

# LM-79

## Test Report

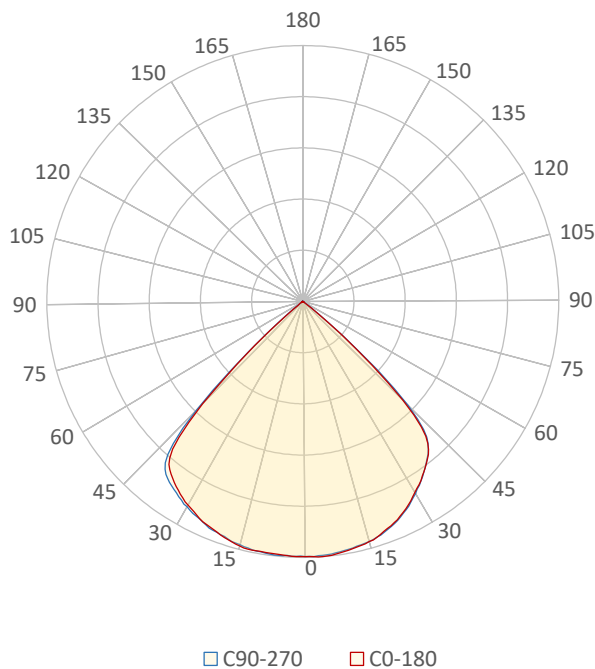
LM79-FOCUS-MICRO-2700K-CRI95-WIDE

### General Discription

Item number	FM-X-X-2795-Z
Date and time	16-10-2020 14:30:01
CCT (Kelvin)	2655 K
Beam angle	91,9°
Luminous flux	79,2 lm
Efficiency	76 lm/watt
Weighted energy	1,0 kWh/1000h
Power factor	1,0
CRI (RA)	94,9
Fidelity index Rf	Rf 93,7
Gammut index Rg	Rg 101,3
Peak	45,2 cd



Polar diagram



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Beam details	1m	2m	3m	4m	5m																			
<b>Lux*</b>	45 lx	11 lx	5 lx	3 lx	2 lx																			
<i>*measured at center of beam</i>																								
<b>Footcandles*</b>	4,2 fcd	1,0 fcd	0,5 fcd	0,3 fcd	0,2 fcd																			
<b>Beam width (meter)</b>	2,1 m	4,1 m	6,2 m	8,2 m	10,3 m																			
<b>Beam width (Feet)</b>	6,7 ft	13,5 ft	20,2 ft	27 ft	33,7 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					
45lx	11lx	5lx	3lx	2lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx				
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					
4,2fcd	1fcd	0,5fcd	0,3fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd				
<b>Intensities in 0° c-plane</b>																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
45,0	45,1	44,6	43,9	42,7	41,2	39,0	36,8	34,2	24,7	5,8	0,4	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,0					
100%	100%	99%	98%	95%	92%	87%	82%	76%	55%	13%	1%	0%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 90° c-plane</b>																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
45,0	44,8	44,4	43,9	42,9	41,3	39,3	36,9	34,1	26,0	6,3	0,4	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,0					
100%	100%	99%	98%	95%	92%	87%	82%	76%	58%	14%	1%	0%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 180° c-plane</b>																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
45,0	44,8	44,7	44,5	43,6	42,6	41,2	39,5	37,2	25,2	4,6	0,4	0,1	0,1	0,1	0,1	0,1	0,1	0,0	0,0					
100%	100%	99%	99%	97%	95%	92%	88%	83%	56%	10%	1%	0%	0%	0%	0%	0%	0%	0%	0%					
<b>Intensities in 270° c-plane</b>																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
45,0	44,9	44,7	44,3	43,6	42,7	41,5	40,2	38,3	26,8	5,7	0,4	0,1	0,1	0,1	0,1	0,1	0,1	0,0	0,0					
100%	100%	100%	98%	97%	95%	92%	89%	85%	60%	13%	1%	0%	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>				
91,5°					100,8°					105,2°					99,6%					90,9%				



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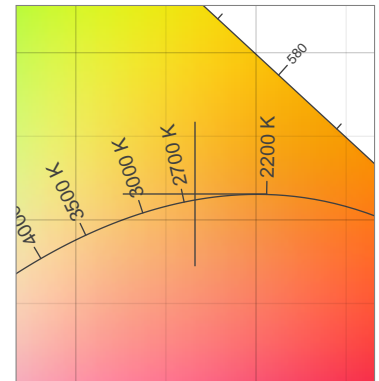
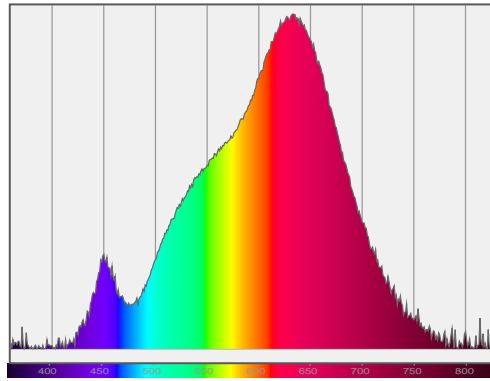
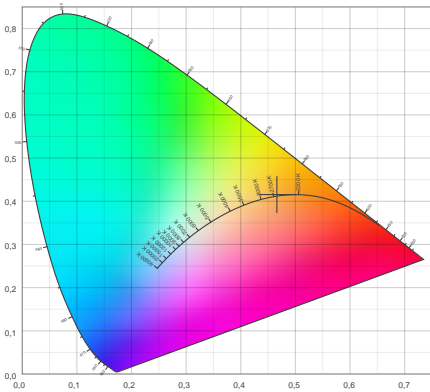
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# LM79-FOCUS-MICRO-2700K-CRI95-WIDE

### Color details



CIE 1931

x: 0,466



Spectra

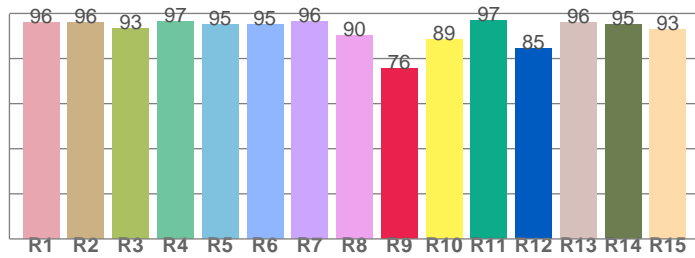
CIE 1931 ZOOM

2655 K

y: 0,415

$\Delta uv$ : 0,0013

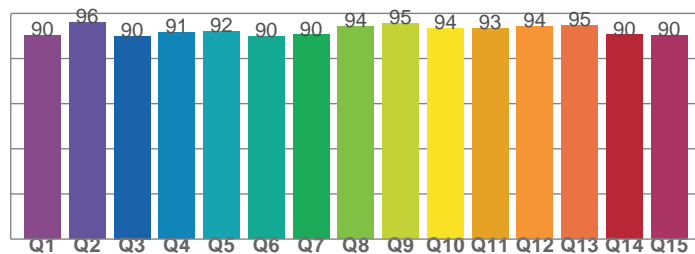
CRI: 94,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
96,1	95,9	93,4	96,7	95,0	95,1	96,3	90,3
R9	R10	R11	R12	R13	R14	R15	
75,7	88,7	97,1	84,6	96,0	95,1	93,1	

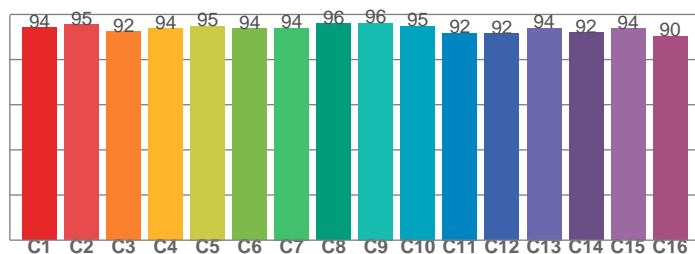
CQS: 92,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
90,3	95,9	90,0	91,4	91,9	89,9	90,5	94,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,5	93,5	93,3	94,2	94,8	90,5	90,3	

TM30: 93,7



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

C1	C2	C3	C4	C5	C6	C7	C8
94,2	95,5	92,3	93,8	94,9	93,7	94,0	95,9
C9	C10	C11	C12	C13	C14	C15	
96,2	94,9	91,7	91,6	94,0	91,9	93,7	

### 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	$\Delta uv$
2655 K	94,9	75,7	93,7	101,3	92,0	0,466	0,415	0,264	0,353	0,0013



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# LM79-FOCUS-MICRO-2700K-CRI95-WIDE

### TM30 details

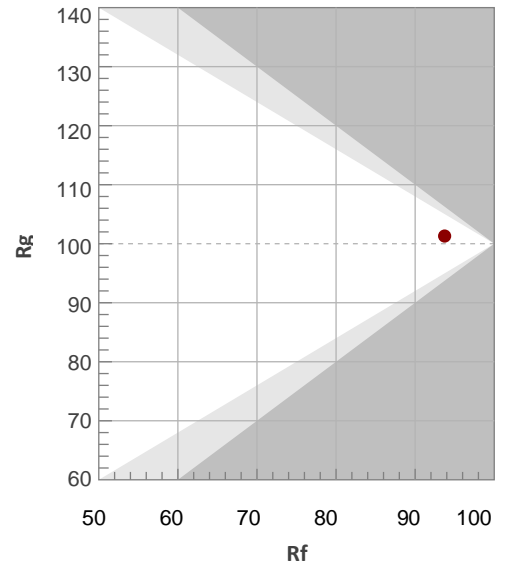
Rf 93,7

Fidelity index Rf

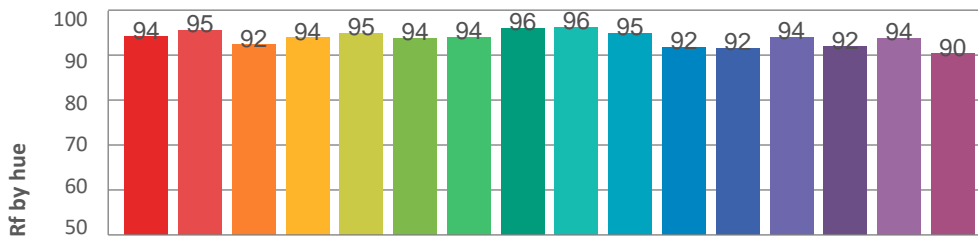
Rg 101,3

Gamut index Rg

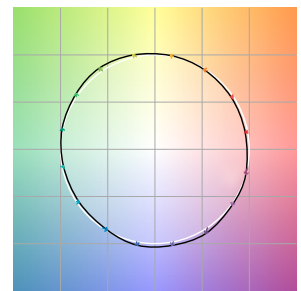
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	-1%
2	95	-2%	1%
3	92	-1%	4%
4	94	1%	3%
5	95	3%	4%
6	94	4%	1%
7	94	2%	-3%
8	96	1%	-3%
9	96	-1%	-2%
10	95	-2%	2%
11	92	-1%	6%
12	92	3%	2%
13	94	3%	-2%
14	92	4%	-5%
15	94	1%	-4%
16	90	0%	-7%



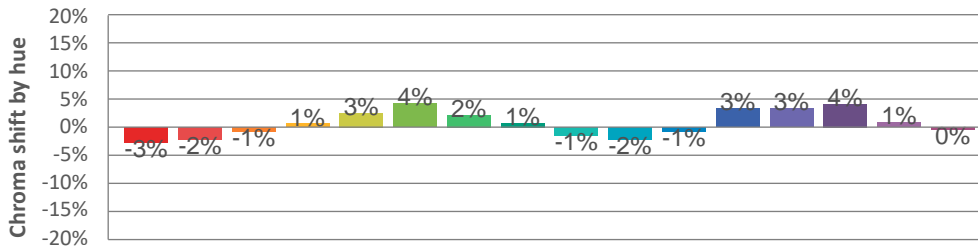
### Hue binH



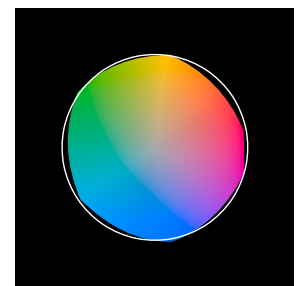
### Color vector graphics



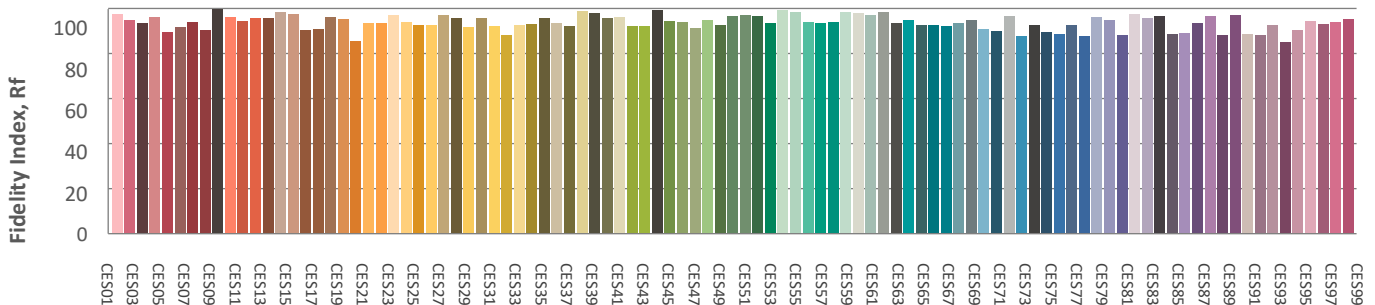
### Hue bin



### 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				
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
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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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 79,2lm total luminous flux										