

LM-79

Test Report

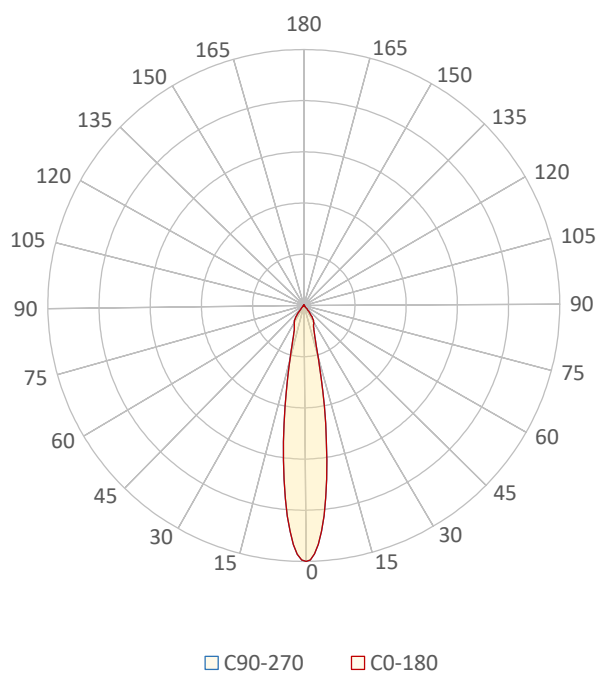
LM79-JADE-HP-2700K-CRI95-SPOT

General Discription

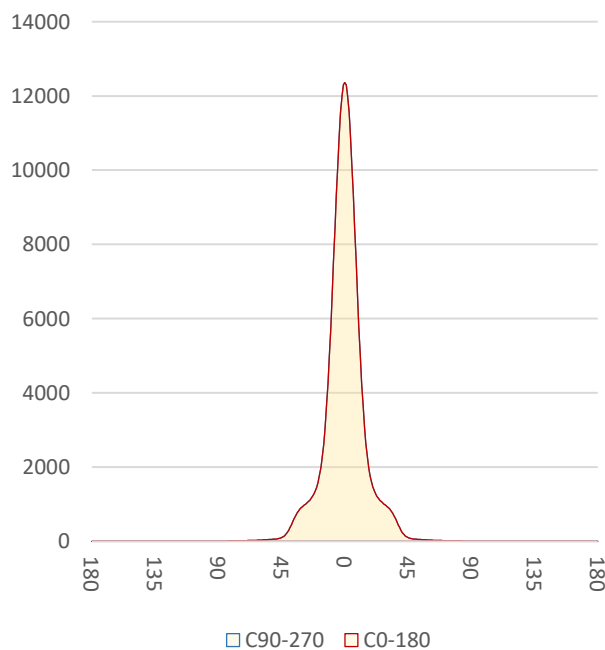
Item number	
Date and time	22-1-2021 15:58:52
CCT (Kelvin)	2690 K
Beam angle	19,1°
Luminous flux	2705 lm
Efficiency	67 lm/watt
Weighted energy	40,1 kWh/1000h
Power factor	0,97
CRI (RA)	95,6
Fidelity index Rf	Rf 95,1
Gammut index Rg	Rg 103,7
Peak	12360 cd



Polar diagram



Cartesian diagram



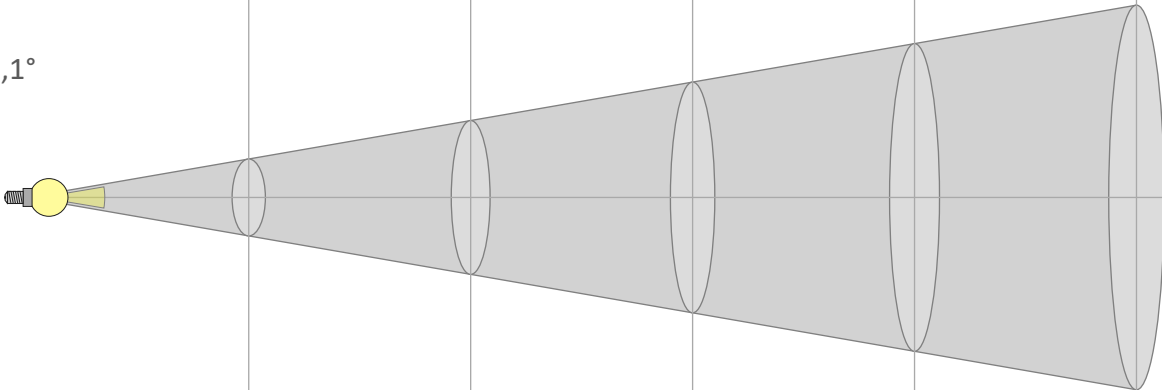
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Beam details				1m		2m		3m		4m		5m							
Lux*				12360 lx		3090 lx		1373 lx		772 lx		494 lx							
19,1° 																			
*measured at center of beam																			
Footcandles*				1148,3 fcd		287,1 fcd		127,6 fcd		71,8 fcd		45,9 fcd							
Beam width (meter)				0,3 m		0,7 m		1 m		1,3 m		1,7 m							
Beam width (Feet)				1,1 ft		2,2 ft		3,3 ft		4,4 ft		5,5 ft							
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
12360lx	3090lx	1373lx	772lx	494lx	343lx	252lx	193lx	153lx	124lx	102lx	86lx	73lx	63lx	55lx	48lx	43lx	38lx	34lx	31lx
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
1148,3fcd	287,1fcd	127,6fcd	71,8fcd	45,9fcd	31,9fcd	23,4fcd	17,9fcd	14,2fcd	11,5fcd	9,5fcd	8fcd	6,8fcd	5,9fcd	5,1fcd	4,5fcd	4fcd	3,5fcd	3,2fcd	2,9fcd
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°
12,4K	12,0K	10,9K	9,4K	7,5K	5,8K	4,2K	3,1K	2,3K	1,8K	1,5K	1,3K	1,2K	1,1K	1,0K	0,9K	0,9K	0,8K	0,6K	0,4K
100%	97%	89%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
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°
12,4K	12,0K	10,9K	9,4K	7,5K	5,8K	4,2K	3,1K	2,3K	1,8K	1,5K	1,3K	1,2K	1,1K	1,0K	0,9K	0,9K	0,8K	0,6K	0,4K
100%	97%	89%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
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°
12,4K	12,0K	10,9K	9,4K	7,5K	5,8K	4,2K	3,1K	2,3K	1,8K	1,5K	1,3K	1,2K	1,1K	1,0K	0,9K	0,9K	0,8K	0,6K	0,4K
100%	97%	89%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
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°
12,4K	12,0K	10,9K	9,4K	7,5K	5,8K	4,2K	3,1K	2,3K	1,8K	1,5K	1,3K	1,2K	1,1K	1,0K	0,9K	0,9K	0,8K	0,6K	0,4K
100%	97%	89%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
19,1°				45°				79,6°				98,4%				95,8%			



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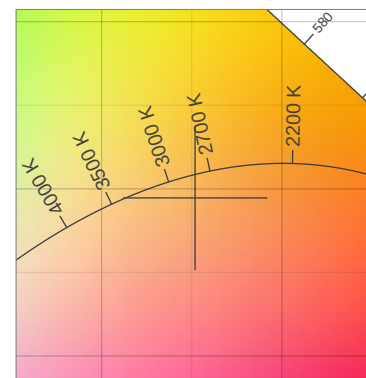
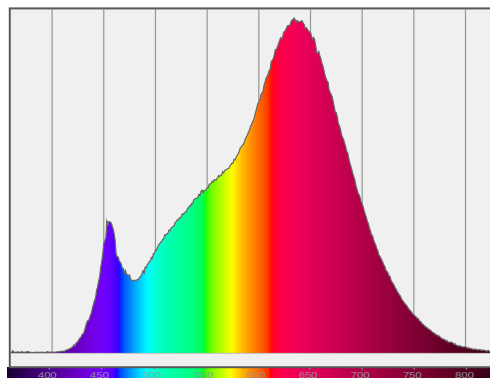
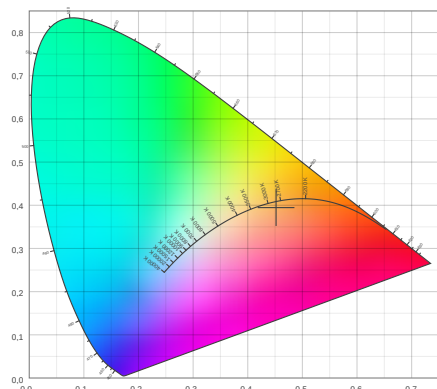
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Color details



CIE 1931

x: 0,452



Spectra

CIE 1931 ZOOM

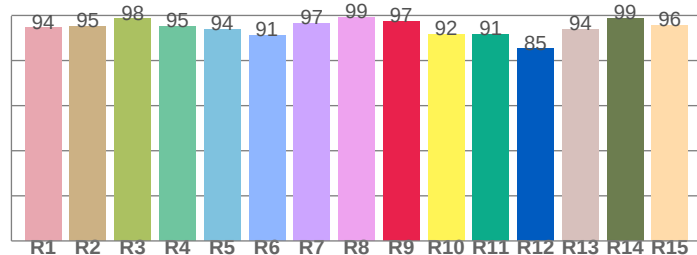
2690 K

y: 0,395

Δuv : -0,0054

CRI: 95,6 (R1-R8)

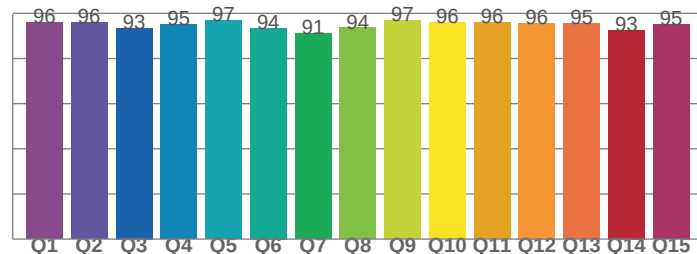
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
94,5	95,3	98,5	95,3	94,0	91,3	96,6	99,1
R9	R10	R11	R12	R13	R14	R15	
97,2	91,8	91,4	85,2	93,9	98,6	95,6	

CQS: 94,5

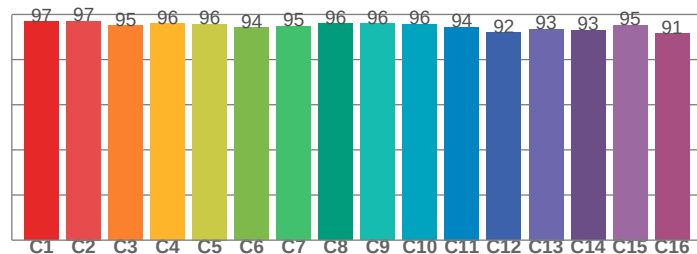
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,9	95,8	93,5	95,2	97,0	93,5	91,2	93,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	96,1	95,9	95,7	95,4	92,6	95,2	

TM30: 95,1

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



C1	C2	C3	C4	C5	C6	C7	C8
96,8	97,1	95,1	95,8	95,7	94,3	94,8	96,0
C9	C10	C11	C12	C13	C14	C15	
96,0	95,7	94,5	92,1	93,5	93,0	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
2690 K	95,6	97,2	95,1	103,7	94,5	0,452	0,395	0,265	0,347	-0,0054



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TM30 details

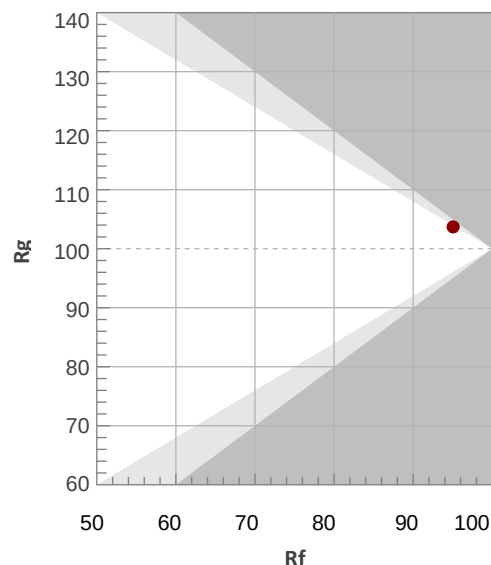
Rf 95,1

Fidelity index Rf

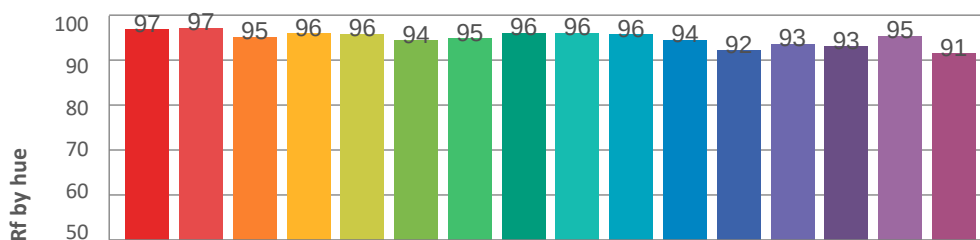
Rg 103,7

Gamut index Rg

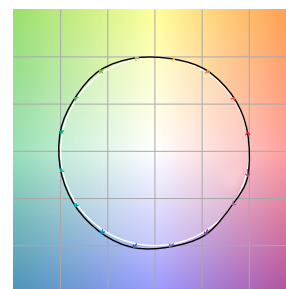
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	1%
2	97	1%	1%
3	95	2%	1%
4	96	0%	-1%
5	96	1%	1%
6	94	4%	1%
7	95	2%	0%
8	96	2%	-1%
9	96	2%	1%
10	96	2%	2%
11	94	4%	2%
12	92	4%	-2%
13	93	2%	-5%
14	93	3%	-4%
15	95	0%	-1%
16	91	2%	-7%



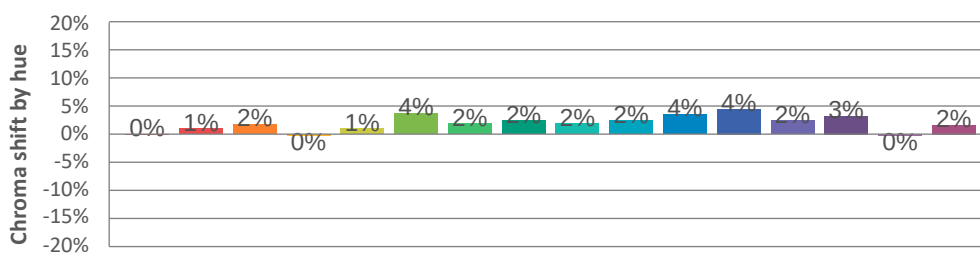
Hue binH



Color vector graphics



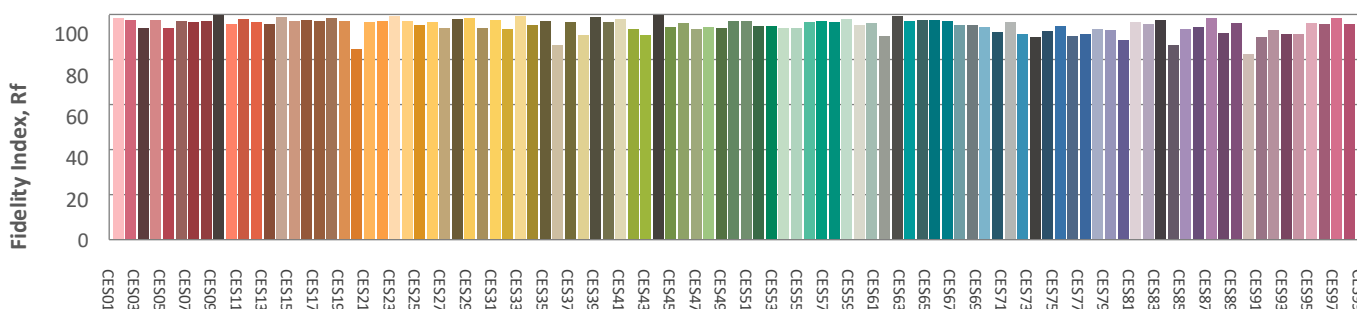
Hue bin



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	21,2	21,7	21,3	21,9	22,1	21,2	21,7	21,3	21,9	22,1
	3H	21,1	21,8	21,5	22,0	22,2	21,1	21,8	21,5	22,0	22,2
	4H	21,2	21,8	21,6	22,1	22,3	21,2	21,8	21,6	22,1	22,3
	6H	21,3	21,8	21,6	22,1	22,5	21,3	21,8	21,6	22,1	22,5
	8H	21,3	21,8	21,6	22,1	22,5	21,3	21,8	21,6	22,1	22,5
	12H	21,2	21,7	21,6	22,1	22,5	21,2	21,7	21,6	22,1	22,5
4H	2H	20,9	21,6	21,3	21,8	22,0	20,9	21,6	21,3	21,8	22,0
	3H	21,2	21,7	21,5	22,0	22,4	21,2	21,7	21,5	22,0	22,4
	4H	21,2	21,7	21,7	22,1	22,6	21,2	21,7	21,7	22,1	22,6
	6H	21,3	21,8	21,8	22,2	22,5	21,3	21,8	21,8	22,2	22,5
	8H	21,3	21,8	21,8	22,1	22,5	21,3	21,8	21,8	22,1	22,5
	12H	21,3	21,6	21,8	22,0	22,5	21,3	21,6	21,8	22,0	22,5
8H	4H	21,2	21,7	21,7	22,0	22,4	21,2	21,7	21,7	22,0	22,4
	6H	21,4	21,7	21,9	22,1	22,7	21,4	21,7	21,9	22,1	22,7
	8H	21,4	21,6	21,9	22,2	22,8	21,4	21,6	21,9	22,2	22,8
	12H	21,4	21,6	22,0	22,1	22,7	21,4	21,6	22,0	22,1	22,7
12H	4H	21,2	21,5	21,7	21,9	22,4	21,2	21,5	21,7	21,9	22,4
	6H	21,4	21,6	21,9	22,1	22,8	21,4	21,6	21,9	22,1	22,8
	8H	21,4	21,6	22,0	22,1	22,7	21,4	21,6	22,0	22,1	22,7
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,0 / -3,5					4,0 / -3,5				
S = 1.5H		6,4 / -3,9					6,4 / -3,9				
S = 2.0H		8,3 / -4,2					8,3 / -4,2				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2705lm total luminous flux											



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