

LM-79

Test Report

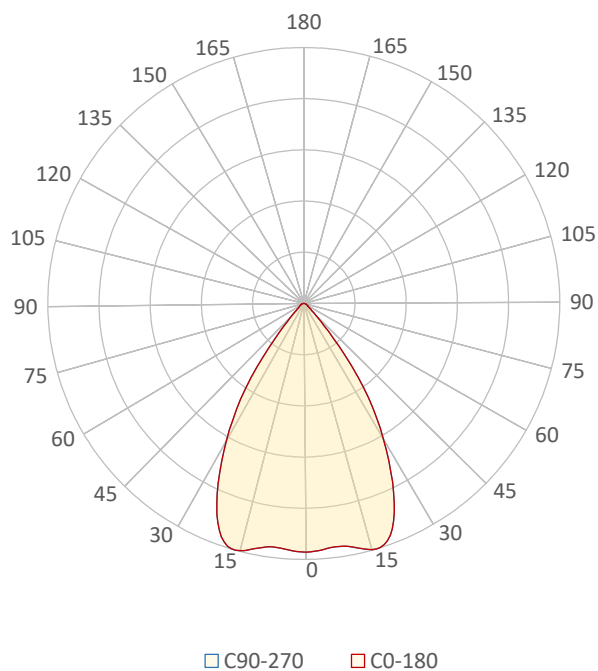
LM79-JADE-HP-3500K-CRI90-WIDE

General Discription

Item number	
Date and time	1-3-2021 13:58:28
CCT (Kelvin)	3525 K
Beam angle	65,6°
Luminous flux	3901 lm
Efficiency	92 lm/watt
Weighted energy	42,2 kWh/1000h
Power factor	0,99
CRI (RA)	93,0
Fidelity index Rf	Rf 90,4
Gammut index Rg	Rg 97,1
Peak	3588 cd



Polar diagram



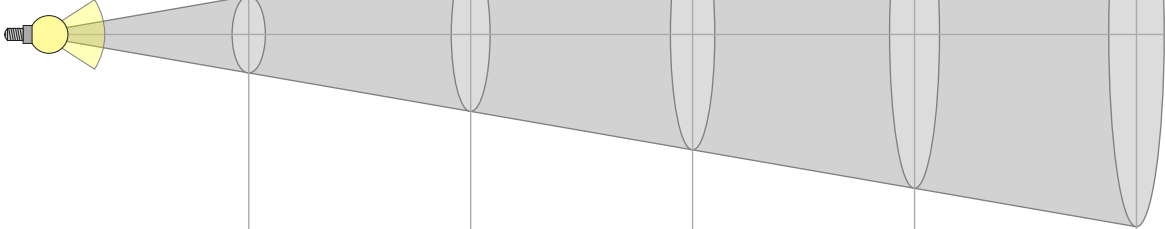
CLS LED BV
info@cls-led.com
www.cls-led.com

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Beam details					1m		2m		3m		4m		5m									
Lux*					3485 lx		871 lx		387 lx		218 lx		139 lx									
65,6° 																						
*measured at center of beam																						
Footcandles*					323,8 fcd		80,9 fcd		36,0 fcd		20,2 fcd		13,0 fcd									
Beam width (meter)					1,3 m		2,6 m		3,9 m		5,2 m		6,4 m									
Beam width (Feet)					4,2 ft		8,5 ft		12,7 ft		16,9 ft		21,1 ft									
Beam intensities																						
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m			
3485lx	871lx	387lx	218lx	139lx	97lx	71lx	54lx	43lx	35lx	29lx	24lx	21lx	18lx	15lx	14lx	12lx	11lx	10lx	9lx			
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			
323,8fcd	80,9fcd	36fcd	20,2fcd	13fcd	9fcd	6,6fcd	5,1fcd	4fcd	3,2fcd	2,7fcd	2,2fcd	1,9fcd	1,7fcd	1,4fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd			
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°			
3485	3478	3459	3442	3441	3463	3508	3559	3587	3563	3468	3298	3065	2792	2498	2203	1911	1607	1273	935			
100%	100%	99%	99%	99%	99%	101%	102%	103%	102%	100%	95%	88%	80%	72%	63%	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°			
3485	3478	3459	3442	3441	3463	3508	3559	3587	3563	3468	3298	3065	2792	2498	2203	1911	1607	1273	935			
100%	100%	99%	99%	99%	99%	101%	102%	103%	102%	100%	95%	88%	80%	72%	63%	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°			
3485	3478	3459	3442	3441	3463	3508	3559	3587	3563	3468	3298	3065	2792	2498	2203	1911	1607	1273	935			
100%	100%	99%	99%	99%	99%	101%	102%	103%	102%	100%	95%	88%	80%	72%	63%	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°			
3485	3478	3459	3442	3441	3463	3508	3559	3587	3563	3468	3298	3065	2792	2498	2203	1911	1607	1273	935			
100%	100%	99%	99%	99%	99%	101%	102%	103%	102%	100%	95%	88%	80%	72%	63%	55%	46%	37%	27%			
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone				
65,6°					85,6°					105,7°				97,9%				94,4%				



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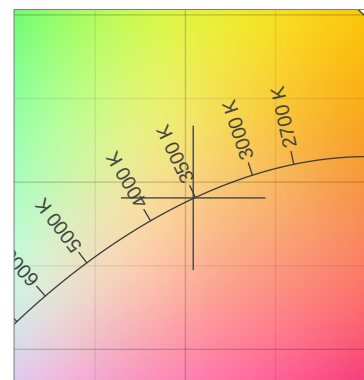
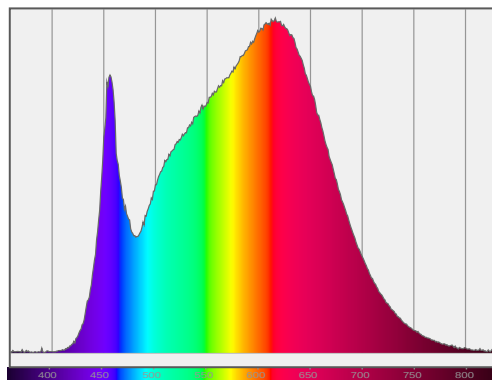
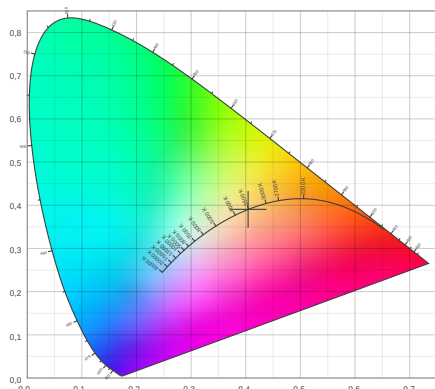
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Color details



CIE 1931

x: 0,404



Spectra

CIE 1931 ZOOM

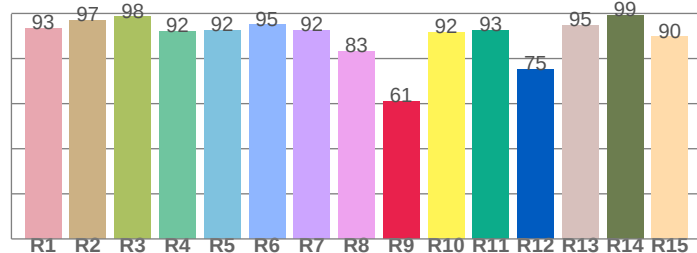
3525 K

y: 0,391



Δuv: 0,0002

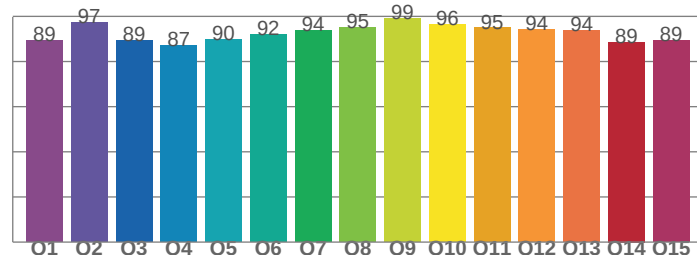
CRI: 93,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
93,3	97,1	98,5	92,0	92,4	94,9	92,3	83,2
R9	R10	R11	R12	R13	R14	R15	
61,1	91,8	92,6	75,3	94,6	99,1	89,6	

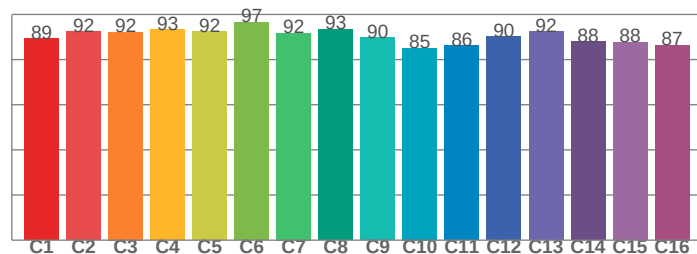
CQS: 91,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
89,4	97,3	89,5	87,0	89,9	91,9	93,9	94,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
99,1	96,4	94,9	94,3	93,9	88,7	89,2	

TM30: 90,4



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

C1	C2	C3	C4	C5	C6	C7	C8
89,4	92,4	92,2	93,2	92,3	96,6	91,8	93,5
C9	C10	C11	C12	C13	C14	C15	
89,8	85,1	86,3	90,2	92,5	87,9	87,7	

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
3525 K	93,0	61,1	90,4	97,1	91,9	0,404	0,391	0,235	0,341	0,0002



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TM30 details

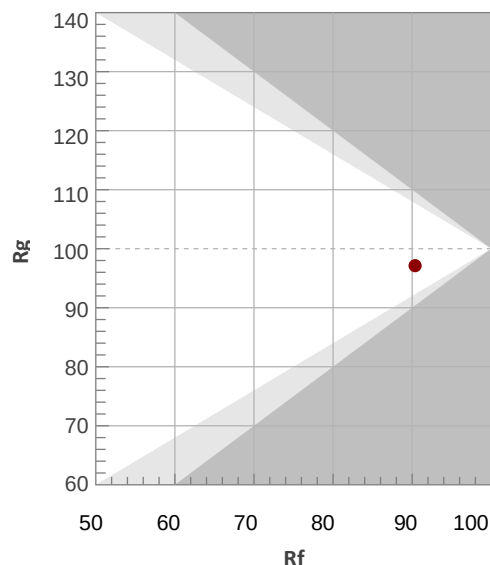
Rf 90,4

Fidelity index Rf

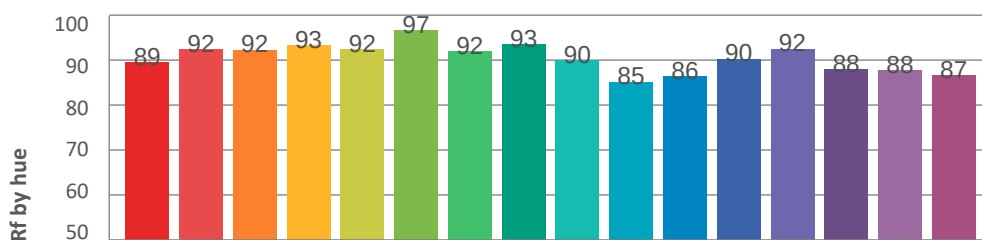
Rg 97,1

Gamut index Rg

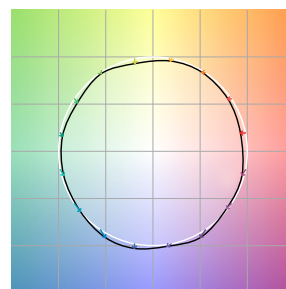
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	1%
2	92	-3%	2%
3	92	-2%	3%
4	93	-3%	0%
5	92	-5%	0%
6	97	-1%	0%
7	92	-5%	2%
8	93	-3%	3%
9	90	-2%	7%
10	85	-1%	10%
11	86	4%	9%
12	90	5%	1%
13	92	2%	-5%
14	88	4%	-9%
15	88	-1%	-7%
16	87	-3%	-7%



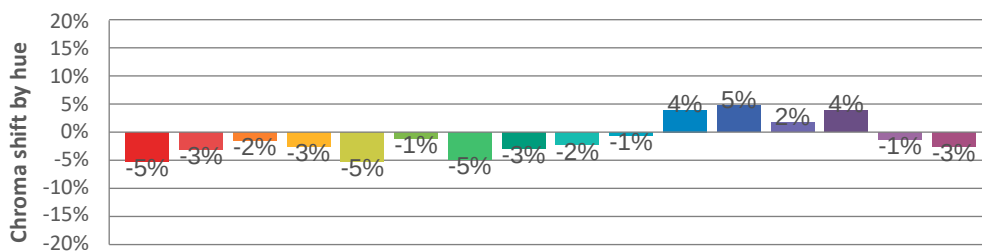
Hue binH



Color vector graphics



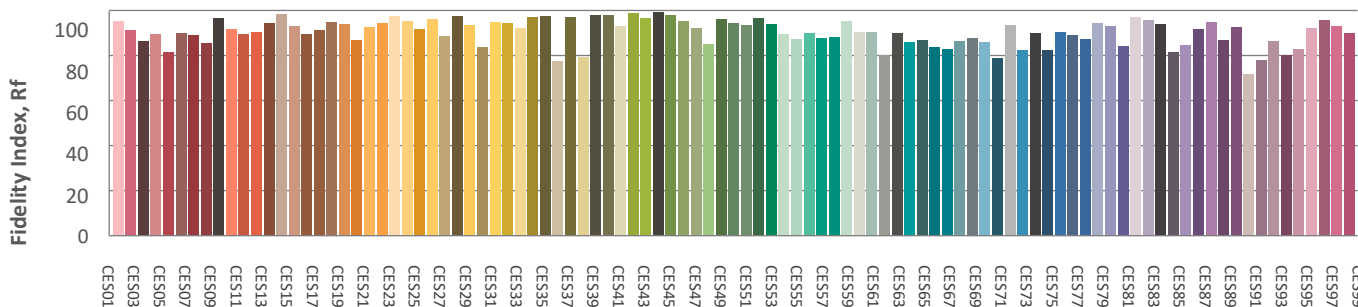
Hue bin



Color distortion graphics



Color Evaluation Sample



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info@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	25,1	25,8	25,2	26,0	26,2	25,1	25,8	25,2	26,0	26,2
	3H	25,0	25,8	25,4	26,0	26,2	25,0	25,8	25,4	26,0	26,2
	4H	25,0	25,8	25,4	26,0	26,3	25,0	25,8	25,4	26,0	26,3
	6H	25,1	25,8	25,4	26,1	26,4	25,1	25,8	25,4	26,1	26,4
	8H	25,1	25,7	25,4	26,0	26,4	25,1	25,7	25,4	26,0	26,4
	12H	25,1	25,7	25,4	26,0	26,4	25,1	25,7	25,4	26,0	26,4
4H	2H	24,8	25,6	25,2	25,8	26,0	24,8	25,6	25,2	25,8	26,0
	3H	25,0	25,6	25,3	26,0	26,4	25,0	25,6	25,3	26,0	26,4
	4H	25,0	25,6	25,5	26,0	26,5	25,0	25,6	25,5	26,0	26,5
	6H	25,1	25,7	25,6	26,0	26,4	25,1	25,7	25,6	26,0	26,4
	8H	25,1	25,6	25,6	26,0	26,3	25,1	25,6	25,6	26,0	26,3
	12H	25,1	25,5	25,6	25,9	26,4	25,1	25,5	25,6	25,9	26,4
8H	4H	25,0	25,5	25,5	25,9	26,3	25,0	25,5	25,5	25,9	26,3
	6H	25,1	25,5	25,6	26,0	26,5	25,1	25,5	25,6	26,0	26,5
	8H	25,2	25,5	25,7	26,0	26,6	25,2	25,5	25,7	26,0	26,6
	12H	25,2	25,4	25,8	25,9	26,5	25,2	25,4	25,8	25,9	26,5
12H	4H	25,0	25,4	25,5	25,8	26,2	25,0	25,4	25,5	25,8	26,2
	6H	25,2	25,5	25,7	26,0	26,6	25,2	25,5	25,7	26,0	26,6
	8H	25,2	25,4	25,8	25,9	26,5	25,2	25,4	25,8	25,9	26,5
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,2 / -3,9					4,2 / -3,9				
S = 1.5H		6,7 / -4,2					6,7 / -4,2				
S = 2.0H		8,6 / -4,5					8,6 / -4,5				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3901lm total luminous flux											



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