

LM-79

Test Report

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

General Discription

Item number	RC-1-X-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



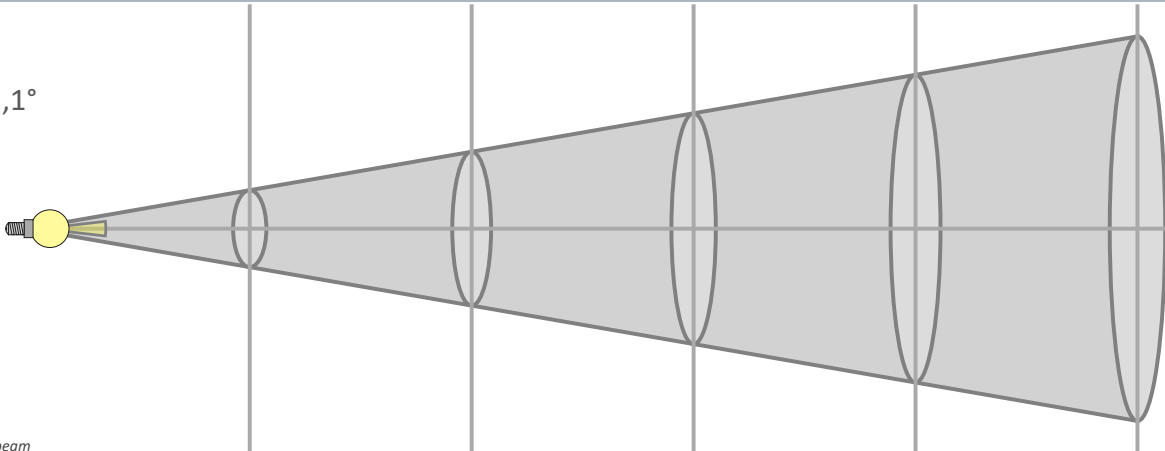
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Beam details					1m		2m		3m		4m		5m										
Lux*					6759 lx		1690 lx		751 lx		422 lx		270 lx										
13,1° 																							
*measured at center of beam																							
Footcandles*					627,9 fcd		157,0 fcd		69,8 fcd		39,2 fcd		25,1 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										
Beam intensities																							
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				
Intensities in 0° c-plane																							
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%				
Intensities in 90° c-plane																							
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%				
Intensities in 180° c-plane																							
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%				
Intensities in 270° c-plane																							
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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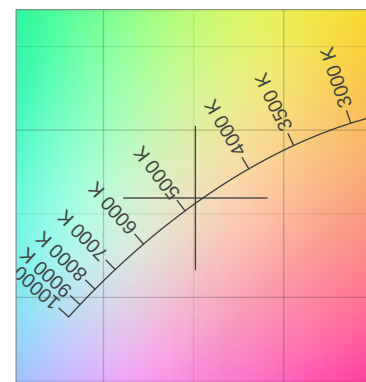
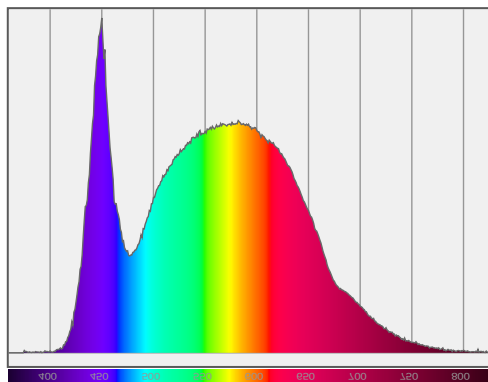
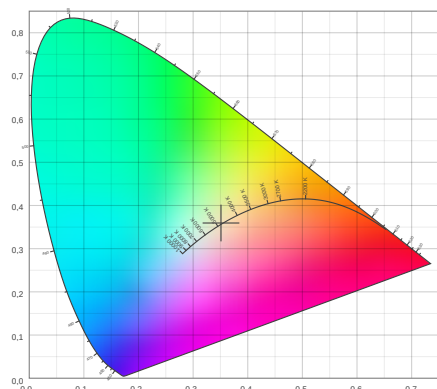
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Color details



CIE 1931

x: 0,351

4818 K

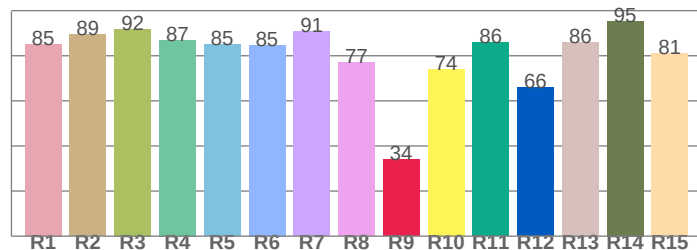
y: 0,359

Spectra

CIE 1931 ZOOM

Δuv : 0,0016

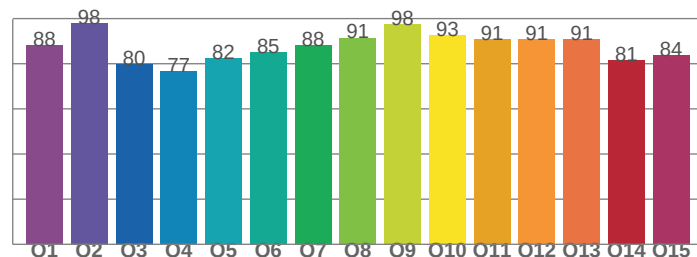
CRI: 86,4 (R1-R8)



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	

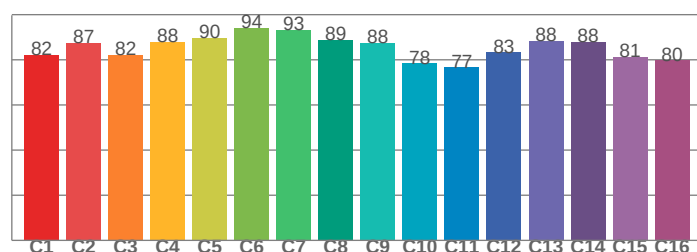
CQS: 86,4



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	Δuv
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

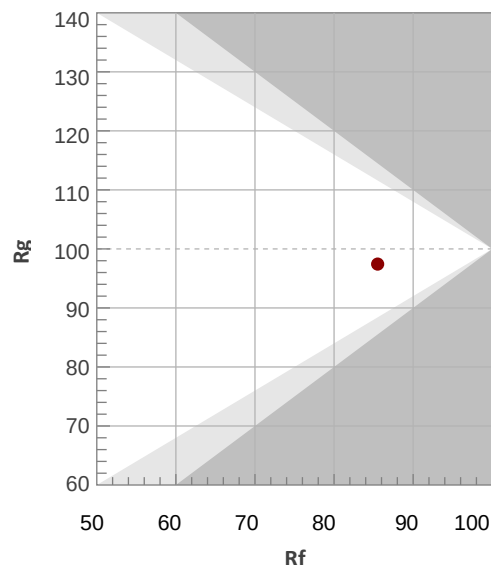
Rf 85,5

Fidelity index Rf

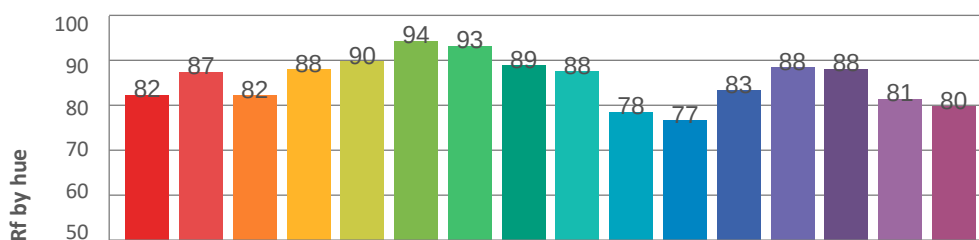
Rg 97,4

Gamut index Rg

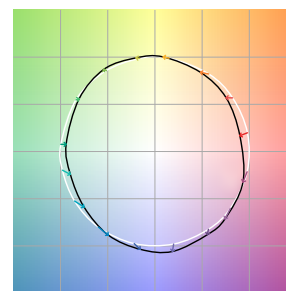
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-8%	-1%
2	87	-6%	4%
3	82	-3%	8%
4	88	0%	6%
5	90	1%	4%
6	94	2%	-1%
7	93	-2%	-3%
8	89	-6%	-1%
9	88	-7%	6%
10	78	-5%	11%
11	77	1%	14%
12	83	5%	7%
13	88	7%	-3%
14	88	4%	-4%
15	81	2%	-12%
16	80	-2%	-12%



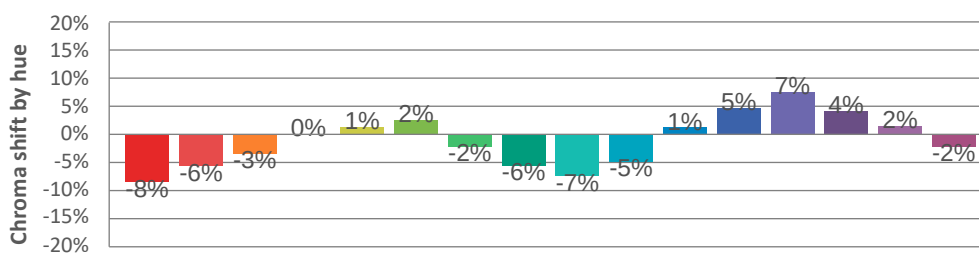
Hue binH



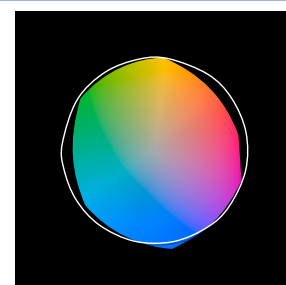
Color vector graphics



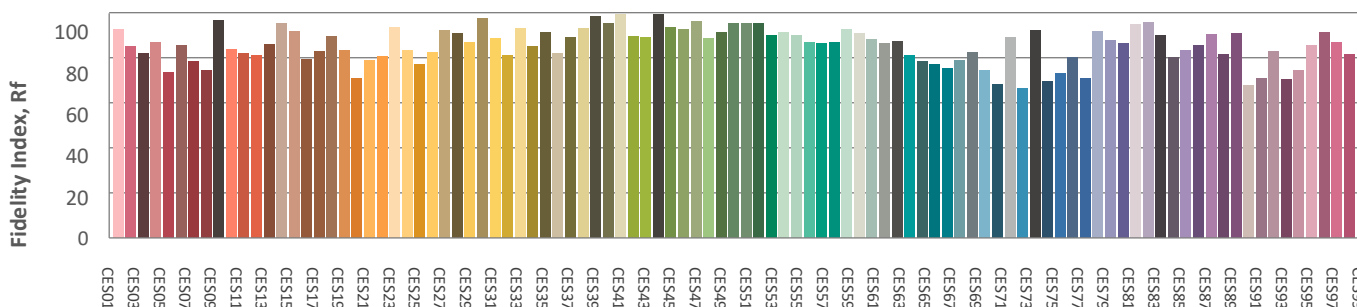
Hue bin



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



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