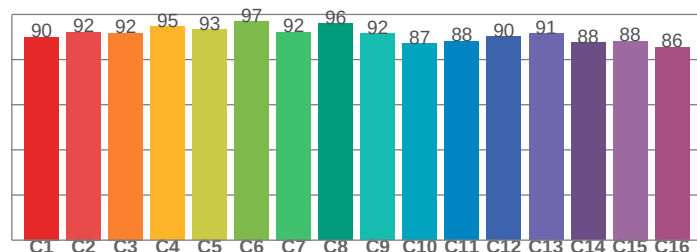
CQS: 91,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
88,1	95,4	89,7	87,9	90,6	92,4	92,8	93,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,3	95,2	93,9	92,8	92,3	87,0	87,4	

TM30: 91,2



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

C1	C2	C3	C4	C5	C6	C7	C8
90,0	92,2	91,7	94,5	93,4	96,8	92,2	96,1
C9	C10	C11	C12	C13	C14	C15	
91,6	87,1	88,1	90,2	91,4	87,6	88,3	

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
3054 K	93,1	59,3	91,2	97,9	91,1	0,433	0,401	0,249	0,346	-0,0005



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TM30 details

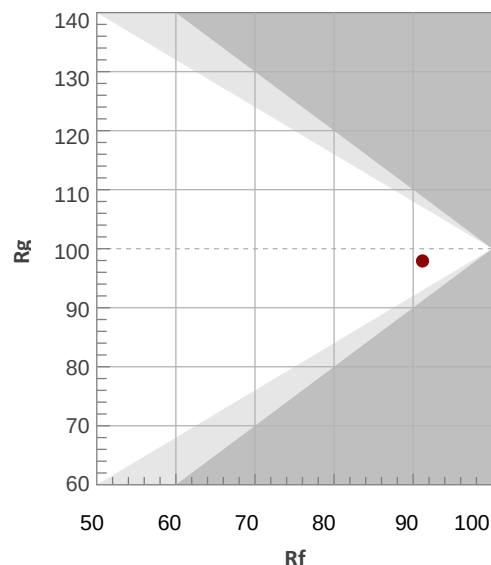
Rf 91,2

Fidelity index Rf

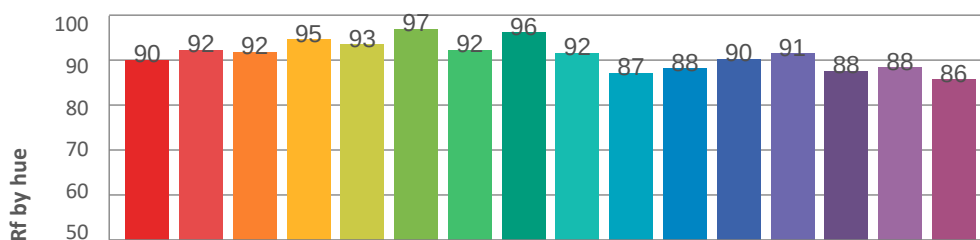
Rg 97,9

Gamut index Rg

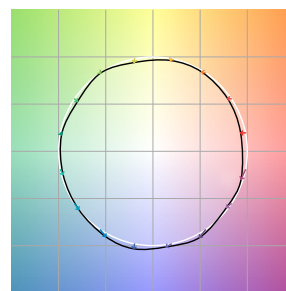
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	1%
2	92	-3%	2%
3	92	-1%	4%
4	95	-2%	1%
5	93	-4%	1%
6	97	0%	0%
7	92	-4%	1%
8	96	-2%	2%
9	92	-2%	6%
10	87	0%	8%
11	88	3%	9%
12	90	5%	0%
13	91	2%	-6%
14	88	3%	-10%
15	88	-2%	-6%
16	86	-3%	-11%



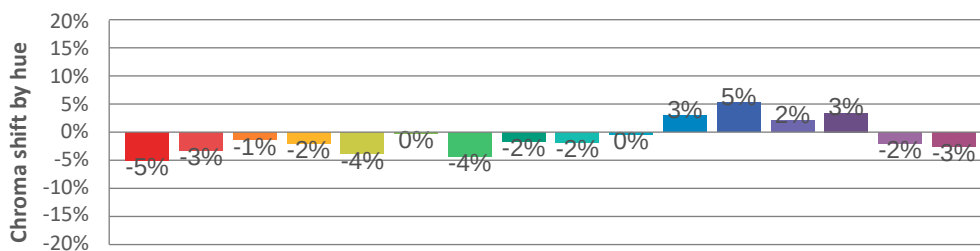
Hue binH



Color vector graphics



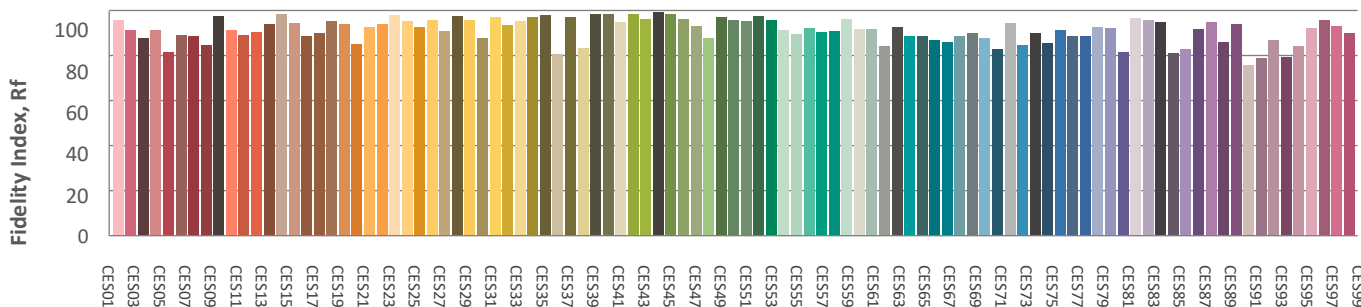
Hue bin



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	24,8	25,5	24,9	25,7	25,9	24,8	25,5	24,9	25,7	25,9
	3H	24,7	25,5	25,1	25,8	25,9	24,7	25,5	25,1	25,8	25,9
	4H	24,8	25,6	25,2	25,8	26,0	24,8	25,6	25,2	25,8	26,0
	6H	24,9	25,5	25,2	25,8	26,2	24,9	25,5	25,2	25,8	26,2
	8H	24,8	25,5	25,2	25,8	26,2	24,8	25,5	25,2	25,8	26,2
	12H	24,8	25,4	25,2	25,8	26,2	24,8	25,4	25,2	25,8	26,2
4H	2H	24,5	25,3	24,9	25,6	25,8	24,5	25,3	24,9	25,6	25,8
	3H	24,7	25,3	25,1	25,7	26,1	24,7	25,3	25,1	25,7	26,1
	4H	24,8	25,3	25,2	25,8	26,3	24,8	25,3	25,2	25,8	26,3
	6H	24,9	25,4	25,4	25,8	26,1	24,9	25,4	25,4	25,8	26,1
	8H	24,9	25,4	25,4	25,7	26,1	24,9	25,4	25,4	25,7	26,1
	12H	24,8	25,2	25,3	25,7	26,1	24,8	25,2	25,3	25,7	26,1
8H	4H	24,8	25,3	25,3	25,6	26,0	24,8	25,3	25,3	25,6	26,0
	6H	24,9	25,3	25,4	25,7	26,2	24,9	25,3	25,4	25,7	26,2
	8H	25,0	25,2	25,5	25,8	26,4	25,0	25,2	25,5	25,8	26,4
	12H	24,9	25,2	25,5	25,7	26,3	24,9	25,2	25,5	25,7	26,3
12H	4H	24,7	25,1	25,2	25,5	26,0	24,7	25,1	25,2	25,5	26,0
	6H	24,9	25,2	25,4	25,7	26,3	24,9	25,2	25,4	25,7	26,3
	8H	24,9	25,2	25,5	25,7	26,3	24,9	25,2	25,5	25,7	26,3
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,2 / -3,9					4,2 / -3,9				
S = 1.5H		6,7 / -4,2					6,7 / -4,2				
S = 2.0H		8,6 / -4,5					8,6 / -4,5				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3790lm total luminous flux											



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