

LM-79

Test Report

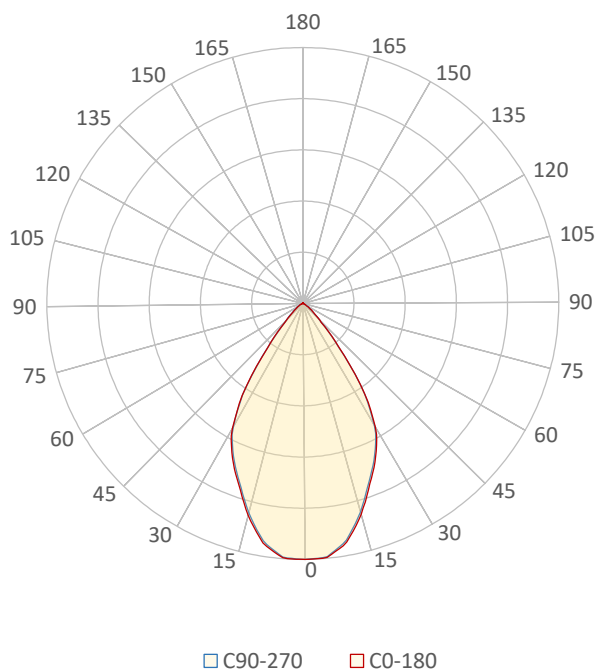
LM79-RUBY-6-3000K-CRI80-FLOOD

General Description

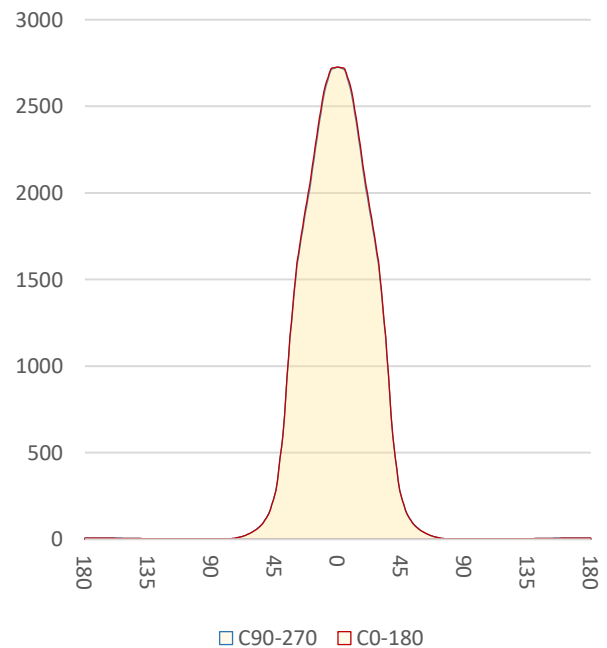
Item number	RU-16-X-X-02-3-X
Date and time	18-11-2016 14:45:25
CCT (Kelvin)	3066 K
Beam angle	63,3°
Luminous flux	2694 lm
Efficiency	95 lm/watt
Weighted energy	28,3 kWh/1000h
Power factor	0,99
CRI (RA)	81,6
Fidelity index Rf	Rf 84,7
Gammut index Rg	Rg 95,8
Peak	2730 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	2727 lx	682 lx	303 lx	170 lx	109 lx																			
*measured at center of beam																								
Footcandles*	253,3 fcd	63,3 fcd	28,1 fcd	15,8 fcd	10,1 fcd																			
Beam width (meter)	1,2 m	2,5 m	3,7 m	5 m	6,2 m																			
Beam width (Feet)	4,1 ft	8,1 ft	12,2 ft	16,2 ft	20,3 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
2727lx	682lx	303lx	170lx	109lx	76lx	56lx	43lx	34lx	27lx	23lx	19lx	16lx	14lx	12lx	11lx	9lx	8lx	8lx	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					
253,3fcd	63,3fcd	28,1fcd	15,8fcd	10,1fcd	7fcd	5,2fcd	4fcd	3,1fcd	2,5fcd	2,1fcd	1,8fcd	1,5fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	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°					
2727	2730	2730	2694	2647	2585	2486	2386	2273	2157	2049	1954	1859	1758	1657	1522	1350	1178	945	713					
100%	100%	100%	99%	97%	95%	91%	88%	83%	79%	75%	72%	68%	64%	61%	56%	50%	43%	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°					
2727	2724	2724	2683	2630	2562	2460	2359	2244	2128	2021	1928	1835	1736	1636	1503	1333	1163	936	708					
100%	100%	100%	98%	96%	94%	90%	87%	82%	78%	74%	71%	67%	64%	60%	55%	49%	43%	34%	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°					
2727	2730	2730	2694	2647	2585	2486	2386	2273	2157	2049	1954	1859	1758	1657	1522	1350	1178	945	713					
100%	100%	100%	99%	97%	95%	91%	88%	83%	79%	75%	72%	68%	64%	61%	56%	50%	43%	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°					
2727	2724	2724	2683	2630	2562	2460	2359	2244	2128	2021	1928	1835	1736	1636	1503	1333	1163	936	708					
100%	100%	100%	98%	96%	94%	90%	87%	82%	78%	74%	71%	67%	64%	60%	55%	49%	43%	34%	26%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
63,5°					88,5°					112,8°					98,1%					92,6%				



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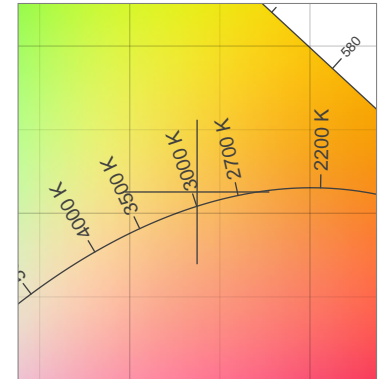
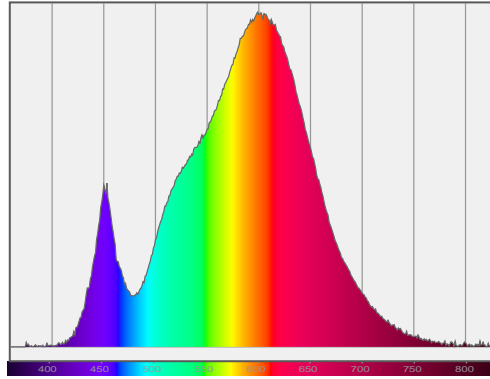
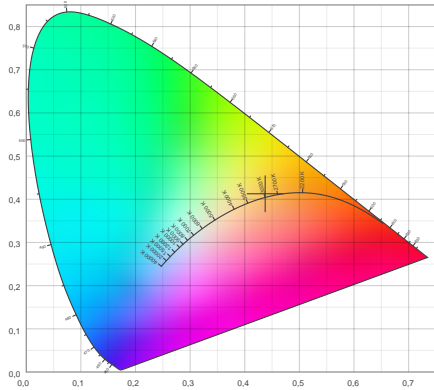
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Color details



CIE 1931

x: 0,437



Spectra

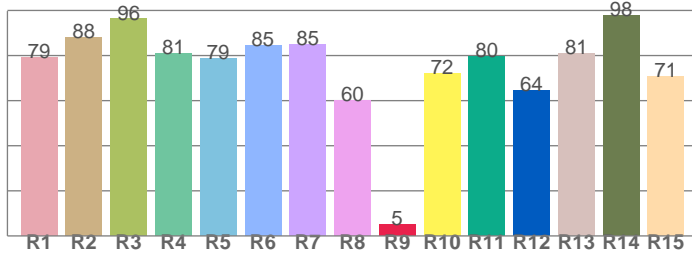
CIE 1931 ZOOM

3066 K

y: 0,413

Δuv : 0,0034

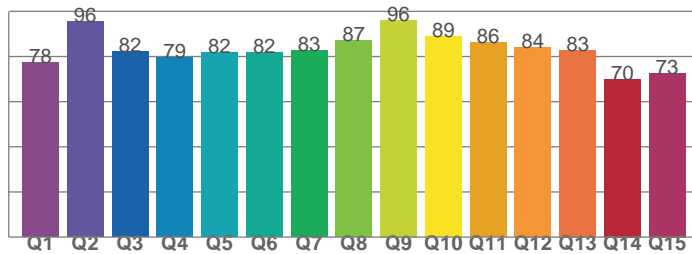
CRI: 81,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
79,2	87,9	96,3	80,8	78,7	84,7	85,0	60,1
R9	R10	R11	R12	R13	R14	R15	
5,0	72,3	79,6	64,4	80,9	97,7	70,9	

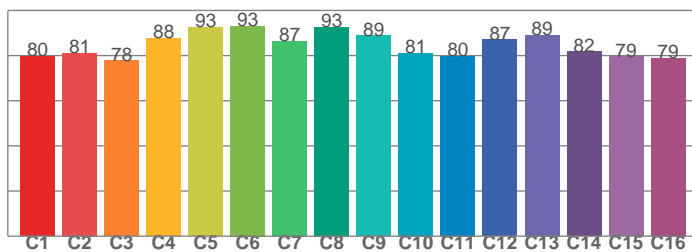
CQS: 81,8



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,5	95,7	82,1	79,4	81,7	81,6	82,7	87,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	88,9	86,2	84,2	82,9	70,0	72,7	

TM30: 84,7



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

C1	C2	C3	C4	C5	C6	C7	C8
79,7	81,2	77,8	87,7	92,6	93,1	86,5	92,7
C9	C10	C11	C12	C13	C14	C15	
88,9	81,1	79,8	87,2	89,2	81,7	79,5	

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
3066 K	81,6	5,0	84,7	95,8	81,8	0,437	0,413	0,247	0,350	0,0034



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TM30 details

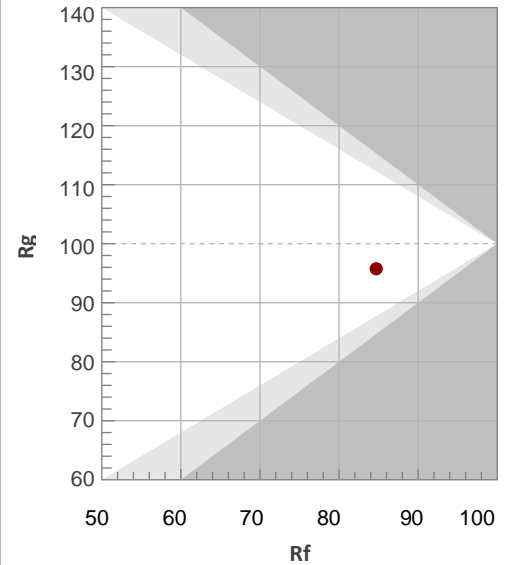
Rf 84,7

Fidelity index Rf

Rg 95,8

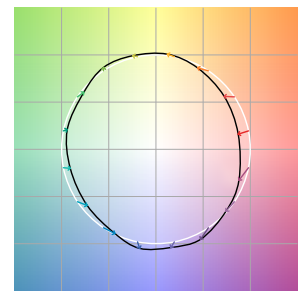
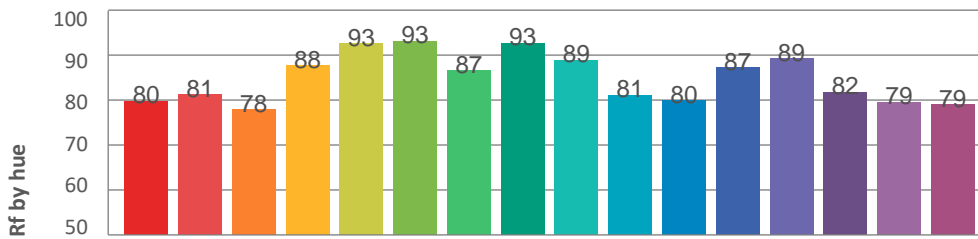
Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	-1%
2	81	-9%	6%
3	78	-4%	11%
4	88	1%	8%
5	93	2%	5%
6	93	3%	-2%
7	87	-3%	-8%
8	93	-4%	-2%
9	89	-7%	2%
10	81	-6%	9%
11	80	-2%	13%
12	87	6%	4%
13	89	5%	-5%
14	82	6%	-14%
15	79	-2%	-13%
16	79	-7%	-15%



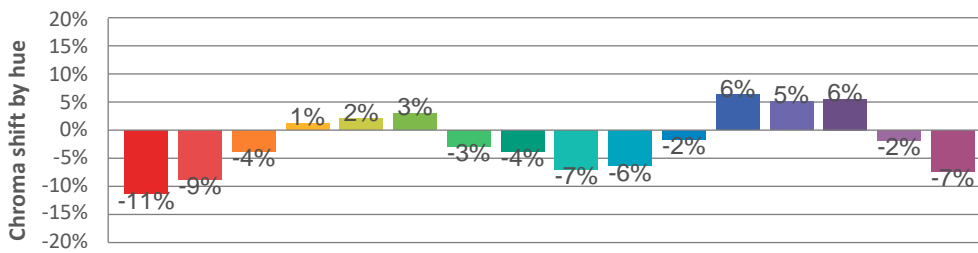
Hue binH

Color vector graphics

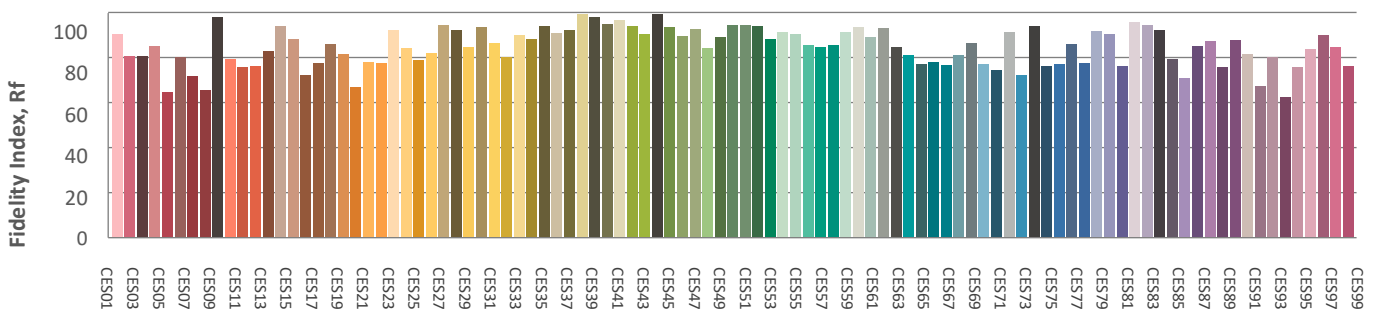


Hue bin

Color distortion graphics



Color Evaluation Sample



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