



# 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® X Wet Location  
DI-24V-VLX5-50-W016

## **Test Conditions**

Test Temperature: 26.5 °C  
Luminaire Sample Length: 1000 mm.  
Power Supply: Agilent E3634A DC Power Supply  
Voltage: 24.0 VDC  
Current: 0.565 A  
Power Consumption: 13.6 W

## **Test Date**

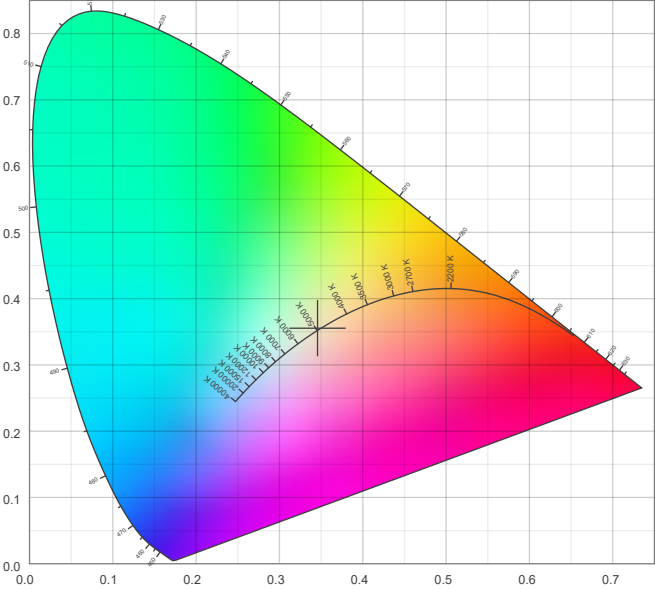
12/9/2025

**Color Details**

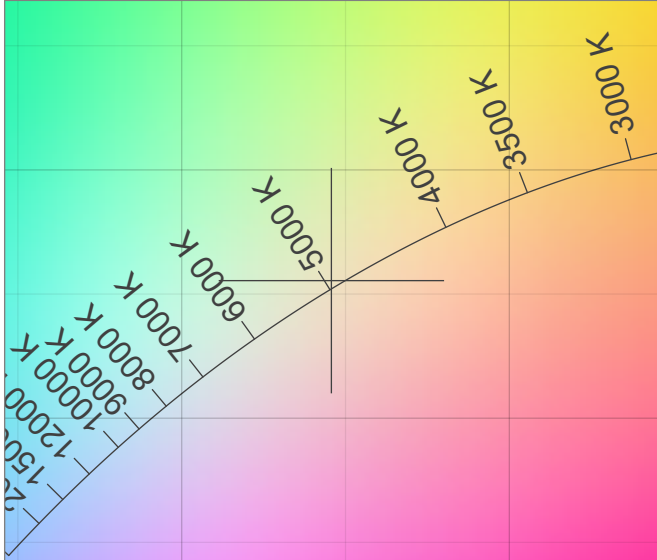
Correlated Color Temperature	CCT = 4997
CIE Test Color Method General Index	CRI = 98.1
CIE Test Color Method Sample Nine Score	R9 = 95.0
IES TM-30-15 Fidelity Index	R <sub>f</sub> = 95.5
IES TM-30-15 Gamut Index	R <sub>g</sub> = 102.0
Luminous Flux	Lm = 1759

Color coordinates CIE 1931	(x;y) = (0.346;0.355)
Color coordinate CIEs 1960	(u;v) = (0.210;0.324)
Color coordinate CIEs 1976	(u';v') = (0.210;0.487)
Color deviation from BBL	Duv = 0.0017
Color Quality Scale (CQS)	CQS = 97.0

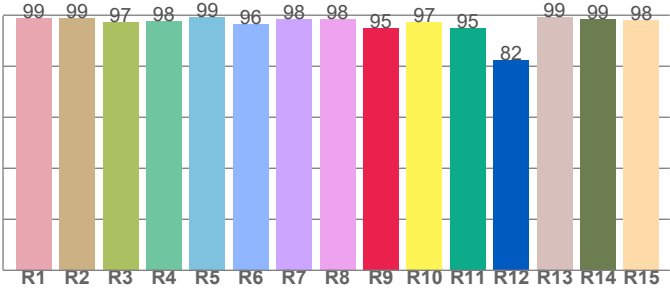
**CIE 1931**



**CIE 1931 – zoomed on Planckian locus**



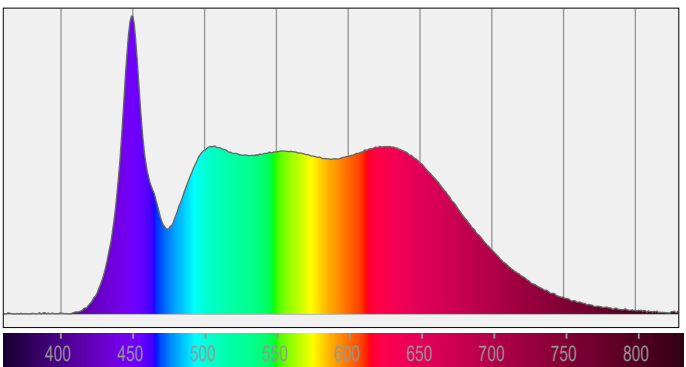
**Color Rendering Index per Reference Color (CIE 1995)**



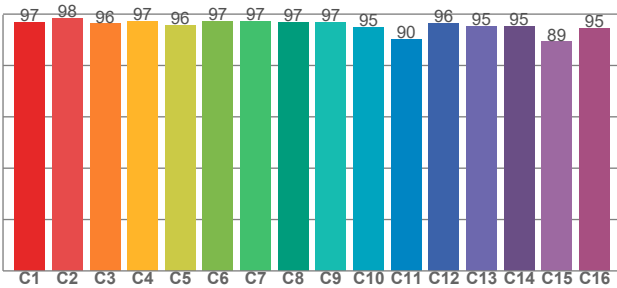
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
99.0	98.7	97.4	97.6	99.2	96.3	98.4	98.3	95.0	97.3	95.1	82.5	99.3	98.6	98.2

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



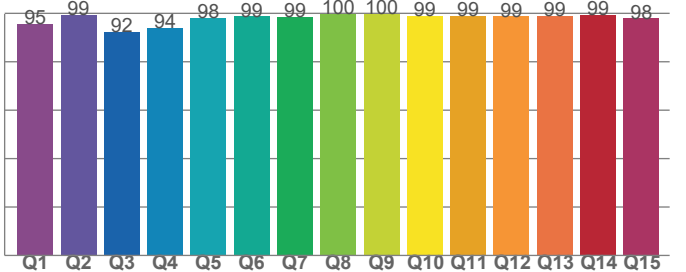
**TM30-18 Rf-Values per Hue Bin**



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
96.9	98.3	96.3	97.1	95.6	97.2	97.2	96.7	96.9	94.8	90.1	96.5	95.3	95.2	89.2	94.5

**Color Quality Scale by Reference Color**



CQS Q values

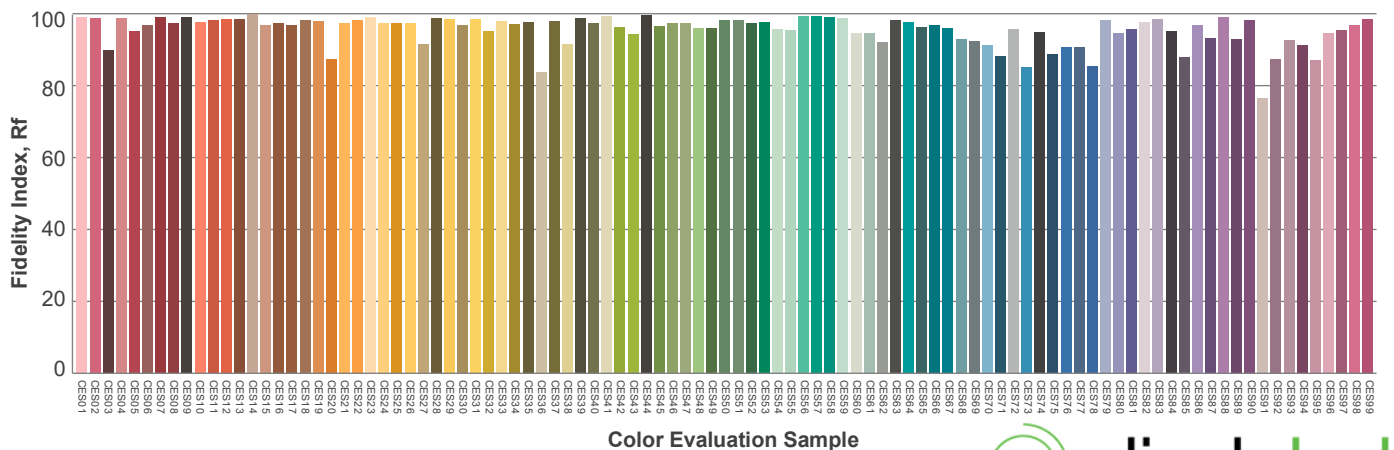
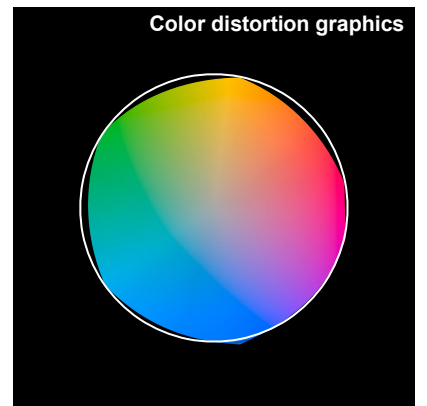
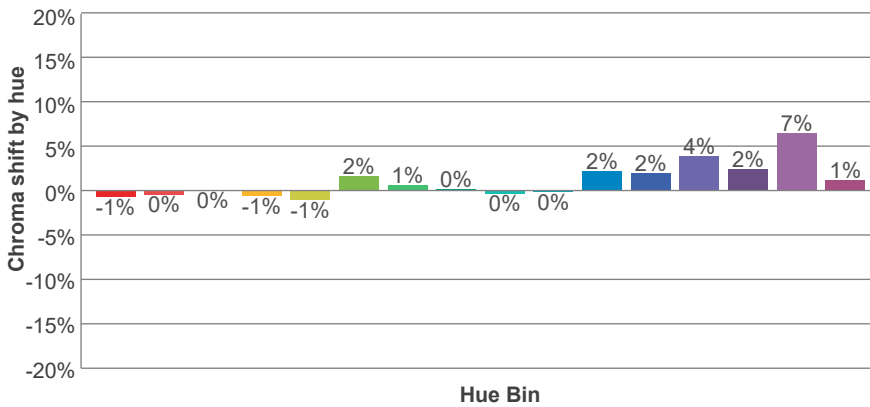
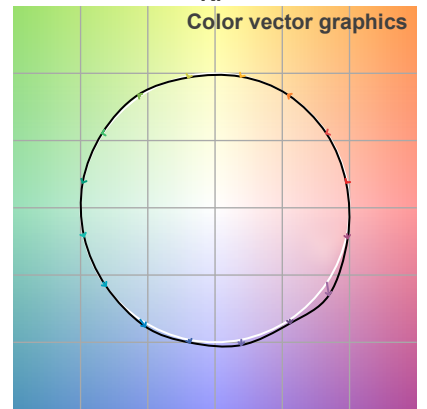
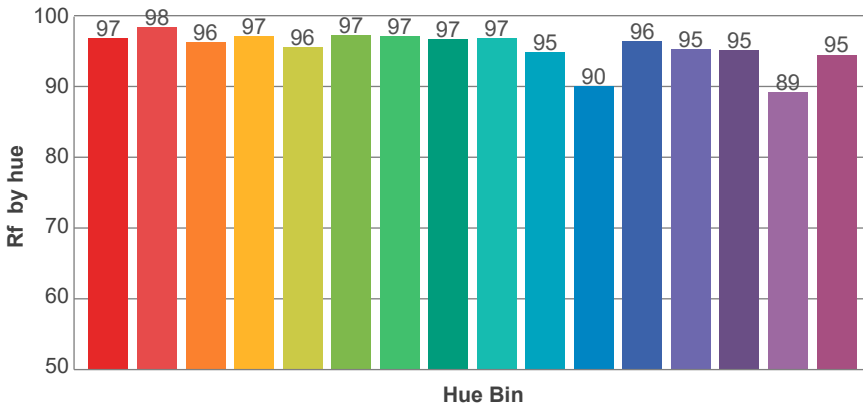
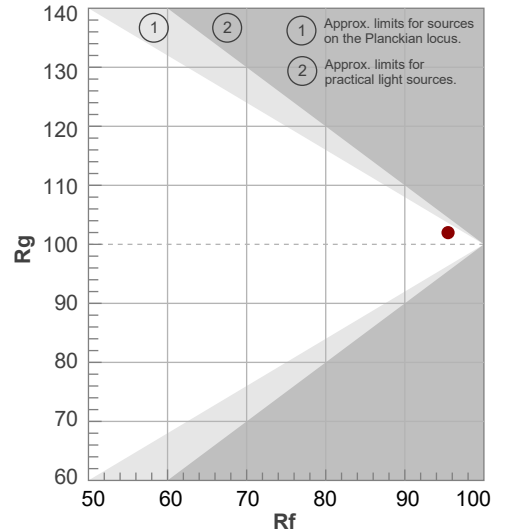
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95.5	99.3	92.5	93.9	98.1	98.7	98.5	99.6	99.9	99.0	99.1	98.7	99.0	99.3	97.9



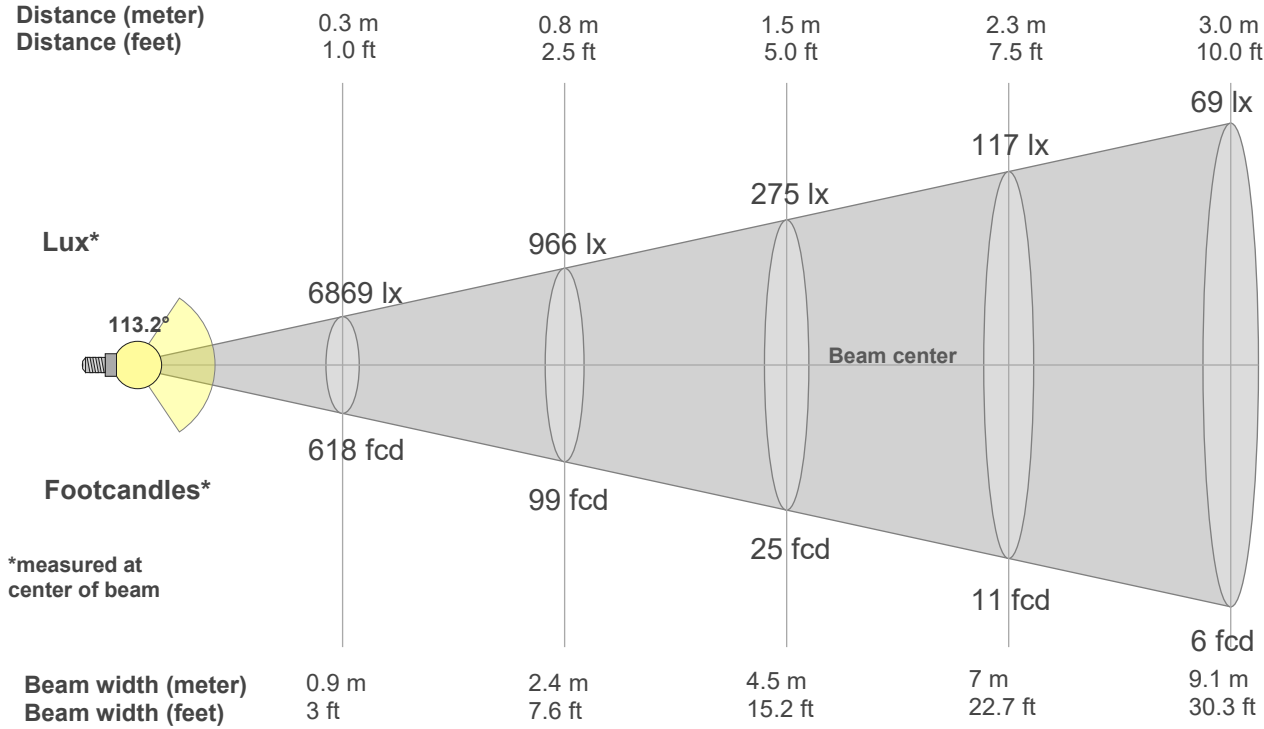
**Rf 95.5**  
Fidelity index Rf

**Rg 102.0**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	97	-1%	-1%
2	98	0%	0%
3	96	0%	2%
4	97	-1%	0%
5	96	-1%	1%
6	97	2%	1%
7	97	1%	1%
8	97	0%	1%
9	97	0%	2%
10	95	0%	3%
11	90	2%	6%
12	96	2%	1%
13	95	4%	-1%
14	95	2%	-1%
15	89	7%	-7%
16	95	1%	-3%



**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
618lx	155lx	69lx	39lx	25lx	17lx	13lx	10lx	8lx	6lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx
57.4fcd	14.4fcd	6.4fcd	3.6fcd	2.3fcd	1.6fcd	1.2fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	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°
618	615	608	593	573	548	517	483	443	399	369	333	269	215	168	125	88	43	14	0
100%	100%	98%	96%	93%	89%	84%	78%	72%	64%	60%	54%	43%	35%	27%	20%	14%	7%	2%	0%

**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°
618	616	607	594	577	554	526	494	455	411	362	308	250	190	130	77	37	15	4	3
100%	100%	98%	96%	93%	90%	85%	80%	74%	67%	58%	50%	40%	31%	21%	12%	6%	2%	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°
618	615	608	593	573	548	517	483	443	399	369	333	269	215	168	125	88	43	14	0
100%	100%	98%	96%	93%	89%	84%	78%	72%	64%	60%	54%	43%	35%	27%	20%	14%	7%	2%	0%

**Intensities in 270° c-plane**

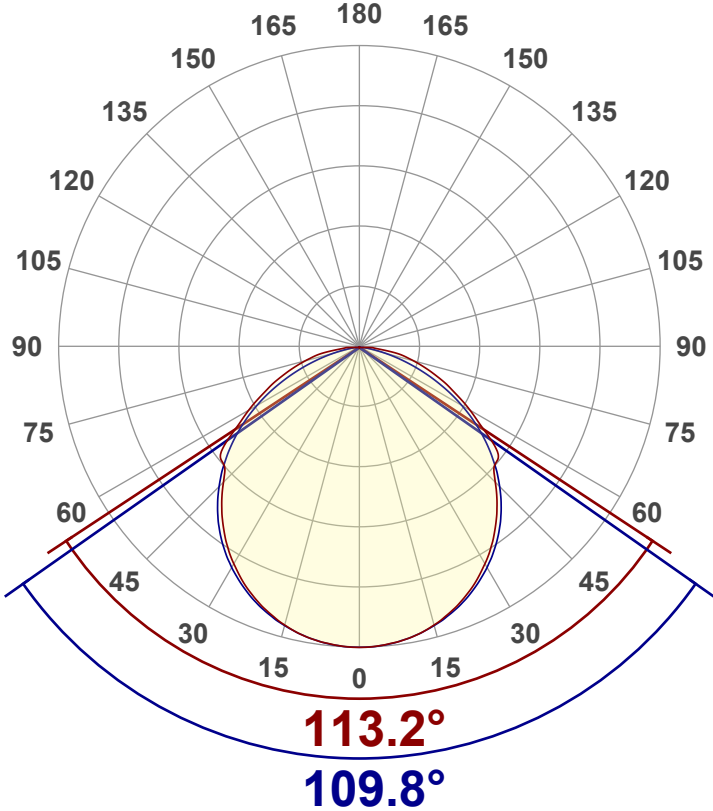
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
618	616	607	594	577	554	526	494	455	411	362	308	250	190	130	77	37	15	4	3
100%	100%	98%	96%	93%	90%	85%	80%	74%	67%	58%	50%	40%	31%	21%	12%	6%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112.2°	162.1°	178.5°	78.7%	53.7%



**Luminous Intensity Diagram**

Unit: 0-100% of peak intensity



**Main Values**

Output (Total Lumen)	1759 lm
Lumen Up% / Down%	0.65% / 99.35%
Peak Intensity	618 cd
Beam Angle (50%)	112.2°
Beam Angle (90%)	109.8°
Beam Angle (10%)	113.2°

**Cut-off Angle**

Average 2,5%	178.5°
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**Field Angle**

Average 10%	162.1°
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**Intensity Ratio**

In 120° cone	78.7%
In 90° cone	53.7%

**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°
58.5 lm	168 lm	254 lm	305 lm	313 lm	285 lm	206 lm	115 lm	43.4 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
4.39 lm	3.05 lm	1.48 lm	0.945 lm	0.634 lm	0.379 lm	0.280 lm	0.171 lm	0.058 lm



LCS Table

BUG rating:	B1 U0 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	241.7	13.7%
Medium(30-60):	454.6	25.8%
High(60-80):	161.3	9.2%
Very high(80-90):	21.7	1.2%
<b>Back light</b>		
Low(0-30):	241.7	13.7%
Medium(30-60):	454.6	25.8%
High(60-80):	161.3	9.2%
Very high(80-90):	21.6	1.2%
<b>Uplight</b>		
Low(90-100):	0	0%
High(100-180):	0	0%

LCS Graph

