

LM-79

Test Report

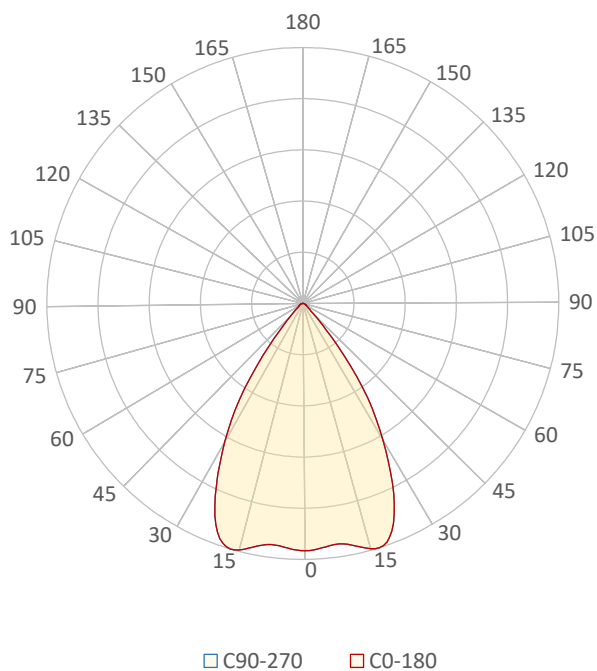
LM79-JADE-HP-2700K-CRI90-WIDE

General Discription

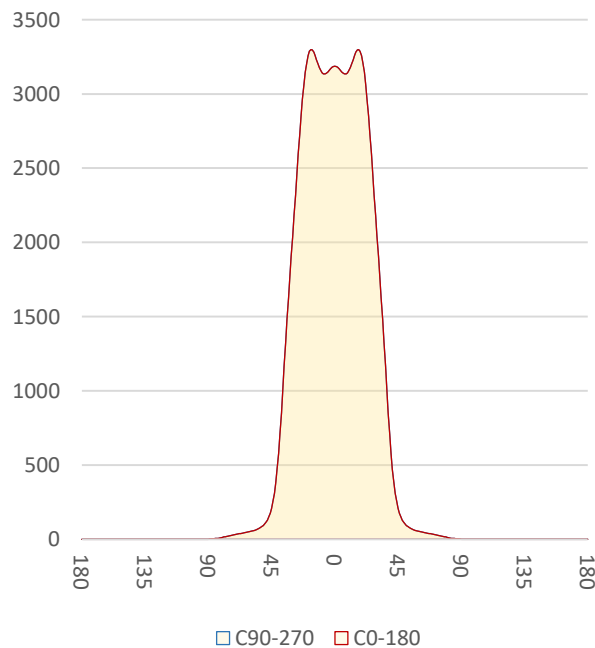
Item number	
Date and time	22-1-2021 14:29:16
CCT (Kelvin)	2764 K
Beam angle	65,7°
Luminous flux	3590 lm
Efficiency	90 lm/watt
Weighted energy	39,8 kWh/1000h
Power factor	0,97
CRI (RA)	92,1
Fidelity index Rf	Rf 91,4
Gammut index Rg	Rg 98,2
Peak	3300 cd



Polar diagram



Cartesian diagram



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info@cls-led.com
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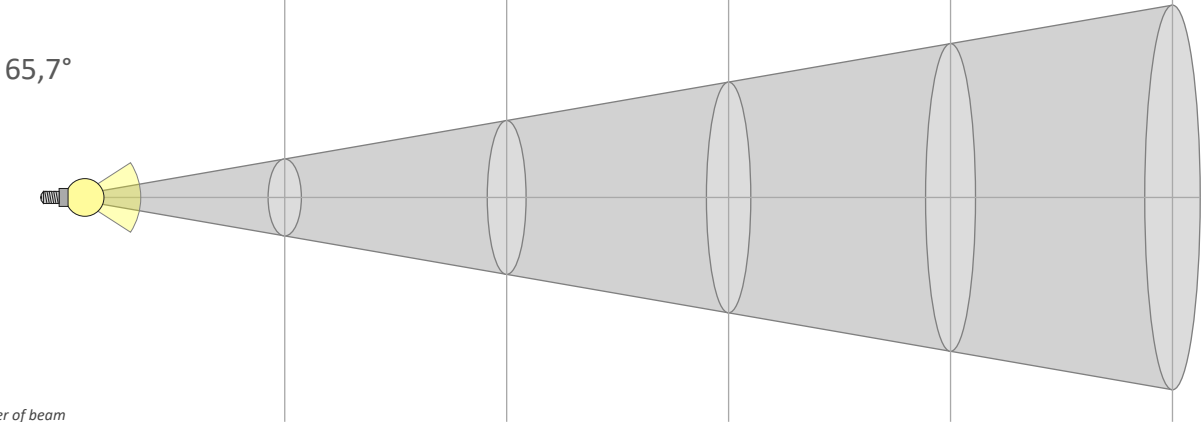
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Beam details	1m	2m	3m	4m	5m
Lux*	3187 lx	797 lx	354 lx	199 lx	127 lx



65,7°

*measured at center of beam

Footcandles*	296,1 fcd	74,0 fcd	32,9 fcd	18,5 fcd	11,8 fcd
Beam width (meter)	1,3 m	2,6 m	3,9 m	5,2 m	6,5 m
Beam width (Feet)	4,2 ft	8,5 ft	12,7 ft	16,9 ft	21,2 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3187lx	797lx	354lx	199lx	127lx	89lx	65lx	50lx	39lx	32lx	26lx	22lx	19lx	16lx	14lx	12lx	11lx	10lx	9lx	8lx
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
296,1fcd	74fcd	32,9fcd	18,5fcd	11,8fcd	8,2fcd	6fcd	4,6fcd	3,7fcd	3fcd	2,4fcd	2,1fcd	1,8fcd	1,5fcd	1,3fcd	1,2fcd	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°
3187	3179	3159	3139	3135	3157	3203	3257	3296	3288	3211	3063	2851	2596	2321	2043	1767	1482	1168	852
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	89%	81%	73%	64%	55%	46%	37%	27%

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°
3187	3179	3159	3139	3135	3157	3203	3257	3296	3288	3211	3063	2851	2596	2321	2043	1767	1482	1168	852
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	89%	81%	73%	64%	55%	46%	37%	27%

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°
3187	3179	3159	3139	3135	3157	3203	3257	3296	3288	3211	3063	2851	2596	2321	2043	1767	1482	1168	852
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	89%	81%	73%	64%	55%	46%	37%	27%

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°
3187	3179	3159	3139	3135	3157	3203	3257	3296	3288	3211	3063	2851	2596	2321	2043	1767	1482	1168	852
100%	100%	99%	98%	98%	99%	100%	102%	103%	103%	101%	96%	89%	81%	73%	64%	55%	46%	37%	27%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,7°	85,4°	104,8°	97,9%	94,5%



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 info@cls-led.com
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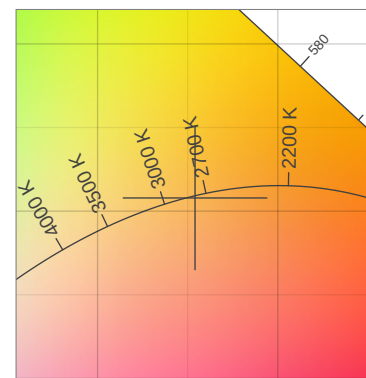
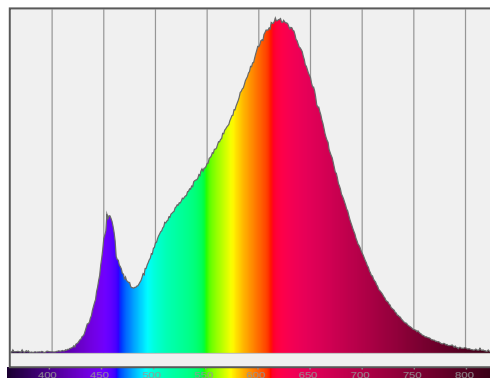
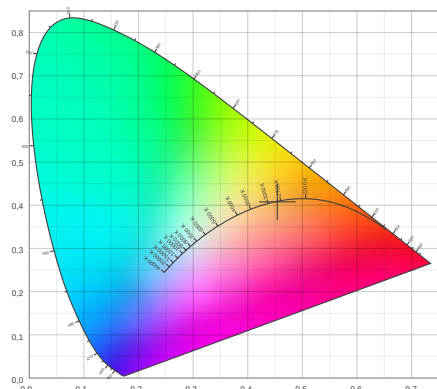
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Color details



CIE 1931

x: 0,454



Spectra

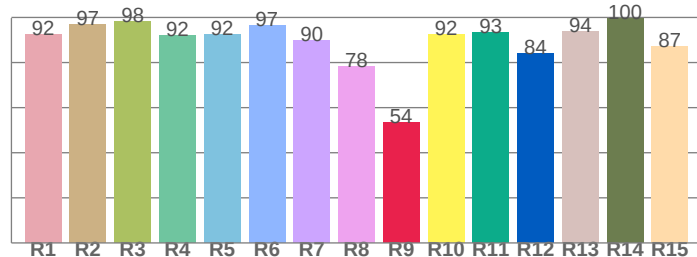
CIE 1931 ZOOM

2764 K

y: 0,408

$\Delta uv: -0,0005$

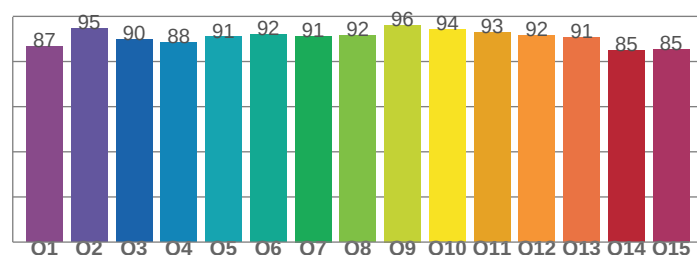
CRI: 92,1 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
92,3	97,0	98,4	91,9	92,4	96,6	89,9	78,4
R9	R10	R11	R12	R13	R14	R15	
53,5	92,4	93,3	84,1	93,7	99,6	87,2	

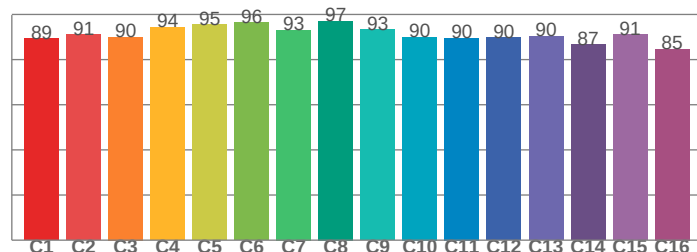
CQS: 90,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,7	94,6	89,8	88,5	90,9	92,0	91,3	91,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	94,3	92,9	91,6	90,9	85,0	85,5	

TM30: 91,4



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

C1	C2	C3	C4	C5	C6	C7	C8
89,3	91,1	90,1	94,4	95,5	96,3	93,1	97,1
C9	C10	C11	C12	C13	C14	C15	
93,3	90,0	89,6	89,8	90,4	86,8	91,1	

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
2764 K	92,1	53,5	91,4	98,2	90,1	0,454	0,408	0,260	0,350	-0,0005



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info@cls-led.com
www.cls-led.com

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TM30 details

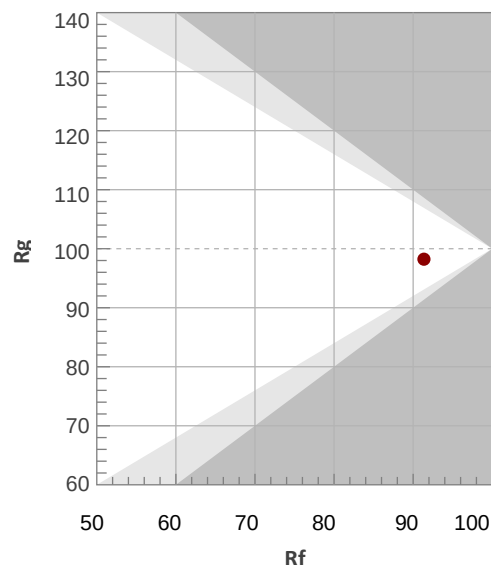
Rf 91,4

Fidelity index Rf

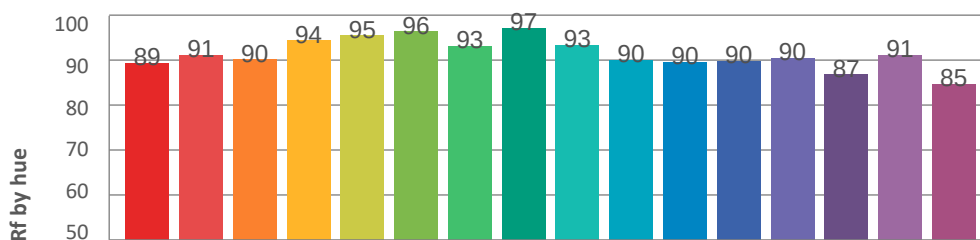
Rg 98,2

Gamut index Rg

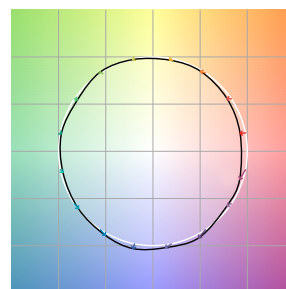
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-6%	1%
2	91	-4%	3%
3	90	-1%	5%
4	94	-2%	1%
5	95	-1%	2%
6	96	1%	0%
7	93	-3%	-1%
8	97	-1%	1%
9	93	-2%	3%
10	90	-1%	7%
11	90	2%	8%
12	90	5%	0%
13	90	3%	-7%
14	87	3%	-10%
15	91	-3%	-4%
16	85	-4%	-11%



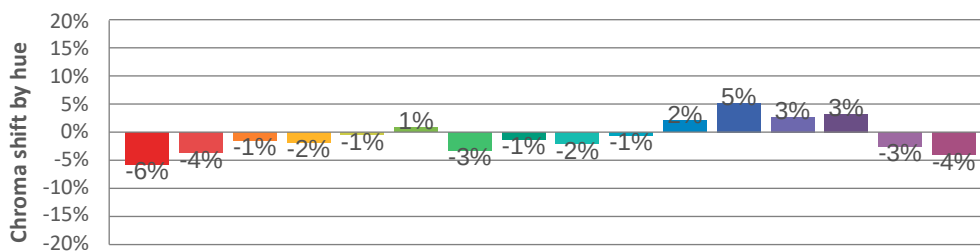
Hue binH



Color vector graphics



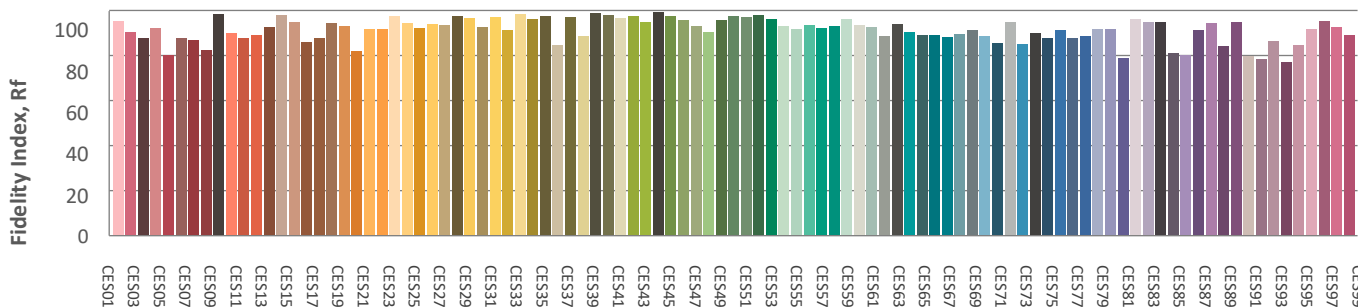
Hue bin



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	24,7	25,4	24,9	25,7	25,9	24,7	25,4	24,9	25,7	25,9
	3H	24,6	25,5	25,0	25,7	25,8	24,6	25,5	25,0	25,7	25,8
	4H	24,7	25,5	25,1	25,7	25,9	24,7	25,5	25,1	25,7	25,9
	6H	24,8	25,4	25,1	25,7	26,1	24,8	25,4	25,1	25,7	26,1
	8H	24,7	25,4	25,1	25,7	26,1	24,7	25,4	25,1	25,7	26,1
	12H	24,7	25,3	25,1	25,7	26,1	24,7	25,3	25,1	25,7	26,1
4H	2H	24,5	25,2	24,9	25,5	25,7	24,5	25,2	24,9	25,5	25,7
	3H	24,6	25,3	25,0	25,6	26,0	24,6	25,3	25,0	25,6	26,0
	4H	24,7	25,2	25,1	25,7	26,2	24,7	25,2	25,1	25,7	26,2
	6H	24,7	25,3	25,2	25,7	26,0	24,7	25,3	25,2	25,7	26,0
	8H	24,7	25,3	25,2	25,6	26,0	24,7	25,3	25,2	25,6	26,0
	12H	24,7	25,1	25,2	25,5	26,0	24,7	25,1	25,2	25,5	26,0
8H	4H	24,6	25,2	25,2	25,5	25,9	24,6	25,2	25,2	25,5	25,9
	6H	24,8	25,1	25,3	25,6	26,1	24,8	25,1	25,3	25,6	26,1
	8H	24,8	25,1	25,3	25,6	26,3	24,8	25,1	25,3	25,6	26,3
	12H	24,8	25,1	25,4	25,6	26,2	24,8	25,1	25,4	25,6	26,2
12H	4H	24,6	25,0	25,1	25,4	25,9	24,6	25,0	25,1	25,4	25,9
	6H	24,8	25,1	25,3	25,6	26,2	24,8	25,1	25,3	25,6	26,2
	8H	24,8	25,0	25,4	25,6	26,2	24,8	25,0	25,4	25,6	26,2
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,2 / -4,0					4,2 / -4,0				
S = 1.5H		6,8 / -4,3					6,8 / -4,3				
S = 2.0H		8,7 / -4,6					8,7 / -4,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3590lm total luminous flux											



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