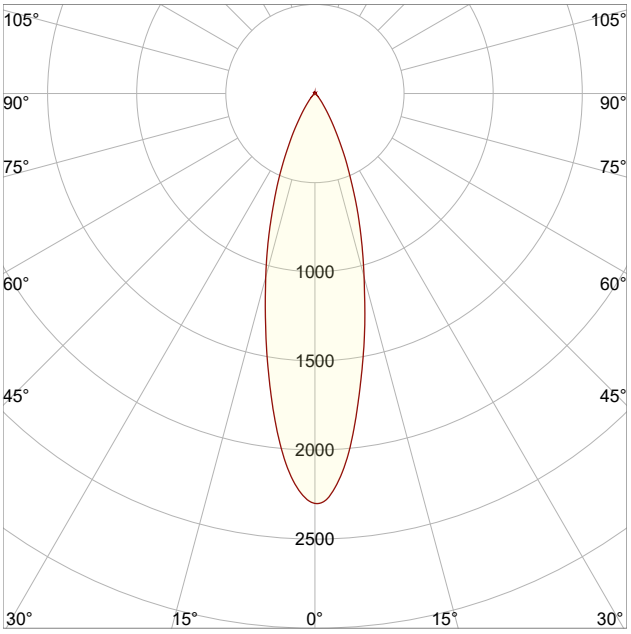
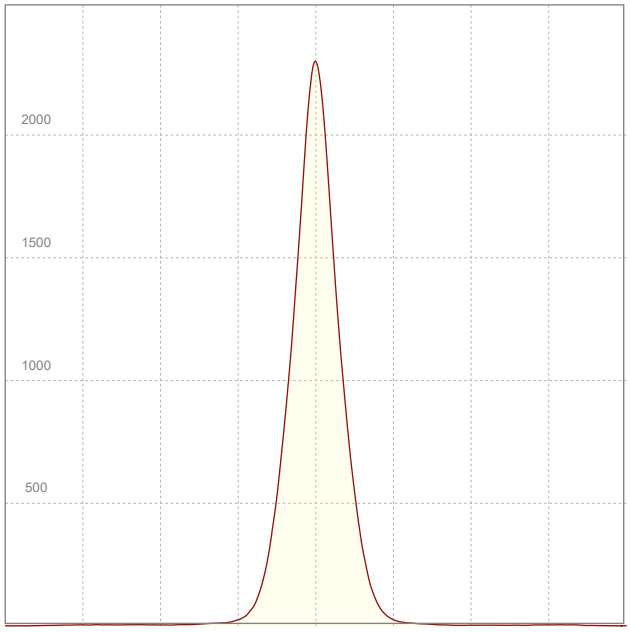
LM-79
Test Report

LM79-LINA-HP-4000K-30CM-32DEG

General Discription	
Item number	LC-2-030-23-3
Date and time	31-3-2016 13:29:54
CCT (Kelvin)	3848 K
Beam angle	28°
Luminous flux	800 lm
Efficiency	67 lm/watt
Weighted energy	12,0 kWh/1000h
Power factor	0,89
CRI (RA)	84,5
Fidelity index Rf	Rf 85,6
Gammut index Rg	Rg 96,0
Peak	2300 cd



Polar curve



Linear distribution diagram

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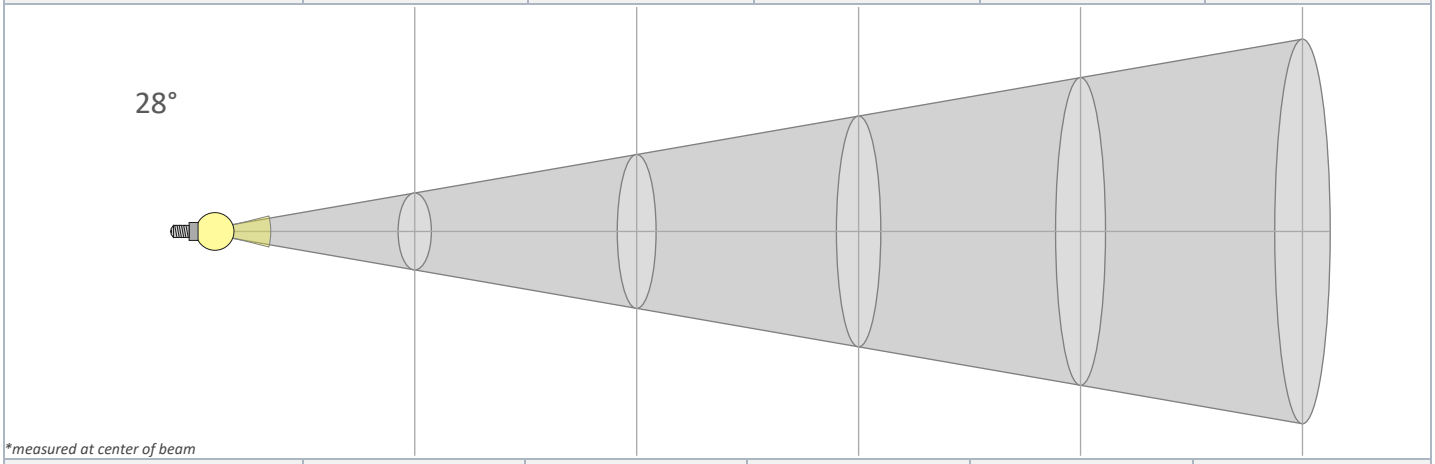
Beam details	1m	2m	3m	4m	5m
*Lux**	2296 lx	574 lx	255 lx	143 lx	92 lx



*measured at center of beam

*Footcandles**	213,3 fcd	53,3 fcd	23,7 fcd	13,3 fcd	8,5 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
2296lx	574lx	255lx	143lx	92lx	64lx	47lx	36lx	28lx	23lx	19lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx
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
213,3fcd	53,3fcd	23,7fcd	13,3fcd	8,5fcd	5,9fcd	4,4fcd	3,3fcd	2,6fcd	2,1fcd	1,8fcd	1,5fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd	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°
2296	2260	2139	1959	1745	1538	1342	1149	985	833	694	561	450	353	269	203	151	111	81	62
100%	98%	93%	85%	76%	67%	58%	50%	43%	36%	30%	24%	20%	15%	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°
2296	2260	2139	1959	1745	1538	1342	1149	985	833	694	561	450	353	269	203	151	111	81	62
100%	98%	93%	85%	76%	67%	58%	50%	43%	36%	30%	24%	20%	15%	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°
2296	2243	2118	1943	1738	1531	1330	1149	988	835	694	573	461	363	283	215	160	120	89	65
100%	98%	92%	85%	76%	67%	58%	50%	43%	36%	30%	25%	20%	16%	12%	9%	7%	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°
2296	2243	2118	1943	1738	1531	1330	1149	988	835	694	573	461	363	283	215	160	120	89	65
100%	98%	92%	85%	76%	67%	58%	50%	43%	36%	30%	25%	20%	16%	12%	9%	7%	5%	4%	3%

Beam angle 50%	*Field angle 10%*	*Cutoff angle 2,5%*	*Intensity ratio in 120° cone*	*Intensity ratio in 90° cone*
28°	58,7°	77,4°	94,8%	92,3%

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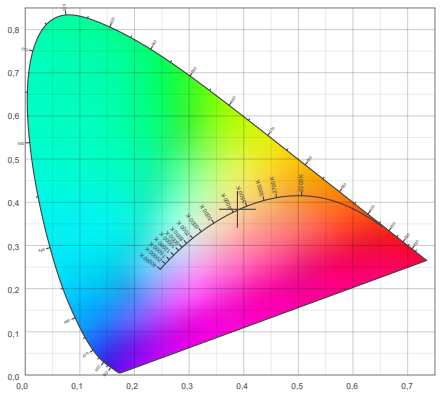
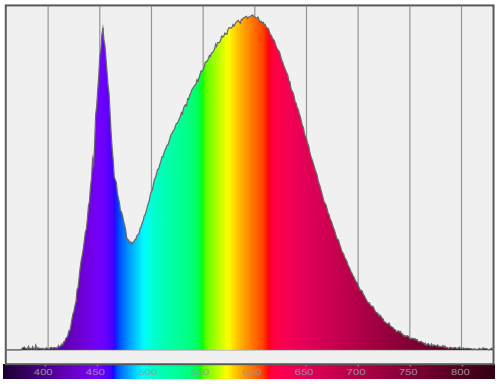
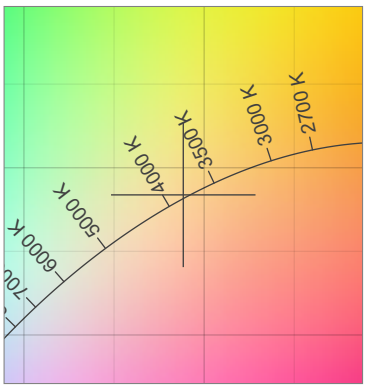
Color details

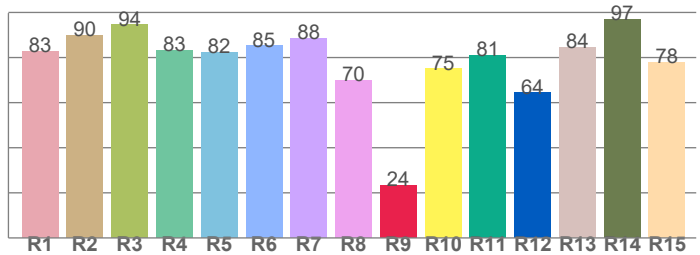






CIE 1931	x: 0,388		Spectra	*CIE 1931 ZOOM*
3848 K	y: 0,384			Δuv: 0,0010

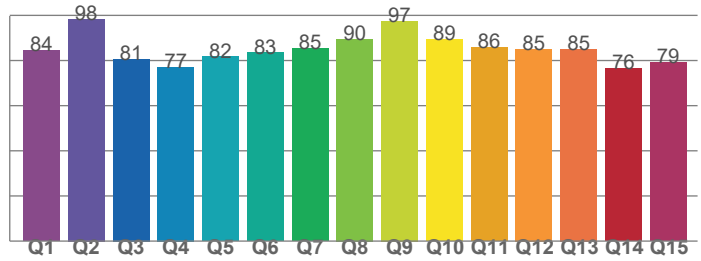
CRI: **84,5** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
82,8	**89,8**	**94,5**	**83,1**	**82,3**	**85,3**	**88,5**	**70,0**
R9	R10	R11	R12	R13	R14	R15	
23,5	**75,0**	**80,9**	**64,3**	**84,4**	**96,8**	**77,9**	

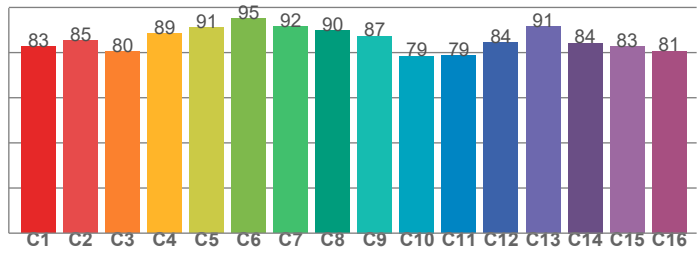
CQS: **84,0**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
84,4	**98,4**	**80,6**	**77,1**	**81,7**	**83,4**	**85,4**	**89,5**
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,5	**89,2**	**85,9**	**85,1**	**85,1**	**76,5**	**79,3**	

TM30: **85,6**



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

C1	C2	C3	C4	C5	C6	C7	C8
82,7	**85,4**	**80,5**	**88,5**	**91,0**	**95,0**	**91,6**	**89,9**
C9	C10	C11	C12	C13	C14	C15	
87,4	**78,5**	**78,8**	**84,3**	**91,4**	**84,3**	**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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3848 K	**84,5**	**23,5**	**85,6**	**96,0**	**84,0**	**0,388**	**0,384**	**0,228**	**0,337**	**0,0010**

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TM30 details

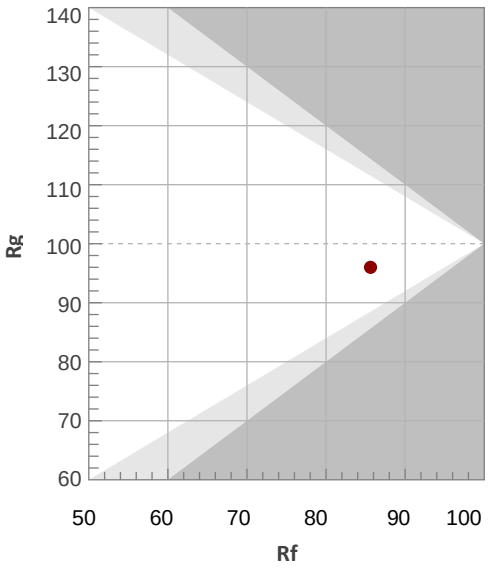
Rf 85,6

Fidelity index Rf

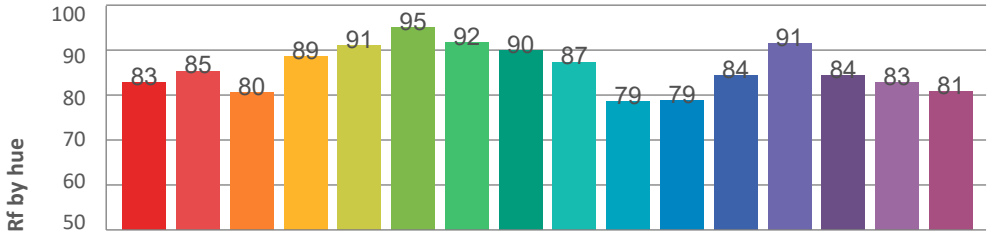
Rg 96,0

Gammut index Rg

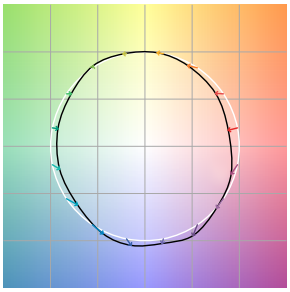
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	83	-10%	-1%
2	85	-7%	5%
3	80	-4%	10%
4	89	0%	7%
5	91	0%	4%
6	95	1%	-2%
7	92	-4%	-3%
8	90	-6%	0%
9	87	-7%	6%
10	79	-6%	12%
11	79	2%	14%
12	84	6%	6%
13	91	5%	-2%
14	84	7%	-10%
15	83	-1%	-12%
16	81	-5%	-11%



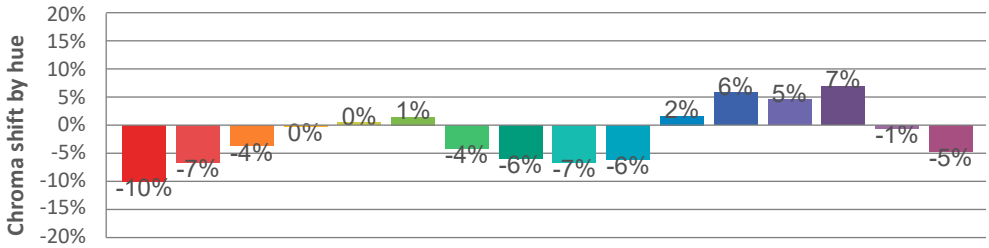
Hue binH



Color vector graphics

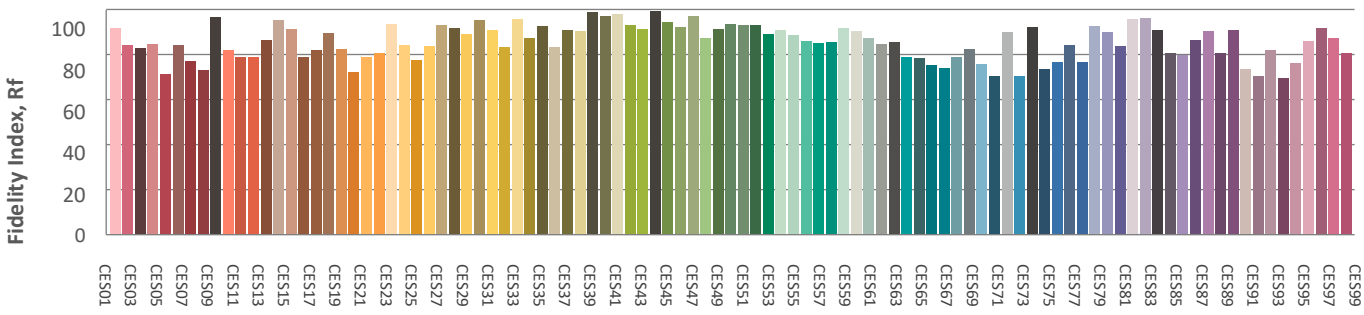


Hue bin



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
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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
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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
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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 800lm total luminous flux										

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