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: P638482

Luminaire Tested: GWS-SA4E-830-U-SLL-W

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P638482
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-37)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-SLL-W
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	22784.6 lumens
Efficiency:	N/A
Efficacy:	112.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G4

Input Watts (W):	202.6
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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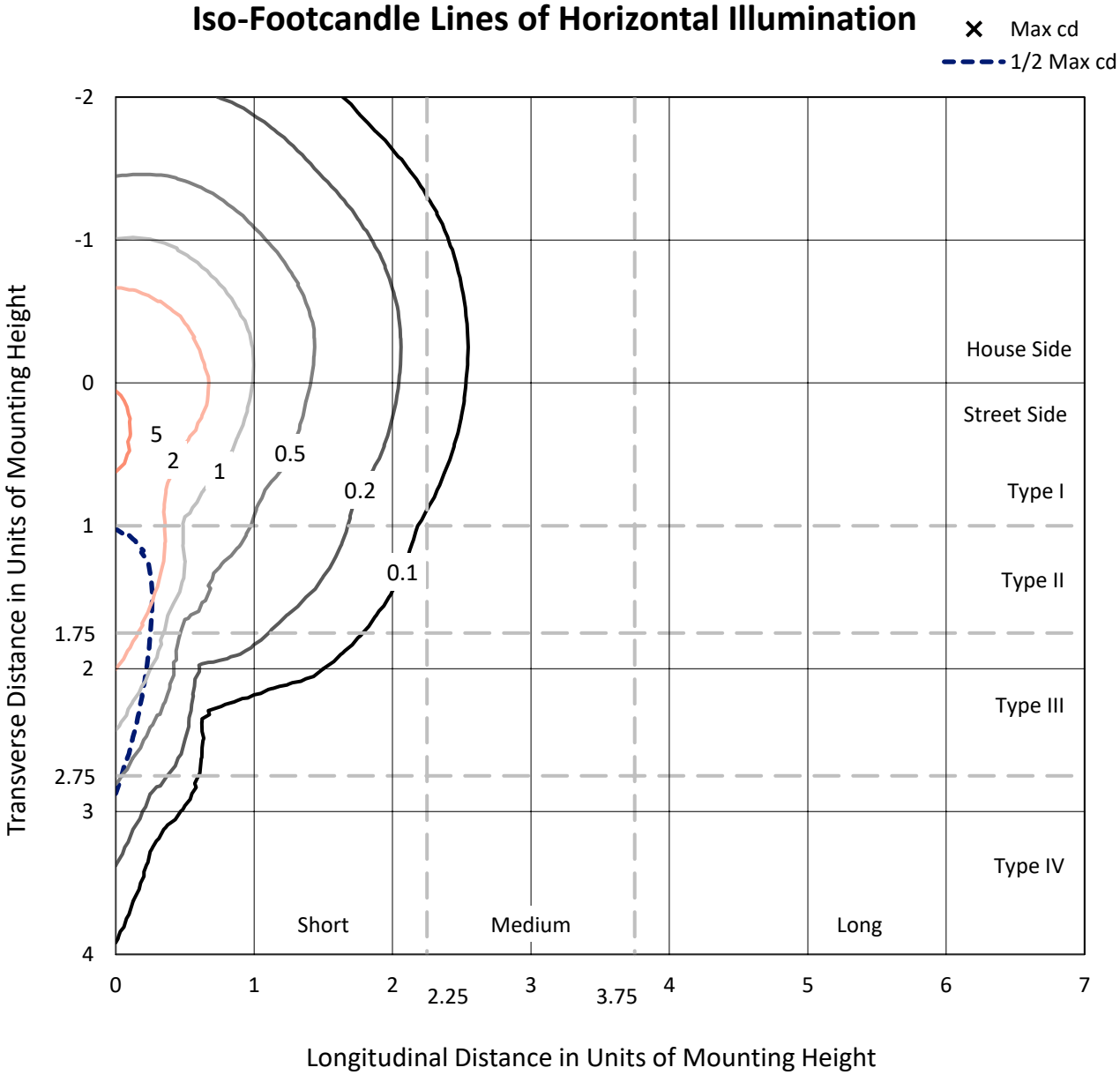
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type III - Short - N/A

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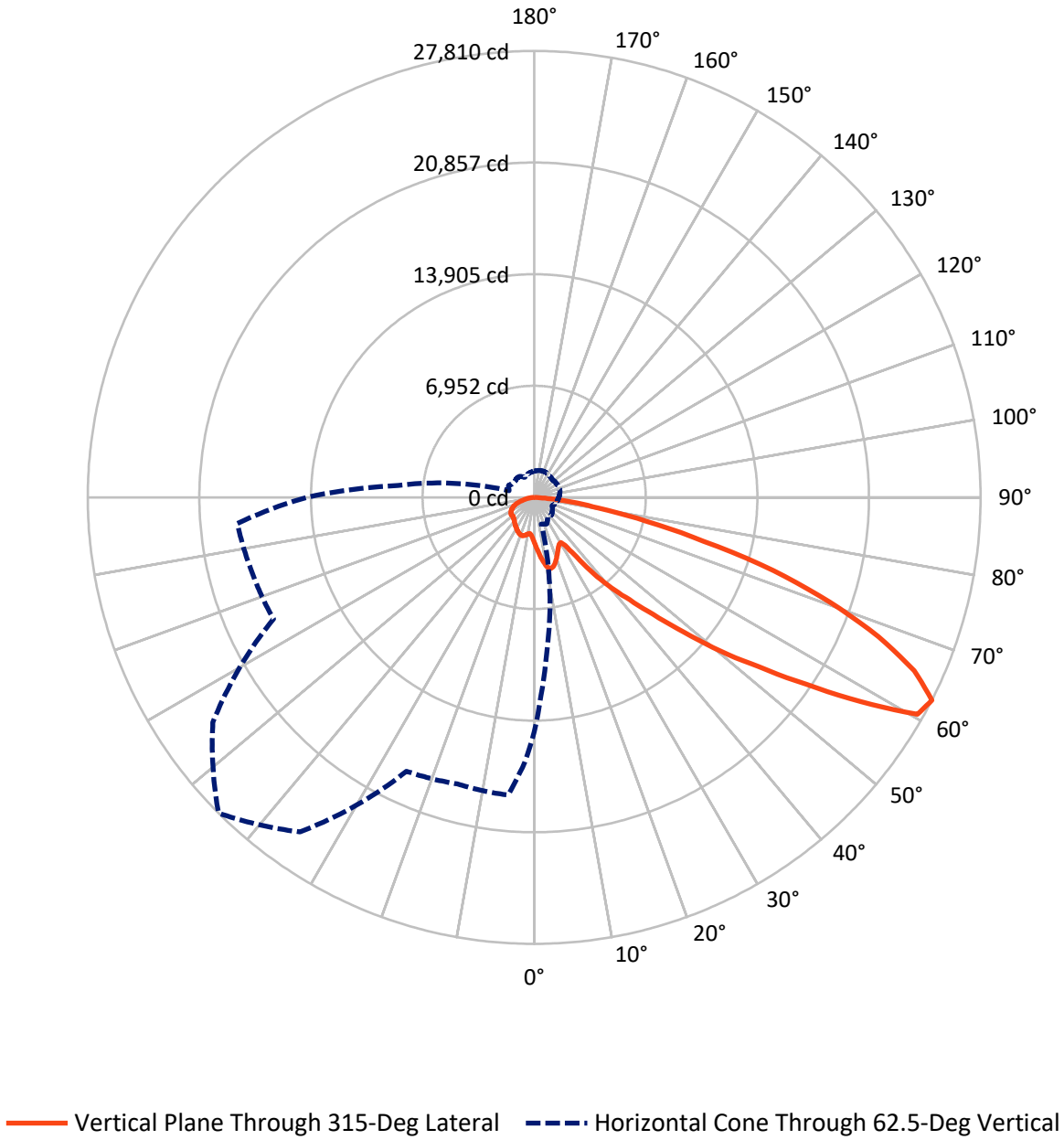
Luminous Intensity Polar Plot



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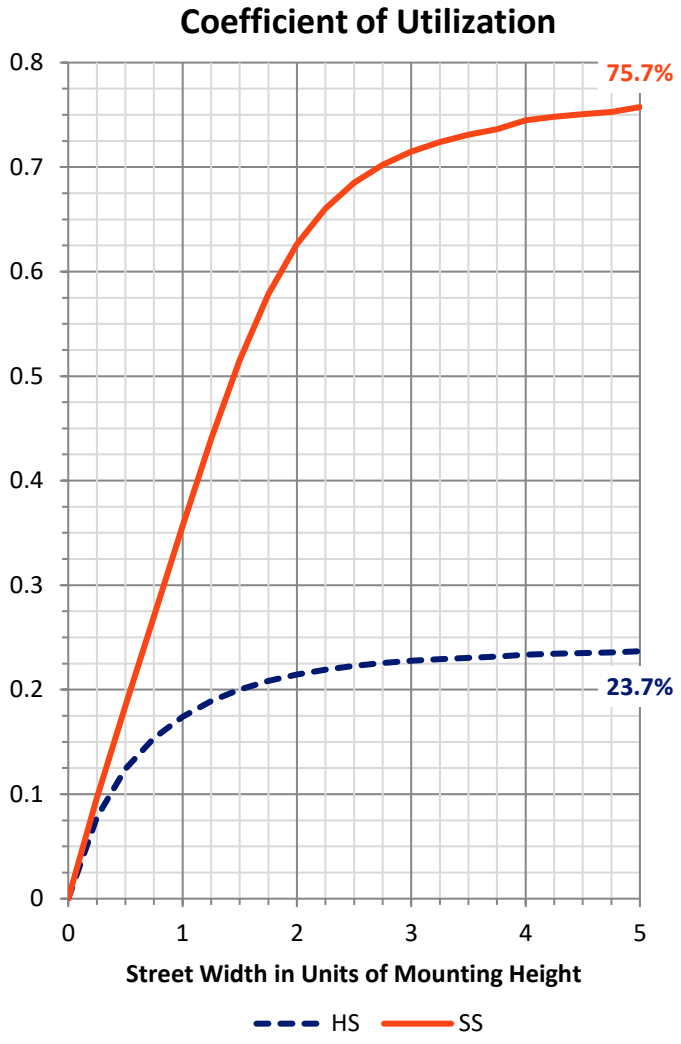
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5447.8	0.0	5447.8
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	17336.8	0.0	17336.8
	% Fixture	76.1	0.0	76.1
Total	Lumens	22784.6	0.0	22784.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	1.2
10°-20°	909.5	4.0
20°-30°	1431.8	6.3
30°-40°	1962.6	8.6
40°-50°	3062.2	13.4
50°-60°	5279.9	23.2
60°-70°	6118.7	26.9
70°-80°	3229.8	14.2
80°-90°	510.2	2.2
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°	22784.6	100.0
0°-180°	22784.6	100.0



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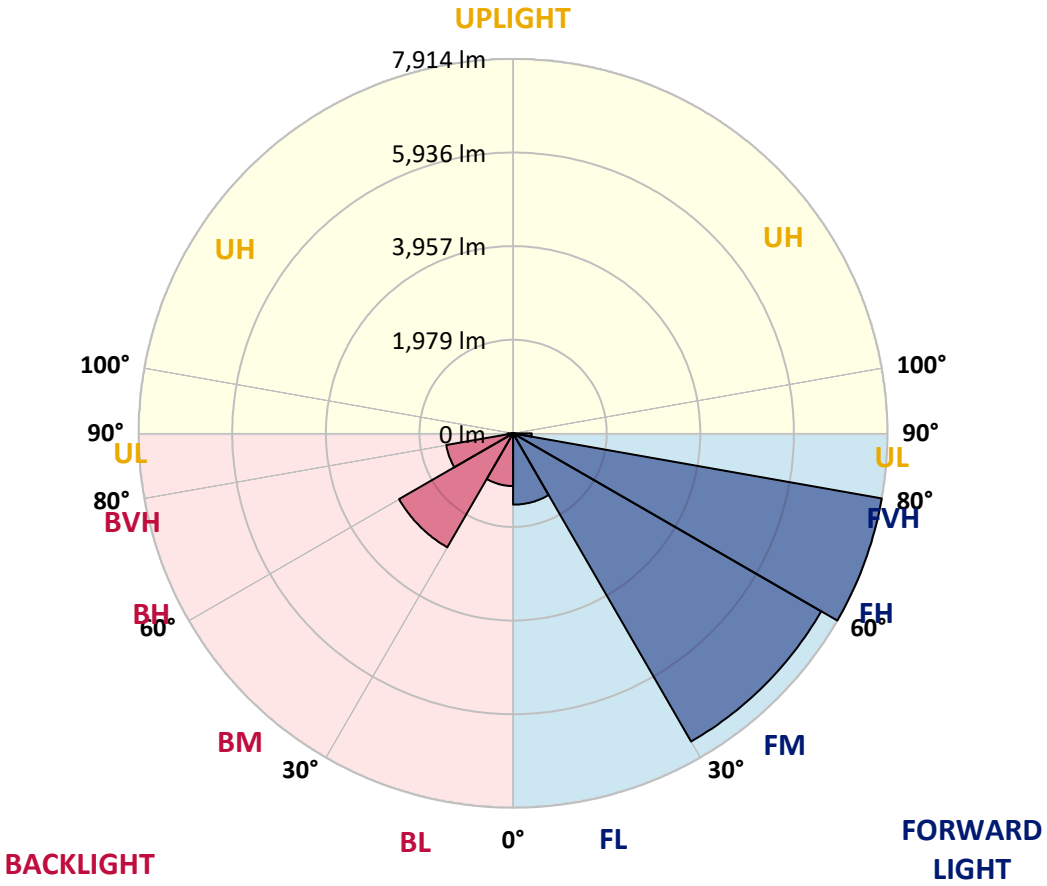
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1506.9	6.6			
FM	(30°-60°)	7522.0	33.0			
FH	(60°-80°)	7914.1	34.7			G4/12000
FVH	(80°-90°)	393.8	1.7			G3/500
BL	(0°-30°)	1114.3	4.9	B3/2500		
BM	(30°-60°)	2782.7	12.2	B3/5000		
BH	(60°-80°)	1434.4	6.3	B3/2500		G3/2500
BVH	(80°-90°)	116.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8
2.5°	3086.5	3074.3	3056.9	2997.6	2961.0	2919.2	2875.6	2825.1	2767.6	2727.5	2687.4
5°	3347.9	3328.8	3286.9	3145.8	3048.2	2941.9	2853.0	2751.9	2652.5	2584.6	2516.6
7.5°	3598.9	3574.5	3510.0	3293.9	3135.3	2981.9	2847.7	2701.3	2553.2	2452.1	2372.0
10°	3849.9	3799.3	3717.4	3435.1	3225.9	3048.2	2894.8	2715.3	2518.3	2380.7	2295.3
12.5°	4041.6	3994.5	3905.6	3564.0	3316.6	3093.5	2920.9	2755.4	2588.1	2441.7	2354.5
15°	4221.1	4160.1	4059.0	3684.3	3391.5	3091.7	2868.7	2724.0	2699.6	2663.0	2549.7
17.5°	4350.0	4294.3	4189.7	3781.9	3433.3	3037.7	2724.0	2638.6	2748.4	2859.9	2751.9
20°	4463.3	4398.8	4292.5	3849.9	3442.0	2917.5	2548.0	2549.7	2722.3	2875.6	2849.5
22.5°	4559.2	4487.7	4393.6	3926.5	3438.5	2750.1	2394.6	2499.2	2671.7	2792.0	2795.5
25°	4677.7	4618.4	4540.0	4039.8	3438.5	2579.3	2283.1	2438.2	2586.3	2687.4	2683.9
27.5°	4822.3	4782.2	4717.8	4212.4	3469.9	2436.4	2220.3	2359.8	2476.5	2563.7	2561.9
30°	4984.4	4947.8	4899.0	4395.3	3523.9	2330.1	2185.5	2262.2	2347.6	2417.3	2417.3
32.5°	5150.0	5136.0	5083.8	4541.7	3482.1	2297.0	2155.8	2164.6	2209.9	2267.4	2262.2
35°	5380.0	5366.1	5299.9	4655.0	3300.9	2250.0	2108.8	2065.2	2070.4	2107.0	2119.2
37.5°	5716.4	5695.5	5597.9	4787.5	3027.2	2131.4	2032.1	1960.7	1945.0	1960.7	1983.3
40°	6122.5	6091.1	5958.6	4967.0	2711.8	1971.1	1911.9	1852.6	1826.5	1831.7	1857.8
42.5°	6631.4	6565.1	6375.2	5157.0	2399.8	1829.9	1777.7	1741.1	1711.4	1707.9	1758.5
45°	7457.5	7276.2	6974.7	5326.0	2136.7	1755.0	1657.4	1631.3	1606.9	1620.8	1680.1
47.5°	8900.5	8565.9	7978.5	5470.7	1976.3	1756.7	1561.6	1533.7	1531.9	1559.8	1626.0
50°	10883.8	10401.0	9494.8	5568.3	1892.7	1777.7	1504.0	1458.7	1491.8	1519.7	1582.5
52.5°	12783.5	12046.2	10967.5	5566.5	1856.1	1781.1	1519.7	1389.0	1491.8	1498.8	1558.1
55°	14406.0	13071.0	11364.8	4994.9	1803.8	1767.2	1580.7	1335.0	1472.7	1498.8	1545.9
57.5°	15695.7	13722.8	11335.2	4034.6	1962.4	1690.5	1617.3	1322.8	1416.9	1502.3	1556.3
60°	15552.8	13424.8	10605.0	2476.5	1946.7	1554.6	1612.1	1345.4	1322.8	1455.2	1544.1
62.5°	*14602.9*	*12356.5*	*9348.4*	*1718.4*	*1828.2*	*1476.2*	*1526.7*	*1385.5*	*1235.6*	*1387.3*	*1484.9*
65°	13273.2	10977.9	7790.3	1317.6	1514.5	1479.6	1382.0	1357.6	1159.0	1279.2	1383.8
67.5°	11514.7	9268.2	6150.3	1043.9	1056.1	1281.0	1254.8	1206.0	1087.5	1183.4	1277.5
70°	8656.5	6763.8	4231.5	840.0	799.9	1070.1	1127.6	1084.0	1017.8	1045.7	1145.0
72.5°	6099.8	4416.3	2317.9	665.8	617.0	822.6	979.5	972.5	899.3	920.2	1017.8
75°	4533.0	3124.8	1448.3	526.3	501.9	589.1	820.9	841.8	780.8	805.2	880.1
77.5°	3016.8	2023.4	805.2	390.4	390.4	430.5	611.7	709.3	664.0	683.2	735.5
80°	1664.4	1030.0	402.6	256.2	263.2	296.3	446.2	510.6	512.4	559.4	573.4
82.5°	526.3	327.6	179.5	149.9	141.2	169.1	287.6	366.0	341.6	435.7	400.8
85°	120.3	76.7	33.1	33.1	36.6	55.8	109.8	195.2	249.2	299.8	217.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	76.7	113.3	101.1
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8
2.5°	2663.0	2628.1	2617.7	2588.1	2584.6	2556.7	2546.2	2546.2	2558.4	2558.4	2570.6
5°	2488.7	2445.2	2420.8	2385.9	2377.2	2356.3	2342.3	2344.1	2359.8	2370.2	2391.1
7.5°	2335.4	2305.7	2288.3	2272.6	2269.1	2265.6	2250.0	2248.2	2253.4	2269.1	2284.8
10°	2270.9	2250.0	2255.2	2267.4	2286.6	2297.0	2283.1	2276.1	2270.9	2281.3	2295.3
12.5°	2333.6	2312.7	2323.2	2344.1	2370.2	2380.7	2375.4	2373.7	2378.9	2419.0	2448.6
15°	2471.3	2431.2	2417.3	2426.0	2446.9	2457.4	2452.1	2459.1	2492.2	2596.8	2671.7
17.5°	2642.1	2544.5	2488.7	2473.0	2481.8	2490.5	2490.5	2507.9	2565.4	2718.8	2812.9
20°	2734.5	2607.2	2513.1	2474.8	2478.3	2487.0	2487.0	2511.4	2575.9	2739.7	2800.7
22.5°	2710.1	2593.3	2478.3	2436.4	2438.2	2445.2	2445.2	2466.1	2523.6	2668.2	2696.1
25°	2614.2	2511.4	2398.1	2361.5	2365.0	2377.2	2373.7	2385.9	2429.5	2548.0	2563.7
27.5°	2499.2	2408.6	2297.0	2269.1	2284.8	2309.2	2288.3	2290.0	2330.1	2429.5	2431.2
30°	2375.4	2300.5	2201.2	2180.2	2209.9	2222.1	2202.9	2202.9	2243.0	2311.0	2309.2
32.5°	2241.2	2194.2	2122.7	2100.1	2133.2	2152.4	2128.0	2131.4	2162.8	2208.1	2190.7
35°	2115.8	2091.4	2058.2	2042.6	2063.5	2080.9	2065.2	2072.2	2101.8	2114.0	2089.6
37.5°	1995.5	1992.0	1995.5	1995.5	2000.7	2006.0	1995.5	2012.9	2039.1	2023.4	1995.5
40°	1890.9	1904.9	1938.0	1929.3	1924.1	1929.3	1922.3	1951.9	1978.1	1950.2	1917.1
42.5°	1803.8	1829.9	1880.5	1880.5	1870.0	1873.5	1870.0	1906.6	1925.8	1887.5	1850.9
45°	1728.9	1767.2	1831.7	1840.4	1823.0	1823.0	1829.9	1875.3	1882.2	1829.9	1791.6
47.5°	1676.6	1723.6	1796.8	1812.5	1786.4	1784.6	1803.8	1852.6	1852.6	1791.6	1748.0
50°	1640.0	1692.3	1779.4	1800.3	1774.2	1767.2	1798.6	1845.6	1835.2	1762.0	1718.4
52.5°	1615.6	1669.6	1777.7	1807.3	1789.9	1782.9	1814.3	1847.4	1821.2	1742.8	1697.5
55°	1599.9	1659.1	1782.9	1807.3	1788.1	1775.9	1807.3	1836.9	1823.0	1732.3	1688.8
57.5°	1608.6	1667.9	1775.9	1788.1	1765.5	1744.5	1781.1	1823.0	1817.7	1735.8	1692.3
60°	1594.7	1648.7	1737.6	1741.1	1702.7	1669.6	1723.6	1786.4	1786.4	1723.6	1685.3
62.5°	*1530.2*	*1584.2*	*1662.6*	*1666.1*	*1622.5*	*1586.0*	*1648.7*	*1723.6*	*1721.9*	*1671.3*	*1631.3*
65°	1423.9	1474.4	1563.3	1572.0	1528.4	1490.1	1554.6	1624.3	1629.5	1584.2	1549.4
67.5°	1307.1	1352.4	1418.6	1453.5	1416.9	1376.8	1436.1	1502.3	1500.6	1446.5	1409.9
70°	1167.7	1209.5	1270.5	1300.1	1277.5	1239.1	1293.2	1328.0	1312.3	1286.2	1261.8
72.5°	1030.0	1070.1	1127.6	1127.6	1103.2	1066.6	1082.3	1145.0	1164.2	1145.0	1129.3
75°	885.3	920.2	960.3	969.0	915.0	848.7	921.9	976.0	998.6	989.9	970.7
77.5°	737.2	763.3	822.6	806.9	705.8	671.0	730.2	810.4	826.1	820.9	794.7
80°	568.2	583.8	646.6	615.2	536.8	514.1	540.3	603.0	606.5	589.1	556.0
82.5°	381.7	402.6	444.4	383.4	381.7	360.8	339.8	346.8	378.2	374.7	352.0
85°	195.2	205.7	245.7	230.0	196.9	170.8	162.1	172.5	155.1	141.2	122.0
87.5°	81.9	88.9	122.0	68.0	20.9	0.0	0.0	10.5	15.7	22.7	24.4
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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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8
2.5°	2598.5	2617.7	2664.7	2724.0	2781.5	2840.8	2905.3	2945.3	2994.1	3056.9	3058.6
5°	2417.3	2460.8	2528.8	2619.4	2713.5	2821.6	2947.1	3051.6	3177.1	3276.5	3316.6
7.5°	2305.7	2368.5	2453.9	2568.9	2692.6	2826.8	2990.6	3166.7	3372.3	3504.8	3583.2
10°	2316.2	2412.0	2497.4	2595.0	2706.6	2851.2	3062.1	3295.6	3548.3	3722.6	3820.2
12.5°	2502.7	2603.7	2588.1	2582.8	2657.8	2833.8	3119.6	3426.3	3734.8	3909.1	4025.9
15°	2737.9	2776.3	2628.1	2516.6	2561.9	2771.1	3151.0	3543.1	3889.9	4102.6	4217.6
17.5°	2858.2	2781.5	2602.0	2434.7	2422.5	2675.2	3166.7	3661.6	4064.2	4276.8	4398.8
20°	2802.4	2690.9	2539.3	2380.7	2293.5	2544.5	3158.0	3755.7	4222.8	4459.8	4559.2
22.5°	2682.2	2584.6	2466.1	2314.4	2189.0	2401.6	3135.3	3849.9	4364.0	4602.7	4689.9
25°	2551.5	2478.3	2380.7	2248.2	2129.7	2276.1	3119.6	3975.3	4526.1	4754.4	4810.1
27.5°	2420.8	2366.7	2286.6	2183.7	2115.8	2189.0	3124.8	4139.2	4735.2	4951.3	4928.6
30°	2291.8	2244.7	2189.0	2143.6	2114.0	2168.0	3110.9	4313.4	4965.2	5165.7	5031.5
32.5°	2169.8	2126.2	2091.4	2098.3	2115.8	2176.8	3039.4	4472.0	5176.1	5346.9	5143.0
35°	2065.2	2019.9	2019.9	2044.3	2108.8	2147.1	2854.7	4595.8	5409.7	5580.5	5301.6
37.5°	1967.6	1927.5	1953.7	1993.8	2054.8	2067.0	2617.7	4716.0	5749.5	5909.8	5547.3
40°	1882.2	1842.1	1889.2	1939.7	1971.1	1965.9	2377.2	4883.3	6150.3	6315.9	5873.2
42.5°	1814.3	1777.7	1819.5	1884.0	1889.2	1894.4	2201.2	5043.7	6615.7	6826.6	6434.4
45°	1758.5	1732.3	1753.3	1817.7	1817.7	1897.9	2091.4	5177.9	7316.3	7689.2	7464.4
47.5°	1714.9	1699.2	1709.7	1730.6	1765.5	1960.7	2021.7	5280.7	8592.0	9324.0	9097.4
50°	1690.5	1674.8	1688.8	1645.2	1749.8	1992.0	1999.0	5359.1	10273.8	11420.6	11140.0
52.5°	1669.6	1664.4	1673.1	1572.0	1784.6	1971.1	1981.6	5254.5	11401.4	13484.1	13761.2
55°	1662.6	1666.1	1624.3	1518.0	1826.5	1901.4	1929.3	4506.9	11708.1	15263.5	16983.6
57.5°	1666.1	1655.7	1549.4	1523.2	1828.2	1762.0	2004.2	3215.5	11262.0	16037.3	20136.3
60°	1653.9	1601.6	1458.7	1570.3	1748.0	1598.1	1950.2	2096.6	10085.6	15443.0	20319.3
62.5°	*1599.9*	*1523.2*	*1380.3*	*1596.4*	*1605.1*	*1500.6*	*1770.7*	*1615.6*	*8517.1*	*14170.7*	*18555.6*
65°	1521.5	1418.6	1314.1	1542.4	1460.5	1455.2	1331.5	1294.9	6849.2	12656.2	16882.5
67.5°	1392.5	1289.7	1265.3	1418.6	1314.1	1289.7	1070.1	1073.6	5465.4	11042.4	15200.7
70°	1246.1	1143.3	1162.4	1282.7	1169.4	1071.8	866.2	894.1	4146.1	9200.3	12933.3
72.5°	1150.2	1012.6	1014.3	1129.3	1028.3	867.9	712.8	737.2	2631.6	6934.6	10282.5
75°	970.7	892.3	854.0	915.0	873.1	676.2	599.5	594.3	1559.8	4970.5	7699.7
77.5°	810.4	749.4	730.2	754.6	651.8	500.2	482.8	474.0	883.6	3184.1	5045.4
80°	587.3	571.6	569.9	582.1	501.9	367.7	367.7	369.5	475.8	1728.9	2844.3
82.5°	373.0	407.8	360.8	400.8	341.6	261.4	244.0	277.1	273.6	737.2	1199.0
85°	155.1	212.6	198.7	210.9	162.1	142.9	153.4	165.6	158.6	284.1	467.1
87.5°	29.6	34.9	38.3	36.6	36.6	45.3	50.5	61.0	61.0	81.9	141.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P638482
CATALOG NUMBER: GWS-SA4E-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	2840.8	2840.8	2840.8	*2840.8*	2840.8	2840.8	2840.8	2840.8	2840.8	2840.8
2.5°	3124.8	3175.4	3164.9	*3187.6*	3158.0	3168.4	3109.2	3093.5	3083.0	3086.5
5°	3445.5	3548.3	3567.5	*3605.9*	3579.7	3579.7	3475.1	3396.7	3368.8	3347.9
7.5°	3771.4	3919.6	4017.2	*4027.6*	4013.7	3985.8	3834.2	3693.0	3642.5	3598.9
10°	4060.7	4238.5	4348.3	*4400.6*	4374.4	4330.9	4142.6	3949.2	3888.2	3849.9
12.5°	4282.1	4438.9	4512.1	*4547.0*	4543.5	4527.8	4374.4	4165.3	4100.8	4041.6
15°	4425.0	4503.4	4475.5	*4473.8*	4498.2	4560.9	4513.9	4350.0	4275.1	4221.1
17.5°	4517.3	4442.4	4318.7	*4261.2*	4313.4	4461.6	4569.6	4477.3	4409.3	4350.0
20°	4550.5	4283.8	4104.3	*3998.0*	4059.0	4273.4	4540.0	4569.6	4512.1	4463.3
22.5°	4512.1	4090.4	3846.4	*3720.9*	3780.1	4036.3	4452.9	4644.6	4606.2	4559.2
25°	4418.0	3888.2	3595.4	*3482.1*	3546.6	3808.0	4297.8	4714.3	4716.0	4677.7
27.5°	4301.2	3701.7	3419.4	*3313.1*	3375.8	3619.8	4146.1	4775.3	4836.3	4822.3
30°	4182.7	3590.2	3335.7	*3260.8*	3307.8	3523.9	3991.0	4838.0	4960.0	4984.4
32.5°	4128.7	3644.2	3532.7	*3565.8*	3504.8	3579.7	3935.2	4926.9	5109.9	5150.0
35°	4200.2	4123.5	4405.8	*4536.5*	4320.4	4036.3	4006.7	5061.1	5320.8	5380.0
37.5°	4547.0	5150.0	5571.7	*6031.8*	5657.1	5031.5	4360.5	5289.4	5622.3	5716.4
40°	5301.6	6045.8	6807.4	*7401.7*	6835.3	5993.5	5033.2	5629.3	6037.1	6122.5
42.5°	6012.7	6885.8	7935.0	*8703.6*	7968.1	6779.5	5758.2	6200.9	6584.3	6631.4
45°	6709.8	7710.2	9299.6	*10367.9*	9369.3	7527.2	6498.9	7166.4	7455.7	7457.5
47.5°	7527.2	8639.1	11011.0	*12532.5*	11228.9	8355.0	7194.3	8694.8	9097.4	8900.5
50°	8504.9	9562.8	12773.0	*15050.8*	13496.3	9372.8	8077.9	10557.9	11106.9	10883.8
52.5°	9813.7	10580.6	14714.5	*17506.4*	15967.6	10531.8	9358.8	13018.7	13200.0	12783.5
55°	11655.9	12049.7	17206.7	*20538.9*	18726.4	11959.1	11232.4	16107.0	15599.8	14406.0
57.5°	15850.8	14374.6	20406.5	*23998.4*	21847.8	14552.4	15338.4	19512.4	17708.6	15695.7
60°	19360.8	17198.0	23367.5	*27431.7*	24523.0	17410.6	19193.5	20105.0	17630.2	15552.8
62.5°	*18177.4*	*17917.8*	*24435.8*	*27809.9*	*25436.2*	*18817.0*	*18477.2*	*18611.4*	*16479.9*	*14602.9*
65°	15948.4	16528.7	23482.5	*26016.6*	24423.6	17557.0	16713.5	17231.1	15164.1	13273.2
67.5°	14632.6	15059.6	21786.8	*23146.2*	22583.2	16194.1	15341.9	14967.2	13121.6	11514.7
70°	13287.1	13640.9	19406.1	*19543.8*	19712.8	13928.5	12544.7	11429.3	9780.6	8656.5
72.5°	11481.6	11500.8	16396.3	*15598.1*	15918.8	10899.5	10097.8	8545.0	7119.3	6099.8
75°	9632.5	9106.1	12978.6	*10903.0*	11546.1	8478.7	8384.6	6439.7	5369.6	4533.0
77.5°	7344.2	6729.0	9480.8	*7169.9*	8109.3	5646.7	6303.7	4367.5	3778.4	3016.8
80°	4930.4	4547.0	5238.9	*4046.8*	5305.1	3891.7	4111.3	2474.8	2145.4	1664.4
82.5°	2600.3	2220.3	3238.1	*2399.8*	3199.8	2138.4	1542.4	765.1	651.8	526.3
85°	1007.3	1165.9	1587.7	*854.0*	1240.9	763.3	446.2	190.0	158.6	120.3
87.5°	195.2	301.5	165.6	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0

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

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.

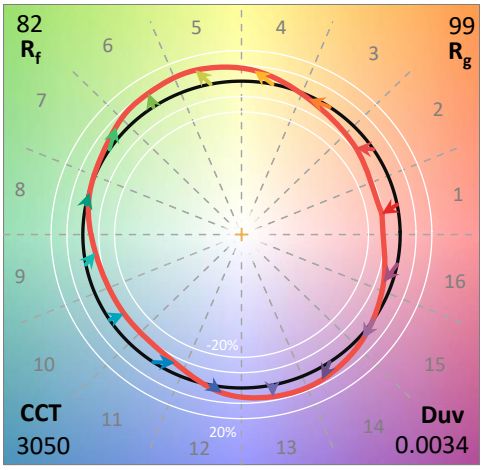
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

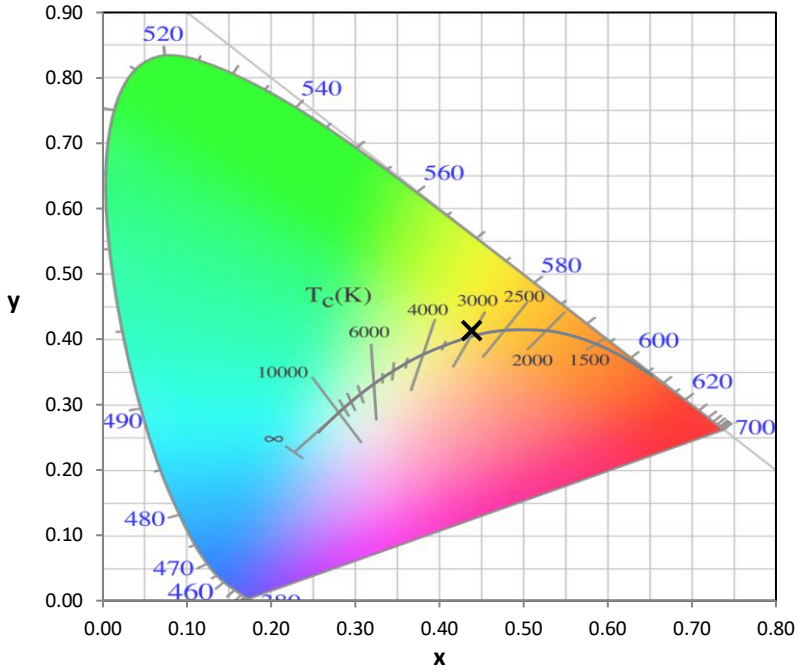
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

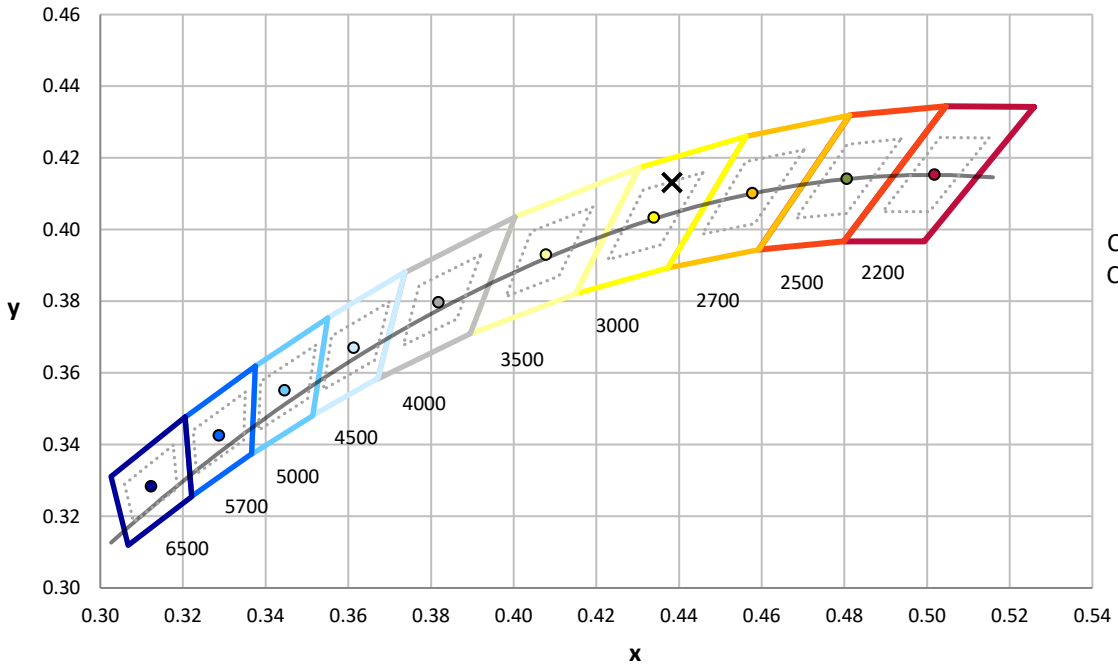
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

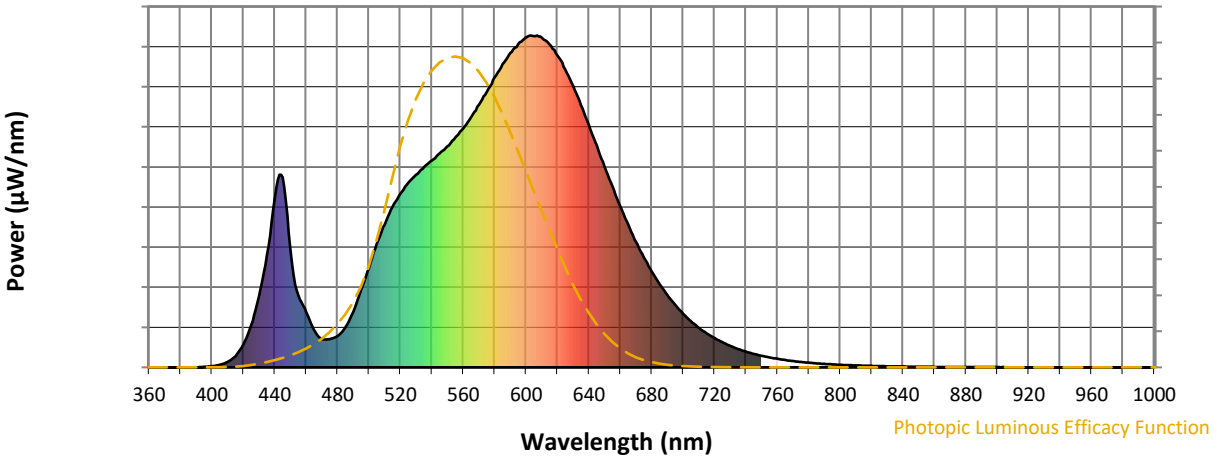


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

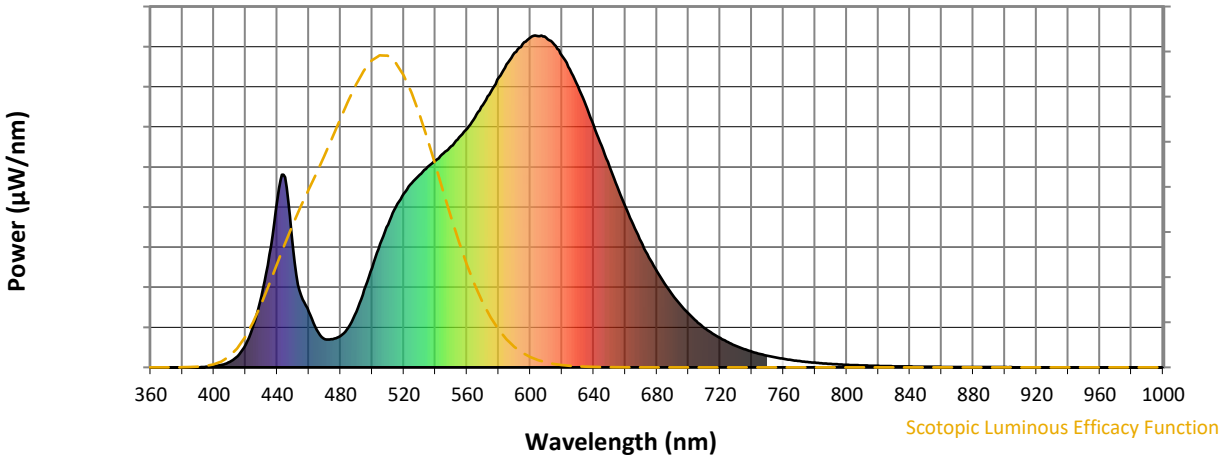


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

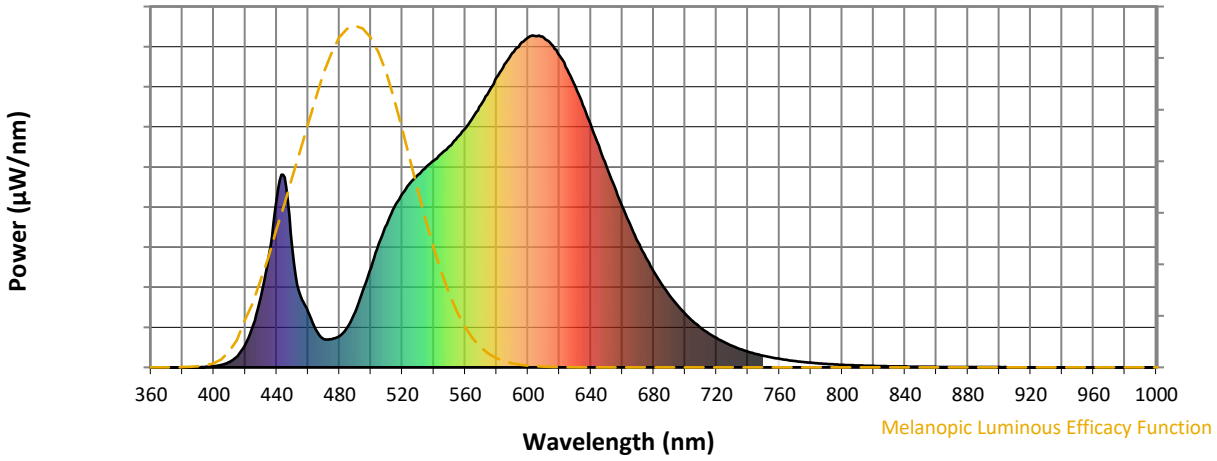


Scotopic Lumens: NR **S/P: 1.27**

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			

REPORT NUMBER: SP1-2408-195-9

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			

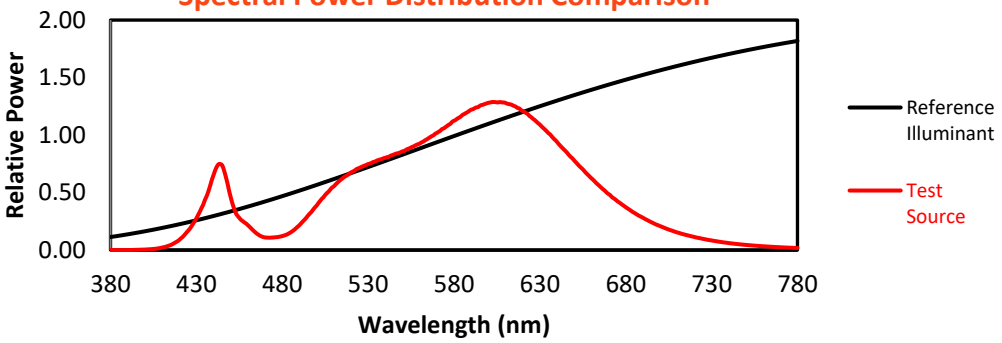
REPORT NUMBER: SP1-2408-195-9

TM-30-18

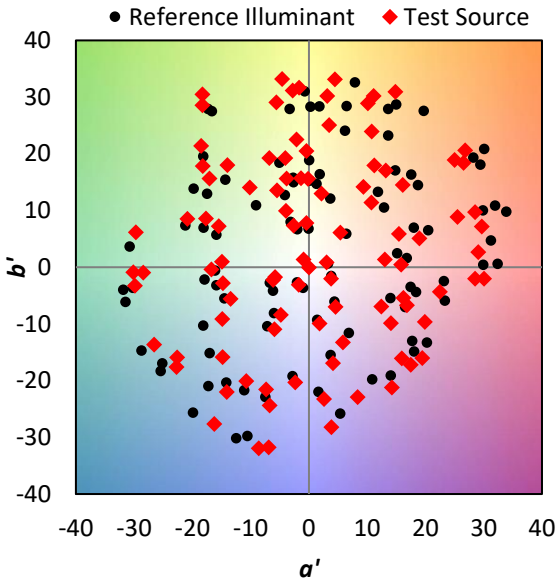
Summary

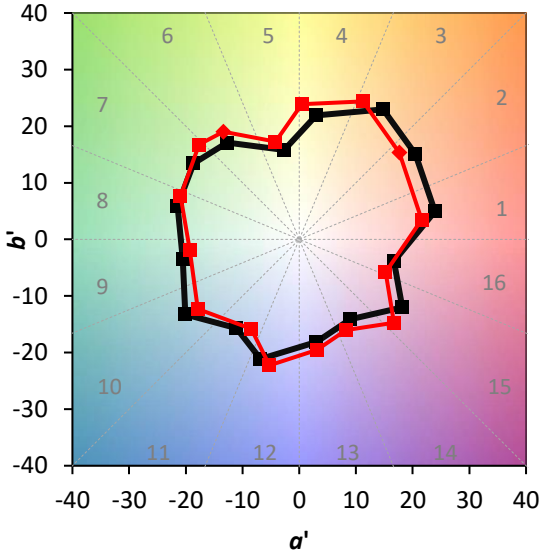
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

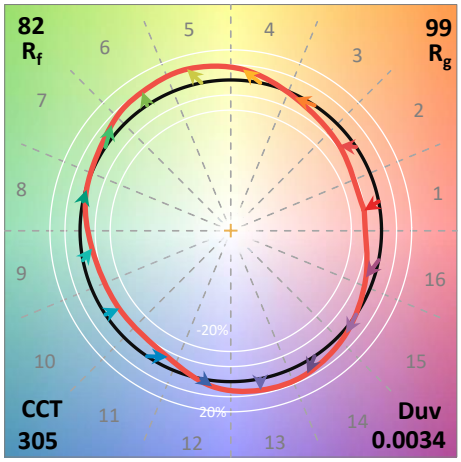
Spectral Power Distribution Comparison

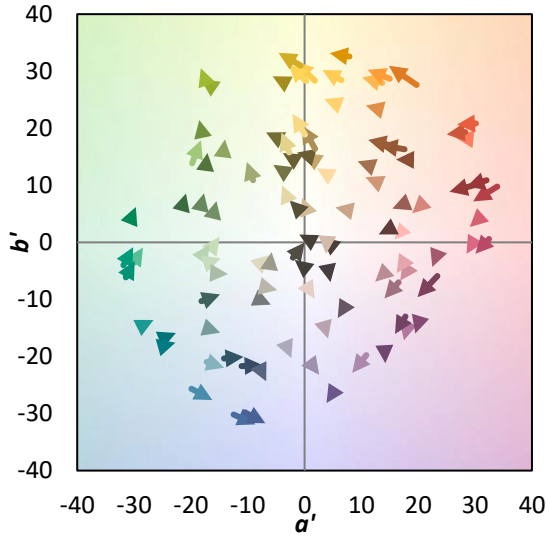


Color Vector Graphics









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

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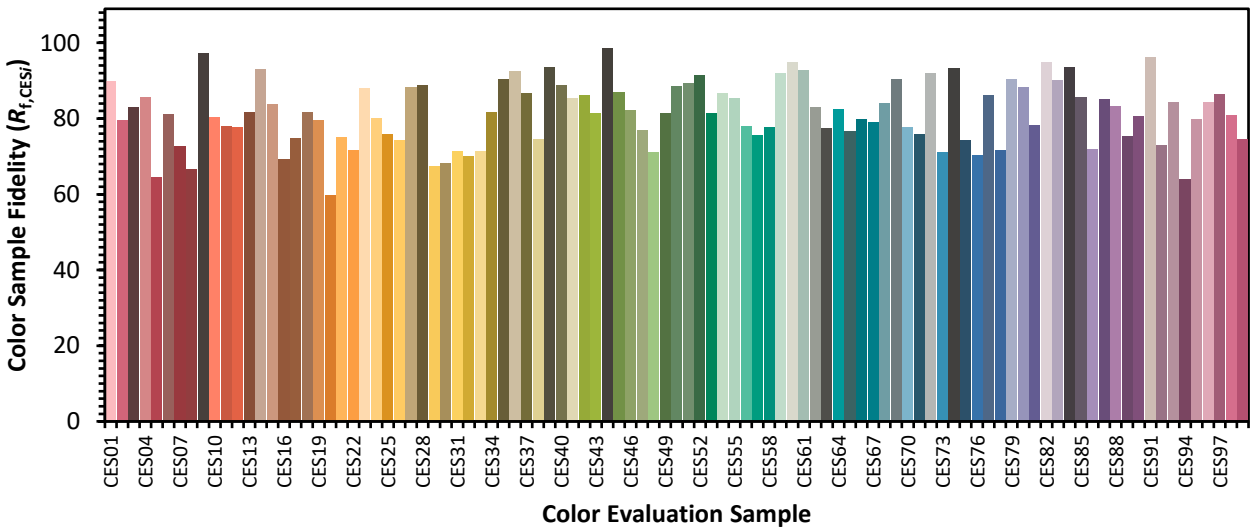
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 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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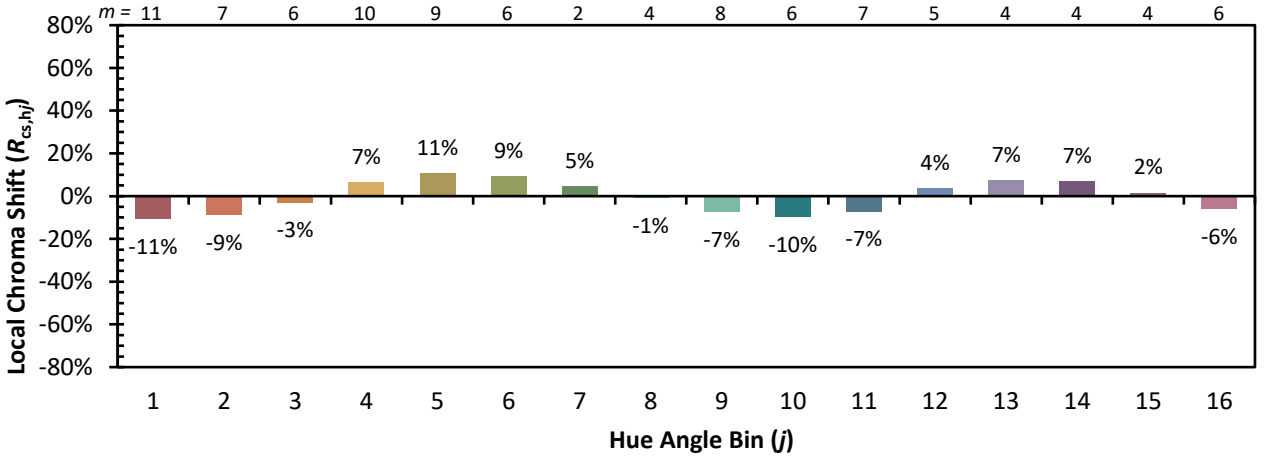
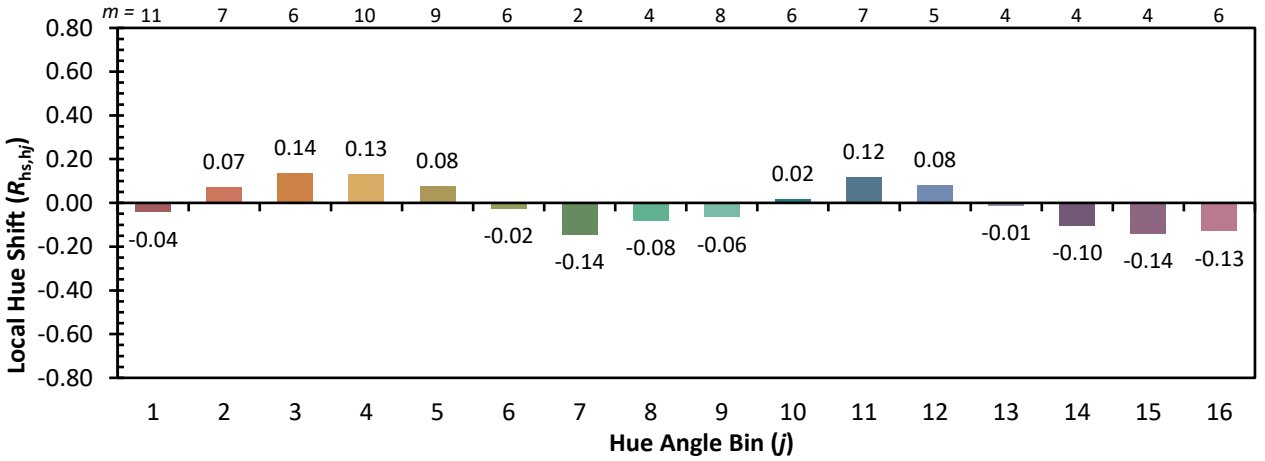
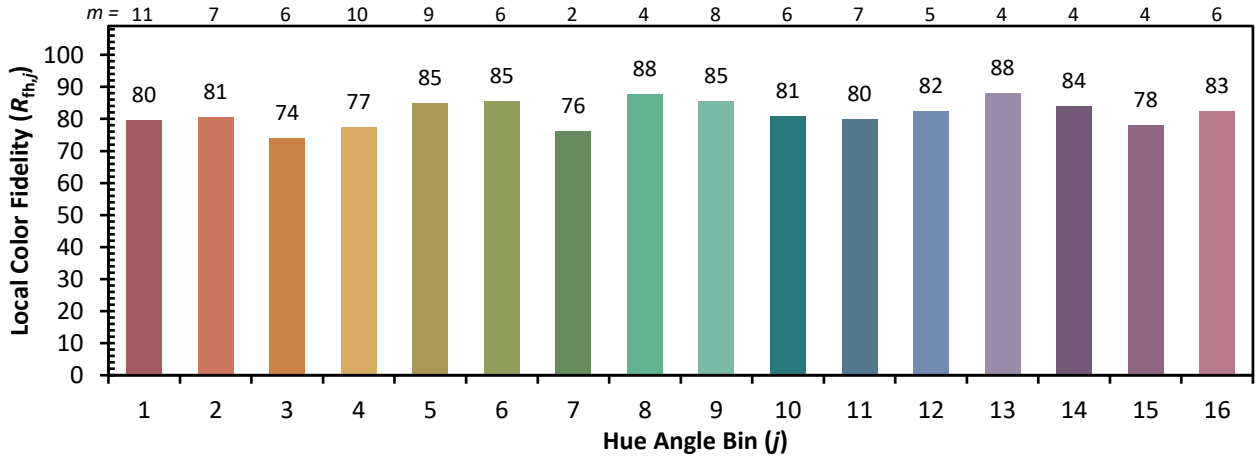
Color Rendition by Hue-Angle Bin







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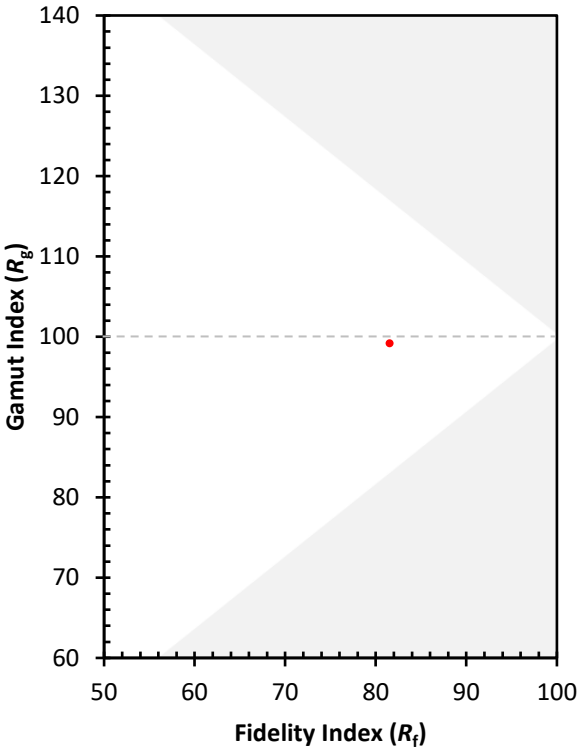
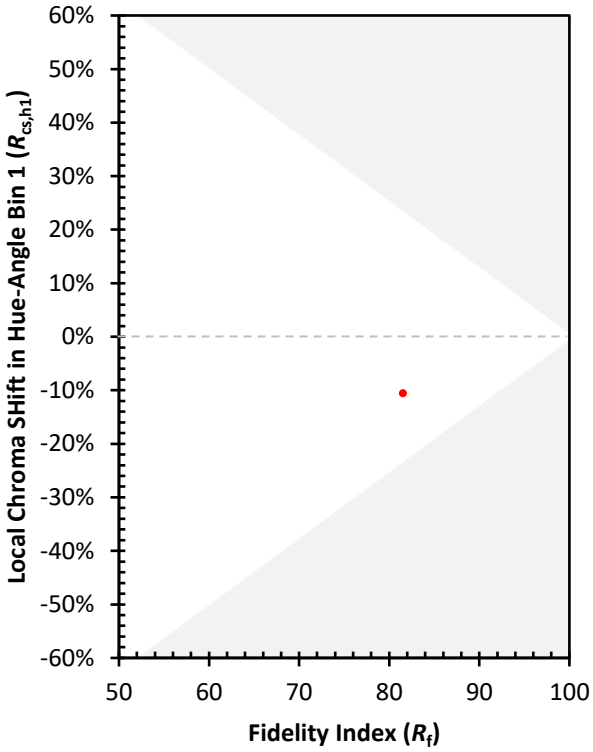
Measure Comparisons





(END OF REPORT)