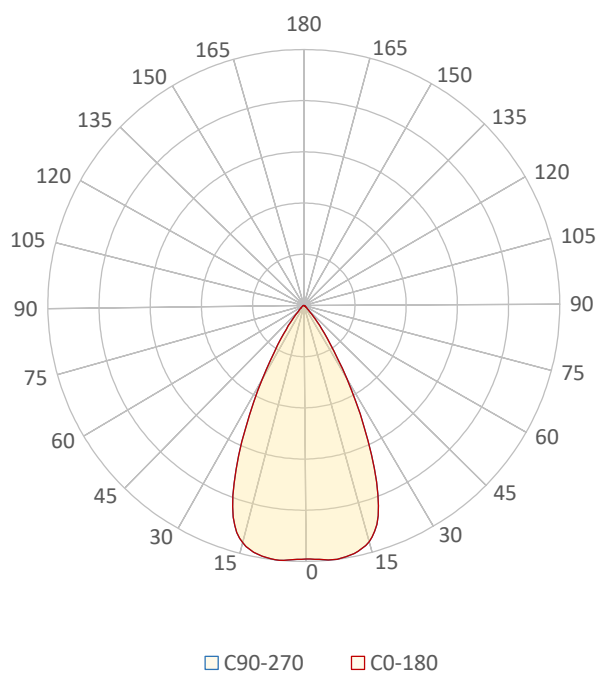


General Discription

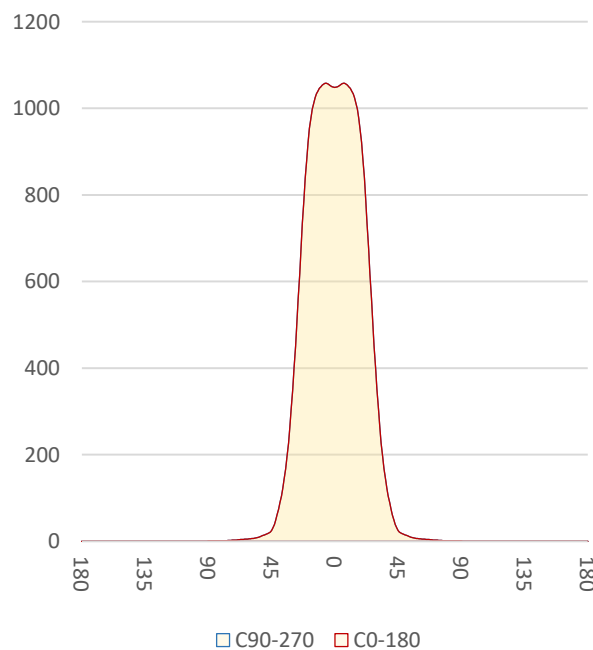
Item number	T-E-XLX-1B-3090-F
Date and time	16-2-2024 11:22:55
CCT (Kelvin)	3014 K
Beam angle	53,1°
Luminous flux	811 lm
Efficiency	76 lm/watt
Weighted energy	10,7 kWh/1000h
Power factor	0,99
CRI (RA)	93,6
Fidelity index Rf	Rf 91,2
Gammut index Rg	Rg 103,6
Peak	1058 cd



Polar diagram



Cartesian diagram

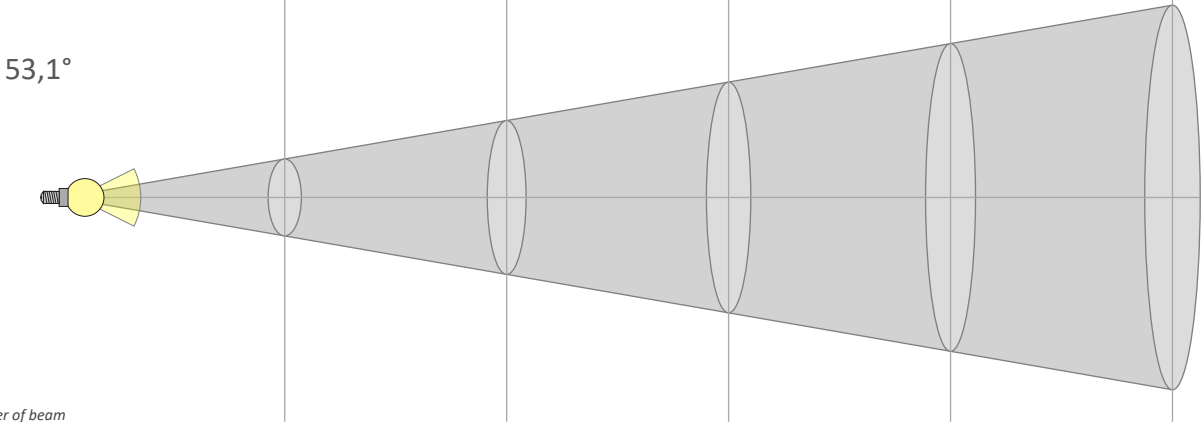


LM-79

Test Report

LM79-TOPAZ-EXPO-3000K-CRI90-FLOOD

Beam details	1m	2m	3m	4m	5m
Lux*	1048 lx	262 lx	116 lx	66 lx	42 lx



53,1°

*measured at center of beam

Footcandles*	97,4 fcd	24,4 fcd	10,8 fcd	6,1 fcd	3,9 fcd
Beam width (meter)	1 m	2 m	3 m	4 m	5 m
Beam width (Feet)	3,3 ft	6,6 ft	9,8 ft	13,1 ft	16,4 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1048lx	262lx	116lx	66lx	42lx	29lx	21lx	16lx	13lx	10lx	9lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx
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
97,4fcd	24,4fcd	10,8fcd	6,1fcd	3,9fcd	2,7fcd	2fcd	1,5fcd	1,2fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd

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°
1048	1050	1054	1058	1056	1050	1040	1024	998	953	883	789	677	561	451	350	264	195	144	105
100%	100%	101%	101%	101%	100%	99%	98%	95%	91%	84%	75%	65%	54%	43%	33%	25%	19%	14%	10%

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°
1048	1050	1054	1058	1056	1050	1040	1024	998	953	883	789	677	561	451	350	264	195	144	105
100%	100%	101%	101%	101%	100%	99%	98%	95%	91%	84%	75%	65%	54%	43%	33%	25%	19%	14%	10%

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°
1048	1050	1054	1058	1056	1050	1040	1024	998	953	883	789	677	561	451	350	264	195	144	105
100%	100%	101%	101%	101%	100%	99%	98%	95%	91%	84%	75%	65%	54%	43%	33%	25%	19%	14%	10%

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°
1048	1050	1054	1058	1056	1050	1040	1024	998	953	883	789	677	561	451	350	264	195	144	105
100%	100%	101%	101%	101%	100%	99%	98%	95%	91%	84%	75%	65%	54%	43%	33%	25%	19%	14%	10%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
53,1°	75,9°	89,4°	99,1%	97,2%



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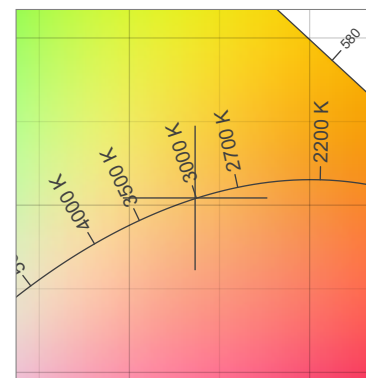
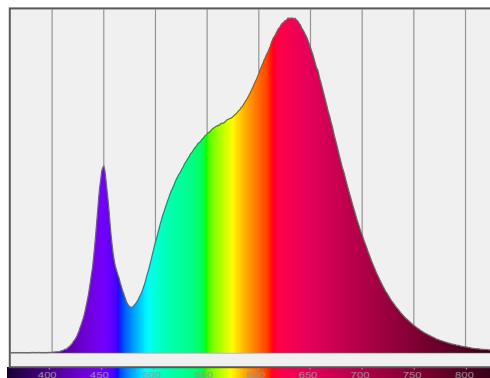
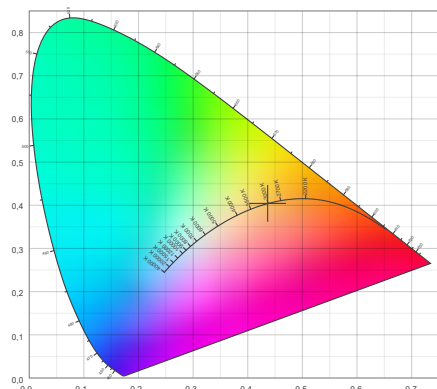
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LM-79

Test Report

LM79-TOPAZ-EXPO-3000K-CRI90-FLOOD

Color details



CIE 1931

x: 0,436



Spectra

CIE 1931 ZOOM

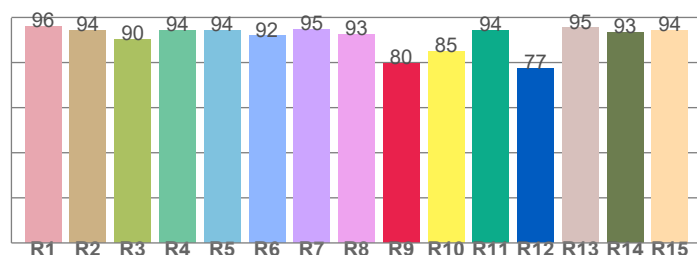
3014 K

y: 0,404

Δuv : 0,0002

CRI: 93,6 (R1-R8)

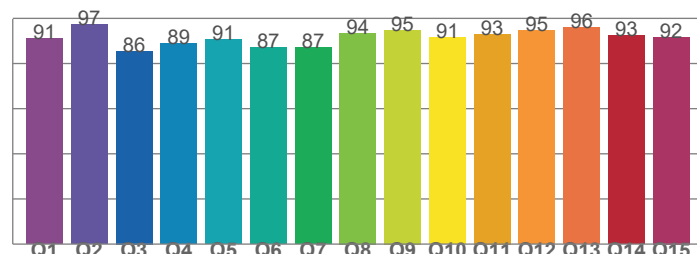
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,1	94,3	90,1	94,3	94,3	91,8	94,9	92,5
R9	R10	R11	R12	R13	R14	R15	
79,7	84,8	94,3	77,5	95,4	93,4	94,3	

CQS: 90,9

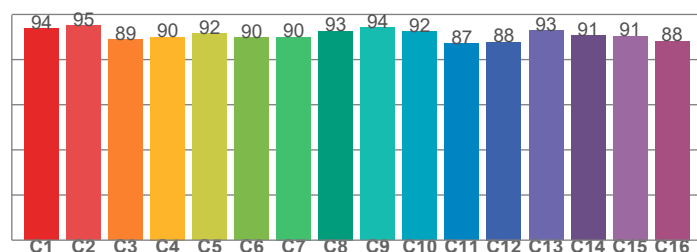
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
91,1	97,2	85,5	88,7	90,6	87,0	87,1	93,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
94,8	91,4	93,1	94,7	95,9	92,5	91,7	

TM30: 91,2

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



C1	C2	C3	C4	C5	C6	C7	C8
93,8	95,1	88,9	89,9	91,5	89,9	90,0	92,7
C9	C10	C11	C12	C13	C14	C15	
94,2	92,5	87,1	87,9	92,9	90,6	90,5	

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
3014 K	93,6	79,7	91,2	103,6	90,9	0,436	0,404	0,250	0,348	0,0002



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LM-79

Test Report

LM79-TOPAZ-EXPO-3000K-CRI90-FLOOD

TM30 details

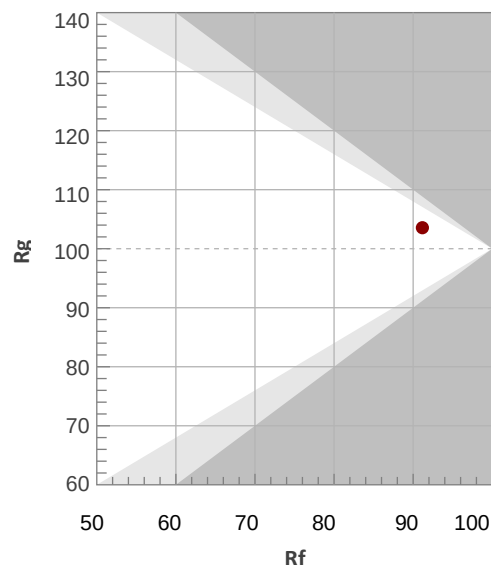
Rf 91,2

Fidelity index Rf

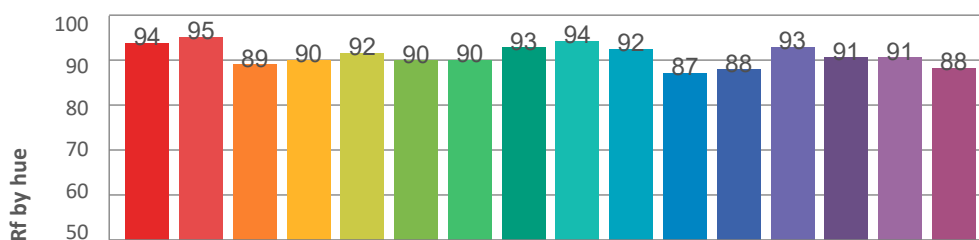
Rg 103,6

Gamut index Rg

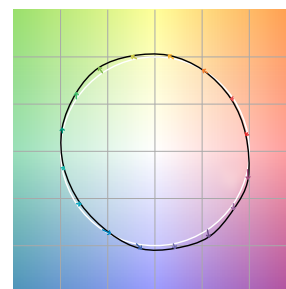
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	-2%
2	95	-2%	2%
3	89	0%	6%
4	90	3%	6%
5	92	4%	5%
6	90	7%	0%
7	90	4%	-5%
8	93	1%	-5%
9	94	-2%	-3%
10	92	-4%	3%
11	87	-1%	9%
12	88	4%	6%
13	93	5%	1%
14	91	7%	-3%
15	91	3%	-5%
16	88	3%	-9%



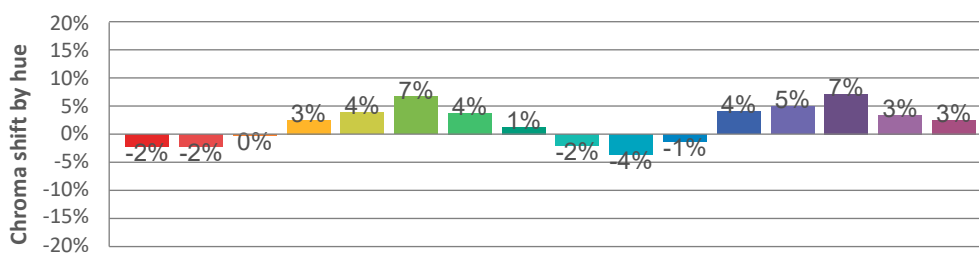
Hue binH



Color vector graphics



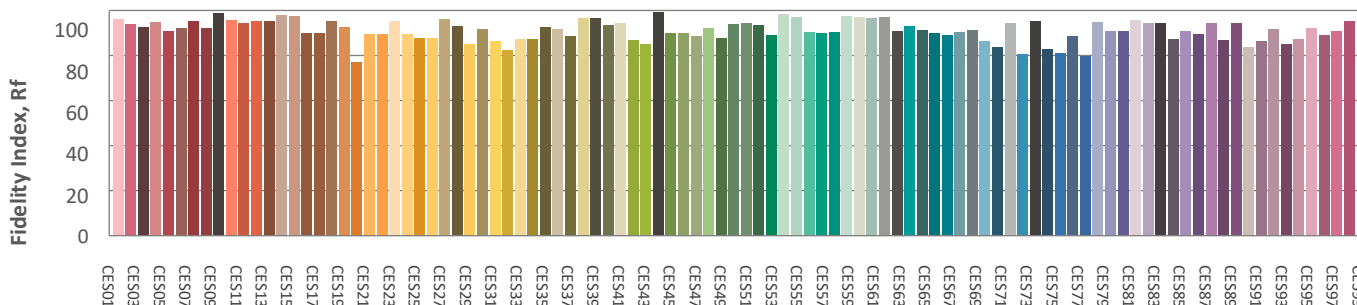
Hue bin



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	14,3	14,9	14,4	15,1	15,3	14,3	14,9	14,4	15,1	15,3
	3H	14,0	14,7	14,4	14,9	15,1	14,0	14,7	14,4	14,9	15,1
	4H	13,9	14,6	14,3	14,9	15,1	13,9	14,6	14,3	14,9	15,1
	6H	13,9	14,5	14,2	14,8	15,2	13,9	14,5	14,2	14,8	15,2
	8H	13,9	14,4	14,2	14,8	15,2	13,9	14,4	14,2	14,8	15,2
	12H	13,8	14,4	14,2	14,7	15,1	13,8	14,4	14,2	14,7	15,1
4H	2H	13,9	14,6	14,3	14,8	15,1	13,9	14,6	14,3	14,8	15,1
	3H	13,9	14,4	14,2	14,8	15,2	13,9	14,4	14,2	14,8	15,2
	4H	13,7	14,2	14,2	14,7	15,2	13,7	14,2	14,2	14,7	15,2
	6H	13,7	14,2	14,2	14,5	14,9	13,7	14,2	14,2	14,5	14,9
	8H	13,6	14,1	14,1	14,4	14,8	13,6	14,1	14,1	14,4	14,8
	12H	13,5	13,9	14,0	14,3	14,8	13,5	13,9	14,0	14,3	14,8
8H	4H	13,6	14,1	14,1	14,4	14,8	13,6	14,1	14,1	14,4	14,8
	6H	13,6	13,9	14,1	14,3	14,9	13,6	13,9	14,1	14,3	14,9
	8H	13,6	13,8	14,1	14,3	14,9	13,6	13,8	14,1	14,3	14,9
	12H	13,5	13,7	14,1	14,2	14,8	13,5	13,7	14,1	14,2	14,8
12H	4H	13,5	13,9	14,0	14,3	14,8	13,5	13,9	14,0	14,3	14,8
	6H	13,6	13,8	14,1	14,3	14,9	13,6	13,8	14,1	14,3	14,9
	8H	13,5	13,7	14,1	14,2	14,8	13,5	13,7	14,1	14,2	14,8
Variation of the observer position for the luminaire distance S											
S = 1.0H		5,6 / -8,9					5,6 / -8,9				
S = 1.5H		8,3 / -10,2					8,3 / -10,2				
S = 2.0H		10,2 / -11,1					10,2 / -11,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 811lm total luminous flux											