

LM-79

Test Report

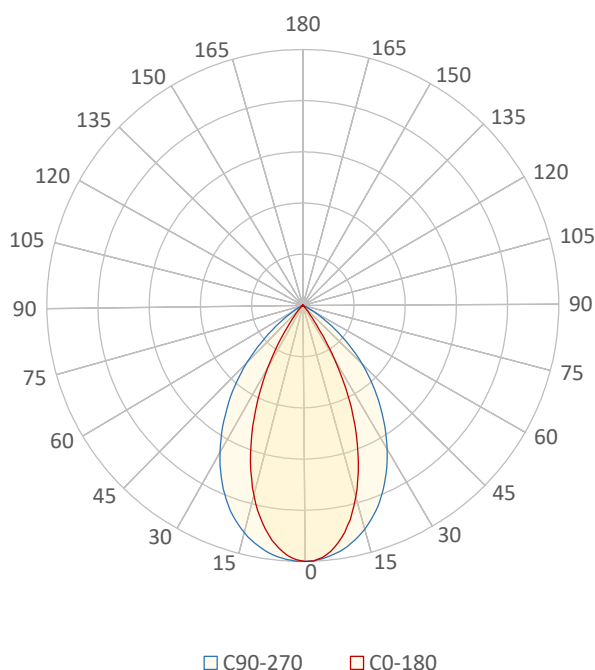
LM79-CLS-JADE-HD-3000K-CRI95-WIDE [ELIPTICAL BEAMSHAPER]

General Discription

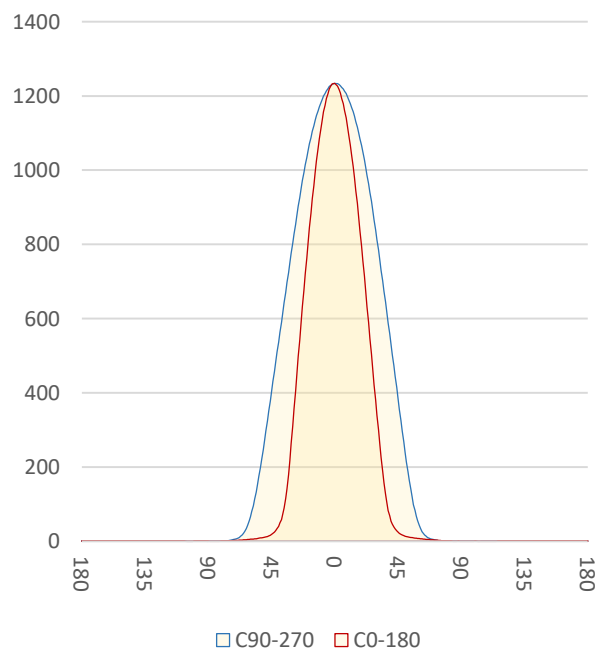
Item number	
Date and time	28-4-2020 17:23:09
CCT (Kelvin)	3043 K
Beam angle	74°
Luminous flux	1241 lm
Efficiency	52 lm/watt
Weighted energy	23,7 kWh/1000h
Power factor	0,96
CRI (RA)	96,6
Fidelity index Rf	Rf 94,6
Gammut index Rg	Rg 104,1
Peak	1235 cd



Polar diagram



Cartesian diagram



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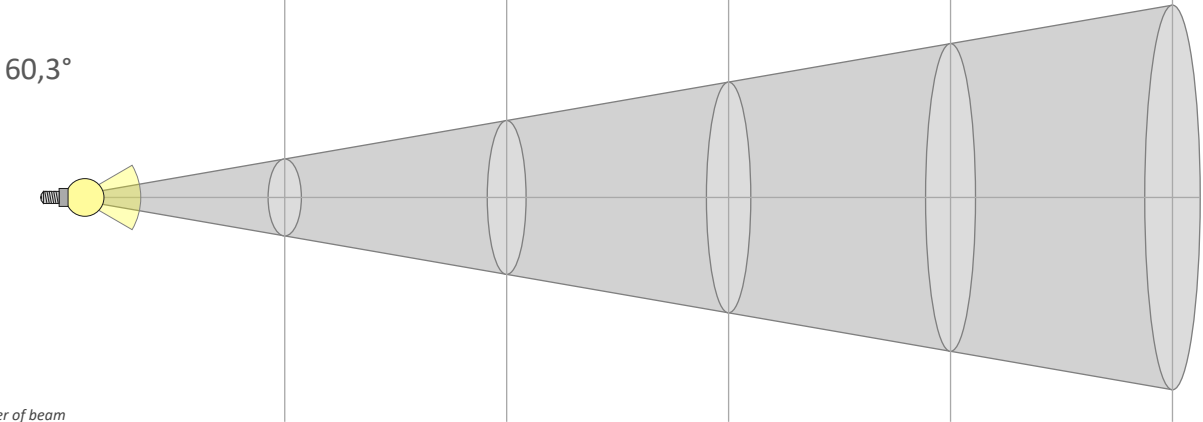
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Beam details		1m	2m	3m	4m	5m
Lux*		1234 lx	308 lx	137 lx	77 lx	49 lx



60,3°

*measured at center of beam

Footcandles*		114,6 fcd	28,7 fcd	12,7 fcd	7,2 fcd	4,6 fcd
Beam width (meter)		1,2 m	2,3 m	3,5 m	4,6 m	5,8 m
Beam width (Feet)		3,8 ft	7,6 ft	11,4 ft	15,2 ft	19,1 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1234lx	308lx	137lx	77lx	49lx	34lx	25lx	19lx	15lx	12lx	10lx	9lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
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
114,6fcd	28,7fcd	12,7fcd	7,2fcd	4,6fcd	3,2fcd	2,3fcd	1,8fcd	1,4fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd

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°
1234	1232	1218	1193	1157	1111	1057	994	923	845	763	677	588	497	405	310	217	141	90	59
100%	100%	99%	97%	94%	90%	86%	81%	75%	69%	62%	55%	48%	40%	33%	25%	18%	11%	7%	5%

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°
1234	1231	1225	1214	1199	1182	1159	1134	1105	1071	1034	994	950	903	854	803	750	697	643	590
100%	100%	99%	98%	97%	96%	94%	92%	90%	87%	84%	81%	77%	73%	69%	65%	61%	57%	52%	48%

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°
1234	1226	1207	1179	1141	1094	1040	979	910	835	757	674	589	504	421	340	262	189	127	82
100%	99%	98%	96%	92%	89%	84%	79%	74%	68%	61%	55%	48%	41%	34%	28%	21%	15%	10%	7%

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°
1234	1233	1228	1219	1207	1189	1169	1145	1116	1084	1049	1008	964	917	866	813	758	702	645	588
100%	100%	99%	99%	98%	96%	95%	93%	90%	88%	85%	82%	78%	74%	70%	66%	61%	57%	52%	48%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
60,3°	91°	105°	98,4%	87,5%



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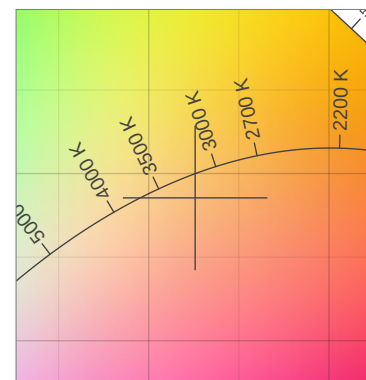
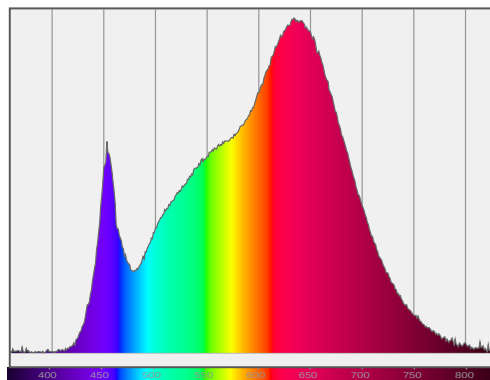
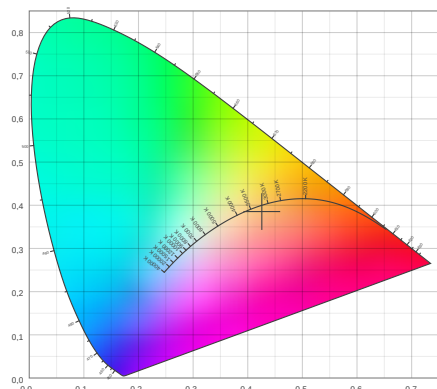
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Color details



CIE 1931

x: 0,426



Spectra

CIE 1931 ZOOM

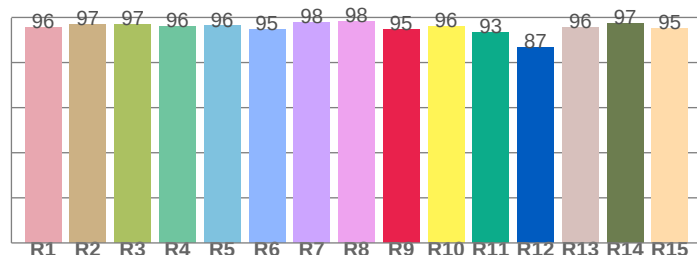
3043 K

y: 0,385

Δuv : -0,0061

CRI: 96,6 (R1-R8)

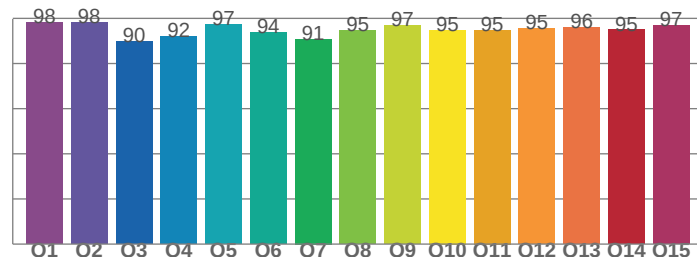
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
95,8	97,1	97,0	96,0	96,3	94,8	97,8	98,2
R9	R10	R11	R12	R13	R14	R15	
94,7	96,1	93,5	86,8	95,7	97,3	95,2	

CQS: 94,2

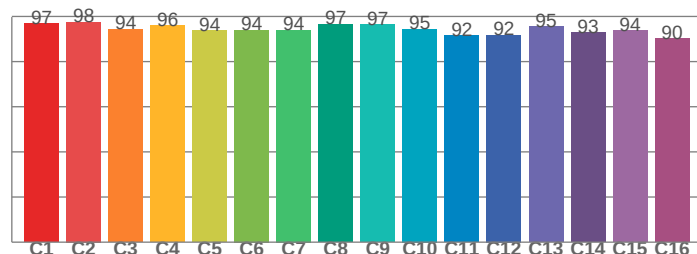
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
98,1	98,1	89,6	92,0	97,5	93,6	90,9	94,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	94,9	94,9	95,4	96,1	94,9	97,0	

TM30: 94,6

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



C1	C2	C3	C4	C5	C6	C7	C8
96,9	97,5	94,4	95,9	93,7	94,0	94,0	96,6
C9	C10	C11	C12	C13	C14	C15	
96,5	94,5	91,7	91,8	95,5	93,0	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
3043 K	96,6	94,7	94,6	104,1	94,2	0,426	0,385	0,251	0,341	-0,0061



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TM30 details

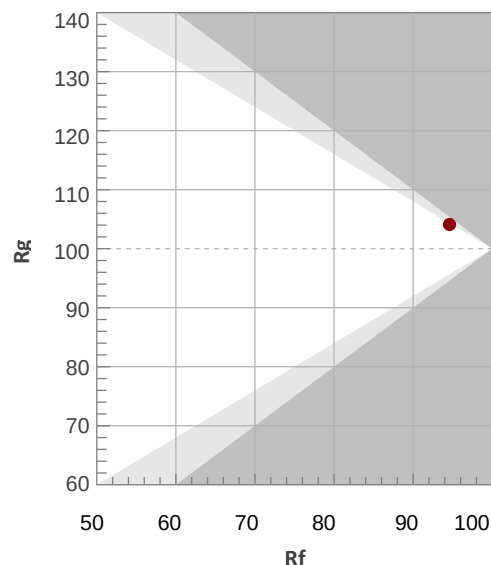
Rf 94,6

Fidelity index Rf

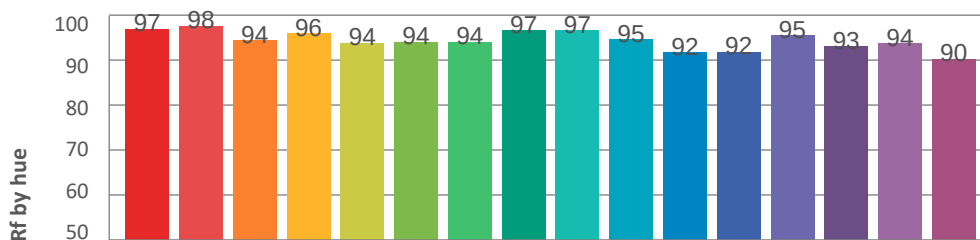
Rg 104,1

Gamut index Rg

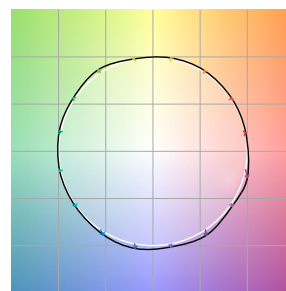
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	0%
2	98	1%	1%
3	94	1%	2%
4	96	1%	1%
5	94	0%	2%
6	94	4%	0%
7	94	2%	0%
8	97	1%	-2%
9	97	1%	2%
10	95	1%	3%
11	92	3%	6%
12	92	5%	2%
13	95	3%	-1%
14	93	5%	-2%
15	94	2%	-2%
16	90	4%	-7%



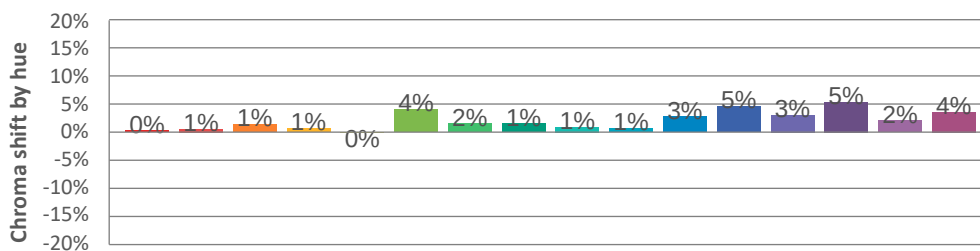
Hue binH



Color vector graphics



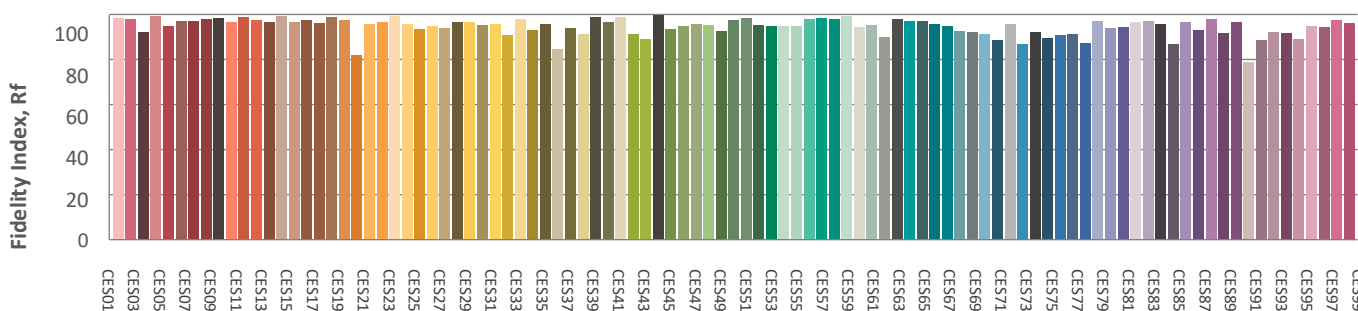
Hue bin



Color distortion graphics



Color Evaluation Sample



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BEAMSHAPER]

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 1241lm total luminous flux										



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