

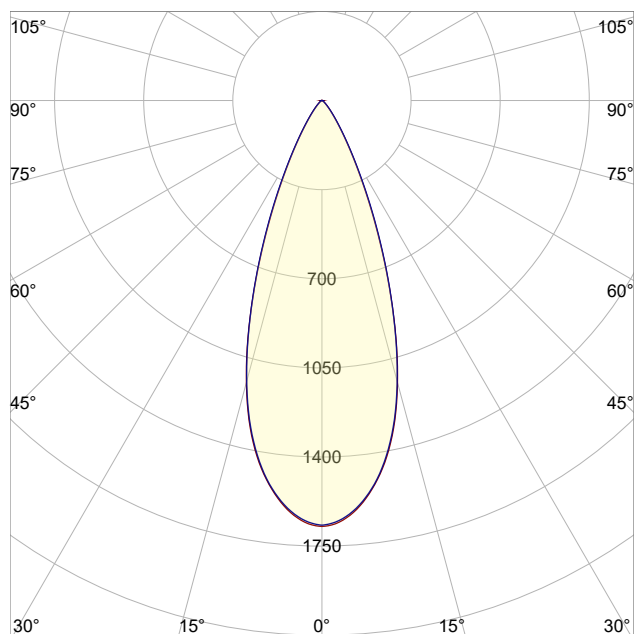
LM-79

Test Report

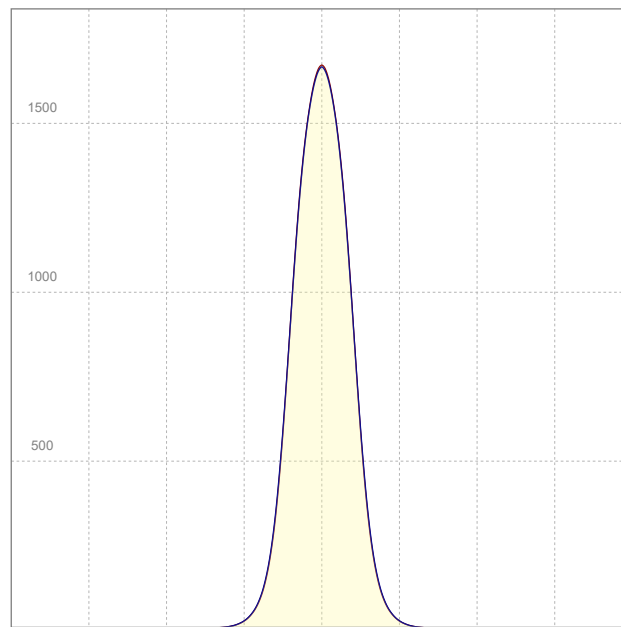
LM79-TOPAZ-EXPO-3500K-CRI98-THRIVE [WIDE]

General Discription

Item number	T-E-XLX-1B-3098-W
Date and time	12-9-2024 10:49:39
CCT (Kelvin)	3449 K
Beam angle	38,3°
Luminous flux	769 lm
Efficiency	68 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	1672 cd



Polar curve



Linear distribution diagram



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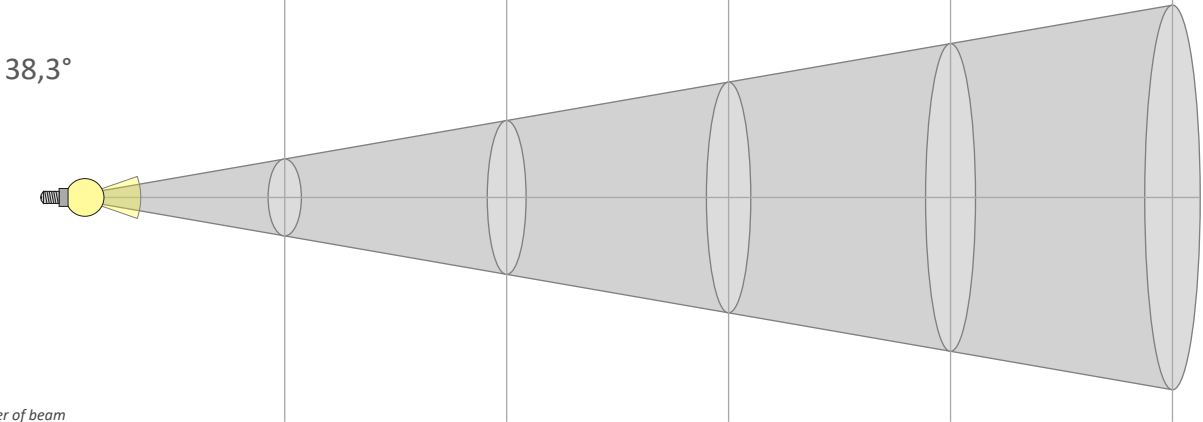
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Beam details	1m	2m	3m	4m	5m
Lux*	1669 lx	417 lx	185 lx	104 lx	67 lx



*measured at center of beam

Footcandles*	155,1 fcd	38,8 fcd	17,2 fcd	9,7 fcd	6,2 fcd
Beam width (meter)	0,7 m	1,4 m	2,1 m	2,8 m	3,5 m
Beam width (Feet)	2,3 ft	4,6 ft	6,8 ft	9,1 ft	11,4 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1669lx	417lx	185lx	104lx	67lx	46lx	34lx	26lx	21lx	17lx	14lx	12lx	10lx	9lx	7lx	7lx	6lx	5lx	5lx	4lx
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
155,1fcd	38,8fcd	17,2fcd	9,7fcd	6,2fcd	4,3fcd	3,2fcd	2,4fcd	1,9fcd	1,6fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,4fcd

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°
1669	1660	1629	1580	1516	1435	1335	1213	1074	922	768	621	489	376	285	213	159	119	89	68
100%	99%	98%	95%	91%	86%	80%	73%	64%	55%	46%	37%	29%	23%	17%	13%	10%	7%	5%	4%

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°
1669	1654	1623	1576	1512	1430	1329	1208	1070	921	771	628	499	385	293	220	165	123	92	70
100%	99%	97%	94%	91%	86%	80%	72%	64%	55%	46%	38%	30%	23%	18%	13%	10%	7%	6%	4%

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°
1669	1660	1629	1580	1516	1435	1335	1213	1074	922	768	621	489	376	285	213	159	119	89	68
100%	99%	98%	95%	91%	86%	80%	73%	64%	55%	46%	37%	29%	23%	17%	13%	10%	7%	5%	4%

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°
1669	1654	1623	1576	1512	1430	1329	1208	1070	921	771	628	499	385	293	220	165	123	92	70
100%	99%	97%	94%	91%	86%	80%	72%	64%	55%	46%	38%	30%	23%	18%	13%	10%	7%	6%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38,3°	63,6°	83,4°	98,9%	96,7%



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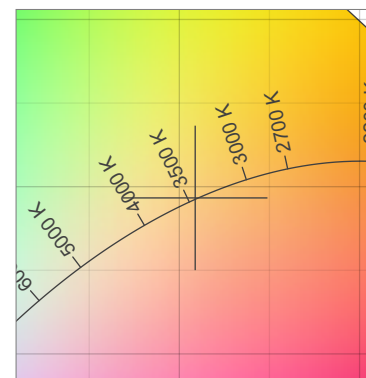
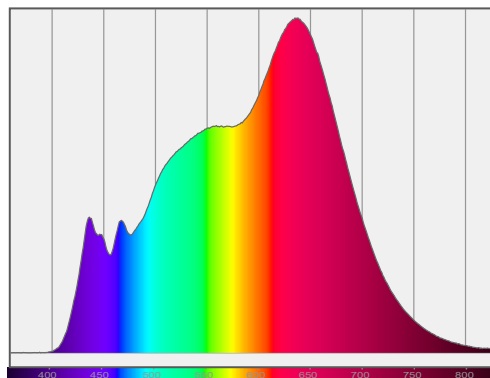
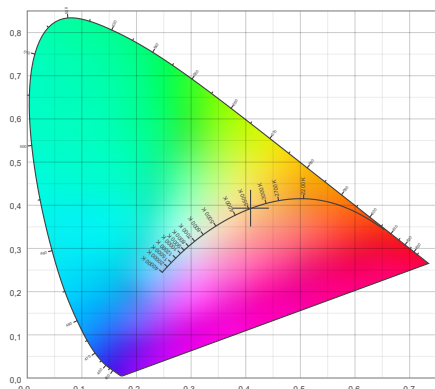
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Color details



CIE 1931

x: 0,409



Spectra

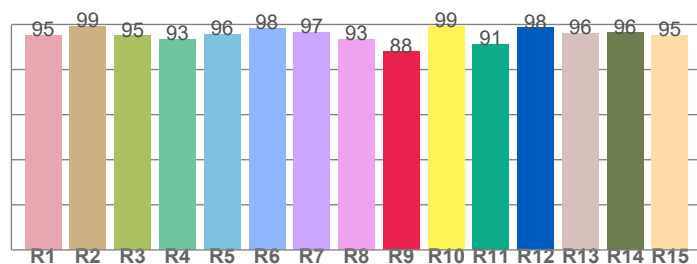
CIE 1931 ZOOM

3449 K

y: 0,393

Δuv : 0,0004

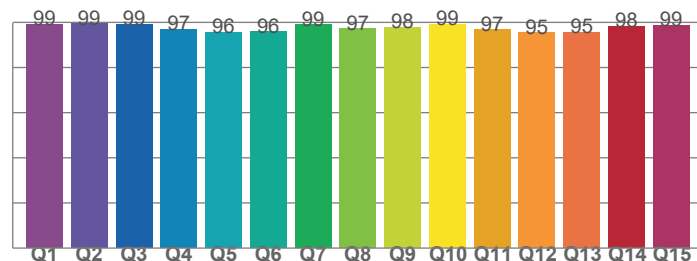
CRI: 95,8 (R1-R8)



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	96,7	93,4
R9	R10	R11	R12	R13	R14	R15	
87,9	99,3	91,1	98,5	96,2	96,3	95,2	

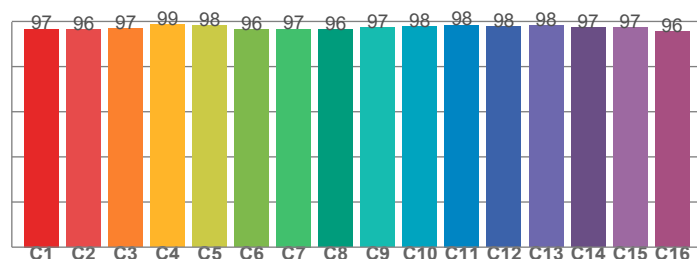
CQS: 97,1



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
99,1	99,4	99,2	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
96,7	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	98,3	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	102,3	97,1	0,409	0,393	0,237	0,342	0,0004



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TM30 details

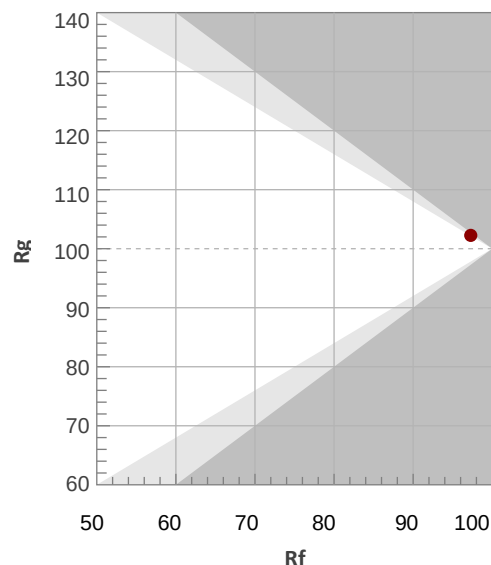
Rf 97,3

Fidelity index Rf

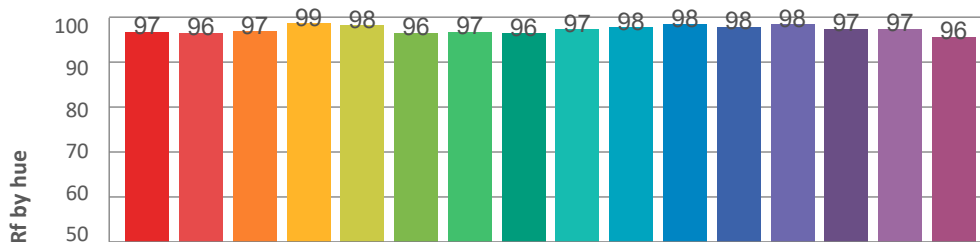
Rg 102,3

Gamut index Rg

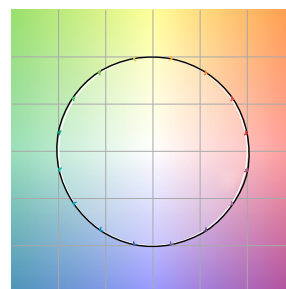
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	2%	-1%
2	96	1%	-1%
3	97	1%	-1%
4	99	0%	-1%
5	98	0%	1%
6	96	2%	2%
7	97	2%	1%
8	96	2%	0%
9	97	1%	-1%
10	98	1%	-1%
11	98	1%	0%
12	98	1%	-1%
13	98	1%	-1%
14	97	1%	1%
15	97	1%	0%
16	96	2%	-1%



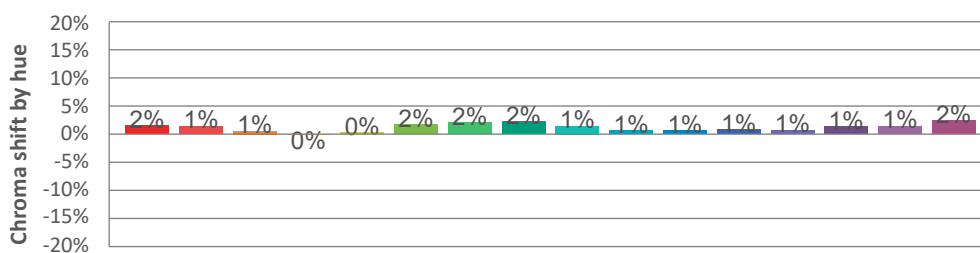
Hue binH



Color vector graphics



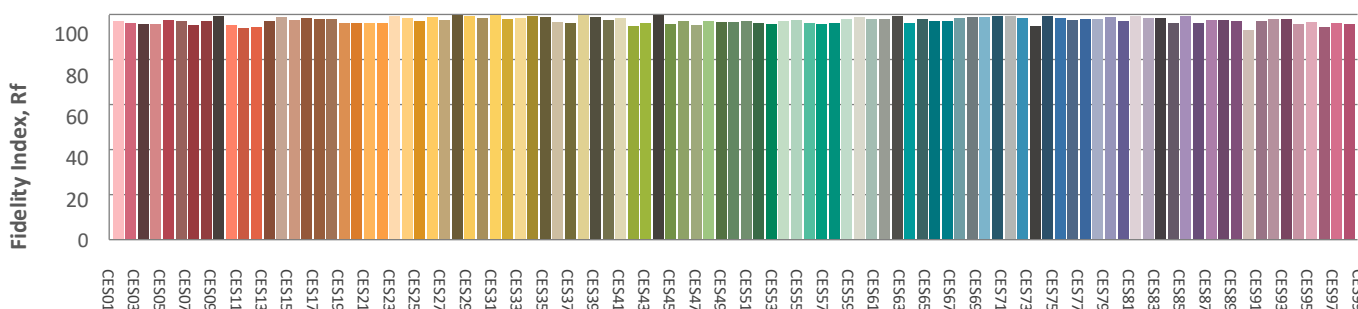
Hue bin



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
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 769lm total luminous flux										



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