

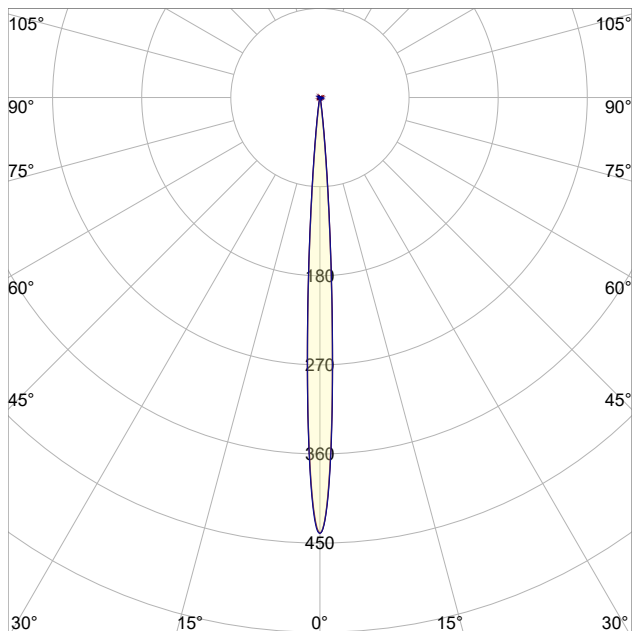
# LM-79

## Test Report

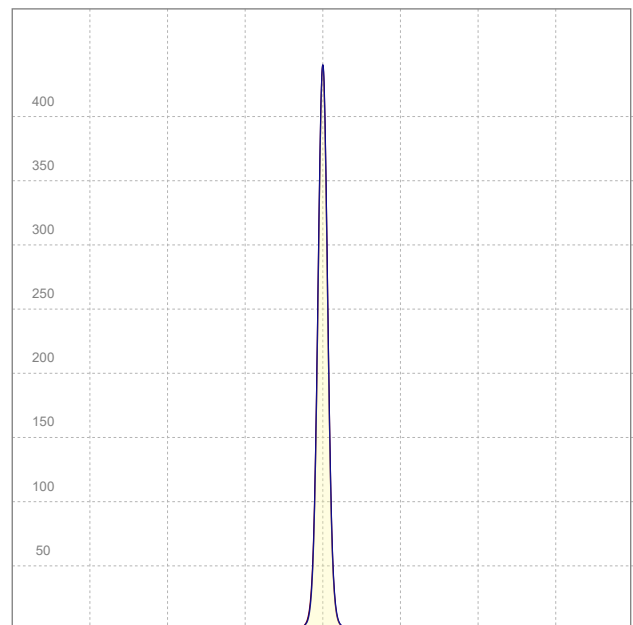
### LM79-FOCUS-MICRO-G2-4000K-CRI95-SPOT

#### General Description

Item number	FM-X-X-4095-Z
Date and time	16-10-2020 14:23:26
CCT (Kelvin)	4020 K
Beam angle	6,4°
Luminous flux	8,55 lm
Efficiency	8 lm/watt
Weighted energy	1,0 kWh/1000h
Power factor	1,0
CRI (RA)	94,5
Fidelity index Rf	Rf 92,7
Gammut index Rg	Rg 101,0
Peak	440 cd



*Polar curve*



*Linear distribution diagram*



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Beam details	1m	2m	3m	4m	5m																			
Lux*	440 lx	110 lx	49 lx	27 lx	18 lx																			
*measured at center of beam																								
Footcandles*	40,8 fcd	10,2 fcd	4,5 fcd	2,6 fcd	1,6 fcd																			
Beam width (meter)	0,1 m	0,2 m	0,3 m	0,4 m	0,6 m																			
Beam width (Feet)	0,4 ft	0,7 ft	1,1 ft	1,5 ft	1,8 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					
440lx	110lx	49lx	27lx	18lx	12lx	9lx	7lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx					
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					
40,8fcd	10,2fcd	4,5fcd	2,6fcd	1,6fcd	1,1fcd	0,8fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd					
<b>Intensities in 0° c-plane</b>																								
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°					
440	410	335	239	151	86	47	25	14	8	5	3	2	2	1	1	1	1	1	1					
100%	93%	76%	54%	34%	20%	11%	6%	3%	2%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 90° c-plane</b>																								
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°					
440	411	337	240	150	84	44	23	12	7	4	3	2	2	1	1	1	1	1	1					
100%	94%	77%	54%	34%	19%	10%	5%	3%	2%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 180° c-plane</b>																								
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°					
440	409	334	239	151	85	45	24	12	7	4	3	2	2	1	1	1	1	1	1					
100%	93%	76%	54%	34%	19%	10%	5%	3%	2%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 270° c-plane</b>																								
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°					
440	411	335	239	152	87	47	25	14	8	5	3	2	2	1	1	1	1	1	1					
100%	94%	76%	54%	35%	20%	11%	6%	3%	2%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%					
<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>				
6,4°					12,1°					16,5°					96,8%					93,9%				



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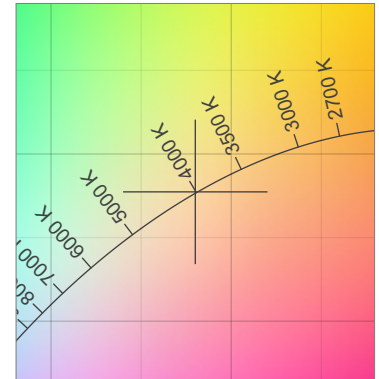
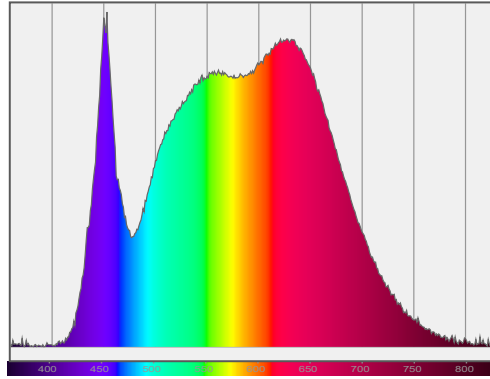
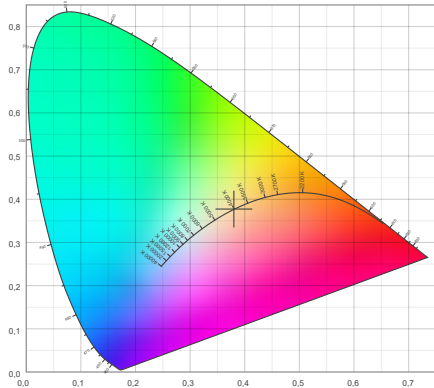
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# LM-79

## Test Report

### LM79-FOCUS-MICRO-G2-4000K-CRI95-SPOT

#### Color details



CIE 1931

x: 0,380



Spectra

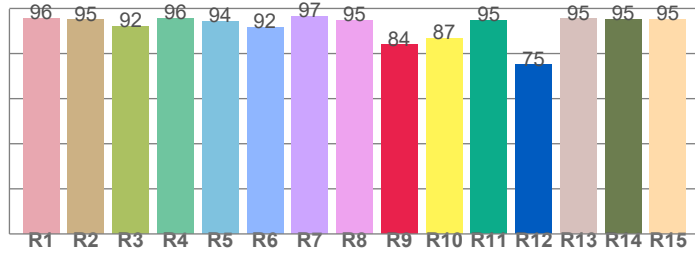
CIE 1931 ZOOM

4020 K

y: 0,377

Δuv: 0,0004

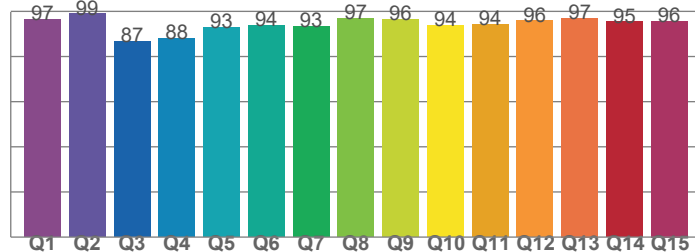
**CRI: 94,5 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8
95,8	95,0	92,2	95,5	94,5	91,7	96,7	94,6
R9	R10	R11	R12	R13	R14	R15	
83,9	86,7	94,7	75,0	95,4	95,1	95,3	

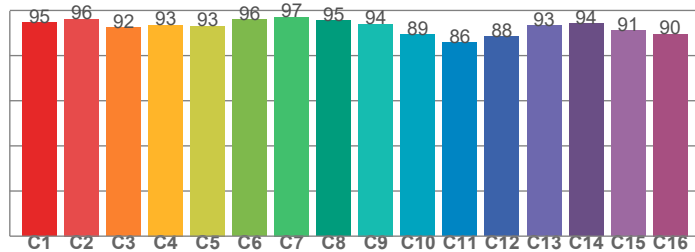
**CQS: 93,5**



*CQS values*

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
96,6	98,9	86,7	88,0	92,9	93,7	93,3	96,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,5	93,9	94,4	95,9	97,0	95,3	95,7	

**TM30: 92,7**



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

C1	C2	C3	C4	C5	C6	C7	C8
94,7	96,2	92,4	93,5	93,1	95,9	97,1	95,5
C9	C10	C11	C12	C13	C14	C15	
94,0	89,4	85,8	88,4	93,5	94,2	91,2	

#### 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	Δuv
4020 K	94,5	83,9	92,7	101,0	93,5	0,380	0,377	0,225	0,335	0,0004



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# LM-79

## Test Report

# LM79-FOCUS-MICRO-G2-4000K-CRI95-SPOT

### TM30 details

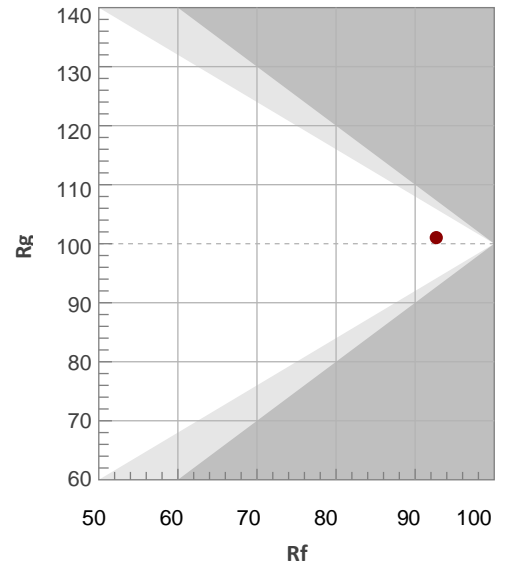
Rf 92,7

Fidelity index Rf

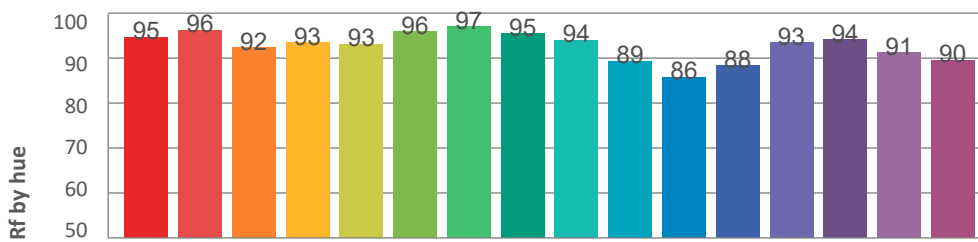
Rg 101,0

Gamut index Rg

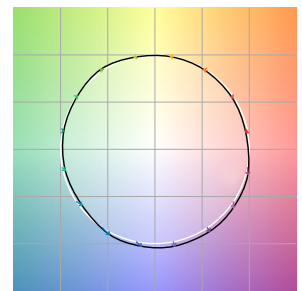
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	-1%
2	96	-2%	1%
3	92	-1%	4%
4	93	-1%	3%
5	93	0%	2%
6	96	2%	0%
7	97	0%	-1%
8	95	-2%	0%
9	94	-2%	3%
10	89	-3%	6%
11	86	2%	10%
12	88	4%	6%
13	93	5%	0%
14	94	5%	0%
15	91	3%	-5%
16	90	2%	-7%



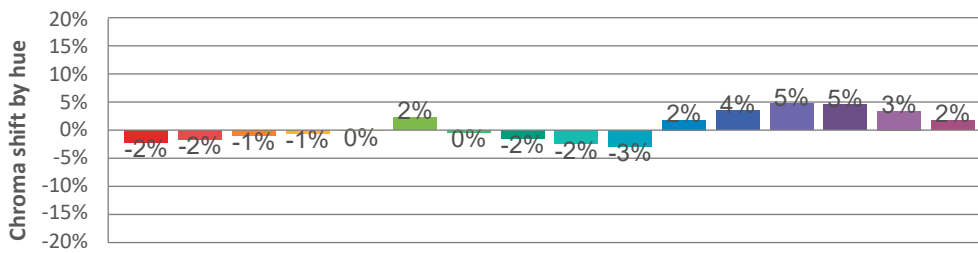
### Hue binH



### Color vector graphics



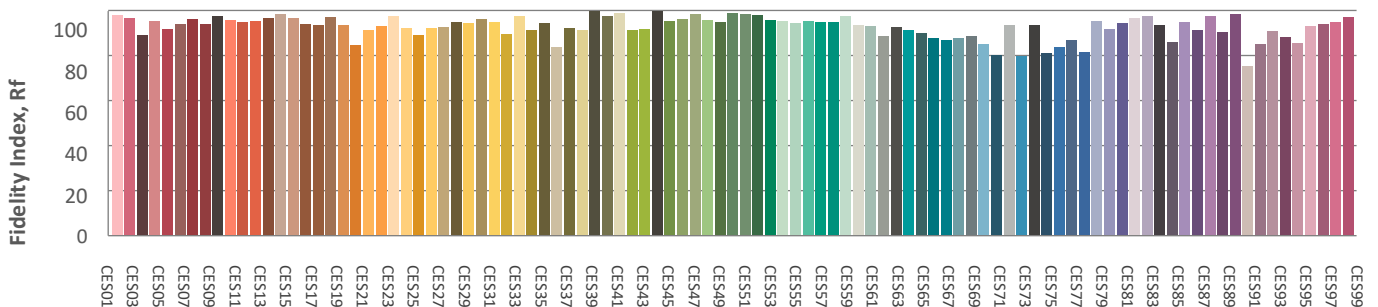
### Hue bin



### Color distortion graphics



### Color Evaluation Sample



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# LM-79

## Test Report

# LM79-FOCUS-MICRO-G2-4000K-CRI95-SPOT

### 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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 8,55lm total luminous flux										



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