

LM-79

Test Report

LM79-JADE-S-3000K-CRI80-FLOOD

General Discription

Item number	J-SX-X-3-1-27-80-3
Date and time	25-11-2016 13:44:07
CCT (Kelvin)	3096 K
Beam angle	65,1°
Luminous flux	2985 lm
Efficiency	105 lm/watt
Weighted energy	28,4 kWh/1000h
Power factor	0,99
CRI (RA)	81,5
Fidelity index Rf	Rf 82,8
Gammut index Rg	Rg 95,8

NEW



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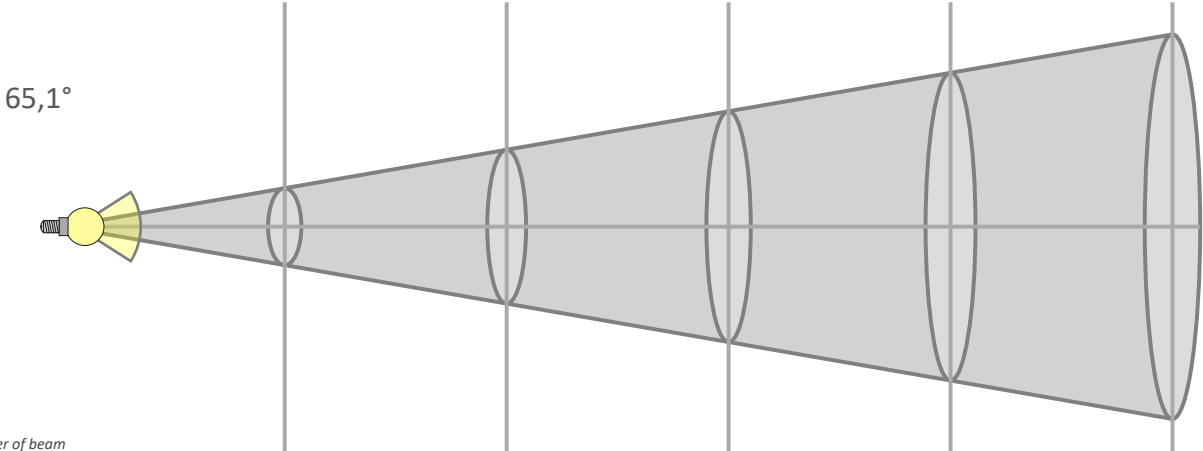
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Beam details	1m	2m	3m	4m	5m
Lux*	2652 lx	663 lx	295 lx	166 lx	106 lx



65,1°

*measured at center of beam

Footcandles*	246,4 fcd	61,6 fcd	27,4 fcd	15,4 fcd	9,9 fcd
Beam width (meter)	1,3 m	2,6 m	3,8 m	5,1 m	6,4 m
Beam width (Feet)	4,2 ft	8,4 ft	12,6 ft	16,7 ft	20,9 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2652lx	663lx	295lx	166lx	106lx	74lx	54lx	41lx	33lx	27lx	22lx	18lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	7lx
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
246,4fcd	61,6fcd	27,4fcd	15,4fcd	9,9fcd	6,8fcd	5fcd	3,9fcd	3fcd	2,5fcd	2fcd	1,7fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	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°
2652	2649	2644	2644	2661	2685	2730	2779	2793	2778	2724	2579	2413	2200	1965	1720	1467	1209	947	691
100%	100%	100%	100%	100%	101%	103%	105%	105%	105%	103%	97%	91%	83%	74%	65%	55%	46%	36%	26%

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°
2652	2643	2628	2619	2618	2632	2673	2718	2739	2734	2682	2545	2387	2172	1936	1693	1438	1181	924	669
100%	100%	99%	99%	99%	99%	101%	102%	103%	103%	101%	96%	90%	82%	73%	64%	54%	45%	35%	25%

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°
2652	2649	2644	2644	2661	2685	2730	2779	2793	2778	2724	2579	2413	2200	1965	1720	1467	1209	947	691
100%	100%	100%	100%	100%	101%	103%	105%	105%	105%	103%	97%	91%	83%	74%	65%	55%	46%	36%	26%

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°
2652	2643	2628	2619	2618	2632	2673	2718	2739	2734	2682	2545	2387	2172	1936	1693	1438	1181	924	669
100%	100%	99%	99%	99%	99%	101%	102%	103%	103%	101%	96%	90%	82%	73%	64%	54%	45%	35%	25%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,1°	85,3°	{C_ANG}°	97,5%	94,6%



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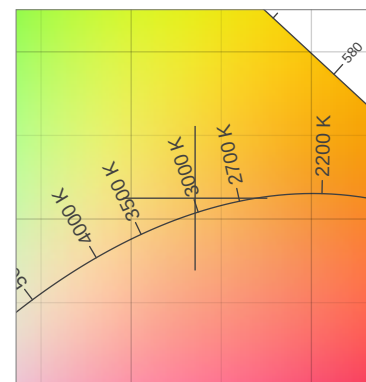
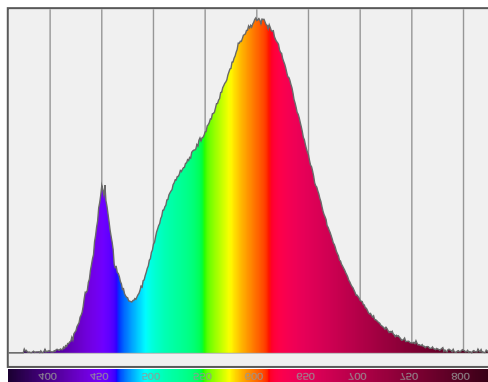
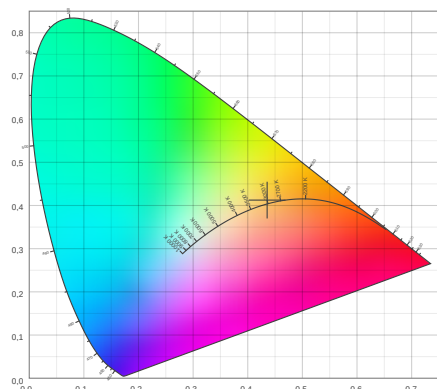
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Color details



CIE 1931

x: 0,435



Spectra

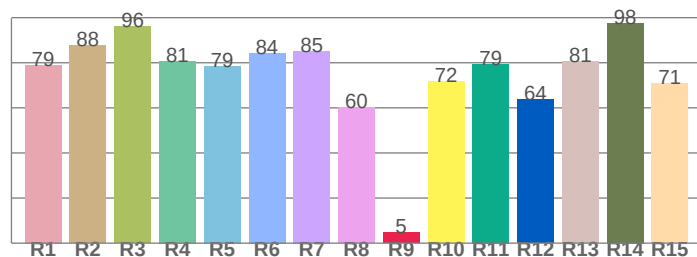
CIE 1931 ZOOM

3096 K

y: 0,412

Δuv : 0,0035

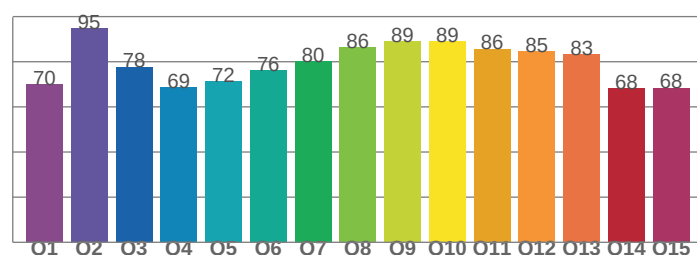
CRI: 81,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
79,0	87,6	96,0	80,8	78,5	84,3	85,2	60,2
R9	R10	R11	R12	R13	R14	R15	
4,6	71,7	79,5	63,8	80,7	97,6	70,8	

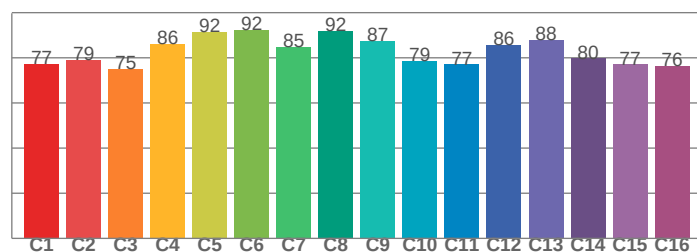
CQS: 77,8



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
69,9	94,8	77,8	68,5	71,5	76,3	80,3	86,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
88,9	88,9	85,8	84,7	83,4	68,4	68,5	

TM30: 82,8



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

C1	C2	C3	C4	C5	C6	C7	C8
77,3	78,9	75,1	86,0	91,6	92,3	84,9	91,8
C9	C10	C11	C12	C13	C14	C15	
87,4	78,6	77,0	85,6	88,0	79,7	77,1	

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
3096 K	81,5	4,6	82,8	95,8	77,8	0,435	0,412	0,246	0,350	0,0035



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TM30 details

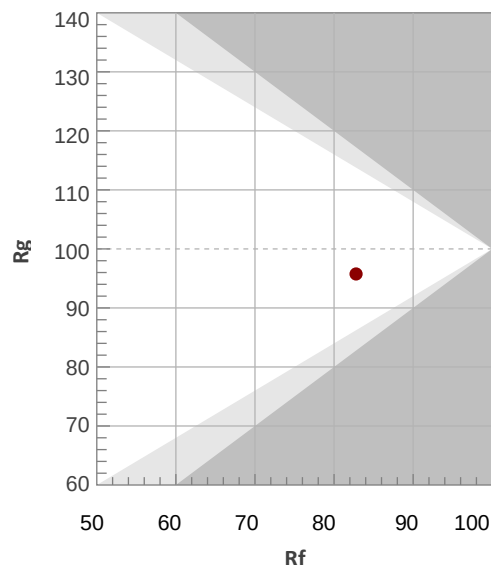
Rf 82,8

Fidelity index Rf

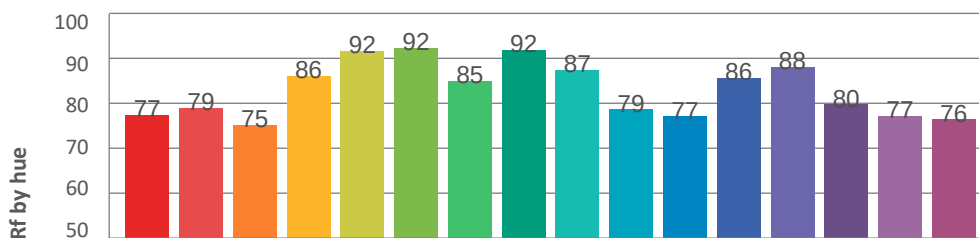
Rg 95,8

Gamut index Rg

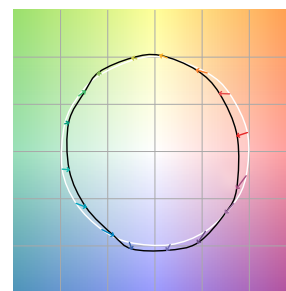
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	77	-11%	-1%
2	79	-9%	6%
3	75	-4%	11%
4	86	1%	8%
5	92	2%	5%
6	92	3%	-2%
7	85	-3%	-8%
8	92	-4%	-2%
9	87	-7%	2%
10	79	-6%	9%
11	77	-2%	14%
12	86	6%	4%
13	88	5%	-5%
14	80	6%	-13%
15	77	-2%	-13%
16	76	-7%	-15%



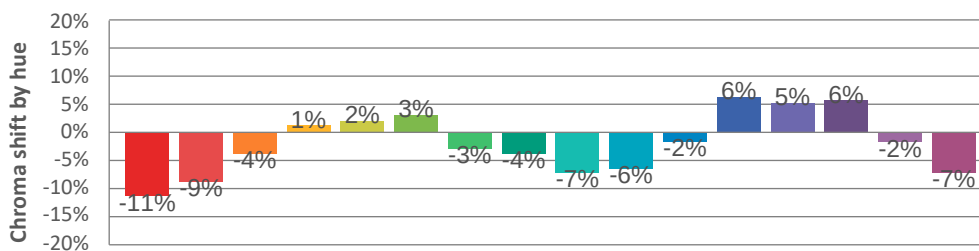
Hue binH



Color vector graphics



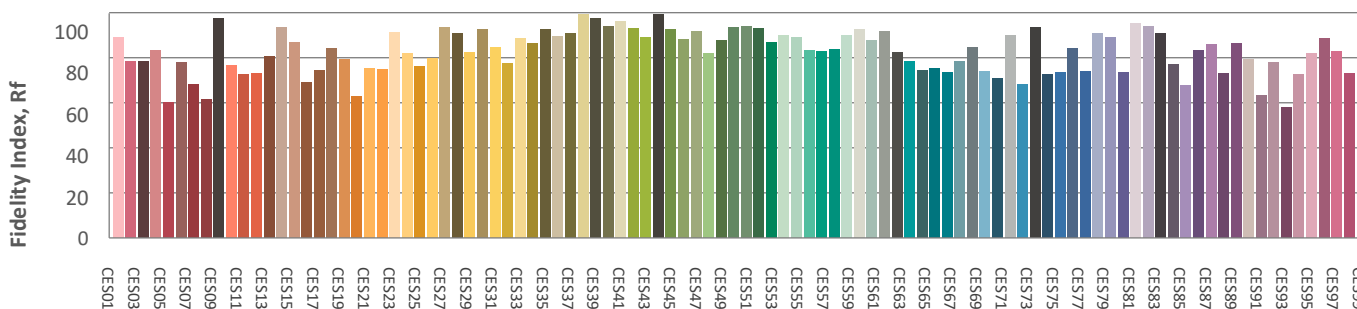
Hue bin



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	23,9	24,6	24,1	24,8	25,0	23,8	24,5	24,0	24,7	24,9
	3H	23,9	24,5	24,2	24,7	25,0	23,8	24,4	24,1	24,6	24,9
	4H	23,9	24,5	24,2	24,7	25,0	23,8	24,4	24,1	24,6	24,9
	6H	23,9	24,4	24,2	24,7	25,0	23,8	24,3	24,1	24,6	24,9
	8H	23,9	24,4	24,2	24,7	25,0	23,8	24,3	24,1	24,6	24,9
	12H	23,8	24,3	24,2	24,7	25,0	23,7	24,2	24,1	24,6	24,9
4H	2H	23,7	24,3	24,0	24,6	24,9	23,6	24,2	23,9	24,5	24,7
	3H	23,8	24,3	24,1	24,6	24,9	23,7	24,2	24,0	24,5	24,8
	4H	23,8	24,3	24,2	24,6	25,0	23,7	24,2	24,1	24,5	24,9
	6H	23,9	24,2	24,3	24,6	25,0	23,8	24,1	24,2	24,5	24,9
	8H	23,9	24,2	24,3	24,6	25,0	23,8	24,1	24,2	24,5	24,9
	12H	23,9	24,1	24,3	24,6	25,0	23,8	24,1	24,2	24,5	24,9
8H	4H	23,8	24,1	24,2	24,5	24,9	23,7	24,0	24,1	24,4	24,8
	6H	23,9	24,1	24,3	24,5	25,0	23,8	24,0	24,2	24,5	24,9
	8H	23,9	24,1	24,4	24,5	25,0	23,8	24,0	24,3	24,5	24,9
	12H	23,9	24,0	24,4	24,5	25,0	23,8	24,0	24,3	24,4	24,9
12H	4H	23,8	24,0	24,2	24,5	24,9	23,7	24,0	24,1	24,4	24,8
	6H	23,8	24,0	24,3	24,5	25,0	23,8	24,0	24,2	24,4	24,9
	8H	23,9	24,0	24,4	24,5	25,0	23,8	23,9	24,3	24,4	24,9

Variation of the observer position for the luminaire distance S

S = 1,0H	+4,4 / -4,9	+4,4 / -4,8
S = 1,5H	+7,0 / -5,2	+7,0 / -5,2
S = 2,0H	+9,0 / -5,6	+9,0 / -5,5
Standard table	BK01	BK01
Correction summand	5,9	5,8

Corrected glare indices referring to 2985lm total luminous flux



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