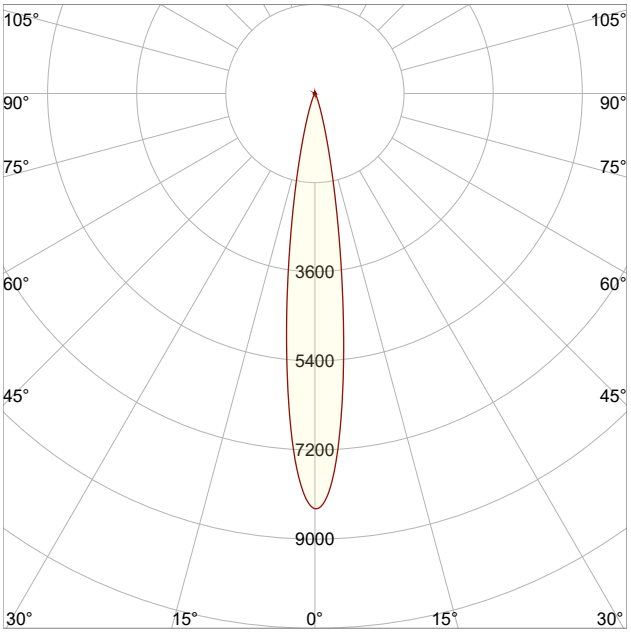
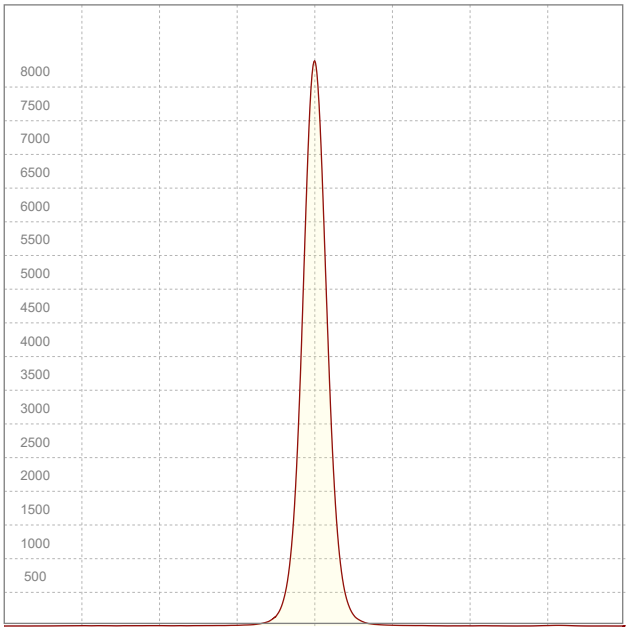
LM-79
Test Report

LM79-LINA-HP-3000K-30CM-15DEG

General Discription	
Item number	LC-2-030-22-2
Date and time	13-1-2015 14:10:39
CCT (Kelvin)	3008 K
Beam angle	15,4°
Luminous flux	862 lm
Efficiency	71 lm/watt
Weighted energy	12,2 kWh/1000h
Power factor	0,89
CRI (RA)	82,6
Fidelity index Rf	Rf 84,4
Gammut index Rg	Rg 97,9
Peak	8382 cd



Polar curve



Linear distribution diagram

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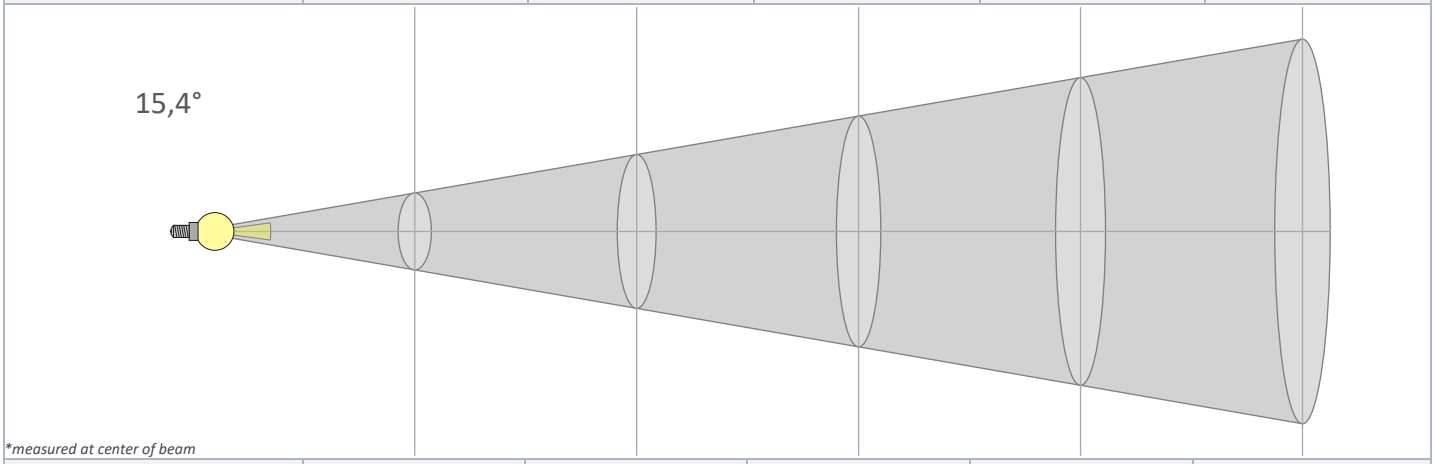
Beam details	1m	2m	3m	4m	5m
*Lux**	8380 lx	2095 lx	931 lx	524 lx	335 lx



*measured at center of beam

*Footcandles**	778,5 fcd	194,6 fcd	86,5 fcd	48,7 fcd	31,1 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
8380lx	2095lx	931lx	524lx	335lx	233lx	171lx	131lx	103lx	84lx	69lx	58lx	50lx	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
778,5fcd	194,6fcd	86,5fcd	48,7fcd	31,1fcd	21,6fcd	15,9fcd	12,2fcd	9,6fcd	7,8fcd	6,4fcd	5,4fcd	4,6fcd	4fcd	3,5fcd	3fcd	2,7fcd	2,4fcd	2,2fcd	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°
8380	8303	8047	7589	6989	6275	5514	4731	3970	3278	2661	2133	1689	1332	1047	820	644	506	400	315
100%	99%	96%	91%	83%	75%	66%	56%	47%	39%	32%	25%	20%	16%	12%	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°
8380	8303	8047	7589	6989	6275	5514	4731	3970	3278	2661	2133	1689	1332	1047	820	644	506	400	315
100%	99%	96%	91%	83%	75%	66%	56%	47%	39%	32%	25%	20%	16%	12%	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°
8380	8239	7925	7453	6850	6154	5423	4696	3983	3320	2731	2220	1788	1425	1132	896	708	557	444	352
100%	98%	95%	89%	82%	73%	65%	56%	48%	40%	33%	26%	21%	17%	14%	11%	8%	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°
8380	8239	7925	7453	6850	6154	5423	4696	3983	3320	2731	2220	1788	1425	1132	896	708	557	444	352
100%	98%	95%	89%	82%	73%	65%	56%	48%	40%	33%	26%	21%	17%	14%	11%	8%	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°	30,2°	42,1°	95,3%	94,0%

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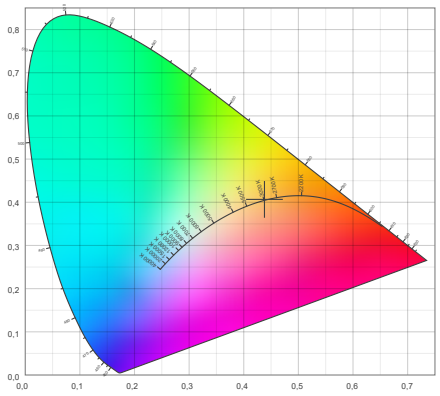
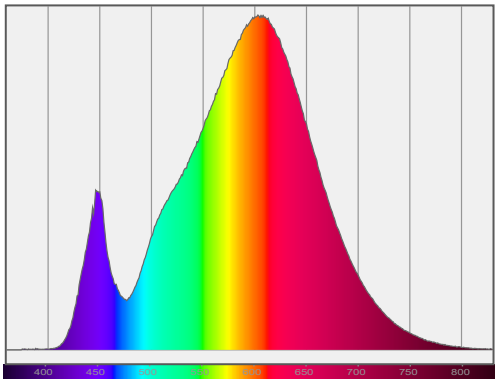
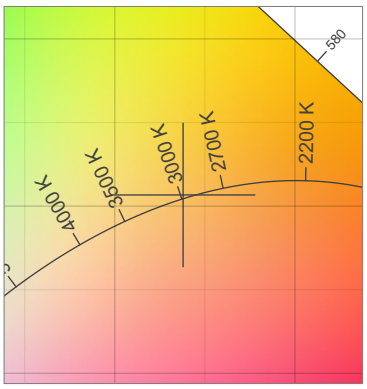
Color details

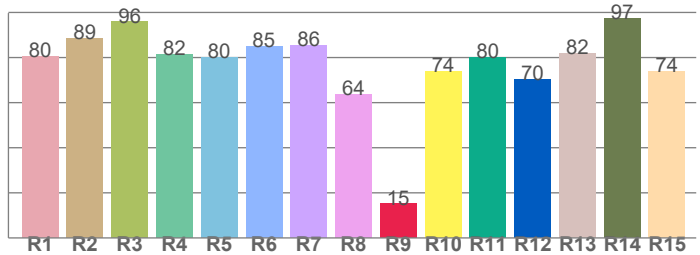






CIE 1931	x: 0,438		Spectra	*CIE 1931 ZOOM*
3008 K	y: 0,407			Δuv: 0,0009

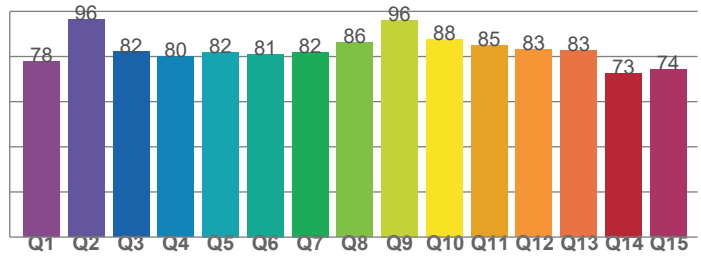
CRI: **82,6** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,4	**88,5**	**95,8**	**81,6**	**80,1**	**85,2**	**85,5**	**63,6**
R9	R10	R11	R12	R13	R14	R15	
15,1	**73,9**	**80,1**	**70,2**	**81,8**	**97,5**	**74,0**	

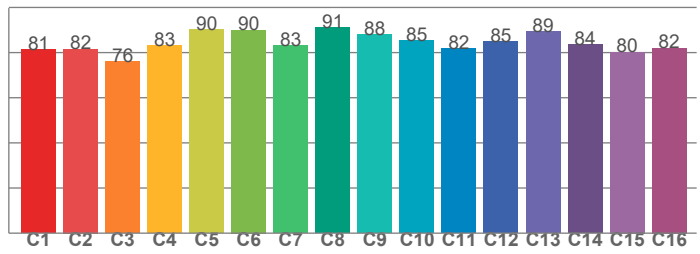
CQS: **82,0**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,7	**96,5**	**82,1**	**80,1**	**82,0**	**81,1**	**82,0**	**86,3**
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	**87,7**	**85,0**	**83,3**	**82,8**	**72,7**	**74,3**	

TM30: **84,4**



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

C1	C2	C3	C4	C5	C6	C7	C8
81,5	**81,6**	**76,1**	**83,3**	**90,3**	**90,0**	**83,3**	**91,0**
C9	C10	C11	C12	C13	C14	C15	
88,2	**85,4**	**81,8**	**84,9**	**89,3**	**83,7**	**80,2**	

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
3008 K	**82,6**	**15,1**	**84,4**	**97,9**	**82,0**	**0,438**	**0,407**	**0,250**	**0,348**	**0,0009**

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TM30 details

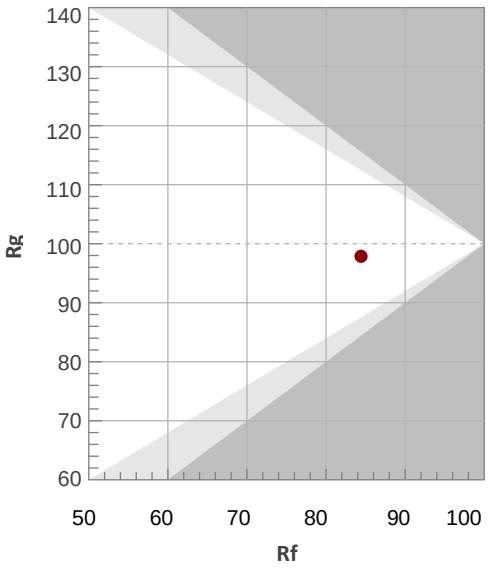
Rf 84,4

Fidelity index Rf

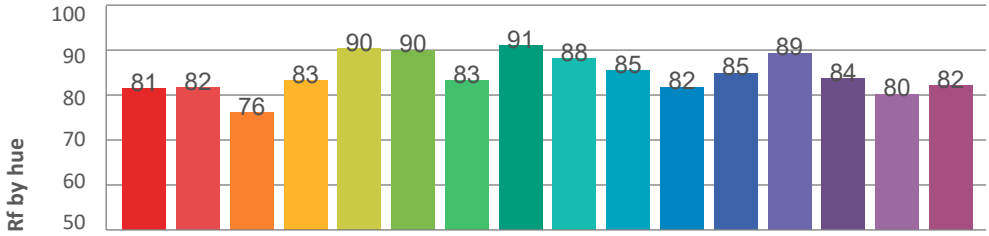
Rg 97,9

Gammut index Rg

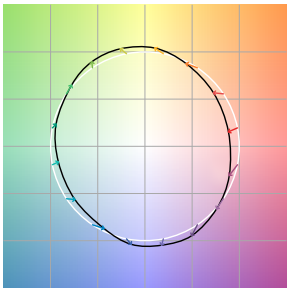
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	81	-10%	-2%
2	82	-8%	7%
3	76	-3%	12%
4	83	4%	10%
5	90	6%	5%
6	90	6%	-3%
7	83	1%	-11%
8	91	-3%	-5%
9	88	-7%	-2%
10	85	-7%	6%
11	82	-4%	12%
12	85	5%	6%
13	89	6%	-3%
14	84	6%	-11%
15	80	0%	-13%
16	82	-6%	-13%



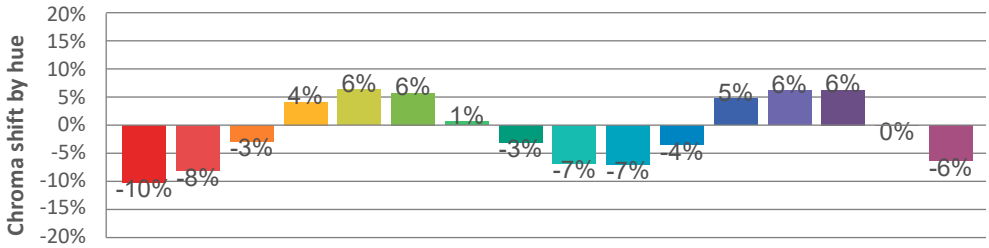
Hue binH



Color vector graphics

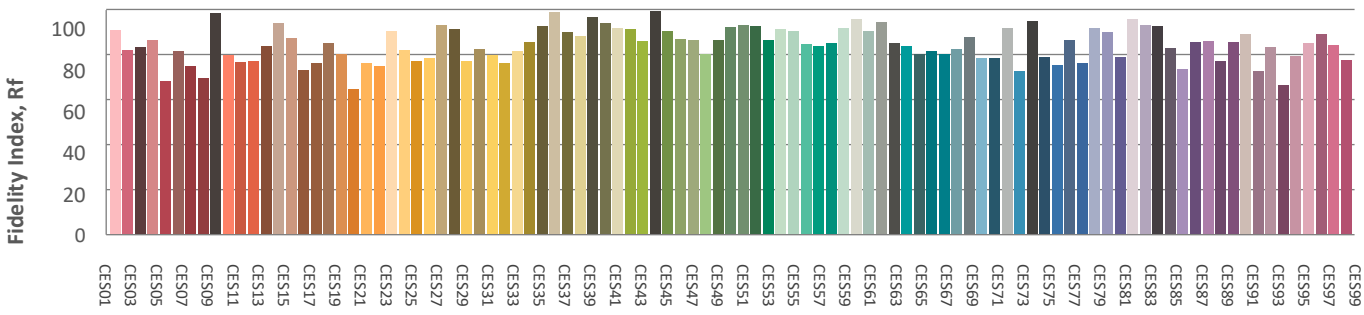


Hue bin



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
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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
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 862lm total luminous flux										

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