

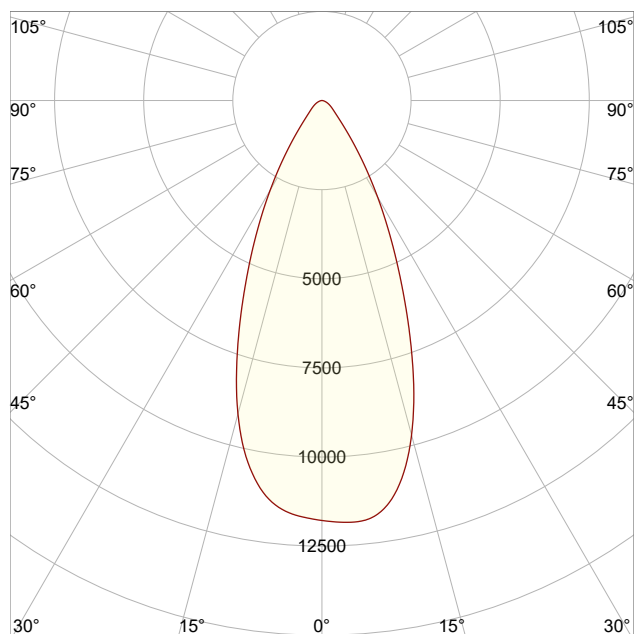
LM-79

Test Report

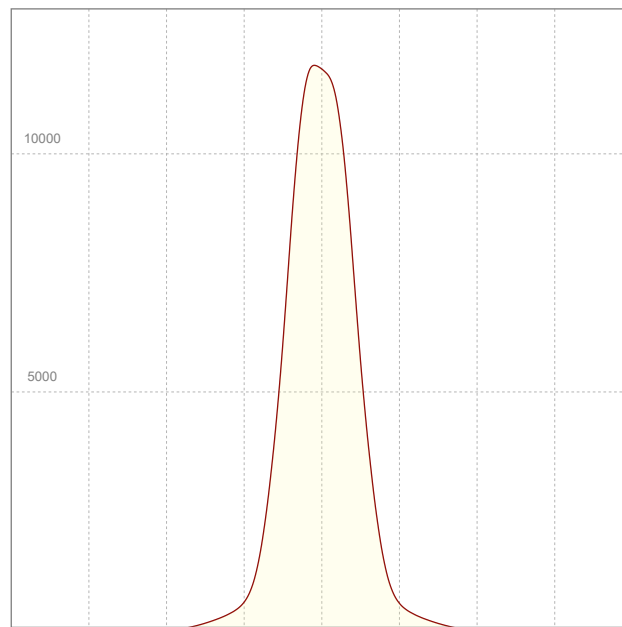
LM79-QUARTZ-4000K-CRI80-WIDE

General Discription

Item number	Q-BXX-4080-W
Date and time	5-1-2024 14:07:51
CCT (Kelvin)	4048 K
Beam angle	44,6°
Luminous flux	7958 lm
Efficiency	102 lm/watt
Weighted energy	78,0 kWh/1000h
Power factor	0,57
CRI (RA)	88,7
Fidelity index Rf	Rf 87,9
Gammut index Rg	Rg 100,2
Peak	11858 cd



Polar curve



Linear distribution diagram



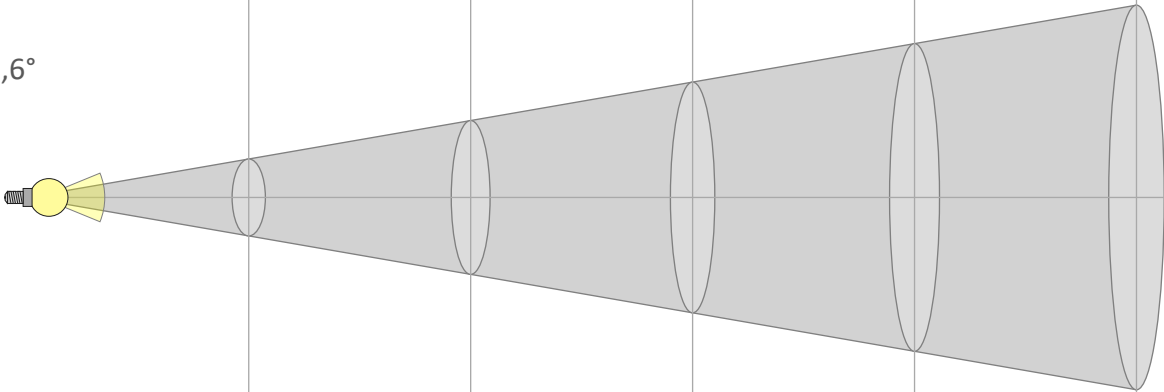
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Beam details					1m		2m		3m		4m		5m							
Lux*					11780 lx		2945 lx		1309 lx		736 lx		471 lx							
44,6° 																				
*measured at center of beam																				
Footcandles*					1094,4 fcd		273,6 fcd		121,6 fcd		68,4 fcd		43,8 fcd							
Beam width (meter)					0,8 m		1,6 m		2,5 m		3,3 m		4,1 m							
Beam width (Feet)					2,7 ft		5,4 ft		8,1 ft		10,8 ft		13,4 ft							
Beam intensities																				
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m	
11780lx	2945lx	1309lx	736lx	471lx	327lx	240lx	184lx	145lx	118lx	97lx	82lx	70lx	60lx	52lx	46lx	41lx	36lx	33lx	29lx	
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	
1094,4fcd	273,6fcd	121,6fcd	68,4fcd	43,8fcd	30,4fcd	22,3fcd	17,1fcd	13,5fcd	10,9fcd	9fcd	7,6fcd	6,5fcd	5,6fcd	4,9fcd	4,3fcd	3,8fcd	3,4fcd	3fcd	2,7fcd	
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°	
11,8K	11,8K	11,9K	11,8K	11,7K	11,3K	10,8K	10,1K	9,3K	8,3K	7,3K	6,3K	5,4K	4,5K	3,8K	3,1K	2,5K	2,0K	1,6K	1,2K	
100%	100%	101%	100%	99%	96%	92%	86%	79%	71%	62%	53%	46%	38%	32%	26%	21%	17%	13%	10%	
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°	
11,8K	11,8K	11,9K	11,8K	11,7K	11,3K	10,8K	10,1K	9,3K	8,3K	7,3K	6,3K	5,4K	4,5K	3,8K	3,1K	2,5K	2,0K	1,6K	1,2K	
100%	100%	101%	100%	99%	96%	92%	86%	79%	71%	62%	53%	46%	38%	32%	26%	21%	17%	13%	10%	
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°	
11,8K	11,7K	11,6K	11,5K	11,2K	10,8K	10,2K	9,5K	8,7K	7,7K	6,8K	5,8K	5,0K	4,2K	3,5K	2,9K	2,3K	1,9K	1,5K	1,1K	
100%	99%	99%	97%	95%	92%	87%	81%	74%	66%	57%	50%	42%	36%	30%	25%	20%	16%	12%	10%	
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°	
11,8K	11,7K	11,6K	11,5K	11,2K	10,8K	10,2K	9,5K	8,7K	7,7K	6,8K	5,8K	5,0K	4,2K	3,5K	2,9K	2,3K	1,9K	1,5K	1,1K	
100%	99%	99%	97%	95%	92%	87%	81%	74%	66%	57%	50%	42%	36%	30%	25%	20%	16%	12%	10%	
Beam angle 50%					Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
44,6°					75,9°				111,6°				96,7%				90,8%			



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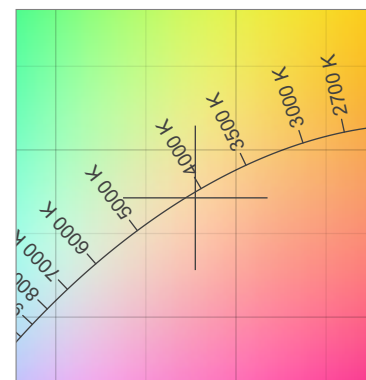
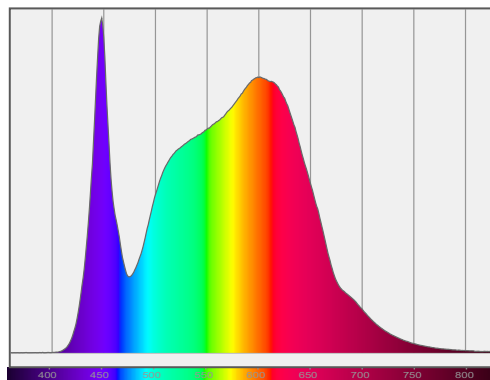
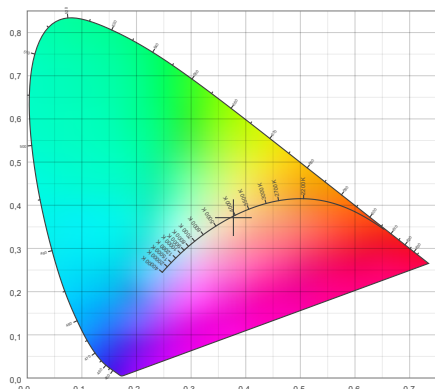
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Test Report

LM79-QUARTZ-4000K-CRI80-WIDE

Color details



CIE 1931

x: 0,377

4048 K

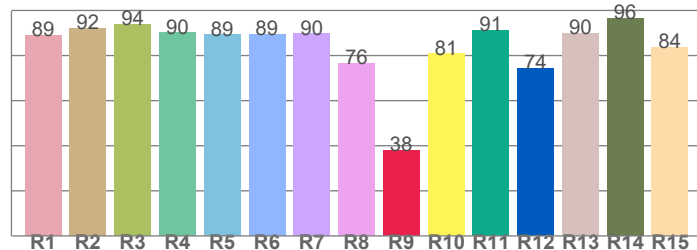
y: 0,371

Spectra

CIE 1931 ZOOM

 $\Delta uv: -0,0017$

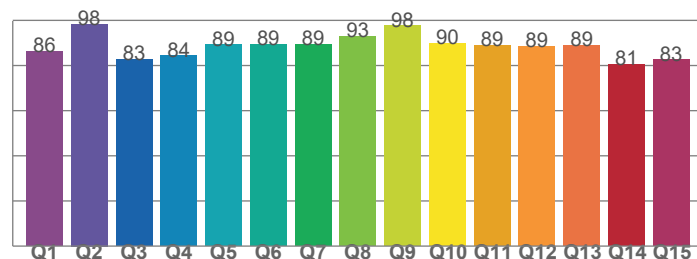
CRI: 88,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
89,0	91,9	93,9	90,1	89,2	89,3	89,7	76,4
R9	R10	R11	R12	R13	R14	R15	
37,9	80,8	91,2	74,4	89,7	96,4	83,7	

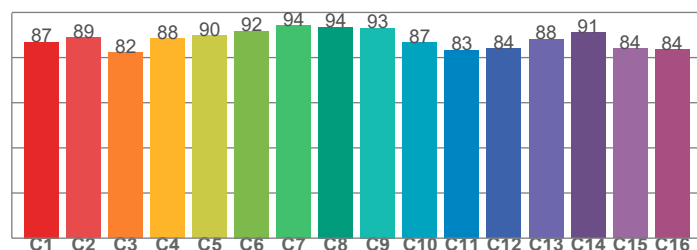
CQS: 87,6



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,3	98,4	82,6	84,3	89,2	89,4	89,4	92,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,6	89,9	88,9	88,6	88,8	80,6	82,5	

TM30: 87,9



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

C1	C2	C3	C4	C5	C6	C7	C8
87,0	89,0	82,2	88,4	89,9	91,8	94,1	93,6
C9	C10	C11	C12	C13	C14	C15	
93,1	86,8	83,4	84,0	88,2	91,1	83,9	

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
4048 K	88,7	37,9	87,9	100,2	87,6	0,377	0,371	0,225	0,332	-0,0017



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Test Report

LM79-QUARTZ-4000K-CRI80-WIDE

TM30 details

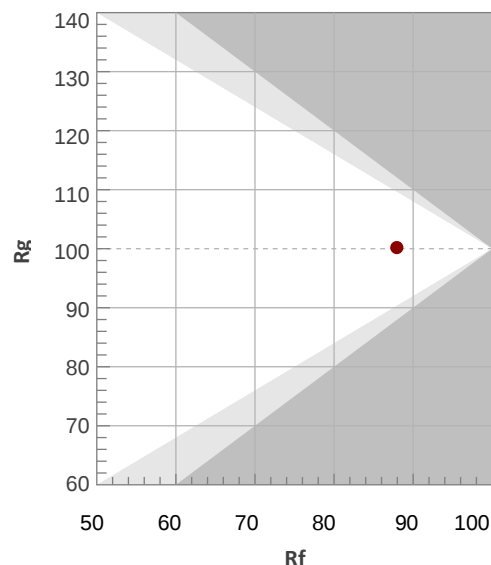
Rf 87,9

Fidelity index Rf

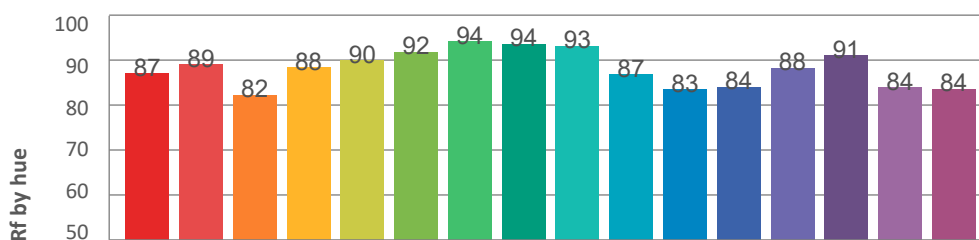
Rg 100,2

Gamut index Rg

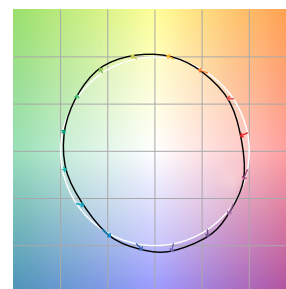
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	87	-8%	-2%
2	89	-5%	4%
3	82	-2%	9%
4	88	2%	7%
5	90	4%	5%
6	92	5%	0%
7	94	1%	-3%
8	94	-2%	-3%
9	93	-4%	0%
10	87	-5%	5%
11	83	1%	11%
12	84	5%	7%
13	88	7%	-3%
14	91	6%	-3%
15	84	2%	-12%
16	84	-2%	-11%



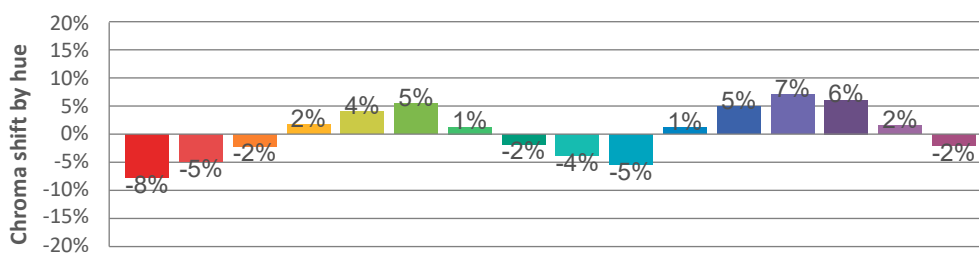
Hue binH



Color vector graphics



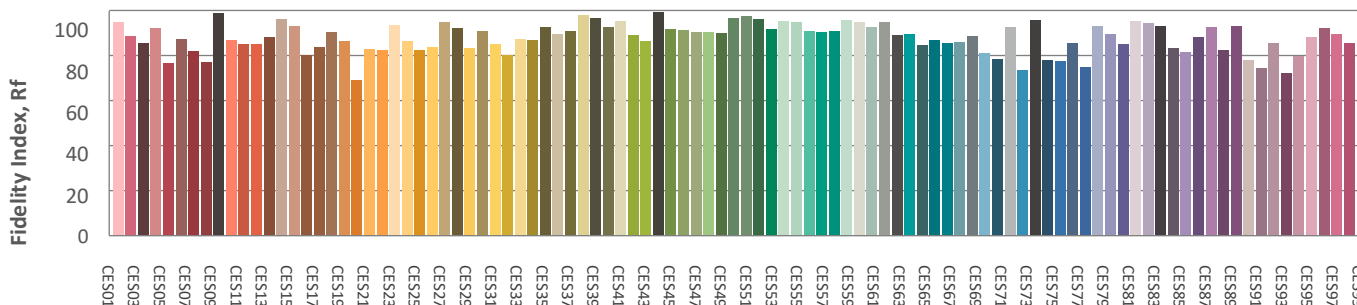
Hue bin



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
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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
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 7958lm total luminous flux										



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