

LM-79

Test Report

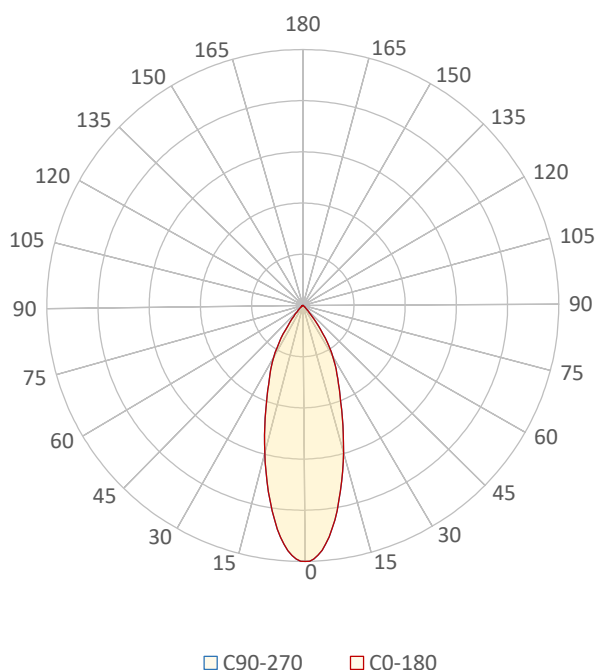
LM79-RUBY-COMPACT-3000K-CRI90-MEDIUM

General Discription

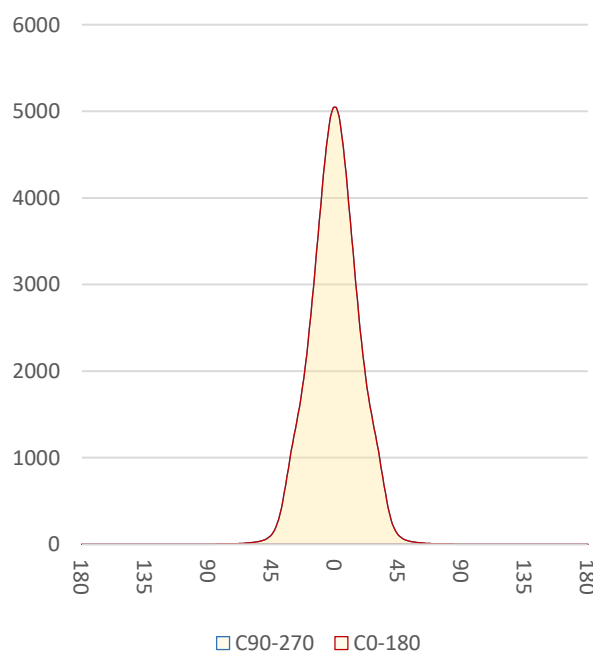
Item number	
Date and time	24-3-2021 14:07:47
CCT (Kelvin)	3097 K
Beam angle	35,6°
Luminous flux	2569 lm
Efficiency	93 lm/watt
Weighted energy	27,7 kWh/1000h
Power factor	0,97
CRI (RA)	92,5
Fidelity index Rf	Rf 91,0
Gammut index Rg	Rg 98,1
Peak	5048 cd



Polar diagram



Cartesian diagram



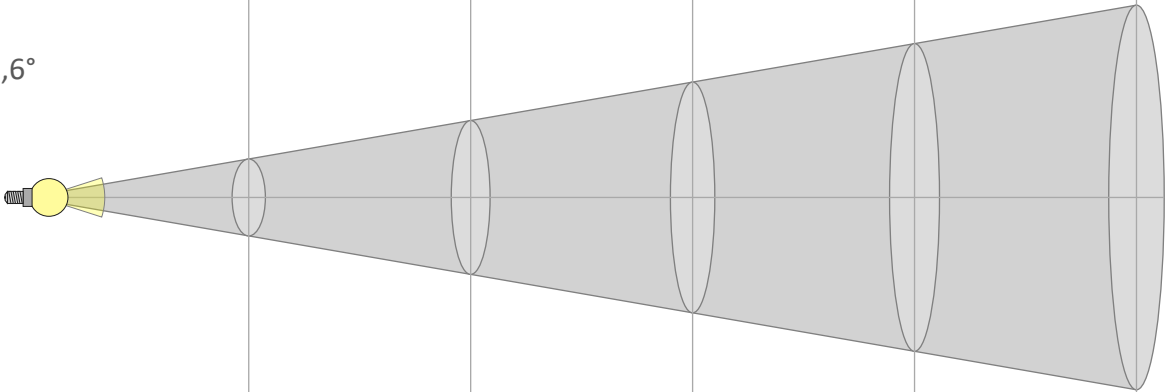
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Beam details					1m		2m		3m		4m		5m						
Lux*					5048 lx		1262 lx		561 lx		315 lx		202 lx						
35,6° 																			
*measured at center of beam																			
Footcandles*					469,0 fcd		117,2 fcd		52,1 fcd		29,3 fcd		18,8 fcd						
Beam width (meter)					0,6 m		1,3 m		1,9 m		2,6 m		3,2 m						
Beam width (Feet)					2,1 ft		4,2 ft		6,3 ft		8,4 ft		10,5 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
5048lx	1262lx	561lx	315lx	202lx	140lx	103lx	79lx	62lx	50lx	42lx	35lx	30lx	26lx	22lx	20lx	17lx	16lx	14lx	13lx
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
469fcd	117,2fcd	52,1fcd	29,3fcd	18,8fcd	13fcd	9,6fcd	7,3fcd	5,8fcd	4,7fcd	3,9fcd	3,3fcd	2,8fcd	2,4fcd	2,1fcd	1,8fcd	1,6fcd	1,4fcd	1,3fcd	1,2fcd
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°
5048	5005	4843	4592	4275	3920	3552	3184	2829	2493	2190	1924	1700	1510	1340	1168	982	783	589	419
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	27%	23%	19%	16%	12%	8%
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°
5048	5005	4843	4592	4275	3920	3552	3184	2829	2493	2190	1924	1700	1510	1340	1168	982	783	589	419
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	27%	23%	19%	16%	12%	8%
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°
5048	5005	4843	4592	4275	3920	3552	3184	2829	2493	2190	1924	1700	1510	1340	1168	982	783	589	419
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	27%	23%	19%	16%	12%	8%
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°
5048	5005	4843	4592	4275	3920	3552	3184	2829	2493	2190	1924	1700	1510	1340	1168	982	783	589	419
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	27%	23%	19%	16%	12%	8%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
35,6°				73,9°				88,6°				99,2%				96,9%			



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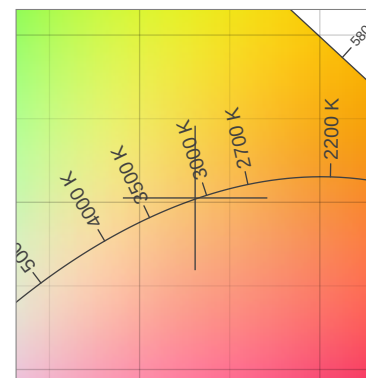
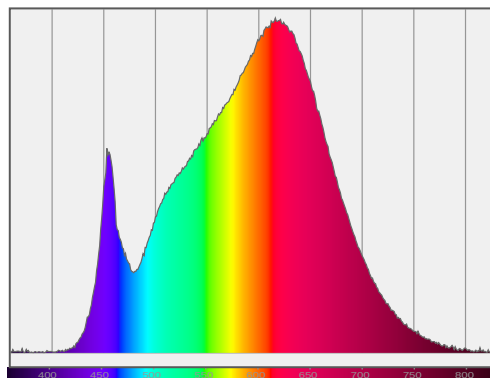
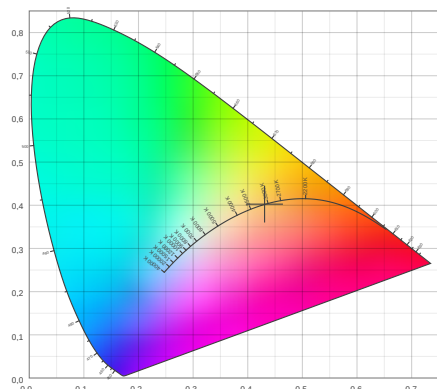
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Color details



CIE 1931

x: 0,431



Spectra

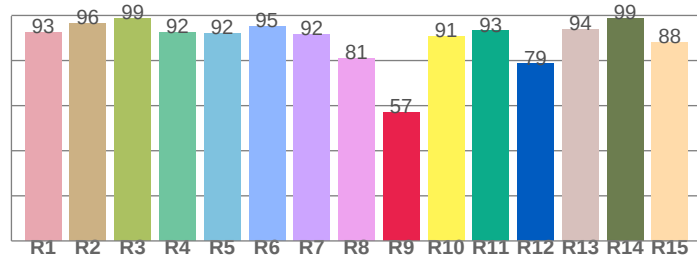
CIE 1931 ZOOM

3097 K

y: 0,403

Δuv : 0,0003

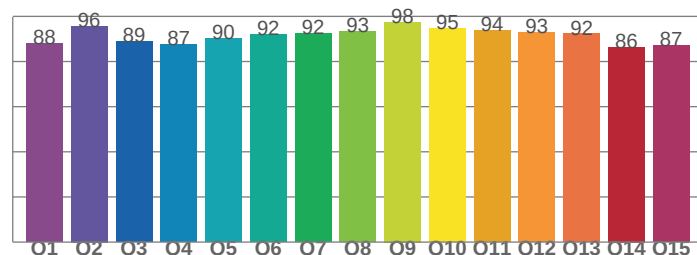
CRI: 92,5 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
92,6	96,5	98,6	92,3	92,2	95,3	91,7	81,1
R9	R10	R11	R12	R13	R14	R15	
57,2	90,8	93,2	78,5	93,8	98,9	88,2	

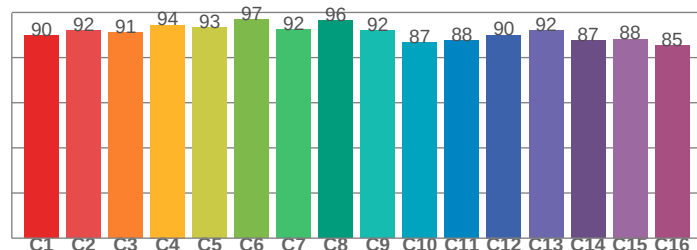
CQS: 90,8



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
88,1	95,8	88,8	87,4	90,4	91,9	92,3	93,2
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,5	94,8	93,7	92,8	92,2	86,4	87,1	

TM30: 91,0



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

C1	C2	C3	C4	C5	C6	C7	C8
89,8	91,9	91,0	94,4	93,3	96,9	92,4	96,3
C9	C10	C11	C12	C13	C14	C15	
91,9	86,8	87,6	90,0	91,9	87,5	88,3	

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
3097 K	92,5	57,2	91,0	98,1	90,8	0,431	0,403	0,247	0,347	0,0003



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TM30 details

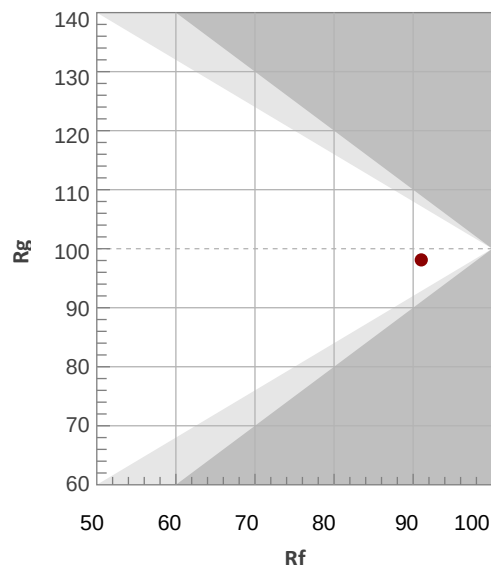
Rf 91,0

Fidelity index Rf

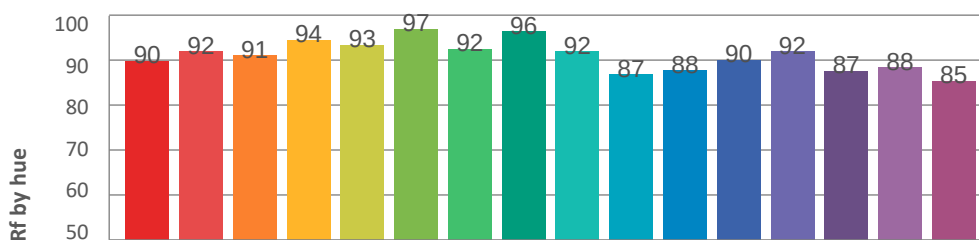
Rg 98,1

Gamut index Rg

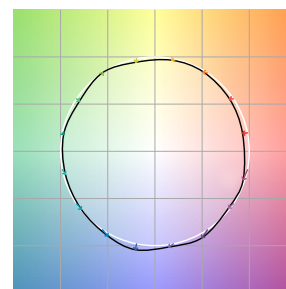
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	1%
2	92	-3%	2%
3	91	-2%	4%
4	94	-2%	1%
5	93	-4%	1%
6	97	0%	0%
7	92	-4%	0%
8	96	-2%	1%
9	92	-2%	5%
10	87	-1%	8%
11	88	2%	8%
12	90	6%	0%
13	92	2%	-5%
14	87	4%	-9%
15	88	-2%	-6%
16	85	-2%	-11%



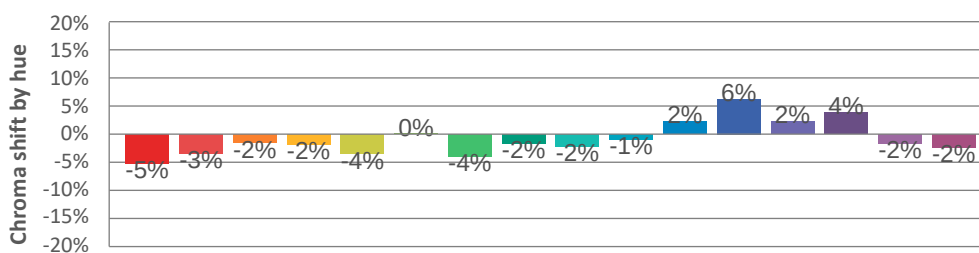
Hue binH



Color vector graphics



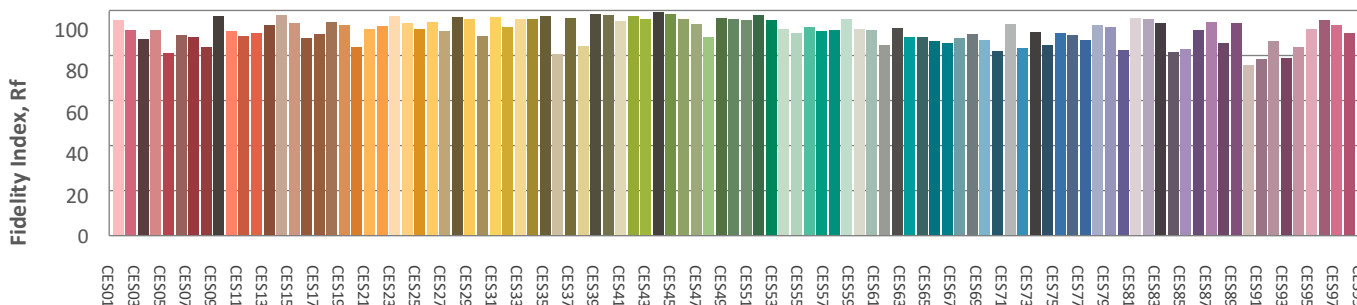
Hue bin



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	21,4	22,0	21,5	22,2	22,4	21,4	22,0	21,5	22,2	22,4
	3H	21,2	21,9	21,5	22,1	22,3	21,2	21,9	21,5	22,1	22,3
	4H	21,1	21,8	21,5	22,0	22,2	21,1	21,8	21,5	22,0	22,2
	6H	21,1	21,7	21,4	22,0	22,3	21,1	21,7	21,4	22,0	22,3
	8H	21,0	21,6	21,4	21,9	22,3	21,0	21,6	21,4	21,9	22,3
	12H	21,0	21,5	21,3	21,9	22,3	21,0	21,5	21,3	21,9	22,3
4H	2H	21,1	21,8	21,5	22,0	22,2	21,1	21,8	21,5	22,0	22,2
	3H	21,0	21,6	21,4	21,9	22,3	21,0	21,6	21,4	21,9	22,3
	4H	20,9	21,4	21,3	21,8	22,3	20,9	21,4	21,3	21,8	22,3
	6H	20,8	21,4	21,3	21,7	22,0	20,8	21,4	21,3	21,7	22,0
	8H	20,8	21,3	21,3	21,6	22,0	20,8	21,3	21,3	21,6	22,0
	12H	20,7	21,1	21,2	21,5	22,0	20,7	21,1	21,2	21,5	22,0
8H	4H	20,8	21,3	21,3	21,6	22,0	20,8	21,3	21,3	21,6	22,0
	6H	20,7	21,0	21,2	21,5	22,0	20,7	21,0	21,2	21,5	22,0
	8H	20,7	21,0	21,2	21,5	22,1	20,7	21,0	21,2	21,5	22,1
	12H	20,7	20,9	21,3	21,4	22,0	20,7	20,9	21,3	21,4	22,0
12H	4H	20,7	21,1	21,2	21,5	22,0	20,7	21,1	21,2	21,5	22,0
	6H	20,7	21,0	21,2	21,5	22,1	20,7	21,0	21,2	21,5	22,1
	8H	20,7	20,9	21,2	21,4	22,0	20,7	20,9	21,2	21,4	22,0
Variation of the observer position for the luminaire distance S											
S = 1.0H		5,2 / -8,1					5,2 / -8,1				
S = 1.5H		7,8 / -9,4					7,8 / -9,4				
S = 2.0H		9,8 / -10,6					9,8 / -10,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2569lm total luminous flux											