

# LM-79

## Test Report

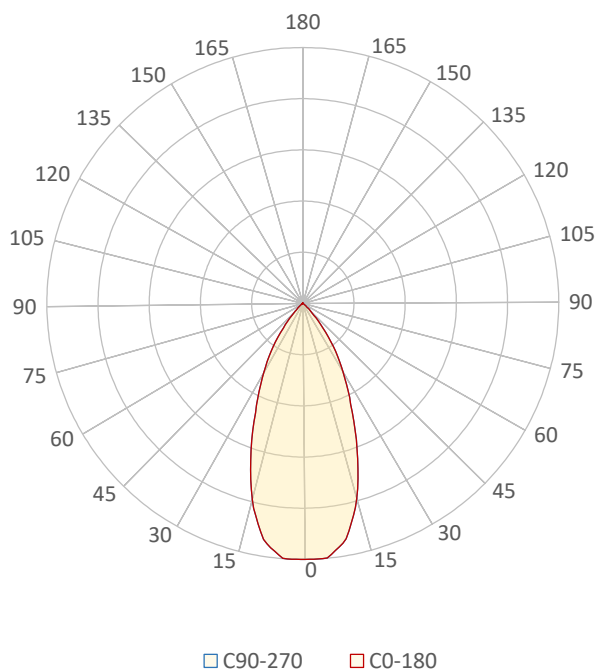
### LM79-JADE-COLOUR-FLOW-MEDIUM-all-leds-on

#### General Description

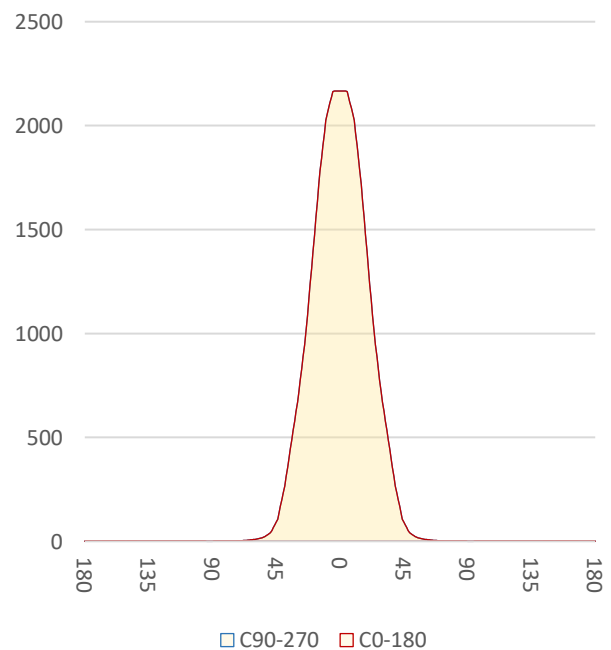
Item number	J-SXX-1-C-C470-2
Date and time	18-4-2017 13:11:12
CCT (Kelvin)	16240 K
Beam angle	46,1°
Luminous flux	1491 lm
Efficiency	51 lm/watt
Weighted energy	29,5 kWh/1000h
Power factor	0,59
CRI (RA)	42,0
Fidelity index Rf	Rf 56,9
Gammut index Rg	Rg 127,7
Peak	2166 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	2166 lx	542 lx	241 lx	135 lx	87 lx														
*measured at center of beam																			
Footcandles*	201,3 fcd	50,3 fcd	22,4 fcd	12,6 fcd	8,1 fcd														
Beam width (meter)	0,9 m	1,7 m	2,6 m	3,4 m	4,3 m														
Beam width (Feet)	2,8 ft	5,6 ft	8,4 ft	11,2 ft	13,9 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
2166lx	542lx	241lx	135lx	87lx	60lx	44lx	34lx	27lx	22lx	18lx	15lx	13lx	11lx	10lx	8lx	7lx	7lx	6lx	5lx
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
201,3fcd	50,3fcd	22,4fcd	12,6fcd	8,1fcd	5,6fcd	4,1fcd	3,1fcd	2,5fcd	2fcd	1,7fcd	1,4fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd
<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°
2166	2166	2166	2137	2085	2024	1904	1784	1636	1474	1315	1162	1009	888	775	670	579	489	399	310
100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	61%	54%	47%	41%	36%	31%	27%	23%	18%	14%
<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°
2166	2166	2166	2137	2085	2024	1904	1784	1636	1474	1315	1162	1009	888	775	670	579	489	399	310
100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	61%	54%	47%	41%	36%	31%	27%	23%	18%	14%
<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°
2166	2166	2166	2137	2085	2024	1904	1784	1636	1474	1315	1162	1009	888	775	670	579	489	399	310
100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	61%	54%	47%	41%	36%	31%	27%	23%	18%	14%
<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°
2166	2166	2166	2137	2085	2024	1904	1784	1636	1474	1315	1162	1009	888	775	670	579	489	399	310
100%	100%	100%	99%	96%	93%	88%	82%	75%	68%	61%	54%	47%	41%	36%	31%	27%	23%	18%	14%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
46,1°		81°				95,8°				99,0%				96,3%					



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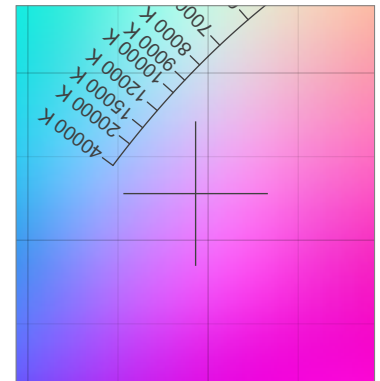
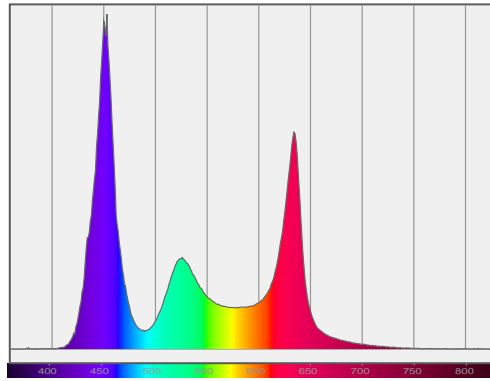
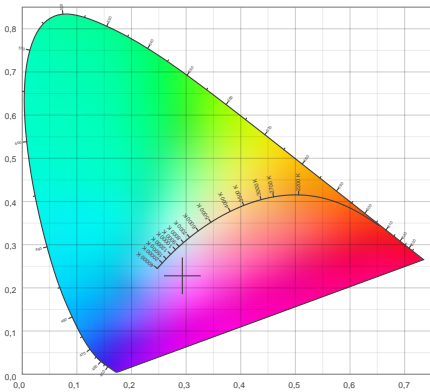
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### LM79-JADE-COLOUR-FLOW-MEDIUM-all-leds-on

#### Color details



CIE 1931

x: 0,293



Spectra

CIE 1931 ZOOM

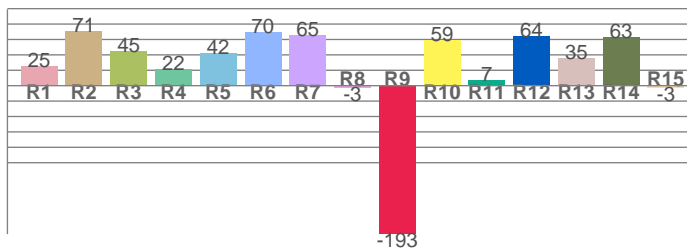
16240 K

y: 0,228

$\Delta uv$ : 0,0483

CRI: 42,0 (R1-R8)

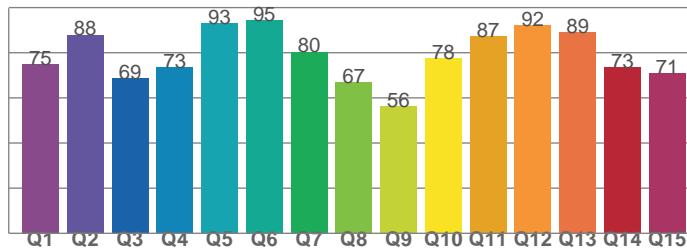
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
24,8	71,0	45,2	21,5	41,7	69,6	65,1	-3,2
R9	R10	R11	R12	R13	R14	R15	
-192,7	59,4	7,1	64,4	35,3	62,6	-2,6	

CQS: 76,4

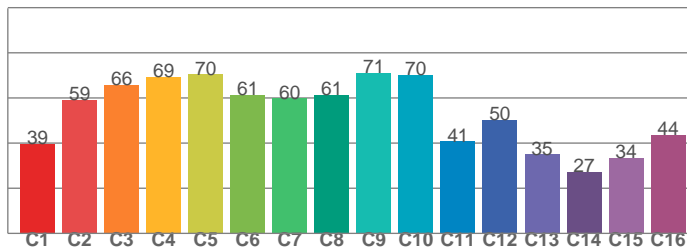
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
74,9	88,0	68,7	73,5	93,1	94,6	80,4	67,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
56,4	77,5	87,2	92,1	88,9	73,4	70,8	

TM30: 56,9

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



C1	C2	C3	C4	C5	C6	C7	C8
39,5	59,1	65,7	69,4	70,4	61,2	59,8	61,4
C9	C10	C11	C12	C13	C14	C15	
71,1	70,3	40,7	50,3	34,9	27,3	33,5	

#### 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	$\Delta uv$
16240 K	42,0	-192,7	56,9	127,7	76,4	0,293	0,228	0,228	0,266	0,0483



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# LM79-JADE-COLOUR-FLOW-MEDIUM-all-leds-on

### TM30 details

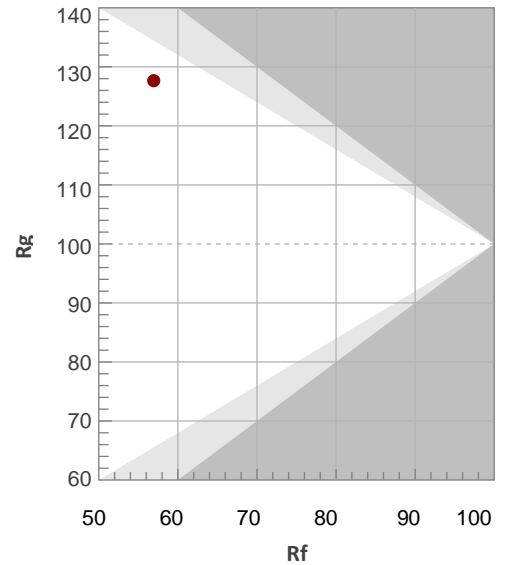
Rf 56,9

Fidelity index Rf

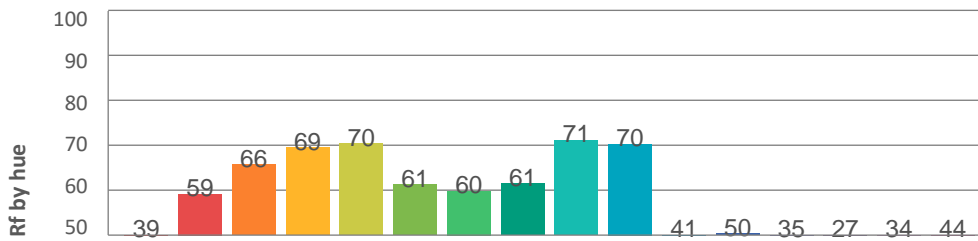
Rg 127,7

Gamut index Rg

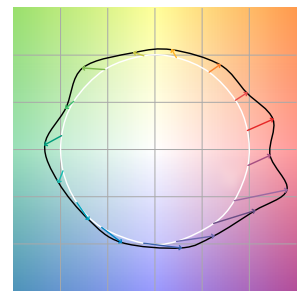
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	39	29%	6%
2	59	14%	0%
3	66	13%	-5%
4	69	7%	6%
5	70	5%	10%
6	61	14%	19%
7	60	3%	11%
8	61	16%	13%
9	71	7%	11%
10	70	0%	22%
11	41	2%	26%
12	50	-3%	40%
13	35	2%	40%
14	27	13%	44%
15	34	40%	41%
16	44	21%	15%



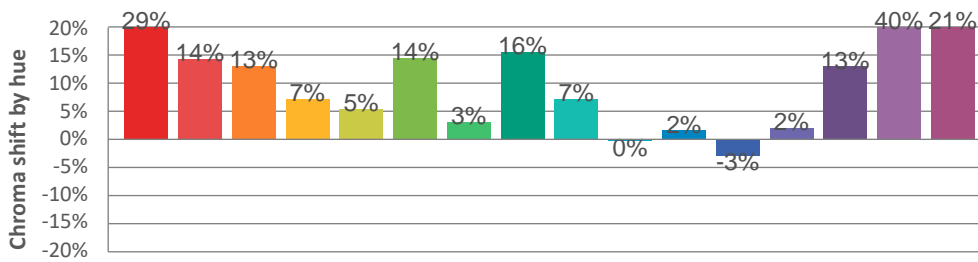
### Hue binH



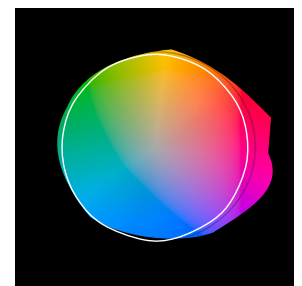
### Color vector graphics



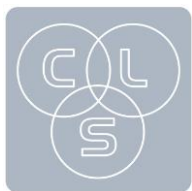
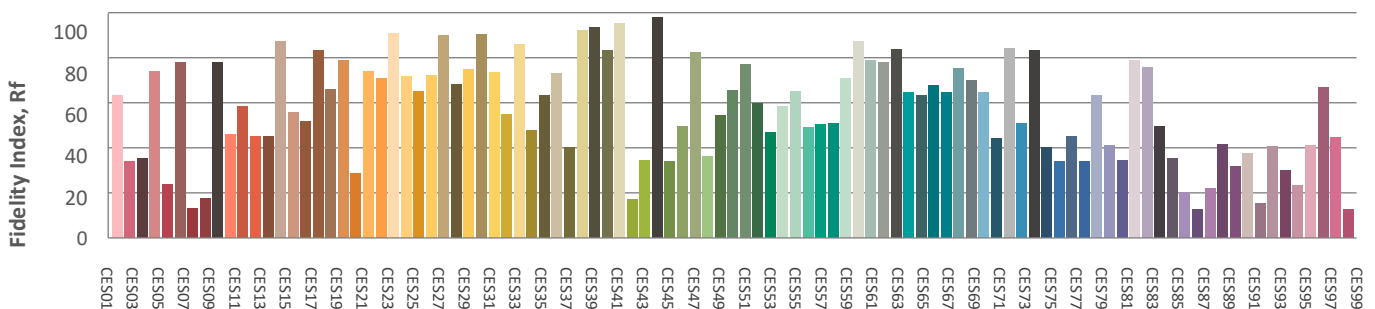
### Hue bin



### Color distortion graphics



### Color Evaluation Sample



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### LM79-JADE-COLOUR-FLOW-MEDIUM-all-leds-on

#### 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	20,4	21,1	20,6	21,3	21,5	20,4	21,1	20,6	21,3	21,5
	3H	20,2	20,9	20,5	21,1	21,4	20,2	20,9	20,5	21,1	21,4
	4H	20,2	20,8	20,5	21,0	21,3	20,2	20,8	20,5	21,0	21,3
	6H	20,1	20,7	20,4	20,9	21,2	20,1	20,7	20,4	20,9	21,2
	8H	20,1	20,6	20,4	20,9	21,2	20,1	20,6	20,4	20,9	21,2
	12H	20,0	20,5	20,4	20,8	21,2	20,0	20,5	20,4	20,8	21,2
4H	2H	20,2	20,8	20,5	21,0	21,3	20,2	20,8	20,5	21,0	21,3
	3H	20,1	20,5	20,4	20,9	21,2	20,1	20,5	20,4	20,9	21,2
	4H	20,0	20,4	20,4	20,7	21,1	20,0	20,4	20,4	20,7	21,1
	6H	19,9	20,3	20,3	20,6	21,0	19,9	20,3	20,3	20,6	21,0
	8H	19,9	20,2	20,3	20,6	21,0	19,9	20,2	20,3	20,6	21,0
	12H	19,8	20,1	20,3	20,5	21,0	19,8	20,1	20,3	20,5	21,0
8H	4H	19,9	20,2	20,3	20,6	21,0	19,9	20,2	20,3	20,6	21,0
	6H	19,8	20,0	20,2	20,5	20,9	19,8	20,0	20,2	20,5	20,9
	8H	19,8	19,9	20,2	20,4	20,9	19,8	19,9	20,2	20,4	20,9
	12H	19,7	19,9	20,2	20,3	20,8	19,7	19,9	20,2	20,3	20,8
12H	4H	19,8	20,1	20,3	20,5	20,9	19,8	20,1	20,3	20,5	20,9
	6H	19,7	19,9	20,2	20,4	20,9	19,7	19,9	20,2	20,4	20,9
	8H	19,7	19,9	20,2	20,3	20,8	19,7	19,9	20,2	20,3	20,8

#### Variation of the observer position for the luminaire distance S

S = 1,0H	+4,4 / -9,8	+4,4 / -9,8
S = 1,5H	+7,2 / -11,9	+7,2 / -11,9
S = 2,0H	+9,1 / -13,4	+9,1 / -13,4
Standard table	BK00	BK00
Correction summand	1,7	1,7

Corrected glare indices referring to 1491lm total luminous flux



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