

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-3000K-CRI80-DEG30

General Discription

Item number	RC-I-2-03-3
Date and time	5-8-2016 11:40:41
CCT (Kelvin)	2998 K
Beam angle	29,3°
Luminous flux	666 lm
Efficiency	67 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 96,5



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Beam details		1m	2m	3m	4m	5m
Lux*		2113 lx	528 lx	235 lx	132 lx	85 lx

29,3°

*measured at center of beam

Footcandles*	196,3 fcd	49,1 fcd	21,8 fcd	12,3 fcd	7,9 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	6,9 ft	8,6 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2113lx	528lx	235lx	132lx	85lx	59lx	43lx	33lx	26lx	21lx	17lx	15lx	13lx	11lx	9lx	8lx	7lx	7lx	6lx	5lx
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
196,3fcd	49,1fcd	21,8fcd	12,3fcd	7,9fcd	5,5fcd	4fcd	3,1fcd	2,4fcd	2fcd	1,6fcd	1,4fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd

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°
2113	2064	1993	1858	1674	1488	1302	1116	940	770	607	474	345	259	190	133	102	72	55	42
100%	98%	94%	88%	79%	70%	62%	53%	45%	36%	29%	22%	16%	12%	9%	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°
2113	2105	2005	1868	1703	1504	1305	1113	924	745	586	438	332	240	174	133	96	74	56	43
100%	100%	95%	88%	81%	71%	62%	53%	44%	35%	28%	21%	16%	11%	8%	6%	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°
2113	2064	1993	1858	1674	1488	1302	1116	940	770	607	474	345	259	190	133	102	72	55	42
100%	98%	94%	88%	79%	70%	62%	53%	45%	36%	29%	22%	16%	12%	9%	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°
2113	2105	2005	1868	1703	1504	1305	1113	924	745	586	438	332	240	174	133	96	74	56	43
100%	100%	95%	88%	81%	71%	62%	53%	44%	35%	28%	21%	16%	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
29,3°	54,2°	{C_ANG}°	98,1%	95,9%



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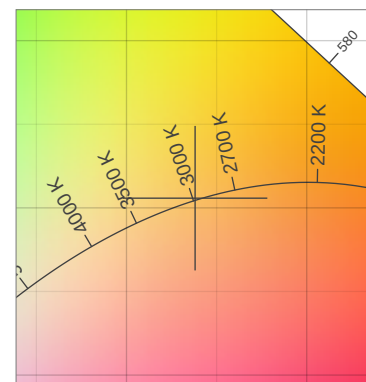
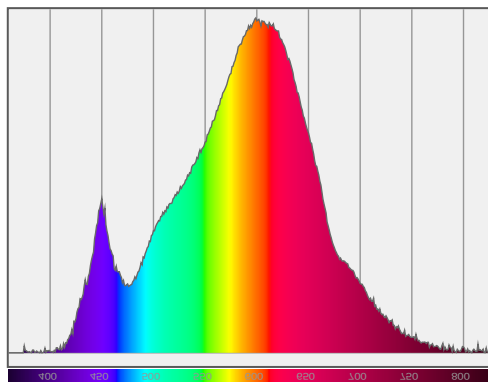
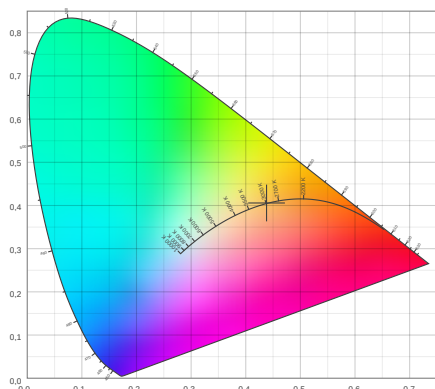
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Color details



CIE 1931

x: 0,438

2998 K

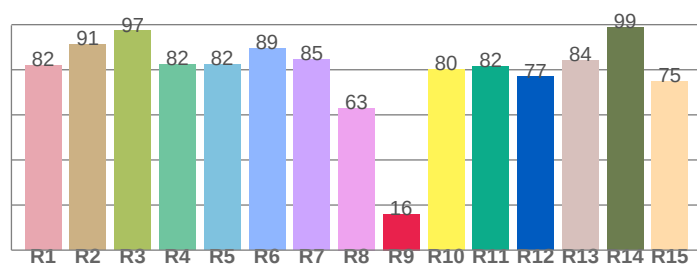
y: 0,406

Spectra

CIE 1931 ZOOM

Δuv : 0,0005

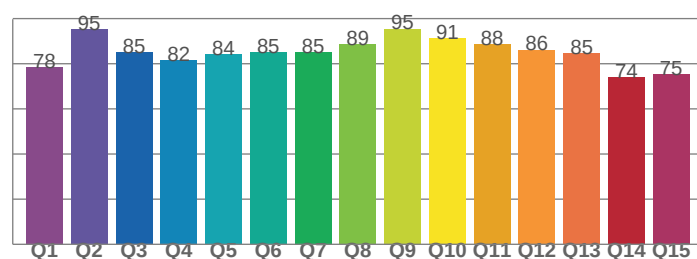
CRI: 84,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
82,0	91,1	97,3	82,4	82,3	89,5	84,7	63,0
R9	R10	R11	R12	R13	R14	R15	
16,0	80,1	81,6	76,9	84,0	98,9	74,9	

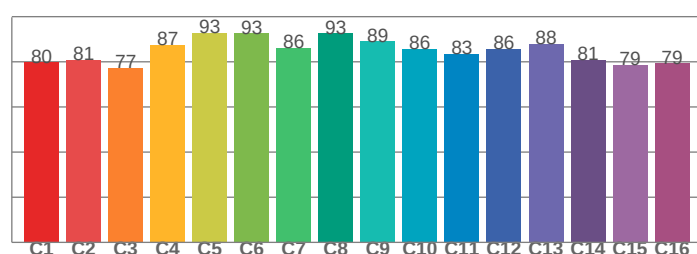
CQS: 83,9



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,5	95,2	85,1	81,7	84,1	85,0	85,2	88,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,5	91,5	88,5	86,2	84,8	74,0	75,3	

TM30: 85,0



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

C1	C2	C3	C4	C5	C6	C7	C8
79,7	80,7	77,4	87,5	92,9	92,6	86,1	92,5
C9	C10	C11	C12	C13	C14	C15	
89,1	85,6	83,5	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
2998 K	84,0	16,0	85,0	96,5	83,9	0,438	0,406	0,251	0,348	0,0005



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TM30 details

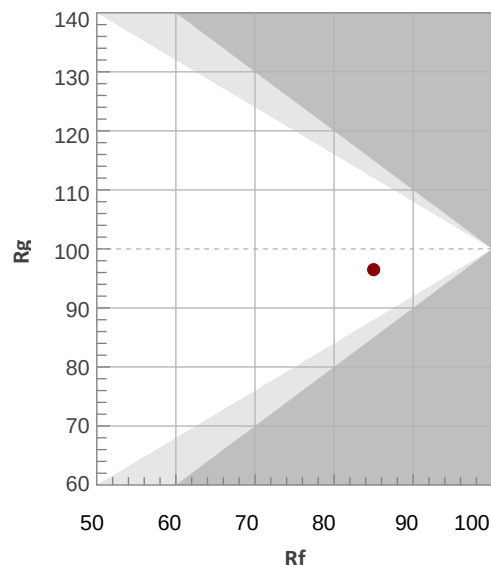
Rf 85,0

Fidelity index Rf

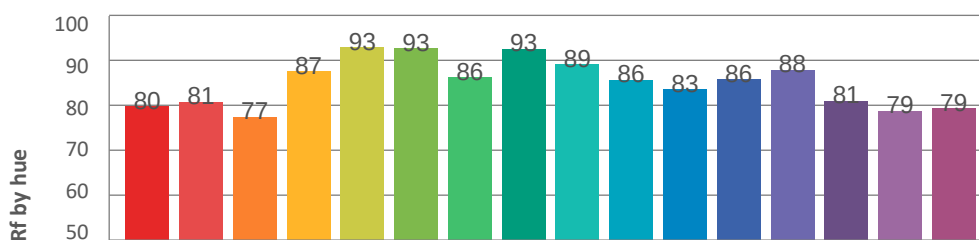
Rg 96,5

Gamut index Rg

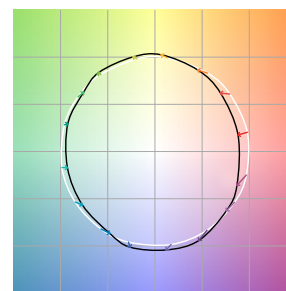
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-10%	-1%
2	81	-8%	6%
3	77	-3%	10%
4	87	2%	7%
5	93	3%	4%
6	93	3%	-2%
7	86	-2%	-7%
8	93	-3%	-2%
9	89	-6%	1%
10	86	-5%	7%
11	83	-1%	10%
12	86	5%	3%
13	88	5%	-6%
14	81	4%	-13%
15	79	-2%	-12%
16	79	-8%	-13%



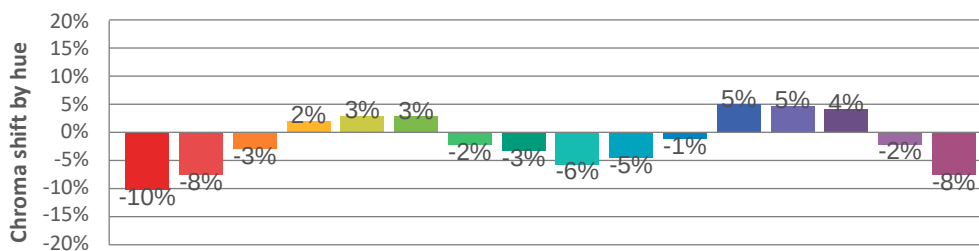
Hue binH



Color vector graphics



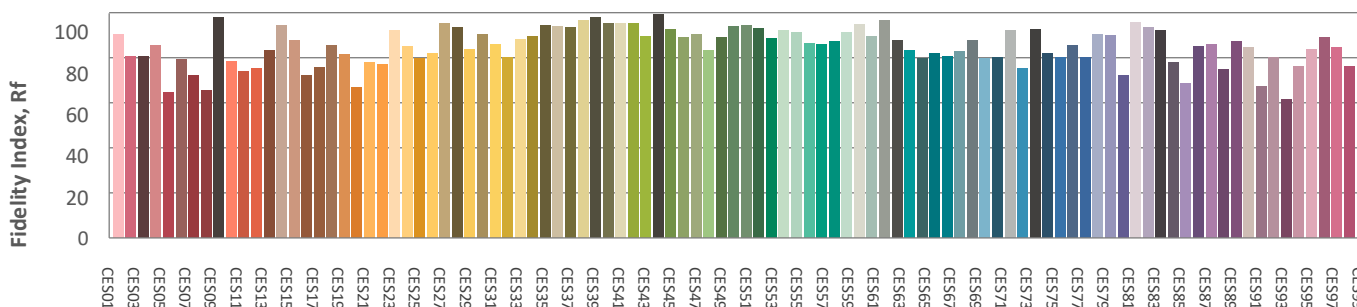
Hue bin



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	13,3	14,0	13,5	14,2	14,4	13,2	13,9	13,5	14,1	14,3
	3H	13,5	14,1	13,8	14,4	14,6	13,5	14,2	13,8	14,4	14,6
	4H	13,6	14,2	13,9	14,4	14,7	13,6	14,2	13,9	14,5	14,7
	6H	13,6	14,2	14,0	14,4	14,7	13,6	14,2	14,0	14,5	14,8
	8H	13,6	14,2	14,0	14,5	14,8	13,6	14,2	14,0	14,5	14,8
	12H	13,7	14,1	14,0	14,5	14,8	13,7	14,2	14,0	14,5	14,8
4H	2H	13,4	13,9	13,7	14,2	14,5	13,3	13,9	13,6	14,2	14,4
	3H	13,7	14,2	14,0	14,5	14,8	13,7	14,2	14,1	14,5	14,8
	4H	13,8	14,2	14,2	14,6	14,9	13,9	14,3	14,2	14,6	15,0
	6H	13,9	14,3	14,3	14,6	15,0	13,9	14,3	14,3	14,7	15,1
	8H	14,0	14,3	14,4	14,7	15,1	14,0	14,3	14,4	14,7	15,1
	12H	14,0	14,3	14,5	14,7	15,1	14,0	14,3	14,5	14,7	15,2
8H	4H	13,8	14,1	14,2	14,5	14,9	13,9	14,2	14,3	14,6	15,0
	6H	14,0	14,2	14,4	14,6	15,1	14,0	14,2	14,4	14,6	15,1
	8H	14,1	14,3	14,5	14,7	15,2	14,1	14,2	14,5	14,7	15,2
	12H	14,2	14,3	14,7	14,8	15,3	14,2	14,3	14,7	14,8	15,3
12H	4H	13,8	14,0	14,2	14,5	14,9	13,8	14,1	14,3	14,5	14,9
	6H	14,0	14,2	14,4	14,6	15,1	14,0	14,2	14,4	14,6	15,1
	8H	14,1	14,2	14,6	14,7	15,2	14,1	14,2	14,6	14,7	15,2
Variation of the observer position for the luminaire distance S											
S = 1,0H		+2,8 / -1,8					+2,6 / -1,7				
S = 1,5H		+5,0 / -2,3					+4,7 / -2,5				
S = 2,0H		+6,8 / -3,4					+6,5 / -3,1				
Standard table		BK02					BK02				
Correction summand		-3,8					-3,8				
Corrected glare indices referring to 666lm total luminous flux											



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