

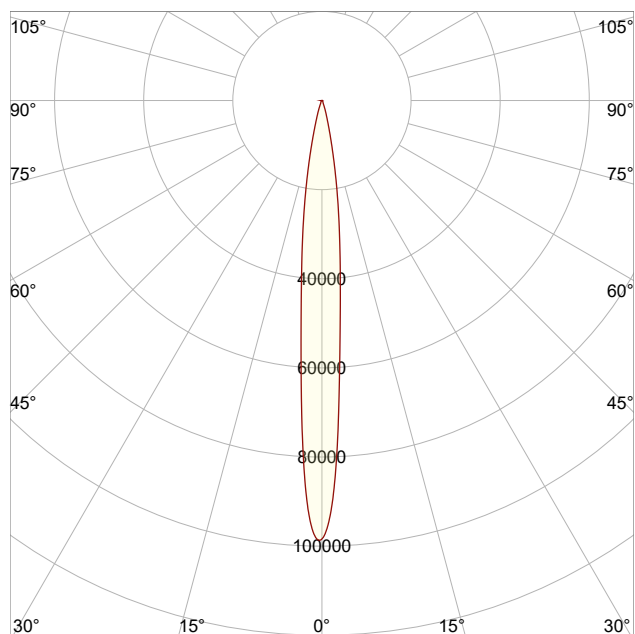
LM-79

Test Report

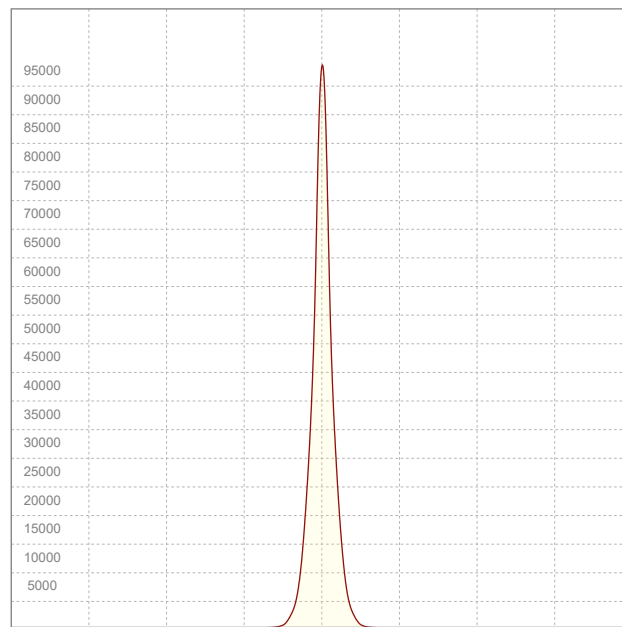
LM79-QUARTZ-1800K-CRI80-NARROW

General Discription

Item number	Q-BXX-1880-N
Date and time	5-1-2024 16:48:57
CCT (Kelvin)	1852 K
Beam angle	10,2°
Luminous flux	6771 lm
Efficiency	88 lm/watt
Weighted energy	77,0 kWh/1000h
Power factor	0,58
CRI (RA)	73,3
Fidelity index Rf	Rf 79,0
Gammut index Rg	Rg 92,3
Peak	98626 cd



Polar curve



Linear distribution diagram



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LM-79

Test Report

LM79-QUARTZ-1800K-CRI80-NARROW

Beam details	1m	2m	3m	4m	5m
Lux*	98238 lx	24560 lx	10915 lx	6140 lx	3930 lx

*measured at center of beam

Footcandles*	9126,7 fcd	2281,7 fcd	1014,1 fcd	570,4 fcd	365,1 fcd
Beam width (meter)	0,2 m	0,4 m	0,5 m	0,7 m	0,9 m
Beam width (Feet)	0,6 ft	1,2 ft	1,8 ft	2,3 ft	2,9 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
98238lx	24560lx	10915lx	6140lx	3930lx	2729lx	2005lx	1535lx	1213lx	982lx	812lx	682lx	581lx	501lx	437lx	384lx	340lx	303lx	272lx	246lx
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
9126,7fcd	2281,7fcd	1014,1fcd	570,4fcd	365,1fcd	253,5fcd	186,3fcd	142,6fcd	112,7fcd	91,3fcd	75,4fcd	63,4fcd	54fcd	46,6fcd	40,6fcd	35,7fcd	31,6fcd	28,2fcd	25,3fcd	22,8fcd

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°
98,2K	93,9K	84,5K	71,0K	57,5K	47,2K	39,4K	32,9K	27,5K	22,6K	18,3K	14,4K	11,2K	8,6K	6,6K	5,1K	4,0K	3,2K	2,6K	2,1K
100%	96%	86%	72%	59%	48%	40%	34%	28%	23%	19%	15%	11%	9%	7%	5%	4%	3%	3%	2%

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°
98,2K	93,9K	84,5K	71,0K	57,5K	47,2K	39,4K	32,9K	27,5K	22,6K	18,3K	14,4K	11,2K	8,6K	6,6K	5,1K	4,0K	3,2K	2,6K	2,1K
100%	96%	86%	72%	59%	48%	40%	34%	28%	23%	19%	15%	11%	9%	7%	5%	4%	3%	3%	2%

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°
98,2K	97,3K	91,1K	79,8K	66,2K	53,8K	44,4K	37,1K	31,2K	25,9K	21,2K	17,0K	13,4K	10,3K	7,9K	6,0K	4,7K	3,7K	3,0K	2,4K
100%	99%	93%	81%	67%	55%	45%	38%	32%	26%	22%	17%	14%	11%	8%	6%	5%	4%	3%	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°
98,2K	97,3K	91,1K	79,8K	66,2K	53,8K	44,4K	37,1K	31,2K	25,9K	21,2K	17,0K	13,4K	10,3K	7,9K	6,0K	4,7K	3,7K	3,0K	2,4K
100%	99%	93%	81%	67%	55%	45%	38%	32%	26%	22%	17%	14%	11%	8%	6%	5%	4%	3%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,2°	25,7°	37°	97,6%	94,6%



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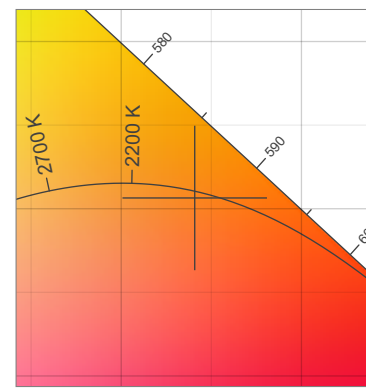
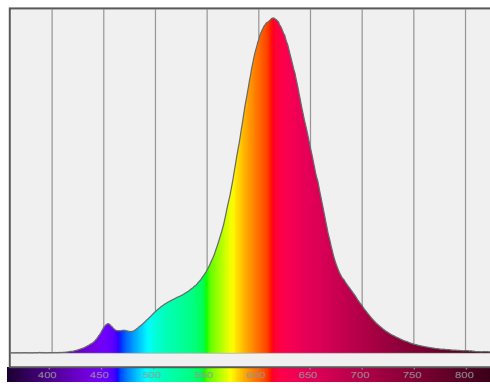
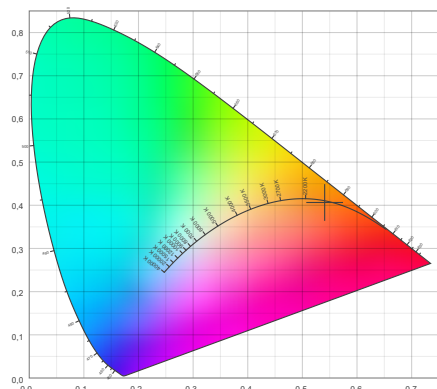
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LM-79

Test Report

LM79-QUARTZ-1800K-CRI80-NARROW

Color details



CIE 1931

x: 0,541



Spectra

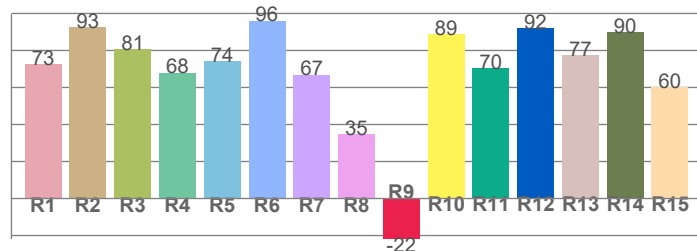
CIE 1931 ZOOM

1852 K

y: 0,406

Δuv : -0,0011

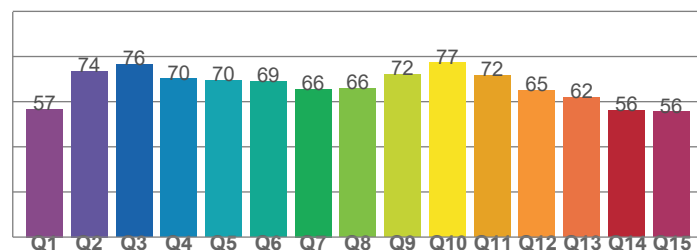
CRI: 73,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
72,6	92,8	80,9	68,1	74,3	96,1	67,0	34,6
R9	R10	R11	R12	R13	R14	R15	
-21,8	88,9	70,3	92,1	77,3	89,9	60,2	

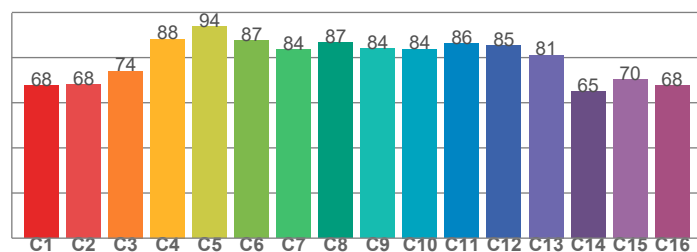
CQS: 65,6



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
56,7	73,6	76,4	70,1	69,5	68,9	65,6	65,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
72,0	77,3	71,7	65,2	61,9	56,2	55,5	

TM30: 79,0



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

C1	C2	C3	C4	C5	C6	C7	C8
67,7	68,2	74,1	88,3	93,8	87,4	83,5	86,6
C9	C10	C11	C12	C13	C14	C15	
83,9	83,8	86,3	85,4	81,2	64,9	70,2	

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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
1852 K	73,3	-21,8	79,0	92,3	65,6	0,541	0,406	0,318	0,359	-0,0011



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LM-79

Test Report

LM79-QUARTZ-1800K-CRI80-NARROW

TM30 details

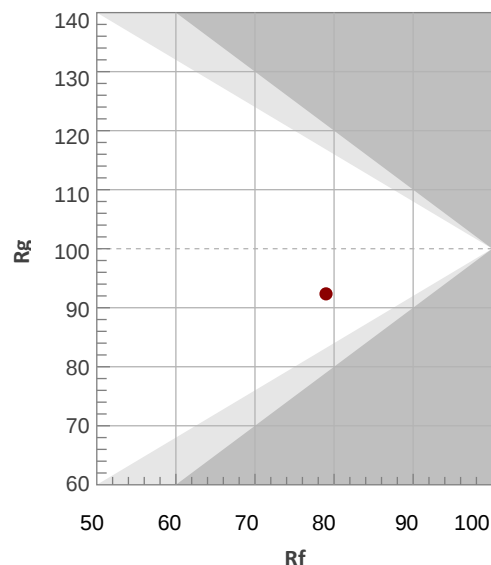
Rf 79,0

Fidelity index Rf

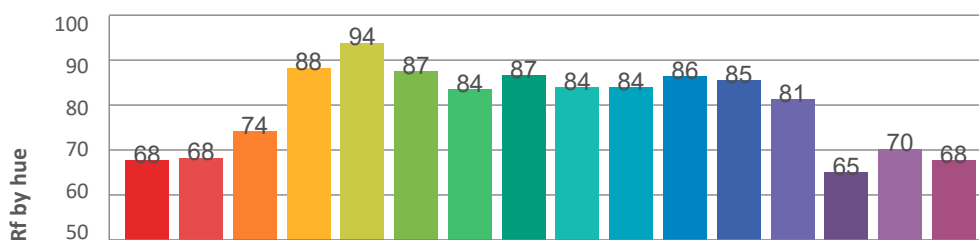
Rg 92,3

Gamut index Rg

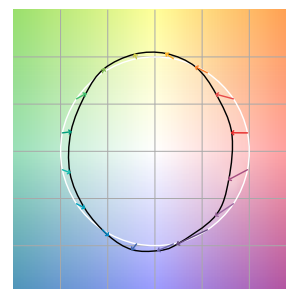
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-16%	3%
2	68	-13%	14%
3	74	-2%	14%
4	88	4%	9%
5	94	5%	1%
6	87	3%	-4%
7	84	-5%	-10%
8	87	-9%	-3%
9	84	-7%	5%
10	84	-5%	8%
11	86	2%	8%
12	85	7%	-3%
13	81	4%	-17%
14	65	-5%	-35%
15	70	-9%	-21%
16	68	-17%	-14%



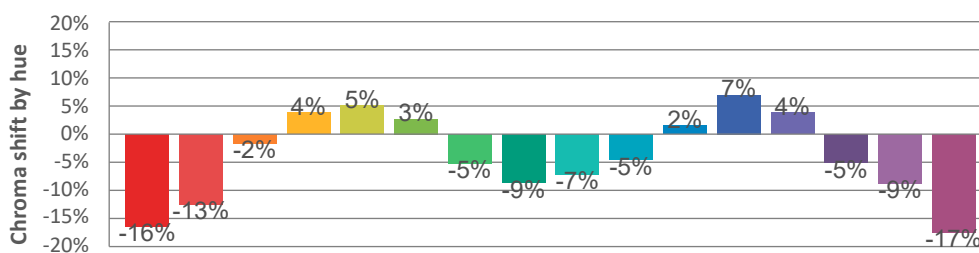
Hue binH



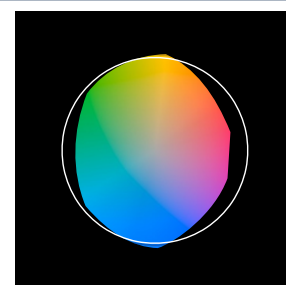
Color vector graphics



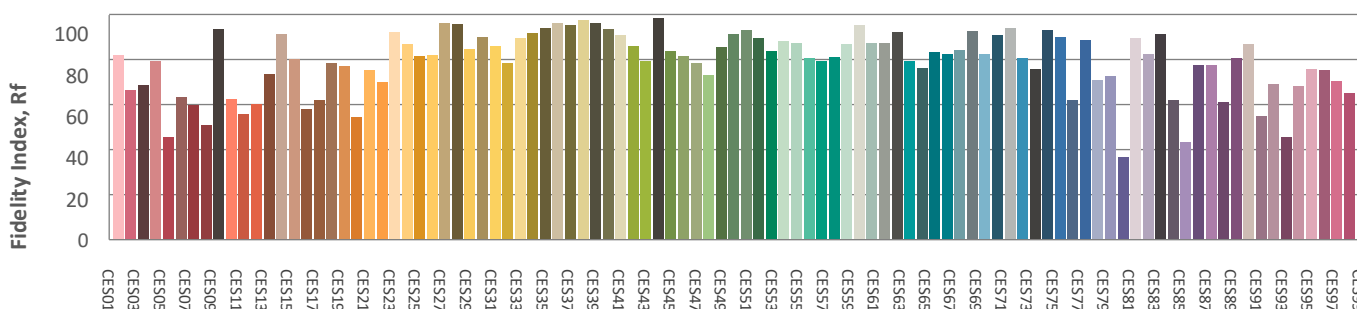
Hue bin



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
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 6771lm total luminous flux										