

LM-79

Test Report

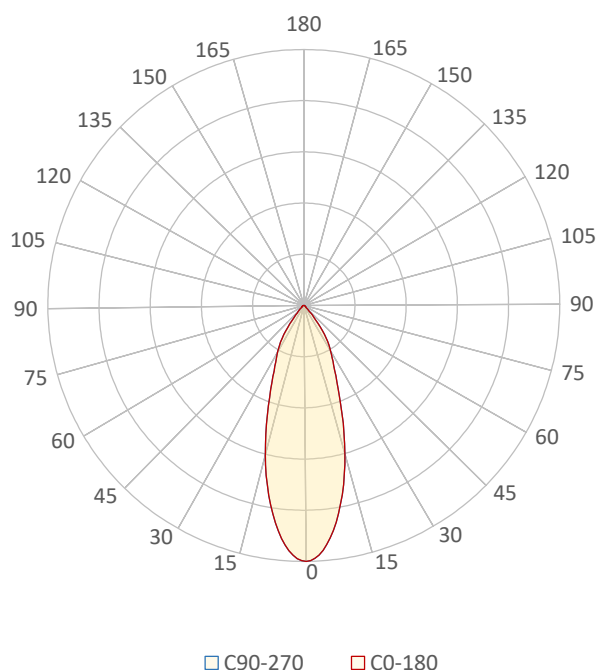
LM79-JADE-HP-3500K-CRI90-MEDIUM

General Discription

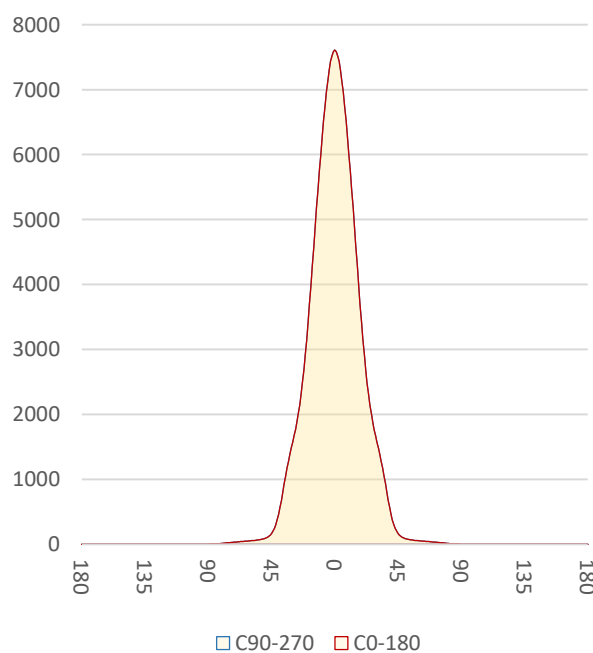
Item number	
Date and time	1-3-2021 14:01:16
CCT (Kelvin)	3532 K
Beam angle	35,2°
Luminous flux	3829 lm
Efficiency	94 lm/watt
Weighted energy	40,9 kWh/1000h
Power factor	0,99
CRI (RA)	92,9
Fidelity index Rf	Rf 90,2
Gammut index Rg	Rg 96,9
Peak	7611 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	7611 lx	1903 lx	846 lx	476 lx	304 lx

35,2°

*measured at center of beam

Footcandles*	707,1 fcd	176,8 fcd	78,6 fcd	44,2 fcd	28,3 fcd
Beam width (meter)	0,6 m	1,3 m	1,9 m	2,5 m	3,2 m
Beam width (Feet)	2,1 ft	4,2 ft	6,3 ft	8,3 ft	10,4 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
7611lx	1903lx	846lx	476lx	304lx	211lx	155lx	119lx	94lx	76lx	63lx	53lx	45lx	39lx	34lx	30lx	26lx	23lx	21lx	19lx
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
707,1fcd	176,8fcd	78,6fcd	44,2fcd	28,3fcd	19,6fcd	14,4fcd	11fcd	8,7fcd	7,1fcd	5,8fcd	4,9fcd	4,2fcd	3,6fcd	3,1fcd	2,8fcd	2,4fcd	2,2fcd	2fcd	1,8fcd

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°
7611	7528	7306	6957	6516	6011	5462	4878	4281	3696	3156	2687	2304	2004	1769	1573	1384	1171	929	680
100%	99%	96%	91%	86%	79%	72%	64%	56%	49%	41%	35%	30%	26%	23%	21%	18%	15%	12%	9%

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°
7611	7528	7306	6957	6516	6011	5462	4878	4281	3696	3156	2687	2304	2004	1769	1573	1384	1171	929	680
100%	99%	96%	91%	86%	79%	72%	64%	56%	49%	41%	35%	30%	26%	23%	21%	18%	15%	12%	9%

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°
7611	7528	7306	6957	6516	6011	5462	4878	4281	3696	3156	2687	2304	2004	1769	1573	1384	1171	929	680
100%	99%	96%	91%	86%	79%	72%	64%	56%	49%	41%	35%	30%	26%	23%	21%	18%	15%	12%	9%

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°
7611	7528	7306	6957	6516	6011	5462	4878	4281	3696	3156	2687	2304	2004	1769	1573	1384	1171	929	680
100%	99%	96%	91%	86%	79%	72%	64%	56%	49%	41%	35%	30%	26%	23%	21%	18%	15%	12%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,2°	74,7°	88,5°	98,0%	95,2%



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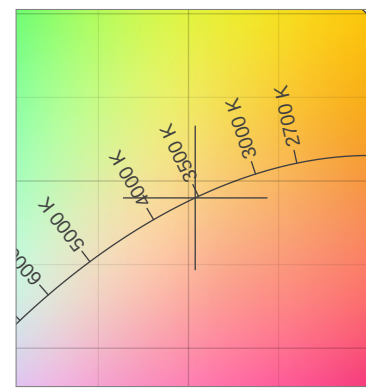
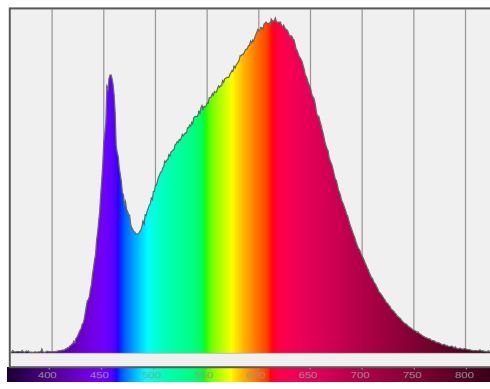
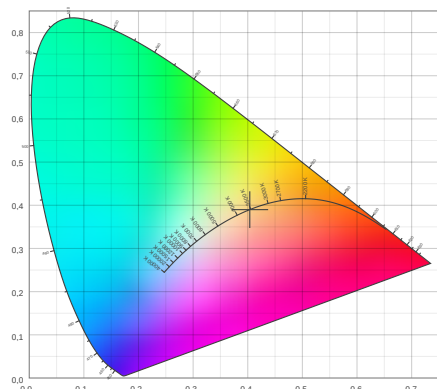
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Color details



CIE 1931

x: 0,404

3532 K

y: 0,390

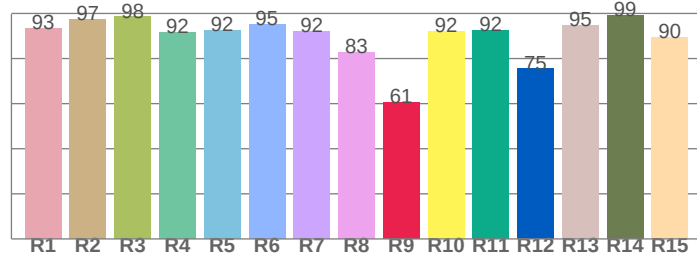
Spectra

CIE 1931 ZOOM

Δuv : -0,0001

CRI: 92,9 (R1-R8)

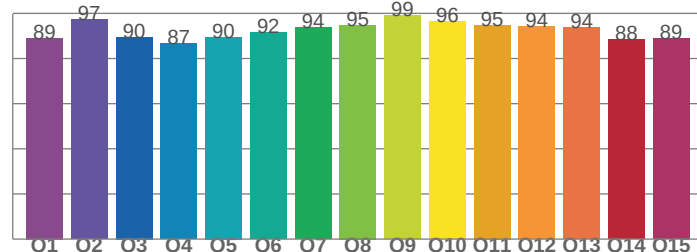
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
93,2	97,3	98,5	91,7	92,3	95,1	92,0	82,9
R9	R10	R11	R12	R13	R14	R15	
60,6	92,2	92,3	75,4	94,6	99,3	89,6	

CQS: 91,7

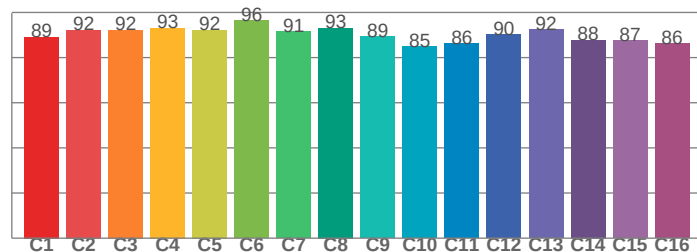
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
89,1	97,2	89,6	86,8	89,6	91,6	93,8	94,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
99,0	96,5	94,8	94,1	93,7	88,5	89,0	

TM30: 90,2

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



C1	C2	C3	C4	C5	C6	C7	C8
89,2	92,2	92,3	93,1	92,2	96,4	91,5	93,1
C9	C10	C11	C12	C13	C14	C15	
89,4	84,8	86,3	90,2	92,3	87,8	87,5	

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
3532 K	92,9	60,6	90,2	96,9	91,7	0,404	0,390	0,235	0,340	-0,0001



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TM30 details

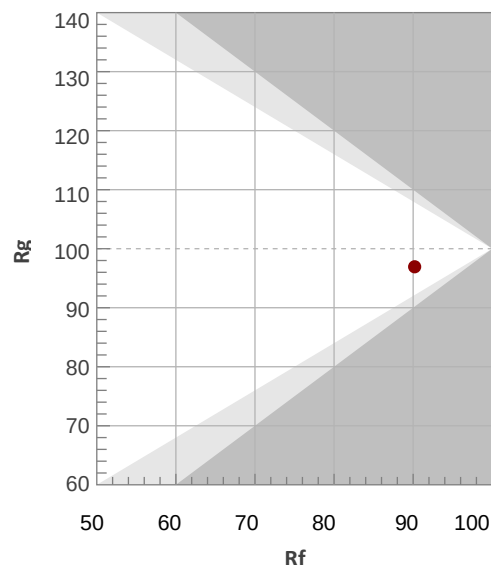
Rf 90,2

Fidelity index Rf

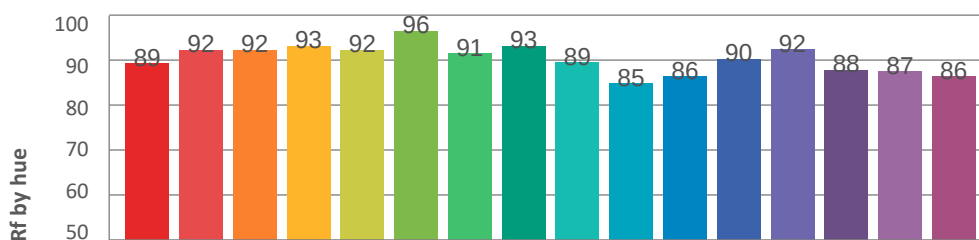
Rg 96,9

Gamut index Rg

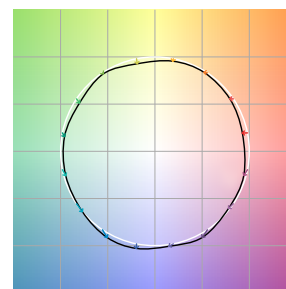
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	1%
2	92	-3%	2%
3	92	-2%	3%
4	93	-3%	0%
5	92	-5%	0%
6	96	-1%	0%
7	91	-5%	2%
8	93	-3%	3%
9	89	-2%	7%
10	85	-1%	10%
11	86	4%	9%
12	90	5%	1%
13	92	2%	-5%
14	88	4%	-9%
15	87	-2%	-7%
16	86	-3%	-7%



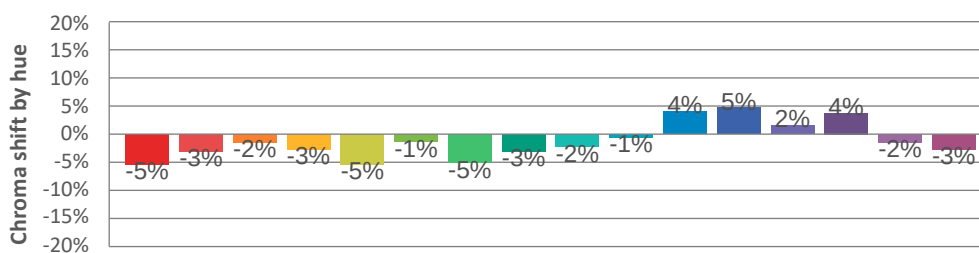
Hue binH



Color vector graphics



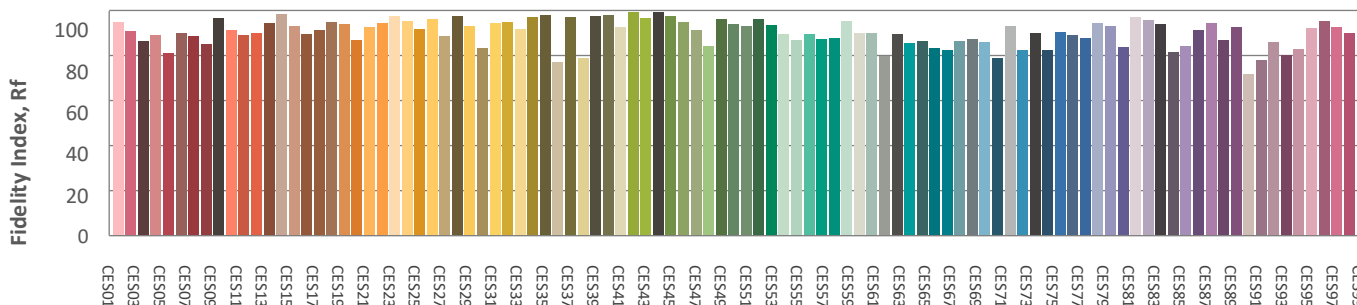
Hue bin



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	23,1	23,7	23,2	23,9	24,1	23,1	23,7	23,2	23,9	24,1
	3H	23,1	23,8	23,5	24,0	24,2	23,1	23,8	23,5	24,0	24,2
	4H	23,2	23,9	23,6	24,1	24,4	23,2	23,9	23,6	24,1	24,4
	6H	23,4	23,9	23,6	24,2	24,6	23,4	23,9	23,6	24,2	24,6
	8H	23,3	23,9	23,7	24,2	24,6	23,3	23,9	23,7	24,2	24,6
	12H	23,3	23,9	23,7	24,2	24,6	23,3	23,9	23,7	24,2	24,6
4H	2H	22,8	23,5	23,2	23,8	24,0	22,8	23,5	23,2	23,8	24,0
	3H	23,2	23,7	23,5	24,1	24,5	23,2	23,7	23,5	24,1	24,5
	4H	23,3	23,8	23,7	24,3	24,8	23,3	23,8	23,7	24,3	24,8
	6H	23,5	24,0	24,0	24,4	24,7	23,5	24,0	24,0	24,4	24,7
	8H	23,5	24,0	24,0	24,3	24,7	23,5	24,0	24,0	24,3	24,7
	12H	23,5	23,9	24,0	24,3	24,7	23,5	23,9	24,0	24,3	24,7
8H	4H	23,3	23,8	23,8	24,2	24,5	23,3	23,8	23,8	24,2	24,5
	6H	23,6	23,9	24,1	24,4	24,9	23,6	23,9	24,1	24,4	24,9
	8H	23,7	24,0	24,2	24,5	25,1	23,7	24,0	24,2	24,5	25,1
	12H	23,7	23,9	24,3	24,4	25,0	23,7	23,9	24,3	24,4	25,0
12H	4H	23,3	23,7	23,8	24,1	24,5	23,3	23,7	23,8	24,1	24,5
	6H	23,6	23,9	24,1	24,4	25,0	23,6	23,9	24,1	24,4	25,0
	8H	23,7	23,9	24,3	24,4	25,0	23,7	23,9	24,3	24,4	25,0
Variation of the observer position for the luminaire distance S											
S = 1.0H		3,7 / -2,8					3,7 / -2,8				
S = 1.5H		6,1 / -3,1					6,1 / -3,1				
S = 2.0H		8,0 / -3,3					8,0 / -3,3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3829lm total luminous flux											



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