

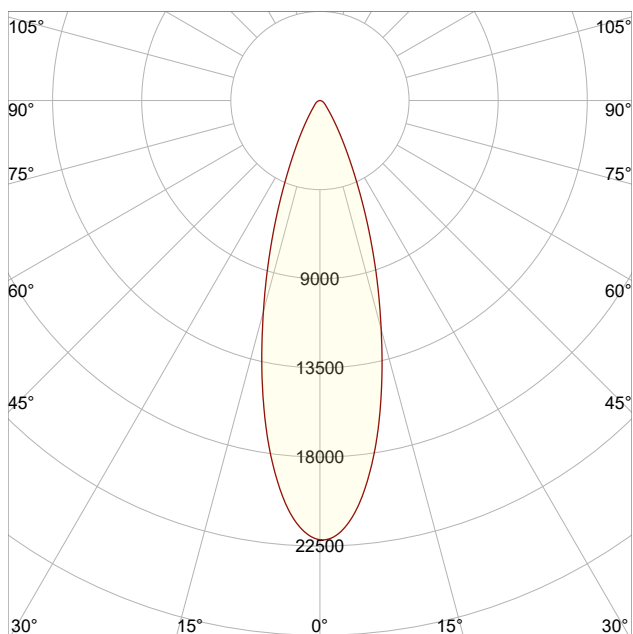
LM-79

Test Report

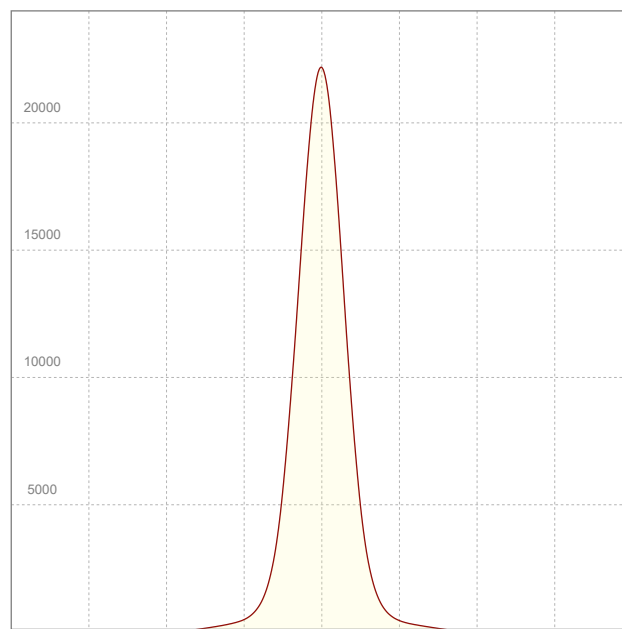
LM79-QUARTZ-4000K-CRI80-MEDIUM

General Discription

Item number	Q-BXX-4080-M
Date and time	5-1-2024 14:31:52
CCT (Kelvin)	4019 K
Beam angle	30,8°
Luminous flux	8413 lm
Efficiency	109 lm/watt
Weighted energy	77,2 kWh/1000h
Power factor	0,55
CRI (RA)	87,6
Fidelity index Rf	Rf 87,4
Gammut index Rg	Rg 99,5
Peak	22181 cd



Polar curve



Linear distribution diagram



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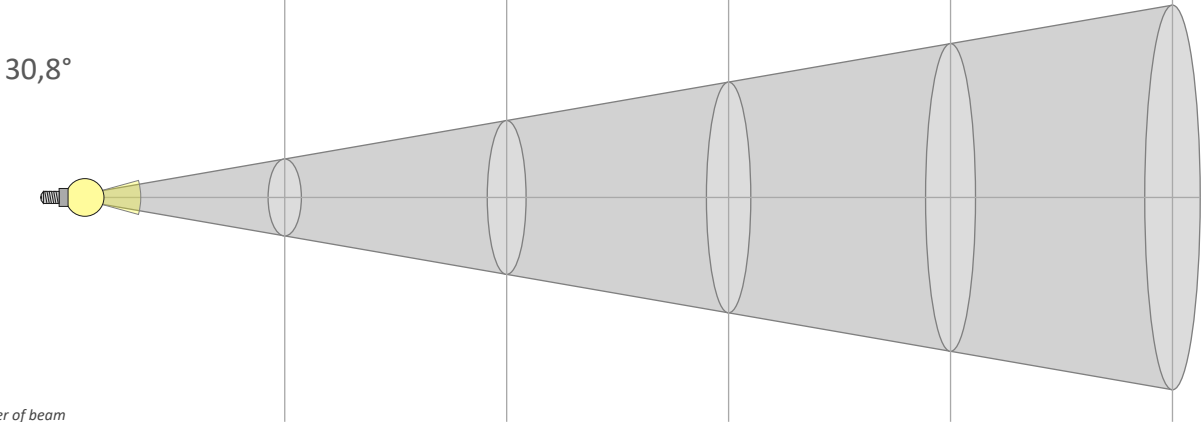
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LM-79

Test Report

LM79-QUARTZ-4000K-CRI80-MEDIUM

Beam details	1m	2m	3m	4m	5m
<i>Lux*</i>	22158 lx	5539 lx	2462 lx	1385 lx	886 lx



30,8°

**measured at center of beam*

<i>Footcandles*</i>	2058,5 fcd	514,6 fcd	228,7 fcd	128,7 fcd	82,3 fcd
<i>Beam width (meter)</i>	0,6 m	1,1 m	1,7 m	2,2 m	2,8 m
<i>Beam width (Feet)</i>	1,8 ft	3,6 ft	5,4 ft	7,2 ft	9 ft

<i>Beam intensities</i>																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
22158lx	5539lx	2462lx	1385lx	886lx	615lx	452lx	346lx	274lx	222lx	183lx	154lx	131lx	113lx	98lx	87lx	77lx	68lx	61lx	55lx
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
2058,5fcd	514,6fcd	228,7fcd	128,7fcd	82,3fcd	57,2fcd	42fcd	32,2fcd	25,4fcd	20,6fcd	17fcd	14,3fcd	12,2fcd	10,5fcd	9,1fcd	8fcd	7,1fcd	6,4fcd	5,7fcd	5,1fcd

<i>Intensities in 0° c-plane</i>																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
22,2K	22,0K	21,3K	20,1K	18,6K	16,9K	14,9K	12,9K	11,0K	9,2K	7,5K	6,0K	4,7K	3,6K	2,8K	2,2K	1,7K	1,3K	1,1K	0,9K
100%	99%	96%	91%	84%	76%	67%	58%	50%	41%	34%	27%	21%	16%	13%	10%	8%	6%	5%	4%

<i>Intensities in 90° c-plane</i>																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
22,2K	22,0K	21,3K	20,1K	18,6K	16,9K	14,9K	12,9K	11,0K	9,2K	7,5K	6,0K	4,7K	3,6K	2,8K	2,2K	1,7K	1,3K	1,1K	0,9K
100%	99%	96%	91%	84%	76%	67%	58%	50%	41%	34%	27%	21%	16%	13%	10%	8%	6%	5%	4%

<i>Intensities in 180° c-plane</i>																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
22,2K	21,8K	20,9K	19,6K	18,0K	16,1K	14,1K	12,0K	10,1K	8,3K	6,7K	5,2K	4,0K	3,1K	2,4K	1,9K	1,5K	1,2K	0,9K	0,8K
100%	98%	94%	89%	81%	73%	64%	54%	45%	37%	30%	24%	18%	14%	11%	8%	7%	5%	4%	3%

<i>Intensities in 270° c-plane</i>																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
22,2K	21,8K	20,9K	19,6K	18,0K	16,1K	14,1K	12,0K	10,1K	8,3K	6,7K	5,2K	4,0K	3,1K	2,4K	1,9K	1,5K	1,2K	0,9K	0,8K
100%	98%	94%	89%	81%	73%	64%	54%	45%	37%	30%	24%	18%	14%	11%	8%	7%	5%	4%	3%

<i>Beam angle 50%</i>	<i>Field angle 10%</i>	<i>Cutoff angle 2,5%</i>	<i>Intensity ratio in 120° cone</i>	<i>Intensity ratio in 90° cone</i>
30,8°	58,5°	85,1°	96,8%	91,8%



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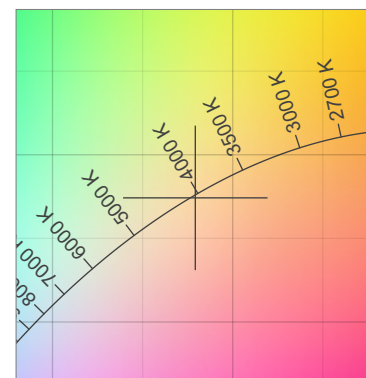
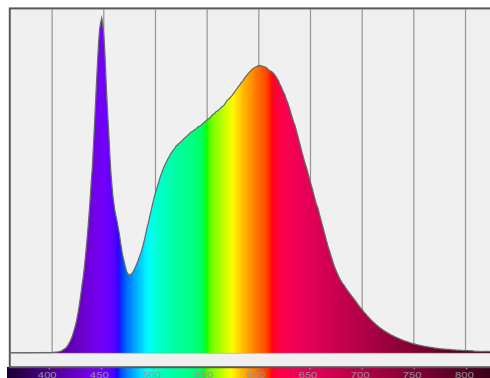
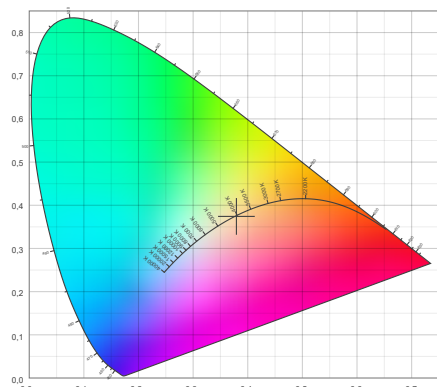
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LM-79

Test Report

LM79-QUARTZ-4000K-CRI80-MEDIUM

Color details



CIE 1931

x: 0,379

4019 K

y: 0,374

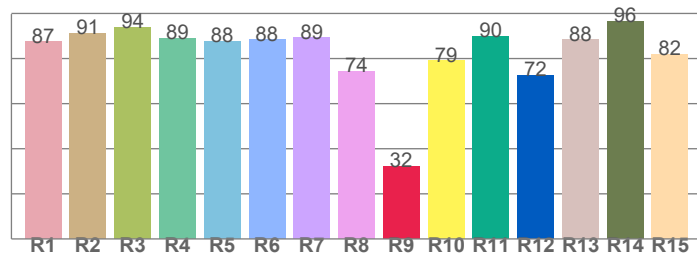


Spectra

CIE 1931 ZOOM

Δuv : -0,0008

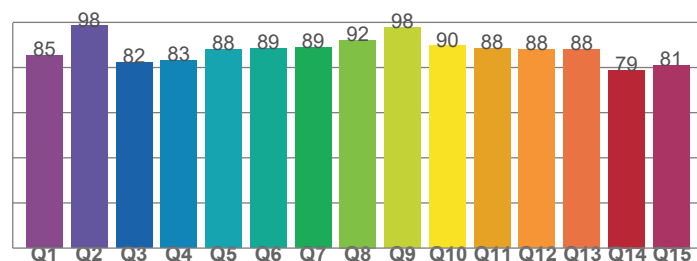
CRI: 87,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
87,5	91,1	93,9	89,0	87,6	88,3	89,2	74,2
R9	R10	R11	R12	R13	R14	R15	
32,1	79,0	89,8	72,5	88,3	96,4	81,8	

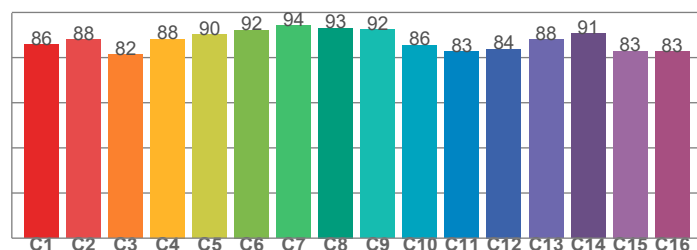
CQS: 86,8



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
85,4	98,5	82,2	83,3	88,1	88,6	88,9	92,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,7	89,6	88,4	87,9	88,0	78,9	81,1	

TM30: 87,4



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

C1	C2	C3	C4	C5	C6	C7	C8
85,9	88,1	81,5	88,2	90,1	92,3	94,1	93,1
C9	C10	C11	C12	C13	C14	C15	
92,5	85,6	82,7	83,8	87,9	90,6	83,0	

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
4019 K	87,6	32,1	87,4	99,5	86,8	0,379	0,374	0,225	0,334	-0,0008



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info@cls-led.com
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LM-79

Test Report

LM79-QUARTZ-4000K-CRI80-MEDIUM

TM30 details

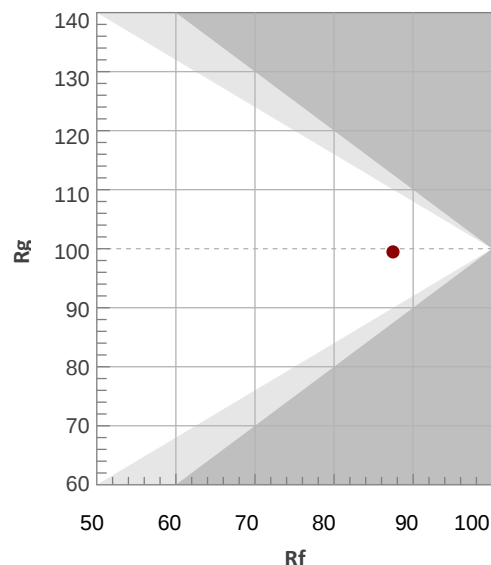
Rf 87,4

Fidelity index Rf

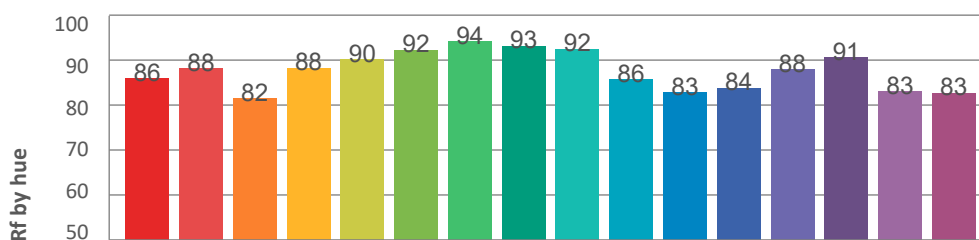
Rg 99,5

Gamut index Rg

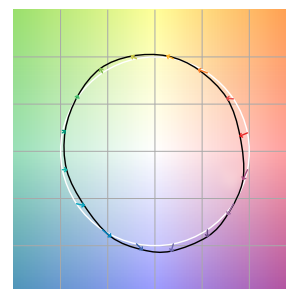
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	86	-8%	-2%
2	88	-5%	4%
3	82	-3%	10%
4	88	2%	7%
5	90	4%	5%
6	92	5%	0%
7	94	1%	-4%
8	93	-3%	-3%
9	92	-4%	1%
10	86	-6%	6%
11	83	1%	11%
12	84	5%	7%
13	88	7%	-4%
14	91	6%	-4%
15	83	1%	-13%
16	83	-3%	-11%



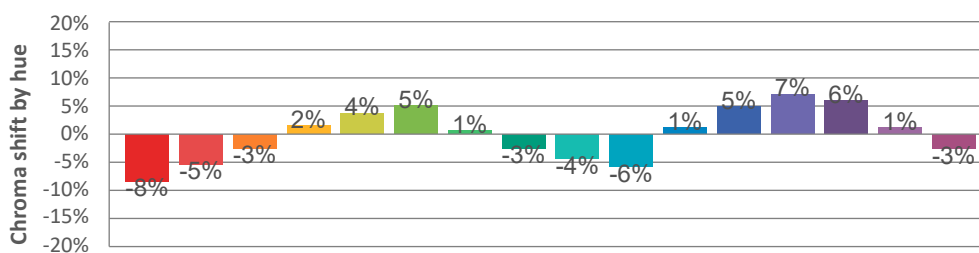
Hue binH



Color vector graphics



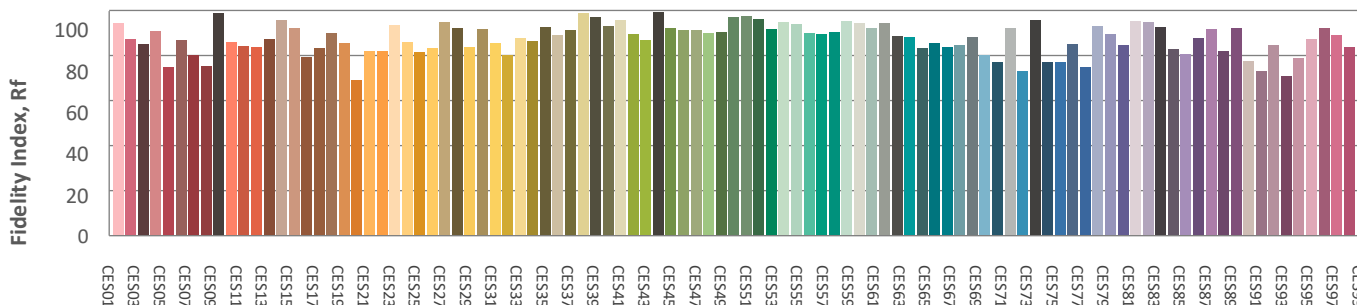
Hue bin



Color distortion graphics



Color Evaluation Sample



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Test Report

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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
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 8413lm total luminous flux										



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