

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-5000K-CRI80-DEG30

General Discription

Item number	RC-I-2-06-3
Date and time	5-8-2016 13:21:28
CCT (Kelvin)	4796 K
Beam angle	29,1°
Luminous flux	514 lm
Efficiency	51 lm/watt
Weighted energy	10,1 kWh/1000h
Power factor	0,95
CRI (RA)	86,3
Fidelity index Rf	Rf 85,7
Gammut index Rg	Rg 97,4



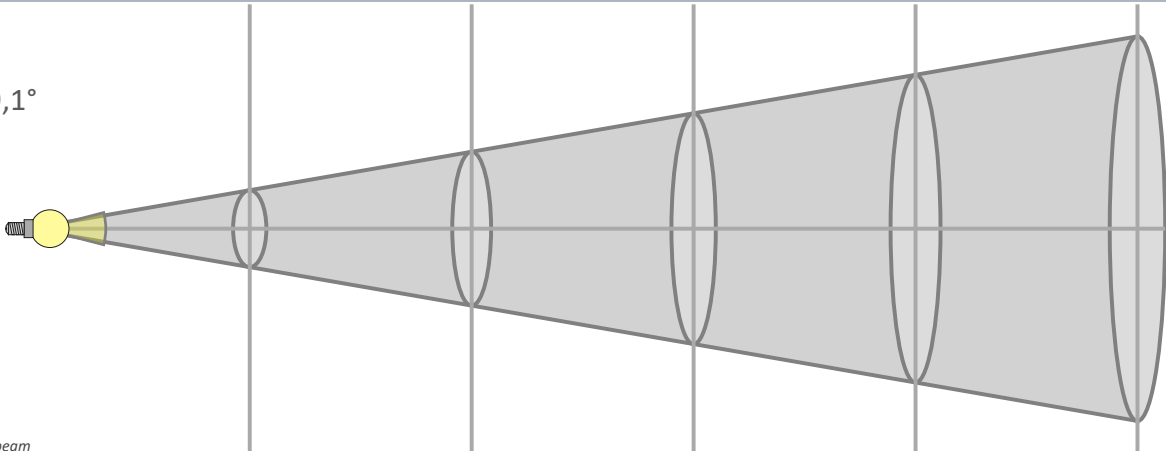
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Beam details					1m		2m		3m		4m		5m											
Lux*					1630 lx		407 lx		181 lx		102 lx		65 lx											
29,1° 																								
*measured at center of beam																								
Footcandles*					151,4 fcd		37,9 fcd		16,8 fcd		9,5 fcd		6,1 fcd											
Beam width (meter)					0,5 m		1 m		1,6 m		2,1 m		2,6 m											
Beam width (Feet)					1,7 ft		3,4 ft		5,1 ft		6,8 ft		8,5 ft											
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
1630lx	407lx	181lx	102lx	65lx	45lx	33lx	25lx	20lx	16lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx	4lx					
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					
151,4fcd	37,9fcd	16,8fcd	9,5fcd	6,1fcd	4,2fcd	3,1fcd	2,4fcd	1,9fcd	1,5fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,4fcd					
Intensities in 0° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
1630	1598	1545	1439	1295	1147	994	843	700	565	440	340	247	184	137	98	74	54	41	32					
100%	98%	95%	88%	79%	70%	61%	52%	43%	35%	27%	21%	15%	11%	8%	6%	5%	3%	3%	2%					
Intensities in 90° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
1630	1611	1547	1442	1307	1159	1009	864	726	595	474	365	273	199	145	107	78	58	43	33					
100%	99%	95%	88%	80%	71%	62%	53%	45%	37%	29%	22%	17%	12%	9%	7%	5%	4%	3%	2%					
Intensities in 180° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
1630	1598	1545	1439	1295	1147	994	843	700	565	440	340	247	184	137	98	74	54	41	32					
100%	98%	95%	88%	79%	70%	61%	52%	43%	35%	27%	21%	15%	11%	8%	6%	5%	3%	3%	2%					
Intensities in 270° c-plane																								
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°					
1630	1611	1547	1442	1307	1159	1009	864	726	595	474	365	273	199	145	107	78	58	43	33					
100%	99%	95%	88%	80%	71%	62%	53%	45%	37%	29%	22%	17%	12%	9%	7%	5%	4%	3%	2%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
29,1°					54,2°					{C_ANG}°					97,8%					95,6%				



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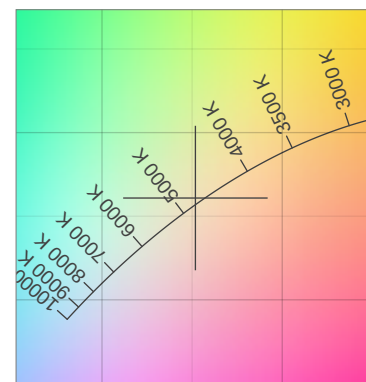
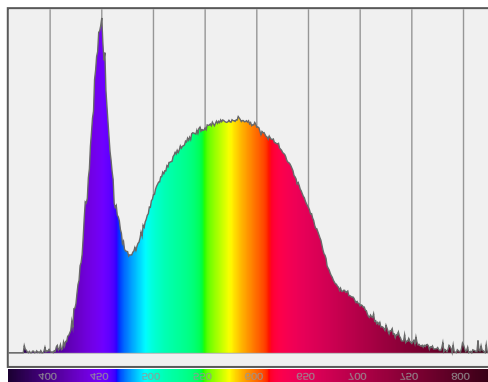
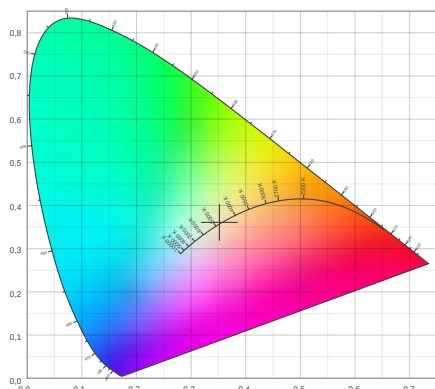
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Color details



CIE 1931

x: 0,352



Spectra

CIE 1931 ZOOM

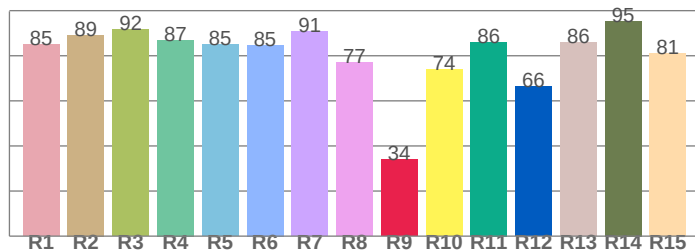
4796 K

y: 0,361

Δuv : 0,0020

CRI: 86,3 (R1-R8)

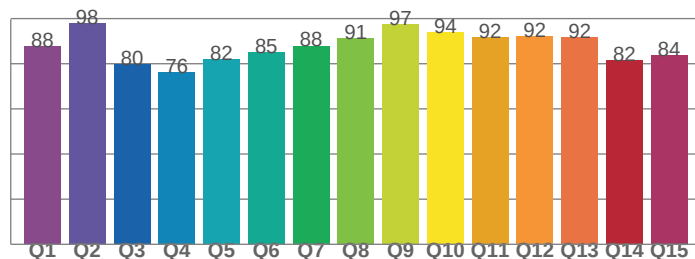
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
85,1	89,2	91,8	87,0	85,1	84,7	90,8	76,9
R9	R10	R11	R12	R13	R14	R15	
33,9	73,9	86,1	66,2	85,9	95,4	80,9	

CQS: 86,5

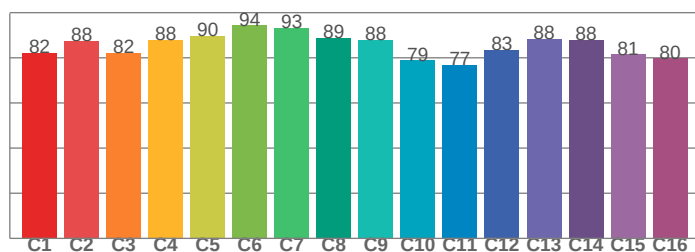
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
87,6	98,0	79,7	76,2	81,9	84,9	88,0	91,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,5	93,8	91,9	92,0	91,6	81,7	83,8	

TM30: 85,7

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



C1	C2	C3	C4	C5	C6	C7	C8
82,3	87,6	82,3	88,1	89,8	94,3	93,3	88,9
C9	C10	C11	C12	C13	C14	C15	
87,8	78,9	77,0	83,5	88,4	88,0	81,4	

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
4796 K	86,3	33,9	85,7	97,4	86,5	0,352	0,361	0,212	0,327	0,0020



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TM30 details

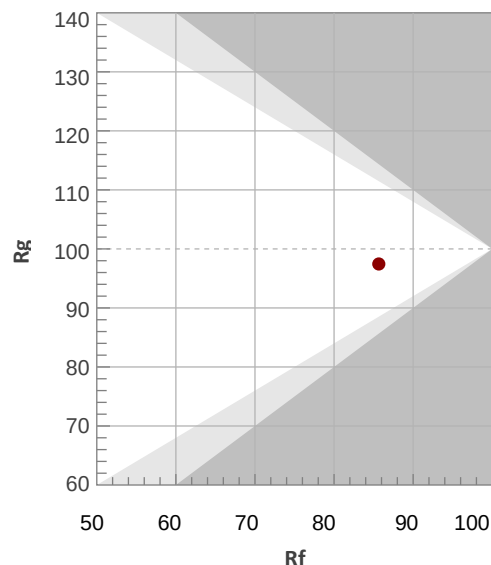
Rf 85,7

Fidelity index Rf

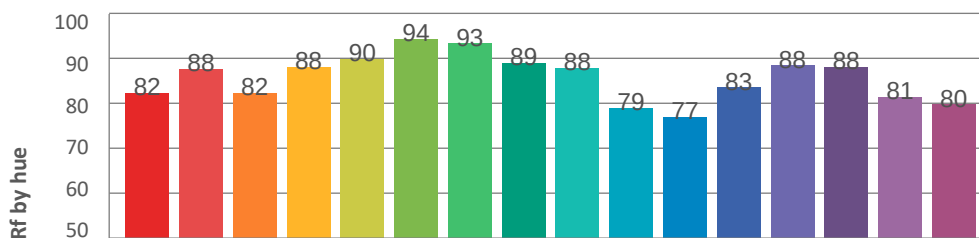
Rg 97,4

Gamut index Rg

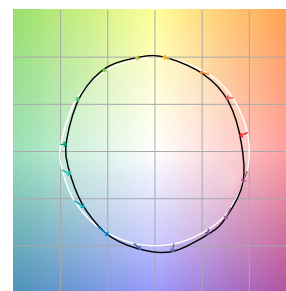
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-8%	-2%
2	88	-6%	4%
3	82	-3%	8%
4	88	0%	6%
5	90	1%	4%
6	94	3%	-1%
7	93	-2%	-3%
8	89	-5%	-1%
9	88	-7%	6%
10	79	-5%	11%
11	77	1%	13%
12	83	5%	7%
13	88	7%	-3%
14	88	4%	-4%
15	81	1%	-12%
16	80	-2%	-12%



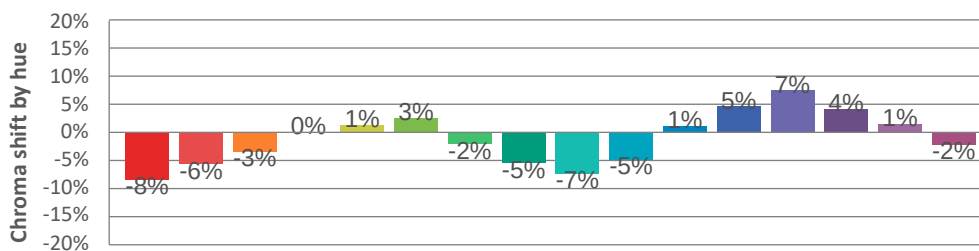
Hue binH



Color vector graphics



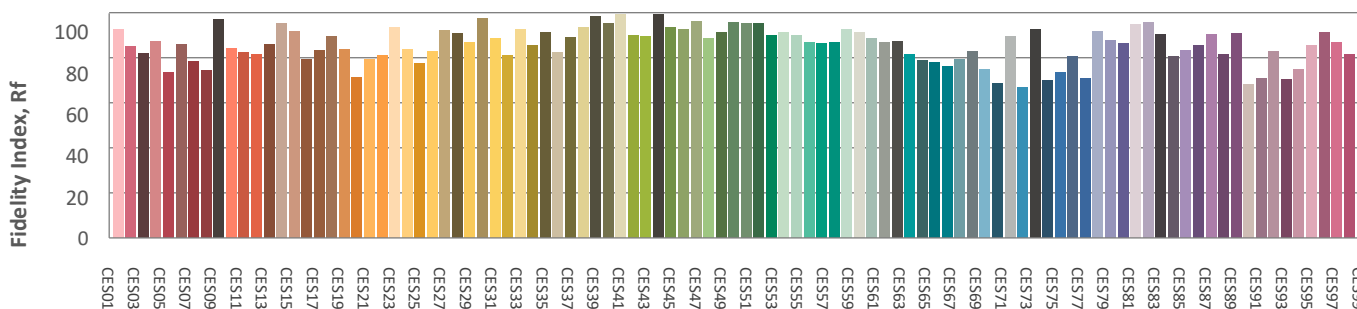
Hue bin



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	12,2	12,9	12,5	13,1	13,3	12,4	13,0	12,6	13,2	13,5
	3H	12,6	13,2	12,9	13,4	13,7	12,7	13,3	13,0	13,6	13,8
	4H	12,7	13,3	13,0	13,5	13,8	12,8	13,4	13,1	13,7	13,9
	6H	12,7	13,3	13,1	13,5	13,9	12,9	13,5	13,3	13,8	14,1
	8H	12,7	13,2	13,1	13,6	13,9	13,0	13,5	13,3	13,8	14,1
	12H	12,7	13,2	13,1	13,6	13,9	13,0	13,5	13,4	13,8	14,2
4H	2H	12,3	12,9	12,7	13,2	13,5	12,5	13,0	12,8	13,3	13,6
	3H	12,8	13,3	13,2	13,6	13,9	12,9	13,4	13,3	13,7	14,0
	4H	13,0	13,4	13,4	13,7	14,1	13,1	13,5	13,5	13,9	14,2
	6H	13,1	13,4	13,5	13,8	14,2	13,3	13,7	13,7	14,0	14,4
	8H	13,1	13,4	13,6	13,8	14,2	13,4	13,7	13,8	14,1	14,5
	12H	13,2	13,4	13,6	13,9	14,3	13,5	13,8	13,9	14,2	14,6
8H	4H	13,0	13,3	13,4	13,7	14,1	13,1	13,5	13,6	13,8	14,3
	6H	13,2	13,4	13,6	13,8	14,3	13,4	13,6	13,9	14,1	14,5
	8H	13,3	13,4	13,7	13,9	14,4	13,5	13,7	14,0	14,2	14,7
	12H	13,4	13,5	13,9	14,0	14,5	13,7	13,9	14,2	14,3	14,9
12H	4H	13,0	13,2	13,4	13,7	14,1	13,1	13,4	13,6	13,8	14,2
	6H	13,2	13,4	13,7	13,8	14,3	13,4	13,6	13,9	14,1	14,5
	8H	13,3	13,4	13,8	13,9	14,4	13,6	13,7	14,1	14,2	14,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+2,6 / -1,6					+2,5 / -1,5				
S = 1,5H		+4,7 / -2,2					+4,6 / -2,0				
S = 2,0H		+6,5 / -2,8					+6,4 / -2,7				
Standard table		BK02					BK02				
Correction summand		-4,7					-4,5				
Corrected glare indices referring to 514lm total luminous flux											



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