

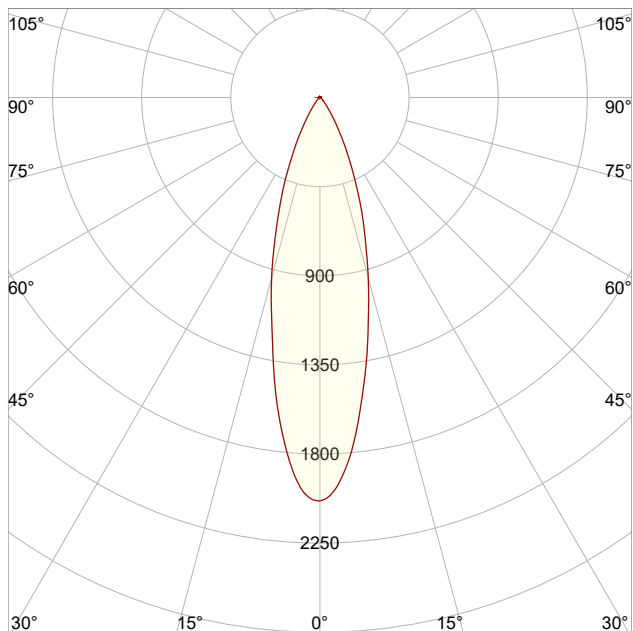
LM-79

Test Report

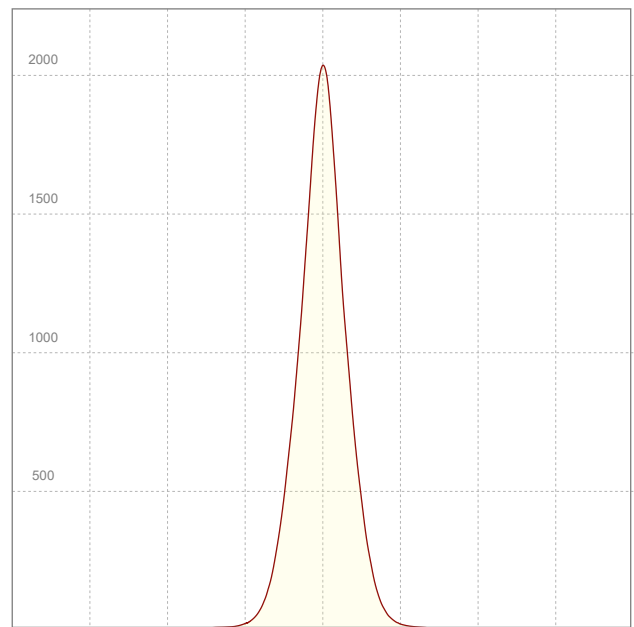
LM79-LINA-HP-2700K-30CM-32DEG

General Description

Item number	LC-2-030-21-3
Date and time	13-1-2015 13:54:45
CCT (Kelvin)	2635 K
Beam angle	27,9°
Luminous flux	704 lm
Efficiency	57 lm/watt
Weighted energy	12,3 kWh/1000h
Power factor	0,89
CRI (RA)	82,5
Fidelity index Rf	Rf 85,9
Gammut index Rg	Rg 93,9
Peak	2036 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	2036 lx	509 lx	226 lx	127 lx	81 lx																			
*measured at center of beam																								
Footcandles*	189,1 fcd	47,3 fcd	21,0 fcd	11,8 fcd	7,6 fcd																			
Beam width (meter)	0,5 m	1 m	1,5 m	2 m	2,5 m																			
Beam width (Feet)	1,6 ft	3,3 ft	4,9 ft	6,5 ft	8,2 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
2036lx	509lx	226lx	127lx	81lx	57lx	42lx	32lx	25lx	20lx	17lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	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					
189,1fcd	47,3fcd	21fcd	11,8fcd	7,6fcd	5,3fcd	3,9fcd	3fcd	2,3fcd	1,9fcd	1,6fcd	1,3fcd	1,1fcd	1fcd	0,8fcd	0,7fcd	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°					
2036	1987	1873	1715	1528	1351	1172	1016	869	735	619	504	405	320	246	185	141	105	77	57					
100%	98%	92%	84%	75%	66%	58%	50%	43%	36%	30%	25%	20%	16%	12%	9%	7%	5%	4%	3%					
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°					
2036	1987	1873	1715	1528	1351	1172	1016	869	735	619	504	405	320	246	185	141	105	77	57					
100%	98%	92%	84%	75%	66%	58%	50%	43%	36%	30%	25%	20%	16%	12%	9%	7%	5%	4%	3%					
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°					
2036	2004	1899	1739	1557	1356	1168	1016	868	723	600	493	391	304	236	175	130	95	72	52					
100%	98%	93%	85%	77%	67%	57%	50%	43%	36%	29%	24%	19%	15%	12%	9%	6%	5%	4%	3%					
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°					
2036	2004	1899	1739	1557	1356	1168	1016	868	723	600	493	391	304	236	175	130	95	72	52					
100%	98%	93%	85%	77%	67%	57%	50%	43%	36%	29%	24%	19%	15%	12%	9%	6%	5%	4%	3%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
27,9°					58,3°					77°					94,6%					92,1%				



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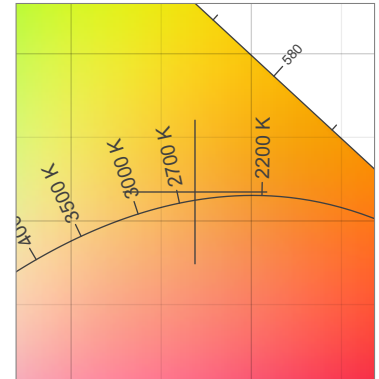
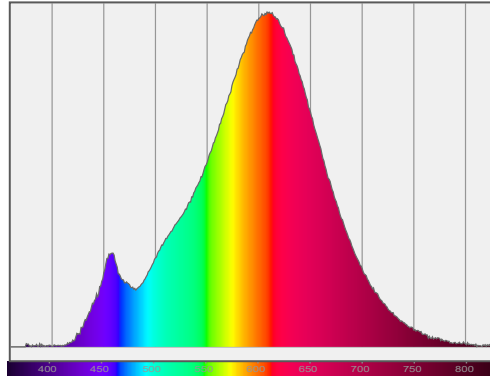
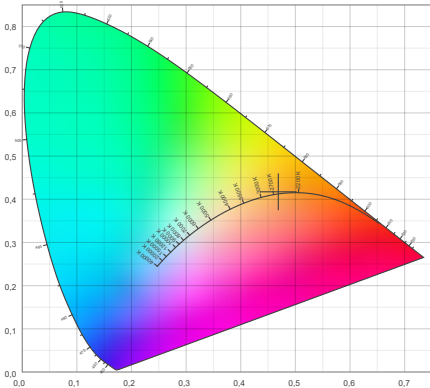
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Color details



CIE 1931

x: 0,469



Spectra

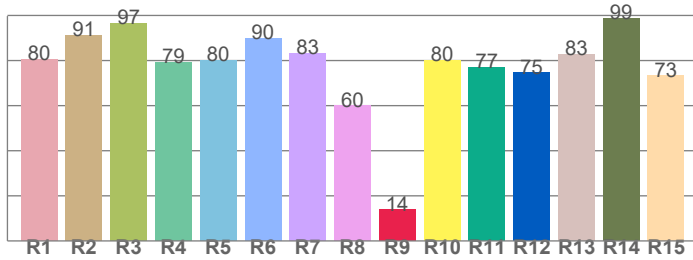
CIE 1931 ZOOM

2635 K

y: 0,417

Δuv : 0,0018

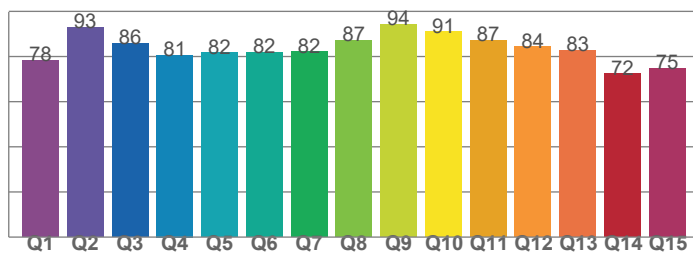
CRI: 82,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,4	91,2	96,5	79,1	80,1	89,7	83,2	60,0
R9	R10	R11	R12	R13	R14	R15	
13,8	80,2	77,1	74,6	82,7	98,7	73,2	

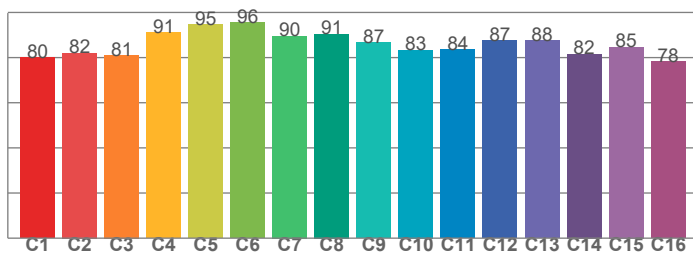
CQS: 82,5



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,4	92,9	85,9	80,7	81,7	81,8	82,1	87,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,3	91,0	87,2	84,3	82,6	72,4	74,6	

TM30: 85,9



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

C1	C2	C3	C4	C5	C6	C7	C8
80,0	82,0	81,1	91,1	94,7	95,6	89,6	90,5
C9	C10	C11	C12	C13	C14	C15	
86,8	83,4	83,5	87,4	87,7	81,6	84,7	

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
2635 K	82,5	13,8	85,9	93,9	82,5	0,469	0,417	0,265	0,354	0,0018



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TM30 details

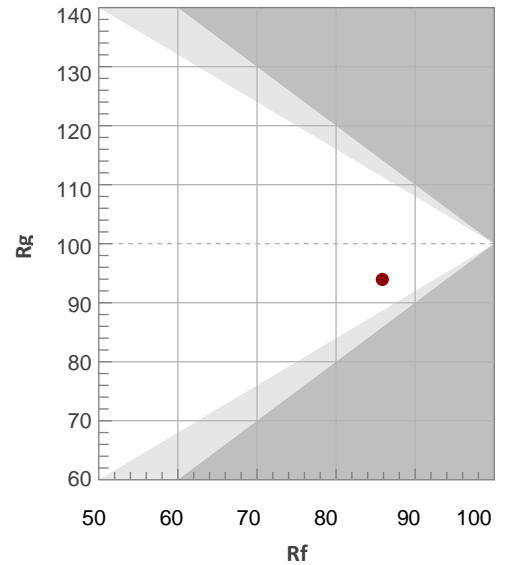
Rf 85,9

Fidelity index Rf

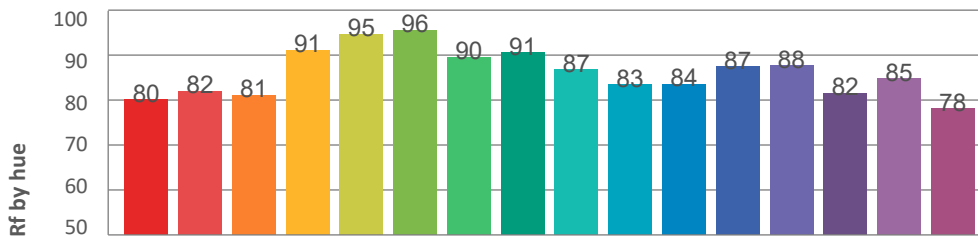
Rg 93,9

Gamut index Rg

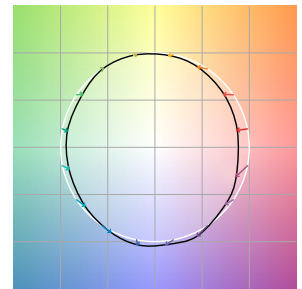
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	1%
2	82	-8%	6%
3	81	-4%	9%
4	91	-2%	5%
5	95	0%	3%
6	96	0%	-1%
7	90	-5%	-4%
8	91	-6%	1%
9	87	-6%	5%
10	83	-4%	10%
11	84	1%	11%
12	87	5%	2%
13	88	3%	-9%
14	82	3%	-15%
15	85	-4%	-8%
16	78	-10%	-13%



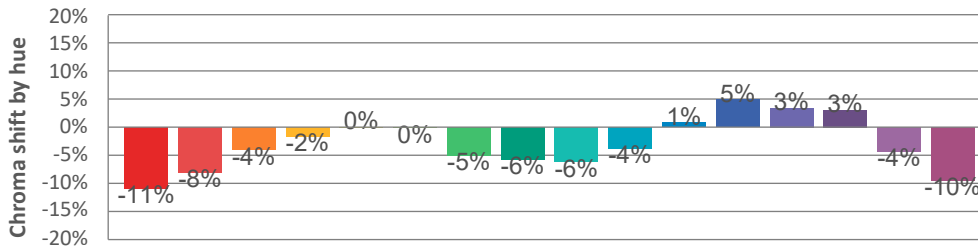
Hue binH



Color vector graphics



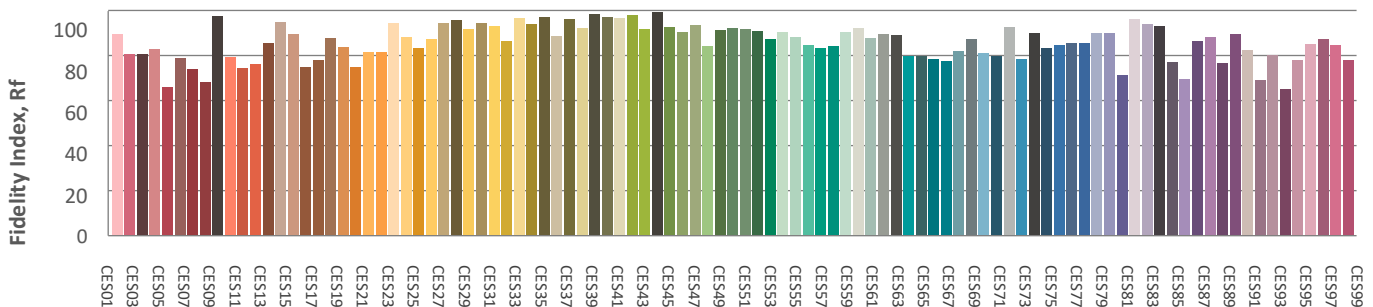
Hue bin



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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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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
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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 704lm total luminous flux										



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