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: P639474

Luminaire Tested: GWS-SA5B-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P639474
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5B-830-U-SLR-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	11035.7 lumens
Efficiency:	N/A
Efficacy:	95.4 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G2

Input Watts (W):	115.7
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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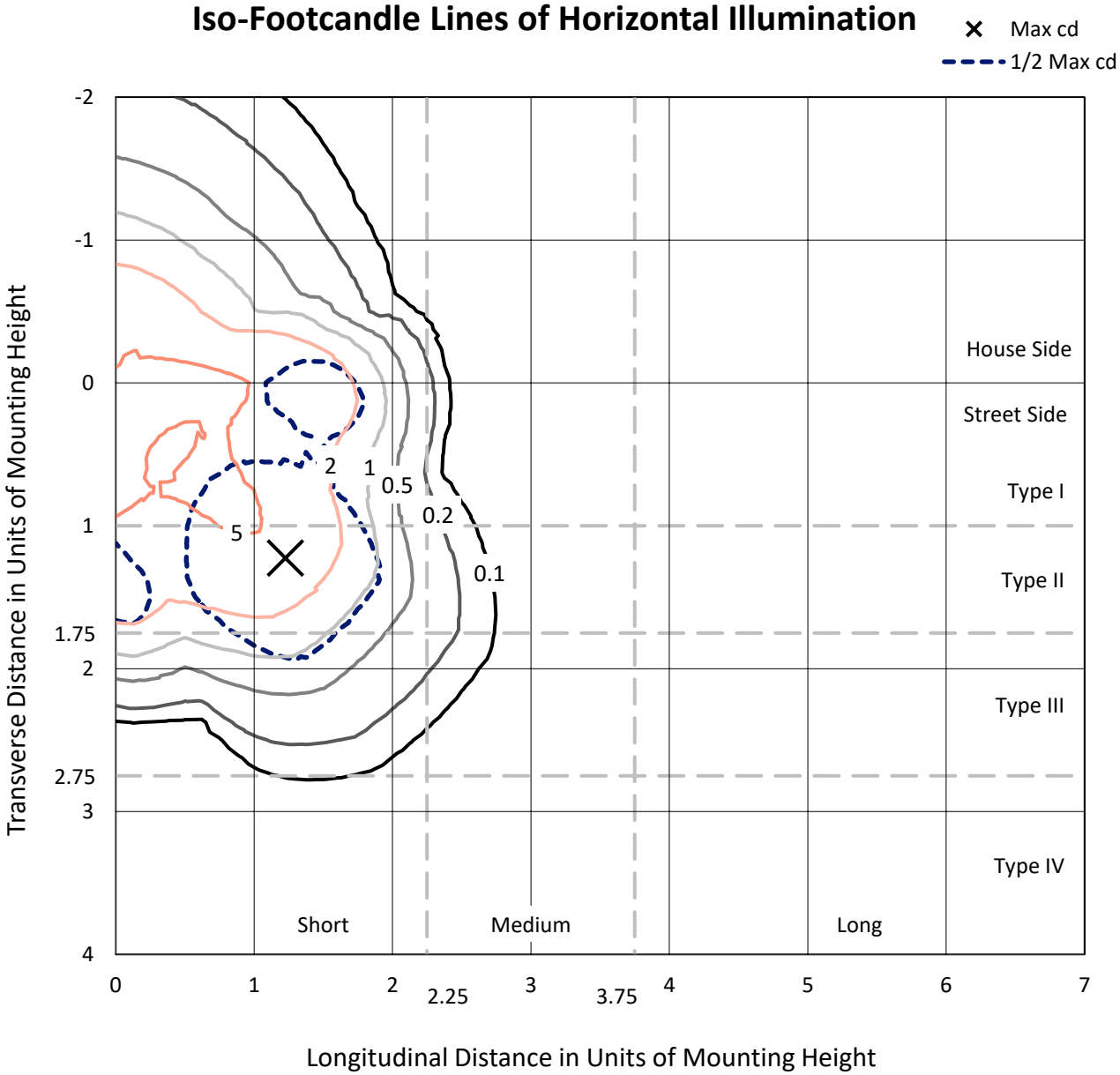
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 7.6 fc
Type III - Short - N/A

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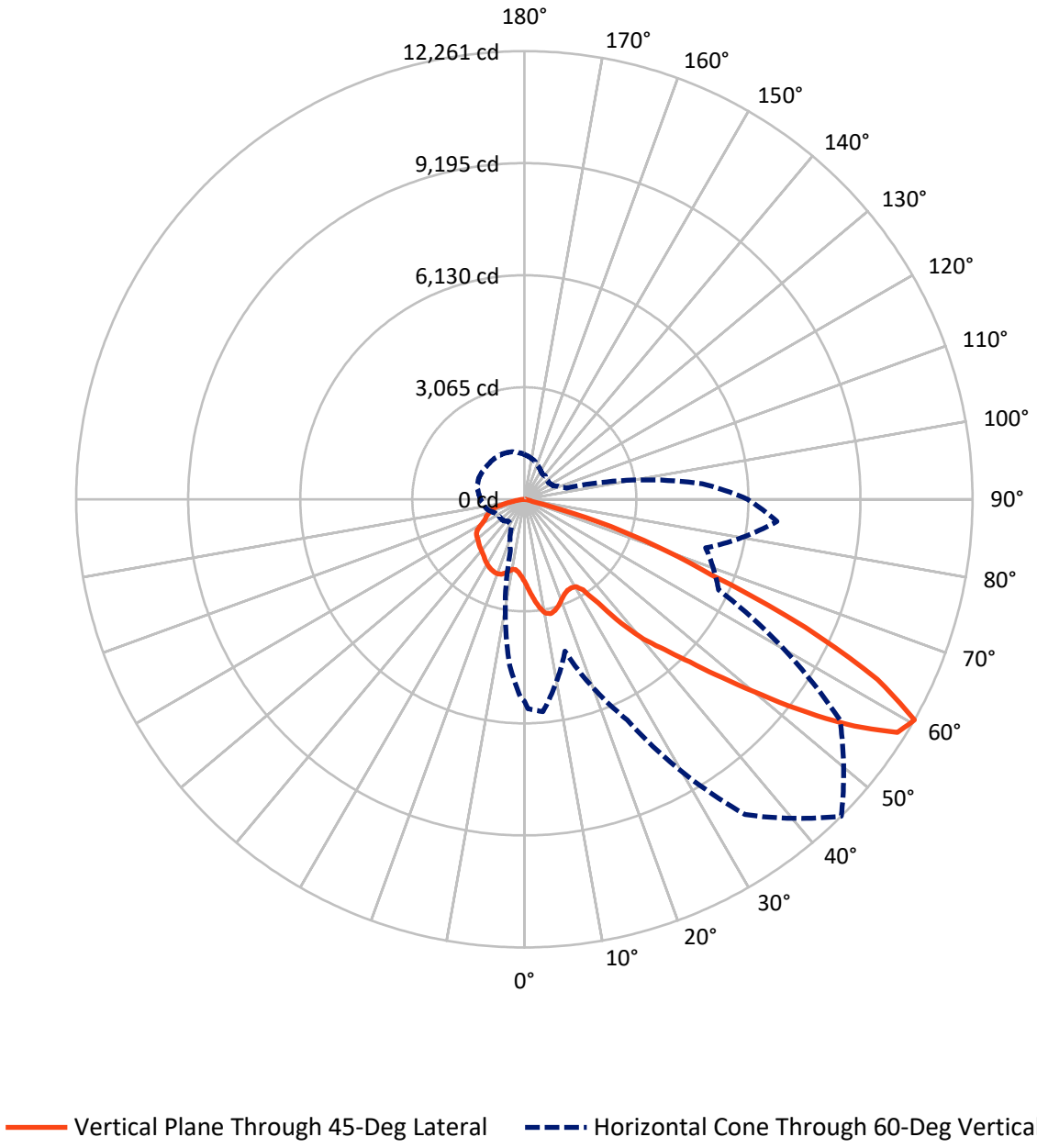
Luminous Intensity Polar Plot



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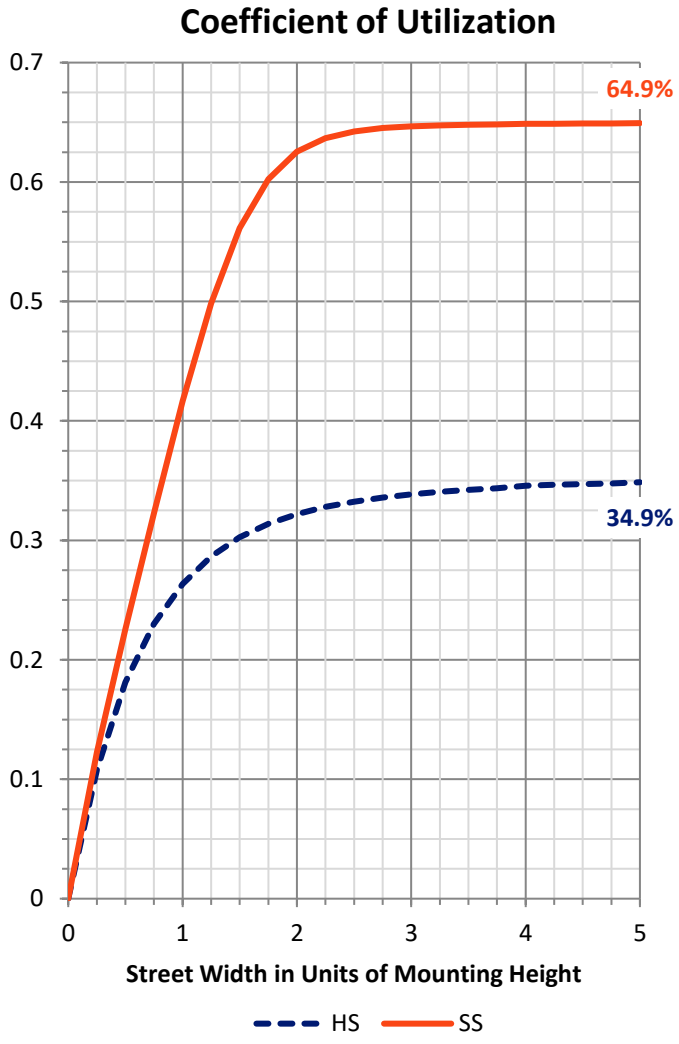
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3868.4	0.0	3868.4
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	7167.3	0.0	7167.3
	% Fixture	64.9	0.0	64.9
Total	Lumens	11035.7	0.0	11035.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.2	2.0
10°-20°	699.0	6.3
20°-30°	1135.4	10.3
30°-40°	1601.2	14.5
40°-50°	2212.8	20.1
50°-60°	2848.6	25.8
60°-70°	1804.9	16.4
70°-80°	463.1	4.2
80°-90°	49.5	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°	11035.7	100.0
0°-180°	11035.7	100.0



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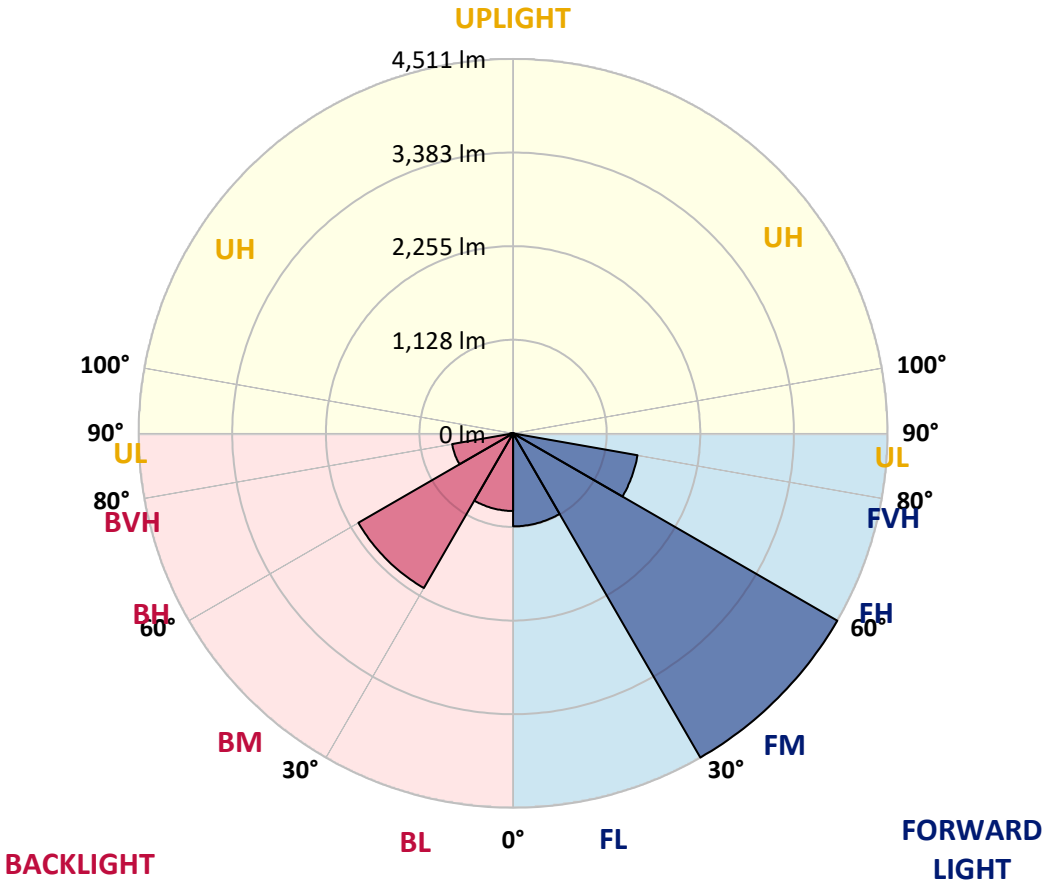
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1120.5	10.2			
FM	(30°-60°)	4510.8	40.9			
FH	(60°-80°)	1522.5	13.8			G1/1800
FVH	(80°-90°)	13.5	0.1			G1/100
BL	(0°-30°)	935.0	8.5	B2/1000		
BM	(30°-60°)	2151.9	19.5	B2/2500		
BH	(60°-80°)	745.5	6.8	B2/1000		G2/1000
BVH	(80°-90°)	36.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1
2.5°	2371.2	2387.4	2397.5	2416.7	2451.1	2470.3	2491.5	2468.3	2474.3	2471.3	2433.9
5°	2511.8	2531.0	2557.3	2613.9	2677.6	2713.0	2746.4	2741.3	2710.0	2657.4	2620.0
7.5°	2643.2	2665.5	2711.0	2803.0	2897.0	2951.6	2992.1	2965.8	2939.5	2856.6	2762.5
10°	2746.4	2759.5	2821.2	2944.5	3053.8	3115.4	3165.0	3158.9	3122.5	3029.5	2903.1
12.5°	2843.4	2852.5	2919.3	3042.6	3140.7	3168.0	3208.5	3221.6	3209.5	3139.7	3015.3
15°	2947.6	2964.8	3026.4	3120.5	3165.0	3136.7	3150.8	3187.2	3221.6	3221.6	3107.3
17.5°	3044.7	3059.8	3122.5	3163.0	3120.5	3045.7	3049.7	3096.2	3178.1	3264.1	3191.3
20°	3130.6	3144.8	3206.4	3168.0	3033.5	2924.3	2921.3	2977.9	3110.4	3291.4	3281.3
22.5°	3224.6	3244.9	3296.4	3172.1	2952.6	2814.1	2813.1	2871.7	3050.7	3318.7	3384.4
25°	3358.1	3389.5	3415.8	3207.4	2909.2	2742.3	2755.5	2811.1	3031.5	3363.2	3537.1
27.5°	3556.3	3581.6	3579.6	3281.3	2907.1	2713.0	2740.3	2805.0	3065.9	3442.0	3697.9
30°	3770.7	3783.8	3762.6	3384.4	2953.6	2731.2	2771.6	2848.5	3152.8	3572.5	3934.5
32.5°	4008.3	4024.5	3984.0	3539.1	3061.8	2865.7	2954.7	2992.1	3275.2	3760.6	4185.3
35°	4281.3	4312.7	4228.7	3743.4	3380.4	3356.1	3485.5	3437.0	3535.1	3983.0	4453.2
37.5°	4568.5	4569.5	4449.2	4045.7	4005.3	4046.7	4305.6	4153.9	4086.2	4230.8	4726.2
40°	4812.2	4806.1	4621.1	4453.2	4549.3	4714.1	5026.6	4794.0	4616.0	4563.4	4952.7
42.5°	5055.9	5033.6	4846.6	4712.1	4924.4	5263.2	5616.1	5330.9	4955.8	4865.8	5176.2
45°	5367.3	5360.2	5134.8	4815.2	5263.2	5878.0	6346.1	5884.0	5157.0	5041.7	5548.3
47.5°	5869.9	5835.5	5415.9	4807.1	5580.7	6697.0	7288.6	6580.7	5297.6	5045.8	6149.0
50°	6361.3	6318.8	5751.6	4806.1	5908.3	7546.4	8400.8	7427.1	5441.1	5070.0	6759.7
52.5°	6857.8	6857.8	6302.7	4920.4	6252.1	8494.9	9686.1	8481.7	5685.8	5387.5	7511.0
55°	7153.1	7231.9	6922.5	5113.5	6654.5	9611.2	10957.1	9620.3	6064.0	5960.9	8204.7
57.5°	6777.9	6925.5	6881.1	4979.0	6892.2	10431.3	12035.0	10483.9	6251.1	6028.6	8100.5
60°	5523.0	5728.3	5830.4	4299.5	6657.6	10526.3	12260.5	10540.5	5864.8	5133.7	6938.7
62.5°	3671.6	3840.4	3996.2	3072.0	5763.7	9469.7	10843.8	9472.7	4898.1	3831.3	4807.1
65°	1800.9	1926.3	2094.1	1816.1	4502.8	7912.5	8454.4	7654.6	3543.2	2144.7	2452.1
67.5°	471.2	506.6	529.9	704.8	3225.7	5684.8	5513.9	5598.9	2276.2	700.7	641.1
70°	244.7	246.7	245.7	291.2	2180.1	3612.9	3800.0	3515.9	1588.6	293.2	252.8
72.5°	174.9	175.9	172.9	196.2	1052.6	2069.9	2144.7	2121.4	832.2	173.9	172.9
75°	114.3	115.3	113.3	115.3	158.8	235.6	217.4	228.5	138.5	110.2	110.2
77.5°	67.7	68.8	67.7	69.8	67.7	67.7	62.7	62.7	59.7	59.7	60.7
80°	45.5	45.5	44.5	46.5	42.5	42.5	40.4	39.4	36.4	35.4	35.4
82.5°	27.3	28.3	27.3	27.3	25.3	25.3	23.3	22.2	19.2	19.2	18.2
85°	14.2	14.2	13.1	13.1	11.1	10.1	8.1	8.1	6.1	5.1	5.1
87.5°	2.0	2.0	1.0	1.0	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	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1
2.5°	2423.8	2403.6	2373.2	2343.9	2316.6	2288.3	2255.9	2222.6	2194.3	2164.9	2149.8
5°	2570.4	2529.0	2450.1	2380.3	2317.6	2266.0	2210.4	2162.9	2118.4	2082.0	2063.8
7.5°	2702.9	2638.2	2518.8	2408.6	2323.7	2252.9	2176.1	2105.3	2045.6	2001.1	1983.9
10°	2825.2	2748.4	2591.6	2452.1	2353.0	2274.1	2180.1	2084.0	2005.2	1946.5	1932.4
12.5°	2924.3	2836.3	2649.3	2487.5	2370.2	2285.3	2202.3	2119.4	2041.6	1965.7	1953.6
15°	3012.3	2908.1	2692.8	2509.7	2364.1	2255.9	2186.2	2176.1	2176.1	2090.1	2065.8
17.5°	3088.1	2973.9	2728.2	2519.9	2325.7	2169.0	2126.5	2214.5	2313.6	2251.9	2197.3
20°	3175.1	3036.6	2757.5	2519.9	2254.9	2058.8	2054.7	2204.4	2351.0	2352.0	2294.4
22.5°	3263.1	3109.4	2791.9	2510.7	2157.8	1931.3	2006.2	2163.9	2294.4	2350.0	2310.5
25°	3405.6	3210.5	2846.5	2503.7	2044.6	1844.4	1962.7	2110.3	2220.5	2279.2	2253.9
27.5°	3586.6	3344.0	2929.4	2514.8	1932.4	1792.8	1916.2	2040.6	2140.7	2192.2	2174.0
30°	3788.9	3497.7	3018.4	2534.0	1851.5	1766.5	1860.6	1960.7	2049.7	2101.2	2093.1
32.5°	4046.7	3664.5	3095.2	2507.7	1806.0	1753.4	1801.9	1873.7	1959.7	1992.0	1999.1
35°	4355.1	3848.5	3153.9	2404.6	1764.5	1739.2	1738.2	1782.7	1843.4	1894.9	1900.0
37.5°	4639.3	4063.9	3218.6	2227.6	1689.7	1703.8	1663.4	1689.7	1749.3	1800.9	1821.1
40°	4920.4	4282.3	3308.6	2002.1	1591.6	1625.0	1577.4	1595.6	1643.2	1710.9	1743.3
42.5°	5193.4	4479.5	3403.6	1771.6	1493.5	1514.7	1479.4	1497.6	1547.1	1632.0	1668.4
45°	5490.7	4746.5	3477.4	1554.2	1408.6	1399.5	1371.2	1397.4	1472.3	1565.3	1608.8
47.5°	6052.9	5167.1	3526.0	1409.6	1363.1	1297.3	1265.0	1321.6	1406.5	1500.6	1553.2
50°	6739.5	5775.8	3511.8	1317.6	1323.6	1192.2	1181.1	1255.9	1346.9	1445.0	1502.6
52.5°	7283.5	6373.4	3351.0	1229.6	1246.8	1125.4	1093.1	1202.3	1289.2	1389.4	1449.0
55°	7699.1	6574.7	2857.6	1125.4	1121.4	1076.9	1009.2	1146.7	1231.6	1324.6	1389.4
57.5°	7360.3	6126.7	2118.4	981.9	957.6	980.8	915.1	1052.6	1160.8	1252.8	1310.5
60°	*6108.5*	*4885.0*	*1180.0*	*869.6*	*800.9*	*857.5*	*847.4*	*953.5*	*1084.0*	*1181.1*	*1230.6*
62.5°	4146.8	3253.0	699.7	687.6	649.2	730.1	783.7	853.4	981.9	1060.7	1107.2
65°	2066.8	1580.5	465.1	514.7	519.7	600.6	701.8	778.6	885.8	966.7	1013.2
67.5°	599.6	491.4	353.9	393.3	448.0	512.7	593.6	684.6	788.7	884.8	939.4
70°	258.9	261.9	281.1	327.6	381.2	448.0	528.8	617.8	705.8	779.6	821.1
72.5°	183.0	190.1	211.3	258.9	309.4	373.1	454.0	540.0	603.7	678.5	722.0
75°	117.3	122.4	139.5	175.9	213.4	275.0	351.9	430.8	496.5	550.1	591.5
77.5°	64.7	65.7	79.9	101.1	126.4	165.8	222.5	284.1	332.7	363.0	400.4
80°	37.4	37.4	44.5	57.6	72.8	97.1	128.4	158.8	188.1	207.3	225.5
82.5°	20.2	20.2	23.3	31.3	39.4	53.6	71.8	87.0	105.2	115.3	127.4
85°	6.1	6.1	8.1	11.1	14.2	20.2	28.3	36.4	44.5	51.6	58.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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°	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1
2.5°	2146.7	2132.6	2124.5	2114.4	2117.4	2108.3	2103.2	2106.3	2088.1	2106.3	2124.5
5°	2056.7	2036.5	2020.3	2007.2	2001.1	1989.0	1981.9	1981.9	1970.8	1989.0	2011.2
7.5°	1977.9	1961.7	1953.6	1945.5	1936.4	1925.3	1913.1	1909.1	1902.0	1921.2	1940.4
10°	1925.3	1927.3	1932.4	1943.5	1941.5	1934.4	1916.2	1906.1	1906.1	1928.3	1957.6
12.5°	1949.5	1970.8	1982.9	2003.1	2007.2	2001.1	1982.9	1974.8	1995.0	2028.4	2077.0
15°	2043.6	2057.7	2067.9	2084.0	2083.0	2078.0	2063.8	2069.9	2136.6	2201.3	2244.8
17.5°	2145.7	2129.5	2127.5	2137.6	2140.7	2134.6	2126.5	2153.8	2264.0	2324.7	2346.9
20°	2219.5	2163.9	2151.8	2155.8	2163.9	2160.9	2160.9	2205.4	2319.6	2348.0	2319.6
22.5°	2241.8	2162.9	2144.7	2145.7	2156.8	2157.8	2162.9	2209.4	2276.2	2277.2	2233.7
25°	2206.4	2130.5	2117.4	2119.4	2132.6	2131.6	2133.6	2159.9	2189.2	2177.1	2144.7
27.5°	2139.6	2073.9	2069.9	2081.0	2098.2	2089.1	2083.0	2090.1	2104.3	2089.1	2060.8
30°	2063.8	2008.2	2010.2	2031.5	2049.7	2034.5	2019.3	2023.4	2024.4	2008.2	1975.8
32.5°	1983.9	1942.5	1949.5	1971.8	1993.0	1976.8	1960.7	1958.6	1939.4	1920.2	1888.9
35°	1904.0	1887.9	1897.0	1915.2	1933.4	1920.2	1910.1	1904.0	1862.6	1834.3	1808.0
37.5°	1831.2	1843.4	1859.6	1870.7	1876.7	1875.7	1869.7	1855.5	1800.9	1767.5	1733.2
40°	1766.5	1803.9	1821.1	1826.2	1835.3	1833.3	1832.3	1812.0	1740.2	1704.8	1665.4
42.5°	1707.9	1760.5	1789.8	1794.8	1799.9	1800.9	1797.9	1768.5	1686.6	1645.2	1607.8
45°	1651.3	1720.0	1757.4	1752.4	1759.4	1759.4	1762.5	1724.1	1634.1	1591.6	1552.2
47.5°	1601.7	1682.6	1717.0	1710.9	1715.0	1718.0	1721.0	1676.5	1576.4	1536.0	1495.5
50°	1556.2	1642.1	1671.5	1673.5	1673.5	1680.6	1679.6	1636.1	1527.9	1484.4	1444.0
52.5°	1507.7	1600.7	1632.0	1645.2	1649.2	1652.3	1638.1	1587.5	1478.3	1425.8	1388.3
55°	1451.0	1558.2	1586.5	1603.7	1611.8	1609.8	1590.6	1539.0	1427.8	1375.2	1332.7
57.5°	1365.1	1467.2	1507.7	1515.8	1528.9	1520.8	1498.6	1455.1	1346.9	1294.3	1250.8
60°	*1271.0*	*1344.9*	*1377.2*	*1384.3*	*1374.2*	*1377.2*	*1374.2*	*1332.7*	*1238.7*	*1197.2*	*1152.7*
62.5°	1147.7	1213.4	1247.8	1256.9	1239.7	1250.8	1246.8	1195.2	1101.2	1057.7	1018.3
65°	1054.7	1126.4	1166.9	1172.0	1166.9	1172.0	1157.8	1095.1	1006.1	961.6	921.2
67.5°	981.9	1055.7	1098.1	1112.3	1107.2	1106.2	1084.0	1011.2	919.2	870.6	819.1
70°	856.5	921.2	975.8	1010.2	1010.2	991.0	948.5	880.7	806.9	765.5	725.0
72.5°	758.4	840.3	893.9	929.3	936.3	925.2	865.6	793.8	708.8	667.4	624.9
75°	624.9	704.8	762.4	808.9	818.0	805.9	737.1	666.4	587.5	547.0	504.6
77.5°	417.6	465.1	511.7	554.1	545.0	553.1	506.6	453.0	404.5	374.1	354.9
80°	235.6	267.0	281.1	304.4	304.4	304.4	274.0	248.7	221.4	204.3	185.0
82.5°	133.5	153.7	159.8	179.0	184.0	185.0	164.8	148.6	131.5	122.4	109.2
85°	61.7	72.8	73.8	84.9	89.0	97.1	88.0	76.8	66.7	62.7	54.6
87.5°	2.0	6.1	8.1	15.2	20.2	23.3	25.3	25.3	21.2	19.2	16.2
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: P639474
CATALOG NUMBER: GWS-SA5B-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1	2267.1
2.5°	2146.7	2171.0	2199.3	2219.5	2255.9	2286.3	2317.6	2352.0	2377.3	2371.2
5°	2038.5	2079.0	2130.5	2178.1	2245.8	2314.6	2390.4	2468.3	2513.8	2511.8
7.5°	1977.9	2035.5	2098.2	2161.9	2241.8	2340.9	2457.2	2578.5	2640.2	2643.2
10°	2010.2	2071.9	2114.4	2168.0	2251.9	2376.3	2515.8	2661.4	2732.2	2746.4
12.5°	2112.3	2107.3	2104.3	2142.7	2243.8	2401.5	2572.4	2746.4	2826.2	2843.4
15°	2209.4	2105.3	2042.6	2068.9	2207.4	2417.7	2628.0	2839.4	2929.4	2947.6
17.5°	2227.6	2069.9	1953.6	1971.8	2149.8	2422.8	2681.6	2930.4	3027.5	3044.7
20°	2177.1	2024.4	1888.9	1863.6	2077.0	2409.6	2715.0	3006.2	3112.4	3130.6
22.5°	2113.4	1983.9	1840.3	1774.6	1988.0	2396.5	2752.4	3086.1	3208.5	3224.6
25°	2046.6	1932.4	1794.8	1694.7	1886.9	2388.4	2815.1	3191.3	3338.9	3358.1
27.5°	1975.8	1869.7	1755.4	1656.3	1793.8	2398.5	2904.1	3361.1	3529.0	3556.3
30°	1900.0	1807.0	1730.1	1643.2	1730.1	2407.6	3002.2	3535.1	3732.3	3770.7
32.5°	1821.1	1749.3	1703.8	1649.2	1690.7	2386.4	3088.1	3730.2	3974.9	4008.3
35°	1742.3	1690.7	1670.5	1660.4	1638.1	2308.5	3157.9	3927.4	4252.0	4281.3
37.5°	1668.4	1630.0	1623.9	1635.1	1557.2	2181.1	3238.8	4178.2	4524.0	4568.5
40°	1599.7	1564.3	1563.3	1561.3	1468.2	2007.2	3348.0	4433.0	4792.0	4812.2
42.5°	1536.0	1491.5	1499.6	1475.3	1395.4	1819.1	3451.1	4650.4	5041.7	5055.9
45°	1479.4	1420.7	1429.8	1399.5	1361.0	1621.9	3542.1	4907.2	5358.2	5367.3
47.5°	1424.7	1362.1	1336.8	1334.8	1355.0	1439.9	3631.1	5401.7	5853.7	5869.9
50°	1374.2	1306.4	1234.6	1279.1	1317.6	1303.4	3742.4	5931.6	6365.4	6361.3
52.5°	1325.7	1236.7	1134.5	1220.5	1220.5	1202.3	3711.0	6253.1	6788.0	6857.8
55°	1270.0	1124.4	1030.4	1122.4	1077.9	1111.3	3155.9	6358.3	7054.0	7153.1
57.5°	1159.8	985.9	904.0	953.5	886.8	1030.4	2267.1	5836.5	6602.0	6777.9
60°	*1053.6*	*883.8*	*830.2*	*821.1*	*734.1*	*840.3*	*1469.2*	*4569.5*	*5434.1*	*5523.0*
62.5°	929.3	795.8	750.3	680.5	590.5	611.8	889.8	3007.2	3651.4	3671.6
65°	835.2	721.0	634.0	551.1	483.3	443.9	525.8	1450.0	1825.2	1800.9
67.5°	716.9	617.8	534.9	475.3	419.6	370.1	349.9	430.8	487.4	471.2
70°	638.1	543.0	463.1	406.5	354.9	305.4	270.0	253.8	248.7	244.7
72.5°	550.1	467.2	384.2	329.6	281.1	235.6	203.2	184.0	179.0	174.9
75°	438.9	361.0	285.2	233.6	191.1	158.8	137.5	121.3	118.3	114.3
77.5°	290.2	231.6	169.9	138.5	113.3	96.1	81.9	71.8	69.8	67.7
80°	159.8	133.5	104.2	83.9	67.7	58.6	53.6	47.5	46.5	45.5
82.5°	95.1	79.9	59.7	47.5	39.4	35.4	32.4	29.3	28.3	27.3
85°	47.5	37.4	26.3	22.2	20.2	18.2	18.2	15.2	14.2	14.2
87.5°	12.1	10.1	6.1	5.1	5.1	5.1	4.0	3.0	3.0	2.0
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.

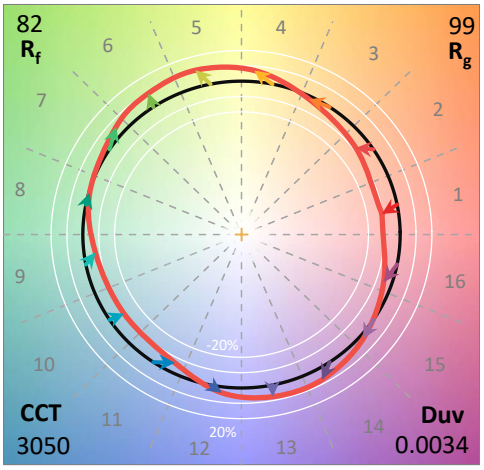
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

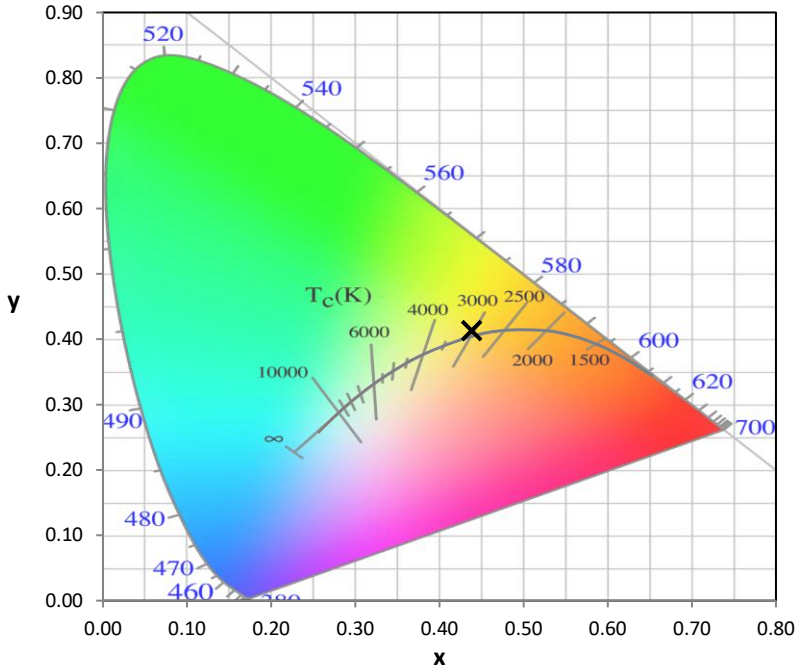
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

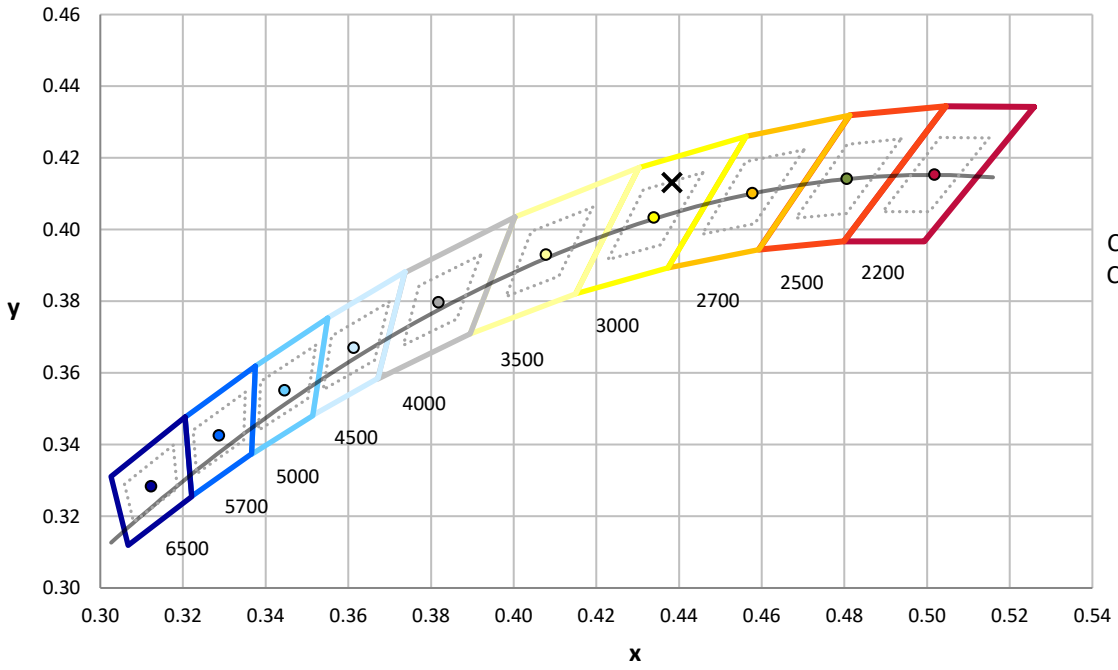
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

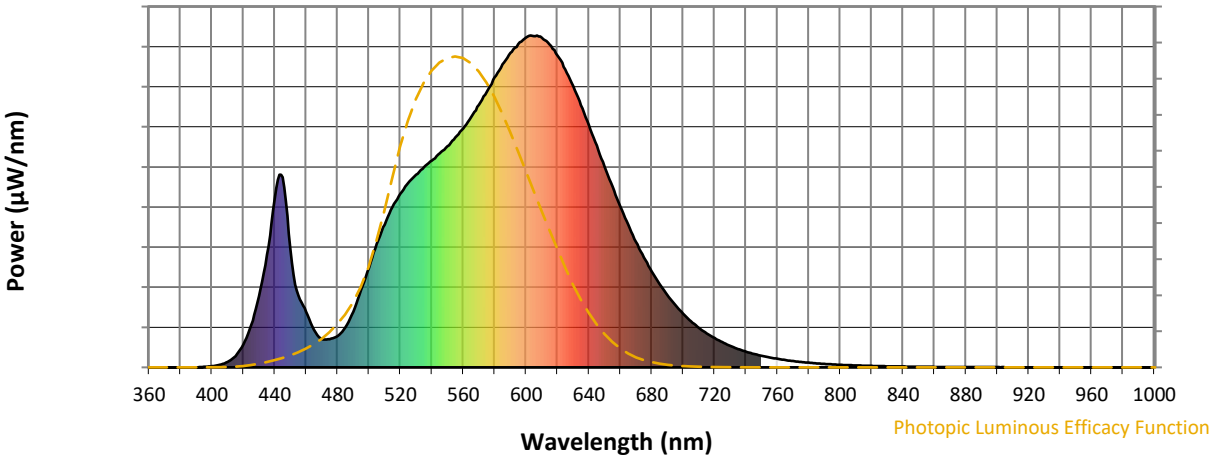


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

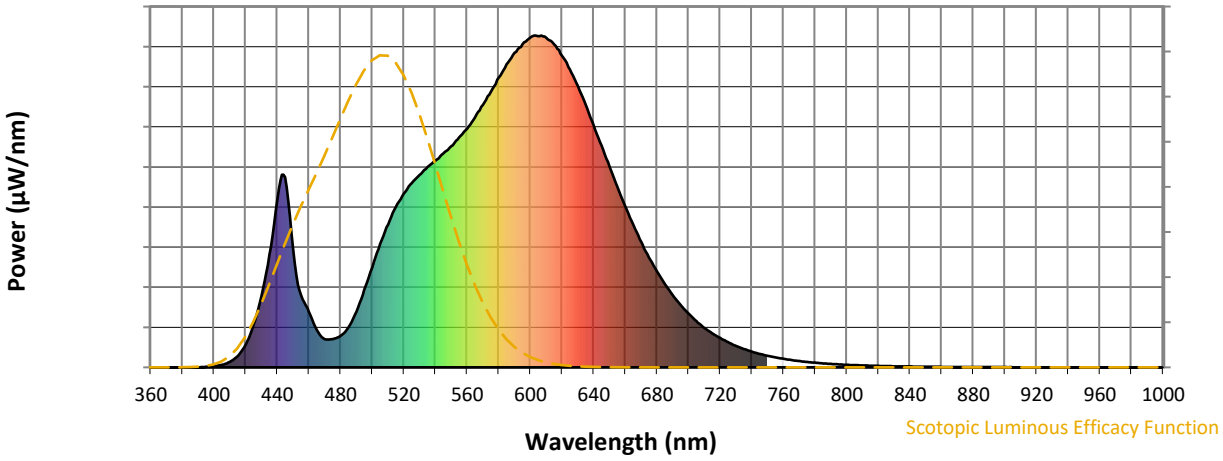


Photopic Lumens: NR

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

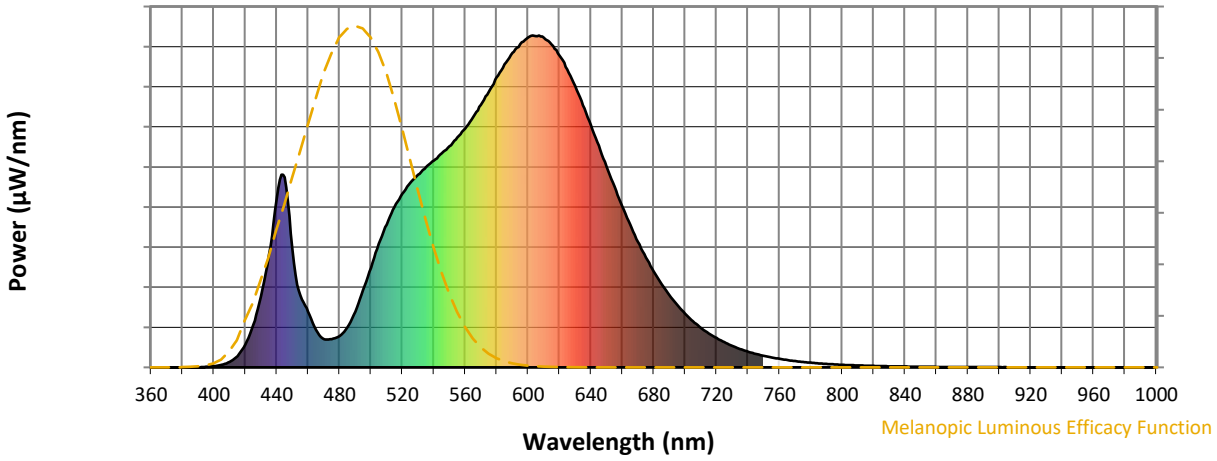


Scotopic Lumens: NR **S/P: 1.27**

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			

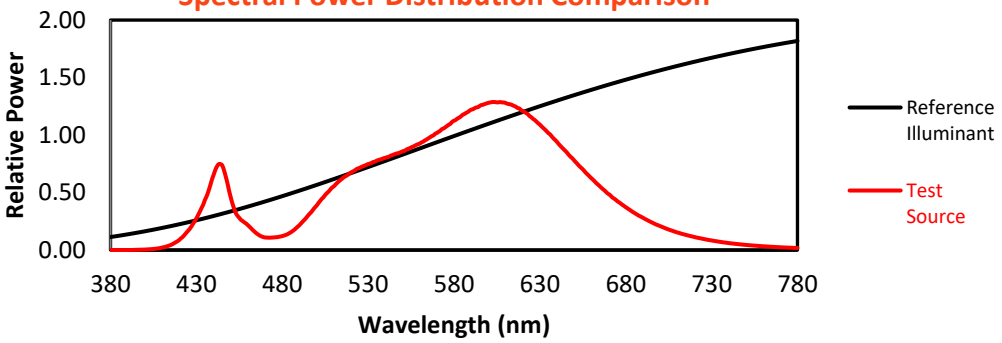
REPORT NUMBER: SP1-2408-195-9

TM-30-18

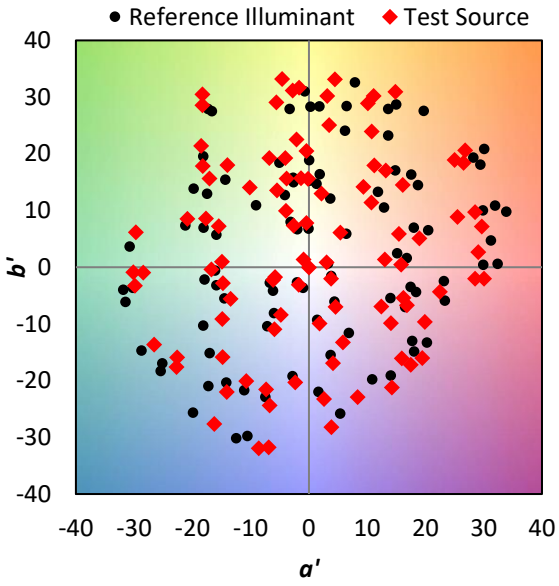
Summary

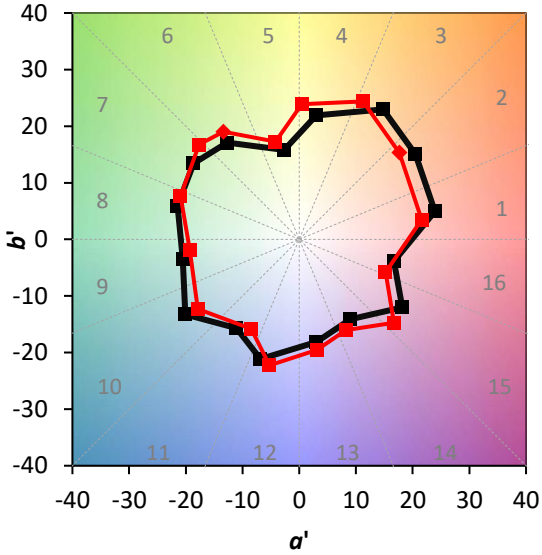
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

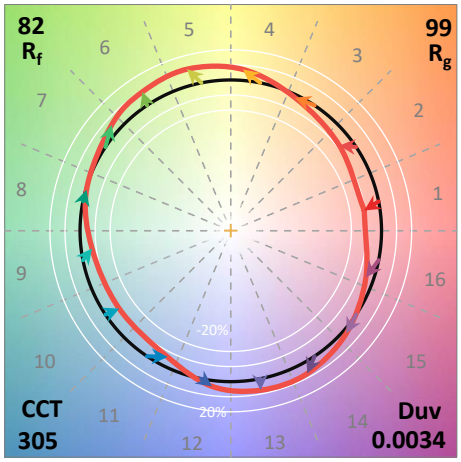
Spectral Power Distribution Comparison

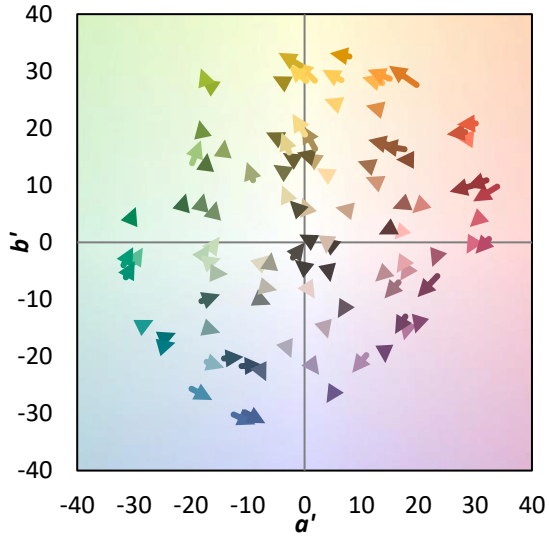


Color Vector Graphics









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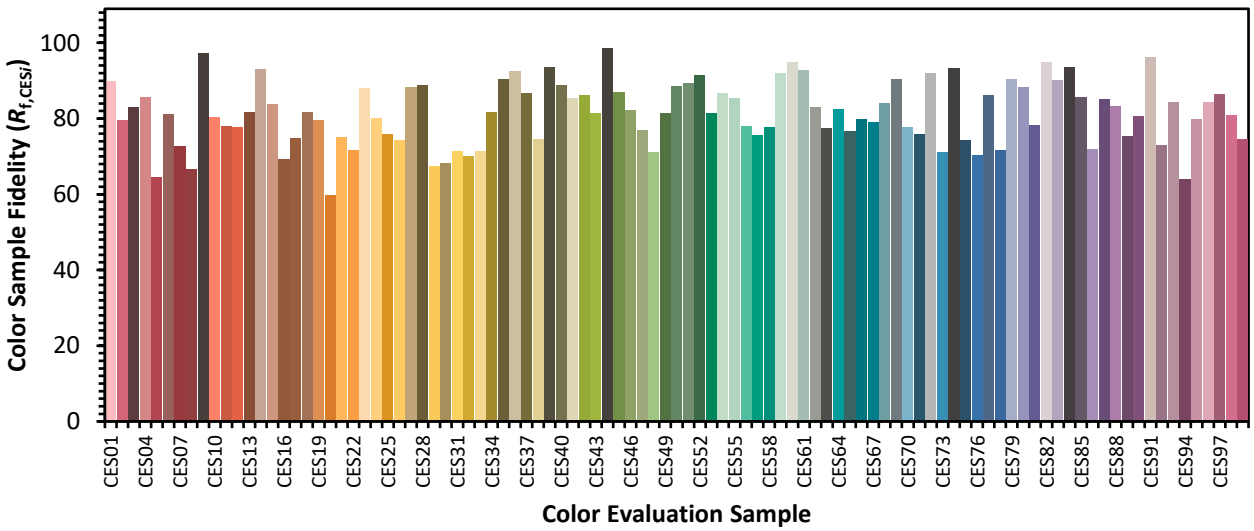
Individual Sample Fidelity Index ($R_{f,i}$)

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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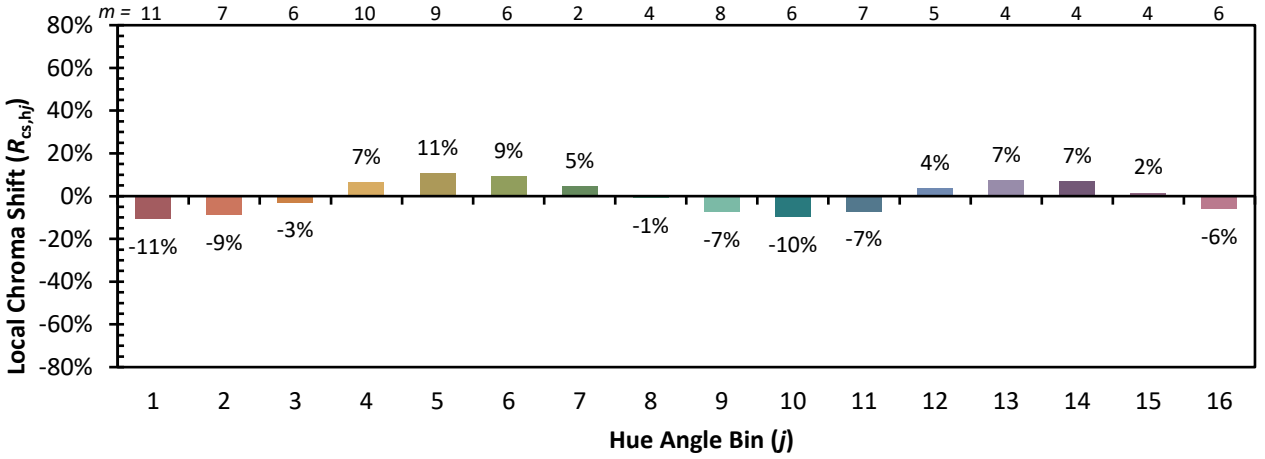
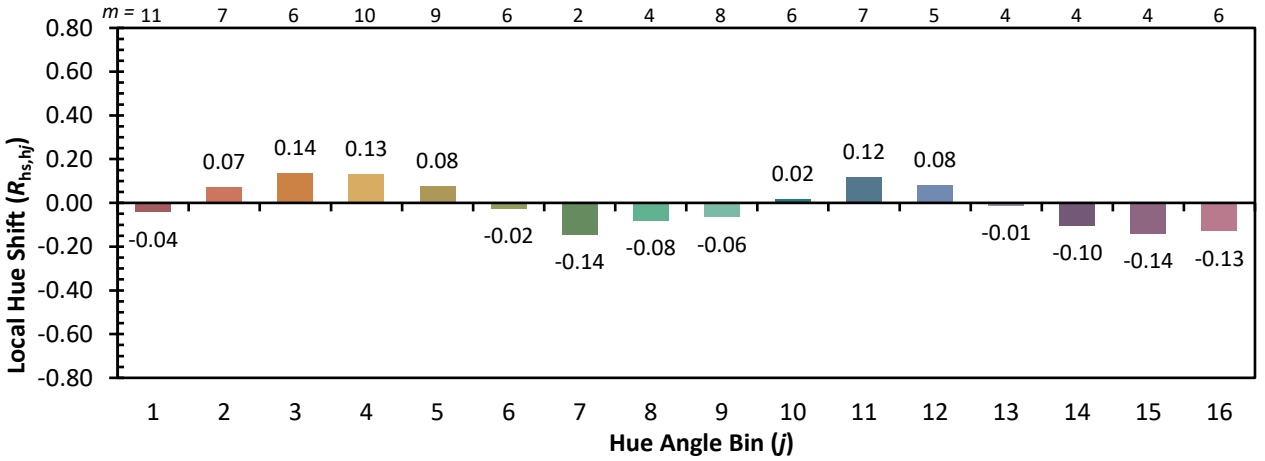
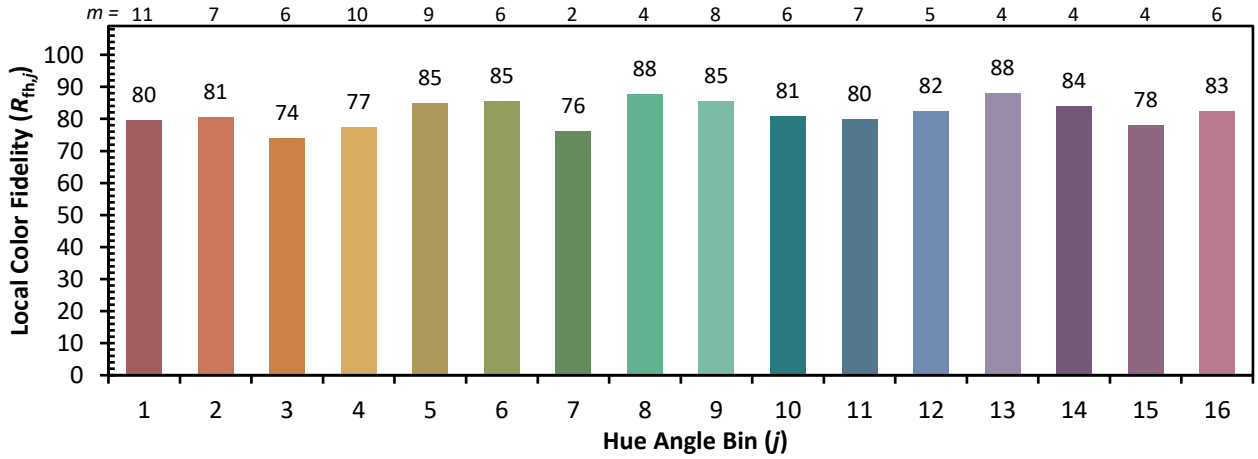
Color Rendition by Hue-Angle Bin







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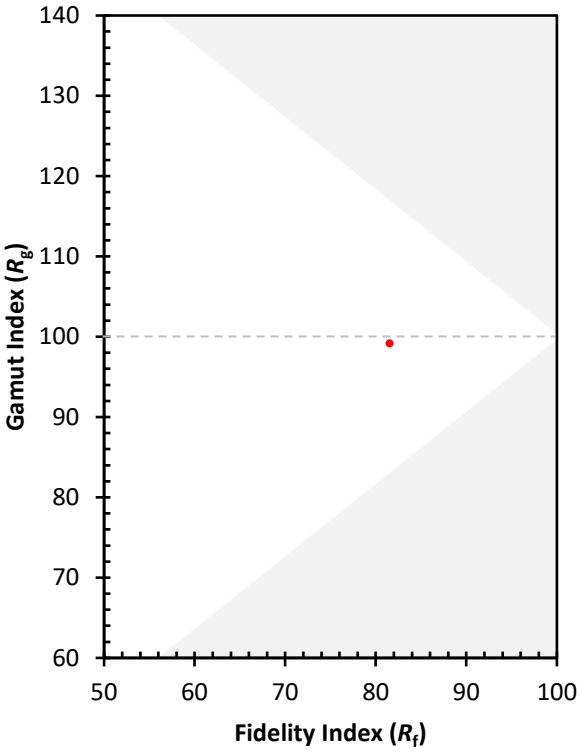
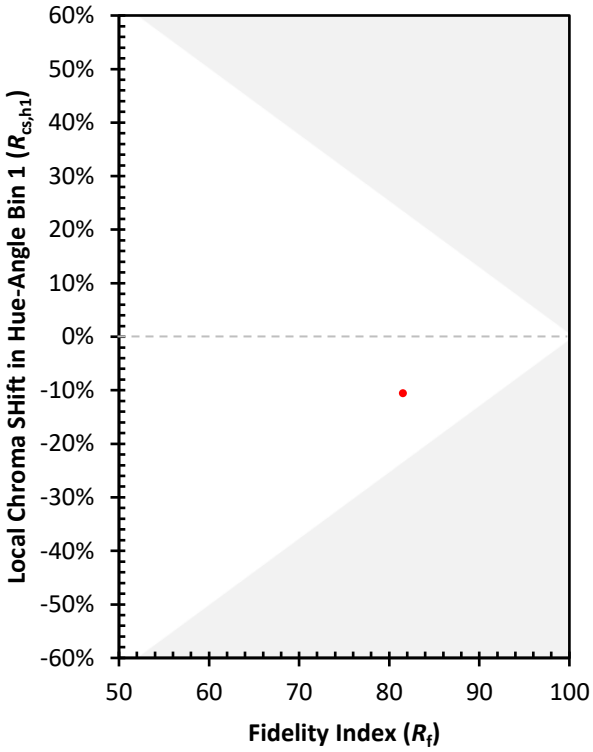
Measure Comparisons





(END OF REPORT)