

# LM-79

## Test Report

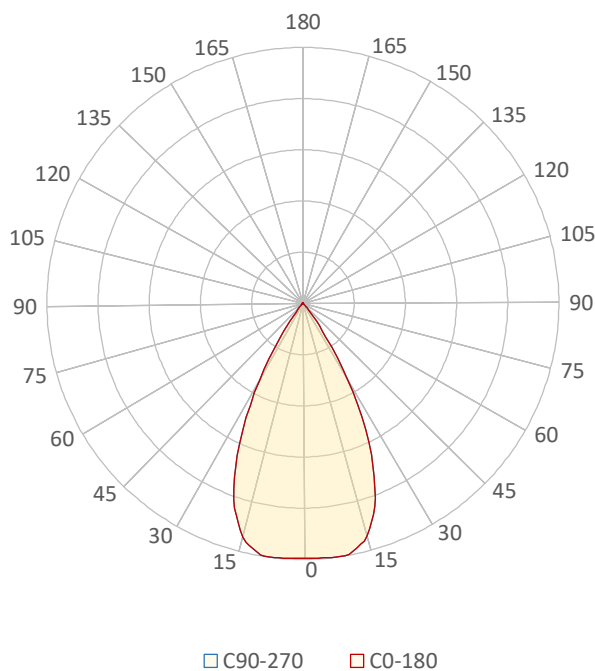
### LM79-OTIS-XL-3000K-CRI80-WIDE

#### General Description

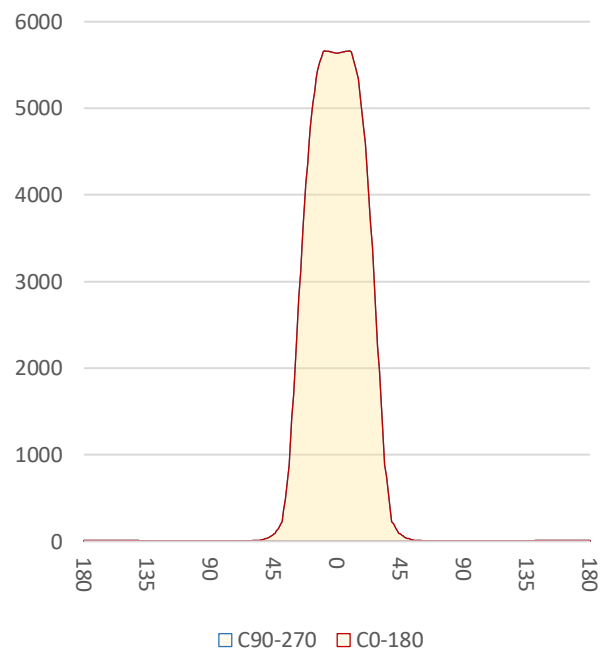
Item number	
Date and time	28-8-2019 16:14:10
CCT (Kelvin)	3030 K
Beam angle	53,8°
Luminous flux	4141 lm
Efficiency	75 lm/watt
Weighted energy	55,3 kWh/1000h
Power factor	0,99
CRI (RA)	80,5
Fidelity index Rf	Rf 84,1
Gammut index Rg	Rg 94,5
Peak	5710 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	5634 lx	1409 lx	626 lx	352 lx	225 lx																			
*measured at center of beam																								
Footcandles*	523,5 fcd	130,9 fcd	58,2 fcd	32,7 fcd	20,9 fcd																			
Beam width (meter)	1 m	2 m	3 m	4,1 m	5,1 m																			
Beam width (Feet)	3,3 ft	6,7 ft	10 ft	13,3 ft	16,7 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					
5634lx	1409lx	626lx	352lx	225lx	157lx	115lx	88lx	70lx	56lx	47lx	39lx	33lx	29lx	25lx	22lx	19lx	17lx	16lx	14lx					
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					
523,5fcd	130,9fcd	58,2fcd	32,7fcd	20,9fcd	14,5fcd	10,7fcd	8,2fcd	6,5fcd	5,2fcd	4,3fcd	3,6fcd	3,1fcd	2,7fcd	2,3fcd	2fcd	1,8fcd	1,6fcd	1,5fcd	1,3fcd					
<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°					
5634	5634	5640	5671	5702	5657	5585	5467	5233	4998	4604	4173	3690	3116	2543	1946	1348	879	570	260					
100%	100%	100%	101%	101%	100%	99%	97%	93%	89%	82%	74%	65%	55%	45%	35%	24%	16%	10%	5%					
<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°					
5634	5634	5640	5671	5702	5657	5585	5467	5233	4998	4604	4173	3690	3116	2543	1946	1348	879	570	260					
100%	100%	100%	101%	101%	100%	99%	97%	93%	89%	82%	74%	65%	55%	45%	35%	24%	16%	10%	5%					
<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°					
5634	5634	5640	5671	5702	5657	5585	5467	5233	4998	4604	4173	3690	3116	2543	1946	1348	879	570	260					
100%	100%	100%	101%	101%	100%	99%	97%	93%	89%	82%	74%	65%	55%	45%	35%	24%	16%	10%	5%					
<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°					
5634	5634	5640	5671	5702	5657	5585	5467	5233	4998	4604	4173	3690	3116	2543	1946	1348	879	570	260					
100%	100%	100%	101%	101%	100%	99%	97%	93%	89%	82%	74%	65%	55%	45%	35%	24%	16%	10%	5%					
<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>				
53,8°					72°					83,5°					99,2%					98,4%				



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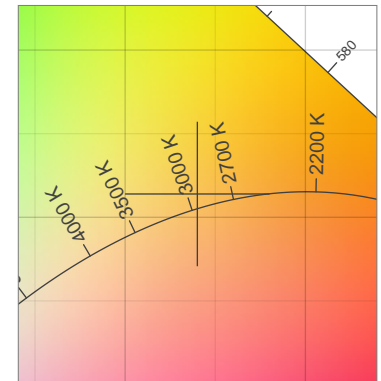
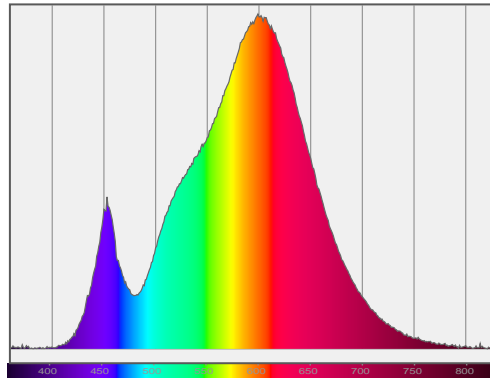
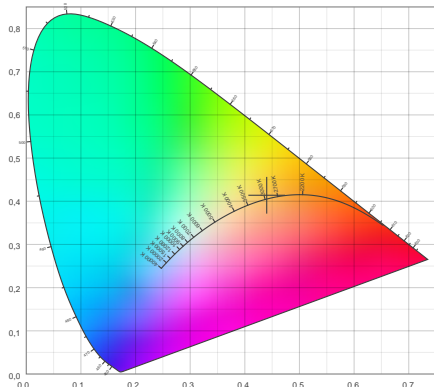
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# LM79-OTIS-XL-3000K-CRI80-WIDE

### Color details



CIE 1931

x: 0,440



Spectra

CIE 1931 ZOOM

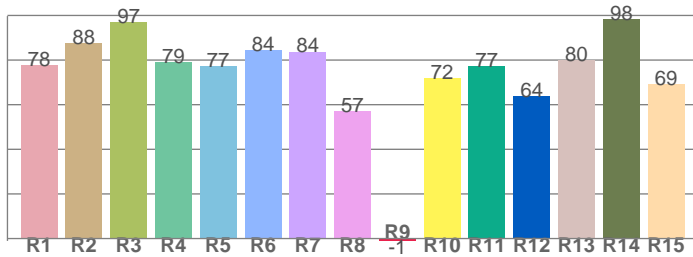
3030 K

y: 0,414

$\Delta uv$ : 0,0035

**CRI: 80,5 (R1-R8)**

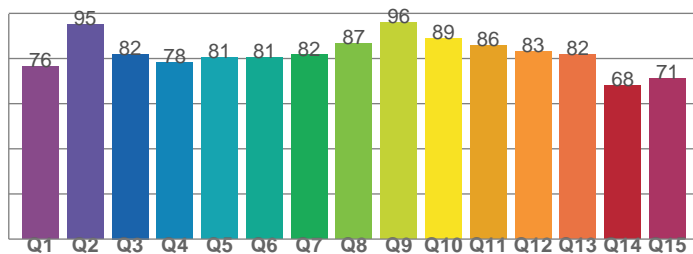
*CRI values, R1-R8 are used to calculate final CRI value*



R1	R2	R3	R4	R5	R6	R7	R8
77,8	87,7	96,8	78,9	77,3	84,5	83,7	57,1
R9	R10	R11	R12	R13	R14	R15	
-1,1	71,9	77,2	63,8	79,8	98,2	69,1	

**CQS: 80,8**

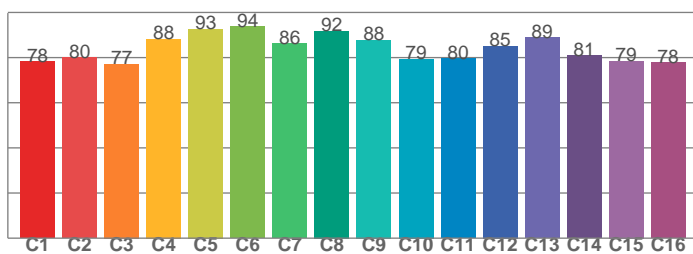
*CQS values*



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
76,4	95,2	82,0	78,4	80,5	80,6	81,6	86,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,9	88,9	85,7	83,3	81,7	68,2	71,2	

**TM30: 84,1**

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



C1	C2	C3	C4	C5	C6	C7	C8
78,3	80,0	77,2	88,2	92,7	93,6	86,2	91,8
C9	C10	C11	C12	C13	C14	C15	
87,9	79,4	79,7	85,1	88,9	80,8	78,6	

### 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	$\Delta uv$
3030 K	80,5	-1,1	84,1	94,5	80,8	0,440	0,414	0,248	0,350	0,0035



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# LM-79

## Test Report

# LM79-OTIS-XL-3000K-CRI80-WIDE

### TM30 details

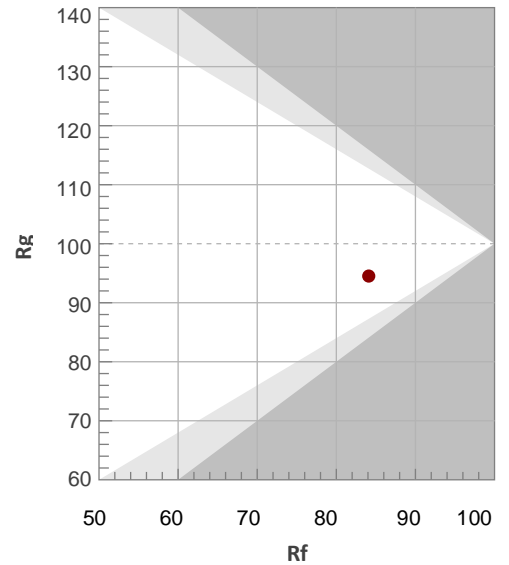
Rf 84,1

Fidelity index Rf

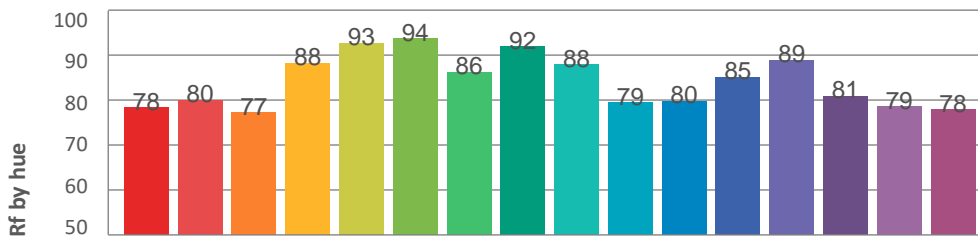
Rg 94,5

Gamut index Rg

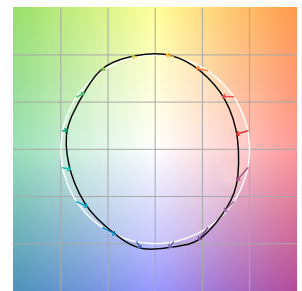
Hue Bin	R <sub>t</sub>	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	-1%
2	80	-9%	7%
3	77	-4%	11%
4	88	1%	8%
5	93	1%	4%
6	94	2%	-2%
7	86	-4%	-7%
8	92	-5%	-2%
9	88	-7%	3%
10	79	-6%	10%
11	80	-2%	15%
12	85	6%	5%
13	89	5%	-6%
14	81	5%	-15%
15	79	-3%	-14%
16	78	-8%	-15%



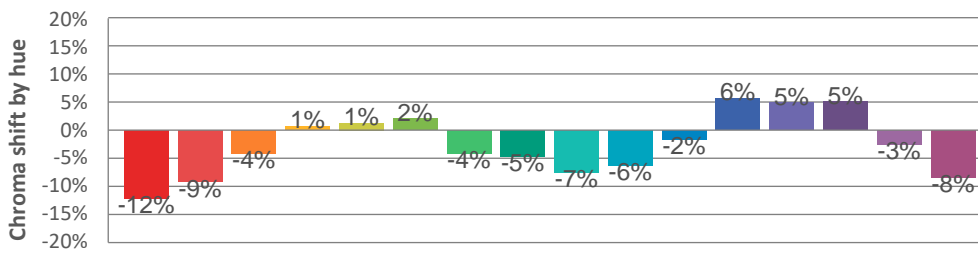
### Hue binH



### Color vector graphics



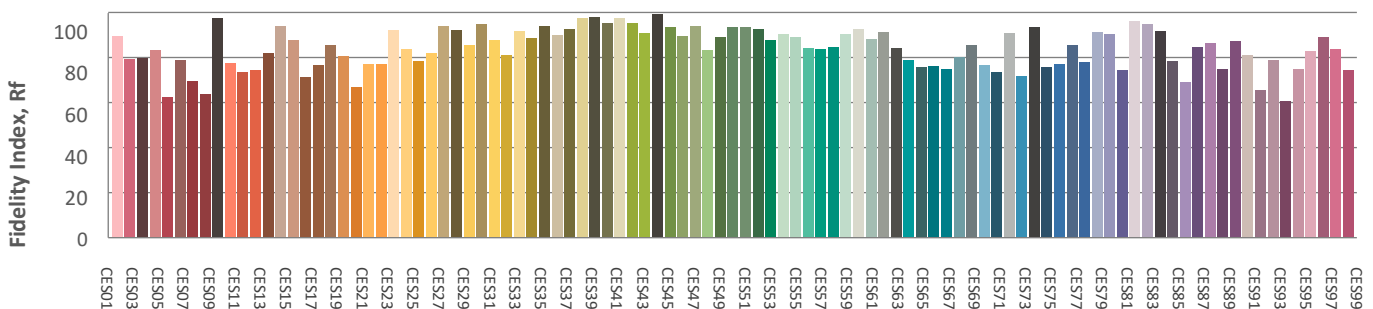
### Hue bin



### 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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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 4141lm total luminous flux										



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