

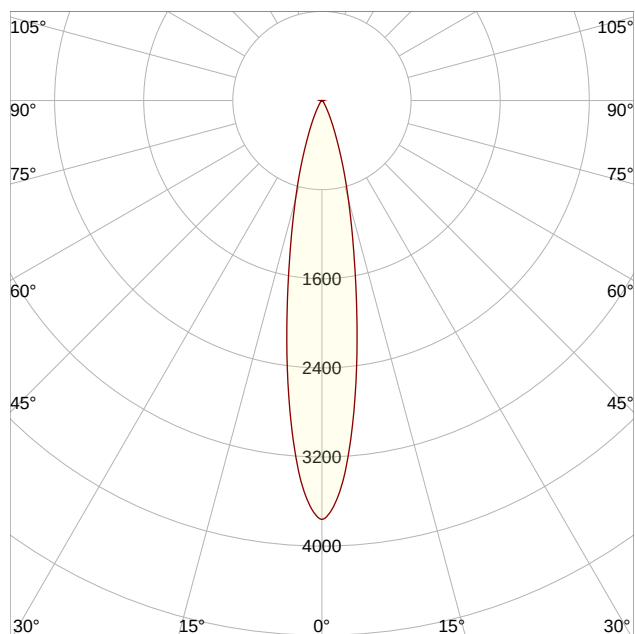
LM-79

Test Report

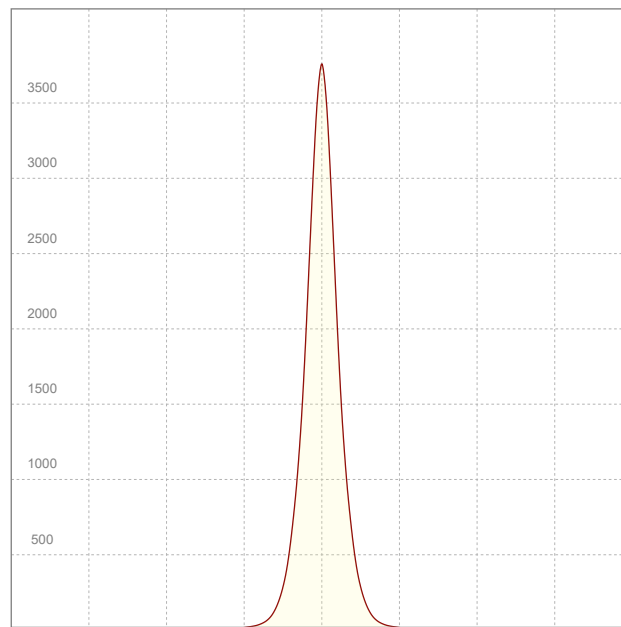
LM79-TOPAZ-COLOURFLOW-RGB4-SPOT [4000K]

General Discription

Item number	T-C-XCX-1C-N470-S
Date and time	8-12-2025 16:01:17
CCT (Kelvin)	4311 K
Beam angle	19,1°
Luminous flux	651 lm
Efficiency	57 lm/watt
Weighted energy	11,4 kWh/1000h
Power factor	0,49
CRI (RA)	88,2
Fidelity index Rf	Rf 86,8
Gammut index Rg	Rg 99,5
Peak	3750 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	3750 lx	938 lx	417 lx	234 lx	150 lx

*measured at center of beam

Footcandles*	348,4 fcd	87,1 fcd	38,7 fcd	21,8 fcd	13,9 fcd
Beam width (meter)	0,3 m	0,7 m	1 m	1,3 m	1,7 m
Beam width (Feet)	1,1 ft	2,2 ft	3,3 ft	4,4 ft	5,5 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3750lx	938lx	417lx	234lx	150lx	104lx	77lx	59lx	46lx	38lx	31lx	26lx	22lx	19lx	17lx	15lx	13lx	12lx	10lx	9lx
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
348,4fcd	87,1fcd	38,7fcd	21,8fcd	13,9fcd	9,7fcd	7,1fcd	5,4fcd	4,3fcd	3,5fcd	2,9fcd	2,4fcd	2,1fcd	1,8fcd	1,5fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd

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°
3750	3596	3245	2771	2262	1776	1369	1049	799	593	429	311	225	162	116	84	62	48	38	30
100%	96%	87%	74%	60%	47%	36%	28%	21%	16%	11%	8%	6%	4%	3%	2%	2%	1%	1%	1%

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°
3750	3596	3245	2771	2262	1776	1369	1049	799	593	429	311	225	162	116	84	62	48	38	30
100%	96%	87%	74%	60%	47%	36%	28%	21%	16%	11%	8%	6%	4%	3%	2%	2%	1%	1%	1%

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°
3750	3596	3245	2771	2262	1776	1369	1049	799	593	429	311	225	162	116	84	62	48	38	30
100%	96%	87%	74%	60%	47%	36%	28%	21%	16%	11%	8%	6%	4%	3%	2%	2%	1%	1%	1%

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°
3750	3596	3245	2771	2262	1776	1369	1049	799	593	429	311	225	162	116	84	62	48	38	30
100%	96%	87%	74%	60%	47%	36%	28%	21%	16%	11%	8%	6%	4%	3%	2%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19,1°	41,6°	58,6°	99,0%	97,1%



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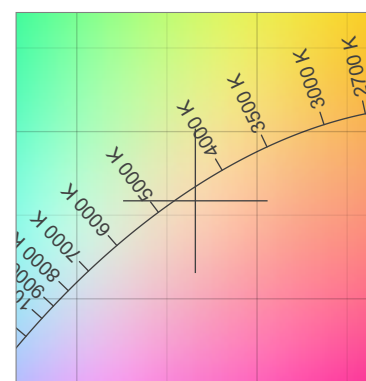
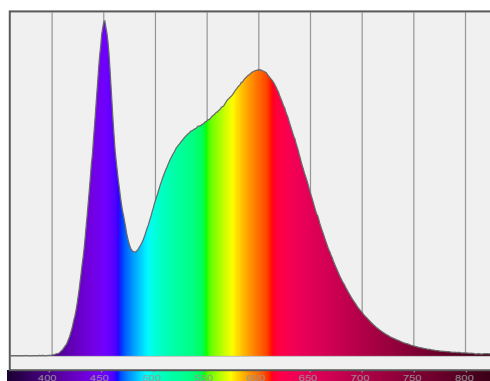
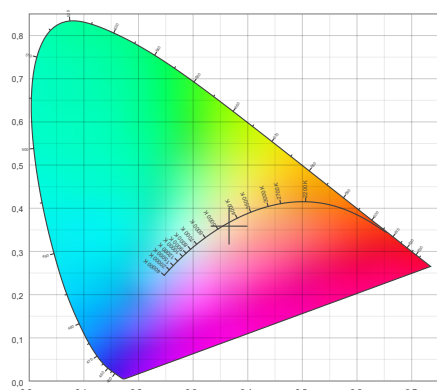
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Color details



CIE 1931

x: 0,366

4311 K

y: 0,359

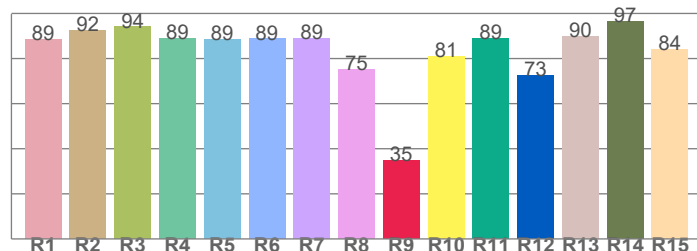
Spectra

CIE 1931 ZOOM

Δuv : -0,0042

CRI: 88,2 (R1-R8)

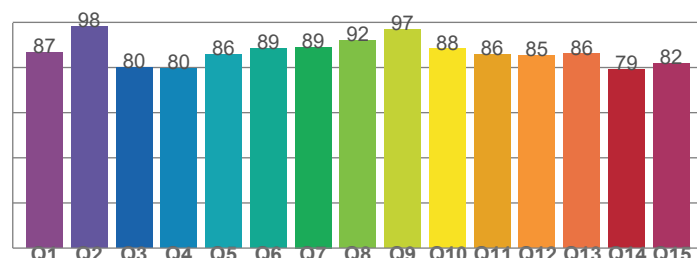
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
88,6	92,5	94,1	88,9	88,5	88,8	89,1	75,3
R9	R10	R11	R12	R13	R14	R15	
35,0	81,0	89,0	72,5	89,7	96,6	84,2	

CQS: 85,8

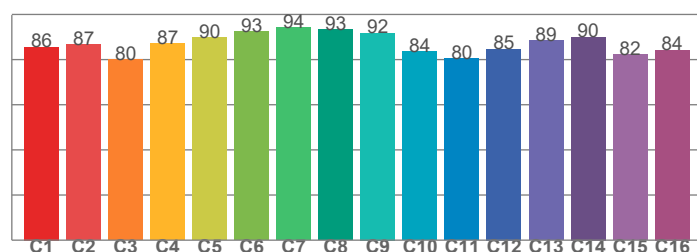
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,6	98,3	80,1	79,5	85,9	88,5	89,1	91,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	88,3	85,9	85,4	86,1	79,1	81,7	

TM30: 86,8

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



C1	C2	C3	C4	C5	C6	C7	C8
85,6	86,7	79,9	87,2	89,8	92,6	94,2	93,3
C9	C10	C11	C12	C13	C14	C15	
91,7	83,7	80,4	84,7	88,5	90,1	82,3	

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
4311 K	88,2	35,0	86,8	99,5	85,8	0,366	0,359	0,223	0,327	-0,0042



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TM30 details

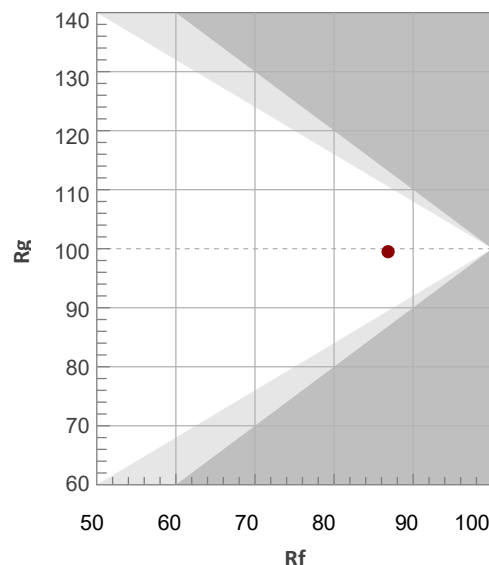
Rf 86,8

Fidelity index Rf

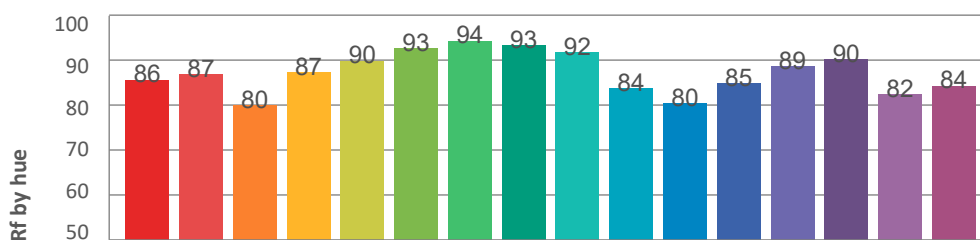
Rg 99,5

Gamut index Rg

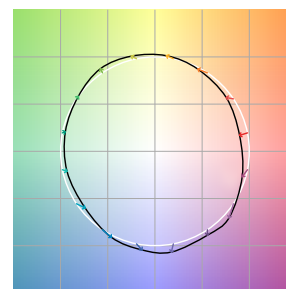
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	86	-9%	-1%
2	87	-6%	5%
3	80	-2%	11%
4	87	2%	8%
5	90	4%	5%
6	93	5%	-1%
7	94	0%	-3%
8	93	-3%	-2%
9	92	-5%	3%
10	84	-5%	9%
11	80	1%	12%
12	85	5%	7%
13	89	8%	-4%
14	90	5%	-3%
15	82	4%	-15%
16	84	-4%	-8%



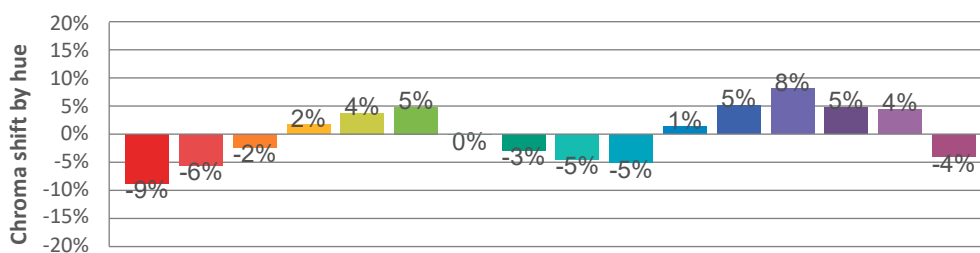
Hue binH



Color vector graphics



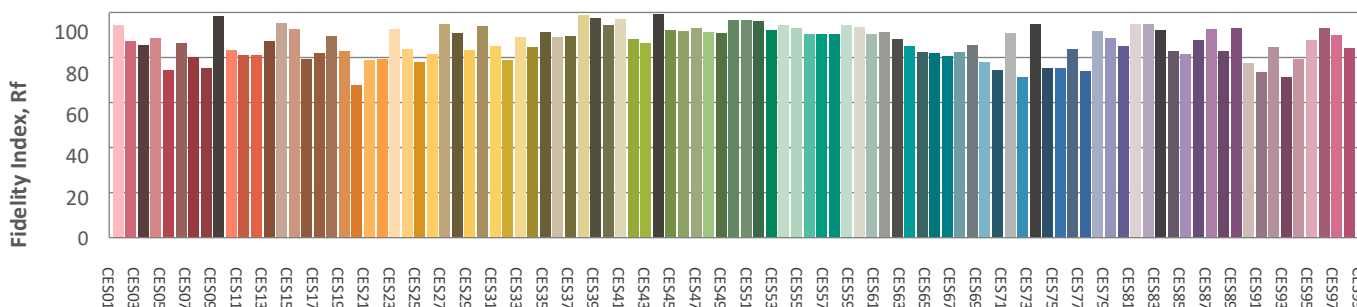
Hue bin



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				
2H	2H	7,3	7,8	7,4	8,0	8,1	7,3	7,8	7,4	8,0	8,1
	3H	7,3	7,9	7,7	8,1	8,3	7,3	7,9	7,7	8,1	8,3
	4H	7,4	7,9	7,8	8,2	8,4	7,4	7,9	7,8	8,2	8,4
	6H	7,4	7,9	7,7	8,2	8,5	7,4	7,9	7,7	8,2	8,5
	8H	7,4	7,8	7,7	8,2	8,5	7,4	7,8	7,7	8,2	8,5
	12H	7,4	7,8	7,7	8,1	8,6	7,4	7,8	7,7	8,1	8,6
4H	2H	7,1	7,7	7,5	7,9	8,2	7,1	7,7	7,5	7,9	8,2
	3H	7,4	7,9	7,8	8,2	8,6	7,4	7,9	7,8	8,2	8,6
	4H	7,5	7,9	7,9	8,3	8,8	7,5	7,9	7,9	8,3	8,8
	6H	7,5	7,9	8,0	8,3	8,6	7,5	7,9	8,0	8,3	8,6
	8H	7,4	7,9	8,0	8,2	8,6	7,4	7,9	8,0	8,2	8,6
	12H	7,4	7,7	7,9	8,1	8,6	7,4	7,7	7,9	8,1	8,6
8H	4H	7,4	7,8	7,9	8,2	8,5	7,4	7,8	7,9	8,2	8,5
	6H	7,5	7,7	8,0	8,2	8,7	7,5	7,7	8,0	8,2	8,7
	8H	7,5	7,7	8,0	8,2	8,8	7,5	7,7	8,0	8,2	8,8
	12H	7,5	7,7	8,1	8,2	8,8	7,5	7,7	8,1	8,2	8,8
12H	4H	7,3	7,7	7,8	8,1	8,5	7,3	7,7	7,8	8,1	8,5
	6H	7,5	7,7	8,0	8,2	8,8	7,5	7,7	8,0	8,2	8,8
	8H	7,4	7,6	8,0	8,1	8,7	7,4	7,6	8,0	8,1	8,7

Variation of the observer position for the luminaire distance S

S = 1.0H	3,2 / -2,5	3,2 / -2,5
S = 1.5H	5,4 / -3,6	5,4 / -3,6
S = 2.0H	7,2 / -4,2	7,2 / -4,2
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 651lm total luminous flux



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