

LM-79

Test Report

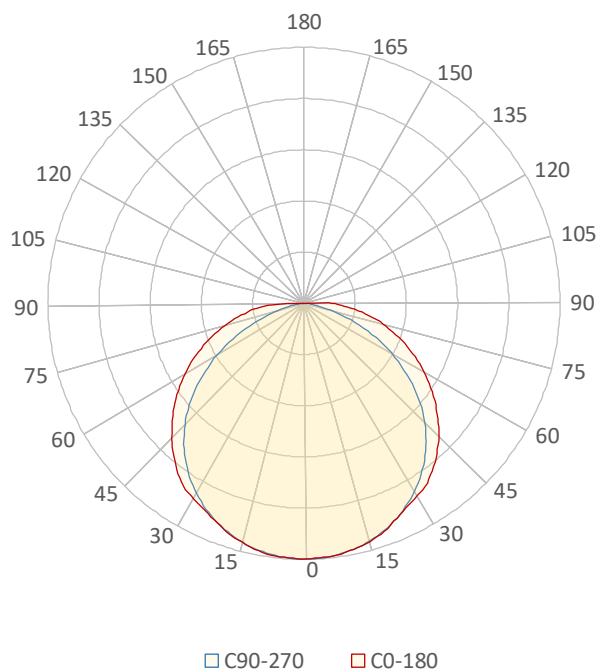
LM79-LINA-DF-3000K-30CM

General Discription

Item number	
Date and time	24-6-2024 13:38:28
CCT (Kelvin)	3040 K
Beam angle	109°
Luminous flux	377 lm
Efficiency	65 lm/watt
Weighted energy	5,8 kWh/1000h
Power factor	1,0
CRI (RA)	91,8
Fidelity index Rf	Rf 89,5
Gammut index Rg	Rg 98,3
Peak	124 cd



Polar diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	124 lx	31 lx	14 lx	8 lx	5 lx																			
*measured at center of beam																								
Footcandles*	11,5 fcd	2,9 fcd	1,3 fcd	0,7 fcd	0,5 fcd																			
Beam width (meter)	3,3 m	6,6 m	9,8 m	13,1 m	16,4 m																			
Beam width (Feet)	10,8 ft	21,5 ft	32,3 ft	43,1 ft	53,8 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
124lx	31lx	14lx	8lx	5lx	3lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx					
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					
11,5fcd	2,9fcd	1,3fcd	0,7fcd	0,5fcd	0,3fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0fcd	0fcd	0fcd	0fcd	0fcd					
Intensities in 0° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
124	124	122	120	116	112	108	105	99	92	84	76	67	58	49	40	30	21	14	0					
100%	100%	98%	97%	94%	90%	87%	84%	80%	74%	68%	61%	54%	47%	40%	32%	24%	17%	11%	0%					
Intensities in 90° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
124	124	122	120	116	111	106	99	91	82	72	61	49	36	24	13	6	2	0	0					
100%	100%	98%	96%	93%	90%	85%	80%	74%	66%	58%	49%	39%	29%	19%	11%	5%	2%	0%	0%					
Intensities in 180° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
124	123	122	120	116	112	109	105	99	92	84	76	67	58	49	40	31	23	0	0					
100%	99%	99%	96%	94%	90%	88%	85%	80%	74%	68%	61%	54%	47%	40%	32%	25%	18%	0%	0%					
Intensities in 270° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
124	124	122	120	116	112	106	99	92	83	72	61	49	36	24	13	6	2	0	0					
100%	100%	98%	96%	94%	90%	85%	80%	74%	66%	58%	49%	39%	29%	19%	11%	5%	2%	0%	0%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
117,3°					165,4°					173,5°					76,6%					51,6%				



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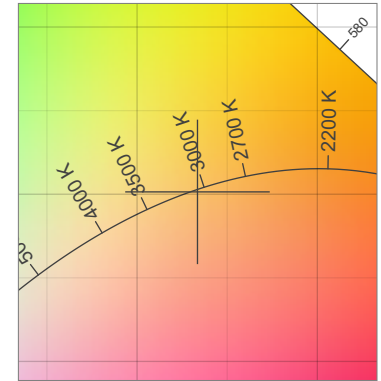
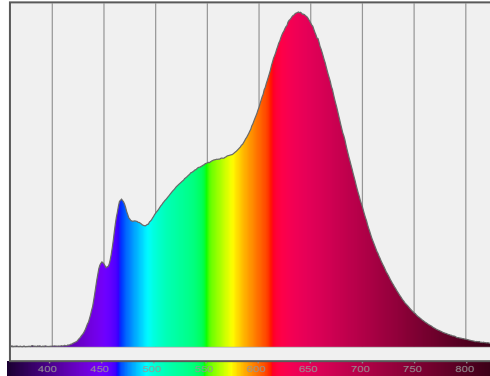
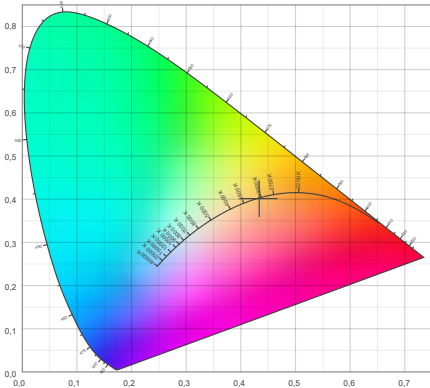
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Color details



CIE 1931

x: 0,434



Spectra

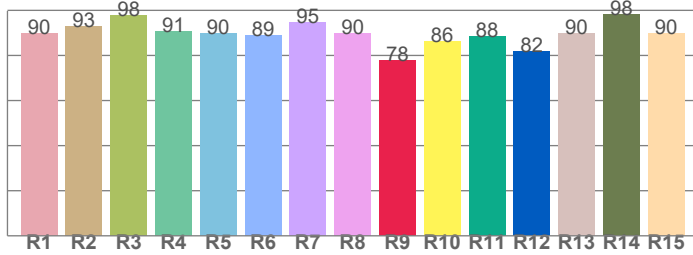
CIE 1931 ZOOM

3040 K

y: 0,401

Δuv: -0,0006

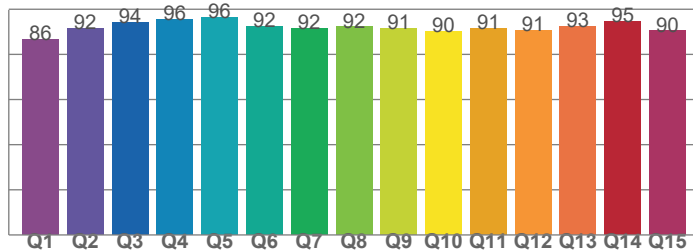
CRI: 91,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
89,8	92,9	98,0	90,9	89,7	89,1	94,5	89,7
R9	R10	R11	R12	R13	R14	R15	
77,9	86,1	88,3	82,0	89,8	98,4	89,9	

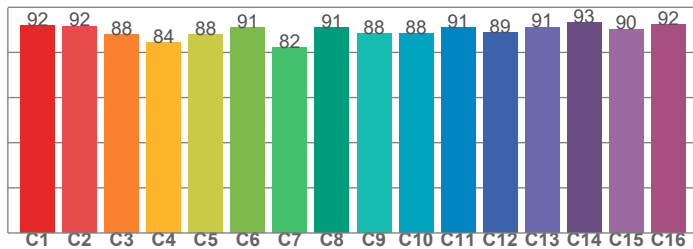
CQS: 91,7



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,5	91,6	94,1	95,5	96,3	92,2	91,6	92,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
91,4	90,1	91,4	90,7	92,5	94,7	90,4	

TM30: 89,5



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

C1	C2	C3	C4	C5	C6	C7	C8
91,9	91,7	87,8	84,4	88,0	91,1	82,1	91,0
C9	C10	C11	C12	C13	C14	C15	
88,2	88,5	91,1	88,8	91,3	93,3	90,3	

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
3040 K	91,8	77,9	89,5	98,3	91,7	0,434	0,401	0,250	0,347	-0,0006



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TM30 details

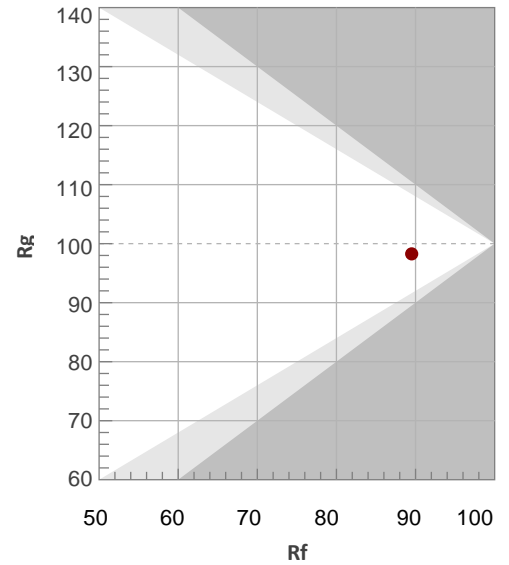
Rf 89,5

Fidelity index Rf

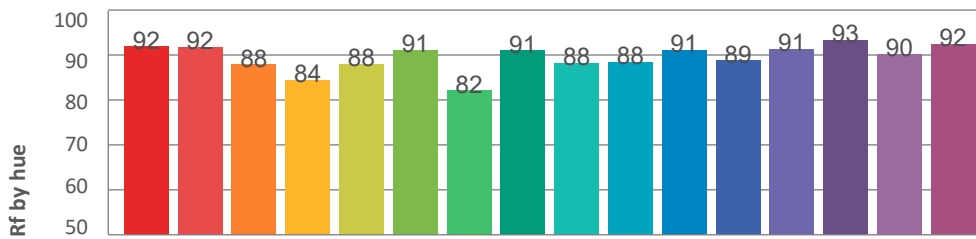
Rg 98,3

Gamut index Rg

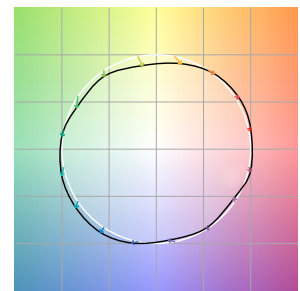
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	2%	2%
2	92	3%	-3%
3	88	0%	-6%
4	84	-6%	-8%
5	88	-10%	-3%
6	91	-5%	3%
7	82	-5%	10%
8	91	1%	6%
9	88	4%	7%
10	88	5%	4%
11	91	6%	0%
12	89	3%	-6%
13	91	-3%	-6%
14	93	-1%	-2%
15	90	-3%	3%
16	92	2%	-3%



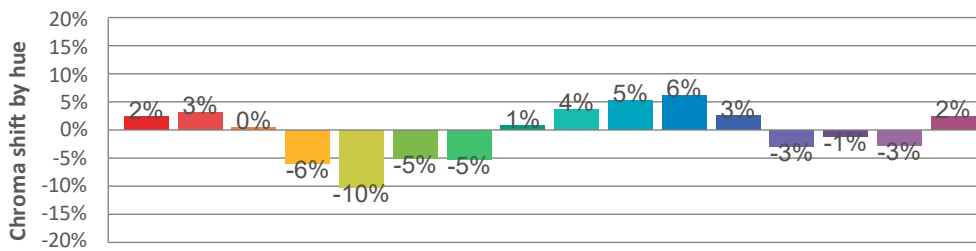
Hue binH



Color vector graphics



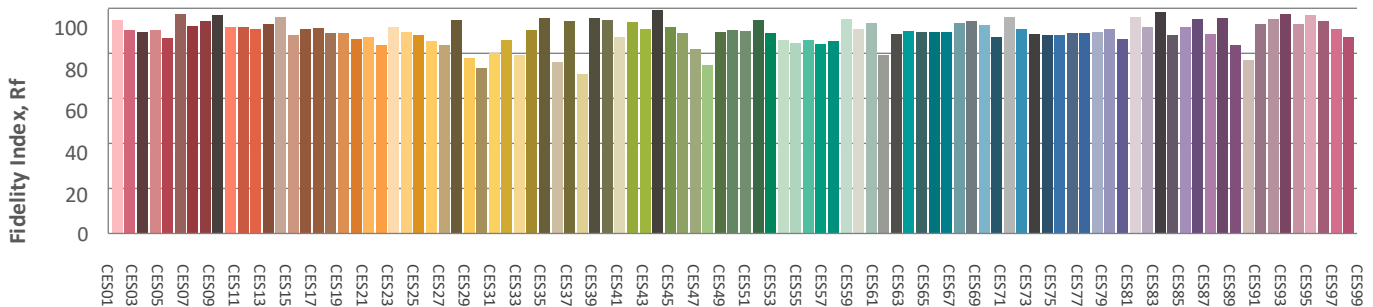
Hue bin



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
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 377lm total luminous flux										



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