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

Scaled data based on original data using

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

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P631049

Luminaire Tested: GWS-SA1E-830-U-SL3-W-GRSWH

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P631049
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-33)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA1E-830-U-SL3-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(16) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5041.1 lumens
Efficiency:	N/A
Efficacy:	86.3 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G1

Input Watts (W):	58.4
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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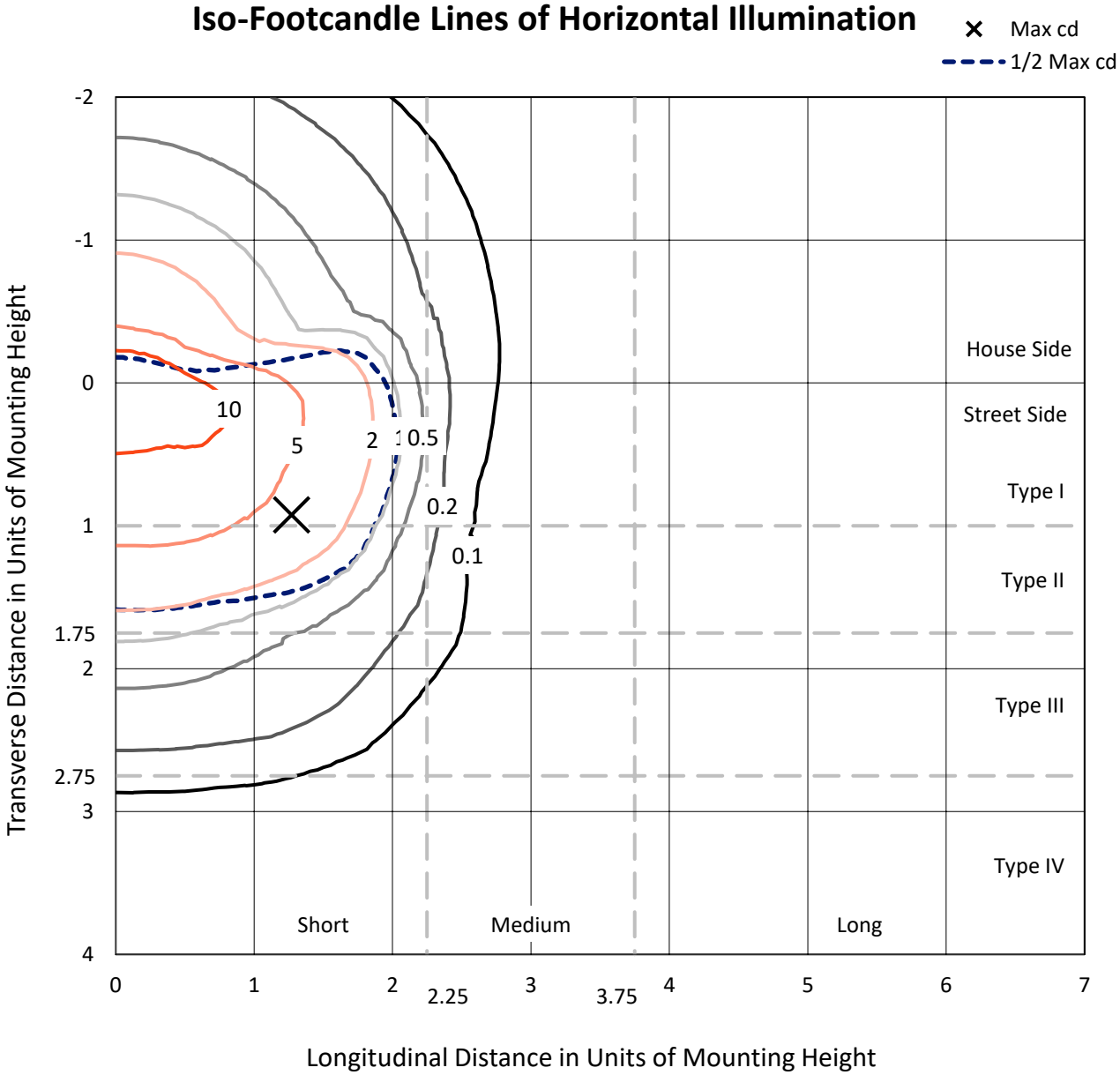
REPORT NUMBER: P631049
CATALOG NUMBER: GWS-SA1E-830-U-SL3-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 19.4 fc
Type II - Short - N/A

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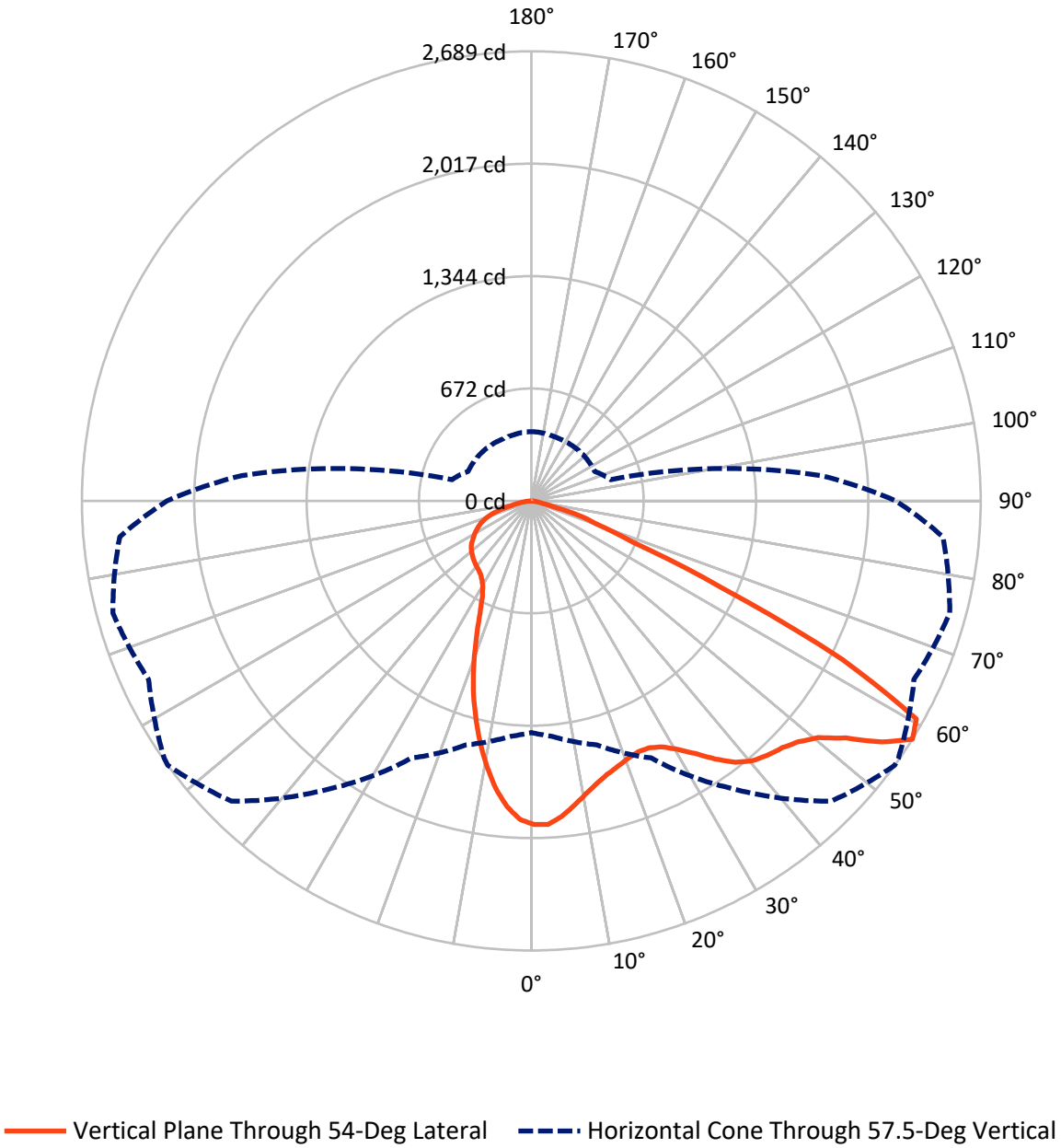
Luminous Intensity Polar Plot



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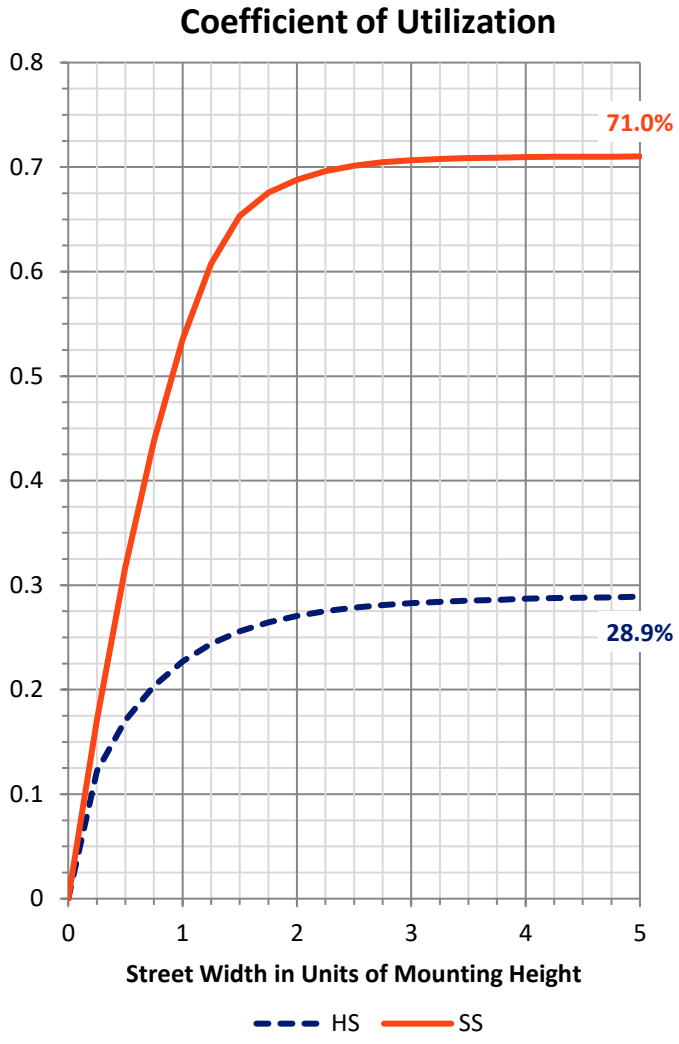
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1465.5	0.0	1465.5
	% Fixture	29.1	0.0	29.1
Street Side	Lumens	3575.6	0.0	3575.6
	% Fixture	70.9	0.0	70.9
Total	Lumens	5041.1	0.0	5041.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.1	3.4
10°-20°	405.9	8.1
20°-30°	561.7	11.1
30°-40°	780.5	15.5
40°-50°	1030.9	20.4
50°-60°	1225.0	24.3
60°-70°	678.7	13.5
70°-80°	169.0	3.4
80°-90°	19.2	0.4
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°	5041.1	100.0
0°-180°	5041.1	100.0



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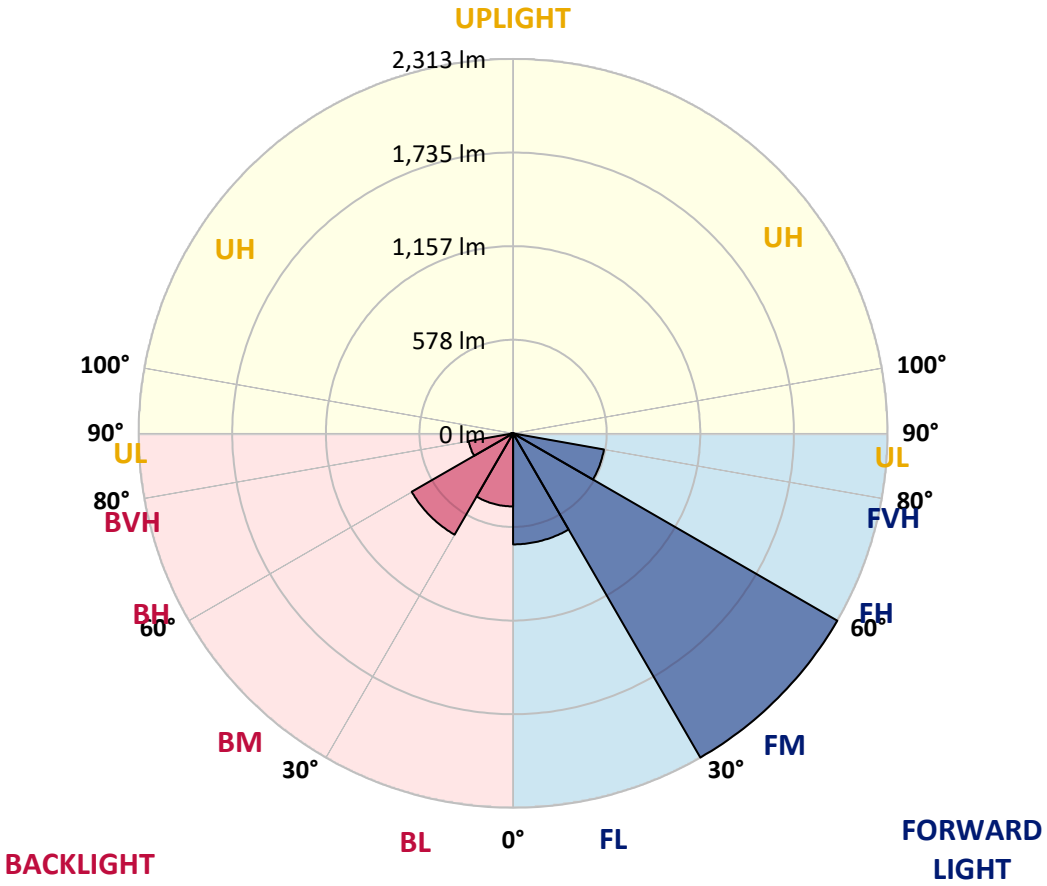
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	686.2	13.6			
FM	(30°-60°)	2313.4	45.9			
FH	(60°-80°)	570.0	11.3			G0/660
FVH	(80°-90°)	6.0	0.1			G0/10
BL	(0°-30°)	451.6	9.0	B1/500		
BM	(30°-60°)	723.0	14.3	B1/1000		
BH	(60°-80°)	277.7	5.5	B1/500		G1/500
BVH	(80°-90°)	13.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type II Short



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Scaled Data Report

REPORT NUMBER: P631049
CATALOG NUMBER: GWS-SA1E-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4
2.5°	1899.1	1903.0	1905.6	1914.7	1922.4	1929.4	1936.7	1936.7	1936.3	1935.0	1932.4
5°	1824.1	1828.4	1834.4	1846.9	1863.8	1875.8	1895.7	1897.4	1906.0	1909.5	1907.8
7.5°	1736.9	1738.2	1746.0	1762.4	1789.1	1810.7	1839.2	1842.6	1863.3	1875.4	1873.3
10°	1641.5	1637.2	1651.0	1675.2	1710.1	1746.4	1783.1	1786.1	1819.3	1842.2	1840.5
12.5°	1554.4	1554.8	1568.6	1597.9	1641.5	1686.4	1735.6	1742.5	1783.5	1812.8	1809.8
15°	1481.4	1483.2	1500.0	1533.2	1582.8	1636.3	1697.6	1704.1	1755.9	1794.7	1786.1
17.5°	1423.2	1424.9	1439.6	1477.5	1530.6	1595.4	1670.0	1676.5	1740.8	1786.9	1769.3
20°	1383.0	1382.2	1396.4	1432.7	1487.5	1557.8	1645.8	1655.3	1736.0	1790.0	1758.0
22.5°	1366.6	1366.2	1376.6	1406.3	1457.7	1528.9	1631.2	1644.1	1741.2	1803.3	1751.1
25°	1374.8	1373.1	1382.2	1404.2	1445.2	1517.7	1635.5	1649.3	1763.2	1831.0	1752.4
27.5°	1400.3	1398.1	1405.9	1425.8	1456.8	1529.3	1665.7	1681.7	1809.8	1881.5	1769.7
30°	1439.1	1437.8	1445.6	1464.6	1491.8	1568.2	1723.5	1741.6	1881.9	1960.0	1807.2
32.5°	1484.4	1482.3	1496.1	1518.1	1549.6	1638.9	1801.2	1824.9	1967.3	2061.0	1870.2
35°	1535.4	1533.6	1552.6	1584.6	1629.9	1737.3	1895.3	1921.2	2054.5	2175.3	1953.9
37.5°	1585.0	1585.0	1621.7	1669.1	1726.1	1844.3	1983.7	2000.1	2114.9	2276.7	2043.7
40°	1629.0	1631.6	1686.8	1758.0	1830.5	1941.0	2042.0	2055.8	2141.7	2346.6	2121.8
42.5°	1677.8	1679.9	1744.2	1837.4	1923.7	2019.1	2077.4	2084.3	2146.8	2381.6	2177.0
45°	1716.6	1719.6	1799.5	1899.1	2004.9	2077.8	2105.4	2111.5	2154.2	2400.6	2217.2
47.5°	1736.9	1741.2	1832.7	1948.8	2059.7	2130.4	2151.6	2154.2	2184.4	2433.8	2265.5
50°	1733.4	1742.1	1845.2	1973.4	2100.2	2183.5	2225.8	2230.1	2246.1	2482.6	2322.0
52.5°	1764.1	1768.0	1872.0	2002.7	2158.1	2281.5	2354.8	2360.9	2353.5	2519.2	2355.7
55°	1713.2	1731.7	1838.7	1998.4	2246.1	2432.9	2546.0	2543.0	2451.1	2560.2	2411.8
57.5°	1385.6	1412.8	1510.8	1696.3	2101.1	2539.1	2688.8	2681.5	2526.6	2591.7	2472.6
60°	959.3	963.6	1052.1	1183.7	1621.7	2243.1	2647.0	2662.9	2540.4	2552.0	2360.0
62.5°	767.3	766.0	774.2	777.6	1031.3	1576.8	2089.4	2147.7	2110.6	1988.5	1672.6
65°	655.1	659.8	684.0	671.5	673.2	888.1	1248.4	1256.6	1230.7	1186.7	884.6
67.5°	512.7	520.9	563.6	612.3	596.8	571.8	647.7	643.8	507.5	392.7	324.5
70°	321.1	326.2	372.0	480.7	519.6	469.5	416.4	414.7	271.9	223.5	245.1
72.5°	187.3	188.1	201.1	268.0	344.8	321.1	306.4	295.2	174.8	178.2	195.5
75°	103.1	103.1	102.7	115.6	135.9	120.4	116.5	113.5	116.9	132.5	145.4
77.5°	21.6	22.0	23.3	30.6	39.7	48.3	60.8	61.3	76.4	88.5	98.8
80°	9.9	10.4	12.9	16.4	21.1	28.0	37.1	37.5	46.2	55.7	62.6
82.5°	5.2	5.6	6.9	8.6	11.2	14.7	20.7	20.7	27.6	32.8	37.1
85°	1.7	1.7	2.6	3.5	4.7	6.0	8.2	8.2	12.1	16.0	18.6
87.5°	0.0	0.0	0.0	0.0	0.4	0.9	1.7	1.7	2.2	2.6	4.3
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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CATALOG NUMBER: GWS-SA1E-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4	1935.4
2.5°	1926.8	1913.4	1913.8	1916.4	1908.2	1895.7	1887.5	1877.1	1870.7	1869.4	1874.1
5°	1899.1	1883.6	1872.8	1861.6	1838.3	1810.7	1789.1	1771.4	1759.8	1755.4	1750.3
7.5°	1861.2	1840.9	1813.7	1782.2	1739.9	1690.7	1656.2	1623.8	1601.4	1594.9	1591.9
10°	1823.2	1793.9	1745.5	1686.8	1616.5	1550.0	1487.5	1439.6	1401.6	1380.0	1386.9
12.5°	1783.9	1747.7	1672.2	1582.0	1484.0	1383.9	1301.9	1222.5	1161.2	1130.6	1121.5
15°	1749.4	1700.2	1594.9	1472.8	1342.5	1216.5	1097.8	978.7	901.0	858.7	847.1
17.5°	1720.1	1656.2	1513.4	1361.5	1205.7	1026.2	880.3	769.8	716.8	693.5	691.7
20°	1691.1	1613.0	1432.7	1241.5	1047.7	846.7	716.3	664.5	645.6	637.4	636.9
22.5°	1665.3	1567.7	1347.7	1121.5	890.7	711.6	640.0	617.5	612.3	612.3	611.5
25°	1643.2	1522.4	1260.5	994.2	748.7	633.5	600.3	590.8	592.9	596.8	597.2
27.5°	1634.2	1487.0	1176.3	863.5	650.7	588.2	573.1	571.8	577.8	583.9	584.7
30°	1643.7	1462.9	1090.0	738.3	592.1	560.6	553.6	556.2	563.6	569.6	569.6
32.5°	1673.0	1450.8	1002.0	646.9	558.0	541.1	539.0	541.6	547.2	550.6	551.1
35°	1722.7	1455.5	911.0	585.1	536.0	526.9	526.5	528.2	530.3	532.5	532.9
37.5°	1785.2	1476.7	813.4	549.3	521.7	516.5	515.7	515.2	515.7	515.7	516.1
40°	1846.5	1508.6	726.3	528.2	511.8	507.5	505.3	502.3	501.9	501.0	500.6
42.5°	1891.8	1533.2	656.8	513.1	502.7	497.5	495.0	490.2	489.8	489.4	488.9
45°	1925.9	1553.9	599.0	498.4	493.2	488.5	482.9	478.6	479.4	480.3	480.3
47.5°	1964.3	1572.0	556.7	484.6	481.6	476.8	469.9	466.9	469.9	473.0	473.0
50°	2010.9	1597.5	522.1	470.8	469.5	463.9	457.8	456.6	460.0	464.3	464.3
52.5°	2045.0	1619.5	497.5	457.0	457.0	449.6	444.5	444.0	447.9	452.2	452.7
55°	2108.9	1670.9	488.9	441.0	439.3	433.7	429.8	426.8	431.5	435.4	435.4
57.5°	*2180.9*	*1739.0*	*491.1*	*418.1*	*416.0*	*414.3*	*411.2*	*407.8*	*409.1*	*413.4*	*413.8*
60°	2028.2	1607.0	467.3	395.3	394.0	393.1	389.2	383.2	384.9	388.4	388.8
62.5°	1416.7	1068.0	378.0	366.8	371.1	370.7	365.5	358.6	359.0	363.8	363.8
65°	735.3	577.8	331.8	340.9	347.4	344.8	336.2	330.1	329.3	335.3	334.0
67.5°	317.2	315.4	302.1	313.7	320.6	315.0	306.0	296.0	296.9	299.0	297.3
70°	255.5	263.2	268.8	281.4	287.0	276.6	266.7	261.1	256.3	255.9	252.9
72.5°	204.1	214.9	227.4	240.4	242.1	231.7	219.2	214.0	206.7	206.3	203.2
75°	153.6	162.7	172.6	183.0	183.0	173.0	164.8	162.3	153.6	151.0	148.4
77.5°	104.9	110.5	118.2	120.8	123.4	119.5	111.3	107.0	97.1	94.5	91.1
80°	66.0	69.9	74.7	76.4	79.0	74.2	67.7	63.0	56.1	53.9	52.2
82.5°	39.7	42.3	45.3	46.2	48.3	44.9	38.8	35.4	31.5	29.8	28.5
85°	20.3	21.6	23.3	23.7	23.3	19.9	17.7	16.0	13.4	12.9	12.1
87.5°	5.2	6.0	6.5	6.0	5.6	4.3	3.0	2.2	0.9	0.9	0.4
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: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

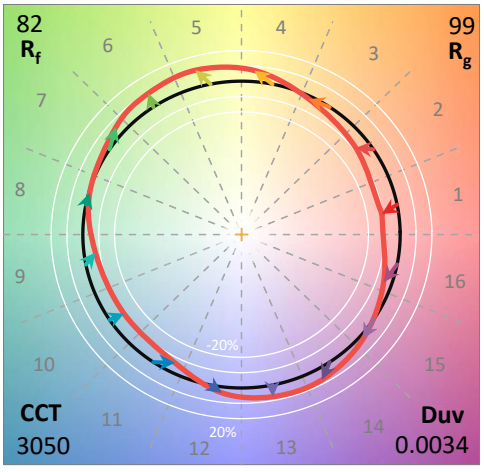
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

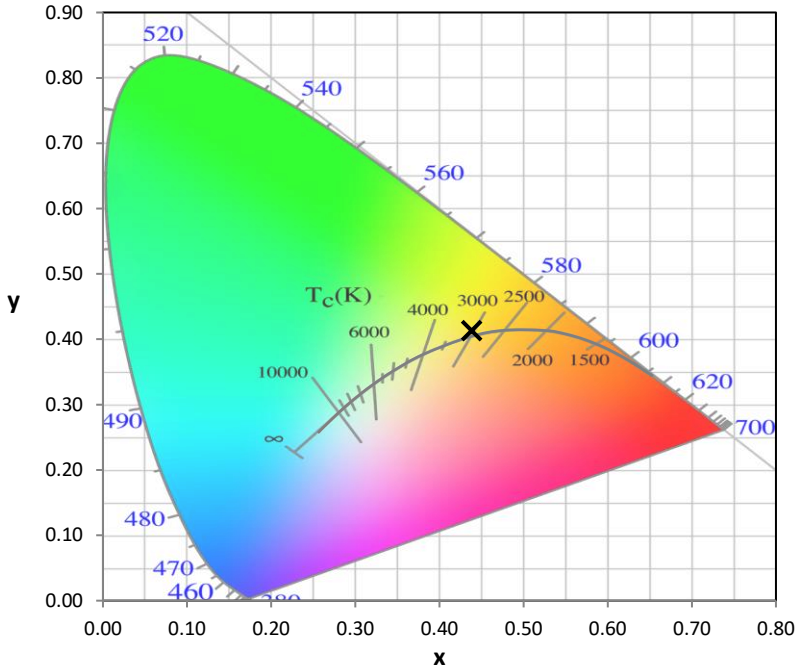
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

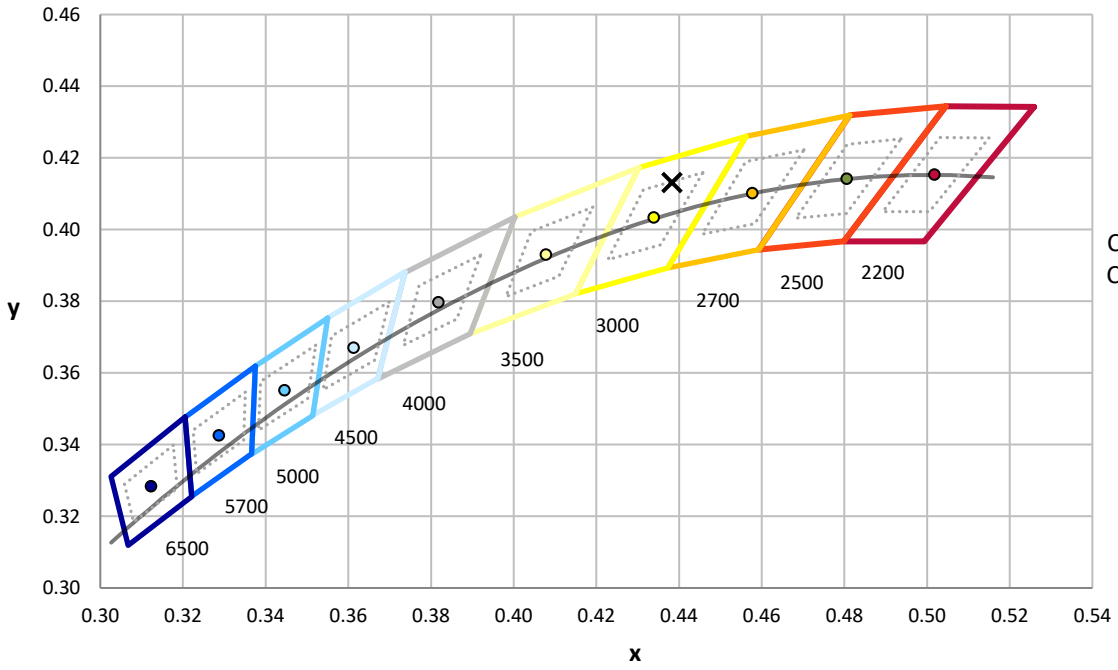
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

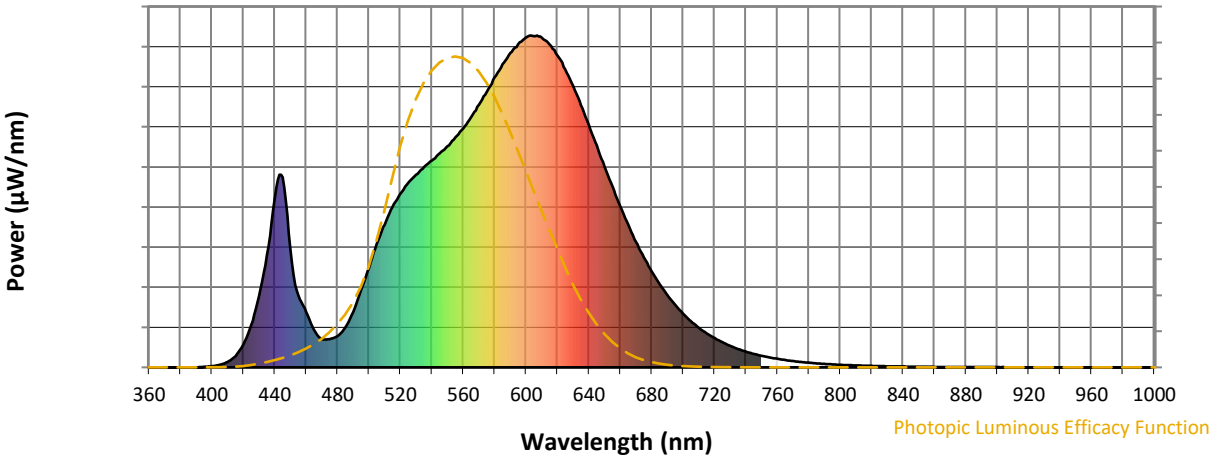


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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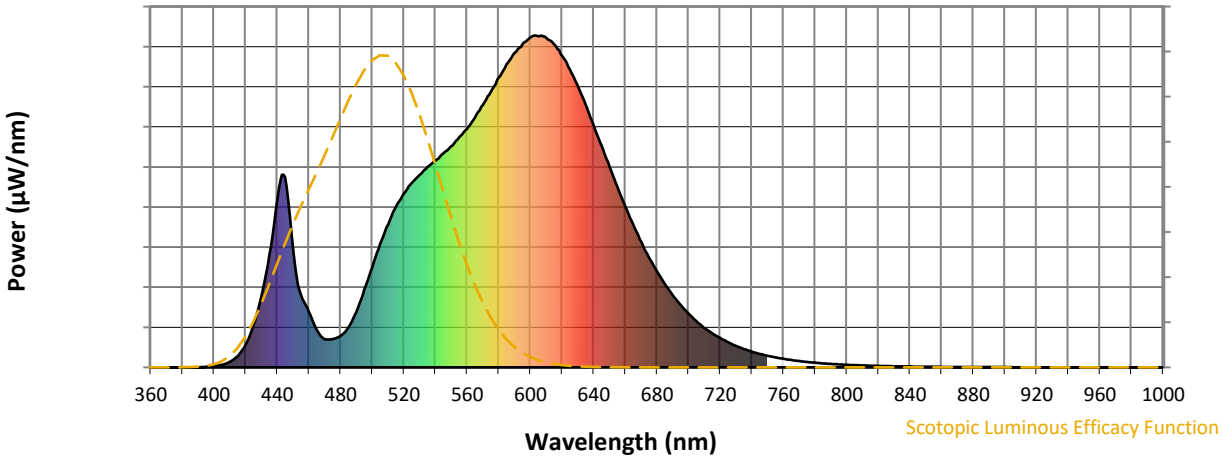
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.27**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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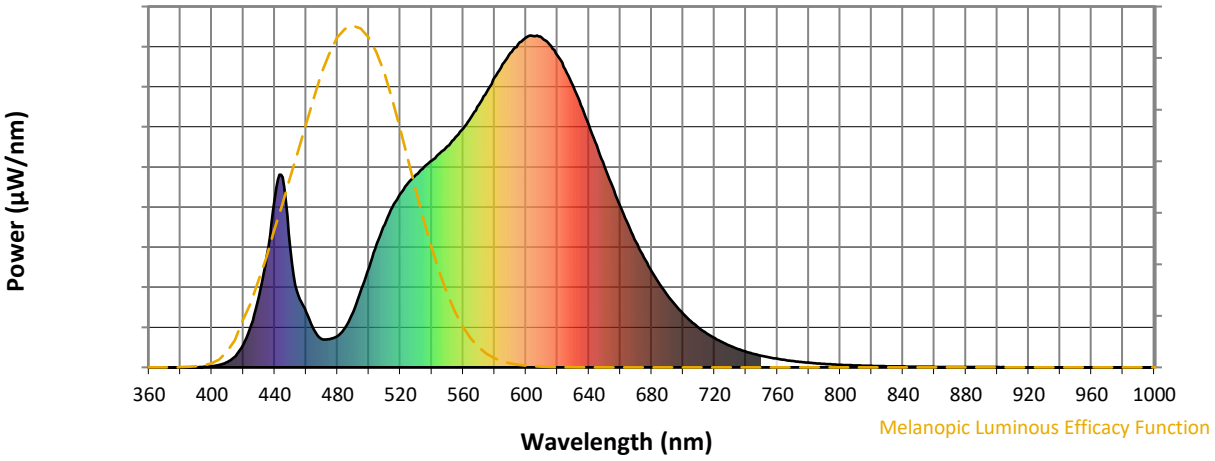
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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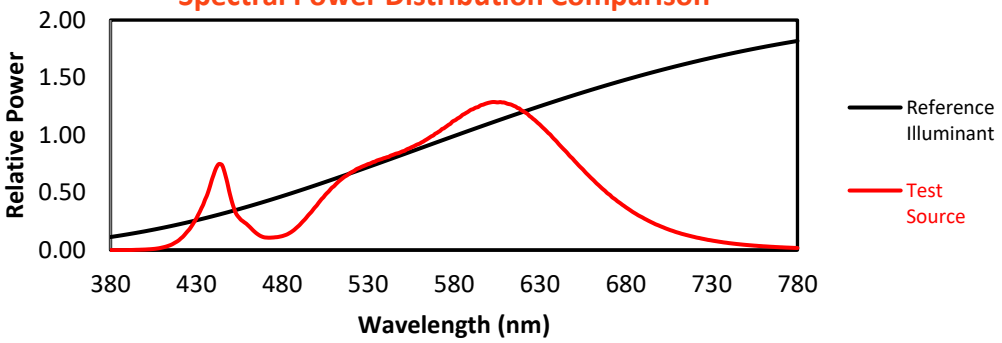
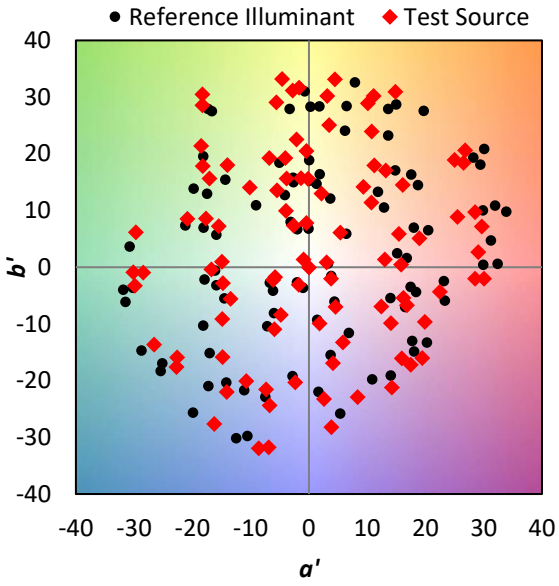
Summary

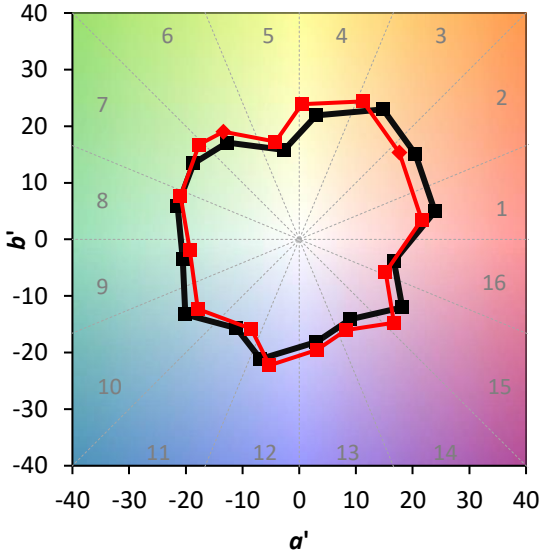
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

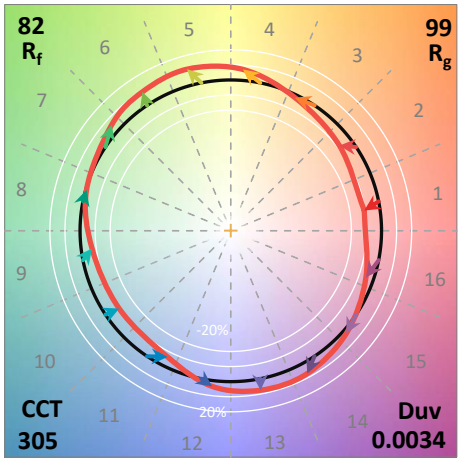
Spectral Power Distribution Comparison

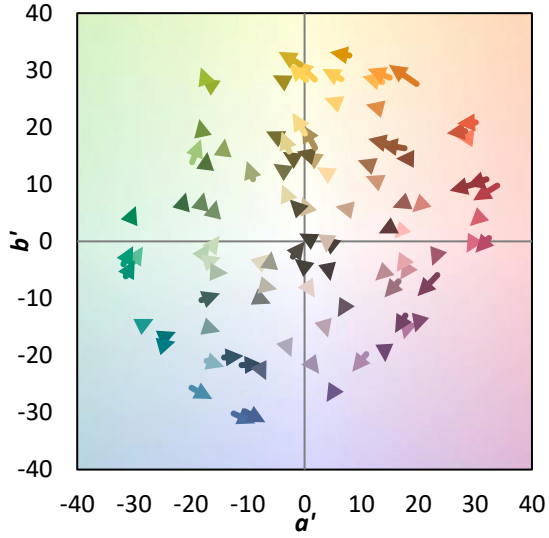


Color Vector Graphics









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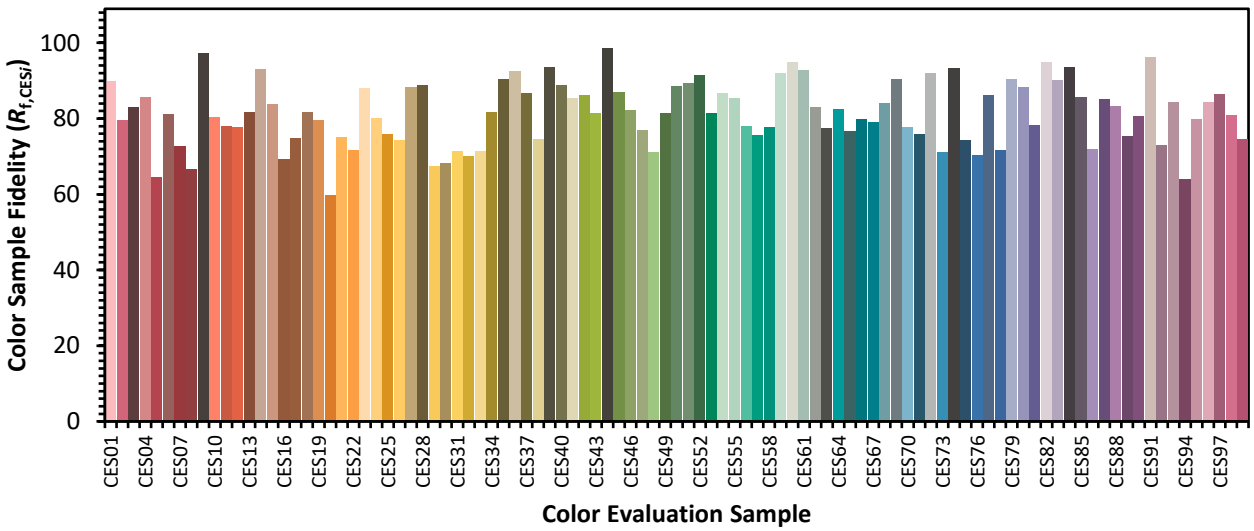
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



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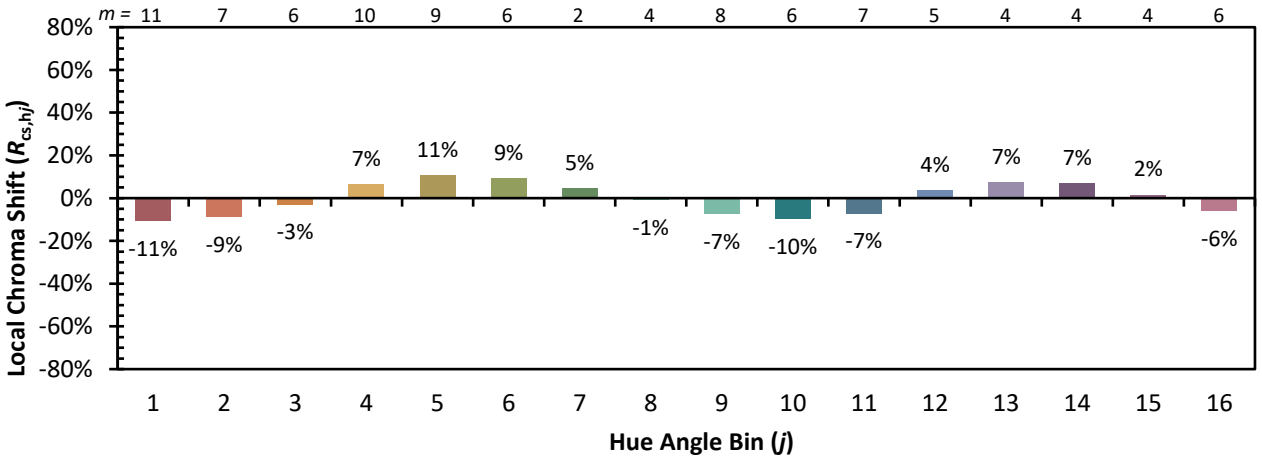
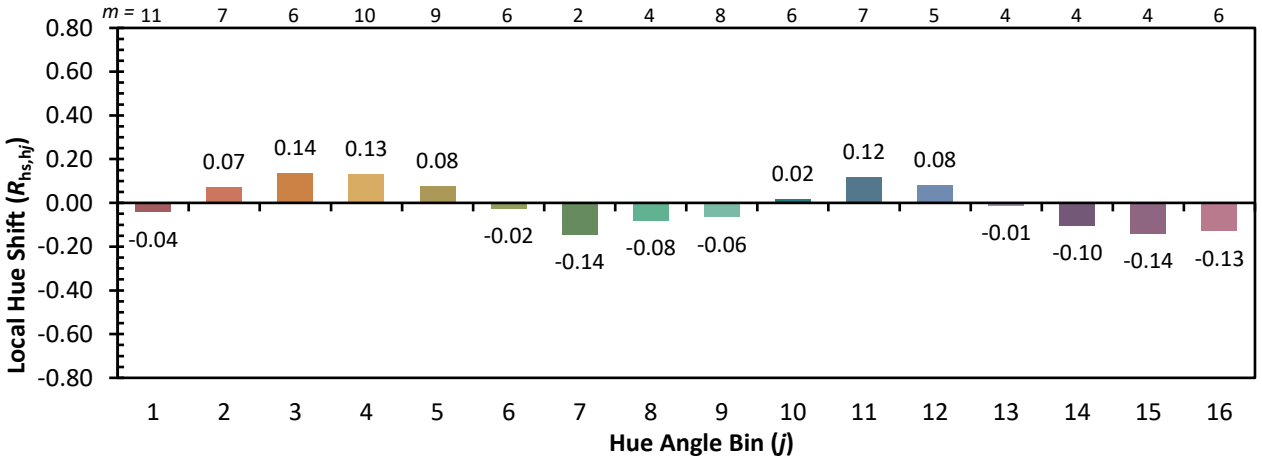
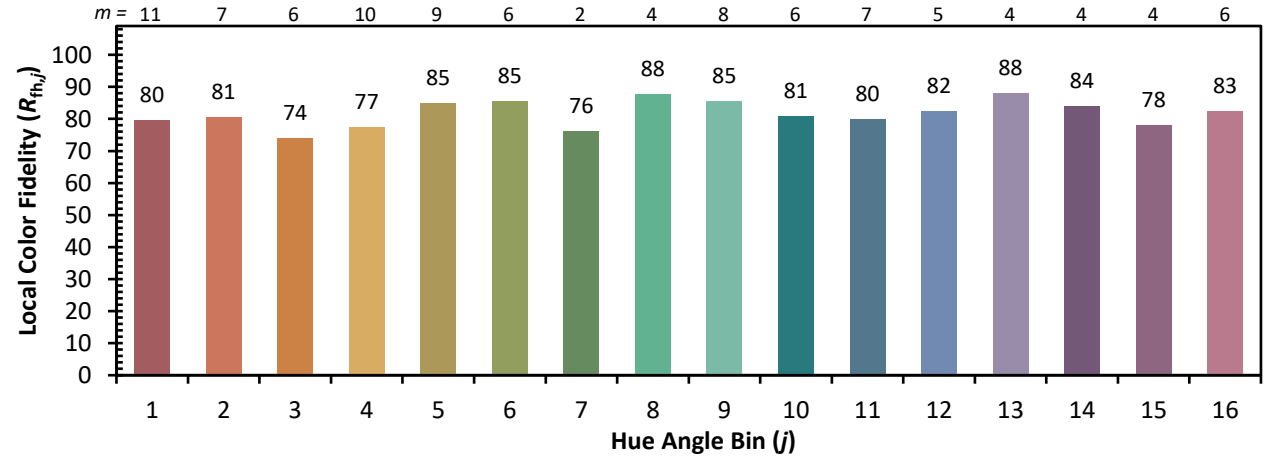
Color Rendition by Hue-Angle Bin







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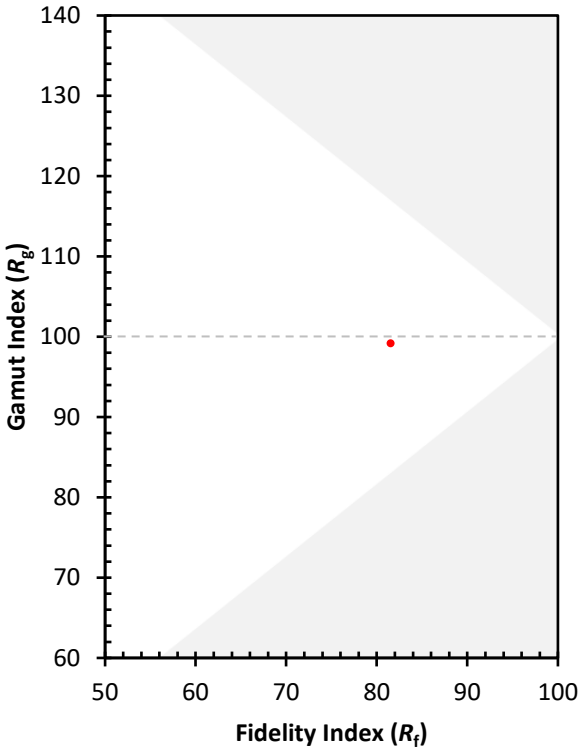
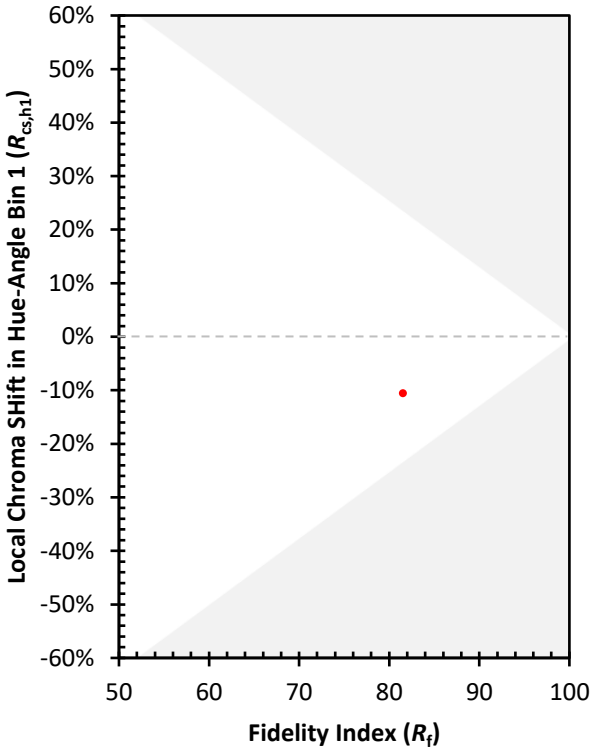
Measure Comparisons





(END OF REPORT)