

LM-79

Test Report

LM79-REVO-COMPACT-2700K-CRI80-DEG8

General Discription

Item number	RC-1-X-04-5
Date and time	5-8-2016 11:04:34
CCT (Kelvin)	2704 K
Beam angle	11,9°
Luminous flux	668 lm
Efficiency	66 lm/watt
Weighted energy	10,1 kWh/1000h
Power factor	0,95
CRI (RA)	83,5
Fidelity index Rf	Rf 84,0
Gammut index Rg	Rg 97,2



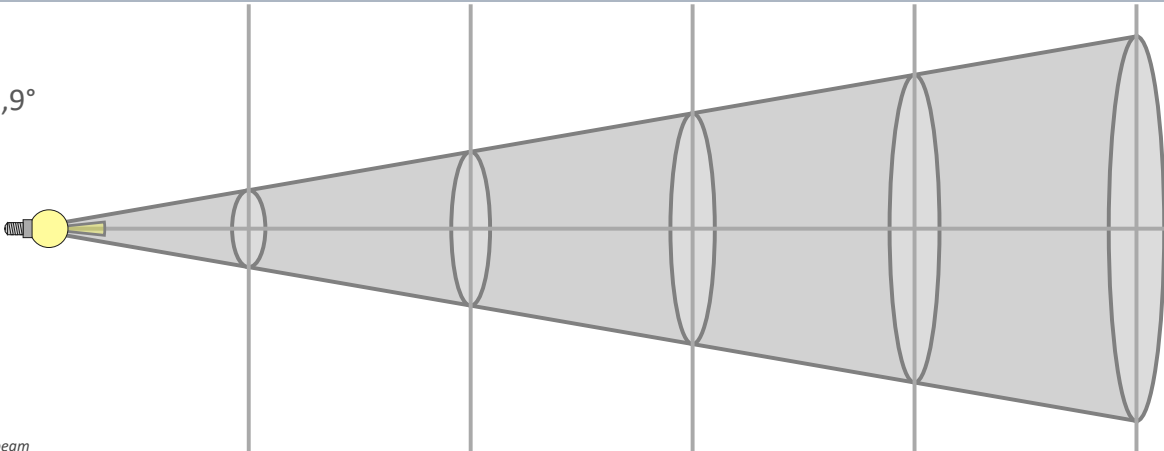
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Beam details		1m		2m		3m		4m		5m									
Lux*		9632 lx		2408 lx		1070 lx		602 lx		385 lx									
11,9° 																			
*measured at center of beam																			
Footcandles*		894,9 fcd		223,7 fcd		99,4 fcd		55,9 fcd		35,8 fcd									
Beam width (meter)		0,2 m		0,4 m		0,6 m		0,8 m		1 m									
Beam width (Feet)		0,7 ft		1,4 ft		2,1 ft		2,7 ft		3,4 ft									
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
9632lx	2408lx	1070lx	602lx	385lx	268lx	197lx	151lx	119lx	96lx	80lx	67lx	57lx	49lx	43lx	38lx	33lx	30lx	27lx	24lx
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
894,9fcd	223,7fcd	99,4fcd	55,9fcd	35,8fcd	24,9fcd	18,3fcd	14fcd	11fcd	8,9fcd	7,4fcd	6,2fcd	5,3fcd	4,6fcd	4fcd	3,5fcd	3,1fcd	2,8fcd	2,5fcd	2,2fcd
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°
9632	8823	7973	7123	6273	5434	4720	4006	3291	2577	1940	1640	1341	1042	742	502	424	347	269	191
100%	92%	83%	74%	65%	56%	49%	42%	34%	27%	20%	17%	14%	11%	8%	5%	4%	4%	3%	2%
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°
9632	9224	8347	7469	6592	5697	4872	4110	3347	2585	2007	1641	1346	1050	754	553	446	364	282	200
100%	96%	87%	78%	68%	59%	51%	43%	35%	27%	21%	17%	14%	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°
9632	8823	7973	7123	6273	5434	4720	4006	3291	2577	1940	1640	1341	1042	742	502	424	347	269	191
100%	92%	83%	74%	65%	56%	49%	42%	34%	27%	20%	17%	14%	11%	8%	5%	4%	4%	3%	2%
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°
9632	9224	8347	7469	6592	5697	4872	4110	3347	2585	2007	1641	1346	1050	754	553	446	364	282	200
100%	96%	87%	78%	68%	59%	51%	43%	35%	27%	21%	17%	14%	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			
11,9°				26,6°				{C_ANG}°				98,9%				98,0%			



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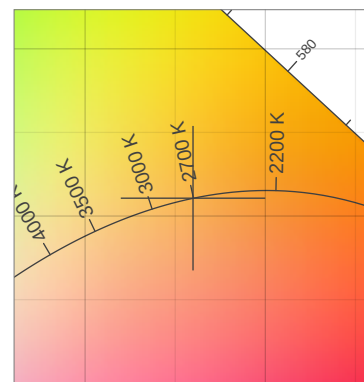
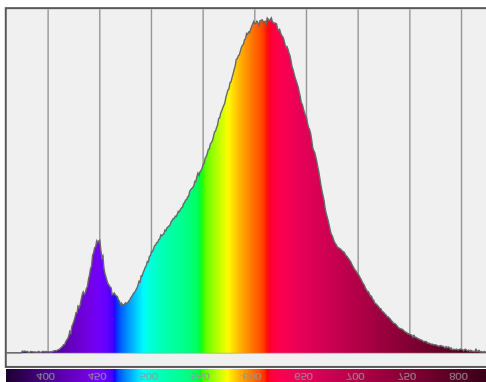
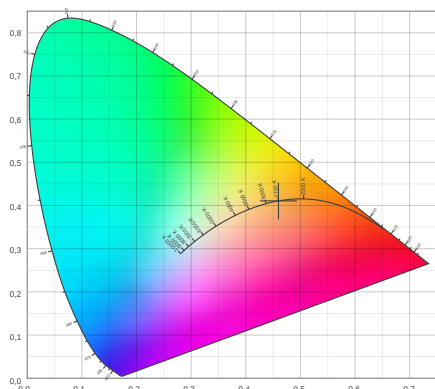
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Color details



CIE 1931

x: 0,460

2704 K

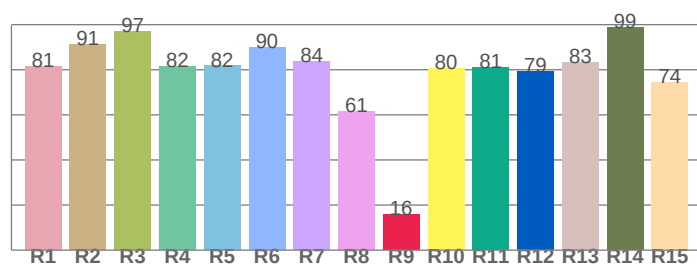
y: 0,411

Spectra

CIE 1931 ZOOM

 Δuv : 0,0002

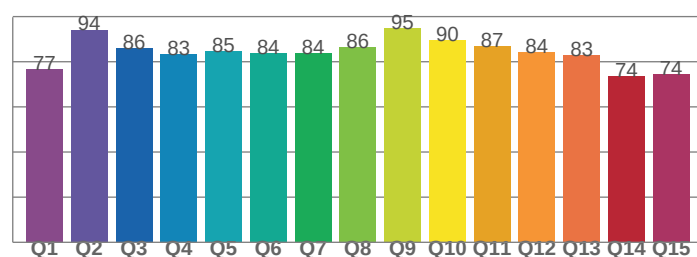
CRI: 83,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
81,5	91,2	97,0	81,6	81,7	90,0	83,6	61,4
R9	R10	R11	R12	R13	R14	R15	
15,8	80,5	80,9	79,2	83,5	98,9	74,3	

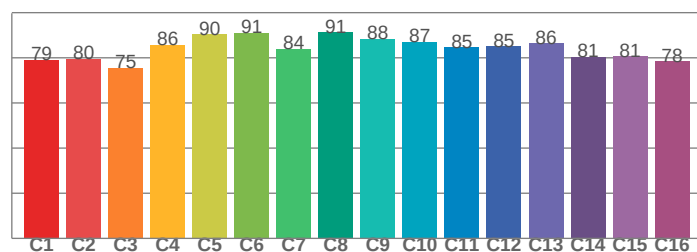
CQS: 83,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
76,8	94,2	86,1	83,5	84,5	83,8	83,7	86,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,7	89,7	86,7	84,1	83,0	73,5	74,4	

TM30: 84,0



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

C1	C2	C3	C4	C5	C6	C7	C8
79,2	79,6	75,4	85,8	90,3	91,0	83,9	91,2
C9	C10	C11	C12	C13	C14	C15	
88,4	86,9	84,6	85,1	86,4	80,5	80,7	

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
2704 K	83,5	15,8	84,0	97,2	83,1	0,460	0,411	0,262	0,352	0,0002



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TM30 details

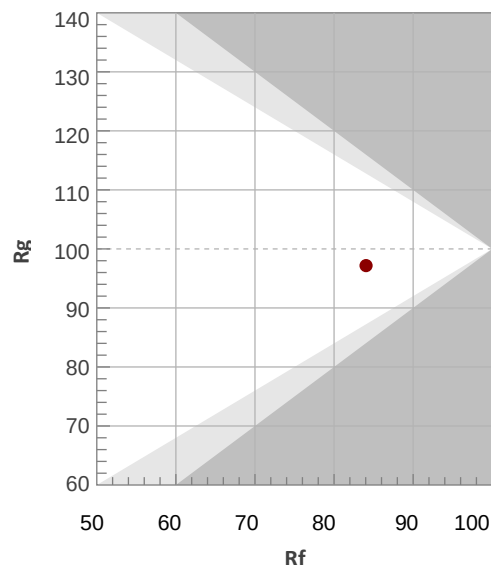
Rf 84,0

Fidelity index R_f

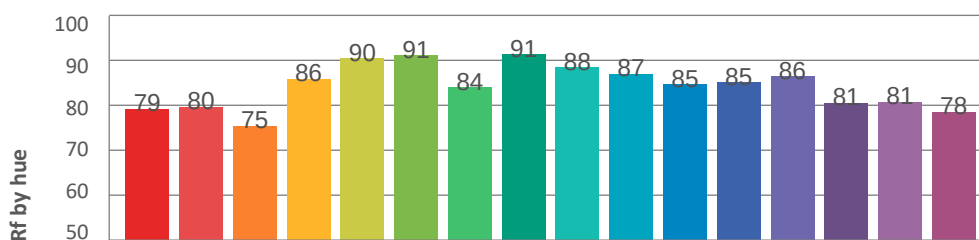
Rg 97,2

Gammut index Rg

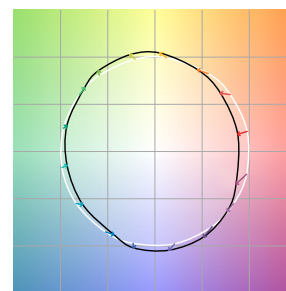
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-10%	-1%
2	80	-8%	7%
3	75	-3%	11%
4	86	4%	8%
5	90	6%	4%
6	91	5%	-2%
7	84	0%	-10%
8	91	-3%	-3%
9	88	-6%	-1%
10	87	-5%	5%
11	85	-3%	9%
12	85	5%	2%
13	86	5%	-7%
14	81	4%	-14%
15	81	-1%	-11%
16	78	-9%	-12%



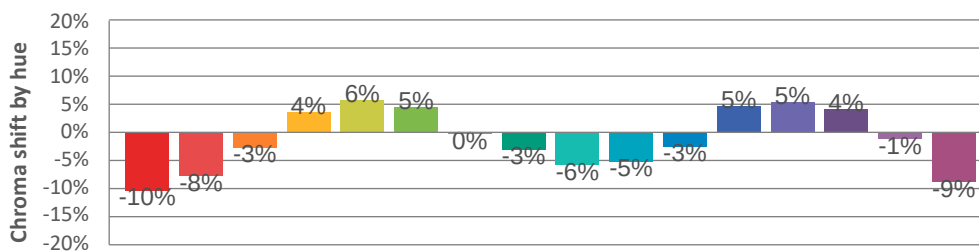
Hue binH



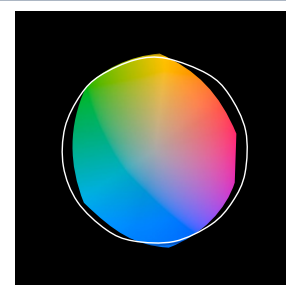
Color vector graphics



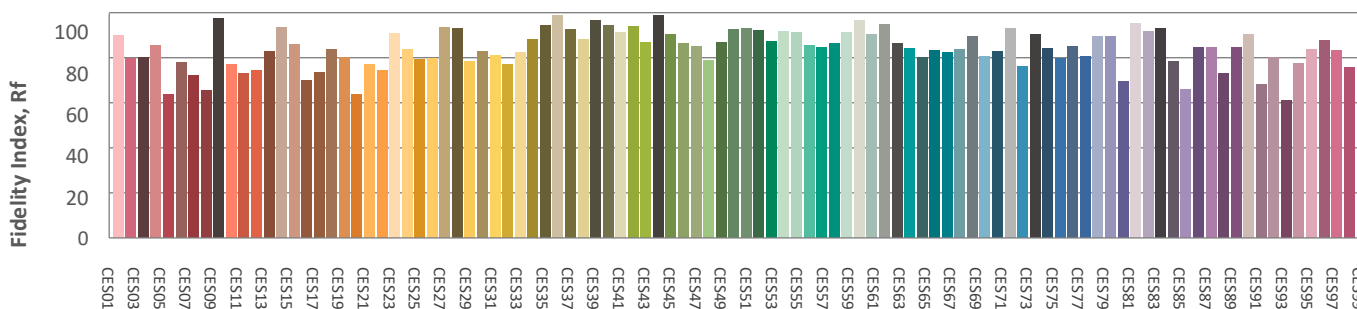
Hue bin



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

Variation of the observer position for the luminaire distance S

S = 1,0H	+0,8 / -0,8	+1,0 / -0,8
S = 1,5H	+2,0 / -1,3	+2,1 / -1,3
S = 2,0H	+3,3 / -1,9	+3,6 / -1,8
Standard table	BK04	BK03
Correction summand	-9,7	-10,1

Corrected glare indices referring to 668lm total luminous flux

