

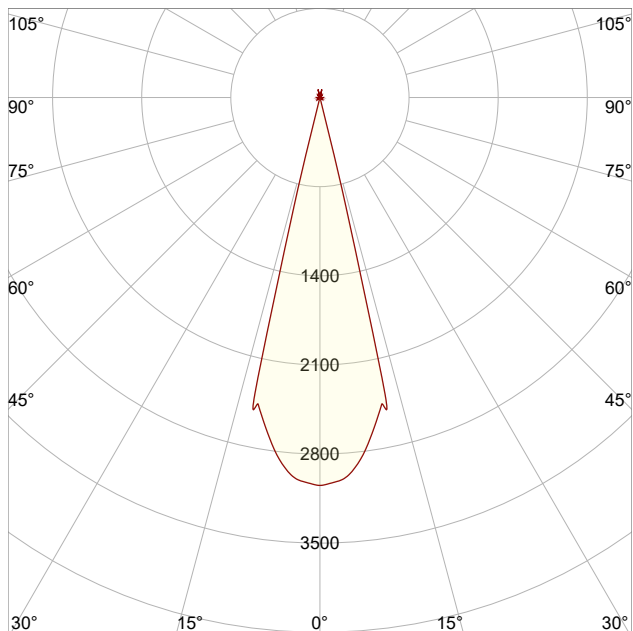
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Test Report

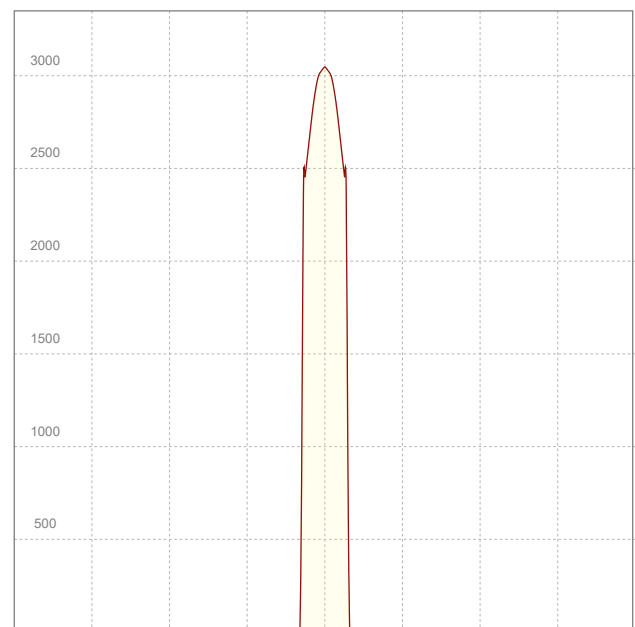
LM79-TOPAZ-PROFILE-3500K-CRI90-SPOT

General Description

Item number	T-P-XLX-1B-3595-Z
Date and time	24-9-2024 10:26:59
CCT (Kelvin)	3480 K
Beam angle	25,9°
Luminous flux	448 lm
Efficiency	41 lm/watt
Weighted energy	10,9 kWh/1000h
Power factor	0,99
CRI (RA)	95,4
Fidelity index Rf	Rf 92,3
Gammut index Rg	Rg 101,9
Peak	3045 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	3045 lx	761 lx	338 lx	190 lx	122 lx														
*measured at center of beam																			
Footcandles*	282,9 fcd	70,7 fcd	31,4 fcd	17,7 fcd	11,3 fcd														
Beam width (meter)	0,5 m	0,9 m	1,4 m	1,8 m	2,3 m														
Beam width (Feet)	1,5 ft	3 ft	4,5 ft	6 ft	7,5 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3045lx	761lx	338lx	190lx	122lx	85lx	62lx	48lx	38lx	30lx	25lx	21lx	18lx	16lx	14lx	12lx	11lx	9lx	8lx	8lx
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
282,9fcd	70,7fcd	31,4fcd	17,7fcd	11,3fcd	7,9fcd	5,8fcd	4,4fcd	3,5fcd	2,8fcd	2,3fcd	2fcd	1,7fcd	1,4fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd
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°
3045	3038	3025	3011	2985	2941	2884	2816	2737	2655	2571	2489	2404	1455	346	6	2	2	1	1
100%	100%	99%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	48%	11%	0%	0%	0%	0%	0%
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°
3045	3038	3025	3011	2985	2941	2884	2816	2737	2655	2571	2489	2404	1455	346	6	2	2	1	1
100%	100%	99%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	48%	11%	0%	0%	0%	0%	0%
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°
3045	3038	3025	3011	2985	2941	2884	2816	2737	2655	2571	2489	2404	1455	346	6	2	2	1	1
100%	100%	99%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	48%	11%	0%	0%	0%	0%	0%
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°
3045	3038	3025	3011	2985	2941	2884	2816	2737	2655	2571	2489	2404	1455	346	6	2	2	1	1
100%	100%	99%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	48%	11%	0%	0%	0%	0%	0%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
25,9°		28,1°				28,6°				99,7%				99,6%					



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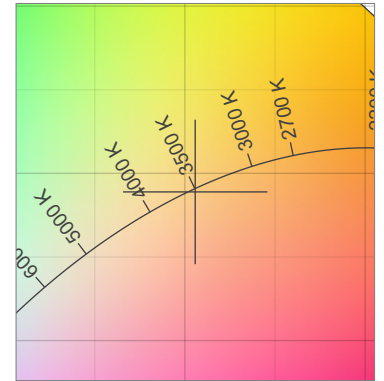
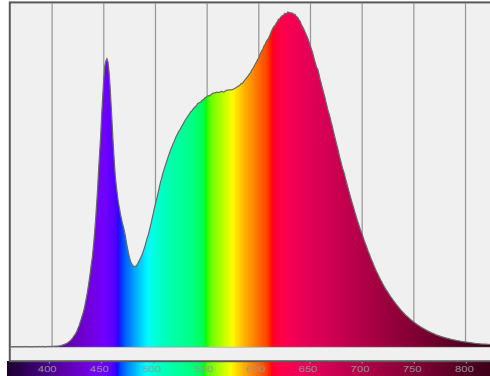
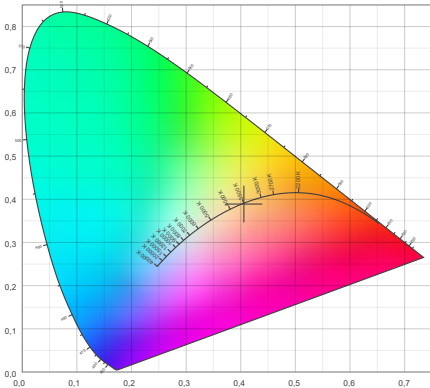
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Color details



CIE 1931

x: 0,406



Spectra

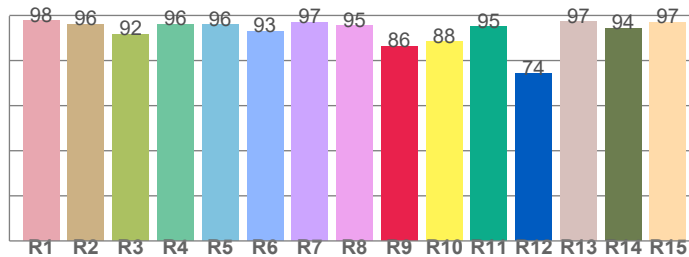
CIE 1931 ZOOM

3480 K

y: 0,389

Δuv : -0,0009

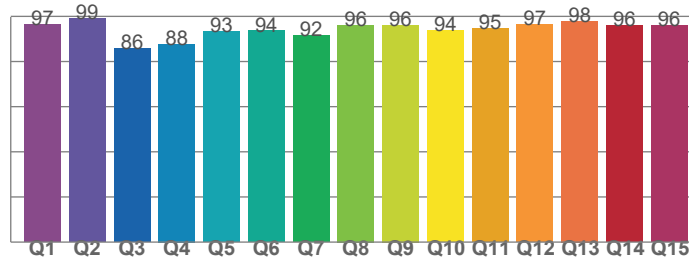
CRI: 95,4 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
97,6	96,0	91,7	96,2	95,9	93,1	97,0	95,4
R9	R10	R11	R12	R13	R14	R15	
86,2	88,3	95,0	74,2	97,2	94,5	96,9	

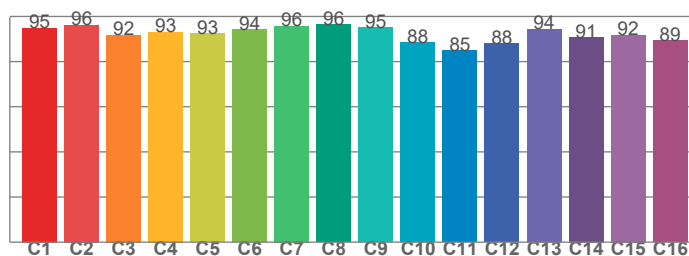
CQS: 93,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
96,5	99,1	85,7	87,8	93,4	93,6	91,5	96,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,1	93,7	94,6	96,5	97,9	96,1	96,1	

TM30: 92,3



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

C1	C2	C3	C4	C5	C6	C7	C8
94,9	96,2	91,8	93,1	92,5	94,1	95,7	96,3
C9	C10	C11	C12	C13	C14	C15	
95,1	88,5	84,9	87,9	94,5	90,8	91,7	

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
3480 K	95,4	86,2	92,3	101,9	93,3	0,406	0,389	0,237	0,340	-0,0009



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TM30 details

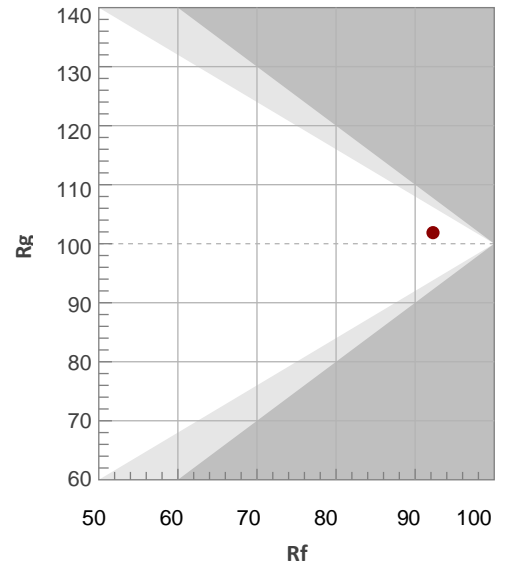
Rf 92,3

Fidelity index Rf

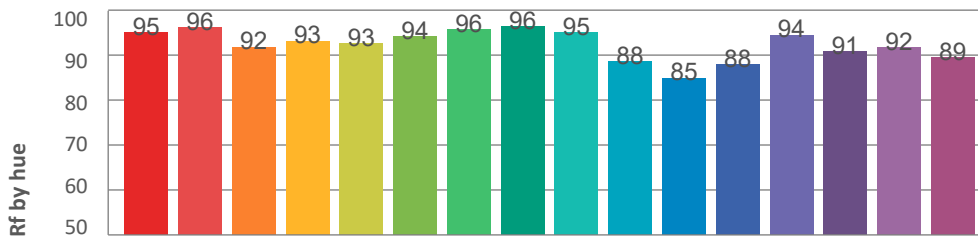
Rg 101,9

Gamut index Rg

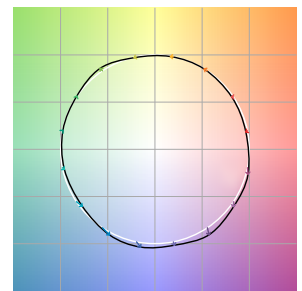
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	-1%
2	96	-2%	1%
3	92	0%	4%
4	93	0%	3%
5	93	-1%	3%
6	94	4%	1%
7	96	0%	-1%
8	96	0%	-1%
9	95	-2%	2%
10	88	-2%	7%
11	85	2%	10%
12	88	5%	5%
13	94	4%	0%
14	91	7%	-3%
15	92	3%	-4%
16	89	2%	-7%



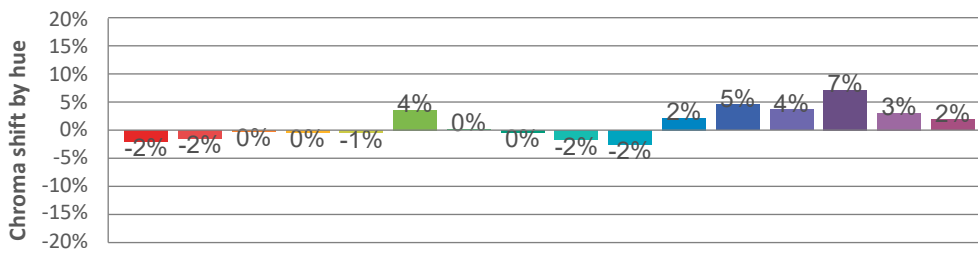
Hue binH



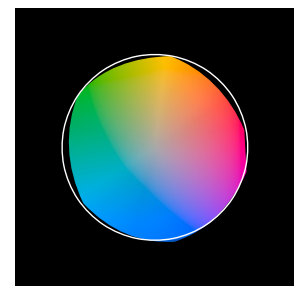
Color vector graphics



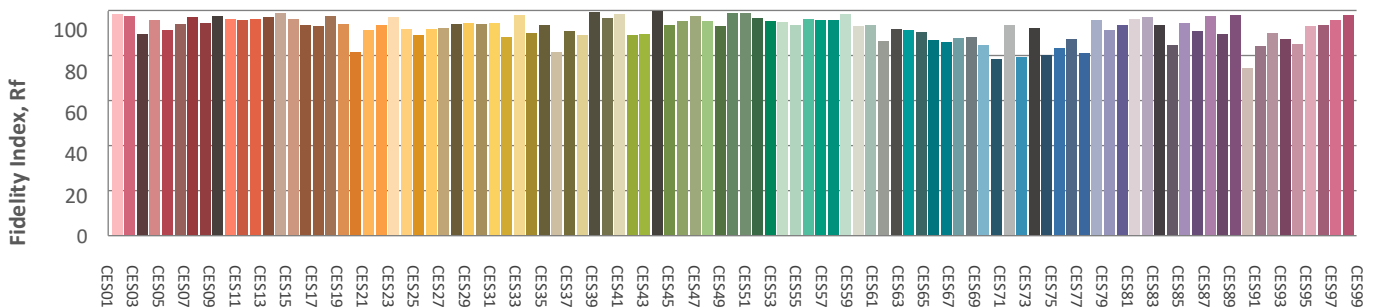
Hue bin



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	-14,1	-13,8	-14,0	-13,6	-13,5	-14,1	-13,8	-14,0	-13,6	-13,5
	3H	-11,7	-11,2	-11,4	-11,1	-10,9	-11,7	-11,2	-11,4	-11,1	-10,9
	4H	-10,2	-9,8	-9,8	-9,6	-9,3	-10,2	-9,8	-9,8	-9,6	-9,3
	6H	-9,1	-8,7	-8,8	-8,4	-8,1	-9,1	-8,7	-8,8	-8,4	-8,1
	8H	-8,4	-8,0	-8,1	-7,7	-7,3	-8,4	-8,0	-8,1	-7,7	-7,3
	12H	-7,8	-7,4	-7,4	-7,1	-6,7	-7,8	-7,4	-7,4	-7,1	-6,7
4H	2H	-13,4	-13,0	-13,0	-12,7	-12,5	-13,4	-13,0	-13,0	-12,7	-12,5
	3H	-10,4	-10,1	-10,1	-9,7	-9,3	-10,4	-10,1	-10,1	-9,7	-9,3
	4H	-8,9	-8,6	-8,5	-8,2	-7,7	-8,9	-8,6	-8,5	-8,2	-7,7
	6H	-7,7	-7,3	-7,2	-7,0	-6,6	-7,7	-7,3	-7,2	-7,0	-6,6
	8H	-6,9	-6,5	-6,4	-6,2	-5,8	-6,9	-6,5	-6,4	-6,2	-5,8
	12H	-6,2	-5,9	-5,7	-5,5	-5,1	-6,2	-5,9	-5,7	-5,5	-5,1
8H	4H	-8,4	-8,0	-7,8	-7,7	-7,3	-8,4	-8,0	-7,8	-7,7	-7,3
	6H	-6,9	-6,7	-6,4	-6,2	-5,7	-6,9	-6,7	-6,4	-6,2	-5,7
	8H	-5,8	-5,7	-5,3	-5,2	-4,6	-5,8	-5,7	-5,3	-5,2	-4,6
	12H	-5,0	-4,9	-4,4	-4,4	-3,8	-5,0	-4,9	-4,4	-4,4	-3,8
12H	4H	-8,3	-8,0	-7,8	-7,6	-7,2	-8,3	-8,0	-7,8	-7,6	-7,2
	6H	-6,6	-6,5	-6,1	-6,0	-5,4	-6,6	-6,5	-6,1	-6,0	-5,4
	8H	-5,6	-5,4	-5,0	-4,9	-4,3	-5,6	-5,4	-5,0	-4,9	-4,3

Variation of the observer position for the luminaire distance S

S = 1.0H	0,0 / -0,1	0,0 / -0,1
S = 1.5H	0,1 / -0,1	0,1 / -0,1
S = 2.0H	0,2 / -0,3	0,2 / -0,3
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 448lm total luminous flux



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