

LM-79

Test Report

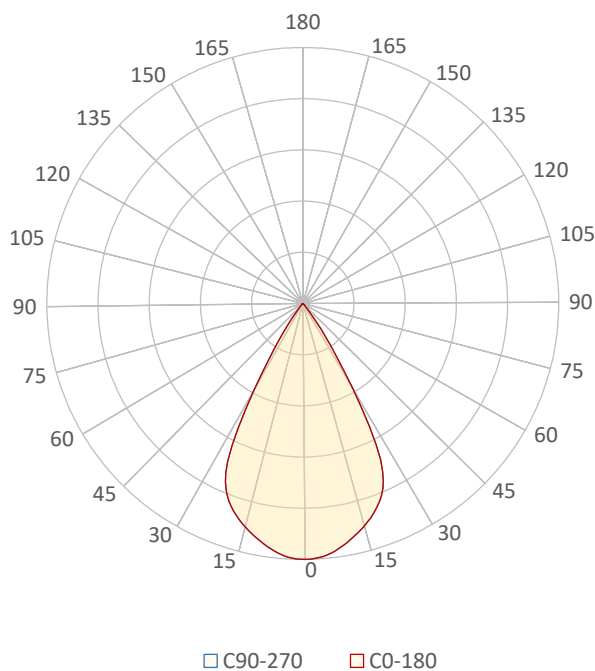
LM79-JADE-ZOOM-TW-2700K-6500K-THRIVE-WIDE
[2700K]

General Description

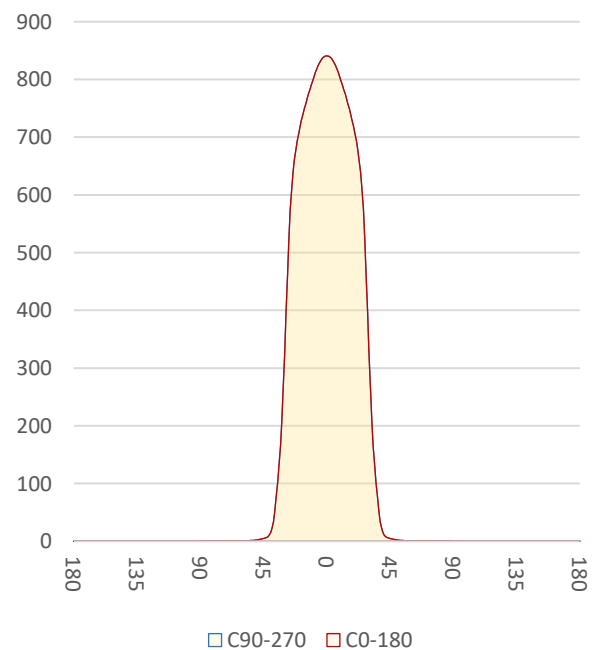
Item number	
Date and time	21-9-2021 14:46:53
CCT (Kelvin)	2722 K
Beam angle	57,3°
Luminous flux	633 lm
Efficiency	38 lm/watt
Weighted energy	16,7 kWh/1000h
Power factor	0,55
CRI (RA)	98,0
Fidelity index Rf	Rf 97,5
Gammut index Rg	Rg 100,6
Peak	841 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	841 lx	210 lx	93 lx	53 lx	34 lx																			
<i>*measured at center of beam</i>																								
Footcandles*	78,1 fcd	19,5 fcd	8,7 fcd	4,9 fcd	3,1 fcd																			
Beam width (meter)	1,1 m	2,2 m	3,3 m	4,4 m	5,5 m																			
Beam width (Feet)	3,6 ft	7,2 ft	10,7 ft	14,3 ft	17,9 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
841lx	210lx	93lx	53lx	34lx	23lx	17lx	13lx	10lx	8lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx					
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					
78,1fcd	19,5fcd	8,7fcd	4,9fcd	3,1fcd	2,2fcd	1,6fcd	1,2fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd					
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°					
841	839	834	825	813	798	783	767	749	729	707	679	639	574	463	327	210	131	76	35					
100%	100%	99%	98%	97%	95%	93%	91%	89%	87%	84%	81%	76%	68%	55%	39%	25%	16%	9%	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°					
841	839	834	825	813	798	783	767	749	729	707	679	639	574	463	327	210	131	76	35					
100%	100%	99%	98%	97%	95%	93%	91%	89%	87%	84%	81%	76%	68%	55%	39%	25%	16%	9%	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°					
841	839	834	825	813	798	783	767	749	729	707	679	639	574	463	327	210	131	76	35					
100%	100%	99%	98%	97%	95%	93%	91%	89%	87%	84%	81%	76%	68%	55%	39%	25%	16%	9%	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°					
841	839	834	825	813	798	783	767	749	729	707	679	639	574	463	327	210	131	76	35					
100%	100%	99%	98%	97%	95%	93%	91%	89%	87%	84%	81%	76%	68%	55%	39%	25%	16%	9%	4%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
57,3°					71,3°					78,3°					99,7%					99,3%				



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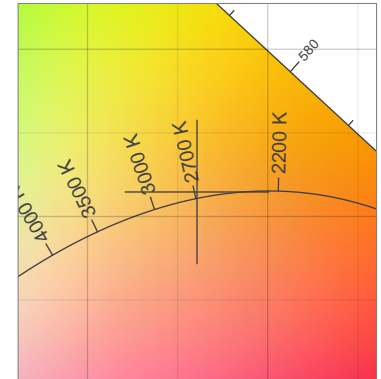
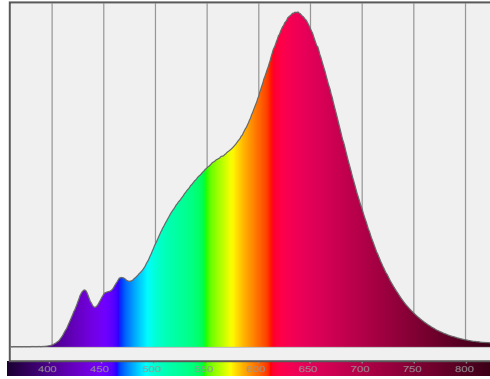
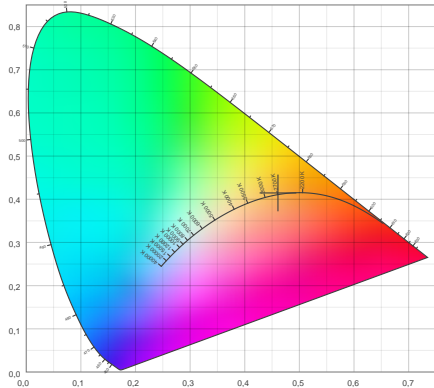
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Color details



CIE 1931

x: 0,461



Spectra

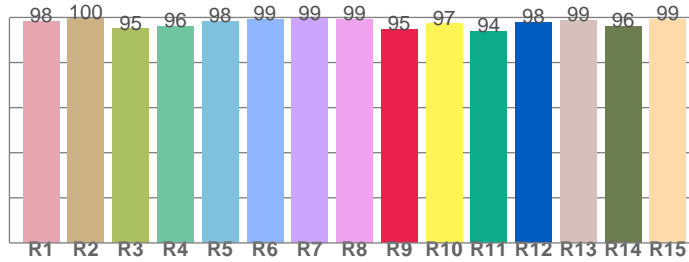
CIE 1931 ZOOM

2722 K

y: 0,415

Δuv : 0,0014

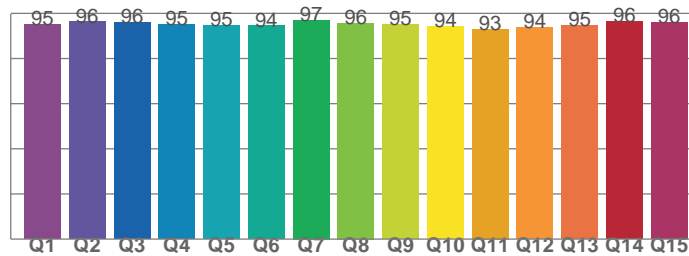
CRI: 98,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
98,1	99,5	94,9	96,0	98,4	99,1	99,4	99,0
R9	R10	R11	R12	R13	R14	R15	
94,8	97,2	93,7	98,0	98,6	96,0	99,3	

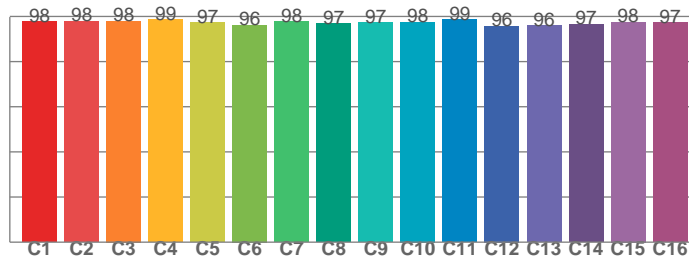
CQS: 94,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,0	96,2	96,0	95,1	94,7	94,5	97,1	95,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,1	94,2	93,1	93,6	94,6	96,4	95,9	

TM30: 97,5



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

C1	C2	C3	C4	C5	C6	C7	C8
97,7	97,9	98,0	98,7	97,3	96,2	97,7	96,7
C9	C10	C11	C12	C13	C14	C15	
97,3	97,6	98,5	95,8	96,0	96,6	97,5	

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
2722 K	98,0	94,8	97,5	100,6	94,9	0,461	0,415	0,261	0,353	0,0014



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TM30 details

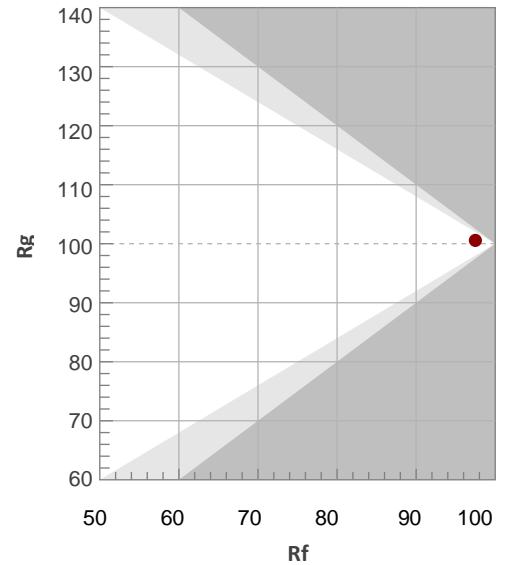
Rf 97,5

Fidelity index Rf

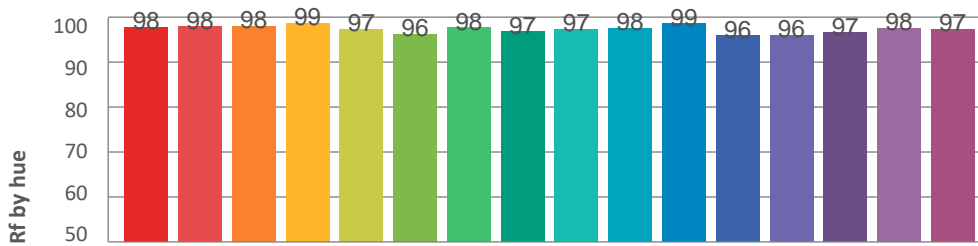
Rg 100,6

Gammut index Rg

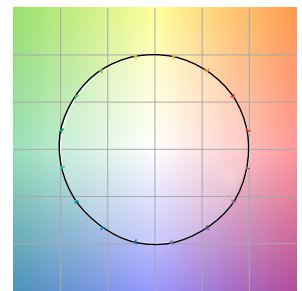
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	98	0%	-1%
2	98	0%	0%
3	98	0%	0%
4	99	0%	0%
5	97	1%	2%
6	96	2%	2%
7	98	1%	0%
8	97	2%	-1%
9	97	1%	-1%
10	98	0%	-1%
11	99	-1%	-1%
12	96	1%	-2%
13	96	1%	-3%
14	97	0%	-2%
15	98	0%	-1%
16	97	-1%	-1%



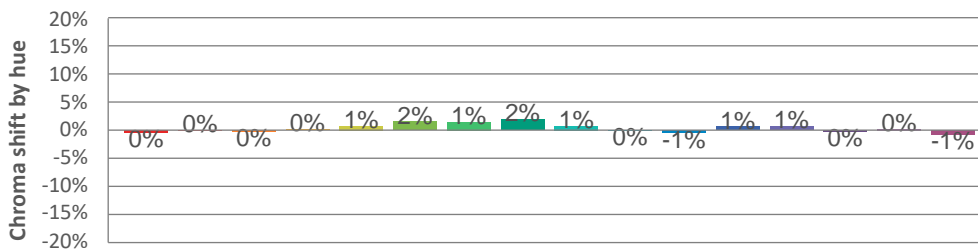
Hue binH



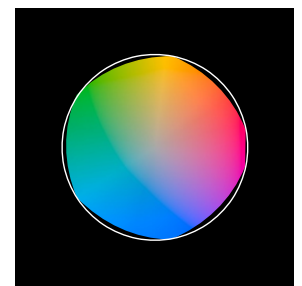
Color vector graphics



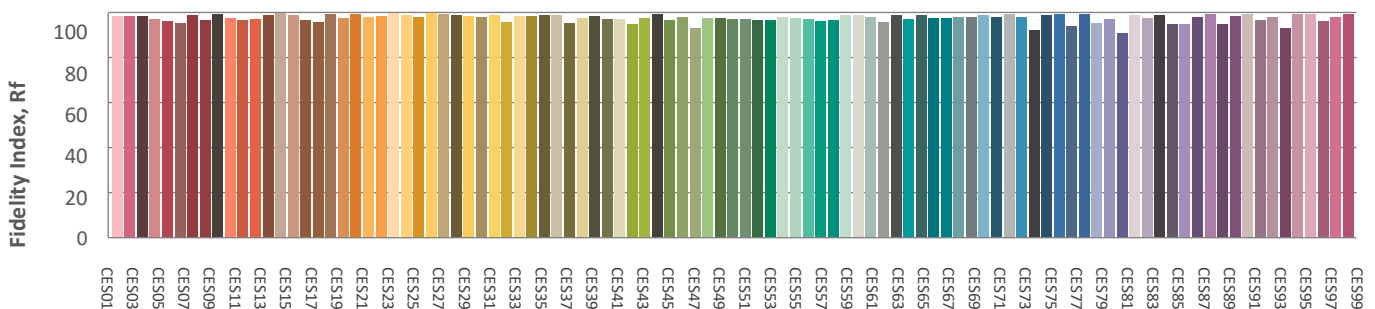
Hue bin



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	13,6	14,2	13,7	14,4	14,6	13,6	14,2	13,7	14,4	14,6
	3H	13,4	14,1	13,7	14,3	14,4	13,4	14,1	13,7	14,3	14,4
	4H	13,3	14,0	13,7	14,2	14,4	13,3	14,0	13,7	14,2	14,4
	6H	13,3	13,9	13,6	14,1	14,5	13,3	13,9	13,6	14,1	14,5
	8H	13,2	13,8	13,6	14,1	14,5	13,2	13,8	13,6	14,1	14,5
	12H	13,2	13,7	13,5	14,1	14,5	13,2	13,7	13,5	14,1	14,5
4H	2H	13,3	13,9	13,7	14,2	14,4	13,3	13,9	13,7	14,2	14,4
	3H	13,2	13,7	13,5	14,1	14,5	13,2	13,7	13,5	14,1	14,5
	4H	13,1	13,5	13,5	14,0	14,5	13,1	13,5	13,5	14,0	14,5
	6H	13,0	13,5	13,5	13,8	14,2	13,0	13,5	13,5	13,8	14,2
	8H	12,9	13,4	13,4	13,8	14,1	12,9	13,4	13,4	13,8	14,1
	12H	12,9	13,2	13,4	13,7	14,1	12,9	13,2	13,4	13,7	14,1
8H	4H	12,9	13,4	13,4	13,7	14,1	12,9	13,4	13,4	13,7	14,1
	6H	12,9	13,2	13,4	13,6	14,2	12,9	13,2	13,4	13,6	14,2
	8H	12,9	13,1	13,4	13,6	14,3	12,9	13,1	13,4	13,6	14,3
	12H	12,8	13,0	13,4	13,5	14,1	12,8	13,0	13,4	13,5	14,1
12H	4H	12,9	13,2	13,4	13,6	14,1	12,9	13,2	13,4	13,6	14,1
	6H	12,9	13,1	13,4	13,6	14,3	12,9	13,1	13,4	13,6	14,3
	8H	12,8	13,0	13,4	13,5	14,1	12,8	13,0	13,4	13,5	14,1
Variation of the observer position for the luminaire distance S											
S = 1.0H	6,5 / -11,6					6,5 / -11,6					
S = 1.5H	9,3 / -11,8					9,3 / -11,8					
S = 2.0H	11,3 / -12,0					11,3 / -12,0					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 633lm total luminous flux											



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