

LM-79

Test Report

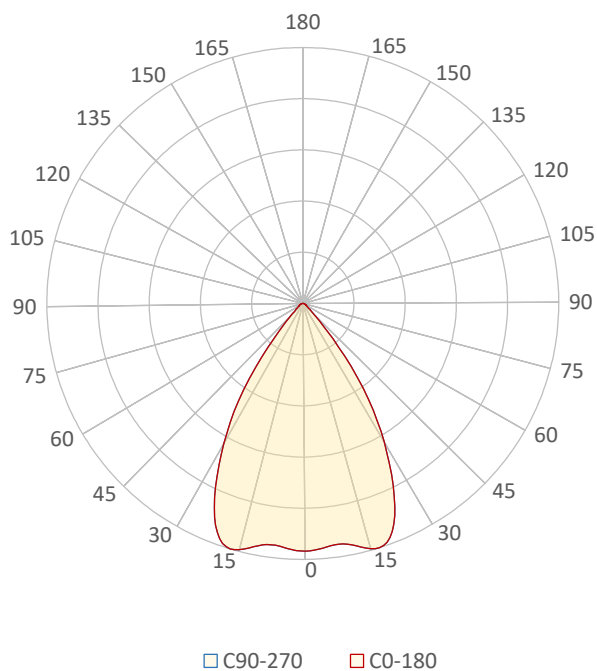
LM79-JADE-HP-2700K-CRI95-WIDE

General Discription

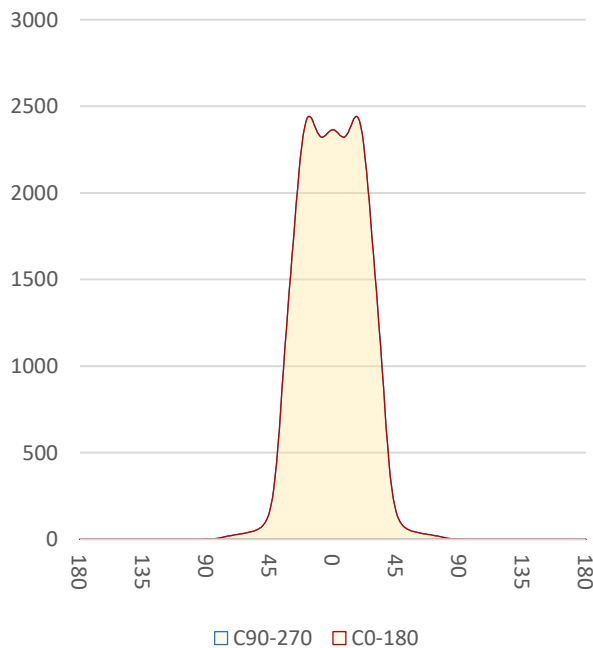
Item number	
Date and time	22-1-2021 16:10:30
CCT (Kelvin)	2674 K
Beam angle	66°
Luminous flux	2679 lm
Efficiency	69 lm/watt
Weighted energy	38,8 kWh/1000h
Power factor	0,97
CRI (RA)	95,4
Fidelity index Rf	Rf 95,0
Gammut index Rg	Rg 103,4
Peak	2443 cd



Polar diagram



Cartesian diagram



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Beam details		1m	2m	3m	4m	5m
Lux*		2364 lx	591 lx	263 lx	148 lx	95 lx

66°

*measured at center of beam

Footcandles*		219,6 fcd	54,9 fcd	24,4 fcd	13,7 fcd	8,8 fcd
Beam width (meter)		1,3 m	2,6 m	3,9 m	5,2 m	6,5 m
Beam width (Feet)		4,3 ft	8,5 ft	12,8 ft	17 ft	21,3 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2364lx	591lx	263lx	148lx	95lx	66lx	48lx	37lx	29lx	24lx	20lx	16lx	14lx	12lx	11lx	9lx	8lx	7lx	7lx	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
219,6fcd	54,9fcd	24,4fcd	13,7fcd	8,8fcd	6,1fcd	4,5fcd	3,4fcd	2,7fcd	2,2fcd	1,8fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	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°
2364	2359	2343	2327	2322	2336	2369	2410	2439	2435	2383	2276	2123	1937	1736	1532	1326	1112	878	645
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	90%	82%	73%	65%	56%	47%	37%	27%

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°
2364	2359	2343	2327	2322	2336	2369	2410	2439	2435	2383	2276	2123	1937	1736	1532	1326	1112	878	645
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	90%	82%	73%	65%	56%	47%	37%	27%

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°
2364	2359	2343	2327	2322	2336	2369	2410	2439	2435	2383	2276	2123	1937	1736	1532	1326	1112	878	645
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	90%	82%	73%	65%	56%	47%	37%	27%

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°
2364	2359	2343	2327	2322	2336	2369	2410	2439	2435	2383	2276	2123	1937	1736	1532	1326	1112	878	645
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	90%	82%	73%	65%	56%	47%	37%	27%

Beam angle 50%		Field angle 10%		Cutoff angle 2,5%		Intensity ratio in 120° cone		Intensity ratio in 90° cone	
66°		85,7°		105°		97,9%		94,4%	



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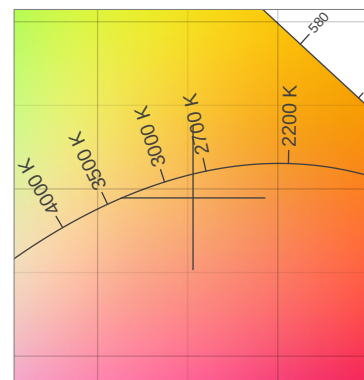
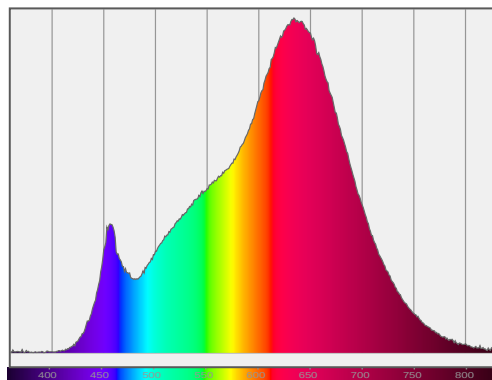
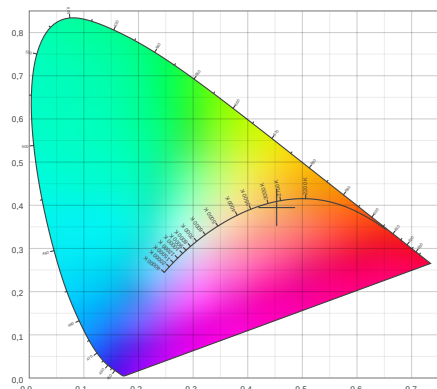
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Color details



CIE 1931

x: 0,453

y: 0,395

Spectra

CIE 1931 ZOOM

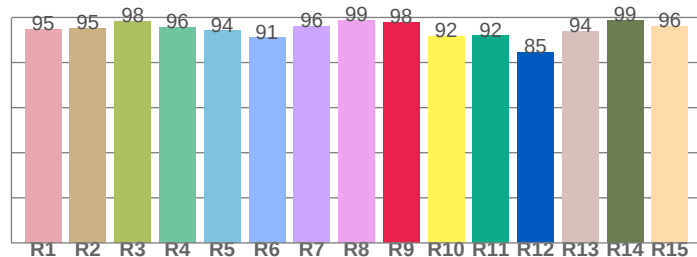
2674 K

y: 0,395

Δuv : -0,0055

CRI: 95,4 (R1-R8)

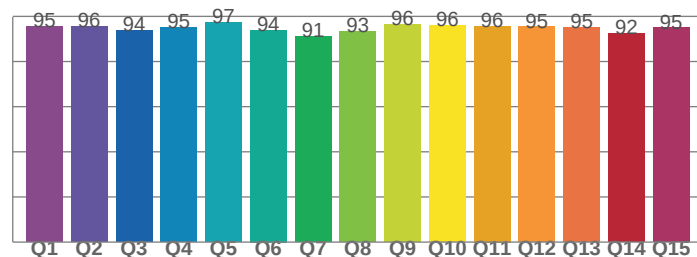
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
94,7	95,2	98,3	95,7	94,1	90,9	96,1	98,6
R9	R10	R11	R12	R13	R14	R15	
97,9	91,5	91,8	84,6	94,0	98,8	96,0	

CQS: 94,3

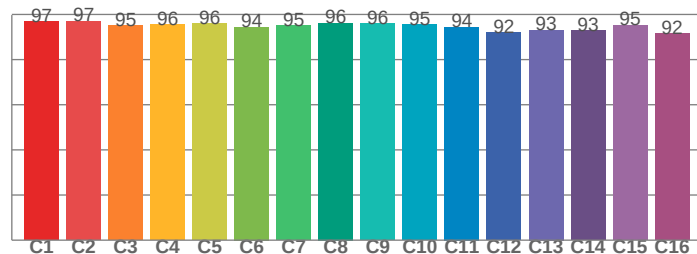
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,4	95,6	93,6	95,0	97,3	93,9	91,2	93,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,5	96,1	95,8	95,4	95,0	92,3	94,9	

TM30: 95,0

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



C1	C2	C3	C4	C5	C6	C7	C8
96,7	97,0	95,1	95,6	96,0	94,4	95,0	96,2
C9	C10	C11	C12	C13	C14	C15	
96,0	95,5	94,5	91,9	93,1	92,9	95,2	

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
2674 K	95,4	97,9	95,0	103,4	94,3	0,453	0,395	0,265	0,347	-0,0055



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TM30 details

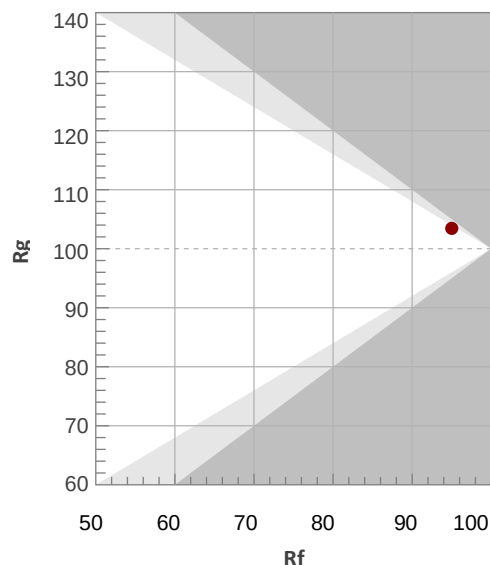
Rf 95,0

Fidelity index Rf

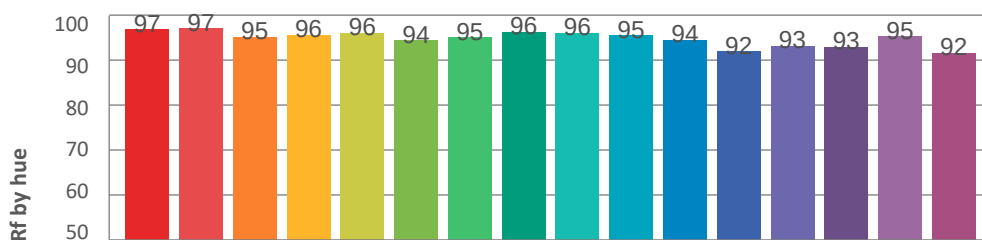
Rg 103,4

Gamut index Rg

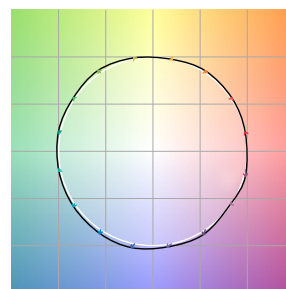
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	1%
2	97	1%	1%
3	95	2%	1%
4	96	-1%	-1%
5	96	1%	1%
6	94	4%	1%
7	95	2%	0%
8	96	2%	-1%
9	96	2%	1%
10	95	2%	2%
11	94	4%	2%
12	92	4%	-2%
13	93	2%	-5%
14	93	3%	-5%
15	95	-1%	-1%
16	92	1%	-7%



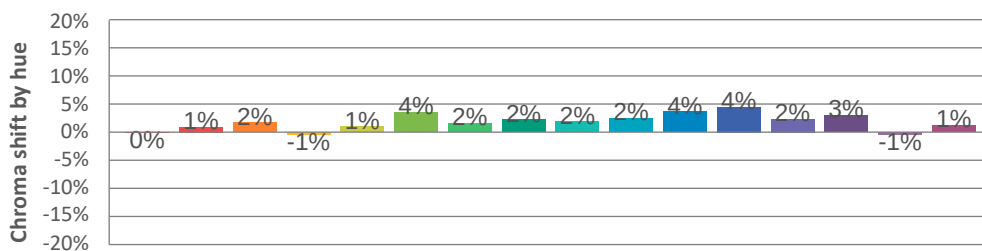
Hue binH



Color vector graphics



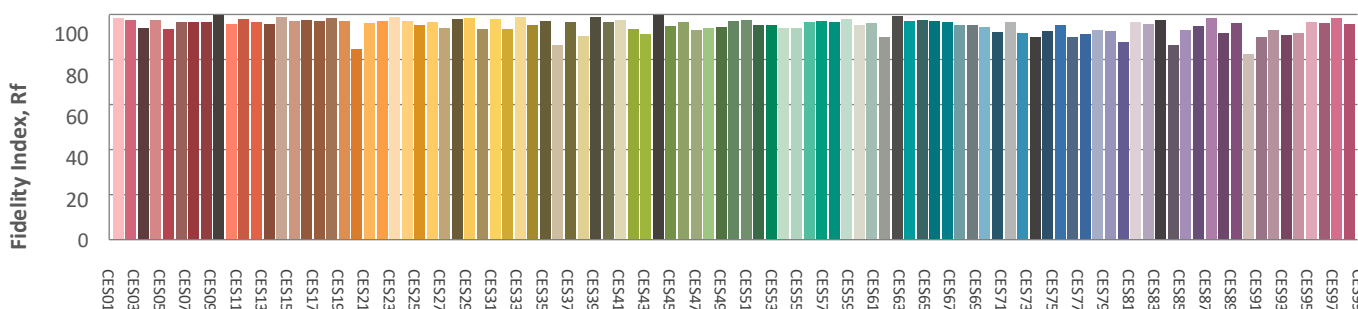
Hue bin



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				
2H	2H	23,8	24,5	23,9	24,7	24,9	23,8	24,5	23,9	24,7	24,9
	3H	23,7	24,5	24,1	24,7	24,9	23,7	24,5	24,1	24,7	24,9
	4H	23,7	24,5	24,1	24,7	25,0	23,7	24,5	24,1	24,7	25,0
	6H	23,8	24,5	24,1	24,7	25,1	23,8	24,5	24,1	24,7	25,1
	8H	23,8	24,4	24,1	24,7	25,1	23,8	24,4	24,1	24,7	25,1
	12H	23,7	24,3	24,1	24,7	25,1	23,7	24,3	24,1	24,7	25,1
4H	2H	23,5	24,3	23,9	24,5	24,8	23,5	24,3	23,9	24,5	24,8
	3H	23,7	24,3	24,0	24,6	25,1	23,7	24,3	24,0	24,6	25,1
	4H	23,7	24,3	24,1	24,7	25,2	23,7	24,3	24,1	24,7	25,2
	6H	23,8	24,4	24,3	24,7	25,0	23,8	24,4	24,3	24,7	25,0
	8H	23,8	24,3	24,3	24,6	25,0	23,8	24,3	24,3	24,6	25,0
	12H	23,7	24,1	24,2	24,6	25,0	23,7	24,1	24,2	24,6	25,0
8H	4H	23,7	24,2	24,2	24,6	24,9	23,7	24,2	24,2	24,6	24,9
	6H	23,8	24,2	24,3	24,6	25,2	23,8	24,2	24,3	24,6	25,2
	8H	23,9	24,1	24,4	24,7	25,3	23,9	24,1	24,4	24,7	25,3
	12H	23,8	24,1	24,4	24,6	25,2	23,8	24,1	24,4	24,6	25,2
12H	4H	23,6	24,0	24,1	24,5	24,9	23,6	24,0	24,1	24,5	24,9
	6H	23,8	24,1	24,3	24,6	25,2	23,8	24,1	24,3	24,6	25,2
	8H	23,8	24,1	24,4	24,6	25,2	23,8	24,1	24,4	24,6	25,2
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,3 / -4,1					4,3 / -4,1				
S = 1.5H		6,8 / -4,5					6,8 / -4,5				
S = 2.0H		8,7 / -4,8					8,7 / -4,8				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2679lm total luminous flux											



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