

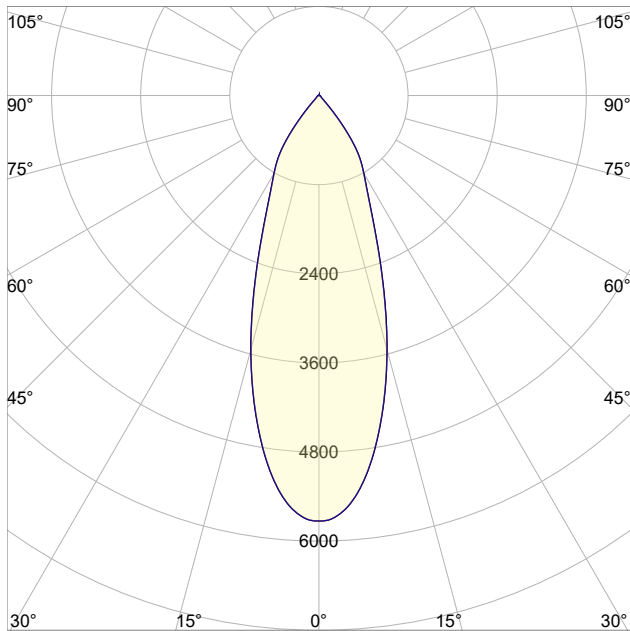
LM-79

Test Report

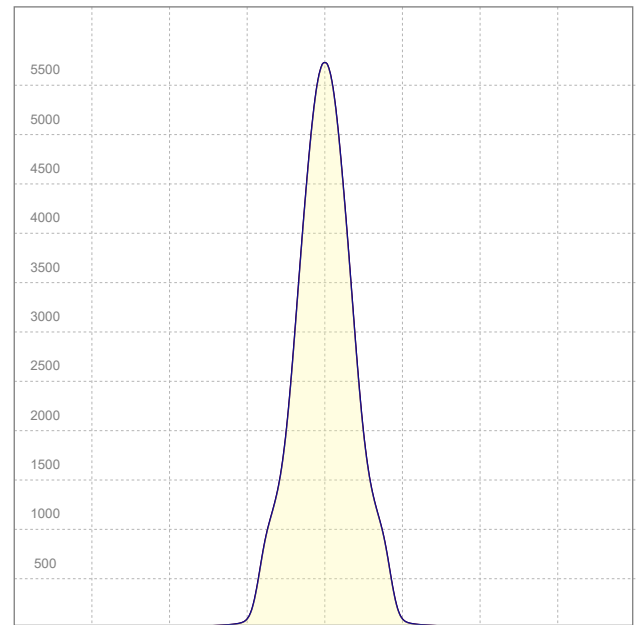
LM79-JADE-S-3500K-CRI90-MEDIUM

General Description

Item number	J-SX-X-3-1-30-90-1
Date and time	4-4-2022 11:20:13
CCT (Kelvin)	3459 K
Beam angle	36°
Luminous flux	2934 lm
Efficiency	108 lm/watt
Weighted energy	27,1 kWh/1000h
Power factor	0,98
CRI (RA)	92,4
Fidelity index Rf	Rf 90,5
Gammut index Rg	Rg 102,7
Peak	5722 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	5722 lx	1430 lx	636 lx	358 lx	229 lx														
*measured at center of beam																			
Footcandles*	531,6 fcd	132,9 fcd	59,1 fcd	33,2 fcd	21,3 fcd														
Beam width (meter)	0,6 m	1,3 m	1,9 m	2,6 m	3,2 m														
Beam width (Feet)	2,1 ft	4,3 ft	6,4 ft	8,5 ft	10,6 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
5722lx	1430lx	636lx	358lx	229lx	159lx	117lx	89lx	71lx	57lx	47lx	40lx	34lx	29lx	25lx	22lx	20lx	18lx	16lx	14lx
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
531,6fcd	132,9fcd	59,1fcd	33,2fcd	21,3fcd	14,8fcd	10,8fcd	8,3fcd	6,6fcd	5,3fcd	4,4fcd	3,7fcd	3,1fcd	2,7fcd	2,4fcd	2,1fcd	1,8fcd	1,6fcd	1,5fcd	1,3fcd
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°
5722	5682	5549	5310	4994	4619	4205	3764	3310	2856	2433	2056	1758	1524	1346	1207	1080	940	760	554
100%	99%	97%	93%	87%	81%	73%	66%	58%	50%	43%	36%	31%	27%	24%	21%	19%	16%	13%	10%
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°
5722	5682	5549	5310	4994	4619	4205	3764	3310	2856	2433	2056	1758	1524	1346	1207	1080	940	760	554
100%	99%	97%	93%	87%	81%	73%	66%	58%	50%	43%	36%	31%	27%	24%	21%	19%	16%	13%	10%
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°
5722	5682	5549	5310	4994	4619	4205	3764	3310	2856	2433	2056	1758	1524	1346	1207	1080	940	760	554
100%	99%	97%	93%	87%	81%	73%	66%	58%	50%	43%	36%	31%	27%	24%	21%	19%	16%	13%	10%
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°
5722	5682	5549	5310	4994	4619	4205	3764	3310	2856	2433	2056	1758	1524	1346	1207	1080	940	760	554
100%	99%	97%	93%	87%	81%	73%	66%	58%	50%	43%	36%	31%	27%	24%	21%	19%	16%	13%	10%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
36°		75,7°				86,8°				97,6%				95,6%					



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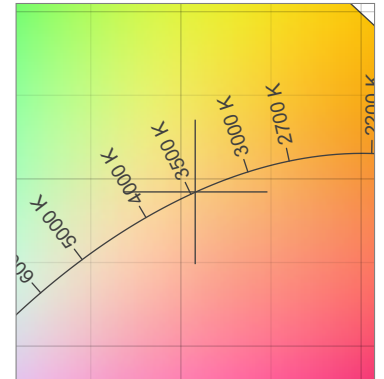
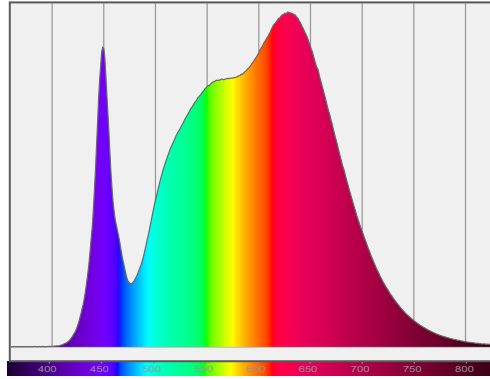
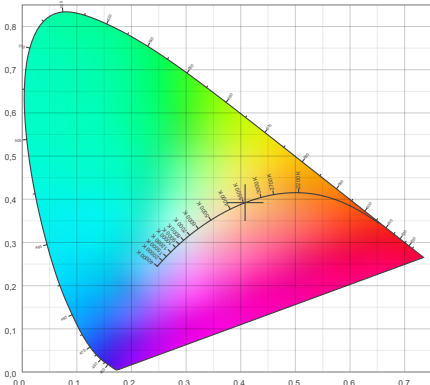
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Color details



CIE 1931

x: 0,408



Spectra

CIE 1931 ZOOM

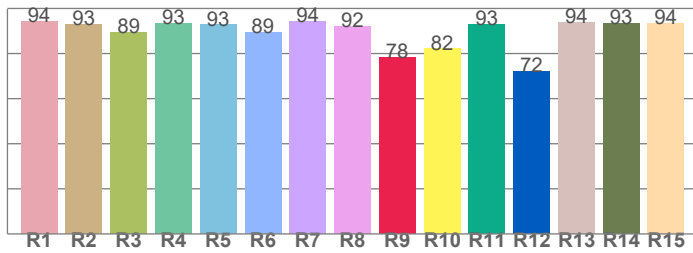
3459 K

y: 0,392

$\Delta uv: 0,0001$

CRI: 92,4 (R1-R8)

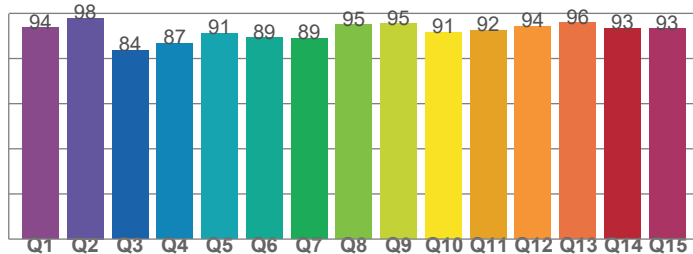
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
94,5	93,1	89,4	93,3	92,8	89,4	94,3	92,2
R9	R10	R11	R12	R13	R14	R15	
78,2	82,1	93,1	72,2	93,7	93,3	93,6	

CQS: 91,3

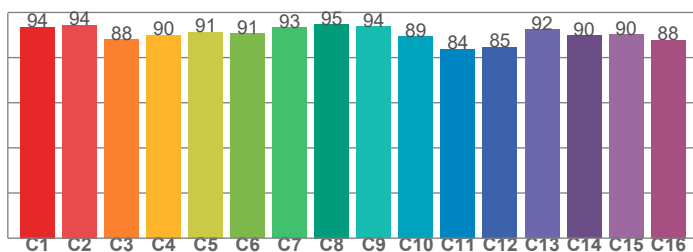
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
93,6	98,0	83,7	86,7	91,1	89,2	88,8	94,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,4	91,4	92,4	94,3	95,9	93,3	93,2	

TM30: 90,5

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



C1	C2	C3	C4	C5	C6	C7	C8
93,5	94,5	88,0	90,0	91,3	90,8	93,2	94,8
C9	C10	C11	C12	C13	C14	C15	
93,9	89,2	83,8	84,7	92,4	89,7	90,3	

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
3459 K	92,4	78,2	90,5	102,7	91,3	0,408	0,392	0,237	0,342	0,0001



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TM30 details

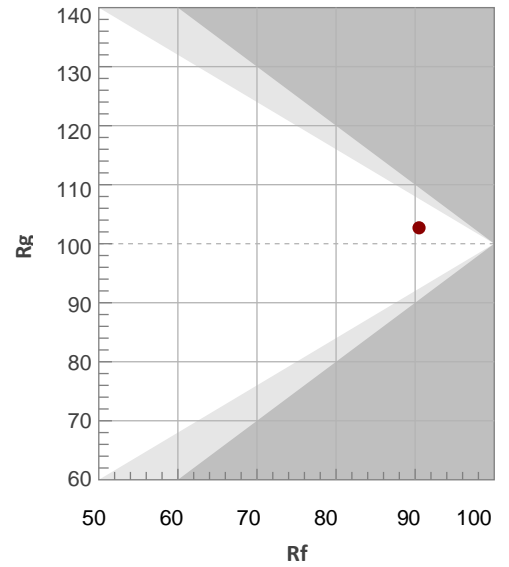
Rf 90,5

Fidelity index Rf

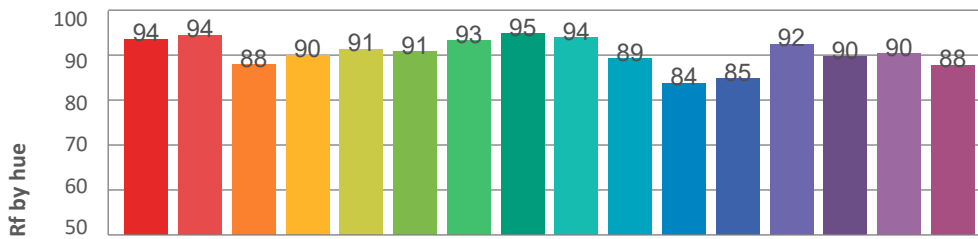
Rg 102,7

Gamut index Rg

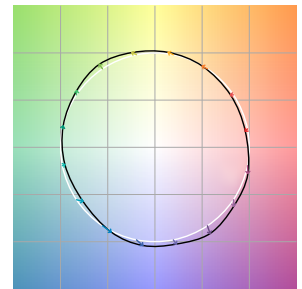
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	-2%
2	94	-3%	2%
3	88	-1%	6%
4	90	1%	6%
5	91	3%	4%
6	91	6%	0%
7	93	2%	-4%
8	95	0%	-3%
9	94	-3%	-1%
10	89	-5%	5%
11	84	0%	11%
12	85	5%	8%
13	92	5%	2%
14	90	8%	-2%
15	90	4%	-5%
16	88	2%	-8%



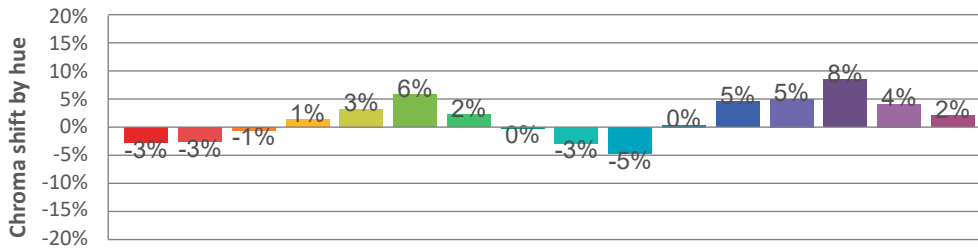
Hue binH



Color vector graphics



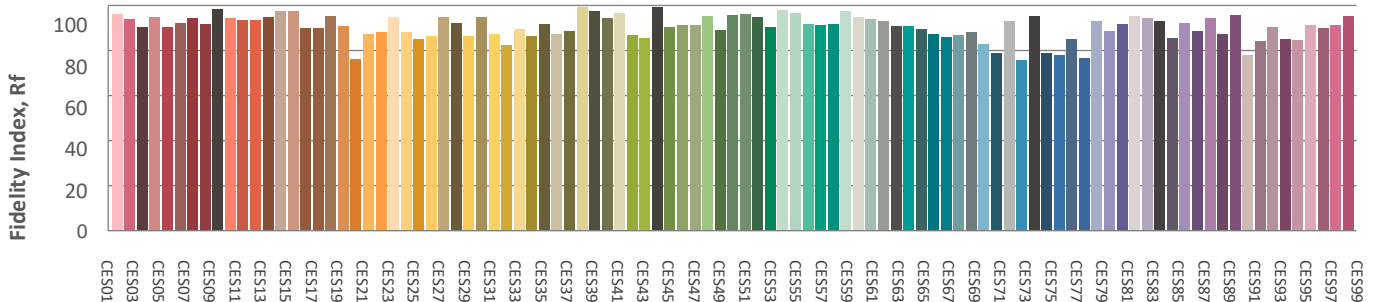
Hue bin



Color distortion graphics



Color Evaluation Sample



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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	22,0	22,6	22,1	22,8	23,0	22,0	22,6	22,1	22,8	23,0
	3H	21,9	22,6	22,2	22,8	23,0	21,9	22,6	22,2	22,8	23,0
	4H	21,9	22,6	22,3	22,8	23,1	21,9	22,6	22,3	22,8	23,1
	6H	22,0	22,6	22,3	22,9	23,3	22,0	22,6	22,3	22,9	23,3
	8H	22,0	22,6	22,3	22,9	23,3	22,0	22,6	22,3	22,9	23,3
	12H	22,0	22,5	22,3	22,9	23,3	22,0	22,5	22,3	22,9	23,3
4H	2H	21,7	22,4	22,1	22,6	22,9	21,7	22,4	22,1	22,6	22,9
	3H	21,8	22,4	22,2	22,7	23,2	21,8	22,4	22,2	22,7	23,2
	4H	21,9	22,4	22,3	22,8	23,3	21,9	22,4	22,3	22,8	23,3
	6H	22,0	22,5	22,5	22,9	23,2	22,0	22,5	22,5	22,9	23,2
	8H	22,0	22,5	22,5	22,8	23,2	22,0	22,5	22,5	22,8	23,2
	12H	22,0	22,4	22,5	22,8	23,3	22,0	22,4	22,5	22,8	23,3
8H	4H	21,8	22,3	22,4	22,7	23,1	21,8	22,3	22,4	22,7	23,1
	6H	22,0	22,4	22,5	22,8	23,4	22,0	22,4	22,5	22,8	23,4
	8H	22,1	22,4	22,7	22,9	23,6	22,1	22,4	22,7	22,9	23,6
	12H	22,2	22,4	22,8	22,9	23,5	22,2	22,4	22,8	22,9	23,5
12H	4H	21,8	22,2	22,3	22,6	23,1	21,8	22,2	22,3	22,6	23,1
	6H	22,1	22,3	22,6	22,8	23,5	22,1	22,3	22,6	22,8	23,5
	8H	22,1	22,3	22,7	22,9	23,5	22,1	22,3	22,7	22,9	23,5
Variation of the observer position for the luminaire distance S											
S = 1.0H	4,2 / -3,7					4,2 / -3,7					
S = 1.5H	6,7 / -3,9					6,7 / -3,9					
S = 2.0H	8,6 / -4,2					8,6 / -4,2					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 2934lm total luminous flux											