

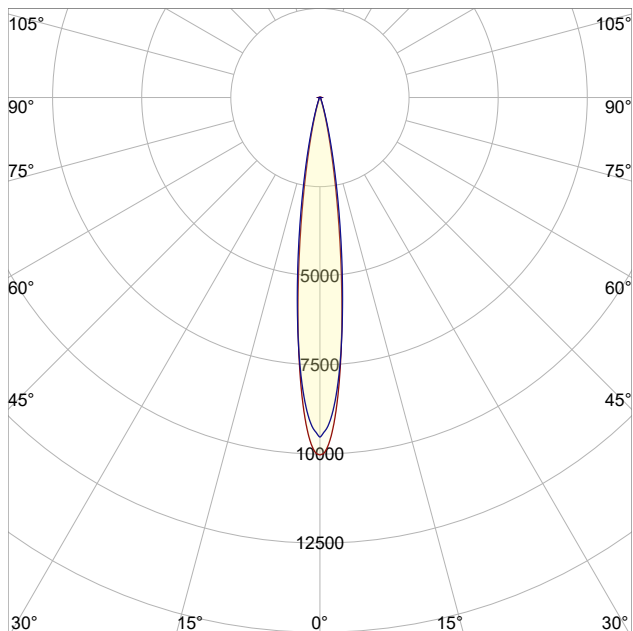
LM-79

Test Report

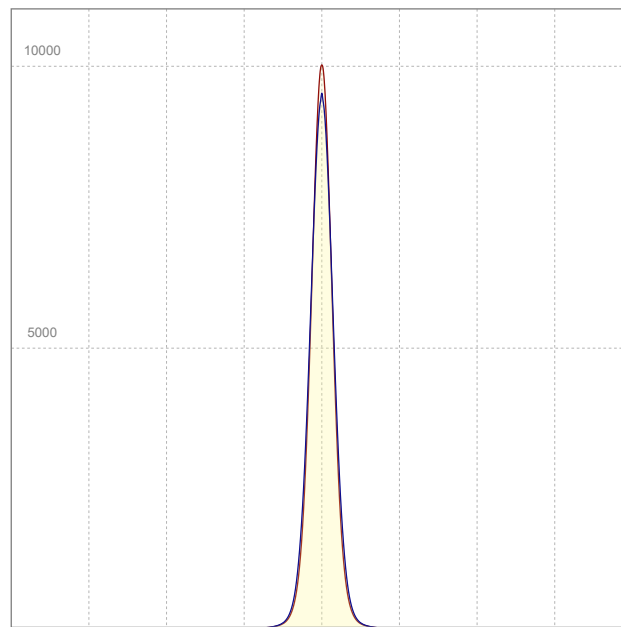
LM79-TOPAZ-EXPO-3000K-CRI98-THRIVE [SPOT]

General Discription

Item number	T-E-XLX-1B-3098-S
Date and time	11-9-2024 16:47:48
CCT (Kelvin)	3053 K
Beam angle	15°
Luminous flux	835 lm
Efficiency	74 lm/watt
Weighted energy	11,3 kWh/1000h
Power factor	0,88
CRI (RA)	95,3
Fidelity index Rf	Rf 96,0
Gammut index Rg	Rg 100,9
Peak	10016 cd



Polar curve



Linear distribution diagram



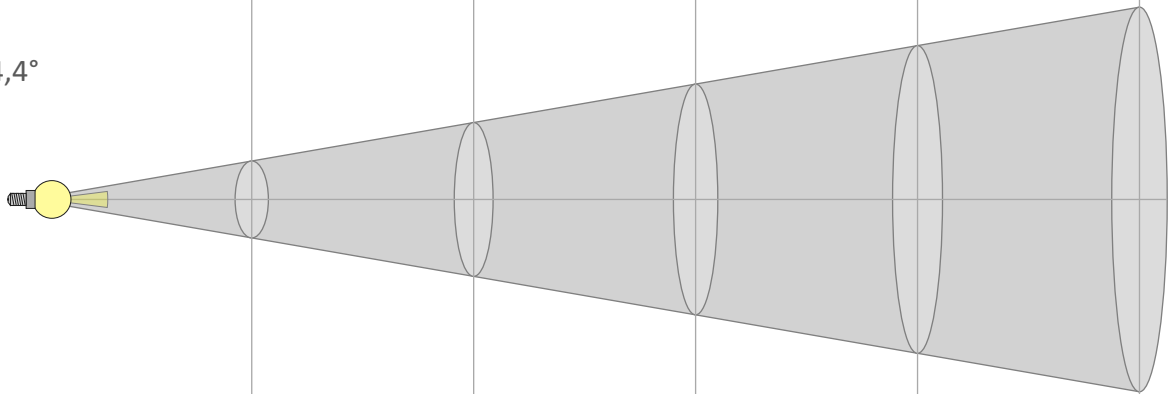
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Beam details					1m		2m		3m		4m		5m						
Lux*					9762 lx		2441 lx		1085 lx		610 lx		390 lx						
14,4° 																			
*measured at center of beam																			
Footcandles*					907,0 fcd		226,7 fcd		100,8 fcd		56,7 fcd		36,3 fcd						
Beam width (meter)					0,3 m		0,5 m		0,8 m		1 m		1,3 m						
Beam width (Feet)					0,8 ft		1,7 ft		2,5 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
9762lx	2441lx	1085lx	610lx	390lx	271lx	199lx	153lx	121lx	98lx	81lx	68lx	58lx	50lx	43lx	38lx	34lx	30lx	27lx	24lx
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
907fcd	226,7fcd	100,8fcd	56,7fcd	36,3fcd	25,2fcd	18,5fcd	14,2fcd	11,2fcd	9,1fcd	7,5fcd	6,3fcd	5,4fcd	4,6fcd	4fcd	3,5fcd	3,1fcd	2,8fcd	2,5fcd	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°
9762	9876	9432	8741	7875	6903	5887	4900	3987	3179	2483	1910	1453	1099	828	624	474	364	283	223
100%	101%	97%	90%	81%	71%	60%	50%	41%	33%	25%	20%	15%	11%	8%	6%	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°
9762	9322	8975	8429	7729	6914	6037	5162	4326	3555	2866	2272	1778	1372	1043	785	592	450	345	268
100%	95%	92%	86%	79%	71%	62%	53%	44%	36%	29%	23%	18%	14%	11%	8%	6%	5%	4%	3%
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°
9762	9876	9432	8741	7875	6903	5887	4900	3987	3179	2483	1910	1453	1099	828	624	474	364	283	223
100%	101%	97%	90%	81%	71%	60%	50%	41%	33%	25%	20%	15%	11%	8%	6%	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°
9762	9322	8975	8429	7729	6914	6037	5162	4326	3555	2866	2272	1778	1372	1043	785	592	450	345	268
100%	95%	92%	86%	79%	71%	62%	53%	44%	36%	29%	23%	18%	14%	11%	8%	6%	5%	4%	3%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
14,4°				27,7°				38°				99,2%				97,8%			



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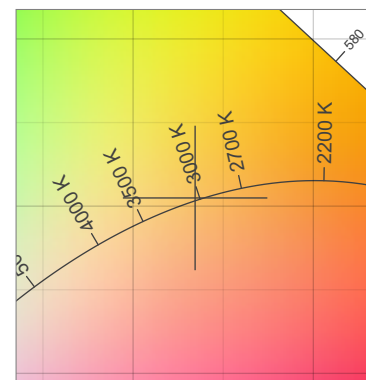
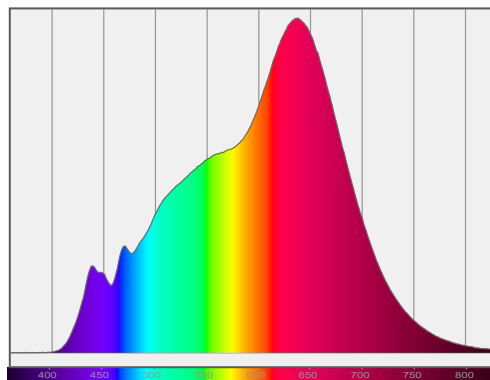
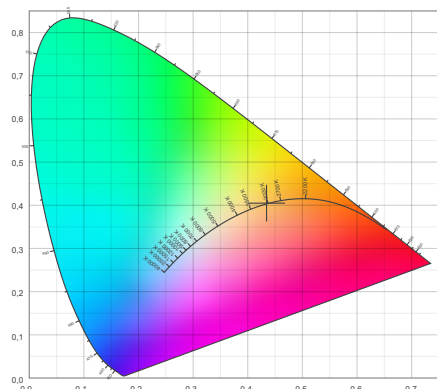
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Color details



CIE 1931

x: 0,434



Spectra

CIE 1931 ZOOM

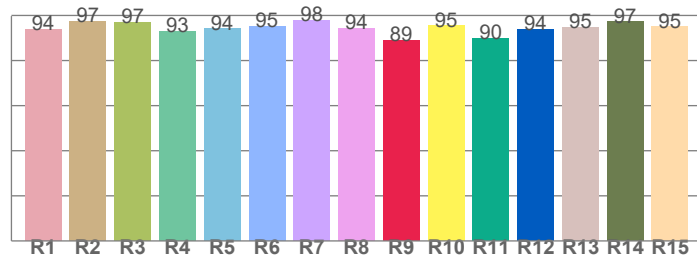
3053 K

y: 0,405

Δuv : 0,0007

CRI: 95,3 (R1-R8)

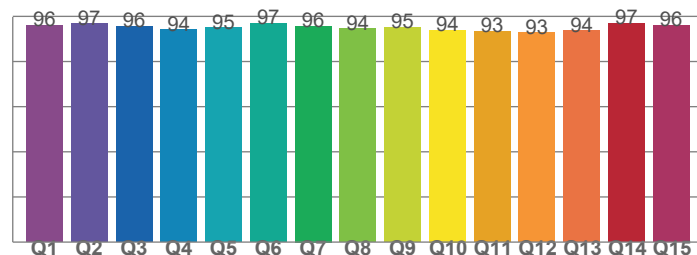
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
94,0	97,4	96,8	92,9	94,1	95,1	97,7	94,2
R9	R10	R11	R12	R13	R14	R15	
89,1	95,4	89,8	94,0	94,6	97,2	95,0	

CQS: 94,8

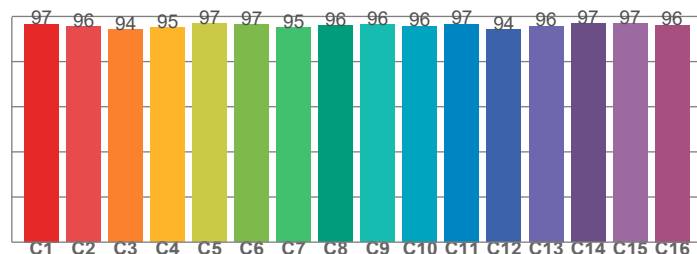
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
96,1	96,7	95,6	94,0	94,9	96,9	95,7	94,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,0	94,0	93,4	92,7	93,6	96,8	96,1	

TM30: 96,0

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



C1	C2	C3	C4	C5	C6	C7	C8
96,7	95,6	94,3	95,2	96,8	96,5	95,2	95,9
C9	C10	C11	C12	C13	C14	C15	
96,3	95,8	96,6	94,2	95,7	96,8	96,7	

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
3053 K	95,3	89,1	96,0	100,9	94,8	0,434	0,405	0,249	0,348	0,0007



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TM30 details

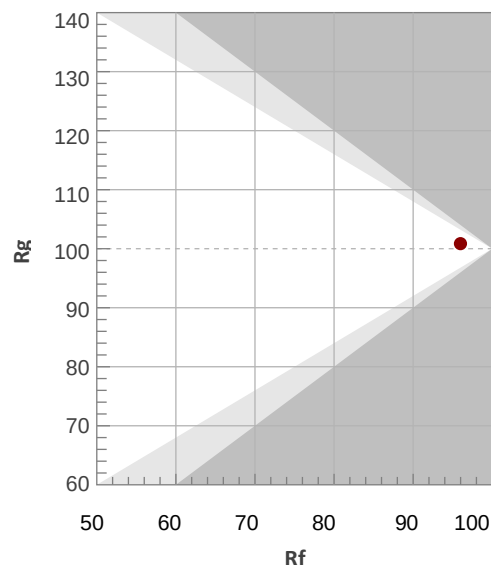
Rf 96,0

Fidelity index Rf

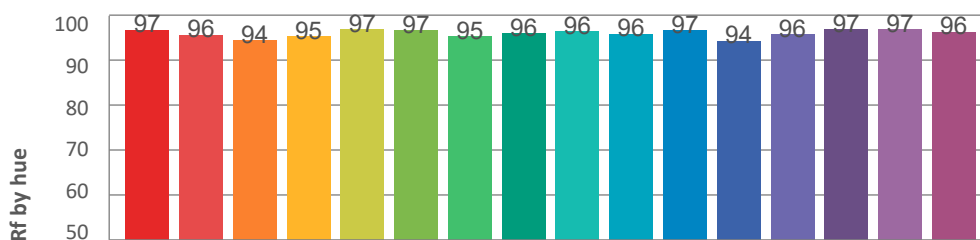
Rg 100,9

Gamut index Rg

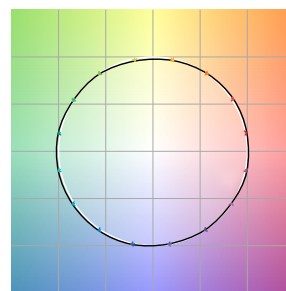
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	1%	0%
2	96	2%	-2%
3	94	0%	-3%
4	95	-2%	-3%
5	97	-2%	0%
6	97	0%	2%
7	95	0%	3%
8	96	2%	1%
9	96	2%	1%
10	96	2%	-1%
11	97	2%	-2%
12	94	1%	-3%
13	96	0%	-3%
14	97	0%	-1%
15	97	0%	1%
16	96	2%	-2%



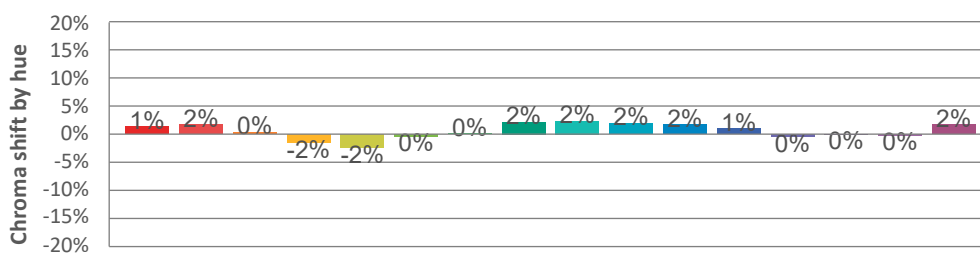
Hue binH



Color vector graphics



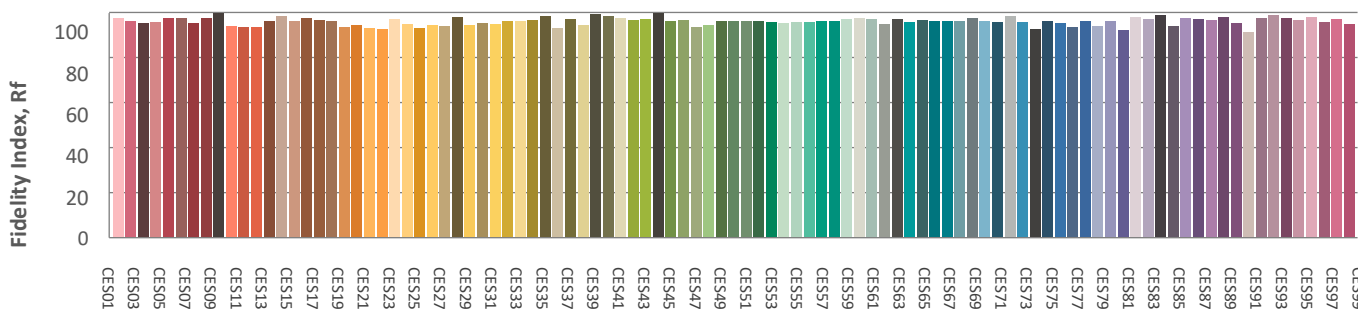
Hue bin



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
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 835lm total luminous flux										



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