

LM-79

Test Report

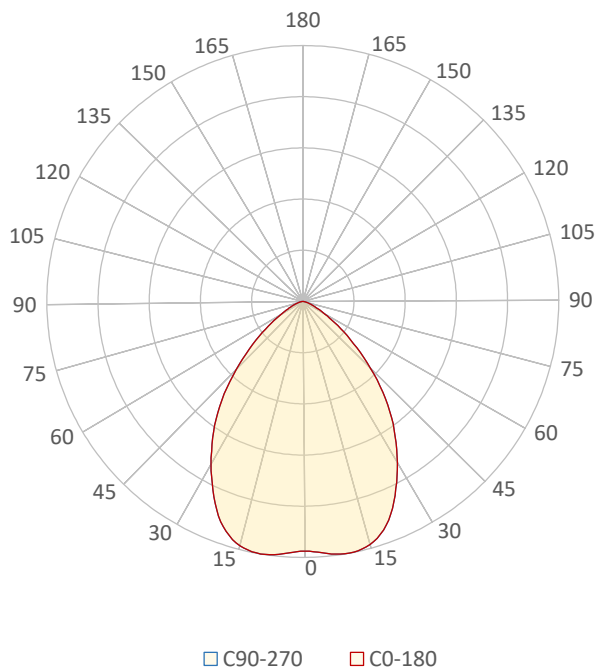
LM79-REVO-MICRO-BASIC-2200K-CRI80-80DEG

General Description

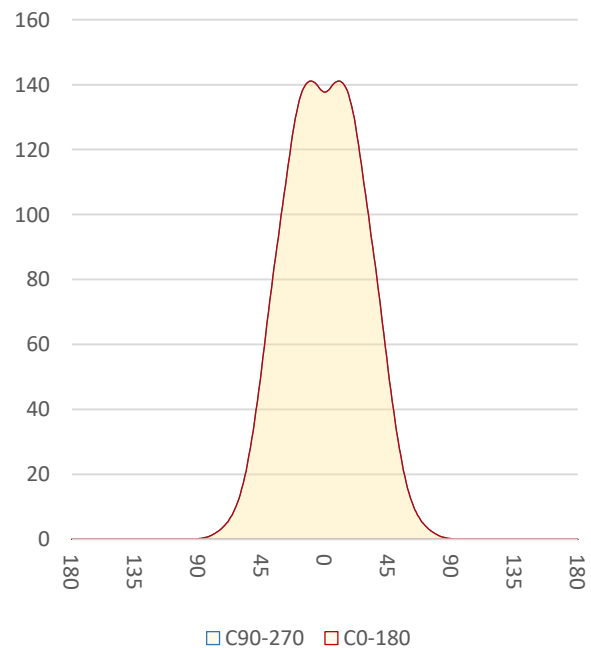
Item number	RM-X-X-10-6
Date and time	29-10-2021 10:31:44
CCT (Kelvin)	2185 K
Beam angle	79,9°
Luminous flux	235 lm
Efficiency	45 lm/watt
Weighted energy	5,2 kWh/1000h
Power factor	0,48
CRI (RA)	85,3
Fidelity index Rf	Rf 87,8
Gammut index Rg	Rg 95,5
Peak	141 cd



Polar diagram



Cartesian diagram



CLS LED BV
info@cls-led.com
www.cls-led.com

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Beam details	1m	2m	3m	4m	5m																			
Lux*	138 lx	34 lx	15 lx	9 lx	6 lx																			
*measured at center of beam																								
Footcandles*	12,8 fcd	3,2 fcd	1,4 fcd	0,8 fcd	0,5 fcd																			
Beam width (meter)	1,7 m	3,3 m	5 m	6,7 m	8,4 m																			
Beam width (Feet)	5,5 ft	11 ft	16,5 ft	22 ft	27,5 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
138lx	34lx	15lx	9lx	6lx	4lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx					
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					
12,8fcd	3,2fcd	1,4fcd	0,8fcd	0,5fcd	0,4fcd	0,3fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0fcd	0fcd	0fcd	0fcd	0fcd					
Intensities in 0° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
138	140	141	139	132	118	103	87	70	52	36	23	14	8	5	3	1	1	0	0					
100%	101%	103%	101%	96%	86%	75%	63%	51%	38%	26%	17%	10%	6%	4%	2%	1%	0%	0%	0%					
Intensities in 90° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
138	140	141	139	132	118	103	87	70	52	36	23	14	8	5	3	1	1	0	0					
100%	101%	103%	101%	96%	86%	75%	63%	51%	38%	26%	17%	10%	6%	4%	2%	1%	0%	0%	0%					
Intensities in 180° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
138	140	141	139	132	118	103	87	70	52	36	23	14	8	5	3	1	1	0	0					
100%	101%	103%	101%	96%	86%	75%	63%	51%	38%	26%	17%	10%	6%	4%	2%	1%	0%	0%	0%					
Intensities in 270° c-plane																								
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°					
138	140	141	139	132	118	103	87	70	52	36	23	14	8	5	3	1	1	0	0					
100%	101%	103%	101%	96%	86%	75%	63%	51%	38%	26%	17%	10%	6%	4%	2%	1%	0%	0%	0%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
79,9°					120°					145,8°					94,8%					78,1%				



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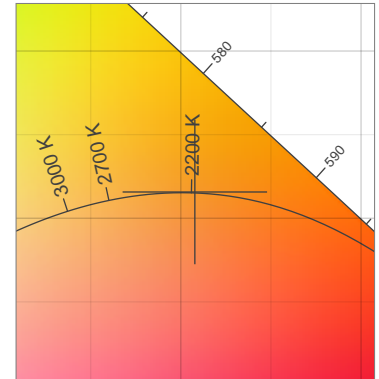
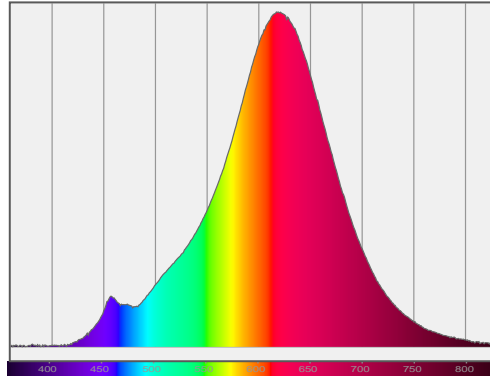
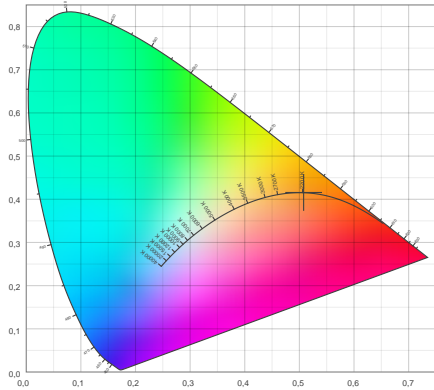
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Color details



CIE 1931

x: 0,508



Spectra

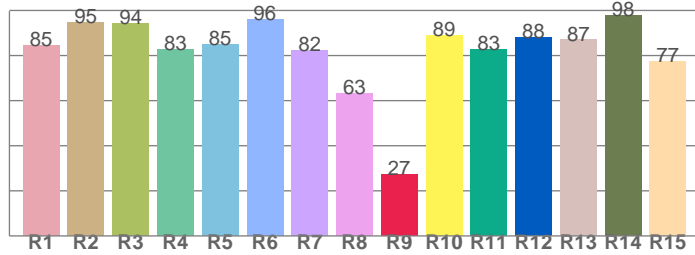
CIE 1931 ZOOM

2185 K

y: 0,416

Δuv : 0,0002

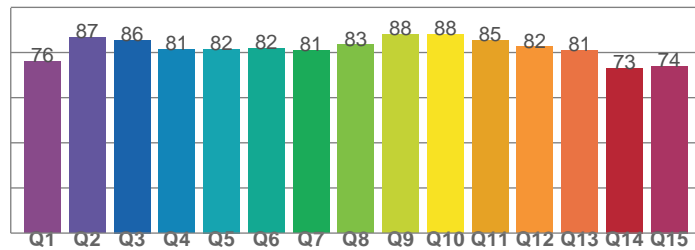
CRI: 85,3 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
84,5	94,8	94,1	82,6	84,9	96,2	82,5	63,1
R9	R10	R11	R12	R13	R14	R15	
27,4	88,8	82,9	88,2	86,9	97,7	77,3	

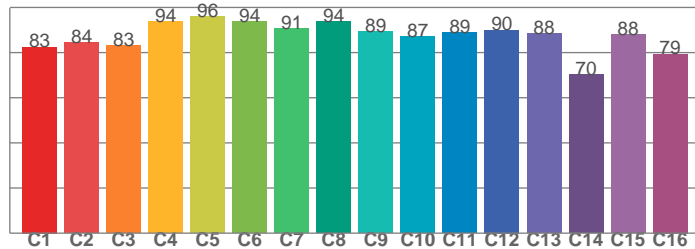
CQS: 81,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
76,0	86,6	85,5	81,3	81,6	81,7	80,9	83,4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
88,0	88,1	85,3	82,5	80,9	73,2	74,0	

TM30: 87,8



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

C1	C2	C3	C4	C5	C6	C7	C8
82,5	84,4	83,2	93,6	96,0	93,7	90,8	93,6
C9	C10	C11	C12	C13	C14	C15	
89,3	87,2	88,9	90,1	88,4	70,3	88,1	

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
2185 K	85,3	27,4	87,8	95,5	81,0	0,508	0,416	0,291	0,358	0,0002



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TM30 details

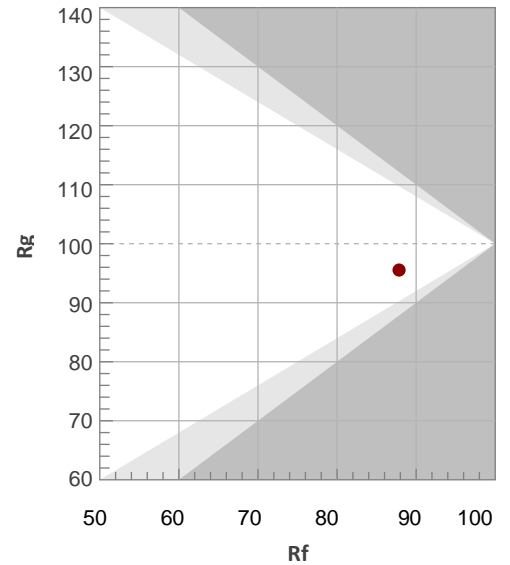
Rf 87,8

Fidelity index Rf

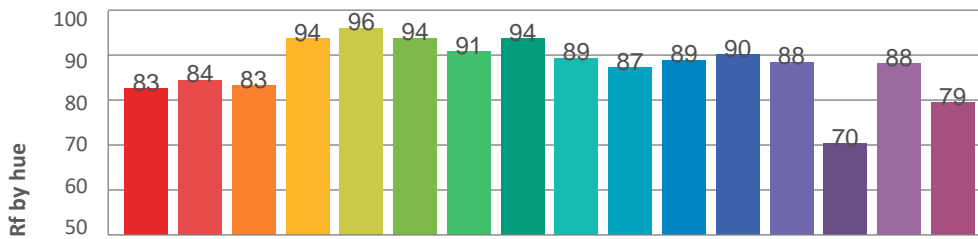
Rg 95,5

Gammut index Rg

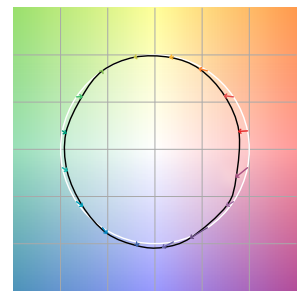
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	83	-9%	1%
2	84	-7%	6%
3	83	-3%	8%
4	94	-1%	3%
5	96	0%	2%
6	94	0%	0%
7	91	-5%	-4%
8	94	-4%	2%
9	89	-4%	4%
10	87	-3%	7%
11	89	2%	7%
12	90	4%	2%
13	88	4%	-12%
14	70	-1%	-21%
15	88	-4%	-7%
16	79	-10%	-12%



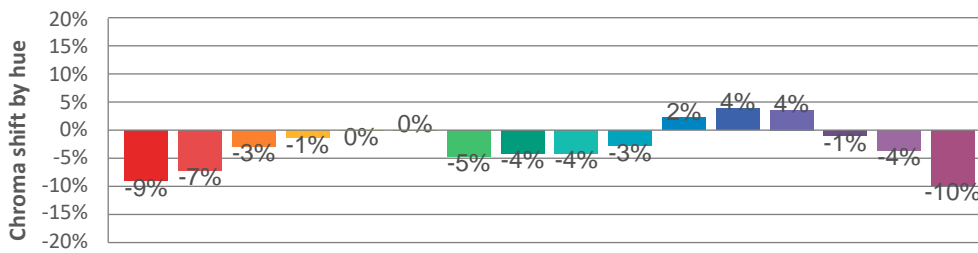
Hue binH



Color vector graphics



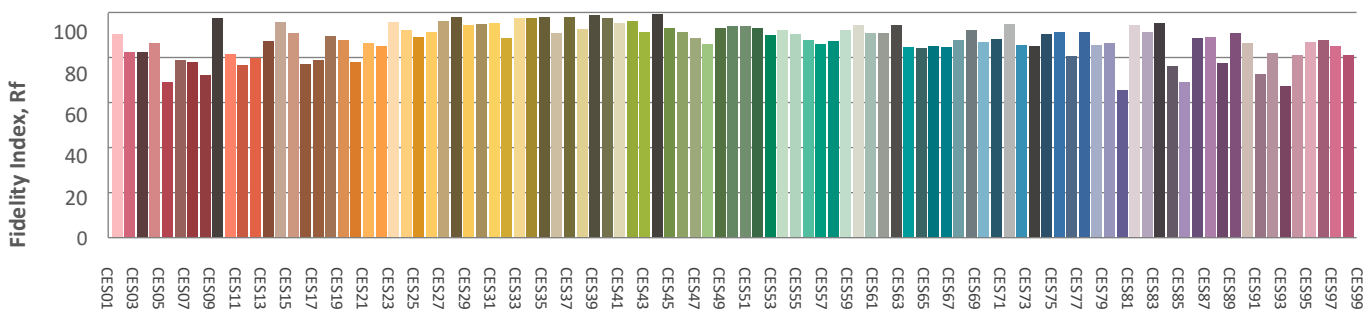
Hue bin



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	26,3	27,2	26,5	27,5	27,7	26,3	27,2	26,5	27,5	27,7
	3H	26,3	27,3	26,7	27,6	27,8	26,3	27,3	26,7	27,6	27,8
	4H	26,4	27,3	26,8	27,6	27,8	26,4	27,3	26,8	27,6	27,8
	6H	26,4	27,2	26,7	27,5	27,9	26,4	27,2	26,7	27,5	27,9
	8H	26,4	27,2	26,7	27,5	27,9	26,4	27,2	26,7	27,5	27,9
	12H	26,3	27,1	26,7	27,4	27,9	26,3	27,1	26,7	27,4	27,9
4H	2H	26,3	27,2	26,7	27,5	27,7	26,3	27,2	26,7	27,5	27,7
	3H	26,5	27,3	26,9	27,6	28,1	26,5	27,3	26,9	27,6	28,1
	4H	26,5	27,2	27,0	27,6	28,2	26,5	27,2	27,0	27,6	28,2
	6H	26,5	27,2	27,0	27,6	27,9	26,5	27,2	27,0	27,6	27,9
	8H	26,5	27,1	27,0	27,5	27,9	26,5	27,1	27,0	27,5	27,9
	12H	26,5	27,0	27,0	27,4	27,9	26,5	27,0	27,0	27,4	27,9
8H	4H	26,5	27,1	27,0	27,5	27,8	26,5	27,1	27,0	27,5	27,8
	6H	26,5	27,0	27,0	27,4	28,0	26,5	27,0	27,0	27,4	28,0
	8H	26,6	26,9	27,1	27,5	28,1	26,6	26,9	27,1	27,5	28,1
	12H	26,6	26,9	27,1	27,4	28,0	26,6	26,9	27,1	27,4	28,0
12H	4H	26,4	26,9	26,9	27,3	27,8	26,4	26,9	26,9	27,3	27,8
	6H	26,6	26,9	27,1	27,4	28,1	26,6	26,9	27,1	27,4	28,1
	8H	26,5	26,9	27,1	27,4	28,0	26,5	26,9	27,1	27,4	28,0
Variation of the observer position for the luminaire distance S											
S = 1.0H	0,6 / -1,3					0,6 / -1,3					
S = 1.5H	2,1 / -3,1					2,1 / -3,1					
S = 2.0H	3,6 / -4,5					3,6 / -4,5					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 235lm total luminous flux											