

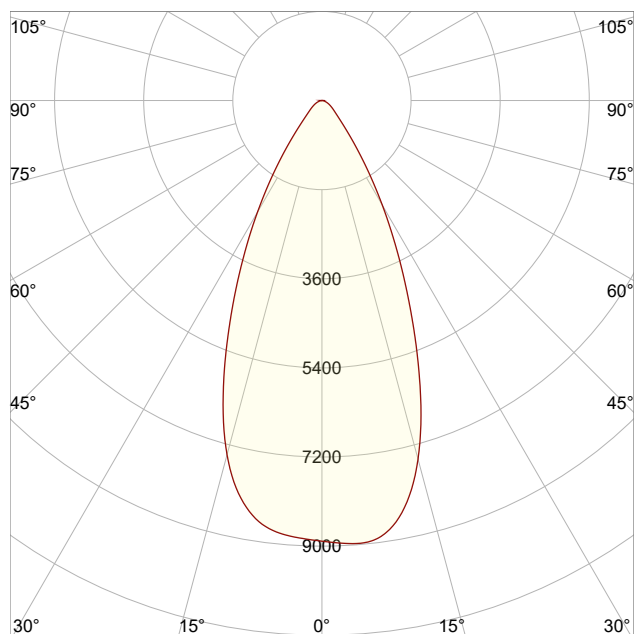
LM-79

Test Report

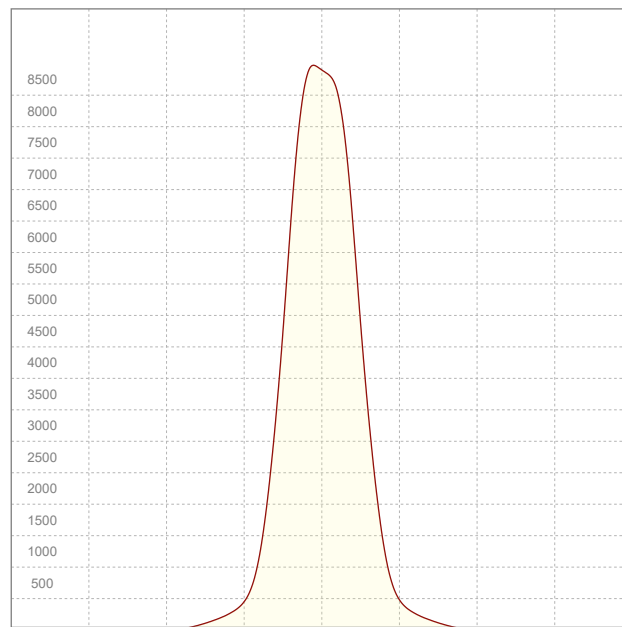
LM79-QUARTZ-1800K-CRI80-WIDE

General Discription

Item number	Q-BXX-2280-W
Date and time	5-1-2024 16:45:34
CCT (Kelvin)	1835 K
Beam angle	46,8°
Luminous flux	6409 lm
Efficiency	83 lm/watt
Weighted energy	76,9 kWh/1000h
Power factor	0,57
CRI (RA)	73,7
Fidelity index Rf	Rf 79,0
Gammut index Rg	Rg 92,6
Peak	8974 cd



Polar curve



Linear distribution diagram



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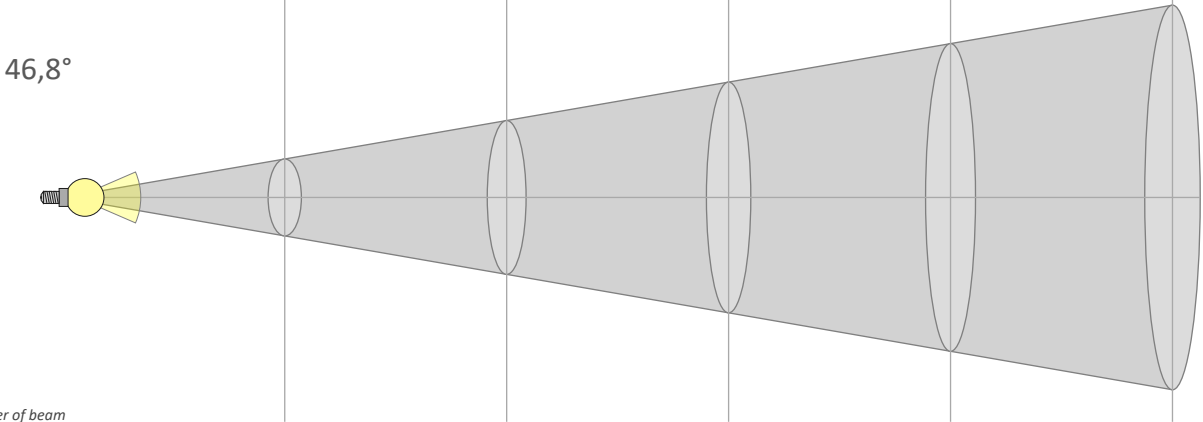
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Beam details		1m	2m	3m	4m	5m
Lux*		8900 lx	2225 lx	989 lx	556 lx	356 lx



46,8°

*measured at center of beam

Footcandles*		826,8 fcd	206,7 fcd	91,9 fcd	51,7 fcd	33,1 fcd
Beam width (meter)		0,9 m	1,7 m	2,6 m	3,5 m	4,3 m
Beam width (Feet)		2,8 ft	5,7 ft	8,5 ft	11,4 ft	14,2 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
8900lx	2225lx	989lx	556lx	356lx	247lx	182lx	139lx	110lx	89lx	74lx	62lx	53lx	45lx	40lx	35lx	31lx	27lx	25lx	22lx
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
826,8fcd	206,7fcd	91,9fcd	51,7fcd	33,1fcd	23fcd	16,9fcd	12,9fcd	10,2fcd	8,3fcd	6,8fcd	5,7fcd	4,9fcd	4,2fcd	3,7fcd	3,2fcd	2,9fcd	2,6fcd	2,3fcd	2,1fcd

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°
8900	8938	8969	8960	8858	8632	8273	7784	7173	6464	5695	4935	4218	3566	2971	2435	1956	1545	1204	938
100%	100%	101%	101%	100%	97%	93%	87%	81%	73%	64%	55%	47%	40%	33%	27%	22%	17%	14%	11%

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°
8900	8938	8969	8960	8858	8632	8273	7784	7173	6464	5695	4935	4218	3566	2971	2435	1956	1545	1204	938
100%	100%	101%	101%	100%	97%	93%	87%	81%	73%	64%	55%	47%	40%	33%	27%	22%	17%	14%	11%

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°
8900	8863	8824	8761	8641	8425	8104	7664	7110	6456	5752	5034	4354	3718	3137	2599	2117	1689	1327	1033
100%	100%	99%	98%	97%	95%	91%	86%	80%	73%	65%	57%	49%	42%	35%	29%	24%	19%	15%	12%

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°
8900	8863	8824	8761	8641	8425	8104	7664	7110	6456	5752	5034	4354	3718	3137	2599	2117	1689	1327	1033
100%	100%	99%	98%	97%	95%	91%	86%	80%	73%	65%	57%	49%	42%	35%	29%	24%	19%	15%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,8°	77,5°	113°	96,8%	90,9%



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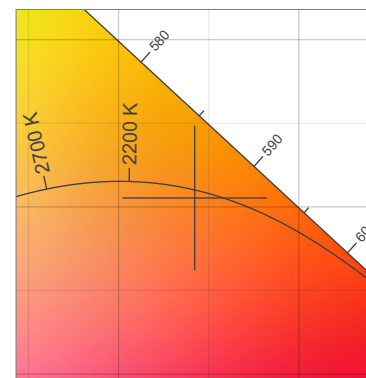
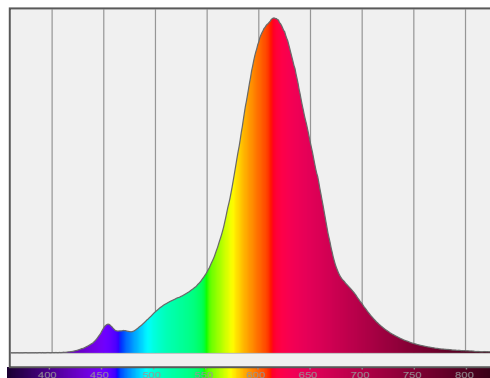
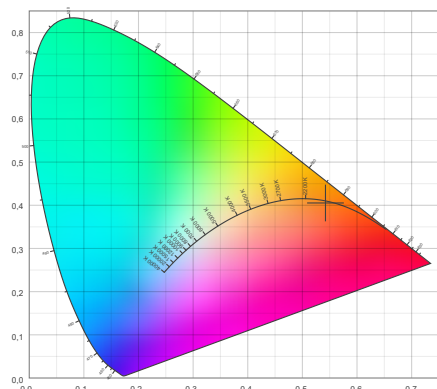
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Test Report

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Color details



CIE 1931

x: 0,542



Spectra

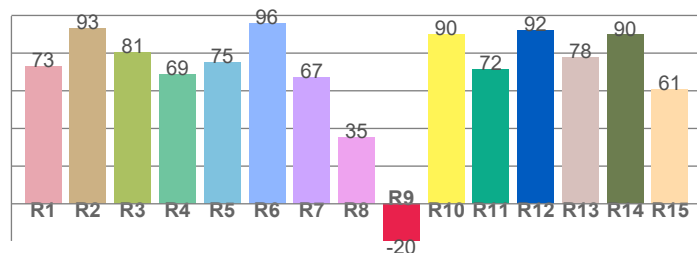
CIE 1931 ZOOM

1835 K

y: 0,405

Δuv : -0,0013

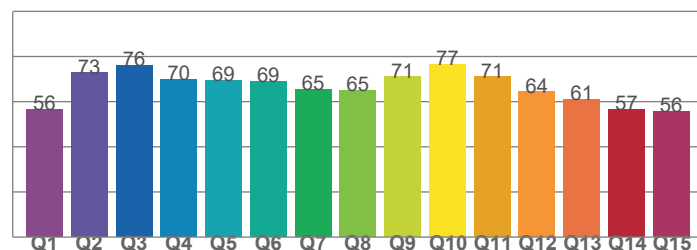
CRI: 73,7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
73,2	93,3	80,5	68,7	75,2	96,0	67,0	35,4
R9	R10	R11	R12	R13	R14	R15	
-19,7	90,0	71,5	92,1	78,0	89,8	60,8	

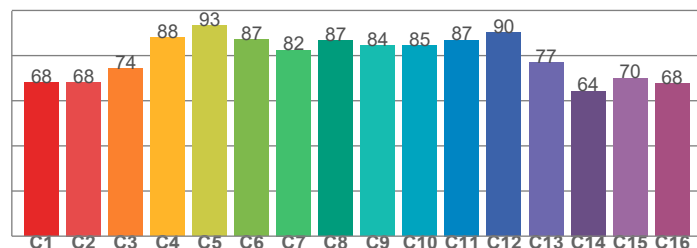
CQS: 65,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
56,4	72,8	76,1	70,0	69,4	68,9	65,5	65,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
71,0	76,7	71,1	64,4	61,0	56,5	55,7	

TM30: 79,0



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

C1	C2	C3	C4	C5	C6	C7	C8
68,0	68,2	74,1	88,1	93,4	87,0	82,5	86,7
C9	C10	C11	C12	C13	C14	C15	
84,4	84,5	86,9	90,1	76,8	64,3	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
1835 K	73,7	-19,7	79,0	92,6	65,3	0,542	0,405	0,320	0,359	-0,0013



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Test Report

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TM30 details

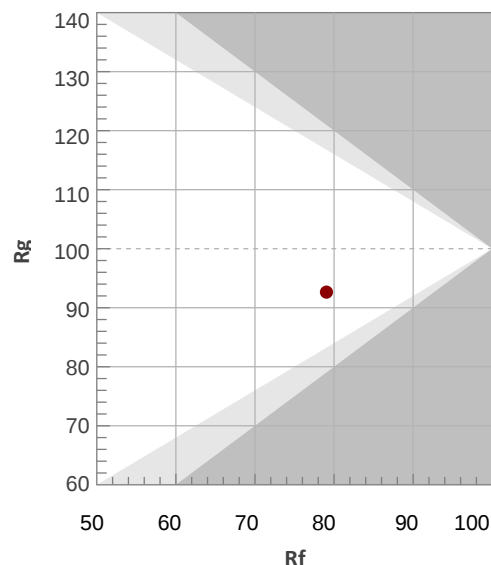
Rf 79,0

Fidelity index Rf

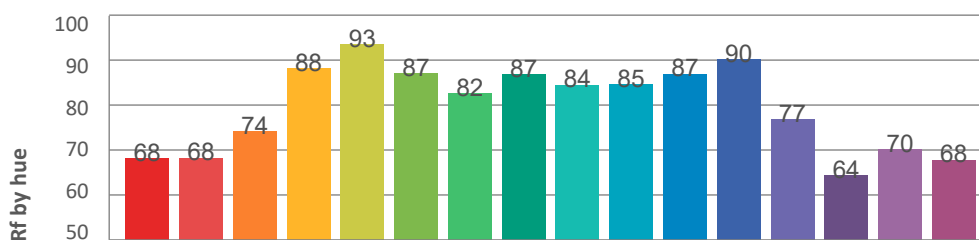
Rg 92,6

Gamut index Rg

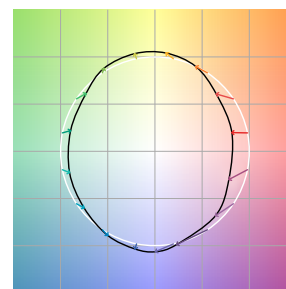
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-16%	4%
2	68	-12%	14%
3	74	-1%	14%
4	88	4%	9%
5	93	6%	1%
6	87	3%	-4%
7	82	-5%	-10%
8	87	-8%	-4%
9	84	-7%	4%
10	85	-4%	8%
11	87	2%	8%
12	90	6%	-1%
13	77	4%	-20%
14	64	-5%	-36%
15	70	-9%	-21%
16	68	-17%	-14%



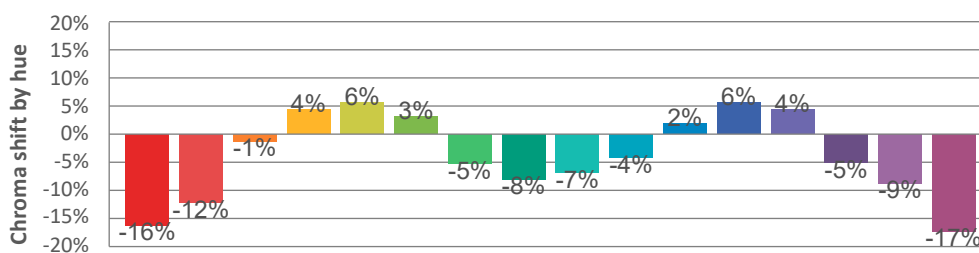
Hue binH



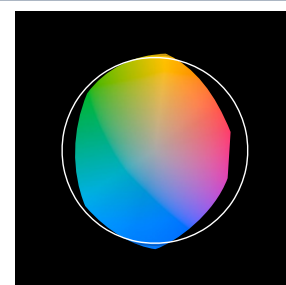
Color vector graphics



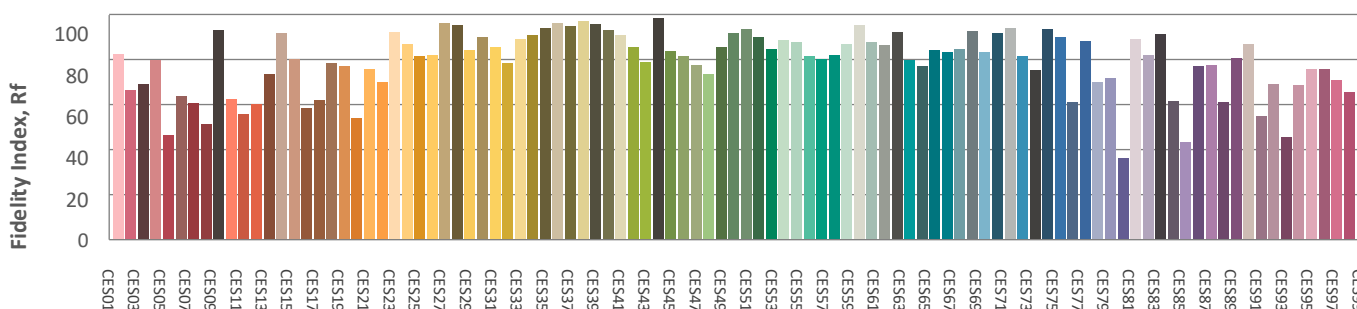
Hue bin



Color distortion graphics



Color Evaluation Sample



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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
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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 6409lm total luminous flux										



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