

LM-79

Test Report

LM79-REVO-COMPACT-3000K-CRI80-DEG12

General Discription

Item number	RC-1-X-03-1
Date and time	5-8-2016 11:38:43
CCT (Kelvin)	2994 K
Beam angle	16,3°
Luminous flux	689 lm
Efficiency	69 lm/watt
Weighted energy	10,0 kWh/1000h
Power factor	0,95
CRI (RA)	84,0
Fidelity index Rf	Rf 85,0
Gammut index Rg	Rg 96,4



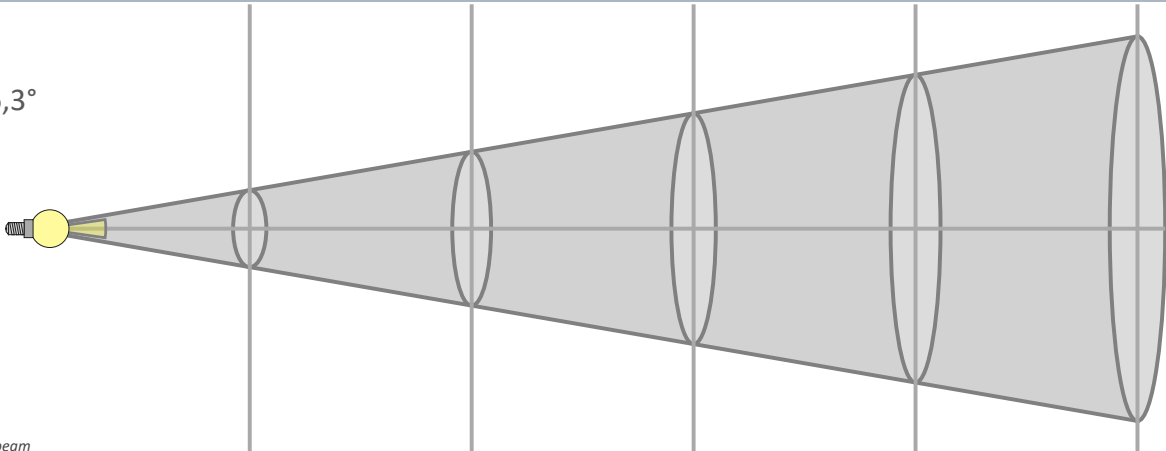
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Beam details		1m		2m		3m		4m		5m									
Lux*		6136 lx		1534 lx		682 lx		384 lx		245 lx									
16,3° 																			
*measured at center of beam																			
Footcandles*		570,1 fcd		142,5 fcd		63,3 fcd		35,6 fcd		22,8 fcd									
Beam width (meter)		0,3 m		0,6 m		0,9 m		1,1 m		1,4 m									
Beam width (Feet)		0,9 ft		1,9 ft		2,8 ft		3,8 ft		4,7 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
6136lx	1534lx	682lx	384lx	245lx	170lx	125lx	96lx	76lx	61lx	51lx	43lx	36lx	31lx	27lx	24lx	21lx	19lx	17lx	15lx
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
570,1fcd	142,5fcd	63,3fcd	35,6fcd	22,8fcd	15,8fcd	11,6fcd	8,9fcd	7fcd	5,7fcd	4,7fcd	4fcd	3,4fcd	2,9fcd	2,5fcd	2,2fcd	2fcd	1,8fcd	1,6fcd	1,4fcd
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°
6136	6136	5888	5578	5213	4716	4220	3705	3187	2705	2282	1859	1566	1276	1033	845	662	547	433	344
100%	100%	96%	91%	85%	77%	69%	60%	52%	44%	37%	30%	26%	21%	17%	14%	11%	9%	7%	6%
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°
6136	6042	5716	5390	5064	4632	4152	3632	3112	2592	2166	1817	1543	1269	995	807	666	562	458	356
100%	98%	93%	88%	83%	75%	68%	59%	51%	42%	35%	30%	25%	21%	16%	13%	11%	9%	7%	6%
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°
6136	6136	5888	5578	5213	4716	4220	3705	3187	2705	2282	1859	1566	1276	1033	845	662	547	433	344
100%	100%	96%	91%	85%	77%	69%	60%	52%	44%	37%	30%	26%	21%	17%	14%	11%	9%	7%	6%
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°
6136	6042	5716	5390	5064	4632	4152	3632	3112	2592	2166	1817	1543	1269	995	807	666	562	458	356
100%	98%	93%	88%	83%	75%	68%	59%	51%	42%	35%	30%	25%	21%	16%	13%	11%	9%	7%	6%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
16,3°				32,9°				{C_ANG}°				98,6%				97,4%			



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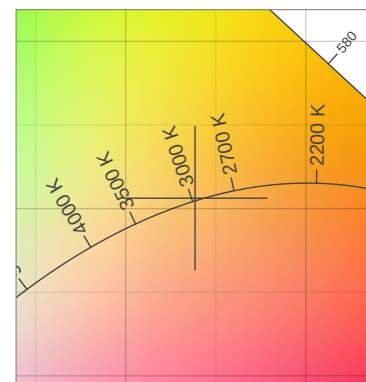
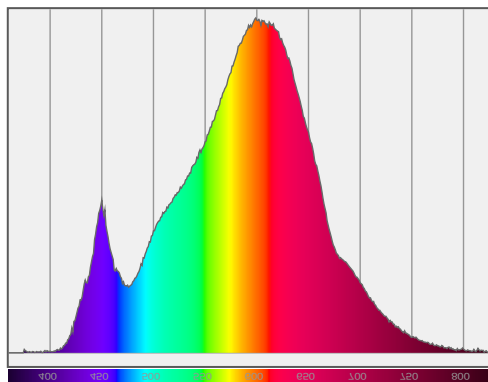
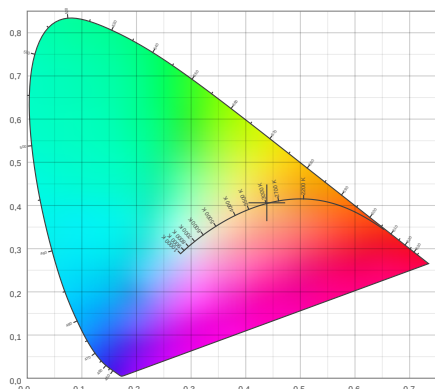
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Color details



CIE 1931

x: 0,439



Spectra

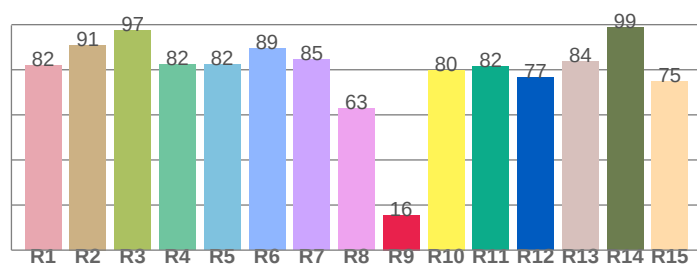
CIE 1931 ZOOM

2994 K

y: 0,406

Δuv : 0,0007

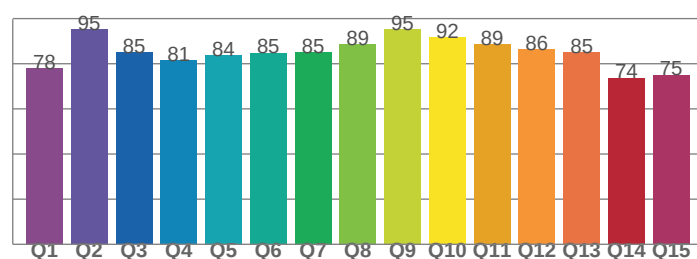
CRI: **84,0** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,9	91,0	97,3	82,3	82,2	89,3	84,7	62,9
R9	R10	R11	R12	R13	R14	R15	
15,6	79,8	81,5	76,7	83,9	98,9	74,7	

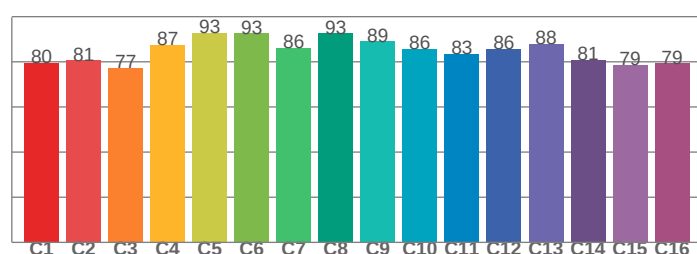
CQS: **83,8**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,1	95,2	84,9	81,3	83,9	84,8	85,2	88,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,4	91,7	88,7	86,4	84,9	73,8	75,1	

TM30: **85,0**



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

C1	C2	C3	C4	C5	C6	C7	C8
79,6	80,6	77,3	87,4	92,8	92,6	86,0	92,5
C9	C10	C11	C12	C13	C14	C15	
89,0	85,6	83,4	85,7	87,8	80,9	78,7	

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
2994 K	84,0	15,6	85,0	96,4	83,8	0,439	0,406	0,251	0,348	0,0007



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TM30 details

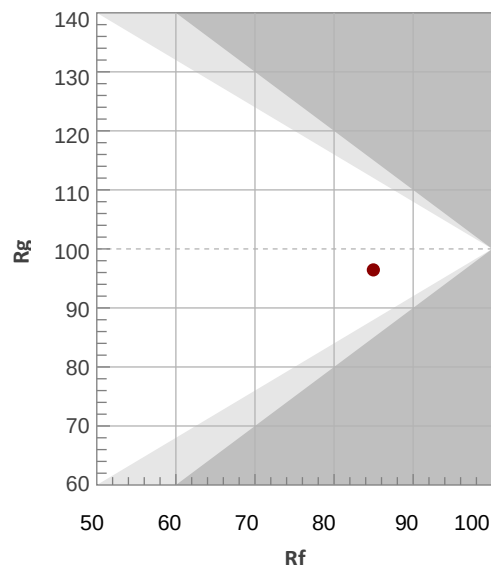
Rf 85,0

Fidelity index Rf

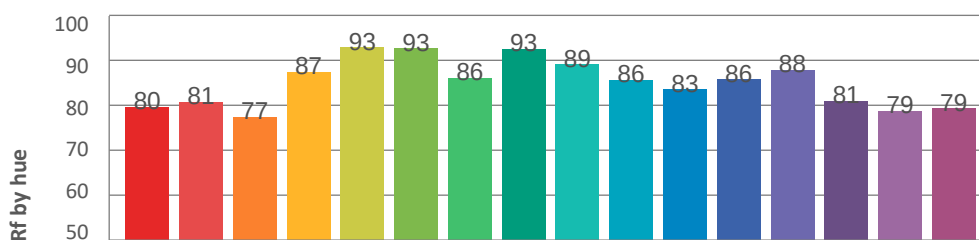
Rg 96,4

Gamut index Rg

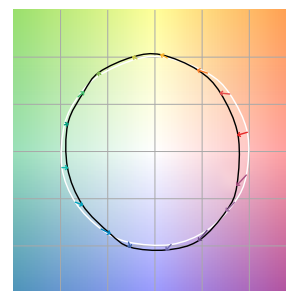
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-10%	-1%
2	81	-8%	6%
3	77	-3%	10%
4	87	2%	7%
5	93	3%	4%
6	93	3%	-2%
7	86	-2%	-8%
8	93	-3%	-2%
9	89	-6%	1%
10	86	-5%	7%
11	83	-1%	10%
12	86	5%	3%
13	88	5%	-6%
14	81	4%	-13%
15	79	-2%	-12%
16	79	-8%	-13%



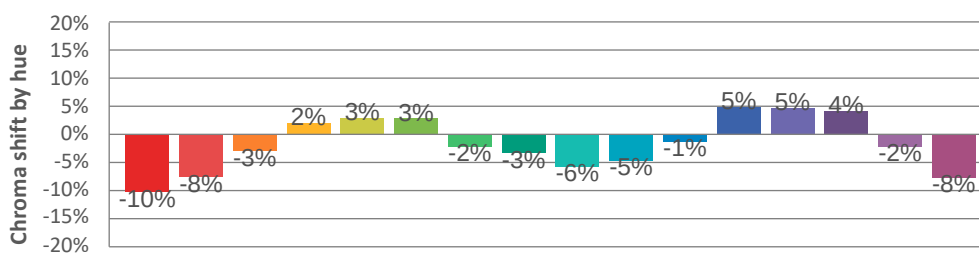
Hue binH



Color vector graphics



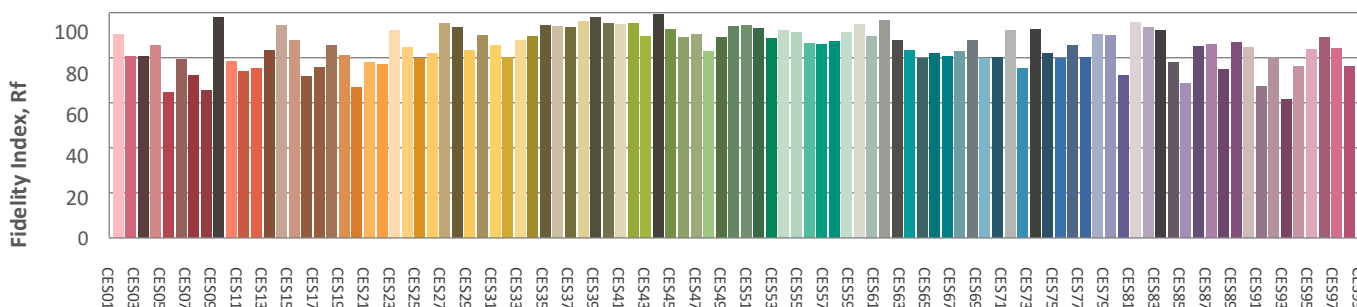
Hue bin



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	7,9	8,6	8,2	8,8	9,0	7,8	8,5	8,1	8,7	8,9
	3H	8,7	9,3	9,0	9,5	9,7	8,5	9,1	8,7	9,3	9,5
	4H	9,0	9,6	9,4	9,9	10,1	8,7	9,3	9,1	9,6	9,8
	6H	9,3	9,8	9,6	10,1	10,4	9,0	9,5	9,3	9,8	10,1
	8H	9,4	9,9	9,7	10,2	10,5	9,1	9,6	9,4	9,9	10,2
	12H	9,4	9,9	9,7	10,2	10,5	9,2	9,7	9,6	10,0	10,3
4H	2H	8,2	8,8	8,5	9,0	9,3	8,1	8,7	8,4	8,9	9,2
	3H	9,1	9,6	9,5	9,9	10,2	8,9	9,4	9,3	9,7	10,0
	4H	9,7	10,1	10,0	10,4	10,8	9,4	9,8	9,7	10,1	10,5
	6H	10,0	10,4	10,4	10,7	11,1	9,7	10,1	10,1	10,4	10,8
	8H	10,1	10,4	10,5	10,8	11,2	9,9	10,2	10,3	10,6	11,0
	12H	10,2	10,4	10,6	10,8	11,3	10,0	10,3	10,5	10,7	11,1
8H	4H	9,8	10,1	10,2	10,5	10,9	9,5	9,8	10,0	10,2	10,6
	6H	10,3	10,5	10,7	10,9	11,4	10,0	10,2	10,5	10,6	11,1
	8H	10,4	10,6	10,9	11,0	11,5	10,2	10,4	10,7	10,9	11,3
	12H	10,5	10,7	11,0	11,1	11,6	10,5	10,6	11,0	11,1	11,6
12H	4H	9,8	10,1	10,2	10,5	10,9	9,5	9,8	10,0	10,2	10,6
	6H	10,3	10,5	10,8	10,9	11,4	10,0	10,2	10,5	10,7	11,1
	8H	10,4	10,6	10,9	11,1	11,6	10,3	10,4	10,8	10,9	11,4
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,9 / -0,7					+1,0 / -0,6				
S = 1,5H		+2,1 / -0,9					+2,1 / -1,1				
S = 2,0H		+3,2 / -1,6					+3,4 / -1,6				
Standard table		BK03					BK04				
Correction summand		-7,7					-7,3				
Corrected glare indices referring to 689lm total luminous flux											



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