

LM-79

Test Report

LM79-JADE-S-4000K-CRI80-FLOOD

General Discription

Item number	J-S1-X-X-1-40-80-3
Date and time	28-11-2016 09:34:03
CCT (Kelvin)	3928 K
Beam angle	65°
Luminous flux	3374 lm
Efficiency	119 lm/watt
Weighted energy	28,2 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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info@cls-led.com
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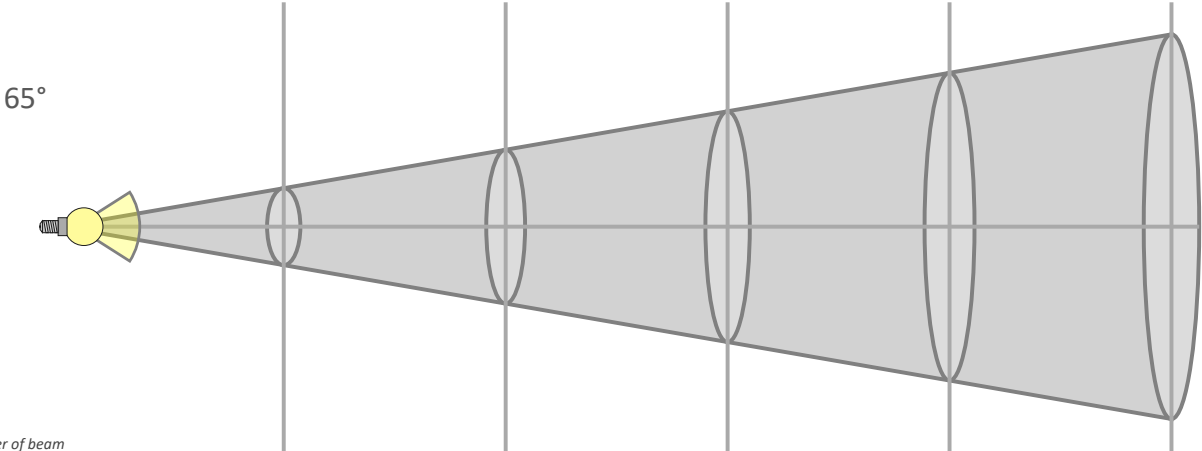
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Beam details	1m	2m	3m	4m	5m
Lux*	2991 lx	748 lx	332 lx	187 lx	120 lx



65°

*measured at center of beam

Footcandles*	277,9 fcd	69,5 fcd	30,9 fcd	17,4 fcd	11,1 fcd
Beam width (meter)	1,3 m	2,5 m	3,8 m	5,1 m	6,4 m
Beam width (Feet)	4,2 ft	8,4 ft	12,5 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
2991lx	748lx	332lx	187lx	120lx	83lx	61lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	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
277,9fcd	69,5fcd	30,9fcd	17,4fcd	11,1fcd	7,7fcd	5,7fcd	4,3fcd	3,4fcd	2,8fcd	2,3fcd	1,9fcd	1,6fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd

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°
2991	2986	2980	2986	3004	3024	3078	3131	3139	3117	3070	2889	2707	2467	2202	1930	1644	1358	1070	784
100%	100%	100%	100%	100%	101%	103%	105%	105%	104%	103%	97%	90%	82%	74%	65%	55%	45%	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°
2991	2983	2969	2958	2966	2987	3036	3093	3124	3117	3060	2910	2726	2483	2211	1930	1638	1343	1049	763
100%	100%	99%	99%	99%	100%	101%	103%	104%	104%	102%	97%	91%	83%	74%	65%	55%	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°
2991	2986	2980	2986	3004	3024	3078	3131	3139	3117	3070	2889	2707	2467	2202	1930	1644	1358	1070	784
100%	100%	100%	100%	100%	101%	103%	105%	105%	104%	103%	97%	90%	82%	74%	65%	55%	45%	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°
2991	2983	2969	2958	2966	2987	3036	3093	3124	3117	3060	2910	2726	2483	2211	1930	1638	1343	1049	763
100%	100%	99%	99%	99%	100%	101%	103%	104%	104%	102%	97%	91%	83%	74%	65%	55%	45%	35%	25%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65°	85,5°	{C_ANG}°	97,6%	94,7%



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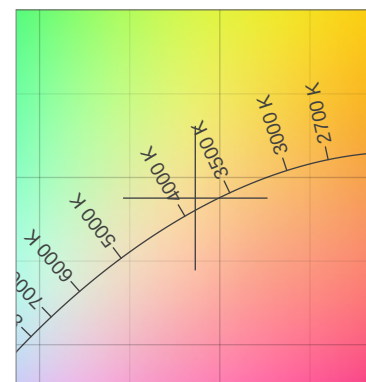
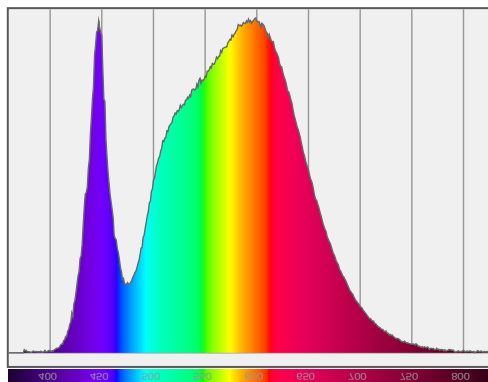
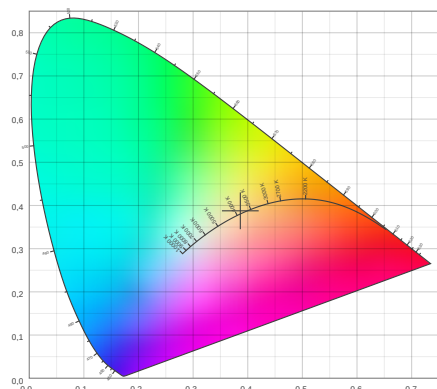
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Color details



CIE 1931

x: 0,386

3928 K

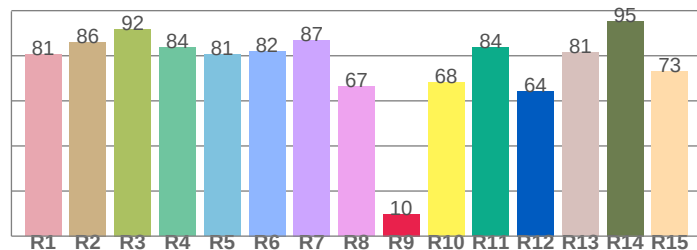
y: 0,388

Spectra

CIE 1931 ZOOM

Δuv : 0,0033

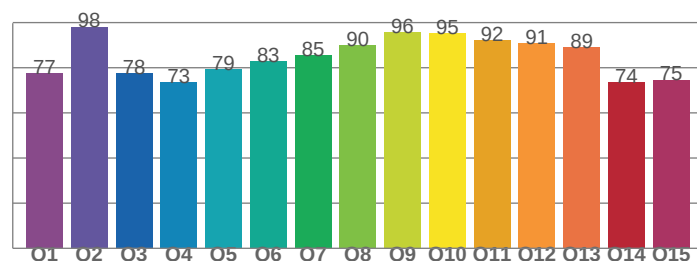
CRI: 82,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,5	86,2	91,9	83,8	80,7	82,1	87,0	66,5
R9	R10	R11	R12	R13	R14	R15	
9,9	68,3	83,7	64,3	81,4	95,4	73,1	

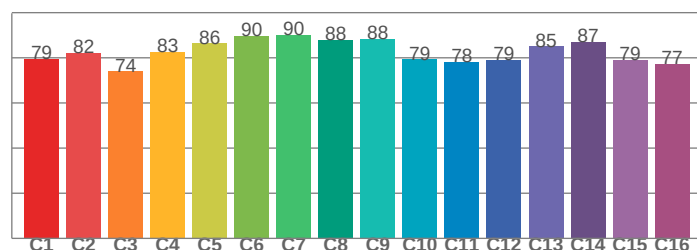
CQS: 82,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,4	98,2	77,6	73,5	79,3	82,7	85,4	89,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,9	95,1	92,0	90,8	89,2	73,7	74,6	

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	82,5	86,4	89,6	90,1	87,9
C9	C10	C11	C12	C13	C14	C15	
88,2	79,3	78,0	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
3928 K	82,3	9,9	82,5	97,8	82,9	0,386	0,388	0,225	0,338	0,0033



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TM30 details

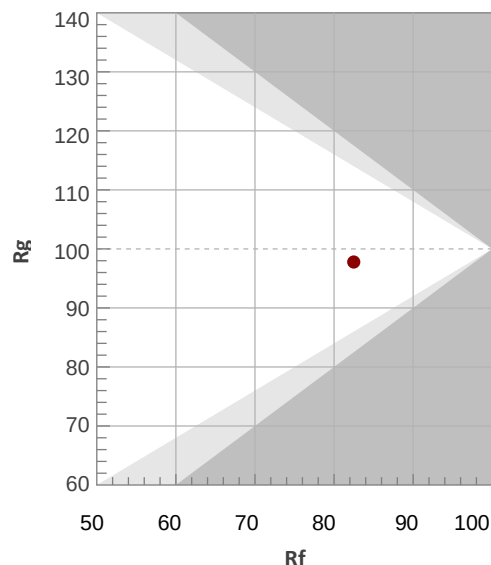
Rf 82,5

Fidelity index Rf

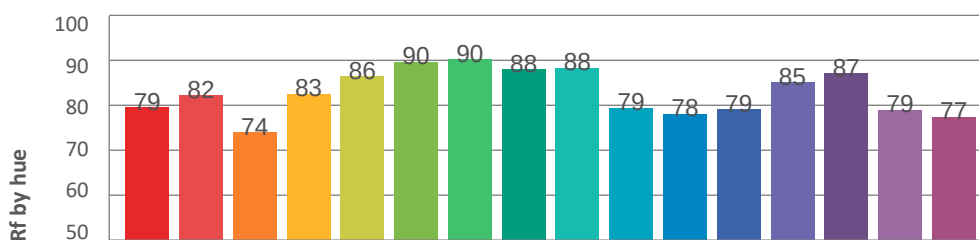
Rg 97,8

Gamut index Rg

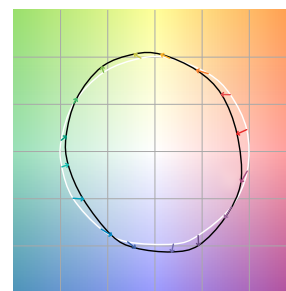
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	79	-11%	-3%
2	82	-8%	5%
3	74	-4%	12%
4	83	2%	10%
5	86	6%	6%
6	90	6%	-1%
7	90	0%	-6%
8	88	-4%	-5%
9	88	-7%	-1%
10	79	-9%	7%
11	78	-1%	13%
12	79	5%	9%
13	85	8%	-3%
14	87	9%	-5%
15	79	1%	-13%
16	77	-4%	-13%



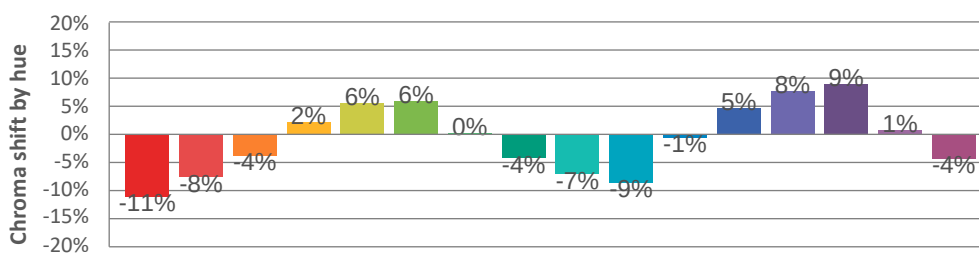
Hue binH



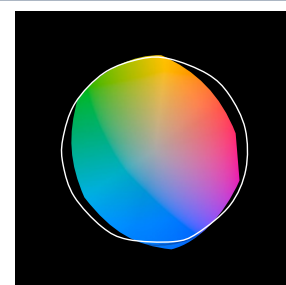
Color vector graphics



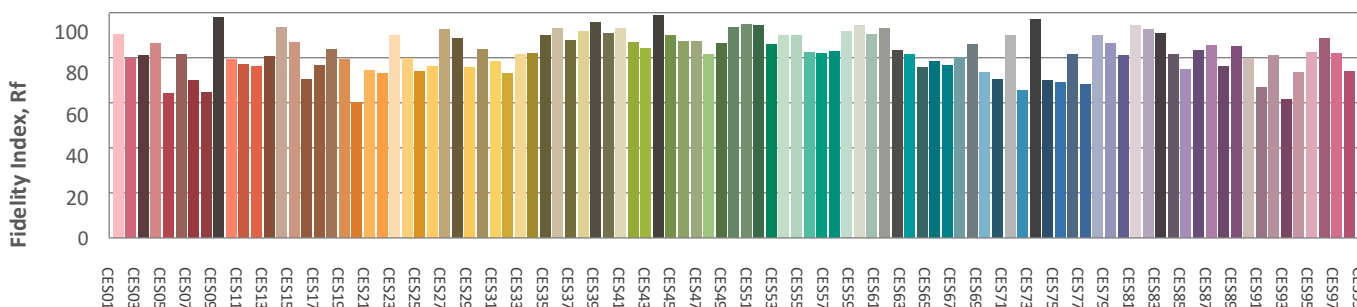
Hue bin



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

Variation of the observer position for the luminaire distance S

S = 1,0H	+4,3 / -4,9	+4,4 / -4,9
S = 1,5H	+7,0 / -5,3	+7,1 / -5,3
S = 2,0H	+9,0 / -5,6	+9,0 / -5,6
Standard table	BK01	BK01
Correction summand	6,3	6,2

Corrected glare indices referring to 3374lm total luminous flux



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