

LM-79

Test Report

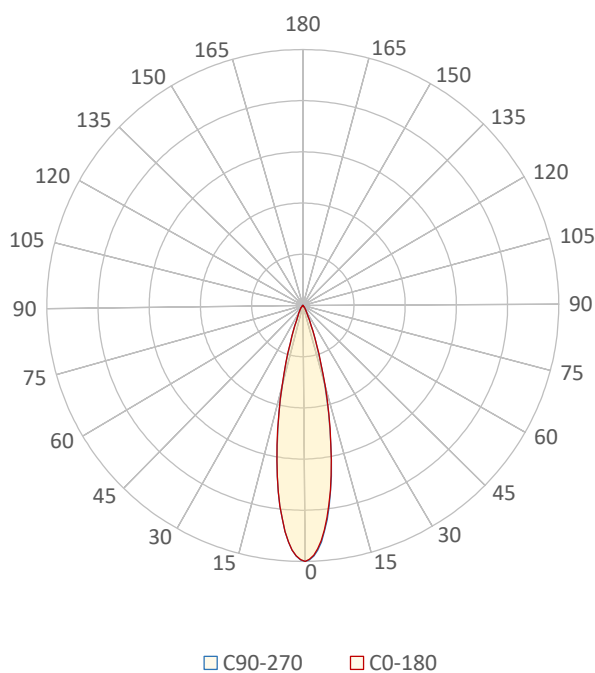
LM79-CLS-JADE-HD-3000K-CRI95-MEDIUM [DIFFUSER]

General Discription

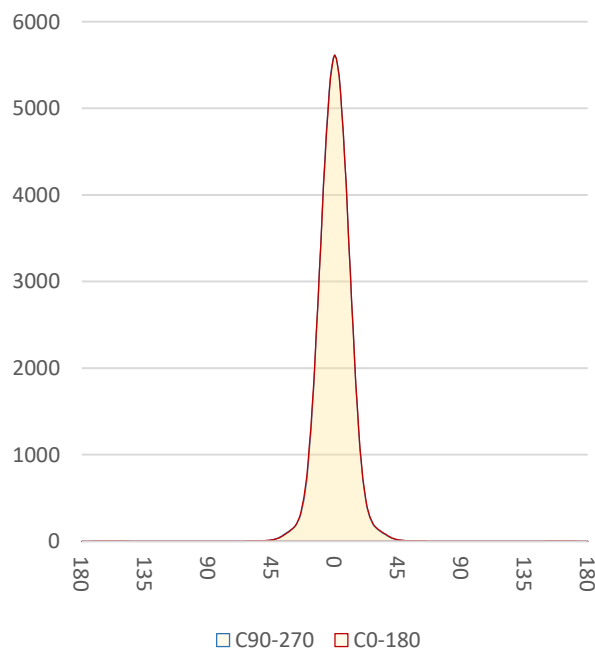
Item number	
Date and time	28-4-2020 15:22:37
CCT (Kelvin)	3040 K
Beam angle	23,6°
Luminous flux	1142 lm
Efficiency	48 lm/watt
Weighted energy	23,8 kWh/1000h
Power factor	0,96
CRI (RA)	96,7
Fidelity index Rf	Rf 94,6
Gammut index Rg	Rg 104,1
Peak	5625 cd



Polar diagram



Cartesian diagram



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

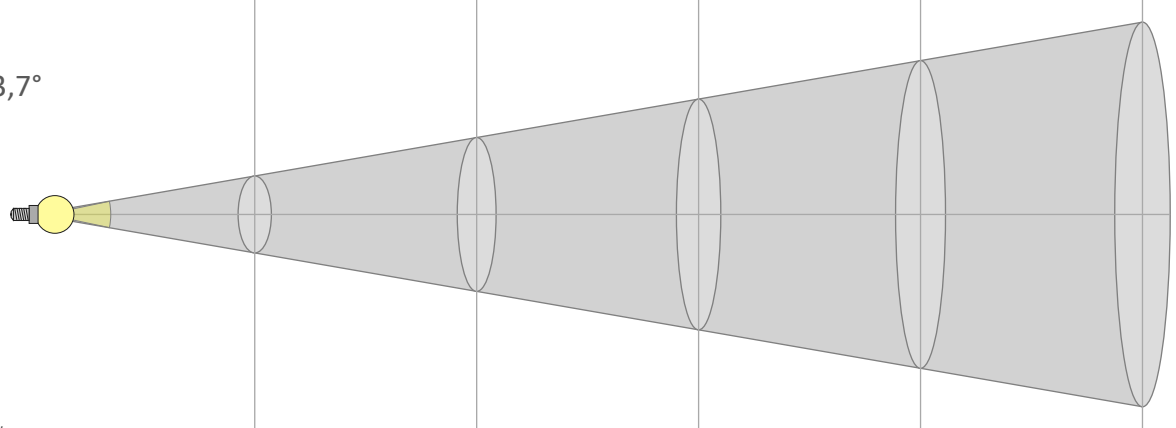
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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-CLS-JADE-HD-3000K-CRI95-MEDIUM [DIFFUSER]

Beam details		1m	2m	3m	4m	5m
Lux*		5615 lx	1404 lx	624 lx	351 lx	225 lx



23,7°

*measured at center of beam

Footcandles*	521,7 fcd	130,4 fcd	58,0 fcd	32,6 fcd	20,9 fcd
Beam width (meter)	0,4 m	0,8 m	1,3 m	1,7 m	2,1 m
Beam width (Feet)	1,4 ft	2,8 ft	4,1 ft	5,5 ft	6,9 ft

Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
5615lx	1404lx	624lx	351lx	225lx	156lx	115lx	88lx	69lx	56lx	46lx	39lx	33lx	29lx	25lx	22lx	19lx	17lx	16lx	14lx
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
521,7fcd	130,4fcd	58fcd	32,6fcd	20,9fcd	14,5fcd	10,6fcd	8,2fcd	6,4fcd	5,2fcd	4,3fcd	3,6fcd	3,1fcd	2,7fcd	2,3fcd	2fcd	1,8fcd	1,6fcd	1,4fcd	1,3fcd

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°
5615	5504	5176	4700	4100	3441	2766	2130	1573	1101	751	500	341	240	182	145	119	96	74	54
100%	98%	92%	84%	73%	61%	49%	38%	28%	20%	13%	9%	6%	4%	3%	3%	2%	2%	1%	1%

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°
5615	5524	5210	4736	4133	3457	2751	2094	1515	1047	702	469	322	234	181	148	124	102	80	58
100%	98%	93%	84%	74%	62%	49%	37%	27%	19%	12%	8%	6%	4%	3%	3%	2%	2%	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°
5615	5517	5203	4724	4125	3452	2765	2112	1544	1070	724	483	333	240	185	149	124	103	83	63
100%	98%	93%	84%	73%	61%	49%	38%	27%	19%	13%	9%	6%	4%	3%	3%	2%	2%	1%	1%

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°
5615	5518	5201	4726	4127	3445	2752	2089	1520	1041	702	462	319	227	176	141	118	96	75	55
100%	98%	93%	84%	73%	61%	49%	37%	27%	19%	12%	8%	6%	4%	3%	3%	2%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,7°	42,4°	60,8°	99,6%	98,9%



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

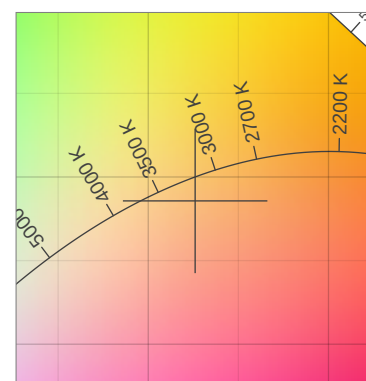
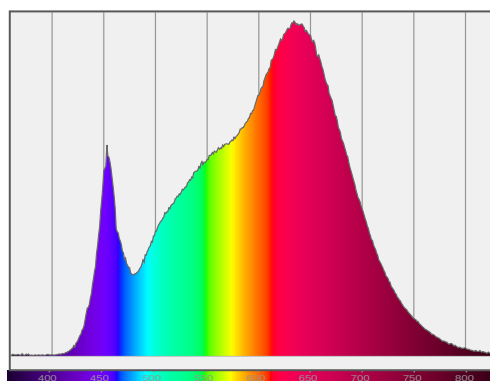
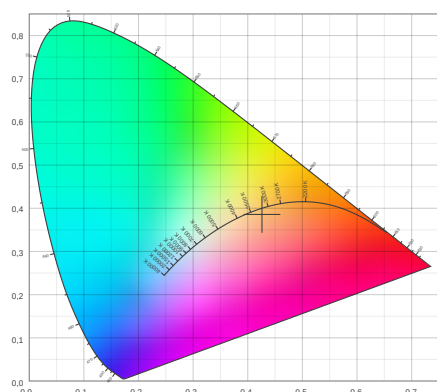
2017 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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-CLS-JADE-HD-3000K-CRI95-MEDIUM [DIFFUSER]

Color details



CIE 1931

x: 0,426



Spectra

CIE 1931 ZOOM

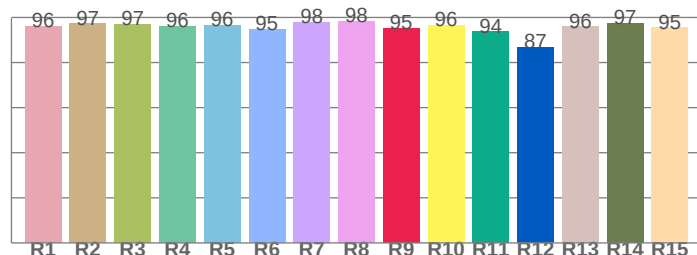
3040 K

y: 0,386

Δuv : -0,0060

CRI: 96,7 (R1-R8)

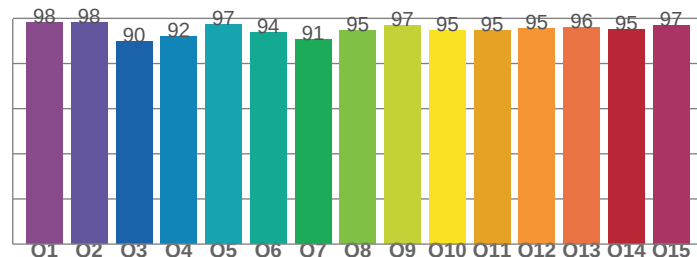
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
95,9	97,1	97,0	96,1	96,4	94,8	97,7	98,4
R9	R10	R11	R12	R13	R14	R15	
95,3	96,3	93,6	86,9	95,8	97,4	95,4	

CQS: 94,2

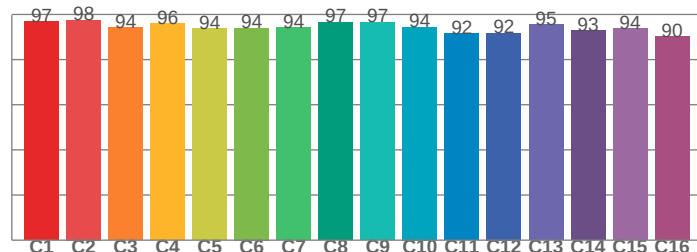
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
98,0	98,1	89,6	92,0	97,4	93,6	90,8	94,6
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
97,0	94,8	94,8	95,4	96,0	94,9	97,1	

TM30: 94,6

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



C1	C2	C3	C4	C5	C6	C7	C8
97,0	97,5	94,3	95,9	93,7	94,0	94,1	96,6
C9	C10	C11	C12	C13	C14	C15	
96,5	94,5	91,6	91,8	95,4	92,9	93,7	

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
3040 K	96,7	95,3	94,6	104,1	94,2	0,426	0,386	0,251	0,342	-0,0060



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-CLS-JADE-HD-3000K-CRI95-MEDIUM [DIFFUSER]

TM30 details

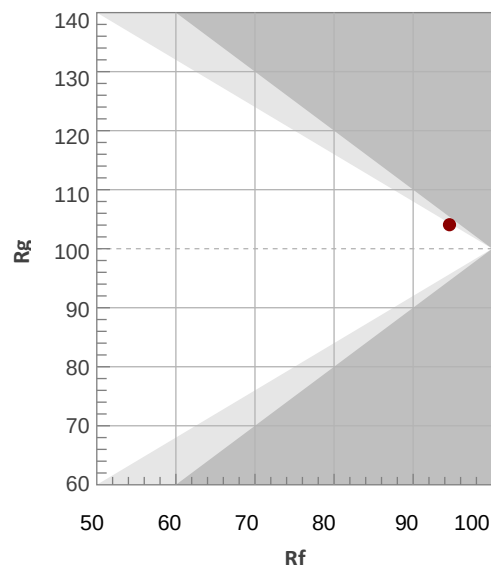
Rf 94,6

Fidelity index Rf

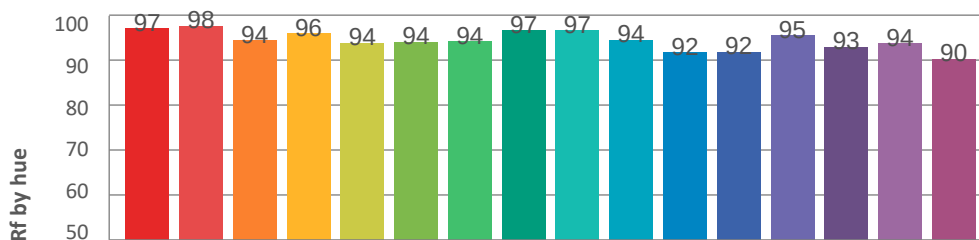
Rg 104,1

Gamut index Rg

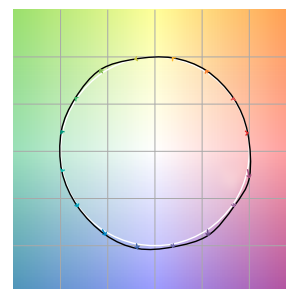
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	0%
2	98	1%	1%
3	94	1%	2%
4	96	1%	1%
5	94	0%	2%
6	94	4%	0%
7	94	2%	0%
8	97	1%	-2%
9	97	1%	2%
10	94	1%	3%
11	92	3%	6%
12	92	5%	2%
13	95	3%	-1%
14	93	5%	-2%
15	94	2%	-2%
16	90	4%	-8%



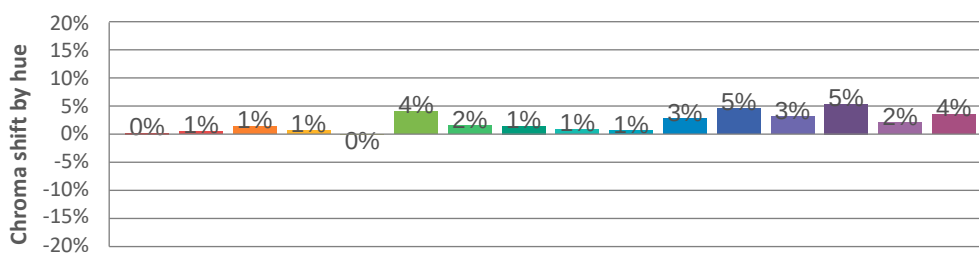
Hue binH



Color vector graphics



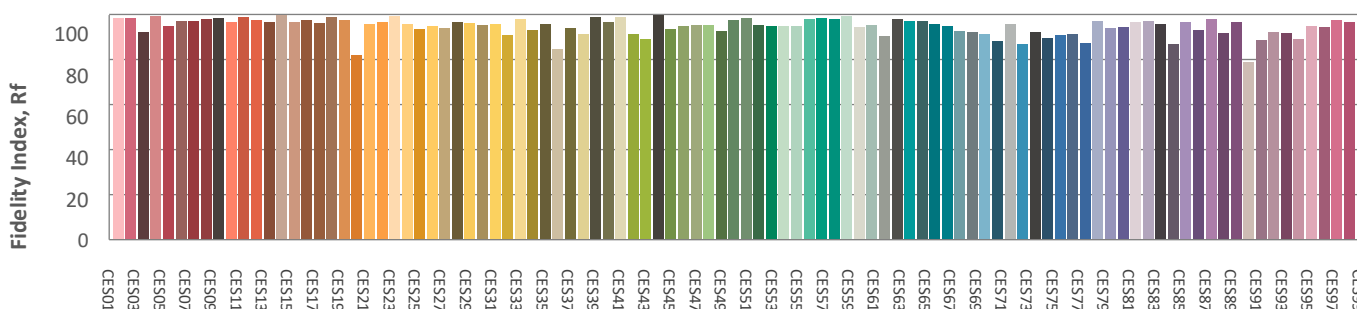
Hue bin



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

Test Report

LM79-CLS-JADE-HD-3000K-CRI95-MEDIUM
[DIFFUSER]

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
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 1142lm 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