

LM-79

Test Report

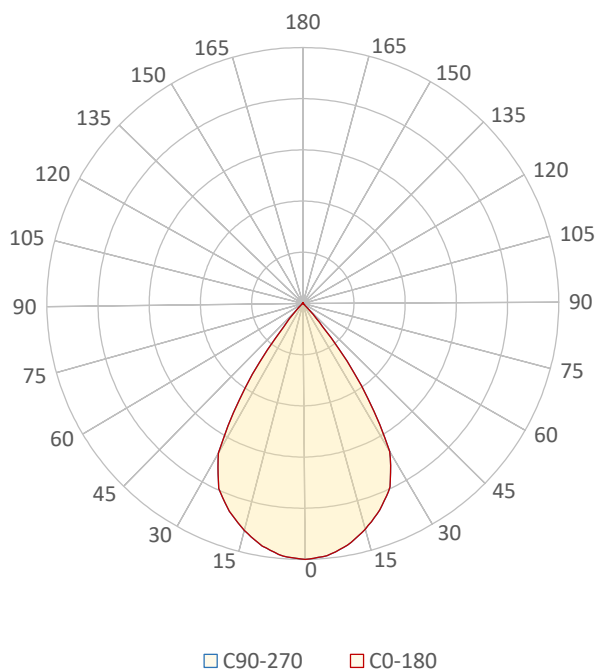
LM79-JADE-ZOOM-XICATO-XTM-3000K-CRI98-WIDE

General Description

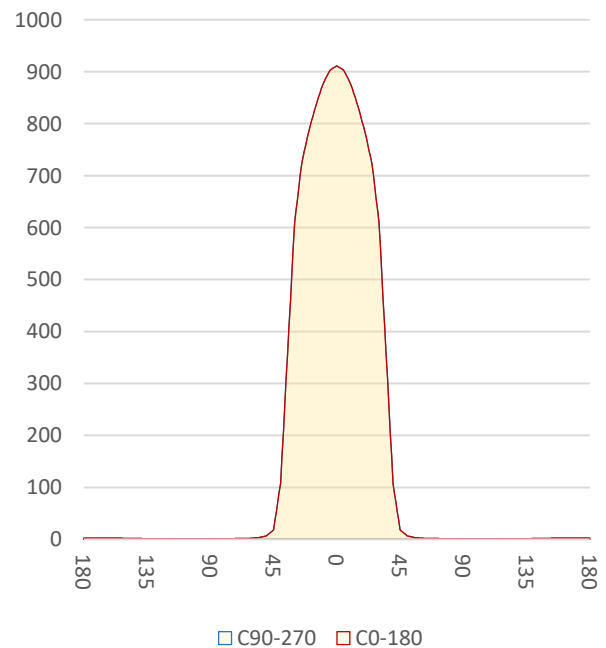
Item number	
Date and time	13-5-2019 11:43:04
CCT (Kelvin)	2970 K
Beam angle	66,9°
Luminous flux	903 lm
Efficiency	40 lm/watt
Weighted energy	22,7 kWh/1000h
Power factor	0,96
CRI (RA)	97,0
Fidelity index Rf	Rf 95,8
Gammut index Rg	Rg 103,3
Peak	911 cd



Polar diagram



Cartesian diagram



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

2021 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-JADE-ZOOM-XICATO-XTM-3000K-CRI98-WIDE

Beam details	1m	2m	3m	4m	5m																			
Lux*	911 lx	228 lx	101 lx	57 lx	36 lx																			
<i>*measured at center of beam</i>																								
Footcandles*	84,7 fcd	21,2 fcd	9,4 fcd	5,3 fcd	3,4 fcd																			
Beam width (meter)	1,3 m	2,6 m	4 m	5,3 m	6,6 m																			
Beam width (Feet)	4,3 ft	8,7 ft	13 ft	17,4 ft	21,7 ft																			
Beam intensities																								
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m					
911lx	228lx	101lx	57lx	36lx	25lx	19lx	14lx	11lx	9lx	8lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx					
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					
84,7fcd	21,2fcd	9,4fcd	5,3fcd	3,4fcd	2,4fcd	1,7fcd	1,3fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd					
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°					
911	911	906	899	890	876	861	843	825	805	785	764	737	710	667	611	548	423	297	196					
100%	100%	99%	99%	98%	96%	95%	93%	91%	88%	86%	84%	81%	78%	73%	67%	60%	46%	33%	22%					
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°					
911	911	906	899	890	876	861	843	825	805	785	764	737	710	667	611	548	423	297	196					
100%	100%	99%	99%	98%	96%	95%	93%	91%	88%	86%	84%	81%	78%	73%	67%	60%	46%	33%	22%					
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°					
911	911	906	899	890	876	861	843	825	805	785	764	737	710	667	611	548	423	297	196					
100%	100%	99%	99%	98%	96%	95%	93%	91%	88%	86%	84%	81%	78%	73%	67%	60%	46%	33%	22%					
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°					
911	911	906	899	890	876	861	843	825	805	785	764	737	710	667	611	548	423	297	196					
100%	100%	99%	99%	98%	96%	95%	93%	91%	88%	86%	84%	81%	78%	73%	67%	60%	46%	33%	22%					
Beam angle 50%					Field angle 10%					Cutoff angle 2,5%					Intensity ratio in 120° cone					Intensity ratio in 90° cone				
66,9°					80,7°					88,4°					98,8%					98,0%				



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

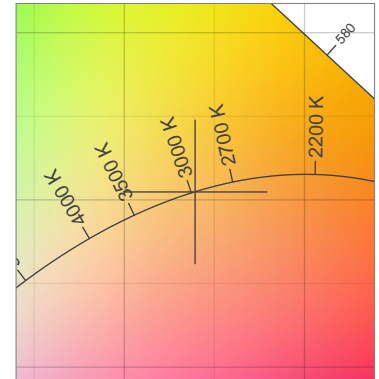
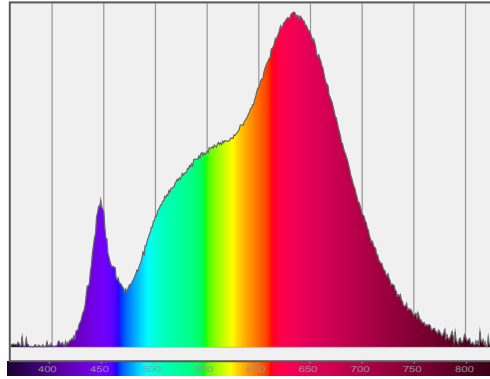
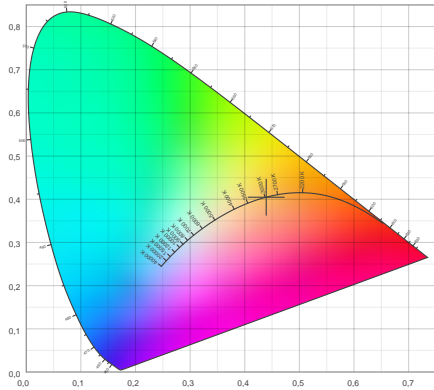
2021 CLS-LED BV. All rights reserved. Information subject to change without notice, CLS-LED BV and all affiliated companies disclaim liability for injury, damage direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information 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-JADE-ZOOM-XICATO-XTM-3000K-CRI98-WIDE

Color details



CIE 1931

x: 0,439



Spectra

CIE 1931 ZOOM

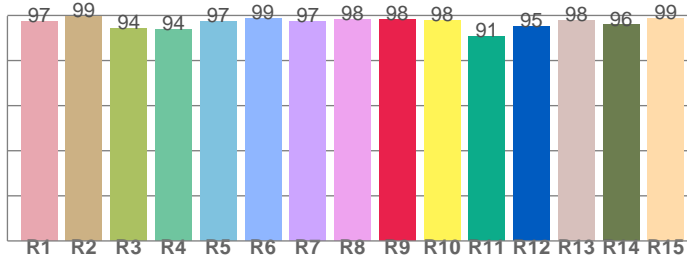
2970 K

y: 0,405

Δuv : -0,0002

CRI: 97,0 (R1-R8)

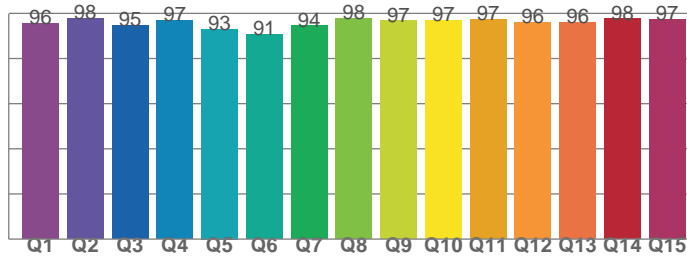
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
97,2	99,5	94,3	93,7	97,3	98,6	97,4	98,2
R9	R10	R11	R12	R13	R14	R15	
98,4	97,6	90,9	95,1	97,9	95,8	98,6	

CQS: 95,2

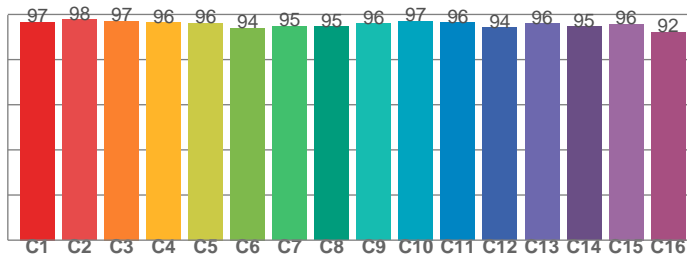
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,6	97,7	94,7	97,0	93,1	90,6	94,5	97,9
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,7	97,0	97,2	96,1	96,1	97,6	97,2	

TM30: 95,8

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



C1	C2	C3	C4	C5	C6	C7	C8
96,7	97,6	97,2	96,4	96,2	93,9	94,8	94,5
C9	C10	C11	C12	C13	C14	C15	
95,9	97,1	96,4	94,2	96,1	94,6	95,8	

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
2970 K	97,0	98,4	95,8	103,3	95,2	0,439	0,405	0,252	0,348	-0,0002



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

2021 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-JADE-ZOOM-XICATO-XTM-3000K-CRI98-WIDE

TM30 details

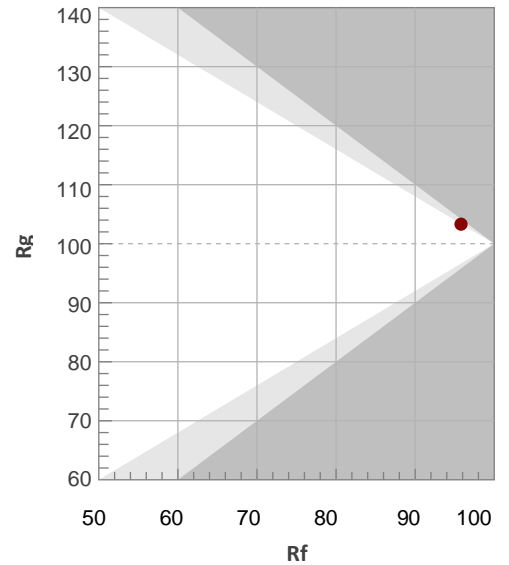
Rf 95,8

Fidelity index Rf

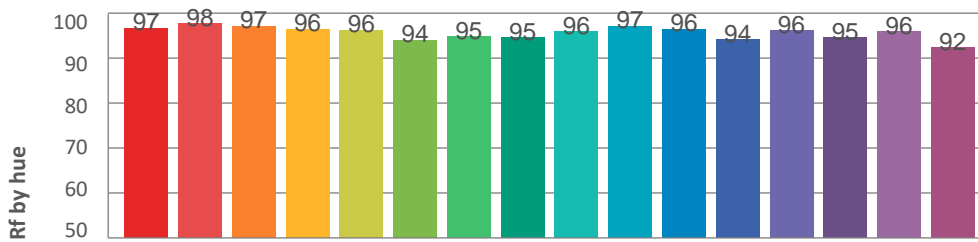
Rg 103,3

Gamut index Rg

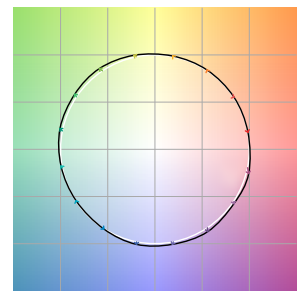
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	-1%
3	97	1%	1%
4	96	1%	1%
5	96	2%	2%
6	94	4%	1%
7	95	3%	-1%
8	95	3%	-2%
9	96	1%	-2%
10	97	0%	-1%
11	96	0%	2%
12	94	3%	0%
13	96	2%	-2%
14	95	4%	-2%
15	96	2%	-1%
16	92	2%	-6%



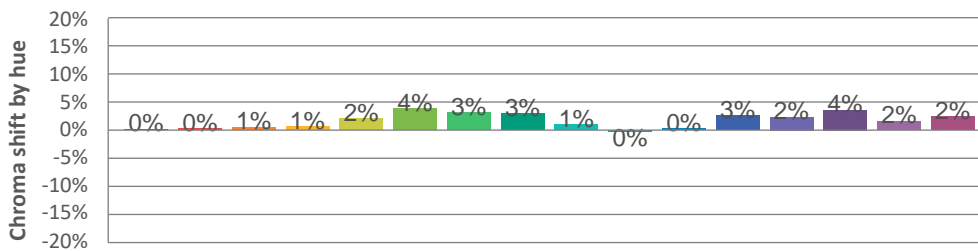
Hue binH



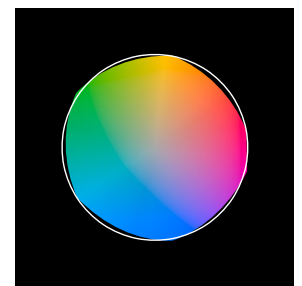
Color vector graphics



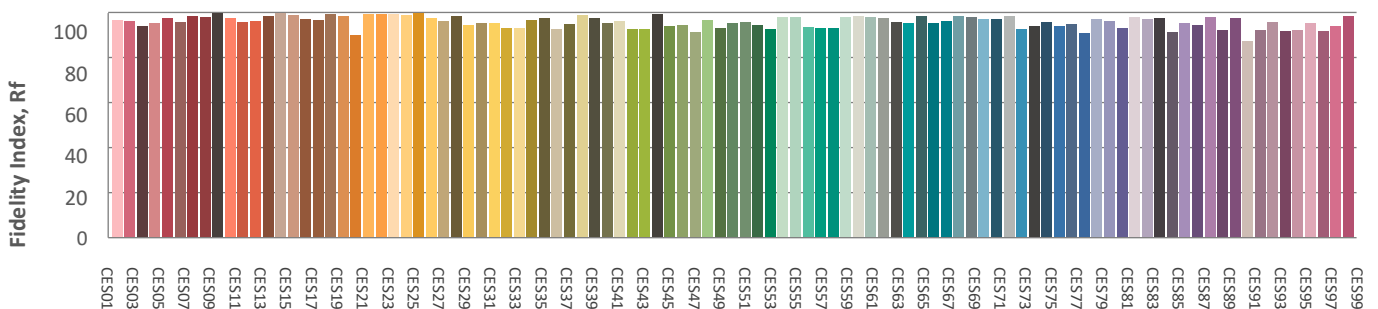
Hue bin



Color distortion graphics



Color Evaluation Sample



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

2021 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-JADE-ZOOM-XICATO-XTM-3000K-CRI98- WIDE

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	19,9	20,6	20,0	20,8	21,0	19,9	20,6	20,0	20,8	21,0
	3H	19,6	20,4	20,0	20,6	20,8	19,6	20,4	20,0	20,6	20,8
	4H	19,6	20,3	20,0	20,5	20,8	19,6	20,3	20,0	20,5	20,8
	6H	19,6	20,2	19,9	20,5	20,8	19,6	20,2	19,9	20,5	20,8
	8H	19,5	20,1	19,8	20,4	20,8	19,5	20,1	19,8	20,4	20,8
	12H	19,5	20,0	19,8	20,4	20,8	19,5	20,0	19,8	20,4	20,8
4H	2H	19,5	20,3	19,9	20,5	20,8	19,5	20,3	19,9	20,5	20,8
	3H	19,4	20,0	19,8	20,4	20,8	19,4	20,0	19,8	20,4	20,8
	4H	19,3	19,8	19,7	20,3	20,8	19,3	19,8	19,7	20,3	20,8
	6H	19,2	19,8	19,7	20,1	20,5	19,2	19,8	19,7	20,1	20,5
	8H	19,2	19,7	19,7	20,1	20,4	19,2	19,7	19,7	20,1	20,4
	12H	19,1	19,5	19,7	20,0	20,4	19,1	19,5	19,7	20,0	20,4
8H	4H	19,2	19,7	19,7	20,0	20,4	19,2	19,7	19,7	20,0	20,4
	6H	19,1	19,5	19,6	19,9	20,5	19,1	19,5	19,6	19,9	20,5
	8H	19,1	19,4	19,7	19,9	20,6	19,1	19,4	19,7	19,9	20,6
	12H	19,1	19,3	19,7	19,8	20,5	19,1	19,3	19,7	19,8	20,5
12H	4H	19,1	19,5	19,6	19,9	20,4	19,1	19,5	19,6	19,9	20,4
	6H	19,1	19,4	19,6	19,9	20,6	19,1	19,4	19,6	19,9	20,6
	8H	19,1	19,3	19,7	19,8	20,4	19,1	19,3	19,7	19,8	20,4

Variation of the observer position for the luminaire distance S

S = 1.0H	5,6 / -11,2	5,6 / -11,2
S = 1.5H	8,4 / -11,5	8,4 / -11,5
S = 2.0H	10,4 / -11,7	10,4 / -11,7
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 903lm total luminous flux



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

2021 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