

LM-79

Test Report

LM79-REVO-COMPACT-2700K-CRI80-DEG12

General Discription

Item number	RC-1-X-04-1	
Date and time	5-8-2016 11:09:39	
CCT (Kelvin)	2692 K	
Beam angle	15,4°	
Luminous flux	675 lm	
Efficiency	67 lm/watt	
Weighted energy	10,1 kWh/1000h	
Power factor	0,95	
CRI (RA)	83,4	
Fidelity index Rf	Rf 84,2	
Gammut index Rg	Rg 97,0	



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Beam details	1m	2m	3m	4m	5m																			
Lux*	6721 lx	1680 lx	747 lx	420 lx	269 lx																			
*measured at center of beam																								
Footcandles*	624,4 fcd	156,1 fcd	69,4 fcd	39,0 fcd	25,0 fcd																			
Beam width (meter)	0,3 m	0,5 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	4,4 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
6721lx	1680lx	747lx	420lx	269lx	187lx	137lx	105lx	83lx	67lx	56lx	47lx	40lx	34lx	30lx	26lx	23lx	21lx	19lx	17lx					
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					
624,4fcd	156,1fcd	69,4fcd	39fcd	25fcd	17,3fcd	12,7fcd	9,8fcd	7,7fcd	6,2fcd	5,2fcd	4,3fcd	3,7fcd	3,2fcd	2,8fcd	2,4fcd	2,2fcd	1,9fcd	1,7fcd	1,6fcd					
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°					
6721	6420	6055	5691	5326	4926	4358	3783	3208	2632	2106	1809	1512	1215	918	678	580	482	385	287					
100%	96%	90%	85%	79%	73%	65%	56%	48%	39%	31%	27%	23%	18%	14%	10%	9%	7%	6%	4%					
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°					
6721	6430	6065	5699	5333	4927	4354	3772	3191	2609	2083	1788	1497	1206	915	681	583	485	387	290					
100%	96%	90%	85%	79%	73%	65%	56%	47%	39%	31%	27%	22%	18%	14%	10%	9%	7%	6%	4%					
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°					
6721	6420	6055	5691	5326	4926	4358	3783	3208	2632	2106	1809	1512	1215	918	678	580	482	385	287					
100%	96%	90%	85%	79%	73%	65%	56%	48%	39%	31%	27%	23%	18%	14%	10%	9%	7%	6%	4%					
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°					
6721	6430	6065	5699	5333	4927	4354	3772	3191	2609	2083	1788	1497	1206	915	681	583	485	387	290					
100%	96%	90%	85%	79%	73%	65%	56%	47%	39%	31%	27%	22%	18%	14%	10%	9%	7%	6%	4%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
15,4°					30,2°					{C_ANG}°					98,6%					97,5%				



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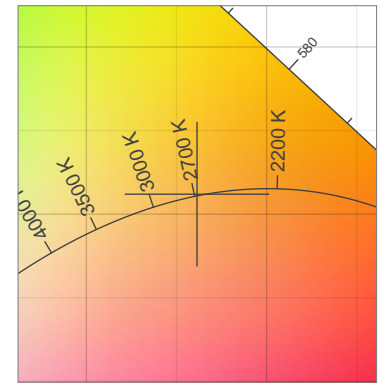
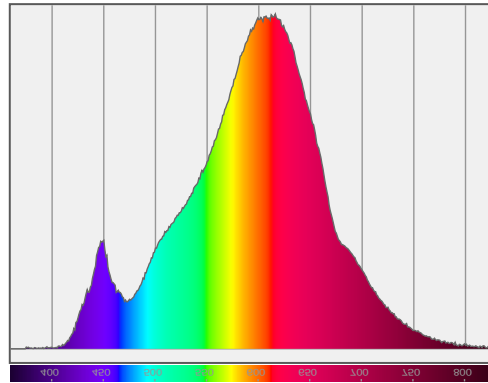
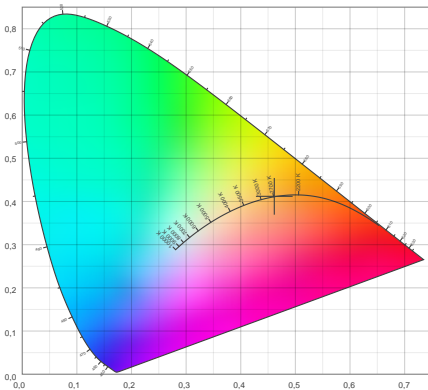
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Color details



CIE 1931

x: 0,461



Spectra

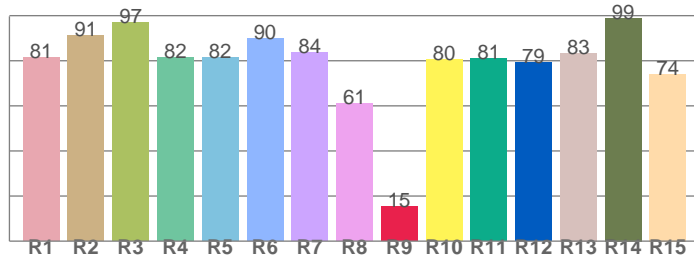
CIE 1931 ZOOM

2692 K

y: 0,412

Δuv : 0,0004

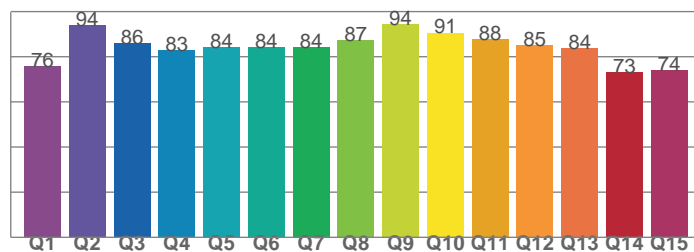
CRI: **83,4** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,4	91,1	97,1	81,5	81,6	90,0	83,5	61,1
R9	R10	R11	R12	R13	R14	R15	
15,4	80,4	80,9	79,1	83,4	98,9	74,1	

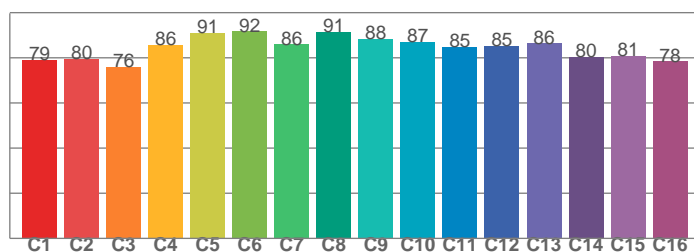
CQS: **83,1**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
75,9	93,9	85,8	82,8	84,4	84,3	84,2	87,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,5	90,6	87,8	85,2	83,8	73,2	73,9	

TM30: **84,2**



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

C1	C2	C3	C4	C5	C6	C7	C8
79,1	79,6	75,8	85,6	91,1	91,6	85,9	91,5
C9	C10	C11	C12	C13	C14	C15	
88,5	87,0	84,8	85,2	86,4	80,4	80,8	

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
2692 K	83,4	15,4	84,2	97,0	83,1	0,461	0,412	0,263	0,352	0,0004



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TM30 details

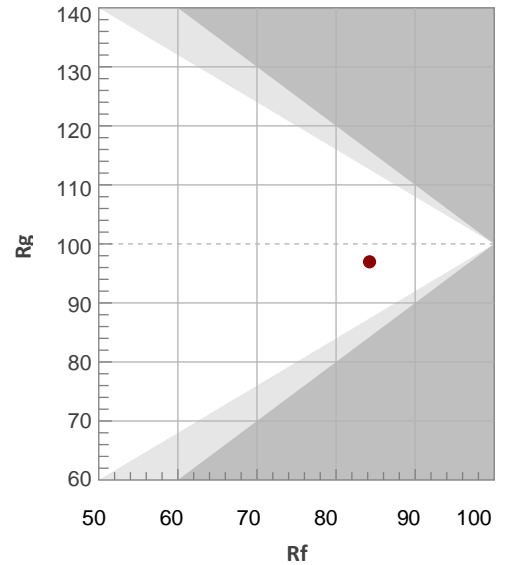
Rf 84,2

Fidelity index Rf

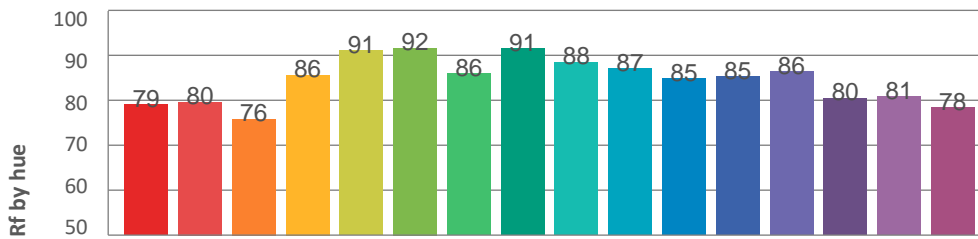
Rg 97,0

Gamut index Rg

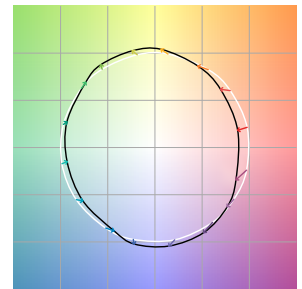
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	79	-10%	-1%
2	80	-8%	7%
3	76	-3%	11%
4	86	3%	8%
5	91	5%	4%
6	92	5%	-1%
7	86	0%	-8%
8	91	-3%	-3%
9	88	-6%	-1%
10	87	-5%	5%
11	85	-2%	9%
12	85	5%	2%
13	86	5%	-7%
14	80	4%	-14%
15	81	-1%	-11%
16	78	-9%	-12%



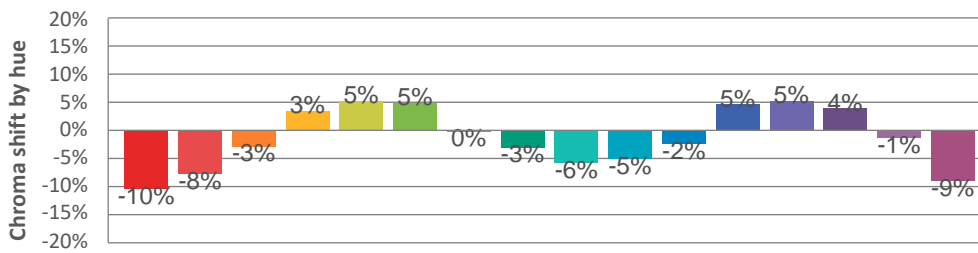
Hue binH



Color vector graphics



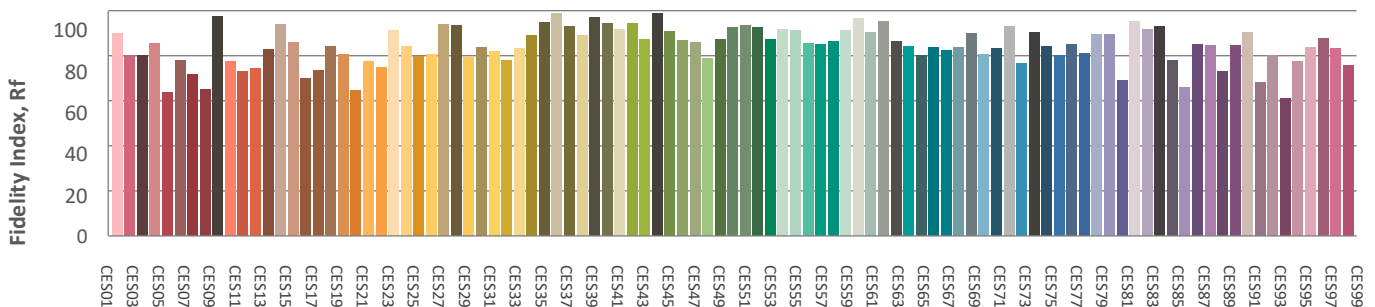
Hue bin



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	7,3	8,0	7,5	8,2	8,4	7,3	8,0	7,6	8,2	8,4
	3H	8,0	8,6	8,3	8,9	9,1	7,9	8,5	8,2	8,7	9,0
	4H	8,3	8,9	8,6	9,2	9,4	8,2	8,7	8,5	9,0	9,3
	6H	8,6	9,1	8,9	9,4	9,7	8,4	8,9	8,7	9,2	9,5
	8H	8,7	9,2	9,0	9,5	9,8	8,5	9,0	8,8	9,3	9,6
	12H	8,8	9,2	9,1	9,5	9,9	8,6	9,0	8,9	9,4	9,7
4H	2H	7,6	8,2	7,9	8,5	8,7	7,6	8,2	8,0	8,5	8,7
	3H	8,5	9,0	8,9	9,3	9,6	8,4	8,8	8,7	9,2	9,5
	4H	8,9	9,3	9,3	9,7	10,0	8,8	9,2	9,1	9,5	9,9
	6H	9,3	9,6	9,7	10,0	10,4	9,1	9,5	9,5	9,8	10,2
	8H	9,4	9,7	9,9	10,1	10,5	9,3	9,6	9,7	9,9	10,4
	12H	9,6	9,8	10,0	10,2	10,7	9,4	9,6	9,8	10,1	10,5
8H	4H	9,1	9,4	9,5	9,7	10,2	8,9	9,2	9,3	9,6	10,0
	6H	9,5	9,8	10,0	10,2	10,6	9,4	9,6	9,8	10,0	10,5
	8H	9,7	9,9	10,2	10,4	10,9	9,6	9,8	10,1	10,2	10,7
	12H	10,0	10,1	10,5	10,6	11,1	9,8	9,9	10,3	10,4	10,9
12H	4H	9,1	9,3	9,5	9,7	10,2	8,9	9,2	9,3	9,6	10,0
	6H	9,6	9,7	10,0	10,2	10,7	9,4	9,6	9,9	10,1	10,5
	8H	9,8	9,9	10,3	10,4	10,9	9,6	9,8	10,1	10,3	10,8
Variation of the observer position for the luminaire distance S											
S = 1,0H	+0,9 / -0,6					+0,9 / -0,6					
S = 1,5H	+1,9 / -1,0					+2,0 / -0,9					
S = 2,0H	+3,1 / -1,5					+3,1 / -1,8					
Standard table	BK04					BK03					
Correction summand	-7,9					-8,5					
Corrected glare indices referring to 675lm total luminous flux											

