

LM-79

Test Report

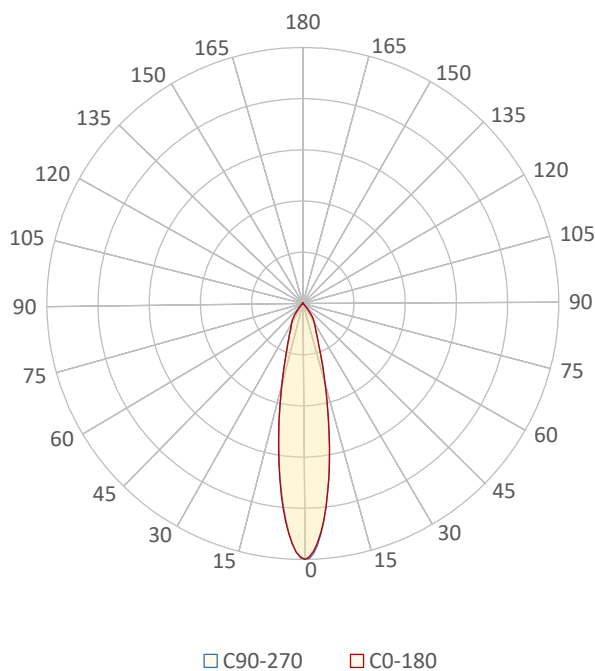
LM79-JADE-TW18-40-MEDIUM (1800K-4000K)

General Discription

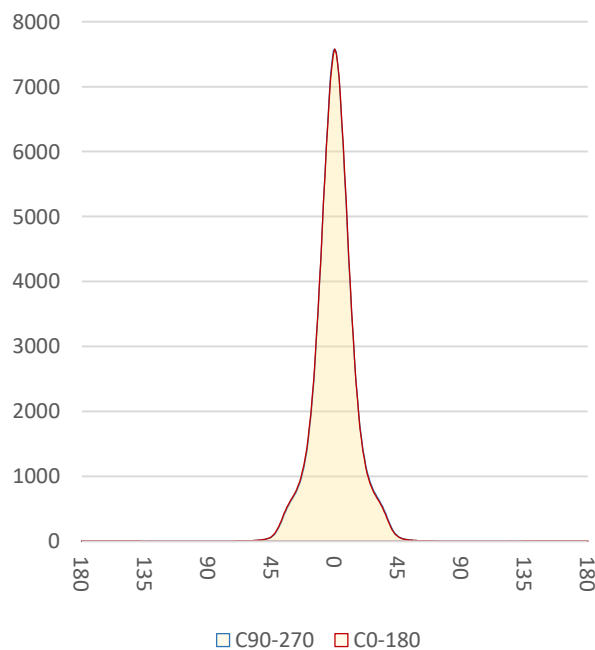
Item number	
Date and time	17-1-2020 15:05:56
CCT (Kelvin)	2545 K
Beam angle	22,5°
Luminous flux	2055 lm
Efficiency	74 lm/watt
Weighted energy	27,7 kWh/1000h
Power factor	0,56
CRI (RA)	66,1
Fidelity index Rf	Rf 72,4
Gammut index Rg	Rg 91,7
Peak	7604 cd



Polar diagram



Cartesian diagram



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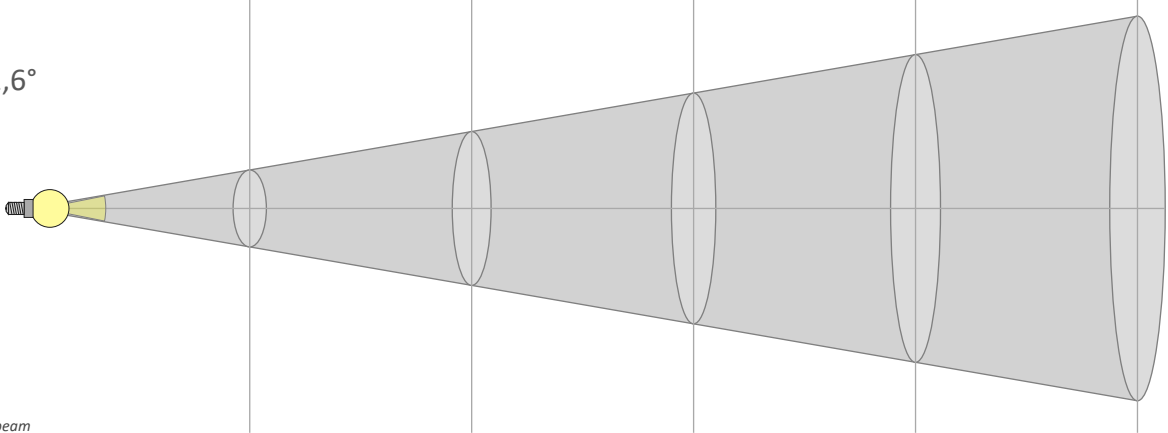
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Beam details		1m	2m	3m	4m	5m
Lux*		7580 lx	1895 lx	842 lx	474 lx	303 lx



22,6°

*measured at center of beam

Footcandles*	704,2 fcd	176,0 fcd	78,2 fcd	44,0 fcd	28,2 fcd
Beam width (meter)	0,4 m	0,8 m	1,2 m	1,6 m	2 m
Beam width (Feet)	1,3 ft	2,6 ft	3,9 ft	5,3 ft	6,6 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
7580lx	1895lx	842lx	474lx	303lx	211lx	155lx	118lx	94lx	76lx	63lx	53lx	45lx	39lx	34lx	30lx	26lx	23lx	21lx	19lx
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
704,2fcd	176fcd	78,2fcd	44fcd	28,2fcd	19,6fcd	14,4fcd	11fcd	8,7fcd	7fcd	5,8fcd	4,9fcd	4,2fcd	3,6fcd	3,1fcd	2,8fcd	2,4fcd	2,2fcd	2fcd	1,8fcd

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°
7580	7349	6809	6074	5226	4362	3541	2824	2229	1768	1422	1173	992	860	761	682	609	530	431	324
100%	97%	90%	80%	69%	58%	47%	37%	29%	23%	19%	15%	13%	11%	10%	9%	8%	7%	6%	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°
7580	7405	6855	6091	5219	4331	3497	2775	2179	1720	1378	1133	957	833	739	663	590	507	406	299
100%	98%	90%	80%	69%	57%	46%	37%	29%	23%	18%	15%	13%	11%	10%	9%	8%	7%	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°
7580	7372	6848	6103	5254	4366	3536	2802	2203	1736	1390	1143	965	837	742	665	593	513	413	307
100%	97%	90%	81%	69%	58%	47%	37%	29%	23%	18%	15%	13%	11%	10%	9%	8%	7%	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°
7580	7374	6803	6035	5183	4311	3505	2792	2215	1760	1421	1172	994	863	767	689	615	535	437	327
100%	97%	90%	80%	68%	57%	46%	37%	29%	23%	19%	15%	13%	11%	10%	9%	8%	7%	6%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,6°	55,7°	81,3°	99,3%	97,6%



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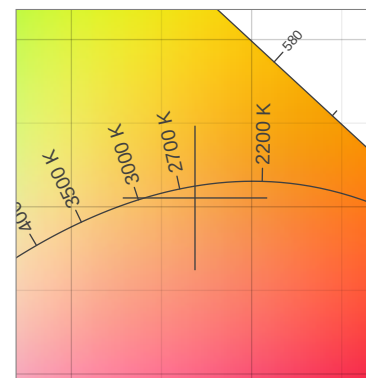
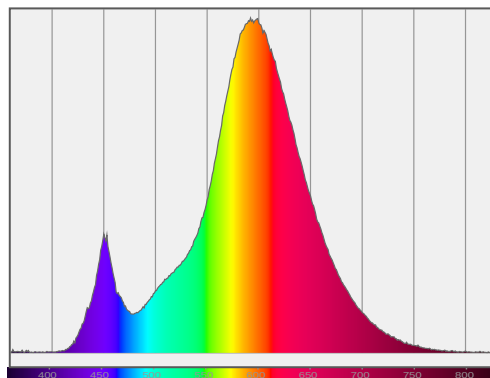
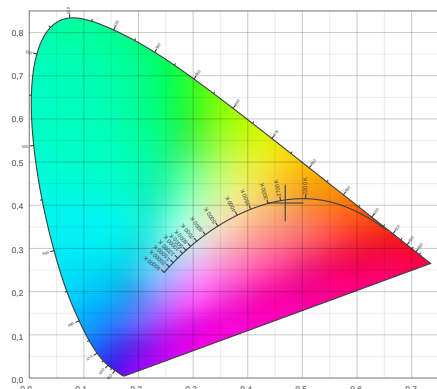
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Color details



CIE 1931

x: 0,469



Spectra

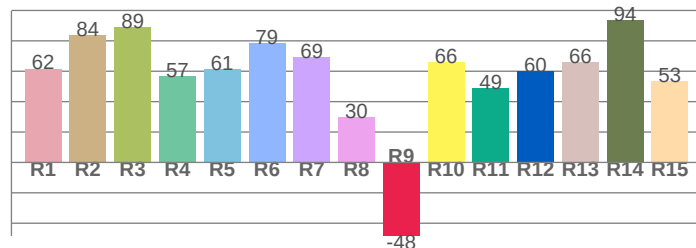
CIE 1931 ZOOM

2545 K

y: 0,405

Δuv : -0,0026

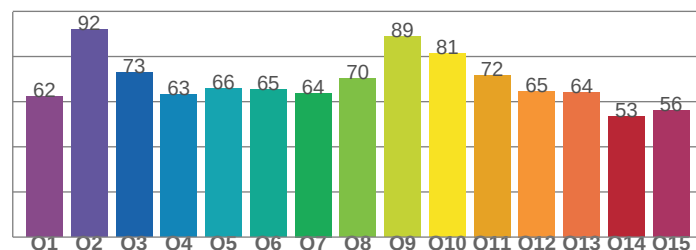
CRI: 66,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
61,6	83,6	88,8	56,5	61,3	78,5	69,1	29,7
R9	R10	R11	R12	R13	R14	R15	
-48,4	66,1	48,8	59,9	65,8	93,8	53,3	

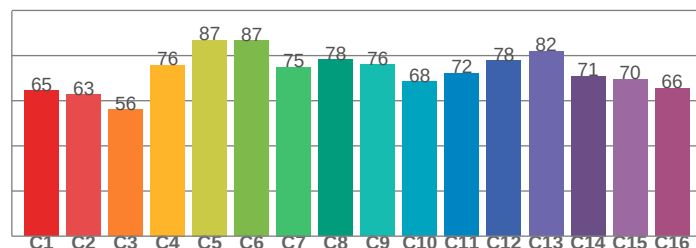
CQS: 67,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
62,4	91,9	73,0	63,0	65,9	65,4	63,8	70,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
89,0	81,5	71,8	64,7	64,3	53,5	56,0	

TM30: 72,4



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

C1	C2	C3	C4	C5	C6	C7	C8
64,6	62,8	56,0	75,9	86,8	86,7	75,0	78,2
C9	C10	C11	C12	C13	C14	C15	
76,0	68,4	72,3	77,7	81,9	70,9	69,5	

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
2545 K	66,1	-48,4	72,4	91,7	67,1	0,469	0,405	0,271	0,351	-0,0026



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TM30 details

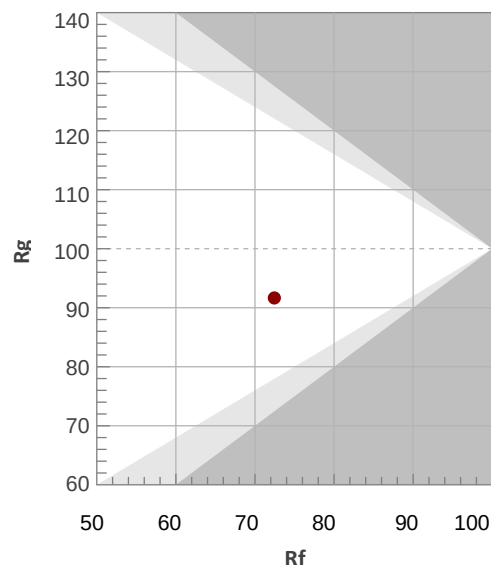
Rf 72,4

Fidelity index Rf

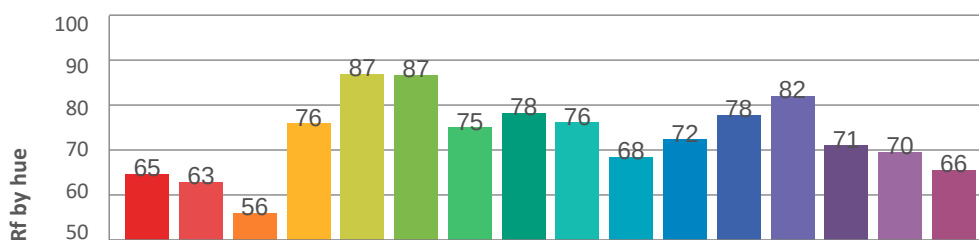
Rg 91,7

Gamut index Rg

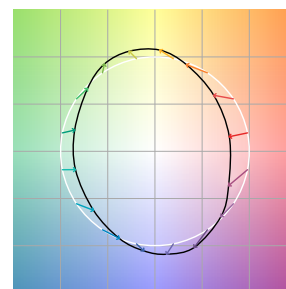
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	65	-20%	0%
2	63	-15%	15%
3	56	-5%	23%
4	76	6%	16%
5	87	9%	6%
6	87	7%	-7%
7	75	-4%	-16%
8	78	-12%	-5%
9	76	-14%	3%
10	68	-11%	16%
11	72	-2%	20%
12	78	6%	9%
13	82	9%	-9%
14	71	8%	-22%
15	70	-3%	-19%
16	66	-16%	-20%



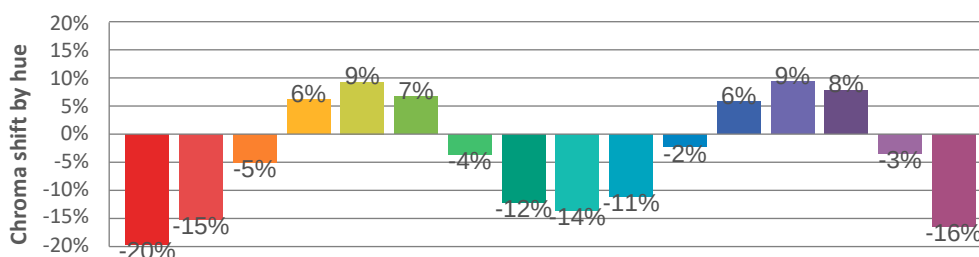
Hue binH



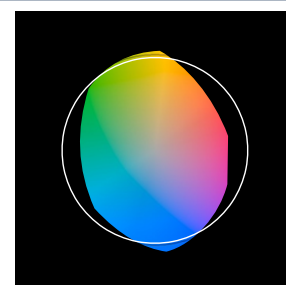
Color vector graphics



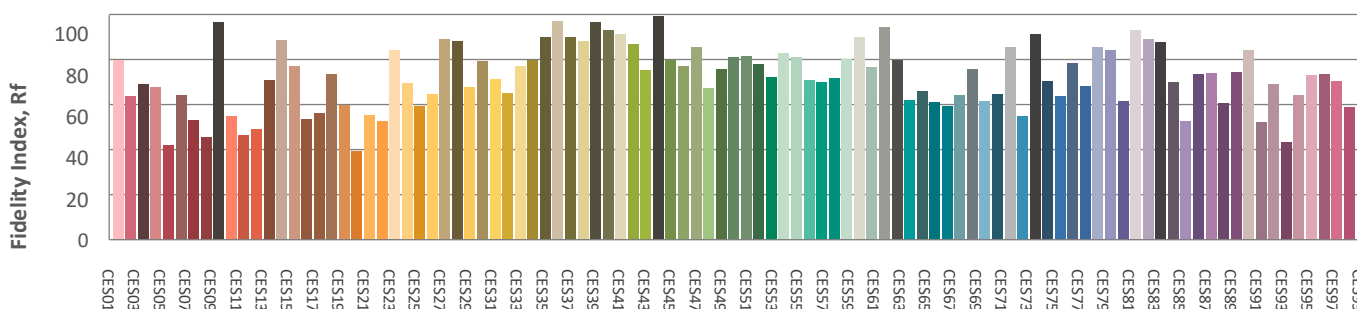
Hue bin



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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 2055lm total luminous flux										



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