

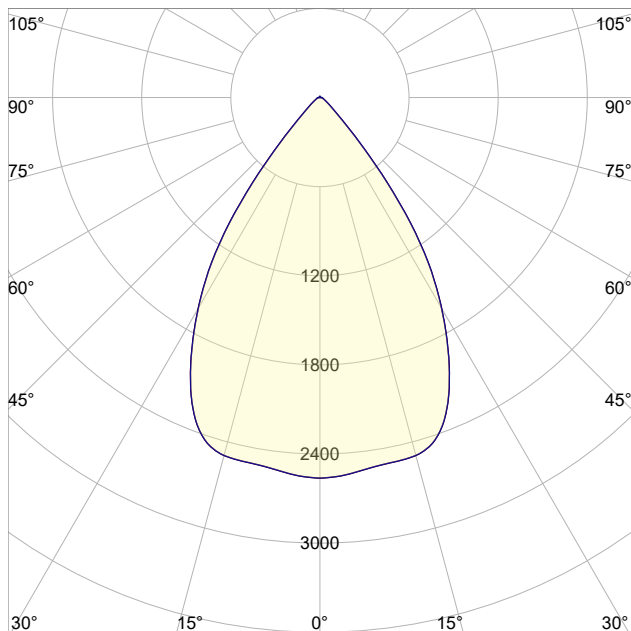
LM-79

Test Report

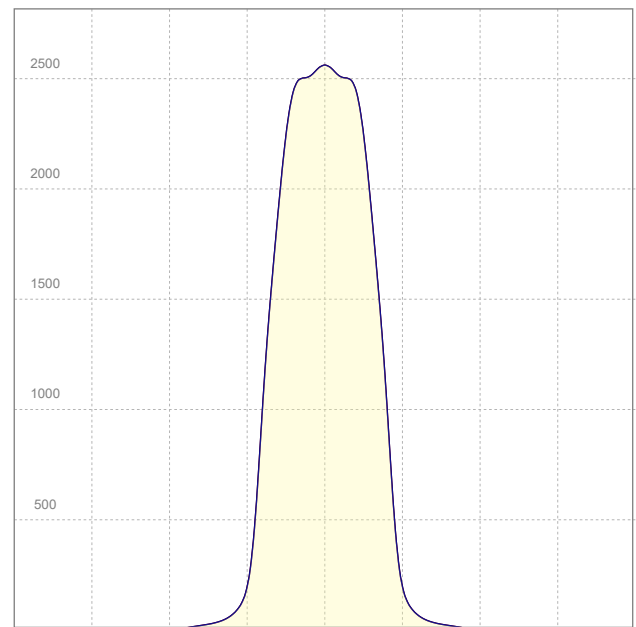
LM79-JADE-S-3500K-CRI90-WIDE

General Description

Item number	J-SX-X-3-1-30-90-1
Date and time	4-4-2022 11:25:20
CCT (Kelvin)	3448 K
Beam angle	67,4°
Luminous flux	2880 lm
Efficiency	106 lm/watt
Weighted energy	27,3 kWh/1000h
Power factor	0,98
CRI (RA)	92,4
Fidelity index Rf	Rf 90,5
Gammut index Rg	Rg 102,6
Peak	2560 cd



Polar curve



Linear distribution diagram



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LM-79

Test Report

LM79-JADE-S-3500K-CRI90-WIDE

Beam details	1m	2m	3m	4m	5m														
Lux*	2560 lx	640 lx	284 lx	160 lx	102 lx														
*measured at center of beam																			
Footcandles*	237,9 fcd	59,5 fcd	26,4 fcd	14,9 fcd	9,5 fcd														
Beam width (meter)	1,3 m	2,7 m	4 m	5,3 m	6,7 m														
Beam width (Feet)	4,4 ft	8,8 ft	13,1 ft	17,5 ft	21,9 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2560lx	640lx	284lx	160lx	102lx	71lx	52lx	40lx	32lx	26lx	21lx	18lx	15lx	13lx	11lx	10lx	9lx	8lx	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
237,9fcd	59,5fcd	26,4fcd	14,9fcd	9,5fcd	6,6fcd	4,9fcd	3,7fcd	2,9fcd	2,4fcd	2fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd
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°
2560	2556	2545	2529	2515	2507	2503	2497	2484	2446	2373	2269	2136	1982	1813	1636	1451	1247	1020	771
100%	100%	99%	99%	98%	98%	98%	98%	97%	96%	93%	89%	83%	77%	71%	64%	57%	49%	40%	30%
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°
2560	2556	2545	2529	2515	2507	2503	2497	2484	2446	2373	2269	2136	1982	1813	1636	1451	1247	1020	771
100%	100%	99%	99%	98%	98%	98%	98%	97%	96%	93%	89%	83%	77%	71%	64%	57%	49%	40%	30%
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°
2560	2556	2545	2529	2515	2507	2503	2497	2484	2446	2373	2269	2136	1982	1813	1636	1451	1247	1020	771
100%	100%	99%	99%	98%	98%	98%	98%	97%	96%	93%	89%	83%	77%	71%	64%	57%	49%	40%	30%
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°
2560	2556	2545	2529	2515	2507	2503	2497	2484	2446	2373	2269	2136	1982	1813	1636	1451	1247	1020	771
100%	100%	99%	99%	98%	98%	98%	98%	97%	96%	93%	89%	83%	77%	71%	64%	57%	49%	40%	30%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
67,4°		87,4°				109,4°				97,3%				93,4%					



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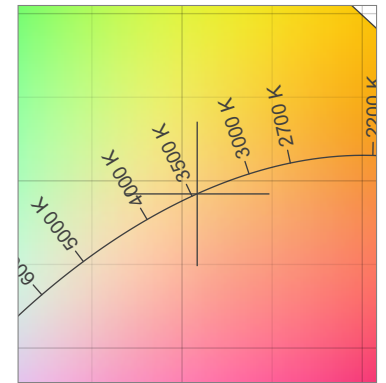
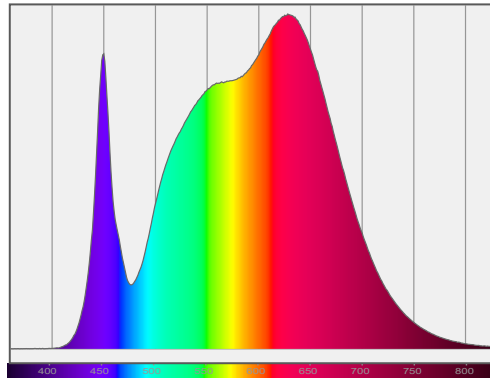
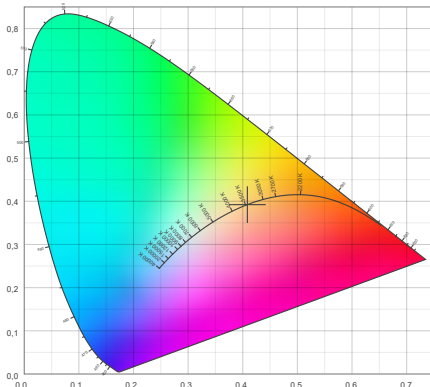
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LM-79

Test Report

LM79-JADE-S-3500K-CRI90-WIDE

Color details



CIE 1931

x: 0,408



Spectra

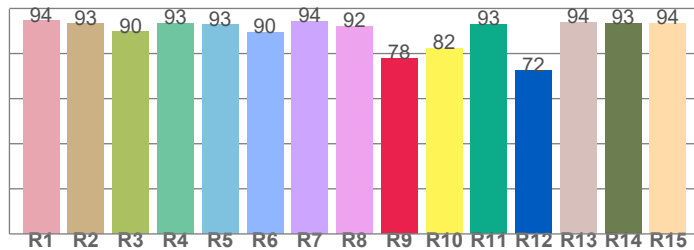
CIE 1931 ZOOM

3448 K

y: 0,392

Δuv: -0,0001

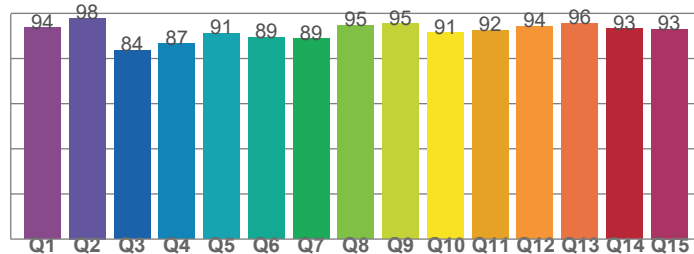
CRI: 92,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
94,5	93,2	89,6	93,4	92,8	89,6	94,4	92,0
R9	R10	R11	R12	R13	R14	R15	
77,9	82,3	93,1	72,3	93,8	93,4	93,5	

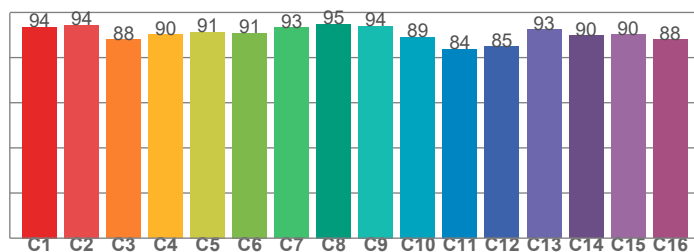
CQS: 91,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
93,6	98,0	83,7	86,5	91,0	89,3	88,8	94,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,4	91,4	92,3	94,2	95,8	93,1	93,1	

TM30: 90,5



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

C1	C2	C3	C4	C5	C6	C7	C8
93,5	94,4	88,0	90,1	91,4	90,9	93,4	94,9
C9	C10	C11	C12	C13	C14	C15	
93,9	89,1	83,8	84,9	92,5	89,7	90,4	

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
3448 K	92,4	77,9	90,5	102,6	91,3	0,408	0,392	0,237	0,342	-0,0001



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LM-79

Test Report

LM79-JADE-S-3500K-CRI90-WIDE

TM30 details

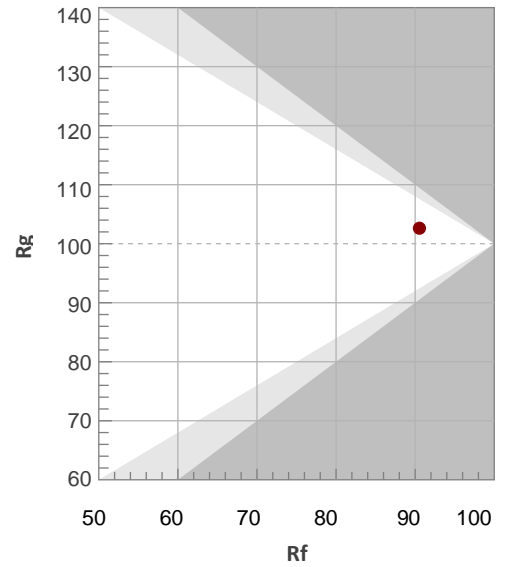
Rf 90,5

Fidelity index Rf

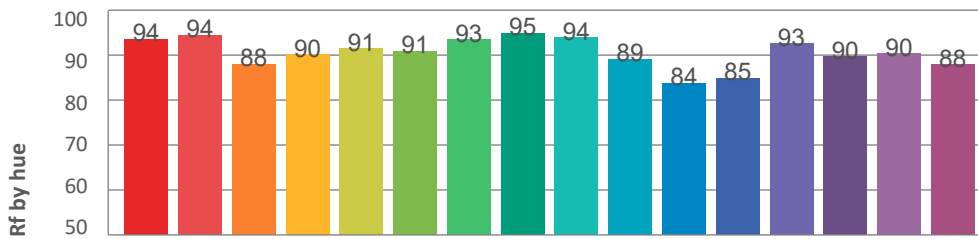
Rg 102,6

Gamut index Rg

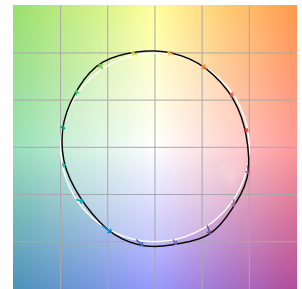
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	-2%
2	94	-3%	2%
3	88	-1%	6%
4	90	1%	6%
5	91	3%	4%
6	91	6%	0%
7	93	2%	-4%
8	95	0%	-3%
9	94	-3%	-1%
10	89	-5%	5%
11	84	0%	11%
12	85	5%	7%
13	93	5%	2%
14	90	8%	-2%
15	90	4%	-5%
16	88	2%	-8%



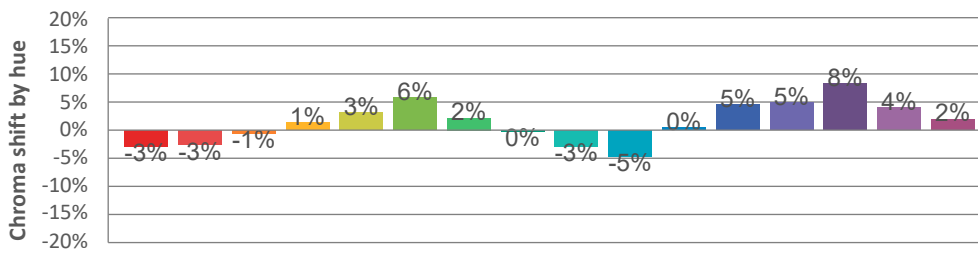
Hue binH



Color vector graphics



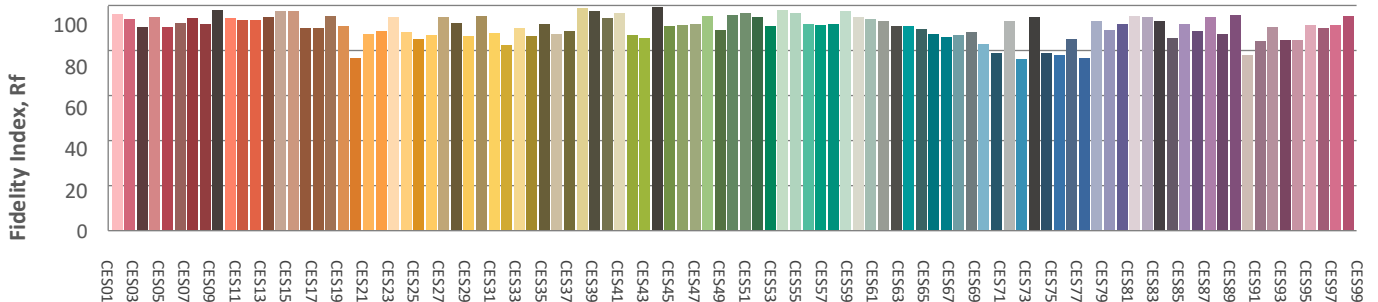
Hue bin



Color distortion graphics



Color Evaluation Sample



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LM-79

Test Report

LM79-JADE-S-3500K-CRI90-WIDE

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	24,5	25,2	24,6	25,5	25,7	24,5	25,2	24,6	25,5	25,7
	3H	24,3	25,2	24,7	25,4	25,6	24,3	25,2	24,7	25,4	25,6
	4H	24,3	25,1	24,7	25,4	25,6	24,3	25,1	24,7	25,4	25,6
	6H	24,4	25,1	24,7	25,4	25,7	24,4	25,1	24,7	25,4	25,7
	8H	24,4	25,0	24,7	25,3	25,8	24,4	25,0	24,7	25,3	25,8
	12H	24,3	25,0	24,7	25,3	25,8	24,3	25,0	24,7	25,3	25,8
4H	2H	24,2	25,0	24,6	25,2	25,5	24,2	25,0	24,6	25,2	25,5
	3H	24,3	24,9	24,6	25,3	25,7	24,3	24,9	24,6	25,3	25,7
	4H	24,3	24,8	24,7	25,3	25,8	24,3	24,8	24,7	25,3	25,8
	6H	24,3	24,9	24,8	25,2	25,6	24,3	24,9	24,8	25,2	25,6
	8H	24,3	24,8	24,8	25,2	25,6	24,3	24,8	24,8	25,2	25,6
	12H	24,3	24,7	24,8	25,1	25,6	24,3	24,7	24,8	25,1	25,6
8H	4H	24,2	24,7	24,7	25,1	25,5	24,2	24,7	24,7	25,1	25,5
	6H	24,3	24,7	24,8	25,1	25,7	24,3	24,7	24,8	25,1	25,7
	8H	24,4	24,6	24,9	25,2	25,8	24,4	24,6	24,9	25,2	25,8
	12H	24,4	24,6	25,0	25,1	25,7	24,4	24,6	25,0	25,1	25,7
12H	4H	24,1	24,6	24,7	25,0	25,5	24,1	24,6	24,7	25,0	25,5
	6H	24,3	24,6	24,8	25,1	25,8	24,3	24,6	24,8	25,1	25,8
	8H	24,3	24,6	24,9	25,1	25,7	24,3	24,6	24,9	25,1	25,7
Variation of the observer position for the luminaire distance S											
S = 1.0H	4,1 / -4,4					4,1 / -4,4					
S = 1.5H	6,6 / -5,0					6,6 / -5,0					
S = 2.0H	8,5 / -5,4					8,5 / -5,4					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 2880lm total luminous flux											



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