

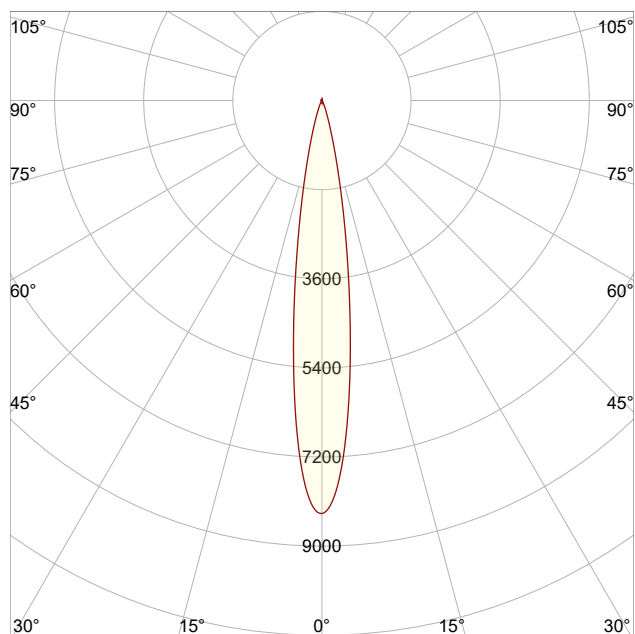
LM-79

Test Report

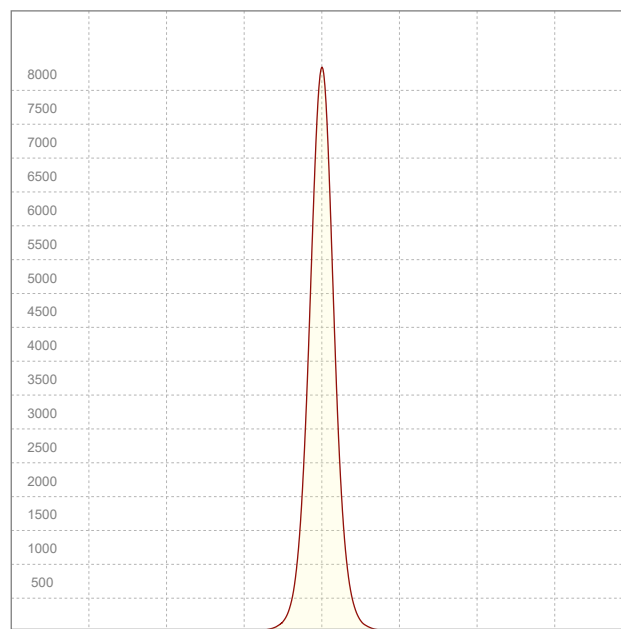
LM79-LINA-HP-4000K-30CM-15DEG

General Discription

Item number	LC-2-030-23-4
Date and time	13-1-2015 14:21:31
CCT (Kelvin)	3878 K
Beam angle	15,4°
Luminous flux	883 lm
Efficiency	72 lm/watt
Weighted energy	12,2 kWh/1000h
Power factor	0,89
CRI (RA)	84,4
Fidelity index Rf	Rf 85,8
Gammut index Rg	Rg 95,9
Peak	8340 cd



Polar curve



Linear distribution diagram



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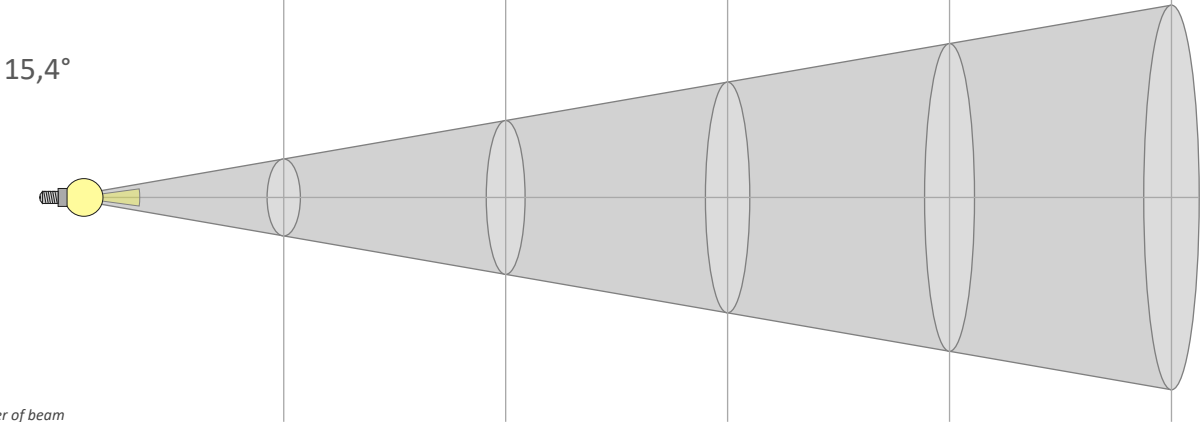
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Beam details	1m	2m	3m	4m	5m
Lux*	8337 lx	2084 lx	926 lx	521 lx	333 lx



15,4°

*measured at center of beam

Footcandles*	774,6 fcd	193,6 fcd	86,1 fcd	48,4 fcd	31,0 fcd
Beam width (meter)	0,3 m	0,5 m	0,8 m	1,1 m	1,4 m
Beam width (Feet)	0,9 ft	1,8 ft	2,7 ft	3,6 ft	4,4 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
8337lx	2084lx	926lx	521lx	333lx	232lx	170lx	130lx	103lx	83lx	69lx	58lx	49lx	43lx	37lx	33lx	29lx	26lx	23lx	21lx
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
774,6fcd	193,6fcd	86,1fcd	48,4fcd	31fcd	21,5fcd	15,8fcd	12,1fcd	9,6fcd	7,7fcd	6,4fcd	5,4fcd	4,6fcd	4fcd	3,4fcd	3fcd	2,7fcd	2,4fcd	2,1fcd	1,9fcd

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°
8337	8210	7916	7441	6847	6163	5435	4690	3973	3314	2729	2209	1764	1393	1101	859	671	523	414	327
100%	98%	95%	89%	82%	74%	65%	56%	48%	40%	33%	26%	21%	17%	13%	10%	8%	6%	5%	4%

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°
8337	8210	7916	7441	6847	6163	5435	4690	3973	3314	2729	2209	1764	1393	1101	859	671	523	414	327
100%	98%	95%	89%	82%	74%	65%	56%	48%	40%	33%	26%	21%	17%	13%	10%	8%	6%	5%	4%

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°
8337	8249	7976	7517	6916	6213	5456	4699	3970	3294	2707	2201	1778	1418	1135	904	717	571	455	365
100%	99%	96%	90%	83%	75%	65%	56%	48%	40%	32%	26%	21%	17%	14%	11%	9%	7%	5%	4%

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°
8337	8249	7976	7517	6916	6213	5456	4699	3970	3294	2707	2201	1778	1418	1135	904	717	571	455	365
100%	99%	96%	90%	83%	75%	65%	56%	48%	40%	32%	26%	21%	17%	14%	11%	9%	7%	5%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
15,4°	30,5°	42,6°	94,3%	92,8%



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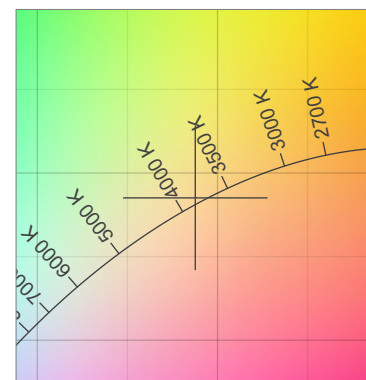
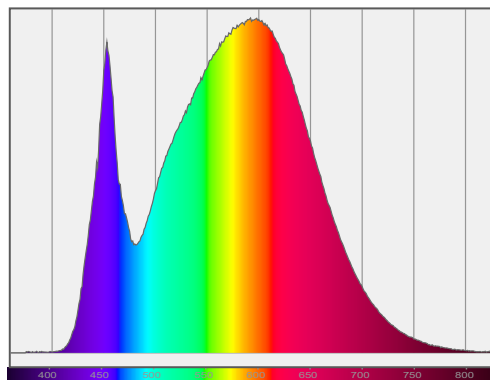
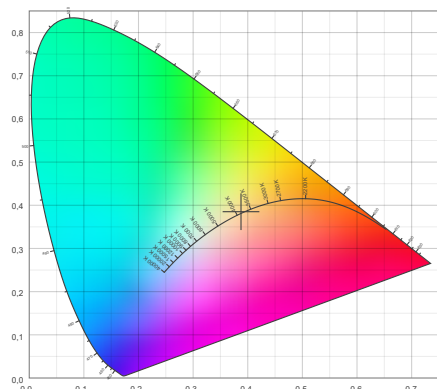
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Test Report

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Color details



CIE 1931

x: 0,388

3878 K

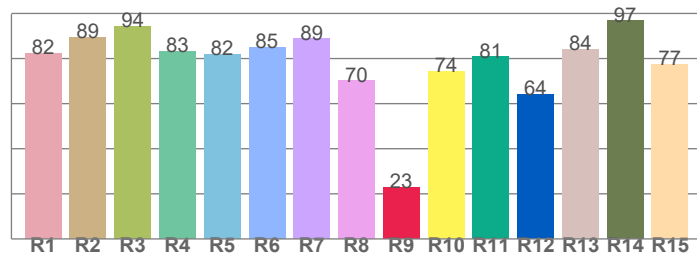
y: 0,385

Spectra

CIE 1931 ZOOM

Δuv : 0,0018

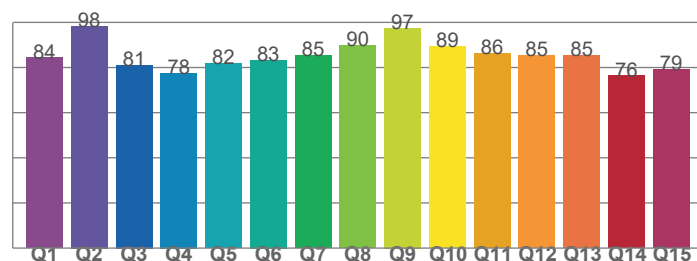
CRI: 84,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
82,5	89,4	94,3	83,0	82,0	84,8	88,8	70,1
R9	R10	R11	R12	R13	R14	R15	
22,9	74,2	80,8	64,2	84,0	96,7	77,4	

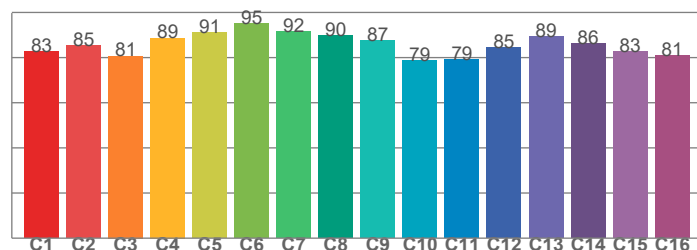
CQS: 84,2



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
84,4	98,4	81,1	77,6	81,8	83,3	85,4	89,8
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,5	89,4	86,2	85,5	85,4	76,4	79,2	

TM30: 85,8



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

C1	C2	C3	C4	C5	C6	C7	C8
82,7	85,5	80,7	88,7	91,2	95,1	91,7	89,9
C9	C10	C11	C12	C13	C14	C15	
87,5	78,7	79,2	84,6	89,2	86,1	82,8	

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
3878 K	84,4	22,9	85,8	95,9	84,2	0,388	0,385	0,226	0,338	0,0018



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Test Report

LM79-LINA-HP-4000K-30CM-15DEG

TM30 details

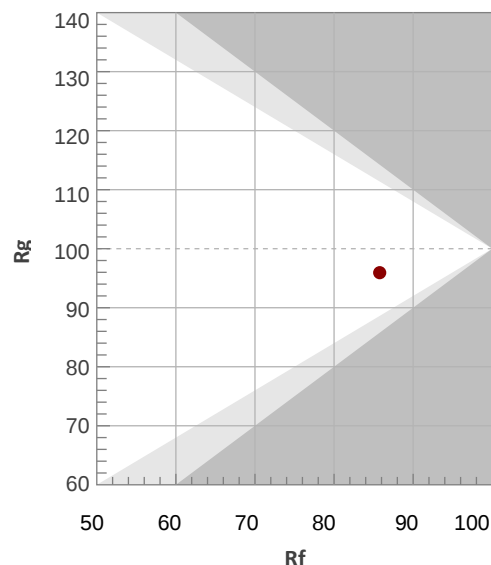
Rf 85,8

Fidelity index Rf

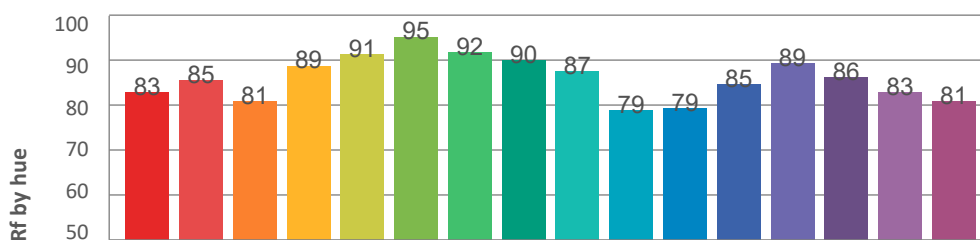
Rg 95,9

Gamut index Rg

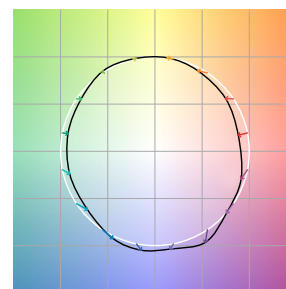
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	83	-10%	-1%
2	85	-7%	5%
3	81	-4%	10%
4	89	0%	7%
5	91	0%	4%
6	95	1%	-2%
7	92	-4%	-3%
8	90	-6%	-1%
9	87	-7%	6%
10	79	-6%	12%
11	79	1%	14%
12	85	6%	6%
13	89	5%	-4%
14	86	10%	-9%
15	83	-1%	-12%
16	81	-5%	-11%



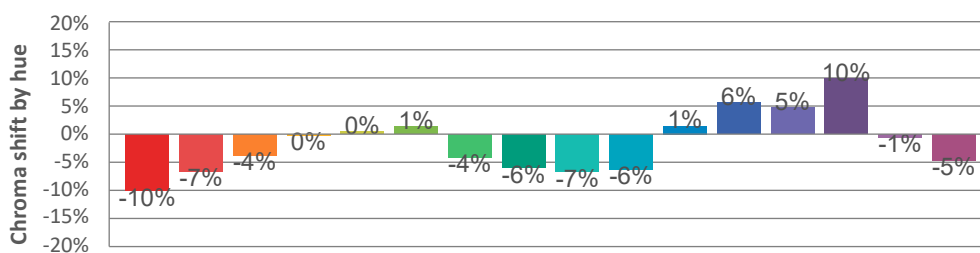
Hue binH



Color vector graphics



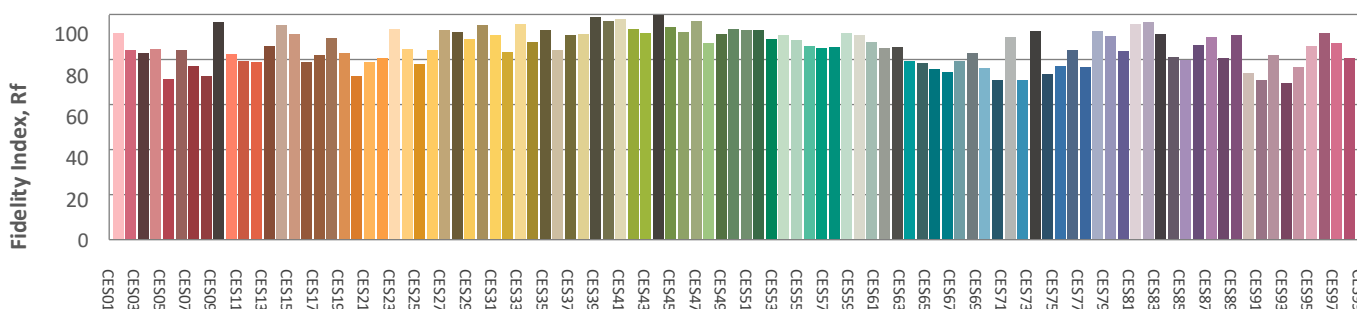
Hue bin



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
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 883lm total luminous flux										



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