

LM-79

Test Report

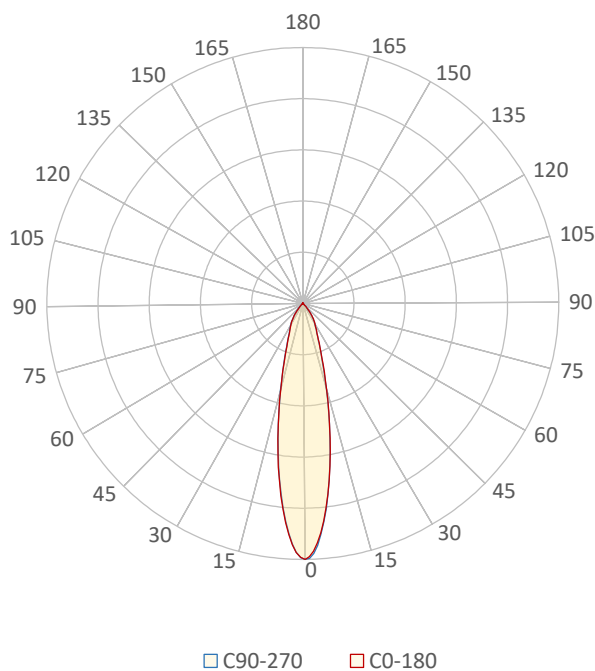
LM79-JADE-TW18-40-MEDIUM (1800K)

General Discription

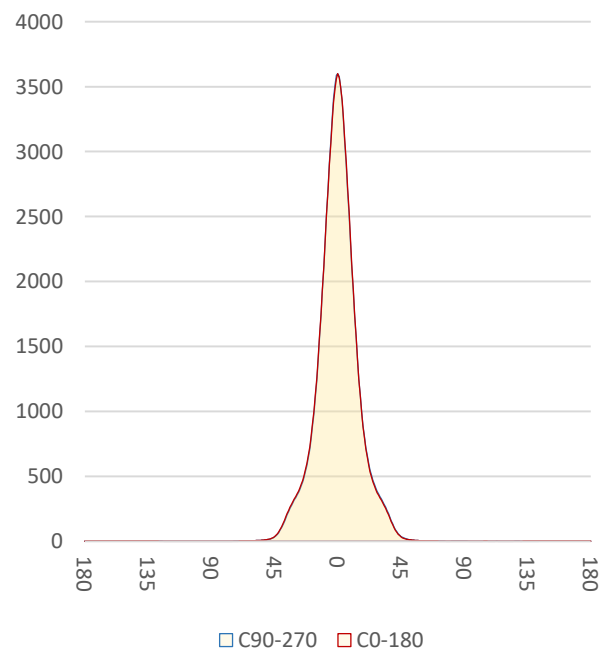
Item number	
Date and time	17-1-2020 15:03:07
CCT (Kelvin)	1792 K
Beam angle	23,2°
Luminous flux	1020 lm
Efficiency	66 lm/watt
Weighted energy	15,5 kWh/1000h
Power factor	0,57
CRI (RA)	36,0
Fidelity index Rf	Rf 40,3
Gammut index Rg	Rg 37,9
Peak	3612 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	3600 lx	900 lx	400 lx	225 lx	144 lx																			
*measured at center of beam																								
Footcandles*	334,5 fcd	83,6 fcd	37,2 fcd	20,9 fcd	13,4 fcd																			
Beam width (meter)	0,4 m	0,8 m	1,2 m	1,7 m	2,1 m																			
Beam width (Feet)	1,4 ft	2,7 ft	4,1 ft	5,4 ft	6,8 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
3600lx	900lx	400lx	225lx	144lx	100lx	73lx	56lx	44lx	36lx	30lx	25lx	21lx	18lx	16lx	14lx	12lx	11lx	10lx	9lx					
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					
334,5fcd	83,6fcd	37,2fcd	20,9fcd	13,4fcd	9,3fcd	6,8fcd	5,2fcd	4,1fcd	3,3fcd	2,8fcd	2,3fcd	2fcd	1,7fcd	1,5fcd	1,3fcd	1,2fcd	1fcd	0,9fcd	0,8fcd					
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°					
3600	3492	3237	2896	2514	2125	1745	1408	1123	898	725	599	507	437	386	344	305	263	214	161					
100%	97%	90%	80%	70%	59%	48%	39%	31%	25%	20%	17%	14%	12%	11%	10%	8%	7%	6%	4%					
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°					
3600	3523	3265	2911	2513	2113	1731	1389	1103	877	706	583	492	426	376	335	296	254	203	151					
100%	98%	91%	81%	70%	59%	48%	39%	31%	24%	20%	16%	14%	12%	10%	9%	8%	7%	6%	4%					
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°					
3600	3507	3263	2916	2530	2127	1746	1399	1110	882	709	584	494	426	374	334	295	254	205	153					
100%	97%	91%	81%	70%	59%	48%	39%	31%	24%	20%	16%	14%	12%	10%	9%	8%	7%	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°					
3600	3501	3238	2884	2497	2103	1732	1394	1115	892	722	597	506	438	386	343	305	263	214	159					
100%	97%	90%	80%	69%	58%	48%	39%	31%	25%	20%	17%	14%	12%	11%	10%	8%	7%	6%	4%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
23,3°					57,9°					81,8°					99,2%					97,6%				



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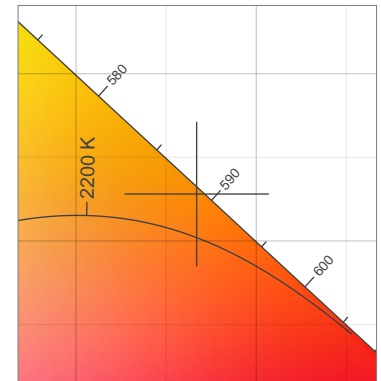
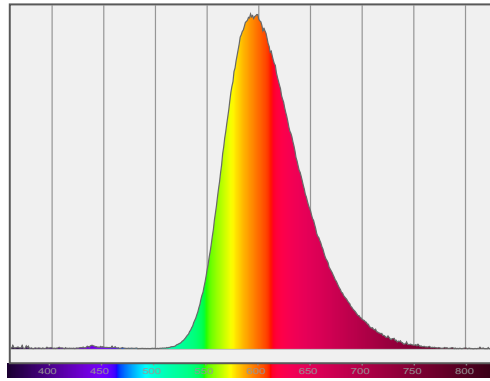
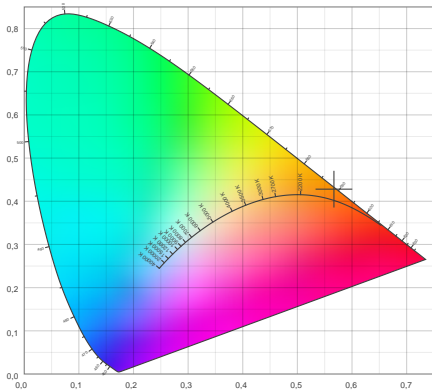
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Color details



CIE 1931

x: 0,567



Spectra

CIE 1931 ZOOM

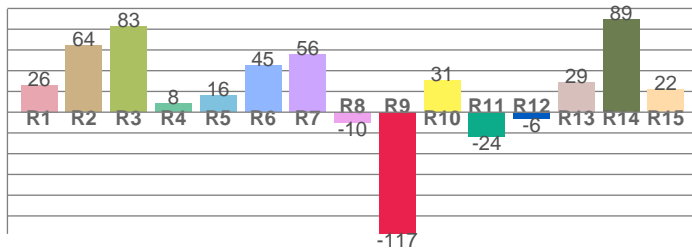
1792 K

y: 0,428

Δuv : 0,0065

CRI: 36,0 (R1-R8)

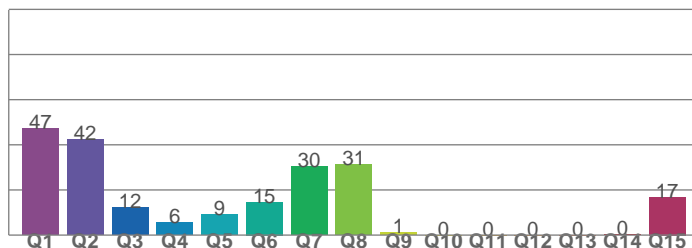
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
26,2	64,3	82,7	8,3	16,1	44,8	55,8	-9,9
R9	R10	R11	R12	R13	R14	R15	
-117,3	31,1	-23,6	-6,0	29,2	89,4	22,2	

CQS: 1,6

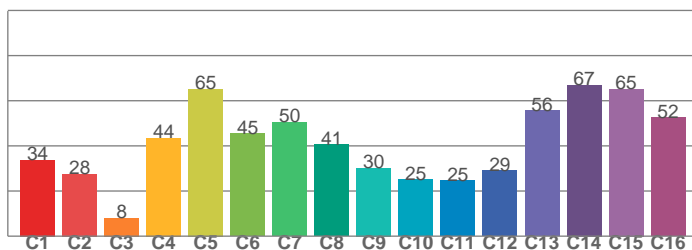
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
47,1	42,3	12,3	5,7	9,0	14,6	30,4	31,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
1,1	0,0	0,0	0,0	0,0	0,2	16,8	

TM30: 40,3

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



C1	C2	C3	C4	C5	C6	C7	C8
33,8	27,5	8,0	43,5	65,2	45,5	50,5	40,5
C9	C10	C11	C12	C13	C14	C15	
30,2	25,0	24,6	29,2	55,7	66,9	65,2	

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
1792 K	36,0	-117,3	40,3	37,9	1,6	0,567	0,428	0,324	0,367	0,0065



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TM30 details

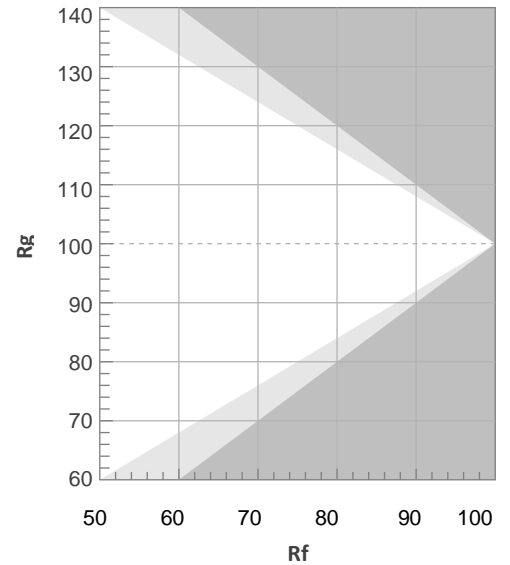
Rf 40,3

Fidelity index Rf

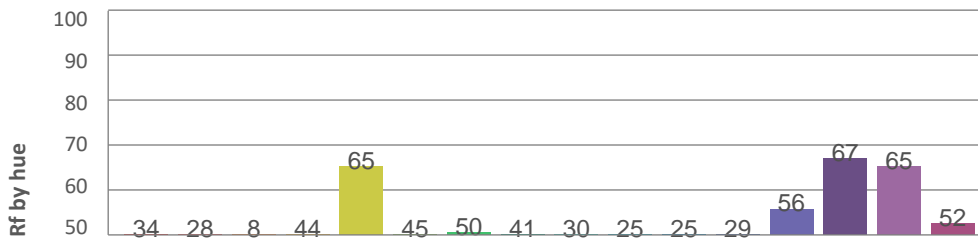
Rg 37,9

Gammut index Rg

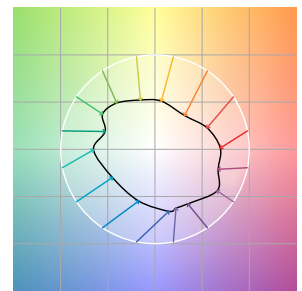
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	34	-32%	-12%
2	28	-41%	-12%
3	8	-53%	-6%
4	44	-49%	3%
5	65	-46%	5%
6	45	-37%	6%
7	50	-33%	0%
8	41	-45%	-8%
9	30	-36%	-12%
10	25	-46%	0%
11	25	-45%	16%
12	29	-38%	27%
13	56	-35%	10%
14	67	-33%	-3%
15	65	-21%	0%
16	52	-30%	-8%



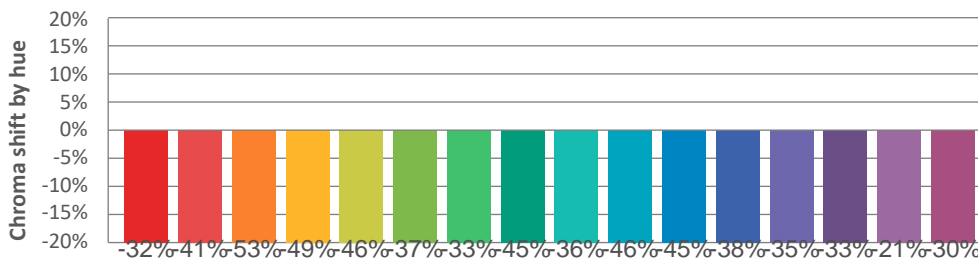
Hue binH



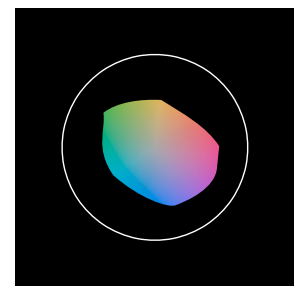
Color vector graphics



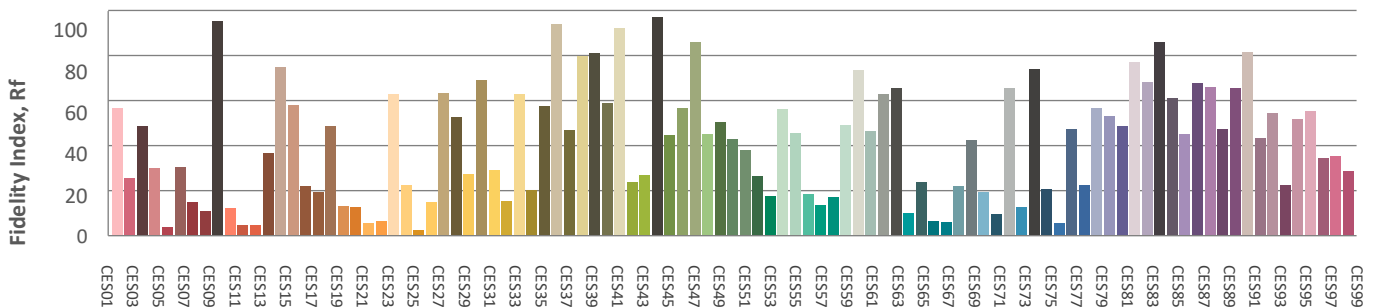
Hue bin



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
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 1020lm total luminous flux										



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