

LM-79

Test Report

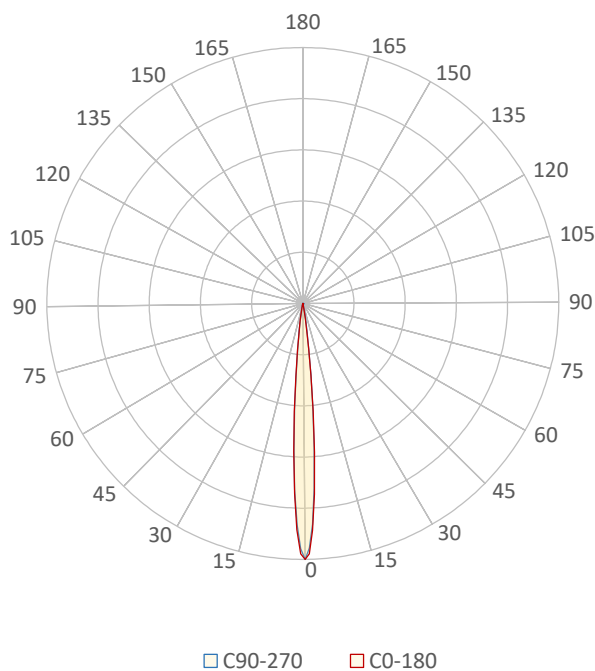
LM79-JADE-ZOOM-2700K-VIVIDNATURAL-CRI95-SPOT

General Discription

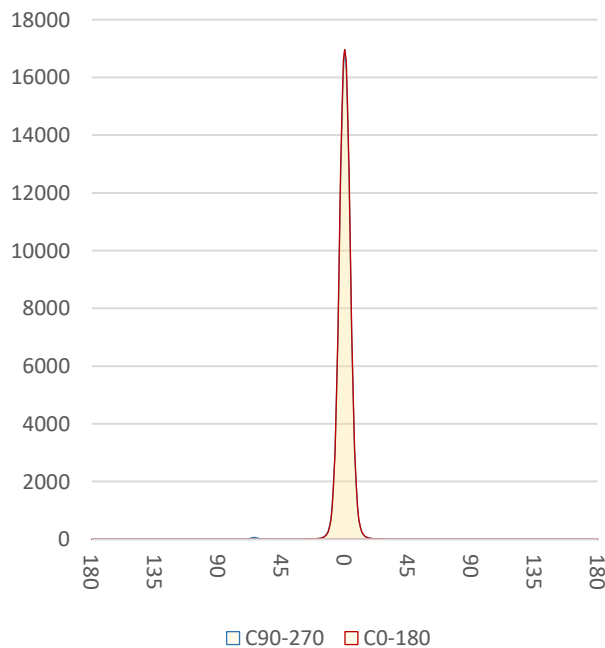
Item number	
Date and time	8-5-2019 16:54:38
CCT (Kelvin)	2775 K
Beam angle	8,9°
Luminous flux	514 lm
Efficiency	21 lm/watt
Weighted energy	24,9 kWh/1000h
Power factor	0,97
CRI (RA)	96,1
Fidelity index Rf	Rf 93,4
Gammut index Rg	Rg 105,1
Peak	17144 cd



Polar diagram



Cartesian diagram



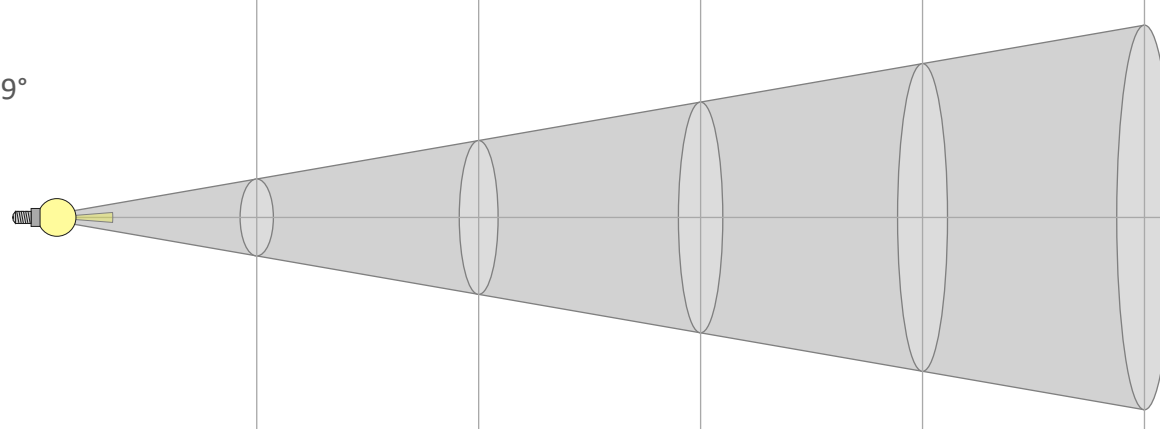
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info@cls-led.com
www.cls-led.com

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Beam details		1m		2m		3m		4m		5m									
Lux*		16967 lx		4242 lx		1885 lx		1060 lx		679 lx									
8,9° 																			
*measured at center of beam																			
Footcandles*		1576,3 fcd		394,1 fcd		175,1 fcd		98,5 fcd		63,1 fcd									
Beam width (meter)		0,2 m		0,3 m		0,5 m		0,6 m		0,8 m									
Beam width (Feet)		0,5 ft		1 ft		1,5 ft		2 ft		2,6 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
16967lx	4242lx	1885lx	1060lx	679lx	471lx	346lx	265lx	209lx	170lx	140lx	118lx	100lx	87lx	75lx	66lx	59lx	52lx	47lx	42lx
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
1576,3fcd	394,1fcd	175,1fcd	98,5fcd	63,1fcd	43,8fcd	32,2fcd	24,6fcd	19,5fcd	15,8fcd	13fcd	10,9fcd	9,3fcd	8fcd	7fcd	6,2fcd	5,5fcd	4,9fcd	4,4fcd	3,9fcd
Intensities in 0° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
17,0K	16,6K	15,1K	12,7K	9,9K	7,2K	4,8K	3,0K	1,8K	1,1K	0,6K	0,4K	0,2K	0,2K	0,1K	0,1K	0,1K	0,0K	0,0K	0,0K
100%	98%	89%	75%	58%	42%	28%	18%	11%	6%	4%	2%	1%	1%	1%	0%	0%	0%	0%	0%
Intensities in 90° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
17,0K	16,2K	14,6K	12,3K	9,6K	7,0K	4,8K	3,1K	1,9K	1,2K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,0K	0,0K	0,0K
100%	96%	86%	72%	57%	41%	28%	18%	11%	7%	4%	3%	2%	1%	1%	1%	0%	0%	0%	0%
Intensities in 180° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
17,0K	16,6K	15,0K	12,6K	9,9K	7,2K	4,9K	3,1K	2,0K	1,2K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,0K	0,0K	0,0K
100%	98%	89%	74%	58%	42%	29%	18%	12%	7%	4%	3%	2%	1%	1%	0%	0%	0%	0%	0%
Intensities in 270° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
17,0K	16,3K	14,7K	12,3K	9,6K	7,0K	4,7K	3,0K	1,9K	1,1K	0,7K	0,4K	0,3K	0,2K	0,1K	0,1K	0,1K	0,0K	0,0K	0,0K
100%	96%	87%	73%	57%	41%	28%	18%	11%	7%	4%	2%	2%	1%	1%	1%	0%	0%	0%	0%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
8,9°				16,4°				21,9°				97,2%				96,6%			



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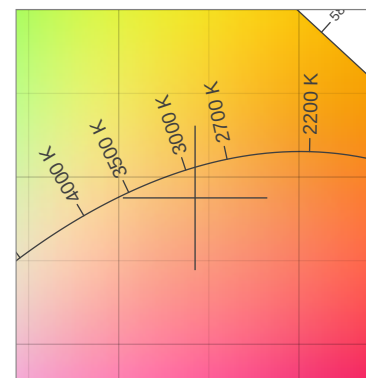
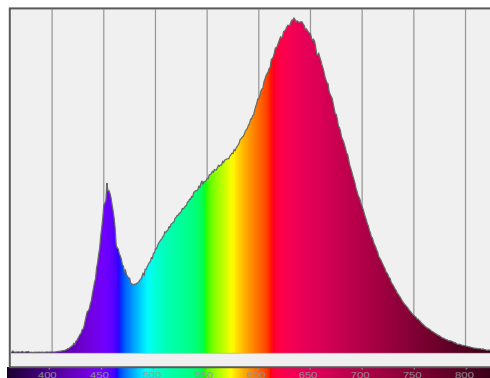
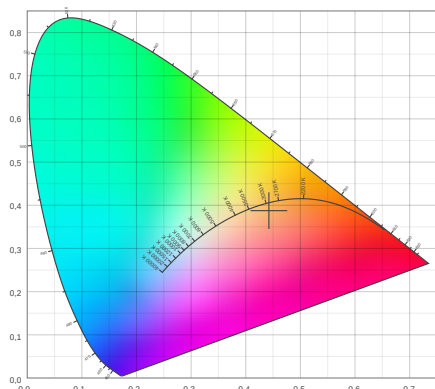
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Color details



CIE 1931

x: 0,442



Spectra

CIE 1931 ZOOM

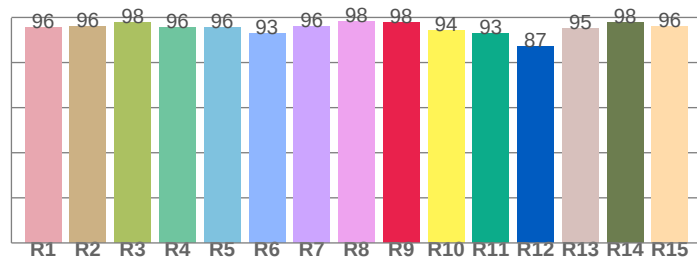
2775 K

y: 0,388

Δuv : -0,0073

CRI: 96,1 (R1-R8)

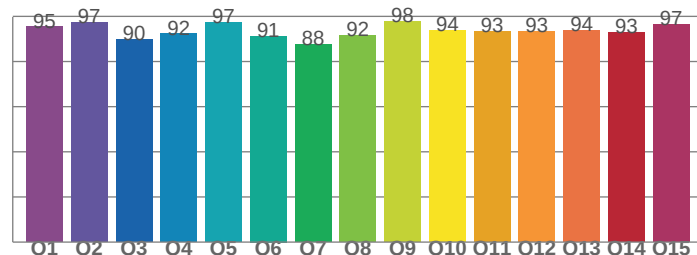
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
95,8	96,2	97,7	95,7	95,7	93,0	96,0	98,4
R9	R10	R11	R12	R13	R14	R15	
97,9	94,3	92,9	87,3	95,2	98,0	95,9	

CQS: 92,7

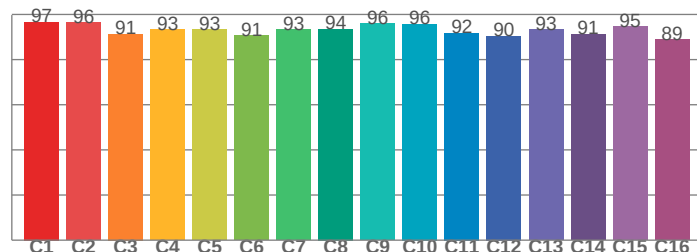
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,4	97,2	89,7	92,3	97,3	91,3	87,6	91,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,7	93,8	93,2	93,2	93,7	93,0	96,6	

TM30: 93,4

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



C1	C2	C3	C4	C5	C6	C7	C8
96,6	96,4	91,4	93,4	93,3	90,7	93,4	93,5
C9	C10	C11	C12	C13	C14	C15	
96,0	95,7	91,8	90,4	93,2	91,3	94,7	

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
2775 K	96,1	97,9	93,4	105,1	92,7	0,442	0,388	0,262	0,344	-0,0073



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info@cls-led.com
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TM30 details

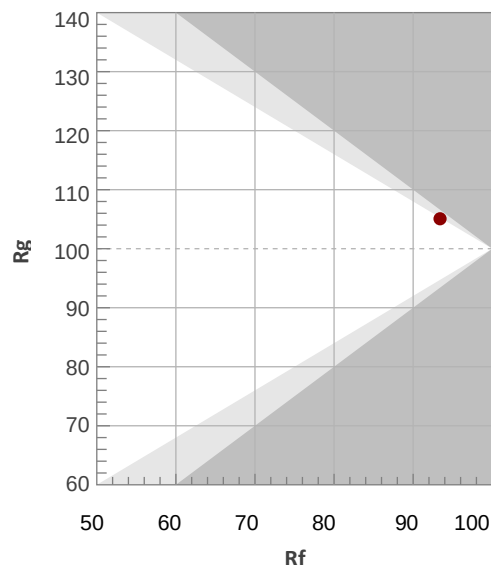
Rf 93,4

Fidelity index Rf

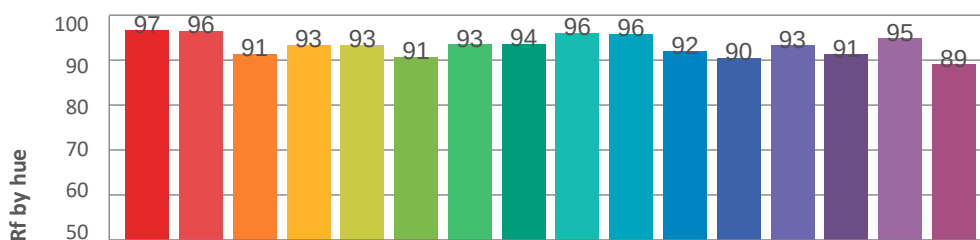
Rg 105,1

Gamut index Rg

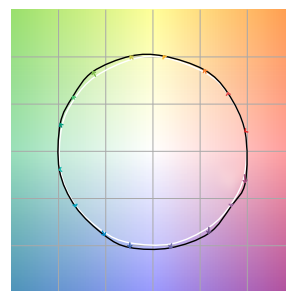
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	0%
2	96	0%	1%
3	91	2%	4%
4	93	1%	2%
5	93	4%	2%
6	91	6%	0%
7	93	3%	-2%
8	94	2%	-3%
9	96	1%	0%
10	96	1%	2%
11	92	3%	4%
12	90	5%	1%
13	93	4%	-3%
14	91	5%	-4%
15	95	1%	-2%
16	89	3%	-8%



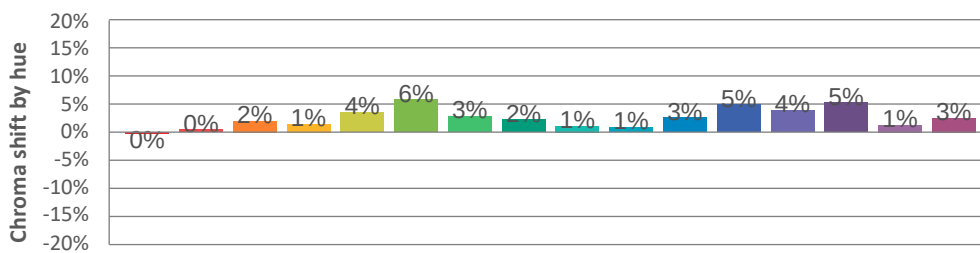
Hue binH



Color vector graphics



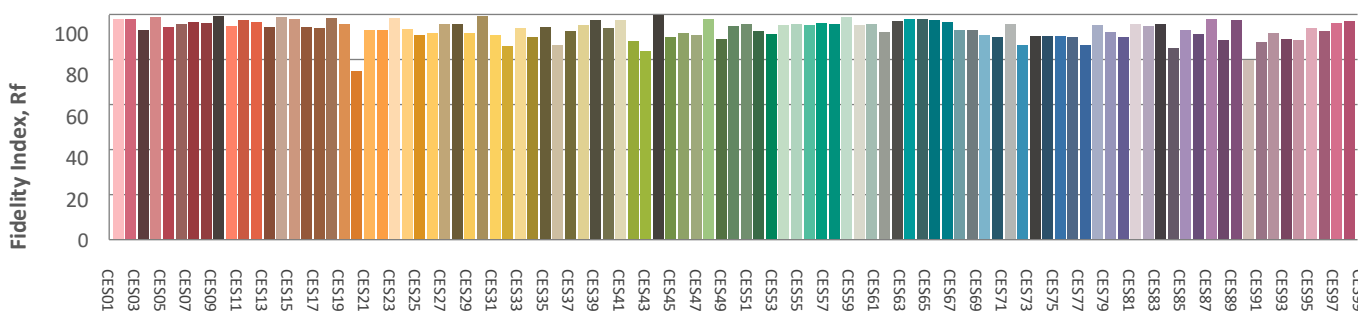
Hue bin



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

Variation of the observer position for the luminaire distance S

S = 1,0H	+0,0 / 0,0	+0,0 / 0,0
S = 1,5H	+0,0 / 0,0	+0,0 / 0,0
S = 2,0H	+0,0 / 0,0	+0,0 / 0,0
Standard table	BK00	BK00
Correction summand	-22,3	-22,3

Corrected glare indices referring to 514lm total luminous flux



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