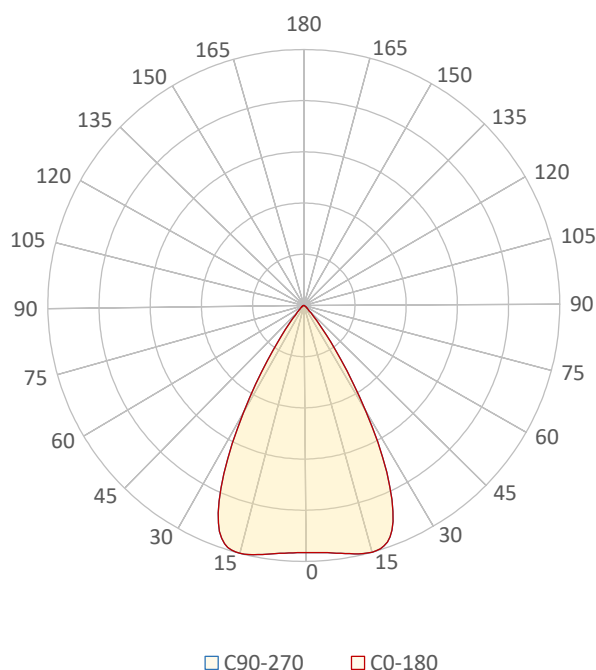


General Discription

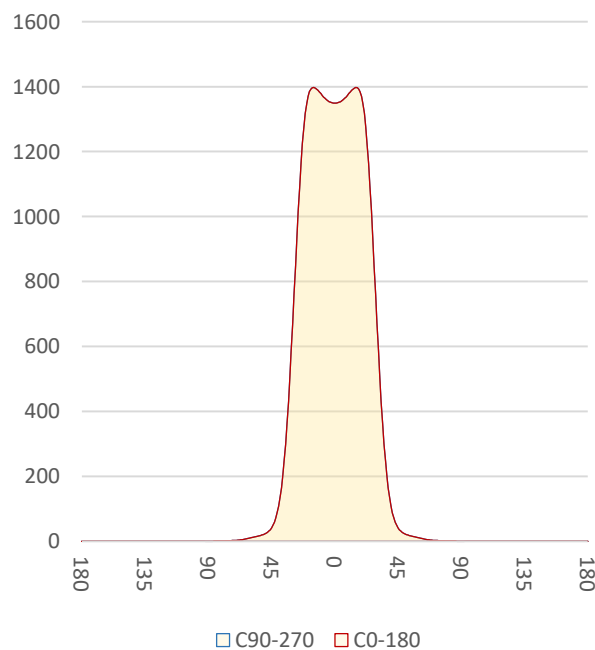
Item number	E-OM4-X-X-4090
Date and time	2-12-2022 14:20:57
CCT (Kelvin)	3864 K
Beam angle	59,4°
Luminous flux	1267 lm
Efficiency	97 lm/watt
Weighted energy	13,1 kWh/1000h
Power factor	0,9
CRI (RA)	93,2
Fidelity index Rf	Rf 90,5
Gammut index Rg	Rg 100,1
Peak	1398 cd



Polar diagram



Cartesian diagram



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Test Report

LM79-EMERALD-OFFICE-M4-4000K-CRI90

Beam details	1m	2m	3m	4m	5m
Lux*	1349 lx	337 lx	150 lx	84 lx	54 lx

*measured at center of beam

Footcandles*	125,4 fcd	31,3 fcd	13,9 fcd	7,8 fcd	5,0 fcd
Beam width (meter)	1,1 m	2,3 m	3,4 m	4,6 m	5,7 m
Beam width (Feet)	3,7 ft	7,5 ft	11,2 ft	15 ft	18,7 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1349lx	337lx	150lx	84lx	54lx	37lx	28lx	21lx	17lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	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
125,4fcd	31,3fcd	13,9fcd	7,8fcd	5fcd	3,5fcd	2,6fcd	2fcd	1,5fcd	1,3fcd	1fcd	0,9fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd

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°
1349	1350	1354	1360	1368	1378	1389	1396	1397	1384	1348	1276	1164	1017	848	672	505	360	247	165
100%	100%	100%	101%	101%	102%	103%	103%	104%	103%	100%	95%	86%	75%	63%	50%	37%	27%	18%	12%

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°
1349	1350	1354	1360	1368	1378	1389	1396	1397	1384	1348	1276	1164	1017	848	672	505	360	247	165
100%	100%	100%	101%	101%	102%	103%	103%	104%	103%	100%	95%	86%	75%	63%	50%	37%	27%	18%	12%

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°
1349	1350	1354	1360	1368	1378	1389	1396	1397	1384	1348	1276	1164	1017	848	672	505	360	247	165
100%	100%	100%	101%	101%	102%	103%	103%	104%	103%	100%	95%	86%	75%	63%	50%	37%	27%	18%	12%

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°
1349	1350	1354	1360	1368	1378	1389	1396	1397	1384	1348	1276	1164	1017	848	672	505	360	247	165
100%	100%	100%	101%	101%	102%	103%	103%	104%	103%	100%	95%	86%	75%	63%	50%	37%	27%	18%	12%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
59,4°	77,5°	92,2°	99,3%	97,3%



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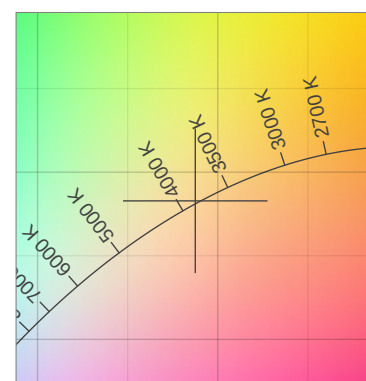
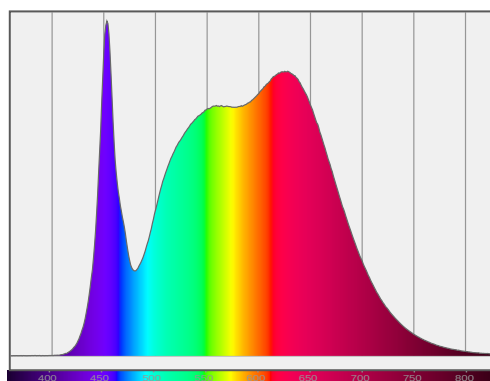
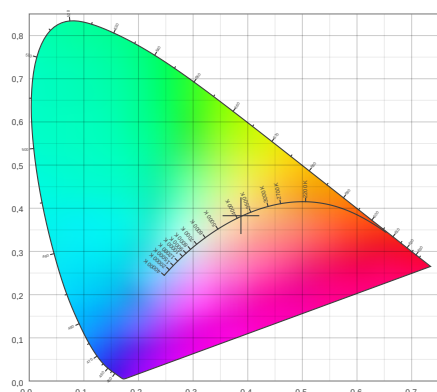
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Test Report

LM79-EMERALD-OFFICE-M4-4000K-CRI90

Color details



CIE 1931

x: 0,388

3864 K

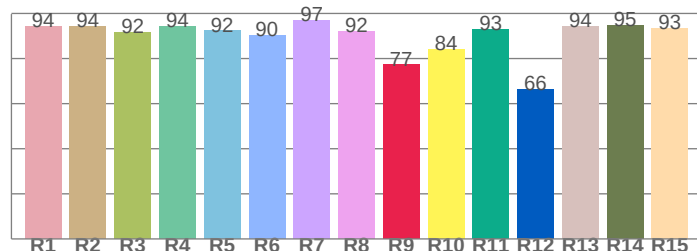
y: 0,383

Spectra

CIE 1931 ZOOM

 $\Delta uv: 0,0008$

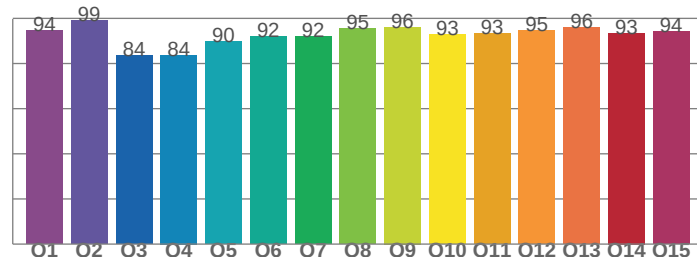
CRI: 93,2 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
94,2	94,2	91,7	94,2	92,3	90,2	96,9	92,0
R9	R10	R11	R12	R13	R14	R15	
77,2	84,2	93,0	66,4	94,1	94,7	93,2	

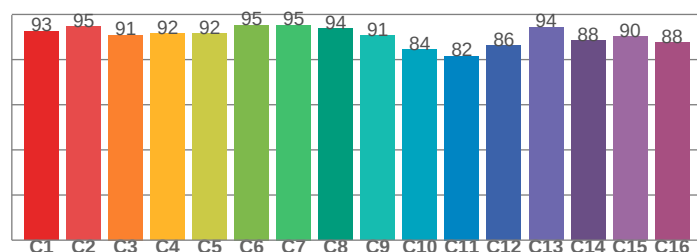
CQS: 91,6



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
94,5	99,1	83,6	83,8	89,7	91,9	91,9	95,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,1	93,0	93,2	94,7	96,0	93,5	94,1	

TM30: 90,5



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

C1	C2	C3	C4	C5	C6	C7	C8
92,6	94,6	90,8	91,6	91,5	95,3	95,3	93,6
C9	C10	C11	C12	C13	C14	C15	
90,6	84,4	81,6	86,3	94,3	88,4	90,3	

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
3864 K	93,2	77,2	90,5	100,1	91,6	0,388	0,383	0,227	0,337	0,0008



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Test Report

LM79-EMERALD-OFFICE-M4-4000K-CRI90

TM30 details

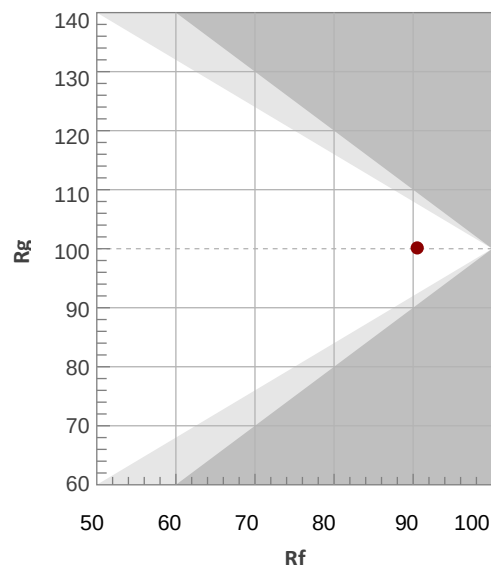
Rf 90,5

Fidelity index Rf

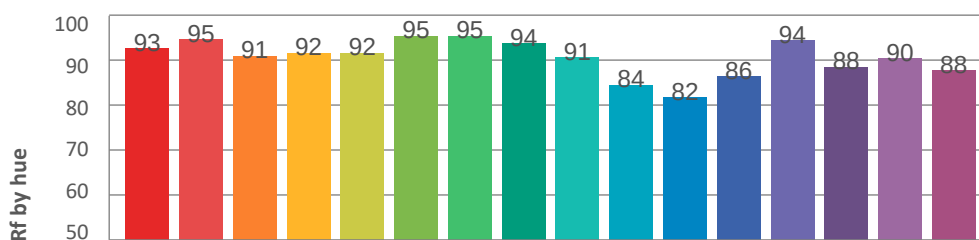
Rg 100,1

Gamut index Rg

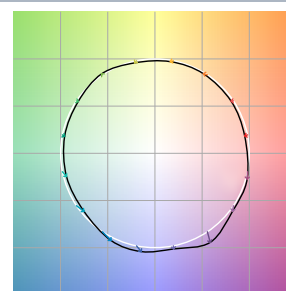
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	0%
2	95	-2%	1%
3	91	-1%	4%
4	92	-2%	3%
5	92	-2%	2%
6	95	1%	0%
7	95	-2%	0%
8	94	-3%	1%
9	91	-3%	6%
10	84	-3%	9%
11	82	3%	13%
12	86	5%	6%
13	94	3%	0%
14	88	11%	-4%
15	90	3%	-5%
16	88	1%	-8%



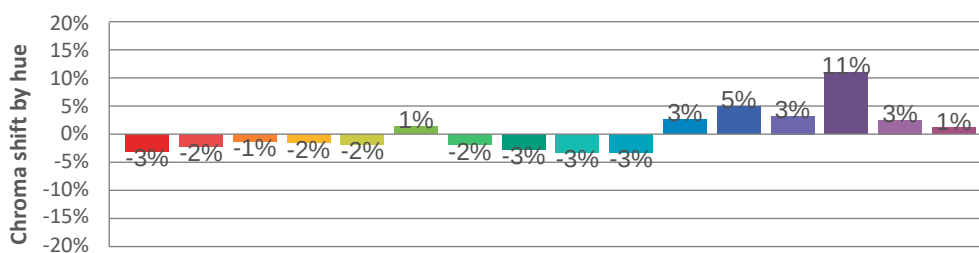
Hue binH



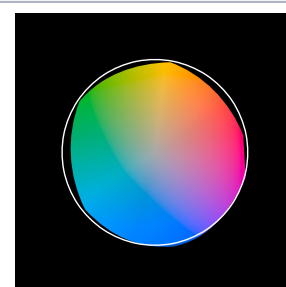
Color vector graphics



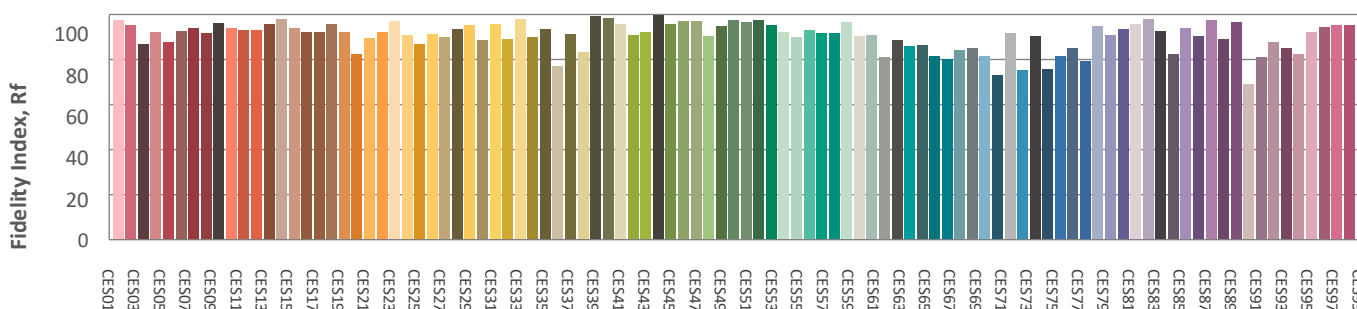
Hue bin



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	21,0	21,6	21,1	21,8	22,0	21,0	21,6	21,1	21,8	22,0
	3H	20,7	21,4	21,0	21,6	21,8	20,7	21,4	21,0	21,6	21,8
	4H	20,6	21,3	21,0	21,6	21,8	20,6	21,3	21,0	21,6	21,8
	6H	20,6	21,2	20,9	21,5	21,8	20,6	21,2	20,9	21,5	21,8
	8H	20,5	21,1	20,9	21,4	21,8	20,5	21,1	20,9	21,4	21,8
	12H	20,5	21,1	20,8	21,4	21,8	20,5	21,1	20,8	21,4	21,8
4H	2H	20,6	21,3	21,0	21,6	21,8	20,6	21,3	21,0	21,6	21,8
	3H	20,5	21,1	20,9	21,4	21,8	20,5	21,1	20,9	21,4	21,8
	4H	20,4	20,9	20,8	21,3	21,8	20,4	20,9	20,8	21,3	21,8
	6H	20,3	20,8	20,8	21,2	21,5	20,3	20,8	20,8	21,2	21,5
	8H	20,2	20,7	20,7	21,1	21,4	20,2	20,7	20,7	21,1	21,4
	12H	20,2	20,6	20,7	21,0	21,4	20,2	20,6	20,7	21,0	21,4
8H	4H	20,2	20,7	20,7	21,1	21,4	20,2	20,7	20,7	21,1	21,4
	6H	20,2	20,5	20,7	21,0	21,5	20,2	20,5	20,7	21,0	21,5
	8H	20,2	20,4	20,7	21,0	21,6	20,2	20,4	20,7	21,0	21,6
	12H	20,1	20,3	20,7	20,8	21,4	20,1	20,3	20,7	20,8	21,4
12H	4H	20,2	20,6	20,7	21,0	21,4	20,2	20,6	20,7	21,0	21,4
	6H	20,2	20,4	20,7	21,0	21,6	20,2	20,4	20,7	21,0	21,6
	8H	20,1	20,3	20,7	20,8	21,4	20,1	20,3	20,7	20,8	21,4
Variation of the observer position for the luminaire distance S											
S = 1.0H		6,1 / -11,0					6,1 / -11,0				
S = 1.5H		8,8 / -13,5					8,8 / -13,5				
S = 2.0H		10,8 / -16,1					10,8 / -16,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1267lm total luminous flux											