

LM-79

Test Report

LM79-JADE-S-4000K-CRI80-MEDIUM

General Discription

Item number	J-S1-X-X-1-40-80-2
Date and time	28-11-2016 09:31:48
CCT (Kelvin)	3921 K
Beam angle	36,7°
Luminous flux	3392 lm
Efficiency	120 lm/watt
Weighted energy	28,4 kWh/1000h
Power factor	0,95
CRI (RA)	82,3
Fidelity index Rf	Rf 82,5
Gammut index Rg	Rg 97,8

NEW



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Beam details		1m		2m		3m		4m		5m									
Lux*		6409 lx		1602 lx		712 lx		401 lx		256 lx									
36,7°																			
*measured at center of beam																			
Footcandles*		595,4 fcd		148,9 fcd		66,2 fcd		37,2 fcd		23,8 fcd									
Beam width (meter)		0,7 m		1,3 m		2 m		2,7 m		3,3 m									
Beam width (Feet)		2,2 ft		4,4 ft		6,5 ft		8,7 ft		10,9 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
6409lx	1602lx	712lx	401lx	256lx	178lx	131lx	100lx	79lx	64lx	53lx	45lx	38lx	33lx	28lx	25lx	22lx	20lx	18lx	16lx
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
595,4fcd	148,9fcd	66,2fcd	37,2fcd	23,8fcd	16,5fcd	12,2fcd	9,3fcd	7,4fcd	6fcd	4,9fcd	4,1fcd	3,5fcd	3fcd	2,6fcd	2,3fcd	2,1fcd	1,8fcd	1,6fcd	1,5fcd
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°
6409	6282	6154	5904	5553	5191	4713	4236	3754	3270	2807	2446	2086	1832	1620	1415	1233	1051	836	614
100%	98%	96%	92%	87%	81%	74%	66%	59%	51%	44%	38%	33%	29%	25%	22%	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°
6409	6338	6202	5928	5580	5189	4739	4273	3787	3303	2853	2464	2109	1838	1618	1424	1241	1051	838	618
100%	99%	97%	92%	87%	81%	74%	67%	59%	52%	45%	38%	33%	29%	25%	22%	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°
6409	6282	6154	5904	5553	5191	4713	4236	3754	3270	2807	2446	2086	1832	1620	1415	1233	1051	836	614
100%	98%	96%	92%	87%	81%	74%	66%	59%	51%	44%	38%	33%	29%	25%	22%	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°
6409	6338	6202	5928	5580	5189	4739	4273	3787	3303	2853	2464	2109	1838	1618	1424	1241	1051	838	618
100%	99%	97%	92%	87%	81%	74%	67%	59%	52%	45%	38%	33%	29%	25%	22%	19%	16%	13%	10%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
36,7°				75,5°				{C_ANG}°				97,6%				95,1%			



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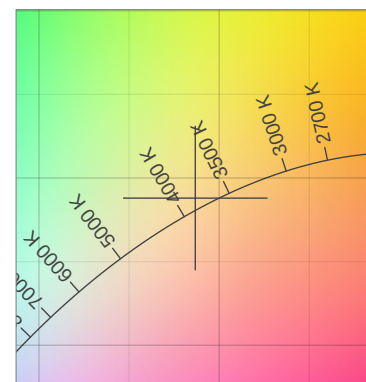
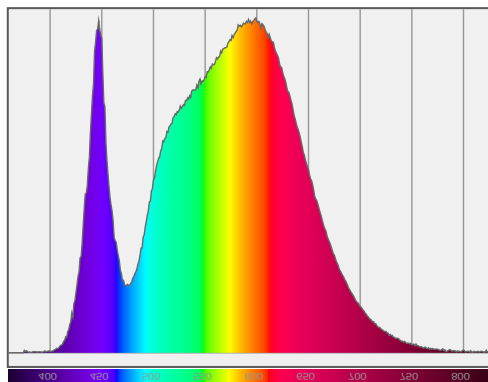
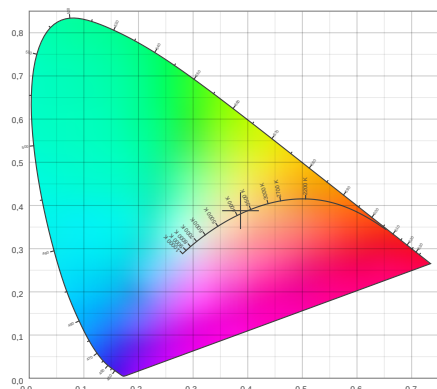
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Color details



CIE 1931

x: 0,387

3921 K

y: 0,388



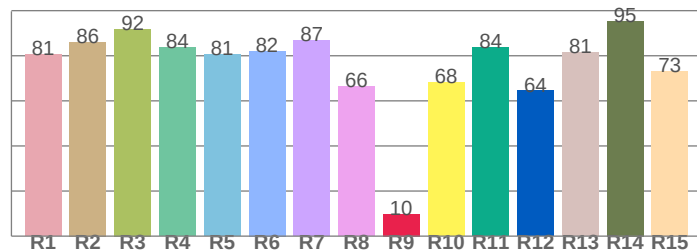
Spectra

CIE 1931 ZOOM

Δuv : 0,0034

CRI: **82,3** (R1-R8)

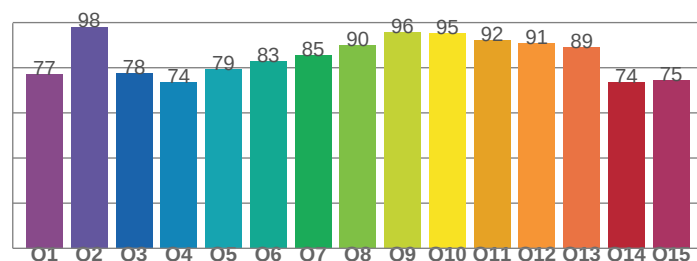
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
80,5	86,1	91,9	83,7	80,7	82,1	86,9	66,5
R9	R10	R11	R12	R13	R14	R15	
9,8	68,3	83,7	64,4	81,3	95,4	73,1	

CQS: **82,8**

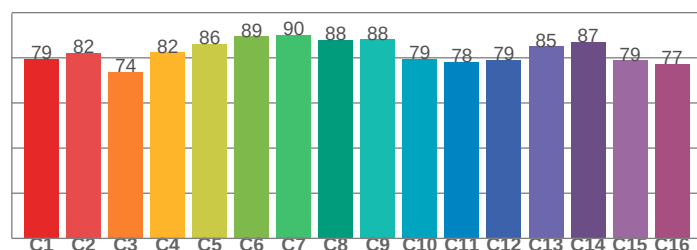
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,3	98,2	77,6	73,5	79,3	82,8	85,4	89,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,8	95,3	92,1	90,8	89,2	73,6	74,5	

TM30: **82,5**

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



C1	C2	C3	C4	C5	C6	C7	C8
79,5	82,2	73,9	82,4	86,3	89,5	90,0	87,8
C9	C10	C11	C12	C13	C14	C15	
88,2	79,4	78,1	79,0	85,1	87,0	78,9	

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
3921 K	82,3	9,8	82,5	97,8	82,8	0,387	0,388	0,225	0,338	0,0034



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TM30 details

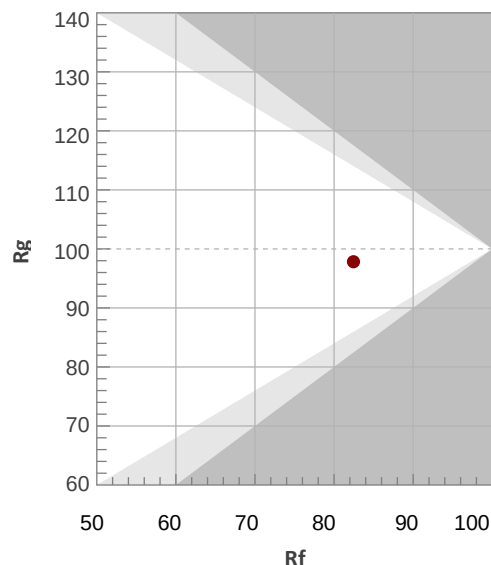
Rf 82,5

Fidelity index R_f

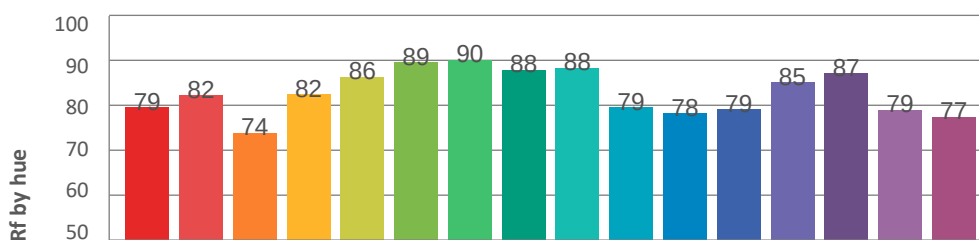
Rg 97,8

Gammut index Rg

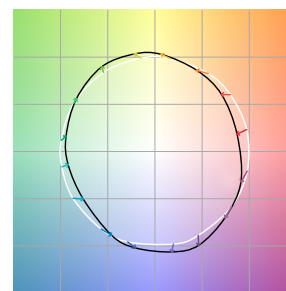
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-11%	-3%
2	82	-8%	5%
3	74	-4%	12%
4	82	2%	10%
5	86	6%	6%
6	89	6%	-1%
7	90	0%	-6%
8	88	-4%	-5%
9	88	-7%	-1%
10	79	-9%	7%
11	78	-1%	13%
12	79	5%	9%
13	85	8%	-3%
14	87	9%	-5%
15	79	1%	-13%
16	77	-4%	-13%



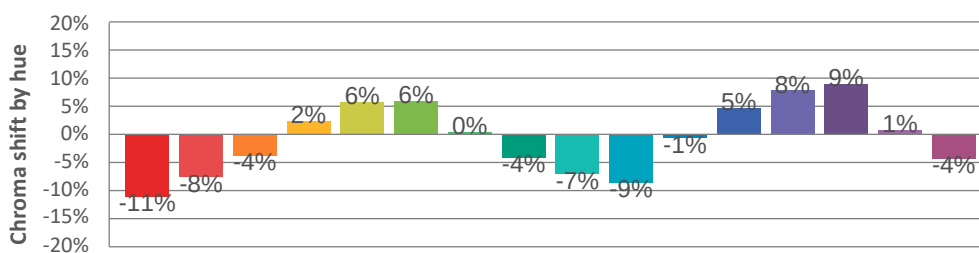
Hue binH



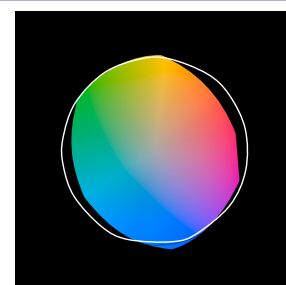
Color vector graphics



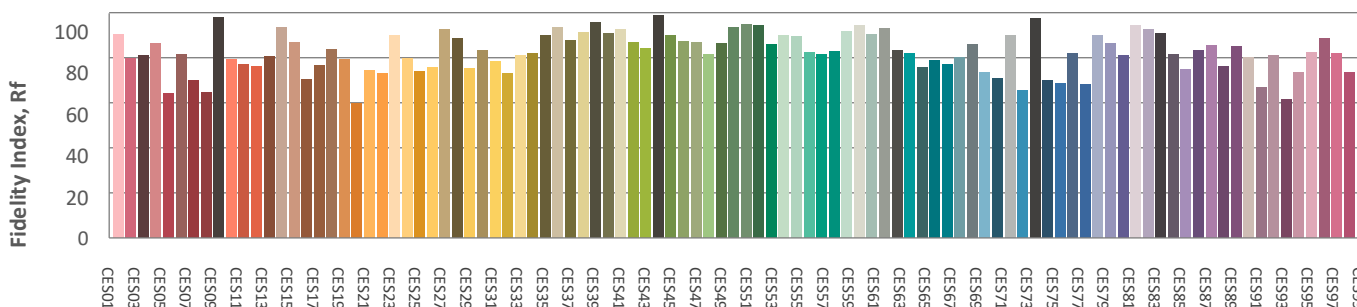
Hue bin



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	22,5	23,2	22,8	23,4	23,6	22,5	23,2	22,8	23,4	23,7
	3H	22,6	23,2	22,9	23,5	23,7	22,6	23,3	22,9	23,5	23,7
	4H	22,7	23,3	23,0	23,5	23,8	22,7	23,3	23,0	23,5	23,8
	6H	22,7	23,3	23,1	23,6	23,9	22,7	23,3	23,1	23,6	23,9
	8H	22,7	23,3	23,1	23,6	23,9	22,7	23,3	23,1	23,6	23,9
	12H	22,7	23,2	23,1	23,5	23,9	22,7	23,2	23,1	23,5	23,9
4H	2H	22,4	23,0	22,7	23,3	23,6	22,4	23,0	22,7	23,3	23,6
	3H	22,6	23,1	22,9	23,4	23,7	22,6	23,1	22,9	23,4	23,7
	4H	22,7	23,2	23,1	23,5	23,9	22,7	23,1	23,1	23,5	23,9
	6H	22,8	23,2	23,3	23,6	24,0	22,8	23,2	23,3	23,6	24,0
	8H	22,9	23,2	23,3	23,6	24,0	22,9	23,2	23,3	23,6	24,0
	12H	22,9	23,2	23,4	23,6	24,0	22,9	23,2	23,3	23,6	24,0
8H	4H	22,7	23,0	23,1	23,4	23,9	22,7	23,0	23,1	23,4	23,8
	6H	22,9	23,1	23,4	23,6	24,0	22,9	23,1	23,4	23,6	24,0
	8H	23,0	23,2	23,4	23,6	24,1	23,0	23,2	23,4	23,6	24,1
	12H	23,0	23,2	23,5	23,7	24,2	23,0	23,2	23,5	23,6	24,1
12H	4H	22,7	23,0	23,1	23,4	23,8	22,7	23,0	23,1	23,4	23,8
	6H	22,9	23,1	23,4	23,5	24,0	22,9	23,1	23,4	23,5	24,0
	8H	23,0	23,1	23,5	23,6	24,1	23,0	23,1	23,5	23,6	24,1

Variation of the observer position for the luminaire distance S

S = 1,0H	+3,8 / -3,5	+3,9 / -3,6
S = 1,5H	+6,4 / -3,8	+6,4 / -3,9
S = 2,0H	+8,3 / -4,2	+8,4 / -4,2
Standard table	BK01	BK01
Correction summand	4,8	4,8

Corrected glare indices referring to 3392lm total luminous flux



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