

LM-79

Test Report

LM79-REVO-COMPACT-amber-DEG8

General Discription

Item number	RC-1-X-31-5
Date and time	5-8-2016 12:04:14
CCT (Kelvin)	1827 K
Beam angle	10,4°
Luminous flux	504 lm
Efficiency	47 lm/watt
Weighted energy	10,7 kWh/1000h
Power factor	0,96
CRI (RA)	38,0
Fidelity index Rf	Rf 35,5
Gammut index Rg	Rg 40,4



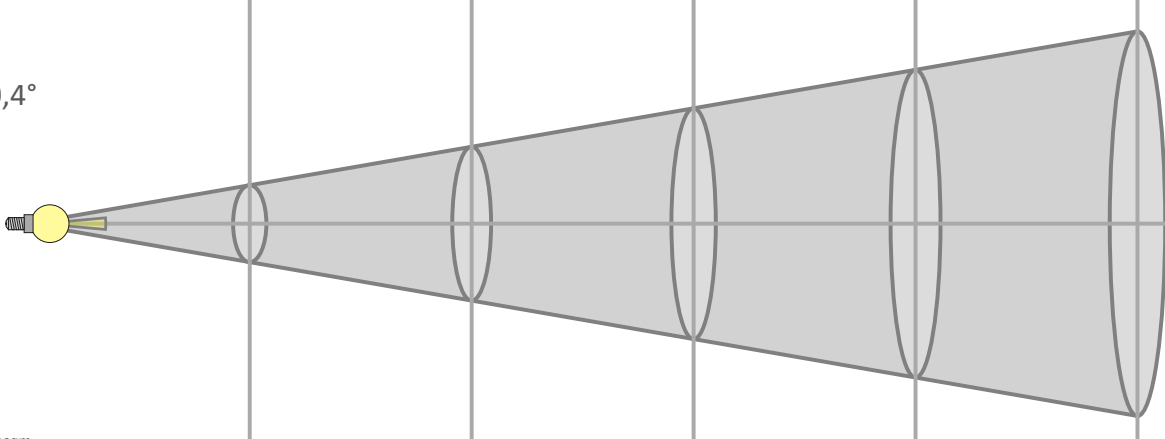
CLS LED BV
info@cls-led.com
www.cls-led.com

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-COMPACT-amber-DEG8

Beam details					1m		2m		3m		4m		5m						
Lux*					9623 lx		2406 lx		1069 lx		601 lx		385 lx						
10,4° 																			
*measured at center of beam																			
Footcandles*					894,0 fcd		223,5 fcd		99,3 fcd		55,9 fcd		35,8 fcd						
Beam width (meter)					0,2 m		0,4 m		0,5 m		0,7 m		0,9 m						
Beam width (Feet)					0,6 ft		1,2 ft		1,8 ft		2,4 ft		3 ft						
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
9623lx	2406lx	1069lx	601lx	385lx	267lx	196lx	150lx	119lx	96lx	80lx	67lx	57lx	49lx	43lx	38lx	33lx	30lx	27lx	24lx
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
894fcd	223,5fcd	99,3fcd	55,9fcd	35,8fcd	24,8fcd	18,2fcd	14fcd	11fcd	8,9fcd	7,4fcd	6,2fcd	5,3fcd	4,6fcd	4fcd	3,5fcd	3,1fcd	2,8fcd	2,5fcd	2,2fcd
Intensities in 0° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9623	8822	7802	6782	5763	4770	4020	3294	2569	1843	1234	1020	812	604	396	232	199	166	133	100
100%	92%	81%	70%	60%	50%	42%	34%	27%	19%	13%	11%	8%	6%	4%	2%	2%	2%	1%	1%
Intensities in 90° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9623	9172	8187	7202	6217	5222	4338	3551	2764	1976	1436	1128	898	668	438	289	226	189	151	114
100%	95%	85%	75%	65%	54%	45%	37%	29%	21%	15%	12%	9%	7%	5%	3%	2%	2%	2%	1%
Intensities in 180° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9623	8822	7802	6782	5763	4770	4020	3294	2569	1843	1234	1020	812	604	396	232	199	166	133	100
100%	92%	81%	70%	60%	50%	42%	34%	27%	19%	13%	11%	8%	6%	4%	2%	2%	2%	1%	1%
Intensities in 270° c-plane																			
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
9623	9172	8187	7202	6217	5222	4338	3551	2764	1976	1436	1128	898	668	438	289	226	189	151	114
100%	95%	85%	75%	65%	54%	45%	37%	29%	21%	15%	12%	9%	7%	5%	3%	2%	2%	2%	1%
Beam angle 50%				Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone			
10,4°				23°				{C_ANG}°				98,5%				97,6%			



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

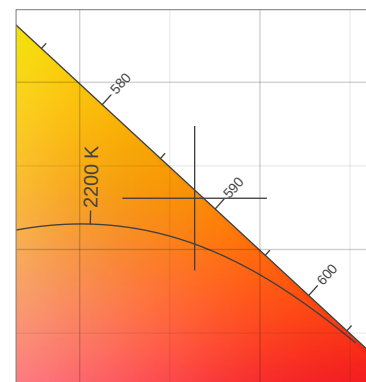
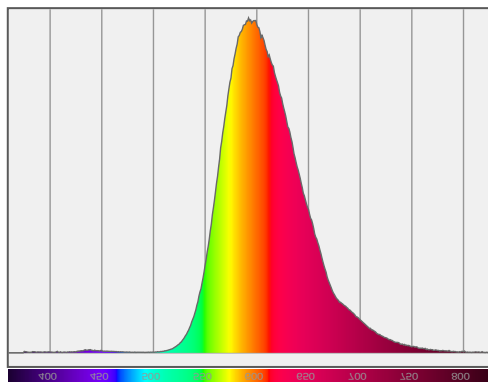
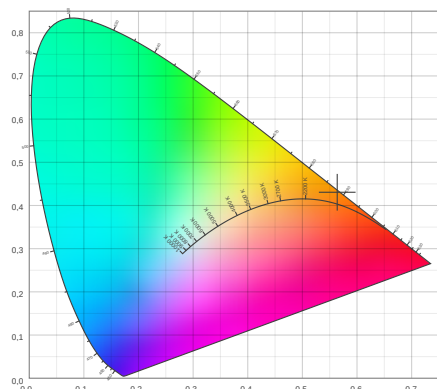
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-COMPACT-amber-DEG8

Color details



CIE 1931

x: 0,564



Spectra

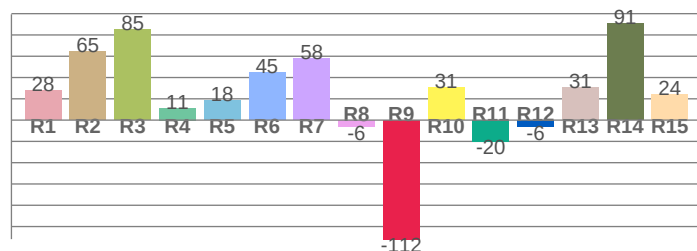
CIE 1931 ZOOM

1827 K

y: 0,431

Δuv : 0,0069

CRI: 38,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8
28,1	64,7	85,2	11,4	18,3	44,9	57,9	-6,3
R9	R10	R11	R12	R13	R14	R15	
-111,8	30,7	-19,8	-5,9	31,0	90,9	24,3	

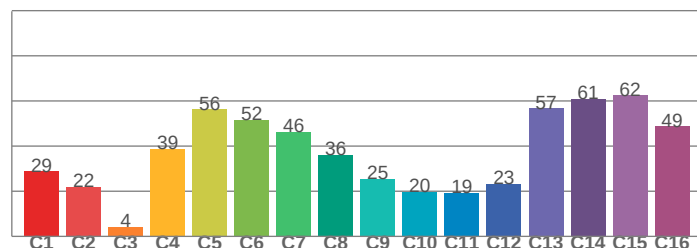
CQS: 0,0



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
0,0	51,9	43,6	2,3	0,1	0,0	0,0	0,0
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
0,0	0,0	0,0	0,0	0,0	0,0	0,0	

TM30: 35,5



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

C1	C2	C3	C4	C5	C6	C7	C8
28,7	21,8	4,1	38,6	56,2	51,6	46,4	36,2
C9	C10	C11	C12	C13	C14	C15	
25,4	19,6	19,2	23,2	56,7	60,9	62,5	

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
1827 K	38,0	-111,8	35,5	40,4	0,0	0,564	0,431	0,320	0,367	0,0069



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

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

LM-79

Test Report

LM79-REVO-COMPACT-amber-DEG8

TM30 details

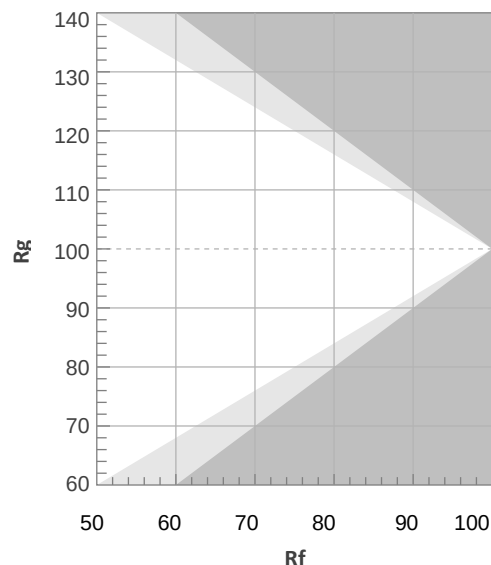
Rf 35,5

Fidelity index Rf

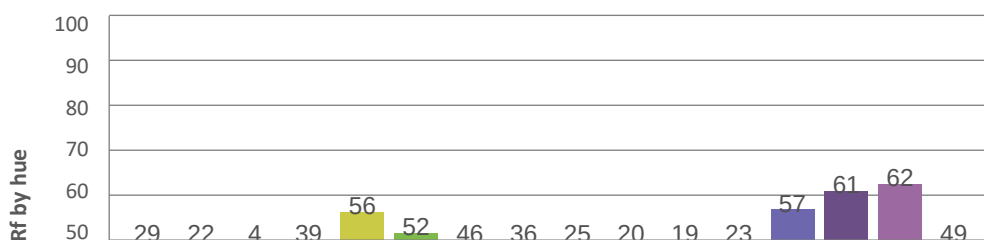
Rg 40,4

Gamut index Rg

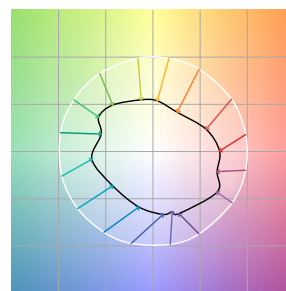
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	29	-31%	-12%
2	22	-40%	-12%
3	4	-51%	-6%
4	39	-46%	3%
5	56	-44%	5%
6	52	-35%	7%
7	46	-32%	1%
8	36	-43%	-7%
9	25	-35%	-11%
10	20	-44%	1%
11	19	-43%	16%
12	23	-37%	27%
13	57	-33%	9%
14	61	-30%	-6%
15	62	-20%	0%
16	49	-29%	-7%



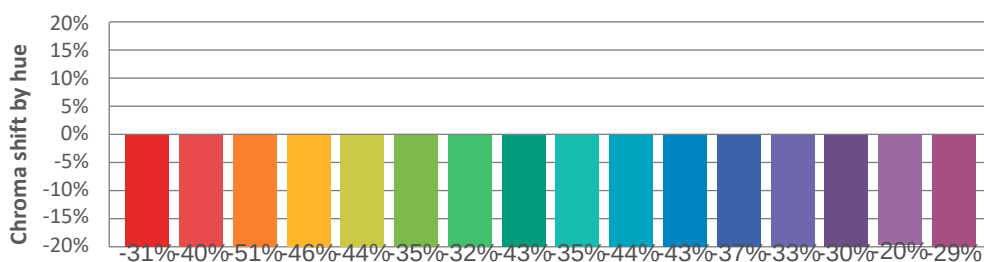
Hue binH



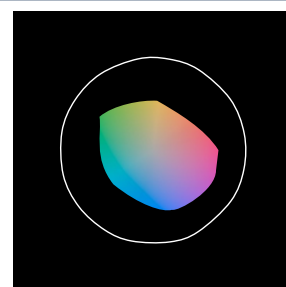
Color vector graphics



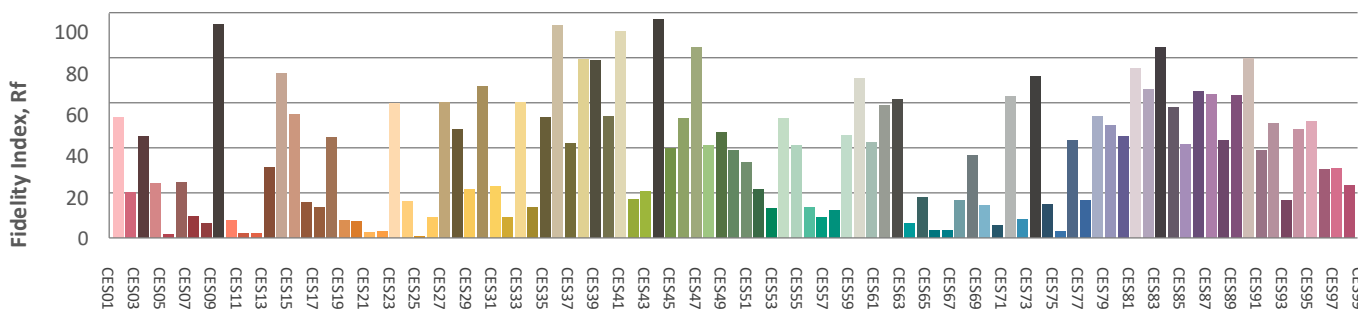
Hue bin



Color distortion graphics



Color Evaluation Sample



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

2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document. No part of this document may be reproduced, in any form or by any means, without permission in writing from CLS-LED BV. Other legal information can be found in our General conditions, found on the back of your CLS-LED BV invoice, inside the CLS catalogue or on our website www.cls-led.com/voorwaarden.pdf

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	4,3	4,9	4,5	5,1	5,3	4,7	5,4	5,0	5,6	5,8
	3H	5,0	5,6	5,3	5,8	6,1	5,6	6,2	5,9	6,4	6,7
	4H	5,8	6,3	6,1	6,6	6,8	6,1	6,6	6,4	6,9	7,2
	6H	6,3	6,8	6,6	7,1	7,4	6,5	7,0	6,8	7,3	7,6
	8H	6,5	7,0	6,9	7,3	7,6	6,7	7,2	7,1	7,5	7,8
	12H	6,9	7,4	7,3	7,7	8,0	7,1	7,5	7,4	7,8	8,2
4H	2H	4,6	5,2	4,9	5,4	5,7	5,0	5,6	5,3	5,8	6,1
	3H	5,6	6,1	6,0	6,4	6,8	6,1	6,6	6,5	6,9	7,2
	4H	6,6	7,0	7,0	7,3	7,7	6,8	7,2	7,2	7,5	7,9
	6H	7,2	7,6	7,6	7,9	8,3	7,4	7,7	7,8	8,1	8,5
	8H	7,6	7,9	8,0	8,3	8,7	7,7	8,0	8,1	8,4	8,8
	12H	8,1	8,4	8,6	8,8	9,2	8,2	8,4	8,6	8,8	9,3
8H	4H	6,9	7,2	7,3	7,6	8,0	7,1	7,3	7,5	7,7	8,2
	6H	7,7	7,9	8,2	8,3	8,8	7,8	8,0	8,2	8,4	8,9
	8H	8,2	8,4	8,7	8,8	9,3	8,3	8,5	8,8	8,9	9,4
	12H	8,9	9,1	9,4	9,5	10,1	8,9	9,1	9,4	9,5	10,1
12H	4H	6,9	7,1	7,3	7,6	8,0	7,1	7,3	7,5	7,7	8,2
	6H	7,8	8,0	8,3	8,4	8,9	7,9	8,1	8,4	8,5	9,0
	8H	8,4	8,5	8,9	9,0	9,5	8,5	8,6	9,0	9,1	9,6

Variation of the observer position for the luminaire distance S

S = 1,0H	+0,5 / -0,4	+0,6 / -0,4
S = 1,5H	+1,1 / -0,7	+1,3 / -0,7
S = 2,0H	+2,0 / -1,3	+2,4 / -1,1
Standard table	BK06	BK05
Correction summand	-9,1	-9,3

Corrected glare indices referring to 504lm total luminous flux

