


# LM-79

## Test Report

# LM79-REVO-COMPACT-INGROUND-5000K-CRI80-DEG8

### General Discription

Item number	RC-I-2-06-5	
Date and time	5-8-2016 12:29:27	
CCT (Kelvin)	4818 K	
Beam angle	13,1°	
Luminous flux	534 lm	
Efficiency	53 lm/watt	
Weighted energy	10,1 kWh/1000h	
Power factor	0,95	
CRI (RA)	86,4	
Fidelity index Rf	Rf 85,5	
Gammut index Rg	Rg 97,4	



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Beam details	1m	2m	3m	4m	5m														
Lux*	6759 lx	1690 lx	751 lx	422 lx	270 lx														
*measured at center of beam																			
Footcandles*	627,9 fcd	157,0 fcd	69,8 fcd	39,2 fcd	25,1 fcd														
Beam width (meter)	0,2 m	0,5 m	0,7 m	0,9 m	1,1 m														
Beam width (Feet)	0,8 ft	1,5 ft	2,3 ft	3 ft	3,8 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
6759lx	1690lx	751lx	422lx	270lx	188lx	138lx	106lx	83lx	68lx	56lx	47lx	40lx	34lx	30lx	26lx	23lx	21lx	19lx	17lx
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
627,9fcd	157fcd	69,8fcd	39,2fcd	25,1fcd	17,4fcd	12,8fcd	9,8fcd	7,8fcd	6,3fcd	5,2fcd	4,4fcd	3,7fcd	3,2fcd	2,8fcd	2,5fcd	2,2fcd	1,9fcd	1,7fcd	1,6fcd
<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°
6759	6759	6636	6052	5328	4563	3797	3073	2514	2115	1766	1417	1095	890	741	609	478	355	271	220
100%	100%	98%	90%	79%	68%	56%	45%	37%	31%	26%	21%	16%	13%	11%	9%	7%	5%	4%	3%
<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°
6759	6759	6307	5711	5091	4391	3691	3101	2549	2038	1674	1310	1051	831	629	501	373	291	229	172
100%	100%	93%	84%	75%	65%	55%	46%	38%	30%	25%	19%	16%	12%	9%	7%	6%	4%	3%	3%
<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°
6759	6759	6636	6052	5328	4563	3797	3073	2514	2115	1766	1417	1095	890	741	609	478	355	271	220
100%	100%	98%	90%	79%	68%	56%	45%	37%	31%	26%	21%	16%	13%	11%	9%	7%	5%	4%	3%
<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°
6759	6759	6307	5711	5091	4391	3691	3101	2549	2038	1674	1310	1051	831	629	501	373	291	229	172
100%	100%	93%	84%	75%	65%	55%	46%	38%	30%	25%	19%	16%	12%	9%	7%	6%	4%	3%	3%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
13,1°		28,3°				{C_ANG}°				98,5%				97,5%					



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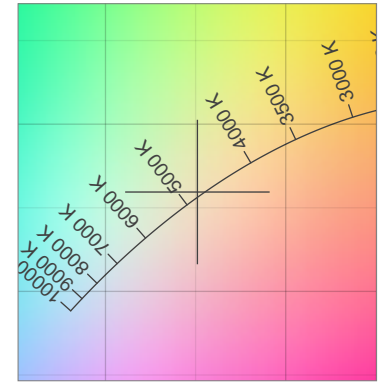
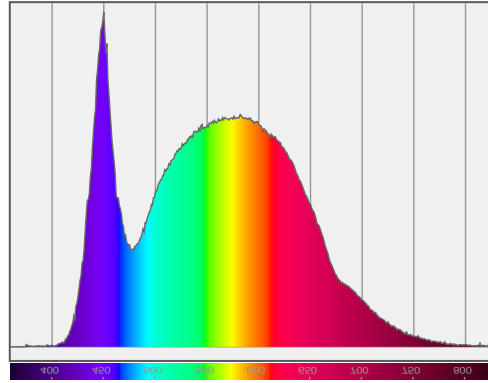
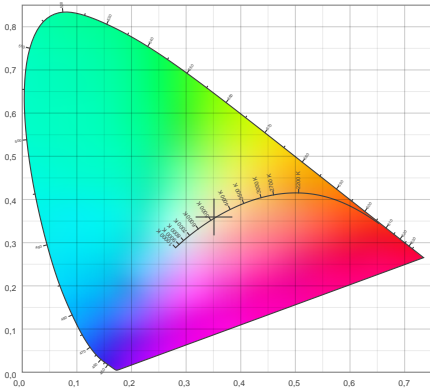
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### Color details



CIE 1931

x: 0,351



Spectra

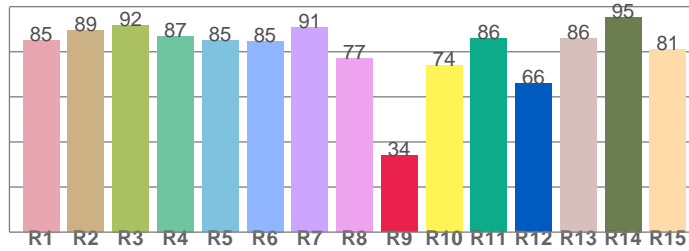
CIE 1931 ZOOM

4818 K

y: 0,359

$\Delta uv$ : 0,0016

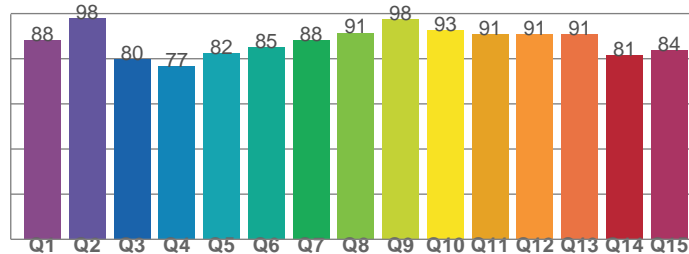
**CRI: 86,4 (R1-R8)**



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

R1	R2	R3	R4	R5	R6	R7	R8
85,2	89,3	91,8	86,9	85,1	84,8	90,8	76,9
R9	R10	R11	R12	R13	R14	R15	
34,1	74,1	86,0	66,0	86,1	95,4	81,1	

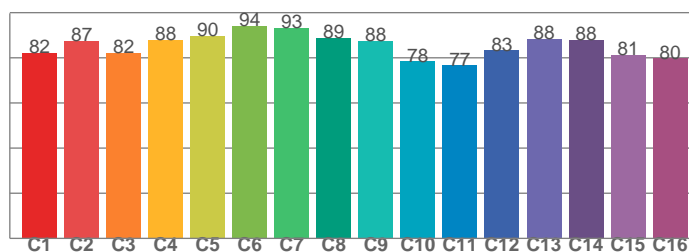
**CQS: 86,4**



*CQS values*

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
88,0	98,1	79,8	76,6	82,3	85,2	88,2	91,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,6	92,8	90,7	91,0	90,8	81,5	83,8	

**TM30: 85,5**



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

C1	C2	C3	C4	C5	C6	C7	C8
82,2	87,4	82,1	87,9	89,7	94,2	93,2	88,8
C9	C10	C11	C12	C13	C14	C15	
87,5	78,5	76,6	83,3	88,4	88,0	81,4	

### 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	$\Delta uv$
4818 K	86,4	34,1	85,5	97,4	86,4	0,351	0,359	0,212	0,326	0,0016



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### TM30 details

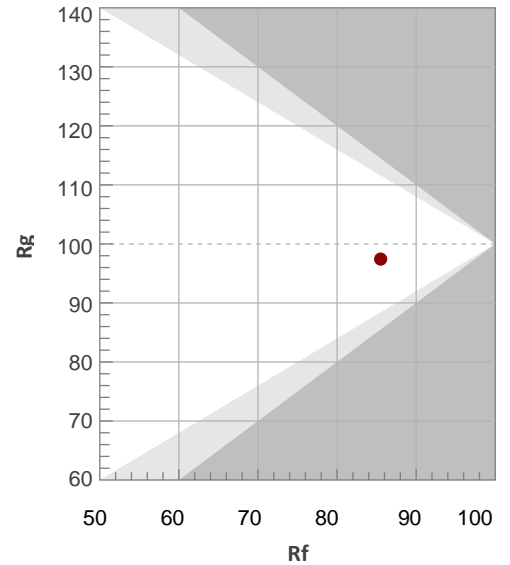
Rf 85,5

Fidelity index Rf

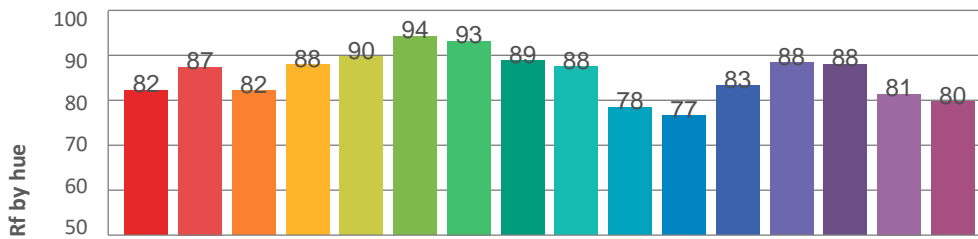
Rg 97,4

Gamut index Rg

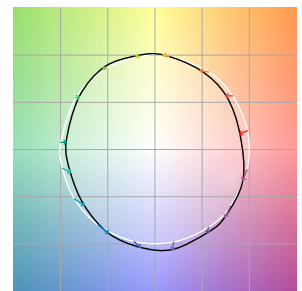
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	82	-8%	-1%
2	87	-6%	4%
3	82	-3%	8%
4	88	0%	6%
5	90	1%	4%
6	94	2%	-1%
7	93	-2%	-3%
8	89	-6%	-1%
9	88	-7%	6%
10	78	-5%	11%
11	77	1%	14%
12	83	5%	7%
13	88	7%	-3%
14	88	4%	-4%
15	81	2%	-12%
16	80	-2%	-12%



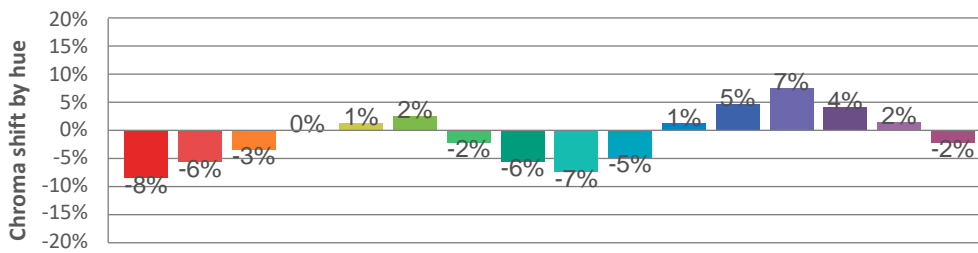
### Hue binH



### Color vector graphics



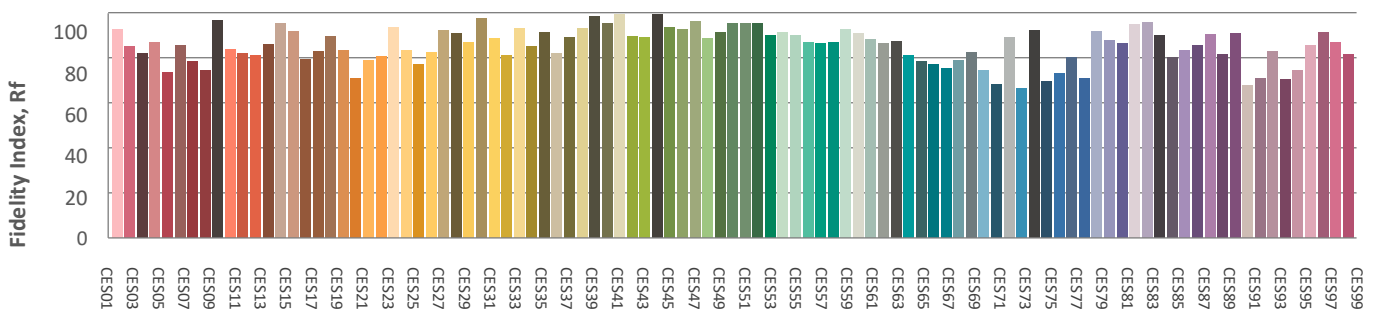
### Hue bin



### 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	6,4	7,1	6,7	7,3	7,5	5,5	6,2	5,8	6,4	6,6
	3H	7,1	7,7	7,4	8,0	8,2	6,2	6,8	6,5	7,0	7,3
	4H	7,4	7,9	7,7	8,2	8,5	6,6	7,2	6,9	7,4	7,7
	6H	7,7	8,2	8,0	8,5	8,8	7,0	7,5	7,3	7,8	8,1
	8H	7,9	8,4	8,3	8,7	9,0	7,1	7,6	7,5	7,9	8,2
	12H	8,3	8,7	8,6	9,0	9,4	7,3	7,8	7,7	8,1	8,4
4H	2H	6,6	7,2	6,9	7,4	7,7	5,9	6,4	6,2	6,7	7,0
	3H	7,5	8,0	7,9	8,3	8,6	6,7	7,2	7,1	7,5	7,8
	4H	7,9	8,3	8,3	8,6	9,0	7,3	7,7	7,7	8,0	8,4
	6H	8,3	8,6	8,7	9,0	9,4	7,8	8,1	8,2	8,5	8,9
	8H	8,7	9,0	9,1	9,4	9,8	8,0	8,3	8,4	8,7	9,1
	12H	9,2	9,4	9,6	9,8	10,3	8,3	8,5	8,7	8,9	9,4
8H	4H	8,0	8,3	8,4	8,7	9,1	7,5	7,8	7,9	8,2	8,6
	6H	8,6	8,8	9,1	9,3	9,7	8,1	8,3	8,6	8,8	9,2
	8H	9,1	9,3	9,6	9,8	10,2	8,5	8,6	8,9	9,1	9,6
	12H	9,8	10,0	10,3	10,4	11,0	8,9	9,1	9,4	9,5	10,0
12H	4H	8,0	8,3	8,5	8,7	9,1	7,5	7,8	7,9	8,2	8,6
	6H	8,7	8,9	9,2	9,3	9,8	8,2	8,4	8,7	8,8	9,3
	8H	9,3	9,4	9,8	9,9	10,4	8,6	8,8	9,1	9,2	9,8
Variation of the observer position for the luminaire distance S											
S = 1,0H	+0,6 / -0,5					+0,6 / -0,6					
S = 1,5H	+1,6 / -0,9					+1,6 / -1,1					
S = 2,0H	+2,7 / -1,2					+2,7 / -1,5					
Standard table	BK04					BK04					
Correction summand	-8,5					-9,3					
Corrected glare indices referring to 534lm total luminous flux											

