



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

ALPHATECH® X 400

DI-24V-TE-ATX-400-30

Test Conditions

Test Temperature: 26.5 °C

Luminaire Sample Length: 1000 mm.

Power Supply: Agilent E3634A DC Power Supply

Voltage: 24.0 VDC

Current: 0.878 A

Power Consumption: 21.1 W

Test Date

8/20/2026

The results contained in this report pertain only to the tested sample.

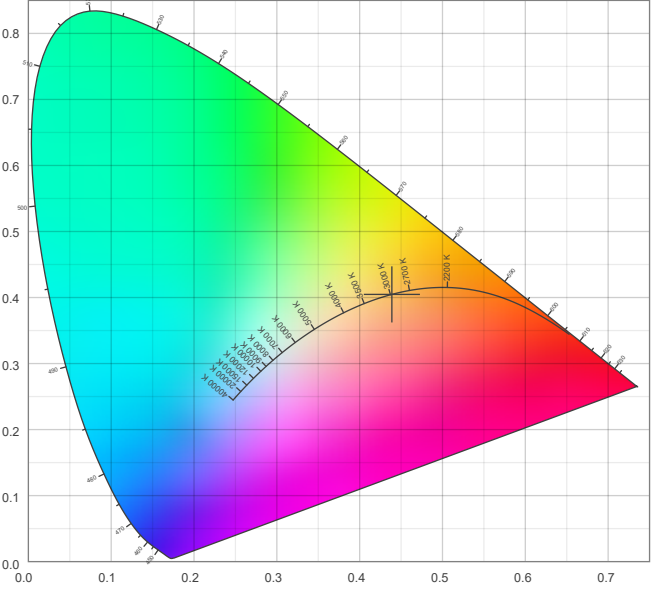
Photometric & Colorimetry data measured in accordance to IES LM-79-2008 standards, at the Elemental LED, Inc. Innovation Lab.

Color Details

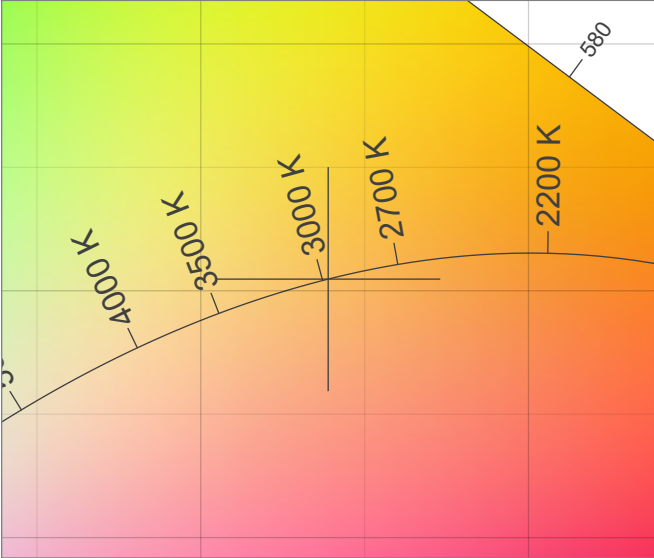
Correlated Color Temperature	CCT =	2976
CIE Test Color Method General Index	CRI =	97.4
CIE Test Color Method Sample Nine Score	R9 =	87.2
IES TM-30-15 Fidelity Index	R _f =	94.6
IES TM-30-15 Gamut Index	R _g =	101.2
Luminous Flux	Lm =	1314

Color coordinates CIE 1931	(x;y) =	(0.439;0.405)
Color coordinate CIEs 1960	(u;v) =	(0.252;0.348)
Color coordinate CIEs 1976	(u';v') =	(0.252;0.522)
Color deviation from BBL	Duv =	0.0000
Color Quality Scale (CQS)	CQS =	94.7

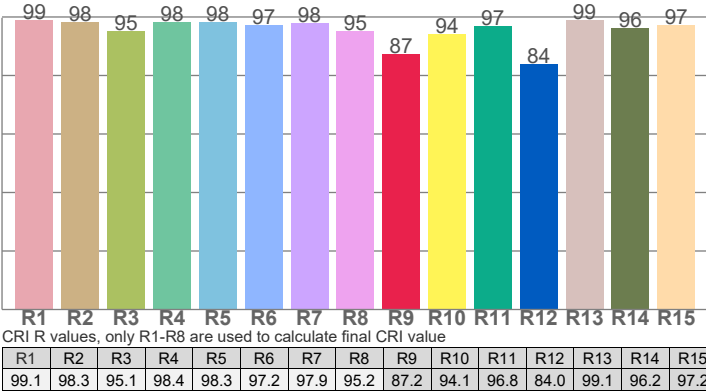
CIE 1931



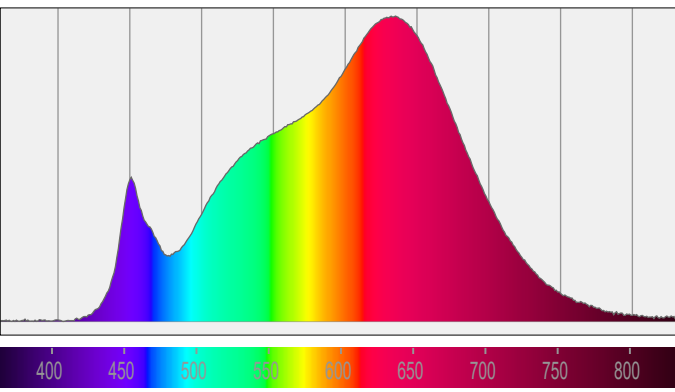
CIE 1931 – zoomed on Planckian locus



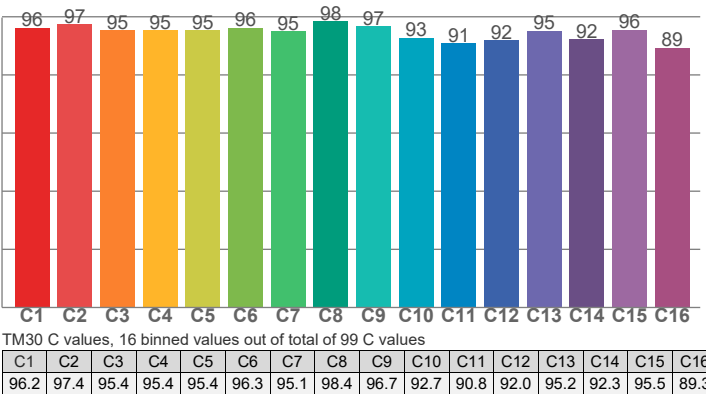
Color Rendering Index per Reference Color (CIE 1995)



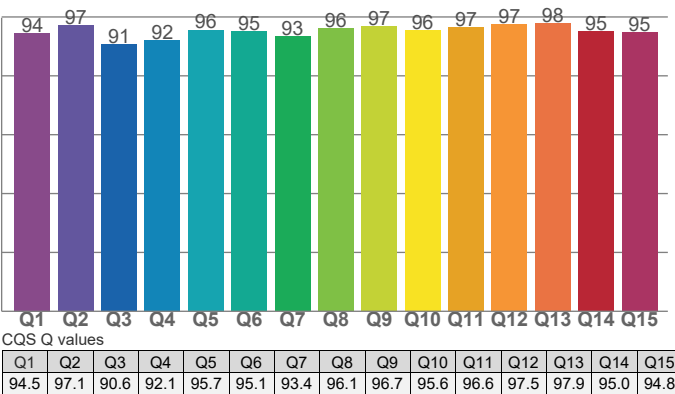
Spectral Power Distribution (SPD) / W/nm – 0-100%



TM30-18 Rf-Values per Hue Bin



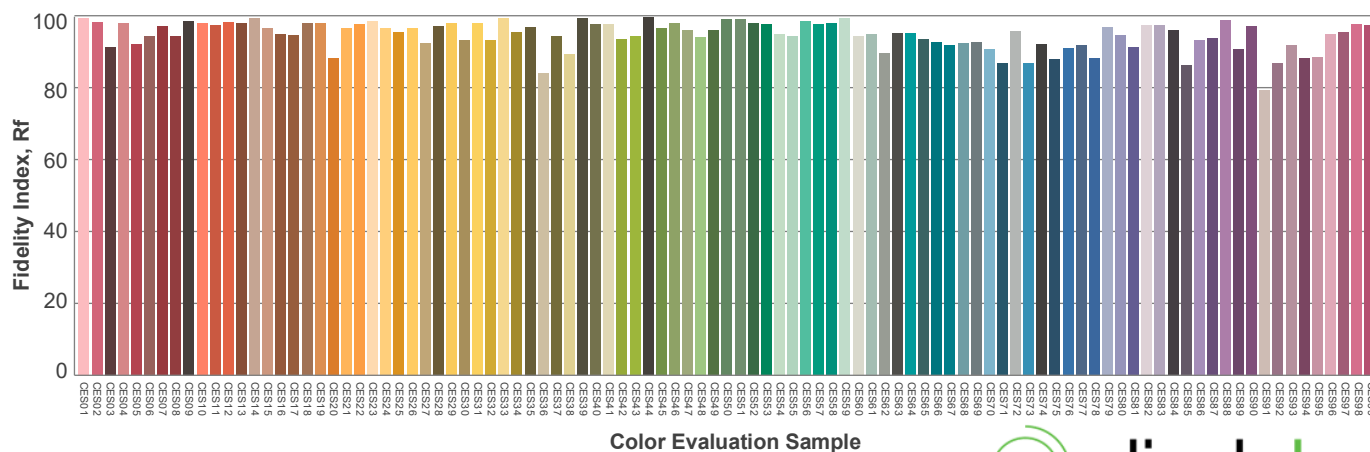
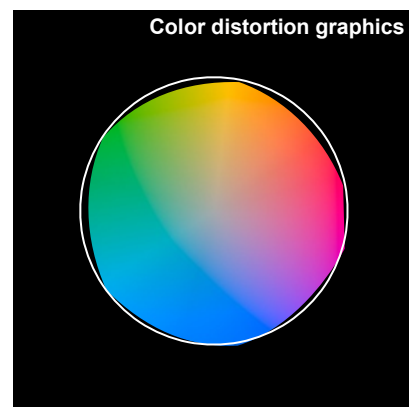
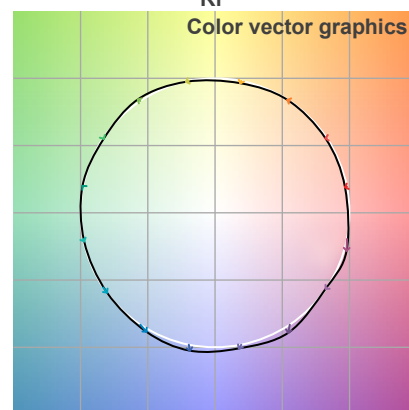
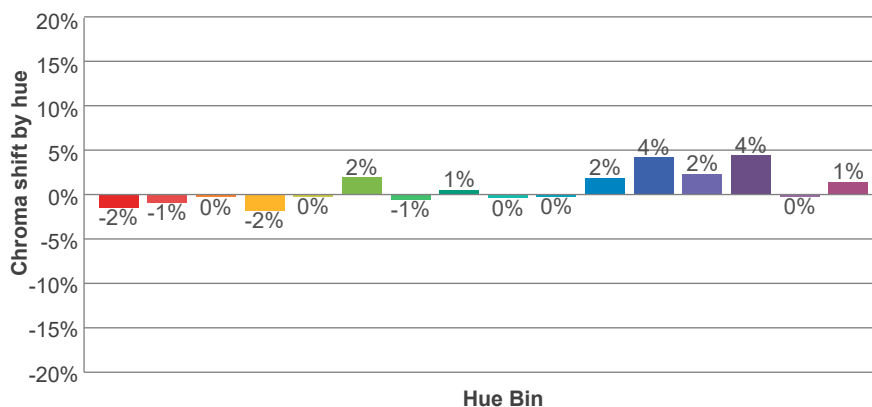
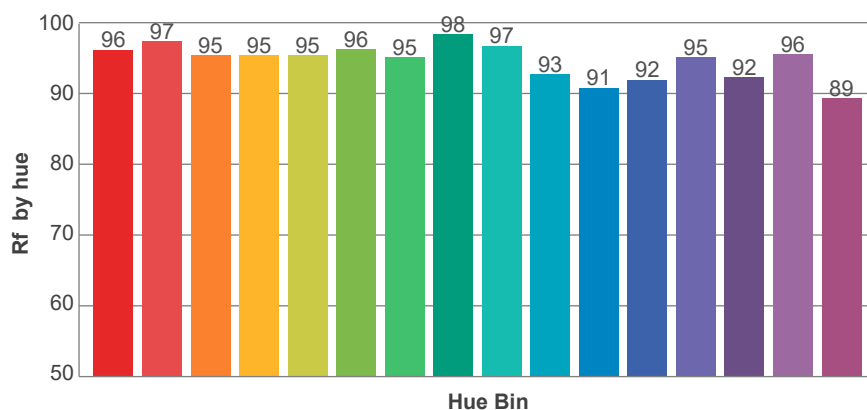
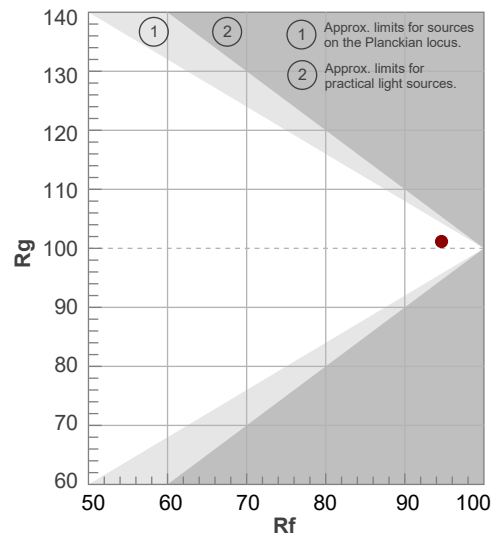
Color Quality Scale by Reference Color



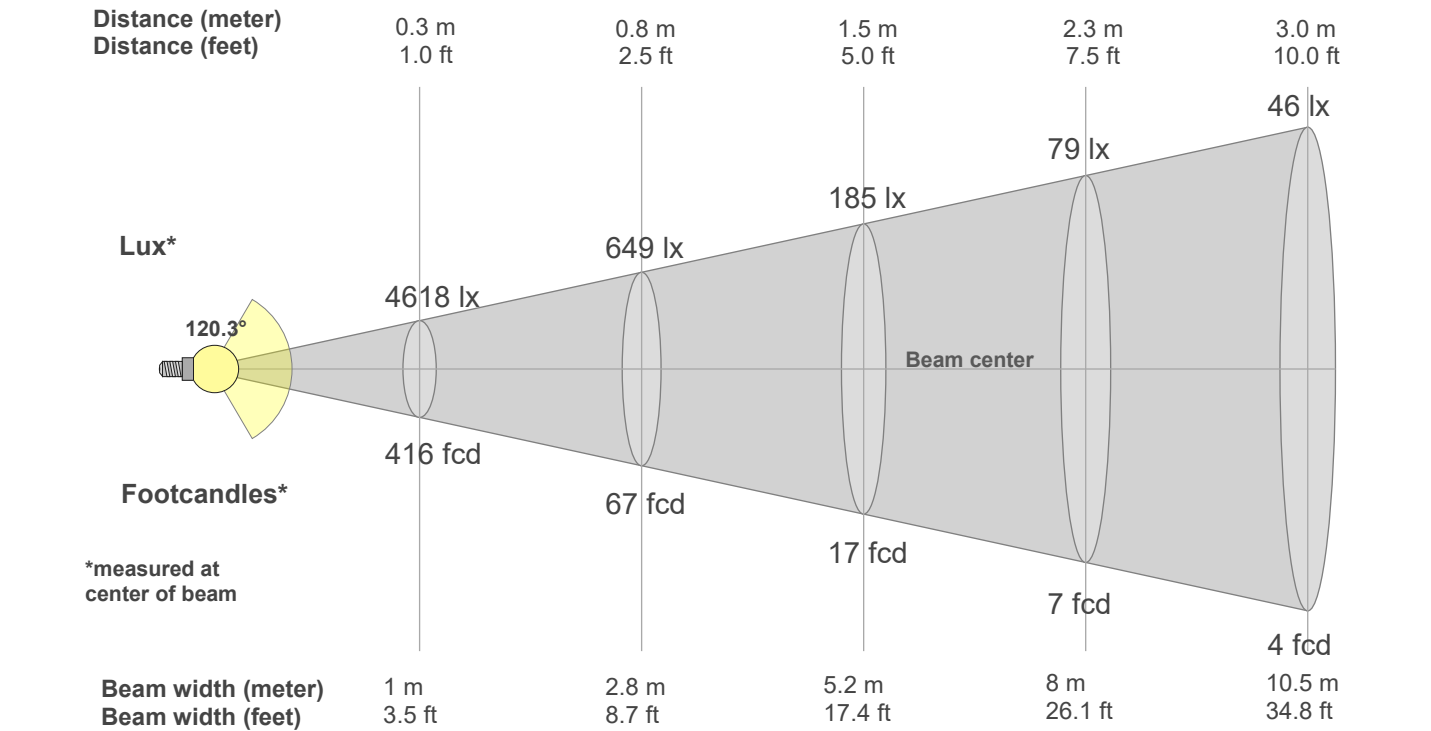
Fidelity index R_f

Gamut index Rg

		Shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	96	-2%	0%
2	97	-1%	0%
3	95	0%	2%
4	95	-2%	0%
5	95	0%	2%
6	96	2%	1%
7	95	-1%	0%
8	98	1%	0%
9	97	0%	2%
10	93	0%	5%
11	91	2%	7%
12	92	4%	2%
13	95	2%	-2%
14	92	4%	-4%
15	96	0%	-1%
16	89	1%	-9%



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
416lx	104lx	46lx	26lx	17lx	12lx	8lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx
38.6fcd	9.7fcd	4.3fcd	2.4fcd	1.5fcd	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°
416	414	411	403	393	380	363	344	322	297	270	240	209	175	140	105	72	37	10	0
100%	100%	99%	97%	95%	91%	87%	83%	77%	72%	65%	58%	50%	42%	34%	25%	17%	9%	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°
416	414	409	401	390	376	359	339	316	290	262	231	198	163	126	88	52	22	4	0
100%	100%	98%	97%	94%	90%	86%	81%	76%	70%	63%	56%	48%	39%	30%	21%	13%	5%	1%	0%

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°
416	414	411	403	393	380	363	344	322	297	270	240	209	175	140	105	72	37	10	0
100%	100%	99%	97%	95%	91%	87%	83%	77%	72%	65%	58%	50%	42%	34%	25%	17%	9%	2%	0%

Intensities in 270° c-plane

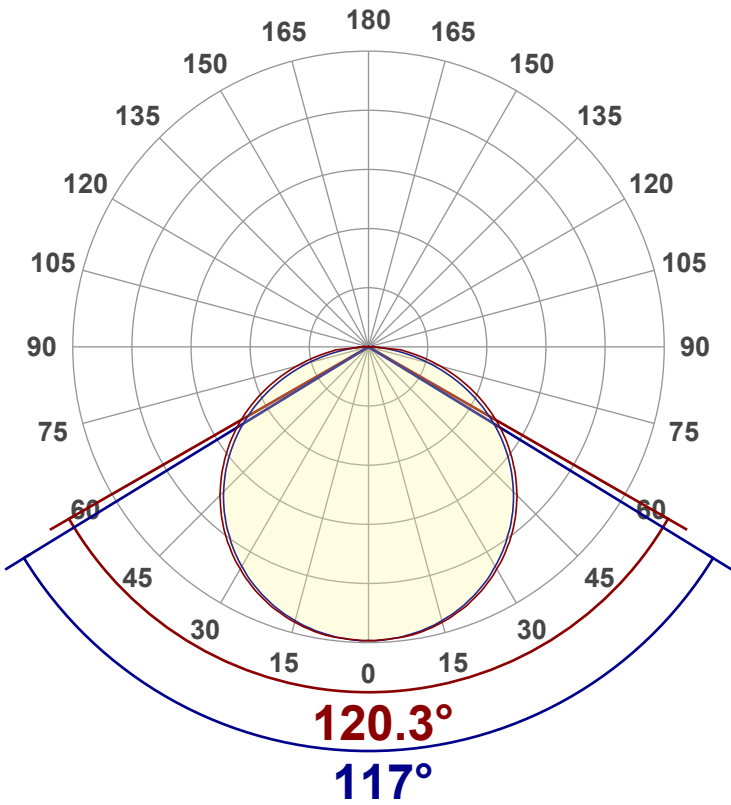
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
416	414	409	401	390	376	359	339	316	290	262	231	198	163	126	88	52	22	4	0
100%	100%	98%	97%	94%	90%	86%	81%	76%	70%	63%	56%	48%	39%	30%	21%	13%	5%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
119.2°	167.7°	182°	74.7%	49.9%



Luminous Intensity Diagram

Unit: 0-100% of peak intensity



Main Values

Output (Total Lumen)	1314 lm
Lumen Up% / Down%	1.71% / 98.29%
Peak Intensity	416 cd
Beam Angle (50%)	119.2°
Beam Angle (90%)	117°
Beam Angle (10%)	120.3°

Cut-off Angle

Average 2,5%	182°
--------------	------

Field Angle

Average 10%	167.7°
-------------	--------

Intensity Ratio

In 120° cone	74.7%
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°
39.4 lm	114 lm	174 lm	214 lm	227 lm	212 lm	169 lm	105 lm	36.2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
10.3 lm	2.47 lm	2.32 lm	2.10 lm	1.81 lm	1.47 lm	1.08 lm	0.663 lm	0.223 lm

LCS Table

BUG rating:	B1 U0 G1	
Forward light	Lumens	Lumens %
Low(0-30):	166.6	12.7%
Medium(30-60):	332.4	25.3%
High(60-80):	139.3	10.6%
Very high(80-90):	19	1.4%
Back light		
Low(0-30):	166.6	12.7%
Medium(30-60):	332.4	25.3%
High(60-80):	139.3	10.6%
Very high(80-90):	17.6	1.3%
Uplight		
Low(90-100):	0	0%
High(100-180):	0	0%

LCS Graph

