Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1704731

Luminaire Tested: GSS-SB4A-AMB-U-5MQ

Issue Date: 10/28/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2024
Report Number:	P1704731
Test Lab:	INNOVATION CENTER(G1)
Issue Date:	10/28/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GSS-SB4A-AMB-U-5MQ
Description:	GALLEON SITE SLIM HIGH DENSITY LED ARRAYS 4SQUARE 130W 1590K FIXTURE w/ T5 MEDIUM DISTRIBUTION
Light Source:	(104) 1590K CCT, 0 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8457 lumens
Efficiency:	N/A
Efficacy:	65.0 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type V - Medium
BUG Rating:	B3 - U0 - G2

Input Watts (W):	130.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

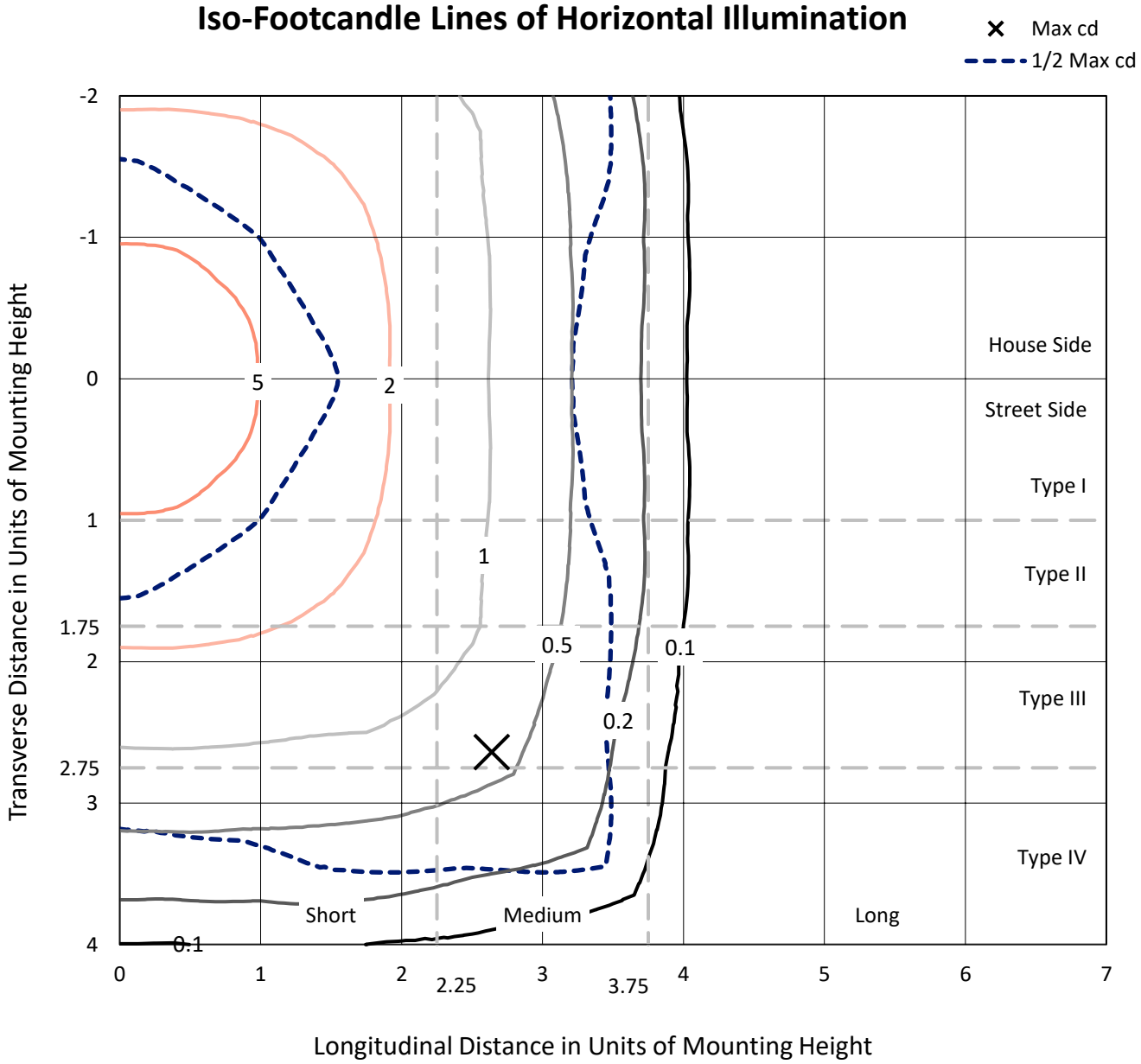


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Scaled Data Report

REPORT NUMBER: P1704731
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Iso-Footcandle Lines of Horizontal Illumination



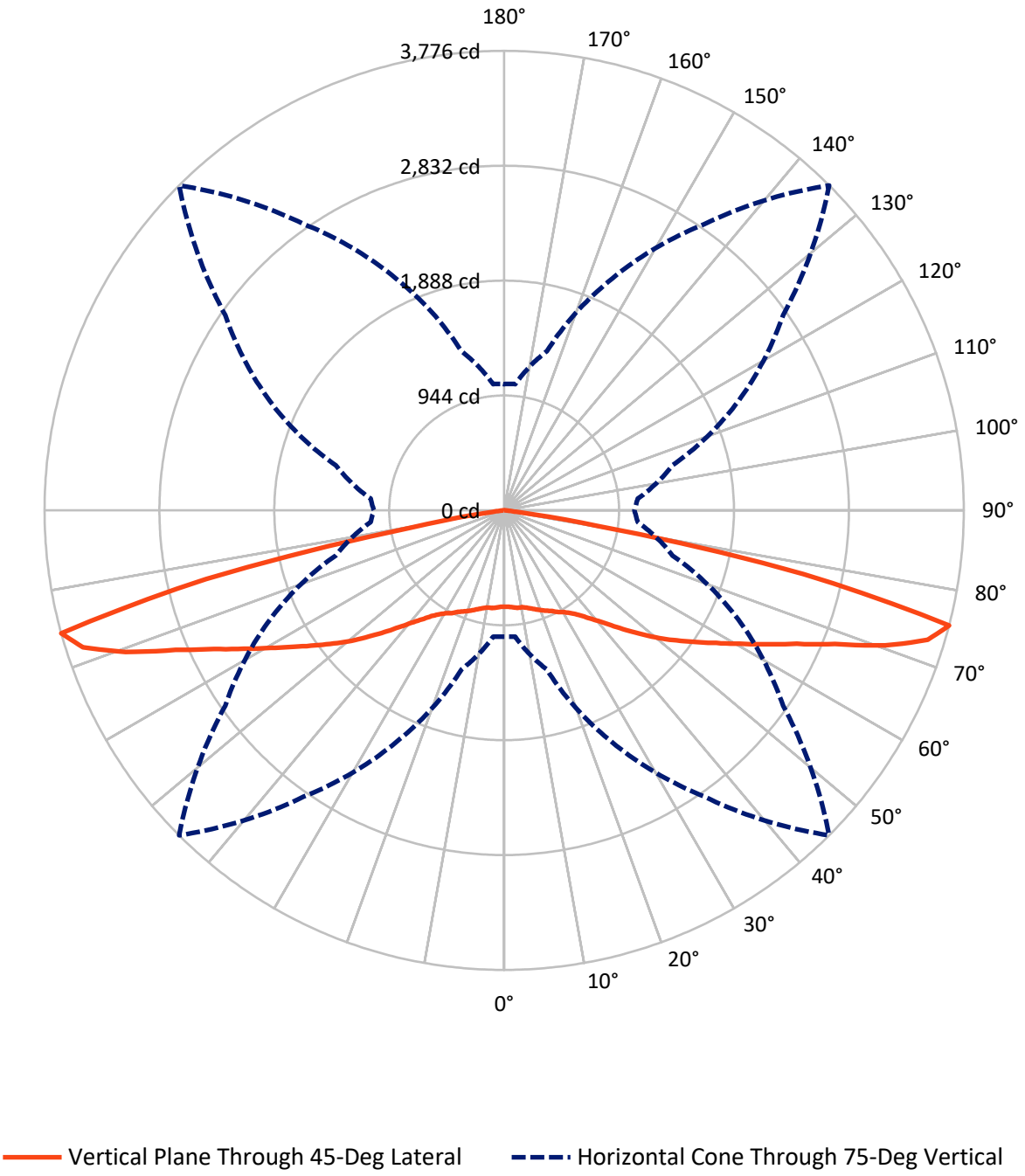
Based on 10 foot mounting height. Maximum calculated value = 7.9 fc
Type V - Medium - N/A

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Luminous Intensity Polar Plot



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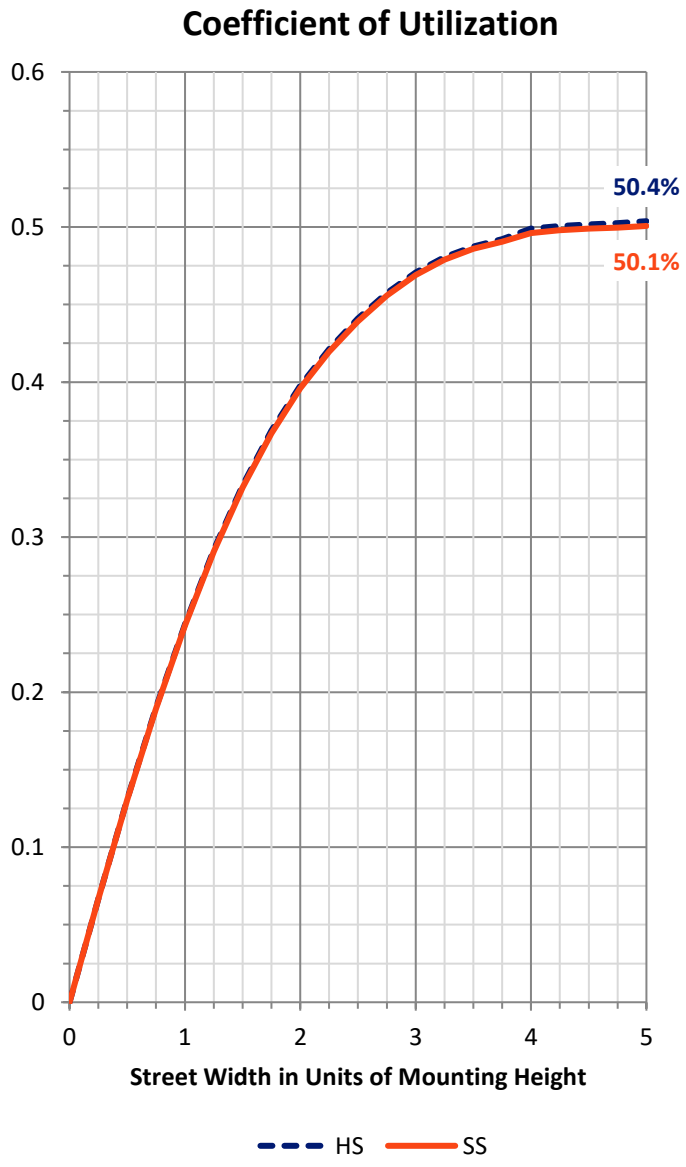
REPORT NUMBER: P1704731
CATALOG NUMBER: GSS-SB4A-AMB-U-5MQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4228.5	0.0	4228.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4228.5	0.0	4228.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	8457.0	0.0	8457.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	0.9
10°-20°	237.2	2.8
20°-30°	420.8	5.0
30°-40°	669.3	7.9
40°-50°	1097.7	13.0
50°-60°	1696.9	20.1
60°-70°	2323.2	27.5
70°-80°	1873.0	22.1
80°-90°	62.2	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	8457.0	100.0
0°-180°	8457.0	100.0



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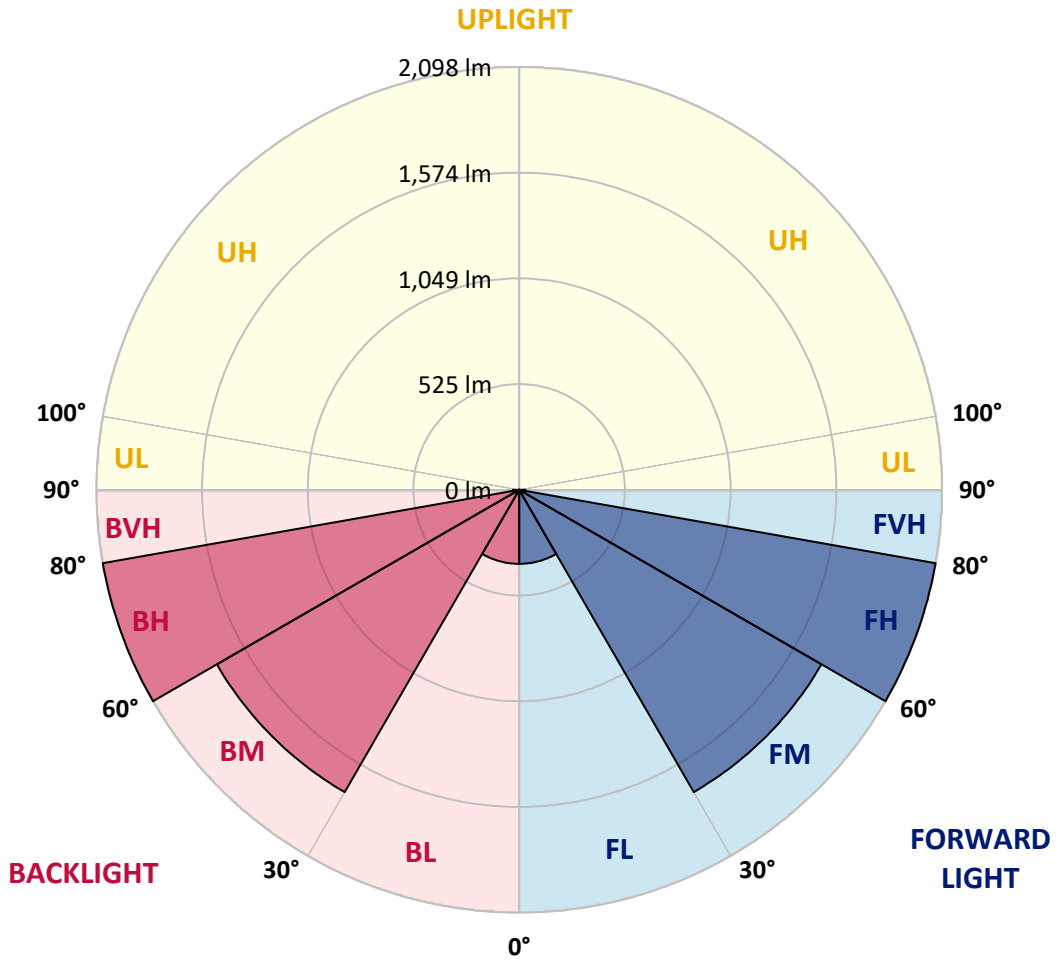
Scaled Data Report

REPORT NUMBER: P1704731
CATALOG NUMBER: GSS-SB4A-AMB-U-5MQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	367.4	4.3			
FM	(30°-60°)	1732.0	20.5			
FH	(60°-80°)	2098.1	24.8			G2/5000
FVH	(80°-90°)	31.1	0.4			G1/100
BL	(0°-30°)	367.4	4.3	B1/500		
BM	(30°-60°)	1732.0	20.5	B2/2500		
BH	(60°-80°)	2098.1	24.8	B3/2500		G2/5000
BVH	(80°-90°)	31.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type V Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	793.0	793.0	793.0	793.0	793.0	*793.0*	793.0	793.0	793.0	793.0	793.0
2.5°	796.9	793.0	793.0	789.0	789.0	*793.0*	793.0	793.0	796.9	793.0	793.0
5°	800.9	800.9	796.9	796.9	796.9	*800.9*	800.9	796.9	800.9	796.9	796.9
7.5°	804.8	804.8	800.9	804.8	804.8	*808.8*	804.8	804.8	808.8	804.8	804.8
10°	812.7	812.7	808.8	808.8	812.7	*808.8*	812.7	808.8	812.7	812.7	812.7
12.5°	824.6	820.6	816.7	820.6	820.6	*820.6*	820.6	816.7	820.6	816.7	820.6
15°	828.5	832.4	828.5	832.4	832.4	*836.4*	828.5	828.5	828.5	832.4	828.5
17.5°	844.3	844.3	844.3	848.2	852.2	*856.1*	852.2	848.2	844.3	844.3	844.3
20°	860.1	860.1	864.0	860.1	867.9	*875.8*	867.9	864.0	864.0	860.1	856.1
22.5°	879.8	875.8	879.8	883.7	891.6	*895.6*	891.6	887.7	875.8	875.8	871.9
25°	895.6	891.6	895.6	907.4	911.3	*915.3*	915.3	907.4	899.5	891.6	887.7
27.5°	907.4	911.3	919.2	931.1	939.0	*946.9*	942.9	931.1	919.2	907.4	907.4
30°	939.0	939.0	946.9	962.6	970.5	*970.5*	970.5	962.6	950.8	939.0	935.0
32.5°	978.4	982.4	990.3	1002.1	1006.0	*1006.0*	1010.0	1002.1	994.2	982.4	978.4
35°	1025.8	1033.6	1045.5	1057.3	1061.3	*1053.4*	1061.3	1061.3	1053.4	1037.6	1037.6
37.5°	1100.7	1100.7	1112.6	1120.4	1120.4	*1120.4*	1120.4	1124.4	1120.4	1104.7	1100.7
40°	1179.6	1183.6	1199.3	1207.2	1195.4	*1195.4*	1207.2	1211.2	1211.2	1191.5	1191.5
42.5°	1274.3	1274.3	1294.0	1305.9	1298.0	*1290.1*	1305.9	1313.8	1309.8	1294.0	1290.1
45°	1376.9	1380.8	1392.7	1408.4	1404.5	*1400.6*	1412.4	1420.3	1412.4	1400.6	1400.6
47.5°	1491.3	1487.3	1503.1	1534.7	1530.7	*1518.9*	1538.6	1538.6	1530.7	1511.0	1503.1
50°	1593.9	1601.8	1625.4	1660.9	1657.0	*1649.1*	1672.8	1672.8	1645.2	1617.5	1617.5
52.5°	1696.4	1708.3	1743.8	1791.1	1791.1	*1775.3*	1799.0	1806.9	1767.5	1720.1	1716.2
55°	1803.0	1810.9	1866.1	1905.5	1921.3	*1909.5*	1948.9	1925.3	1881.9	1826.6	1803.0
57.5°	1897.7	1901.6	1960.8	2031.8	2063.3	*2055.5*	2091.0	2055.5	1984.4	1909.5	1897.7
60°	1992.3	2000.2	2067.3	2158.0	2213.3	*2225.1*	2240.9	2173.8	2091.0	2012.1	2004.2
62.5°	1980.5	2004.2	2142.3	2300.1	2379.0	*2422.4*	2410.5	2315.8	2165.9	2031.8	2020.0
65°	1889.8	1909.5	2039.7	2335.6	2560.4	*2643.3*	2603.8	2375.0	2126.5	2008.1	1988.4
67.5°	2091.0	2102.8	2201.4	2292.2	2663.0	*2931.3*	2738.0	2402.6	2296.1	2185.7	2169.9
70°	2225.1	2268.5	2390.8	2639.4	2907.6	*3321.9*	3057.5	2749.8	2438.1	2244.8	2209.3
72.5°	1937.1	1984.4	2252.7	2741.9	3452.1	*3637.5*	3578.3	2820.8	2300.1	2004.2	1972.6
75°	*1037.6*	*1041.5*	*1353.2*	*2102.8*	*2872.1*	*3775.6*	*2797.2*	*2122.5*	*1432.1*	*1100.7*	*1069.2*
77.5°	142.0	153.9	343.2	741.7	1388.7	*2513.1*	1372.9	733.8	351.1	220.9	201.2
80°	75.0	78.9	122.3	138.1	232.8	*777.2*	268.3	118.4	122.3	86.8	86.8
82.5°	39.5	43.4	59.2	75.0	94.7	*98.6*	78.9	71.0	67.1	43.4	43.4
85°	23.7	27.6	31.6	39.5	39.5	*39.5*	39.5	39.5	35.5	23.7	23.7
87.5°	15.8	15.8	15.8	15.8	15.8	*15.8*	15.8	15.8	15.8	15.8	15.8
90°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0	0.0

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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP3-2509-541-1

Test Date: 09/16/2025

Luminaire Tested: GALN-SA1A-AMB-U-T3BC

Data in this report applies to families of products including GALN-SA1A*

Report Generated By FNC07603 / LDUCLS01DT01661
Version: v7.05

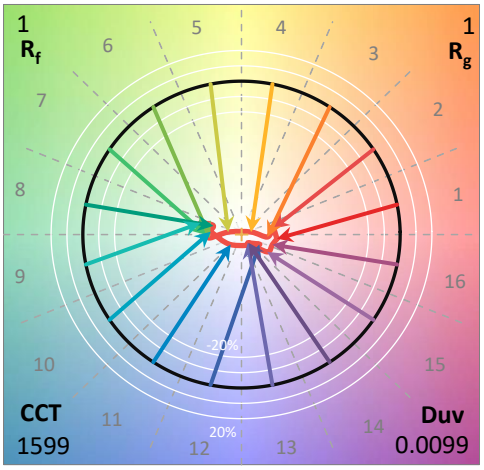
Test Information

Test Method:	LM-79-2019
Report Number:	SP3-2509-541-1
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP3 - 3M SPHERE
Measurement Geometry:	4π
Issue Date:	10/02/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGraw-Edison
Catalog Number:	**GALN-SA1A-AMB-U-T3BC**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) AMBER, 615MA LIGHTSQUARES TYPE III ROADWAY OPTICS WITH ANGLED BACKLIGHT CONTROL HEATSINK

Spectral Parameters

CCT (K):	1599
CIE u':	0.3452
CIE v':	0.5480
Duv:	0.0099
CIE x:	0.5859
CIE y:	0.4133
CIE z:	0.0008
Peak Wavelength (nm):	596
Dominant Wavelength (nm):	591
Purity:	99.94224
Rf:	1.2
Rg:	0.9

CRI (Ra):	-22.7				
R1:	-36.4	R9:	-395.3		
R2:	50.8	R10:	26.0		
R3:	18.3	R11:	-97.2		
R4:	-69.1	R12:	-14.1		
R5:	-41.9	R13:	-17.6		
R6:	38.5	R14:	46.4		
R7:	-6.7	R15:	-69.4		
R8:	-135.4				



Test Conditions

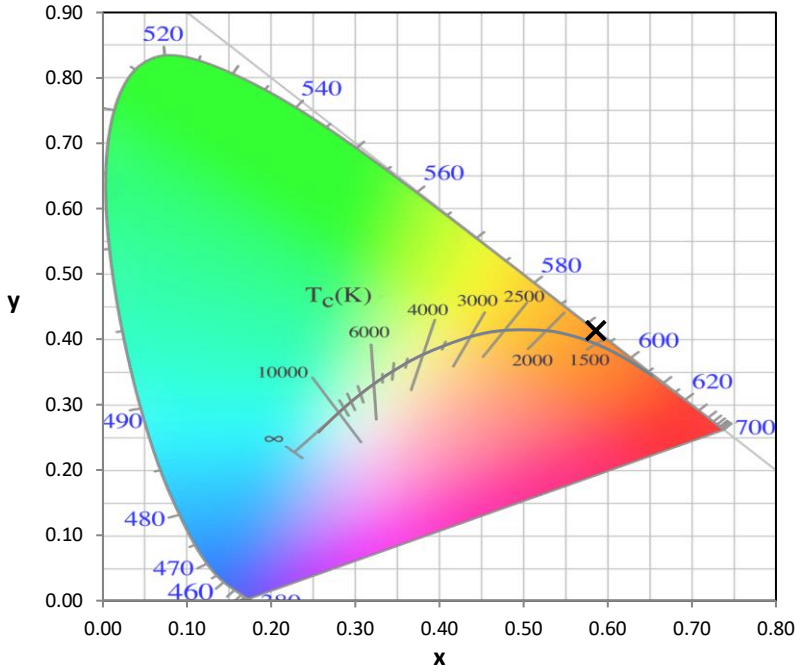
Stabilization Time:	64M
Operation Time:	2H 4M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP3-2509-541-1

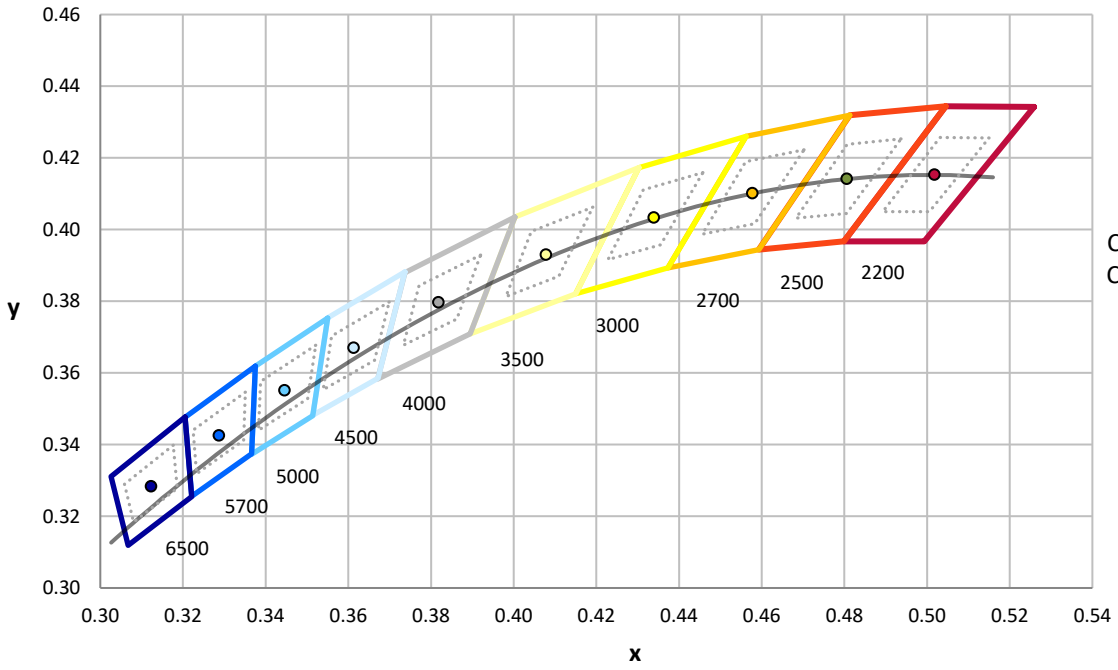
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	3M SPHERE IN02505	7/1/2025	1/1/2026
Power Meter	XITRON INXT2011006	1/20/2025	1/20/2026
AC Power Source	CHROMA 61604 IN6064A	10/22/2024	10/22/2025
DC Power Source	EYSIGHT N5770A IN0534	10/22/2024	10/22/2025
Sphere Thermometer	TANDD IN4036E	10/22/2024	10/22/2025

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CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

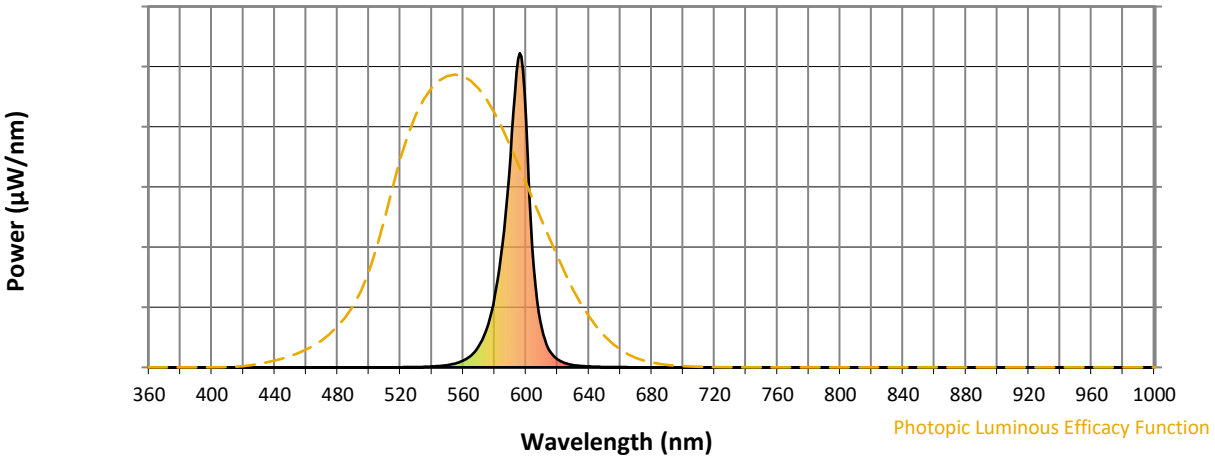


CCT = 1599K
CIE x = 0.5859
CIE y = 0.4133
Duv = 0.0099

Point lies outside the range

REPORT NUMBER: SP3-2509-541-1

Photopic Flux vs. Wavelength

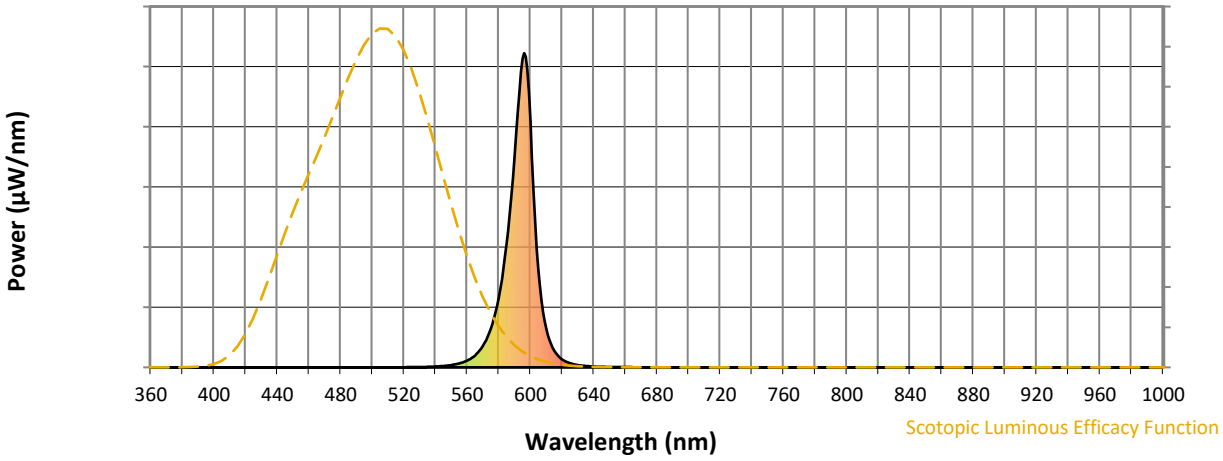


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	0	NR	620	26	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	8	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	1	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	2	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	3	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	68	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	123	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	223	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	392	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	669	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	982	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	783	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	315	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	124	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	53	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP3-2509-541-1

Scotopic Flux vs. Wavelength

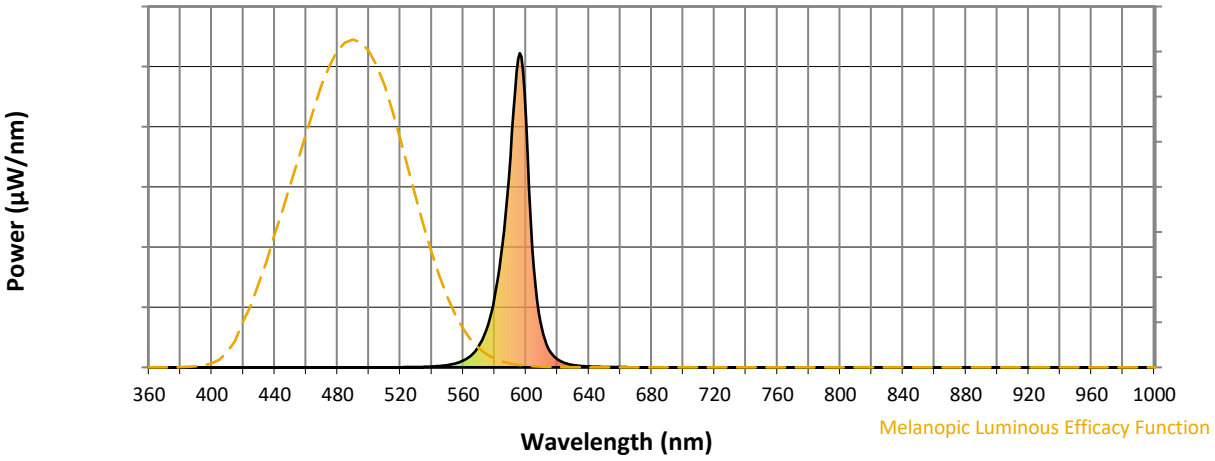


Scotopic Lumens: NR **S/P: 0.23**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	0	NR	620	26	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	8	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	1	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	2	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	3	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	68	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	123	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	223	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	392	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	669	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	982	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	783	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	315	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	124	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	53	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP3-2509-541-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 0.13**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	0	NR	620	26	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	8	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	1	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	2	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	3	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	68	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	123	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	223	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	392	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	669	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	982	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	783	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	315	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	124	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	53	NR	745	0	NR	875	0	NR			

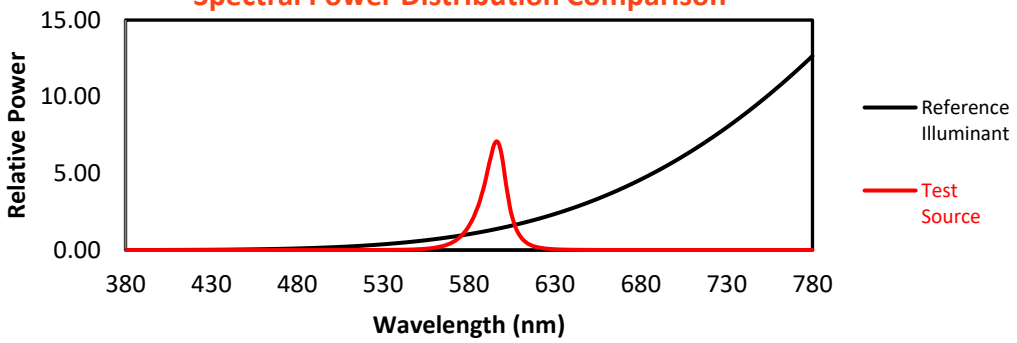
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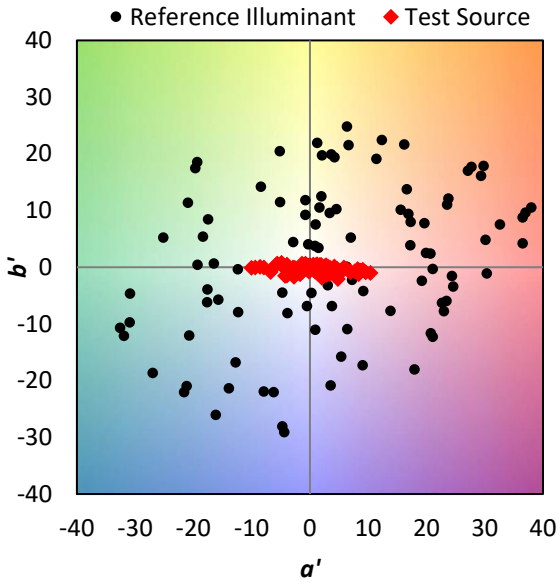
Summary

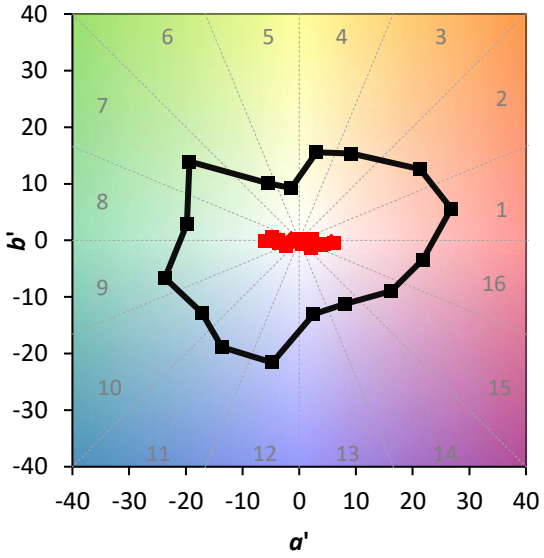
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R_g = 0.9
CIE R_a = -22.7
R_9 = -395.3

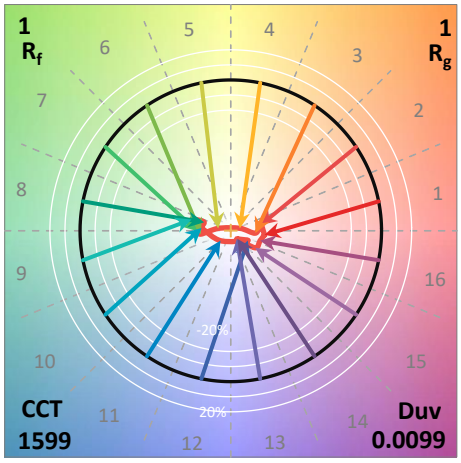
Spectral Power Distribution Comparison

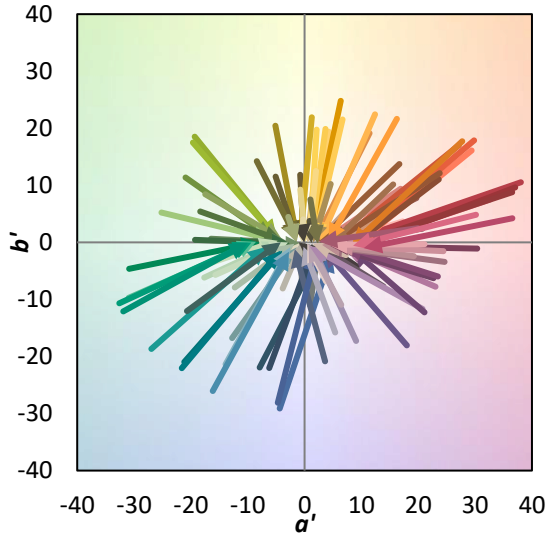


Color Vector Graphics







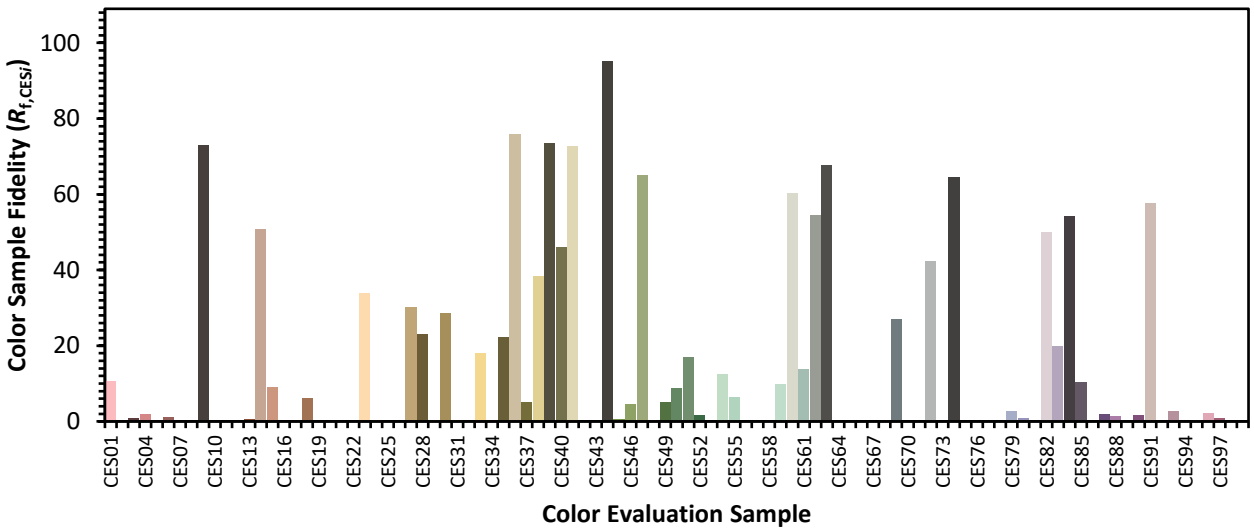


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Individual Sample Fidelity Index ($R_{f,i}$)

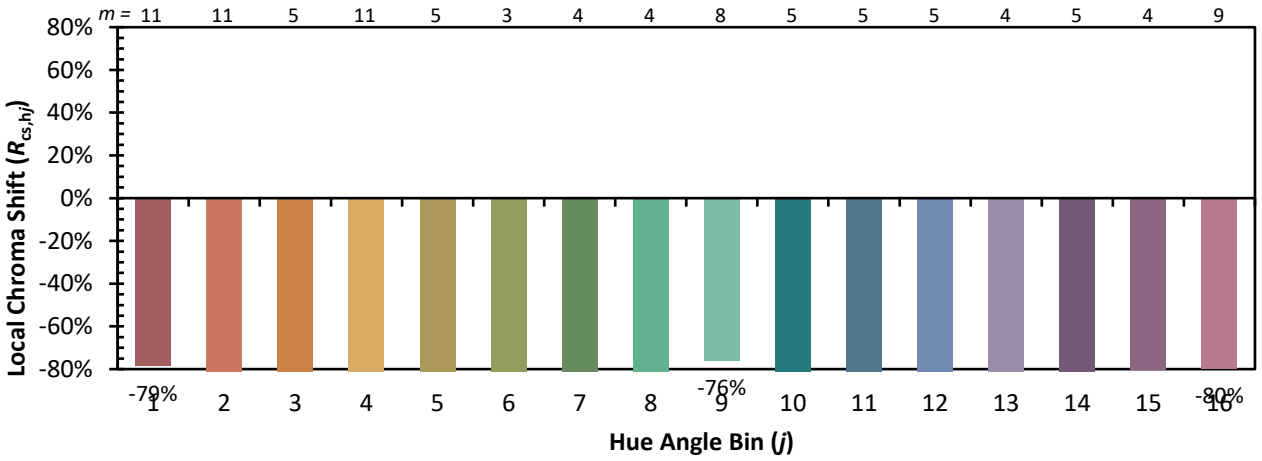
CES01 = 90	CES26 = 0	CES51 = 17	CES76 = 0
CES02 = 69	CES27 = 30	CES52 = 2	CES77 = 0
CES03 = 30	CES28 = 23	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 0	CES54 = 12	CES79 = 3
CES05 = 51	CES30 = 29	CES55 = 6	CES80 = 1
CES06 = 56	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 40	CES32 = 0	CES57 = 0	CES82 = 50
CES08 = 38	CES33 = 18	CES58 = 0	CES83 = 20
CES09 = 29	CES34 = 0	CES59 = 10	CES84 = 54
CES10 = 87	CES35 = 22	CES60 = 60	CES85 = 10
CES11 = 70	CES36 = 76	CES61 = 14	CES86 = 0
CES12 = 75	CES37 = 5	CES62 = 55	CES87 = 2
CES13 = 46	CES38 = 38	CES63 = 68	CES88 = 1
CES14 = 76	CES39 = 73	CES64 = 0	CES89 = 0
CES15 = 74	CES40 = 46	CES65 = 0	CES90 = 2
CES16 = 49	CES41 = 73	CES66 = 0	CES91 = 58
CES17 = 56	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 59	CES43 = 0	CES68 = 0	CES93 = 3
CES19 = 80	CES44 = 95	CES69 = 27	CES94 = 0
CES20 = 71	CES45 = 1	CES70 = 0	CES95 = 0
CES21 = 94	CES46 = 5	CES71 = 0	CES96 = 2
CES22 = 86	CES47 = 65	CES72 = 42	CES97 = 1
CES23 = 94	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 95	CES49 = 5	CES74 = 65	CES99 = 0
CES25 = 79	CES50 = 9	CES75 = 0	

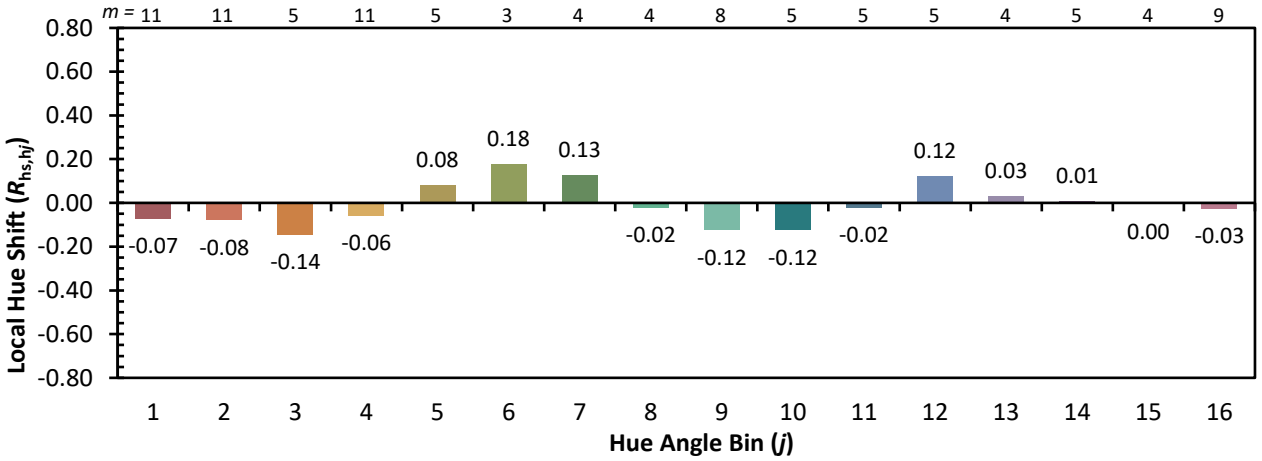


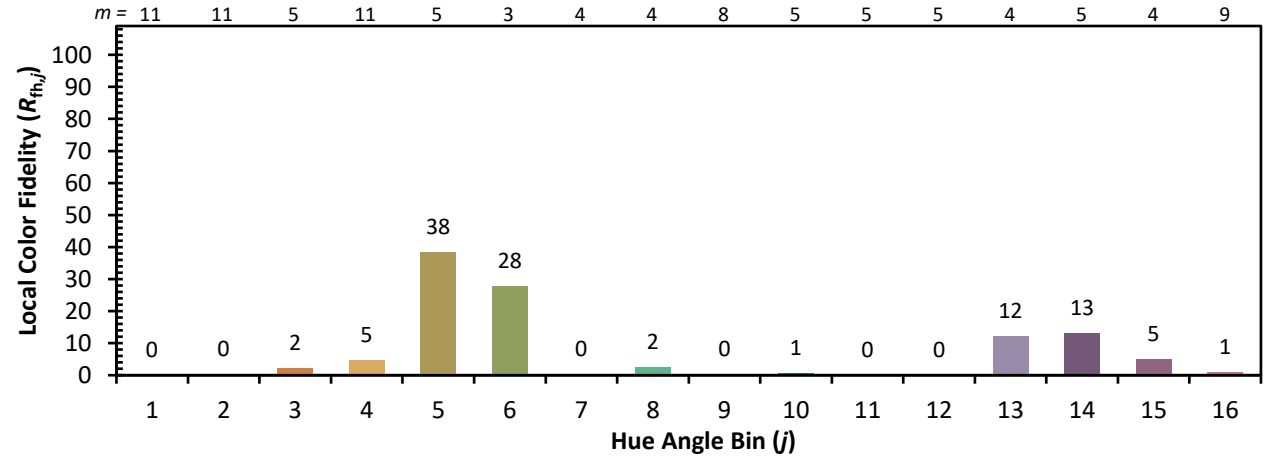
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Color Rendition by Hue-Angle Bin



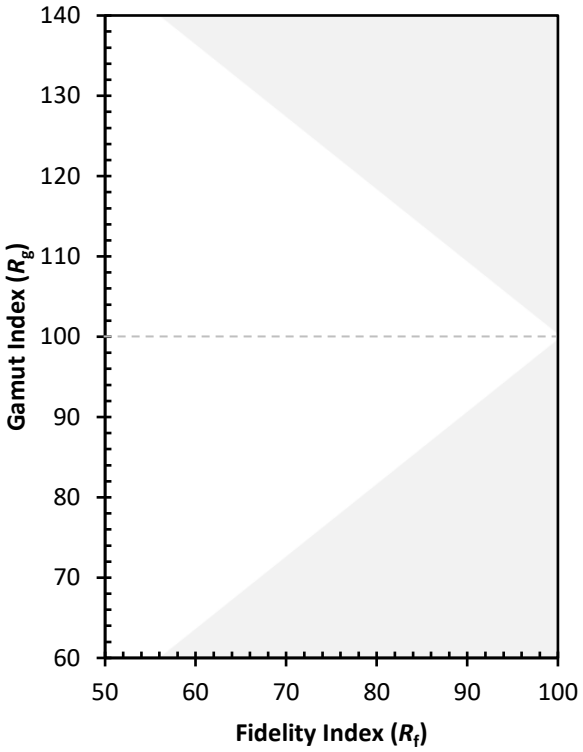


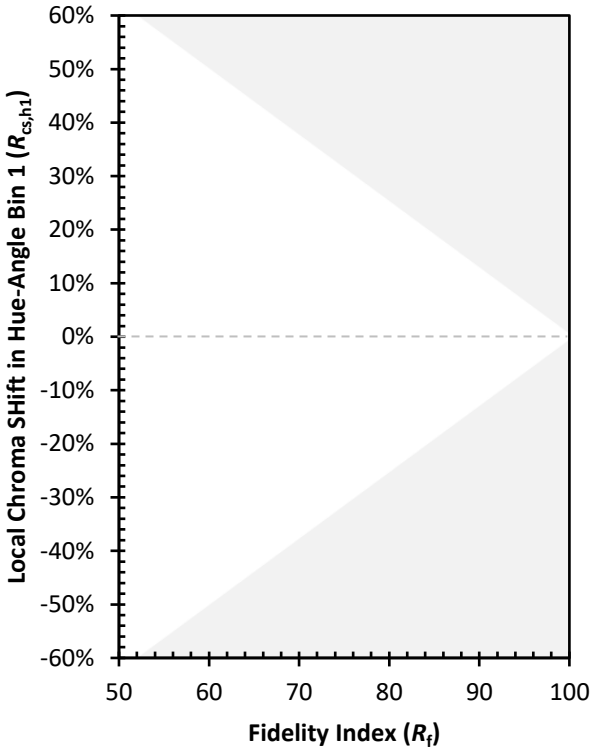


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Measure Comparisons





(END OF REPORT)