

LM-79

Test Report

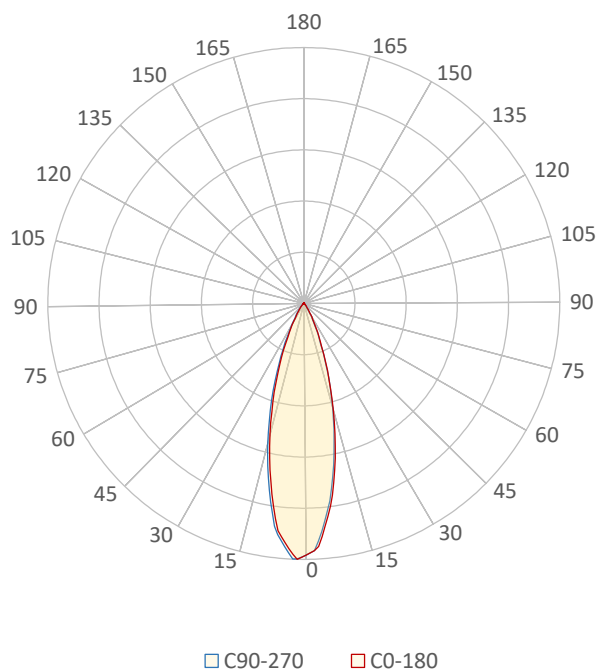
LM79-REVO-XXL-3000K-CRI80-30DEG

General Discription

Item number	
Date and time	1-11-2017 11:09:09
CCT (Kelvin)	2991 K
Beam angle	29,5°
Luminous flux	5804 lm
Efficiency	153 lm/watt
Weighted energy	38,0 kWh/1000h
Power factor	0,95
CRI (RA)	84,0
Fidelity index Rf	Rf 84,7
Gammut index Rg	Rg 97,1
Peak	18000 cd



Polar diagram



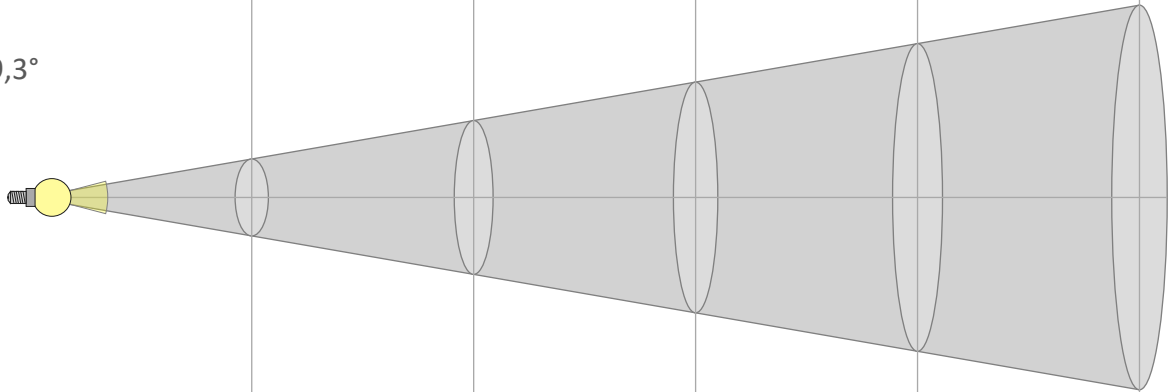
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Beam details					1m		2m		3m		4m		5m						
Lux*					17612 lx		4403 lx		1957 lx		1101 lx		704 lx						
29,3° 																			
*measured at center of beam																			
Footcandles*					1636,2 fcd		409,0 fcd		181,8 fcd		102,3 fcd		65,4 fcd						
Beam width (meter)					0,5 m		1 m		1,6 m		2,1 m		2,6 m						
Beam width (Feet)					1,7 ft		3,4 ft		5,2 ft		6,9 ft		8,6 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
17612lx	4403lx	1957lx	1101lx	704lx	489lx	359lx	275lx	217lx	176lx	146lx	122lx	104lx	90lx	78lx	69lx	61lx	54lx	49lx	44lx
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
1636,2fcd	409fcd	181,8fcd	102,3fcd	65,4fcd	45,4fcd	33,4fcd	25,6fcd	20,2fcd	16,4fcd	13,5fcd	11,4fcd	9,7fcd	8,3fcd	7,3fcd	6,4fcd	5,7fcd	5fcd	4,5fcd	4,1fcd
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°
17,6K	17,3K	16,4K	15,0K	13,6K	11,9K	10,2K	8,6K	7,0K	5,6K	4,4K	3,3K	2,6K	1,9K	1,4K	1,1K	0,8K	0,6K	0,5K	0,4K
100%	98%	93%	85%	77%	67%	58%	49%	40%	32%	25%	19%	15%	11%	8%	6%	4%	4%	3%	2%
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°
17,6K	17,3K	16,0K	14,6K	13,1K	11,5K	9,8K	8,3K	6,8K	5,5K	4,3K	3,2K	2,4K	1,7K	1,3K	1,0K	0,7K	0,5K	0,4K	0,3K
100%	98%	91%	83%	75%	65%	56%	47%	39%	31%	24%	18%	14%	10%	7%	5%	4%	3%	2%	2%
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°
17,6K	17,9K	17,2K	16,4K	15,2K	13,5K	11,9K	10,3K	8,7K	7,2K	5,9K	4,6K	3,6K	2,6K	2,0K	1,5K	1,0K	0,8K	0,6K	0,4K
100%	102%	98%	93%	86%	77%	68%	58%	49%	41%	33%	26%	20%	15%	11%	8%	6%	4%	3%	2%
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°
17,6K	17,9K	17,5K	16,7K	15,7K	14,1K	12,5K	10,9K	9,3K	7,8K	6,4K	5,1K	4,0K	3,0K	2,2K	1,7K	1,2K	0,9K	0,7K	0,5K
100%	102%	99%	95%	89%	80%	71%	62%	53%	44%	37%	29%	23%	17%	13%	10%	7%	5%	4%	3%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
29,3°				55,3°				74,2°				98,3%				96,0%			



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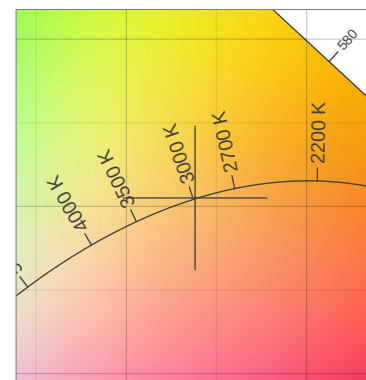
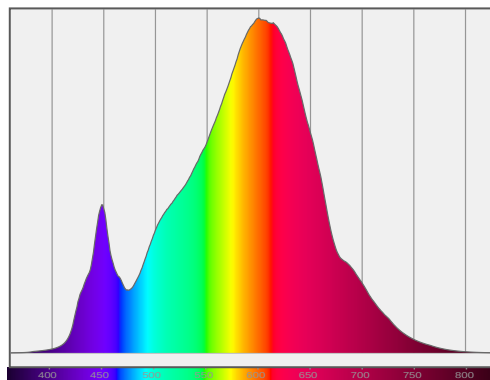
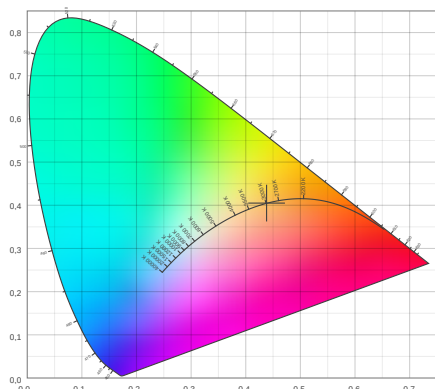
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Color details



CIE 1931

x: 0,438

2991 K

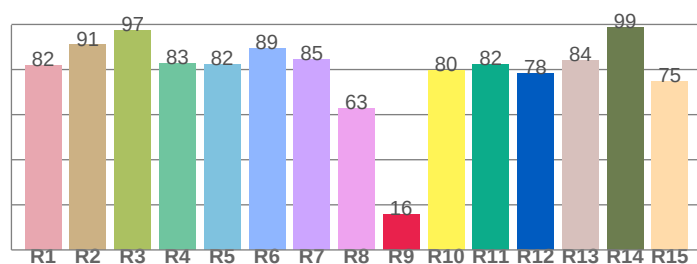
y: 0,405

Spectra

CIE 1931 ZOOM

Δuv : 0,0003

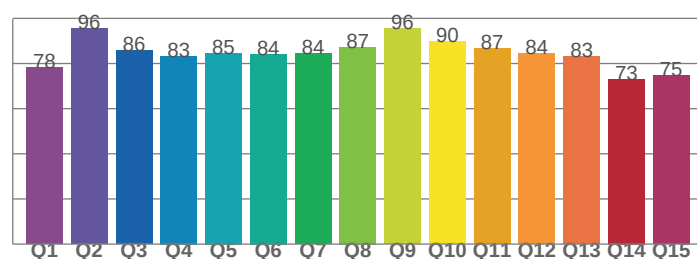
CRI: **84,0** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
82,0	90,9	97,3	82,8	82,5	89,4	84,6	63,0
R9	R10	R11	R12	R13	R14	R15	
15,6	79,7	82,2	78,4	83,9	98,8	74,8	

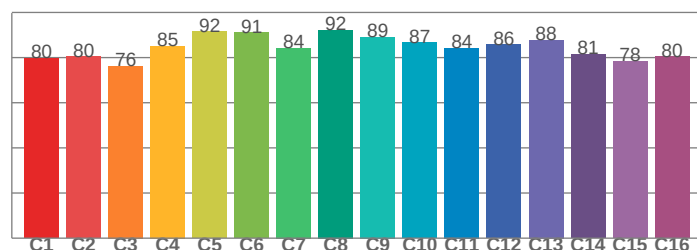
CQS: **83,4**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
78,1	95,7	85,7	83,4	84,6	84,2	84,3	87,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
95,6	89,8	86,8	84,3	83,3	73,2	74,7	

TM30: **84,7**



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

C1	C2	C3	C4	C5	C6	C7	C8
79,7	80,4	76,3	85,2	91,6	91,2	84,3	92,3
C9	C10	C11	C12	C13	C14	C15	
89,1	86,8	84,3	85,7	87,8	81,5	78,4	

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
2991 K	84,0	15,6	84,7	97,1	83,4	0,438	0,405	0,251	0,348	0,0003



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TM30 details

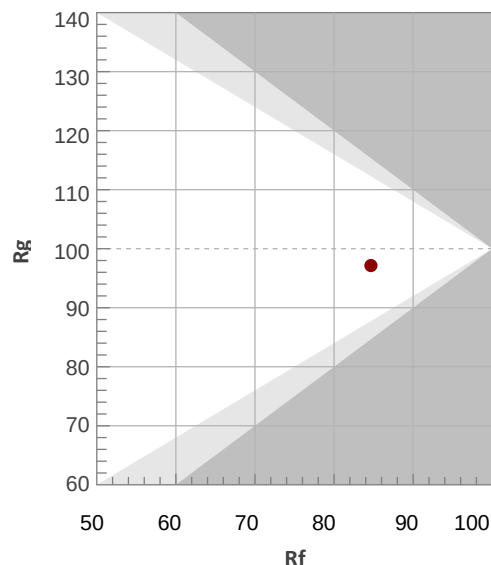
Rf 84,7

Fidelity index Rf

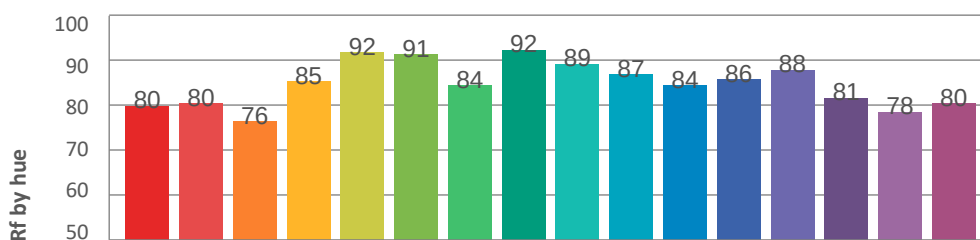
Rg 97,1

Gamut index Rg

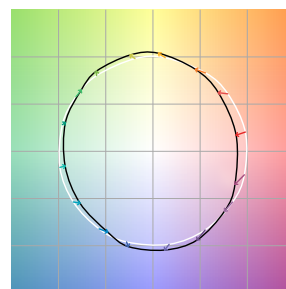
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-10%	-1%
2	80	-8%	7%
3	76	-3%	11%
4	85	3%	8%
5	92	5%	4%
6	91	4%	-3%
7	84	-1%	-9%
8	92	-3%	-3%
9	89	-6%	0%
10	87	-5%	5%
11	84	-2%	9%
12	86	4%	3%
13	88	5%	-6%
14	81	4%	-13%
15	78	-2%	-13%
16	80	-8%	-12%



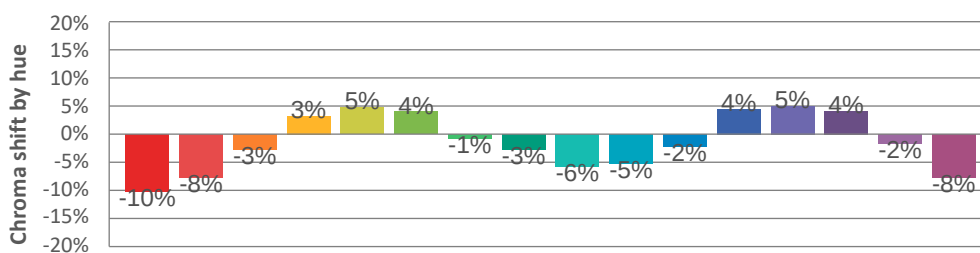
Hue binH



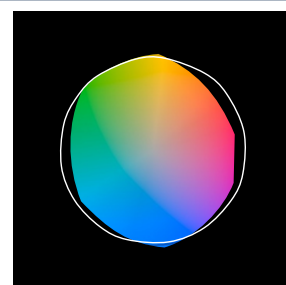
Color vector graphics



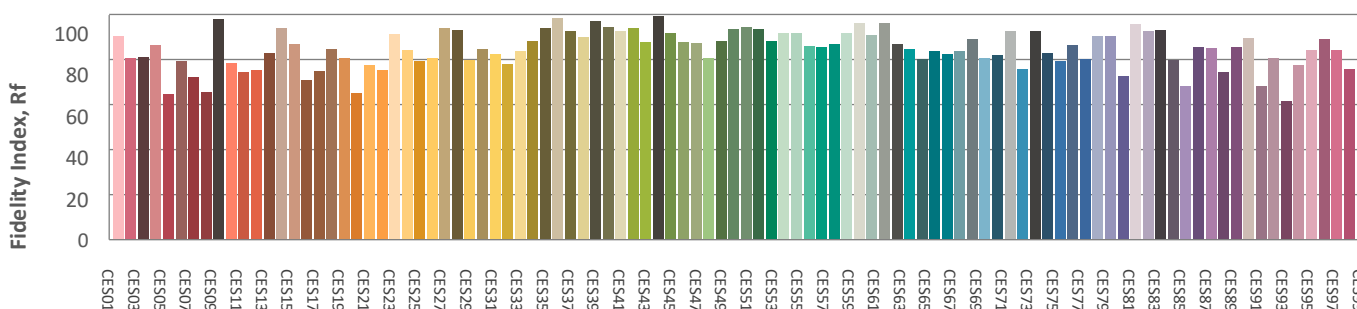
Hue bin



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	11,9	12,6	12,2	12,8	13,0	11,1	11,8	11,3	12,0	12,2
	3H	12,3	12,9	12,5	13,1	13,4	11,5	12,1	11,8	12,3	12,6
	4H	12,3	12,9	12,6	13,2	13,4	11,6	12,1	11,9	12,4	12,7
	6H	12,3	12,9	12,7	13,2	13,5	11,6	12,1	11,9	12,4	12,7
	8H	12,3	12,8	12,7	13,1	13,4	11,5	12,1	11,9	12,3	12,7
	12H	12,3	12,8	12,7	13,1	13,4	11,5	12,0	11,9	12,3	12,6
4H	2H	12,1	12,6	12,4	12,9	13,2	11,3	11,9	11,6	12,1	12,4
	3H	12,5	13,0	12,9	13,3	13,6	11,8	12,3	12,1	12,6	12,9
	4H	12,6	13,0	13,0	13,4	13,7	11,9	12,3	12,3	12,7	13,0
	6H	12,7	13,0	13,1	13,4	13,8	11,9	12,3	12,3	12,7	13,1
	8H	12,7	13,0	13,1	13,4	13,8	11,9	12,2	12,4	12,6	13,0
	12H	12,7	12,9	13,1	13,4	13,8	11,9	12,2	12,3	12,6	13,0
8H	4H	12,6	12,9	13,1	13,3	13,7	11,9	12,2	12,3	12,6	13,0
	6H	12,7	13,0	13,2	13,4	13,8	12,0	12,2	12,4	12,6	13,1
	8H	12,7	12,9	13,2	13,4	13,9	12,0	12,2	12,5	12,6	13,1
	12H	12,7	12,9	13,2	13,4	13,9	11,9	12,1	12,4	12,6	13,1
12H	4H	12,6	12,9	13,0	13,3	13,7	11,9	12,2	12,3	12,6	13,0
	6H	12,7	12,9	13,2	13,3	13,8	12,0	12,1	12,4	12,6	13,1
	8H	12,7	12,9	13,2	13,3	13,8	12,0	12,1	12,4	12,6	13,1
Variation of the observer position for the luminaire distance S											
S = 1,0H		+2,6 / -1,8					+2,5 / -1,6				
S = 1,5H		+4,7 / -2,5					+4,5 / -2,3				
S = 2,0H		+6,4 / -3,3					+6,3 / -3,0				
Standard table		BK02					BK02				
Correction summand		-5,1					-5,8				
Corrected glare indices referring to 5804lm total luminous flux											



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