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: P638977

Luminaire Tested: GWS-SA4F-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:	P638977
	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-SA4F-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:	25332.3 lumens
Efficiency:	N/A
Efficacy:	112.4 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):	225.3
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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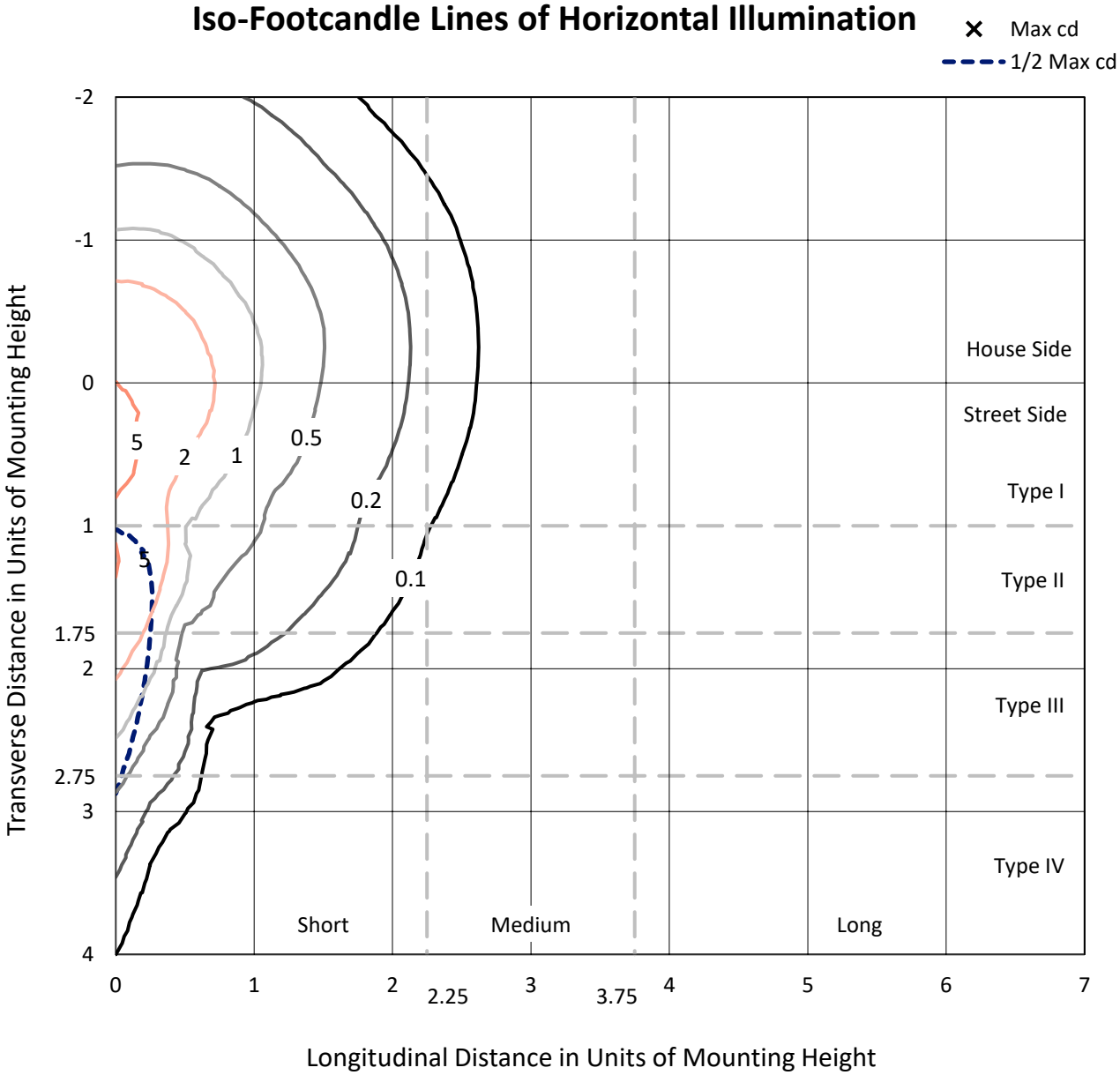
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
Type III - Short - N/A

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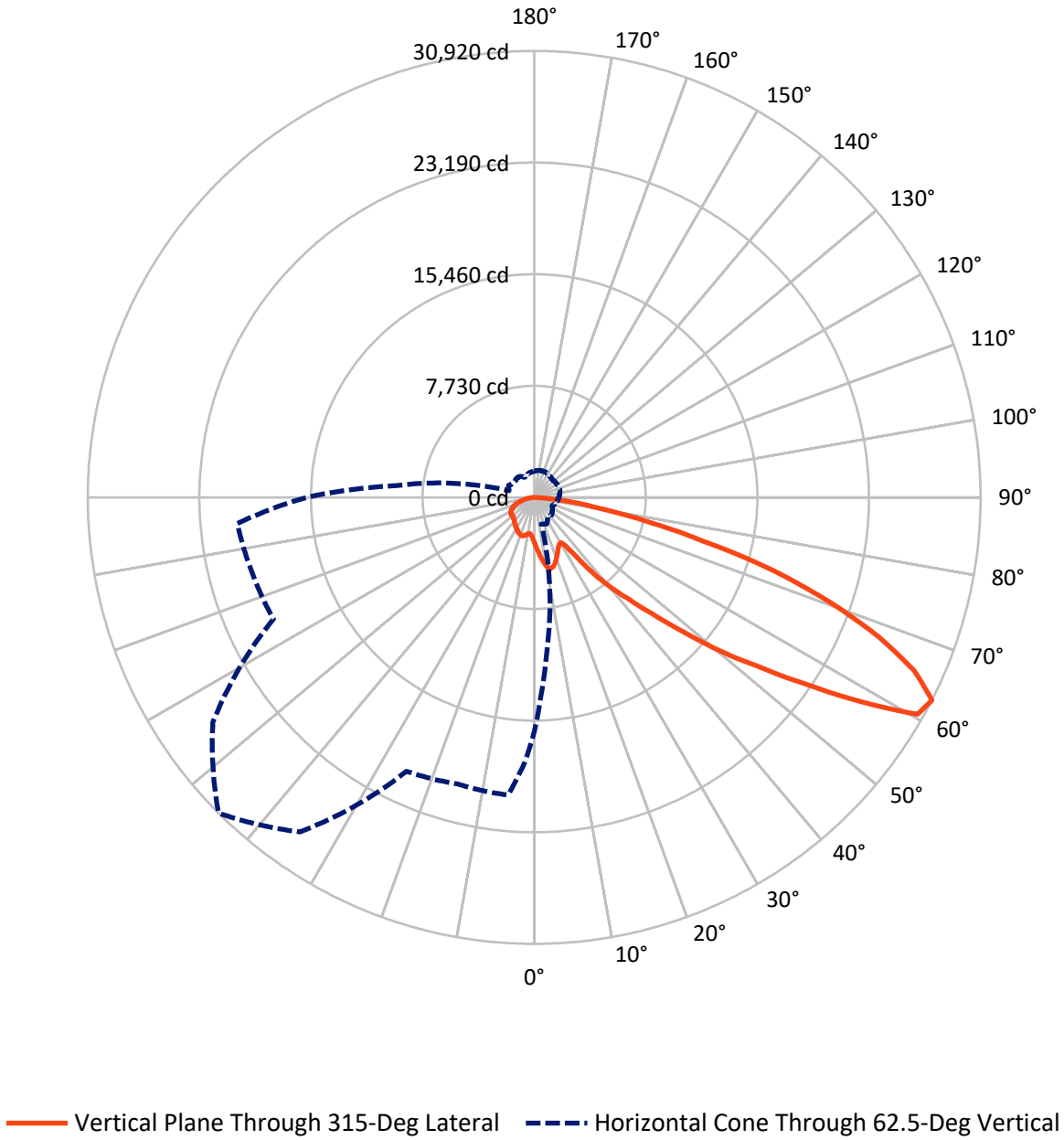
Luminous Intensity Polar Plot



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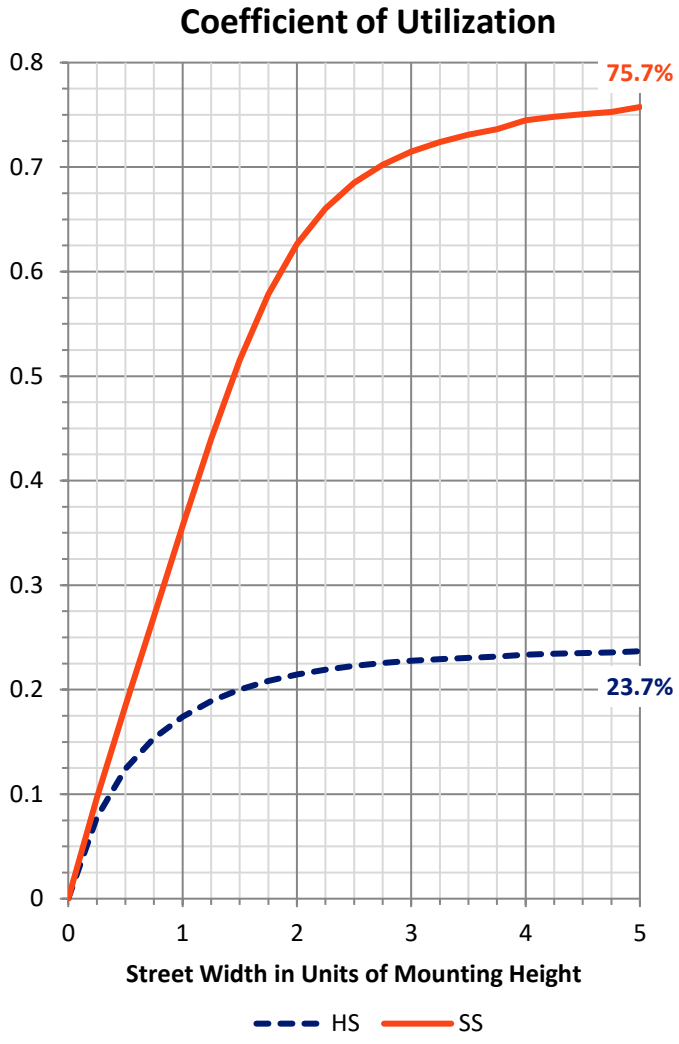
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6057.0	0.0	6057.0
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	19275.3	0.0	19275.3
	% Fixture	76.1	0.0	76.1
Total	Lumens	25332.3	0.0	25332.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.1	1.2
10°-20°	1011.2	4.0
20°-30°	1591.9	6.3
30°-40°	2182.0	8.6
40°-50°	3404.6	13.4
50°-60°	5870.3	23.2
60°-70°	6802.9	26.9
70°-80°	3590.9	14.2
80°-90°	567.2	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°	25332.3	100.0
0°-180°	25332.3	100.0



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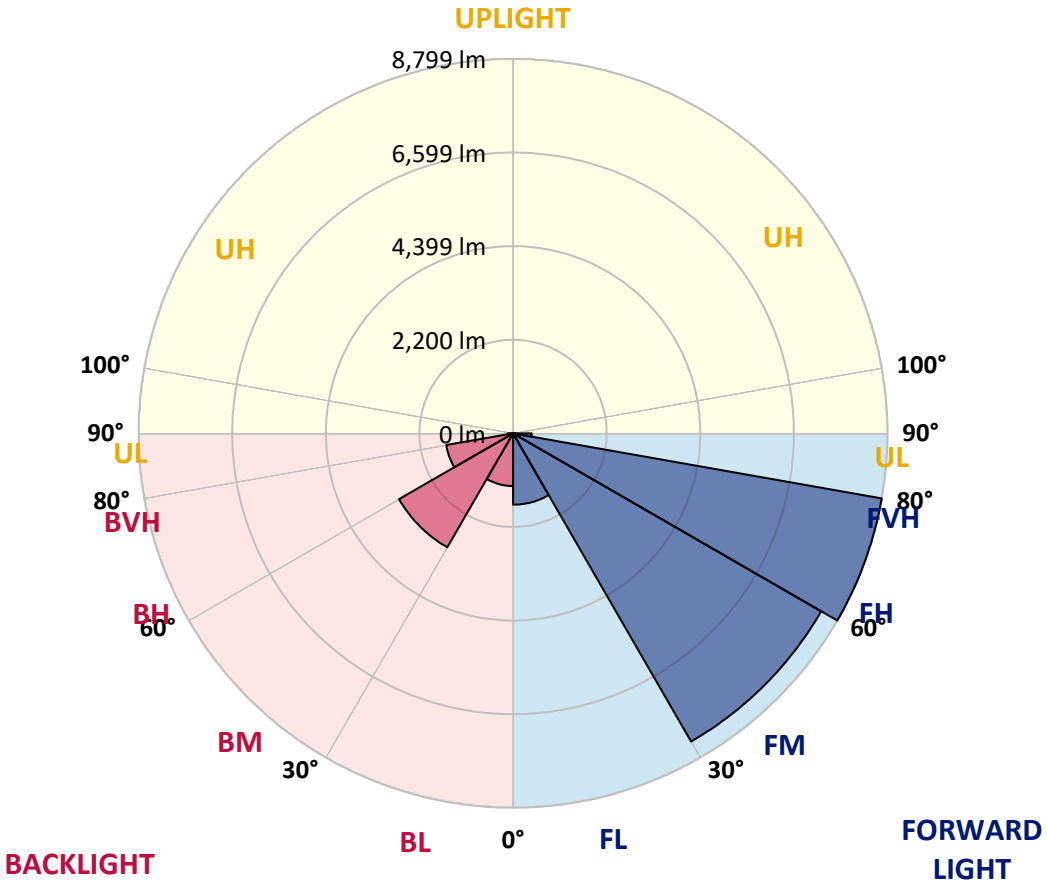
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1675.4	6.6			
FM	(30°-60°)	8363.1	33.0			
FH	(60°-80°)	8799.0	34.7			G4/12000
FVH	(80°-90°)	437.8	1.7			G3/500
BL	(0°-30°)	1238.9	4.9	B3/2500		
BM	(30°-60°)	3093.9	12.2	B3/5000		
BH	(60°-80°)	1594.8	6.3	B3/2500		G3/2500
BVH	(80°-90°)	129.4	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°	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4
2.5°	3431.6	3418.1	3398.7	3332.8	3292.1	3245.6	3197.2	3141.0	3077.0	3032.5	2987.9
5°	3722.3	3701.0	3654.5	3497.5	3389.0	3270.8	3172.0	3059.6	2949.1	2873.6	2798.0
7.5°	4001.3	3974.2	3902.5	3662.2	3485.9	3315.4	3166.2	3003.4	2838.7	2726.3	2637.2
10°	4280.3	4224.1	4133.1	3819.2	3586.6	3389.0	3218.5	3018.9	2799.9	2646.9	2551.9
12.5°	4493.5	4441.2	4342.3	3962.5	3687.4	3439.4	3247.5	3063.5	2877.5	2714.7	2617.8
15°	4693.1	4625.2	4512.8	4096.2	3770.7	3437.4	3189.4	3028.6	3001.5	2960.8	2834.8
17.5°	4836.4	4774.4	4658.2	4204.8	3817.2	3377.4	3028.6	2933.6	3055.7	3179.7	3059.6
20°	4962.4	4890.7	4772.5	4280.3	3826.9	3243.7	2832.9	2834.8	3026.7	3197.2	3168.1
22.5°	5069.0	4989.5	4884.9	4365.6	3823.0	3057.7	2662.4	2778.6	2970.5	3104.2	3108.0
25°	5200.7	5134.8	5047.6	4491.5	3823.0	2867.8	2538.4	2710.8	2875.5	2987.9	2984.0
27.5°	5361.6	5317.0	5245.3	4683.4	3857.9	2708.9	2468.6	2623.6	2753.4	2850.3	2848.4
30°	5541.8	5501.1	5446.8	4886.8	3918.0	2590.7	2429.8	2515.1	2610.1	2687.6	2687.6
32.5°	5725.8	5710.3	5652.2	5049.6	3871.5	2553.9	2396.9	2406.6	2457.0	2520.9	2515.1
35°	5981.6	5966.1	5892.5	5175.5	3670.0	2501.5	2344.6	2296.1	2302.0	2342.7	2356.2
37.5°	6355.6	6332.3	6223.8	5322.8	3365.7	2369.8	2259.3	2179.9	2162.4	2179.9	2205.1
40°	6807.1	6772.2	6624.9	5522.4	3015.0	2191.5	2125.6	2059.8	2030.7	2036.5	2065.6
42.5°	7372.9	7299.2	7088.0	5733.6	2668.2	2034.6	1976.4	1935.7	1902.8	1898.9	1955.1
45°	8291.3	8089.8	7754.6	5921.5	2375.6	1951.2	1842.7	1813.7	1786.5	1802.0	1867.9
47.5°	9895.7	9523.7	8870.7	6082.4	2197.3	1953.2	1736.2	1705.2	1703.2	1734.2	1807.9
50°	12100.8	11564.1	10556.5	6190.9	2104.3	1976.4	1672.2	1621.8	1658.7	1689.7	1759.4
52.5°	14212.9	13393.2	12193.8	6188.9	2063.6	1980.3	1689.7	1544.3	1658.7	1666.4	1732.3
55°	16016.8	14532.6	12635.6	5553.4	2005.5	1964.8	1757.5	1484.3	1637.3	1666.4	1718.7
57.5°	17450.7	15257.3	12602.7	4485.7	2181.8	1879.5	1798.2	1470.7	1575.3	1670.3	1730.3
60°	17291.8	14925.9	11790.8	2753.4	2164.4	1728.4	1792.4	1495.9	1470.7	1618.0	1716.8
62.5°	*16235.8*	*13738.1*	*10393.7*	*1910.5*	*2032.6*	*1641.2*	*1697.4*	*1540.5*	*1373.8*	*1542.4*	*1650.9*
65°	14757.3	12205.4	8661.4	1464.9	1683.8	1645.1	1536.6	1509.5	1288.6	1422.3	1538.5
67.5°	12802.2	10304.6	6838.1	1160.7	1174.2	1424.2	1395.1	1340.9	1209.1	1315.7	1420.3
70°	9624.4	7520.1	4704.7	934.0	889.4	1189.7	1253.7	1205.2	1131.6	1162.6	1273.1
72.5°	6781.9	4910.1	2577.1	740.2	685.9	914.6	1089.0	1081.2	999.8	1023.1	1131.6
75°	5039.9	3474.3	1610.2	585.2	558.1	654.9	912.6	935.9	868.1	895.2	978.5
77.5°	3354.1	2249.6	895.2	434.0	434.0	478.6	680.1	788.6	738.3	759.6	817.7
80°	1850.5	1145.2	447.6	284.8	292.6	329.4	496.0	567.7	569.7	622.0	637.5
82.5°	585.2	364.3	199.6	166.6	157.0	188.0	319.7	406.9	379.8	484.4	445.7
85°	133.7	85.3	36.8	36.8	40.7	62.0	122.1	217.0	277.1	333.3	242.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	85.3	125.9	112.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4
2.5°	2960.8	2922.0	2910.4	2877.5	2873.6	2842.6	2830.9	2830.9	2844.5	2844.5	2858.1
5°	2767.0	2718.6	2691.4	2652.7	2643.0	2619.7	2604.2	2606.2	2623.6	2635.2	2658.5
7.5°	2596.5	2563.5	2544.2	2526.7	2522.9	2519.0	2501.5	2499.6	2505.4	2522.9	2540.3
10°	2524.8	2501.5	2507.4	2520.9	2542.2	2553.9	2538.4	2530.6	2524.8	2536.4	2551.9
12.5°	2594.5	2571.3	2582.9	2606.2	2635.2	2646.9	2641.1	2639.1	2644.9	2689.5	2722.4
15°	2747.6	2703.1	2687.6	2697.2	2720.5	2732.1	2726.3	2734.1	2770.9	2887.1	2970.5
17.5°	2937.5	2829.0	2767.0	2749.6	2759.3	2768.9	2768.9	2788.3	2852.3	3022.8	3127.4
20°	3040.2	2898.8	2794.1	2751.5	2755.4	2765.1	2765.1	2792.2	2863.9	3046.0	3113.8
22.5°	3013.1	2883.3	2755.4	2708.9	2710.8	2718.6	2718.6	2741.8	2805.8	2966.6	2997.6
25°	2906.5	2792.2	2666.2	2625.6	2629.4	2643.0	2639.1	2652.7	2701.1	2832.9	2850.3
27.5°	2778.6	2677.9	2553.9	2522.9	2540.3	2567.4	2544.2	2546.1	2590.7	2701.1	2703.1
30°	2641.1	2557.7	2447.3	2424.0	2457.0	2470.5	2449.2	2449.2	2493.8	2569.4	2567.4
32.5°	2491.9	2439.5	2360.1	2334.9	2371.7	2393.0	2365.9	2369.8	2404.7	2455.0	2435.7
35°	2352.3	2325.2	2288.4	2271.0	2294.2	2313.6	2296.1	2303.9	2336.8	2350.4	2323.3
37.5°	2218.6	2214.8	2218.6	2218.6	2224.5	2230.3	2218.6	2238.0	2267.1	2249.6	2218.6
40°	2102.4	2117.9	2154.7	2145.0	2139.2	2145.0	2137.3	2170.2	2199.3	2168.3	2131.4
42.5°	2005.5	2034.6	2090.8	2090.8	2079.1	2083.0	2079.1	2119.8	2141.1	2098.5	2057.8
45°	1922.2	1964.8	2036.5	2046.2	2026.8	2026.8	2034.6	2084.9	2092.7	2034.6	1991.9
47.5°	1864.0	1916.4	1997.7	2015.2	1986.1	1984.2	2005.5	2059.8	2059.8	1991.9	1943.5
50°	1823.4	1881.5	1978.4	2001.6	1972.6	1964.8	1999.7	2052.0	2040.4	1959.0	1910.5
52.5°	1796.2	1856.3	1976.4	2009.4	1990.0	1982.2	2017.1	2053.9	2024.9	1937.7	1887.3
55°	1778.8	1844.7	1982.2	2009.4	1988.1	1974.5	2009.4	2042.3	2026.8	1926.1	1877.6
57.5°	1788.5	1854.4	1974.5	1988.1	1962.9	1939.6	1980.3	2026.8	2021.0	1929.9	1881.5
60°	1773.0	1833.0	1931.9	1935.7	1893.1	1856.3	1916.4	1986.1	1986.1	1916.4	1873.7
62.5°	*1701.3*	*1761.3*	*1848.5*	*1852.4*	*1804.0*	*1763.3*	*1833.0*	*1916.4*	*1914.4*	*1858.2*	*1813.7*
65°	1583.1	1639.3	1738.1	1747.8	1699.3	1656.7	1728.4	1805.9	1811.7	1761.3	1722.6
67.5°	1453.3	1503.6	1577.3	1616.0	1575.3	1530.8	1596.6	1670.3	1668.3	1608.3	1567.6
70°	1298.2	1344.7	1412.6	1445.5	1420.3	1377.7	1437.8	1476.5	1459.1	1430.0	1402.9
72.5°	1145.2	1189.7	1253.7	1253.7	1226.5	1185.9	1203.3	1273.1	1294.4	1273.1	1255.6
75°	984.3	1023.1	1067.7	1077.3	1017.3	943.6	1025.0	1085.1	1110.3	1100.6	1079.3
77.5°	819.6	848.7	914.6	897.1	784.8	746.0	811.9	901.0	918.5	912.6	883.6
80°	631.7	649.1	718.9	684.0	596.8	571.6	600.7	670.4	674.3	654.9	618.1
82.5°	424.4	447.6	494.1	426.3	424.4	401.1	377.8	385.6	420.5	416.6	391.4
85°	217.0	228.6	273.2	255.8	219.0	189.9	180.2	191.8	172.5	157.0	135.6
87.5°	91.1	98.8	135.6	75.6	23.3	0.0	0.0	11.6	17.4	25.2	27.1
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4
2.5°	2889.1	2910.4	2962.7	3028.6	3092.5	3158.4	3230.1	3274.7	3328.9	3398.7	3400.6
5°	2687.6	2736.0	2811.6	2912.3	3017.0	3137.1	3276.6	3392.9	3532.4	3642.8	3687.4
7.5°	2563.5	2633.3	2728.2	2856.1	2993.7	3142.9	3325.1	3520.8	3749.4	3896.7	3983.9
10°	2575.2	2681.7	2776.7	2885.2	3009.2	3170.0	3404.5	3664.1	3945.1	4138.9	4247.4
12.5°	2782.5	2894.9	2877.5	2871.6	2955.0	3150.7	3468.4	3809.5	4152.4	4346.2	4476.0
15°	3044.1	3086.7	2922.0	2798.0	2848.4	3080.9	3503.3	3939.3	4324.9	4561.3	4689.2
17.5°	3177.8	3092.5	2893.0	2706.9	2693.4	2974.3	3520.8	4071.1	4518.7	4755.1	4890.7
20°	3115.8	2991.8	2823.2	2646.9	2550.0	2829.0	3511.1	4175.7	4695.0	4958.5	5069.0
22.5°	2982.1	2873.6	2741.8	2573.2	2433.7	2670.1	3485.9	4280.3	4851.9	5117.4	5214.3
25°	2836.8	2755.4	2646.9	2499.6	2367.8	2530.6	3468.4	4419.8	5032.1	5286.0	5348.0
27.5°	2691.4	2631.4	2542.2	2427.9	2352.3	2433.7	3474.3	4602.0	5264.7	5504.9	5479.8
30°	2548.0	2495.7	2433.7	2383.3	2350.4	2410.5	3458.8	4795.8	5520.4	5743.3	5594.1
32.5°	2412.4	2364.0	2325.2	2333.0	2352.3	2420.2	3379.3	4972.1	5754.9	5944.8	5718.1
35°	2296.1	2245.8	2245.8	2272.9	2344.6	2387.2	3173.9	5109.7	6014.5	6204.4	5894.4
37.5°	2187.6	2143.1	2172.1	2216.7	2284.5	2298.1	2910.4	5243.4	6392.4	6570.7	6167.6
40°	2092.7	2048.1	2100.4	2156.6	2191.5	2185.7	2643.0	5429.4	6838.1	7022.1	6530.0
42.5°	2017.1	1976.4	2022.9	2094.6	2100.4	2106.3	2447.3	5607.6	7355.4	7589.9	7153.9
45°	1955.1	1926.1	1949.3	2021.0	2021.0	2110.1	2325.2	5756.8	8134.4	8549.0	8299.1
47.5°	1906.7	1889.2	1900.9	1924.1	1962.9	2179.9	2247.7	5871.2	9552.7	10366.6	10114.7
50°	1879.5	1862.1	1877.6	1829.2	1945.4	2214.8	2222.5	5958.4	11422.6	12697.6	12385.6
52.5°	1856.3	1850.5	1860.2	1747.8	1984.2	2191.5	2203.1	5842.1	12676.3	14991.8	15299.9
55°	1848.5	1852.4	1805.9	1687.7	2030.7	2114.0	2145.0	5010.8	13017.3	16970.2	18882.7
57.5°	1852.4	1840.8	1722.6	1693.5	2032.6	1959.0	2228.3	3575.0	12521.3	17830.5	22387.9
60°	1838.9	1780.7	1621.8	1745.8	1943.5	1776.8	2168.3	2331.0	11213.3	17169.8	22591.4
62.5°	*1778.8*	*1693.5*	*1534.6*	*1774.9*	*1784.6*	*1668.3*	*1968.7*	*1796.2*	*9469.4*	*15755.3*	*20630.4*
65°	1691.6	1577.3	1461.0	1714.8	1623.8	1618.0	1480.4	1439.7	7615.1	14071.4	18770.3
67.5°	1548.2	1433.9	1406.8	1577.3	1461.0	1433.9	1189.7	1193.6	6076.6	12277.1	16900.4
70°	1385.4	1271.1	1292.4	1426.1	1300.2	1191.7	963.0	994.0	4609.7	10229.0	14379.5
72.5°	1278.9	1125.8	1127.7	1255.6	1143.2	965.0	792.5	819.6	2925.9	7710.0	11432.3
75°	1079.3	992.1	949.5	1017.3	970.8	751.8	666.6	660.7	1734.2	5526.3	8560.7
77.5°	901.0	833.2	811.9	839.0	724.7	556.1	536.7	527.0	982.4	3540.1	5609.6
80°	653.0	635.6	633.6	647.2	558.1	408.8	408.8	410.8	529.0	1922.2	3162.3
82.5°	414.7	453.4	401.1	445.7	379.8	290.7	271.3	308.1	304.2	819.6	1333.1
85°	172.5	236.4	220.9	234.5	180.2	158.9	170.5	184.1	176.3	315.8	519.3
87.5°	32.9	38.8	42.6	40.7	40.7	50.4	56.2	67.8	67.8	91.1	157.0
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: P638977
CATALOG NUMBER: GWS-SA4F-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	3158.4	3158.4	3158.4	*3158.4*	3158.4	3158.4	3158.4	3158.4	3158.4	3158.4
2.5°	3474.3	3530.4	3518.8	*3544.0*	3511.1	3522.7	3456.8	3439.4	3427.8	3431.6
5°	3830.8	3945.1	3966.4	*4009.1*	3980.0	3980.0	3863.7	3776.5	3745.5	3722.3
7.5°	4193.1	4357.8	4466.3	*4478.0*	4462.5	4431.5	4262.9	4105.9	4049.7	4001.3
10°	4514.8	4712.4	4834.5	*4892.6*	4863.6	4815.1	4605.9	4390.8	4323.0	4280.3
12.5°	4760.9	4935.3	5016.6	*5055.4*	5051.5	5034.1	4863.6	4631.0	4559.4	4493.5
15°	4919.8	5007.0	4976.0	*4974.0*	5001.1	5070.9	5018.6	4836.4	4753.1	4693.1
17.5°	5022.5	4939.1	4801.6	*4737.6*	4795.8	4960.5	5080.6	4977.9	4902.3	4836.4
20°	5059.3	4762.8	4563.2	*4445.0*	4512.8	4751.2	5047.6	5080.6	5016.6	4962.4
22.5°	5016.6	4547.7	4276.5	*4136.9*	4202.8	4487.7	4950.8	5163.9	5121.3	5069.0
25°	4912.0	4323.0	3997.4	*3871.5*	3943.2	4233.8	4778.3	5241.4	5243.4	5200.7
27.5°	4782.2	4115.6	3801.7	*3683.5*	3753.3	4024.6	4609.7	5309.2	5377.1	5361.6
30°	4650.4	3991.6	3708.7	*3625.4*	3677.7	3918.0	4437.3	5379.0	5514.6	5541.8
32.5°	4590.4	4051.7	3927.7	*3964.5*	3896.7	3980.0	4375.3	5477.8	5681.3	5725.8
35°	4669.8	4584.5	4898.4	*5043.8*	4803.5	4487.7	4454.7	5627.0	5915.7	5981.6
37.5°	5055.4	5725.8	6194.8	*6706.3*	6289.7	5594.1	4848.1	5880.8	6250.9	6355.6
40°	5894.4	6721.8	7568.6	*8229.3*	7599.6	6663.7	5596.0	6258.7	6712.1	6807.1
42.5°	6685.0	7655.8	8822.2	*9676.8*	8859.1	7537.6	6402.1	6894.3	7320.5	7372.9
45°	7460.1	8572.3	10339.4	*11527.2*	10417.0	8368.8	7225.6	7967.7	8289.4	8291.3
47.5°	8368.8	9605.1	12242.2	*13933.8*	12484.5	9289.2	7998.7	9667.1	10114.7	9895.7
50°	9455.9	10632.0	14201.2	*16733.8*	15005.4	10420.8	8981.1	11738.4	12348.8	12100.8
52.5°	10911.1	11763.6	16359.8	*19464.0*	17753.0	11709.4	10405.3	14474.4	14676.0	14212.9
55°	12959.2	13397.1	19130.7	*22835.5*	20820.3	13296.3	12488.3	17908.0	17344.1	16016.8
57.5°	17623.2	15982.0	22688.3	*26681.8*	24290.7	16179.6	17053.5	21694.2	19688.7	17450.7
60°	21525.7	19121.0	25980.4	*30499.0*	27265.1	19357.4	21339.6	22353.0	19601.5	17291.8
62.5°	*20210.0*	*19921.3*	*27168.2*	*30919.5*	*28280.4*	*20921.1*	*20543.2*	*20692.5*	*18322.7*	*16235.8*
65°	17731.7	18376.9	26108.3	*28925.6*	27154.6	19520.2	18582.3	19157.8	16859.7	14757.3
67.5°	16268.7	16743.5	24222.9	*25734.3*	25108.4	18004.9	17057.4	16640.8	14588.8	12802.2
70°	14772.8	15166.2	21576.0	*21729.1*	21917.1	15485.9	13947.4	12707.3	10874.2	9624.4
72.5°	12765.4	12786.7	18229.7	*17342.2*	17698.7	12118.2	11226.9	9500.4	7915.4	6781.9
75°	10709.5	10124.4	14429.9	*12122.1*	12837.1	9426.8	9322.2	7159.7	5970.0	5039.9
77.5°	8165.4	7481.4	10541.0	*7971.6*	9016.0	6278.1	7008.6	4855.8	4200.9	3354.1
80°	5481.7	5055.4	5824.7	*4499.3*	5898.3	4326.8	4571.0	2751.5	2385.3	1850.5
82.5°	2891.0	2468.6	3600.2	*2668.2*	3557.6	2377.5	1714.8	850.6	724.7	585.2
85°	1120.0	1296.3	1765.2	*949.5*	1379.6	848.7	496.0	211.2	176.3	133.7
87.5°	217.0	335.2	184.1	*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

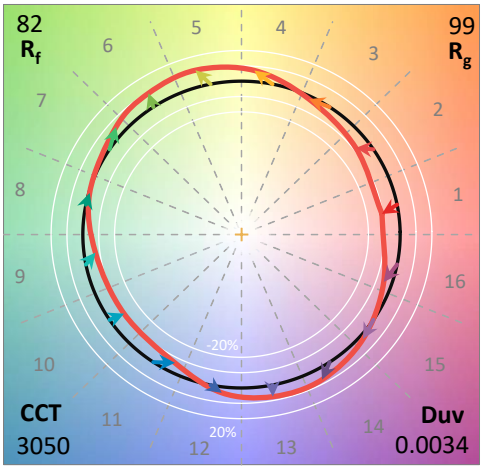
Test Information

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

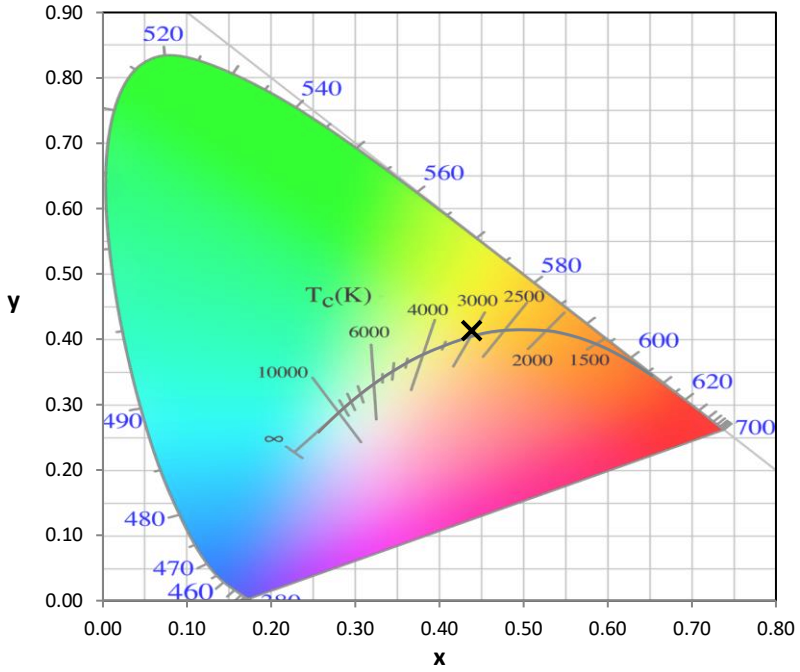
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

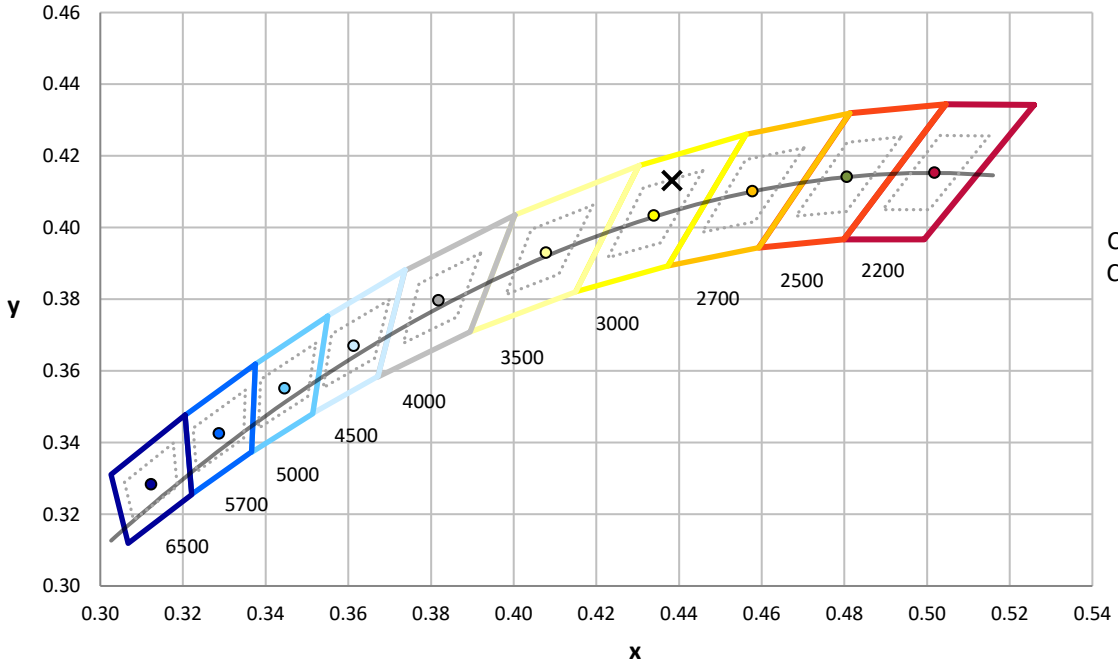
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

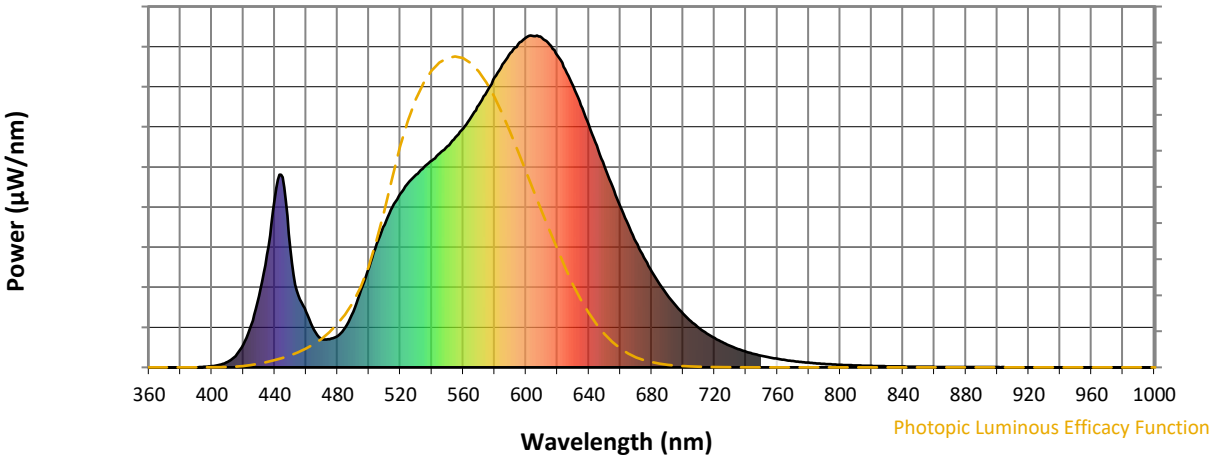


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

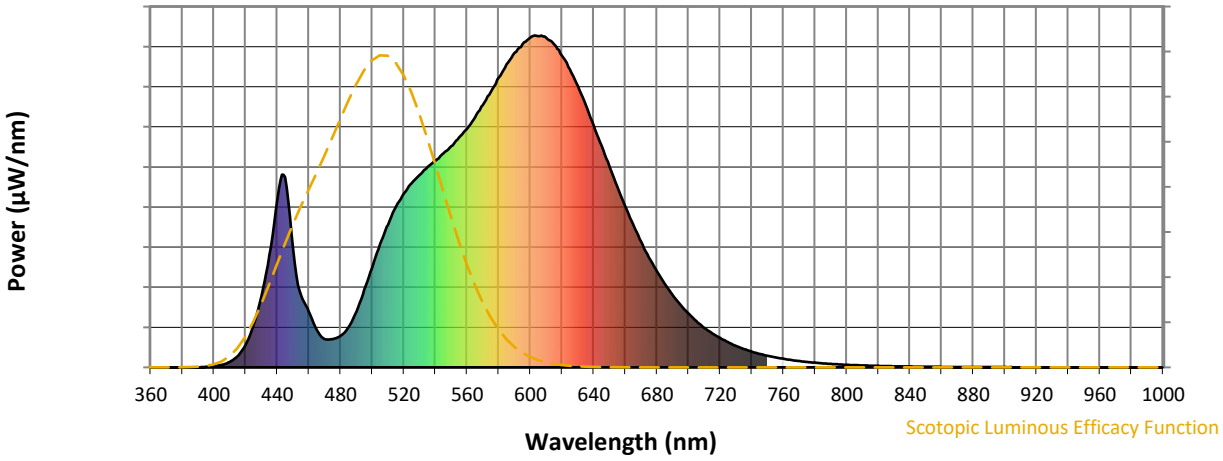


Photopic Lumens: NR

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

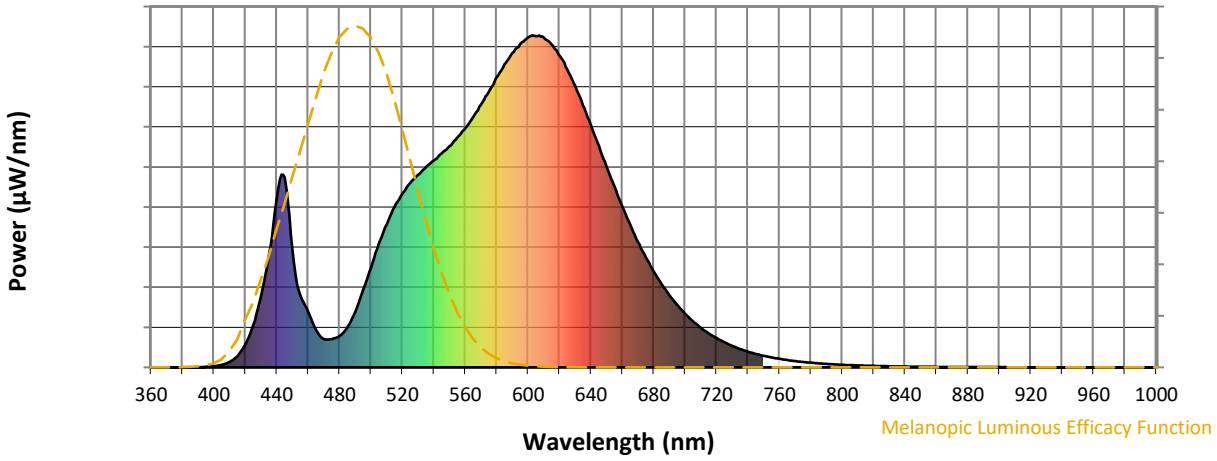


Scotopic Lumens: NR **S/P: 1.27**

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			

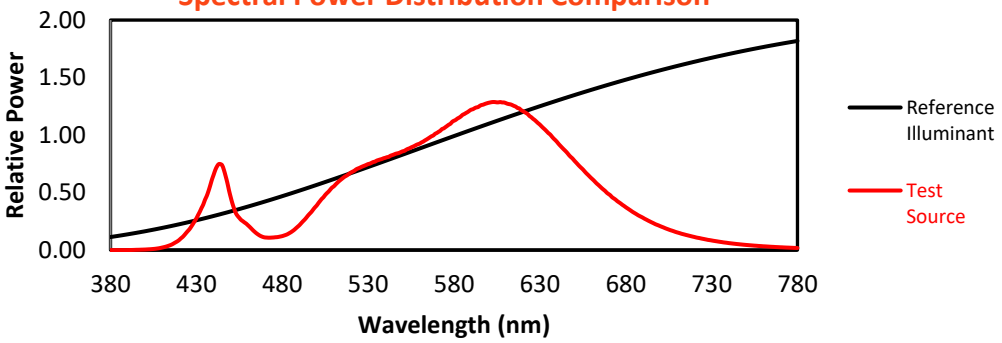
REPORT NUMBER: SP1-2408-195-9

TM-30-18

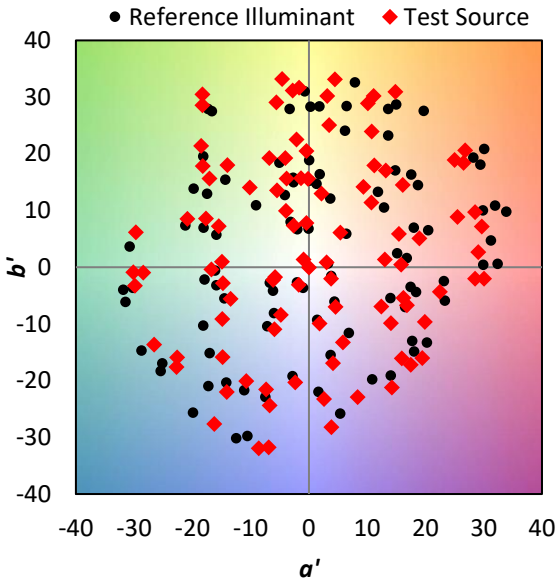
Summary

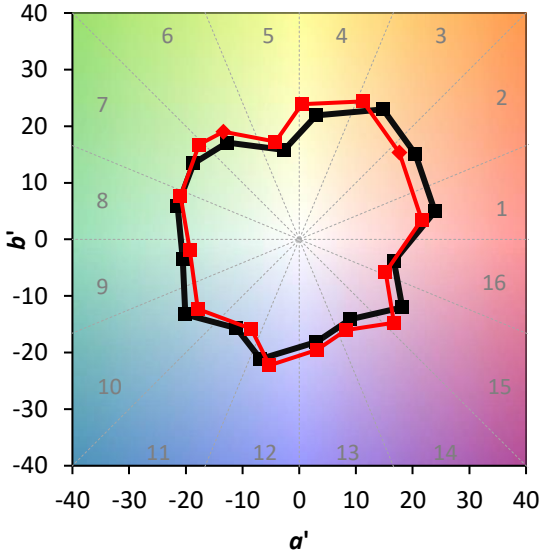
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

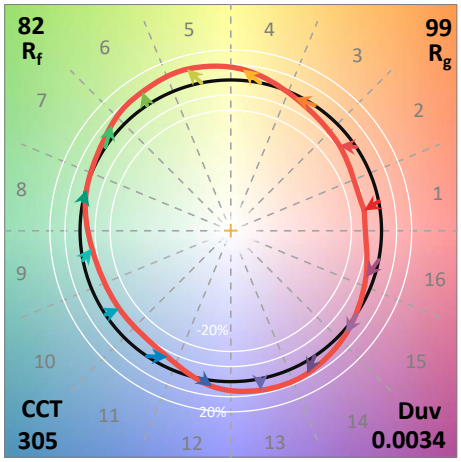
Spectral Power Distribution Comparison

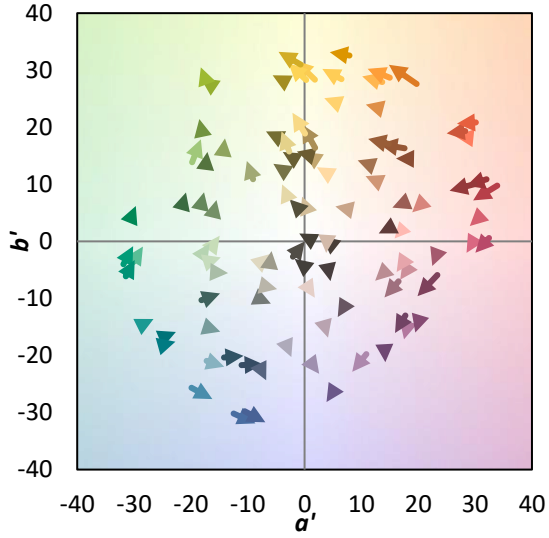


Color Vector Graphics









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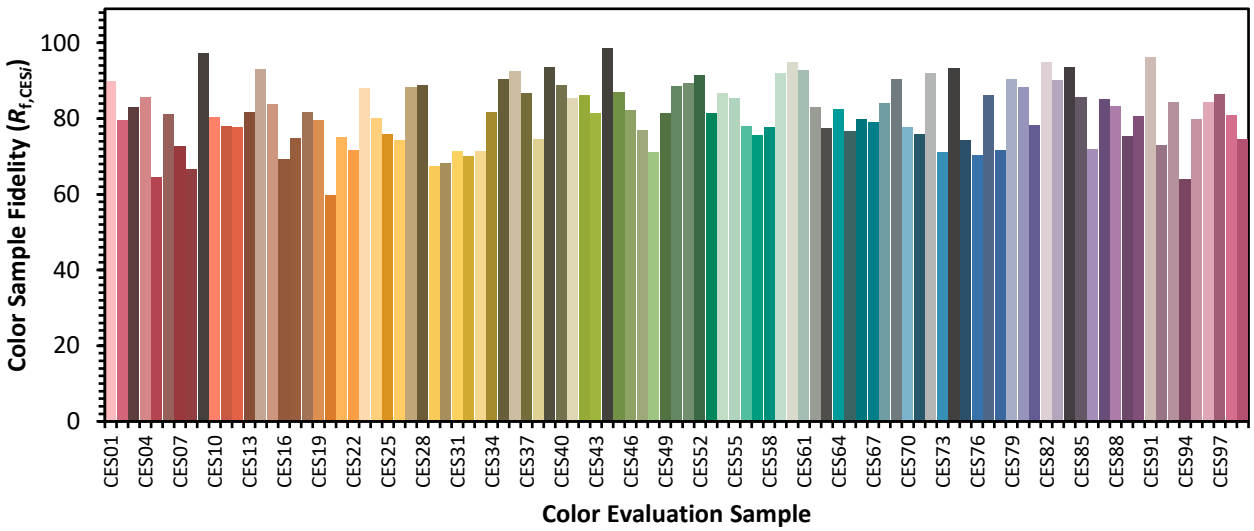
Individual Sample Fidelity Index ($R_{f,i}$)

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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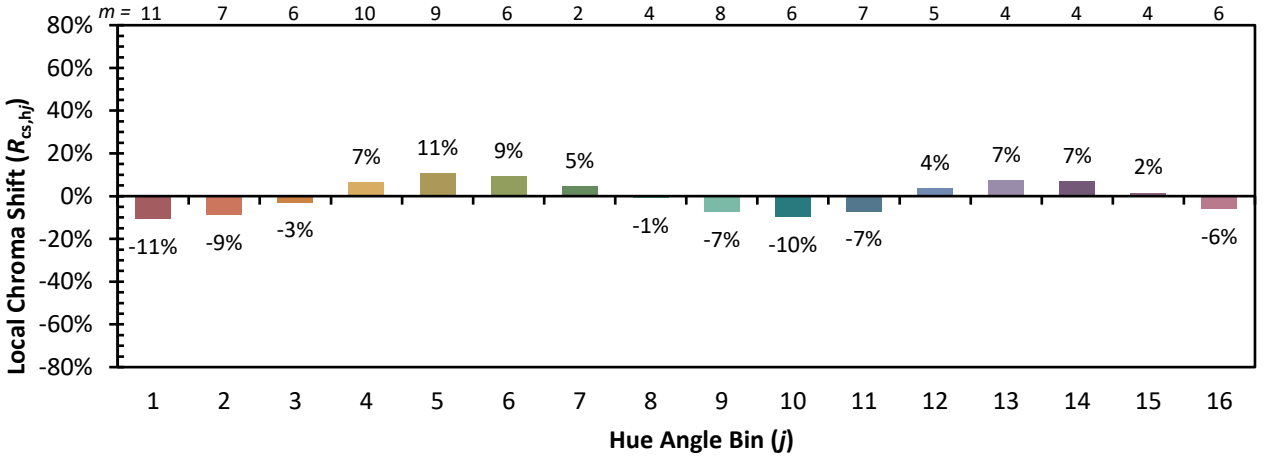
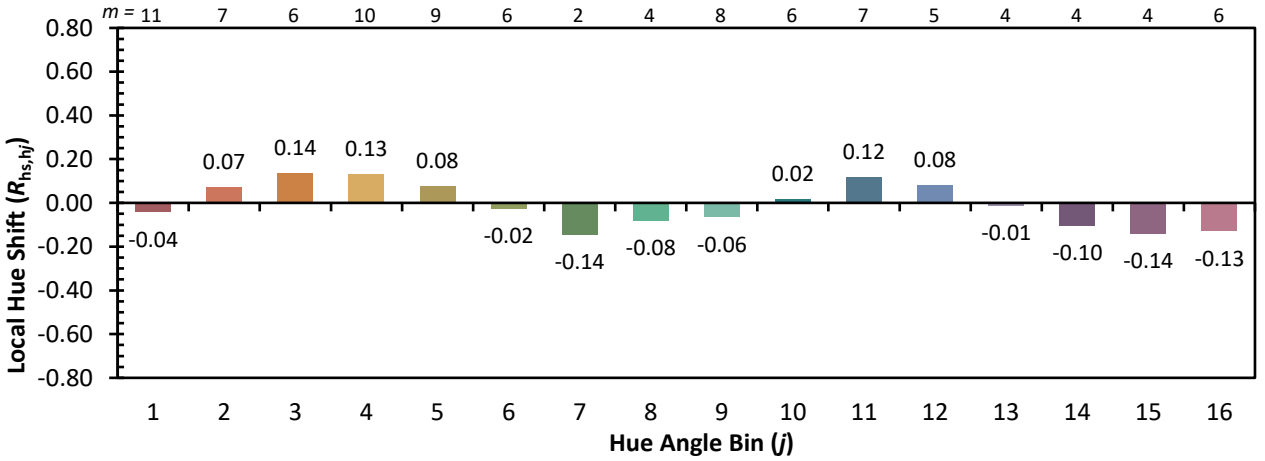
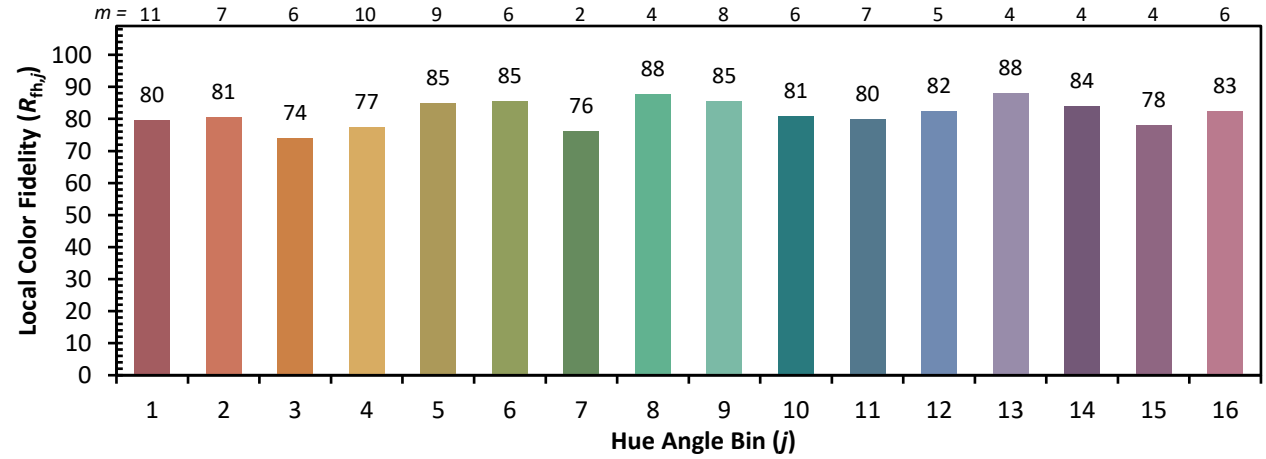
Color Rendition by Hue-Angle Bin







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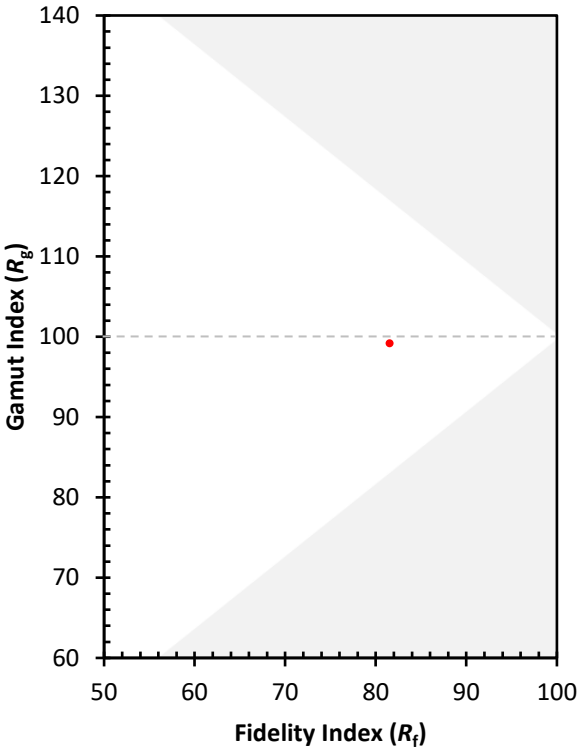
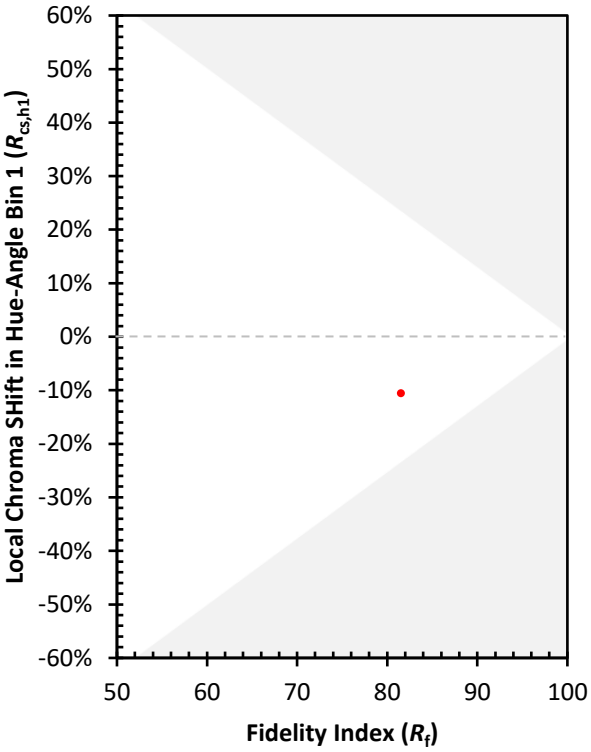
Measure Comparisons





(END OF REPORT)