

LM-79

Test Report

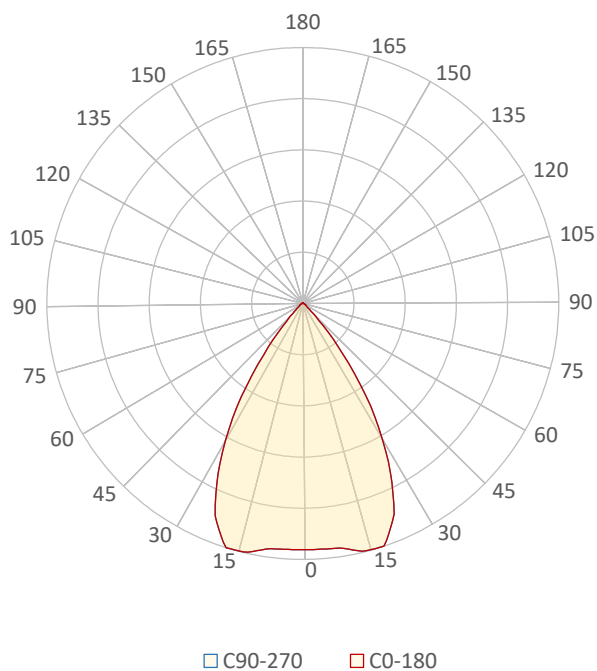
LM79-MIKA-3000K-CRI90-FLOOD

General Discription

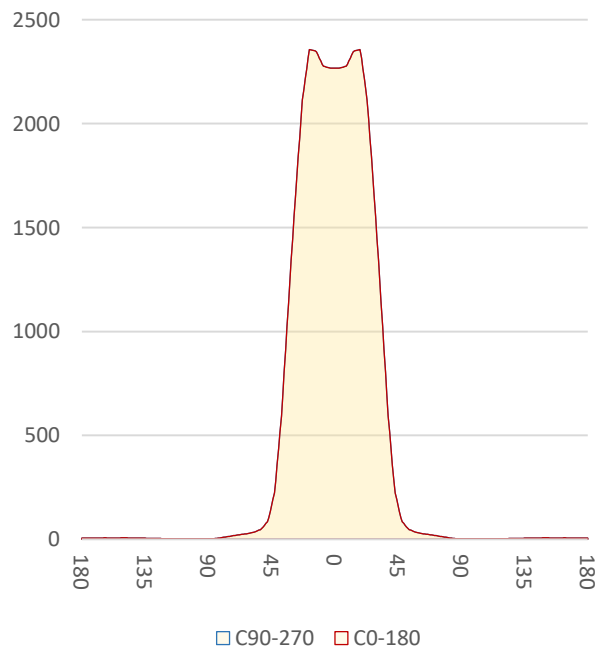
Item number	M-XXX-3-1-3090-3
Date and time	27-1-2017 14:03:23
CCT (Kelvin)	3111 K
Beam angle	65,2°
Luminous flux	2557 lm
Efficiency	92 lm/watt
Weighted energy	27,7 kWh/1000h
Power factor	0,94
CRI (RA)	92,2
Fidelity index Rf	Rf 90,3
Gammut index Rg	Rg 101,0
Peak	2357 cd



Polar diagram



Cartesian diagram



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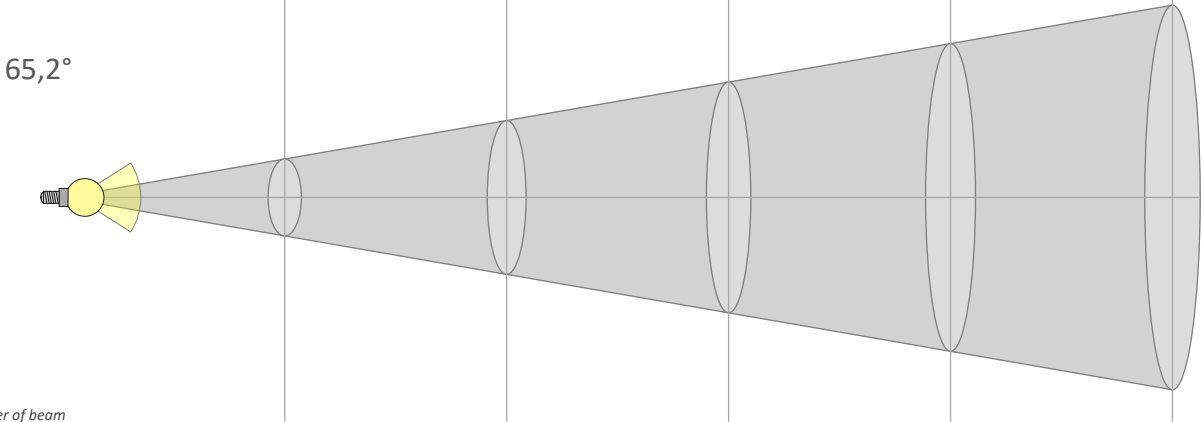
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Beam details	1m	2m	3m	4m	5m
Lux*	2267 lx	567 lx	252 lx	142 lx	91 lx



65,2°

*measured at center of beam

Footcandles*	210,6 fcd	52,7 fcd	23,4 fcd	13,2 fcd	8,4 fcd
Beam width (meter)	1,3 m	2,6 m	3,8 m	5,1 m	6,4 m
Beam width (Feet)	4,2 ft	8,4 ft	12,6 ft	16,8 ft	21 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2267lx	567lx	252lx	142lx	91lx	63lx	46lx	35lx	28lx	23lx	19lx	16lx	13lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx
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
210,6fcd	52,7fcd	23,4fcd	13,2fcd	8,4fcd	5,9fcd	4,3fcd	3,3fcd	2,6fcd	2,1fcd	1,7fcd	1,5fcd	1,2fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,7fcd	0,6fcd	0,5fcd

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°
2267	2267	2268	2272	2276	2300	2330	2351	2354	2356	2265	2165	2025	1841	1656	1448	1239	1024	803	592
100%	100%	100%	100%	100%	101%	103%	104%	104%	104%	100%	95%	89%	81%	73%	64%	55%	45%	35%	26%

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°
2267	2267	2268	2272	2276	2300	2330	2351	2354	2356	2265	2165	2025	1841	1656	1448	1239	1024	803	592
100%	100%	100%	100%	100%	101%	103%	104%	104%	104%	100%	95%	89%	81%	73%	64%	55%	45%	35%	26%

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°
2267	2267	2268	2272	2276	2300	2330	2351	2354	2356	2265	2165	2025	1841	1656	1448	1239	1024	803	592
100%	100%	100%	100%	100%	101%	103%	104%	104%	104%	100%	95%	89%	81%	73%	64%	55%	45%	35%	26%

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°
2267	2267	2268	2272	2276	2300	2330	2351	2354	2356	2265	2165	2025	1841	1656	1448	1239	1024	803	592
100%	100%	100%	100%	100%	101%	103%	104%	104%	104%	100%	95%	89%	81%	73%	64%	55%	45%	35%	26%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65,2°	85,2°	102,2°	97,4%	94,6%



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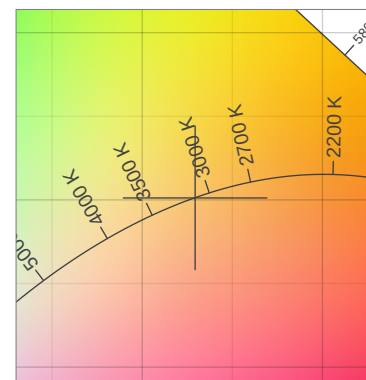
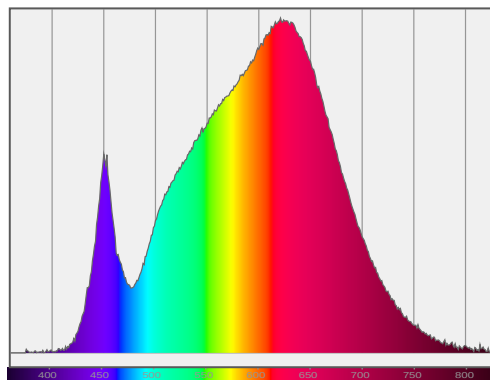
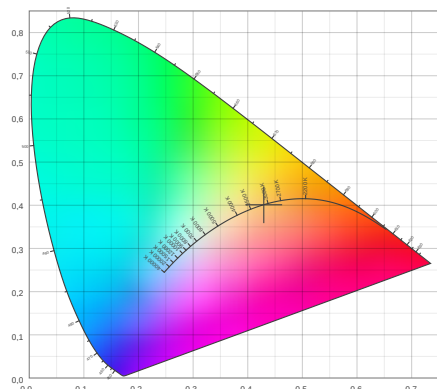
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Color details



CIE 1931

x: 0,429



Spectra

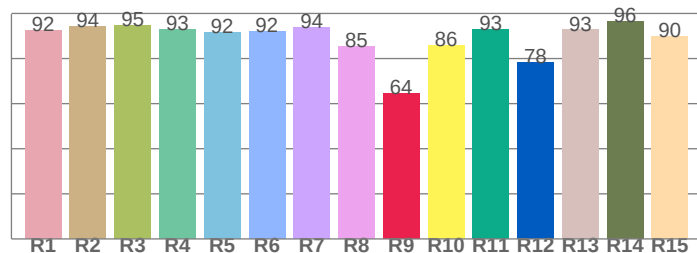
CIE 1931 ZOOM

3111 K

y: 0,401

Δuv : -0,0001

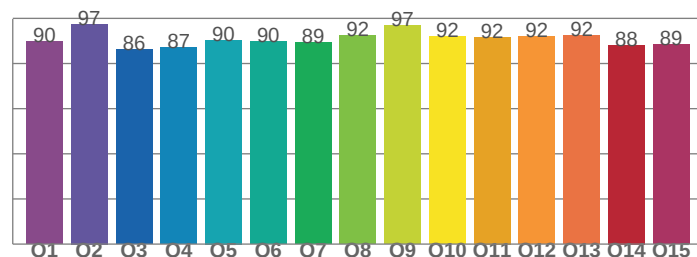
CRI: 92,2 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
92,5	94,3	94,6	92,9	91,7	92,2	93,8	85,3
R9	R10	R11	R12	R13	R14	R15	
64,5	85,7	93,0	78,4	92,7	96,3	89,7	

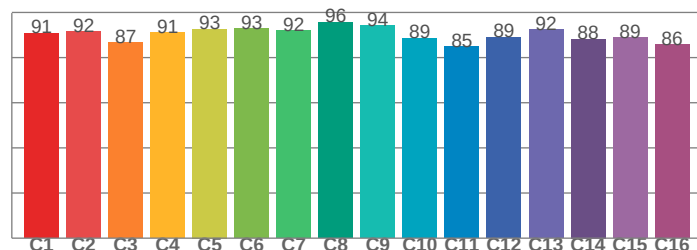
CQS: 90,4



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
89,8	97,5	86,2	87,2	90,4	89,7	89,3	92,5
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,8	92,1	91,7	92,0	92,5	88,2	88,5	

TM30: 90,3



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

C1	C2	C3	C4	C5	C6	C7	C8
90,8	91,5	86,6	91,1	92,7	92,8	92,1	95,7
C9	C10	C11	C12	C13	C14	C15	
94,1	88,6	84,9	89,1	92,4	88,2	88,8	

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
3111 K	92,2	64,5	90,3	101,0	90,4	0,429	0,401	0,247	0,346	-0,0001



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info@cls-led.com
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TM30 details

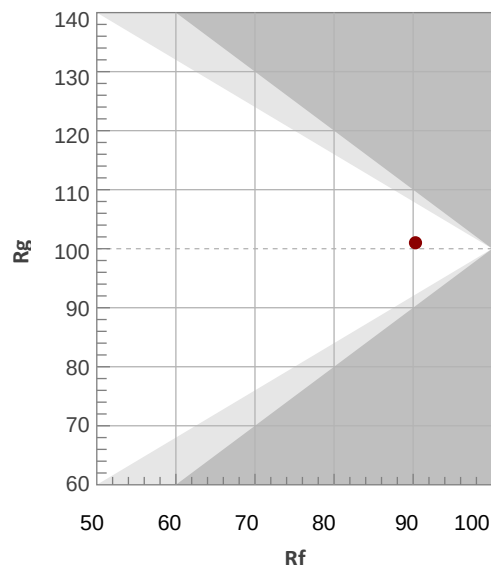
Rf 90,3

Fidelity index Rf

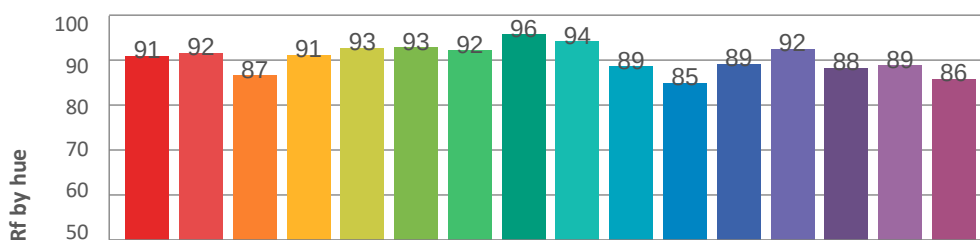
Rg 101,0

Gamut index Rg

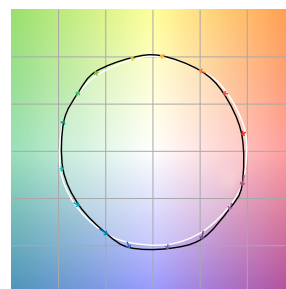
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-1%
2	92	-3%	3%
3	87	-1%	6%
4	91	1%	5%
5	93	2%	3%
6	93	4%	0%
7	92	0%	-4%
8	96	-1%	-2%
9	94	-3%	1%
10	89	-3%	5%
11	85	0%	9%
12	89	5%	4%
13	92	4%	-1%
14	88	6%	-6%
15	89	1%	-6%
16	86	0%	-10%



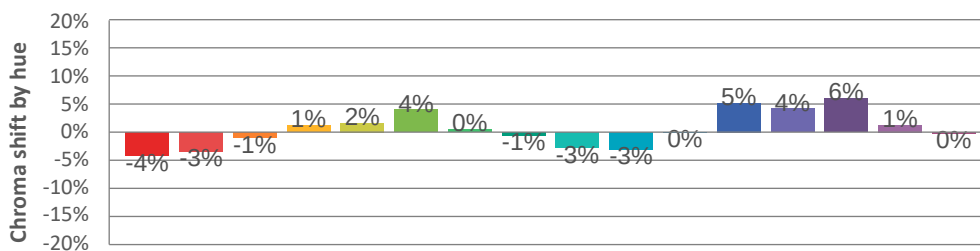
Hue binH



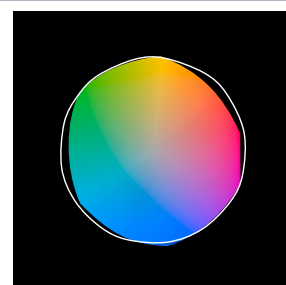
Color vector graphics



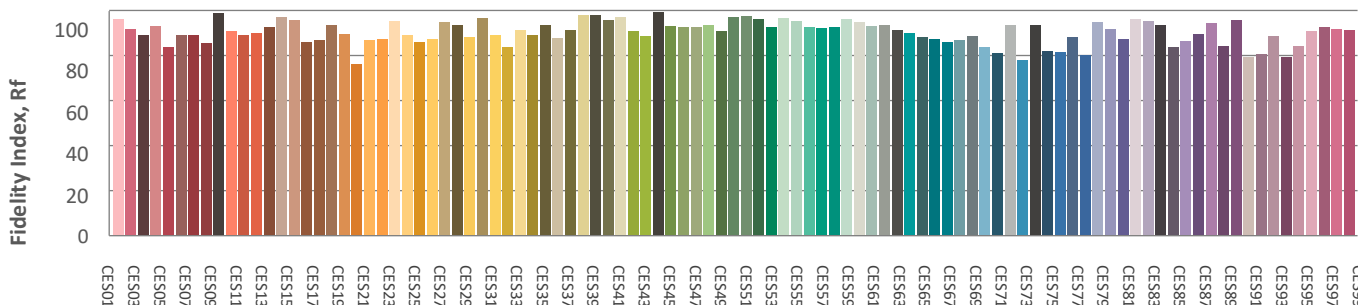
Hue bin



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	23,5	24,2	23,8	24,5	24,7	23,5	24,2	23,8	24,5	24,7
	3H	23,5	24,2	23,8	24,4	24,7	23,5	24,2	23,8	24,4	24,7
	4H	23,5	24,1	23,8	24,4	24,7	23,5	24,1	23,8	24,4	24,7
	6H	23,5	24,1	23,9	24,4	24,7	23,5	24,1	23,9	24,4	24,7
	8H	23,5	24,1	23,9	24,4	24,7	23,5	24,1	23,9	24,4	24,7
	12H	23,5	24,0	23,9	24,3	24,7	23,5	24,0	23,9	24,3	24,7
4H	2H	23,4	24,0	23,7	24,3	24,5	23,4	24,0	23,7	24,3	24,5
	3H	23,4	23,9	23,8	24,2	24,6	23,4	23,9	23,8	24,2	24,6
	4H	23,5	23,9	23,9	24,3	24,6	23,5	23,9	23,9	24,3	24,6
	6H	23,5	23,9	23,9	24,3	24,7	23,5	23,9	23,9	24,3	24,7
	8H	23,5	23,9	24,0	24,3	24,7	23,5	23,9	24,0	24,3	24,7
	12H	23,5	23,8	24,0	24,2	24,7	23,5	23,8	24,0	24,2	24,7
8H	4H	23,4	23,8	23,9	24,2	24,6	23,4	23,8	23,9	24,2	24,6
	6H	23,5	23,8	24,0	24,2	24,7	23,5	23,8	24,0	24,2	24,7
	8H	23,5	23,7	24,0	24,2	24,7	23,5	23,7	24,0	24,2	24,7
	12H	23,6	23,7	24,1	24,2	24,7	23,6	23,7	24,1	24,2	24,7
12H	4H	23,4	23,7	23,8	24,1	24,5	23,4	23,7	23,8	24,1	24,5
	6H	23,5	23,7	24,0	24,1	24,6	23,5	23,7	24,0	24,1	24,6
	8H	23,5	23,7	24,0	24,2	24,7	23,5	23,7	24,0	24,2	24,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+4,0 / -4,7					+4,0 / -4,7				
S = 1,5H		+6,7 / -5,2					+6,7 / -5,2				
S = 2,0H		+8,6 / -5,5					+8,6 / -5,5				
Standard table		BK01					BK01				
Correction summand		5,5					5,5				
Corrected glare indices referring to 2557lm total luminous flux											



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