

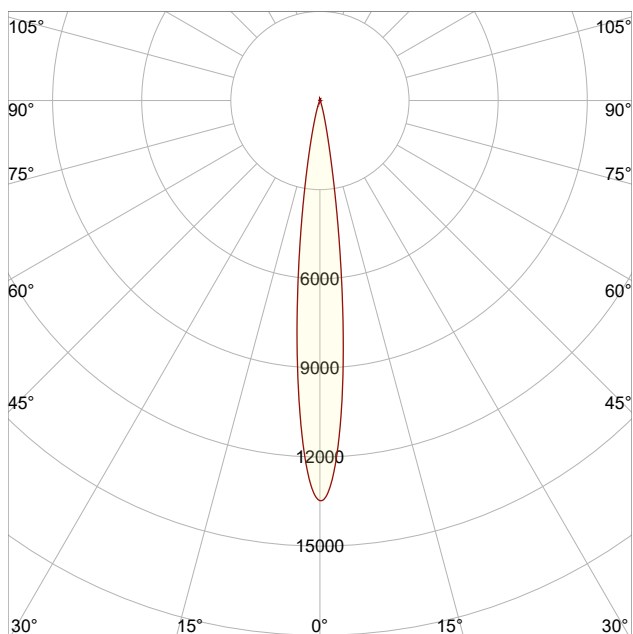
LM-79

Test Report

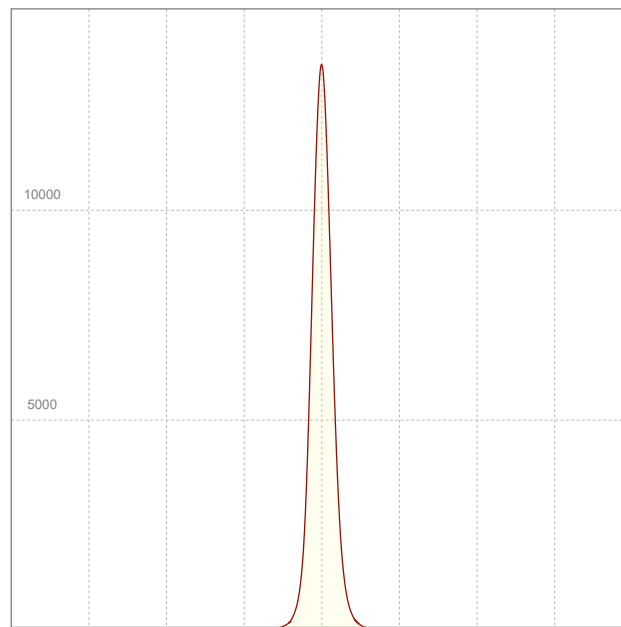
LM79-LINA-HP-3000K-30CM-12DEG

General Discription

Item number	LC-2-030-22-1
Date and time	13-1-2015 14:15:15
CCT (Kelvin)	3024 K
Beam angle	12,9°
Luminous flux	943 lm
Efficiency	77 lm/watt
Weighted energy	12,2 kWh/1000h
Power factor	0,89
CRI (RA)	82,9
Fidelity index Rf	Rf 84,9
Gammut index Rg	Rg 97,4
Peak	13453 cd



Polar curve



Linear distribution diagram



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info@cls-led.com
www.cls-led.com

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Beam details	1m	2m	3m	4m	5m
Lux*	13450 lx	3362 lx	1494 lx	841 lx	538 lx

*measured at center of beam

Footcandles*	1249,5 fcd	312,4 fcd	138,8 fcd	78,1 fcd	50,0 fcd
Beam width (meter)	0,2 m	0,5 m	0,7 m	0,9 m	1,1 m
Beam width (Feet)	0,7 ft	1,5 ft	2,2 ft	3 ft	3,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
13450lx	3362lx	1494lx	841lx	538lx	374lx	274lx	210lx	166lx	134lx	111lx	93lx	80lx	69lx	60lx	53lx	47lx	42lx	37lx	34lx
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
1249,5fcd	312,4fcd	138,8fcd	78,1fcd	50fcd	34,7fcd	25,5fcd	19,5fcd	15,4fcd	12,5fcd	10,3fcd	8,7fcd	7,4fcd	6,4fcd	5,6fcd	4,9fcd	4,3fcd	3,9fcd	3,5fcd	3,1fcd

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°
13,4K	13,3K	12,6K	11,6K	10,4K	8,9K	7,4K	5,9K	4,5K	3,3K	2,4K	1,7K	1,2K	0,9K	0,7K	0,5K	0,4K	0,3K	0,2K	0,2K
100%	99%	94%	86%	77%	66%	55%	44%	34%	25%	18%	13%	9%	7%	5%	4%	3%	2%	2%	1%

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°
13,4K	13,3K	12,6K	11,6K	10,4K	8,9K	7,4K	5,9K	4,5K	3,3K	2,4K	1,7K	1,2K	0,9K	0,7K	0,5K	0,4K	0,3K	0,2K	0,2K
100%	99%	94%	86%	77%	66%	55%	44%	34%	25%	18%	13%	9%	7%	5%	4%	3%	2%	2%	1%

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°
13,4K	13,1K	12,4K	11,3K	10,1K	8,7K	7,3K	6,0K	4,8K	3,7K	2,8K	2,1K	1,6K	1,2K	0,9K	0,7K	0,5K	0,4K	0,3K	0,3K
100%	98%	92%	84%	75%	65%	55%	45%	35%	28%	21%	16%	12%	9%	7%	5%	4%	3%	2%	2%

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°
13,4K	13,1K	12,4K	11,3K	10,1K	8,7K	7,3K	6,0K	4,8K	3,7K	2,8K	2,1K	1,6K	1,2K	0,9K	0,7K	0,5K	0,4K	0,3K	0,3K
100%	98%	92%	84%	75%	65%	55%	45%	35%	28%	21%	16%	12%	9%	7%	5%	4%	3%	2%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12,9°	24,4°	34,4°	95,2%	93,9%



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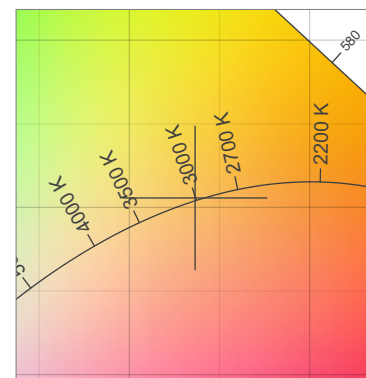
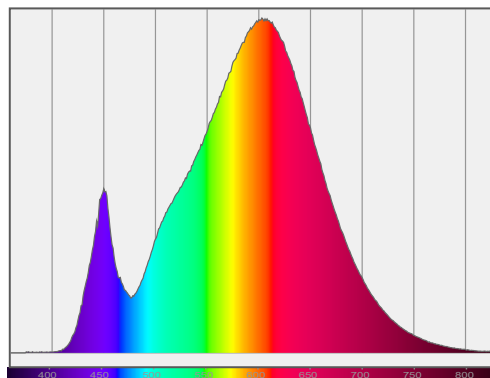
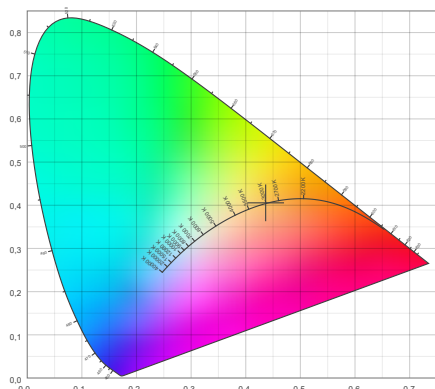
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Test Report

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Color details



CIE 1931

x: 0,436



Spectra

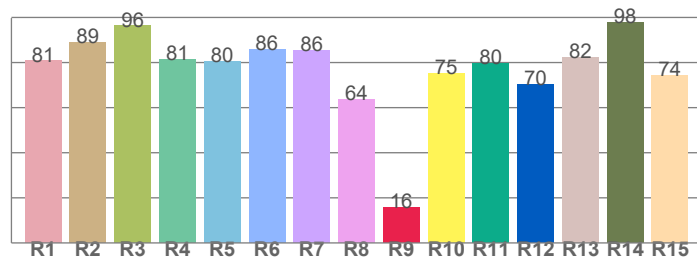
CIE 1931 ZOOM

3024 K

y: 0,406

Δuv : 0,0007

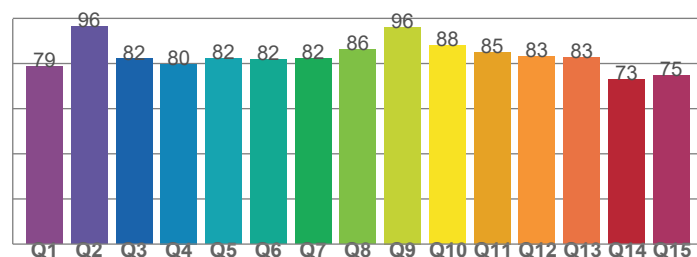
CRI: 82,9 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
80,7	89,1	96,3	81,5	80,4	85,9	85,5	63,8
R9	R10	R11	R12	R13	R14	R15	
15,8	75,1	79,8	70,4	82,3	97,8	74,4	

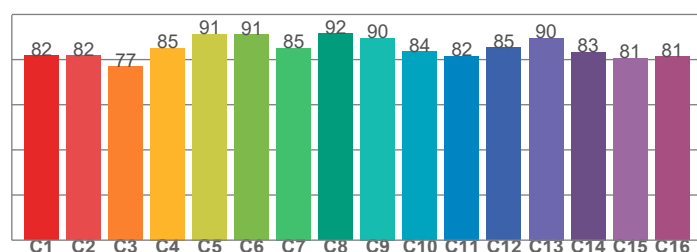
CQS: 82,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,7	96,4	82,1	79,8	82,2	81,8	82,4	86,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	88,1	85,1	83,3	82,8	73,1	74,9	

TM30: 84,9



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

C1	C2	C3	C4	C5	C6	C7	C8
81,7	81,9	77,0	85,2	91,4	91,2	85,2	91,6
C9	C10	C11	C12	C13	C14	C15	
89,5	83,5	81,6	85,3	89,5	83,4	80,7	

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
3024 K	82,9	15,8	84,9	97,4	82,3	0,436	0,406	0,250	0,348	0,0007



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info@cls-led.com
www.cls-led.com

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Test Report

LM79-LINA-HP-3000K-30CM-12DEG

TM30 details

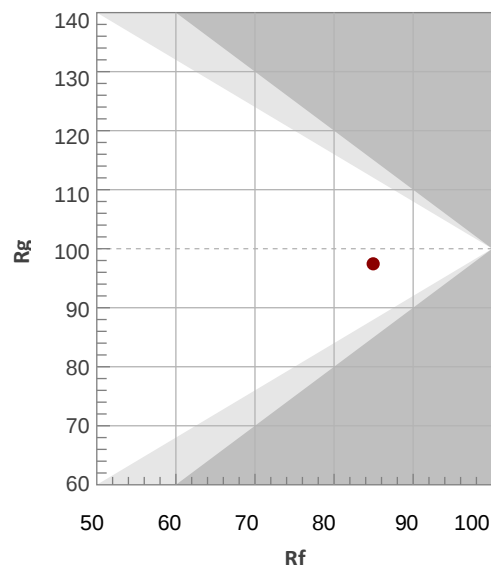
Rf 84,9

Fidelity index Rf

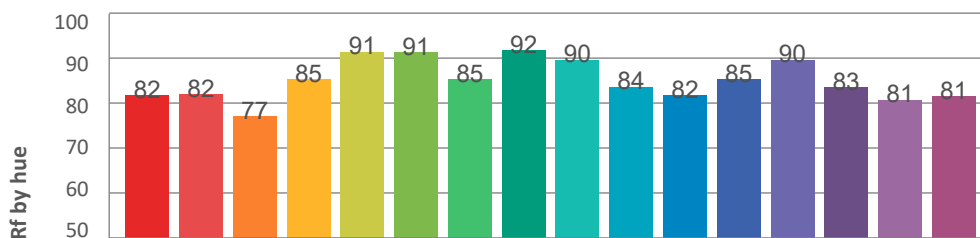
Rg 97,4

Gamut index Rg

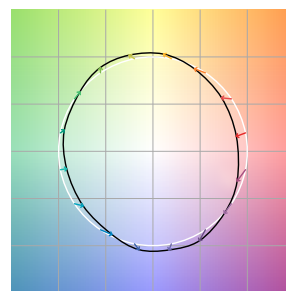
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	82	-10%	-2%
2	82	-8%	7%
3	77	-3%	12%
4	85	3%	9%
5	91	5%	5%
6	91	5%	-3%
7	85	-1%	-9%
8	92	-4%	-4%
9	90	-7%	0%
10	84	-6%	7%
11	82	-3%	13%
12	85	5%	6%
13	90	6%	-4%
14	83	6%	-12%
15	81	-1%	-13%
16	81	-6%	-13%



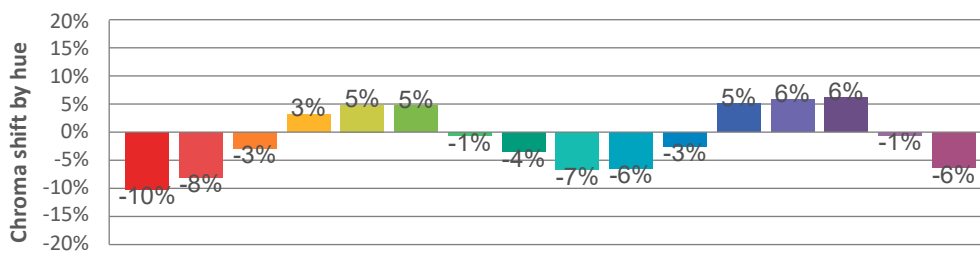
Hue binH



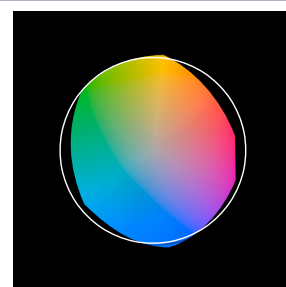
Color vector graphics



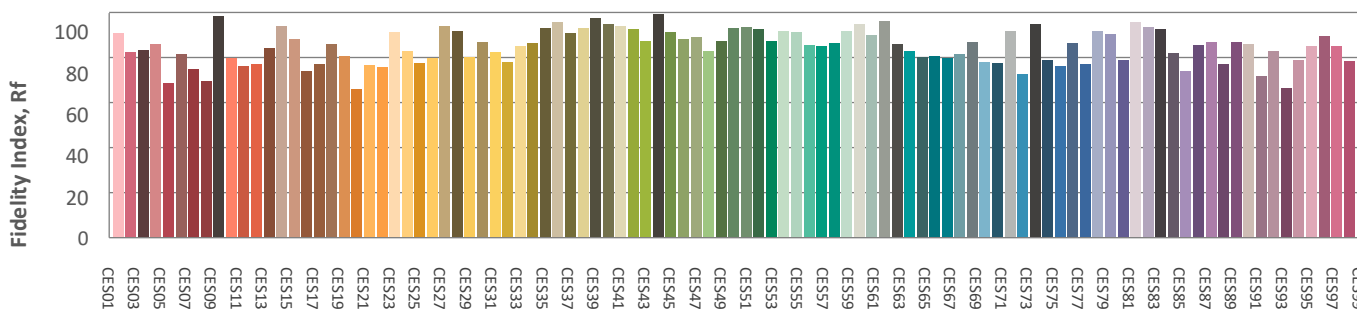
Hue bin



Color distortion graphics



Color Evaluation Sample



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Test Report

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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
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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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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 943lm total luminous flux										



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