

LM-79

Test Report

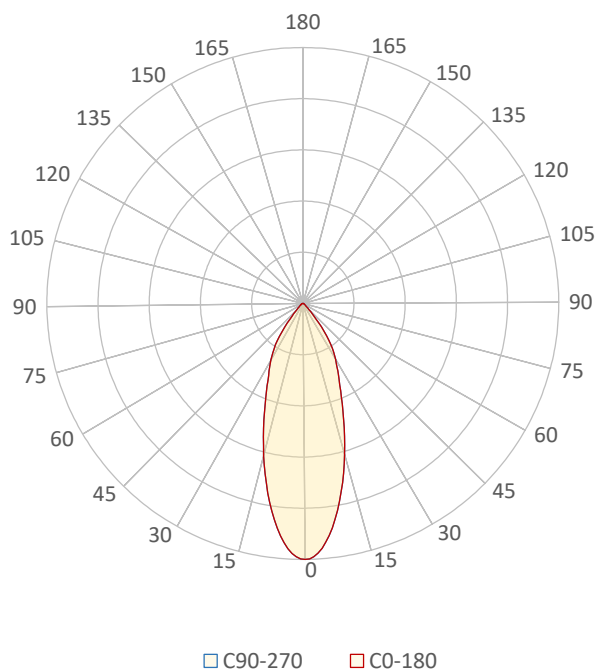
LM79-JADE-HP-3000K-CRI95-MEDIUM

General Discription

Item number	
Date and time	22-1-2021 16:20:03
CCT (Kelvin)	2995 K
Beam angle	36,7°
Luminous flux	2975 lm
Efficiency	76 lm/watt
Weighted energy	39,0 kWh/1000h
Power factor	0,97
CRI (RA)	96,5
Fidelity index Rf	Rf 94,5
Gammut index Rg	Rg 105,0
Peak	5302 cd



Polar diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	5302 lx	1326 lx	589 lx	331 lx	212 lx														
*measured at center of beam																			
Footcandles*	492,6 fcd	123,1 fcd	54,7 fcd	30,8 fcd	19,7 fcd														
Beam width (meter)	0,7 m	1,3 m	2 m	2,7 m	3,3 m														
Beam width (Feet)	2,2 ft	4,4 ft	6,5 ft	8,7 ft	10,9 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
5302lx	1326lx	589lx	331lx	212lx	147lx	108lx	83lx	65lx	53lx	44lx	37lx	31lx	27lx	24lx	21lx	18lx	16lx	15lx	13lx
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
492,6fcd	123,1fcd	54,7fcd	30,8fcd	19,7fcd	13,7fcd	10,1fcd	7,7fcd	6,1fcd	4,9fcd	4,1fcd	3,4fcd	2,9fcd	2,5fcd	2,2fcd	1,9fcd	1,7fcd	1,5fcd	1,4fcd	1,2fcd
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°
5302	5250	5088	4838	4523	4173	3805	3431	3063	2710	2385	2098	1855	1655	1489	1342	1195	1029	830	618
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	35%	31%	28%	25%	23%	19%	16%	12%
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°
5302	5250	5088	4838	4523	4173	3805	3431	3063	2710	2385	2098	1855	1655	1489	1342	1195	1029	830	618
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	35%	31%	28%	25%	23%	19%	16%	12%
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°
5302	5250	5088	4838	4523	4173	3805	3431	3063	2710	2385	2098	1855	1655	1489	1342	1195	1029	830	618
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	35%	31%	28%	25%	23%	19%	16%	12%
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°
5302	5250	5088	4838	4523	4173	3805	3431	3063	2710	2385	2098	1855	1655	1489	1342	1195	1029	830	618
100%	99%	96%	91%	85%	79%	72%	65%	58%	51%	45%	40%	35%	31%	28%	25%	23%	19%	16%	12%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
36,7°		77,7°				92,4°				98,0%				94,7%					



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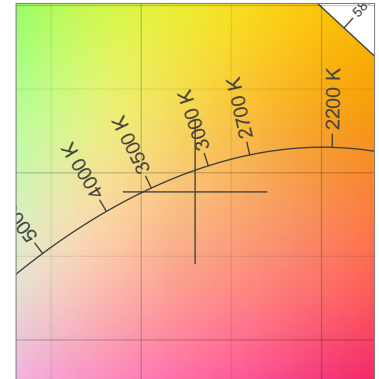
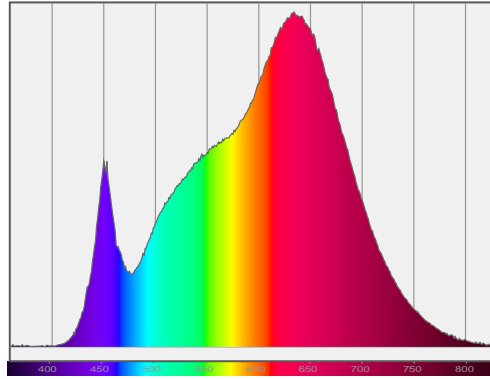
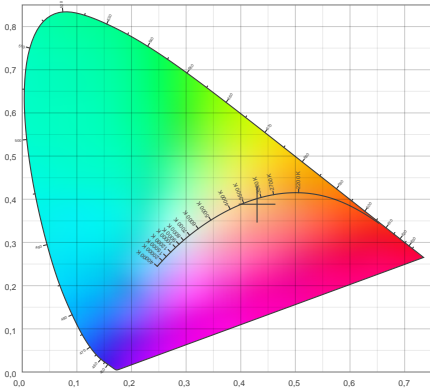
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Color details



CIE 1931

x: 0,430



Spectra

CIE 1931 ZOOM

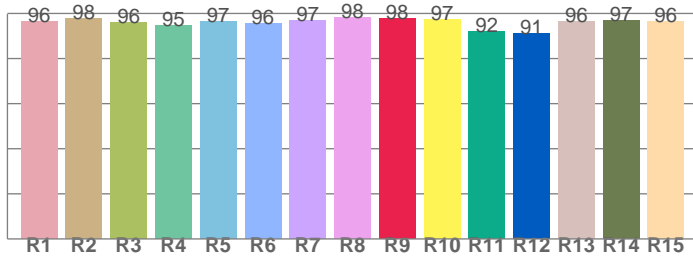
2995 K

y: 0,389

$\Delta uv: -0,0054$

CRI: 96,5 (R1-R8)

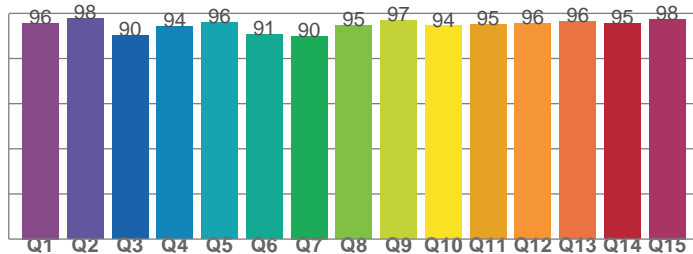
CRI values, R1-R8 are used to calculate final CRI value



R1	R2	R3	R4	R5	R6	R7	R8
96,3	97,8	96,2	94,5	96,5	95,7	97,1	98,2
R9	R10	R11	R12	R13	R14	R15	
97,8	97,4	91,9	91,3	96,3	96,9	96,4	

CQS: 94,0

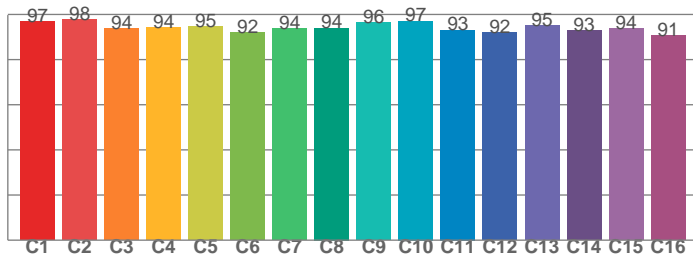
CQS values



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
95,7	97,9	90,2	94,0	95,9	90,6	90,0	94,7
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
96,9	94,5	95,1	95,7	96,3	95,4	97,5	

TM30: 94,5

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



C1	C2	C3	C4	C5	C6	C7	C8
97,0	97,8	93,7	94,2	94,5	91,9	93,8	94,0
C9	C10	C11	C12	C13	C14	C15	
96,3	97,1	93,2	92,1	95,0	93,0	93,8	

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
2995 K	96,5	97,8	94,5	105,0	94,0	0,430	0,389	0,253	0,343	-0,0054



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TM30 details

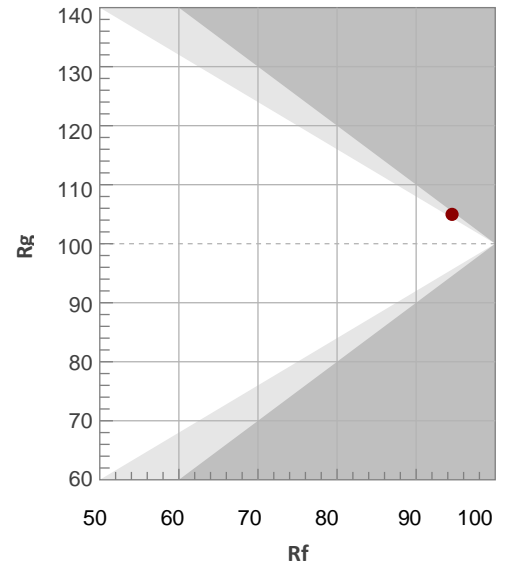
Rf 94,5

Fidelity index Rf

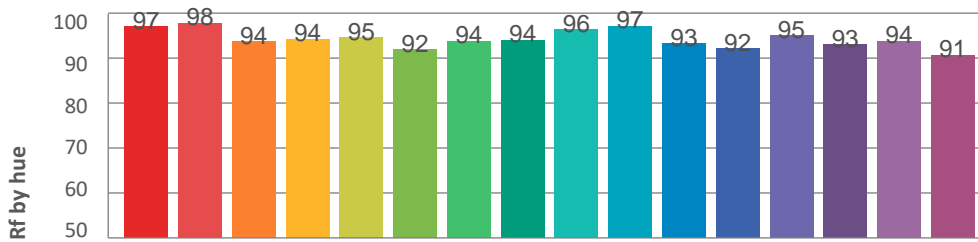
Rg 105,0

Gamut index Rg

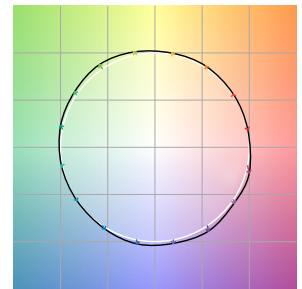
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	1%
3	94	1%	3%
4	94	1%	2%
5	95	3%	3%
6	92	6%	0%
7	94	3%	-2%
8	94	3%	-3%
9	96	1%	-1%
10	97	0%	1%
11	93	1%	4%
12	92	4%	2%
13	95	4%	-1%
14	93	5%	-2%
15	94	3%	-3%
16	91	3%	-7%



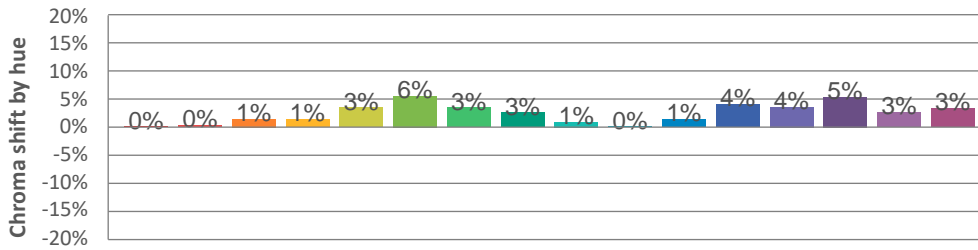
Hue binH



Color vector graphics



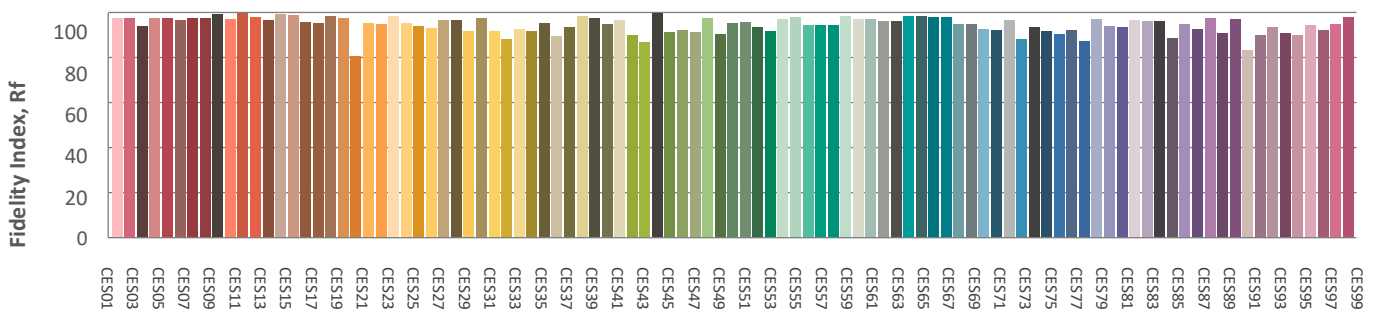
Hue bin



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	23,1	23,7	23,2	23,9	24,1	23,1	23,7	23,2	23,9	24,1
	3H	23,0	23,8	23,4	24,0	24,2	23,0	23,8	23,4	24,0	24,2
	4H	23,1	23,8	23,5	24,1	24,3	23,1	23,8	23,5	24,1	24,3
	6H	23,2	23,8	23,5	24,1	24,5	23,2	23,8	23,5	24,1	24,5
	8H	23,2	23,8	23,5	24,1	24,5	23,2	23,8	23,5	24,1	24,5
	12H	23,1	23,7	23,5	24,1	24,5	23,1	23,7	23,5	24,1	24,5
4H	2H	22,8	23,6	23,2	23,8	24,0	22,8	23,6	23,2	23,8	24,0
	3H	23,1	23,7	23,4	24,0	24,4	23,1	23,7	23,4	24,0	24,4
	4H	23,1	23,7	23,6	24,1	24,6	23,1	23,7	23,6	24,1	24,6
	6H	23,2	23,8	23,7	24,1	24,5	23,2	23,8	23,7	24,1	24,5
	8H	23,2	23,7	23,7	24,1	24,4	23,2	23,7	23,7	24,1	24,4
	12H	23,2	23,6	23,7	24,0	24,5	23,2	23,6	23,7	24,0	24,5
8H	4H	23,1	23,6	23,6	24,0	24,3	23,1	23,6	23,6	24,0	24,3
	6H	23,3	23,6	23,8	24,1	24,6	23,3	23,6	23,8	24,1	24,6
	8H	23,3	23,6	23,8	24,1	24,7	23,3	23,6	23,8	24,1	24,7
	12H	23,3	23,5	23,9	24,1	24,7	23,3	23,5	23,9	24,1	24,7
12H	4H	23,1	23,5	23,6	23,9	24,3	23,1	23,5	23,6	23,9	24,3
	6H	23,3	23,6	23,8	24,1	24,7	23,3	23,6	23,8	24,1	24,7
	8H	23,3	23,5	23,9	24,0	24,6	23,3	23,5	23,9	24,0	24,6
Variation of the observer position for the luminaire distance S											
S = 1.0H	3,9 / -3,5					3,9 / -3,5					
S = 1.5H	6,3 / -3,8					6,3 / -3,8					
S = 2.0H	8,2 / -4,1					8,2 / -4,1					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 2975lm total luminous flux											



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