

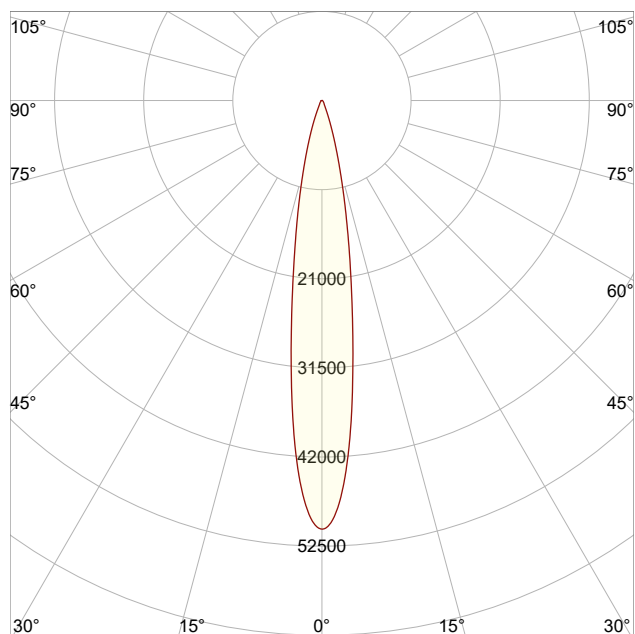
LM-79

Test Report

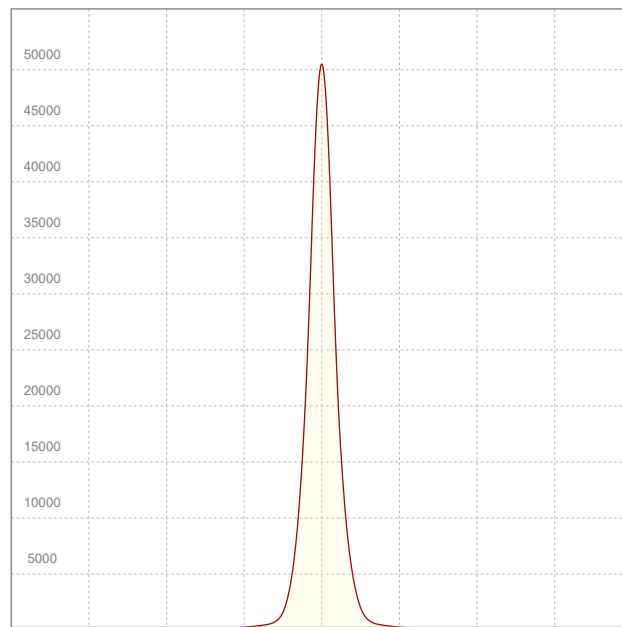
LM79-QUARTZ-1800K-CRI80-SPOT

General Discription

Item number	Q-BXX-1880-S
Date and time	5-1-2024 16:52:29
CCT (Kelvin)	1845 K
Beam angle	16,3°
Luminous flux	6671 lm
Efficiency	87 lm/watt
Weighted energy	76,9 kWh/1000h
Power factor	0,58
CRI (RA)	73,5
Fidelity index Rf	Rf 79,0
Gammut index Rg	Rg 92,6
Peak	50392 cd



Polar curve



Linear distribution diagram



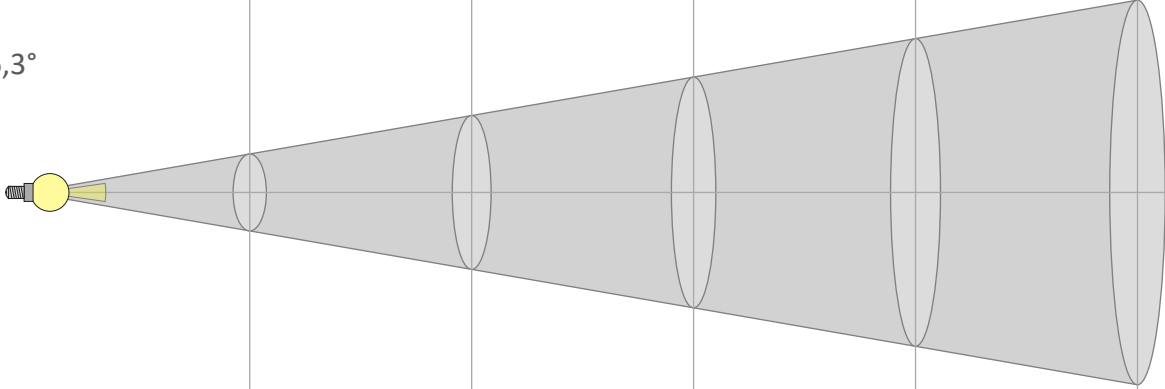
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Beam details					1m		2m		3m		4m		5m						
Lux*					50358 lx		12590 lx		5595 lx		3147 lx		2014 lx						
16,3° 																			
*measured at center of beam																			
Footcandles*					4678,4 fcd		1169,6 fcd		519,8 fcd		292,4 fcd		187,1 fcd						
Beam width (meter)					0,3 m		0,6 m		0,9 m		1,1 m		1,4 m						
Beam width (Feet)					0,9 ft		1,9 ft		2,8 ft		3,8 ft		4,7 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
50358lx	12590lx	5595lx	3147lx	2014lx	1399lx	1028lx	787lx	622lx	504lx	416lx	350lx	298lx	257lx	224lx	197lx	174lx	155lx	139lx	126lx
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
4678,4fcd	1169,6fcd	519,8fcd	292,4fcd	187,1fcd	130fcd	95,5fcd	73,1fcd	57,8fcd	46,8fcd	38,7fcd	32,5fcd	27,7fcd	23,9fcd	20,8fcd	18,3fcd	16,2fcd	14,4fcd	13fcd	11,7fcd
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°
50,4K	49,9K	48,4K	45,9K	42,6K	38,7K	34,4K	30,0K	25,9K	22,2K	18,9K	16,0K	13,5K	11,4K	9,4K	7,8K	6,4K	5,2K	4,3K	3,4K
100%	99%	96%	91%	85%	77%	68%	60%	51%	44%	38%	32%	27%	23%	19%	15%	13%	10%	8%	7%
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°
50,4K	49,9K	48,4K	45,9K	42,6K	38,7K	34,4K	30,0K	25,9K	22,2K	18,9K	16,0K	13,5K	11,4K	9,4K	7,8K	6,4K	5,2K	4,3K	3,4K
100%	99%	96%	91%	85%	77%	68%	60%	51%	44%	38%	32%	27%	23%	19%	15%	13%	10%	8%	7%
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°
50,4K	49,8K	48,2K	45,7K	42,5K	38,5K	34,2K	29,8K	25,7K	22,0K	18,8K	16,1K	13,7K	11,7K	9,8K	8,3K	7,0K	5,8K	4,8K	4,0K
100%	99%	96%	91%	84%	76%	68%	59%	51%	44%	37%	32%	27%	23%	20%	16%	14%	12%	10%	8%
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°
50,4K	49,8K	48,2K	45,7K	42,5K	38,5K	34,2K	29,8K	25,7K	22,0K	18,8K	16,1K	13,7K	11,7K	9,8K	8,3K	7,0K	5,8K	4,8K	4,0K
100%	99%	96%	91%	84%	76%	68%	59%	51%	44%	37%	32%	27%	23%	20%	16%	14%	12%	10%	8%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
16,3°				35°				48,6°				97,4%				93,9%			



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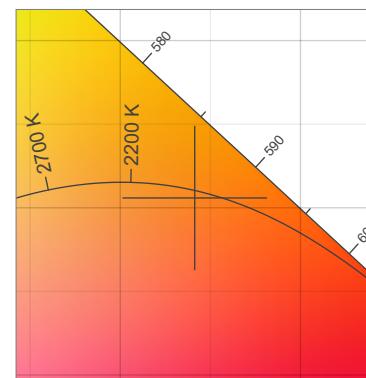
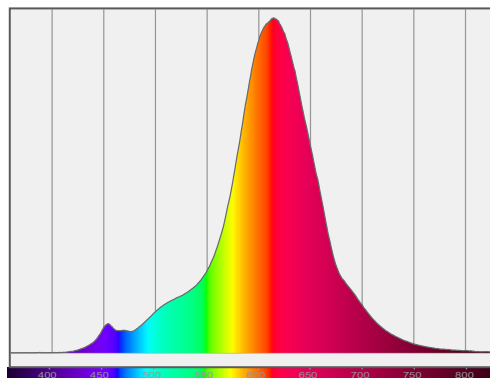
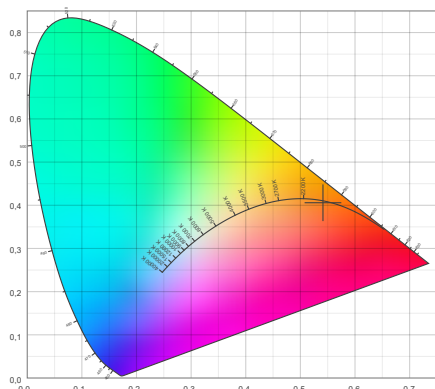
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Test Report

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Color details



CIE 1931

x: 0,541



Spectra

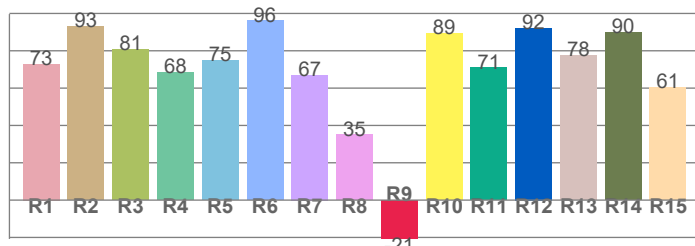
CIE 1931 ZOOM

1845 K

y: 0,406

Δuv : -0,0013

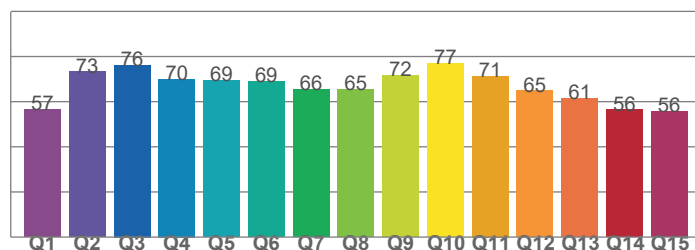
CRI: 73,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
72,9	93,0	80,7	68,4	74,7	96,1	67,0	35,0
R9	R10	R11	R12	R13	R14	R15	
-20,8	89,4	70,9	92,2	77,7	89,9	60,5	

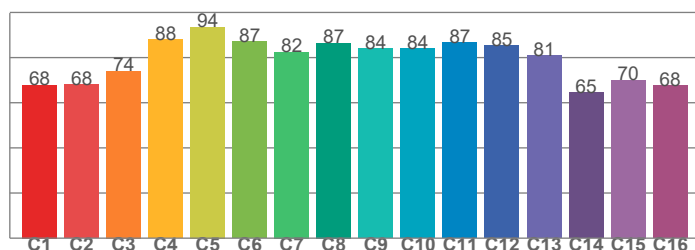
CQS: 65,5



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
56,6	73,3	76,3	70,1	69,5	68,9	65,6	65,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
71,6	77,0	71,4	64,8	61,4	56,4	55,6	

TM30: 79,0



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

C1	C2	C3	C4	C5	C6	C7	C8
67,9	68,2	74,0	88,1	93,6	87,2	82,5	86,5
C9	C10	C11	C12	C13	C14	C15	
84,2	84,1	86,6	85,3	81,0	64,6	70,1	

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
1845 K	73,5	-20,8	79,0	92,6	65,5	0,541	0,406	0,319	0,359	-0,0013



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LM79-QUARTZ-1800K-CRI80-SPOT

TM30 details

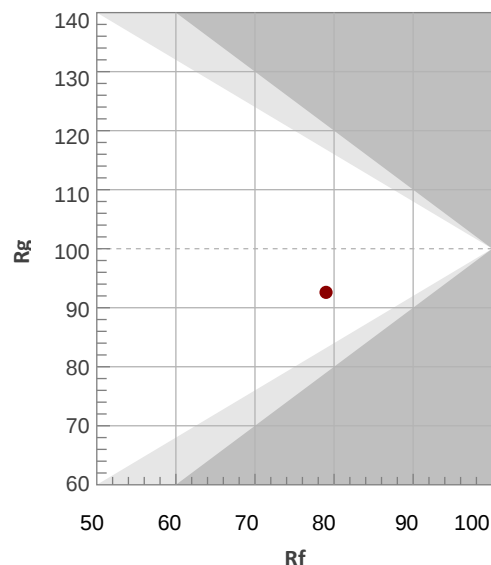
Rf 79,0

Fidelity index Rf

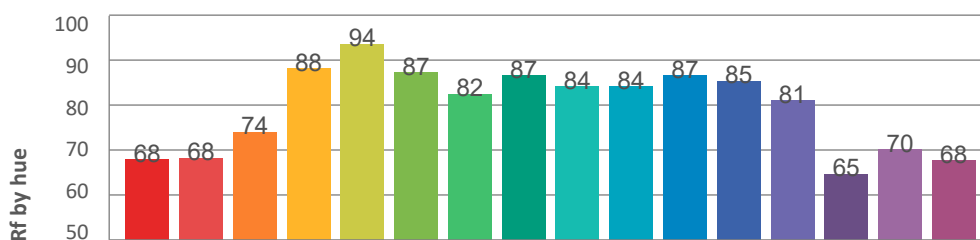
Rg 92,6

Gamut index Rg

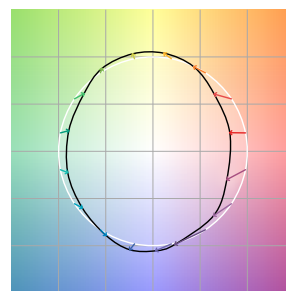
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-16%	3%
2	68	-12%	14%
3	74	-1%	14%
4	88	4%	9%
5	94	5%	1%
6	87	3%	-4%
7	82	-5%	-10%
8	87	-8%	-4%
9	84	-7%	4%
10	84	-4%	8%
11	87	2%	8%
12	85	7%	-4%
13	81	4%	-18%
14	65	-5%	-35%
15	70	-9%	-21%
16	68	-17%	-14%



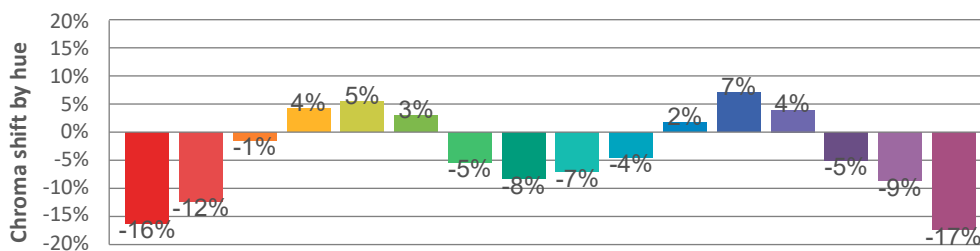
Hue binH



Color vector graphics



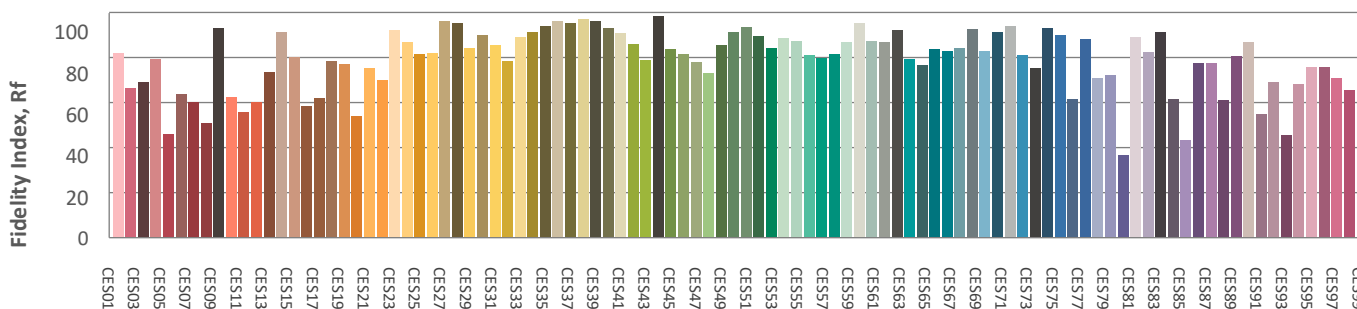
Hue bin



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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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 6671lm total luminous flux										



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