

# LM-79

## Test Report

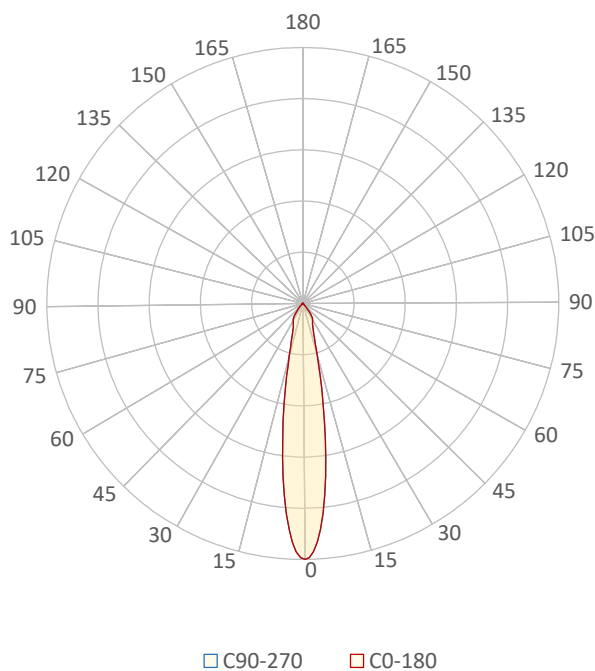
### LM79-JADE-HP-3000K-CRI95-SPOT

#### General Description

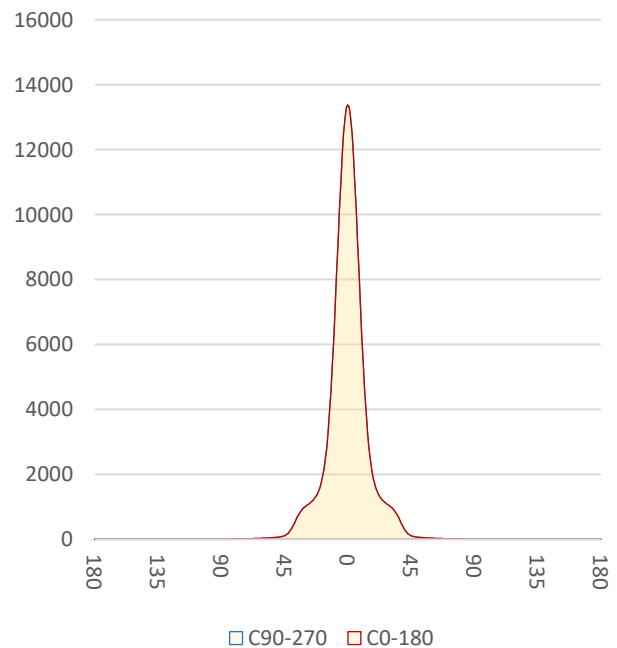
Item number	
Date and time	22-1-2021 16:23:14
CCT (Kelvin)	2992 K
Beam angle	19°
Luminous flux	2925 lm
Efficiency	75 lm/watt
Weighted energy	38,9 kWh/1000h
Power factor	0,97
CRI (RA)	96,6
Fidelity index Rf	Rf 94,6
Gammut index Rg	Rg 104,8
Peak	13377 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	13377 lx	3344 lx	1486 lx	836 lx	535 lx														
*measured at center of beam																			
Footcandles*	1242,8 fcd	310,7 fcd	138,1 fcd	77,7 fcd	49,7 fcd														
Beam width (meter)	0,3 m	0,7 m	1 m	1,3 m	1,7 m														
Beam width (Feet)	1,1 ft	2,2 ft	3,3 ft	4,4 ft	5,5 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
13377lx	3344lx	1486lx	836lx	535lx	372lx	273lx	209lx	165lx	134lx	111lx	93lx	79lx	68lx	59lx	52lx	46lx	41lx	37lx	33lx
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
1242,8fcd	310,7fcd	138,1fcd	77,7fcd	49,7fcd	34,5fcd	25,4fcd	19,4fcd	15,3fcd	12,4fcd	10,3fcd	8,6fcd	7,4fcd	6,3fcd	5,5fcd	4,9fcd	4,3fcd	3,8fcd	3,4fcd	3,1fcd
<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°
13,4K	13,0K	11,8K	10,1K	8,1K	6,2K	4,6K	3,3K	2,5K	1,9K	1,6K	1,4K	1,2K	1,2K	1,1K	1,0K	0,9K	0,8K	0,7K	0,5K
100%	97%	88%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
<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°
13,4K	13,0K	11,8K	10,1K	8,1K	6,2K	4,6K	3,3K	2,5K	1,9K	1,6K	1,4K	1,2K	1,2K	1,1K	1,0K	0,9K	0,8K	0,7K	0,5K
100%	97%	88%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
<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°
13,4K	13,0K	11,8K	10,1K	8,1K	6,2K	4,6K	3,3K	2,5K	1,9K	1,6K	1,4K	1,2K	1,2K	1,1K	1,0K	0,9K	0,8K	0,7K	0,5K
100%	97%	88%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
<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°
13,4K	13,0K	11,8K	10,1K	8,1K	6,2K	4,6K	3,3K	2,5K	1,9K	1,6K	1,4K	1,2K	1,2K	1,1K	1,0K	0,9K	0,8K	0,7K	0,5K
100%	97%	88%	76%	61%	47%	34%	25%	18%	14%	12%	10%	9%	9%	8%	8%	7%	6%	5%	4%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
19°		44,8°				79,9°				98,4%				95,8%					



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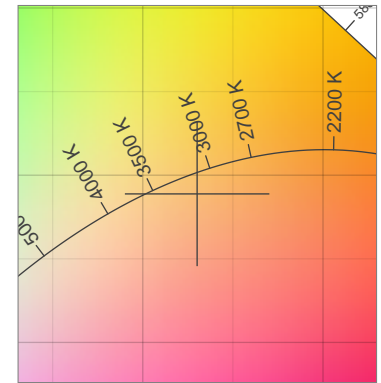
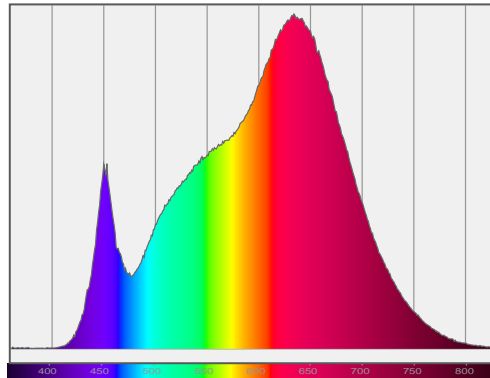
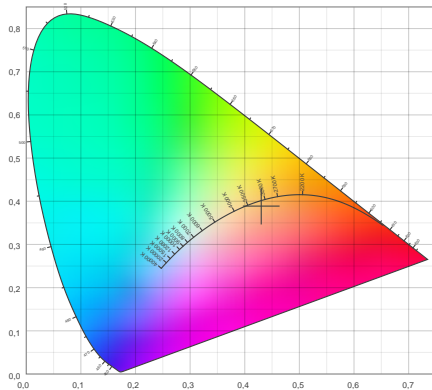
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# LM79-JADE-HP-3000K-CRI95-SPOT

### Color details



CIE 1931

x: 0,430



Spectra

CIE 1931 ZOOM

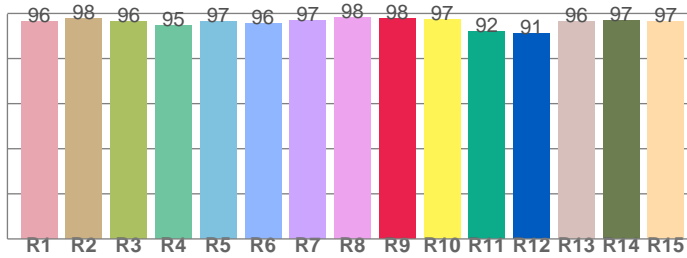
2992 K

y: 0,389

$\Delta uv: -0,0053$

**CRI: 96,6 (R1-R8)**

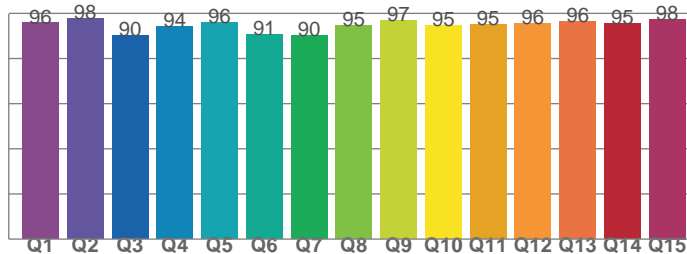
*CRI values, R1-R8 are used to calculate final CRI value*



R1	R2	R3	R4	R5	R6	R7	R8
96,4	97,8	96,3	94,6	96,6	95,6	97,1	98,3
R9	R10	R11	R12	R13	R14	R15	
98,0	97,4	92,0	91,1	96,4	96,9	96,5	

**CQS: 94,0**

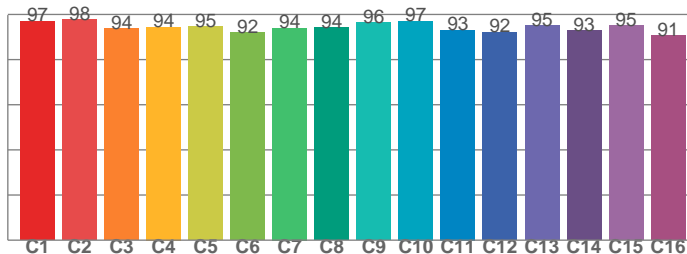
*CQS values*



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,8	97,9	90,3	94,1	96,0	90,8	90,1	94,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	94,5	95,1	95,8	96,3	95,4	97,5	

**TM30: 94,6**

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



C1	C2	C3	C4	C5	C6	C7	C8
97,0	97,8	93,8	94,4	94,6	92,1	94,0	94,2
C9	C10	C11	C12	C13	C14	C15	
96,4	97,1	93,2	92,1	95,0	93,0	95,2	

### 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	$\Delta uv$
2992 K	96,6	98,0	94,6	104,8	94,0	0,430	0,389	0,253	0,343	-0,0053



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# LM79-JADE-HP-3000K-CRI95-SPOT

### TM30 details

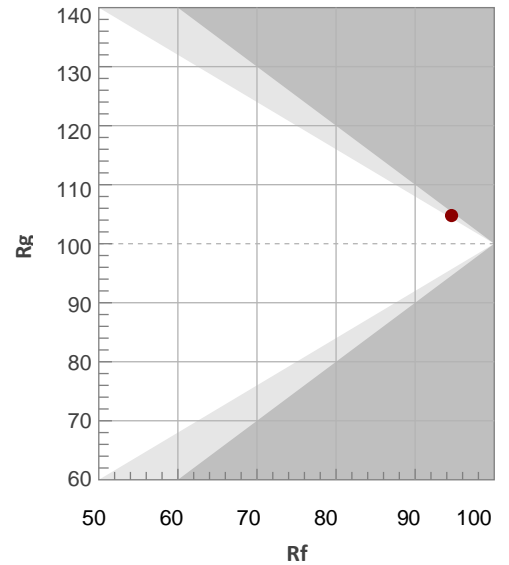
Rf 94,6

Fidelity index Rf

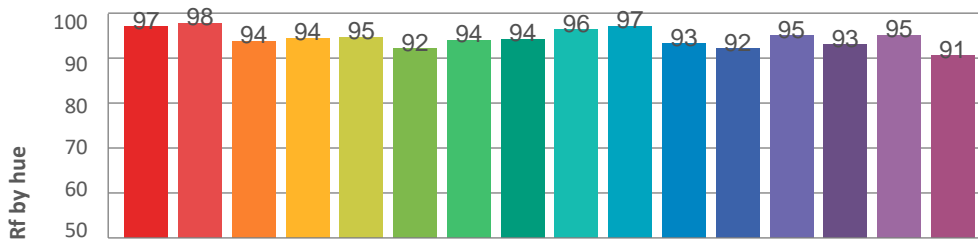
Rg 104,8

Gamut index Rg

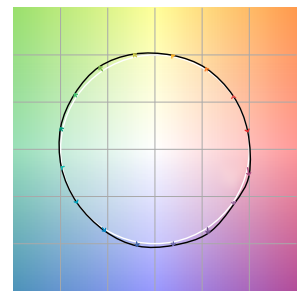
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	1%
3	94	1%	3%
4	94	1%	2%
5	95	3%	3%
6	92	5%	0%
7	94	3%	-2%
8	94	3%	-3%
9	96	1%	-1%
10	97	0%	1%
11	93	1%	4%
12	92	4%	2%
13	95	4%	-1%
14	93	5%	-2%
15	95	2%	-1%
16	91	3%	-7%



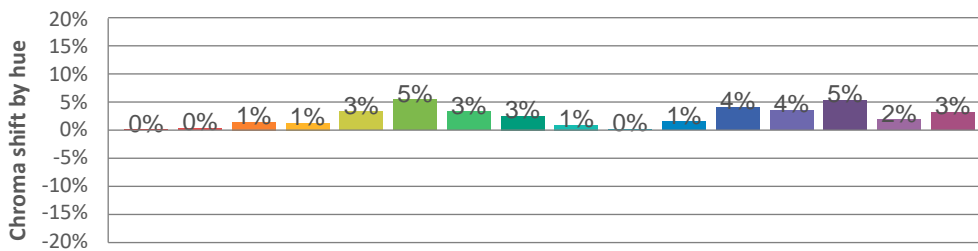
### Hue binH



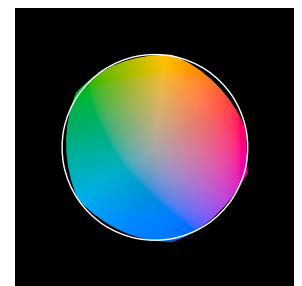
### Color vector graphics



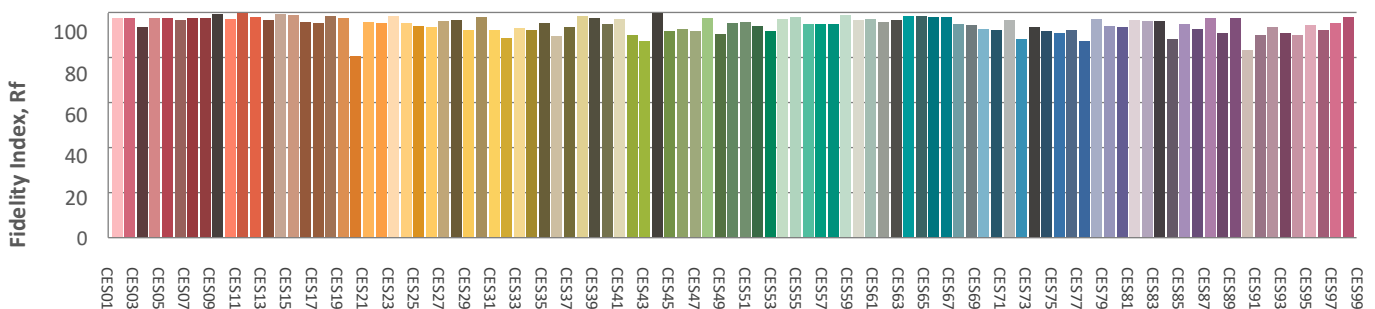
### Hue bin



### 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	21,5	22,0	21,6	22,3	22,4	21,5	22,0	21,6	22,3	22,4
	3H	21,4	22,1	21,8	22,3	22,5	21,4	22,1	21,8	22,3	22,5
	4H	21,5	22,1	21,9	22,4	22,6	21,5	22,1	21,9	22,4	22,6
	6H	21,6	22,1	21,9	22,4	22,8	21,6	22,1	21,9	22,4	22,8
	8H	21,5	22,1	21,9	22,4	22,8	21,5	22,1	21,9	22,4	22,8
	12H	21,5	22,0	21,8	22,4	22,8	21,5	22,0	21,8	22,4	22,8
4H	2H	21,3	21,9	21,6	22,1	22,4	21,3	21,9	21,6	22,1	22,4
	3H	21,5	22,0	21,8	22,3	22,7	21,5	22,0	21,8	22,3	22,7
	4H	21,5	22,0	21,9	22,4	22,9	21,5	22,0	21,9	22,4	22,9
	6H	21,6	22,1	22,1	22,4	22,8	21,6	22,1	22,1	22,4	22,8
	8H	21,6	22,0	22,1	22,4	22,7	21,6	22,0	22,1	22,4	22,7
	12H	21,5	21,9	22,0	22,3	22,7	21,5	21,9	22,0	22,3	22,7
8H	4H	21,5	22,0	22,0	22,3	22,7	21,5	22,0	22,0	22,3	22,7
	6H	21,6	21,9	22,1	22,4	22,9	21,6	21,9	22,1	22,4	22,9
	8H	21,7	21,9	22,2	22,4	23,0	21,7	21,9	22,2	22,4	23,0
	12H	21,6	21,8	22,2	22,3	22,9	21,6	21,8	22,2	22,3	22,9
12H	4H	21,4	21,8	21,9	22,2	22,7	21,4	21,8	21,9	22,2	22,7
	6H	21,6	21,9	22,1	22,4	23,0	21,6	21,9	22,1	22,4	23,0
	8H	21,6	21,8	22,2	22,3	22,9	21,6	21,8	22,2	22,3	22,9
Variation of the observer position for the luminaire distance S											
S = 1.0H	4,0 / -3,6					4,0 / -3,6					
S = 1.5H	6,5 / -4,0					6,5 / -4,0					
S = 2.0H	8,4 / -4,5					8,4 / -4,5					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 2925lm total luminous flux											



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