

# LM-79

## Test Report

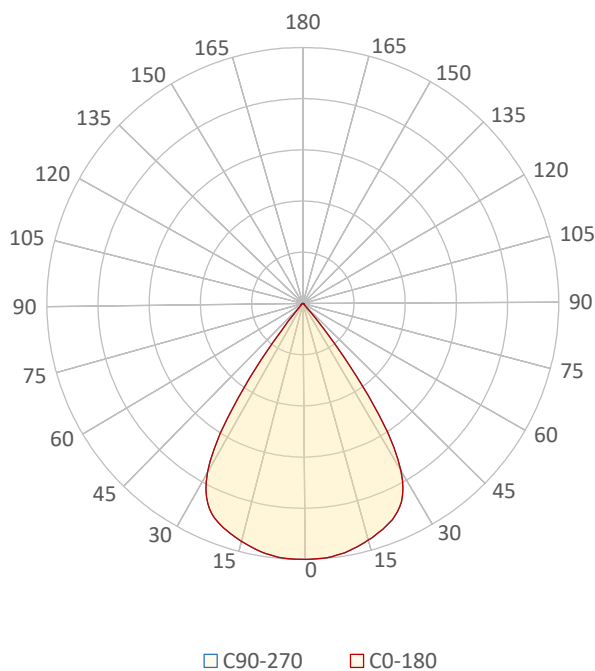
### LM79-FOCUS-GIII-3500K-CRI95-WIDE

#### General Discription

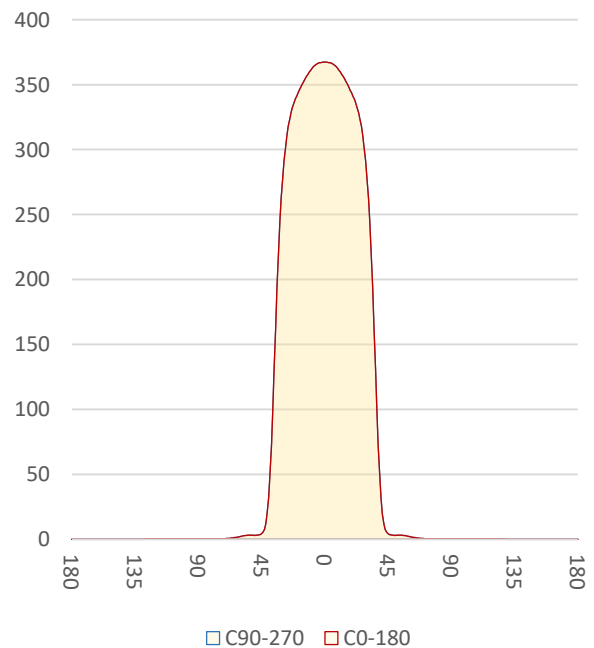
Item number	F3-XX-X-3595-Z
Date and time	14-9-2022 15:34:50
CCT (Kelvin)	3452 K
Beam angle	68,7°
Luminous flux	389 lm
Efficiency	58 lm/watt
Weighted energy	6,7 kWh/1000h
Power factor	0,8
CRI (RA)	92,6
Fidelity index Rf	Rf 91,0
Gammut index Rg	Rg 102,5
Peak	367 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
<b>Lux*</b>	367 lx	92 lx	41 lx	23 lx	15 lx																			
<i>*measured at center of beam</i>																								
<b>Footcandles*</b>	34,1 fcd	8,5 fcd	3,8 fcd	2,1 fcd	1,4 fcd																			
<b>Beam width (meter)</b>	1,4 m	2,7 m	4,1 m	5,5 m	6,8 m																			
<b>Beam width (Feet)</b>	4,5 ft	9 ft	13,4 ft	17,9 ft	22,4 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					
367lx	92lx	41lx	23lx	15lx	10lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	1lx	1lx	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					
34,1fcd	8,5fcd	3,8fcd	2,1fcd	1,4fcd	0,9fcd	0,7fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd					
<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°					
367	367	367	366	364	361	358	355	350	346	341	336	328	318	302	278	244	194	131	73					
100%	100%	100%	100%	99%	98%	98%	97%	95%	94%	93%	91%	89%	87%	82%	76%	66%	53%	36%	20%					
<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°					
367	367	367	366	364	361	358	355	350	346	341	336	328	318	302	278	244	194	131	73					
100%	100%	100%	100%	99%	98%	98%	97%	95%	94%	93%	91%	89%	87%	82%	76%	66%	53%	36%	20%					
<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°					
367	367	367	366	364	361	358	355	350	346	341	336	328	318	302	278	244	194	131	73					
100%	100%	100%	100%	99%	98%	98%	97%	95%	94%	93%	91%	89%	87%	82%	76%	66%	53%	36%	20%					
<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°					
367	367	367	366	364	361	358	355	350	346	341	336	328	318	302	278	244	194	131	73					
100%	100%	100%	100%	99%	98%	98%	97%	95%	94%	93%	91%	89%	87%	82%	76%	66%	53%	36%	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>				
68,7°					79,5°					85,2°					99,4%					98,4%				



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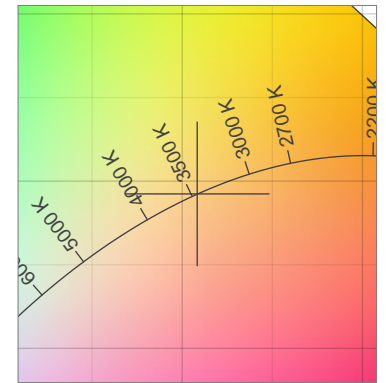
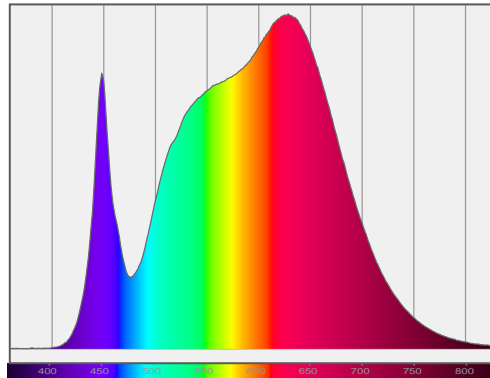
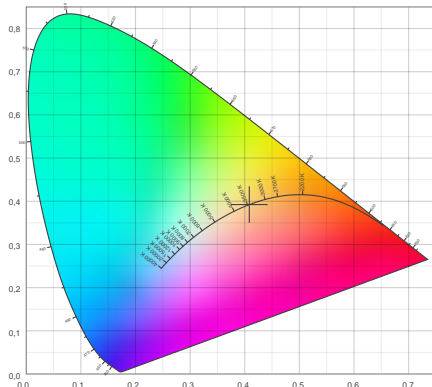
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# LM79-FOCUS-GIII-3500K-CRI95-WIDE

### Color details



CIE 1931

x: 0,408



Spectra

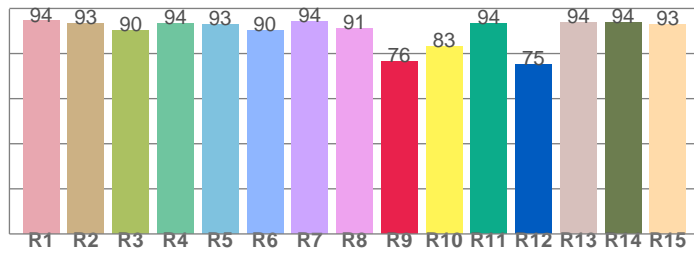
CIE 1931 ZOOM

3452 K

y: 0,392

$\Delta uv$ : 0,0001

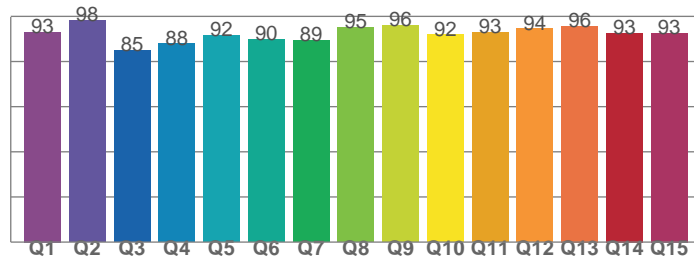
**CRI: 92,6 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8
94,5	93,4	90,4	93,6	93,0	90,2	94,3	91,4
R9	R10	R11	R12	R13	R14	R15	
76,4	83,0	93,5	75,0	93,9	93,9	93,0	

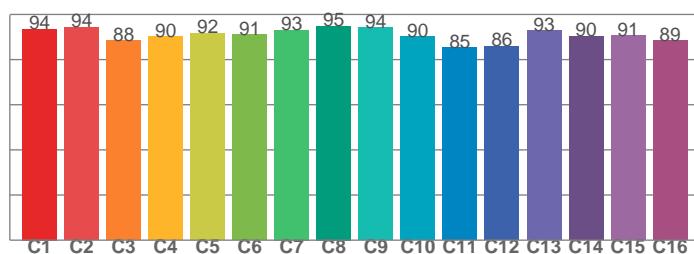
**CQS: 91,7**



*CQS values*

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
93,1	98,0	85,0	87,8	91,5	89,6	89,4	95,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,8	91,8	92,9	94,5	95,7	92,6	92,6	

**TM30: 91,0**



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

C1	C2	C3	C4	C5	C6	C7	C8
93,6	94,4	88,4	90,3	91,7	91,0	93,1	94,9
C9	C10	C11	C12	C13	C14	C15	
94,2	90,2	85,3	85,9	92,9	90,4	90,7	

### 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	$\Delta uv$
3452 K	92,6	76,4	91,0	102,5	91,7	0,408	0,392	0,237	0,342	0,0001



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# LM79-FOCUS-GIII-3500K-CRI95-WIDE

### TM30 details

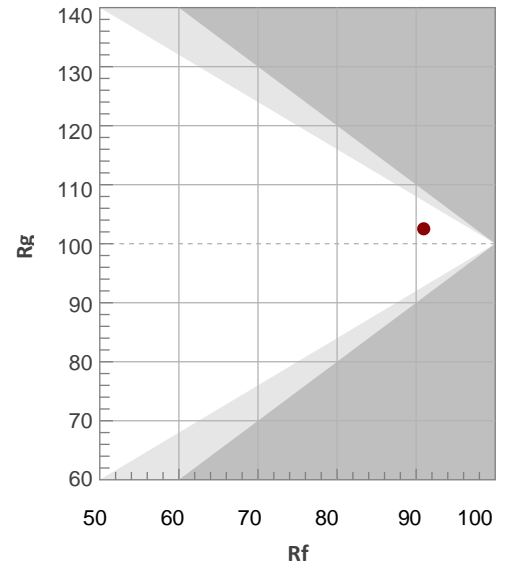
Rf 91,0

Fidelity index Rf

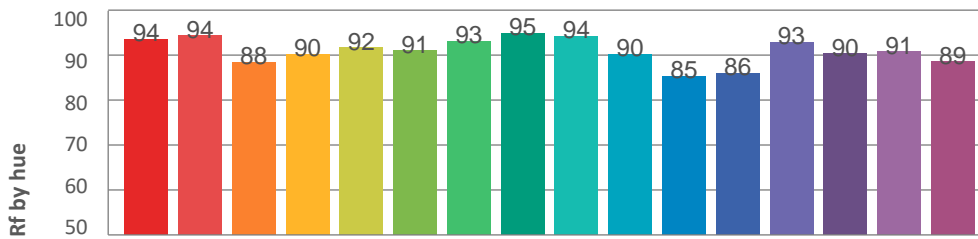
Rg 102,5

Gamut index Rg

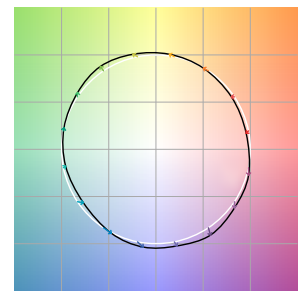
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-3%	-2%
2	94	-3%	2%
3	88	-1%	6%
4	90	2%	6%
5	92	4%	4%
6	91	6%	0%
7	93	2%	-4%
8	95	0%	-3%
9	94	-3%	-1%
10	90	-5%	4%
11	85	0%	10%
12	86	4%	7%
13	93	5%	2%
14	90	8%	-2%
15	91	4%	-5%
16	89	2%	-7%



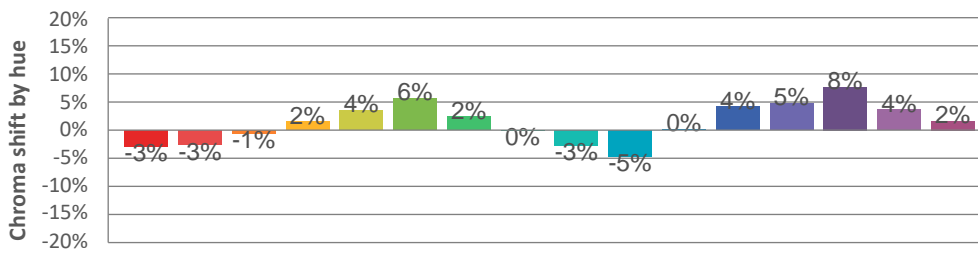
### Hue binH



### Color vector graphics



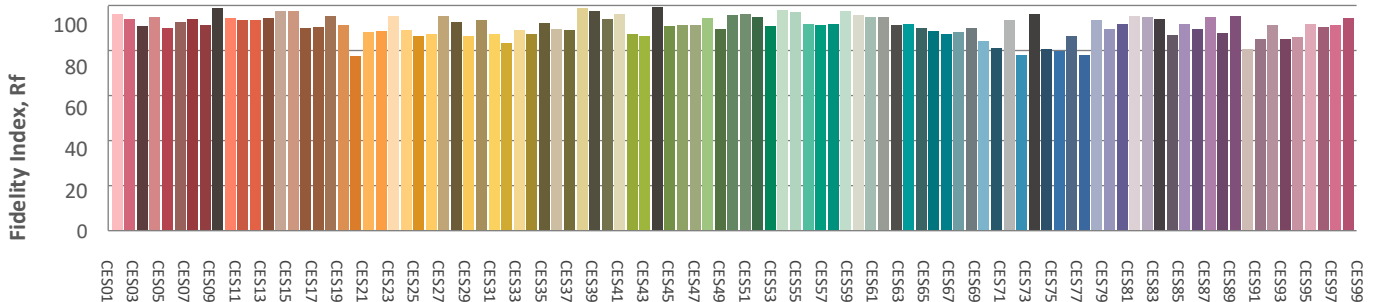
### Hue bin



### 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	23,2	23,8	23,3	24,1	24,3	23,2	23,8	23,3	24,1	24,3
	3H	22,9	23,7	23,3	23,9	24,1	22,9	23,7	23,3	23,9	24,1
	4H	22,8	23,6	23,2	23,8	24,0	22,8	23,6	23,2	23,8	24,0
	6H	22,8	23,4	23,1	23,7	24,1	22,8	23,4	23,1	23,7	24,1
	8H	22,8	23,4	23,1	23,7	24,1	22,8	23,4	23,1	23,7	24,1
	12H	22,7	23,3	23,1	23,6	24,1	22,7	23,3	23,1	23,6	24,1
4H	2H	22,8	23,6	23,2	23,8	24,0	22,8	23,6	23,2	23,8	24,0
	3H	22,7	23,3	23,1	23,7	24,1	22,7	23,3	23,1	23,7	24,1
	4H	22,6	23,1	23,0	23,5	24,1	22,6	23,1	23,0	23,5	24,1
	6H	22,5	23,1	23,0	23,4	23,7	22,5	23,1	23,0	23,4	23,7
	8H	22,5	23,0	23,0	23,3	23,7	22,5	23,0	23,0	23,3	23,7
	12H	22,4	22,8	22,9	23,2	23,7	22,4	22,8	22,9	23,2	23,7
8H	4H	22,5	23,0	23,0	23,3	23,7	22,5	23,0	23,0	23,3	23,7
	6H	22,4	22,7	22,9	23,2	23,7	22,4	22,7	22,9	23,2	23,7
	8H	22,4	22,7	22,9	23,2	23,8	22,4	22,7	22,9	23,2	23,8
	12H	22,3	22,6	22,9	23,1	23,7	22,3	22,6	22,9	23,1	23,7
12H	4H	22,4	22,8	22,9	23,2	23,7	22,4	22,8	22,9	23,2	23,7
	6H	22,4	22,7	22,9	23,2	23,8	22,4	22,7	22,9	23,2	23,8
	8H	22,3	22,6	22,9	23,1	23,7	22,3	22,6	22,9	23,1	23,7
Variation of the observer position for the luminaire distance S											
S = 1.0H	6,1 / -13,3					6,1 / -13,3					
S = 1.5H	8,9 / -14,2					8,9 / -14,2					
S = 2.0H	10,9 / -15,6					10,9 / -15,6					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 389lm total luminous flux											