

LM-79

Test Report

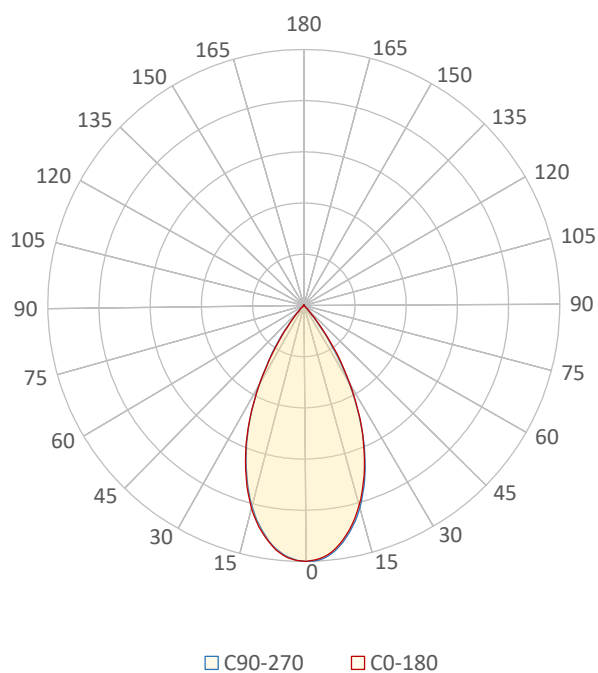
LM79-CLS-JADE-HD-3000K-CRI95-WIDE

General Discription

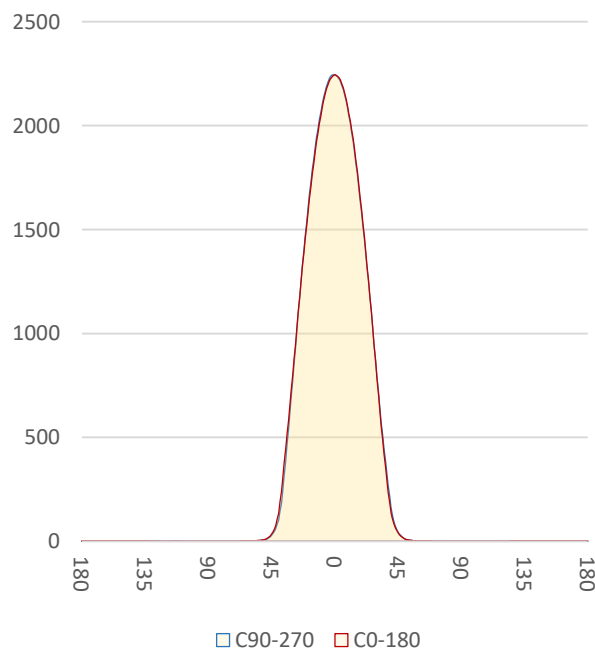
Item number	
Date and time	28-4-2020 13:50:50
CCT (Kelvin)	3046 K
Beam angle	51,3°
Luminous flux	1550 lm
Efficiency	65 lm/watt
Weighted energy	23,9 kWh/1000h
Power factor	0,96
CRI (RA)	96,6
Fidelity index Rf	Rf 94,6
Gammut index Rg	Rg 104,2
Peak	2249 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	2245 lx	561 lx	249 lx	140 lx	90 lx

*measured at center of beam

Footcandles*	208,6 fcd	52,1 fcd	23,2 fcd	13,0 fcd	8,3 fcd
Beam width (meter)	1 m	1,9 m	2,9 m	3,8 m	4,8 m
Beam width (Feet)	3,2 ft	6,3 ft	9,5 ft	12,6 ft	15,8 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2245lx	561lx	249lx	140lx	90lx	62lx	46lx	35lx	28lx	22lx	19lx	16lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx	6lx
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
208,6fcd	52,1fcd	23,2fcd	13fcd	8,3fcd	5,8fcd	4,3fcd	3,3fcd	2,6fcd	2,1fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd

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°
2245	2236	2217	2180	2120	2049	1967	1873	1766	1648	1522	1389	1251	1104	952	800	653	513	375	240
100%	100%	99%	97%	94%	91%	88%	83%	79%	73%	68%	62%	56%	49%	42%	36%	29%	23%	17%	11%

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°
2245	2245	2227	2190	2135	2067	1990	1896	1789	1670	1540	1401	1253	1095	933	769	611	464	306	180
100%	100%	99%	98%	95%	92%	89%	84%	80%	74%	69%	62%	56%	49%	42%	34%	27%	21%	14%	8%

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°
2245	2239	2220	2185	2130	2061	1983	1891	1782	1663	1534	1398	1254	1103	944	782	628	486	357	233
100%	100%	99%	97%	95%	92%	88%	84%	79%	74%	68%	62%	56%	49%	42%	35%	28%	22%	16%	10%

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°
2245	2236	2213	2178	2121	2049	1967	1872	1763	1643	1516	1383	1245	1098	946	793	646	511	387	271
100%	100%	99%	97%	94%	91%	88%	83%	79%	73%	68%	62%	55%	49%	42%	35%	29%	23%	17%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
51,4°	76,2°	86,5°	99,7%	98,9%



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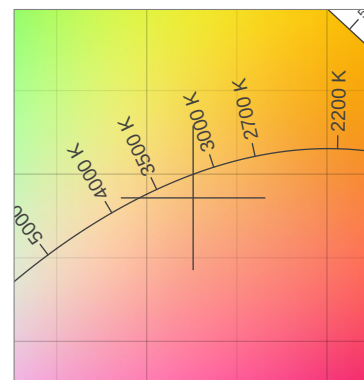
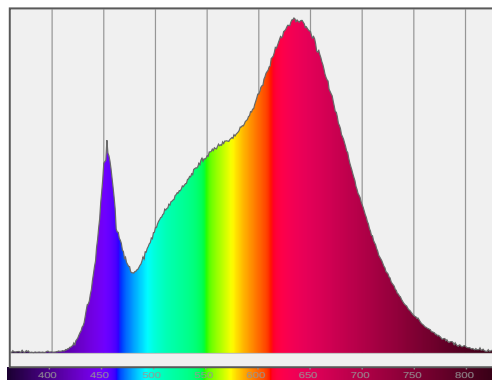
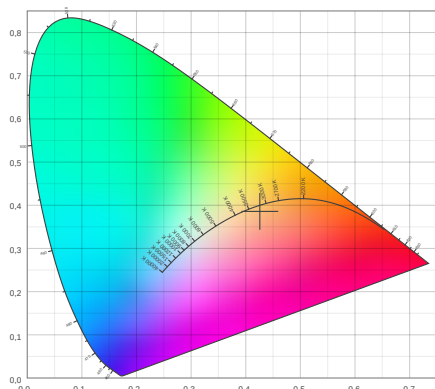
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Color details



CIE 1931

x: 0,426



Spectra

CIE 1931 ZOOM

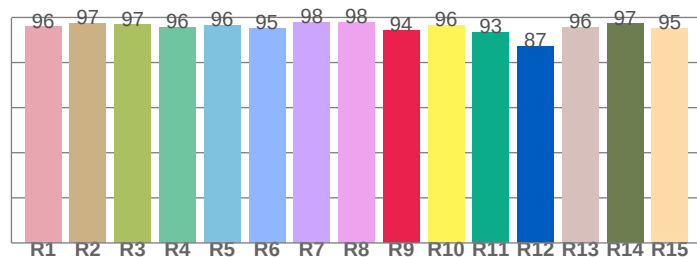
3046 K

y: 0,386

Δuv : -0,0059

CRI: 96,6 (R1-R8)

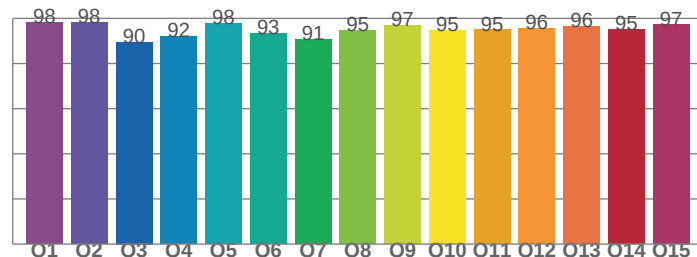
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
95,8	97,2	96,7	95,7	96,3	95,0	97,9	97,9
R9	R10	R11	R12	R13	R14	R15	
94,3	96,5	93,3	87,1	95,8	97,2	95,1	

CQS: 94,2

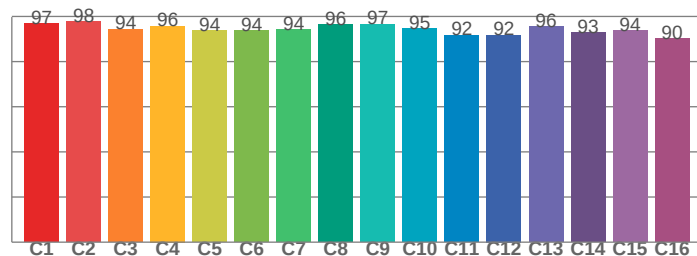
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
98,2	98,1	89,5	92,1	97,6	93,3	90,8	94,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	94,8	94,9	95,6	96,3	95,1	97,1	

TM30: 94,6

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



C1	C2	C3	C4	C5	C6	C7	C8
96,9	97,6	94,3	95,8	93,7	93,8	94,1	96,4
C9	C10	C11	C12	C13	C14	C15	
96,6	94,8	91,7	91,7	95,5	92,9	93,7	

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
3046 K	96,6	94,3	94,6	104,2	94,2	0,426	0,386	0,251	0,342	-0,0059



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TM30 details

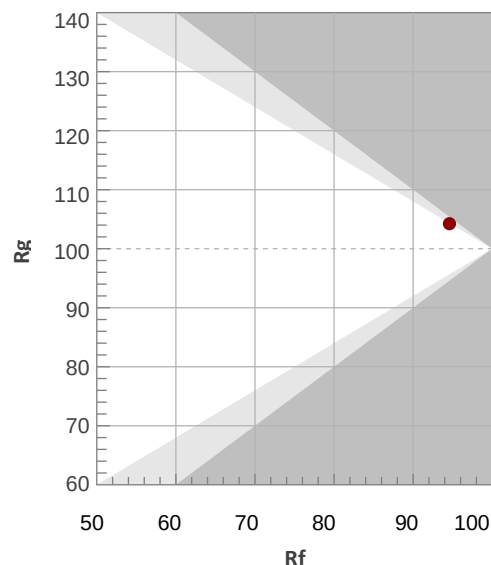
Rf 94,6

Fidelity index Rf

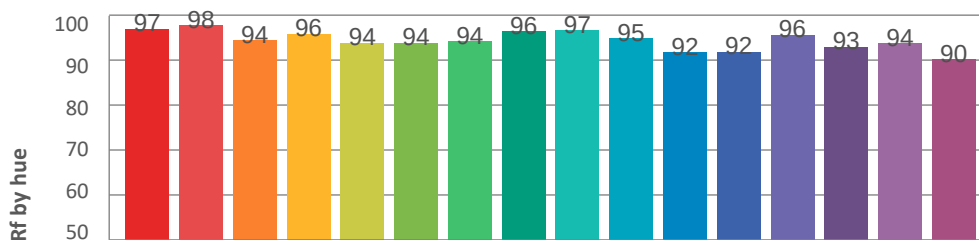
Rg 104,2

Gamut index Rg

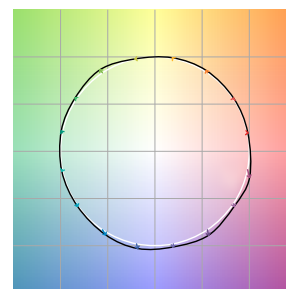
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	0%
2	98	1%	0%
3	94	1%	2%
4	96	1%	1%
5	94	0%	2%
6	94	4%	0%
7	94	2%	0%
8	96	2%	-2%
9	97	1%	1%
10	95	1%	3%
11	92	3%	6%
12	92	5%	2%
13	96	3%	-1%
14	93	6%	-2%
15	94	2%	-2%
16	90	4%	-7%



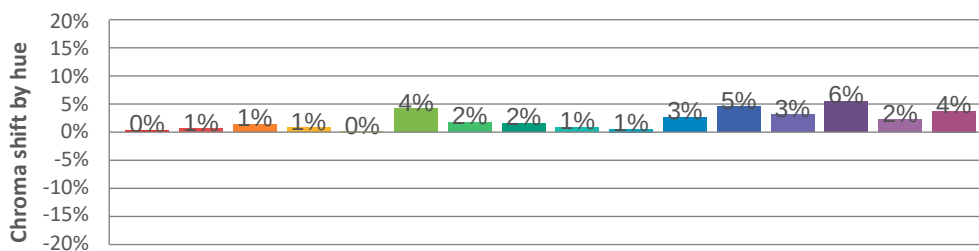
Hue binH



Color vector graphics



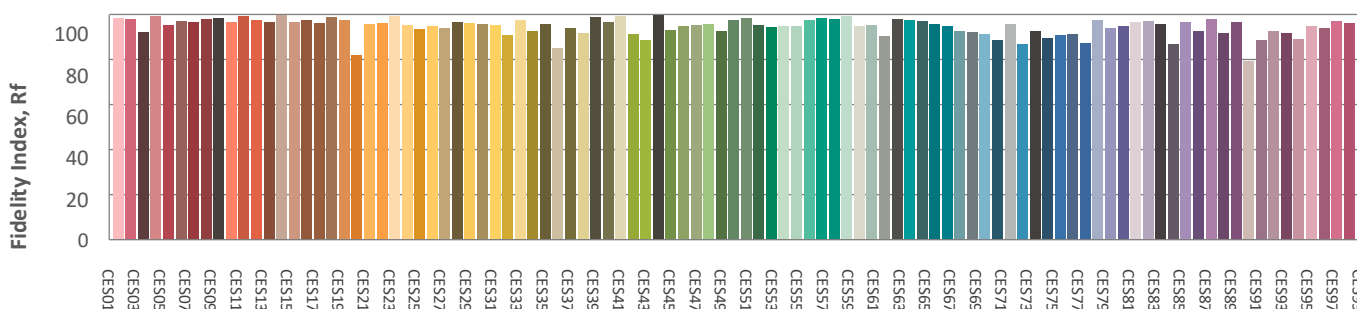
Hue bin



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				
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
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
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 1550lm total luminous flux										