

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-5000K-CRI80-DEG12

General Discription

Item number	RC-I-2-06-1	
Date and time	5-8-2016 12:32:11	
CCT (Kelvin)	4793 K	
Beam angle	16,9°	
Luminous flux	549 lm	
Efficiency	54 lm/watt	
Weighted energy	10,1 kWh/1000h	
Power factor	0,95	
CRI (RA)	86,4	
Fidelity index Rf	Rf 85,7	
Gammut index Rg	Rg 97,4	



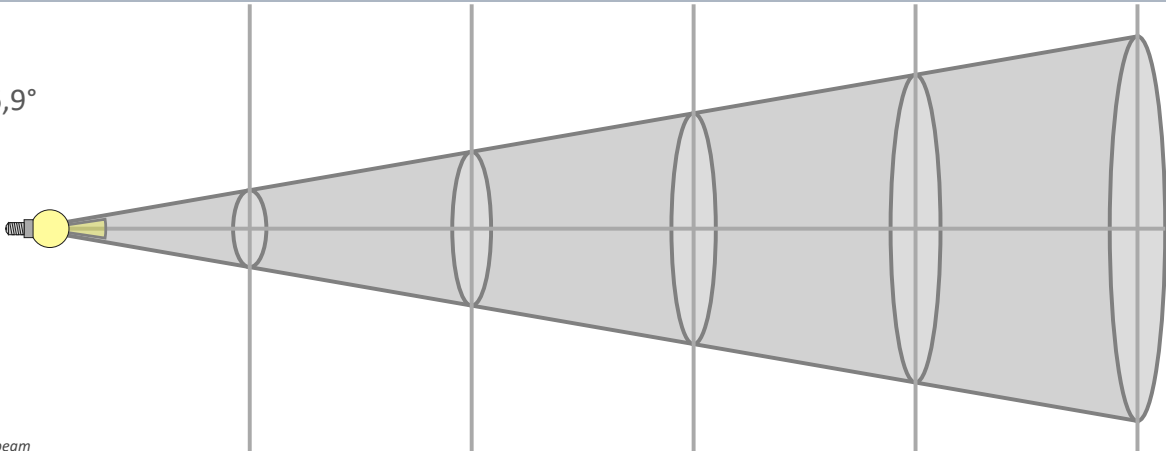
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Beam details					1m		2m		3m		4m		5m						
Lux*					4598 lx		1149 lx		511 lx		287 lx		184 lx						
16,9° 																			
*measured at center of beam																			
Footcandles*					427,1 fcd		106,8 fcd		47,5 fcd		26,7 fcd		17,1 fcd						
Beam width (meter)					0,3 m		0,6 m		0,9 m		1,2 m		1,5 m						
Beam width (Feet)					1 ft		1,9 ft		2,9 ft		3,9 ft		4,9 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
4598lx	1149lx	511lx	287lx	184lx	128lx	94lx	72lx	57lx	46lx	38lx	32lx	27lx	23lx	20lx	18lx	16lx	14lx	13lx	11lx
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
427,1fcd	106,8fcd	47,5fcd	26,7fcd	17,1fcd	11,9fcd	8,7fcd	6,7fcd	5,3fcd	4,3fcd	3,5fcd	3fcd	2,5fcd	2,2fcd	1,9fcd	1,7fcd	1,5fcd	1,3fcd	1,2fcd	1,1fcd
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°
4598	4598	4568	4345	3970	3572	3175	2780	2402	2077	1759	1440	1138	919	779	647	516	392	308	259
100%	100%	99%	95%	86%	78%	69%	60%	52%	45%	38%	31%	25%	20%	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°
4598	4598	4598	4452	4111	3709	3307	2905	2517	2143	1854	1580	1306	1082	906	730	563	460	380	322
100%	100%	100%	97%	89%	81%	72%	63%	55%	47%	40%	34%	28%	24%	20%	16%	12%	10%	8%	7%
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°
4598	4598	4568	4345	3970	3572	3175	2780	2402	2077	1759	1440	1138	919	779	647	516	392	308	259
100%	100%	99%	95%	86%	78%	69%	60%	52%	45%	38%	31%	25%	20%	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°
4598	4598	4598	4452	4111	3709	3307	2905	2517	2143	1854	1580	1306	1082	906	730	563	460	380	322
100%	100%	100%	97%	89%	81%	72%	63%	55%	47%	40%	34%	28%	24%	20%	16%	12%	10%	8%	7%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
16,9°				33,5°				{C_ANG}°				98,6%				97,6%			



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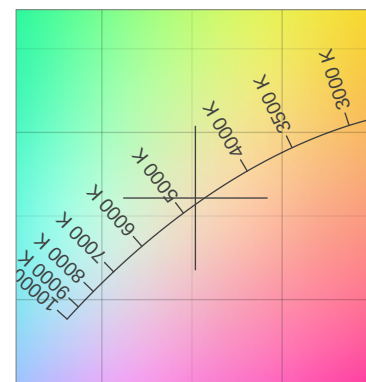
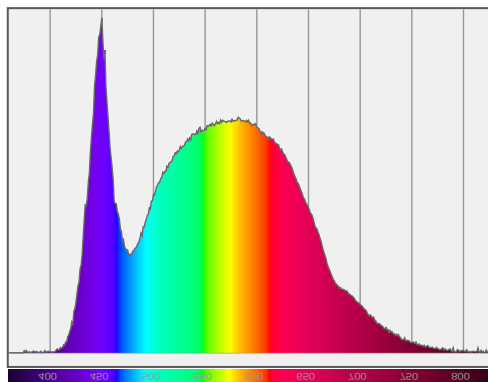
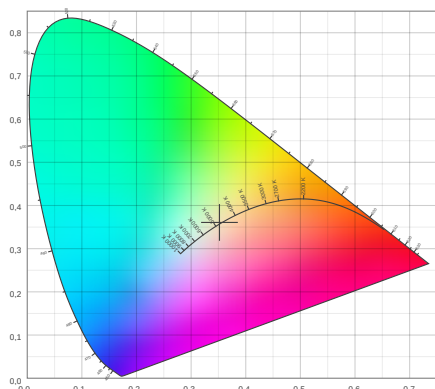
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Color details



CIE 1931

x: 0,352

4793 K

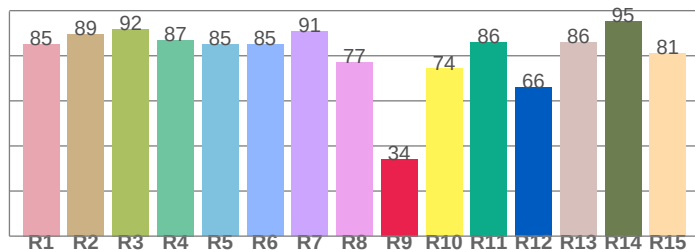
y: 0,361

Spectra

CIE 1931 ZOOM

Δuv : 0,0019

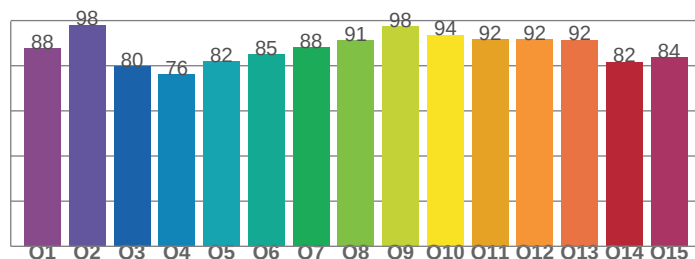
CRI: 86,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
85,2	89,3	91,9	87,0	85,1	84,9	90,9	77,0
R9	R10	R11	R12	R13	R14	R15	
34,2	74,2	86,1	66,2	86,0	95,5	81,0	

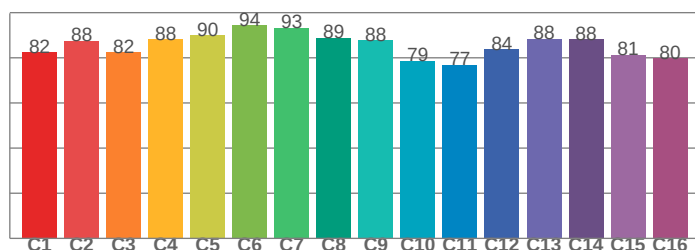
CQS: 86,5



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
87,8	98,1	79,8	76,3	81,9	84,9	88,0	91,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,5	93,7	91,7	91,9	91,5	81,7	83,9	

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	82,4	88,2	89,9	94,4	93,2	88,8
C9	C10	C11	C12	C13	C14	C15	
87,6	78,7	76,9	83,6	88,4	88,1	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
4793 K	86,4	34,2	85,7	97,4	86,5	0,352	0,361	0,212	0,327	0,0019



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TM30 details

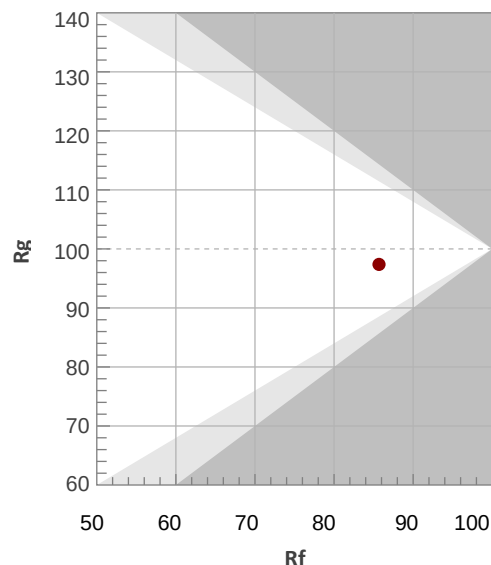
Rf 85,7

Fidelity index Rf

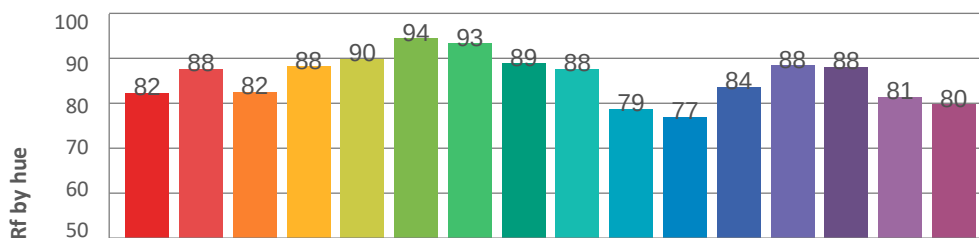
Rg 97,4

Gamut index Rg

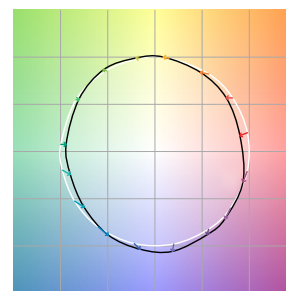
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-8%	-1%
2	88	-6%	4%
3	82	-3%	8%
4	88	0%	6%
5	90	1%	4%
6	94	2%	-1%
7	93	-2%	-3%
8	89	-6%	-1%
9	88	-7%	6%
10	79	-5%	11%
11	77	1%	13%
12	84	5%	7%
13	88	7%	-3%
14	88	4%	-4%
15	81	1%	-12%
16	80	-2%	-12%



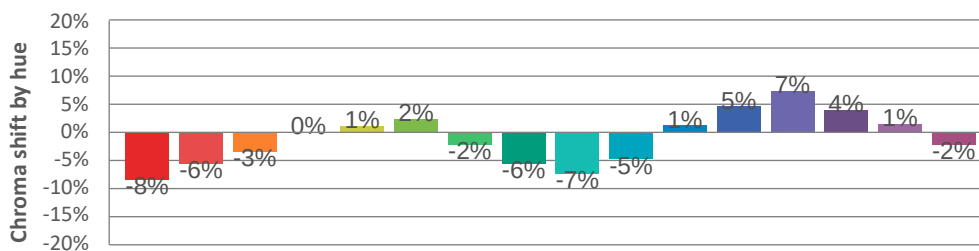
Hue binH



Color vector graphics



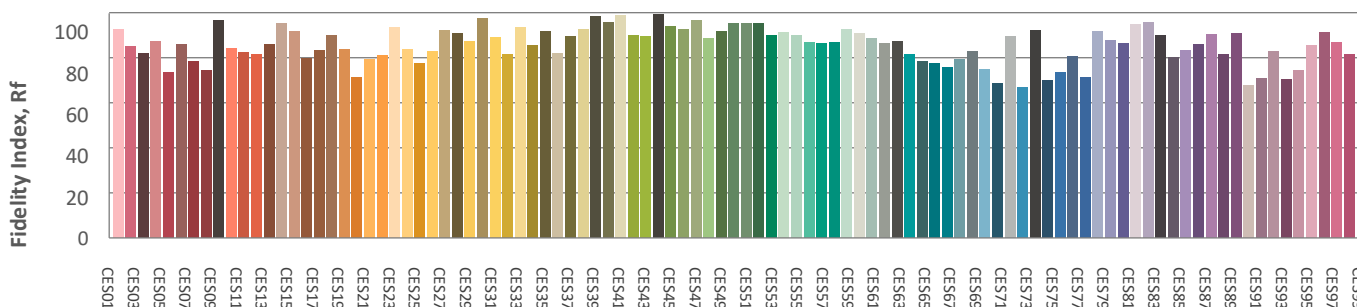
Hue bin



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	6,5	7,1	6,7	7,3	7,5	6,2	6,9	6,5	7,1	7,3
	3H	7,0	7,6	7,3	7,9	8,1	6,9	7,5	7,2	7,7	7,9
	4H	7,2	7,8	7,6	8,1	8,3	7,2	7,8	7,5	8,0	8,3
	6H	7,5	8,0	7,8	8,3	8,6	7,4	8,0	7,8	8,2	8,5
	8H	7,6	8,1	7,9	8,4	8,7	7,6	8,1	7,9	8,4	8,7
	12H	7,7	8,2	8,1	8,5	8,8	7,7	8,2	8,1	8,5	8,8
4H	2H	6,7	7,3	7,0	7,5	7,8	6,5	7,1	6,8	7,3	7,6
	3H	7,4	7,9	7,8	8,2	8,5	7,3	7,8	7,7	8,1	8,4
	4H	7,8	8,2	8,1	8,5	8,9	7,8	8,2	8,1	8,5	8,9
	6H	8,1	8,4	8,5	8,8	9,2	8,1	8,5	8,5	8,8	9,2
	8H	8,3	8,6	8,7	9,0	9,4	8,3	8,6	8,7	9,0	9,4
	12H	8,5	8,8	9,0	9,2	9,6	8,6	8,8	9,0	9,3	9,7
8H	4H	7,9	8,2	8,3	8,6	9,0	7,9	8,2	8,3	8,6	9,0
	6H	8,3	8,5	8,8	9,0	9,4	8,4	8,6	8,8	9,0	9,5
	8H	8,6	8,8	9,1	9,2	9,7	8,7	8,9	9,1	9,3	9,8
	12H	9,0	9,1	9,5	9,6	10,1	9,1	9,2	9,6	9,7	10,2
12H	4H	7,9	8,1	8,3	8,5	9,0	7,9	8,1	8,3	8,5	9,0
	6H	8,4	8,6	8,8	9,0	9,5	8,4	8,6	8,9	9,0	9,5
	8H	8,7	8,9	9,2	9,3	9,8	8,8	8,9	9,3	9,4	9,9

Variation of the observer position for the luminaire distance S

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

Corrected glare indices referring to 549lm total luminous flux



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