

LM-79

Test Report

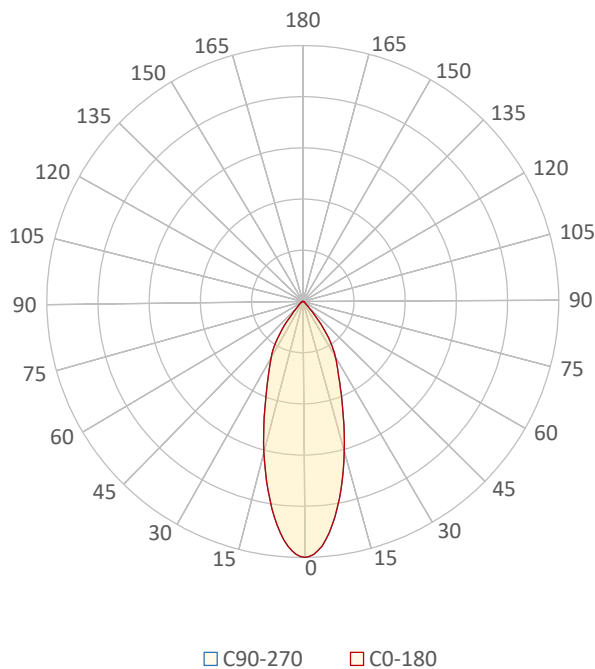
LM79-JADE-HP-2700K-CRI95-MEDIUM

General Discription

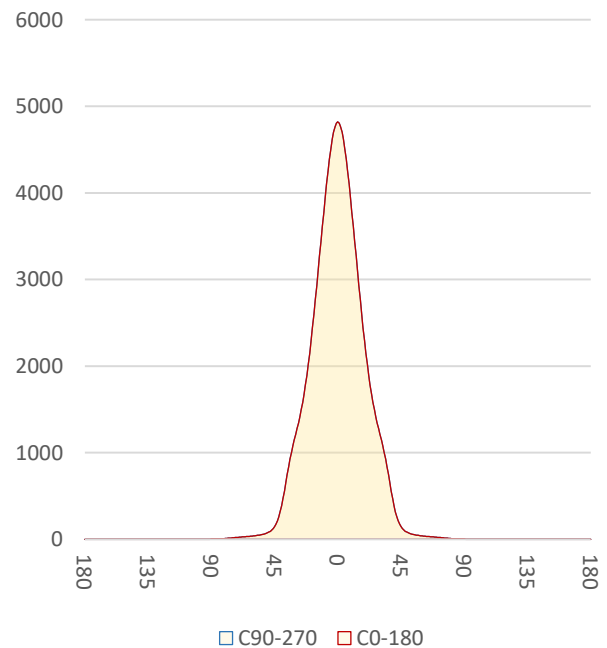
Item number	
Date and time	22-1-2021 16:07:50
CCT (Kelvin)	2678 K
Beam angle	36,4°
Luminous flux	2690 lm
Efficiency	69 lm/watt
Weighted energy	38,8 kWh/1000h
Power factor	0,97
CRI (RA)	95,4
Fidelity index Rf	Rf 95,0
Gammut index Rg	Rg 103,5
Peak	4821 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	4821 lx	1205 lx	536 lx	301 lx	193 lx														
*measured at center of beam																			
Footcandles*	447,9 fcd	112,0 fcd	49,8 fcd	28,0 fcd	17,9 fcd														
Beam width (meter)	0,7 m	1,3 m	2 m	2,6 m	3,3 m														
Beam width (Feet)	2,2 ft	4,3 ft	6,5 ft	8,6 ft	10,8 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
4821lx	1205lx	536lx	301lx	193lx	134lx	98lx	75lx	60lx	48lx	40lx	33lx	29lx	25lx	21lx	19lx	17lx	15lx	13lx	12lx
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
447,9fcd	112fcd	49,8fcd	28fcd	17,9fcd	12,4fcd	9,1fcd	7fcd	5,5fcd	4,5fcd	3,7fcd	3,1fcd	2,7fcd	2,3fcd	2fcd	1,7fcd	1,5fcd	1,4fcd	1,2fcd	1,1fcd
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°
4821	4765	4618	4388	4100	3777	3440	3099	2764	2444	2151	1894	1675	1495	1344	1211	1078	926	748	558
100%	99%	96%	91%	85%	78%	71%	64%	57%	51%	45%	39%	35%	31%	28%	25%	22%	19%	16%	12%
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°
4821	4765	4618	4388	4100	3777	3440	3099	2764	2444	2151	1894	1675	1495	1344	1211	1078	926	748	558
100%	99%	96%	91%	85%	78%	71%	64%	57%	51%	45%	39%	35%	31%	28%	25%	22%	19%	16%	12%
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°
4821	4765	4618	4388	4100	3777	3440	3099	2764	2444	2151	1894	1675	1495	1344	1211	1078	926	748	558
100%	99%	96%	91%	85%	78%	71%	64%	57%	51%	45%	39%	35%	31%	28%	25%	22%	19%	16%	12%
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°
4821	4765	4618	4388	4100	3777	3440	3099	2764	2444	2151	1894	1675	1495	1344	1211	1078	926	748	558
100%	99%	96%	91%	85%	78%	71%	64%	57%	51%	45%	39%	35%	31%	28%	25%	22%	19%	16%	12%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
36,4°		77,7°				92,3°				97,9%				94,6%					



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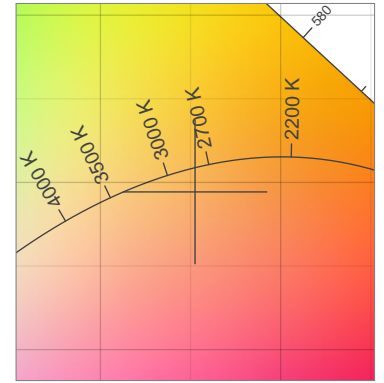
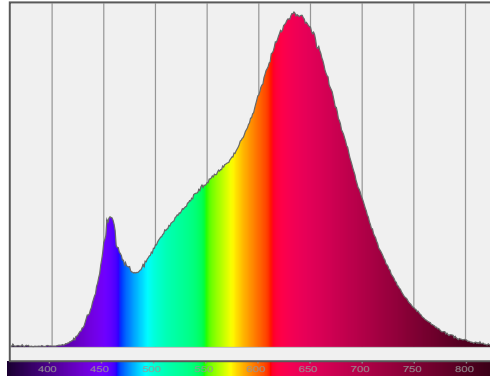
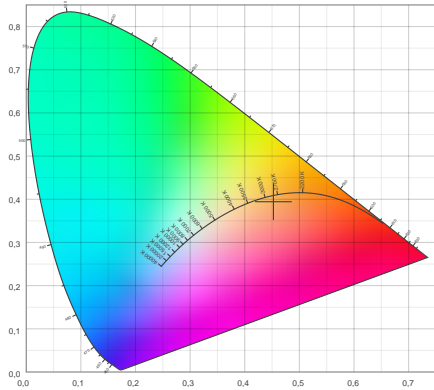
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Color details



CIE 1931

x: 0,452



Spectra

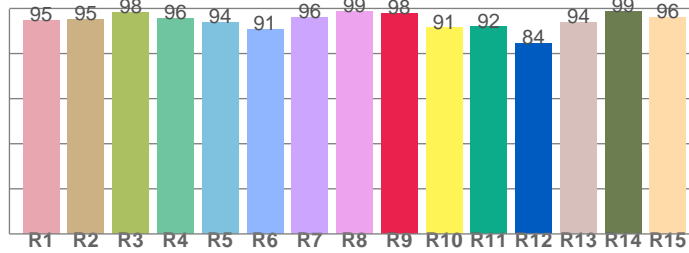
CIE 1931 ZOOM

2678 K

y: 0,394

Δuv : -0,0055

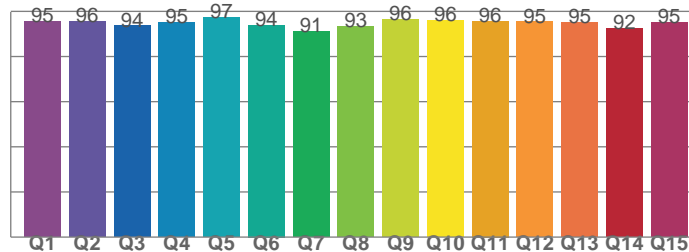
CRI: 95,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
94,6	95,1	98,3	95,7	94,0	90,9	96,1	98,6
R9	R10	R11	R12	R13	R14	R15	
97,8	91,4	91,8	84,5	93,9	98,8	95,9	

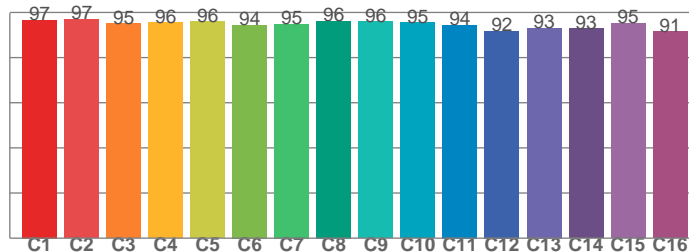
CQS: 94,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,5	95,6	93,6	95,0	97,4	94,0	91,2	93,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,5	96,1	95,7	95,3	95,0	92,3	94,9	

TM30: 95,0



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

C1	C2	C3	C4	C5	C6	C7	C8
96,7	97,0	95,0	95,6	96,0	94,4	94,9	96,2
C9	C10	C11	C12	C13	C14	C15	
95,9	95,4	94,4	91,8	93,1	92,8	95,2	

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
2678 K	95,4	97,8	95,0	103,5	94,3	0,452	0,394	0,265	0,347	-0,0055



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TM30 details

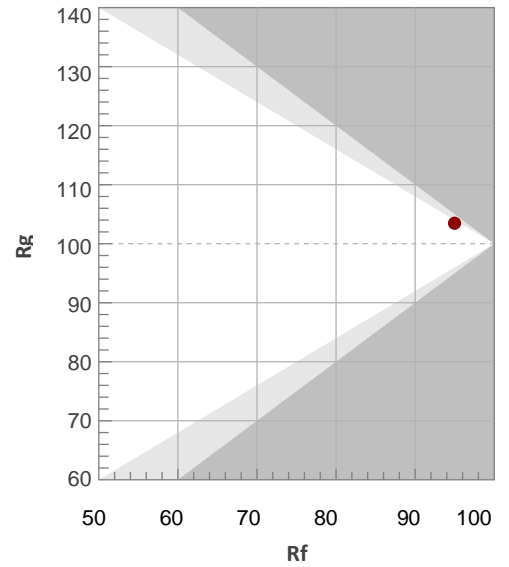
Rf 95,0

Fidelity index Rf

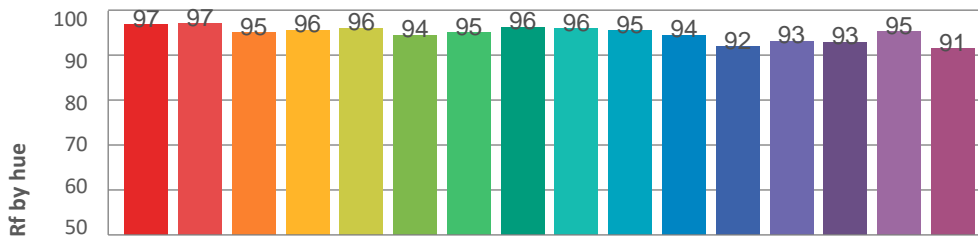
Rg 103,5

Gamut index Rg

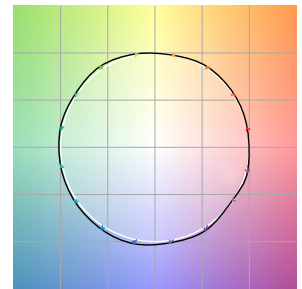
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	1%
2	97	1%	1%
3	95	2%	1%
4	96	-1%	-1%
5	96	1%	1%
6	94	4%	1%
7	95	2%	0%
8	96	2%	-1%
9	96	2%	1%
10	95	2%	2%
11	94	4%	2%
12	92	5%	-2%
13	93	2%	-5%
14	93	3%	-5%
15	95	-1%	-1%
16	91	1%	-7%



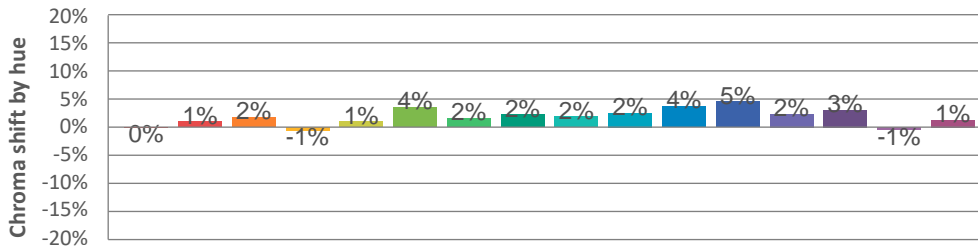
Hue binH



Color vector graphics



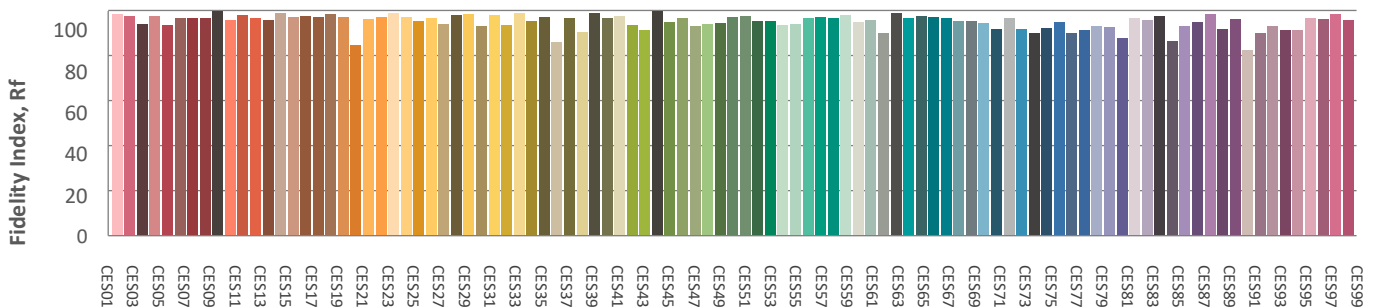
Hue bin



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	22,7	23,3	22,8	23,6	23,8	22,7	23,3	22,8	23,6	23,8
	3H	22,7	23,4	23,0	23,6	23,8	22,7	23,4	23,0	23,6	23,8
	4H	22,7	23,5	23,1	23,7	23,9	22,7	23,5	23,1	23,7	23,9
	6H	22,8	23,4	23,1	23,7	24,1	22,8	23,4	23,1	23,7	24,1
	8H	22,8	23,4	23,1	23,7	24,1	22,8	23,4	23,1	23,7	24,1
	12H	22,8	23,3	23,1	23,7	24,1	22,8	23,3	23,1	23,7	24,1
4H	2H	22,5	23,2	22,9	23,4	23,7	22,5	23,2	22,9	23,4	23,7
	3H	22,7	23,3	23,1	23,6	24,0	22,7	23,3	23,1	23,6	24,0
	4H	22,8	23,3	23,2	23,7	24,2	22,8	23,3	23,2	23,7	24,2
	6H	22,9	23,4	23,3	23,7	24,1	22,9	23,4	23,3	23,7	24,1
	8H	22,8	23,4	23,3	23,7	24,1	22,8	23,4	23,3	23,7	24,1
	12H	22,8	23,2	23,3	23,6	24,1	22,8	23,2	23,3	23,6	24,1
8H	4H	22,7	23,3	23,3	23,6	24,0	22,7	23,3	23,3	23,6	24,0
	6H	22,9	23,2	23,4	23,7	24,2	22,9	23,2	23,4	23,7	24,2
	8H	22,9	23,2	23,5	23,7	24,4	22,9	23,2	23,5	23,7	24,4
	12H	22,9	23,2	23,5	23,7	24,3	22,9	23,2	23,5	23,7	24,3
12H	4H	22,7	23,1	23,2	23,5	24,0	22,7	23,1	23,2	23,5	24,0
	6H	22,9	23,2	23,4	23,7	24,3	22,9	23,2	23,4	23,7	24,3
	8H	22,9	23,1	23,5	23,6	24,2	22,9	23,1	23,5	23,6	24,2
Variation of the observer position for the luminaire distance S											
S = 1.0H	3,9 / -3,5					3,9 / -3,5					
S = 1.5H	6,4 / -3,9					6,4 / -3,9					
S = 2.0H	8,2 / -4,2					8,2 / -4,2					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 2690lm total luminous flux											



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