



# 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**

VALENT® MINI 8MM LED Tape Light  
DI-24V-VL8MN3-50

## **Test Conditions**

Test Temperature: 26.5 °C  
Luminaire Sample Length: 1000 mm.  
Power Supply: Agilent E3634A DC Power Supply  
Voltage: 24.0 VDC  
Current: 0.416 A  
Power Consumption: 10.0 W

## **Test Date**

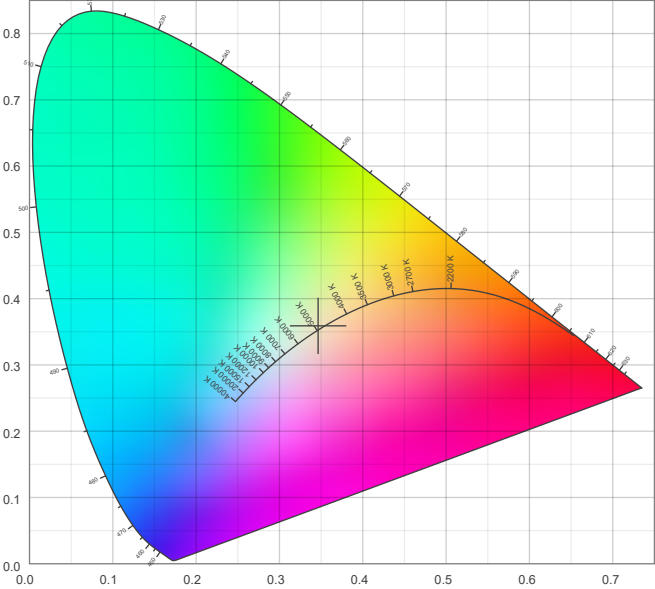
10/21/2025

**Color Details**

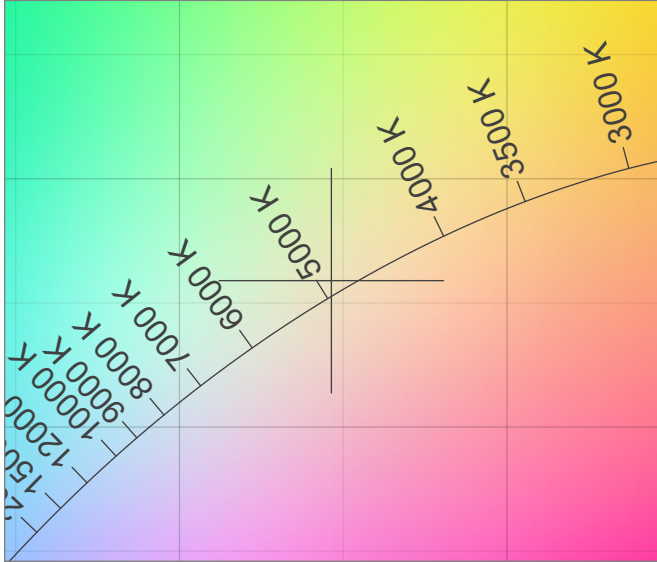
Correlated Color Temperature	CCT = 4983
CIE Test Color Method General Index	CRI = 92.2
CIE Test Color Method Sample Nine Score	R9 = 59.5
IES TM-30-15 Fidelity Index	R <sub>f</sub> = 87.9
IES TM-30-15 Gamut Index	R <sub>g</sub> = 95.9
Luminous Flux	Lm = 1544

Color coordinates CIE 1931	(x;y) = (0.346;0.359)
Color coordinate CIEs 1960	(u;v) = (0.209;0.326)
Color coordinate CIEs 1976	(u';v') = (0.209;0.488)
Color deviation from BBL	Duv = 0.0013
Color Quality Scale (CQS)	CQS = 89.5

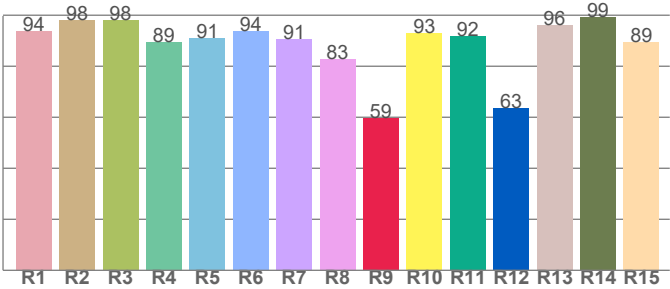
**CIE 1931**



**CIE 1931 – zoomed on Planckian locus**



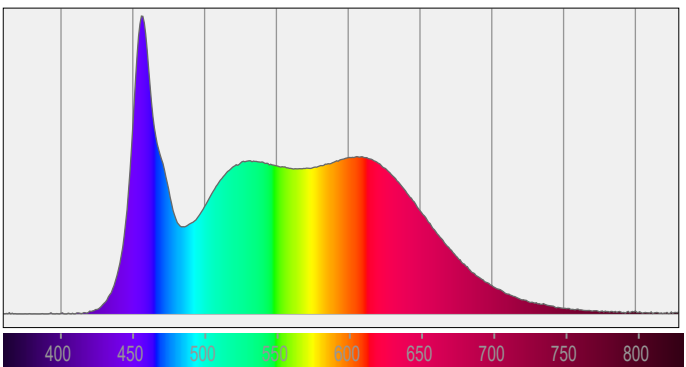
**Color Rendering Index per Reference Color (CIE 1995)**



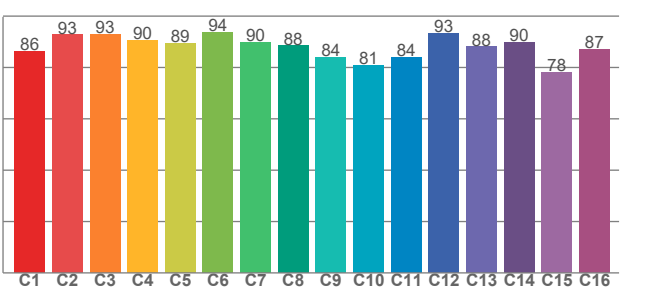
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.9	98.2	97.9	89.5	90.9	93.9	90.6	82.9	59.5	93.1	91.7	63.4	96.3	99.4	89.3

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



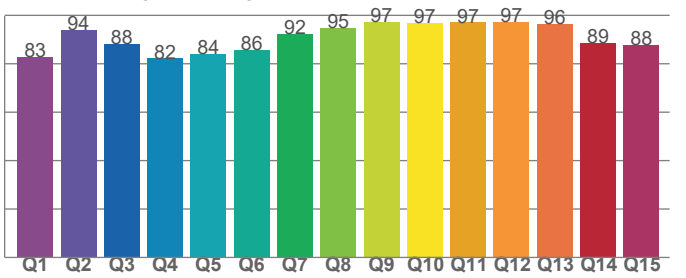
**TM30-18 Rf-Values per Hue Bin**



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
86.5	92.7	92.8	90.4	89.3	93.6	89.9	88.5	83.8	80.8	83.8	93.2	88.1	89.7	78.0	87.1

**Color Quality Scale by Reference Color**



CQS Q values

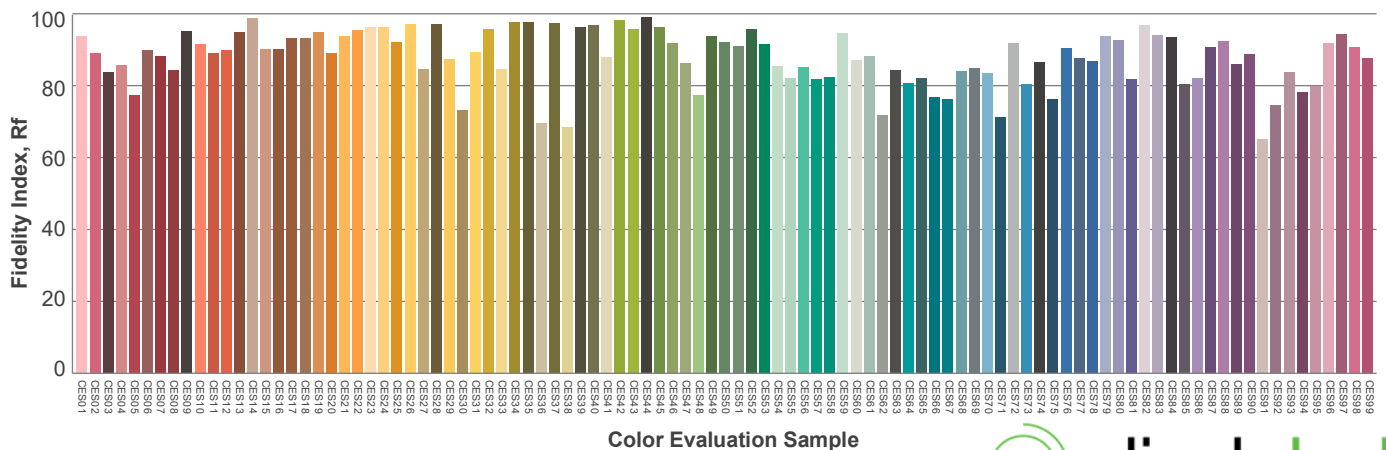
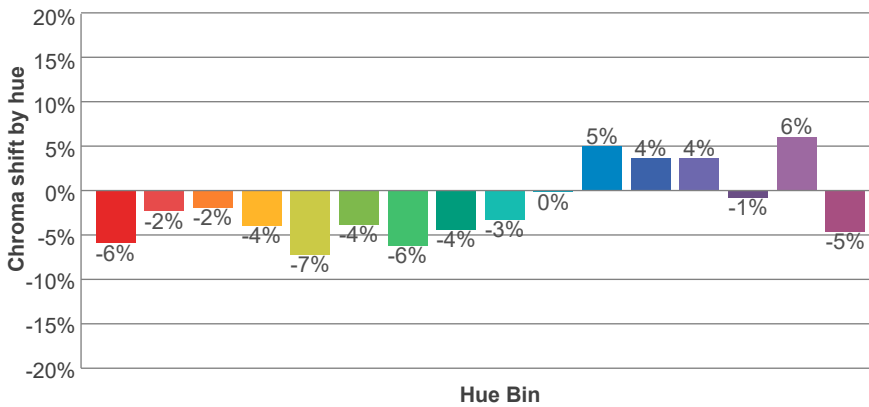
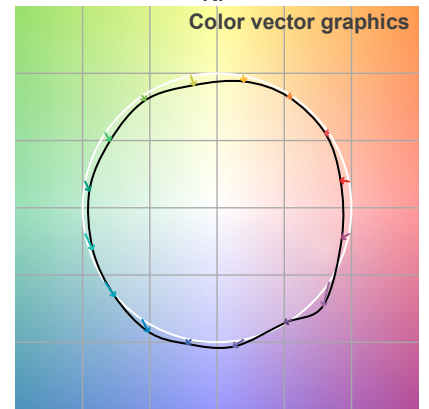
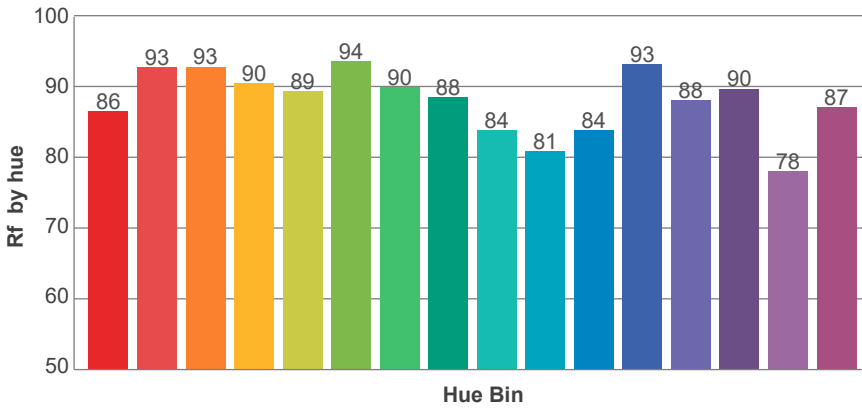
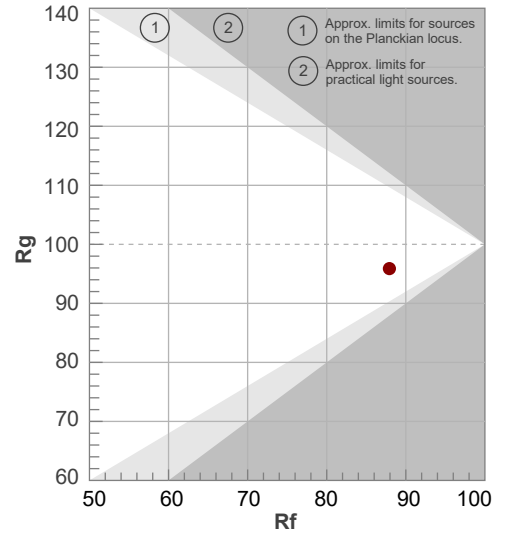
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.7	93.8	88.3	82.2	84.0	85.7	92.4	94.8	97.4	96.8	97.1	97.1	96.5	88.7	87.6



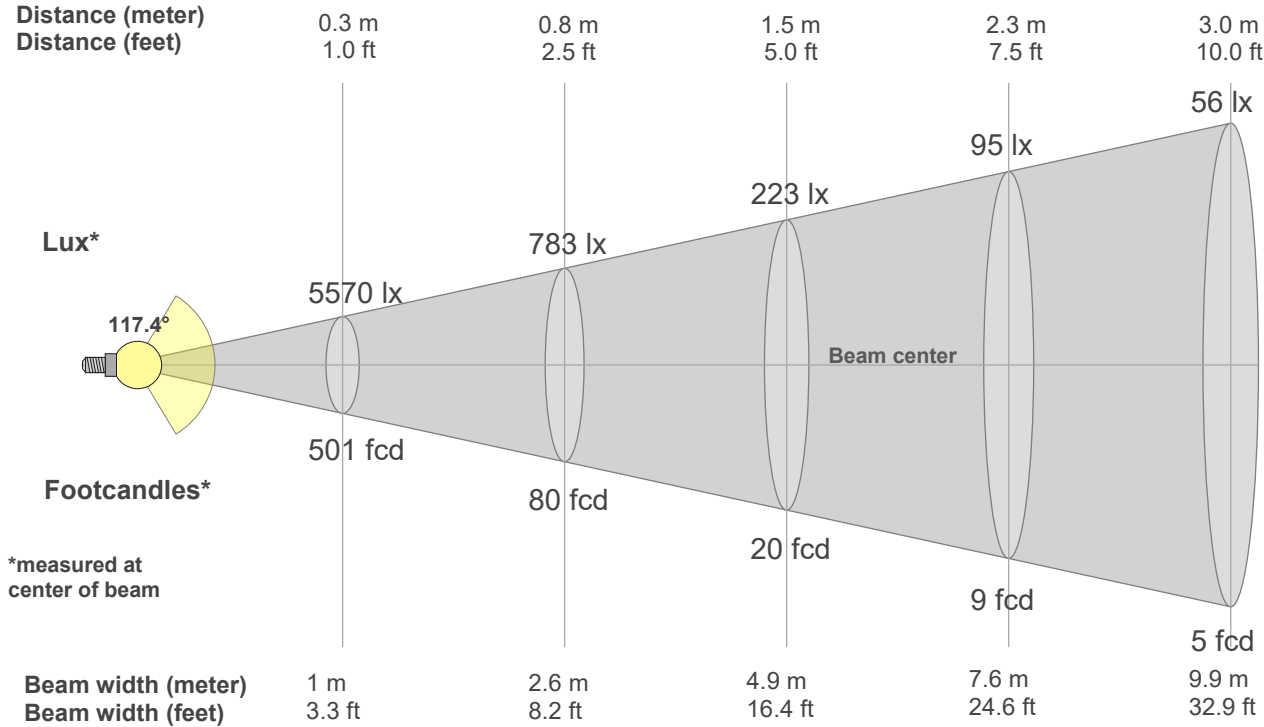
**Rf 87.9**  
Fidelity index Rf

**Rg 95.9**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	86	-6%	2%
2	93	-2%	1%
3	93	-2%	2%
4	90	-4%	-1%
5	89	-7%	-1%
6	94	-4%	0%
7	90	-6%	3%
8	88	-4%	6%
9	84	-3%	12%
10	81	0%	12%
11	84	5%	9%
12	93	4%	-2%
13	88	4%	-8%
14	90	-1%	-6%
15	78	6%	-17%
16	87	-5%	-4%



**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
501lx	125lx	56lx	31lx	20lx	14lx	10lx	8lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx
46.6fcd	11.6fcd	5.2fcd	2.9fcd	1.9fcd	1.3fcd	1fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	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°
501	499	494	485	472	456	435	412	384	353	318	281	240	197	152	107	66	33	8	8
100%	100%	99%	97%	94%	91%	87%	82%	77%	70%	63%	56%	48%	39%	30%	21%	13%	7%	2%	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°
501	500	495	486	474	457	438	415	387	357	322	284	243	199	153	106	62	26	3	3
100%	100%	99%	97%	94%	91%	87%	83%	77%	71%	64%	57%	49%	40%	30%	21%	12%	5%	1%	1%

**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°
501	499	494	485	472	456	435	412	384	353	318	281	240	197	152	107	66	33	8	8
100%	100%	99%	97%	94%	91%	87%	82%	77%	70%	63%	56%	48%	39%	30%	21%	13%	7%	2%	2%

**Intensities in 270° c-plane**

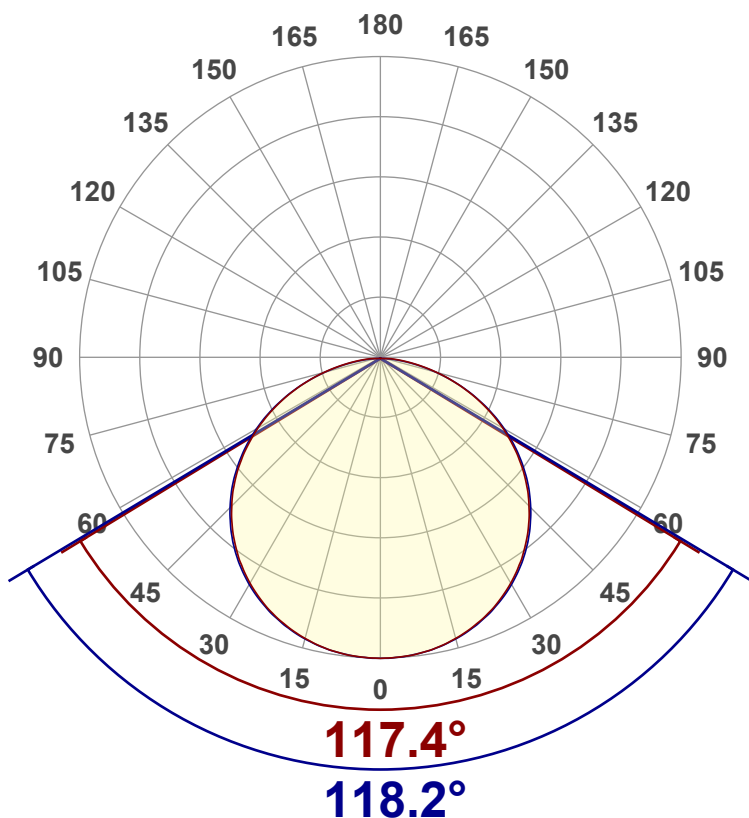
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
501	500	495	486	474	457	438	415	387	357	322	284	243	199	153	106	62	26	3	3
100%	100%	99%	97%	94%	91%	87%	83%	77%	71%	64%	57%	49%	40%	30%	21%	12%	5%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
117.9°	163.9°	177.3°	76.5%	51.3%



### Luminous Intensity Diagram

Unit: 0-100% of peak intensity



### Main Values

Output (Total Lumen)	1544 lm
Lumen Up% / Down%	1.2% / 98.8%
Peak Intensity	502 cd
Beam Angle (50%)	117.9°
Beam Angle (90%)	118.2°
Beam Angle (10%)	117.4°

### Cut-off Angle

Average 2,5%	177.3°
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### Field Angle

Average 10%	163.9°
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### Intensity Ratio

In 120° cone	76.5%
In 90° cone	51.3%

**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°
47.5 lm	137 lm	211 lm	259 lm	274 lm	253 lm	196 lm	114 lm	35.1 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6.94 lm	3.11 lm	2.66 lm	2.41 lm	1.45 lm	0.823 lm	0.606 lm	0.371 lm	0.125 lm

LCS Table

BUG rating:	B1 U0 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	200.1	13%
Medium(30-60):	397.4	25.7%
High(60-80):	156.7	10.1%
Very high(80-90):	17.9	1.2%
<b>Back light</b>		
Low(0-30):	200.1	13%
Medium(30-60):	397.4	25.7%
High(60-80):	156.7	10.1%
Very high(80-90):	17.7	1.1%
<b>Uplight</b>		
Low(90-100):	0	0%
High(100-180):	0	0%

LCS Graph

