

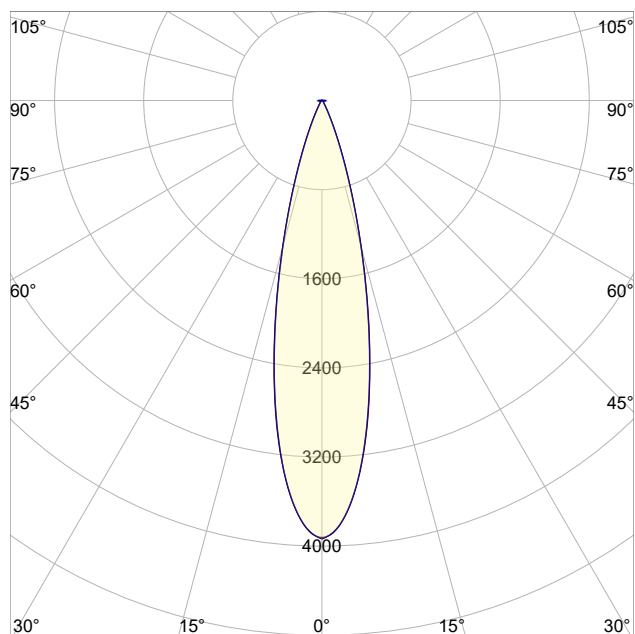
LM-79

Test Report

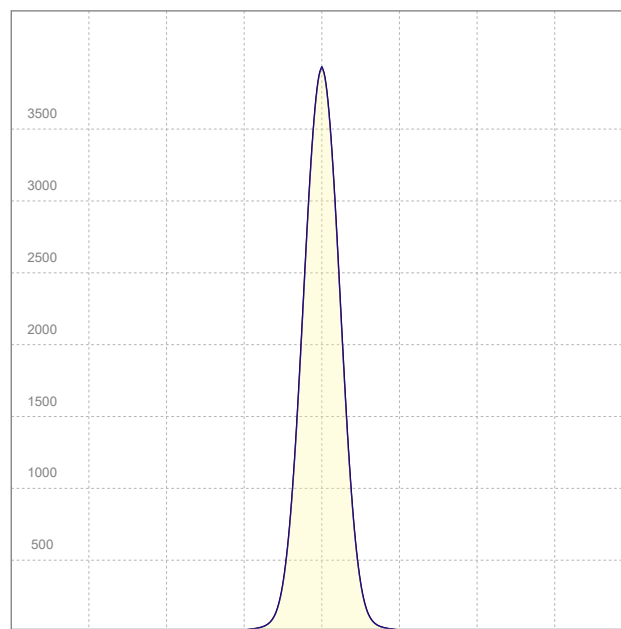
LM79-TOPAZ-EXPO-3500K-CRI98-THRIVE [MEDIUM]

General Discription

Item number	T-E-XLX-1B-3098-M
Date and time	12-9-2024 10:46:14
CCT (Kelvin)	3449 K
Beam angle	24,3°
Luminous flux	820 lm
Efficiency	72 lm/watt
Weighted energy	11,3 kWh/1000h
Power factor	0,89
CRI (RA)	95,8
Fidelity index Rf	Rf 97,3
Gammut index Rg	Rg 102,2
Peak	3930 cd



Polar curve



Linear distribution diagram



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Beam details				1m		2m		3m		4m		5m							
Lux*				3924 lx		981 lx		436 lx		245 lx		157 lx							
24,4°																			
*measured at center of beam																			
Footcandles*				364,5 fcd		91,1 fcd		40,5 fcd		22,8 fcd		14,6 fcd							
Beam width (meter)				0,4 m		0,9 m		1,3 m		1,7 m		2,2 m							
Beam width (Feet)				1,4 ft		2,8 ft		4,3 ft		5,7 ft		7,1 ft							
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3924lx	981lx	436lx	245lx	157lx	109lx	80lx	61lx	48lx	39lx	32lx	27lx	23lx	20lx	17lx	15lx	14lx	12lx	11lx	10lx
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
364,5fcd	91,1fcd	40,5fcd	22,8fcd	14,6fcd	10,1fcd	7,4fcd	5,7fcd	4,5fcd	3,6fcd	3fcd	2,5fcd	2,2fcd	1,9fcd	1,6fcd	1,4fcd	1,3fcd	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°
3924	3842	3629	3318	2925	2474	2012	1567	1168	837	578	383	247	158	103	70	50	38	31	26
100%	98%	92%	85%	75%	63%	51%	40%	30%	21%	15%	10%	6%	4%	3%	2%	1%	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°
3924	3842	3634	3315	2914	2463	1999	1558	1167	837	575	381	245	155	101	69	50	38	31	26
100%	98%	93%	84%	74%	63%	51%	40%	30%	21%	15%	10%	6%	4%	3%	2%	1%	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°
3924	3842	3629	3318	2925	2474	2012	1567	1168	837	578	383	247	158	103	70	50	38	31	26
100%	98%	92%	85%	75%	63%	51%	40%	30%	21%	15%	10%	6%	4%	3%	2%	1%	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°
3924	3842	3634	3315	2914	2463	1999	1558	1167	837	575	381	245	155	101	69	50	38	31	26
100%	98%	93%	84%	74%	63%	51%	40%	30%	21%	15%	10%	6%	4%	3%	2%	1%	1%	1%	1%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
24,4°				43,8°				56,3°				99,3%				98,1%			



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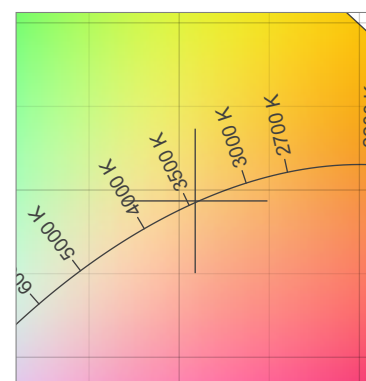
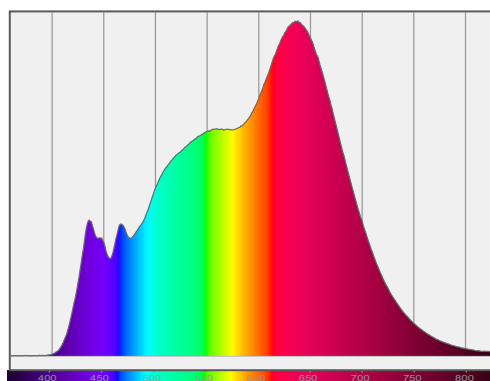
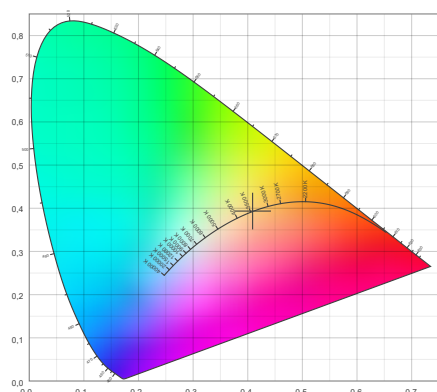
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[MEDIUM]

Color details



CIE 1931

x: 0,409



Spectra

CIE 1931 ZOOM

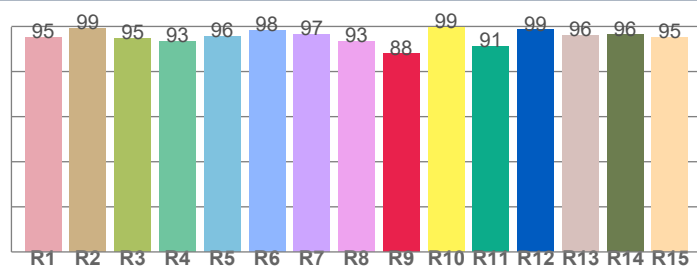
3449 K

y: 0,393

 $\Delta uv: 0,0005$

CRI: 95,8 (R1-R8)

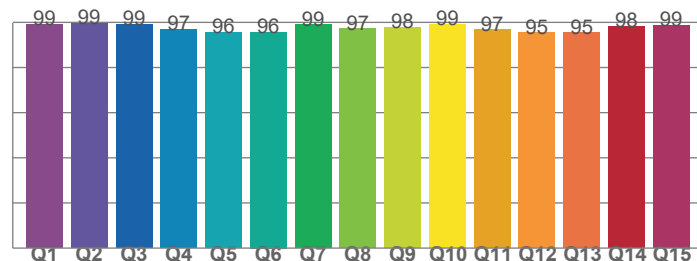
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
95,3	99,2	94,8	93,3	95,7	98,4	96,6	93,4
R9	R10	R11	R12	R13	R14	R15	
87,9	99,5	91,2	98,5	96,2	96,3	95,2	

CQS: 97,1

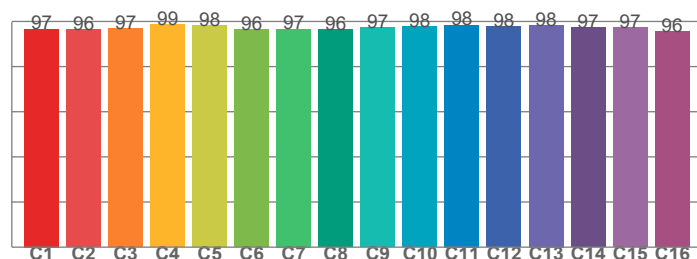
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
99,1	99,4	99,1	96,8	95,6	95,8	99,0	97,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,8	99,2	96,7	95,4	95,4	98,3	98,7	

TM30: 97,3

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



C1	C2	C3	C4	C5	C6	C7	C8
96,7	96,4	96,7	98,6	98,1	96,4	96,7	96,4
C9	C10	C11	C12	C13	C14	C15	
97,2	97,6	98,4	97,8	98,4	97,4	97,4	

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
3449 K	95,8	87,9	97,3	102,2	97,1	0,409	0,393	0,237	0,342	0,0005



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TM30 details

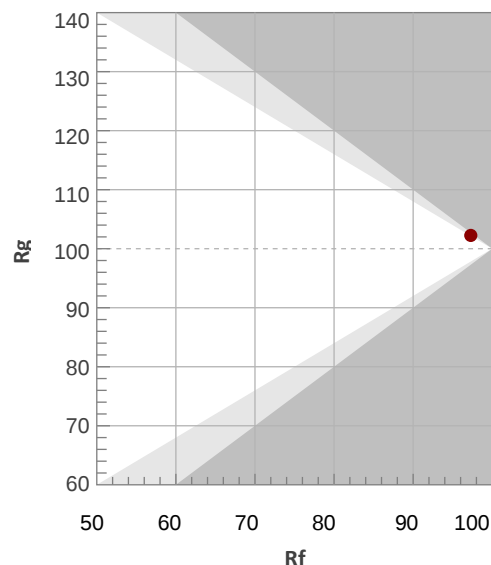
Rf 97,3

Fidelity index Rf

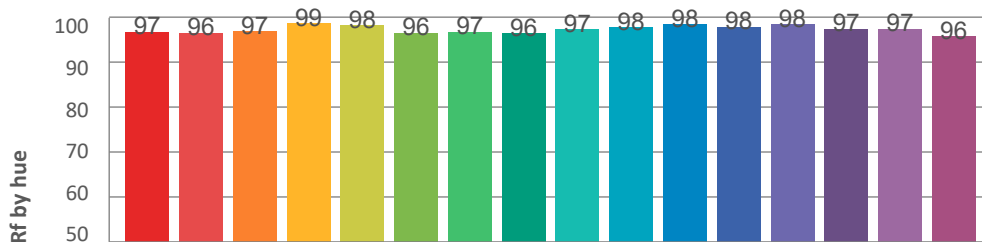
Rg 102,2

Gamut index Rg

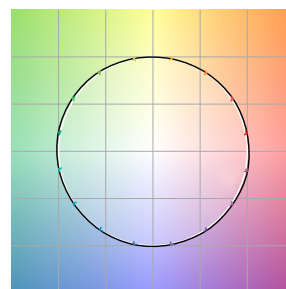
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	2%	-1%
2	96	1%	-1%
3	97	1%	-1%
4	99	0%	-1%
5	98	0%	1%
6	96	2%	2%
7	97	2%	1%
8	96	2%	0%
9	97	1%	-1%
10	98	1%	-1%
11	98	1%	0%
12	98	1%	0%
13	98	1%	-1%
14	97	1%	1%
15	97	1%	0%
16	96	2%	-1%



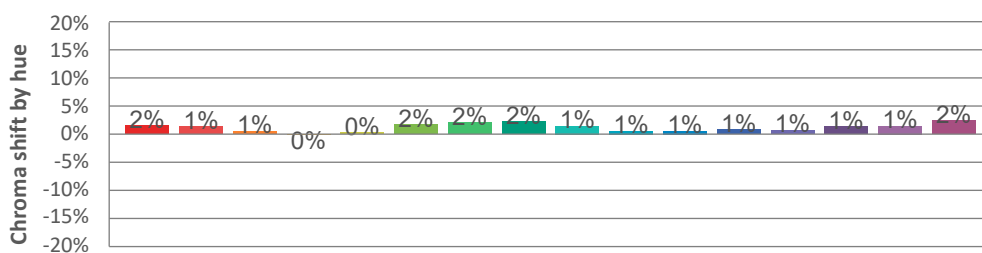
Hue binH



Color vector graphics



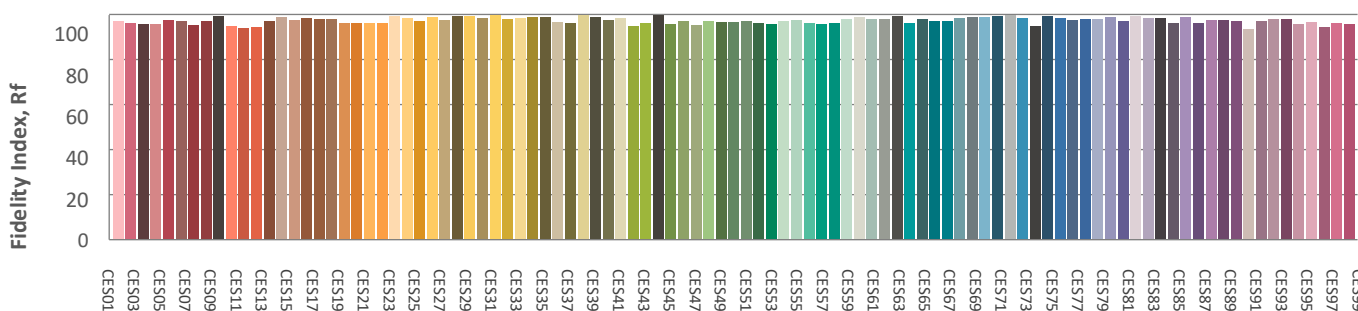
Hue bin



Color distortion graphics



Color Evaluation Sample



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[MEDIUM]

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
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 820lm total luminous flux										



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