

# LM-79 Test Report

## **Relevant Standards**

IES LM-79-2008  
IES TM-30-2015  
CIE 13.3-1995  
IESNA TM-15-11  
CIE 117:1995

## **Product SKU**

LINAIRE® Flex 3D Bend Linear Light  
DI-24V-3D-LIN4-24

## **Test Conditions**

Test Temperature: 26.5 °C  
Luminaire Sample Length: 1000 mm.  
Power Supply: Agilent E3634A DC Power Supply  
Voltage: 24.0 VDC  
Current: 0.625 A  
Power Consumption: 15.0 W

## **Test Date**

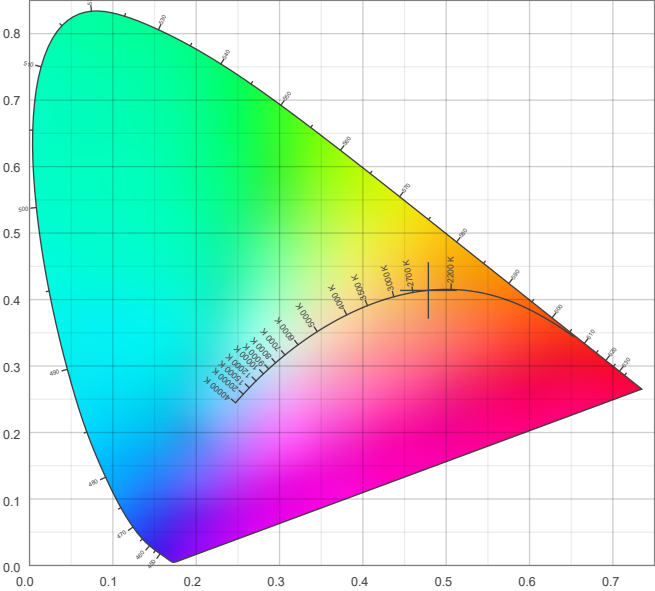
4/16/2025

**Color Details**

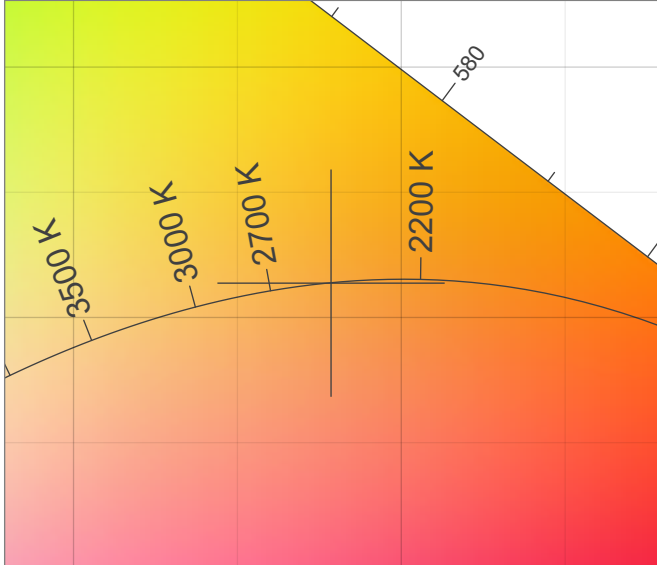
Correlated Color Temperature	CCT = 2484
CIE Test Color Method General Index	CRI = 93.0
CIE Test Color Method Sample Nine Score	R9 = 50.4
IES TM-30-15 Fidelity Index	R <sub>f</sub> = 91.4
IES TM-30-15 Gamut Index	R <sub>g</sub> = 99.3
Luminous Flux	Lm = 1283

Color coordinates CIE 1931	(x;y) = (0.479;0.414)
Color coordinate CIEs 1960	(u;v) = (0.273;0.354)
Color coordinate CIEs 1976	(u';v') = (0.273;0.531)
Color deviation from BBL	Duv = -0.0002
Color Quality Scale (CQS)	CQS = 89.2

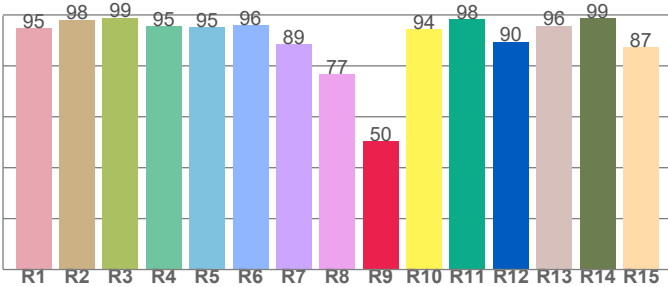
**CIE 1931**



**CIE 1931 – zoomed on Planckian locus**



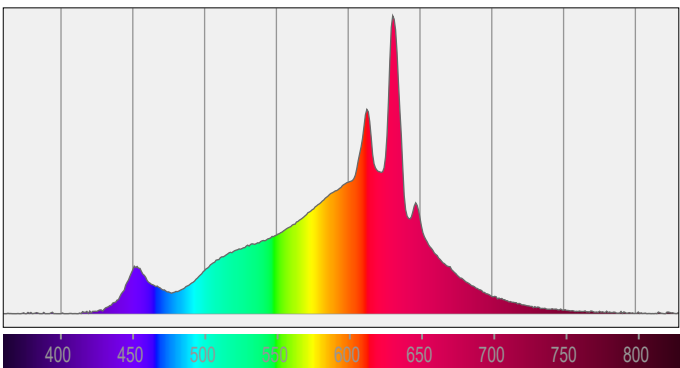
**Color Rendering Index per Reference Color (CIE 1995)**



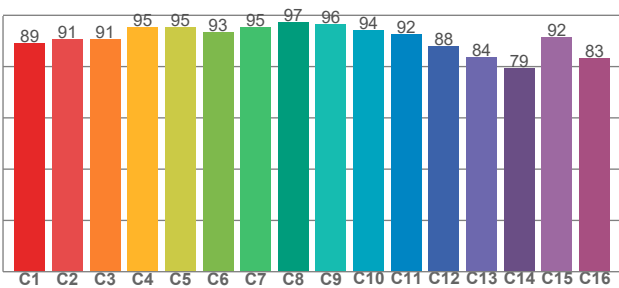
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94.8	98.2	99.0	95.4	95.2	95.9	88.5	76.8	50.4	94.5	98.3	89.5	95.8	98.7	87.4

**Spectral Power Distribution (SPD) / W/nm – 0-100%**



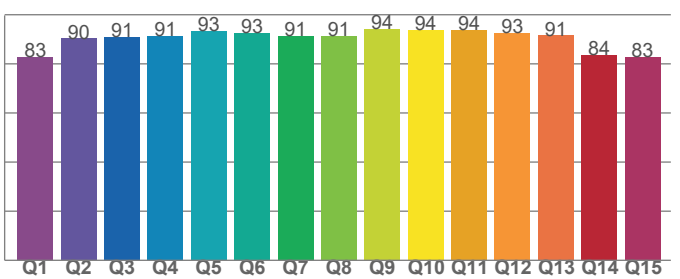
**TM30-18 Rf-Values per Hue Bin**



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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.2	90.7	90.8	95.5	95.4	93.2	95.4	97.2	96.4	94.1	92.5	87.9	83.6	79.3	91.6	83.1

**Color Quality Scale by Reference Color**



CQS Q values

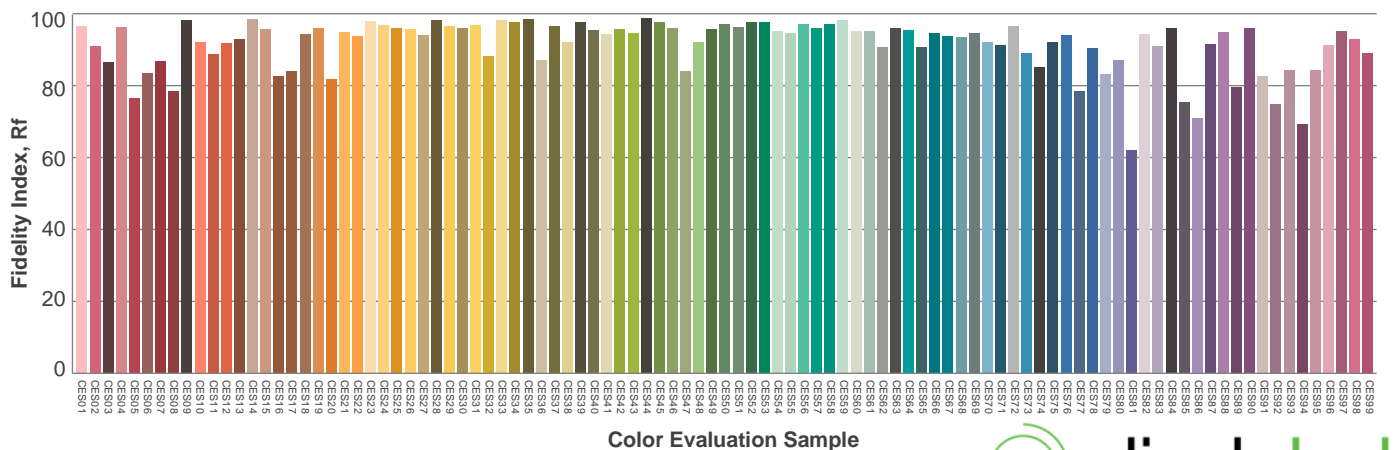
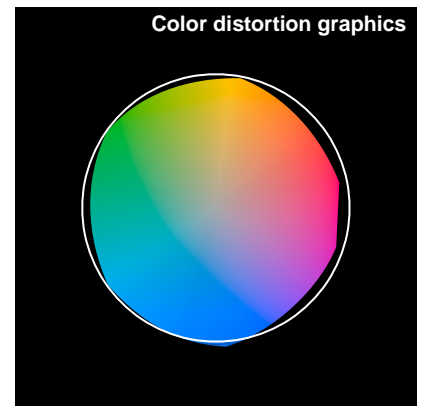
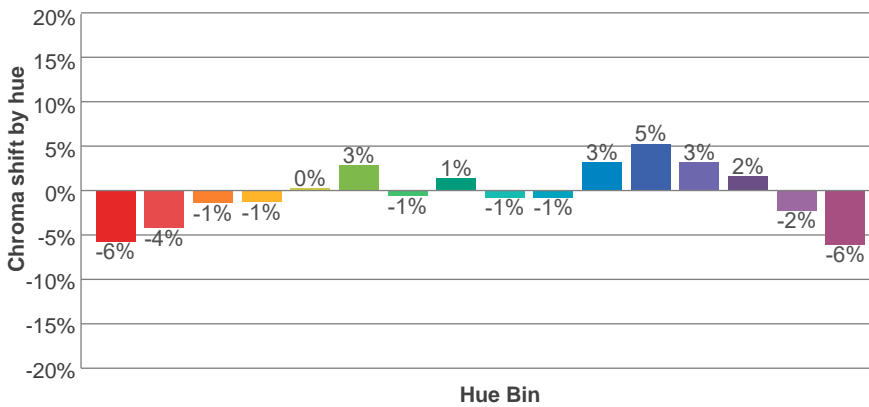
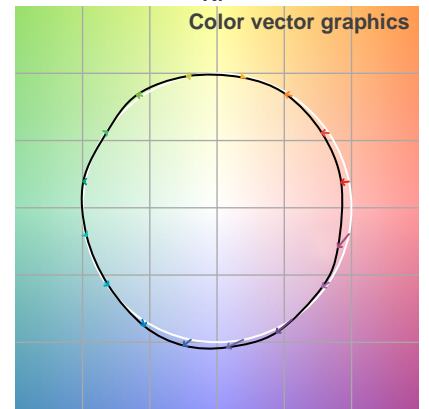
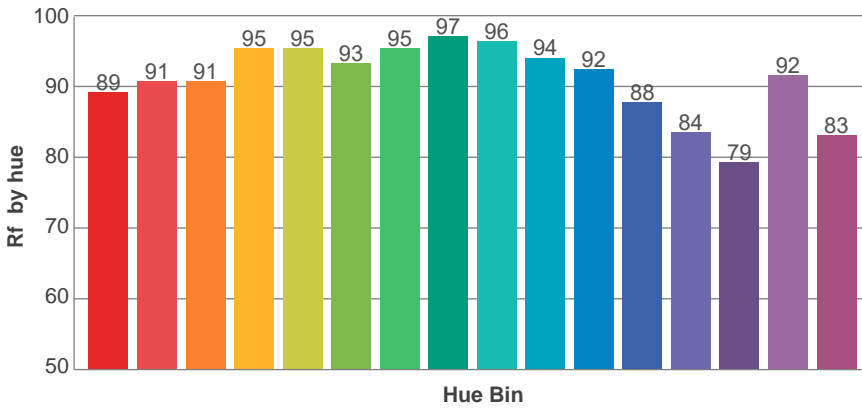
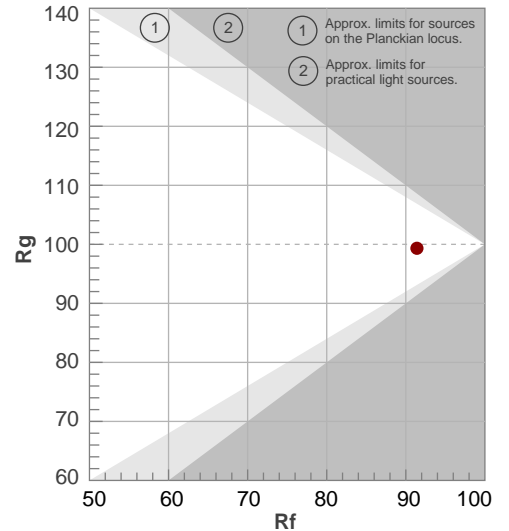
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.7	90.3	90.9	91.3	93.2	92.5	91.2	91.4	94.3	93.9	93.8	92.6	91.5	83.6	82.7



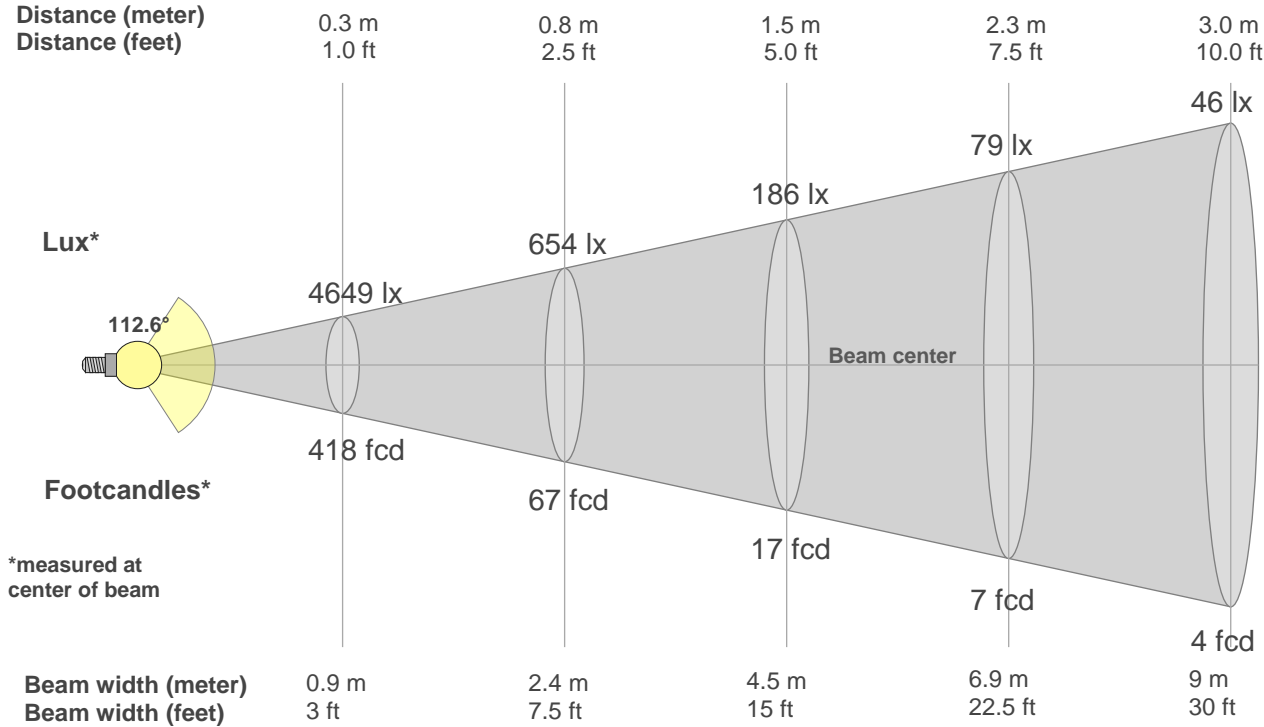
**Rf 91.4**  
Fidelity index Rf

**Rg 99.3**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	89	-6%	0%
2	91	-4%	3%
3	91	-1%	5%
4	95	-1%	1%
5	95	0%	3%
6	93	3%	3%
7	95	-1%	-2%
8	97	1%	0%
9	96	-1%	1%
10	94	-1%	3%
11	92	3%	4%
12	88	5%	-4%
13	84	3%	-13%
14	79	2%	-15%
15	92	-2%	-5%
16	83	-6%	-11%



**Beam Details**



**Beam Intensities from 1-20m**

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
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
418lx	105lx	46lx	26lx	17lx	12lx	9lx	7lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx
38.9fcd	9.7fcd	4.3fcd	2.4fcd	1.6fcd	1.1fcd	0.8fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd

**Intensities in 0° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
418	416	410	401	387	370	350	327	303	276	247	217	187	156	125	94	64	35	12	8
100%	100%	98%	96%	93%	89%	84%	78%	72%	66%	59%	52%	45%	37%	30%	23%	15%	8%	3%	2%

**Intensities in 90° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
418	416	411	402	389	373	354	333	309	282	254	224	193	163	130	98	66	34	8	6
100%	100%	98%	96%	93%	89%	85%	80%	74%	67%	61%	54%	46%	39%	31%	23%	16%	8%	2%	2%

**Intensities in 180° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
418	416	410	401	387	370	350	327	303	276	247	217	187	156	125	94	64	35	12	8
100%	100%	98%	96%	93%	89%	84%	78%	72%	66%	59%	52%	45%	37%	30%	23%	15%	8%	3%	2%

**Intensities in 270° c-plane**

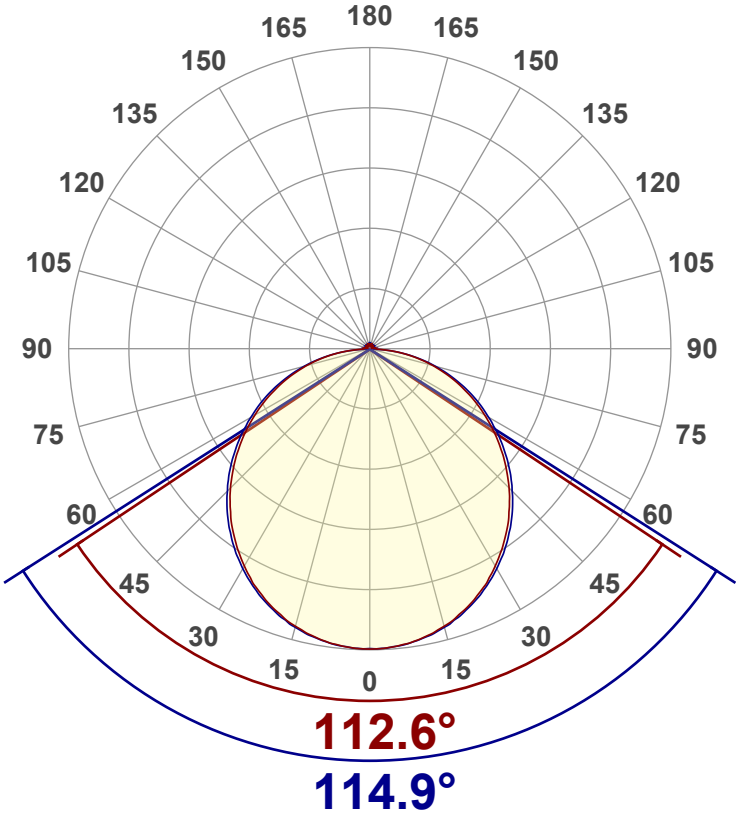
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
418	416	411	402	389	373	354	333	309	282	254	224	193	163	130	98	66	34	8	6
100%	100%	98%	96%	93%	89%	85%	80%	74%	67%	61%	54%	46%	39%	31%	23%	16%	8%	2%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
113.9°	167.8°	180.8°	73.6%	49.9%



**Luminous Intensity Diagram**

Unit: 0-100% of peak intensity



**Main Values**

Output (Total Lumen)	1283 lm
Lumen Up% / Down%	3.1% / 96.9%
Peak Intensity	419 cd
Beam Angle (50%)	113.9°
Beam Angle (90%)	114.9°
Beam Angle (10%)	112.6°

**Cut-off Angle**

Average 2,5%	180.8°
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**Field Angle**

Average 10%	167.8°
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**Intensity Ratio**

In 120° cone	73.6%
In 90° cone	49.9%

**C000-C180 C090-C270**

**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
39.6 lm	113 lm	172 lm	207 lm	215 lm	198 lm	158 lm	102 lm	39.0 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
8.56 lm	6.35 lm	5.51 lm	5.19 lm	4.63 lm	3.95 lm	3.04 lm	1.93 lm	0.671 lm



LCS Table

BUG rating:	B1 U2 G1	
Forward light	Lumens	Lumens %
Low(0-30):	162.2	12.6%
Medium(30-60):	309.9	24.2%
High(60-80):	130	10.1%
Very high(80-90):	19.5	1.5%
Back light		
Low(0-30):	162.2	12.6%
Medium(30-60):	309.9	24.2%
High(60-80):	130	10.1%
Very high(80-90):	19.5	1.5%
Uplight		
Low(90-100):	8.6	0.7%
High(100-180):	31.3	2.4%

LCS Graph

