

LM-79

Test Report

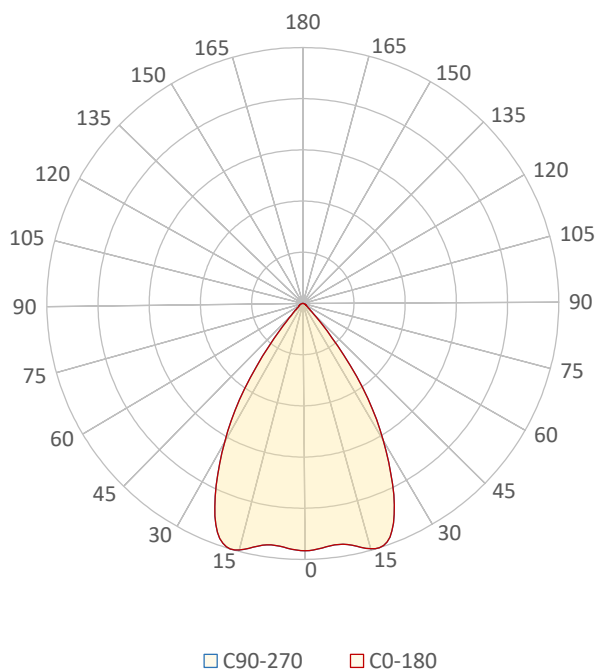
LM79-JADE-HP-4000K-CRI95-WIDE

General Discription

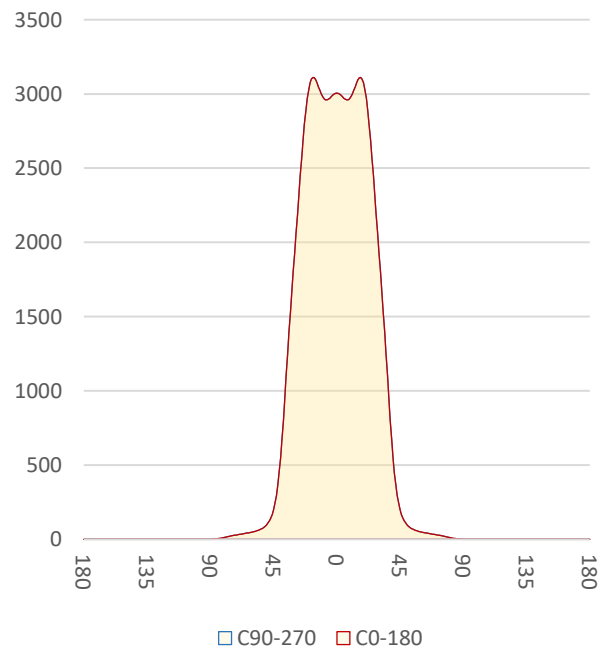
Item number	
Date and time	22-1-2021 16:39:23
CCT (Kelvin)	3809 K
Beam angle	65,7°
Luminous flux	3390 lm
Efficiency	85 lm/watt
Weighted energy	40,0 kWh/1000h
Power factor	0,97
CRI (RA)	97,3
Fidelity index Rf	Rf 94,2
Gammut index Rg	Rg 102,5
Peak	3111 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	3006 lx	751 lx	334 lx	188 lx	120 lx																			
<i>*measured at center of beam</i>																								
Footcandles*	279,2 fcd	69,8 fcd	31,0 fcd	17,5 fcd	11,2 fcd																			
Beam width (meter)	1,3 m	2,6 m	3,9 m	5,2 m	6,5 m																			
Beam width (Feet)	4,2 ft	8,5 ft	12,7 ft	17 ft	21,2 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
3006lx	751lx	334lx	188lx	120lx	83lx	61lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	8lx					
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					
279,2fcd	69,8fcd	31fcd	17,5fcd	11,2fcd	7,8fcd	5,7fcd	4,4fcd	3,4fcd	2,8fcd	2,3fcd	1,9fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd					
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°					
3006	2999	2982	2964	2961	2980	3022	3072	3108	3100	3030	2890	2690	2449	2193	1931	1671	1400	1102	805					
100%	100%	99%	99%	98%	99%	101%	102%	103%	103%	101%	96%	89%	81%	73%	64%	56%	47%	37%	27%					
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°					
3006	2999	2982	2964	2961	2980	3022	3072	3108	3100	3030	2890	2690	2449	2193	1931	1671	1400	1102	805					
100%	100%	99%	99%	98%	99%	101%	102%	103%	103%	101%	96%	89%	81%	73%	64%	56%	47%	37%	27%					
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°					
3006	2999	2982	2964	2961	2980	3022	3072	3108	3100	3030	2890	2690	2449	2193	1931	1671	1400	1102	805					
100%	100%	99%	99%	98%	99%	101%	102%	103%	103%	101%	96%	89%	81%	73%	64%	56%	47%	37%	27%					
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°					
3006	2999	2982	2964	2961	2980	3022	3072	3108	3100	3030	2890	2690	2449	2193	1931	1671	1400	1102	805					
100%	100%	99%	99%	98%	99%	101%	102%	103%	103%	101%	96%	89%	81%	73%	64%	56%	47%	37%	27%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
65,7°					85,5°					104,7°					97,9%					94,5%				



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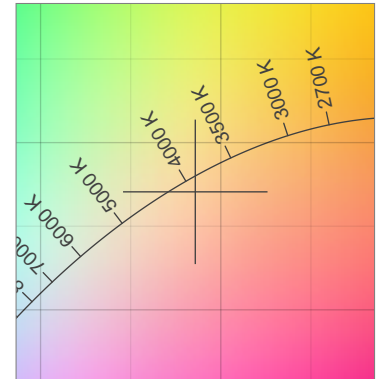
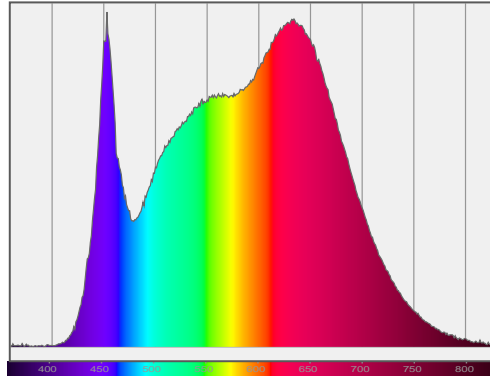
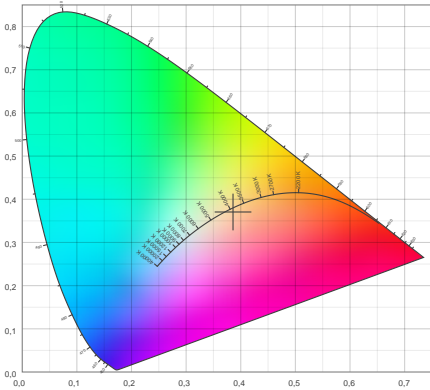
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Color details



CIE 1931

x: 0,386



Spectra

CIE 1931 ZOOM

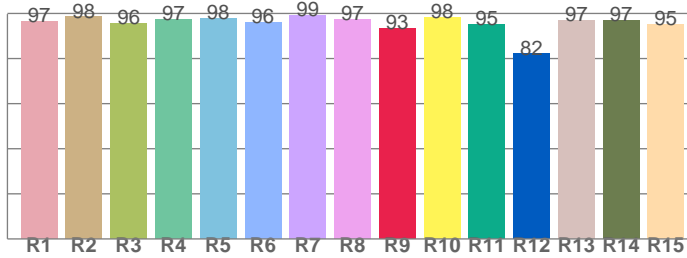
3809 K

y: 0,371

$\Delta uv: -0,0045$

CRI: 97,3 (R1-R8)

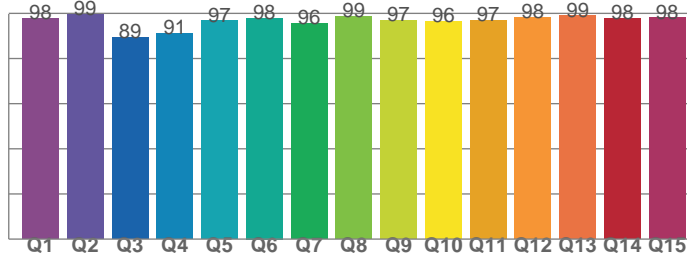
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,7	98,5	95,6	97,2	97,8	96,0	99,1	97,4
R9	R10	R11	R12	R13	R14	R15	
93,3	98,2	95,0	82,1	97,1	96,8	95,3	

CQS: 95,7

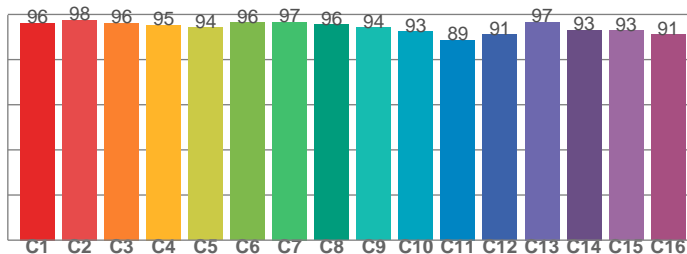
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
97,9	99,4	89,5	91,1	96,7	97,9	95,6	98,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	96,5	96,9	98,1	98,9	97,7	98,0	

TM30: 94,2

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



C1	C2	C3	C4	C5	C6	C7	C8
96,3	97,5	96,2	95,4	94,1	96,3	96,7	95,6
C9	C10	C11	C12	C13	C14	C15	
94,1	92,5	88,6	91,2	96,6	93,0	92,8	

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
3809 K	97,3	93,3	94,2	102,5	95,7	0,386	0,371	0,231	0,333	-0,0045



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TM30 details

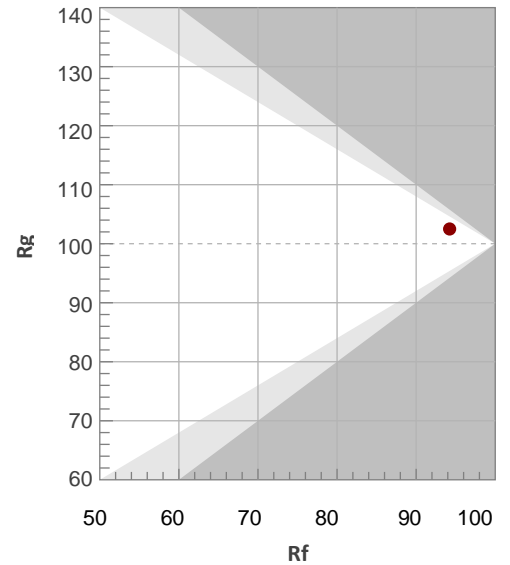
Rf 94,2

Fidelity index Rf

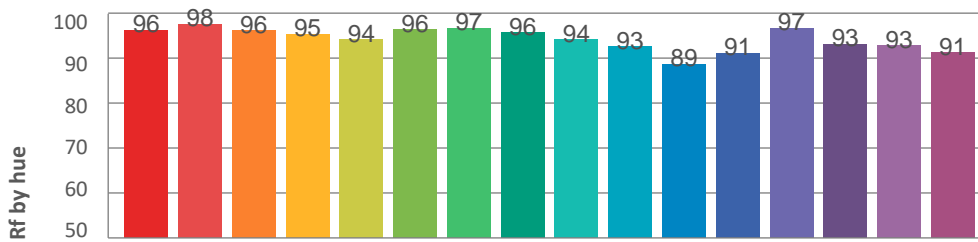
Rg 102,5

Gamut index Rg

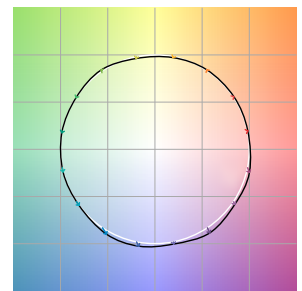
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	98	1%	0%
3	96	1%	1%
4	95	-1%	0%
5	94	-2%	1%
6	96	2%	1%
7	97	0%	1%
8	96	0%	2%
9	94	0%	4%
10	93	0%	5%
11	89	3%	7%
12	91	4%	3%
13	97	2%	0%
14	93	6%	-1%
15	93	3%	-2%
16	91	3%	-5%



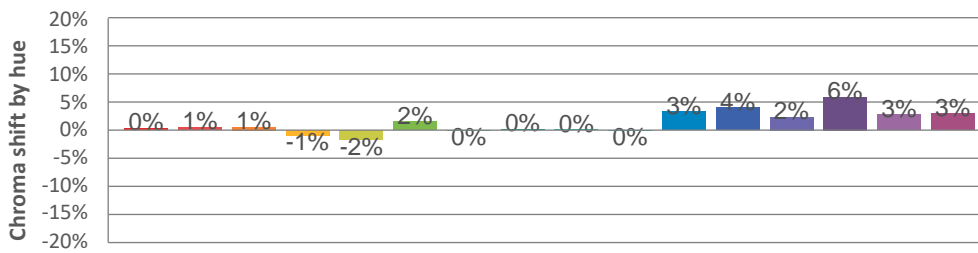
Hue binH



Color vector graphics



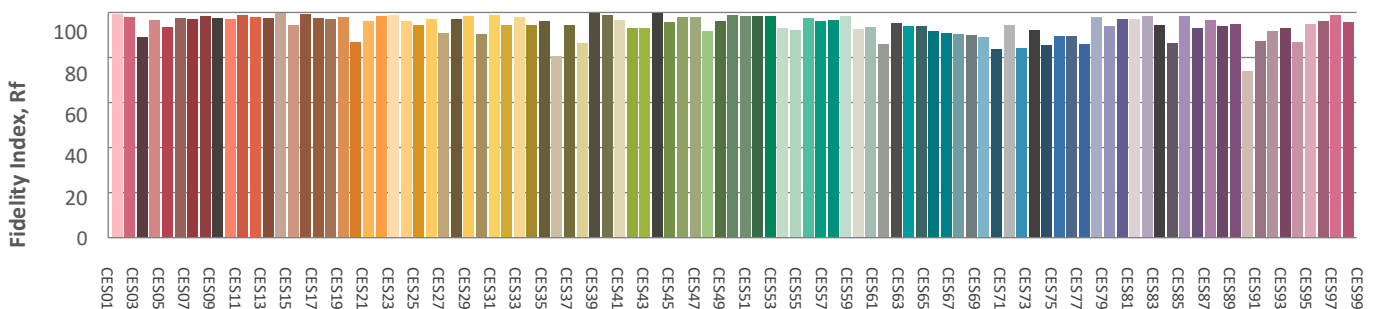
Hue bin



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	24,5	25,2	24,7	25,5	25,7	24,5	25,2	24,7	25,5	25,7
	3H	24,4	25,3	24,8	25,5	25,7	24,4	25,3	24,8	25,5	25,7
	4H	24,5	25,3	24,9	25,5	25,7	24,5	25,3	24,9	25,5	25,7
	6H	24,6	25,2	24,9	25,5	25,9	24,6	25,2	24,9	25,5	25,9
	8H	24,6	25,2	24,9	25,5	25,9	24,6	25,2	24,9	25,5	25,9
	12H	24,5	25,1	24,9	25,5	25,9	24,5	25,1	24,9	25,5	25,9
4H	2H	24,3	25,0	24,7	25,3	25,5	24,3	25,0	24,7	25,3	25,5
	3H	24,4	25,1	24,8	25,4	25,8	24,4	25,1	24,8	25,4	25,8
	4H	24,5	25,0	24,9	25,5	26,0	24,5	25,0	24,9	25,5	26,0
	6H	24,5	25,1	25,0	25,5	25,8	24,5	25,1	25,0	25,5	25,8
	8H	24,5	25,1	25,0	25,4	25,8	24,5	25,1	25,0	25,4	25,8
	12H	24,5	24,9	25,0	25,3	25,8	24,5	24,9	25,0	25,3	25,8
8H	4H	24,4	25,0	25,0	25,3	25,7	24,4	25,0	25,0	25,3	25,7
	6H	24,6	24,9	25,1	25,4	25,9	24,6	24,9	25,1	25,4	25,9
	8H	24,6	24,9	25,1	25,4	26,1	24,6	24,9	25,1	25,4	26,1
	12H	24,6	24,9	25,2	25,4	26,0	24,6	24,9	25,2	25,4	26,0
12H	4H	24,4	24,8	24,9	25,2	25,7	24,4	24,8	24,9	25,2	25,7
	6H	24,6	24,9	25,1	25,4	26,0	24,6	24,9	25,1	25,4	26,0
	8H	24,6	24,8	25,2	25,4	26,0	24,6	24,8	25,2	25,4	26,0
Variation of the observer position for the luminaire distance S											
S = 1.0H	4,2 / -4,0					4,2 / -4,0					
S = 1.5H	6,8 / -4,4					6,8 / -4,4					
S = 2.0H	8,7 / -4,6					8,7 / -4,6					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 3390lm total luminous flux											



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