

# LM-79

## Test Report

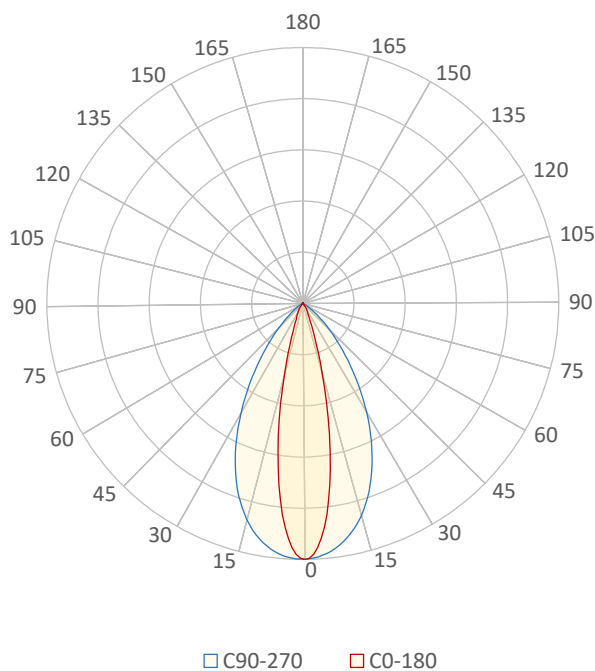
# LM79-CLS-JADE-HD-3000K-CRI95-MEDIUM [ELLIPTICAL BEAMSHAPER]

### General Description

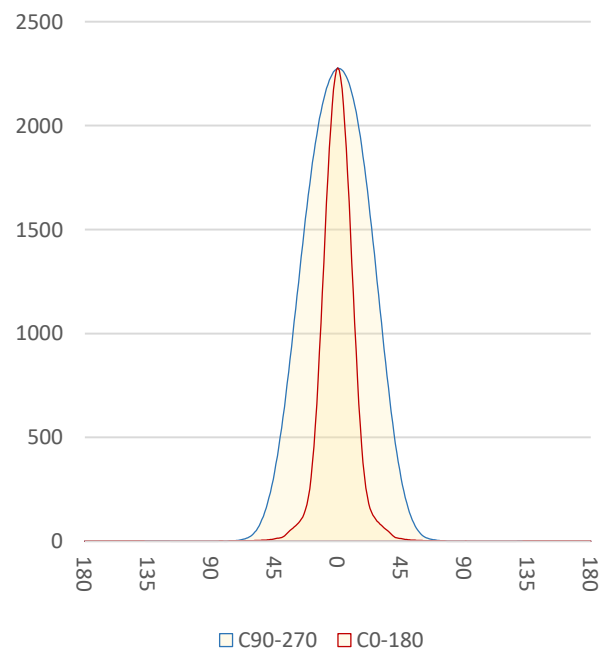
Item number	
Date and time	28-4-2020 17:19:59
CCT (Kelvin)	3041 K
Beam angle	59,4°
Luminous flux	1367 lm
Efficiency	58 lm/watt
Weighted energy	23,7 kWh/1000h
Power factor	0,96
CRI (RA)	96,7
Fidelity index Rf	Rf 94,6
Gammut index Rg	Rg 104,0
Peak	2281 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	2278 lx	569 lx	253 lx	142 lx	91 lx																			
*measured at center of beam																								
Footcandles*	211,6 fcd	52,9 fcd	23,5 fcd	13,2 fcd	8,5 fcd																			
Beam width (meter)	0,7 m	1,5 m	2,2 m	3 m	3,7 m																			
Beam width (Feet)	2,5 ft	4,9 ft	7,4 ft	9,8 ft	12,3 ft																			
<b>Beam intensities</b>																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
2278lx	569lx	253lx	142lx	91lx	63lx	46lx	36lx	28lx	23lx	19lx	16lx	13lx	12lx	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					
211,6fcd	52,9fcd	23,5fcd	13,2fcd	8,5fcd	5,9fcd	4,3fcd	3,3fcd	2,6fcd	2,1fcd	1,7fcd	1,5fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd	0,5fcd					
<b>Intensities in 0° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2278	2232	2096	1893	1632	1342	1050	781	552	374	251	175	131	106	89	75	63	52	39	25					
100%	98%	92%	83%	72%	59%	46%	34%	24%	16%	11%	8%	6%	5%	4%	3%	3%	2%	2%	1%					
<b>Intensities in 90° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2278	2266	2247	2219	2180	2129	2067	1995	1913	1821	1719	1608	1491	1369	1245	1120	996	874	758	647					
100%	100%	99%	97%	96%	93%	91%	88%	84%	80%	75%	71%	65%	60%	55%	49%	44%	38%	33%	28%					
<b>Intensities in 180° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2278	2233	2099	1892	1632	1342	1051	781	553	378	257	182	140	115	97	83	70	59	48	34					
100%	98%	92%	83%	72%	59%	46%	34%	24%	17%	11%	8%	6%	5%	4%	4%	3%	3%	2%	2%					
<b>Intensities in 270° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2278	2274	2260	2237	2202	2157	2100	2029	1946	1853	1749	1634	1511	1383	1252	1119	987	860	738	624					
100%	100%	99%	98%	97%	95%	92%	89%	85%	81%	77%	72%	66%	61%	55%	49%	43%	38%	32%	27%					
<b>Beam angle 50%</b>					<b>Field angle 10%</b>					<b>Cutoff angle 2,5%</b>					<b>Intensity ratio in 120° cone</b>					<b>Intensity ratio in 90° cone</b>				
41,1°					68,4°					90,7°					99,0%					92,3%				



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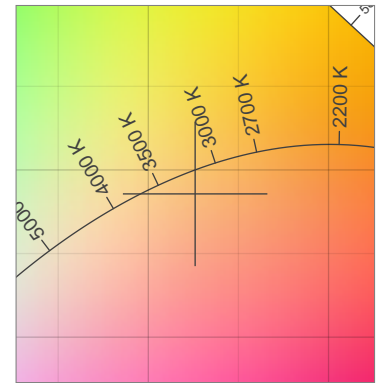
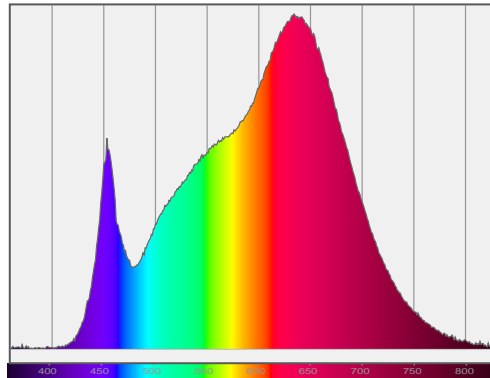
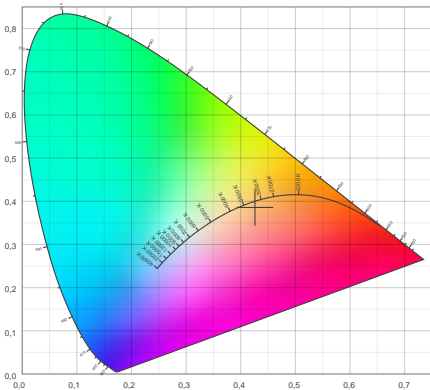
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### Color details



CIE 1931

x: 0,426



Spectra

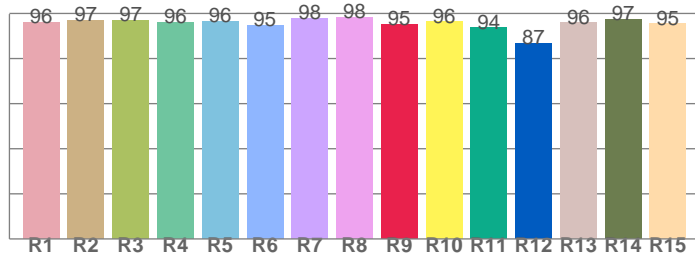
CIE 1931 ZOOM

3041 K

y: 0,386

$\Delta uv: -0,0060$

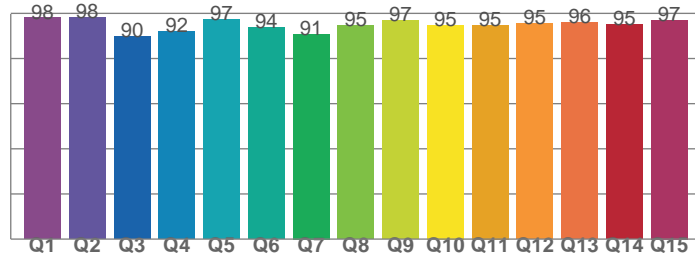
CRI: 96,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
95,9	97,1	97,0	96,1	96,4	94,8	97,7	98,4
R9	R10	R11	R12	R13	R14	R15	
95,3	96,2	93,6	86,9	95,8	97,4	95,4	

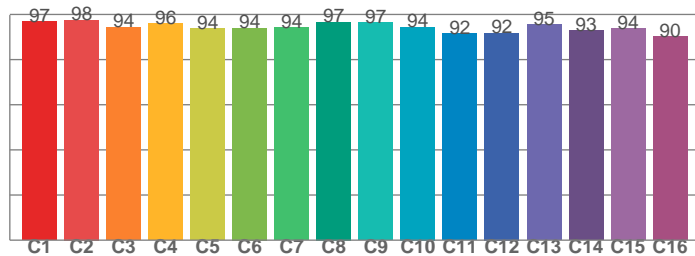
CQS: 94,2



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
98,0	98,1	89,6	92,0	97,4	93,7	90,9	94,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	94,9	94,9	95,4	96,0	94,9	97,1	

TM30: 94,6



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

C1	C2	C3	C4	C5	C6	C7	C8
97,0	97,5	94,3	95,9	93,8	94,0	94,1	96,6
C9	C10	C11	C12	C13	C14	C15	
96,5	94,5	91,7	91,8	95,4	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	$\Delta uv$
3041 K	96,7	95,3	94,6	104,0	94,2	0,426	0,386	0,251	0,341	-0,0060



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### TM30 details

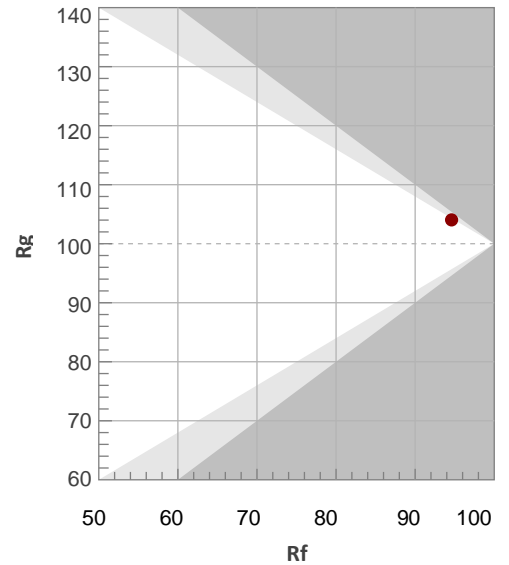
Rf 94,6

Fidelity index Rf

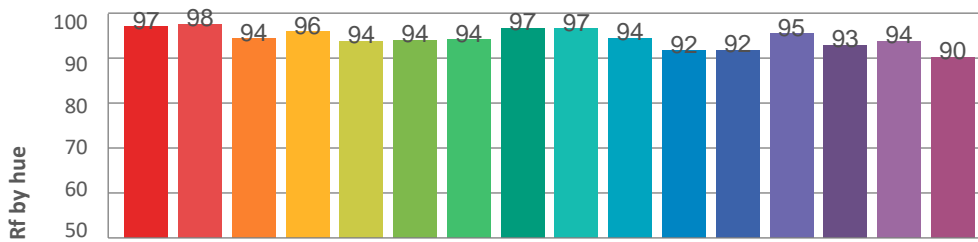
Rg 104,0

Gamut index Rg

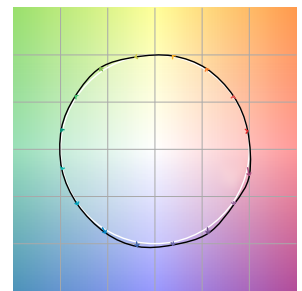
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	0%
2	98	1%	1%
3	94	1%	2%
4	96	1%	1%
5	94	0%	2%
6	94	4%	0%
7	94	1%	0%
8	97	1%	-2%
9	97	1%	2%
10	94	1%	3%
11	92	3%	6%
12	92	5%	2%
13	95	3%	-1%
14	93	5%	-2%
15	94	2%	-2%
16	90	4%	-8%



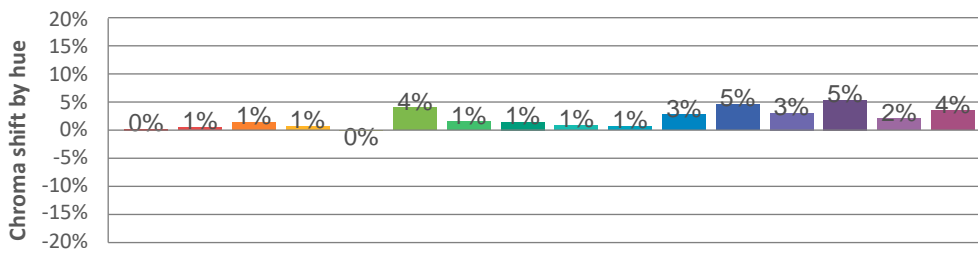
### Hue binH



### Color vector graphics



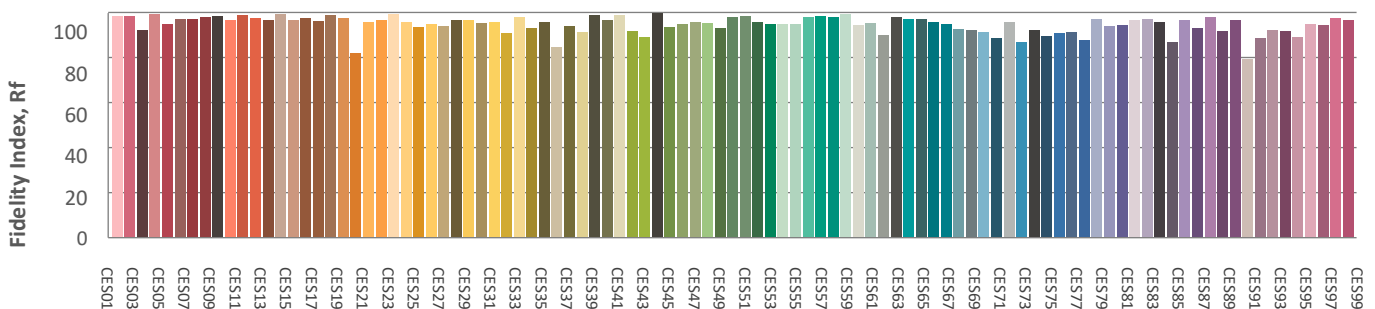
### Hue bin



### 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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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 1367lm total luminous flux



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