

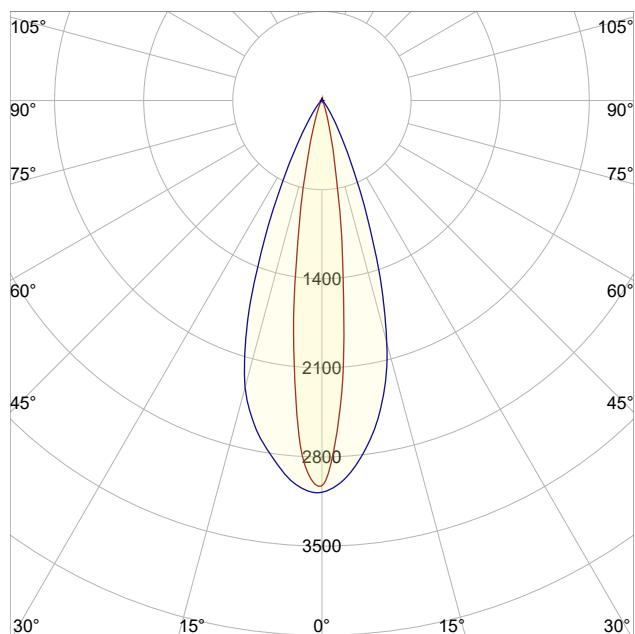
LM-79

Test Report

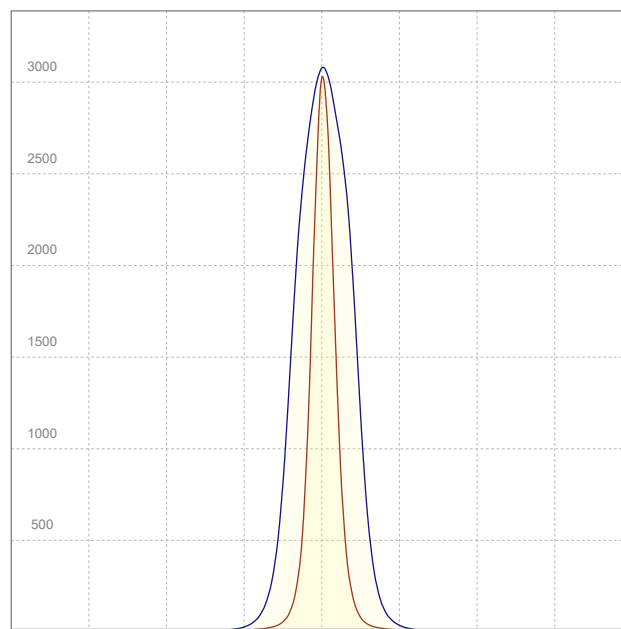
LM79-LINA-HP-2700K-30CM-36x14DEG

General Discription

Item number	LC-2-030-21-5
Date and time	13-1-2015 15:03:38
CCT (Kelvin)	2624 K
Beam angle	38,1°
Luminous flux	832 lm
Efficiency	69 lm/watt
Weighted energy	12,0 kWh/1000h
Power factor	0,89
CRI (RA)	82,4
Fidelity index Rf	Rf 85,6
Gammut index Rg	Rg 94,0
Peak	3081 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	3022 lx	755 lx	336 lx	189 lx	121 lx

26,5°

*measured at center of beam

Footcandles*	280,7 fcd	70,2 fcd	31,2 fcd	17,5 fcd	11,2 fcd
Beam width (meter)	0,5 m	0,9 m	1,4 m	1,9 m	2,4 m
Beam width (Feet)	1,5 ft	3,1 ft	4,6 ft	6,2 ft	7,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3022lx	755lx	336lx	189lx	121lx	84lx	62lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	8lx
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
280,7fcd	70,2fcd	31,2fcd	17,5fcd	11,2fcd	7,8fcd	5,7fcd	4,4fcd	3,5fcd	2,8fcd	2,3fcd	1,9fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd

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°
3022	2671	2262	1689	1136	768	460	307	193	129	88	62	47	36	30	25	21	18	17	15
100%	88%	75%	56%	38%	25%	15%	10%	6%	4%	3%	2%	2%	1%	1%	1%	1%	1%	1%	0%

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°
3022	3019	2940	2827	2686	2530	2325	2108	1804	1496	1180	888	659	471	339	243	173	128	91	70
100%	100%	97%	94%	89%	84%	77%	70%	60%	49%	39%	29%	22%	16%	11%	8%	6%	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°
3022	2851	2591	2083	1585	1097	746	466	315	192	138	89	66	48	38	30	25	22	19	17
100%	94%	86%	69%	52%	36%	25%	15%	10%	6%	5%	3%	2%	2%	1%	1%	1%	1%	1%	1%

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°
3022	3053	3013	2923	2823	2706	2580	2406	2198	1910	1599	1261	968	701	515	351	260	177	133	95
100%	101%	100%	97%	93%	90%	85%	80%	73%	63%	53%	42%	32%	23%	17%	12%	9%	6%	4%	3%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
26,5°	44,8°	60,6°	96,4%	94,4%



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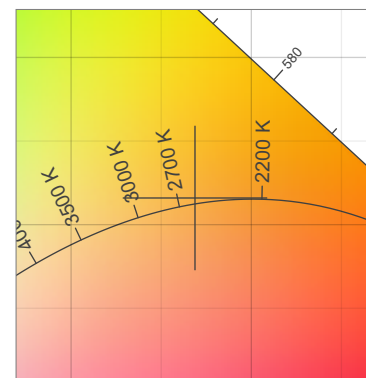
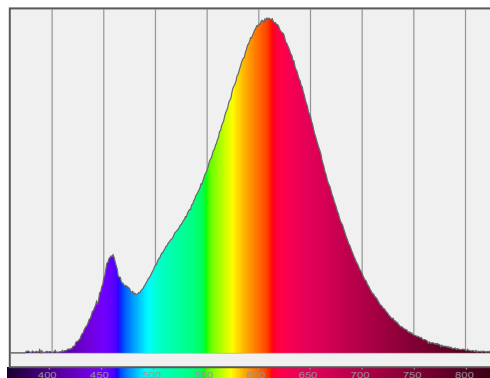
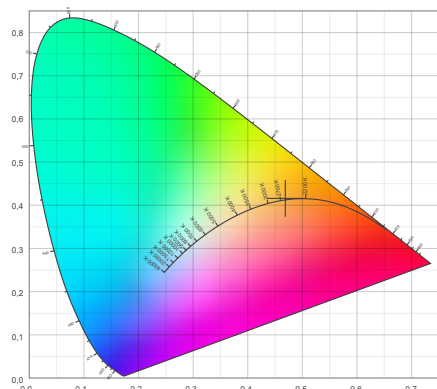
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Color details



CIE 1931

x: 0,469



Spectra

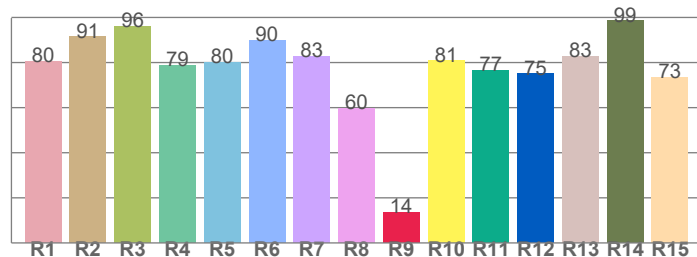
CIE 1931 ZOOM

2624 K

y: 0,416

Δuv : 0,0013

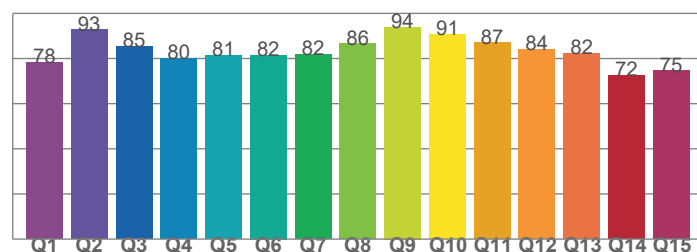
CRI: 82,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,4	91,4	96,1	78,8	80,1	90,0	82,7	59,6
R9	R10	R11	R12	R13	R14	R15	
13,7	80,8	76,7	75,0	82,8	98,5	73,3	

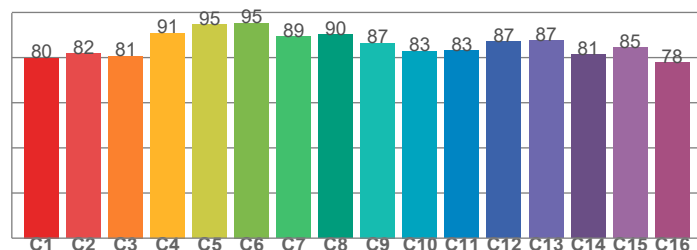
CQS: 82,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,3	92,8	85,5	80,1	81,3	81,5	81,8	86,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,0	90,7	86,9	83,9	82,3	72,5	74,5	

TM30: 85,6



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

C1	C2	C3	C4	C5	C6	C7	C8
79,9	81,8	80,7	90,9	94,5	95,3	89,3	90,3
C9	C10	C11	C12	C13	C14	C15	
86,5	82,9	83,2	87,3	87,5	81,3	84,6	

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
2624 K	82,4	13,7	85,6	94,0	82,3	0,469	0,416	0,266	0,354	0,0013



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Test Report

LM79-LINA-HP-2700K-30CM-36x14DEG

TM30 details

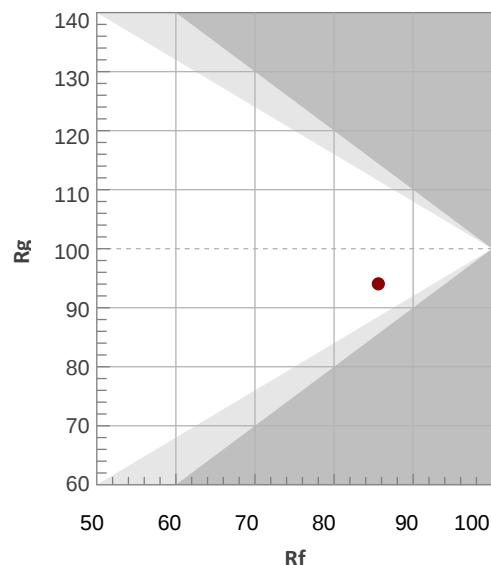
Rf 85,6

Fidelity index R_f

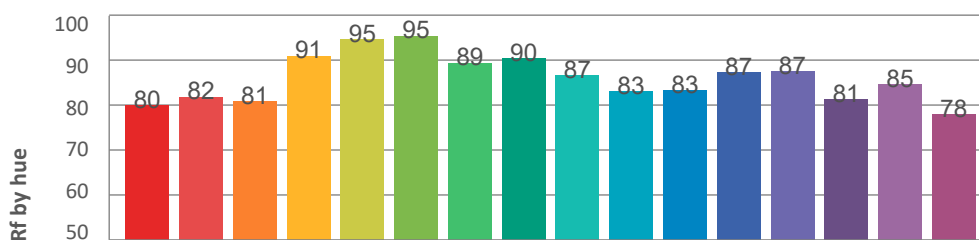
Rg 94,0

Gammut index Rg

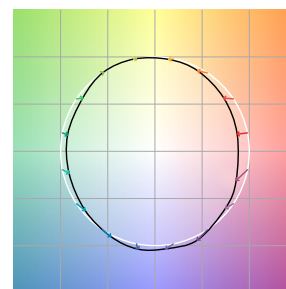
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	80	-11%	1%
2	82	-8%	6%
3	81	-4%	10%
4	91	-2%	5%
5	95	0%	3%
6	95	0%	-1%
7	89	-5%	-4%
8	90	-6%	1%
9	87	-6%	5%
10	83	-4%	11%
11	83	1%	11%
12	87	5%	2%
13	87	4%	-9%
14	81	3%	-15%
15	85	-4%	-8%
16	78	-10%	-13%



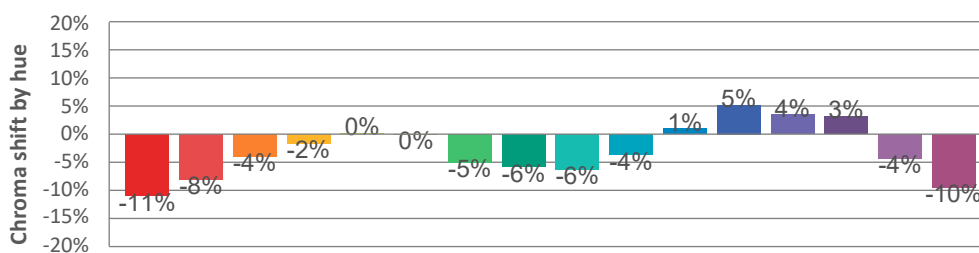
Hue binH



Color vector graphics



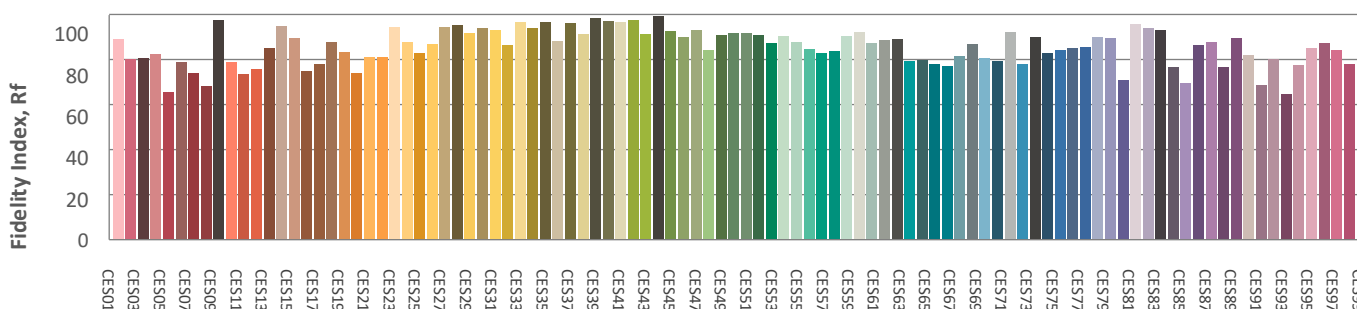
Hue bin



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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 832lm total luminous flux										



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