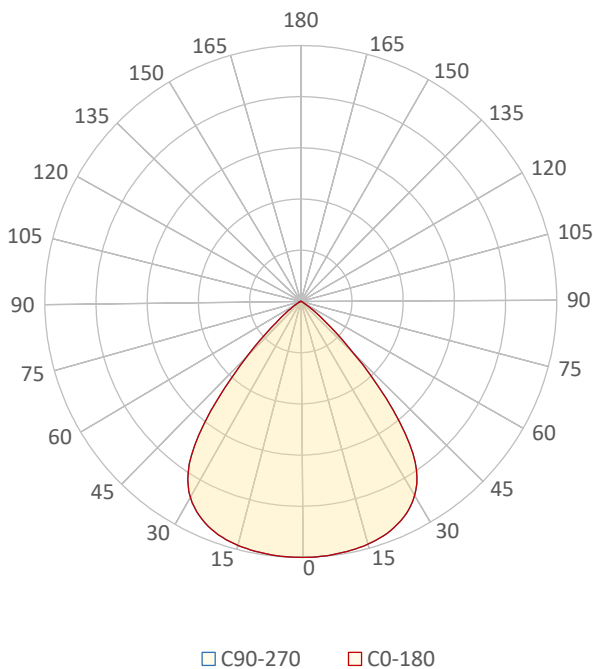


General Discription

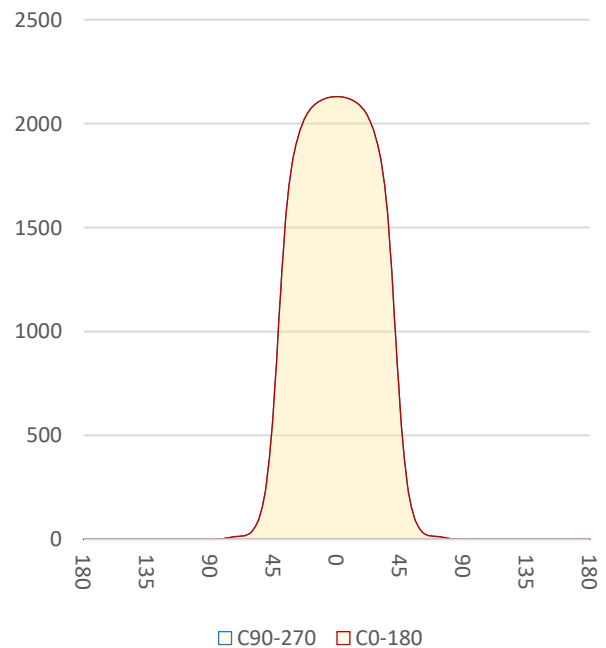
Item number	E-M7-X-X-4090
Date and time	2-12-2022 14:29:02
CCT (Kelvin)	3948 K
Beam angle	82,1°
Luminous flux	3360 lm
Efficiency	96 lm/watt
Weighted energy	35,1 kWh/1000h
Power factor	0,98
CRI (RA)	92,6
Fidelity index Rf	Rf 90,3
Gammut index Rg	Rg 100,4
Peak	2130 cd



Polar diagram



Cartesian diagram



LM-79

Test Report

LM79-EMERALD-M7-4000K-CRI90

Beam details	1m	2m	3m	4m	5m														
Lux*	2130 lx	532 lx	237 lx	133 lx	85 lx														
*measured at center of beam																			
Footcandles*	197,9 fcd	49,5 fcd	22,0 fcd	12,4 fcd	7,9 fcd														
Beam width (meter)	1,7 m	3,5 m	5,2 m	7 m	8,7 m														
Beam width (Feet)	5,7 ft	11,4 ft	17,2 ft	22,9 ft	28,6 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2130lx	532lx	237lx	133lx	85lx	59lx	43lx	33lx	26lx	21lx	18lx	15lx	13lx	11lx	9lx	8lx	7lx	7lx	6lx	5lx
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
197,9fcd	49,5fcd	22fcd	12,4fcd	7,9fcd	5,5fcd	4fcd	3,1fcd	2,4fcd	2fcd	1,6fcd	1,4fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd
Intensities in 0° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2130	2127	2116	2096	2058	1990	1871	1642	1186	639	274	108	42	19	14	10	4	1	0	0
100%	100%	99%	98%	97%	93%	88%	77%	56%	30%	13%	5%	2%	1%	1%	0%	0%	0%	0%	0%
Intensities in 90° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2130	2127	2116	2096	2058	1990	1871	1642	1186	639	274	108	42	19	14	10	4	1	0	0
100%	100%	99%	98%	97%	93%	88%	77%	56%	30%	13%	5%	2%	1%	1%	0%	0%	0%	0%	0%
Intensities in 180° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2130	2127	2116	2096	2058	1990	1871	1642	1186	639	274	108	42	19	14	10	4	1	0	0
100%	100%	99%	98%	97%	93%	88%	77%	56%	30%	13%	5%	2%	1%	1%	0%	0%	0%	0%	0%
Intensities in 270° c-plane																			
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2130	2127	2116	2096	2058	1990	1871	1642	1186	639	274	108	42	19	14	10	4	1	0	0
100%	100%	99%	98%	97%	93%	88%	77%	56%	30%	13%	5%	2%	1%	1%	0%	0%	0%	0%	0%
Beam angle 50%		Field angle 10%			Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone						
82,1°		102,7°			117,4°				99,0%				90,5%						



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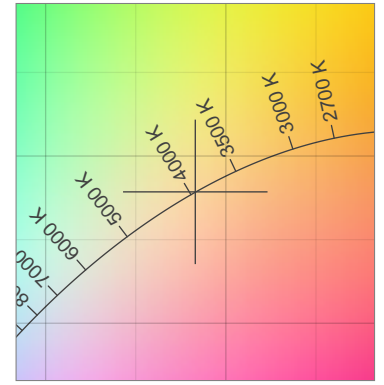
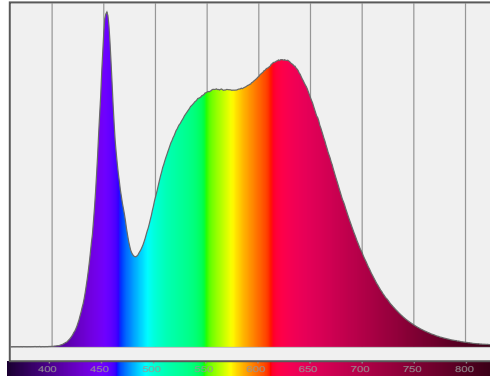
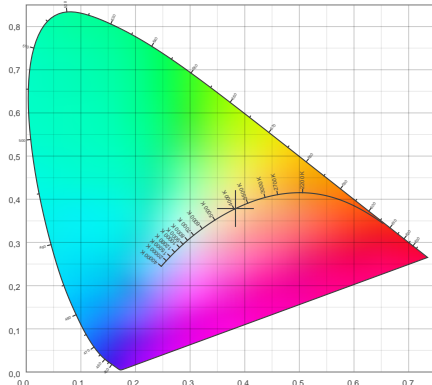
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Test Report

LM79-EMERALD-M7-4000K-CRI90

Color details



CIE 1931

x: 0,383



Spectra

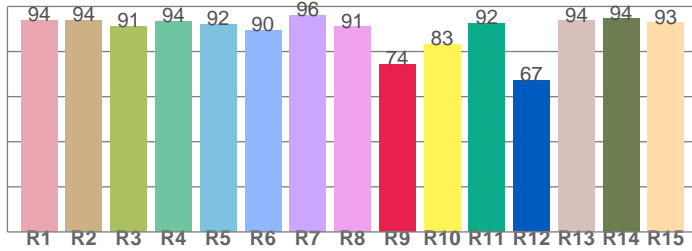
CIE 1931 ZOOM

3948 K

y: 0,379

Δuv : 0,0001

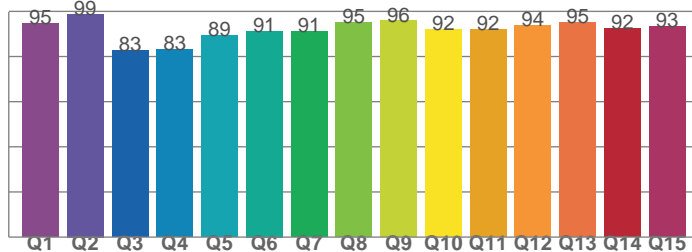
CRI: 92,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
93,7	93,7	91,2	93,5	91,9	89,6	96,0	90,9
R9	R10	R11	R12	R13	R14	R15	
74,3	83,0	92,3	67,4	93,6	94,5	92,7	

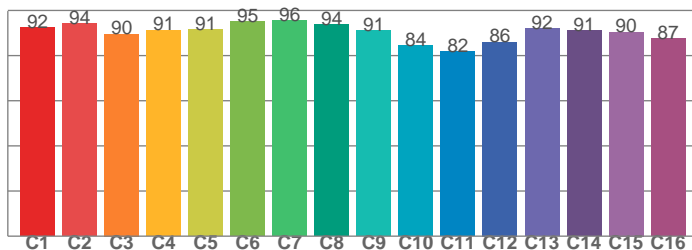
CQS: 91,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
94,5	98,9	82,8	83,1	89,2	91,3	91,1	95,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,8	92,0	92,0	93,7	95,1	92,4	93,2	

TM30: 90,3



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

C1	C2	C3	C4	C5	C6	C7	C8
92,3	94,1	89,6	91,2	91,5	95,0	95,6	93,8
C9	C10	C11	C12	C13	C14	C15	
91,2	84,4	81,7	86,0	91,9	91,1	90,4	

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
3948 K	92,6	74,3	90,3	100,4	91,0	0,383	0,379	0,226	0,335	0,0001



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Test Report

LM79-EMERALD-M7-4000K-CRI90

TM30 details

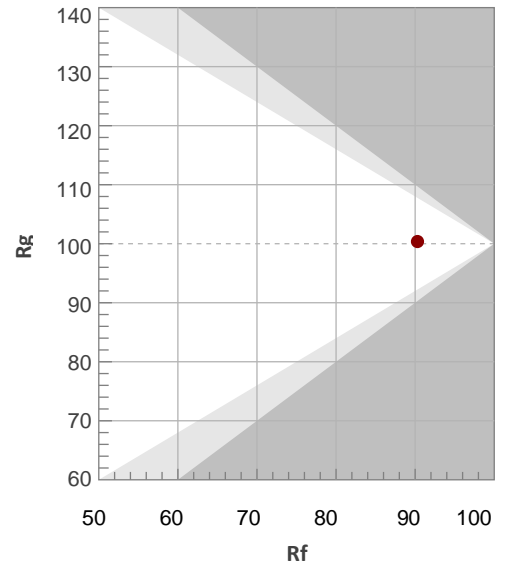
Rf 90,3

Fidelity index Rf

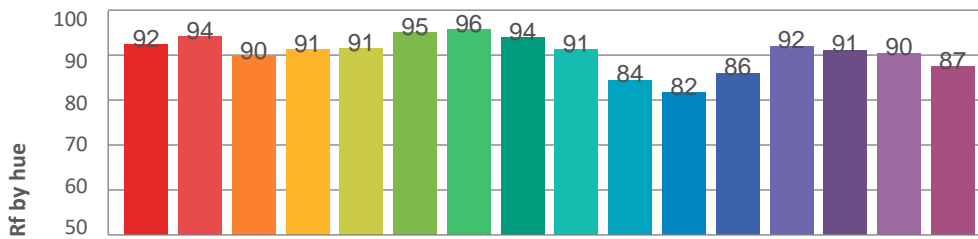
Rg 100,4

Gamut index Rg

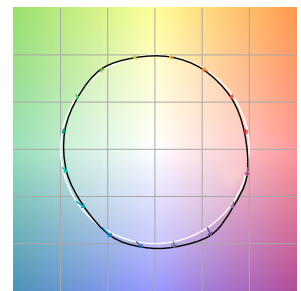
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	94	-3%	2%
3	90	-1%	5%
4	91	-1%	4%
5	91	-1%	3%
6	95	2%	0%
7	96	-1%	-1%
8	94	-3%	0%
9	91	-4%	5%
10	84	-4%	9%
11	82	2%	12%
12	86	4%	7%
13	92	6%	0%
14	91	8%	-1%
15	90	3%	-6%
16	87	1%	-8%



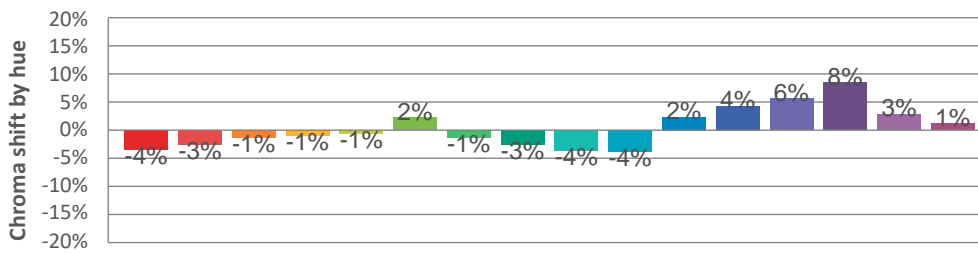
Hue binH



Color vector graphics



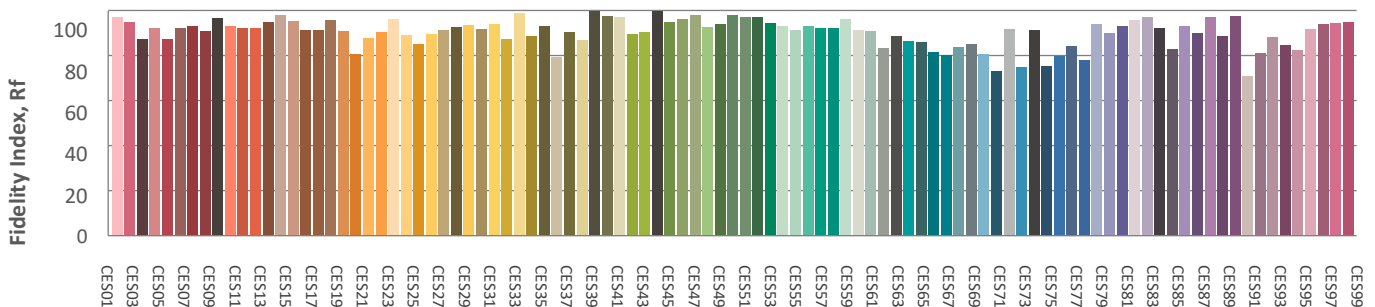
Hue bin



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	29,8	30,6	30,0	30,9	31,1	29,8	30,6	30,0	30,9	31,1
	3H	29,5	30,4	29,9	30,7	30,8	29,5	30,4	29,9	30,7	30,8
	4H	29,5	30,3	29,9	30,6	30,8	29,5	30,3	29,9	30,6	30,8
	6H	29,5	30,2	29,8	30,5	30,8	29,5	30,2	29,8	30,5	30,8
	8H	29,4	30,1	29,7	30,4	30,8	29,4	30,1	29,7	30,4	30,8
	12H	29,4	30,0	29,7	30,4	30,8	29,4	30,0	29,7	30,4	30,8
4H	2H	29,5	30,3	29,9	30,6	30,8	29,5	30,3	29,9	30,6	30,8
	3H	29,4	30,0	29,7	30,4	30,8	29,4	30,0	29,7	30,4	30,8
	4H	29,2	29,8	29,7	30,3	30,8	29,2	29,8	29,7	30,3	30,8
	6H	29,2	29,8	29,7	30,1	30,5	29,2	29,8	29,7	30,1	30,5
	8H	29,1	29,7	29,6	30,0	30,4	29,1	29,7	29,6	30,0	30,4
	12H	29,0	29,5	29,5	29,9	30,4	29,0	29,5	29,5	29,9	30,4
8H	4H	29,1	29,7	29,6	30,0	30,4	29,1	29,7	29,6	30,0	30,4
	6H	29,0	29,4	29,5	29,9	30,4	29,0	29,4	29,5	29,9	30,4
	8H	29,0	29,4	29,6	29,9	30,5	29,0	29,4	29,6	29,9	30,5
	12H	29,0	29,2	29,6	29,8	30,4	29,0	29,2	29,6	29,8	30,4
12H	4H	29,0	29,5	29,5	29,9	30,4	29,0	29,5	29,5	29,9	30,4
	6H	29,0	29,4	29,6	29,9	30,5	29,0	29,4	29,6	29,9	30,5
	8H	29,0	29,2	29,6	29,8	30,4	29,0	29,2	29,6	29,8	30,4
Variation of the observer position for the luminaire distance S											
S = 1.0H	3,4 / -10,6					3,4 / -10,6					
S = 1.5H	5,8 / -16,7					5,8 / -16,7					
S = 2.0H	7,8 / -18,1					7,8 / -18,1					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 3360lm total luminous flux											