

LM-79

Test Report

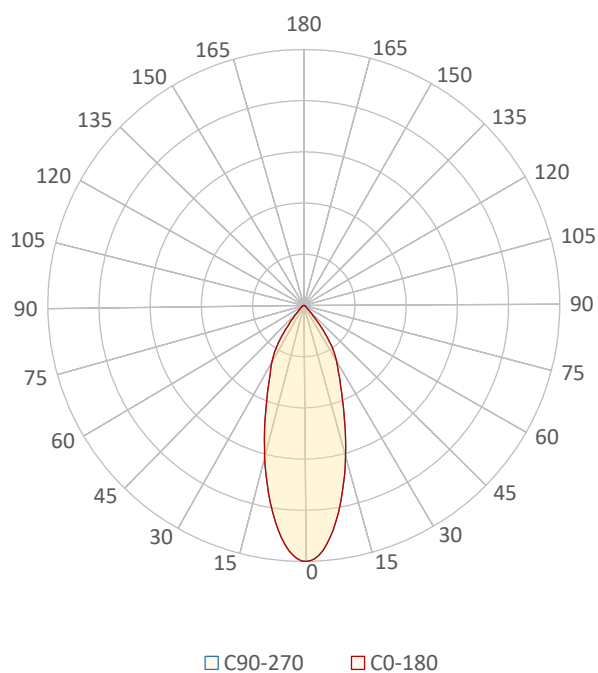
LM79-JADE-HP-4000K-CRI95-MEDIUM

General Discription

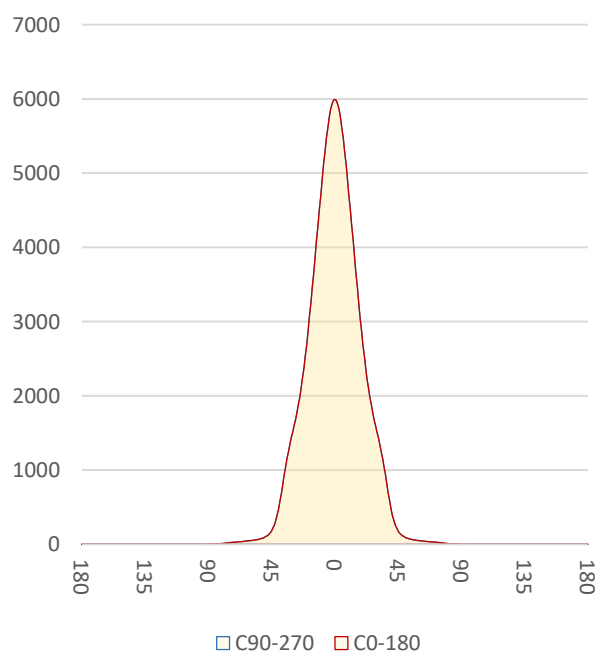
Item number	
Date and time	22-1-2021 16:42:06
CCT (Kelvin)	3815 K
Beam angle	36,7°
Luminous flux	3357 lm
Efficiency	85 lm/watt
Weighted energy	39,3 kWh/1000h
Power factor	0,97
CRI (RA)	97,3
Fidelity index Rf	Rf 94,2
Gammut index Rg	Rg 102,4
Peak	5995 cd



Polar diagram



Cartesian diagram



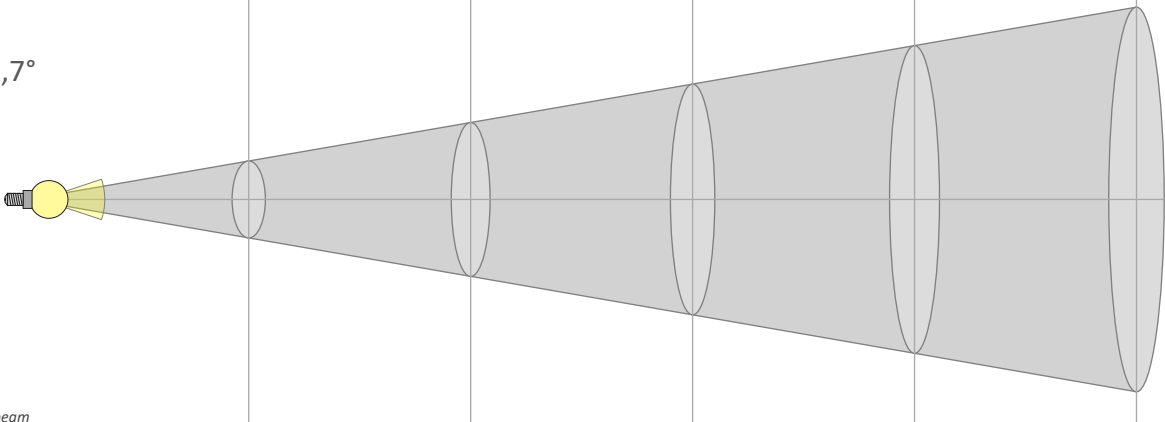
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Beam details					1m		2m		3m		4m		5m								
Lux*					5995 lx		1499 lx		666 lx		375 lx		240 lx								
36,7° 																					
*measured at center of beam																					
Footcandles*					556,9 fcd		139,2 fcd		61,9 fcd		34,8 fcd		22,3 fcd								
Beam width (meter)					0,7 m		1,3 m		2 m		2,7 m		3,3 m								
Beam width (Feet)					2,2 ft		4,4 ft		6,5 ft		8,7 ft		10,9 ft								
Beam intensities																					
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m		
5995lx	1499lx	666lx	375lx	240lx	167lx	122lx	94lx	74lx	60lx	50lx	42lx	35lx	31lx	27lx	23lx	21lx	19lx	17lx	15lx		
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		
556,9fcd	139,2fcd	61,9fcd	34,8fcd	22,3fcd	15,5fcd	11,4fcd	8,7fcd	6,9fcd	5,6fcd	4,6fcd	3,9fcd	3,3fcd	2,8fcd	2,5fcd	2,2fcd	1,9fcd	1,7fcd	1,5fcd	1,4fcd		
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°		
5995	5934	5751	5466	5110	4714	4297	3877	3464	3065	2697	2373	2097	1869	1681	1514	1347	1155	930	692		
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	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°		
5995	5934	5751	5466	5110	4714	4297	3877	3464	3065	2697	2373	2097	1869	1681	1514	1347	1155	930	692		
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	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°		
5995	5934	5751	5466	5110	4714	4297	3877	3464	3065	2697	2373	2097	1869	1681	1514	1347	1155	930	692		
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	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°		
5995	5934	5751	5466	5110	4714	4297	3877	3464	3065	2697	2373	2097	1869	1681	1514	1347	1155	930	692		
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	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			
36,7°					77,6°					92,4°				98,0%				94,7%			



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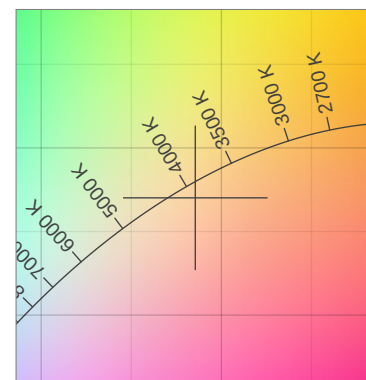
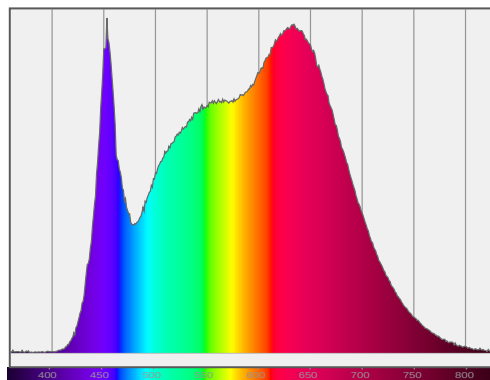
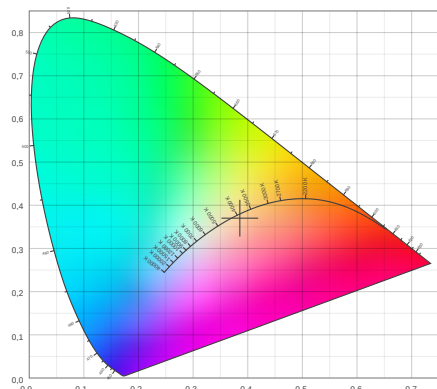
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Color details



CIE 1931

x: 0,386



Spectra

CIE 1931 ZOOM

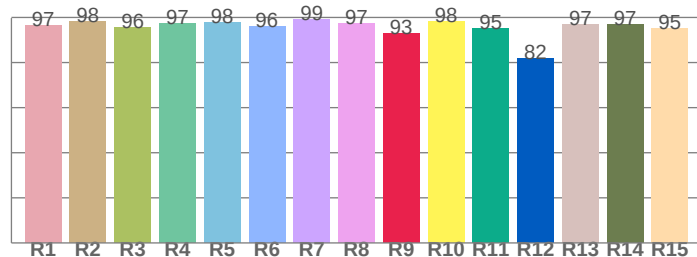
3815 K

y: 0,370

Δuv : -0,0046

CRI: 97,3 (R1-R8)

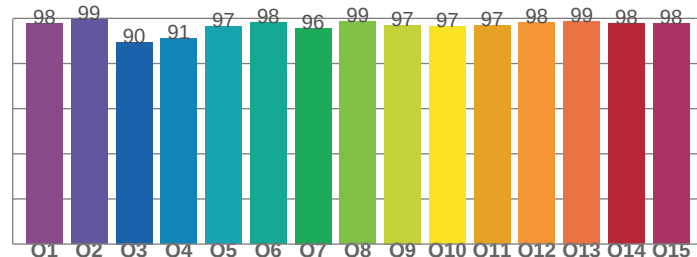
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,6	98,3	95,8	97,3	97,6	95,9	99,2	97,3
R9	R10	R11	R12	R13	R14	R15	
93,1	98,2	95,0	82,0	96,9	96,8	95,2	

CQS: 95,7

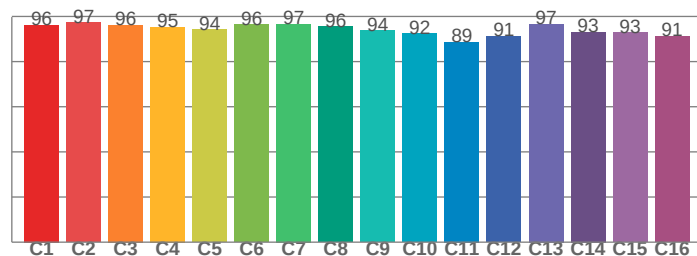
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
97,7	99,5	89,6	91,1	96,6	98,1	95,7	98,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	96,6	96,9	98,1	98,8	97,6	97,9	

TM30: 94,2

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



C1	C2	C3	C4	C5	C6	C7	C8
96,2	97,4	96,2	95,3	94,1	96,3	96,6	95,6
C9	C10	C11	C12	C13	C14	C15	
93,9	92,4	88,6	91,3	96,6	93,1	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
3815 K	97,3	93,1	94,2	102,4	95,7	0,386	0,370	0,231	0,333	-0,0046



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TM30 details

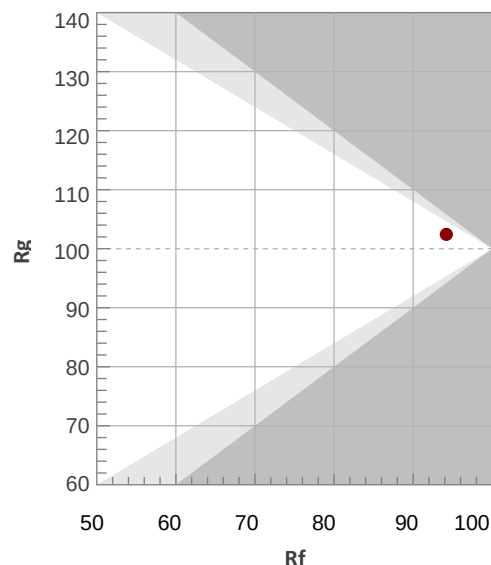
Rf 94,2

Fidelity index Rf

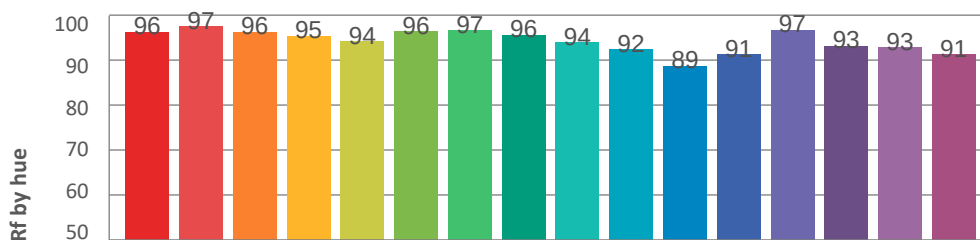
Rg 102,4

Gamut index Rg

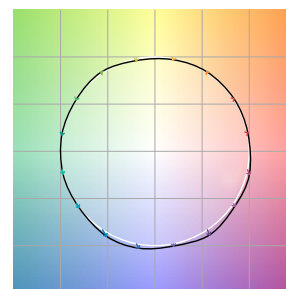
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	97	1%	0%
3	96	1%	1%
4	95	-1%	0%
5	94	-2%	1%
6	96	1%	1%
7	97	0%	1%
8	96	0%	2%
9	94	0%	5%
10	92	0%	5%
11	89	3%	7%
12	91	4%	3%
13	97	2%	0%
14	93	6%	-1%
15	93	3%	-2%
16	91	3%	-4%



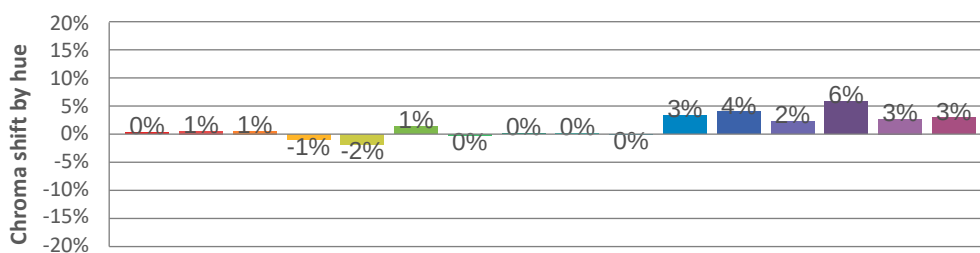
Hue binH



Color vector graphics



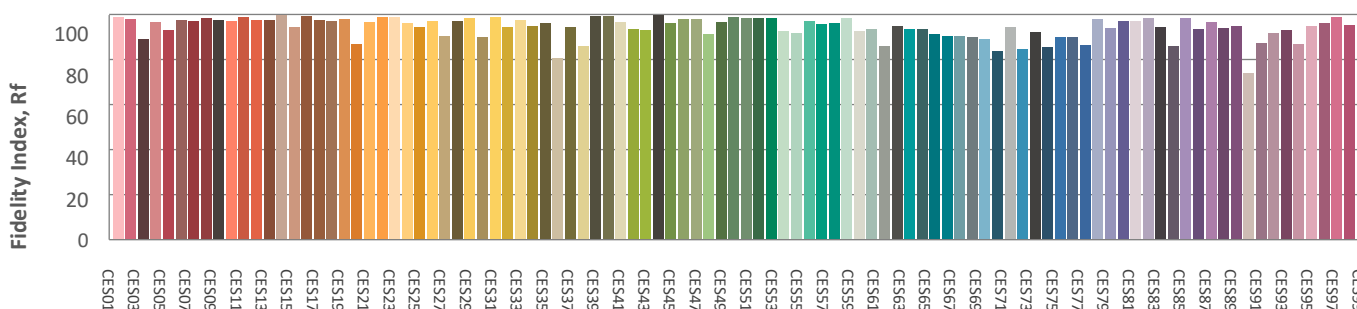
Hue bin



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	23,5	24,1	23,6	24,3	24,5	23,5	24,1	23,6	24,3	24,5
	3H	23,4	24,2	23,8	24,4	24,6	23,4	24,2	23,8	24,4	24,6
	4H	23,5	24,2	23,9	24,5	24,7	23,5	24,2	23,9	24,5	24,7
	6H	23,6	24,2	23,9	24,5	24,9	23,6	24,2	23,9	24,5	24,9
	8H	23,6	24,2	23,9	24,5	24,9	23,6	24,2	23,9	24,5	24,9
	12H	23,5	24,1	23,9	24,5	24,9	23,5	24,1	23,9	24,5	24,9
4H	2H	23,2	24,0	23,6	24,2	24,4	23,2	24,0	23,6	24,2	24,4
	3H	23,5	24,1	23,8	24,4	24,8	23,5	24,1	23,8	24,4	24,8
	4H	23,6	24,1	24,0	24,5	25,0	23,6	24,1	24,0	24,5	25,0
	6H	23,6	24,2	24,1	24,5	24,9	23,6	24,2	24,1	24,5	24,9
	8H	23,6	24,2	24,2	24,5	24,9	23,6	24,2	24,2	24,5	24,9
	12H	23,6	24,0	24,1	24,4	24,9	23,6	24,0	24,1	24,4	24,9
8H	4H	23,5	24,1	24,1	24,4	24,8	23,5	24,1	24,1	24,4	24,8
	6H	23,7	24,0	24,2	24,5	25,0	23,7	24,0	24,2	24,5	25,0
	8H	23,8	24,0	24,3	24,5	25,2	23,8	24,0	24,3	24,5	25,2
	12H	23,7	24,0	24,3	24,5	25,1	23,7	24,0	24,3	24,5	25,1
12H	4H	23,5	23,9	24,0	24,3	24,8	23,5	23,9	24,0	24,3	24,8
	6H	23,7	24,0	24,2	24,5	25,1	23,7	24,0	24,2	24,5	25,1
	8H	23,7	24,0	24,3	24,5	25,1	23,7	24,0	24,3	24,5	25,1
Variation of the observer position for the luminaire distance S											
S = 1.0H		3,9 / -3,4					3,9 / -3,4				
S = 1.5H		6,3 / -3,8					6,3 / -3,8				
S = 2.0H		8,2 / -4,1					8,2 / -4,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3357lm total luminous flux											



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