

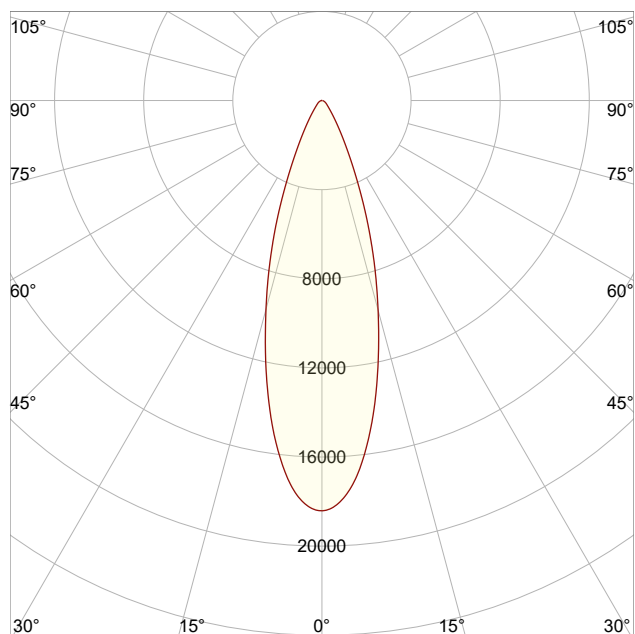
LM-79

Test Report

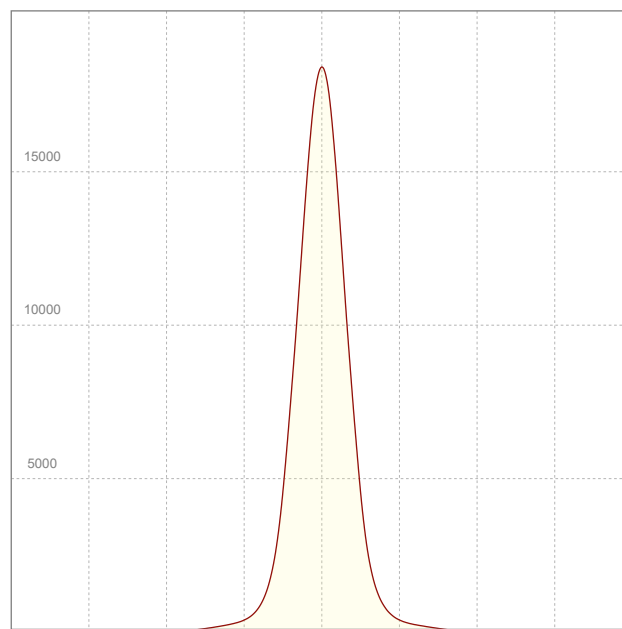
LM79-QUARTZ-1800K-CRI80-MEDIUM

General Discription

Item number	Q-BXX-1880-M
Date and time	8-1-2024 10:16:03
CCT (Kelvin)	1840 K
Beam angle	31,4°
Luminous flux	7092 lm
Efficiency	91 lm/watt
Weighted energy	77,9 kWh/1000h
Power factor	0,57
CRI (RA)	73,2
Fidelity index Rf	Rf 79,2
Gammut index Rg	Rg 91,7
Peak	18402 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	18399 lx	4600 lx	2044 lx	1150 lx	736 lx

*measured at center of beam

Footcandles*	1709,4 fcd	427,3 fcd	189,9 fcd	106,8 fcd	68,4 fcd
Beam width (meter)	0,6 m	1,1 m	1,7 m	2,2 m	2,8 m
Beam width (Feet)	1,8 ft	3,7 ft	5,5 ft	7,4 ft	9,2 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
18399lx	4600lx	2044lx	1150lx	736lx	511lx	375lx	287lx	227lx	184lx	152lx	128lx	109lx	94lx	82lx	72lx	64lx	57lx	51lx	46lx
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
1709,4fcd	427,3fcd	189,9fcd	106,8fcd	68,4fcd	47,5fcd	34,9fcd	26,7fcd	21,1fcd	17,1fcd	14,1fcd	11,9fcd	10,1fcd	8,7fcd	7,6fcd	6,7fcd	5,9fcd	5,3fcd	4,7fcd	4,3fcd

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°
18,4K	18,2K	17,5K	16,5K	15,2K	13,7K	12,1K	10,5K	9,0K	7,5K	6,2K	4,9K	3,8K	2,9K	2,2K	1,7K	1,3K	1,1K	0,8K	0,7K
100%	99%	95%	90%	83%	75%	66%	57%	49%	41%	34%	27%	21%	16%	12%	9%	7%	6%	5%	4%

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°
18,4K	18,2K	17,5K	16,5K	15,2K	13,7K	12,1K	10,5K	9,0K	7,5K	6,2K	4,9K	3,8K	2,9K	2,2K	1,7K	1,3K	1,1K	0,8K	0,7K
100%	99%	95%	90%	83%	75%	66%	57%	49%	41%	34%	27%	21%	16%	12%	9%	7%	6%	5%	4%

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°
18,4K	18,2K	17,6K	16,6K	15,2K	13,7K	12,1K	10,5K	9,0K	7,5K	6,1K	4,8K	3,7K	2,8K	2,2K	1,7K	1,3K	1,1K	0,9K	0,7K
100%	99%	96%	90%	83%	75%	66%	57%	49%	41%	33%	26%	20%	15%	12%	9%	7%	6%	5%	4%

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°
18,4K	18,2K	17,6K	16,6K	15,2K	13,7K	12,1K	10,5K	9,0K	7,5K	6,1K	4,8K	3,7K	2,8K	2,2K	1,7K	1,3K	1,1K	0,9K	0,7K
100%	99%	96%	90%	83%	75%	66%	57%	49%	41%	33%	26%	20%	15%	12%	9%	7%	6%	5%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
31,4°	58,8°	85,4°	97,0%	92,1%



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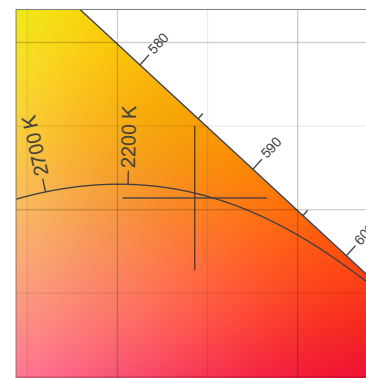
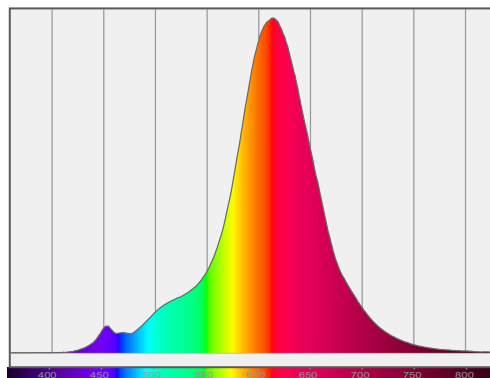
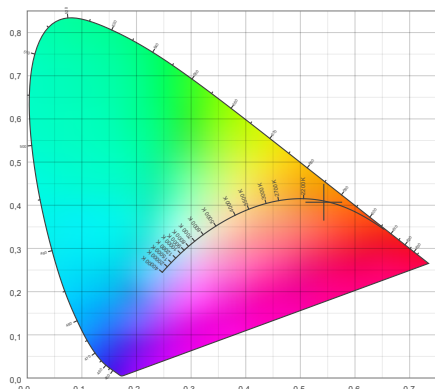
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Color details



CIE 1931

x: 0,543



Spectra

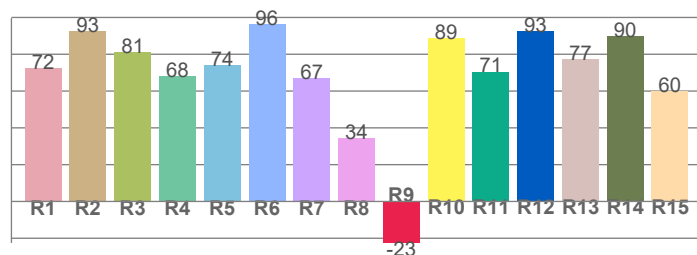
CIE 1931 ZOOM

1840 K

y: 0,407

 Δuv : -0,0008

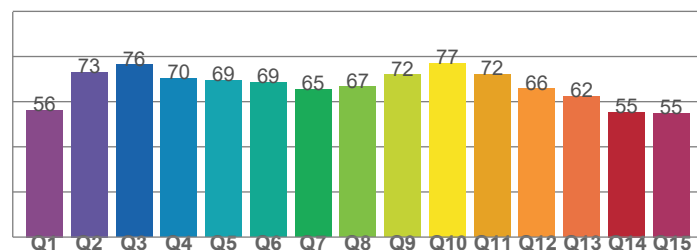
CRI: 73,2 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
72,4	92,6	81,0	68,1	74,1	96,2	67,0	34,3
R9	R10	R11	R12	R13	R14	R15	
-22,5	88,6	70,6	92,5	77,2	90,0	59,8	

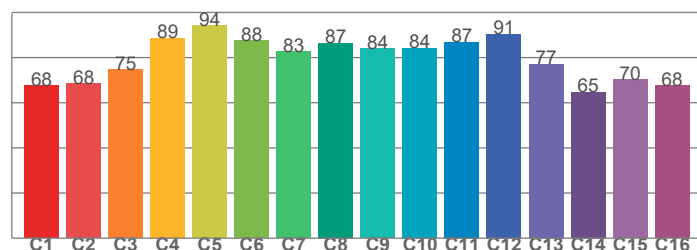
CQS: 65,5



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
56,3	73,2	76,3	70,3	69,5	68,6	65,5	66,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
71,9	77,1	72,0	65,7	62,4	55,4	55,0	

TM30: 79,2



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

C1	C2	C3	C4	C5	C6	C7	C8
67,6	68,4	74,8	88,7	94,1	87,6	82,8	86,5
C9	C10	C11	C12	C13	C14	C15	
84,1	84,3	86,9	90,5	77,2	64,8	70,3	

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
1840 K	73,2	-22,5	79,2	91,7	65,5	0,543	0,407	0,319	0,359	-0,0008



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TM30 details

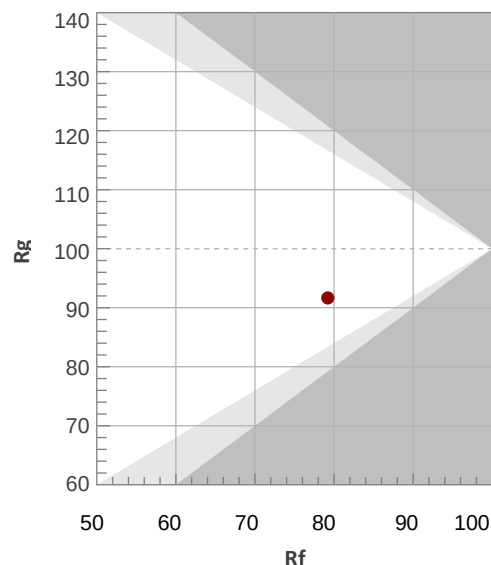
Rf 79,2

Fidelity index Rf

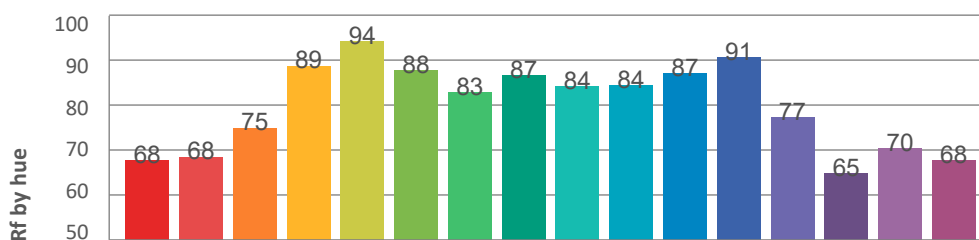
Rg 91,7

Gamut index Rg

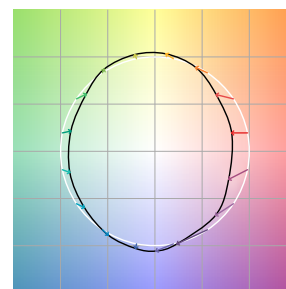
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-16%	3%
2	68	-13%	14%
3	75	-2%	13%
4	89	4%	9%
5	94	5%	1%
6	88	2%	-3%
7	83	-6%	-10%
8	87	-8%	-4%
9	84	-7%	4%
10	84	-5%	8%
11	87	1%	8%
12	91	5%	0%
13	77	4%	-20%
14	65	-5%	-35%
15	70	-9%	-21%
16	68	-18%	-14%



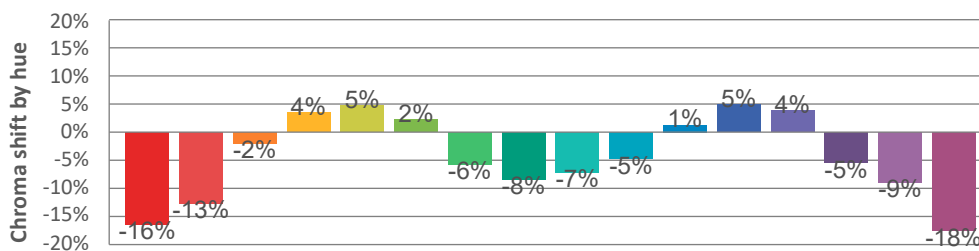
Hue binH



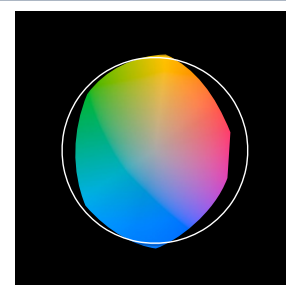
Color vector graphics



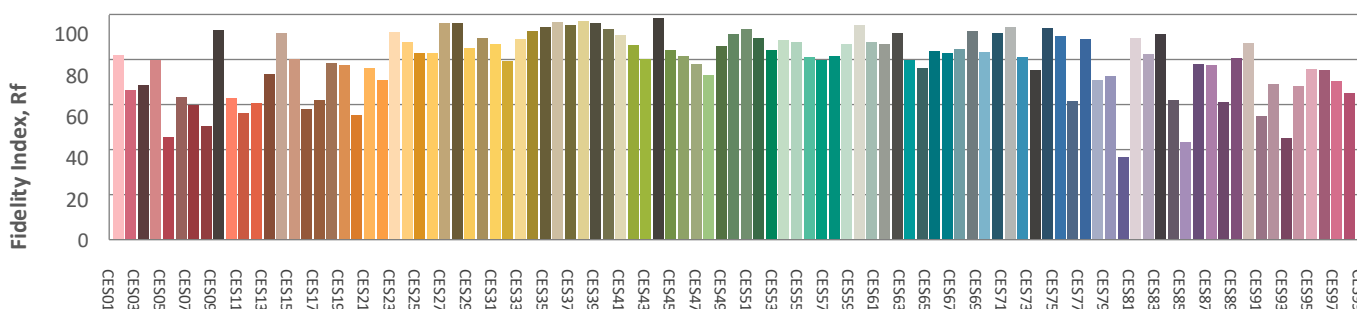
Hue bin



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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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
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 7092lm total luminous flux										



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