

LM-79

Test Report

LM79-REVO-COMPACT-4000K-CRI80-DEG30

General Discription

Item number	RC-1-X-02-3
Date and time	5-8-2016 10:33:12
CCT (Kelvin)	3839 K
Beam angle	29,1°
Luminous flux	749 lm
Efficiency	74 lm/watt
Weighted energy	10,2 kWh/1000h
Power factor	0,95
CRI (RA)	83,4
Fidelity index Rf	Rf 84,2
Gammut index Rg	Rg 97,3



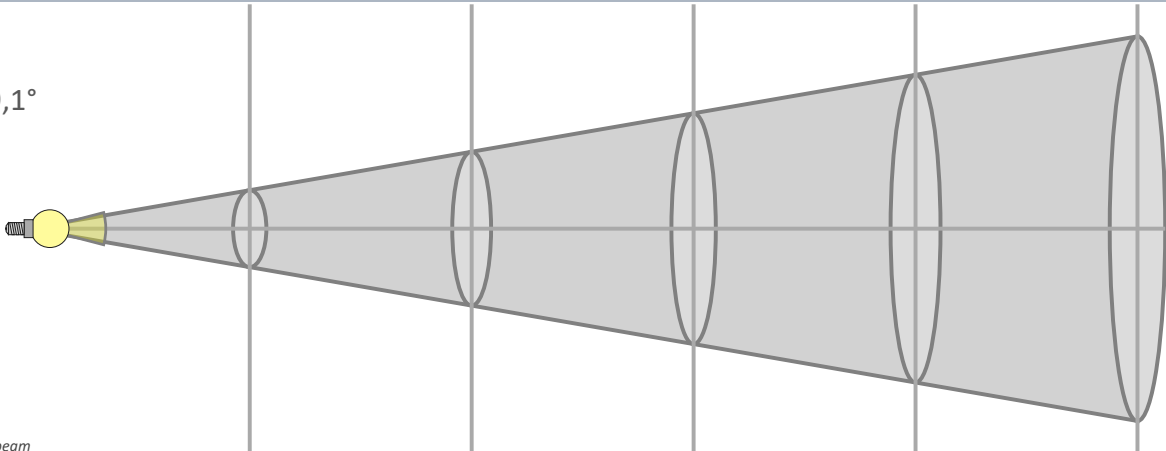
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Beam details					1m		2m		3m		4m		5m											
Lux*					2401 lx		600 lx		267 lx		150 lx		96 lx											
29,1° 																								
*measured at center of beam																								
Footcandles*					223,0 fcd		55,8 fcd		24,8 fcd		13,9 fcd		8,9 fcd											
Beam width (meter)					0,5 m		1 m		1,6 m		2,1 m		2,6 m											
Beam width (Feet)					1,7 ft		3,4 ft		5,1 ft		6,8 ft		8,5 ft											
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
2401lx	600lx	267lx	150lx	96lx	67lx	49lx	38lx	30lx	24lx	20lx	17lx	14lx	12lx	11lx	9lx	8lx	7lx	7lx	6lx					
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					
223fcd	55,8fcd	24,8fcd	13,9fcd	8,9fcd	6,2fcd	4,6fcd	3,5fcd	2,8fcd	2,2fcd	1,8fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd					
Intensities in 0° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2401	2343	2265	2114	1904	1690	1464	1237	1026	823	631	490	352	263	193	134	103	73	56	43					
100%	98%	94%	88%	79%	70%	61%	52%	43%	34%	26%	20%	15%	11%	8%	6%	4%	3%	2%	2%					
Intensities in 90° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2401	2348	2270	2120	1914	1705	1493	1282	1079	885	701	547	397	297	218	153	117	84	64	50					
100%	98%	95%	88%	80%	71%	62%	53%	45%	37%	29%	23%	17%	12%	9%	6%	5%	3%	3%	2%					
Intensities in 180° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2401	2343	2265	2114	1904	1690	1464	1237	1026	823	631	490	352	263	193	134	103	73	56	43					
100%	98%	94%	88%	79%	70%	61%	52%	43%	34%	26%	20%	15%	11%	8%	6%	4%	3%	2%	2%					
Intensities in 270° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
2401	2348	2270	2120	1914	1705	1493	1282	1079	885	701	547	397	297	218	153	117	84	64	50					
100%	98%	95%	88%	80%	71%	62%	53%	45%	37%	29%	23%	17%	12%	9%	6%	5%	3%	3%	2%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
29,1°					54,1°					{C_ANG}°					98,2%					96,0%				



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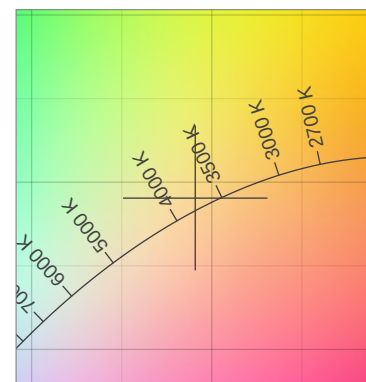
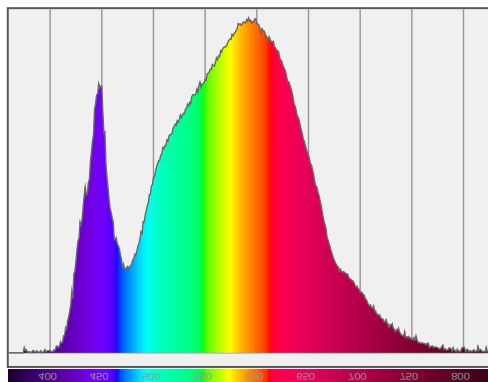
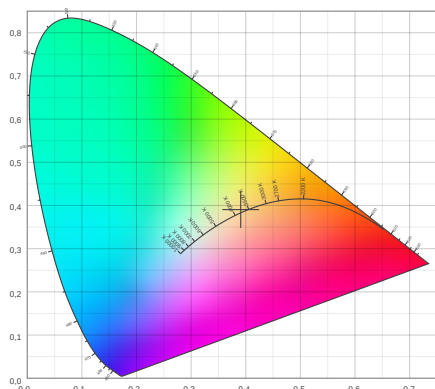
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Color details



CIE 1931

x: 0,391



Spectra

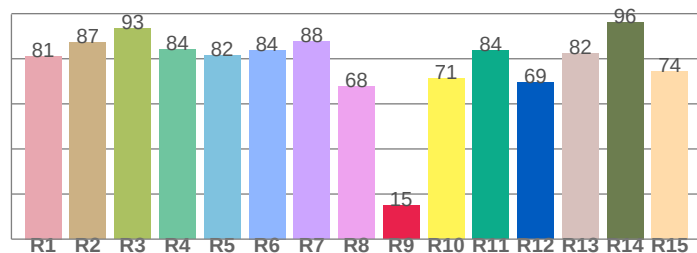
CIE 1931 ZOOM

3839 K

y: 0,390

Δuv : 0,0034

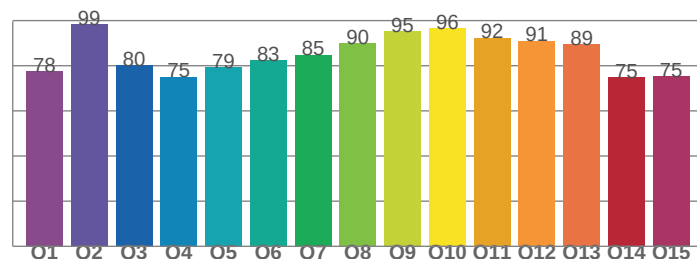
CRI: 83,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,2	87,4	93,5	84,2	81,6	83,8	87,7	67,8
R9	R10	R11	R12	R13	R14	R15	
14,9	71,1	83,6	69,4	82,2	96,3	74,2	

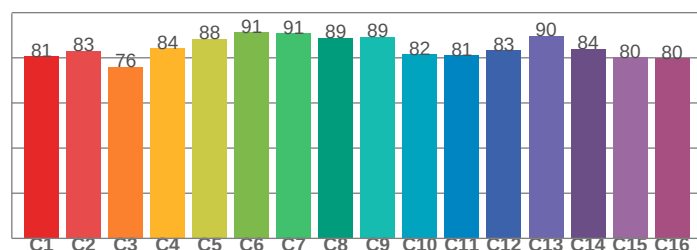
CQS: 83,5



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,7	98,5	80,3	75,1	79,5	82,6	84,8	89,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,3	96,4	92,4	91,1	89,3	74,9	75,4	

TM30: 84,2



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

C1	C2	C3	C4	C5	C6	C7	C8
80,5	83,0	76,0	84,2	88,2	91,3	90,8	88,8
C9	C10	C11	C12	C13	C14	C15	
89,2	81,5	81,0	83,3	89,7	84,0	80,1	

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
3839 K	83,4	14,9	84,2	97,3	83,5	0,391	0,390	0,226	0,339	0,0034



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TM30 details

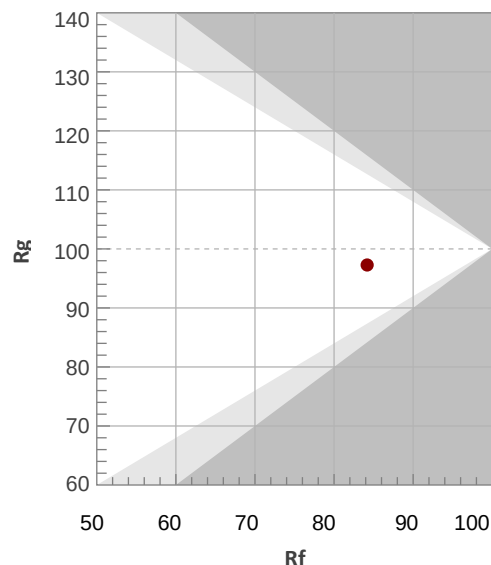
Rf 84,2

Fidelity index Rf

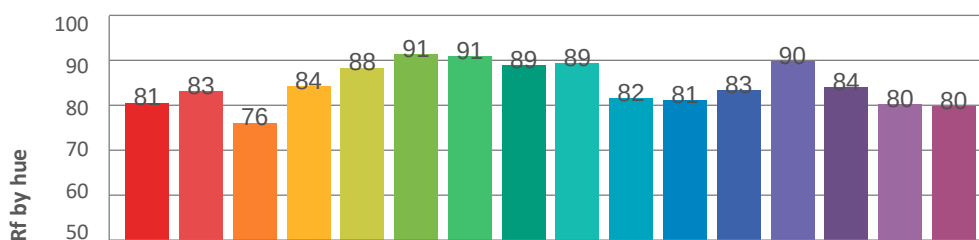
Rg 97,3

Gamut index Rg

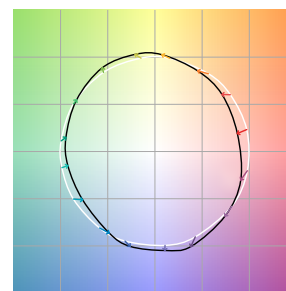
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-11%	-2%
2	83	-7%	5%
3	76	-4%	11%
4	84	2%	9%
5	88	5%	5%
6	91	5%	-2%
7	91	0%	-5%
8	89	-4%	-5%
9	89	-7%	-1%
10	82	-8%	6%
11	81	-1%	11%
12	83	5%	6%
13	90	5%	-1%
14	84	6%	-10%
15	80	0%	-13%
16	80	-5%	-11%



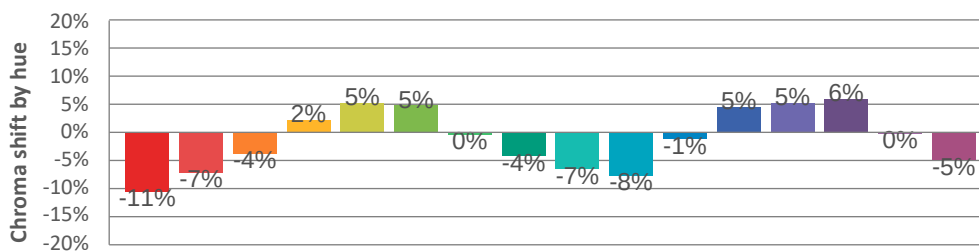
Hue binH



Color vector graphics



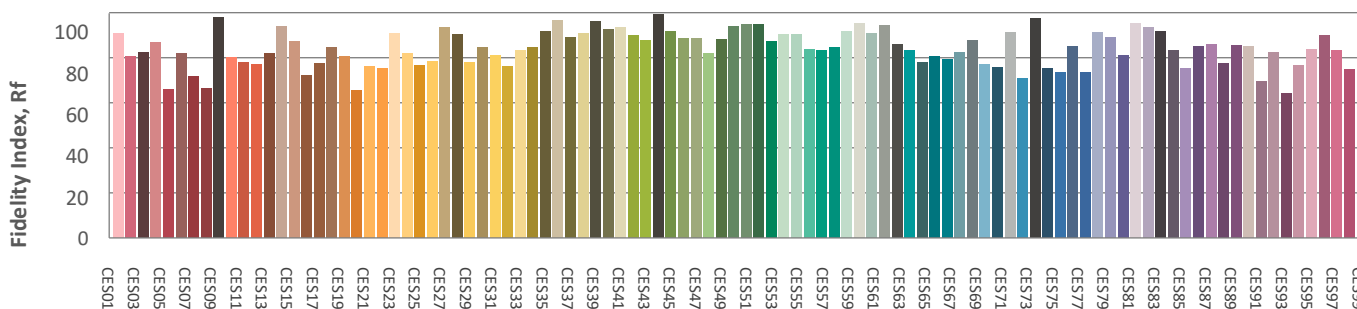
Hue bin



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	13,4	14,1	13,6	14,3	14,5	13,7	14,4	14,0	14,6	14,8
	3H	13,7	14,3	14,0	14,6	14,8	14,0	14,6	14,3	14,8	15,1
	4H	13,8	14,3	14,1	14,6	14,9	14,0	14,6	14,3	14,8	15,1
	6H	13,8	14,3	14,1	14,6	14,9	14,0	14,5	14,3	14,8	15,1
	8H	13,8	14,3	14,1	14,6	14,9	14,0	14,5	14,4	14,8	15,1
	12H	13,8	14,2	14,1	14,6	14,9	14,0	14,5	14,4	14,8	15,1
4H	2H	13,5	14,1	13,8	14,3	14,6	13,8	14,4	14,1	14,7	14,9
	3H	13,9	14,4	14,3	14,7	15,0	14,1	14,6	14,5	14,9	15,3
	4H	14,0	14,4	14,4	14,8	15,1	14,2	14,6	14,6	15,0	15,3
	6H	14,1	14,4	14,5	14,8	15,2	14,3	14,6	14,7	15,0	15,4
	8H	14,1	14,4	14,5	14,8	15,2	14,3	14,6	14,7	15,0	15,4
	12H	14,1	14,4	14,5	14,8	15,2	14,3	14,6	14,7	15,0	15,4
8H	4H	14,0	14,3	14,4	14,7	15,1	14,2	14,5	14,6	14,9	15,3
	6H	14,1	14,3	14,5	14,7	15,2	14,3	14,5	14,7	14,9	15,4
	8H	14,1	14,3	14,6	14,8	15,2	14,3	14,5	14,8	15,0	15,4
	12H	14,2	14,3	14,7	14,8	15,3	14,4	14,5	14,9	15,0	15,5
12H	4H	14,0	14,2	14,4	14,6	15,1	14,2	14,4	14,6	14,8	15,3
	6H	14,1	14,2	14,5	14,7	15,2	14,3	14,4	14,7	14,9	15,4
	8H	14,1	14,3	14,6	14,7	15,2	14,3	14,5	14,8	14,9	15,4
Variation of the observer position for the luminaire distance S											
S = 1,0H		+2,7 / -1,7					+3,0 / -2,0				
S = 1,5H		+4,8 / -2,4					+5,2 / -2,7				
S = 2,0H		+6,6 / -3,3					+7,0 / -3,6				
Standard table		BK02					BK01				
Correction summand		-3,7					-3,8				
Corrected glare indices referring to 749lm total luminous flux											

