

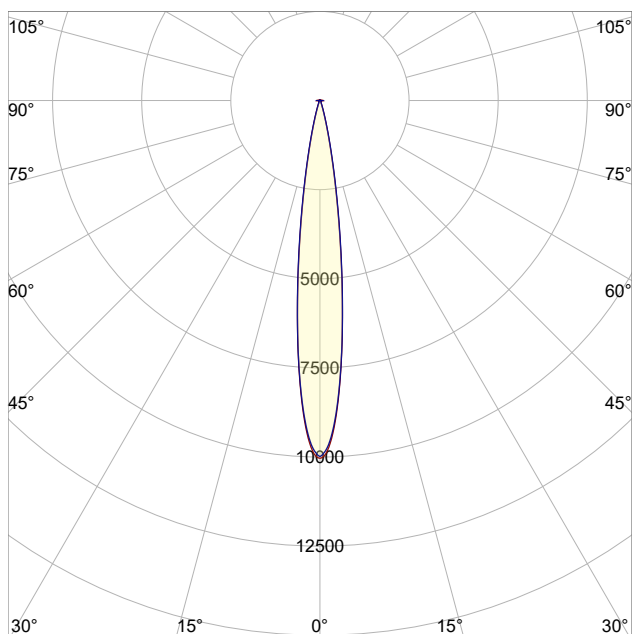
LM-79

Test Report

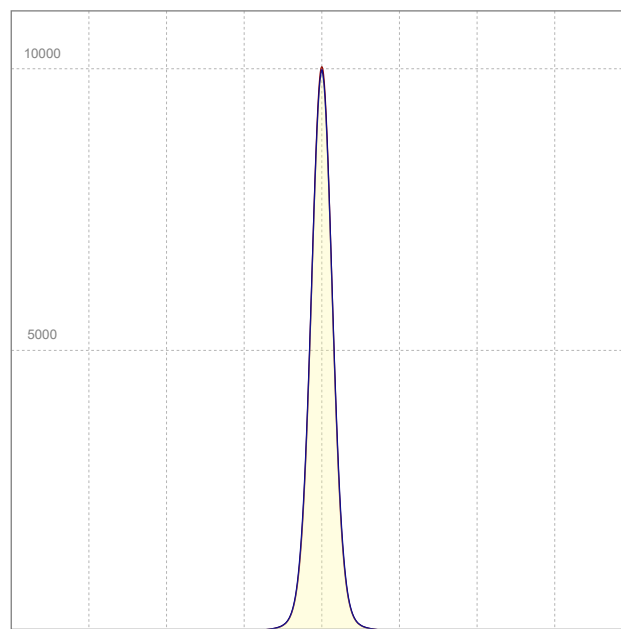
LM79-TOPAZ-EXPO-3500K-CRI98-THRIVE [SPOT]

General Discription

Item number	T-E-XLX-1B-3098-S
Date and time	12-9-2024 10:42:53
CCT (Kelvin)	3451 K
Beam angle	14,2°
Luminous flux	836 lm
Efficiency	74 lm/watt
Weighted energy	11,4 kWh/1000h
Power factor	0,89
CRI (RA)	95,8
Fidelity index Rf	Rf 97,3
Gammut index Rg	Rg 102,3
Peak	10025 cd



Polar curve



Linear distribution diagram



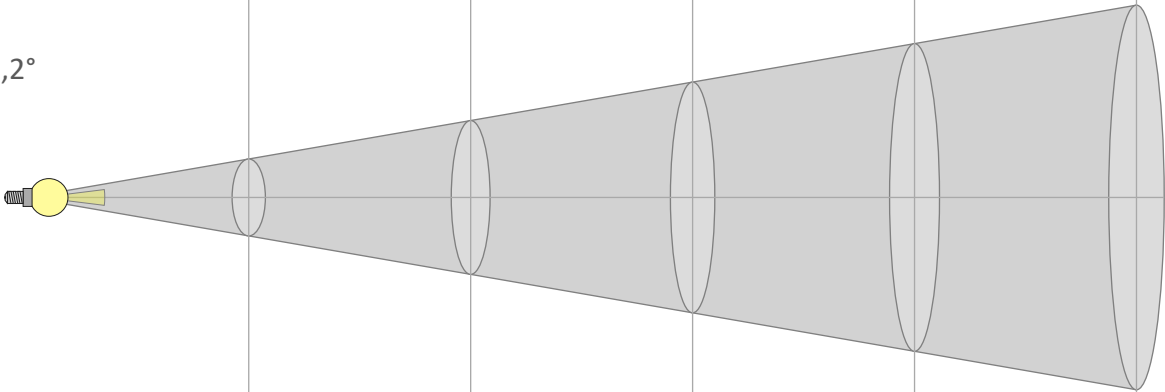
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info@cls-led.com
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Beam details					1m		2m		3m		4m		5m										
Lux*					9997 lx		2499 lx		1111 lx		625 lx		400 lx										
14,2° 																							
*measured at center of beam																							
Footcandles*					928,8 fcd		232,2 fcd		103,2 fcd		58,0 fcd		37,2 fcd										
Beam width (meter)					0,2 m		0,5 m		0,7 m		1 m		1,2 m										
Beam width (Feet)					0,8 ft		1,6 ft		2,4 ft		3,3 ft		4,1 ft										
Beam intensities																							
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m				
9997lx	2499lx	1111lx	625lx	400lx	278lx	204lx	156lx	123lx	100lx	83lx	69lx	59lx	51lx	44lx	39lx	35lx	31lx	28lx	25lx				
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				
928,8fcd	232,2fcd	103,2fcd	58fcd	37,2fcd	25,8fcd	19fcd	14,5fcd	11,5fcd	9,3fcd	7,7fcd	6,4fcd	5,5fcd	4,7fcd	4,1fcd	3,6fcd	3,2fcd	2,9fcd	2,6fcd	2,3fcd				
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°				
9997	9884	9459	8800	7967	7021	6026	5052	4139	3322	2611	2019	1543	1170	882	665	505	387	300	236				
100%	99%	95%	88%	80%	70%	60%	51%	41%	33%	26%	20%	15%	12%	9%	7%	5%	4%	3%	2%				
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°				
9997	9793	9380	8742	7932	7015	6045	5087	4194	3389	2683	2092	1610	1224	921	692	523	400	309	242				
100%	98%	94%	87%	79%	70%	60%	51%	42%	34%	27%	21%	16%	12%	9%	7%	5%	4%	3%	2%				
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°				
9997	9884	9459	8800	7967	7021	6026	5052	4139	3322	2611	2019	1543	1170	882	665	505	387	300	236				
100%	99%	95%	88%	80%	70%	60%	51%	41%	33%	26%	20%	15%	12%	9%	7%	5%	4%	3%	2%				
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°				
9997	9793	9380	8742	7932	7015	6045	5087	4194	3389	2683	2092	1610	1224	921	692	523	400	309	242				
100%	98%	94%	87%	79%	70%	60%	51%	42%	34%	27%	21%	16%	12%	9%	7%	5%	4%	3%	2%				
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone							
14,2°				27,3°				37,6°				99,2%				97,8%							



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info@cls-led.com
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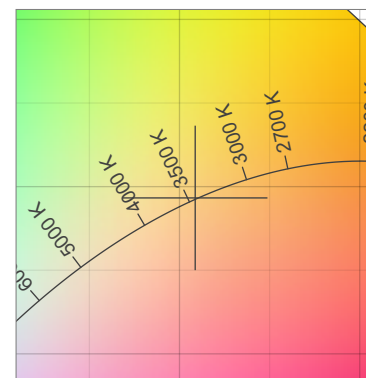
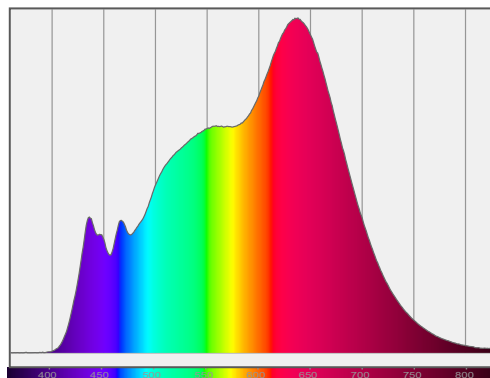
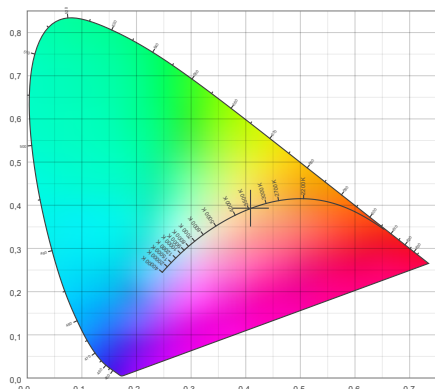
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Color details



CIE 1931

x: 0,409



Spectra

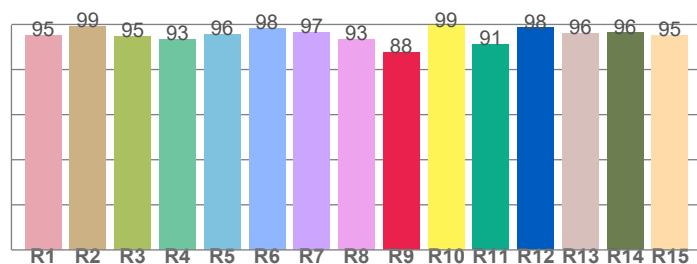
CIE 1931 ZOOM

3451 K

y: 0,393

Δuv : 0,0004

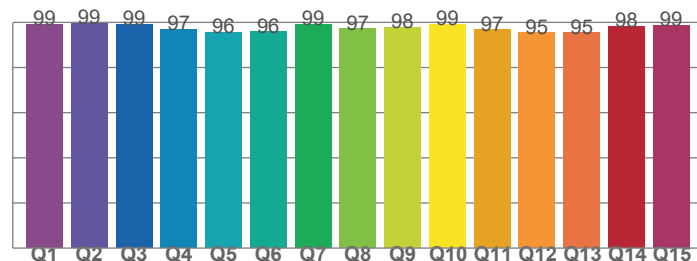
CRI: 95,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
95,2	99,2	94,9	93,3	95,7	98,3	96,6	93,3
R9	R10	R11	R12	R13	R14	R15	
87,6	99,4	91,1	98,5	96,2	96,3	95,1	

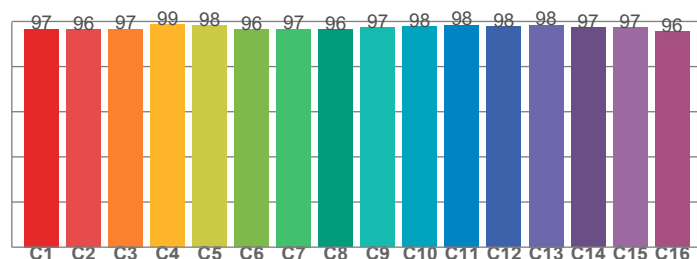
CQS: 97,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
99,1	99,4	99,2	96,9	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
96,6	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	97,3	

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
3451 K	95,8	87,6	97,3	102,3	97,1	0,409	0,393	0,237	0,342	0,0004



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TM30 details

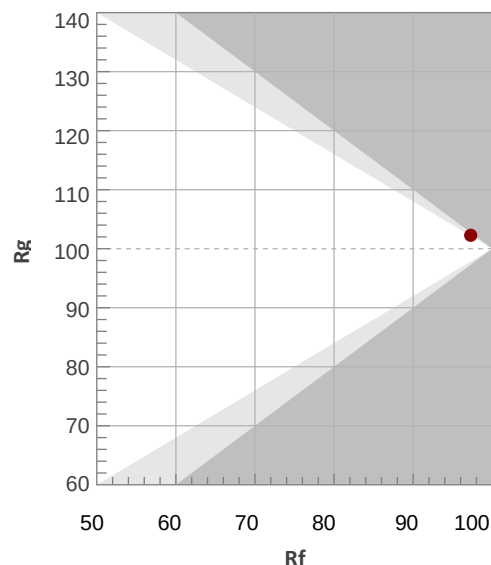
Rf 97,3

Fidelity index Rf

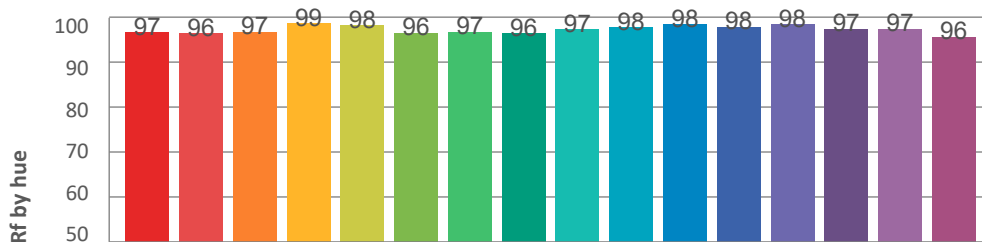
Rg 102,3

Gamut index Rg

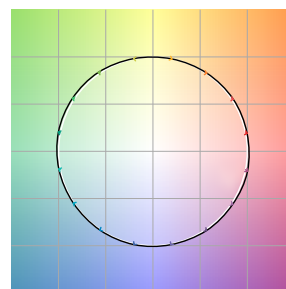
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	2%	-1%
2	96	1%	-1%
3	97	1%	-1%
4	99	0%	-1%
5	98	0%	1%
6	96	2%	2%
7	97	2%	1%
8	96	2%	0%
9	97	1%	-1%
10	98	1%	-1%
11	98	1%	0%
12	98	1%	0%
13	98	1%	-1%
14	97	1%	1%
15	97	1%	0%
16	96	2%	-1%



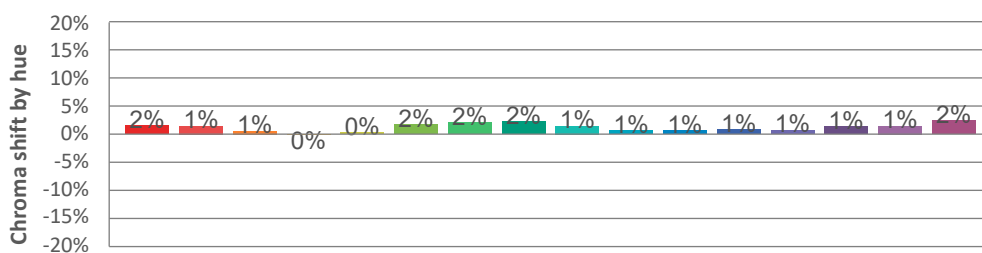
Hue binH



Color vector graphics



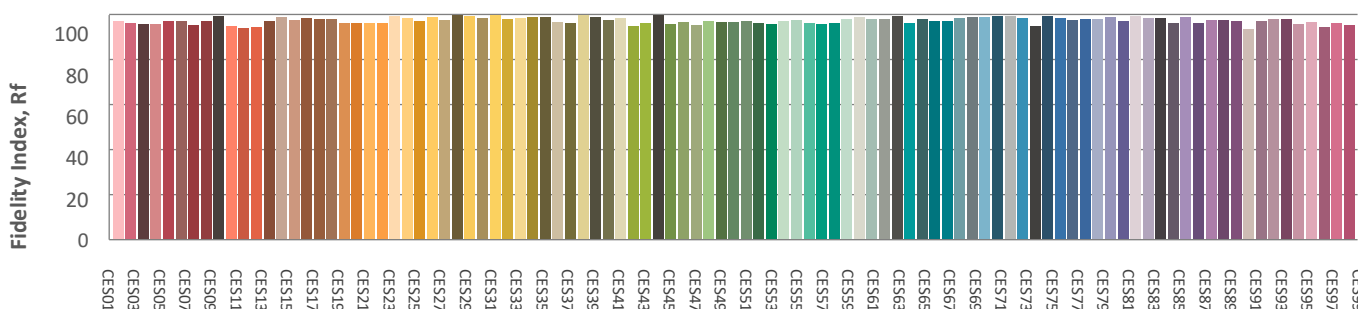
Hue bin



Color distortion graphics



Color Evaluation Sample



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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 836lm total luminous flux										



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