

LM-79

Test Report

LM79-JADE-S-2700K-CRI90-FLOOD

General Description

Item number	J-SX-X-3-1-27-90-3
Date and time	27-1-2017 13:52:31
CCT (Kelvin)	2777 K
Beam angle	65°
Luminous flux	2471 lm
Efficiency	88 lm/watt
Weighted energy	28,0 kWh/1000h
Power factor	0,95
CRI (RA)	93,2
Fidelity index Rf	Rf 91,3
Gammut index Rg	Rg 100,5



CLS LED BV
info@cls-led.com
www.cls-led.com

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Beam details	1m	2m	3m	4m	5m																			
Lux*	2224 lx	556 lx	247 lx	139 lx	89 lx																			
<i>*measured at center of beam</i>																								
Footcandles*	206,6 fcd	51,6 fcd	23,0 fcd	12,9 fcd	8,3 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					
2224lx	556lx	247lx	139lx	89lx	62lx	45lx	35lx	27lx	22lx	18lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx	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					
206,6fcd	51,6fcd	23fcd	12,9fcd	8,3fcd	5,7fcd	4,2fcd	3,2fcd	2,6fcd	2,1fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd					
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°					
2224	2216	2207	2206	2209	2221	2256	2292	2292	2288	2223	2107	1977	1788	1599	1399	1197	985	763	545					
100%	100%	99%	99%	99%	100%	101%	103%	103%	103%	100%	95%	89%	80%	72%	63%	54%	44%	34%	25%					
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°					
2224	2216	2207	2206	2209	2221	2256	2292	2292	2288	2223	2107	1977	1788	1599	1399	1197	985	763	545					
100%	100%	99%	99%	99%	100%	101%	103%	103%	103%	100%	95%	89%	80%	72%	63%	54%	44%	34%	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°					
2224	2216	2207	2206	2209	2221	2256	2292	2292	2288	2223	2107	1977	1788	1599	1399	1197	985	763	545					
100%	100%	99%	99%	99%	100%	101%	103%	103%	103%	100%	95%	89%	80%	72%	63%	54%	44%	34%	25%					
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°					
2224	2216	2207	2206	2209	2221	2256	2292	2292	2288	2223	2107	1977	1788	1599	1399	1197	985	763	545					
100%	100%	99%	99%	99%	100%	101%	103%	103%	103%	100%	95%	89%	80%	72%	63%	54%	44%	34%	25%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
65°					84,9°					{C_ANG}°					97,3%					94,3%				



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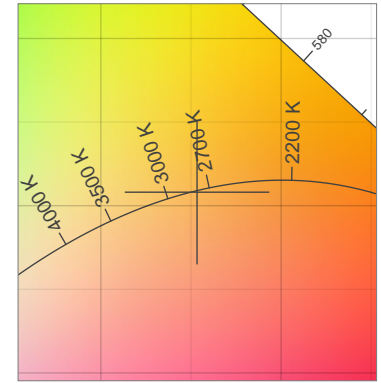
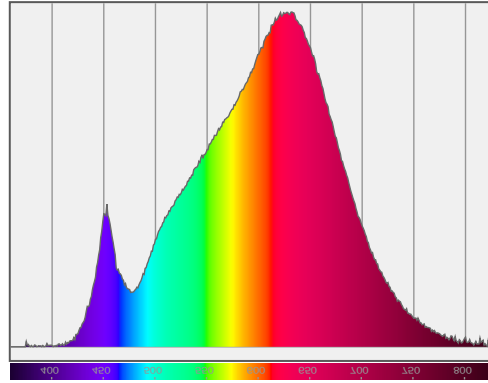
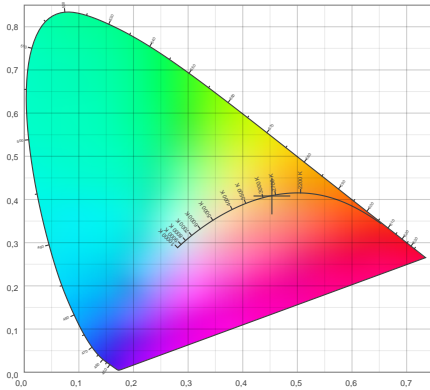
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Color details



CIE 1931

x: 0,453



Spectra

CIE 1931 ZOOM

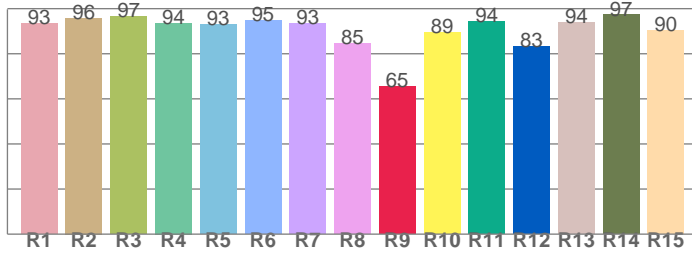
2777 K

y: 0,408

Δuv : 0,0004

CRI: 93,2 (R1-R8)

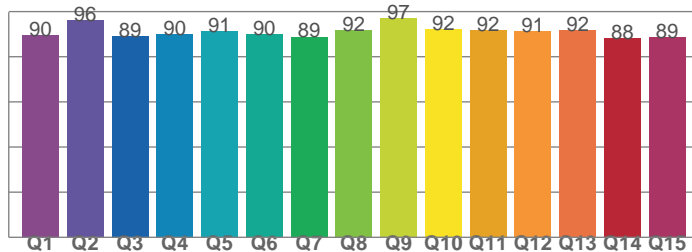
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
93,4	95,9	96,6	93,6	92,9	94,8	93,4	84,7
R9	R10	R11	R12	R13	R14	R15	
65,4	89,3	94,2	83,1	94,0	97,3	90,2	

CQS: 90,7

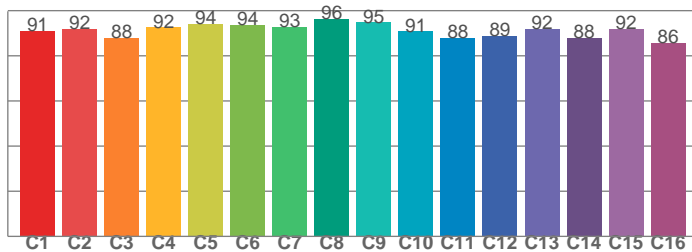
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
89,7	96,1	89,1	89,9	91,4	89,9	88,8	91,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,9	92,2	91,7	91,3	91,6	88,3	88,5	

TM30: 91,3

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



C1	C2	C3	C4	C5	C6	C7	C8
91,1	92,0	88,0	92,5	94,2	93,8	92,9	96,5
C9	C10	C11	C12	C13	C14	C15	
94,8	90,7	87,9	88,8	91,8	88,0	91,8	

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
2777 K	93,2	65,4	91,3	100,5	90,7	0,453	0,408	0,259	0,350	0,0004



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TM30 details

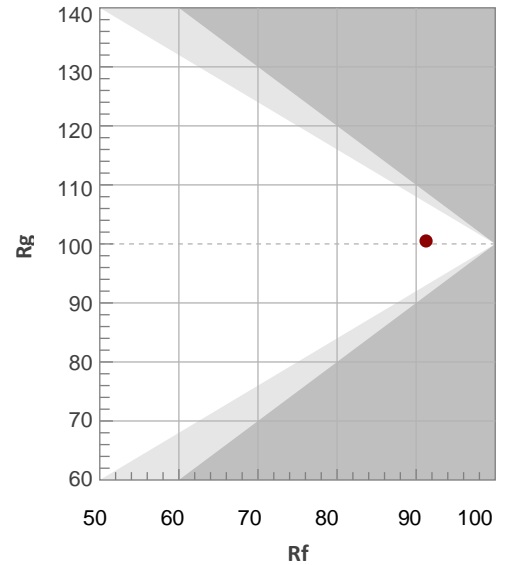
Rf 91,3

Fidelity index Rf

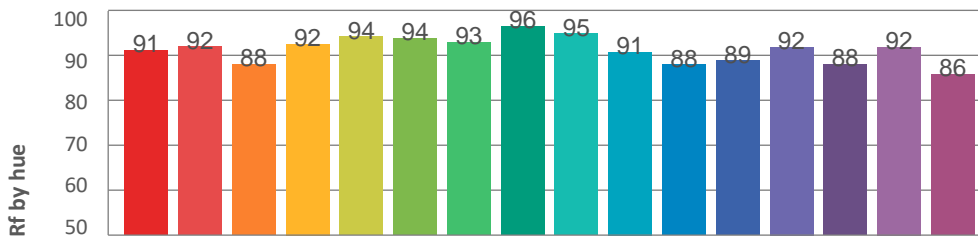
Rg 100,5

Gamut index Rg

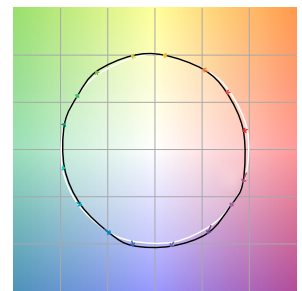
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-1%
2	92	-3%	3%
3	88	-1%	5%
4	92	0%	3%
5	94	2%	3%
6	94	3%	0%
7	93	0%	-3%
8	96	-1%	-2%
9	95	-2%	1%
10	91	-2%	5%
11	88	0%	8%
12	89	5%	2%
13	92	4%	-4%
14	88	5%	-7%
15	92	0%	-5%
16	86	-2%	-10%



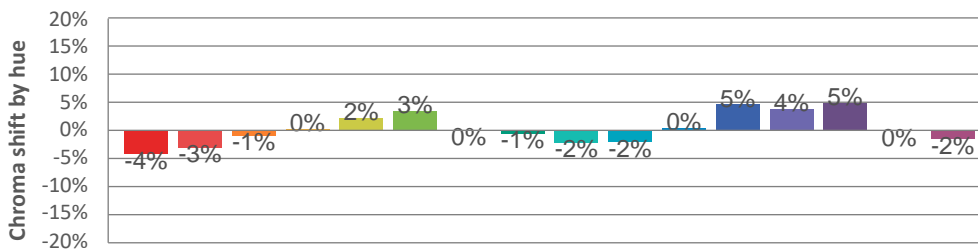
Hue binH



Color vector graphics



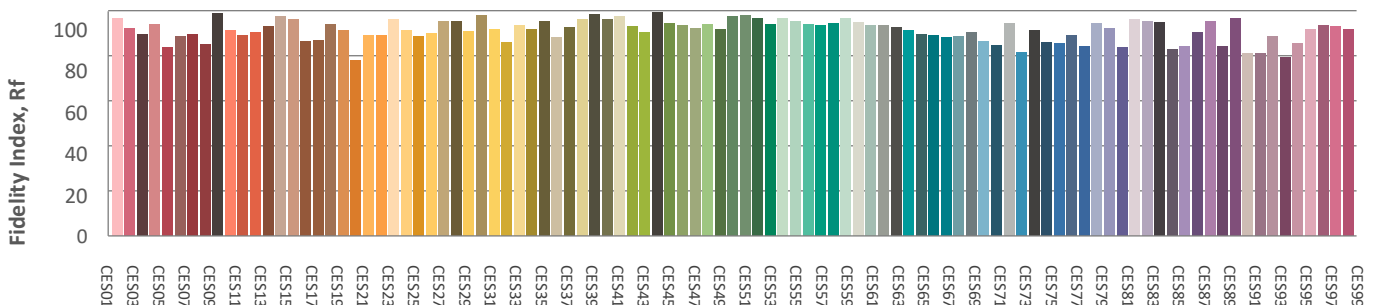
Hue bin



Color distortion graphics



Color Evaluation Sample



CLS LED BV
 info@cls-led.com
 www.cls-led.com

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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	23,1	23,8	23,4	24,0	24,2	23,1	23,8	23,4	24,0	24,2
	3H	23,1	23,8	23,4	24,0	24,3	23,1	23,8	23,4	24,0	24,3
	4H	23,2	23,8	23,5	24,0	24,3	23,2	23,8	23,5	24,0	24,3
	6H	23,2	23,7	23,5	24,0	24,3	23,2	23,7	23,5	24,0	24,3
	8H	23,2	23,7	23,5	24,0	24,3	23,2	23,7	23,5	24,0	24,3
	12H	23,2	23,7	23,5	24,0	24,3	23,2	23,7	23,5	24,0	24,3
4H	2H	23,0	23,6	23,3	23,9	24,1	23,0	23,6	23,3	23,9	24,1
	3H	23,1	23,6	23,4	23,9	24,2	23,1	23,6	23,4	23,9	24,2
	4H	23,2	23,6	23,5	23,9	24,3	23,2	23,6	23,5	23,9	24,3
	6H	23,2	23,6	23,6	24,0	24,4	23,2	23,6	23,6	24,0	24,4
	8H	23,2	23,6	23,7	24,0	24,4	23,2	23,6	23,7	24,0	24,4
	12H	23,2	23,5	23,7	23,9	24,4	23,2	23,5	23,7	23,9	24,4
8H	4H	23,1	23,5	23,6	23,8	24,3	23,1	23,5	23,6	23,8	24,3
	6H	23,2	23,5	23,7	23,9	24,4	23,2	23,5	23,7	23,9	24,4
	8H	23,3	23,5	23,8	23,9	24,4	23,3	23,5	23,8	23,9	24,4
	12H	23,3	23,5	23,8	23,9	24,5	23,3	23,5	23,8	23,9	24,5
12H	4H	23,1	23,4	23,5	23,8	24,2	23,1	23,4	23,5	23,8	24,2
	6H	23,2	23,4	23,7	23,9	24,4	23,2	23,4	23,7	23,9	24,4
	8H	23,3	23,4	23,8	23,9	24,4	23,3	23,4	23,8	23,9	24,4
Variation of the observer position for the luminaire distance S											
S = 1,0H	+4,3 / -4,3					+4,3 / -4,3					
S = 1,5H	+6,9 / -4,6					+6,9 / -4,6					
S = 2,0H	+8,9 / -5,0					+8,9 / -5,0					
Standard table	BK01					BK01					
Correction summand	5,2					5,2					
Corrected glare indices referring to 2471lm total luminous flux											

