

LM-79

Test Report

LM79-REVO-COMPACT-5000K-CRI80-DEG12x46

General Discription

Item number	RC-1-X-06-2
Date and time	5-8-2016 13:28:34
CCT (Kelvin)	4833 K
Beam angle	30,5°
Luminous flux	742 lm
Efficiency	73 lm/watt
Weighted energy	10,1 kWh/1000h
Power factor	0,95
CRI (RA)	86,3
Fidelity index Rf	Rf 85,6
Gammut index Rg	Rg 97,4



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Beam details	1m	2m	3m	4m	5m
Lux*	2038 lx	509 lx	226 lx	127 lx	82 lx

30,5°

*measured at center of beam

Footcandles*	189,3 fcd	47,3 fcd	21,0 fcd	11,8 fcd	7,6 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	7,2 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
2038lx	509lx	226lx	127lx	82lx	57lx	42lx	32lx	25lx	20lx	17lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx	5lx
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
189,3fcd	47,3fcd	21fcd	11,8fcd	7,6fcd	5,3fcd	3,9fcd	3fcd	2,3fcd	1,9fcd	1,6fcd	1,3fcd	1,1fcd	1fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd

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°
2038	1935	1657	1278	926	639	424	270	169	111	73	50	36	29	24	20	17	15	13	12
100%	95%	81%	63%	45%	31%	21%	13%	8%	5%	4%	2%	2%	1%	1%	1%	1%	1%	1%	1%

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°
2038	2029	2012	2001	1941	1875	1787	1685	1559	1413	1258	1099	942	784	640	511	403	307	235	178
100%	100%	99%	98%	95%	92%	88%	83%	76%	69%	62%	54%	46%	38%	31%	25%	20%	15%	12%	9%

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°
2038	1935	1657	1278	926	639	424	270	169	111	73	50	36	29	24	20	17	15	13	12
100%	95%	81%	63%	45%	31%	21%	13%	8%	5%	4%	2%	2%	1%	1%	1%	1%	1%	1%	1%

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°
2038	2029	2012	2001	1941	1875	1787	1685	1559	1413	1258	1099	942	784	640	511	403	307	235	178
100%	100%	99%	98%	95%	92%	88%	83%	76%	69%	62%	54%	46%	38%	31%	25%	20%	15%	12%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,5°	52,4°	{C_ANG}°	98,5%	96,0%



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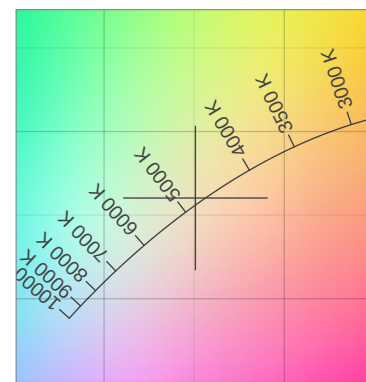
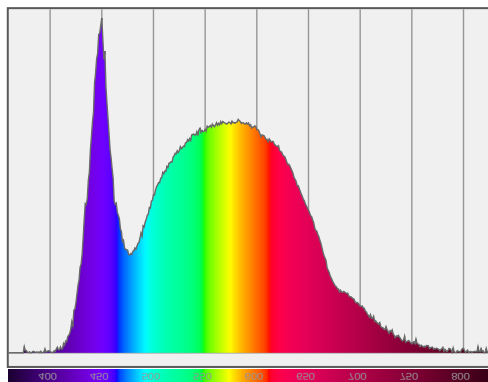
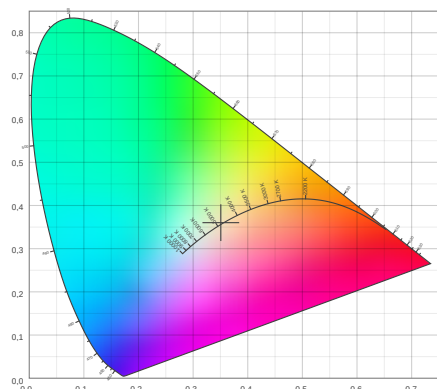
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Color details



CIE 1931

x: 0,351

4833 K

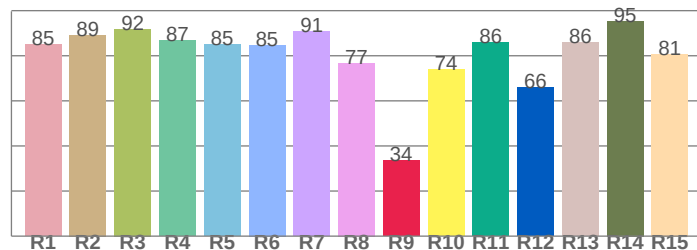
y: 0,360

Spectra

CIE 1931 ZOOM

Δuv : 0,0021

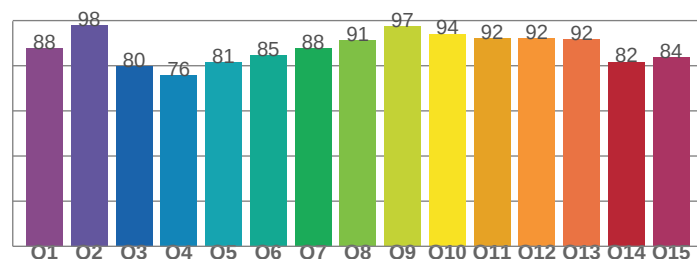
CRI: 86,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
85,1	89,2	91,9	86,9	85,0	84,7	90,9	76,8
R9	R10	R11	R12	R13	R14	R15	
33,6	74,0	86,0	66,0	85,9	95,5	80,8	

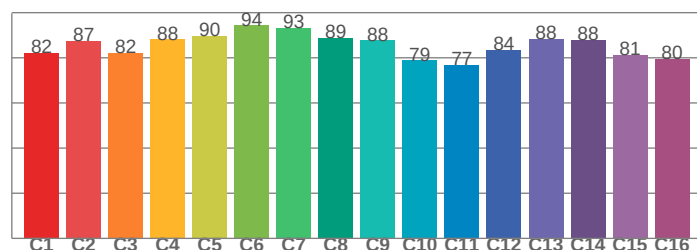
CQS: 86,4



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
87,7	98,1	79,6	75,8	81,5	84,6	87,7	91,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,3	94,2	92,2	92,3	91,8	81,7	83,9	

TM30: 85,6



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

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

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
4833 K	86,3	33,6	85,6	97,4	86,4	0,351	0,360	0,212	0,326	0,0021



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TM30 details

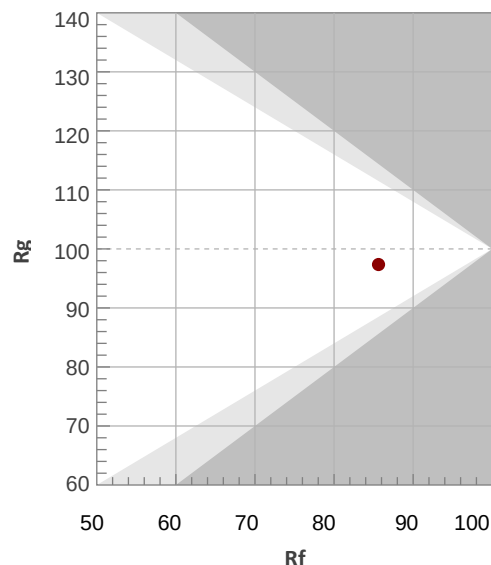
R_f 85,6

Fidelity index R_f

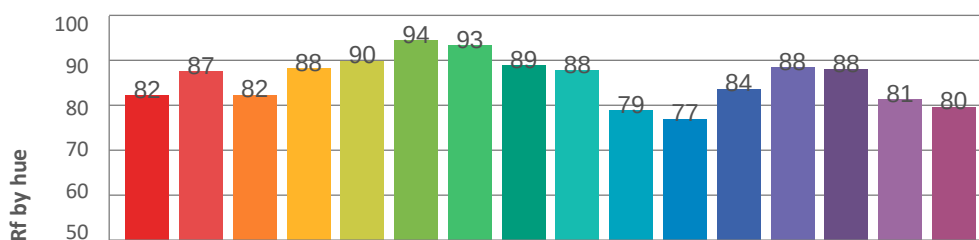
R_g 97,4

Gamut index R_g

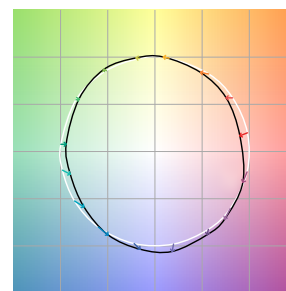
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-9%	-2%
2	87	-6%	4%
3	82	-3%	8%
4	88	0%	6%
5	90	1%	4%
6	94	2%	-1%
7	93	-2%	-3%
8	89	-6%	-1%
9	88	-7%	6%
10	79	-5%	11%
11	77	1%	13%
12	84	5%	7%
13	88	7%	-3%
14	88	4%	-4%
15	81	1%	-13%
16	80	-2%	-12%



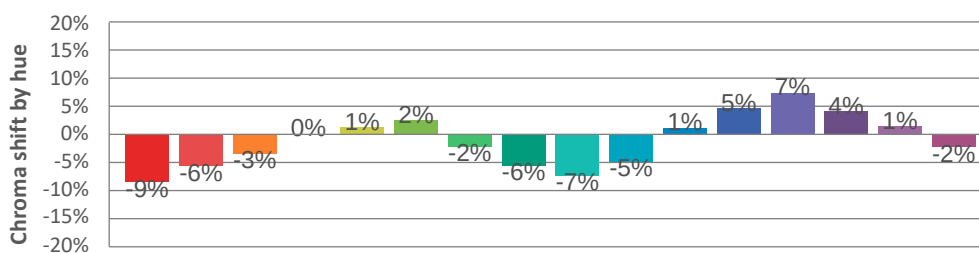
Hue binH



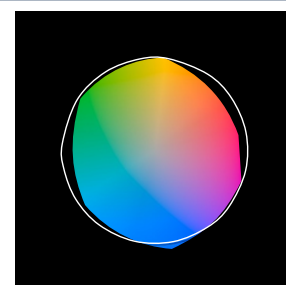
Color vector graphics



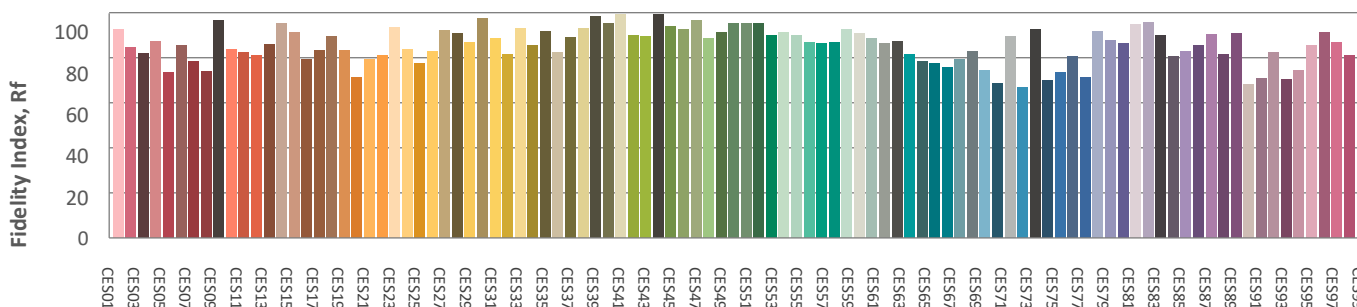
Hue bin



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	12,8	13,5	13,1	13,7	13,9	19,8	20,5	20,1	20,7	20,9
	3H	12,9	13,5	13,2	13,8	14,0	19,8	20,4	20,1	20,6	20,9
	4H	12,9	13,5	13,3	13,8	14,1	19,7	20,3	20,0	20,6	20,8
	6H	13,0	13,5	13,3	13,8	14,1	19,7	20,2	20,0	20,5	20,8
	8H	13,0	13,5	13,3	13,8	14,1	19,6	20,2	20,0	20,5	20,8
	12H	13,0	13,5	13,3	13,8	14,1	19,6	20,1	20,0	20,4	20,7
4H	2H	12,8	13,4	13,2	13,7	14,0	19,7	20,3	20,0	20,5	20,8
	3H	13,0	13,5	13,4	13,8	14,2	19,6	20,1	20,0	20,4	20,7
	4H	13,1	13,6	13,5	13,9	14,3	19,6	20,0	20,0	20,3	20,7
	6H	13,2	13,6	13,6	13,9	14,3	19,5	19,9	19,9	20,3	20,6
	8H	13,2	13,6	13,7	14,0	14,4	19,5	19,8	19,9	20,2	20,6
	12H	13,3	13,5	13,7	14,0	14,4	19,5	19,8	19,9	20,2	20,6
8H	4H	13,1	13,5	13,6	13,9	14,3	19,5	19,8	19,9	20,2	20,6
	6H	13,3	13,5	13,7	13,9	14,4	19,4	19,7	19,9	20,1	20,6
	8H	13,3	13,5	13,8	14,0	14,5	19,4	19,6	19,9	20,1	20,5
	12H	13,4	13,6	13,9	14,0	14,5	19,4	19,5	19,9	20,0	20,5
12H	4H	13,1	13,4	13,6	13,8	14,2	19,4	19,7	19,9	20,1	20,5
	6H	13,3	13,5	13,7	13,9	14,4	19,4	19,6	19,9	20,0	20,5
	8H	13,3	13,5	13,8	14,0	14,5	19,4	19,5	19,9	20,0	20,5
Variation of the observer position for the luminaire distance S											
S = 1,0H		+3,8 / -3,0					+5,1 / -6,6				
S = 1,5H		+5,3 / -3,4					+7,8 / -7,8				
S = 2,0H		+7,1 / -4,2					+9,8 / -8,7				
Standard table		BK01					BK00				
Correction summand		-4,8					1,4				
Corrected glare indices referring to 742lm total luminous flux											

