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: P637985

Luminaire Tested: GWS-SA4D-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P637985
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-SLL-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15142.4 lumens
Efficiency:	N/A
Efficacy:	93.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G2

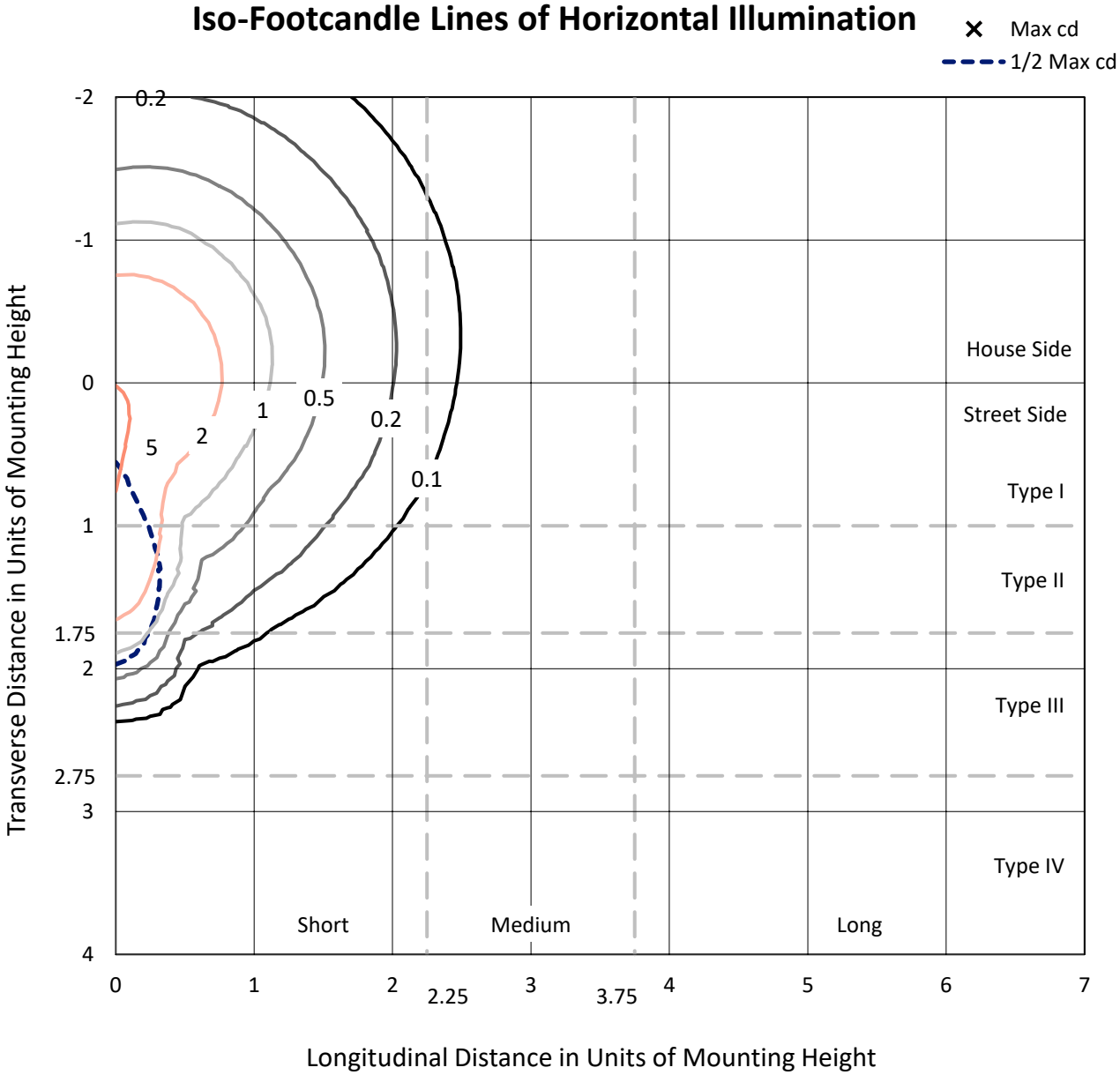
Input Watts (W):	162.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



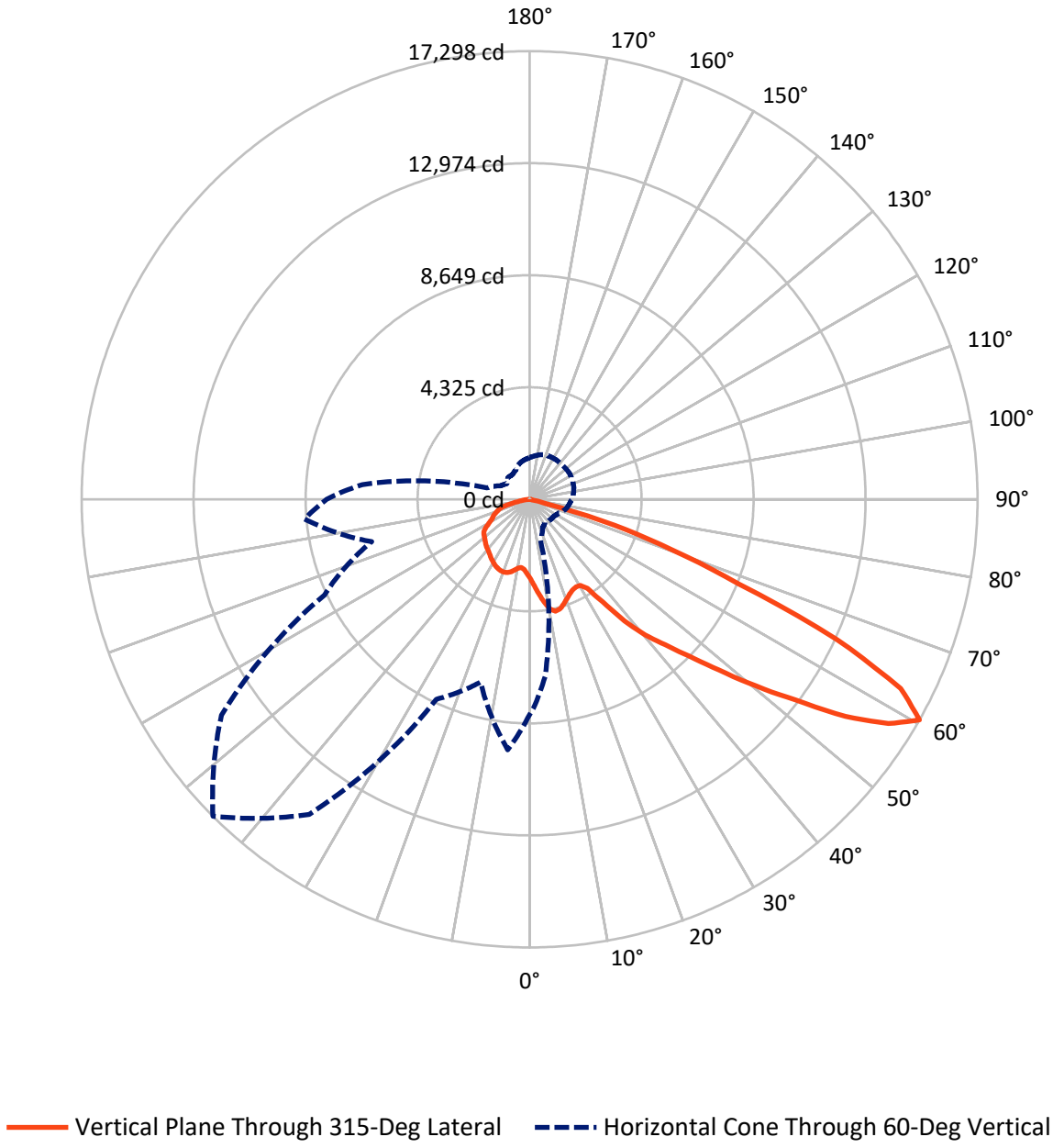
Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

Luminous Intensity Polar Plot



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

Scaled Data Report

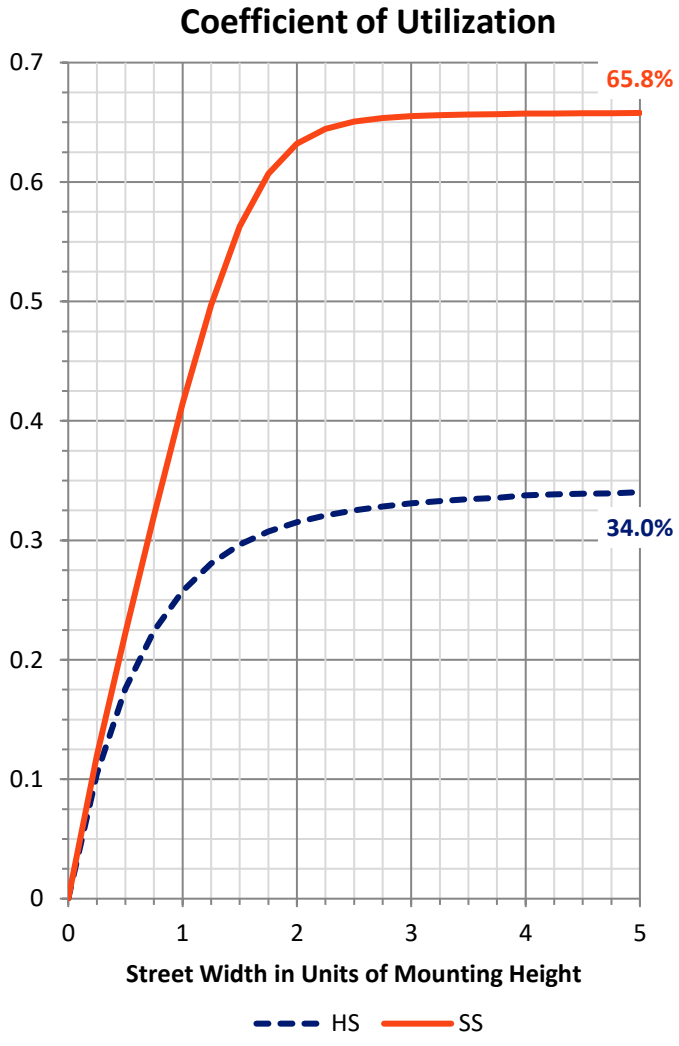
REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5180.1	0.0	5180.1
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	9962.3	0.0	9962.3
	% Fixture	65.8	0.0	65.8
Total	Lumens	15142.4	0.0	15142.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.4	2.0
10°-20°	957.0	6.3
20°-30°	1558.7	10.3
30°-40°	2189.6	14.5
40°-50°	2996.2	19.8
50°-60°	3844.0	25.4
60°-70°	2588.4	17.1
70°-80°	647.1	4.3
80°-90°	63.1	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°	15142.4	100.0
0°-180°	15142.4	100.0



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

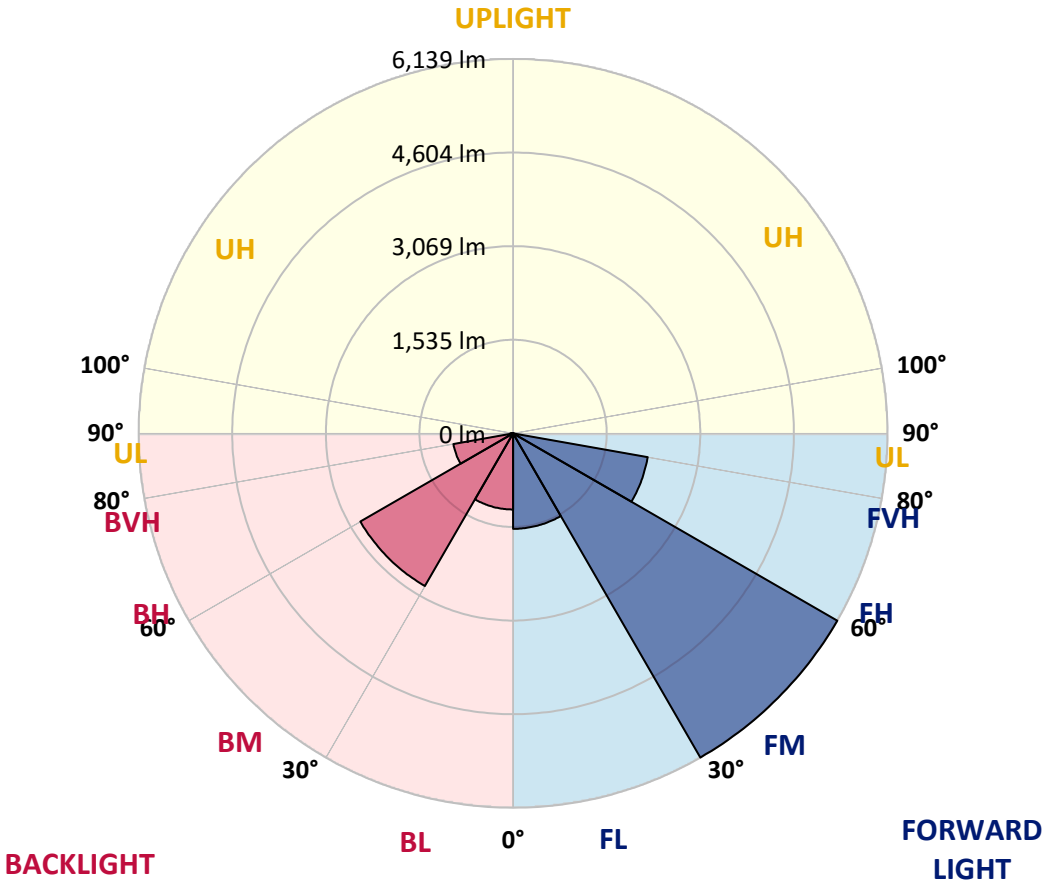
Scaled Data Report

REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1565.4	10.3			
FM	(30°-60°)	6138.9	40.5			
FH	(60°-80°)	2241.7	14.8			G2/5000
FVH	(80°-90°)	16.4	0.1			G1/100
BL	(0°-30°)	1248.7	8.2	B3/2500		
BM	(30°-60°)	2890.9	19.1	B3/5000		
BH	(60°-80°)	993.8	6.6	B2/1000		G2/1000
BVH	(80°-90°)	46.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type III Short



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

Scaled Data Report

REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1
2.5°	3231.2	3224.2	3217.2	3162.8	3148.9	3109.8	3082.0	3047.1	2996.9	2969.0	2945.3
5°	3433.4	3422.2	3384.6	3273.0	3200.5	3121.0	3055.5	2982.9	2906.2	2856.0	2817.0
7.5°	3624.4	3621.6	3557.5	3373.4	3256.3	3141.9	3052.7	2946.7	2836.5	2761.2	2711.0
10°	3801.5	3780.6	3703.9	3464.1	3310.7	3179.6	3083.3	2966.2	2837.9	2736.1	2669.2
12.5°	3957.7	3931.2	3825.2	3547.7	3358.1	3196.3	3091.7	2995.5	2910.4	2825.4	2748.7
15°	4086.0	4054.0	3946.6	3625.8	3399.9	3186.5	3040.1	2964.8	2994.1	3031.7	2946.7
17.5°	4206.0	4172.5	4041.4	3683.0	3412.5	3126.6	2913.2	2881.1	3029.0	3200.5	3161.4
20°	4306.4	4268.7	4116.7	3710.9	3390.1	3012.2	2748.7	2804.4	2999.7	3204.7	3267.4
22.5°	4415.1	4384.5	4201.8	3751.3	3362.3	2854.6	2610.6	2747.3	2949.5	3129.4	3224.2
25°	4589.5	4551.8	4334.3	3822.5	3348.3	2706.8	2511.6	2691.5	2879.7	3042.9	3116.8
27.5°	4841.9	4772.1	4515.5	3946.6	3363.7	2567.4	2448.8	2623.1	2798.9	2938.3	2998.3
30°	5116.6	5032.9	4716.4	4074.9	3386.0	2482.3	2415.4	2545.1	2674.7	2814.2	2879.7
32.5°	5441.5	5367.6	4931.1	4171.1	3338.5	2443.2	2390.3	2460.0	2563.2	2674.7	2729.1
35°	5829.2	5696.7	5165.4	4249.2	3185.1	2386.1	2367.9	2366.5	2420.9	2529.7	2591.1
37.5°	6246.2	6103.9	5454.1	4332.9	2946.7	2295.4	2315.0	2256.4	2306.6	2393.0	2462.8
40°	6587.8	6438.6	5745.5	4447.2	2648.2	2153.2	2197.8	2135.1	2165.7	2255.0	2333.1
42.5°	6922.5	6763.6	6017.5	4576.9	2359.6	2013.7	2036.0	2012.3	2022.1	2115.5	2224.3
45°	7361.8	7183.3	6352.2	4668.9	2100.2	1903.6	1882.6	1842.2	1893.8	2015.1	2130.9
47.5°	8095.4	7882.0	6900.2	4728.9	1911.9	1840.8	1744.6	1720.9	1785.0	1920.3	2040.2
50°	8953.0	8768.9	7776.0	4726.1	1771.1	1787.8	1610.7	1589.8	1695.8	1832.4	1959.3
52.5°	9655.9	9469.0	8524.9	4586.7	1655.3	1674.9	1532.6	1474.0	1619.1	1746.0	1872.9
55°	10223.4	10012.9	8869.3	4003.7	1508.9	1495.0	1447.5	1340.2	1522.8	1659.5	1778.0
57.5°	9918.0	9667.0	8452.4	3044.3	1358.3	1270.4	1301.1	1221.6	1391.8	1563.3	1677.6
60°	*8315.7*	*8089.8*	*6866.8*	*1620.5*	*1195.1*	*1061.3*	*1125.4*	*1138.0*	*1248.1*	*1447.5*	*1564.7*
62.5°	5712.1	5547.5	4653.6	983.2	942.7	852.1	952.5	1043.1	1125.4	1294.1	1395.9
65°	2794.7	2745.9	2327.5	630.3	659.6	688.9	789.3	899.5	1020.8	1168.6	1276.0
67.5°	769.8	775.4	705.6	492.3	520.2	601.1	680.5	768.4	889.7	1026.4	1135.2
70°	338.9	344.5	355.6	379.3	432.3	506.2	588.5	679.1	790.7	905.1	1009.7
72.5°	235.7	241.3	258.0	288.7	336.1	405.8	483.9	570.4	686.1	782.3	868.8
75°	145.0	149.2	164.6	191.1	223.1	276.1	352.8	432.3	534.1	622.0	698.7
77.5°	76.7	73.9	83.7	101.8	129.7	157.6	209.2	259.4	331.9	403.0	467.2
80°	41.8	40.4	46.0	55.8	64.1	86.5	121.3	154.8	196.6	237.1	271.9
82.5°	18.1	16.7	18.1	23.7	29.3	41.8	61.4	85.1	108.8	136.7	159.0
85°	0.0	0.0	0.0	1.4	7.0	11.2	20.9	30.7	44.6	61.4	75.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	12.6
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: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1
2.5°	2931.3	2896.5	2893.7	2865.8	2868.6	2870.0	2842.1	2830.9	2840.7	2851.9	2846.3
5°	2803.0	2766.8	2751.4	2724.9	2722.2	2709.6	2698.5	2684.5	2694.3	2704.0	2709.6
7.5°	2691.5	2667.8	2658.0	2651.0	2653.8	2648.2	2625.9	2613.4	2612.0	2616.2	2621.8
10°	2655.2	2635.7	2648.2	2667.8	2681.7	2691.5	2667.8	2646.9	2627.3	2619.0	2619.0
12.5°	2733.3	2708.2	2733.3	2754.2	2782.1	2789.1	2762.6	2740.3	2733.3	2741.7	2758.4
15°	2906.2	2847.7	2846.3	2858.8	2881.1	2892.3	2867.2	2856.0	2856.0	2909.0	2950.9
17.5°	3079.2	2982.9	2942.5	2935.5	2949.5	2953.7	2932.7	2923.0	2948.1	3051.3	3129.4
20°	3200.5	3083.3	2995.5	2978.8	2982.9	2984.3	2967.6	2960.6	2996.9	3122.4	3187.9
22.5°	3187.9	3101.5	2994.1	2973.2	2980.2	2977.4	2962.0	2959.2	2988.5	3097.3	3128.0
25°	3101.5	3034.5	2943.9	2929.9	2941.1	2939.7	2924.4	2917.4	2929.9	3002.5	3005.3
27.5°	3002.5	2943.9	2865.8	2861.6	2879.7	2889.5	2863.0	2842.1	2837.9	2886.7	2875.6
30°	2883.9	2840.7	2777.9	2780.7	2814.2	2819.8	2787.7	2757.0	2748.7	2775.2	2759.8
32.5°	2743.1	2729.1	2695.7	2702.6	2734.7	2745.9	2712.4	2680.3	2670.6	2678.9	2646.9
35°	2623.1	2617.6	2620.4	2632.9	2660.8	2669.2	2641.3	2616.2	2602.2	2572.9	2531.1
37.5°	2499.0	2514.4	2554.8	2578.5	2593.9	2591.1	2575.7	2557.6	2535.3	2480.9	2429.3
40°	2383.3	2422.3	2494.8	2521.3	2526.9	2528.3	2517.2	2501.8	2473.9	2401.4	2342.8
42.5°	2294.0	2337.3	2433.5	2473.9	2476.7	2479.5	2468.4	2455.8	2416.8	2320.5	2263.4
45°	2200.6	2257.8	2370.7	2419.5	2416.8	2415.4	2405.6	2400.0	2354.0	2242.4	2179.7
47.5°	2121.1	2188.0	2309.4	2351.2	2349.8	2348.4	2341.4	2341.4	2295.4	2174.1	2103.0
50°	2043.0	2119.7	2246.6	2281.5	2284.3	2281.5	2278.7	2282.9	2228.5	2098.8	2029.1
52.5°	1957.9	2044.4	2176.9	2209.0	2225.7	2232.7	2232.7	2222.9	2158.8	2023.5	1946.8
55°	1864.5	1946.8	2100.2	2143.4	2157.4	2169.9	2169.9	2150.4	2090.4	1953.8	1871.5
57.5°	1748.8	1821.3	1942.6	1985.8	2019.3	2027.7	2027.7	1995.6	1946.8	1815.7	1748.8
60°	*1623.3*	*1686.0*	*1768.3*	*1814.3*	*1839.4*	*1822.7*	*1835.2*	*1826.9*	*1787.8*	*1666.5*	*1610.7*
62.5°	1455.9	1520.1	1610.7	1658.1	1669.3	1652.5	1669.3	1667.9	1614.9	1506.1	1439.2
65°	1336.0	1398.7	1488.0	1549.3	1567.5	1563.3	1574.4	1557.7	1492.2	1389.0	1324.8
67.5°	1193.7	1260.7	1363.9	1432.2	1469.9	1474.0	1489.4	1454.5	1387.6	1274.6	1193.7
70°	1058.5	1115.6	1195.1	1259.3	1312.3	1338.8	1341.6	1291.4	1207.7	1114.2	1055.7
72.5°	916.2	974.8	1071.0	1140.7	1207.7	1238.4	1238.4	1177.0	1086.4	983.2	920.4
75°	743.3	797.7	885.5	960.8	1037.5	1076.6	1075.2	1022.2	921.8	824.2	758.6
77.5°	503.4	543.9	599.7	656.8	668.0	698.7	714.0	647.1	591.3	538.3	479.7
80°	292.9	318.0	348.6	380.7	387.7	397.4	372.3	347.2	318.0	283.1	256.6
82.5°	171.5	188.3	203.6	228.7	232.9	235.7	213.4	202.2	178.5	157.6	140.8
85°	83.7	89.3	103.2	115.7	110.2	107.4	97.6	86.5	76.7	68.3	60.0
87.5°	16.7	16.7	25.1	23.7	19.5	16.7	9.8	12.6	2.8	2.8	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

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

Scaled Data Report

REPORT NUMBER: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1
2.5°	2864.4	2888.1	2917.4	2956.4	3001.1	3048.5	3094.5	3129.4	3164.2	3215.8	3207.5
5°	2718.0	2758.4	2804.4	2864.4	2936.9	3019.2	3111.2	3203.3	3302.3	3386.0	3422.2
7.5°	2632.9	2677.5	2731.9	2810.0	2903.4	3003.9	3133.6	3282.8	3443.1	3553.3	3621.6
10°	2632.9	2690.1	2761.2	2836.5	2918.8	3022.0	3182.4	3369.2	3575.6	3720.7	3800.1
12.5°	2784.9	2842.1	2857.4	2854.6	2900.7	3015.0	3221.4	3459.9	3706.7	3860.1	3957.7
15°	3022.0	3041.5	2925.8	2819.8	2826.7	2964.8	3239.5	3532.4	3819.7	4003.7	4109.7
17.5°	3181.0	3129.4	2923.0	2737.5	2698.5	2879.7	3239.5	3602.1	3939.6	4147.4	4246.4
20°	3193.5	3065.2	2851.9	2658.0	2557.6	2766.8	3217.2	3655.1	4055.3	4285.4	4391.4
22.5°	3083.3	2956.4	2776.5	2589.7	2441.9	2630.1	3181.0	3695.6	4154.4	4415.1	4546.2
25°	2957.8	2851.9	2699.8	2519.9	2362.4	2492.1	3147.5	3763.9	4292.4	4590.9	4723.3
27.5°	2835.1	2745.9	2607.8	2461.4	2317.7	2372.1	3126.6	3864.3	4457.0	4840.5	4954.8
30°	2715.2	2634.3	2508.8	2405.6	2294.0	2294.0	3108.4	3980.0	4674.5	5120.8	5235.1
32.5°	2593.9	2517.2	2415.4	2351.2	2280.1	2263.4	3058.2	4088.8	4899.0	5427.6	5544.7
35°	2480.9	2404.2	2326.1	2299.6	2273.1	2239.6	2934.1	4173.9	5118.0	5786.0	5886.4
37.5°	2374.9	2301.0	2242.4	2235.5	2238.3	2175.5	2738.9	4245.0	5391.3	6152.7	6205.7
40°	2282.9	2200.6	2154.6	2153.2	2167.1	2072.3	2492.1	4346.8	5703.7	6463.7	6441.4
42.5°	2200.6	2114.1	2058.4	2070.9	2062.5	1969.1	2250.8	4440.2	5975.6	6755.2	6710.6
45°	2119.7	2036.0	1957.9	1976.1	1966.3	1905.0	2045.8	4508.6	6276.9	7105.2	7110.8
47.5°	2041.6	1959.3	1881.2	1858.9	1857.5	1885.4	1888.2	4530.9	6767.7	7668.6	7541.7
50°	1969.1	1886.8	1805.9	1730.6	1759.9	1846.4	1771.1	4514.2	7502.7	8290.6	7936.4
52.5°	1893.8	1815.7	1726.5	1591.2	1667.9	1752.9	1666.5	4454.2	7951.7	8840.0	8628.1
55°	1807.3	1733.4	1612.1	1447.5	1541.0	1559.1	1559.1	3874.1	8142.8	9383.9	9515.0
57.5°	1691.6	1594.0	1401.5	1269.0	1352.7	1283.0	1444.8	2711.0	7827.6	9212.4	9721.4
60°	*1560.5*	*1455.9*	*1252.3*	*1157.5*	*1182.6*	*1059.9*	*1231.4*	*1700.0*	*6487.4*	*7838.8*	*8720.1*
62.5°	1387.6	1291.4	1122.6	1048.7	997.1	864.6	991.5	1075.2	4447.2	5820.8	6421.9
65°	1271.8	1165.8	1015.2	917.6	811.6	695.9	658.2	705.6	2391.7	3257.7	3663.5
67.5°	1135.2	1030.6	888.3	765.6	680.5	596.9	531.3	514.6	820.0	1085.0	1174.2
70°	1005.5	905.1	786.5	672.2	587.1	504.8	440.7	394.7	379.3	376.5	370.9
72.5°	873.0	779.6	680.5	574.6	481.1	405.8	348.6	295.6	273.3	266.4	259.4
75°	715.4	641.5	542.5	428.1	352.8	283.1	238.5	203.6	184.1	177.1	168.7
77.5°	460.2	426.7	340.3	276.1	213.4	168.7	145.0	122.7	110.2	107.4	100.4
80°	245.4	228.7	188.3	159.0	126.9	103.2	90.6	78.1	71.1	68.3	65.5
82.5°	136.7	124.1	104.6	92.0	73.9	62.8	55.8	50.2	46.0	44.6	43.2
85°	61.4	53.0	41.8	39.0	34.9	32.1	30.7	27.9	26.5	25.1	23.7
87.5°	2.8	5.6	7.0	5.6	5.6	8.4	9.8	9.8	8.4	8.4	7.0
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: P637985
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3054.1	3054.1	3054.1	*3054.1*	3054.1	3054.1	3054.1	3054.1	3054.1	3054.1
2.5°	3259.1	3300.9	3305.1	*3319.0*	3300.9	3296.7	3267.4	3250.7	3235.4	3231.2
5°	3512.9	3596.5	3630.0	*3653.7*	3631.4	3620.2	3556.1	3489.2	3451.5	3433.4
7.5°	3773.6	3899.2	3964.7	*3994.0*	3996.8	3946.6	3836.4	3710.9	3648.1	3624.4
10°	4006.5	4161.3	4247.8	*4303.6*	4284.1	4222.7	4072.1	3901.9	3822.5	3801.5
12.5°	4179.5	4327.3	4394.2	*4430.5*	4429.1	4395.6	4253.4	4069.3	3978.6	3957.7
15°	4291.0	4378.9	4383.1	*4391.4*	4415.1	4459.8	4385.9	4215.7	4115.3	4086.0
17.5°	4378.9	4344.0	4278.5	*4256.2*	4309.2	4433.3	4477.9	4339.8	4231.1	4206.0
20°	4434.7	4259.0	4143.2	*4100.0*	4161.3	4363.5	4533.7	4451.4	4338.4	4306.4
22.5°	4477.9	4179.5	3992.6	*3963.3*	4027.5	4288.2	4590.9	4583.9	4459.8	4415.1
25°	4546.2	4126.5	3886.6	*3865.7*	3925.7	4252.0	4667.6	4763.8	4653.6	4589.5
27.5°	4653.6	4120.9	3832.2	*3825.2*	3907.5	4284.1	4777.7	5027.3	4889.3	4841.9
30°	4802.8	4173.9	3844.8	*3858.7*	3959.1	4399.8	4949.3	5328.6	5190.5	5116.6
32.5°	5017.6	4316.1	4035.8	*4095.8*	4169.7	4585.3	5200.3	5654.9	5550.3	5441.5
35°	5300.7	4706.6	4600.6	*4855.8*	4786.1	4991.1	5502.9	6050.9	5924.0	5829.2
37.5°	5678.6	5507.1	5604.7	*5956.1*	5787.4	5758.1	5872.4	6410.7	6341.0	6246.2
40°	6208.5	6243.4	6423.3	*6884.9*	6640.8	6452.6	6325.7	6681.3	6705.0	6587.8
42.5°	6560.0	6720.3	7154.0	*7678.4*	7342.3	6891.9	6705.0	7027.1	7028.5	6922.5
45°	6691.0	7110.8	8017.3	*8621.1*	8059.1	7142.9	6914.2	7497.1	7483.1	7361.8
47.5°	6643.6	7439.9	8914.0	*9837.1*	8979.5	7321.4	6884.9	8166.5	8279.4	8095.4
50°	6544.6	7770.4	9961.3	*11326.5*	10109.1	7511.0	6840.3	8908.4	9095.2	8953.0
52.5°	6645.0	8138.6	11199.6	*12866.1*	11525.9	7813.7	7141.5	9860.9	9827.4	9655.9
55°	6963.0	8573.7	12704.3	*14800.3*	13082.3	8325.5	7915.5	10768.7	10428.4	10223.4
57.5°	6947.6	8884.7	14023.6	*16330.2*	14436.4	8745.2	8184.6	10864.9	10177.4	9918.0
60°	*6306.1*	*8742.4*	*14525.6*	*17298.0*	*14845.0*	*8513.7*	*7299.1*	*9704.7*	*8587.6*	*8315.7*
62.5°	4706.6	7757.9	13552.2	*16086.1*	13688.9	7353.5	5488.9	6965.8	6170.9	5712.1
65°	3010.8	6069.1	11393.5	*13032.1*	11283.3	5624.2	3268.8	3734.6	2925.8	2794.7
67.5°	1281.6	4284.1	8856.8	*8710.3*	8441.2	3644.0	1262.1	1051.5	783.7	769.8
70°	423.9	2914.6	5459.7	*5809.7*	5041.3	2510.2	417.0	352.8	351.4	338.9
72.5°	277.5	1564.7	3073.6	*3422.2*	3243.7	1444.8	252.4	235.7	241.3	235.7
75°	166.0	340.3	517.4	*672.2*	517.4	242.7	152.0	149.2	152.0	145.0
77.5°	97.6	94.8	92.0	*92.0*	90.6	83.7	76.7	73.9	75.3	76.7
80°	62.8	60.0	57.2	*55.8*	48.8	46.0	43.2	40.4	40.4	41.8
82.5°	40.4	37.7	34.9	*30.7*	25.1	20.9	19.5	16.7	16.7	18.1
85°	20.9	16.7	12.6	*9.8*	5.6	2.8	0.0	0.0	0.0	0.0
87.5°	4.2	0.0	0.0	*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

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.

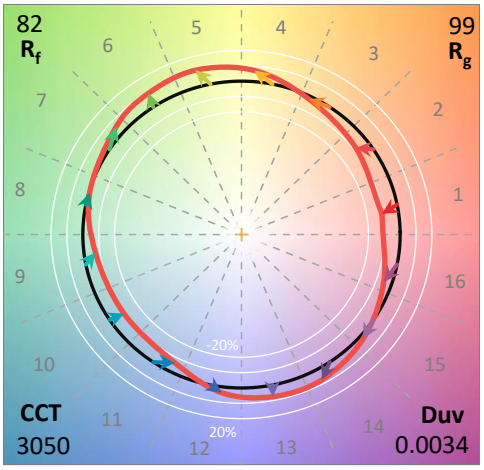
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

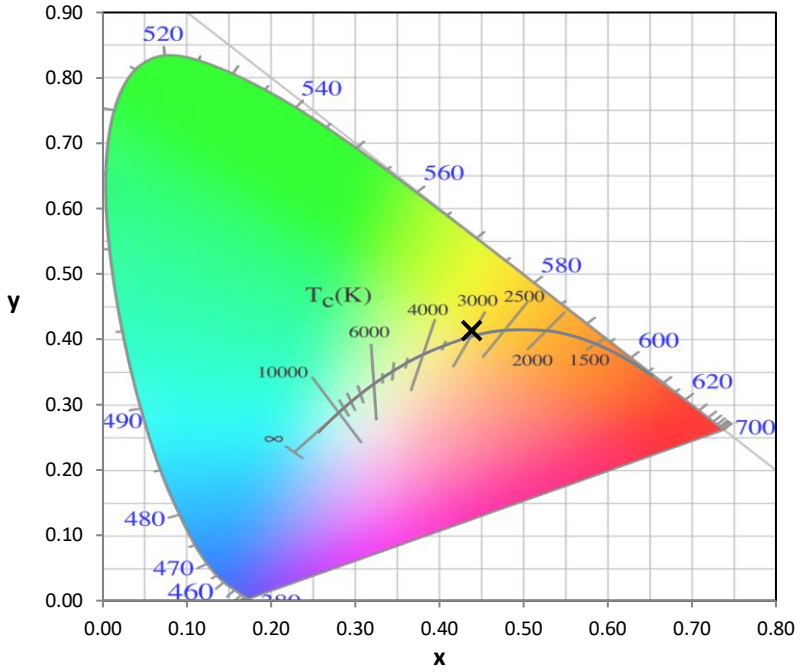
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

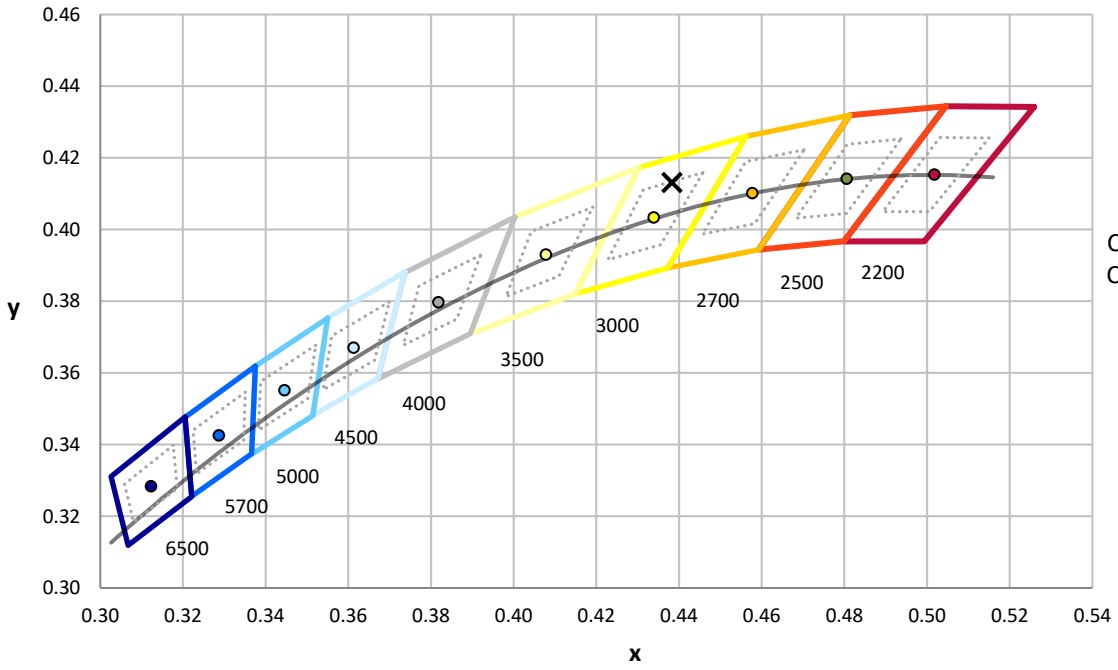
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

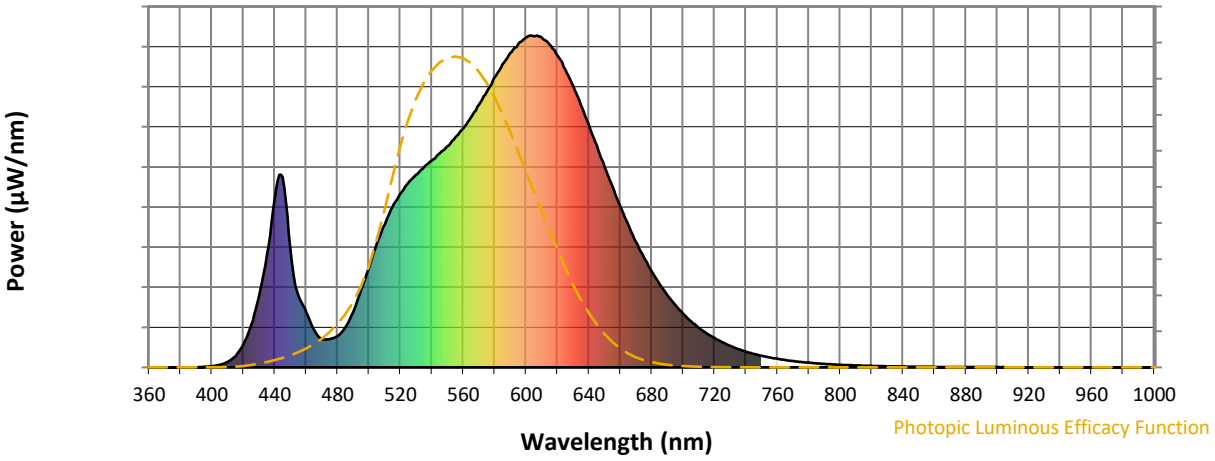


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

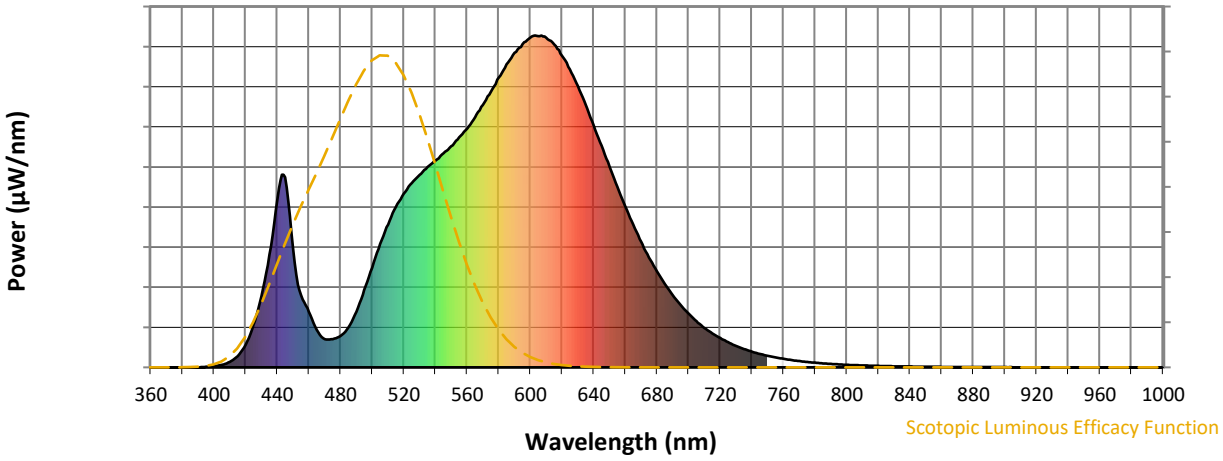


Photopic Lumens: NR

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

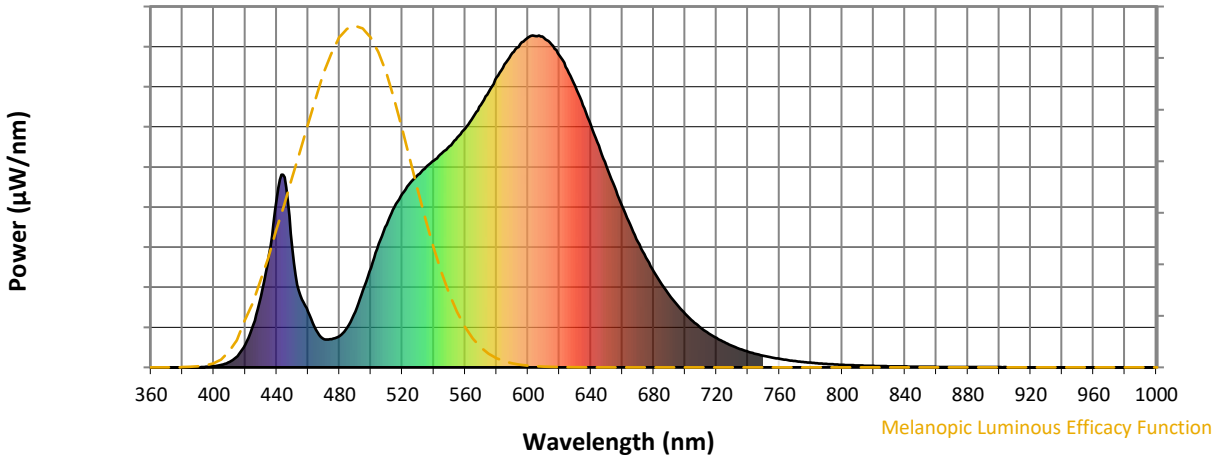


Scotopic Lumens: NR **S/P: 1.27**

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			

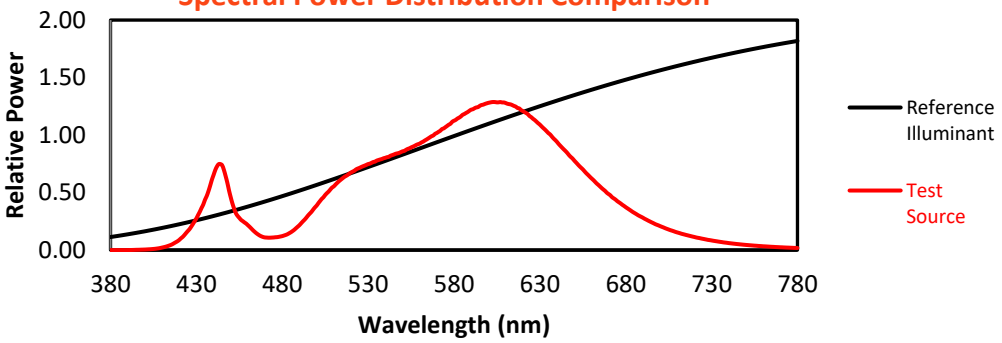
REPORT NUMBER: SP1-2408-195-9

TM-30-18

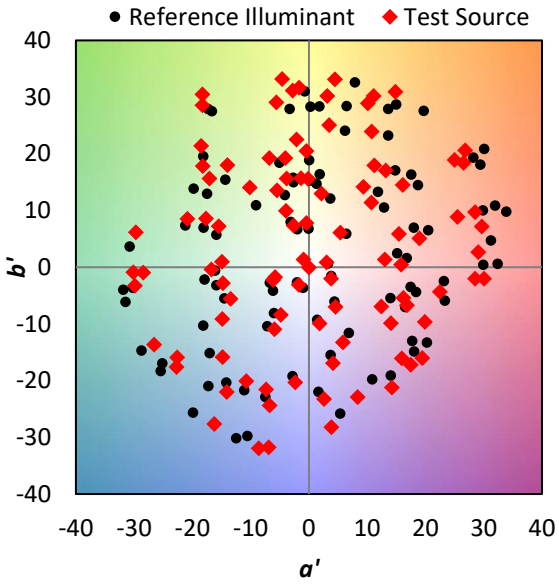
Summary

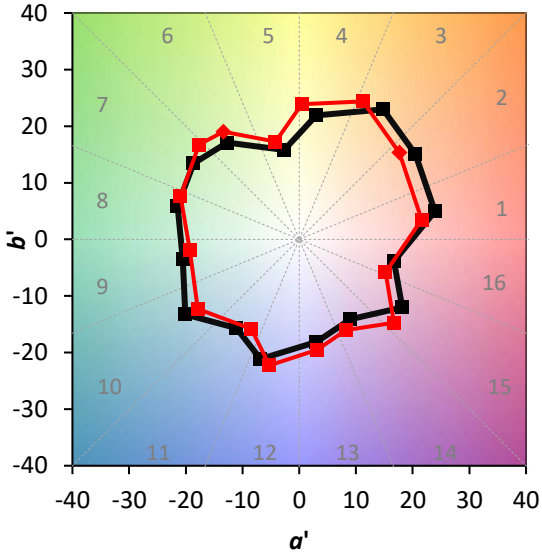
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

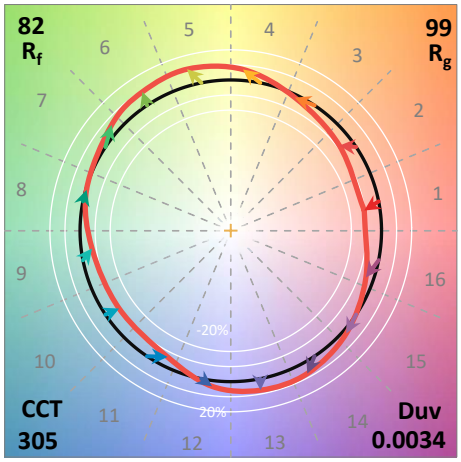
Spectral Power Distribution Comparison

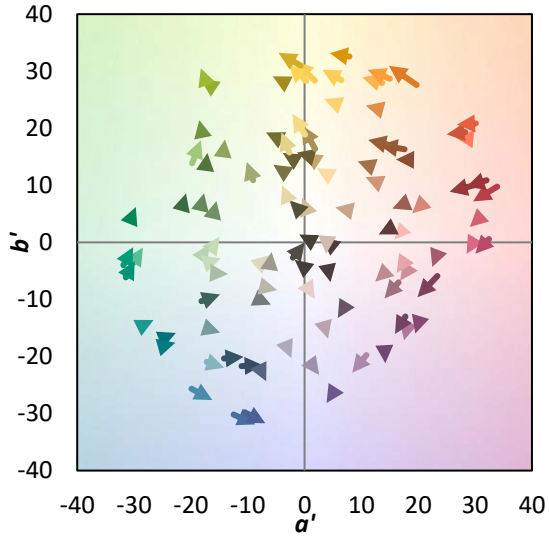


Color Vector Graphics







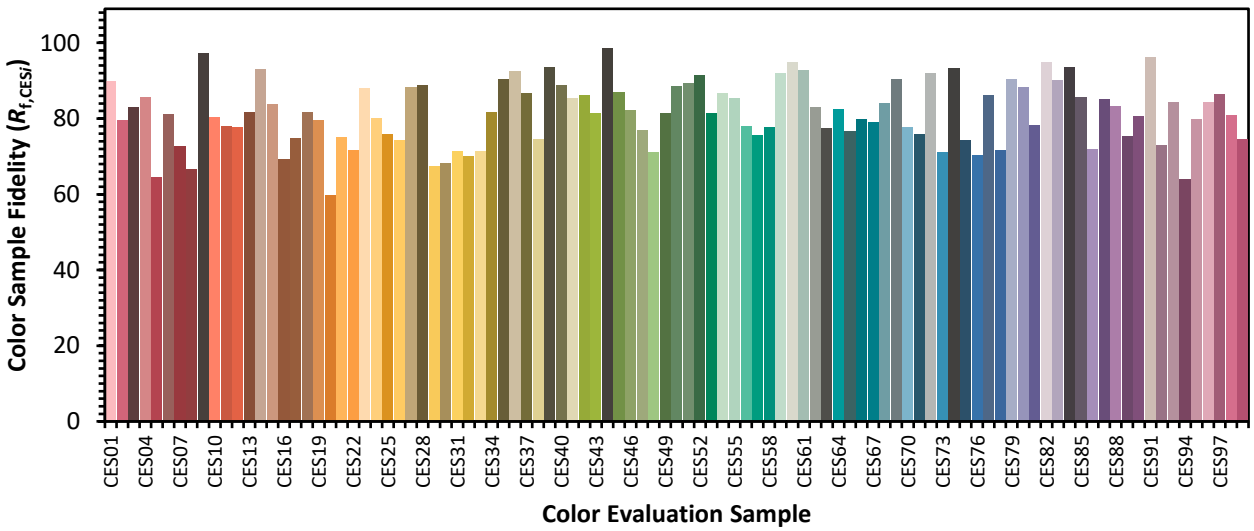


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

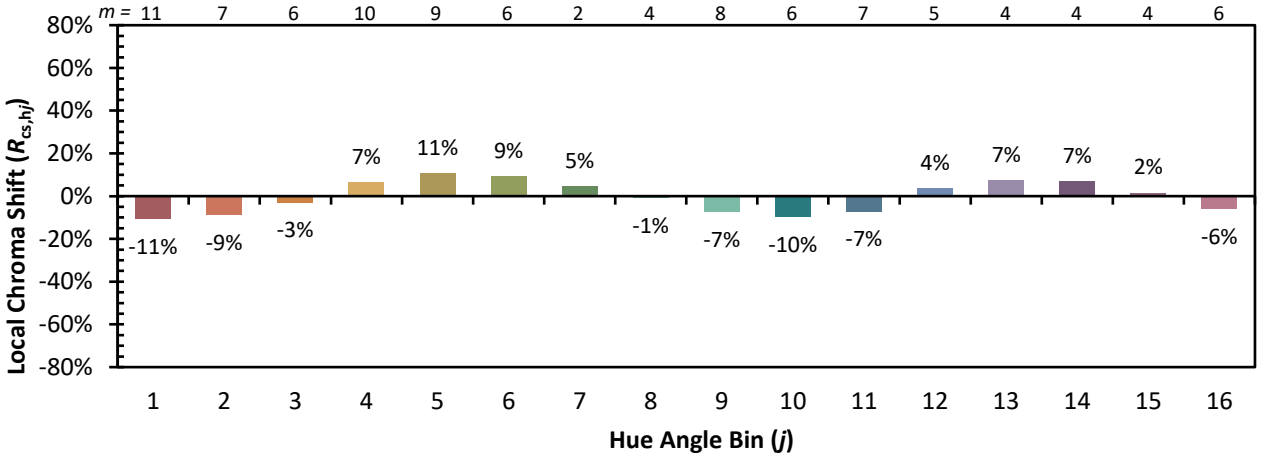
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

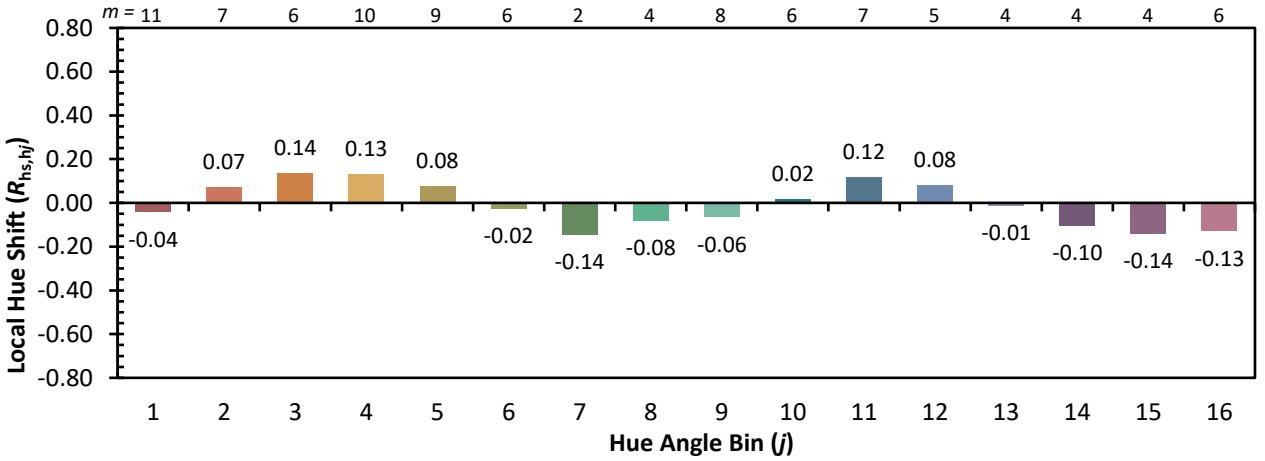


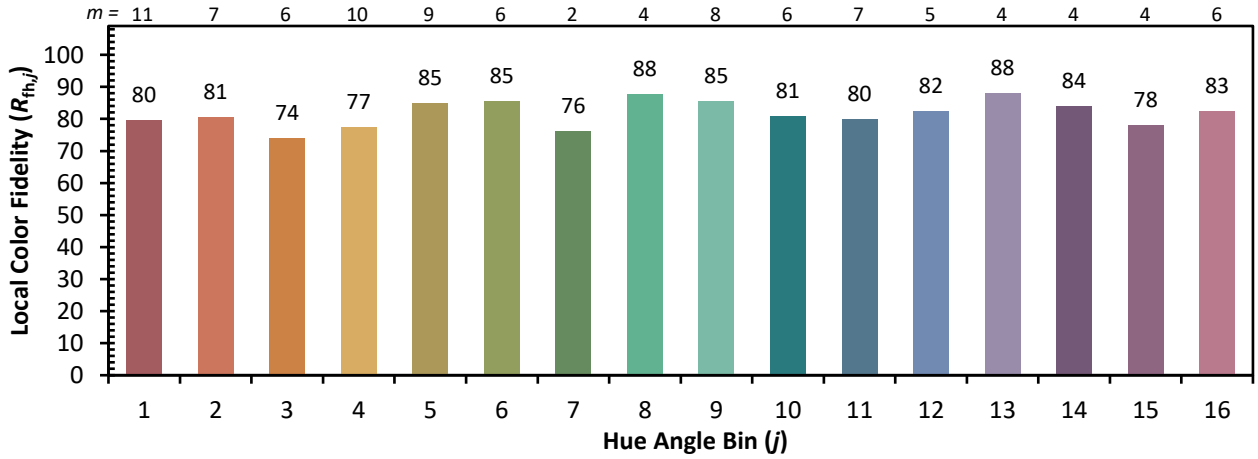
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



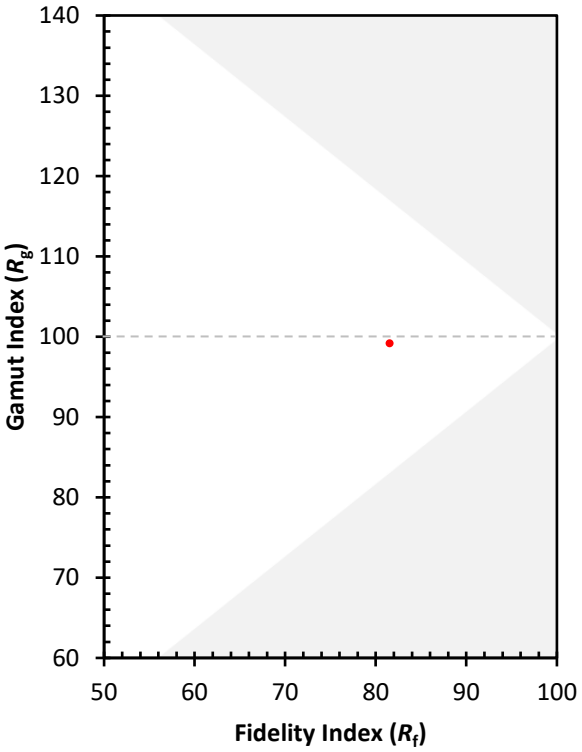


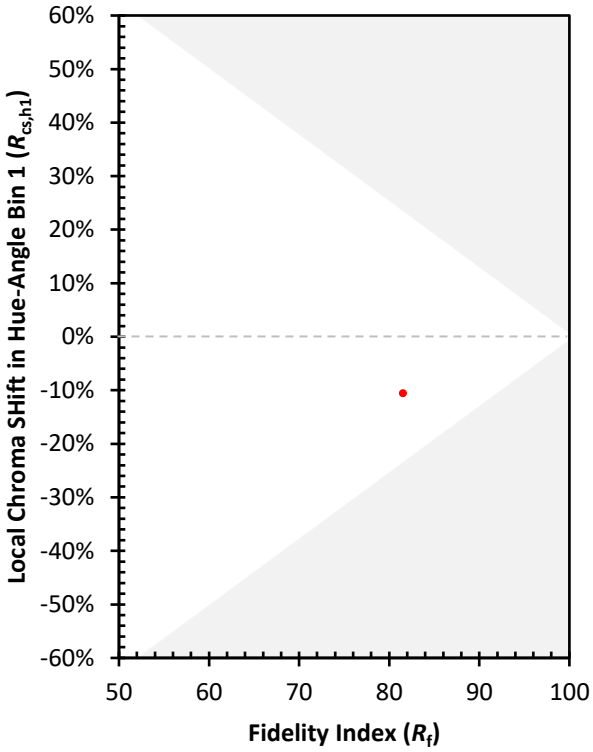


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)