

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-3000K-CRI80-DEG8

General Discription

Item number	RC-I-2-03-5
Date and time	5-8-2016 11:32:56
CCT (Kelvin)	3011 K
Beam angle	12,8°
Luminous flux	681 lm
Efficiency	68 lm/watt
Weighted energy	10,0 kWh/1000h
Power factor	0,95
CRI (RA)	84,0
Fidelity index Rf	Rf 84,8
Gammut index Rg	Rg 96,7



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Beam details		1m	2m	3m	4m	5m
Lux*		9197 lx	2299 lx	1022 lx	575 lx	368 lx

12,8°

*measured at center of beam

Footcandles*	854,4 fcd	213,6 fcd	94,9 fcd	53,4 fcd	34,2 fcd
Beam width (meter)	0,2 m	0,4 m	0,7 m	0,9 m	1,1 m
Beam width (Feet)	0,7 ft	1,5 ft	2,2 ft	2,9 ft	3,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
9197lx	2299lx	1022lx	575lx	368lx	255lx	188lx	144lx	114lx	92lx	76lx	64lx	54lx	47lx	41lx	36lx	32lx	28lx	25lx	23lx
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
854,4fcd	213,6fcd	94,9fcd	53,4fcd	34,2fcd	23,7fcd	17,4fcd	13,4fcd	10,5fcd	8,5fcd	7,1fcd	5,9fcd	5,1fcd	4,4fcd	3,8fcd	3,3fcd	3fcd	2,6fcd	2,4fcd	2,1fcd

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°
9197	9197	8951	8171	7207	6186	5165	4246	3473	2917	2397	1878	1456	1129	929	736	543	399	290	243
100%	100%	97%	89%	78%	67%	56%	46%	38%	32%	26%	20%	16%	12%	10%	8%	6%	4%	3%	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°
9197	9079	8214	7350	6485	5592	4740	4029	3318	2614	2117	1677	1365	1054	760	580	440	359	279	207
100%	99%	89%	80%	71%	61%	52%	44%	36%	28%	23%	18%	15%	11%	8%	6%	5%	4%	3%	2%

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°
9197	9197	8951	8171	7207	6186	5165	4246	3473	2917	2397	1878	1456	1129	929	736	543	399	290	243
100%	100%	97%	89%	78%	67%	56%	46%	38%	32%	26%	20%	16%	12%	10%	8%	6%	4%	3%	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°
9197	9079	8214	7350	6485	5592	4740	4029	3318	2614	2117	1677	1365	1054	760	580	440	359	279	207
100%	99%	89%	80%	71%	61%	52%	44%	36%	28%	23%	18%	15%	11%	8%	6%	5%	4%	3%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12,8°	27,5°	{C_ANG}°	98,8%	97,8%



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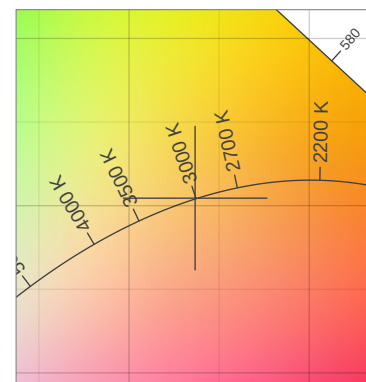
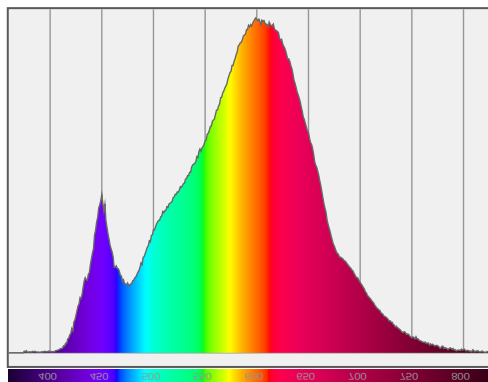
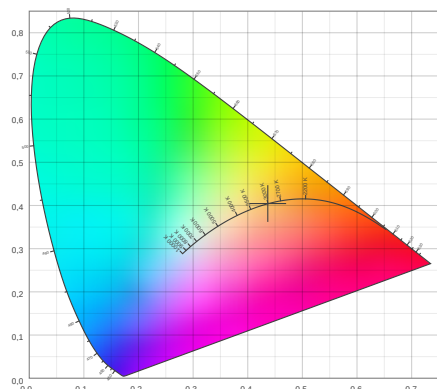
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Color details



CIE 1931

x: 0,437

3011 K

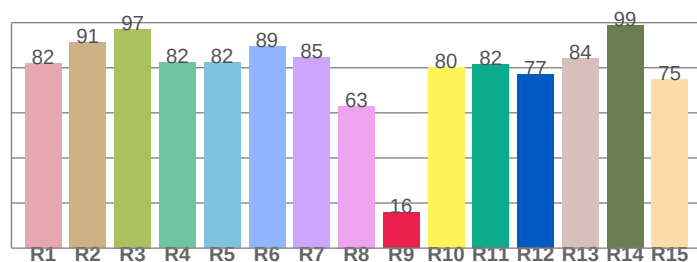
y: 0,404

Spectra

CIE 1931 ZOOM

Δuv : 0,0002

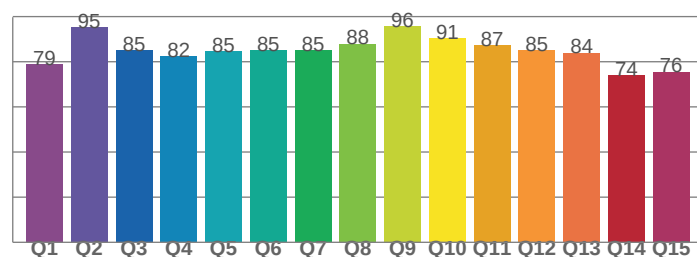
CRI: **84,0** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
82,0	91,1	97,2	82,3	82,4	89,4	84,6	63,0
R9	R10	R11	R12	R13	R14	R15	
15,9	80,0	81,5	77,0	84,0	98,8	75,0	

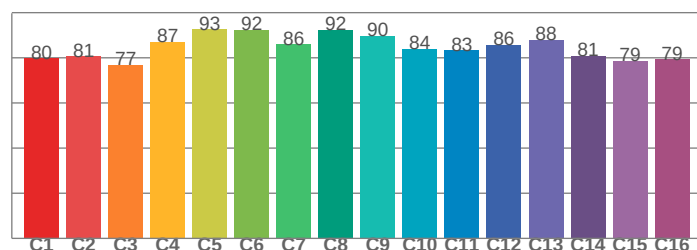
CQS: **83,9**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
79,0	95,4	85,2	82,4	84,6	84,9	85,0	88,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,8	90,5	87,4	85,1	84,0	74,0	75,5	

TM30: **84,8**



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

C1	C2	C3	C4	C5	C6	C7	C8
79,7	80,6	77,0	87,0	92,6	92,2	85,9	92,4
C9	C10	C11	C12	C13	C14	C15	
89,7	84,1	83,2	85,6	87,8	80,9	78,6	

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
3011 K	84,0	15,9	84,8	96,7	83,9	0,437	0,404	0,250	0,348	0,0002



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TM30 details

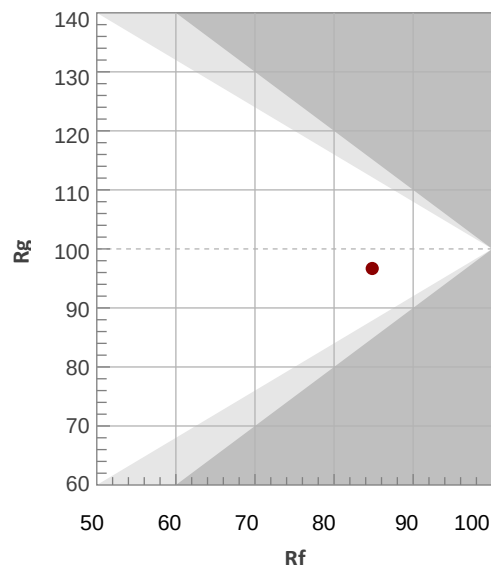
Rf 84,8

Fidelity index Rf

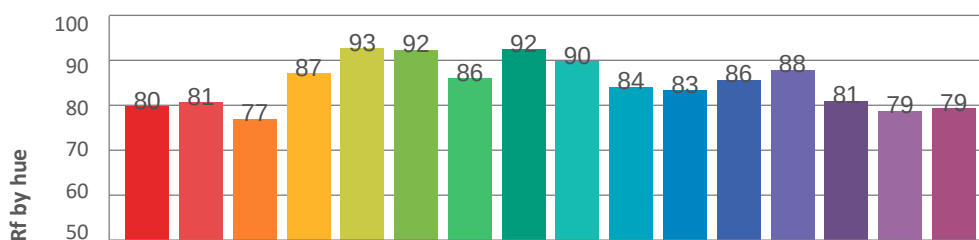
Rg 96,7

Gamut index Rg

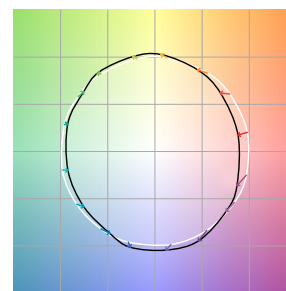
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-10%	-1%
2	81	-8%	6%
3	77	-3%	11%
4	87	2%	7%
5	93	3%	4%
6	92	3%	-2%
7	86	-2%	-8%
8	92	-3%	-2%
9	90	-6%	1%
10	84	-5%	6%
11	83	-1%	11%
12	86	5%	3%
13	88	5%	-6%
14	81	4%	-13%
15	79	-2%	-12%
16	79	-8%	-13%



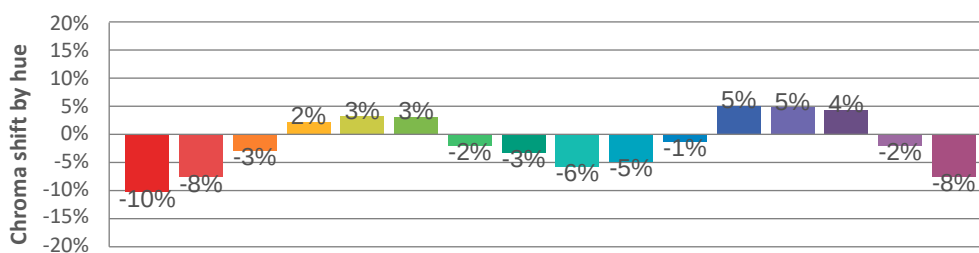
Hue binH



Color vector graphics



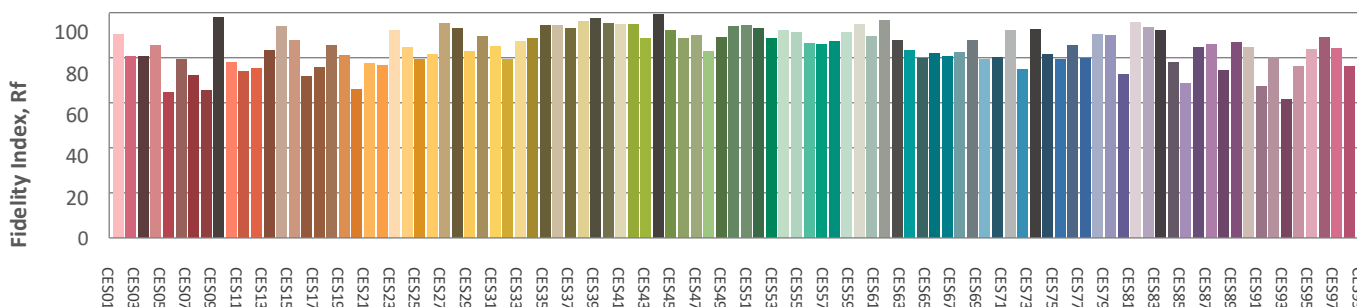
Hue bin



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	7,0	7,6	7,2	7,8	8,0	6,5	7,2	6,8	7,4	7,6
	3H	7,3	7,9	7,6	8,1	8,4	6,9	7,5	7,2	7,8	8,0
	4H	7,5	8,1	7,8	8,3	8,6	7,1	7,6	7,4	7,9	8,2
	6H	7,7	8,2	8,1	8,5	8,8	7,3	7,8	7,6	8,1	8,4
	8H	7,9	8,4	8,2	8,7	9,0	7,4	7,8	7,7	8,1	8,5
	12H	8,1	8,6	8,4	8,9	9,2	7,4	7,9	7,8	8,2	8,5
4H	2H	7,1	7,6	7,4	7,9	8,2	6,7	7,2	7,0	7,5	7,8
	3H	7,5	8,0	7,9	8,3	8,6	7,2	7,7	7,6	8,0	8,3
	4H	7,9	8,3	8,3	8,6	9,0	7,5	7,9	7,8	8,2	8,6
	6H	8,2	8,6	8,6	8,9	9,3	7,8	8,1	8,2	8,5	8,9
	8H	8,5	8,8	8,9	9,2	9,6	7,9	8,2	8,4	8,6	9,0
	12H	8,8	9,0	9,2	9,5	9,9	8,1	8,3	8,5	8,7	9,2
8H	4H	7,9	8,2	8,4	8,6	9,0	7,6	7,9	8,0	8,2	8,7
	6H	8,5	8,7	8,9	9,1	9,6	8,0	8,3	8,5	8,7	9,1
	8H	8,8	9,0	9,3	9,5	9,9	8,3	8,4	8,7	8,9	9,4
	12H	9,3	9,4	9,8	9,9	10,4	8,5	8,7	9,0	9,1	9,6
12H	4H	7,9	8,2	8,4	8,6	9,0	7,6	7,8	8,0	8,2	8,7
	6H	8,5	8,7	9,0	9,1	9,6	8,1	8,3	8,6	8,7	9,2
	8H	8,9	9,1	9,4	9,5	10,0	8,4	8,5	8,9	9,0	9,5
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,9 / -0,8					+1,0 / -0,9				
S = 1,5H		+2,1 / -1,3					+2,3 / -1,8				
S = 2,0H		+3,5 / -2,4					+3,8 / -1,9				
Standard table		BK03					BK03				
Correction summand		-9,0					-9,5				
Corrected glare indices referring to 681lm total luminous flux											



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