

LM-79

Test Report

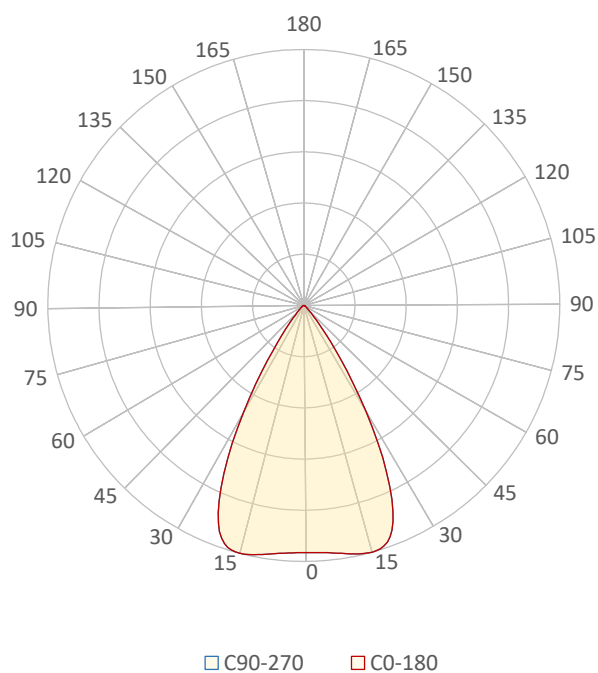
LM79-EMERALD-OFFICE-M6-4000K-CRI90

General Discription

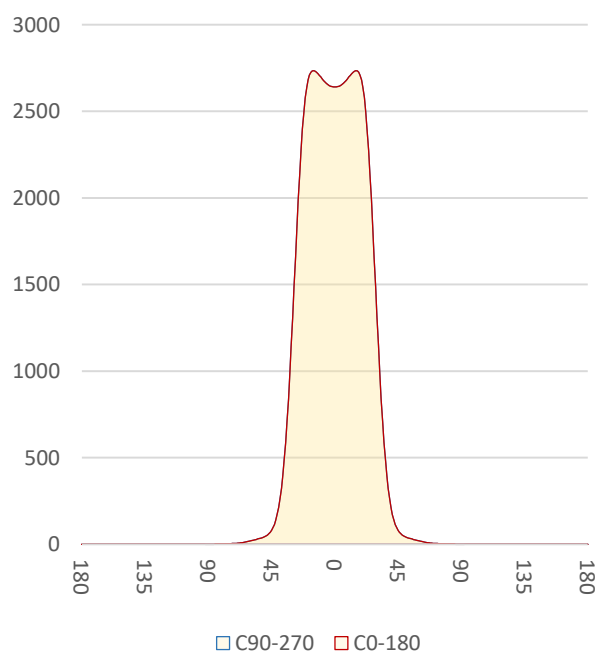
Item number	E-OM6-X-X-4090
Date and time	2-12-2022 14:24:56
CCT (Kelvin)	3874 K
Beam angle	59,4°
Luminous flux	2477 lm
Efficiency	92 lm/watt
Weighted energy	26,9 kWh/1000h
Power factor	0,97
CRI (RA)	92,8
Fidelity index Rf	Rf 90,5
Gammut index Rg	Rg 100,5
Peak	2735 cd



Polar diagram



Cartesian diagram



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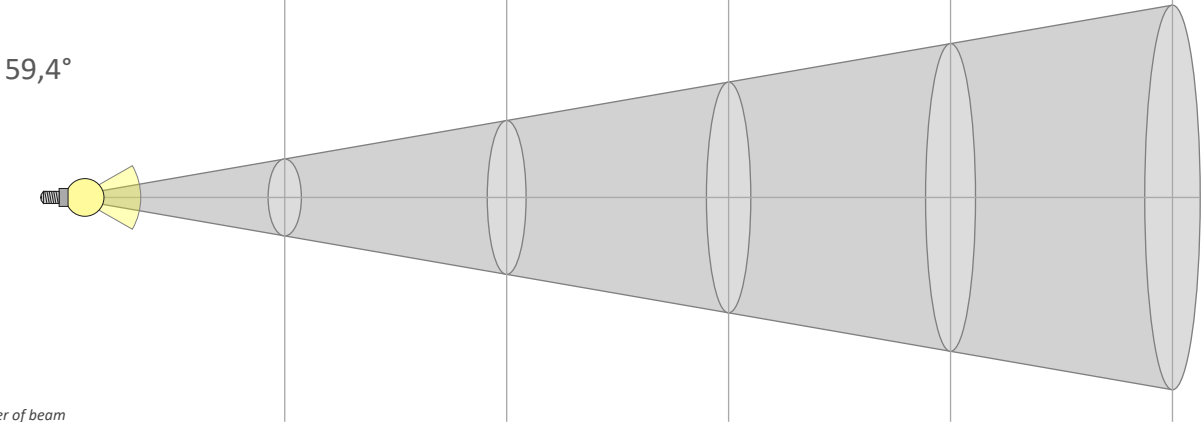
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Beam details	1m	2m	3m	4m	5m
Lux*	2641 lx	660 lx	293 lx	165 lx	106 lx



*measured at center of beam

Footcandles*	245,3 fcd	61,3 fcd	27,3 fcd	15,3 fcd	9,8 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
2641lx	660lx	293lx	165lx	106lx	73lx	54lx	41lx	33lx	26lx	22lx	18lx	16lx	13lx	12lx	10lx	9lx	8lx	7lx	7lx
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
245,3fcd	61,3fcd	27,3fcd	15,3fcd	9,8fcd	6,8fcd	5fcd	3,8fcd	3fcd	2,5fcd	2fcd	1,7fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,8fcd	0,8fcd	0,7fcd	0,6fcd

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°
2641	2643	2649	2661	2677	2697	2717	2732	2733	2709	2638	2497	2276	1989	1659	1314	987	705	485	322
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°
2641	2643	2649	2661	2677	2697	2717	2732	2733	2709	2638	2497	2276	1989	1659	1314	987	705	485	322
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°
2641	2643	2649	2661	2677	2697	2717	2732	2733	2709	2638	2497	2276	1989	1659	1314	987	705	485	322
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°
2641	2643	2649	2661	2677	2697	2717	2732	2733	2709	2638	2497	2276	1989	1659	1314	987	705	485	322
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°	77,6°	92,2°	99,4%	97,3%



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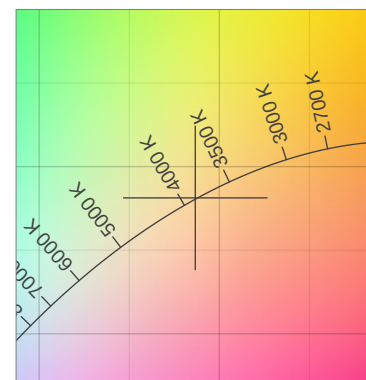
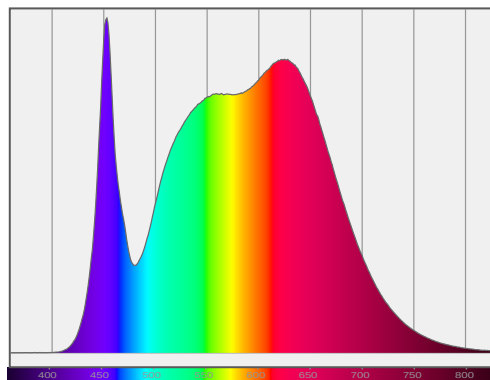
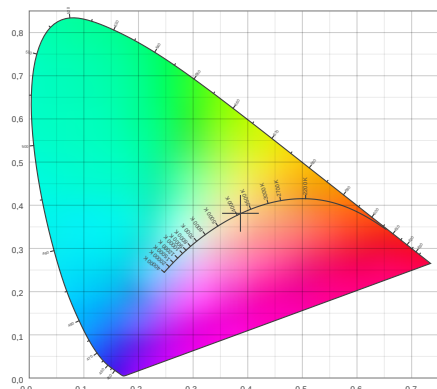
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Color details



CIE 1931

x: 0,387

3874 K

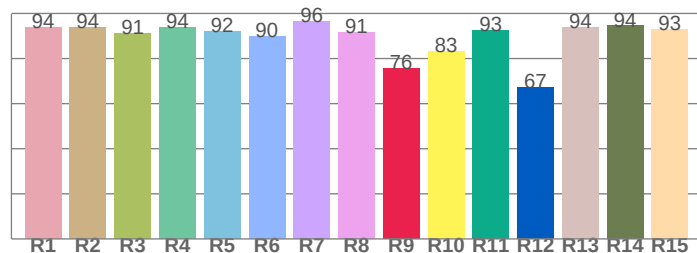
y: 0,381

Spectra

CIE 1931 ZOOM

Δuv : 0,0004

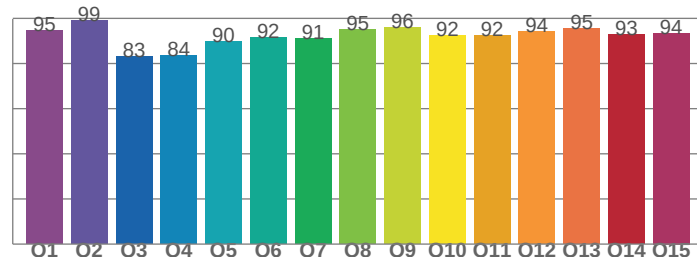
CRI: 92,8 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
93,9	93,8	91,2	93,8	92,1	89,8	96,3	91,4
R9	R10	R11	R12	R13	R14	R15	
75,5	83,3	92,7	67,3	93,8	94,5	93,0	

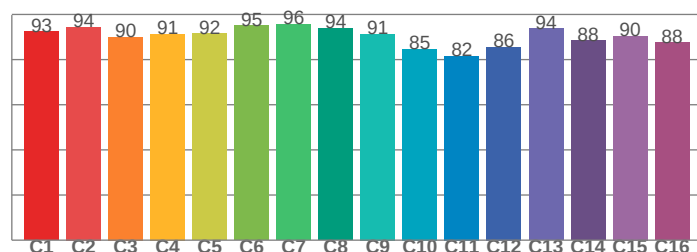
CQS: 91,3



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
94,7	98,9	83,1	83,6	89,6	91,6	91,2	95,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,9	92,3	92,4	94,1	95,5	92,9	93,5	

TM30: 90,5



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

C1	C2	C3	C4	C5	C6	C7	C8
92,5	94,4	90,0	91,4	91,6	95,1	95,7	93,9
C9	C10	C11	C12	C13	C14	C15	
91,3	84,7	81,6	85,6	93,9	88,4	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
3874 K	92,8	75,5	90,5	100,5	91,3	0,387	0,381	0,227	0,336	0,0004



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TM30 details

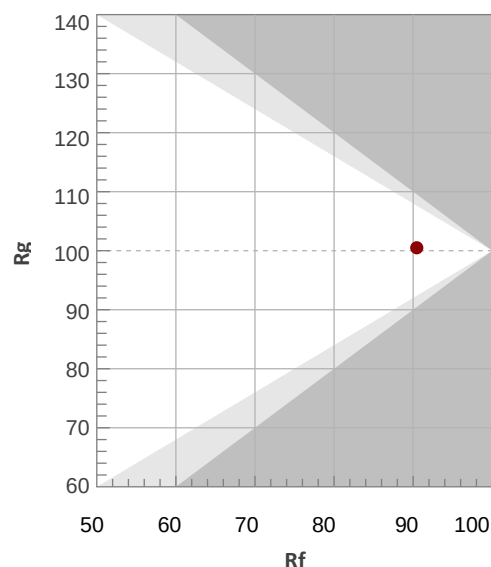
Rf 90,5

Fidelity index Rf

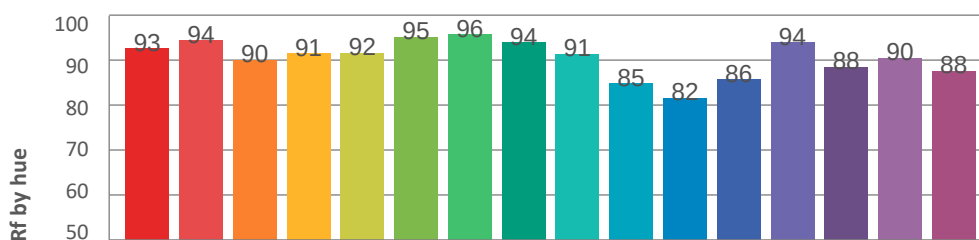
Rg 100,5

Gamut index Rg

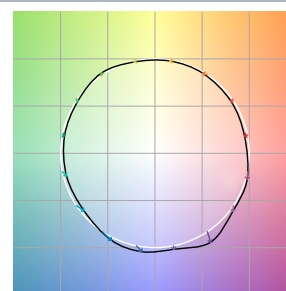
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	-1%
2	94	-2%	1%
3	90	-1%	5%
4	91	-1%	4%
5	92	-1%	3%
6	95	2%	0%
7	96	-1%	-1%
8	94	-2%	0%
9	91	-3%	5%
10	85	-4%	9%
11	82	2%	13%
12	86	5%	7%
13	94	4%	0%
14	88	11%	-3%
15	90	3%	-5%
16	88	1%	-8%



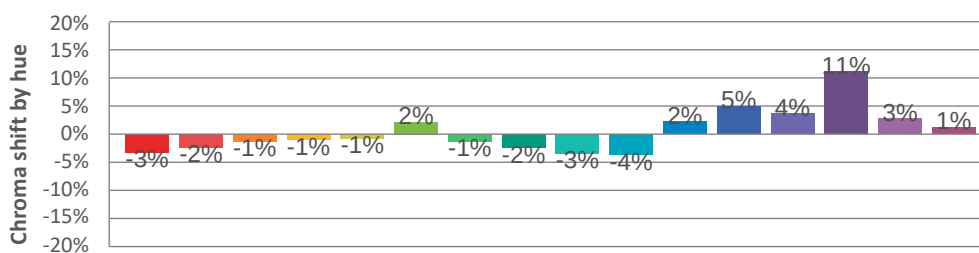
Hue binH



Color vector graphics



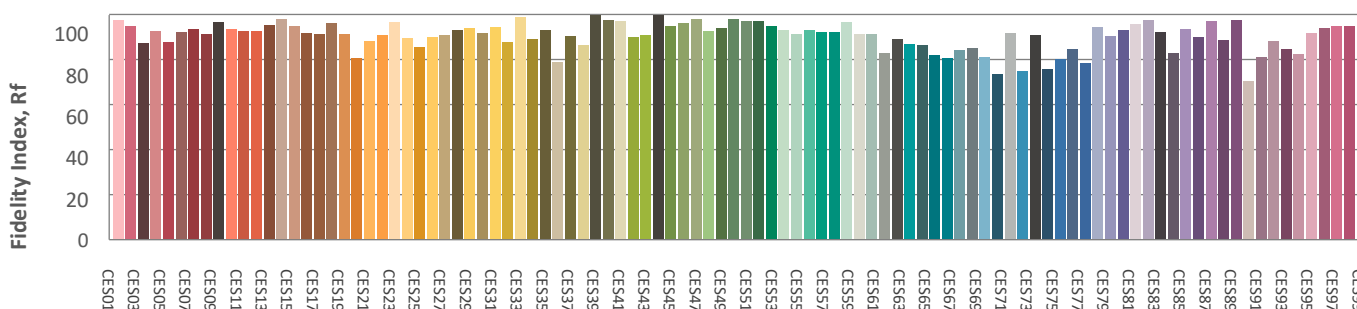
Hue bin



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	23,3	23,9	23,4	24,1	24,3	23,3	23,9	23,4	24,1	24,3
	3H	23,0	23,8	23,4	24,0	24,1	23,0	23,8	23,4	24,0	24,1
	4H	22,9	23,7	23,3	23,9	24,1	22,9	23,7	23,3	23,9	24,1
	6H	22,9	23,5	23,2	23,8	24,2	22,9	23,5	23,2	23,8	24,2
	8H	22,9	23,5	23,2	23,8	24,2	22,9	23,5	23,2	23,8	24,2
	12H	22,8	23,4	23,2	23,7	24,2	22,8	23,4	23,2	23,7	24,2
4H	2H	22,9	23,7	23,3	23,9	24,1	22,9	23,7	23,3	23,9	24,1
	3H	22,8	23,4	23,2	23,8	24,2	22,8	23,4	23,2	23,8	24,2
	4H	22,7	23,2	23,1	23,6	24,2	22,7	23,2	23,1	23,6	24,2
	6H	22,6	23,2	23,1	23,5	23,8	22,6	23,2	23,1	23,5	23,8
	8H	22,6	23,1	23,1	23,4	23,8	22,6	23,1	23,1	23,4	23,8
	12H	22,5	22,9	23,0	23,3	23,8	22,5	22,9	23,0	23,3	23,8
8H	4H	22,6	23,1	23,1	23,4	23,8	22,6	23,1	23,1	23,4	23,8
	6H	22,5	22,8	23,0	23,3	23,8	22,5	22,8	23,0	23,3	23,8
	8H	22,5	22,8	23,0	23,3	23,9	22,5	22,8	23,0	23,3	23,9
	12H	22,4	22,7	23,0	23,2	23,8	22,4	22,7	23,0	23,2	23,8
12H	4H	22,5	22,9	23,0	23,3	23,8	22,5	22,9	23,0	23,3	23,8
	6H	22,5	22,8	23,0	23,3	23,9	22,5	22,8	23,0	23,3	23,9
	8H	22,4	22,7	23,0	23,2	23,8	22,4	22,7	23,0	23,2	23,8
Variation of the observer position for the luminaire distance S											
S = 1.0H		6,1 / -11,2					6,1 / -11,2				
S = 1.5H		8,8 / -13,8					8,8 / -13,8				
S = 2.0H		10,8 / -16,5					10,8 / -16,5				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2477lm total luminous flux											



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