

LM-79

Test Report

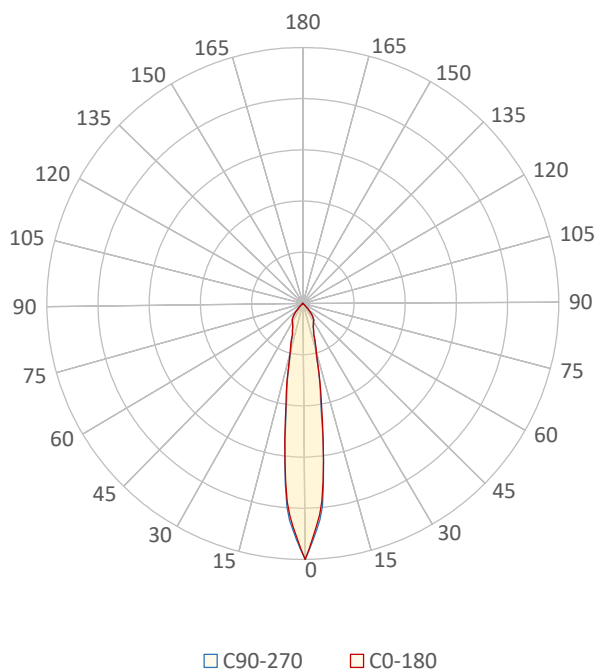
LM79-RUBY-7-3000K-CRI80-SPOT

General Description

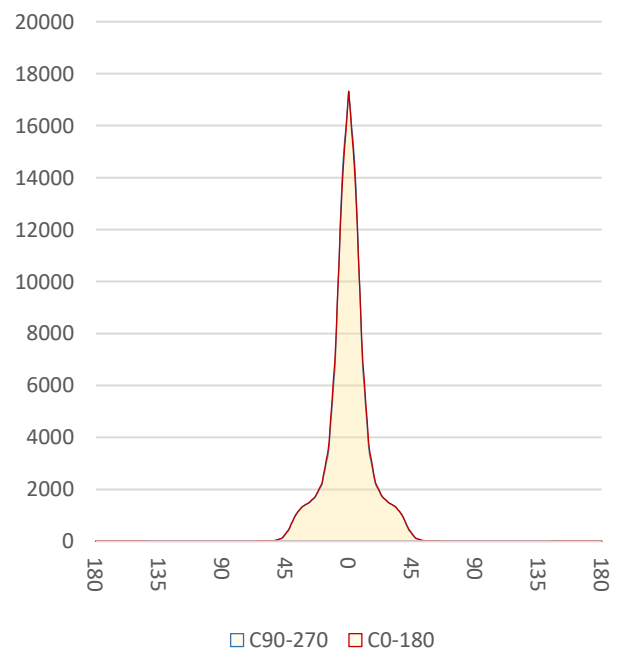
Item number	RU-17-X-X-02-1-X
Date and time	21-11-2016 09:02:26
CCT (Kelvin)	3096 K
Beam angle	17°
Luminous flux	3761 lm
Efficiency	91 lm/watt
Weighted energy	41,6 kWh/1000h
Power factor	0,95
CRI (RA)	81,2
Fidelity index Rf	Rf 84,5
Gammut index Rg	Rg 95,7
Peak	17581 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m																			
Lux*	17322 lx	4330 lx	1925 lx	1083 lx	693 lx																			
*measured at center of beam																								
Footcandles*	1609,2 fcd	402,3 fcd	178,8 fcd	100,6 fcd	64,4 fcd																			
Beam width (meter)	0,3 m	0,6 m	0,9 m	1,2 m	1,5 m																			
Beam width (Feet)	1 ft	2 ft	2,9 ft	3,9 ft	4,9 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
17322lx	4330lx	1925lx	1083lx	693lx	481lx	354lx	271lx	214lx	173lx	143lx	120lx	102lx	88lx	77lx	68lx	60lx	53lx	48lx	43lx					
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					
1609,2fcd	402,3fcd	178,8fcd	100,6fcd	64,4fcd	44,7fcd	32,8fcd	25,1fcd	19,9fcd	16,1fcd	13,3fcd	11,2fcd	9,5fcd	8,2fcd	7,2fcd	6,3fcd	5,6fcd	5fcd	4,5fcd	4fcd					
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°					
17,3K	16,4K	14,5K	12,4K	9,5K	6,6K	5,0K	3,8K	2,9K	2,5K	2,0K	1,9K	1,7K	1,6K	1,5K	1,4K	1,4K	1,3K	1,2K	1,0K					
100%	95%	84%	72%	55%	38%	29%	22%	17%	14%	12%	11%	10%	9%	9%	8%	8%	8%	7%	6%					
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°					
17,3K	15,9K	14,7K	12,5K	9,3K	6,3K	5,0K	3,6K	2,9K	2,4K	2,0K	1,8K	1,7K	1,6K	1,5K	1,4K	1,4K	1,3K	1,2K	1,0K					
100%	92%	85%	72%	54%	37%	29%	21%	17%	14%	12%	11%	10%	9%	9%	8%	8%	8%	7%	6%					
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°					
17,3K	16,4K	14,5K	12,4K	9,5K	6,6K	5,0K	3,8K	2,9K	2,5K	2,0K	1,9K	1,7K	1,6K	1,5K	1,4K	1,4K	1,3K	1,2K	1,0K					
100%	95%	84%	72%	55%	38%	29%	22%	17%	14%	12%	11%	10%	9%	9%	8%	8%	8%	7%	6%					
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°					
17,3K	15,9K	14,7K	12,5K	9,3K	6,3K	5,0K	3,6K	2,9K	2,4K	2,0K	1,8K	1,7K	1,6K	1,5K	1,4K	1,4K	1,3K	1,2K	1,0K					
100%	92%	85%	72%	54%	37%	29%	21%	17%	14%	12%	11%	10%	9%	9%	8%	8%	8%	7%	6%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
17°					47°					85,5°					99,4%					97,7%				



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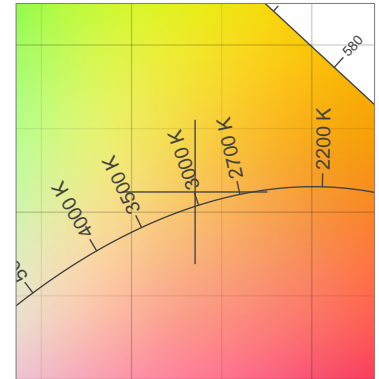
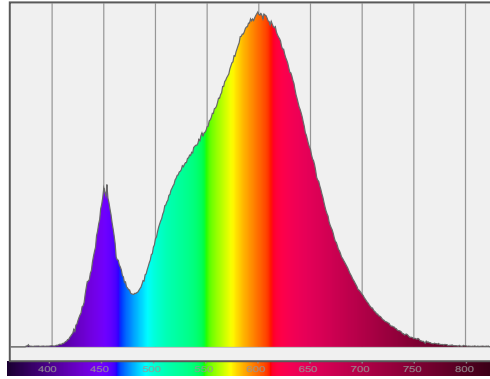
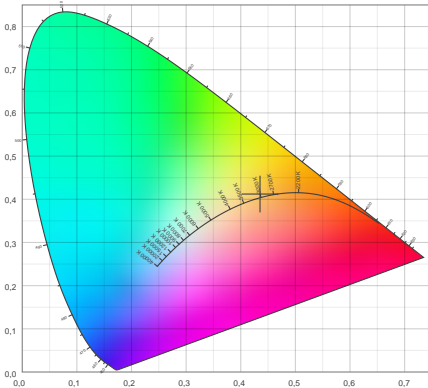
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Color details



CIE 1931

x: 0,435



Spectra

CIE 1931 ZOOM

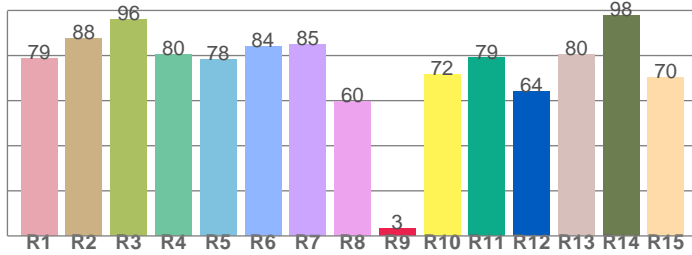
3096 K

y: 0,412

Δuv : 0,0034

CRI: 81,2 (R1-R8)

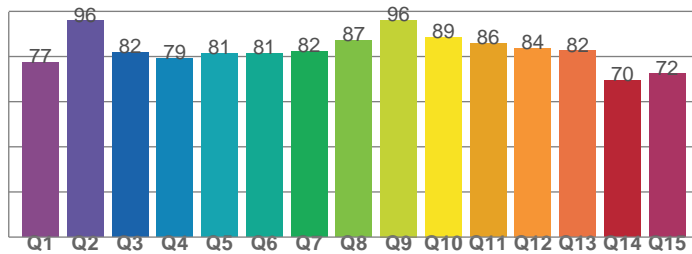
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
78,7	87,5	96,1	80,3	78,2	84,2	84,9	59,7
R9	R10	R11	R12	R13	R14	R15	
3,5	71,5	79,0	64,2	80,4	97,7	70,4	

CQS: 81,5

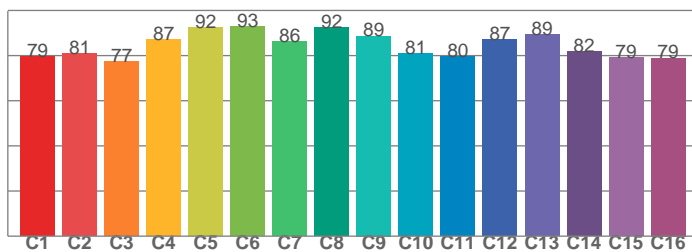
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
77,3	95,8	81,9	79,1	81,3	81,2	82,3	87,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	88,6	85,9	83,8	82,5	69,5	72,3	

TM30: 84,5

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



C1	C2	C3	C4	C5	C6	C7	C8
79,5	80,8	77,4	87,2	92,4	92,9	86,2	92,4
C9	C10	C11	C12	C13	C14	C15	
88,7	80,9	79,6	87,2	89,2	81,8	79,2	

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
3096 K	81,2	3,5	84,5	95,7	81,5	0,435	0,412	0,246	0,349	0,0034



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TM30 details

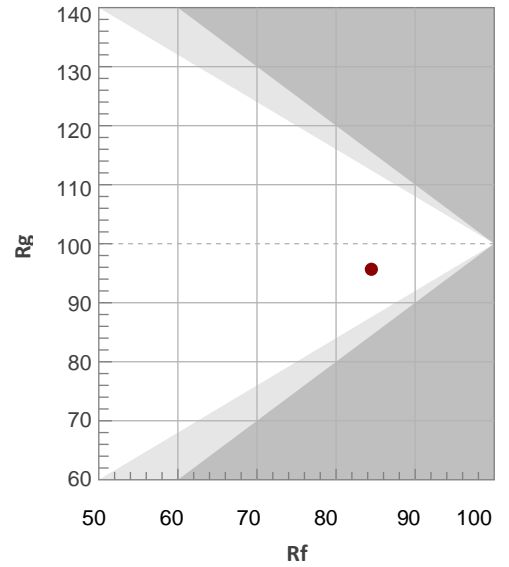
Rf 84,5

Fidelity index Rf

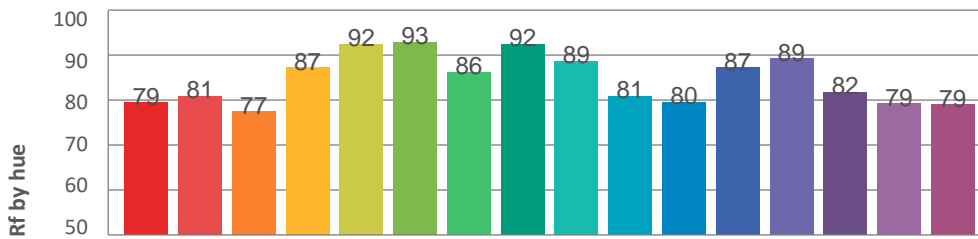
Rg 95,7

Gammut index Rg

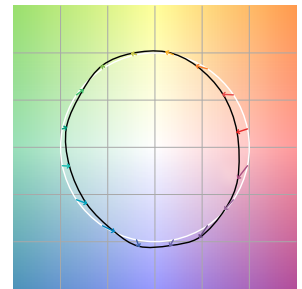
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	79	-12%	-1%
2	81	-9%	7%
3	77	-4%	11%
4	87	1%	8%
5	92	2%	5%
6	93	3%	-2%
7	86	-3%	-8%
8	92	-4%	-2%
9	89	-7%	2%
10	81	-7%	9%
11	80	-2%	14%
12	87	6%	4%
13	89	5%	-5%
14	82	6%	-14%
15	79	-2%	-13%
16	79	-7%	-15%



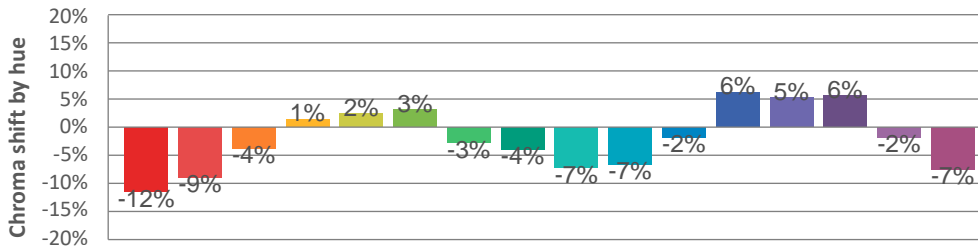
Hue binH



Color vector graphics



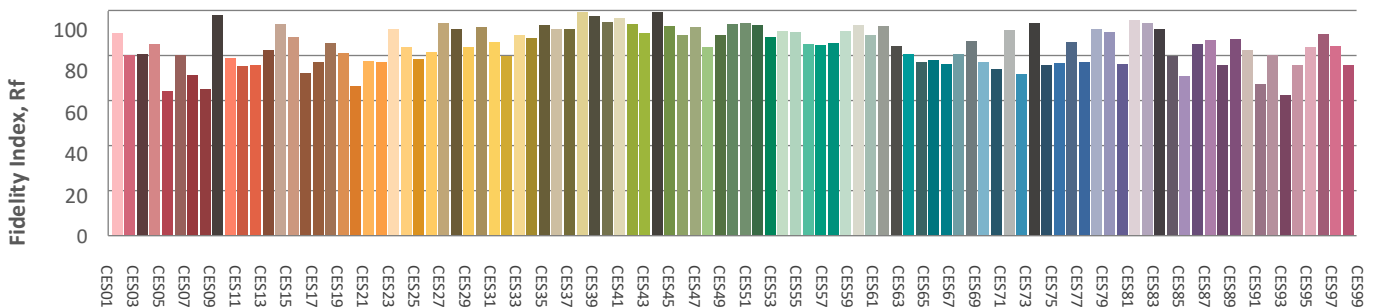
Hue bin



Color distortion graphics



Color Evaluation Sample



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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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a				n/a					
n/a	n/a				n/a					
n/a	n/a				n/a					
Standard table	n/a				n/a					
Correction summand	n/a				n/a					
Corrected glare indices referring to 3761lm total luminous flux										

