

LM-79

Test Report

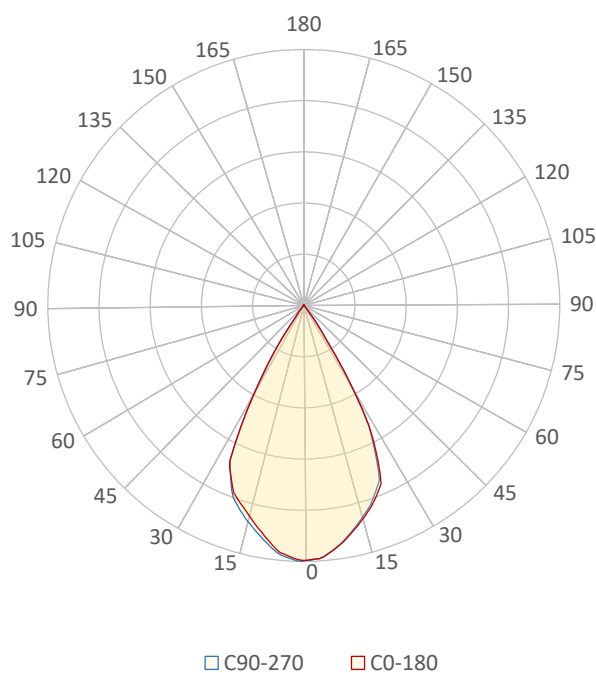
LM79-JADE-ZOOM-2700K-VIVIDNATURAL-WIDE

General Discription

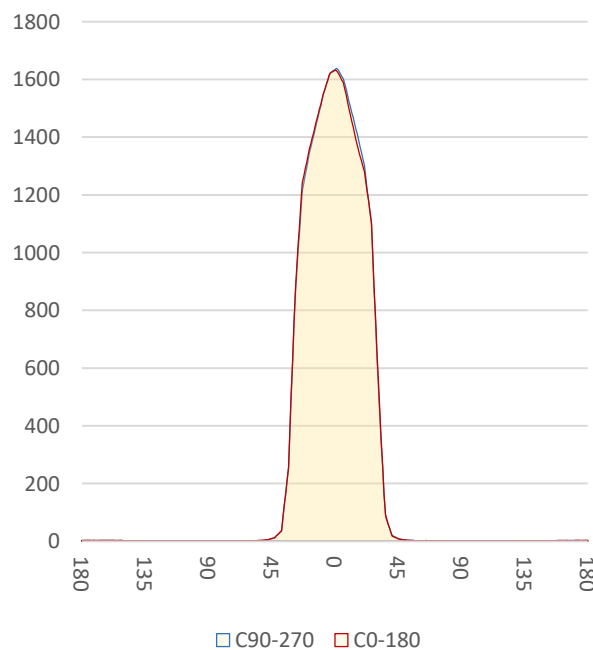
Item number	
Date and time	8-5-2019 16:57:11
CCT (Kelvin)	2735 K
Beam angle	56,8°
Luminous flux	1184 lm
Efficiency	48 lm/watt
Weighted energy	24,7 kWh/1000h
Power factor	0,97
CRI (RA)	96,1
Fidelity index Rf	Rf 93,4
Gammut index Rg	Rg 104,9
Peak	1640 cd



Polar diagram



Cartesian diagram



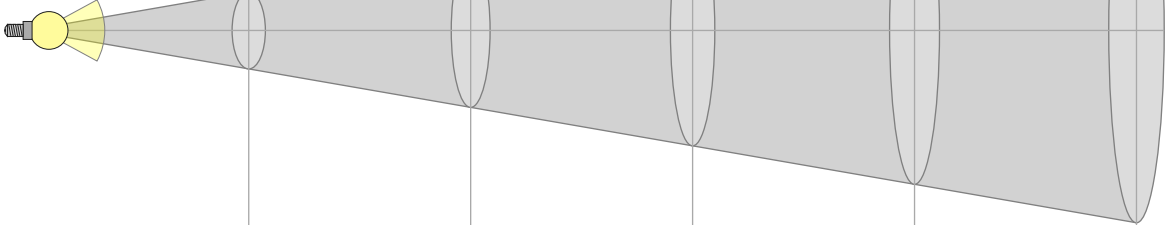
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Beam details					1m		2m		3m		4m		5m						
Lux*					1632 lx		408 lx		181 lx		102 lx		65 lx						
57° 																			
*measured at center of beam																			
Footcandles*					151,6 fcd		37,9 fcd		16,8 fcd		9,5 fcd		6,1 fcd						
Beam width (meter)					1,1 m		2,2 m		3,3 m		4,3 m		5,4 m						
Beam width (Feet)					3,6 ft		7,1 ft		10,7 ft		14,3 ft		17,8 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1632lx	408lx	181lx	102lx	65lx	45lx	33lx	26lx	20lx	16lx	13lx	11lx	10lx	8lx	7lx	6lx	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
151,6fcd	37,9fcd	16,8fcd	9,5fcd	6,1fcd	4,2fcd	3,1fcd	2,4fcd	1,9fcd	1,5fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	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°
1632	1625	1616	1584	1552	1515	1477	1438	1399	1360	1314	1267	1182	1032	881	637	385	208	122	37
100%	100%	99%	97%	95%	93%	90%	88%	86%	83%	80%	78%	72%	63%	54%	39%	24%	13%	7%	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°
1632	1627	1613	1581	1549	1510	1468	1427	1387	1346	1295	1243	1151	1011	871	622	371	207	118	35
100%	100%	99%	97%	95%	92%	90%	87%	85%	82%	79%	76%	71%	62%	53%	38%	23%	13%	7%	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°
1632	1626	1607	1589	1547	1501	1457	1414	1371	1335	1299	1247	1180	1105	882	658	454	262	92	60
100%	100%	98%	97%	95%	92%	89%	87%	84%	82%	80%	76%	72%	68%	54%	40%	28%	16%	6%	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°
1632	1636	1619	1602	1566	1526	1487	1449	1411	1368	1325	1264	1180	1097	869	637	433	254	84	58
100%	100%	99%	98%	96%	94%	91%	89%	86%	84%	81%	77%	72%	67%	53%	39%	27%	16%	5%	4%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
57°				70°				77,1°				99,0%				98,6%			



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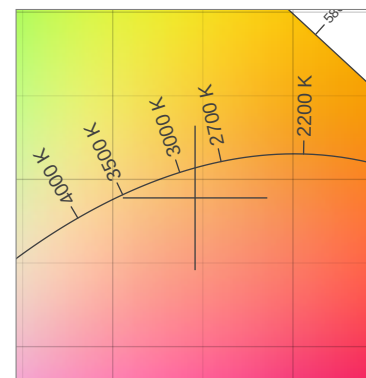
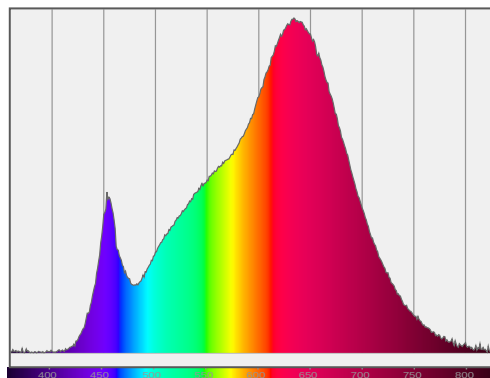
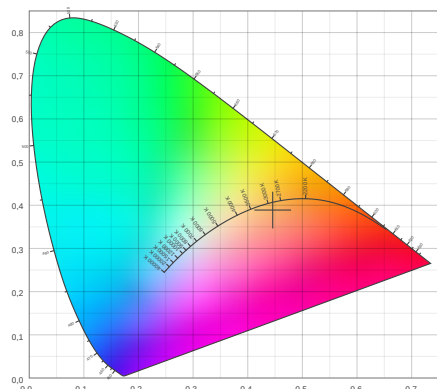
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Color details



CIE 1931

x: 0,446

2735 K

y: 0,389

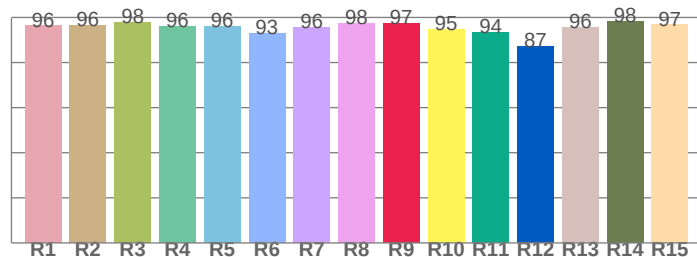
Spectra

CIE 1931 ZOOM

Δuv : -0,0070

CRI: 96,1 (R1-R8)

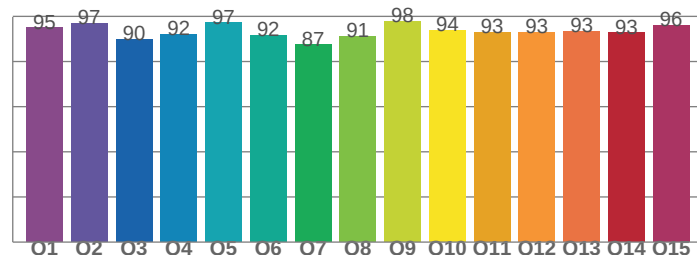
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,3	96,3	97,9	96,2	96,1	93,1	95,6	97,6
R9	R10	R11	R12	R13	R14	R15	
97,2	94,6	93,5	87,3	95,6	98,1	96,7	

CQS: 92,5

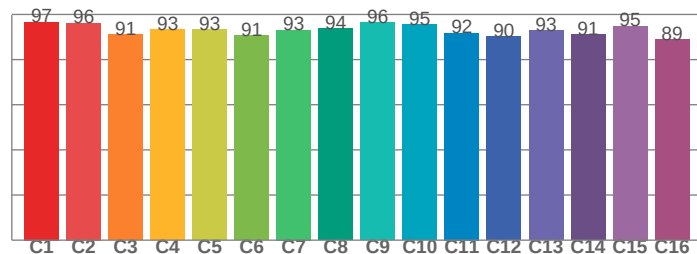
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
94,9	96,8	89,7	91,9	97,1	91,5	87,4	91,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,7	93,6	92,9	92,7	93,2	92,7	96,0	

TM30: 93,4

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



C1	C2	C3	C4	C5	C6	C7	C8
96,6	96,2	91,2	93,4	93,3	90,6	93,1	93,7
C9	C10	C11	C12	C13	C14	C15	
96,3	95,5	91,8	90,3	92,8	91,0	94,8	

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
2735 K	96,1	97,2	93,4	104,9	92,5	0,446	0,389	0,263	0,344	-0,0070



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TM30 details

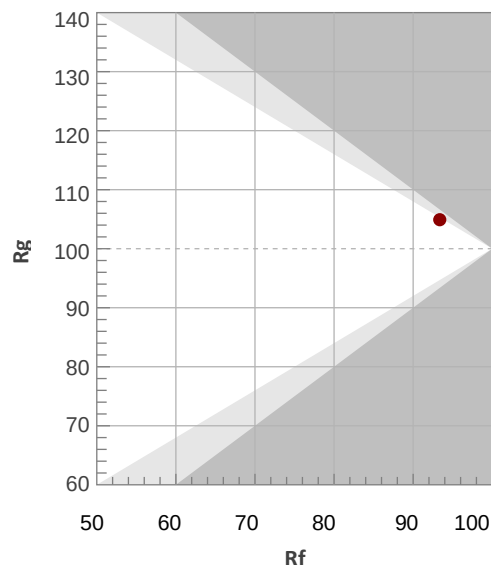
Rf 93,4

Fidelity index Rf

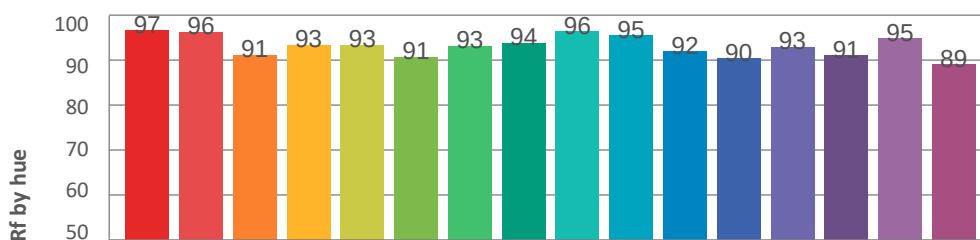
Rg 104,9

Gamut index Rg

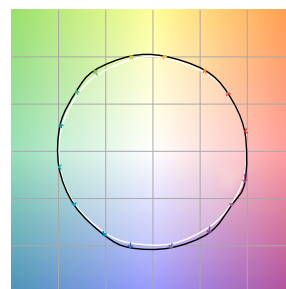
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	-1%	0%
2	96	0%	2%
3	91	2%	4%
4	93	1%	2%
5	93	4%	2%
6	91	6%	0%
7	93	3%	-2%
8	94	2%	-3%
9	96	1%	0%
10	95	1%	2%
11	92	3%	4%
12	90	5%	1%
13	93	4%	-3%
14	91	5%	-4%
15	95	1%	-2%
16	89	2%	-8%



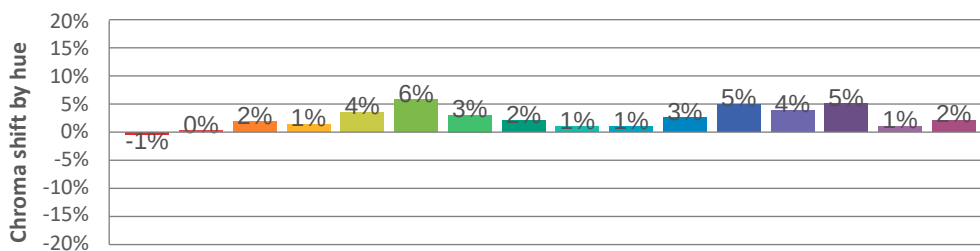
Hue binH



Color vector graphics



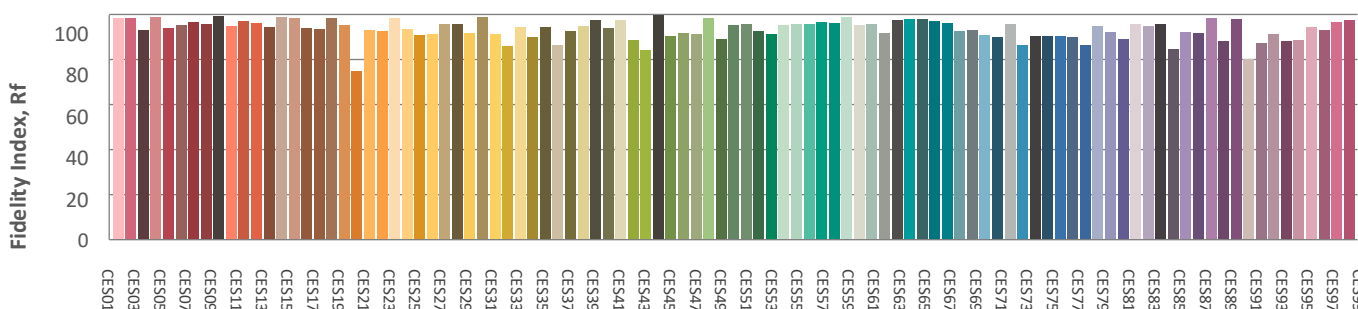
Hue bin



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	-0,7	-0,1	-0,5	0,1	0,3	-0,7	-0,1	-0,5	0,1	0,3
	3H	-0,9	-0,3	-0,6	-0,0	0,2	-0,9	-0,3	-0,6	-0,0	0,2
	4H	-0,9	-0,4	-0,6	-0,1	0,1	-0,9	-0,4	-0,6	-0,1	0,1
	6H	-1,0	-0,5	-0,7	-0,2	0,1	-1,0	-0,5	-0,7	-0,2	0,1
	8H	-1,0	-0,6	-0,7	-0,3	0,0	-1,0	-0,6	-0,7	-0,3	0,0
	12H	-1,1	-0,6	-0,7	-0,3	0,0	-1,1	-0,6	-0,7	-0,3	0,0
4H	2H	-0,9	-0,4	-0,6	-0,1	0,1	-0,9	-0,4	-0,6	-0,1	0,1
	3H	-1,1	-0,6	-0,7	-0,3	0,0	-1,1	-0,6	-0,7	-0,3	0,0
	4H	-1,2	-0,8	-0,8	-0,4	-0,1	-1,2	-0,8	-0,8	-0,4	-0,1
	6H	-1,2	-0,9	-0,8	-0,5	-0,1	-1,2	-0,9	-0,8	-0,5	-0,1
	8H	-1,3	-1,0	-0,8	-0,6	-0,2	-1,3	-1,0	-0,8	-0,6	-0,2
	12H	-1,3	-1,1	-0,9	-0,7	-0,2	-1,3	-1,1	-0,9	-0,7	-0,2
8H	4H	-1,3	-1,0	-0,8	-0,6	-0,2	-1,3	-1,0	-0,8	-0,6	-0,2
	6H	-1,4	-1,1	-0,9	-0,7	-0,3	-1,4	-1,1	-0,9	-0,7	-0,3
	8H	-1,4	-1,2	-0,9	-0,8	-0,3	-1,4	-1,2	-0,9	-0,8	-0,3
	12H	-1,5	-1,3	-1,0	-0,9	-0,3	-1,5	-1,3	-1,0	-0,9	-0,3
12H	4H	-1,3	-1,1	-0,9	-0,7	-0,2	-1,3	-1,1	-0,9	-0,7	-0,2
	6H	-1,4	-1,2	-0,9	-0,8	-0,3	-1,4	-1,2	-0,9	-0,8	-0,3
	8H	-1,5	-1,3	-1,0	-0,9	-0,3	-1,5	-1,3	-1,0	-0,9	-0,3
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,0 / 0,0					+0,0 / 0,0				
S = 1,5H		+0,0 / 0,0					+0,0 / 0,0				
S = 2,0H		+0,0 / 0,0					+0,0 / 0,0				
Standard table		BK00					BK00				
Correction summand		-19,4					-19,4				
Corrected glare indices referring to 1184lm total luminous flux											