



# 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 10MM LED Tape Light  
DI-24V-VL10MN5-50

## **Test Conditions**

Test Temperature: 26.5 °C  
Luminaire Sample Length: 1000 mm.  
Power Supply: Agilent E3634A DC Power Supply  
Voltage: 24.0 VDC  
Current: 0.618 A  
Power Consumption: 14.8 W

## **Test Date**

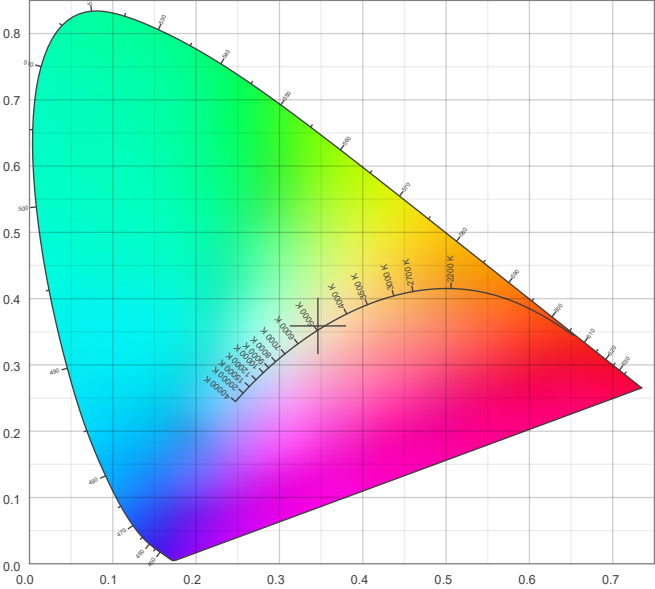
10/21/2025

**Color Details**

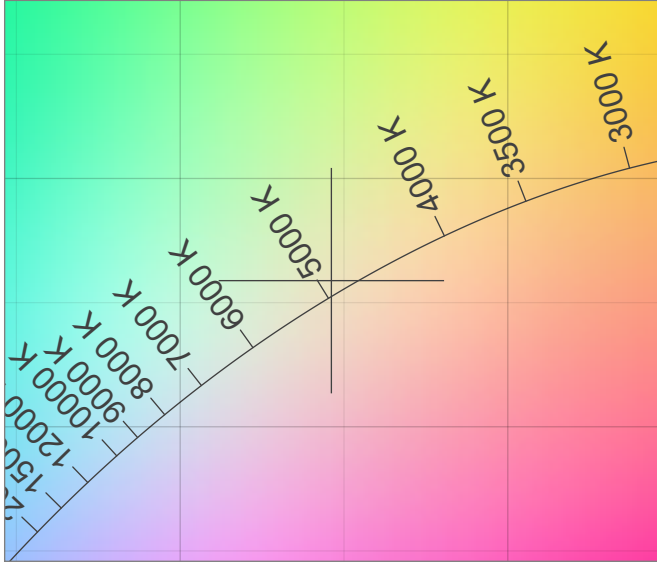
Correlated Color Temperature	CCT = 4991
CIE Test Color Method General Index	CRI = 91.6
CIE Test Color Method Sample Nine Score	R9 = 54.8
IES TM-30-15 Fidelity Index	R <sub>f</sub> = 88.1
IES TM-30-15 Gamut Index	R <sub>g</sub> = 96.6
Luminous Flux	Lm = 2422

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 = 0.0012
Color Quality Scale (CQS)	CQS = 89.2

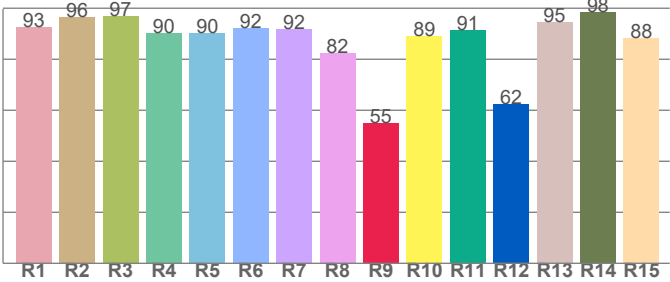
**CIE 1931**



**CIE 1931 – zoomed on Planckian locus**



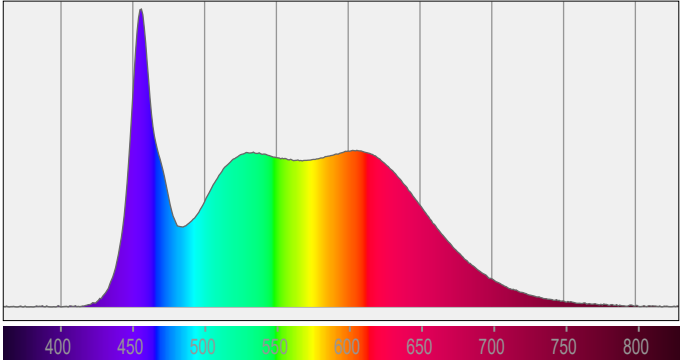
**Color Rendering Index per Reference Color (CIE 1995)**



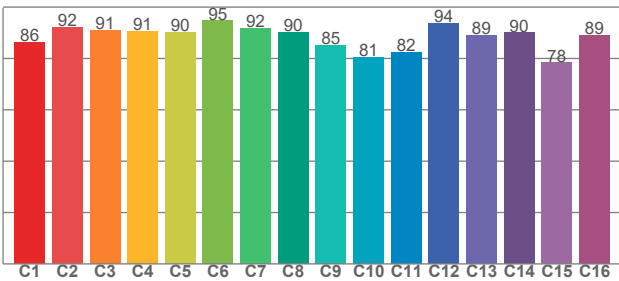
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92.6	96.4	96.9	90.1	90.2	92.3	91.7	82.3	54.8	89.1	91.3	62.5	94.6	98.3	88.3

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



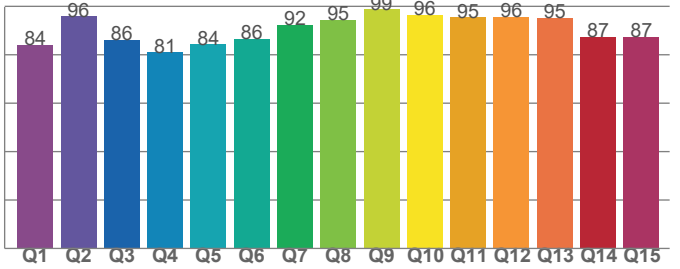
**TM30-18 Rf-Values per Hue Bin**



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
86.4	92.3	90.9	90.7	90.2	94.6	91.8	90.2	85.2	80.6	82.3	93.8	88.9	90.0	78.3	89.0

**Color Quality Scale by Reference Color**



CQS Q values

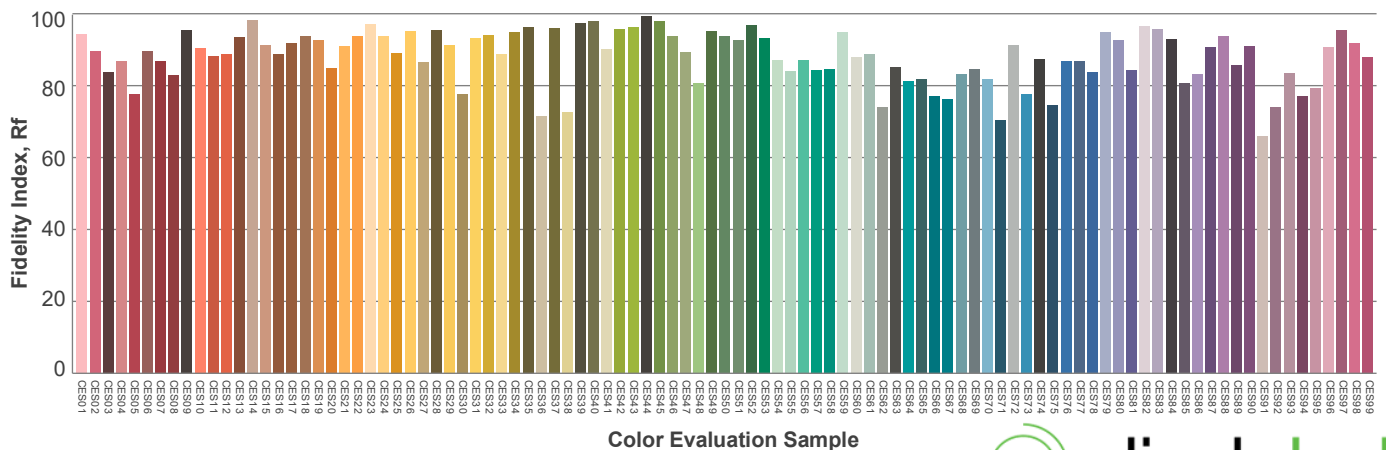
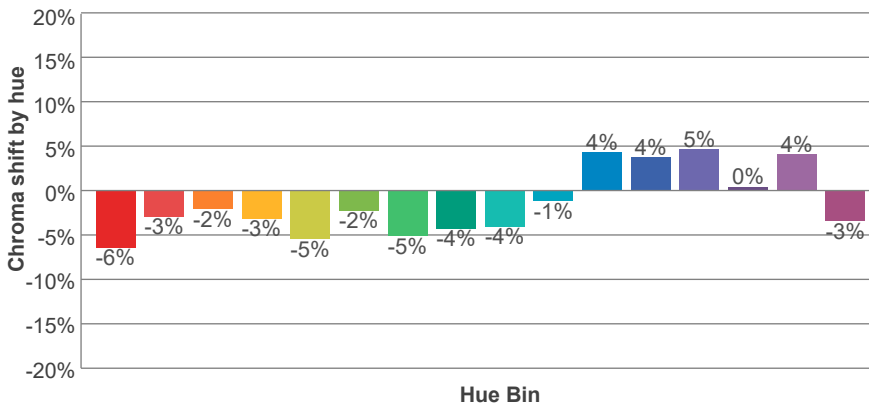
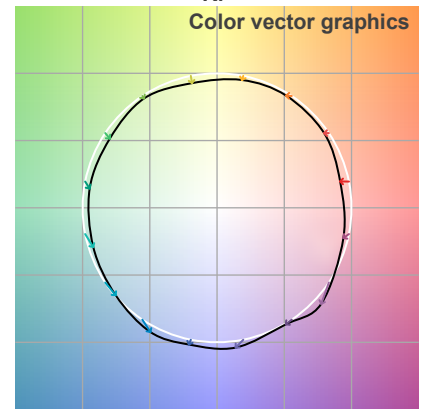
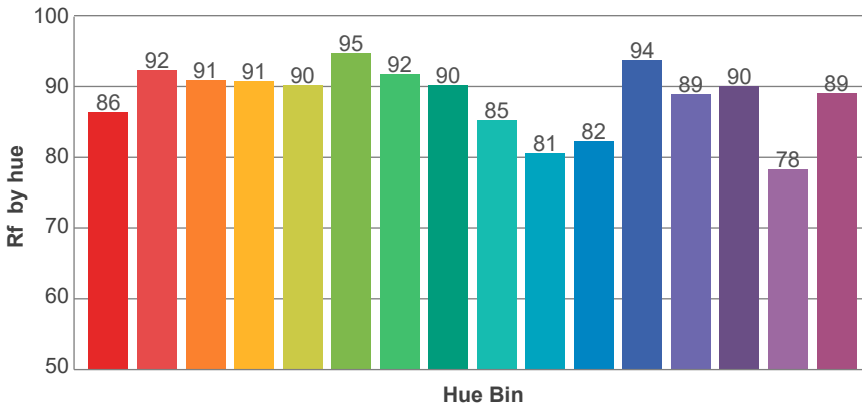
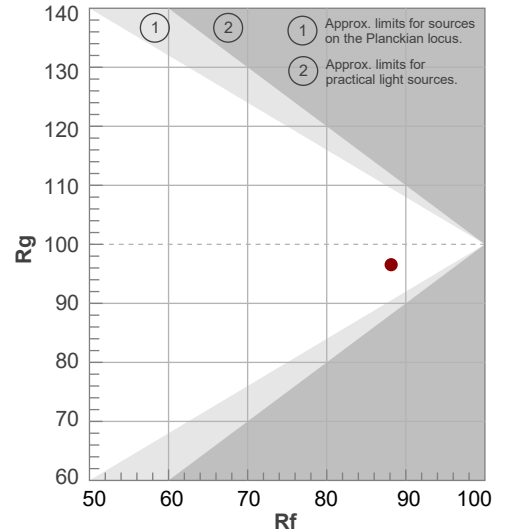
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84.1	95.8	86.1	80.9	84.2	86.5	92.4	94.5	98.7	96.3	95.4	95.6	95.2	87.3	87.2



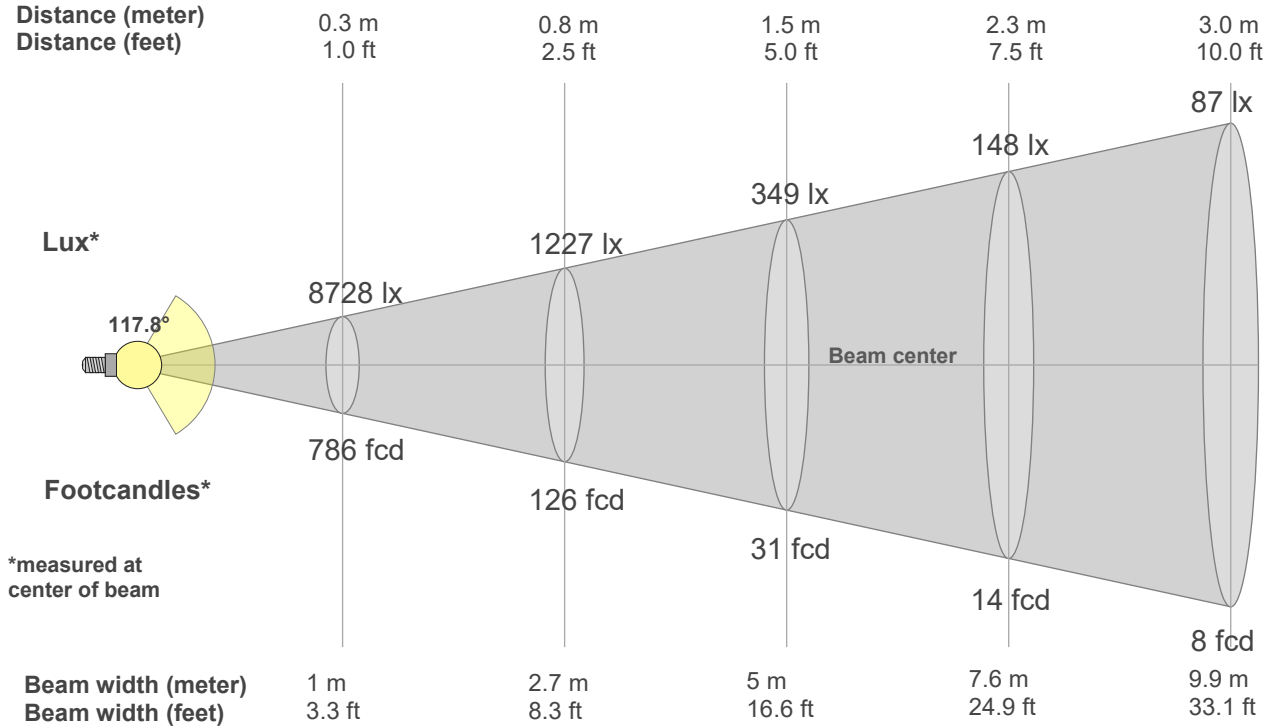
**Rf 88.1**  
Fidelity index Rf

**Rg 96.6**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	86	-6%	1%
2	92	-3%	2%
3	91	-2%	4%
4	91	-3%	0%
5	90	-5%	0%
6	95	-2%	0%
7	92	-5%	2%
8	90	-4%	4%
9	85	-4%	11%
10	81	-1%	12%
11	82	4%	10%
12	94	4%	-1%
13	89	5%	-7%
14	90	0%	-6%
15	78	4%	-16%
16	89	-3%	-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
786lx	196lx	87lx	49lx	31lx	22lx	16lx	12lx	10lx	8lx	6lx	5lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx
73fcd	18.2fcd	8.1fcd	4.6fcd	2.9fcd	2fcd	1.5fcd	1.1fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd

**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°
786	783	774	760	739	714	683	645	602	554	500	441	378	311	241	170	104	50	10	10
100%	100%	99%	97%	94%	91%	87%	82%	77%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	1%

**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°
786	783	775	762	742	717	687	651	609	561	508	449	385	316	243	169	99	42	5	4
100%	100%	99%	97%	94%	91%	87%	83%	78%	71%	65%	57%	49%	40%	31%	22%	13%	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°
786	783	774	760	739	714	683	645	602	554	500	441	378	311	241	170	104	50	10	10
100%	100%	99%	97%	94%	91%	87%	82%	77%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	1%

**Intensities in 270° c-plane**

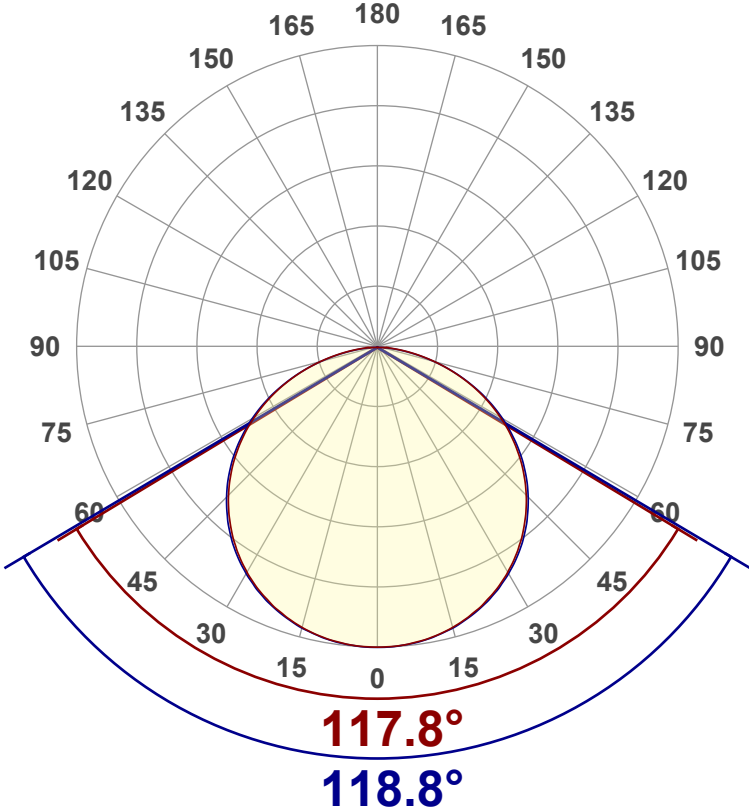
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
786	783	775	762	742	717	687	651	609	561	508	449	385	316	243	169	99	42	5	4
100%	100%	99%	97%	94%	91%	87%	83%	78%	71%	65%	57%	49%	40%	31%	22%	13%	5%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
118.3°	163.9°	178°	76.5%	51.2%



**Luminous Intensity Diagram**

Unit: 0-100% of peak intensity



**Main Values**

Output (Total Lumen)	2422 lm
Lumen Up% / Down%	0.95% / 99.05%
Peak Intensity	786 cd
Beam Angle (50%)	118.3°
Beam Angle (90%)	118.8°
Beam Angle (10%)	117.8°

**Cut-off Angle**

Average 2,5%	178°
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**Field Angle**

Average 10%	163.9°
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**Intensity Ratio**

In 120° cone	76.5%
In 90° cone	51.2%

**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°
74.5 lm	215 lm	330 lm	406 lm	430 lm	398 lm	310 lm	180 lm	55.6 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
7.98 lm	4.14 lm	3.44 lm	3.11 lm	1.94 lm	0.998 lm	0.735 lm	0.450 lm	0.152 lm



LCS Table

BUG rating:	B1 U0 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	312.7	12.9%
Medium(30-60):	622.6	25.7%
High(60-80):	247.5	10.2%
Very high(80-90):	28.1	1.2%
<b>Back light</b>		
Low(0-30):	312.7	12.9%
Medium(30-60):	622.6	25.7%
High(60-80):	247.5	10.2%
Very high(80-90):	28	1.2%
<b>Uplight</b>		
Low(90-100):	0	0%
High(100-180):	0	0%

LCS Graph

