

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-4000K-CRI80-DEG12

General Discription

Item number	RC-I-2-02-1
Date and time	5-8-2016 09:55:35
CCT (Kelvin)	3835 K
Beam angle	15,8°
Luminous flux	780 lm
Efficiency	77 lm/watt
Weighted energy	10,2 kWh/1000h
Power factor	0,95
CRI (RA)	83,3
Fidelity index Rf	Rf 84,1
Gammut index Rg	Rg 97,2



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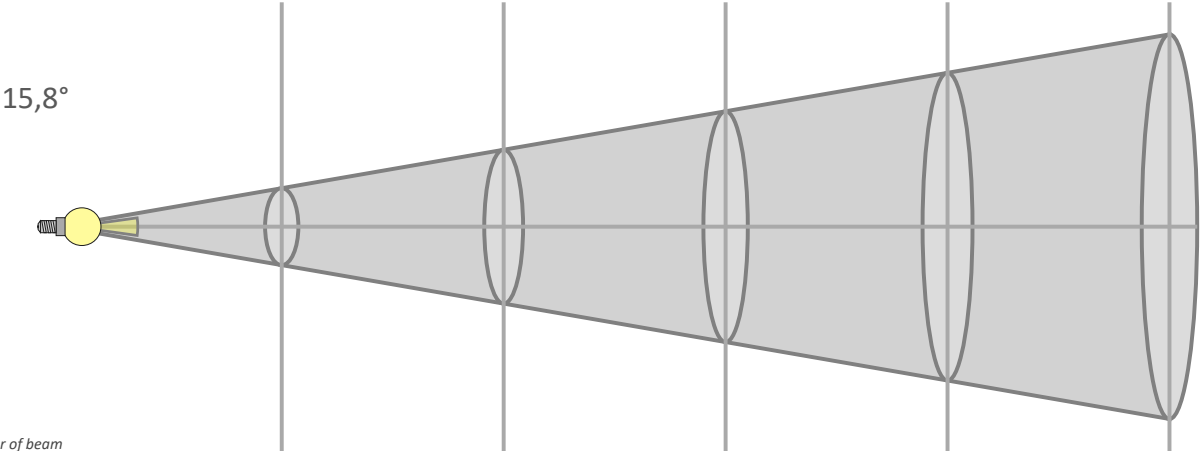
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Beam details	1m	2m	3m	4m	5m
Lux*	7476 lx	1869 lx	831 lx	467 lx	299 lx



15,8°

*measured at center of beam

Footcandles*	694,5 fcd	173,6 fcd	77,2 fcd	43,4 fcd	27,8 fcd
Beam width (meter)	0,3 m	0,6 m	0,8 m	1,1 m	1,4 m
Beam width (Feet)	0,9 ft	1,8 ft	2,7 ft	3,6 ft	4,5 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
7476lx	1869lx	831lx	467lx	299lx	208lx	153lx	117lx	92lx	75lx	62lx	52lx	44lx	38lx	33lx	29lx	26lx	23lx	21lx	19lx
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
694,5fcd	173,6fcd	77,2fcd	43,4fcd	27,8fcd	19,3fcd	14,2fcd	10,9fcd	8,6fcd	6,9fcd	5,7fcd	4,8fcd	4,1fcd	3,5fcd	3,1fcd	2,7fcd	2,4fcd	2,1fcd	1,9fcd	1,7fcd

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°
7476	7118	6721	6324	5928	5510	4877	4244	3612	2979	2398	2067	1737	1407	1077	804	690	577	464	351
100%	95%	90%	85%	79%	74%	65%	57%	48%	40%	32%	28%	23%	19%	14%	11%	9%	8%	6%	5%

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°
7476	7469	7064	6659	6240	5636	5028	4378	3728	3100	2585	2105	1773	1440	1137	924	736	615	494	388
100%	100%	94%	89%	83%	75%	67%	59%	50%	41%	35%	28%	24%	19%	15%	12%	10%	8%	7%	5%

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°
7476	7118	6721	6324	5928	5510	4877	4244	3612	2979	2398	2067	1737	1407	1077	804	690	577	464	351
100%	95%	90%	85%	79%	74%	65%	57%	48%	40%	32%	28%	23%	19%	14%	11%	9%	8%	6%	5%

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°
7476	7469	7064	6659	6240	5636	5028	4378	3728	3100	2585	2105	1773	1440	1137	924	736	615	494	388
100%	100%	94%	89%	83%	75%	67%	59%	50%	41%	35%	28%	24%	19%	15%	12%	10%	8%	7%	5%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,8°	31,4°	{C_ANG}°	98,8%	97,7%



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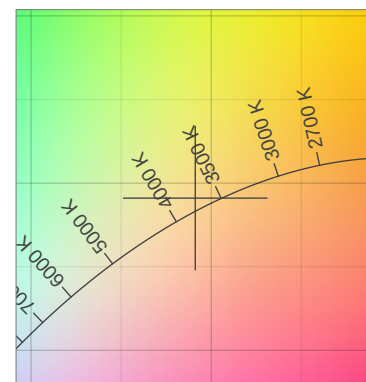
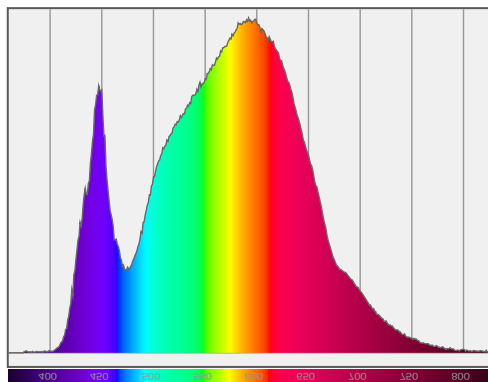
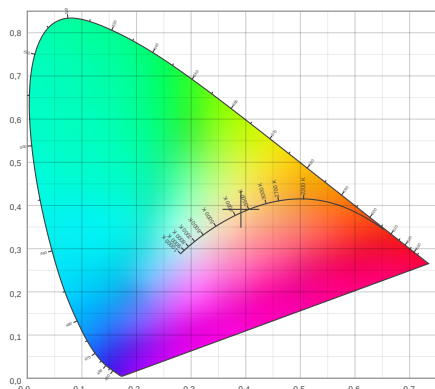
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Color details



CIE 1931

x: 0,391



Spectra

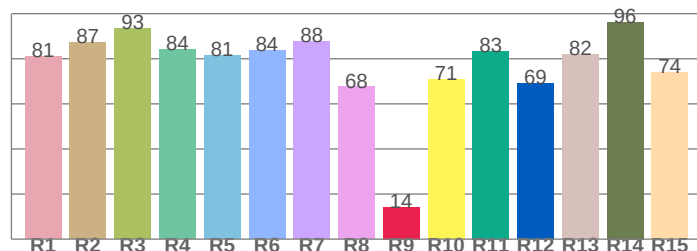
CIE 1931 ZOOM

3835 K

y: 0,391

Δuv : 0,0036

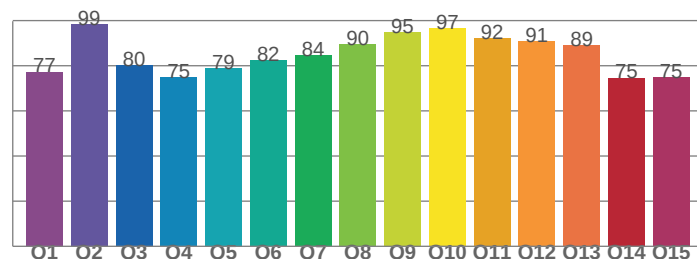
CRI: **83,3** (R1-R8)



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	84,1	81,4	83,7	87,7	67,5
R9	R10	R11	R12	R13	R14	R15	
14,3	70,9	83,5	69,2	82,0	96,3	74,0	

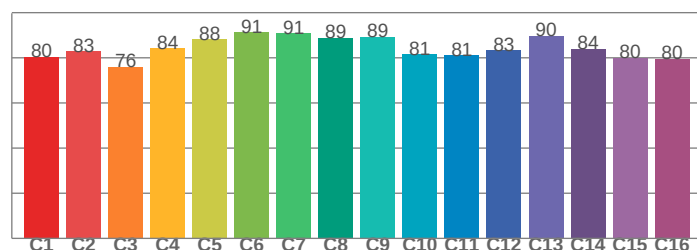
CQS: **83,2**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,3	98,5	80,2	74,7	79,0	82,2	84,5	89,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,9	96,5	92,3	91,0	89,2	74,6	75,1	

TM30: **84,1**



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

C1	C2	C3	C4	C5	C6	C7	C8
80,4	82,9	75,9	84,1	88,2	91,2	90,7	88,7
C9	C10	C11	C12	C13	C14	C15	
89,1	81,5	81,0	83,3	89,7	83,9	80,0	

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
3835 K	83,3	14,3	84,1	97,2	83,2	0,391	0,391	0,226	0,340	0,0036



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TM30 details

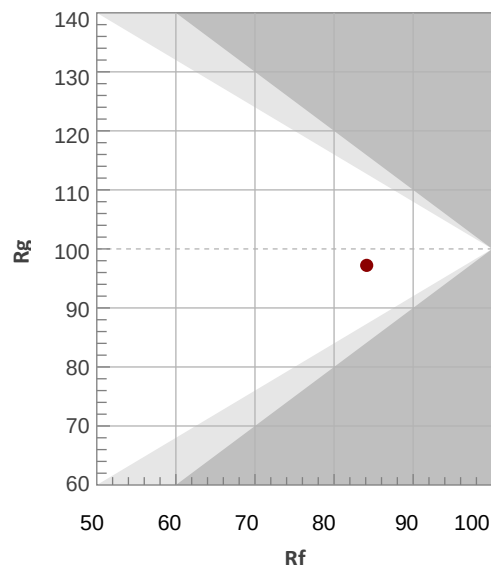
Rf 84,1

Fidelity index Rf

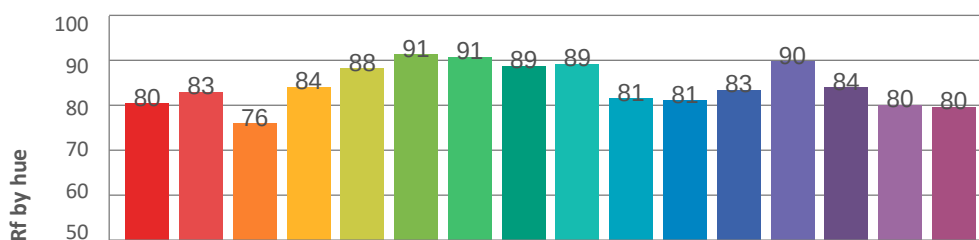
Rg 97,2

Gamut index Rg

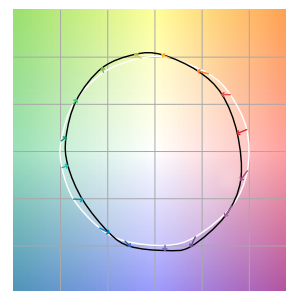
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-2%
2	83	-7%	5%
3	76	-4%	11%
4	84	2%	9%
5	88	5%	5%
6	91	5%	-2%
7	91	0%	-6%
8	89	-4%	-5%
9	89	-7%	-1%
10	81	-8%	6%
11	81	-1%	11%
12	83	4%	6%
13	90	5%	-1%
14	84	6%	-10%
15	80	0%	-13%
16	80	-5%	-11%



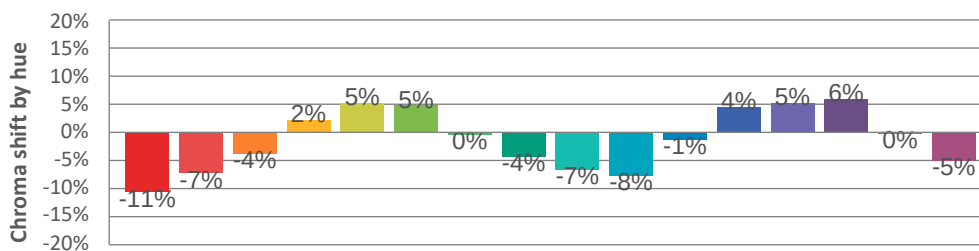
Hue binH



Color vector graphics



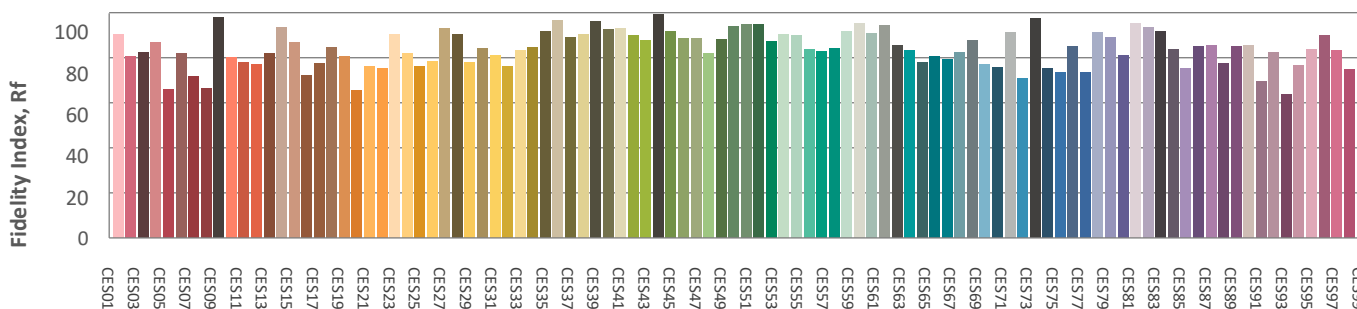
Hue bin



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	8,0	8,7	8,3	8,9	9,1	8,1	8,8	8,4	9,0	9,2
	3H	8,6	9,2	8,9	9,4	9,7	8,8	9,4	9,1	9,7	9,9
	4H	8,8	9,3	9,1	9,6	9,8	8,9	9,5	9,2	9,7	10,0
	6H	8,8	9,3	9,2	9,6	9,9	9,0	9,5	9,3	9,8	10,1
	8H	8,8	9,3	9,2	9,6	9,9	9,0	9,5	9,4	9,8	10,1
	12H	8,8	9,3	9,2	9,6	9,9	9,1	9,6	9,5	9,9	10,2
4H	2H	8,4	8,9	8,7	9,2	9,4	8,5	9,0	8,8	9,3	9,5
	3H	9,0	9,5	9,4	9,8	10,1	9,2	9,7	9,6	10,0	10,3
	4H	9,2	9,6	9,6	10,0	10,3	9,4	9,8	9,8	10,1	10,5
	6H	9,4	9,7	9,8	10,1	10,5	9,5	9,8	9,9	10,2	10,6
	8H	9,4	9,7	9,8	10,1	10,5	9,6	9,9	10,0	10,3	10,7
	12H	9,4	9,7	9,9	10,1	10,5	9,7	9,9	10,1	10,4	10,8
8H	4H	9,3	9,6	9,7	10,0	10,4	9,4	9,7	9,8	10,1	10,5
	6H	9,4	9,7	9,9	10,1	10,6	9,6	9,8	10,1	10,2	10,7
	8H	9,5	9,7	10,0	10,1	10,6	9,7	9,9	10,2	10,4	10,8
	12H	9,6	9,7	10,1	10,2	10,7	9,9	10,0	10,4	10,5	11,0
12H	4H	9,2	9,5	9,7	9,9	10,3	9,4	9,6	9,8	10,0	10,5
	6H	9,4	9,6	9,9	10,1	10,6	9,6	9,8	10,1	10,2	10,7
	8H	9,5	9,7	10,0	10,1	10,6	9,7	9,9	10,2	10,4	10,9

Variation of the observer position for the luminaire distance S

S = 1,0H	+1,2 / -1,1	+1,2 / -1,0
S = 1,5H	+2,8 / -1,3	+2,8 / -1,3
S = 2,0H	+4,1 / -2,4	+4,1 / -2,0
Standard table	BK02	BK03
Correction summand	-8,5	-7,9

Corrected glare indices referring to 780lm total luminous flux



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