

Signify Classified - Internal
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: P640462

Luminaire Tested: GWS-SA5D-830-U-SLL-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640462
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-SA5D-830-U-SLL-W
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22366.4 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

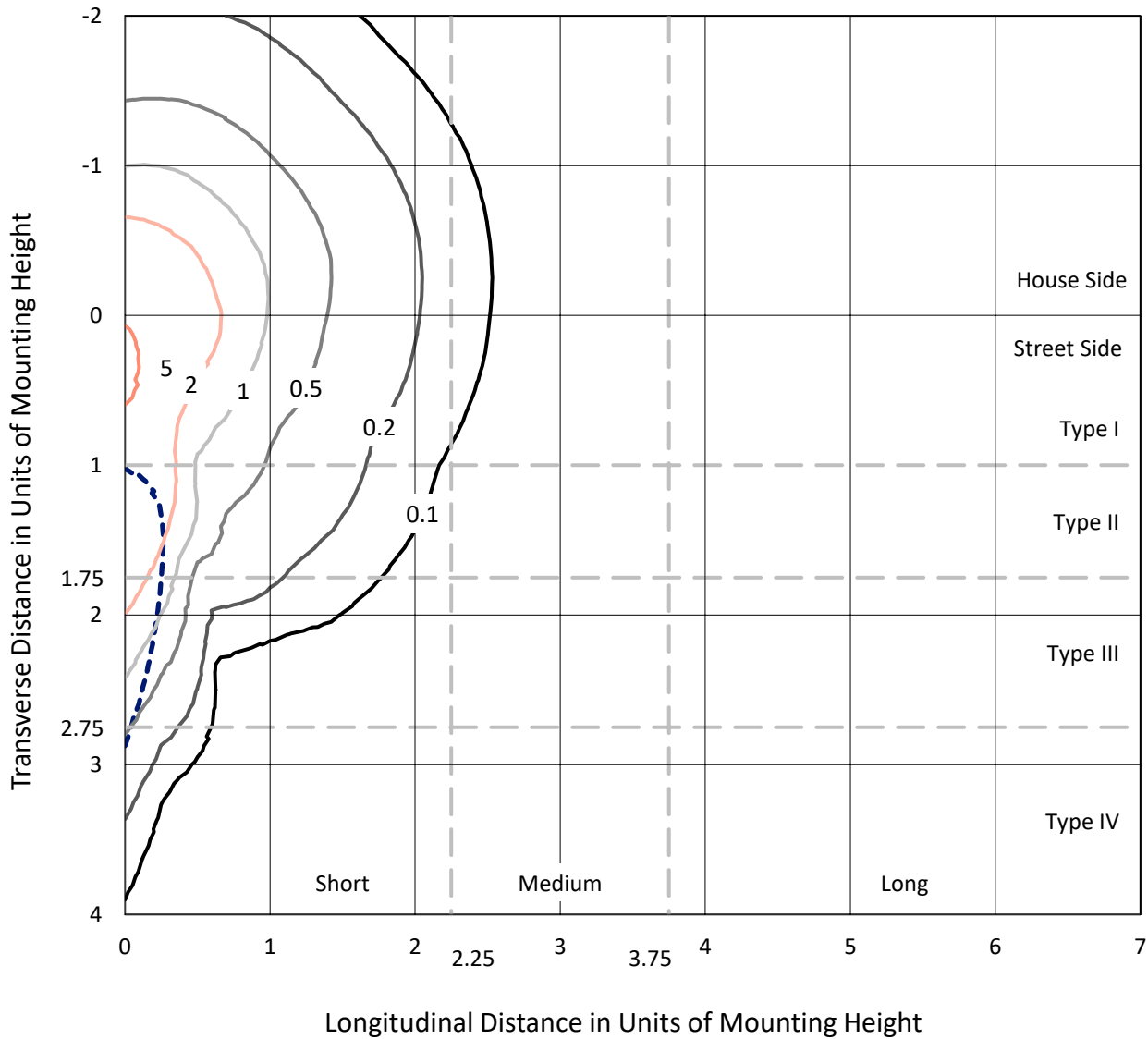
Input Watts (W): 204.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

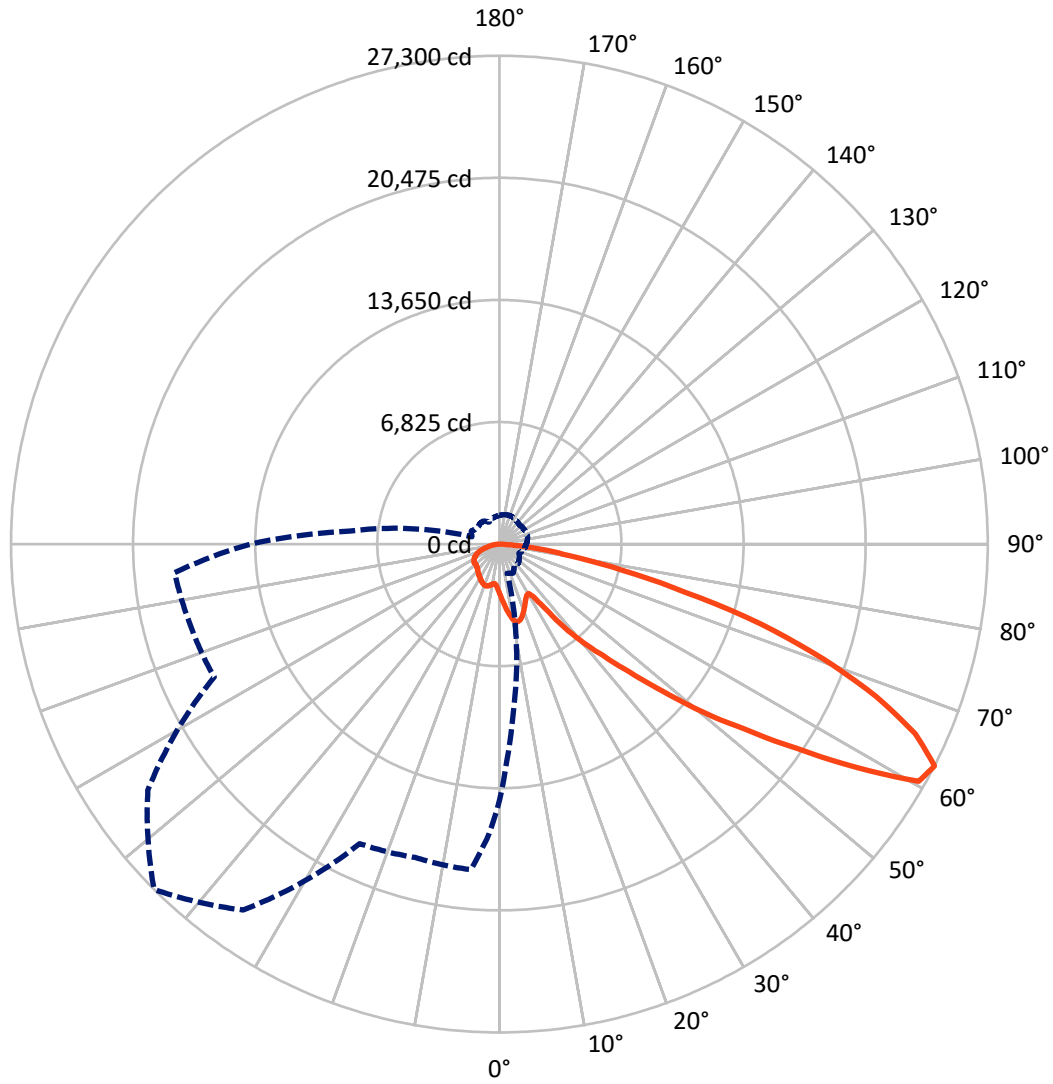
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5347.8	0.0	5347.8
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	17018.6	0.0	17018.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	22366.4	0.0	22366.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.7	1.2
10°-20°	892.8	4.0
20°-30°	1405.5	6.3
30°-40°	1926.6	8.6
40°-50°	3006.0	13.4
50°-60°	5183.0	23.2
60°-70°	6006.4	26.9
70°-80°	3170.5	14.2
80°-90°	500.8	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°	22366.4	100.0
0°-180°	22366.4	100.0

Coefficient of Utilization



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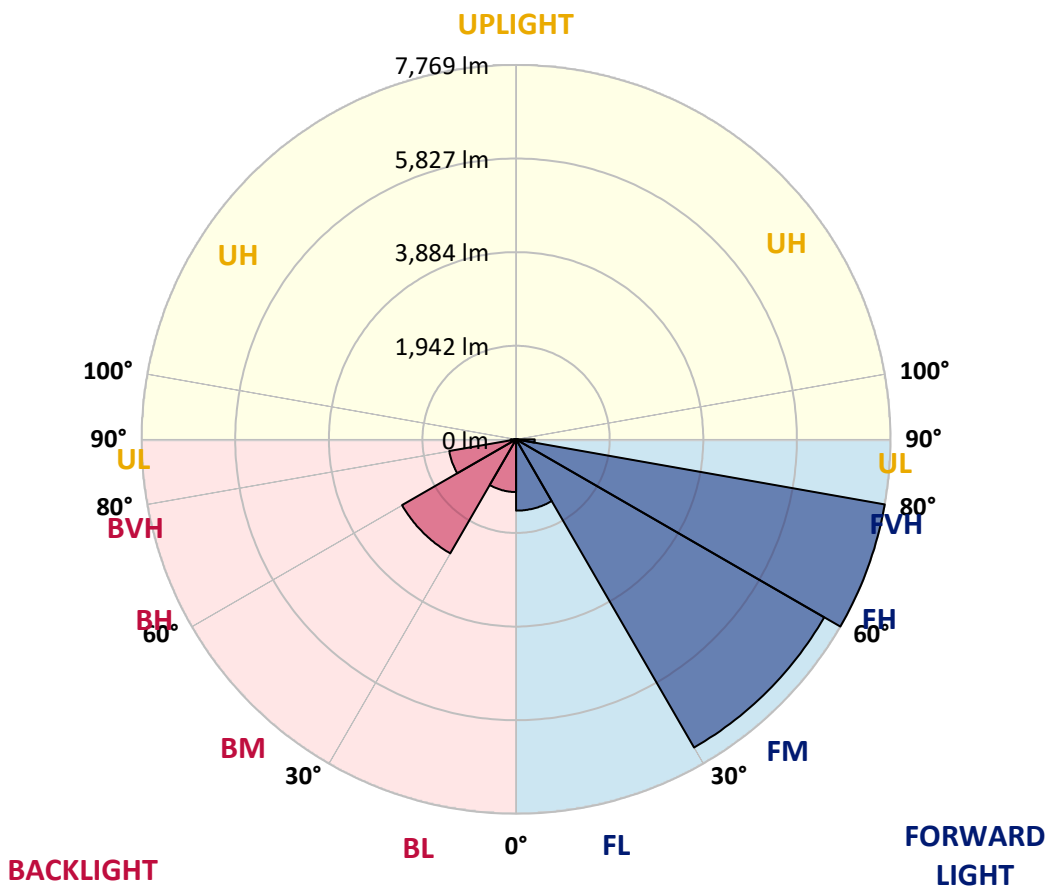
CATALOG NUMBER: GWS-SA5D-830-U-SLL-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1479.3	6.6			
FM (30°-60°)	7383.9	33.0			
FH (60°-80°)	7768.8	34.7			G4/12000
FVH (80°-90°)	386.6	1.7			G3/500
BL (0°-30°)	1093.8	4.9	B3/2500		
BM (30°-60°)	2731.6	12.2	B3/5000		
BH (60°-80°)	1408.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	114.3	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°	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6
2.5°	3029.9	3017.9	3000.8	2942.6	2906.7	2865.6	2822.8	2773.2	2716.8	2677.4	2638.1
5°	3286.5	3267.7	3226.6	3088.0	2992.2	2887.9	2800.6	2701.4	2603.9	2537.1	2470.4
7.5°	3532.8	3508.9	3445.6	3233.4	3077.8	2927.2	2795.5	2651.8	2506.3	2407.1	2328.4
10°	3779.2	3729.6	3649.2	3372.0	3166.7	2992.2	2841.7	2665.4	2472.1	2337.0	2253.1
12.5°	3967.4	3921.2	3833.9	3498.6	3255.7	3036.7	2867.3	2704.8	2540.6	2396.9	2311.3
15°	4143.6	4083.7	3984.5	3616.7	3329.2	3035.0	2816.0	2674.0	2650.1	2614.1	2502.9
17.5°	4270.2	4215.4	4112.8	3712.5	3370.3	2981.9	2674.0	2590.2	2698.0	2807.4	2701.4
20°	4381.4	4318.1	4213.7	3779.2	3378.9	2863.9	2501.2	2502.9	2672.3	2822.8	2797.2
22.5°	4475.5	4405.3	4313.0	3854.5	3375.4	2699.7	2350.7	2453.3	2622.7	2740.7	2744.1
25°	4591.8	4533.7	4456.7	3965.7	3375.4	2532.0	2241.2	2393.4	2538.8	2638.1	2634.7
27.5°	4733.8	4694.5	4631.2	4135.0	3406.2	2391.7	2179.6	2316.4	2431.1	2516.6	2514.9
30°	4892.9	4857.0	4809.1	4314.7	3459.3	2287.4	2145.4	2220.6	2304.5	2372.9	2372.9
32.5°	5055.5	5041.8	4990.4	4458.4	3418.2	2254.9	2116.3	2124.8	2169.3	2225.8	2220.6
35°	5281.3	5267.6	5202.6	4569.6	3240.3	2208.7	2070.1	2027.3	2032.4	2068.4	2080.3
37.5°	5611.5	5590.9	5495.1	4699.6	2971.7	2092.3	1994.8	1924.7	1909.3	1924.7	1946.9
40°	6010.1	5979.3	5849.3	4875.8	2662.0	1934.9	1876.8	1818.6	1792.9	1798.1	1823.7
42.5°	6509.6	6444.6	6258.2	5062.3	2355.8	1796.4	1745.0	1709.1	1680.0	1676.6	1726.2
45°	7320.6	7142.6	6846.7	5228.2	2097.5	1722.8	1627.0	1601.3	1577.4	1591.1	1649.2
47.5°	8737.1	8408.7	7832.1	5370.2	1940.1	1724.5	1532.9	1505.5	1503.8	1531.2	1596.2
50°	10684.0	10210.1	9320.5	5466.1	1857.9	1745.0	1476.4	1432.0	1464.5	1491.8	1553.4
52.5°	12548.8	11825.1	10766.2	5464.3	1822.0	1748.5	1491.8	1363.5	1464.5	1471.3	1529.5
55°	14141.6	12831.1	11156.2	4903.2	1770.7	1734.8	1551.7	1310.5	1445.6	1471.3	1517.5
57.5°	15407.6	13471.0	11127.1	3960.5	1926.4	1659.5	1587.6	1298.5	1390.9	1474.7	1527.8
60°	15267.3	13178.4	10410.3	2431.1	1911.0	1526.0	1582.5	1320.7	1298.5	1428.5	1515.8
62.5°	14334.9	12129.7	9176.8	1686.9	1794.6	1449.1	1498.7	1360.1	1213.0	1361.8	1457.6
65°	13029.6	10776.4	7647.3	1293.4	1486.7	1452.5	1356.7	1332.7	1137.7	1255.7	1358.4
67.5°	11303.3	9098.1	6037.5	1024.8	1036.8	1257.4	1231.8	1183.9	1067.5	1161.6	1254.0
70°	8497.6	6639.7	4153.9	824.6	785.3	1050.4	1106.9	1064.1	999.1	1026.5	1124.0
72.5°	5987.8	4335.2	2275.4	653.5	605.6	807.5	961.5	954.6	882.8	903.3	999.1
75°	4449.8	3067.5	1421.7	516.7	492.7	578.3	805.8	826.3	766.4	790.4	864.0
77.5°	2961.4	1986.3	790.4	383.2	383.2	422.6	600.5	696.3	651.8	670.6	722.0
80°	1633.8	1011.1	395.2	251.5	258.3	290.8	438.0	501.3	503.0	549.2	562.9
82.5°	516.7	321.6	176.2	147.1	138.6	165.9	282.3	359.3	335.3	427.7	393.5
85°	118.0	75.3	32.5	32.5	35.9	54.7	107.8	191.6	244.6	294.3	213.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	75.3	111.2	99.2
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°	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6
2.5°	2614.1	2579.9	2569.6	2540.6	2537.1	2509.8	2499.5	2499.5	2511.5	2511.5	2523.5
5°	2443.0	2400.3	2376.3	2342.1	2333.6	2313.0	2299.3	2301.0	2316.4	2326.7	2347.2
7.5°	2292.5	2263.4	2246.3	2230.9	2227.5	2224.1	2208.7	2207.0	2212.1	2227.5	2242.9
10°	2229.2	2208.7	2213.8	2225.8	2244.6	2254.9	2241.2	2234.3	2229.2	2239.5	2253.1
12.5°	2290.8	2270.3	2280.5	2301.0	2326.7	2337.0	2331.8	2330.1	2335.3	2374.6	2403.7
15°	2425.9	2386.6	2372.9	2381.5	2402.0	2412.2	2407.1	2414.0	2446.5	2549.1	2622.7
17.5°	2593.6	2497.8	2443.0	2427.6	2436.2	2444.8	2444.8	2461.9	2518.3	2668.9	2761.3
20°	2684.3	2559.4	2467.0	2429.4	2432.8	2441.3	2441.3	2465.3	2528.6	2689.4	2749.3
22.5°	2660.3	2545.7	2432.8	2391.7	2393.4	2400.3	2400.3	2420.8	2477.3	2619.3	2646.6
25°	2566.2	2465.3	2354.1	2318.2	2321.6	2333.6	2330.1	2342.1	2384.9	2501.2	2516.6
27.5°	2453.3	2364.3	2254.9	2227.5	2242.9	2266.8	2246.3	2248.0	2287.4	2384.9	2386.6
30°	2331.8	2258.3	2160.8	2140.2	2169.3	2181.3	2162.5	2162.5	2201.8	2268.5	2266.8
32.5°	2200.1	2153.9	2083.8	2061.5	2094.0	2112.9	2088.9	2092.3	2123.1	2167.6	2150.5
35°	2076.9	2053.0	2020.5	2005.1	2025.6	2042.7	2027.3	2034.2	2063.2	2075.2	2051.3
37.5°	1958.9	1955.5	1958.9	1958.9	1964.0	1969.1	1958.9	1976.0	2001.7	1986.3	1958.9
40°	1856.2	1869.9	1902.4	1893.9	1888.7	1893.9	1887.0	1916.1	1941.8	1914.4	1881.9
42.5°	1770.7	1796.4	1846.0	1846.0	1835.7	1839.1	1835.7	1871.6	1890.4	1852.8	1816.9
45°	1697.1	1734.8	1798.1	1806.6	1789.5	1789.5	1796.4	1840.8	1847.7	1796.4	1758.7
47.5°	1645.8	1692.0	1763.8	1779.2	1753.6	1751.9	1770.7	1818.6	1818.6	1758.7	1715.9
50°	1609.9	1661.2	1746.7	1767.3	1741.6	1734.8	1765.6	1811.8	1801.5	1729.6	1686.9
52.5°	1585.9	1639.0	1745.0	1774.1	1757.0	1750.2	1781.0	1813.5	1787.8	1710.8	1666.3
55°	1570.5	1628.7	1750.2	1774.1	1755.3	1743.3	1774.1	1803.2	1789.5	1700.5	1657.8
57.5°	1579.1	1637.2	1743.3	1755.3	1733.1	1712.5	1748.5	1789.5	1784.4	1704.0	1661.2
60°	1565.4	1618.4	1705.7	1709.1	1671.5	1639.0	1692.0	1753.6	1753.6	1692.0	1654.4
62.5°	1502.1	1555.1	1632.1	1635.5	1592.8	1556.8	1618.4	1692.0	1690.3	1640.7	1601.3
65°	1397.7	1447.3	1534.6	1543.2	1500.4	1462.7	1526.0	1594.5	1599.6	1555.1	1520.9
67.5°	1283.1	1327.6	1392.6	1426.8	1390.9	1351.5	1409.7	1474.7	1473.0	1420.0	1384.0
70°	1146.2	1187.3	1247.2	1276.3	1254.0	1216.4	1269.4	1303.6	1288.2	1262.6	1238.6
72.5°	1011.1	1050.4	1106.9	1106.9	1082.9	1047.0	1062.4	1124.0	1142.8	1124.0	1108.6
75°	869.1	903.3	942.7	951.2	898.2	833.2	905.0	958.1	980.3	971.7	952.9
77.5°	723.7	749.3	807.5	792.1	692.9	658.7	716.8	795.5	810.9	805.8	780.1
80°	557.7	573.1	634.7	603.9	526.9	504.7	530.4	591.9	595.4	578.3	545.7
82.5°	374.7	395.2	436.3	376.4	374.7	354.1	333.6	340.5	371.2	367.8	345.6
85°	191.6	201.9	241.2	225.8	193.3	167.7	159.1	169.4	152.3	138.6	119.8
87.5°	80.4	87.3	119.8	66.7	20.5	0.0	0.0	10.3	15.4	22.2	24.0
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°	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6
2.5°	2550.8	2569.6	2615.8	2674.0	2730.5	2788.6	2851.9	2891.3	2939.2	3000.8	3002.5
5°	2372.9	2415.7	2482.4	2571.4	2663.7	2769.8	2893.0	2995.6	3118.8	3216.3	3255.7
7.5°	2263.4	2325.0	2408.8	2521.7	2643.2	2774.9	2935.8	3108.5	3310.4	3440.4	3517.4
10°	2273.7	2367.8	2451.6	2547.4	2656.9	2798.9	3005.9	3235.1	3483.2	3654.3	3750.1
12.5°	2456.7	2556.0	2540.6	2535.4	2609.0	2781.8	3062.4	3363.5	3666.3	3837.4	3952.0
15°	2687.7	2725.3	2579.9	2470.4	2514.9	2720.2	3093.2	3478.1	3818.5	4027.3	4140.2
17.5°	2805.7	2730.5	2554.2	2390.0	2378.0	2626.1	3108.5	3594.4	3989.6	4198.3	4318.1
20°	2751.0	2641.5	2492.7	2337.0	2251.4	2497.8	3100.0	3686.8	4145.3	4378.0	4475.5
22.5°	2632.9	2537.1	2420.8	2272.0	2148.8	2357.5	3077.8	3779.2	4283.9	4518.3	4603.8
25°	2504.6	2432.8	2337.0	2207.0	2090.6	2234.3	3062.4	3902.4	4443.0	4667.1	4721.8
27.5°	2376.3	2323.3	2244.6	2143.7	2076.9	2148.8	3067.5	4063.2	4648.3	4860.4	4838.2
30°	2249.7	2203.5	2148.8	2104.3	2075.2	2128.3	3053.8	4234.3	4874.1	5070.9	4939.1
32.5°	2130.0	2087.2	2053.0	2059.8	2076.9	2136.8	2983.7	4389.9	5081.1	5248.8	5048.6
35°	2027.3	1982.8	1982.8	2006.8	2070.1	2107.7	2802.3	4511.4	5310.4	5478.0	5204.3
37.5°	1931.5	1892.2	1917.8	1957.2	2017.0	2029.0	2569.6	4629.5	5644.0	5801.4	5445.5
40°	1847.7	1808.3	1854.5	1904.1	1934.9	1929.8	2333.6	4793.7	6037.5	6200.0	5765.4
42.5°	1781.0	1745.0	1786.1	1849.4	1854.5	1859.7	2160.8	4951.1	6494.3	6701.3	6316.3
45°	1726.2	1700.5	1721.1	1784.4	1784.4	1863.1	2053.0	5082.8	7182.0	7548.1	7327.4
47.5°	1683.4	1668.0	1678.3	1698.8	1733.1	1924.7	1984.5	5183.8	8434.3	9152.9	8930.4
50°	1659.5	1644.1	1657.8	1615.0	1717.7	1955.5	1962.3	5260.8	10085.2	11211.0	10935.5
52.5°	1639.0	1633.8	1642.4	1543.2	1751.9	1934.9	1945.2	5158.1	11192.1	13236.6	13508.6
55°	1632.1	1635.5	1594.5	1490.1	1792.9	1866.5	1893.9	4424.2	11493.2	14983.3	16671.9
57.5°	1635.5	1625.3	1520.9	1495.3	1794.6	1729.6	1967.4	3156.5	11055.3	15742.9	19766.7
60°	1623.6	1572.2	1432.0	1541.4	1715.9	1568.8	1914.4	2058.1	9900.5	15159.5	19946.4
62.5°	1570.5	1495.3	1355.0	1567.1	1575.7	1473.0	1738.2	1585.9	8360.7	13910.6	18215.0
65°	1493.5	1392.6	1290.0	1514.1	1433.7	1428.5	1307.1	1271.1	6723.5	12423.9	16572.7
67.5°	1366.9	1266.0	1242.1	1392.6	1290.0	1266.0	1050.4	1053.9	5365.1	10839.7	14921.7
70°	1223.2	1122.3	1141.1	1259.2	1148.0	1052.2	850.3	877.6	4070.0	9031.4	12696.0
72.5°	1129.1	994.0	995.7	1108.6	1009.4	852.0	699.7	723.7	2583.3	6807.3	10093.8
75°	952.9	875.9	838.3	898.2	857.1	663.8	588.5	583.4	1531.2	4879.2	7558.4
77.5°	795.5	735.7	716.8	740.8	639.8	491.0	473.9	465.3	867.4	3125.7	4952.8
80°	576.5	561.1	559.4	571.4	492.7	361.0	361.0	362.7	467.1	1697.1	2792.0
82.5°	366.1	400.3	354.1	393.5	335.3	256.6	239.5	272.0	268.6	723.7	1177.0
85°	152.3	208.7	195.0	207.0	159.1	140.3	150.6	162.5	155.7	278.9	458.5
87.5°	29.1	34.2	37.6	35.9	35.9	44.5	49.6	59.9	59.9	80.4	138.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P640462
 CATALOG NUMBER: GWS-SA5D-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6	2788.6
2.5°	3067.5	3117.1	3106.8	3129.1	3100.0	3110.3	3052.1	3036.7	3026.4	3029.9
5°	3382.3	3483.2	3502.0	3539.7	3514.0	3514.0	3411.4	3334.4	3307.0	3286.5
7.5°	3702.2	3847.6	3943.4	3953.7	3940.0	3912.6	3763.8	3625.2	3575.6	3532.8
10°	3986.2	4160.7	4268.5	4319.8	4294.1	4251.4	4066.6	3876.7	3816.8	3779.2
12.5°	4203.5	4357.4	4429.3	4463.5	4460.1	4444.7	4294.1	4088.8	4025.5	3967.4
15°	4343.8	4420.7	4393.4	4391.7	4415.6	4477.2	4431.0	4270.2	4196.6	4143.6
17.5°	4434.4	4360.9	4239.4	4182.9	4234.3	4379.7	4485.8	4395.1	4328.4	4270.2
20°	4466.9	4205.2	4029.0	3924.6	3984.5	4194.9	4456.7	4485.8	4429.3	4381.4
22.5°	4429.3	4015.3	3775.8	3652.6	3710.8	3962.2	4371.1	4559.3	4521.7	4475.5
25°	4336.9	3816.8	3529.4	3418.2	3481.5	3738.1	4218.9	4627.8	4629.5	4591.8
27.5°	4222.3	3633.8	3356.6	3252.3	3313.8	3553.4	4070.0	4687.6	4747.5	4733.8
30°	4106.0	3524.3	3274.5	3200.9	3247.1	3459.3	3917.8	4749.2	4869.0	4892.9
32.5°	4052.9	3577.3	3467.8	3500.3	3440.4	3514.0	3863.0	4836.5	5016.1	5055.5
35°	4123.1	4047.8	4324.9	4453.2	4241.1	3962.2	3933.2	4968.2	5223.1	5281.3
37.5°	4463.5	5055.5	5469.5	5921.1	5553.3	4939.1	4280.5	5192.3	5519.1	5611.5
40°	5204.3	5934.8	6682.4	7265.8	6709.8	5883.5	4940.8	5525.9	5926.3	6010.1
42.5°	5902.3	6759.4	7789.3	8543.8	7821.8	6655.1	5652.5	6087.1	6463.5	6509.6
45°	6586.6	7568.6	9128.9	10177.6	9197.3	7389.0	6379.6	7034.9	7318.9	7320.6
47.5°	7389.0	8480.5	10808.9	12302.5	11022.8	8201.6	7062.2	8535.3	8930.4	8737.1
50°	8348.8	9387.2	12538.6	14774.6	13248.5	9200.8	7929.6	10364.1	10903.0	10684.0
52.5°	9633.6	10386.4	14444.4	17185.1	15674.5	10338.4	9187.1	12779.8	12957.7	12548.8
55°	11441.9	11828.6	16890.9	20161.9	18382.7	11739.6	11026.2	15811.3	15313.5	14141.6
57.5°	15559.9	14110.8	20031.9	23557.9	21446.8	14285.3	15056.9	19154.3	17383.6	15407.6
60°	19005.4	16882.3	22938.6	26928.2	24072.9	17091.0	18841.2	19736.0	17306.6	15267.3
62.5°	17843.8	17588.9	23987.3	27299.5	24969.3	18471.7	18138.1	18269.8	16177.5	14334.9
65°	15655.7	16225.4	23051.5	25539.0	23975.3	17234.7	16406.7	16914.8	14885.8	13029.6
67.5°	14364.0	14783.1	21386.9	22721.3	22168.7	15896.9	15060.3	14692.5	12880.7	11303.3
70°	13043.2	13390.5	19049.9	19185.1	19351.0	13672.8	12314.4	11219.5	9601.1	8497.6
72.5°	11270.8	11289.7	16095.3	15311.8	15626.6	10699.4	9912.5	8388.1	6988.7	5987.8
75°	9455.7	8939.0	12740.4	10702.9	11334.1	8323.1	8230.7	6321.5	5271.0	4449.8
77.5°	7209.4	6605.5	9306.8	7038.3	7960.4	5543.0	6188.0	4287.3	3709.0	2961.4
80°	4839.9	4463.5	5142.7	3972.5	5207.7	3820.2	4035.8	2429.4	2106.0	1633.8
82.5°	2552.5	2179.6	3178.7	2355.8	3141.1	2099.2	1514.1	751.0	639.8	516.7
85°	988.9	1144.5	1558.6	838.3	1218.1	749.3	438.0	186.5	155.7	118.0
87.5°	191.6	296.0	162.5	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.

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
 CIE u': 0.2476
 CIE v': 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 Rf: 81.5
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



Test Conditions

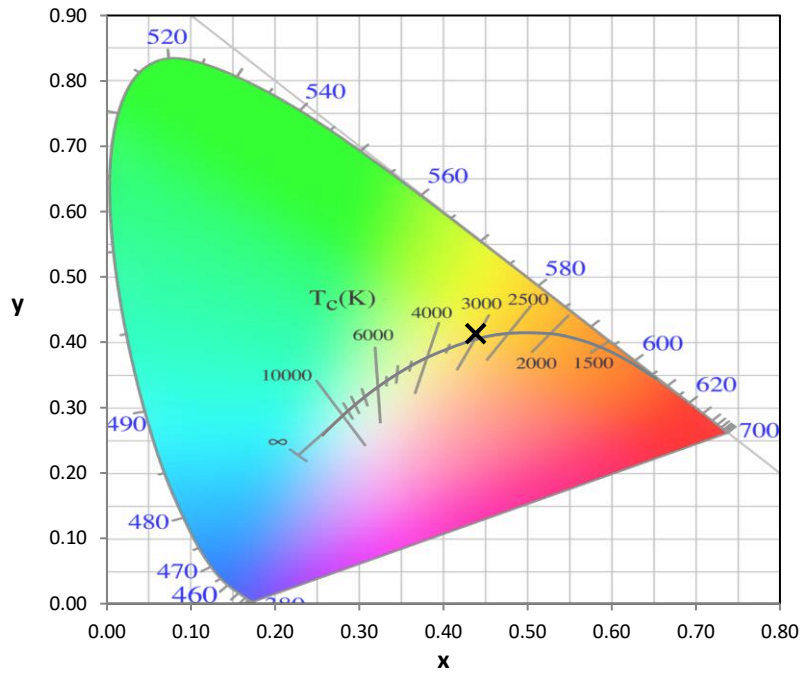
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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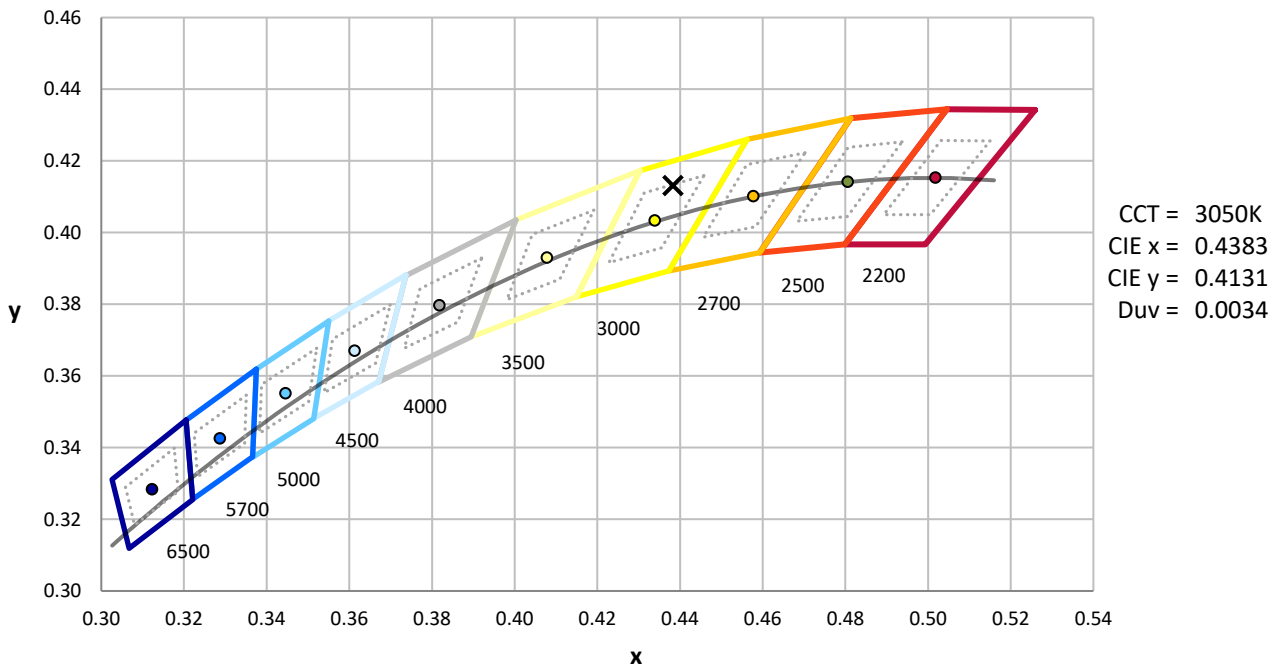
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



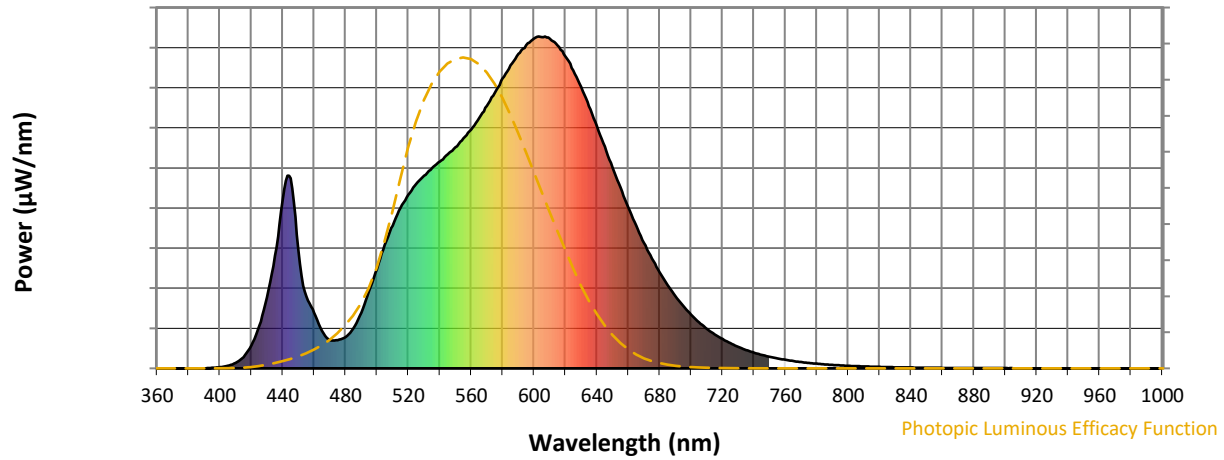
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

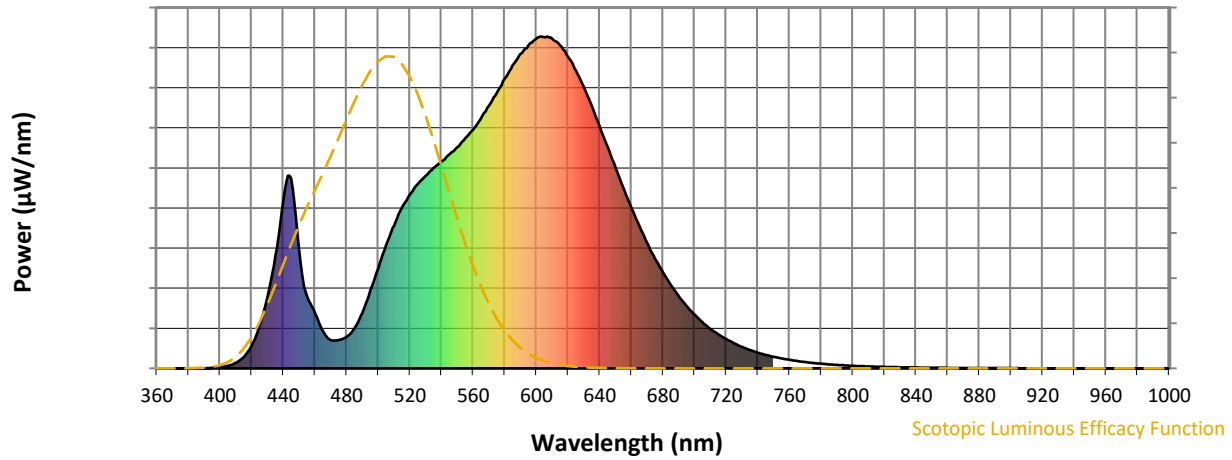


Photopic Lumens: NR

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



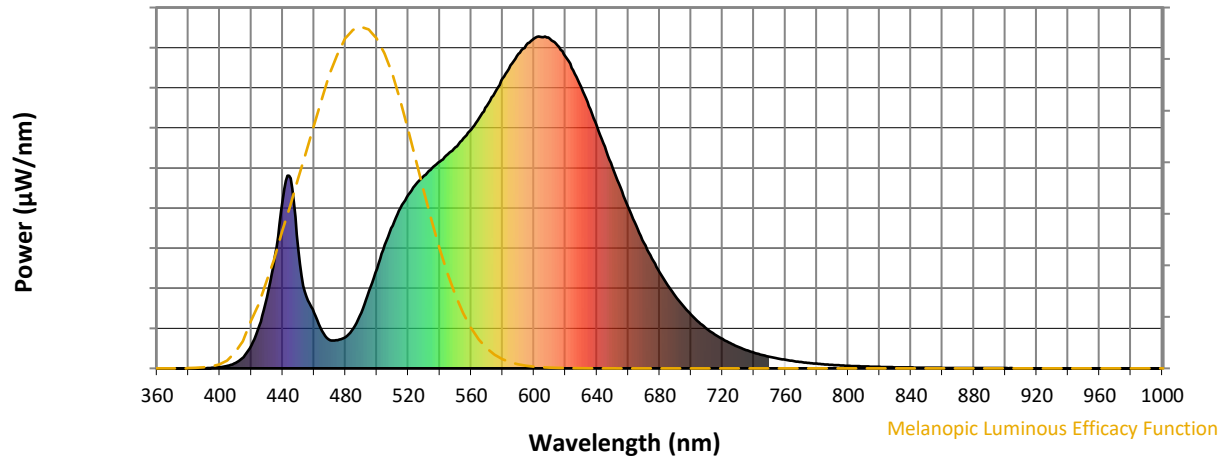
Scotopic Lumens: NR

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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

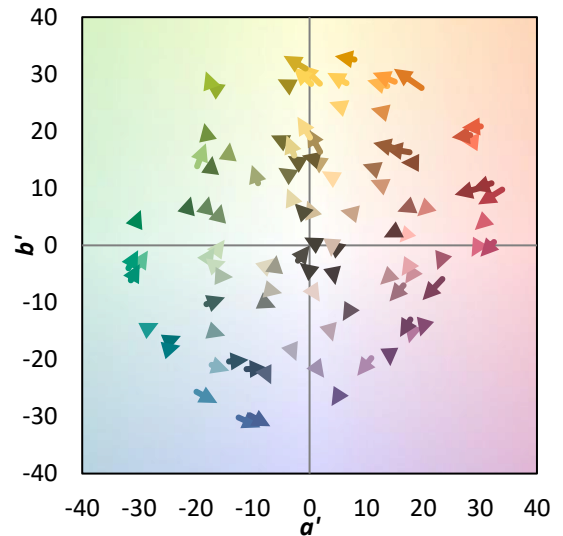
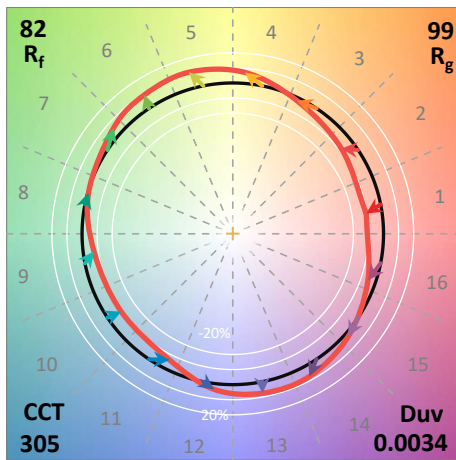
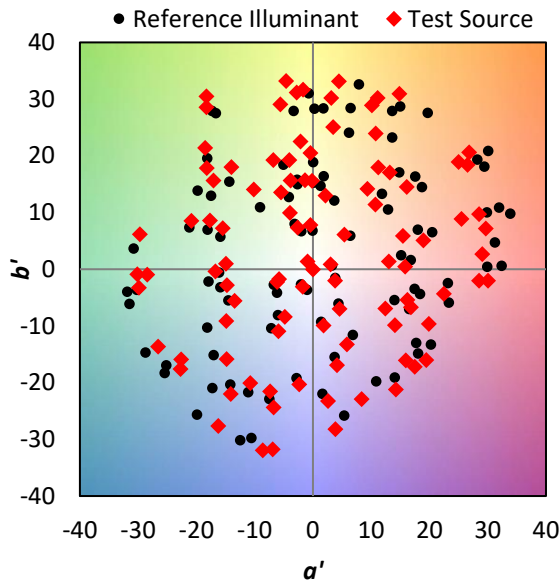
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

Summary

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

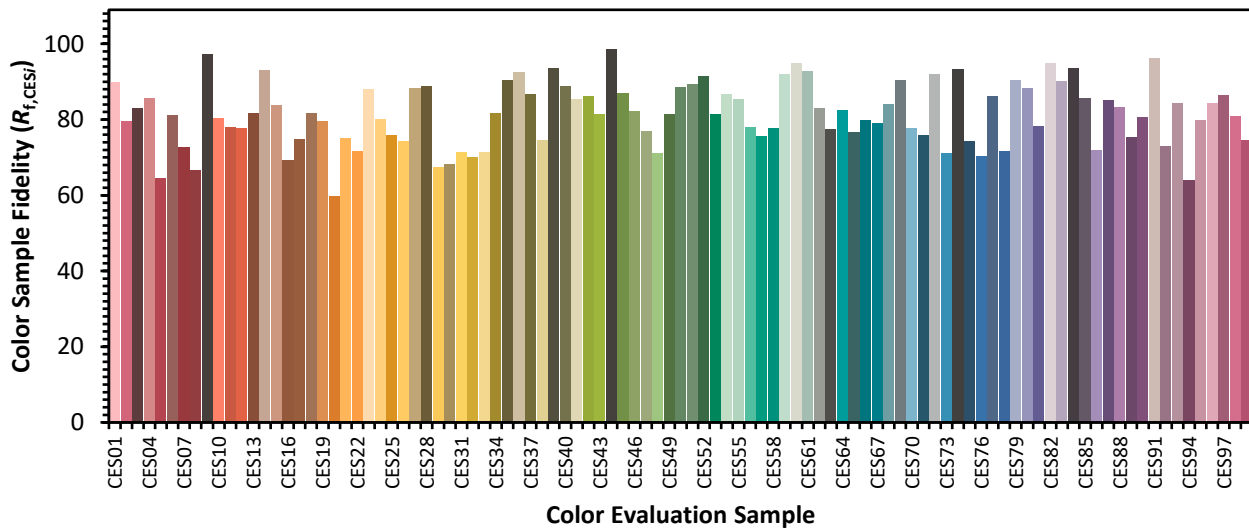


Color Vector Graphics

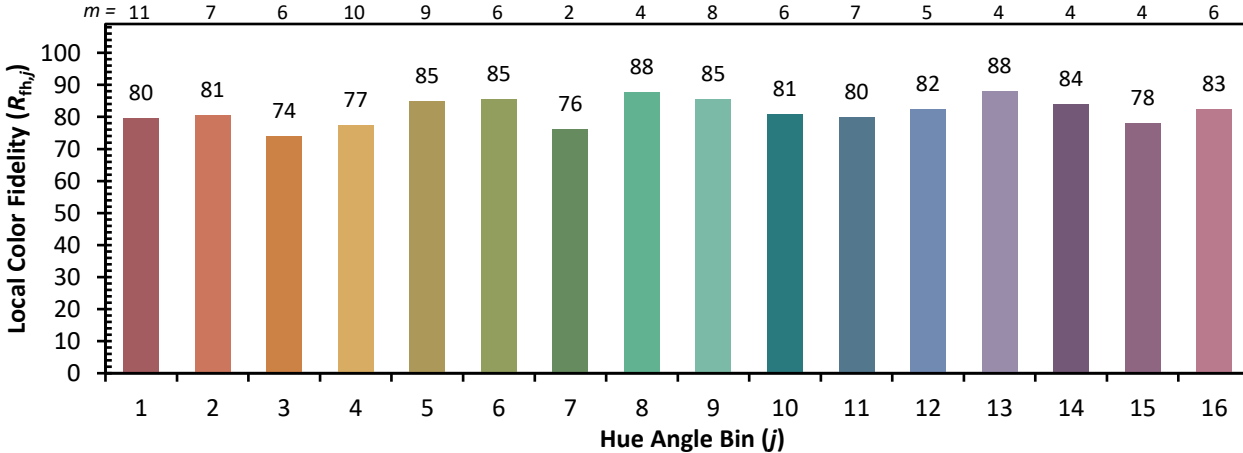
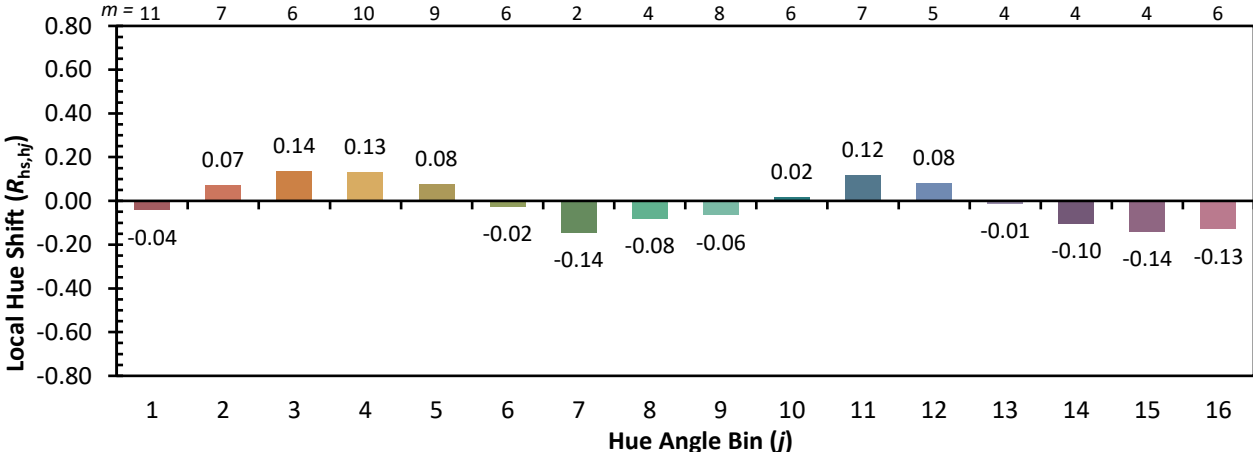
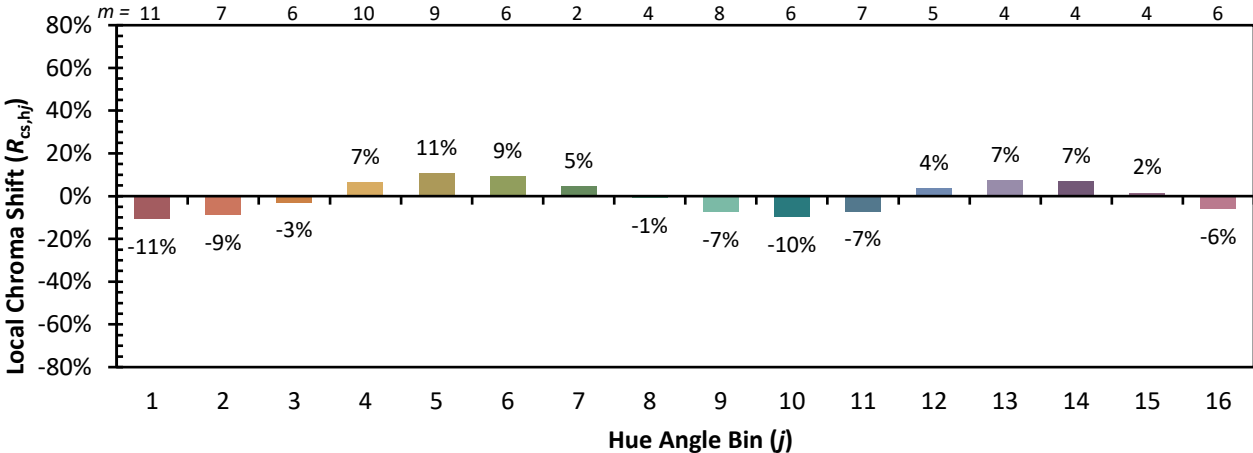


Individual Sample Fidelity Index ($R_{f,i}$)

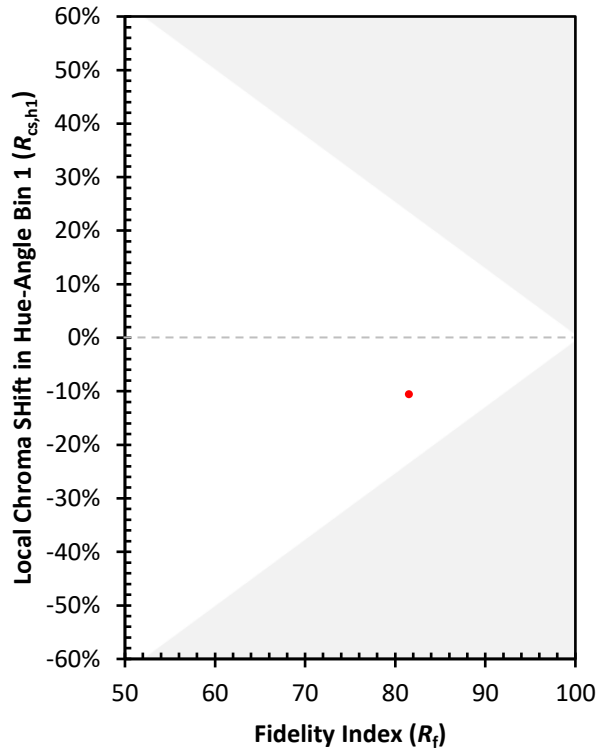
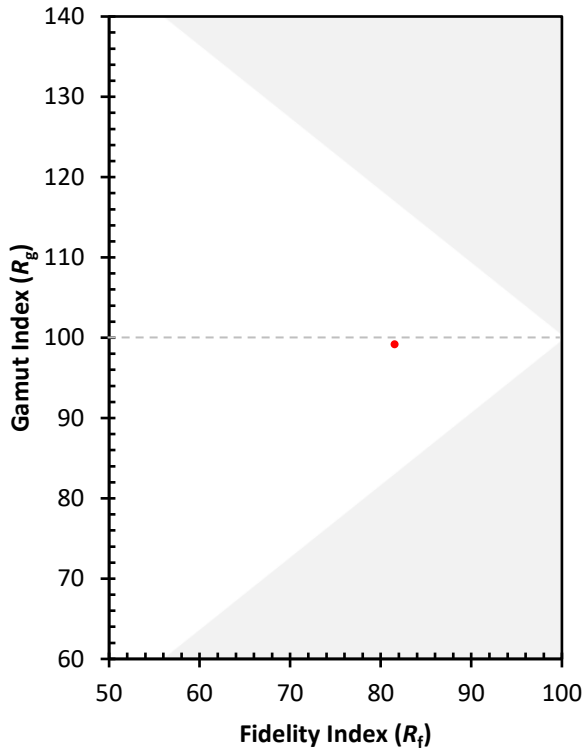
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)