

LM-79

Test Report

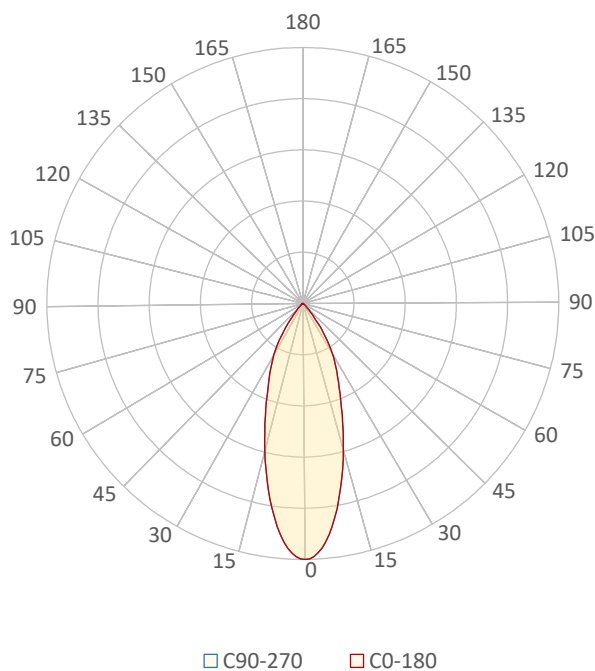
LM79-RUBY-COMPACT-2700K-CRI90-MEDIUM

General Discription

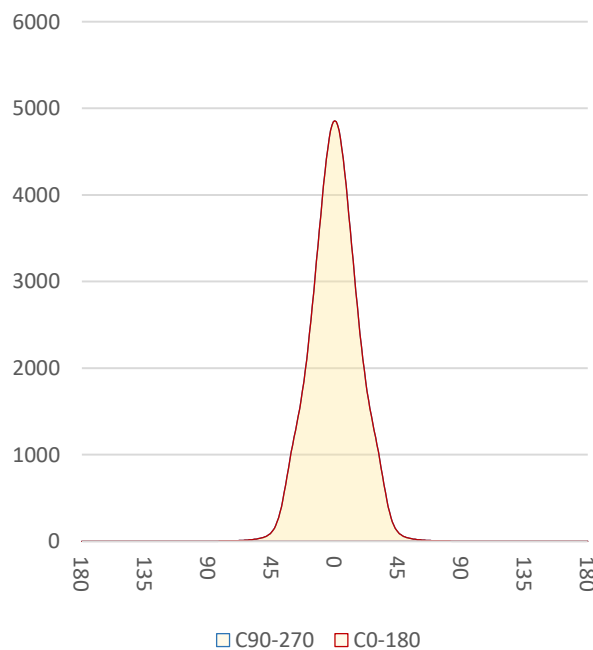
Item number	
Date and time	24-3-2021 14:19:30
CCT (Kelvin)	2742 K
Beam angle	35,6°
Luminous flux	2460 lm
Efficiency	88 lm/watt
Weighted energy	27,9 kWh/1000h
Power factor	0,97
CRI (RA)	92,4
Fidelity index Rf	Rf 91,5
Gammut index Rg	Rg 98,0
Peak	4856 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m
Lux*	4856 lx	1214 lx	540 lx	303 lx	194 lx

35,6°

*measured at center of beam

Footcandles*	451,1 fcd	112,8 fcd	50,1 fcd	28,2 fcd	18,0 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
4856lx	1214lx	540lx	303lx	194lx	135lx	99lx	76lx	60lx	49lx	40lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	13lx	12lx
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
451,1fcd	112,8fcd	50,1fcd	28,2fcd	18fcd	12,5fcd	9,2fcd	7fcd	5,6fcd	4,5fcd	3,7fcd	3,1fcd	2,7fcd	2,3fcd	2fcd	1,8fcd	1,6fcd	1,4fcd	1,2fcd	1,1fcd

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°
4856	4807	4653	4414	4111	3771	3416	3061	2717	2395	2101	1845	1629	1446	1281	1117	938	747	562	399
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	26%	23%	19%	15%	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°
4856	4807	4653	4414	4111	3771	3416	3061	2717	2395	2101	1845	1629	1446	1281	1117	938	747	562	399
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	26%	23%	19%	15%	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°
4856	4807	4653	4414	4111	3771	3416	3061	2717	2395	2101	1845	1629	1446	1281	1117	938	747	562	399
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	26%	23%	19%	15%	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°
4856	4807	4653	4414	4111	3771	3416	3061	2717	2395	2101	1845	1629	1446	1281	1117	938	747	562	399
100%	99%	96%	91%	85%	78%	70%	63%	56%	49%	43%	38%	34%	30%	26%	23%	19%	15%	12%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35,6°	73,8°	88,5°	99,2%	97,0%



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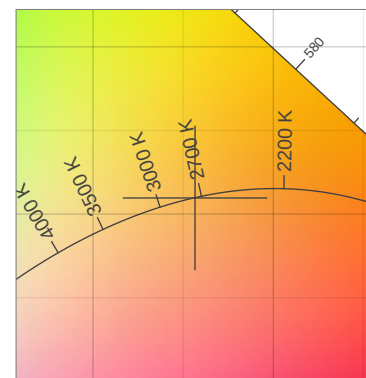
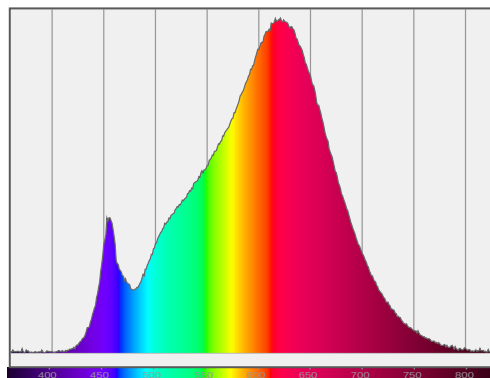
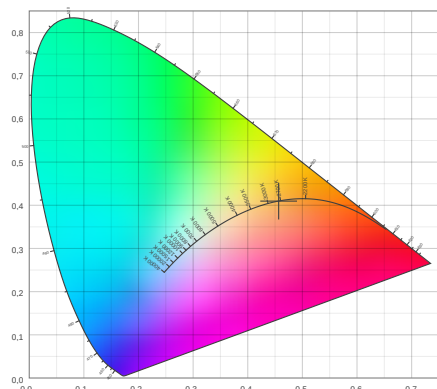
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Color details



CIE 1931

x: 0,457



Spectra

CIE 1931 ZOOM

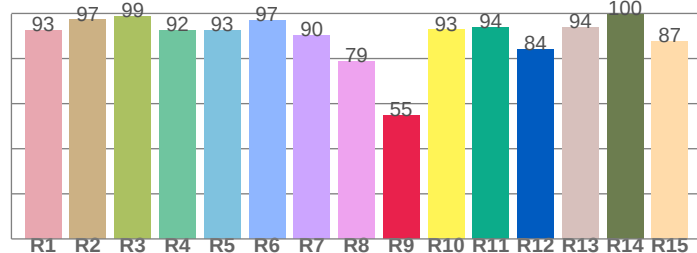
2742 K

y: 0,410

Δuv : -0,0002

CRI: 92,4 (R1-R8)

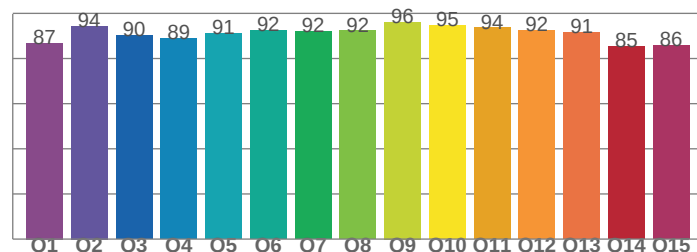
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
92,6	97,1	98,6	92,3	92,6	96,8	90,2	78,9
R9	R10	R11	R12	R13	R14	R15	
54,7	92,7	93,9	84,0	94,0	99,6	87,4	

CQS: 90,5

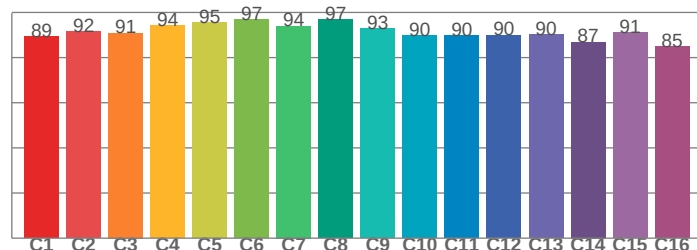
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
86,8	94,4	90,3	88,9	91,1	92,3	91,9	92,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,2	94,7	93,6	92,3	91,4	85,3	85,8	

TM30: 91,5

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



C1	C2	C3	C4	C5	C6	C7	C8
89,4	91,5	90,9	94,3	95,5	96,8	94,0	96,8
C9	C10	C11	C12	C13	C14	C15	
92,9	89,9	89,8	89,9	90,3	86,9	91,1	

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
2742 K	92,4	54,7	91,5	98,0	90,5	0,457	0,410	0,261	0,351	-0,0002



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TM30 details

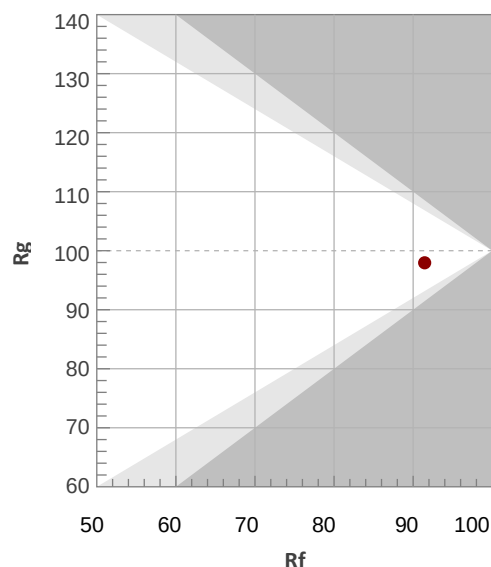
Rf 91,5

Fidelity index Rf

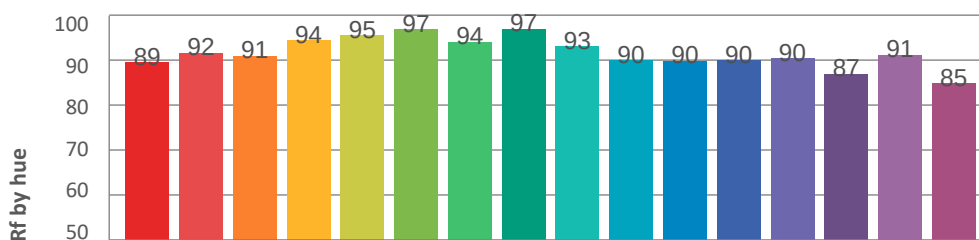
Rg 98,0

Gamut index Rg

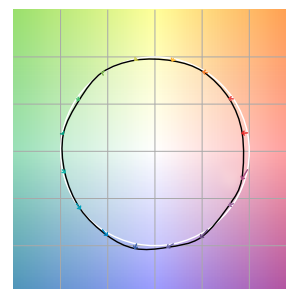
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-6%	1%
2	92	-4%	3%
3	91	-2%	4%
4	94	-2%	1%
5	95	-1%	2%
6	97	1%	0%
7	94	-3%	-1%
8	97	-1%	1%
9	93	-2%	4%
10	90	0%	7%
11	90	2%	7%
12	90	5%	-1%
13	90	2%	-7%
14	87	3%	-10%
15	91	-3%	-4%
16	85	-4%	-11%



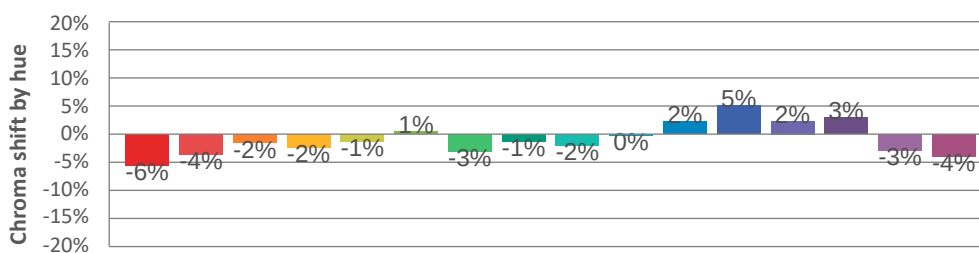
Hue binH



Color vector graphics



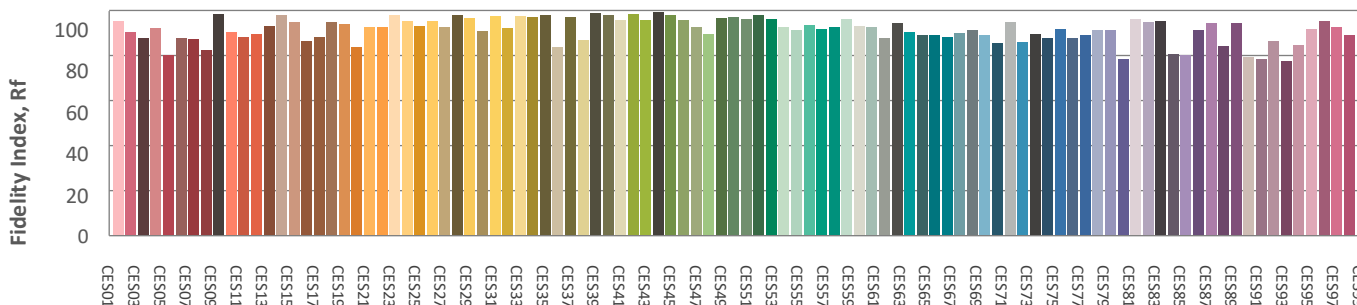
Hue bin



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	21,2	21,8	21,3	22,0	22,2	21,2	21,8	21,3	22,0	22,2
	3H	21,0	21,7	21,3	21,9	22,1	21,0	21,7	21,3	21,9	22,1
	4H	20,9	21,6	21,3	21,8	22,1	20,9	21,6	21,3	21,8	22,1
	6H	20,9	21,5	21,2	21,8	22,1	20,9	21,5	21,2	21,8	22,1
	8H	20,9	21,4	21,2	21,7	22,1	20,9	21,4	21,2	21,7	22,1
	12H	20,8	21,3	21,2	21,7	22,1	20,8	21,3	21,2	21,7	22,1
4H	2H	20,9	21,6	21,3	21,8	22,0	20,9	21,6	21,3	21,8	22,0
	3H	20,8	21,4	21,2	21,7	22,1	20,8	21,4	21,2	21,7	22,1
	4H	20,7	21,2	21,1	21,6	22,1	20,7	21,2	21,1	21,6	22,1
	6H	20,6	21,2	21,1	21,5	21,9	20,6	21,2	21,1	21,5	21,9
	8H	20,6	21,1	21,1	21,4	21,8	20,6	21,1	21,1	21,4	21,8
	12H	20,5	20,9	21,0	21,3	21,8	20,5	20,9	21,0	21,3	21,8
8H	4H	20,6	21,1	21,1	21,4	21,8	20,6	21,1	21,1	21,4	21,8
	6H	20,5	20,9	21,0	21,3	21,8	20,5	20,9	21,0	21,3	21,8
	8H	20,5	20,8	21,0	21,3	21,9	20,5	20,8	21,0	21,3	21,9
	12H	20,5	20,7	21,1	21,2	21,8	20,5	20,7	21,1	21,2	21,8
12H	4H	20,5	20,9	21,0	21,3	21,8	20,5	20,9	21,0	21,3	21,8
	6H	20,5	20,8	21,0	21,3	21,9	20,5	20,8	21,0	21,3	21,9
	8H	20,5	20,7	21,1	21,2	21,8	20,5	20,7	21,1	21,2	21,8
Variation of the observer position for the luminaire distance S											
S = 1.0H		5,2 / -8,1					5,2 / -8,1				
S = 1.5H		7,9 / -9,5					7,9 / -9,5				
S = 2.0H		9,8 / -10,5					9,8 / -10,5				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2460lm total luminous flux											



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