

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-AMBER- DEG12x46

General Discription

Item number	RC-I-2-31-2
Date and time	5-8-2016 12:22:18
CCT (Kelvin)	1830 K
Beam angle	30,3°
Luminous flux	771 lm
Efficiency	72 lm/watt
Weighted energy	10,7 kWh/1000h
Power factor	0,96
CRI (RA)	37,8
Fidelity index Rf	Rf 36,6
Gammut index Rg	Rg 41,7



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-INGROUND-AMBER- DEG12x46

Beam details	1m	2m	3m	4m	5m
Lux*	2143 lx	536 lx	238 lx	134 lx	86 lx

30,3°

*measured at center of beam

Footcandles*	199,1 fcd	49,8 fcd	22,1 fcd	12,4 fcd	8,0 fcd
Beam width (meter)	0,5 m	1,1 m	1,6 m	2,2 m	2,7 m
Beam width (Feet)	1,8 ft	3,6 ft	5,3 ft	7,1 ft	8,9 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
2143lx	536lx	238lx	134lx	86lx	60lx	44lx	33lx	26lx	21lx	18lx	15lx	13lx	11lx	10lx	8lx	7lx	7lx	6lx	5lx
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
199,1fcd	49,8fcd	22,1fcd	12,4fcd	8fcd	5,5fcd	4,1fcd	3,1fcd	2,5fcd	2fcd	1,6fcd	1,4fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd

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°
2143	2144	2145	2083	2037	1984	1904	1817	1718	1558	1397	1221	1050	883	711	551	433	317	232	179
100%	100%	100%	97%	95%	93%	89%	85%	80%	73%	65%	57%	49%	41%	33%	26%	20%	15%	11%	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°
2143	2028	1650	1194	797	503	289	170	99	64	48	36	28	23	19	17	15	13	12	11
100%	95%	77%	56%	37%	23%	13%	8%	5%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%

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°
2143	2144	2145	2083	2037	1984	1904	1817	1718	1558	1397	1221	1050	883	711	551	433	317	232	179
100%	100%	100%	97%	95%	93%	89%	85%	80%	73%	65%	57%	49%	41%	33%	26%	20%	15%	11%	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°
2143	2028	1650	1194	797	503	289	170	99	64	48	36	28	23	19	17	15	13	12	11
100%	95%	77%	56%	37%	23%	13%	8%	5%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30,3°	49,7°	{C_ANG}°	98,5%	96,4%



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

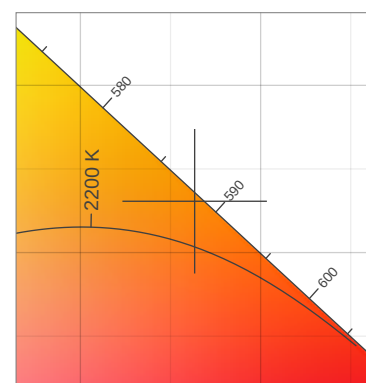
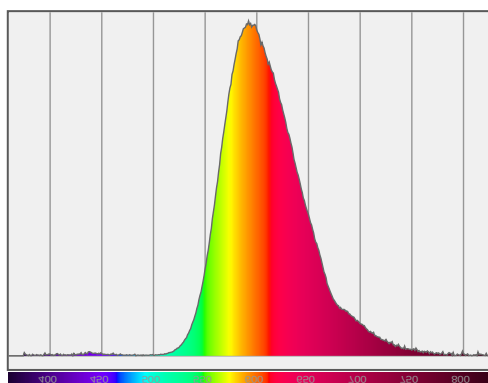
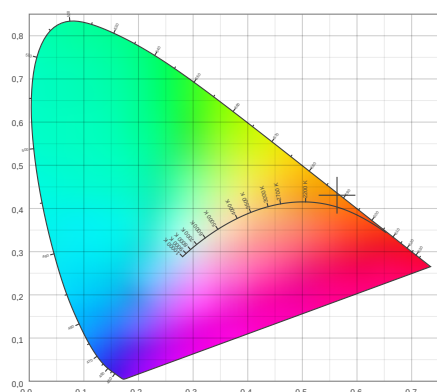
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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-INGROUND-AMBER- DEG12x46

Color details



CIE 1931

x: 0,563



Spectra

CIE 1931 ZOOM

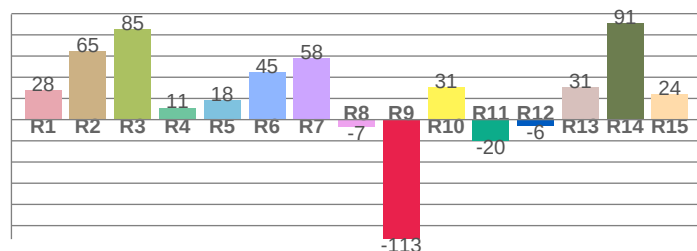
1830 K

y: 0,431

Δuv : 0,0069

CRI: 37,8 (R1-R8)

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



R1	R2	R3	R4	R5	R6	R7	R8
27,9	64,6	85,0	11,2	18,1	44,9	57,6	-6,8
R9	R10	R11	R12	R13	R14	R15	
-112,8	30,6	-20,0	-5,9	30,8	90,8	24,0	

CQS: 0,0

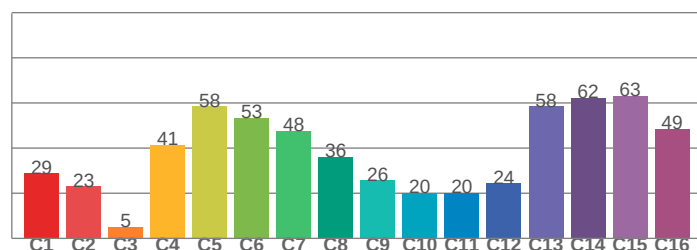
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
0,0	52,4	43,8	2,5	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: 36,6

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



C1	C2	C3	C4	C5	C6	C7	C8
28,8	22,9	5,2	41,3	58,5	53,4	47,5	36,1
C9	C10	C11	C12	C13	C14	C15	
25,6	20,1	20,0	24,3	58,5	62,1	63,2	

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
1830 K	37,8	-112,8	36,6	41,7	0,0	0,563	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-INGROUND-AMBER-DEG12x46

TM30 details

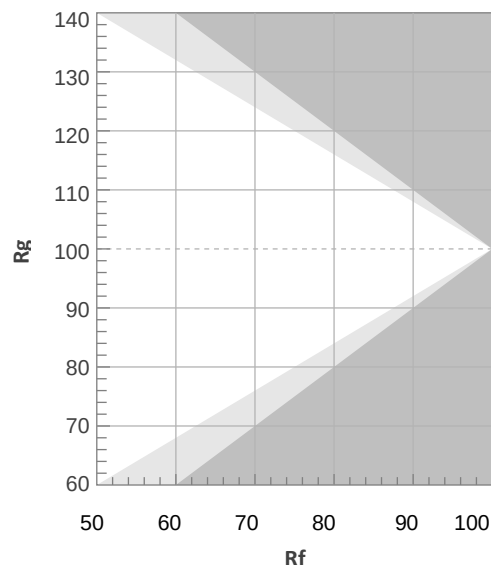
Rf 36,6

Fidelity index Rf

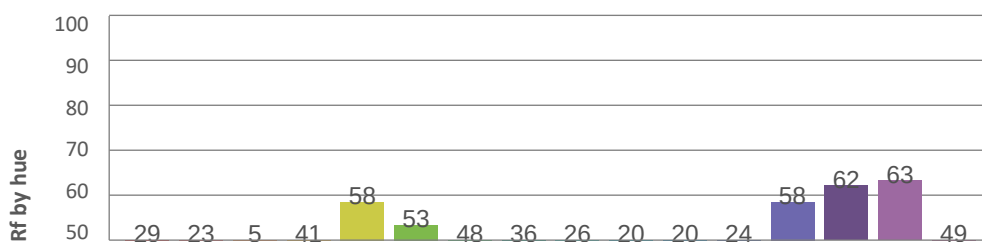
Rg 41,7

Gamut index Rg

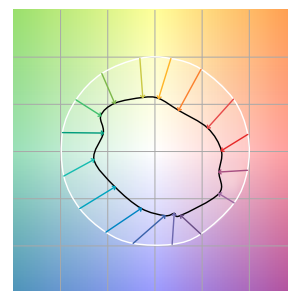
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	29	-31%	-11%
2	23	-40%	-10%
3	5	-50%	-4%
4	41	-44%	5%
5	58	-41%	5%
6	53	-34%	6%
7	48	-31%	-1%
8	36	-43%	-8%
9	26	-35%	-11%
10	20	-44%	2%
11	20	-42%	17%
12	24	-35%	27%
13	58	-32%	9%
14	62	-28%	-7%
15	63	-19%	-1%
16	49	-29%	-8%



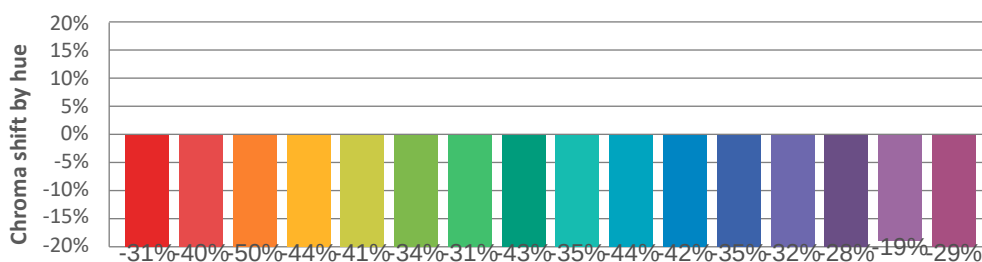
Hue binH



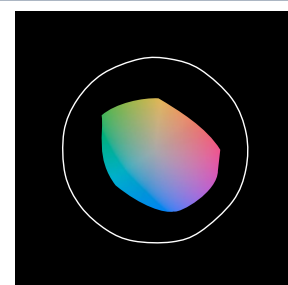
Color vector graphics



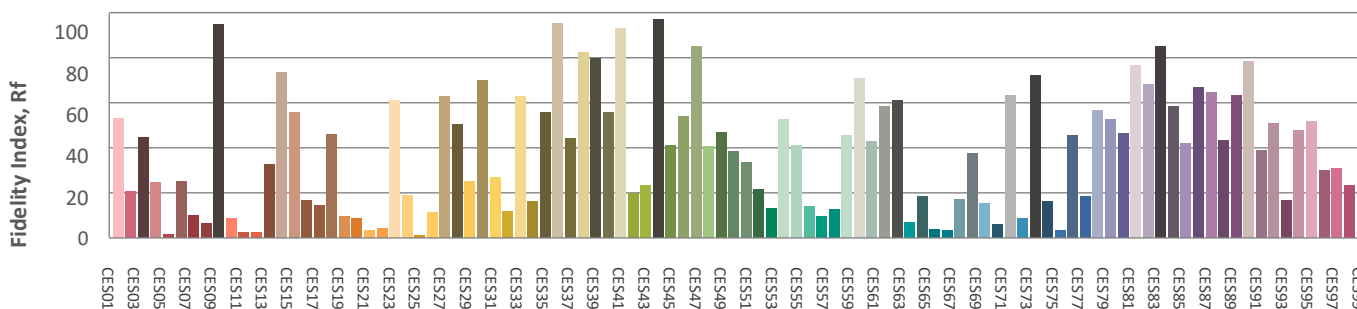
Hue bin



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

LM-79

Test Report

LM79-REVO-COMPACT-INGROUND-AMBER- DEG12x46

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	19,8	20,5	20,1	20,7	20,9	12,4	13,1	12,7	13,3	13,5
	3H	19,7	20,4	20,0	20,6	20,8	12,6	13,2	12,9	13,4	13,7
	4H	19,7	20,3	20,0	20,5	20,8	12,6	13,2	13,0	13,5	13,8
	6H	19,6	20,2	20,0	20,5	20,8	12,7	13,2	13,0	13,5	13,8
	8H	19,6	20,1	20,0	20,4	20,7	12,7	13,2	13,0	13,5	13,8
	12H	19,6	20,1	19,9	20,4	20,7	12,7	13,2	13,1	13,5	13,8
4H	2H	19,6	20,2	19,9	20,5	20,8	12,5	13,1	12,8	13,3	13,6
	3H	19,6	20,0	19,9	20,4	20,7	12,7	13,2	13,1	13,5	13,8
	4H	19,5	20,0	19,9	20,3	20,6	12,9	13,3	13,2	13,6	14,0
	6H	19,5	19,8	19,9	20,2	20,6	12,9	13,3	13,3	13,7	14,0
	8H	19,5	19,8	19,9	20,2	20,6	13,0	13,3	13,4	13,7	14,1
	12H	19,4	19,7	19,9	20,1	20,6	13,1	13,3	13,5	13,7	14,2
8H	4H	19,4	19,7	19,9	20,1	20,6	12,9	13,2	13,3	13,6	14,0
	6H	19,4	19,6	19,9	20,1	20,5	13,0	13,2	13,5	13,7	14,1
	8H	19,4	19,6	19,8	20,0	20,5	13,1	13,3	13,6	13,7	14,2
	12H	19,3	19,5	19,8	20,0	20,5	13,2	13,4	13,7	13,8	14,4
12H	4H	19,4	19,7	19,8	20,1	20,5	12,9	13,1	13,3	13,5	14,0
	6H	19,4	19,5	19,8	20,0	20,5	13,0	13,2	13,5	13,6	14,1
	8H	19,3	19,5	19,8	20,0	20,5	13,1	13,3	13,6	13,7	14,2

Variation of the observer position for the luminaire distance S

S = 1,0H	+5,4 / -7,1	+3,7 / -2,8
S = 1,5H	+8,2 / -8,1	+5,2 / -3,2
S = 2,0H	+10,1 / -9,0	+7,0 / -3,9
Standard table	BK00	BK01
Correction summand	1,3	-5,0

Corrected glare indices referring to 771lm total luminous flux



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