

LM-79

Test Report

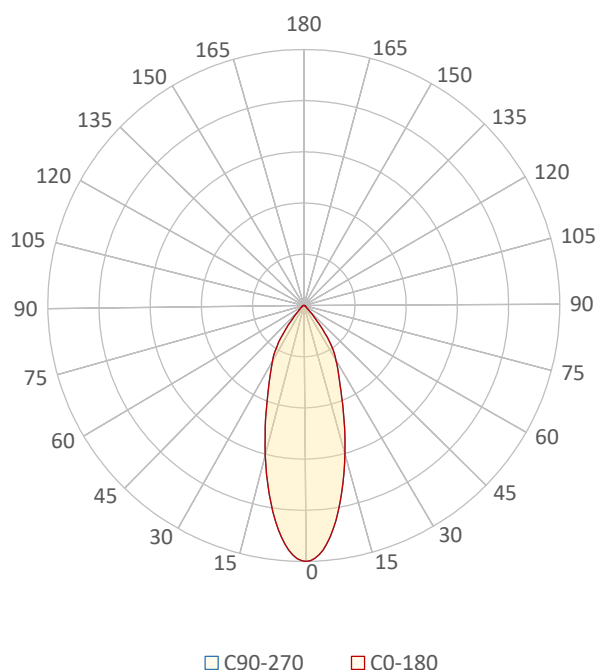
LM79-JADE-HP-3000K-CRI90-MEDIUM

General Discription

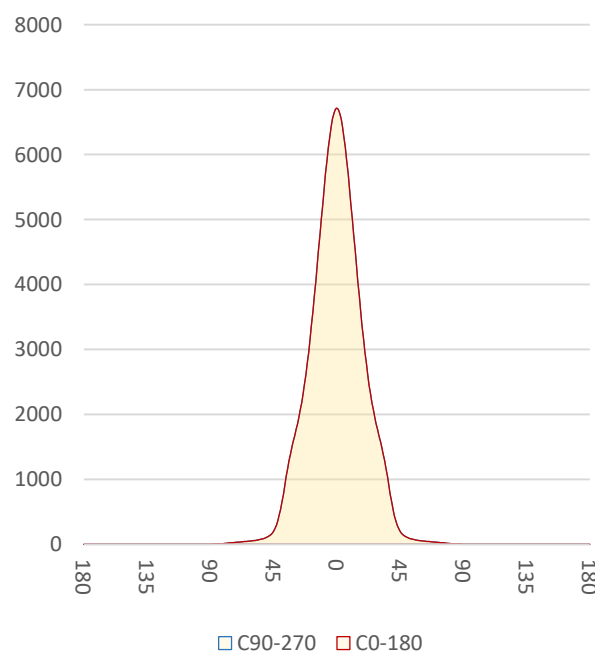
Item number	
Date and time	22-1-2021 15:50:20
CCT (Kelvin)	3061 K
Beam angle	36,1°
Luminous flux	3721 lm
Efficiency	93 lm/watt
Weighted energy	39,9 kWh/1000h
Power factor	0,97
CRI (RA)	92,9
Fidelity index Rf	Rf 90,9
Gammut index Rg	Rg 97,7
Peak	6716 cd



Polar diagram



Cartesian diagram



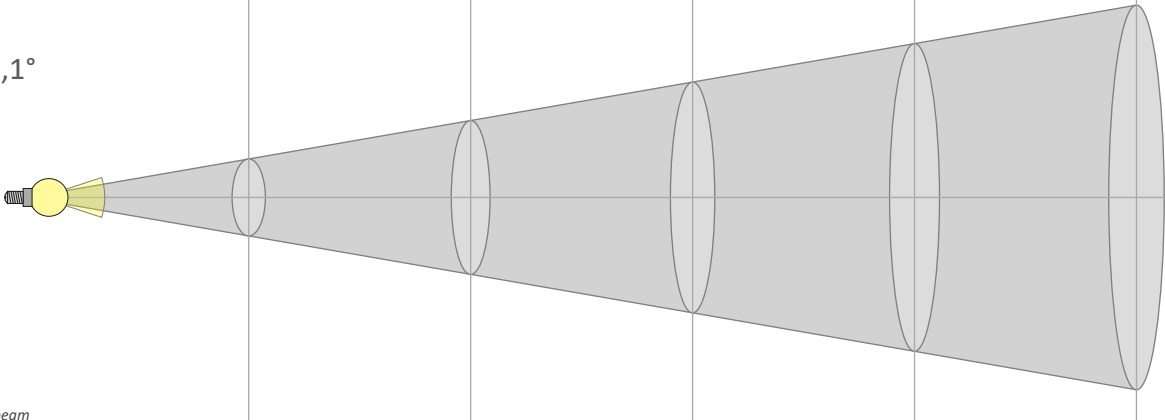
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Beam details		1m		2m		3m		4m		5m									
Lux*		6716 lx		1679 lx		746 lx		420 lx		269 lx									
36,1° 																			
*measured at center of beam																			
Footcandles*		624,0 fcd		156,0 fcd		69,3 fcd		39,0 fcd		25,0 fcd									
Beam width (meter)		0,7 m		1,3 m		2 m		2,6 m		3,3 m									
Beam width (Feet)		2,1 ft		4,3 ft		6,4 ft		8,6 ft		10,7 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
6716lx	1679lx	746lx	420lx	269lx	187lx	137lx	105lx	83lx	67lx	56lx	47lx	40lx	34lx	30lx	26lx	23lx	21lx	19lx	17lx
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
624fcd	156fcd	69,3fcd	39fcd	25fcd	17,3fcd	12,7fcd	9,7fcd	7,7fcd	6,2fcd	5,2fcd	4,3fcd	3,7fcd	3,2fcd	2,8fcd	2,4fcd	2,2fcd	1,9fcd	1,7fcd	1,6fcd
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°
6716	6643	6436	6112	5706	5247	4769	4287	3815	3372	2967	2613	2311	2062	1855	1672	1490	1284	1037	775
100%	99%	96%	91%	85%	78%	71%	64%	57%	50%	44%	39%	34%	31%	28%	25%	22%	19%	15%	12%
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°
6716	6643	6436	6112	5706	5247	4769	4287	3815	3372	2967	2613	2311	2062	1855	1672	1490	1284	1037	775
100%	99%	96%	91%	85%	78%	71%	64%	57%	50%	44%	39%	34%	31%	28%	25%	22%	19%	15%	12%
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°
6716	6643	6436	6112	5706	5247	4769	4287	3815	3372	2967	2613	2311	2062	1855	1672	1490	1284	1037	775
100%	99%	96%	91%	85%	78%	71%	64%	57%	50%	44%	39%	34%	31%	28%	25%	22%	19%	15%	12%
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°
6716	6643	6436	6112	5706	5247	4769	4287	3815	3372	2967	2613	2311	2062	1855	1672	1490	1284	1037	775
100%	99%	96%	91%	85%	78%	71%	64%	57%	50%	44%	39%	34%	31%	28%	25%	22%	19%	15%	12%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
36,1°				77,7°				92,3°				98,0%				94,7%			



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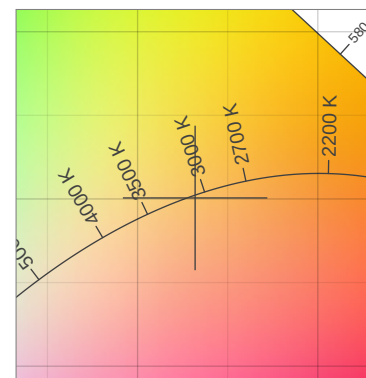
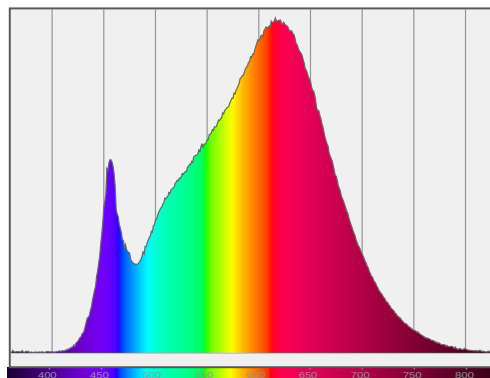
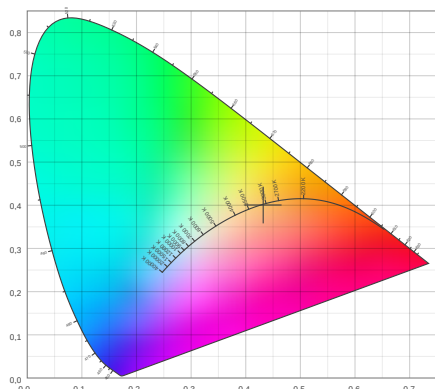
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Color details



CIE 1931

x: 0,432

3061 K

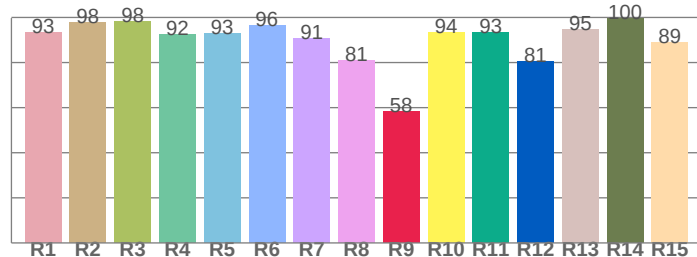
y: 0,401

Spectra

CIE 1931 ZOOM

$\Delta uv: -0,0007$

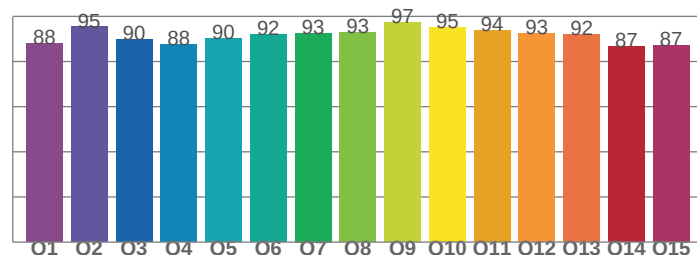
CRI: 92,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
93,4	97,7	98,4	92,3	93,1	96,3	90,9	81,0
R9	R10	R11	R12	R13	R14	R15	
58,4	93,6	93,4	80,6	94,8	99,7	89,0	

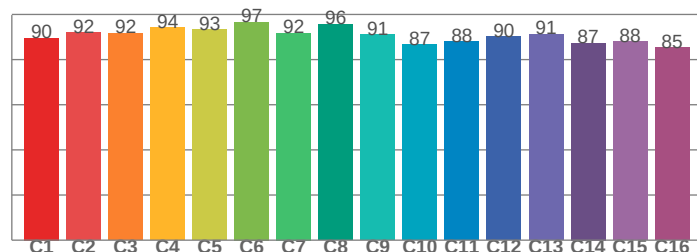
CQS: 90,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
87,9	95,3	89,7	87,6	90,1	92,0	92,7	92,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,2	95,2	93,7	92,6	92,0	86,7	87,2	

TM30: 90,9



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

C1	C2	C3	C4	C5	C6	C7	C8
89,6	92,0	91,7	94,3	93,3	96,7	91,8	95,7
C9	C10	C11	C12	C13	C14	C15	
91,1	86,6	88,0	90,2	91,2	87,4	88,0	

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
3061 K	92,9	58,4	90,9	97,7	90,9	0,432	0,401	0,249	0,346	-0,0007



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TM30 details

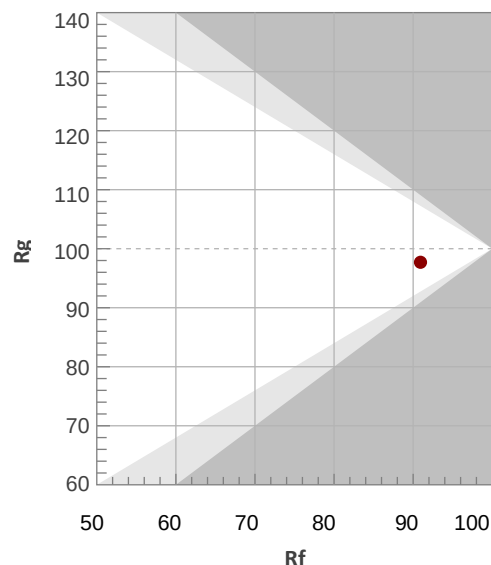
Rf 90,9

Fidelity index Rf

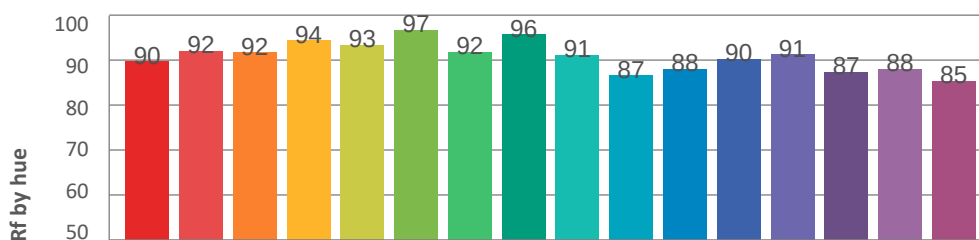
Rg 97,7

Gamut index Rg

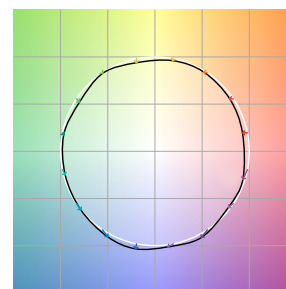
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	1%
2	92	-3%	3%
3	92	-1%	4%
4	94	-2%	0%
5	93	-4%	1%
6	97	-1%	0%
7	92	-5%	1%
8	96	-2%	2%
9	91	-2%	6%
10	87	0%	8%
11	88	3%	9%
12	90	5%	0%
13	91	2%	-6%
14	87	3%	-10%
15	88	-2%	-6%
16	85	-3%	-11%



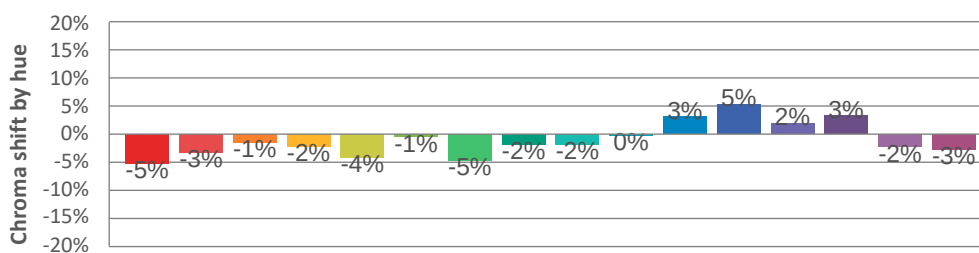
Hue binH



Color vector graphics



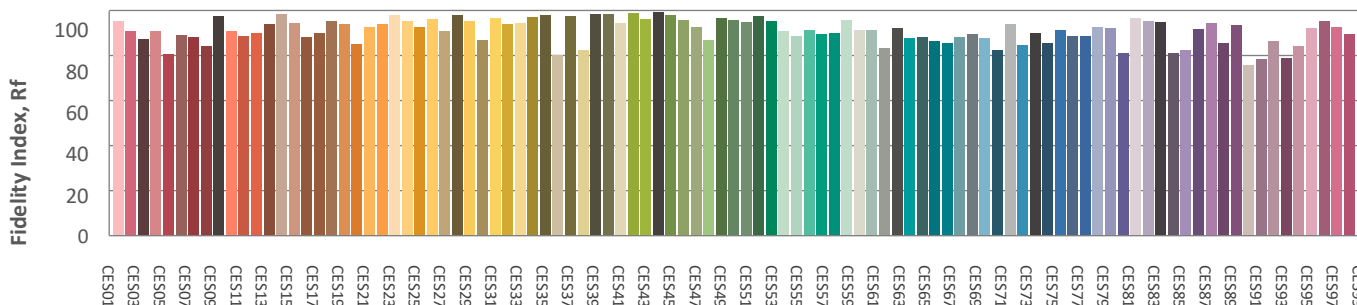
Hue bin



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	23,9	24,5	24,0	24,7	24,9	23,9	24,5	24,0	24,7	24,9
	3H	23,8	24,6	24,2	24,8	25,0	23,8	24,6	24,2	24,8	25,0
	4H	23,9	24,6	24,3	24,8	25,1	23,9	24,6	24,3	24,8	25,1
	6H	24,0	24,6	24,3	24,9	25,2	24,0	24,6	24,3	24,9	25,2
	8H	24,0	24,5	24,3	24,9	25,2	24,0	24,5	24,3	24,9	25,2
	12H	23,9	24,5	24,3	24,8	25,3	23,9	24,5	24,3	24,8	25,3
4H	2H	23,6	24,3	24,0	24,6	24,8	23,6	24,3	24,0	24,6	24,8
	3H	23,9	24,4	24,2	24,8	25,2	23,9	24,4	24,2	24,8	25,2
	4H	23,9	24,4	24,3	24,9	25,4	23,9	24,4	24,3	24,9	25,4
	6H	24,0	24,6	24,5	24,9	25,2	24,0	24,6	24,5	24,9	25,2
	8H	24,0	24,5	24,5	24,8	25,2	24,0	24,5	24,5	24,8	25,2
	12H	24,0	24,4	24,5	24,8	25,2	24,0	24,4	24,5	24,8	25,2
8H	4H	23,9	24,4	24,4	24,8	25,1	23,9	24,4	24,4	24,8	25,1
	6H	24,0	24,4	24,6	24,8	25,4	24,0	24,4	24,6	24,8	25,4
	8H	24,1	24,4	24,6	24,9	25,5	24,1	24,4	24,6	24,9	25,5
	12H	24,1	24,3	24,7	24,8	25,4	24,1	24,3	24,7	24,8	25,4
12H	4H	23,8	24,3	24,3	24,7	25,1	23,8	24,3	24,3	24,7	25,1
	6H	24,1	24,3	24,6	24,9	25,5	24,1	24,3	24,6	24,9	25,5
	8H	24,1	24,3	24,7	24,8	25,4	24,1	24,3	24,7	24,8	25,4
Variation of the observer position for the luminaire distance S											
S = 1.0H		3,9 / -3,5					3,9 / -3,5				
S = 1.5H		6,3 / -3,9					6,3 / -3,9				
S = 2.0H		8,2 / -4,1					8,2 / -4,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 3721lm total luminous flux											



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