

LM-79

Test Report

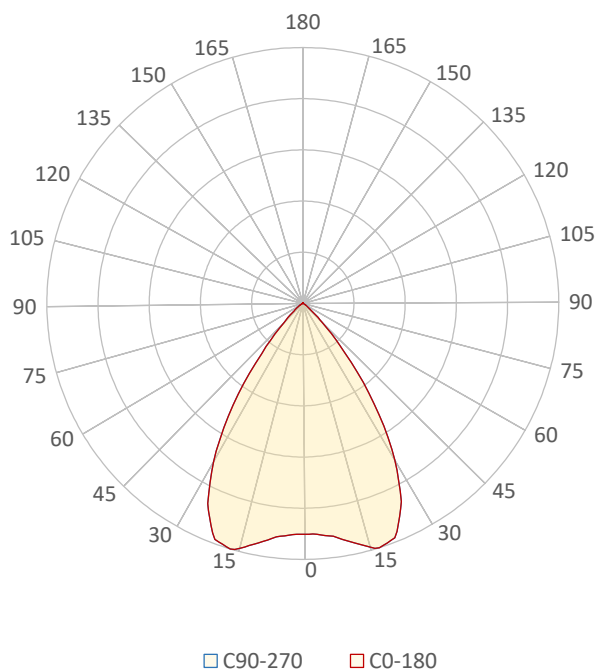
LM79-JADE-COLOUR-FLOW-FLOOD-all-leds-on

General Description

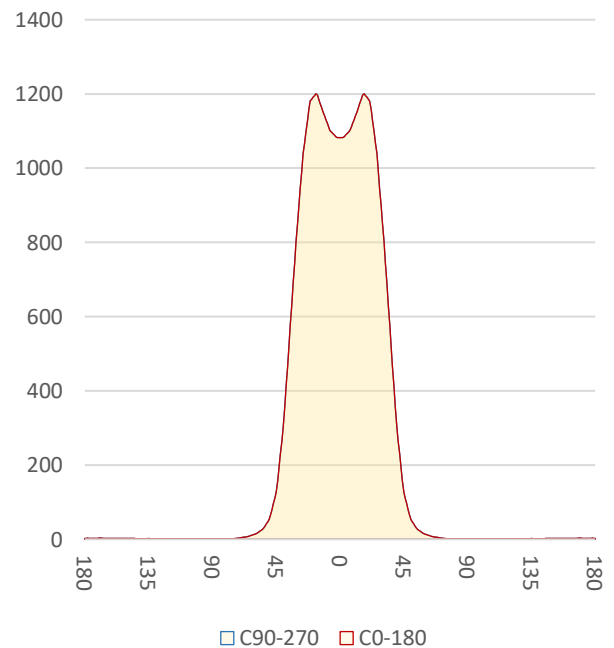
Item number	J-SXX-1-C-C470-3
Date and time	18-4-2017 13:30:42
CCT (Kelvin)	19261 K
Beam angle	69,1°
Luminous flux	1436 lm
Efficiency	50 lm/watt
Weighted energy	28,8 kWh/1000h
Power factor	0,56
CRI (RA)	46,2
Fidelity index Rf	Rf 58,6
Gammut index Rg	Rg 124,9
Peak	1203 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	1083 lx	271 lx	120 lx	68 lx	43 lx														
*measured at center of beam																			
Footcandles*	100,6 fcd	25,1 fcd	11,2 fcd	6,3 fcd	4,0 fcd														
Beam width (meter)	1,4 m	2,8 m	4,1 m	5,5 m	6,9 m														
Beam width (Feet)	4,5 ft	9 ft	13,6 ft	18,1 ft	22,6 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
1083lx	271lx	120lx	68lx	43lx	30lx	22lx	17lx	13lx	11lx	9lx	8lx	6lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx
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
100,6fcd	25,1fcd	11,2fcd	6,3fcd	4fcd	2,8fcd	2,1fcd	1,6fcd	1,2fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,3fcd
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°
1083	1083	1089	1097	1111	1132	1152	1175	1197	1196	1186	1157	1098	1039	945	852	746	634	522	412
100%	100%	101%	101%	103%	105%	106%	109%	111%	110%	110%	107%	101%	96%	87%	79%	69%	59%	48%	38%
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°
1083	1083	1089	1097	1111	1132	1152	1175	1197	1196	1186	1157	1098	1039	945	852	746	634	522	412
100%	100%	101%	101%	103%	105%	106%	109%	111%	110%	110%	107%	101%	96%	87%	79%	69%	59%	48%	38%
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°
1083	1083	1089	1097	1111	1132	1152	1175	1197	1196	1186	1157	1098	1039	945	852	746	634	522	412
100%	100%	101%	101%	103%	105%	106%	109%	111%	110%	110%	107%	101%	96%	87%	79%	69%	59%	48%	38%
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°
1083	1083	1089	1097	1111	1132	1152	1175	1197	1196	1186	1157	1098	1039	945	852	746	634	522	412
100%	100%	101%	101%	103%	105%	106%	109%	111%	110%	110%	107%	101%	96%	87%	79%	69%	59%	48%	38%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
69,1°		90,8°				107,6°				98,6%				94,4%					



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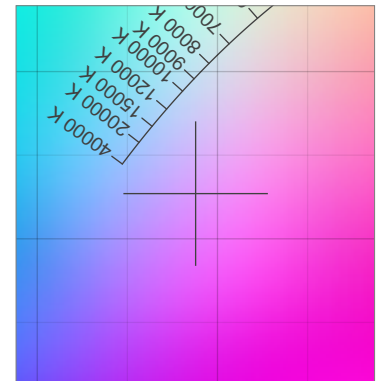
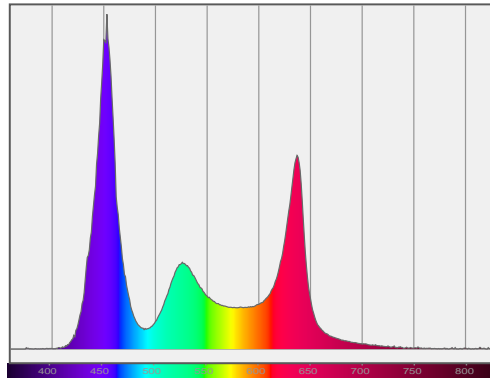
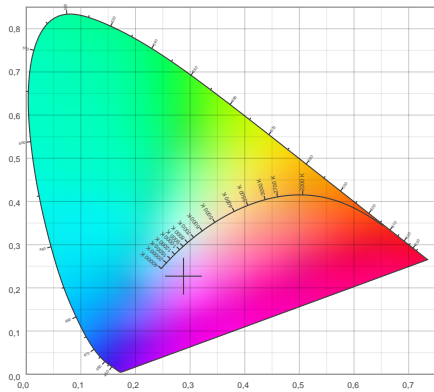
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Color details



CIE 1931

x: 0,288



Spectra

CIE 1931 ZOOM

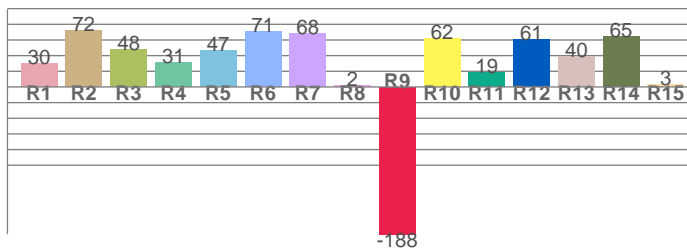
19261 K

y: 0,227

Δuv : 0,0449

CRI: 46,2 (R1-R8)

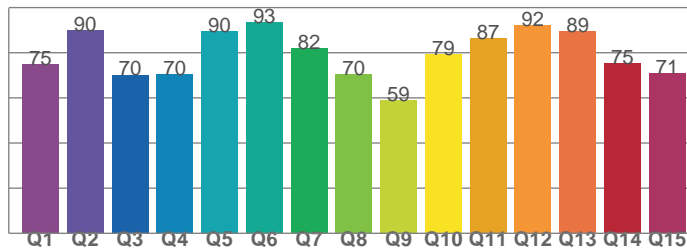
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
30,1	72,3	48,0	31,1	46,9	71,4	68,0	2,0
R9	R10	R11	R12	R13	R14	R15	
-188,0	61,5	19,0	60,7	39,6	64,7	2,8	

CQS: 77,2

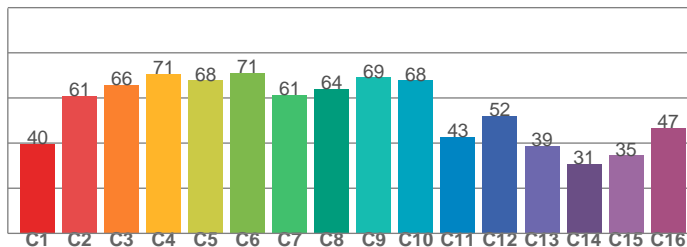
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
74,8	89,8	70,3	70,3	89,6	93,4	81,9	70,3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
59,0	79,2	86,5	92,3	89,5	75,2	71,0	

TM30: 58,6

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



C1	C2	C3	C4	C5	C6	C7	C8
39,7	60,9	65,8	70,7	67,7	71,2	61,3	64,0
C9	C10	C11	C12	C13	C14	C15	
69,1	67,7	42,6	52,1	38,7	30,9	34,6	

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
19261 K	46,2	-188,0	58,6	124,9	77,2	0,288	0,227	0,224	0,265	0,0449



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TM30 details

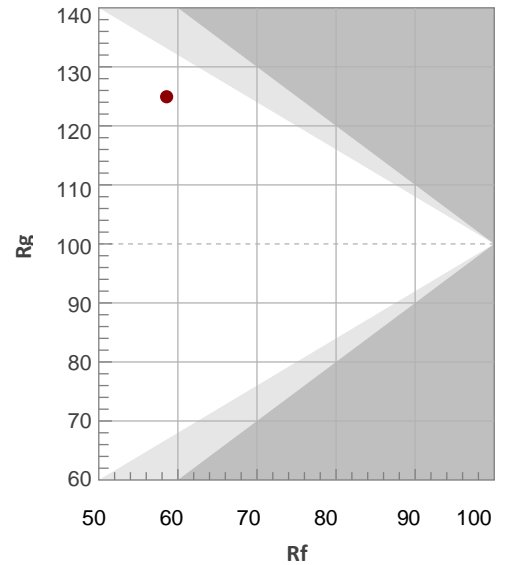
Rf 58,6

Fidelity index Rf

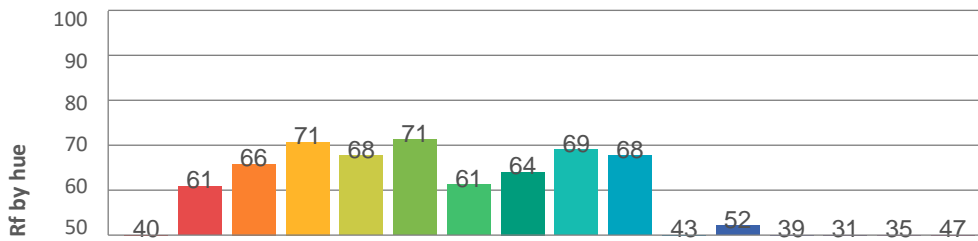
Rg 124,9

Gamut index Rg

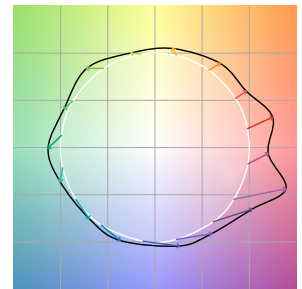
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	40	29%	7%
2	61	14%	0%
3	66	13%	-6%
4	71	7%	5%
5	68	3%	10%
6	71	10%	15%
7	61	3%	12%
8	64	11%	16%
9	69	6%	14%
10	68	0%	24%
11	43	2%	25%
12	52	-2%	39%
13	39	1%	38%
14	31	12%	41%
15	35	40%	40%
16	47	19%	15%



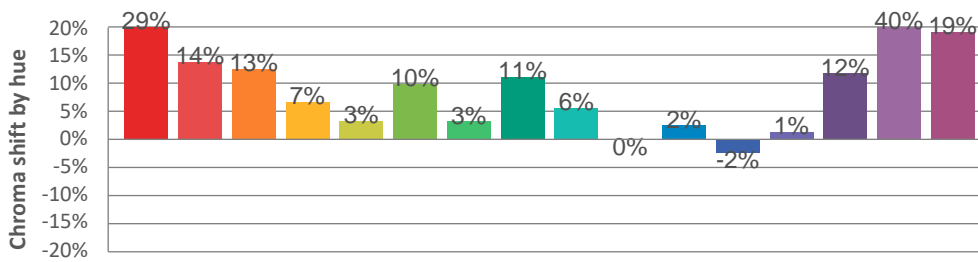
Hue binH



Color vector graphics



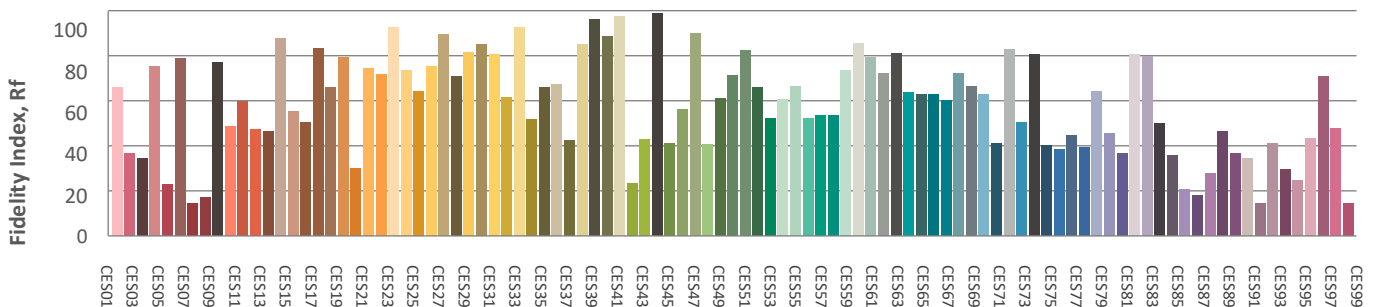
Hue bin



Color distortion graphics



Color Evaluation Sample



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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	22,5	23,2	22,7	23,4	23,6	22,5	23,2	22,7	23,4	23,6
	3H	22,3	23,0	22,6	23,2	23,5	22,3	23,0	22,6	23,2	23,5
	4H	22,3	22,9	22,6	23,2	23,4	22,3	22,9	22,6	23,2	23,4
	6H	22,2	22,8	22,5	23,1	23,4	22,2	22,8	22,5	23,1	23,4
	8H	22,2	22,7	22,5	23,0	23,3	22,2	22,7	22,5	23,0	23,3
	12H	22,1	22,6	22,5	23,0	23,3	22,1	22,6	22,5	23,0	23,3
4H	2H	22,3	22,9	22,6	23,2	23,4	22,3	22,9	22,6	23,2	23,4
	3H	22,2	22,7	22,5	23,0	23,3	22,2	22,7	22,5	23,0	23,3
	4H	22,1	22,5	22,5	22,9	23,2	22,1	22,5	22,5	22,9	23,2
	6H	22,0	22,4	22,4	22,8	23,2	22,0	22,4	22,4	22,8	23,2
	8H	22,0	22,3	22,4	22,7	23,1	22,0	22,3	22,4	22,7	23,1
	12H	21,9	22,2	22,4	22,6	23,1	21,9	22,2	22,4	22,6	23,1
8H	4H	22,0	22,3	22,4	22,7	23,1	22,0	22,3	22,4	22,7	23,1
	6H	21,9	22,1	22,4	22,6	23,0	21,9	22,1	22,4	22,6	23,0
	8H	21,8	22,1	22,3	22,5	23,0	21,8	22,1	22,3	22,5	23,0
	12H	21,8	22,0	22,3	22,5	23,0	21,8	22,0	22,3	22,5	23,0
12H	4H	21,9	22,2	22,4	22,6	23,1	21,9	22,2	22,4	22,6	23,1
	6H	21,8	22,1	22,3	22,5	23,0	21,8	22,1	22,3	22,5	23,0
	8H	21,8	22,0	22,3	22,4	23,0	21,8	22,0	22,3	22,4	23,0

Variation of the observer position for the luminaire distance S

S = 1,0H	+4,2 / -9,2	+4,2 / -9,2
S = 1,5H	+6,9 / -11,6	+6,9 / -11,6
S = 2,0H	+8,9 / -13,3	+8,9 / -13,3
Standard table	BK00	BK00
Correction summand	3,8	3,8

Corrected glare indices referring to 1436lm total luminous flux



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