

# LM-79

## Test Report

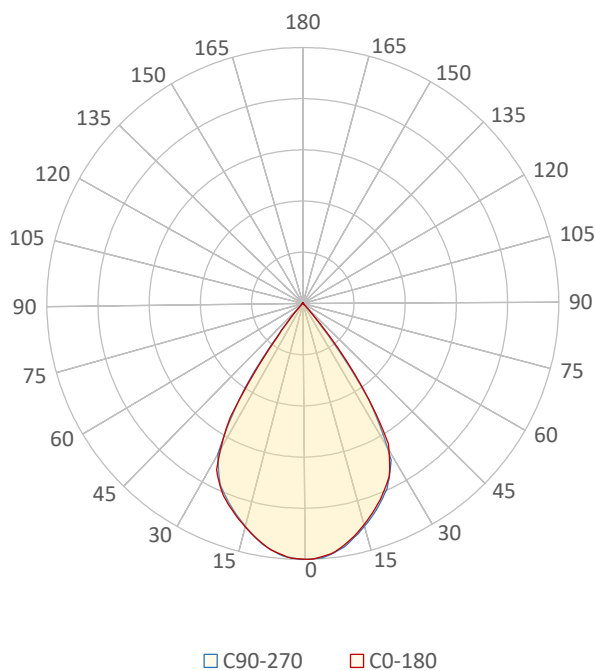
LM79-JADE-ZOOM-XICATO-2700K-CRI98-WIDE

### General Description

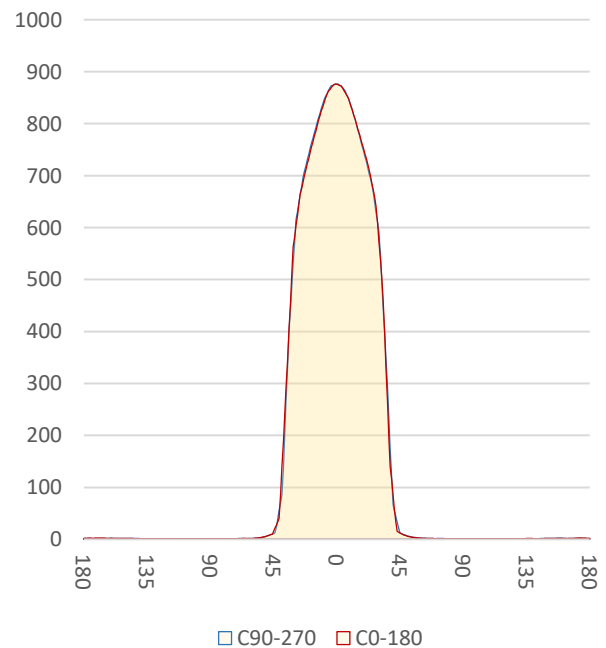
Item number	
Date and time	29-5-2019 13:39:43
CCT (Kelvin)	2740 K
Beam angle	66,3°
Luminous flux	845 lm
Efficiency	37 lm/watt
Weighted energy	22,8 kWh/1000h
Power factor	0,97
CRI (RA)	97,3
Fidelity index Rf	Rf 95,8
Gammut index Rg	Rg 102,2
Peak	877 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	876 lx	219 lx	97 lx	55 lx	35 lx																			
*measured at center of beam																								
Footcandles*	81,4 fcd	20,3 fcd	9,0 fcd	5,1 fcd	3,3 fcd																			
Beam width (meter)	1,3 m	2,6 m	3,9 m	5,2 m	6,6 m																			
Beam width (Feet)	4,3 ft	8,6 ft	12,9 ft	17,2 ft	21,5 ft																			
<b>Beam intensities</b>																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
876lx	219lx	97lx	55lx	35lx	24lx	18lx	14lx	11lx	9lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx					
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					
81,4fcd	20,3fcd	9fcd	5,1fcd	3,3fcd	2,3fcd	1,7fcd	1,3fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd					
<b>Intensities in 0° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
876	876	869	862	849	833	816	796	775	754	733	711	687	664	625	583	513	403	294	192					
100%	100%	99%	98%	97%	95%	93%	91%	89%	86%	84%	81%	78%	76%	71%	67%	59%	46%	34%	22%					
<b>Intensities in 90° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
876	875	873	863	852	838	820	802	782	762	741	719	697	665	632	573	488	400	271	142					
100%	100%	100%	99%	97%	96%	94%	92%	89%	87%	85%	82%	80%	76%	72%	65%	56%	46%	31%	16%					
<b>Intensities in 180° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
876	874	869	860	850	834	817	799	780	762	742	722	698	671	641	572	504	396	262	141					
100%	100%	99%	98%	97%	95%	93%	91%	89%	87%	85%	82%	80%	77%	73%	65%	57%	45%	30%	16%					
<b>Intensities in 270° c-plane</b>																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
876	874	869	862	849	836	817	797	777	757	737	715	693	665	628	592	495	397	290	175					
100%	100%	99%	98%	97%	95%	93%	91%	89%	86%	84%	82%	79%	76%	72%	68%	56%	45%	33%	20%					
<b>Beam angle 50%</b>					<b>Field angle 10%</b>					<b>Cutoff angle 2,5%</b>					<b>Intensity ratio in 120° cone</b>					<b>Intensity ratio in 90° cone</b>				
66,5°					79,2°					86,7°					98,8%					98,0%				



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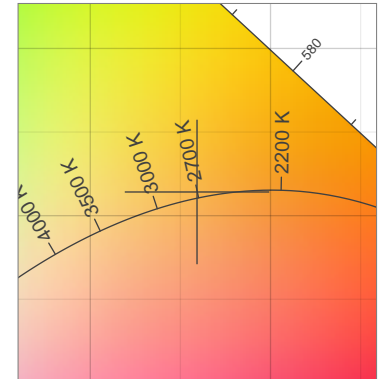
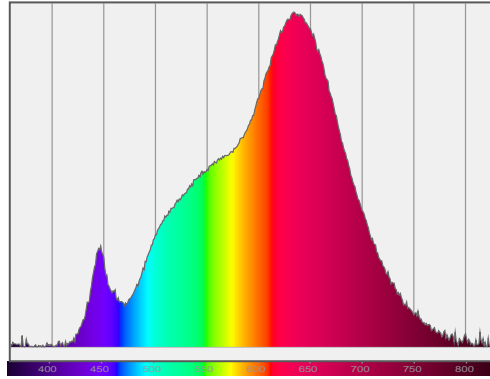
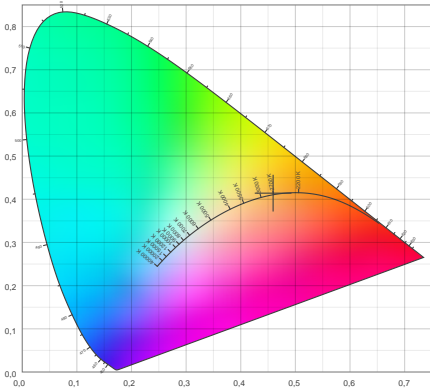
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# LM79-JADE-ZOOM-XICATO-2700K-CRI98-WIDE

### Color details



CIE 1931

x: 0,459



Spectra

CIE 1931 ZOOM

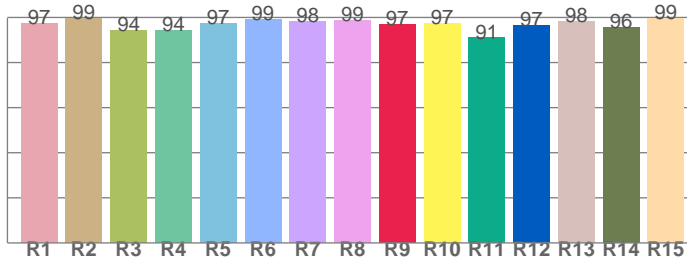
2740 K

y: 0,414

$\Delta uv$ : 0,0014

**CRI: 97,3 (R1-R8)**

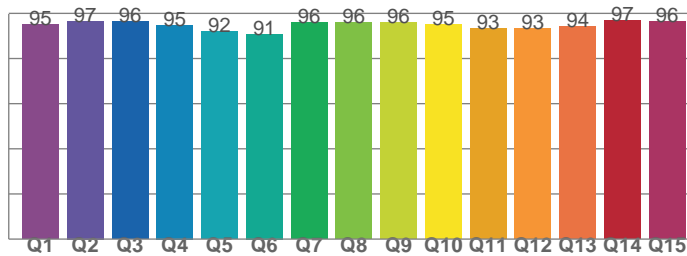
*CRI values, R1-R8 are used to calculate final CRI value*



R1	R2	R3	R4	R5	R6	R7	R8
97,5	99,4	94,2	94,1	97,5	99,1	98,1	98,9
R9	R10	R11	R12	R13	R14	R15	
96,8	97,3	90,9	96,7	98,1	95,7	99,4	

**CQS: 94,4**

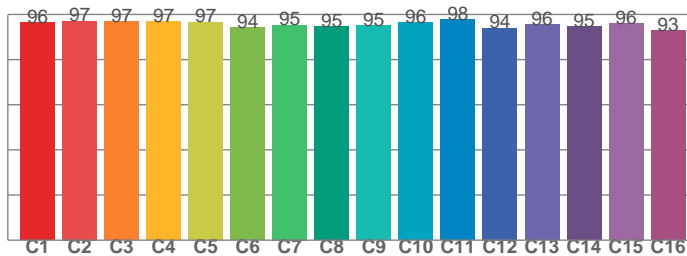
*CQS values*



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,1	96,6	96,4	94,8	92,1	90,9	96,0	95,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,0	95,2	93,2	93,3	94,3	96,8	96,3	

**TM30: 95,8**

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



C1	C2	C3	C4	C5	C6	C7	C8
96,4	97,1	96,9	96,8	96,6	94,2	95,3	94,6
C9	C10	C11	C12	C13	C14	C15	
95,1	96,4	97,7	94,0	95,6	94,7	96,1	

### 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	$\Delta uv$
2740 K	97,3	96,8	95,8	102,2	94,4	0,459	0,414	0,260	0,352	0,0014



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### LM79-JADE-ZOOM-XICATO-2700K-CRI98-WIDE

#### TM30 details

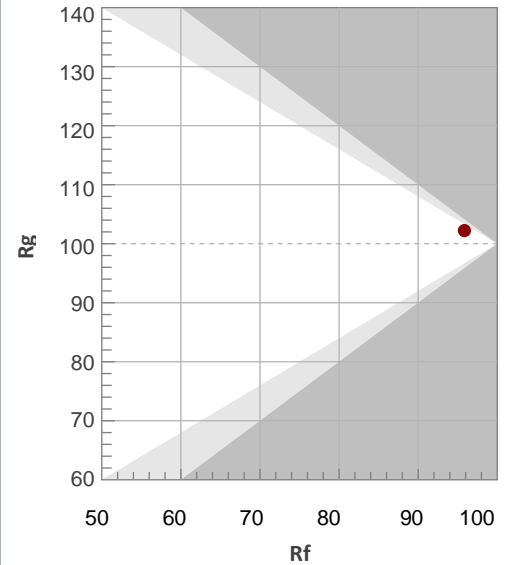
Rf 95,8

Fidelity index Rf

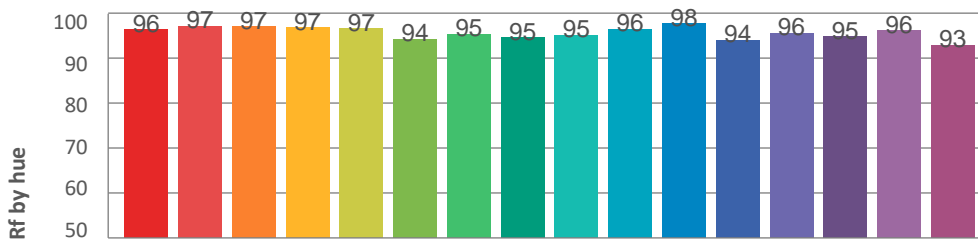
Rg 102,2

Gammut index Rg

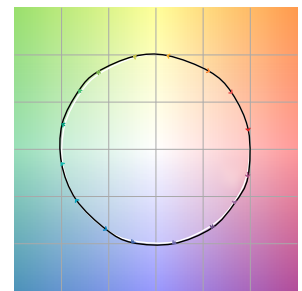
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	97	0%	-1%
3	97	0%	0%
4	97	0%	0%
5	97	1%	2%
6	94	3%	2%
7	95	3%	-1%
8	95	3%	-1%
9	95	1%	-2%
10	96	0%	-2%
11	98	0%	0%
12	94	2%	-1%
13	96	2%	-2%
14	95	2%	-2%
15	96	1%	-1%
16	93	1%	-5%



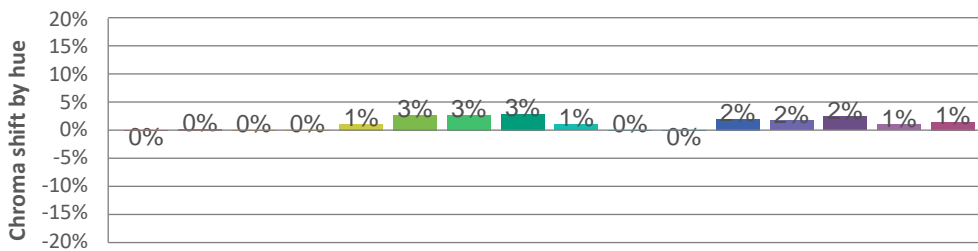
#### Hue binH



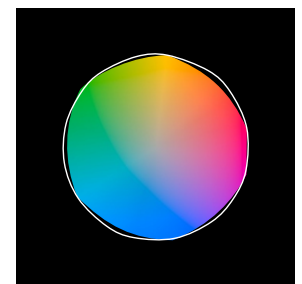
#### Color vector graphics



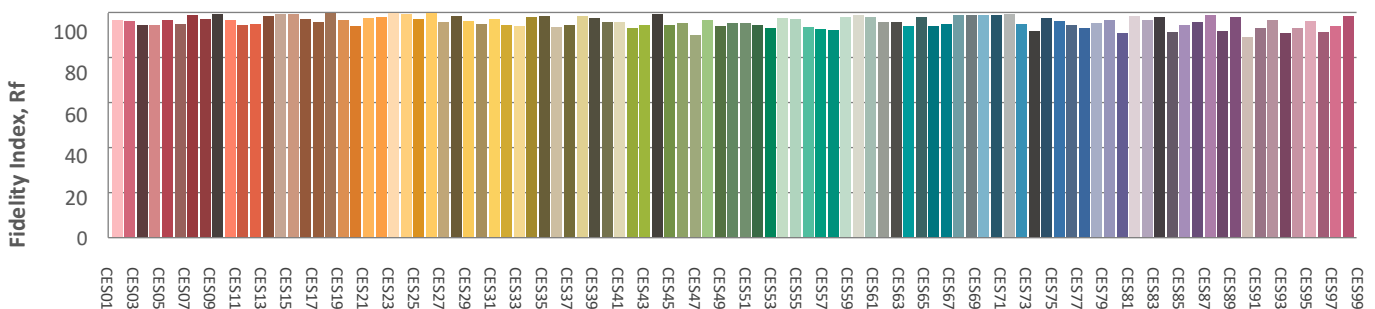
#### Hue bin



#### Color distortion graphics



#### Color Evaluation Sample



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### LM79-JADE-ZOOM-XICATO-2700K-CRI98-WIDE

#### 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	19,7	20,4	20,0	20,6	20,8	19,5	20,1	19,7	20,3	20,6
	3H	19,6	20,2	19,9	20,4	20,7	19,4	19,9	19,7	20,2	20,4
	4H	19,5	20,1	19,8	20,3	20,6	19,3	19,8	19,6	20,1	20,4
	6H	19,4	20,0	19,8	20,2	20,5	19,2	19,7	19,6	20,0	20,3
	8H	19,4	19,9	19,8	20,2	20,5	19,2	19,7	19,5	20,0	20,3
	12H	19,4	19,8	19,7	20,2	20,5	19,2	19,6	19,5	19,9	20,3
4H	2H	19,5	20,1	19,8	20,3	20,6	19,3	19,8	19,6	20,1	20,4
	3H	19,4	19,8	19,7	20,1	20,5	19,1	19,6	19,5	19,9	20,2
	4H	19,3	19,7	19,7	20,0	20,4	19,1	19,5	19,5	19,8	20,2
	6H	19,2	19,6	19,6	19,9	20,3	19,0	19,3	19,4	19,7	20,1
	8H	19,2	19,5	19,6	19,9	20,3	19,0	19,3	19,4	19,7	20,1
	12H	19,2	19,4	19,6	19,8	20,3	19,0	19,2	19,4	19,6	20,0
8H	4H	19,2	19,5	19,6	19,9	20,3	19,0	19,3	19,4	19,6	20,1
	6H	19,1	19,3	19,6	19,8	20,2	18,9	19,1	19,3	19,5	20,0
	8H	19,1	19,3	19,5	19,7	20,2	18,9	19,0	19,3	19,5	20,0
	12H	19,1	19,2	19,5	19,7	20,2	18,8	19,0	19,3	19,4	20,0
12H	4H	19,1	19,4	19,6	19,8	20,2	18,9	19,2	19,4	19,6	20,0
	6H	19,1	19,2	19,5	19,7	20,2	18,8	19,0	19,3	19,5	20,0
	8H	19,0	19,2	19,5	19,6	20,2	18,8	19,0	19,3	19,4	19,9
Variation of the observer position for the luminaire distance S											
S = 1,0H	+5,7 / -12,5					+5,7 / -12,7					
S = 1,5H	+8,5 / -13,3					+8,6 / -13,3					
S = 2,0H	+10,5 / -13,8					+10,6 / -13,9					
Standard table	BK00					BK00					
Correction summand	1,1					0,9					
Corrected glare indices referring to 845lm total luminous flux											



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