

LM-79

Test Report

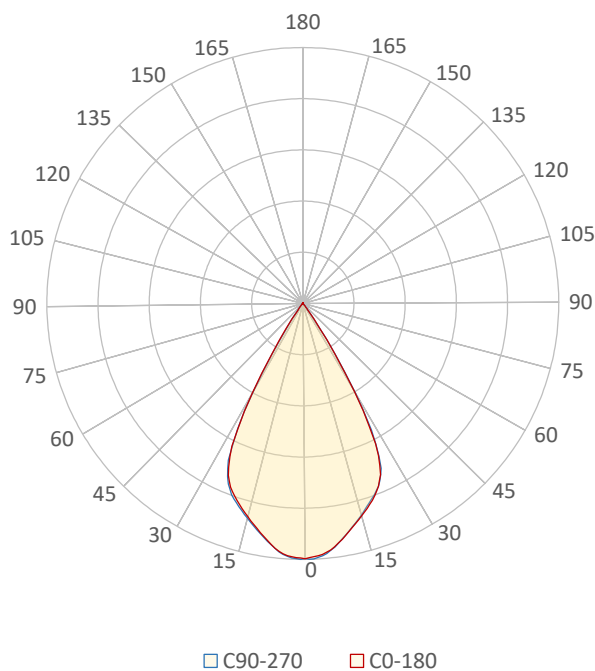
LM79-JADE-ZOOM-2700K-CRI90-WIDE

General Discription

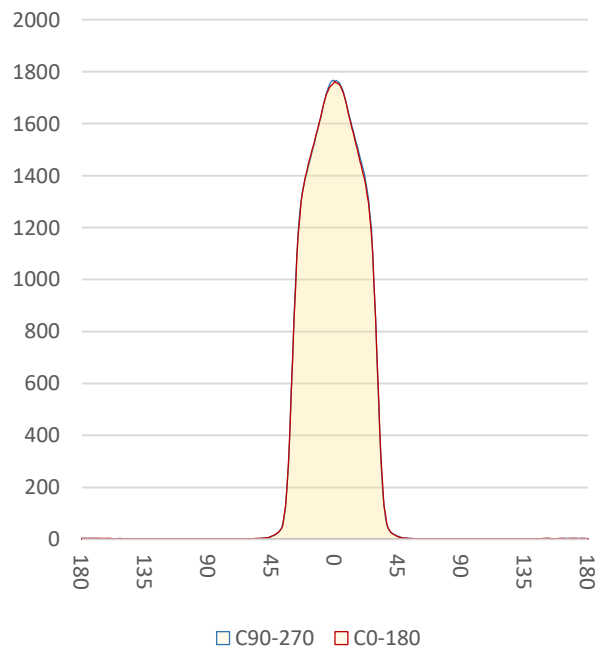
Item number	
Date and time	29-5-2019 12:18:01
CCT (Kelvin)	2695 K
Beam angle	57,5°
Luminous flux	1279 lm
Efficiency	53 lm/watt
Weighted energy	24,0 kWh/1000h
Power factor	0,97
CRI (RA)	91,5
Fidelity index Rf	Rf 89,7
Gammut index Rg	Rg 101,0
Peak	1769 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	1762 lx	441 lx	196 lx	110 lx	70 lx

*measured at center of beam

Footcandles*	163,7 fcd	40,9 fcd	18,2 fcd	10,2 fcd	6,5 fcd
Beam width (meter)	1,1 m	2,2 m	3,3 m	4,4 m	5,5 m
Beam width (Feet)	3,6 ft	7,2 ft	10,8 ft	14,4 ft	18 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1762lx	441lx	196lx	110lx	70lx	49lx	36lx	28lx	22lx	18lx	15lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx
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
163,7fcd	40,9fcd	18,2fcd	10,2fcd	6,5fcd	4,5fcd	3,3fcd	2,6fcd	2fcd	1,6fcd	1,4fcd	1,1fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd

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°
1762	1750	1737	1713	1672	1628	1584	1542	1502	1461	1417	1366	1298	1173	969	705	413	199	92	43
100%	99%	99%	97%	95%	92%	90%	87%	85%	83%	80%	77%	74%	67%	55%	40%	23%	11%	5%	2%

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°
1762	1765	1748	1716	1674	1626	1581	1538	1494	1451	1410	1366	1298	1181	993	707	417	206	84	40
100%	100%	99%	97%	95%	92%	90%	87%	85%	82%	80%	78%	74%	67%	56%	40%	24%	12%	5%	2%

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°
1762	1755	1746	1719	1678	1631	1586	1543	1499	1455	1410	1363	1293	1170	974	710	413	210	95	43
100%	100%	99%	98%	95%	93%	90%	88%	85%	83%	80%	77%	73%	66%	55%	40%	23%	12%	5%	2%

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°
1762	1762	1748	1724	1681	1637	1594	1552	1512	1471	1429	1378	1307	1197	976	691	408	182	78	42
100%	100%	99%	98%	95%	93%	90%	88%	86%	83%	81%	78%	74%	68%	55%	39%	23%	10%	4%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57,5°	68,5°	75,7°	99,0%	98,6%



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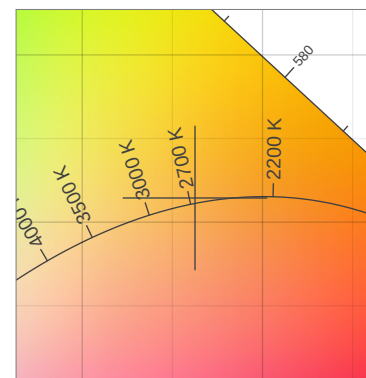
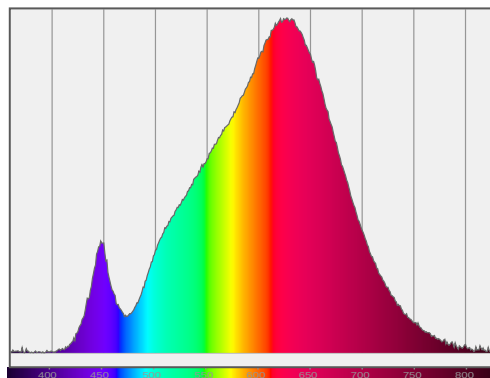
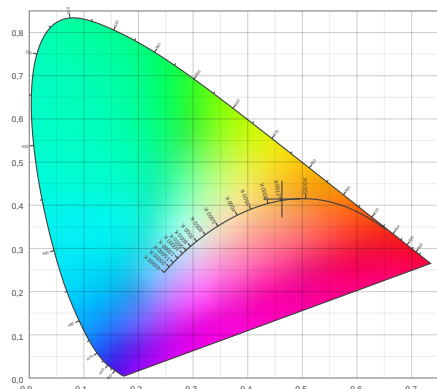
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Color details



CIE 1931

x: 0,463



Spectra

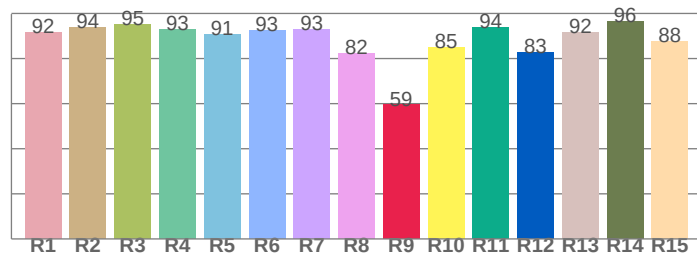
CIE 1931 ZOOM

2695 K

y: 0,414

Δuv : 0,0012

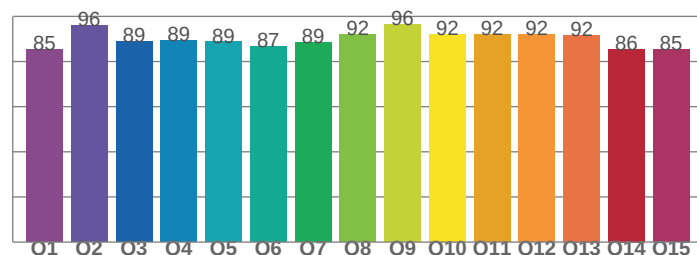
CRI: 91,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
91,5	93,8	95,0	92,8	90,8	92,6	93,0	82,5
R9	R10	R11	R12	R13	R14	R15	
59,4	85,1	93,7	82,5	91,8	96,4	87,6	

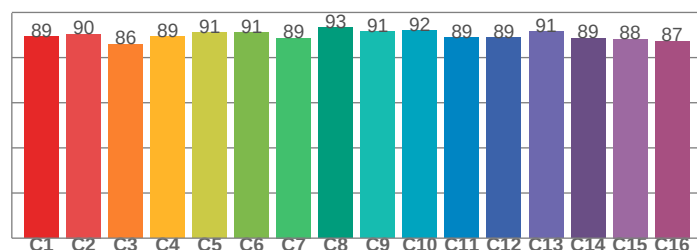
CQS: 89,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
85,4	96,0	88,9	89,2	88,7	86,6	88,5	92,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,5	92,2	92,0	91,9	91,7	85,5	85,4	

TM30: 89,7



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

C1	C2	C3	C4	C5	C6	C7	C8
89,4	90,5	85,9	89,3	91,1	91,0	88,7	93,2
C9	C10	C11	C12	C13	C14	C15	
91,5	92,1	89,0	88,8	91,5	88,6	88,2	

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
2695 K	91,5	59,4	89,7	101,0	89,3	0,463	0,414	0,263	0,353	0,0012



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TM30 details

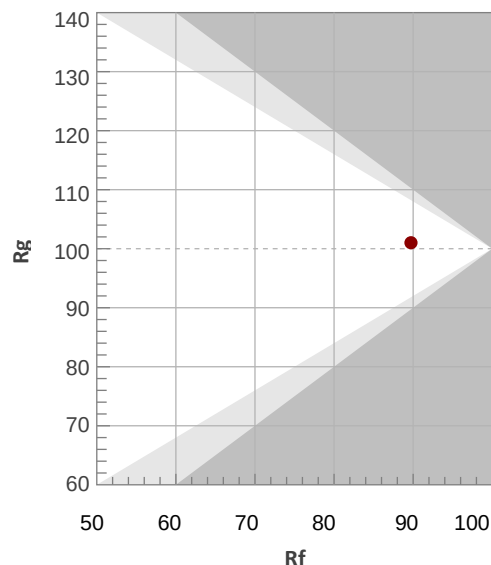
Rf 89,7

Fidelity index Rf

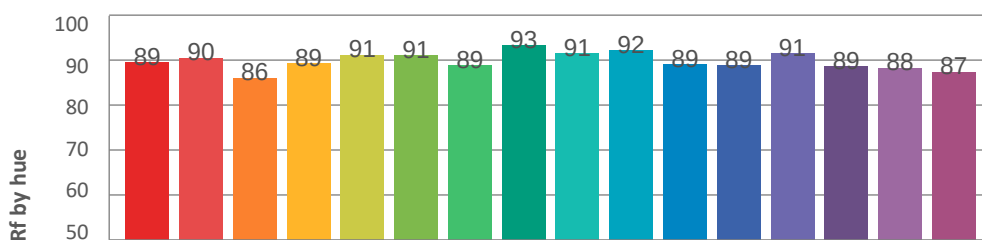
Rg 101,0

Gamut index Rg

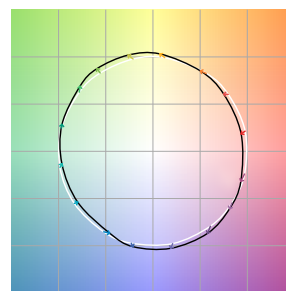
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	-2%
2	90	-4%	3%
3	86	-1%	7%
4	89	3%	6%
5	91	5%	4%
6	91	6%	0%
7	89	3%	-6%
8	93	0%	-4%
9	91	-3%	-3%
10	92	-4%	1%
11	89	-2%	6%
12	89	3%	3%
13	91	4%	-3%
14	89	5%	-7%
15	88	1%	-6%
16	87	-2%	-8%



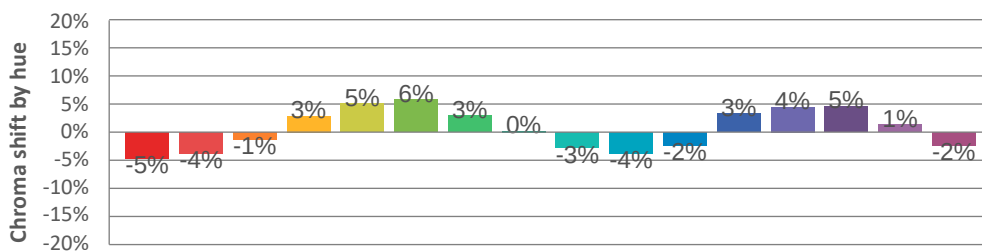
Hue binH



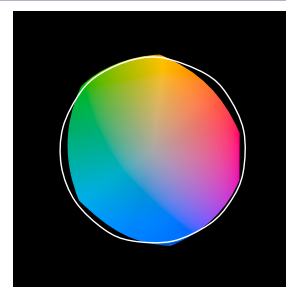
Color vector graphics



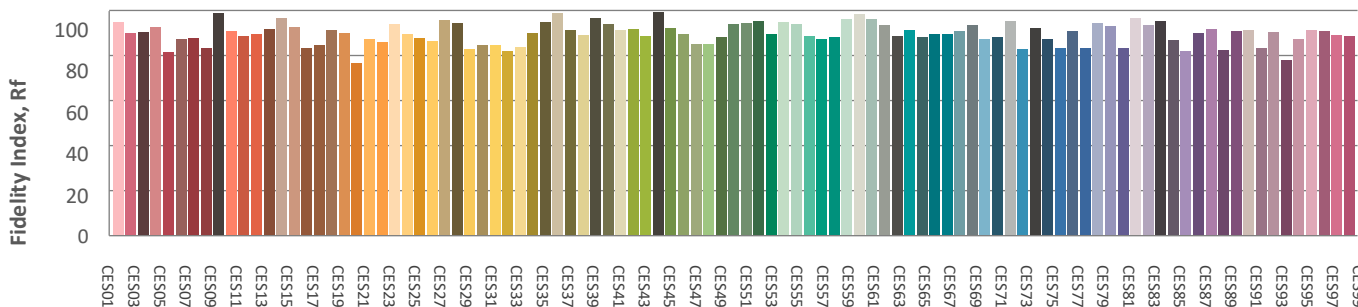
Hue bin



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	15,4	16,0	15,6	16,2	16,4	15,1	15,8	15,4	16,0	16,2
	3H	15,2	15,8	15,5	16,1	16,3	15,0	15,6	15,3	15,8	16,1
	4H	15,2	15,7	15,5	16,0	16,3	15,0	15,5	15,3	15,8	16,0
	6H	15,1	15,6	15,5	15,9	16,2	14,9	15,4	15,2	15,7	16,0
	8H	15,1	15,6	15,4	15,9	16,2	14,9	15,4	15,2	15,7	16,0
	12H	15,1	15,5	15,4	15,8	16,2	14,9	15,3	15,2	15,6	16,0
4H	2H	15,2	15,7	15,5	16,0	16,2	14,9	15,5	15,2	15,7	16,0
	3H	15,0	15,5	15,4	15,8	16,1	14,8	15,3	15,2	15,6	15,9
	4H	15,0	15,4	15,4	15,7	16,1	14,8	15,2	15,2	15,5	15,9
	6H	14,9	15,3	15,4	15,6	16,0	14,7	15,1	15,1	15,4	15,8
	8H	14,9	15,2	15,4	15,6	16,0	14,7	15,0	15,1	15,4	15,8
	12H	14,9	15,2	15,4	15,6	16,0	14,7	15,0	15,2	15,4	15,8
8H	4H	14,9	15,2	15,3	15,6	16,0	14,7	15,0	15,1	15,4	15,8
	6H	14,8	15,1	15,3	15,5	15,9	14,6	14,9	15,1	15,3	15,7
	8H	14,8	15,0	15,3	15,5	15,9	14,6	14,8	15,1	15,3	15,7
	12H	14,8	15,0	15,3	15,4	16,0	14,6	14,8	15,1	15,3	15,8
12H	4H	14,9	15,1	15,3	15,5	15,9	14,6	14,9	15,1	15,3	15,7
	6H	14,8	15,0	15,3	15,4	15,9	14,6	14,8	15,1	15,2	15,7
	8H	14,8	14,9	15,3	15,4	15,9	14,6	14,7	15,1	15,2	15,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+6,7 / -9,2					+6,6 / -8,8				
S = 1,5H		+9,5 / -9,6					+9,4 / -9,2				
S = 2,0H		+11,5 / -9,9					+11,4 / -9,7				
Standard table		BK00					BK00				
Correction summand		-3,2					-3,4				
Corrected glare indices referring to 1279lm total luminous flux											



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