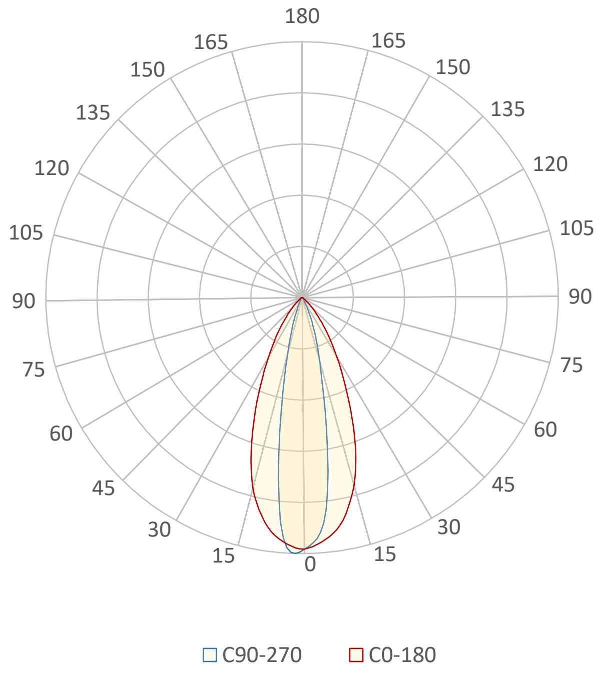
LM-79
Test Report

LM79-REVO-MICRO-BASIC-2200K-CRI80-20x42DEG

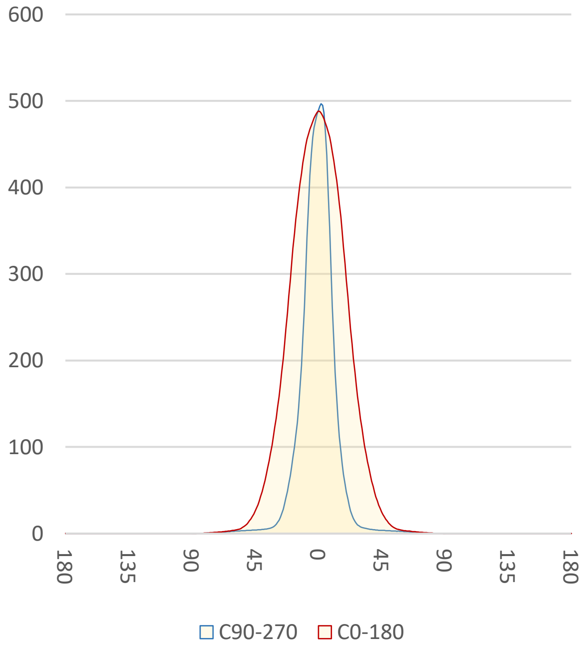
General Discription

Item number	RM-X-X-10-2
Date and time	29-10-2021 11:17:24
CCT (Kelvin)	2172 K
Beam angle	20,7 x 45,2°
Luminous flux	210 lm
Efficiency	41 lm/watt
Weighted energy	5,1 kWh/1000h
Power factor	0,48
CRI (RA)	85,9
Fidelity index Rf	Rf 87,9
Gammut index Rg	Rg 95,8
Peak	497 cd

Polar diagram



Cartesian diagram



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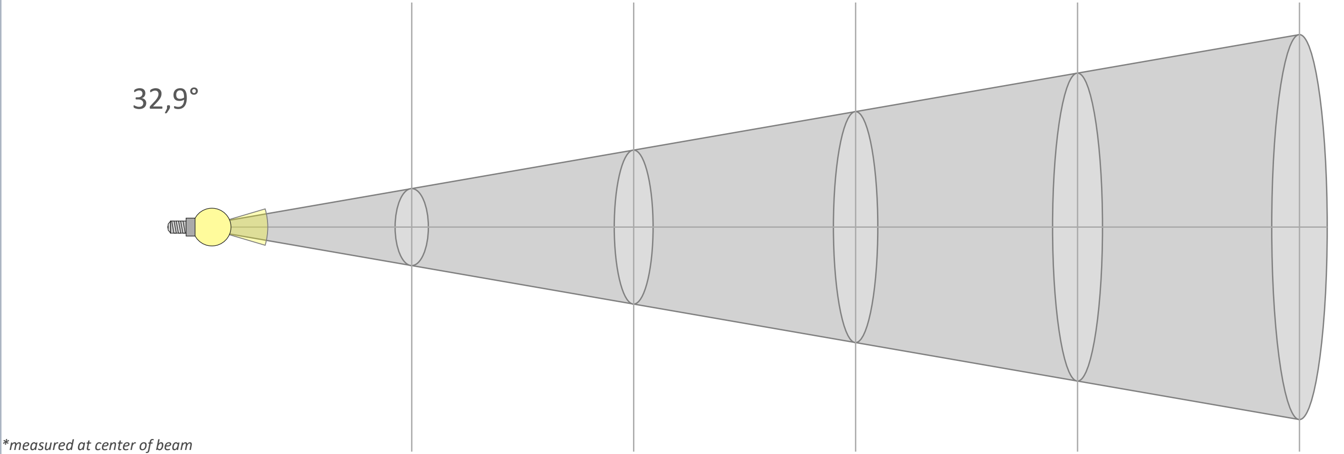
Beam details	**1m**	**2m**	**3m**	**4m**	**5m**
*Lux**	488 lx	122 lx	54 lx	31 lx	20 lx



**measured at center of beam*

*Footcandles**	45,4 fcd	11,3 fcd	5,0 fcd	2,8 fcd	1,8 fcd
Beam width (meter)	0,6 m	1,2 m	1,8 m	2,4 m	3 m
Beam width 90° (meter)	0,4 m	0,7 m	1,1 m	1,5 m	1,8 m
Beam width (Feet)	1,9 ft	3,9 ft	5,8 ft	7,8 ft	9,7 ft

Beam intensities

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
488lx	122lx	54lx	31lx	20lx	14lx	10lx	8lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx	1lx	1lx
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
45,4fcd	11,3fcd	5fcd	2,8fcd	1,8fcd	1,3fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd

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°
488	484	476	467	456	439	416	391	363	330	293	255	219	186	158	133	112	93	76	61
100%	99%	97%	96%	93%	90%	85%	80%	74%	68%	60%	52%	45%	38%	32%	27%	23%	19%	16%	13%

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°
488	477	457	414	342	261	194	146	113	88	67	49	34	23	15	11	8	6	6	5
100%	98%	94%	85%	70%	53%	40%	30%	23%	18%	14%	10%	7%	5%	3%	2%	2%	1%	1%	1%

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°
488	486	479	470	458	441	420	396	366	331	293	254	219	186	158	133	111	92	75	61
100%	100%	98%	96%	94%	90%	86%	81%	75%	68%	60%	52%	45%	38%	32%	27%	23%	19%	15%	12%

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°
488	497	486	437	353	263	186	132	95	68	48	32	21	14	10	8	7	6	5	5
100%	102%	100%	89%	72%	54%	38%	27%	19%	14%	10%	7%	4%	3%	2%	2%	1%	1%	1%	1%

Beam angle 50%	*Field angle 10%*	*Cutoff angle 2,5%*	*Intensity ratio in 120° cone*	*Intensity ratio in 90° cone*
32,9°	60,7°	78°	98,3%	94,1%

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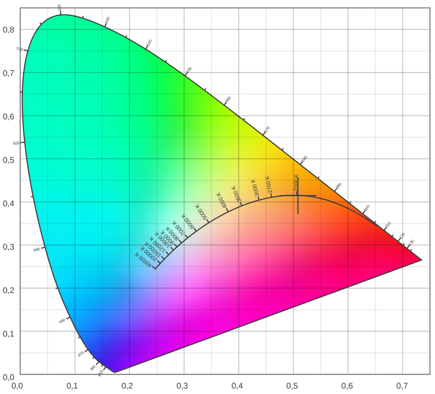
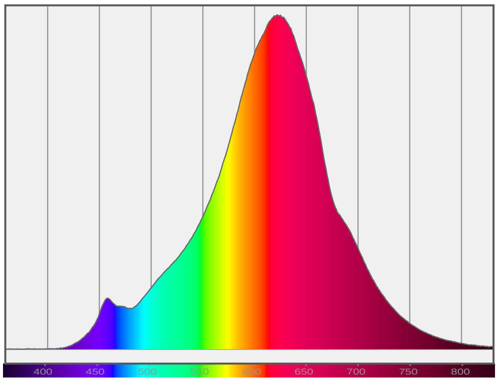
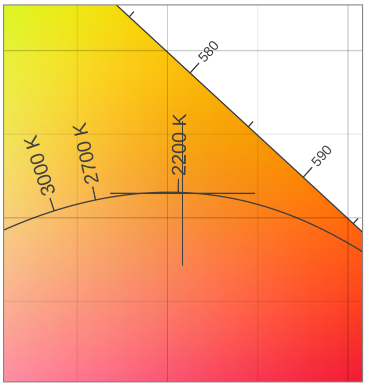
Color details

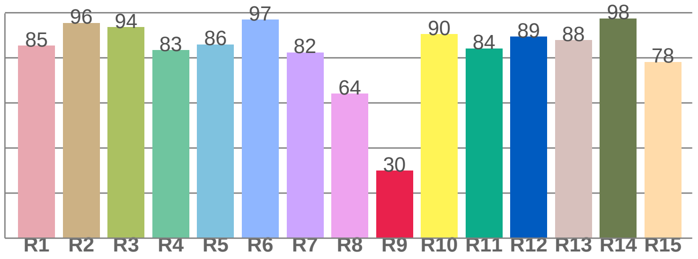






CIE 1931	x: 0,508	🟨	Spectra	*CIE 1931 ZOOM*
2172 K	y: 0,415			Δuv: -0,0002

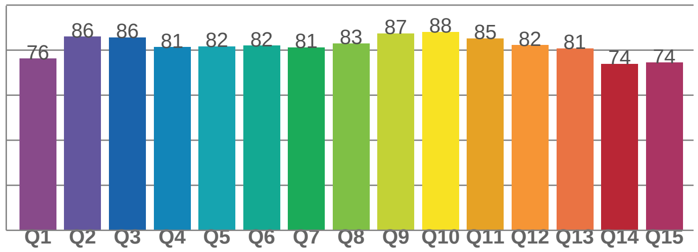
CRI: **85,9** (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
85,4	**95,5**	**93,6**	**83,4**	**86,0**	**97,0**	**82,4**	**64,1**
R9	R10	R11	R12	R13	R14	R15	
29,9	**90,5**	**84,1**	**89,4**	**87,9**	**97,5**	**78,2**	

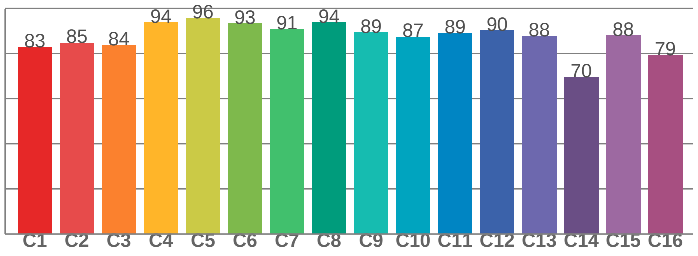
CQS: **81,1**



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
76,2	**86,0**	**85,7**	**81,4**	**81,7**	**82,0**	**81,3**	**83,1**
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
87,4	**88,1**	**85,2**	**82,2**	**80,8**	**74,0**	**74,5**	

TM30: **87,9**



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

C1	C2	C3	C4	C5	C6	C7	C8
82,9	**84,8**	**83,8**	**93,8**	**95,8**	**93,3**	**91,0**	**93,8**
C9	C10	C11	C12	C13	C14	C15	
89,3	**87,5**	**89,0**	**90,3**	**87,7**	**69,6**	**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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2172 K	**85,9**	**29,9**	**87,9**	**95,8**	**81,1**	**0,508**	**0,415**	**0,292**	**0,357**	**-0,0002**

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TM30 details

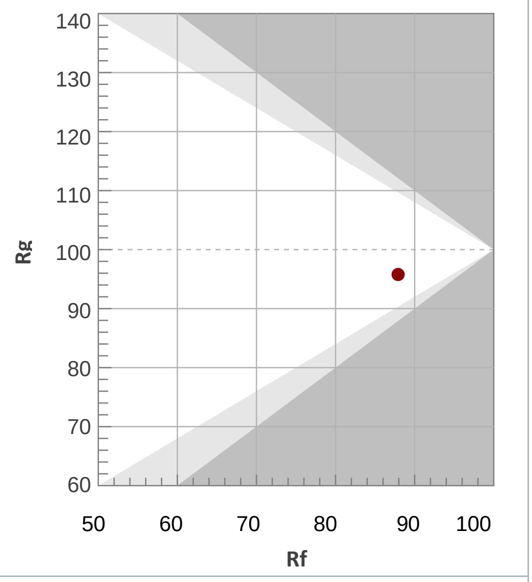
Rf 87,9

Fidelity index Rf

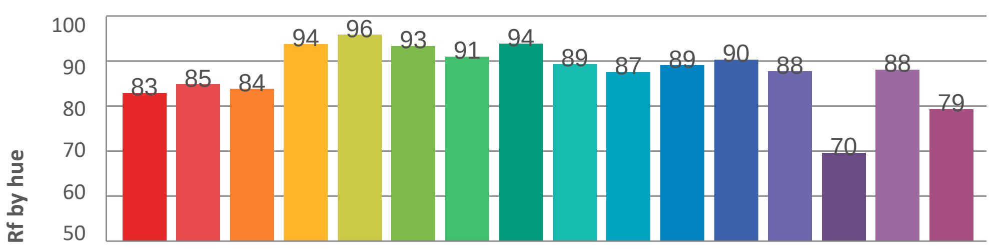
Rg 95,8

Gammut index Rg

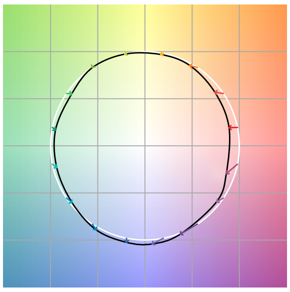
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	83	-9%	2%
2	85	-7%	6%
3	84	-3%	8%
4	94	-2%	3%
5	96	0%	2%
6	93	0%	0%
7	91	-5%	-3%
8	94	-4%	2%
9	89	-4%	4%
10	87	-2%	7%
11	89	3%	7%
12	90	4%	1%
13	88	4%	-13%
14	70	-1%	-21%
15	88	-4%	-7%
16	79	-10%	-12%



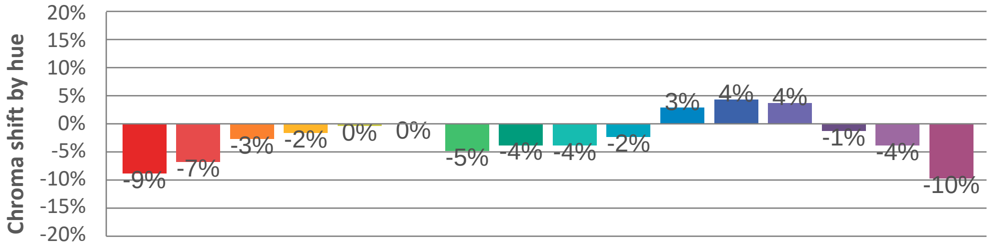
Hue binH



Color vector graphics

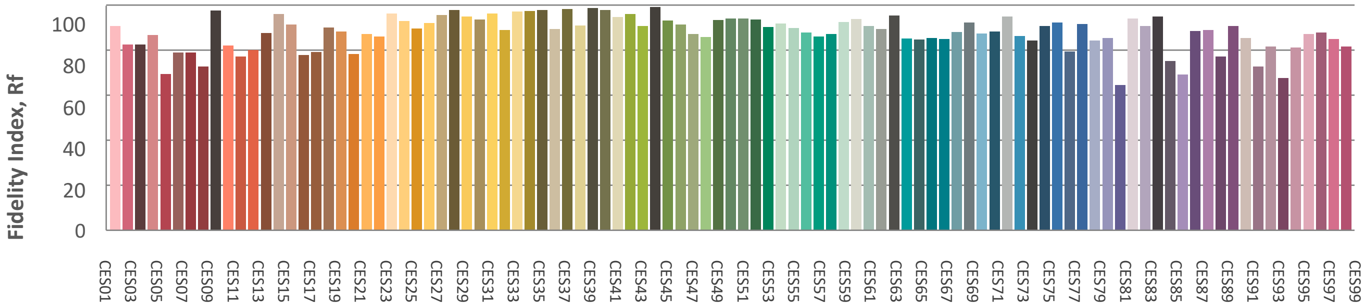


Hue bin



Color distortion graphics

Color Evaluation Sample



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
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
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 210lm total luminous flux										