

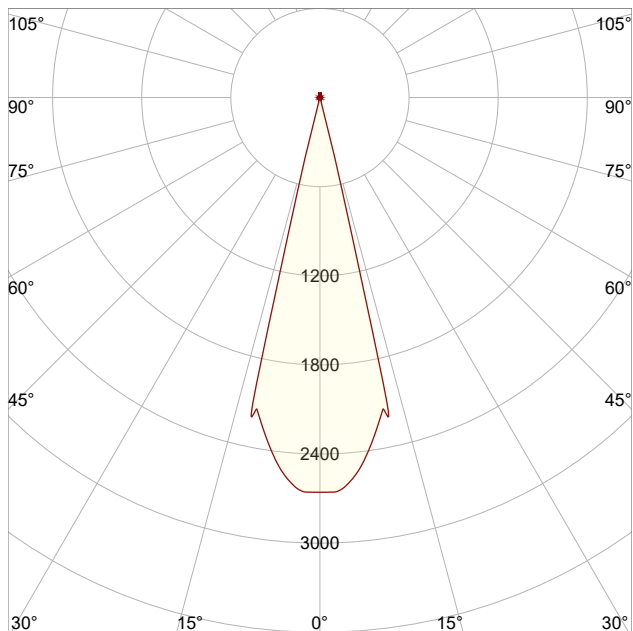
LM-79

Test Report

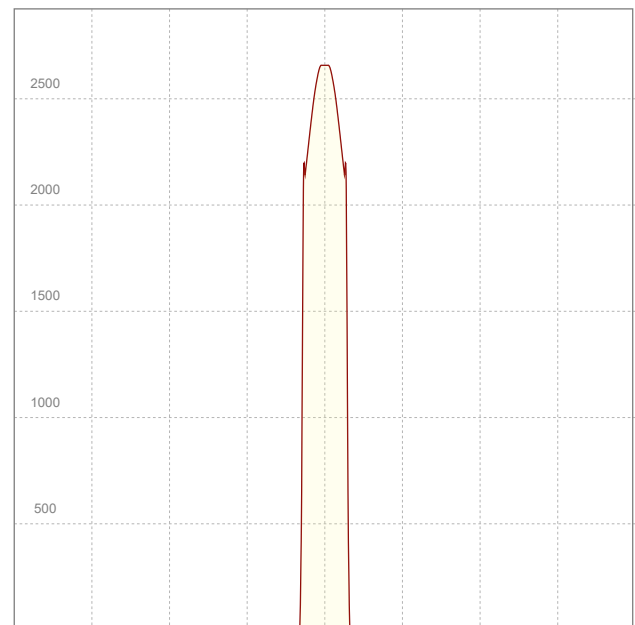
LM79-TOPAZ-PROFILE-3500K-CRI98-SPOT

General Description

Item number	T-P-XLX-1B-3598-Z
Date and time	24-9-2024 10:20:35
CCT (Kelvin)	3513 K
Beam angle	25,9°
Luminous flux	390 lm
Efficiency	35 lm/watt
Weighted energy	11,1 kWh/1000h
Power factor	0,89
CRI (RA)	95,0
Fidelity index Rf	Rf 96,9
Gammut index Rg	Rg 102,8
Peak	2657 cd



Polar curve



Linear distribution diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	2657 lx	664 lx	295 lx	166 lx	106 lx														
*measured at center of beam																			
Footcandles*	246,9 fcd	61,7 fcd	27,4 fcd	15,4 fcd	9,9 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
2657lx	664lx	295lx	166lx	106lx	74lx	54lx	42lx	33lx	27lx	22lx	18lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	7lx
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
246,9fcd	61,7fcd	27,4fcd	15,4fcd	9,9fcd	6,9fcd	5fcd	3,9fcd	3fcd	2,5fcd	2fcd	1,7fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd
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°
2657	2657	2656	2643	2612	2569	2517	2456	2387	2316	2242	2171	2102	1233	283	13	2	1	1	1
100%	100%	100%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	46%	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°
2657	2657	2656	2643	2612	2569	2517	2456	2387	2316	2242	2171	2102	1233	283	13	2	1	1	1
100%	100%	100%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	46%	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°
2657	2657	2656	2643	2612	2569	2517	2456	2387	2316	2242	2171	2102	1233	283	13	2	1	1	1
100%	100%	100%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	46%	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°
2657	2657	2656	2643	2612	2569	2517	2456	2387	2316	2242	2171	2102	1233	283	13	2	1	1	1
100%	100%	100%	99%	98%	97%	95%	92%	90%	87%	84%	82%	79%	46%	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°				28,7°				99,6%				99,5%					



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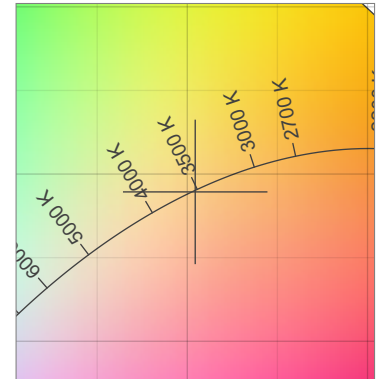
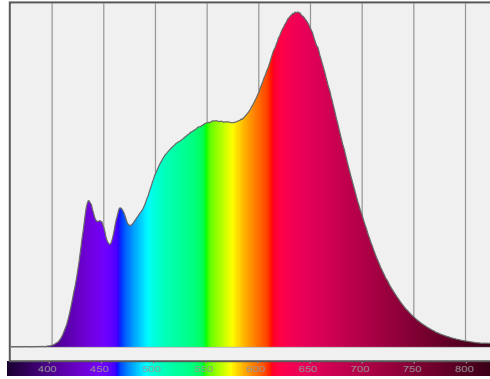
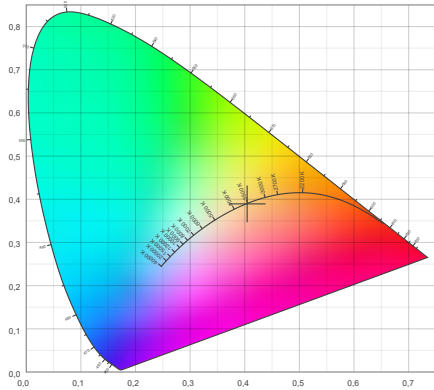
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Test Report

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Color details

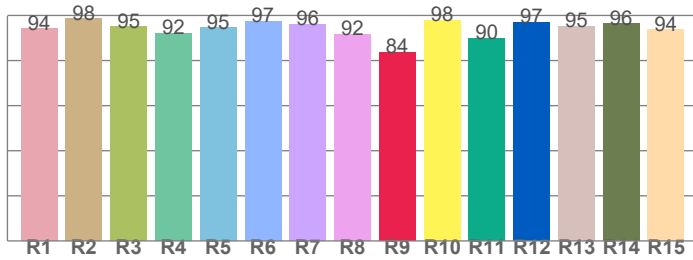


CIE 1931	x: 0,404	
3513 K	y: 0,389	

Spectra

CIE 1931 ZOOM
$\Delta uv: -0,0004$

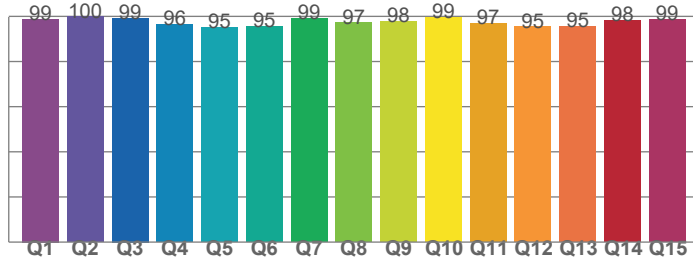
CRI: 95,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
94,1	98,5	95,0	92,2	94,5	97,4	96,2	91,7
R9	R10	R11	R12	R13	R14	R15	
83,6	97,8	89,7	96,8	95,2	96,3	93,6	

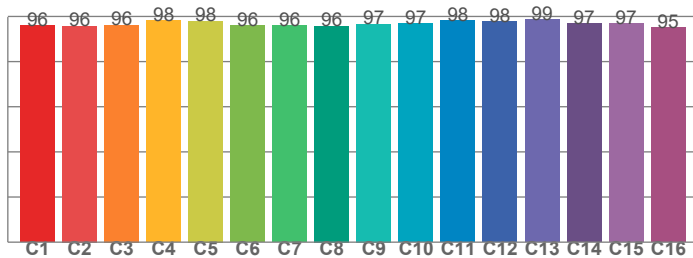
CQS: 97,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
98,9	99,8	99,3	96,5	95,1	95,4	99,2	97,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,9	99,5	96,9	95,4	95,5	98,2	98,6	

TM30: 96,9



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

C1	C2	C3	C4	C5	C6	C7	C8
95,9	95,8	96,2	98,3	98,0	96,0	96,0	95,8
C9	C10	C11	C12	C13	C14	C15	
96,6	96,9	98,1	97,9	98,5	97,0	96,9	

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
3513 K	95,0	83,6	96,9	102,8	97,1	0,404	0,389	0,236	0,340	-0,0004



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TM30 details

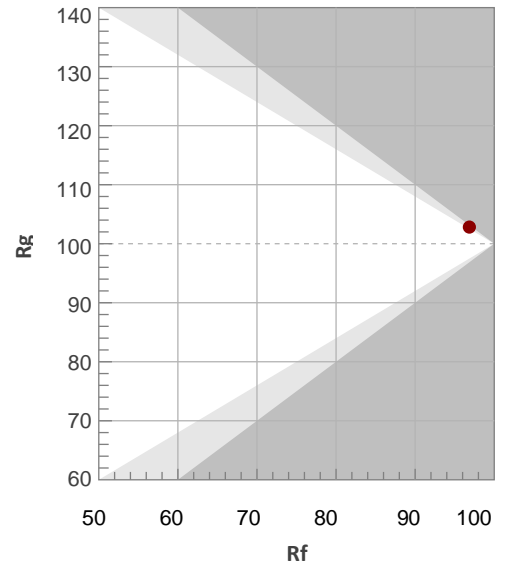
Rf 96,9

Fidelity index Rf

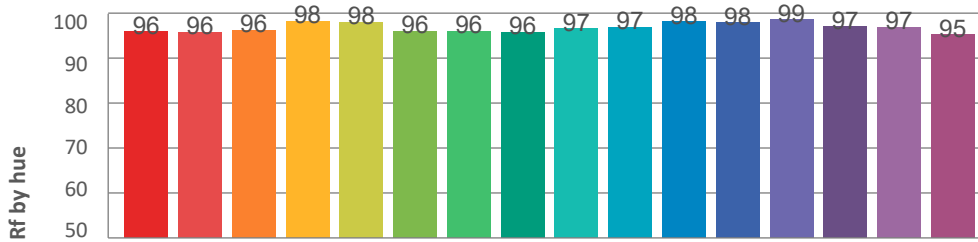
Rg 102,8

Gamut index Rg

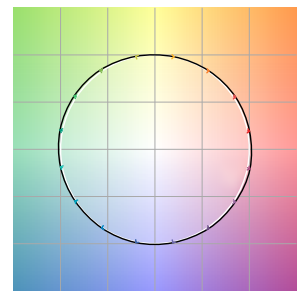
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	2%	-1%
2	96	2%	-2%
3	96	1%	-1%
4	98	0%	-1%
5	98	1%	1%
6	96	2%	2%
7	96	3%	1%
8	96	3%	-1%
9	97	2%	-1%
10	97	1%	-2%
11	98	1%	-1%
12	98	1%	0%
13	99	1%	-1%
14	97	1%	1%
15	97	2%	1%
16	95	3%	-1%



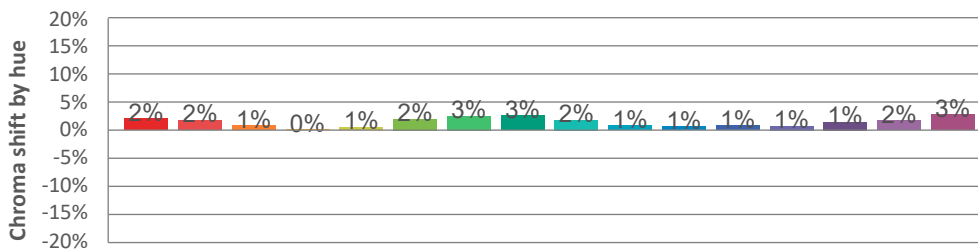
Hue binH



Color vector graphics



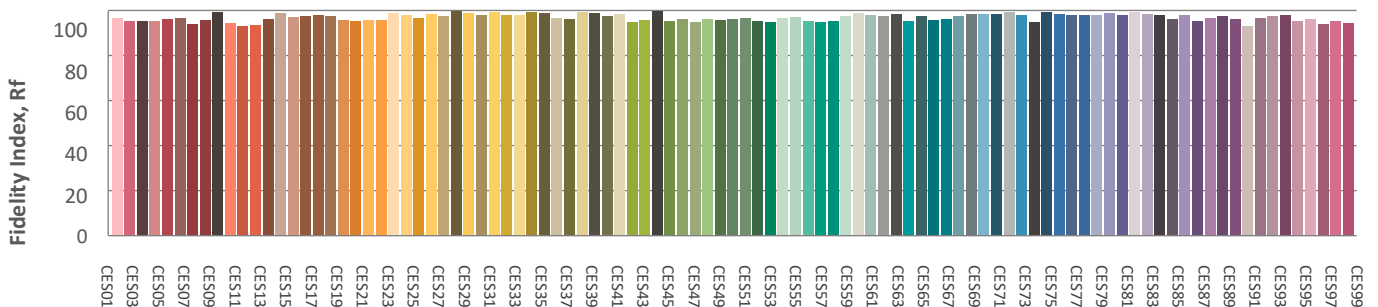
Hue bin



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	-13,8	-13,5	-13,7	-13,3	-13,1	-13,8	-13,5	-13,7	-13,3	-13,1
	3H	-11,4	-11,0	-11,1	-10,8	-10,6	-11,4	-11,0	-11,1	-10,8	-10,6
	4H	-10,2	-9,7	-9,8	-9,5	-9,3	-10,2	-9,7	-9,8	-9,5	-9,3
	6H	-8,7	-8,4	-8,4	-8,1	-7,7	-8,7	-8,4	-8,4	-8,1	-7,7
	8H	-8,1	-7,7	-7,7	-7,4	-7,0	-8,1	-7,7	-7,7	-7,4	-7,0
	12H	-7,5	-7,1	-7,1	-6,8	-6,4	-7,5	-7,1	-7,1	-6,8	-6,4
4H	2H	-13,0	-12,5	-12,6	-12,3	-12,1	-13,0	-12,5	-12,6	-12,3	-12,1
	3H	-10,2	-9,9	-9,9	-9,5	-9,1	-10,2	-9,9	-9,9	-9,5	-9,1
	4H	-8,8	-8,5	-8,4	-8,1	-7,6	-8,8	-8,5	-8,4	-8,1	-7,6
	6H	-7,4	-6,9	-6,9	-6,6	-6,3	-7,4	-6,9	-6,9	-6,6	-6,3
	8H	-6,6	-6,2	-6,1	-5,9	-5,5	-6,6	-6,2	-6,1	-5,9	-5,5
	12H	-5,9	-5,7	-5,4	-5,3	-4,8	-5,9	-5,7	-5,4	-5,3	-4,8
8H	4H	-8,2	-7,8	-7,7	-7,5	-7,1	-8,2	-7,8	-7,7	-7,5	-7,1
	6H	-6,5	-6,3	-6,0	-5,8	-5,3	-6,5	-6,3	-6,0	-5,8	-5,3
	8H	-5,5	-5,4	-5,0	-4,8	-4,2	-5,5	-5,4	-5,0	-4,8	-4,2
	12H	-4,7	-4,6	-4,1	-4,1	-3,5	-4,7	-4,6	-4,1	-4,1	-3,5
12H	4H	-8,1	-7,8	-7,6	-7,4	-7,0	-8,1	-7,8	-7,6	-7,4	-7,0
	6H	-6,2	-6,1	-5,7	-5,6	-5,0	-6,2	-6,1	-5,7	-5,6	-5,0
	8H	-5,3	-5,1	-4,7	-4,6	-4,0	-5,3	-5,1	-4,7	-4,6	-4,0
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / -0,1					0,1 / -0,1				
S = 1.5H		0,2 / -0,2					0,2 / -0,2				
S = 2.0H		0,3 / -0,2					0,3 / -0,2				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 390lm total luminous flux											