

LM-79

Test Report

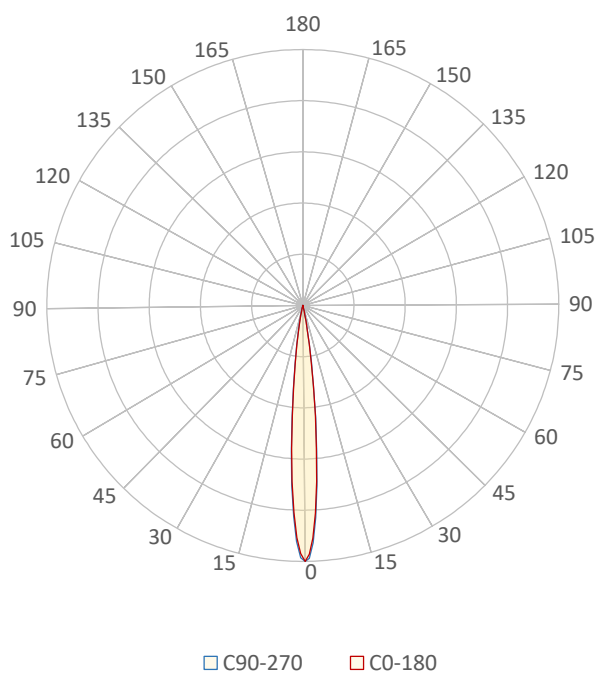
LM79-JADE-ZOOM-XICATO-3000K-CRI98-SPOT

General Discription

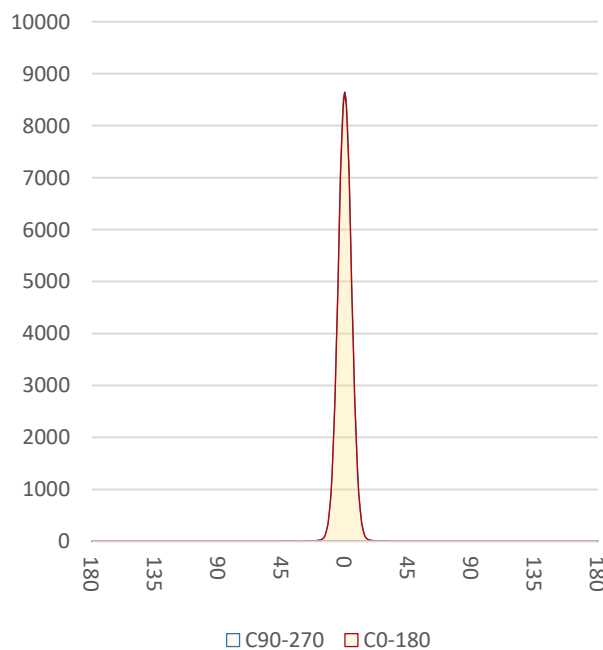
Item number	
Date and time	13-5-2019 11:47:28
CCT (Kelvin)	2987 K
Beam angle	11°
Luminous flux	377 lm
Efficiency	17 lm/watt
Weighted energy	22,6 kWh/1000h
Power factor	0,96
CRI (RA)	96,8
Fidelity index Rf	Rf 94,8
Gammut index Rg	Rg 103,9
Peak	8718 cd



Polar diagram



Cartesian diagram



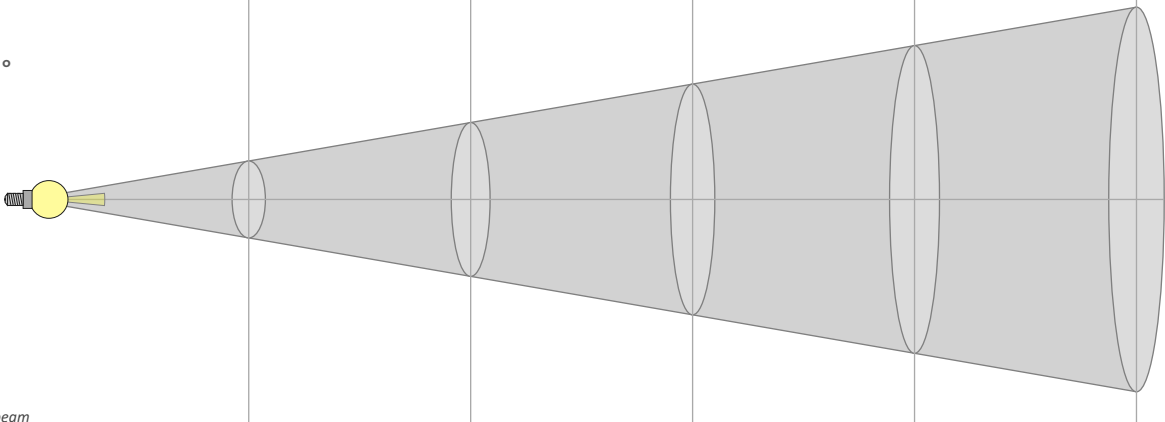
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Beam details		1m		2m		3m		4m		5m									
Lux*		8645 lx		2161 lx		961 lx		540 lx		346 lx									
11° 																			
*measured at center of beam																			
Footcandles*		803,1 fcd		200,8 fcd		89,2 fcd		50,2 fcd		32,1 fcd									
Beam width (meter)		0,2 m		0,4 m		0,6 m		0,8 m		1 m									
Beam width (Feet)		0,6 ft		1,3 ft		1,9 ft		2,5 ft		3,2 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
8645lx	2161lx	961lx	540lx	346lx	240lx	176lx	135lx	107lx	86lx	71lx	60lx	51lx	44lx	38lx	34lx	30lx	27lx	24lx	22lx
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
803,1fcd	200,8fcd	89,2fcd	50,2fcd	32,1fcd	22,3fcd	16,4fcd	12,5fcd	9,9fcd	8fcd	6,6fcd	5,6fcd	4,8fcd	4,1fcd	3,6fcd	3,1fcd	2,8fcd	2,5fcd	2,2fcd	2fcd
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°
8645	8400	7871	7027	5970	4834	3732	2748	1942	1329	881	559	339	201	116	69	45	32	24	20
100%	97%	91%	81%	69%	56%	43%	32%	22%	15%	10%	6%	4%	2%	1%	1%	1%	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°
8645	8541	8017	7170	6104	4953	3821	2803	1973	1338	880	550	332	194	111	65	41	29	21	16
100%	99%	93%	83%	71%	57%	44%	32%	23%	15%	10%	6%	4%	2%	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°
8645	8384	7844	7006	5963	4830	3730	2764	1966	1344	891	567	346	204	117	69	44	31	23	19
100%	97%	91%	81%	69%	56%	43%	32%	23%	16%	10%	7%	4%	2%	1%	1%	1%	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°
8645	8520	7969	7121	6076	4942	3839	2863	2057	1424	950	610	373	216	123	70	42	28	20	15
100%	99%	92%	82%	70%	57%	44%	33%	24%	16%	11%	7%	4%	3%	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			
11°				20,2°				25,8°				98,6%				98,2%			



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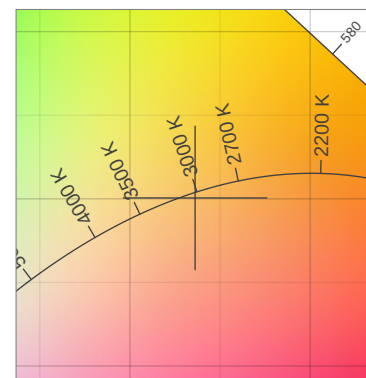
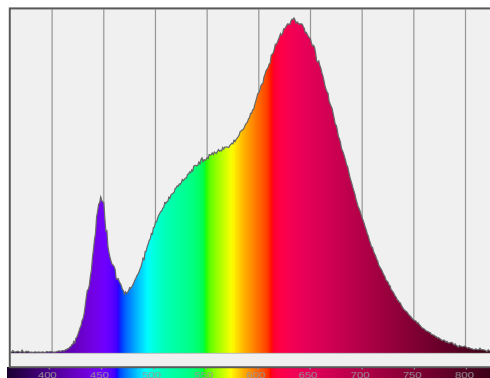
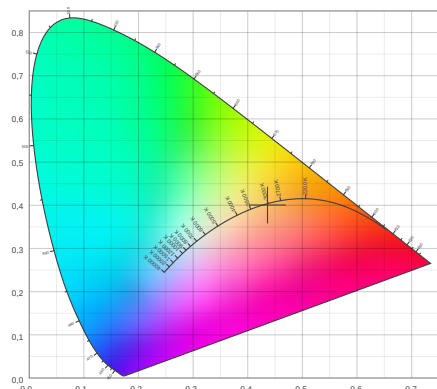
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Color details



CIE 1931

x: 0,436

2987 K

y: 0,401

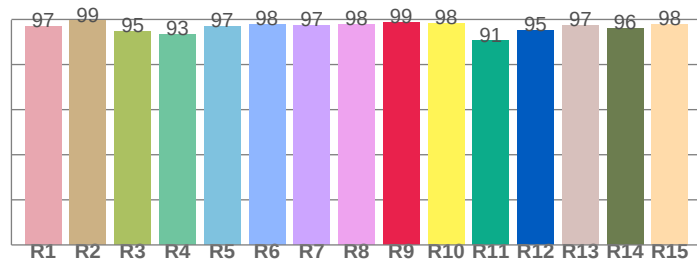
Spectra

CIE 1931 ZOOM

Δuv : -0,0013

CRI: 96,8 (R1-R8)

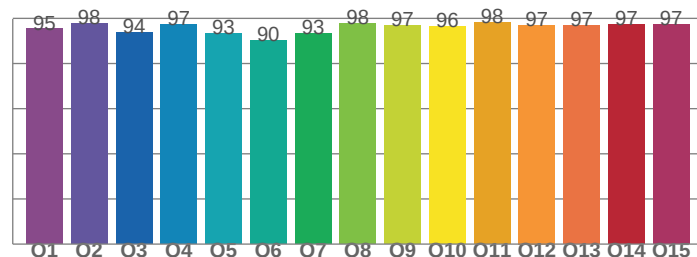
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,8	99,3	94,7	93,5	96,9	97,9	97,3	98,0
R9	R10	R11	R12	R13	R14	R15	
98,8	98,4	90,5	95,2	97,4	96,0	98,0	

CQS: 95,0

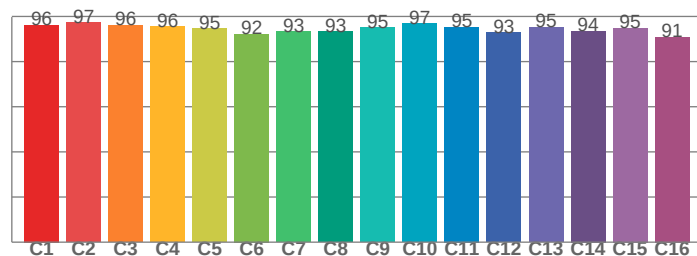
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,4	97,9	93,7	97,4	93,3	90,1	93,3	97,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	96,4	98,0	97,1	97,0	97,1	97,2	

TM30: 94,8

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



C1	C2	C3	C4	C5	C6	C7	C8
96,2	97,4	96,1	95,6	94,7	92,3	93,3	93,3
C9	C10	C11	C12	C13	C14	C15	
95,2	96,8	95,3	92,9	95,2	93,5	94,9	

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
2987 K	96,8	98,8	94,8	103,9	95,0	0,436	0,401	0,252	0,347	-0,0013



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TM30 details

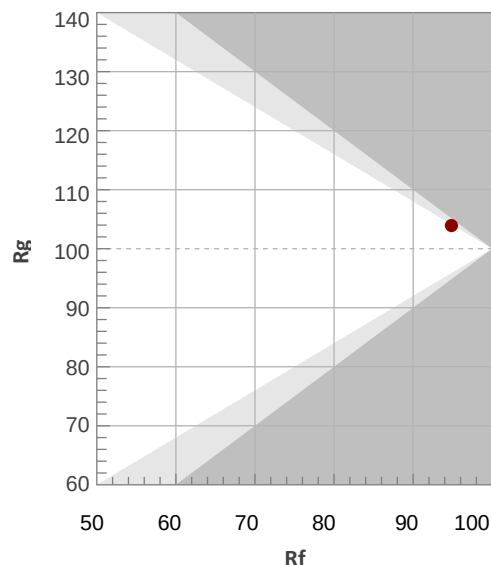
Rf 94,8

Fidelity index Rf

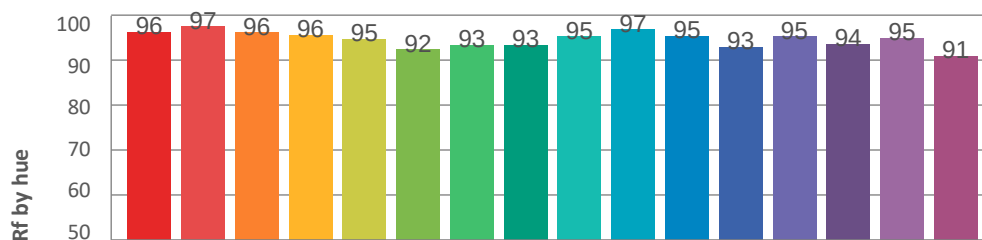
Rg 103,9

Gamut index Rg

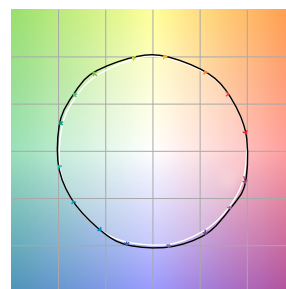
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	97	0%	0%
3	96	1%	1%
4	96	1%	2%
5	95	2%	2%
6	92	5%	1%
7	93	4%	-2%
8	93	3%	-2%
9	95	1%	-2%
10	97	0%	-1%
11	95	0%	2%
12	93	3%	1%
13	95	3%	-1%
14	94	4%	-2%
15	95	2%	-1%
16	91	3%	-6%



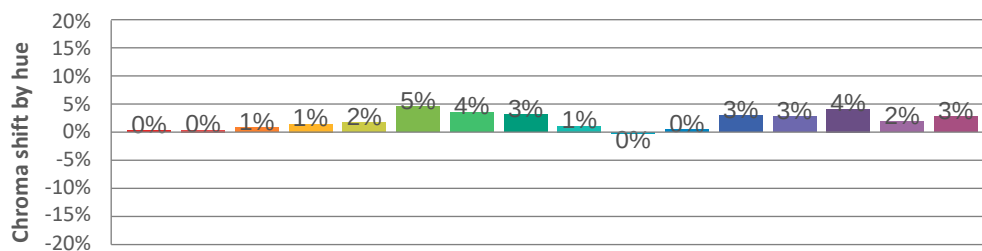
Hue binH



Color vector graphics



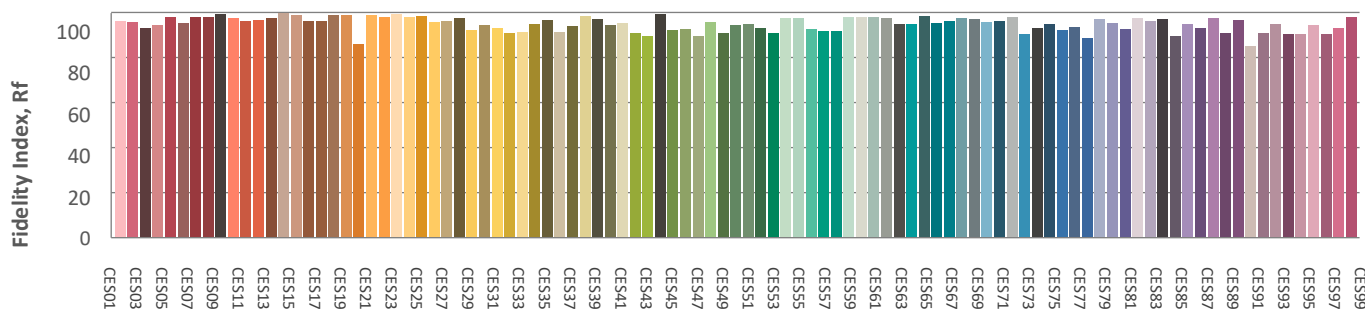
Hue bin



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	-4,7	-4,1	-4,4	-3,9	-3,6	-4,7	-4,1	-4,4	-3,9	-3,6
	3H	-4,8	-4,3	-4,5	-4,0	-3,8	-4,8	-4,3	-4,5	-4,0	-3,8
	4H	-4,9	-4,4	-4,6	-4,1	-3,8	-4,9	-4,4	-4,6	-4,1	-3,8
	6H	-5,0	-4,5	-4,7	-4,2	-3,9	-5,0	-4,5	-4,7	-4,2	-3,9
	8H	-5,0	-4,5	-4,7	-4,2	-3,9	-5,0	-4,5	-4,7	-4,2	-3,9
	12H	-5,1	-4,6	-4,7	-4,3	-4,0	-5,1	-4,6	-4,7	-4,3	-4,0
4H	2H	-4,9	-4,4	-4,6	-4,1	-3,8	-4,9	-4,4	-4,6	-4,1	-3,8
	3H	-5,1	-4,6	-4,7	-4,3	-4,0	-5,1	-4,6	-4,7	-4,3	-4,0
	4H	-5,1	-4,7	-4,8	-4,4	-4,0	-5,1	-4,7	-4,8	-4,4	-4,0
	6H	-5,2	-4,9	-4,8	-4,5	-4,1	-5,2	-4,9	-4,8	-4,5	-4,1
	8H	-5,3	-5,0	-4,8	-4,6	-4,2	-5,3	-5,0	-4,8	-4,6	-4,2
	12H	-5,3	-5,1	-4,9	-4,6	-4,2	-5,3	-5,1	-4,9	-4,6	-4,2
8H	4H	-5,3	-5,0	-4,8	-4,6	-4,2	-5,3	-5,0	-4,8	-4,6	-4,2
	6H	-5,3	-5,1	-4,9	-4,7	-4,2	-5,3	-5,1	-4,9	-4,7	-4,2
	8H	-5,4	-5,2	-4,9	-4,8	-4,3	-5,4	-5,2	-4,9	-4,8	-4,3
	12H	-5,4	-5,3	-5,0	-4,8	-4,3	-5,4	-5,3	-5,0	-4,8	-4,3
12H	4H	-5,3	-5,1	-4,9	-4,6	-4,2	-5,3	-5,1	-4,9	-4,6	-4,2
	6H	-5,4	-5,2	-4,9	-4,8	-4,3	-5,4	-5,2	-4,9	-4,8	-4,3
	8H	-5,4	-5,3	-5,0	-4,8	-4,3	-5,4	-5,3	-5,0	-4,8	-4,3
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		-23,4					-23,4				
Corrected glare indices referring to 377lm total luminous flux											