

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-4000K-CRI80-
DEG12x46

General Discription

Item number	RC-I-2-02-2
Date and time	5-8-2016 10:48:54
CCT (Kelvin)	3846 K
Beam angle	30,4°
Luminous flux	1095 lm
Efficiency	108 lm/watt
Weighted energy	10,2 kWh/1000h
Power factor	0,95
CRI (RA)	83,2
Fidelity index Rf	Rf 84,1
Gammut index Rg	Rg 97,2



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Beam details				1m		2m		3m		4m		5m							
Lux*				3005 lx		751 lx		334 lx		188 lx		120 lx							
30,4°																			
*measured at center of beam																			
Footcandles*				279,2 fcd		69,8 fcd		31,0 fcd		17,4 fcd		11,2 fcd							
Beam width (meter)				0,5 m		1,1 m		1,6 m		2,2 m		2,7 m							
Beam width (Feet)				1,8 ft		3,6 ft		5,4 ft		7,1 ft		8,9 ft							
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3005lx	751lx	334lx	188lx	120lx	83lx	61lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	8lx
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
279,2fcd	69,8fcd	31fcd	17,4fcd	11,2fcd	7,8fcd	5,7fcd	4,4fcd	3,4fcd	2,8fcd	2,3fcd	1,9fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd
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°
3005	3005	2972	2933	2867	2761	2654	2476	2294	2088	1861	1634	1399	1163	955	760	582	459	335	259
100%	100%	99%	98%	95%	92%	88%	82%	76%	69%	62%	54%	47%	39%	32%	25%	19%	15%	11%	9%
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°
3005	2969	2505	1872	1326	963	626	438	300	204	143	95	70	46	37	31	26	23	20	18
100%	99%	83%	62%	44%	32%	21%	15%	10%	7%	5%	3%	2%	2%	1%	1%	1%	1%	1%	1%
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°
3005	3005	2972	2933	2867	2761	2654	2476	2294	2088	1861	1634	1399	1163	955	760	582	459	335	259
100%	100%	99%	98%	95%	92%	88%	82%	76%	69%	62%	54%	47%	39%	32%	25%	19%	15%	11%	9%
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°
3005	2969	2505	1872	1326	963	626	438	300	204	143	95	70	46	37	31	26	23	20	18
100%	99%	83%	62%	44%	32%	21%	15%	10%	7%	5%	3%	2%	2%	1%	1%	1%	1%	1%	1%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
30,4°				52,8°				{C_ANG}°				98,6%				96,1%			



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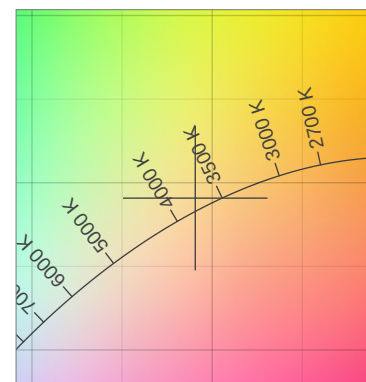
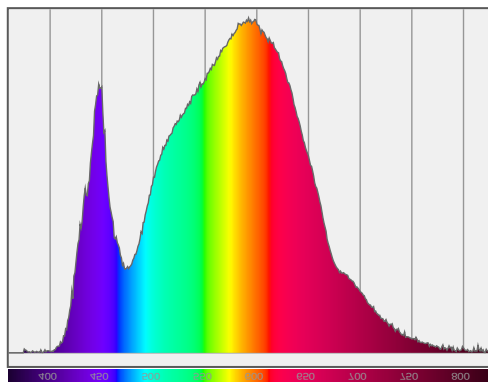
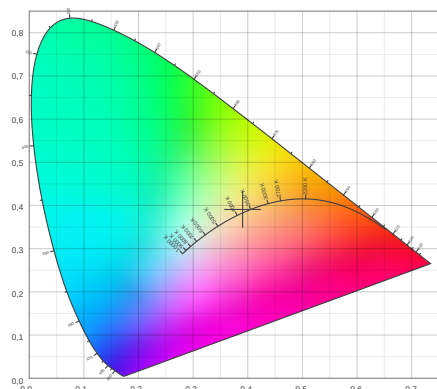
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Color details



CIE 1931

x: 0,391

3846 K

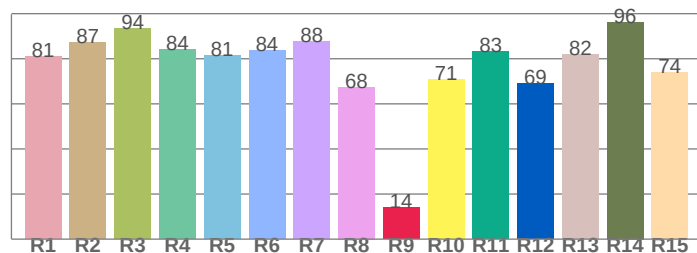
y: 0,391

Spectra

CIE 1931 ZOOM

Δuv : 0,0036

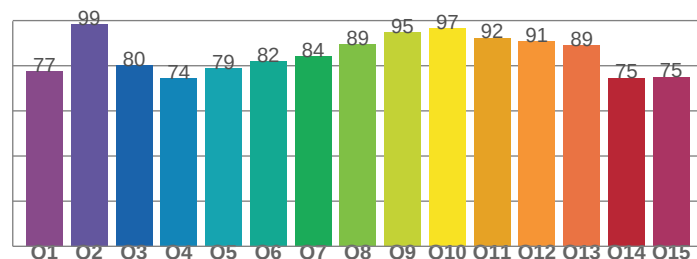
CRI: **83,2** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,0	87,2	93,5	84,0	81,3	83,7	87,7	67,5
R9	R10	R11	R12	R13	R14	R15	
14,1	70,9	83,4	69,0	82,0	96,3	73,9	

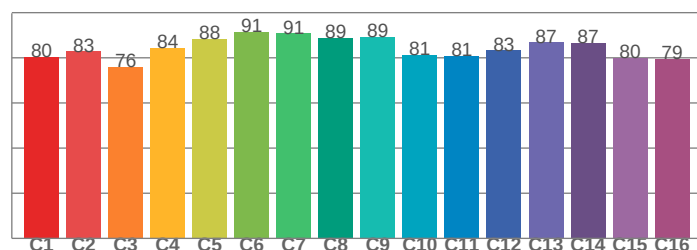
CQS: **83,2**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,4	98,5	80,1	74,4	78,7	82,0	84,3	89,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,8	96,6	92,4	91,0	89,2	74,7	75,1	

TM30: **84,1**



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

C1	C2	C3	C4	C5	C6	C7	C8
80,3	82,9	75,9	84,3	88,3	91,4	90,8	88,7
C9	C10	C11	C12	C13	C14	C15	
89,2	81,3	80,9	83,3	86,8	86,7	79,9	

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
3846 K	83,2	14,1	84,1	97,2	83,2	0,391	0,391	0,226	0,339	0,0036



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TM30 details

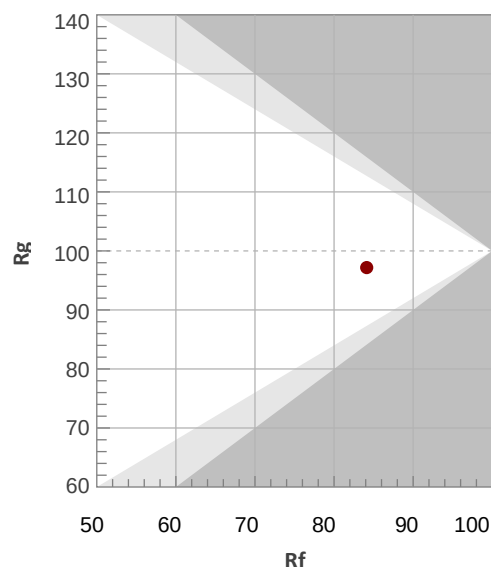
Rf 84,1

Fidelity index R_f

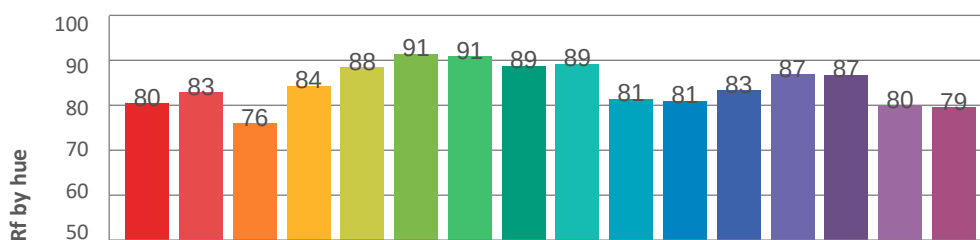
Rg 97,2

Gammut index Rg

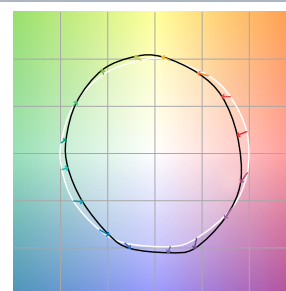
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	80	-11%	-2%
2	83	-7%	5%
3	76	-4%	11%
4	84	2%	9%
5	88	5%	5%
6	91	5%	-2%
7	91	-1%	-5%
8	89	-4%	-5%
9	89	-7%	-1%
10	81	-8%	6%
11	81	-1%	11%
12	83	5%	6%
13	87	6%	-4%
14	87	8%	-8%
15	80	0%	-13%
16	79	-5%	-11%



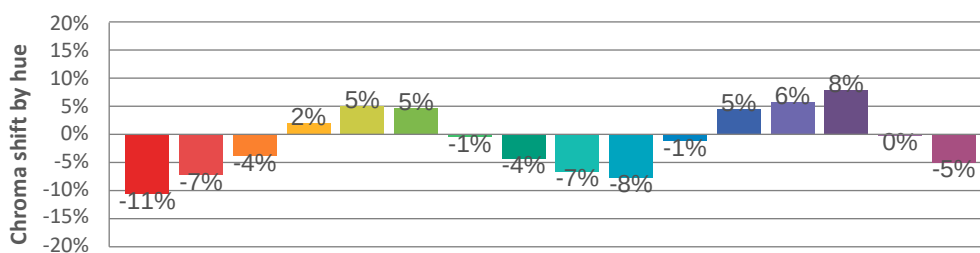
Hue binH



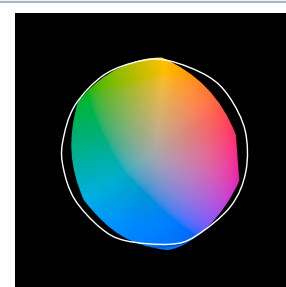
Color vector graphics



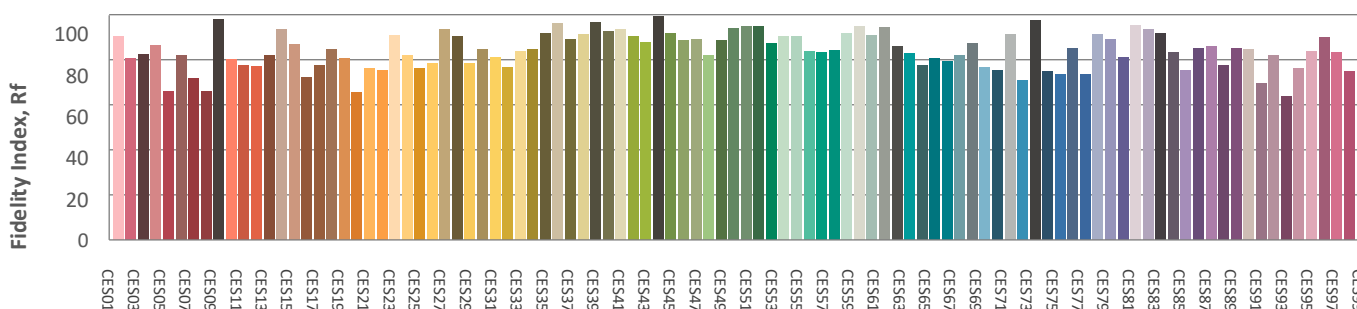
Hue bin



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	21,1	21,7	21,3	21,9	22,2	14,2	14,9	14,4	15,1	15,3
	3H	21,0	21,6	21,3	21,9	22,1	14,3	15,0	14,6	15,2	15,5
	4H	21,0	21,5	21,3	21,8	22,1	14,4	15,0	14,7	15,2	15,5
	6H	20,9	21,4	21,2	21,7	22,0	14,4	15,0	14,7	15,2	15,5
	8H	20,9	21,4	21,2	21,7	22,0	14,4	14,9	14,8	15,2	15,5
	12H	20,8	21,3	21,2	21,6	22,0	14,4	14,9	14,8	15,2	15,6
4H	2H	20,9	21,5	21,2	21,7	22,0	14,3	14,9	14,6	15,1	15,4
	3H	20,8	21,3	21,2	21,6	22,0	14,5	15,0	14,9	15,3	15,6
	4H	20,8	21,2	21,2	21,6	21,9	14,6	15,0	15,0	15,4	15,7
	6H	20,8	21,1	21,2	21,5	21,9	14,7	15,0	15,1	15,4	15,8
	8H	20,7	21,1	21,2	21,4	21,9	14,7	15,0	15,2	15,4	15,8
	12H	20,7	21,0	21,2	21,4	21,8	14,8	15,0	15,2	15,5	15,9
8H	4H	20,7	21,0	21,1	21,4	21,8	14,6	14,9	15,1	15,3	15,7
	6H	20,7	20,9	21,1	21,3	21,8	14,8	15,0	15,2	15,4	15,9
	8H	20,7	20,8	21,1	21,3	21,8	14,8	15,0	15,3	15,5	15,9
	12H	20,6	20,8	21,1	21,2	21,7	14,9	15,1	15,4	15,5	16,0
12H	4H	20,7	20,9	21,1	21,4	21,8	14,6	14,9	15,0	15,3	15,7
	6H	20,6	20,8	21,1	21,3	21,8	14,7	14,9	15,2	15,4	15,9
	8H	20,6	20,8	21,1	21,2	21,7	14,8	15,0	15,3	15,5	16,0
Variation of the observer position for the luminaire distance S											
S = 1,0H		+5,1 / -6,5					+3,5 / -2,6				
S = 1,5H		+7,8 / -7,5					+5,0 / -3,2				
S = 2,0H		+9,8 / -8,2					+6,8 / -3,9				
Standard table		BK00					BK01				
Correction summand		2,6					-3,3				
Corrected glare indices referring to 1095lm total luminous flux											



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