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: P640954

Luminaire Tested: GWS-SA5E-830-U-SLL-W-GRSBK

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:	P640954
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5E-830-U-SLL-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15991.1 lumens
Efficiency:	N/A
Efficacy:	59.3 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G2

Input Watts (W):	269.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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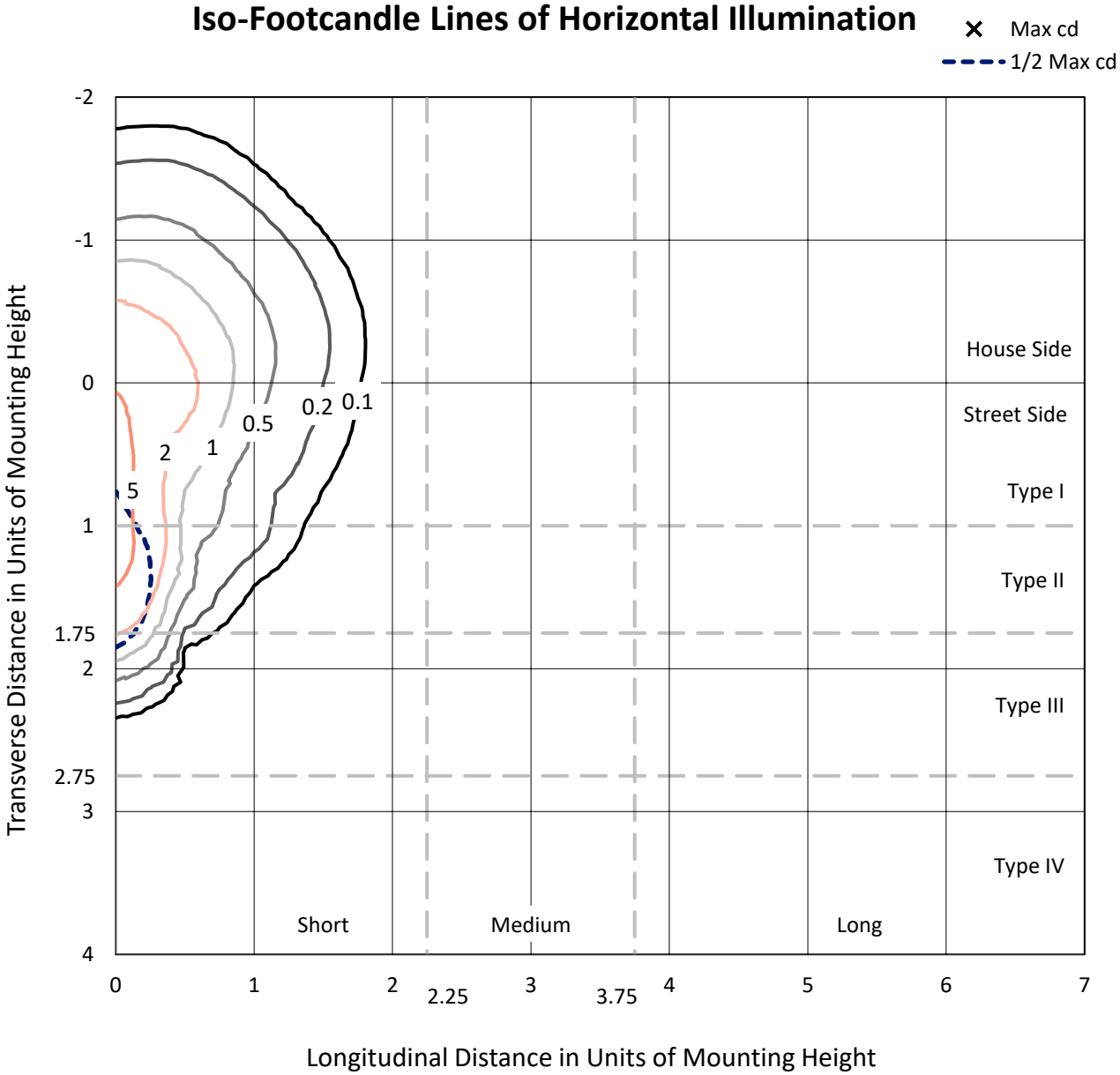
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type III - Short - N/A

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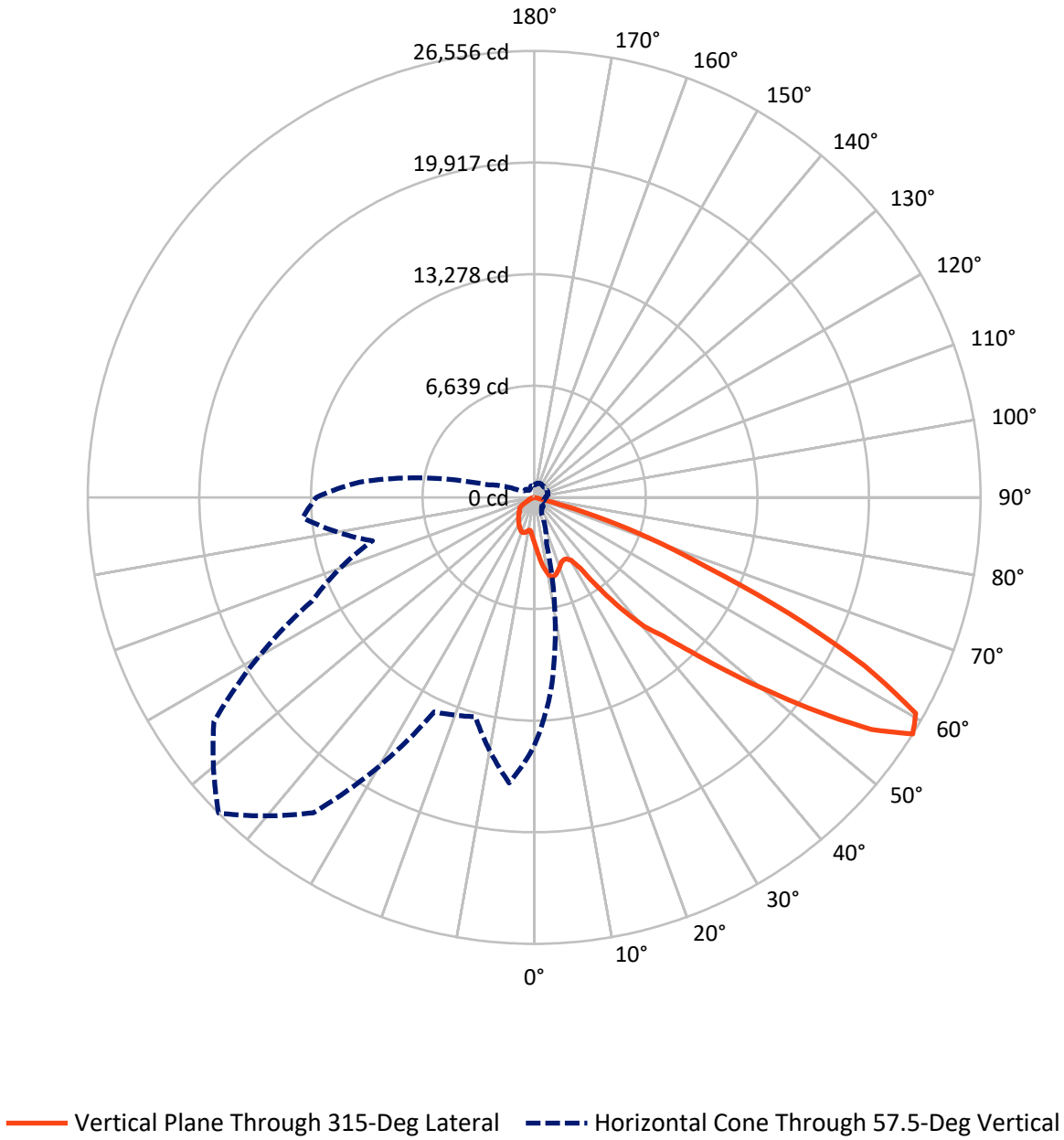
Luminous Intensity Polar Plot



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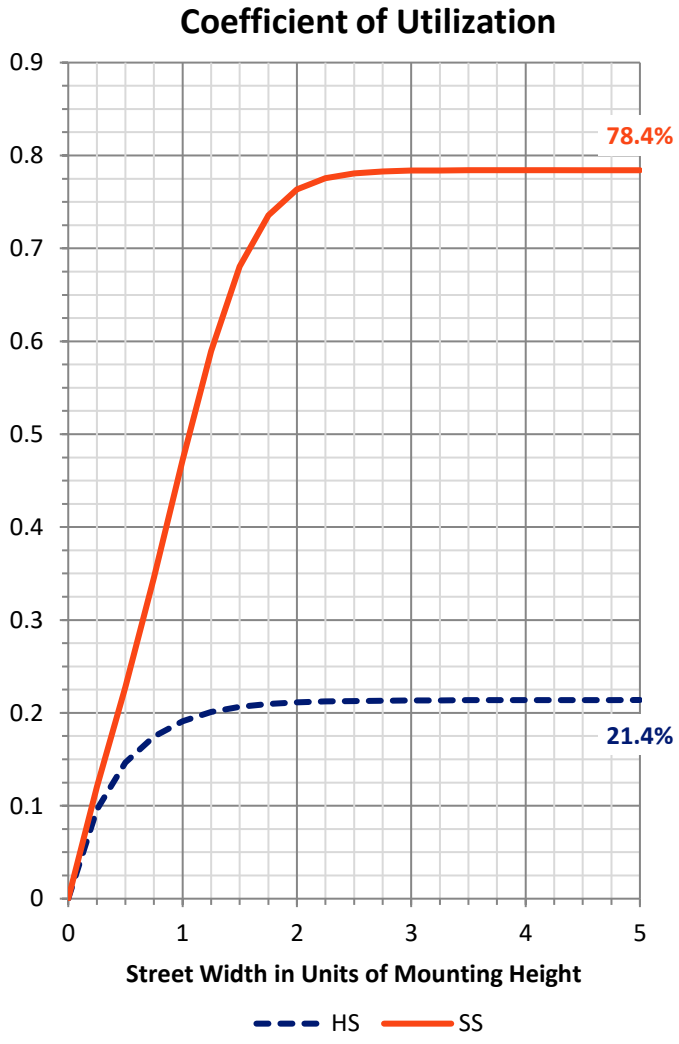
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3445.0	0.0	3445.0
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	12546.1	0.0	12546.1
	% Fixture	78.5	0.0	78.5
Total	Lumens	15991.1	0.0	15991.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.6	1.7
10°-20°	883.7	5.5
20°-30°	1434.1	9.0
30°-40°	2201.0	13.8
40°-50°	3515.2	22.0
50°-60°	4921.9	30.8
60°-70°	2523.6	15.8
70°-80°	243.0	1.5
80°-90°	0.0	0.0
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°	15991.1	100.0
0°-180°	15991.1	100.0



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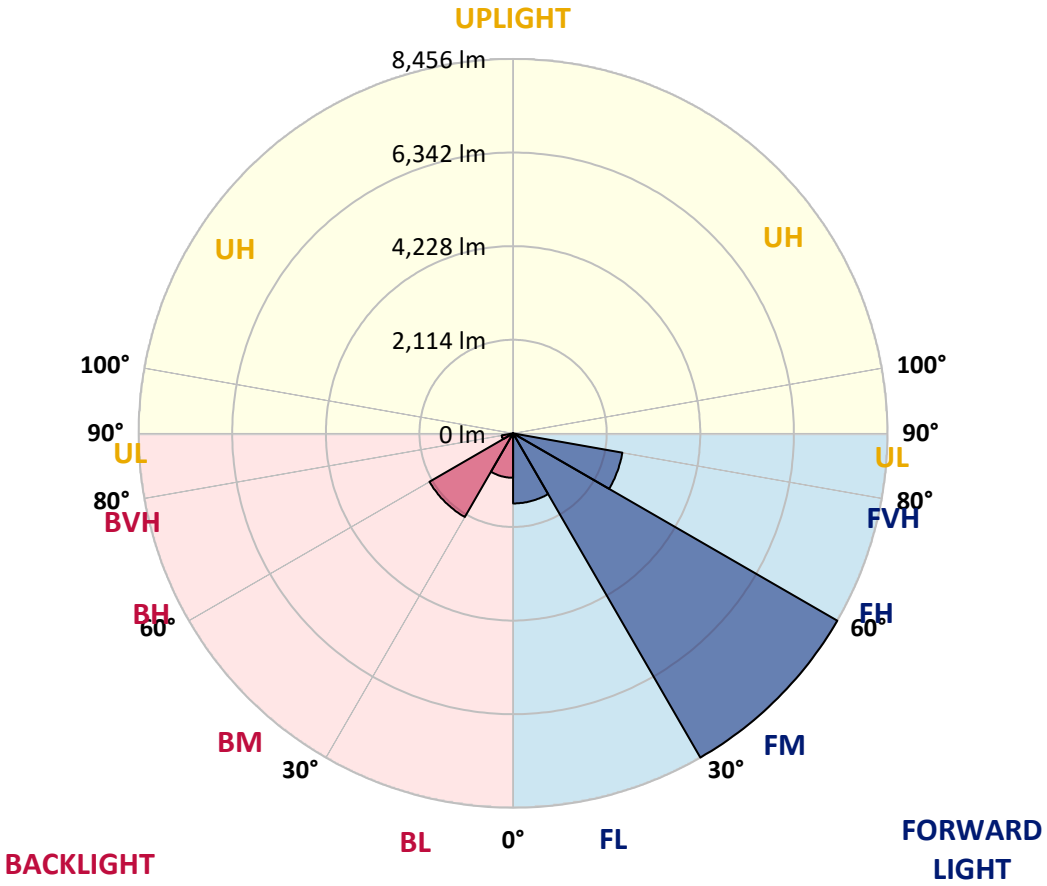
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1583.2	9.9			
FM	(30°-60°)	8456.5	52.9			
FH	(60°-80°)	2506.4	15.7			G2/5000
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	1003.1	6.3	B3/2500		
BM	(30°-60°)	2181.7	13.6	B2/2500		
BH	(60°-80°)	260.2	1.6	B1/500		G1/500
BVH	(80°-90°)	0.0	0.0			G0/10
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



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1
2.5°	3018.6	3012.1	2990.8	2918.1	2873.2	2802.6	2751.3	2685.1	2612.4	2567.5	2522.6
5°	3339.2	3322.1	3264.4	3097.7	2969.4	2830.4	2719.3	2597.4	2467.0	2381.5	2302.4
7.5°	3647.1	3621.4	3544.4	3262.3	3067.7	2868.9	2710.7	2533.3	2349.4	2221.2	2122.8
10°	3948.5	3890.8	3768.9	3422.6	3159.6	2920.2	2734.2	2531.1	2315.2	2152.7	2043.7
12.5°	4196.5	4153.7	3987.0	3574.4	3236.6	2930.9	2702.2	2514.0	2368.7	2259.6	2159.2
15°	4410.3	4363.2	4205.0	3711.2	3302.9	2888.1	2567.5	2402.9	2426.4	2469.1	2383.6
17.5°	4606.9	4557.8	4386.7	3824.5	3328.5	2783.4	2379.4	2300.3	2430.7	2591.0	2558.9
20°	4810.0	4754.4	4544.9	3916.4	3320.0	2618.8	2189.1	2212.6	2396.5	2580.3	2597.4
22.5°	5047.3	4989.6	4745.9	4034.0	3313.6	2422.1	2024.5	2135.6	2332.3	2488.4	2518.3
25°	5361.6	5293.2	5025.9	4207.2	3330.7	2242.5	1906.9	2060.8	2223.3	2364.4	2381.5
27.5°	5776.3	5688.6	5348.7	4420.9	3367.0	2101.4	1855.6	1958.2	2084.3	2210.5	2225.4
30°	6317.2	6206.0	5718.6	4606.9	3349.9	2003.1	1821.4	1855.6	1930.4	2033.0	2035.2
32.5°	6949.9	6798.2	6133.3	4767.3	3202.4	1930.4	1774.4	1750.8	1767.9	1847.0	1862.0
35°	7693.9	7497.2	6590.8	4919.0	2933.0	1789.3	1688.9	1609.8	1603.3	1641.8	1678.2
37.5°	8546.9	8311.7	7168.0	5113.6	2614.5	1641.8	1562.7	1483.6	1449.4	1468.7	1524.2
40°	9333.6	9072.8	7770.8	5348.7	2289.6	1509.3	1415.2	1334.0	1293.4	1299.8	1368.2
42.5°	10257.1	9987.7	8508.4	5656.6	2020.2	1419.5	1261.3	1177.9	1124.5	1154.4	1233.5
45°	11659.5	11353.8	9583.7	5923.8	1806.4	1398.1	1126.6	1009.0	983.4	1034.7	1128.8
47.5°	13574.9	13200.8	11060.9	6086.3	1624.7	1417.4	1032.6	872.2	878.6	936.3	1030.4
50°	15475.4	15071.4	12769.0	5872.5	1475.1	1378.9	985.5	765.3	805.9	857.3	942.8
52.5°	16781.6	16255.7	13600.6	5254.7	1338.3	1233.5	981.2	664.9	741.8	758.9	831.6
55°	16832.9	16185.2	13175.2	4143.0	1152.3	1041.1	936.3	581.5	671.3	677.7	739.7
57.5°	*14755.0*	*14169.2*	*11514.1*	*2845.4*	*1024.0*	*763.2*	*746.1*	*508.8*	*551.5*	*605.0*	*643.5*
60°	11225.5	10727.4	8611.0	1304.0	778.2	485.3	510.9	438.2	412.6	491.7	530.2
62.5°	6875.1	6556.6	5164.9	577.2	496.0	258.7	310.0	348.5	310.0	339.9	372.0
65°	2730.0	2588.9	1960.3	245.8	203.1	130.4	141.1	203.1	218.1	239.4	269.4
67.5°	474.6	448.9	329.2	109.0	83.4	79.1	68.4	94.1	132.5	147.5	171.0
70°	62.0	59.9	53.4	44.9	42.8	38.5	29.9	59.9	89.8	94.1	109.0
72.5°	15.0	12.8	12.8	10.7	12.8	4.3	4.3	32.1	64.1	66.3	77.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	40.6	44.9	53.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1
2.5°	2486.2	2443.5	2428.5	2407.1	2379.4	2387.9	2349.4	2336.6	2355.8	2381.5	2375.1
5°	2259.6	2212.6	2180.5	2131.4	2122.8	2103.6	2090.8	2073.7	2095.0	2125.0	2131.4
7.5°	2080.1	2039.4	2007.4	1992.4	1981.7	1973.2	1947.5	1934.7	1934.7	1947.5	1958.2
10°	2003.1	1973.2	1966.8	1971.0	1988.1	1986.0	1962.5	1945.4	1924.0	1913.3	1926.1
12.5°	2110.0	2060.8	2052.3	2054.4	2075.8	2073.7	2048.0	2026.6	2022.3	2026.6	2067.2
15°	2291.7	2216.9	2161.3	2150.6	2161.3	2157.0	2137.8	2125.0	2131.4	2193.4	2261.8
17.5°	2454.2	2338.7	2238.3	2199.8	2197.6	2191.2	2172.0	2167.7	2199.8	2315.2	2415.7
20°	2501.2	2387.9	2244.7	2195.5	2184.8	2178.4	2157.0	2163.4	2204.1	2343.0	2428.5
22.5°	2439.2	2330.2	2180.5	2131.4	2122.8	2120.7	2099.3	2107.9	2142.1	2263.9	2334.5
25°	2321.6	2229.7	2073.7	2030.9	2030.9	2026.6	2007.4	2011.7	2033.0	2139.9	2208.3
27.5°	2178.4	2090.8	1960.3	1917.6	1924.0	1930.4	1906.9	1900.5	1917.6	2018.1	2058.7
30°	2013.8	1951.8	1849.2	1810.7	1808.6	1834.2	1802.2	1793.6	1817.1	1896.2	1904.8
32.5°	1853.5	1823.5	1750.8	1720.9	1723.1	1727.3	1710.2	1710.2	1731.6	1774.4	1772.2
35°	1697.4	1678.2	1665.3	1644.0	1641.8	1633.3	1633.3	1637.5	1661.1	1676.0	1648.2
37.5°	1547.8	1567.0	1582.0	1560.6	1543.5	1543.5	1543.5	1562.7	1584.1	1577.7	1530.7
40°	1415.2	1455.8	1502.9	1479.3	1438.7	1436.6	1445.1	1477.2	1509.3	1470.8	1428.0
42.5°	1301.9	1353.2	1419.5	1406.7	1361.8	1355.4	1361.8	1402.4	1428.0	1378.9	1331.8
45°	1190.7	1254.9	1334.0	1334.0	1284.8	1278.4	1280.5	1334.0	1348.9	1291.2	1231.4
47.5°	1096.7	1167.2	1250.6	1250.6	1210.0	1197.2	1207.8	1263.4	1274.1	1192.9	1137.3
50°	1006.9	1083.9	1175.8	1169.4	1141.6	1130.9	1150.1	1210.0	1197.2	1107.4	1049.7
52.5°	893.6	974.8	1101.0	1107.4	1092.4	1094.5	1118.1	1156.5	1120.2	1011.2	962.0
55°	791.0	874.4	1000.5	1034.7	1034.7	1032.6	1043.2	1073.2	1043.2	912.8	853.0
57.5°	*679.8*	*750.4*	*855.1*	*863.7*	*870.1*	*846.6*	*861.5*	*902.1*	*887.2*	*776.0*	*741.8*
60°	558.0	617.8	677.7	684.1	656.3	607.1	634.9	682.0	692.6	609.3	570.8
62.5°	395.5	453.2	523.8	523.8	496.0	446.8	483.1	523.8	508.8	423.3	399.8
65°	295.0	348.5	401.9	425.4	401.9	367.7	395.5	425.4	401.9	331.4	297.2
67.5°	190.3	226.6	258.7	277.9	282.2	277.9	290.7	282.2	254.4	207.4	188.1
70°	115.4	134.7	151.8	168.9	181.7	188.1	194.5	175.3	147.5	121.9	115.4
72.5°	83.4	100.5	115.4	128.3	143.2	147.5	147.5	134.7	109.0	85.5	79.1
75°	57.7	72.7	85.5	94.1	106.9	111.2	111.2	100.5	81.2	62.0	55.6
77.5°	2.1	15.0	15.0	12.8	17.1	21.4	21.4	25.7	23.5	17.1	15.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1
2.5°	2387.9	2464.9	2486.2	2565.3	2635.9	2706.4	2791.9	2843.3	2920.2	2973.7	3003.6
5°	2152.7	2216.9	2293.8	2411.4	2533.3	2668.0	2830.4	2971.5	3149.0	3279.4	3322.1
7.5°	1981.7	2065.1	2154.9	2302.4	2469.1	2648.7	2877.5	3108.3	3379.8	3557.3	3670.6
10°	1949.7	2035.2	2154.9	2300.3	2475.6	2680.8	2960.8	3260.1	3600.0	3815.9	3944.2
12.5°	2103.6	2195.5	2246.8	2313.1	2445.6	2674.4	3033.5	3414.0	3813.8	4049.0	4185.8
15°	2330.2	2411.4	2328.0	2244.7	2330.2	2606.0	3074.1	3542.3	4001.9	4273.4	4414.5
17.5°	2486.2	2492.7	2310.9	2133.5	2157.0	2482.0	3089.1	3670.6	4202.9	4487.2	4634.7
20°	2471.3	2420.0	2236.1	2039.4	1966.8	2321.6	3072.0	3783.9	4406.0	4703.1	4848.5
22.5°	2355.8	2296.0	2139.9	1947.5	1806.4	2131.4	3042.1	3886.5	4592.0	4929.7	5066.6
25°	2216.9	2152.7	2024.5	1855.6	1703.8	1947.5	3018.6	4027.6	4827.1	5224.7	5331.6
27.5°	2054.4	1998.8	1889.8	1767.9	1661.1	1808.6	3012.1	4213.6	5111.4	5583.9	5658.7
30°	1896.2	1844.9	1759.4	1688.9	1644.0	1727.3	2990.8	4412.4	5451.4	5996.5	6077.7
32.5°	1744.4	1693.1	1639.7	1629.0	1631.1	1697.4	2918.1	4609.1	5855.4	6595.1	6654.9
35°	1614.0	1554.2	1532.8	1558.4	1605.5	1646.1	2712.8	4771.5	6289.4	7247.1	7296.3
37.5°	1490.0	1430.2	1428.0	1490.0	1541.3	1567.0	2471.3	4931.9	6875.1	7909.8	7971.8
40°	1376.7	1316.9	1338.3	1413.1	1453.7	1466.5	2178.4	5175.6	7495.1	8608.9	8574.7
42.5°	1280.5	1218.5	1231.4	1327.6	1363.9	1398.1	1909.0	5378.7	8091.5	9271.6	9260.9
45°	1186.5	1139.4	1130.9	1235.6	1267.7	1404.5	1712.4	5534.7	8859.0	10116.0	10133.1
47.5°	1094.5	1058.2	1060.3	1105.2	1184.3	1436.6	1545.6	5637.3	9972.8	11454.3	11157.1
50°	1011.2	983.4	1006.9	955.6	1130.9	1396.0	1402.4	5616.0	11217.0	12736.9	12140.5
52.5°	919.2	912.8	923.5	799.5	1045.4	1231.4	1267.7	5331.6	11800.6	13613.4	13273.5
55°	825.2	823.0	737.5	639.2	874.4	983.4	1086.0	4448.7	11781.3	14079.5	14492.0
57.5°	*714.0*	*696.9*	*560.1*	*521.6*	*679.8*	*684.1*	*989.8*	*2913.8*	*10440.9*	*12963.5*	*13818.6*
60°	540.9	528.0	410.5	423.3	474.6	438.2	788.8	1451.6	7802.9	10098.9	11063.0
62.5°	374.1	357.0	305.7	327.1	305.7	250.1	483.1	718.3	4726.6	6377.0	7251.4
65°	273.6	254.4	209.5	179.6	143.2	143.2	183.8	275.8	1829.9	2710.7	3268.7
67.5°	168.9	160.3	124.0	89.8	87.6	94.1	96.2	136.8	295.0	470.3	575.1
70°	109.0	100.5	83.4	57.7	53.4	55.6	57.7	64.1	74.8	81.2	98.3
72.5°	74.8	70.5	59.9	32.1	25.7	27.8	29.9	29.9	36.3	34.2	40.6
75°	53.4	49.2	42.8	15.0	8.6	10.7	12.8	10.7	12.8	8.6	10.7
77.5°	15.0	15.0	10.7	2.1	0.0	2.1	4.3	4.3	2.1	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0

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

Scaled Data Report

REPORT NUMBER: P640954
CATALOG NUMBER: GWS-SA5E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1	2717.1
2.5°	3080.5	3129.7	3149.0	3121.2	3144.7	3106.2	3091.2	3033.5	3029.2	3018.6
5°	3495.3	3606.4	3672.7	3713.3	3666.3	3615.0	3538.0	3405.5	3364.9	3339.2
7.5°	3903.6	4076.8	4190.1	4243.5	4230.7	4125.9	3987.0	3764.6	3685.5	3647.1
10°	4258.5	4470.1	4606.9	4673.2	4645.4	4553.5	4354.7	4076.8	3972.0	3948.5
12.5°	4506.5	4701.0	4795.1	4852.8	4854.9	4818.6	4630.4	4350.4	4226.4	4196.5
15°	4662.5	4745.9	4748.0	4782.2	4842.1	4923.3	4835.7	4587.7	4455.1	4410.3
17.5°	4760.8	4668.9	4574.9	4583.4	4681.7	4897.7	4987.5	4797.2	4656.1	4606.9
20°	4831.4	4540.7	4365.4	4367.5	4468.0	4795.1	5092.2	5000.3	4854.9	4810.0
22.5°	4876.3	4427.4	4177.2	4170.8	4277.7	4673.2	5188.4	5241.8	5098.6	5047.3
25°	4968.2	4373.9	4063.9	4100.3	4194.3	4634.7	5318.8	5562.5	5430.0	5361.6
27.5°	5132.8	4427.4	4053.2	4136.6	4243.5	4748.0	5545.4	5990.1	5853.3	5776.3
30°	5417.1	4628.3	4217.8	4333.3	4461.6	5045.2	5925.9	6586.5	6389.8	6317.2
32.5°	5874.6	5045.2	4726.6	4974.6	5098.6	5532.6	6496.7	7255.6	7095.3	6949.9
35°	6505.3	5996.5	5960.1	6537.3	6507.4	6456.1	7197.9	8076.6	7835.0	7693.9
37.5°	7373.2	7527.1	7796.5	8369.4	8350.2	7959.0	8119.3	8852.6	8728.6	8546.9
40°	8457.1	8784.2	9241.6	10062.6	9806.0	9314.3	9250.2	9647.8	9547.3	9333.6
42.5°	9096.3	9660.7	10532.9	11270.4	11065.2	10205.8	10133.1	10710.3	10490.1	10257.1
45°	9393.4	10374.7	12084.9	13083.2	12461.1	10798.0	10770.2	12095.6	11971.6	11659.5
47.5°	9530.2	11095.1	13902.0	15413.4	14250.5	11317.4	11217.0	14105.1	13942.6	13574.9
50°	9682.0	12089.2	16091.1	18113.5	16411.8	11905.3	11978.0	15977.8	15909.4	15475.4
52.5°	10015.5	13141.0	18786.9	21200.4	19032.7	12826.7	13284.2	17743.6	17281.9	16781.6
55°	10515.8	14286.8	21591.6	24353.6	21707.1	14064.5	14697.3	18682.1	17386.6	16832.9
57.5°	9962.1	14573.3	23252.7	26555.6	22893.5	14068.8	13502.3	17055.2	15291.6	14755.0
60°	7905.5	13557.8	22613.5	26078.8	21882.4	12493.2	10338.3	13316.3	11584.7	11225.5
62.5°	5344.5	11370.9	19907.1	22055.5	18729.1	9827.4	6719.1	8660.2	7172.3	6875.1
65°	2928.8	8482.7	16084.7	16685.4	14658.8	6864.4	3456.8	3758.2	2862.5	2730.0
67.5°	808.1	5904.6	11834.8	11069.5	10284.9	4470.1	893.6	671.3	478.9	474.6
70°	203.1	3905.7	7091.0	7309.1	6306.5	2862.5	171.0	81.2	64.1	62.0
72.5°	85.5	1680.3	3364.9	3867.3	3228.1	1325.4	62.0	23.5	19.2	15.0
75°	10.7	134.7	286.5	434.0	297.2	143.2	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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.

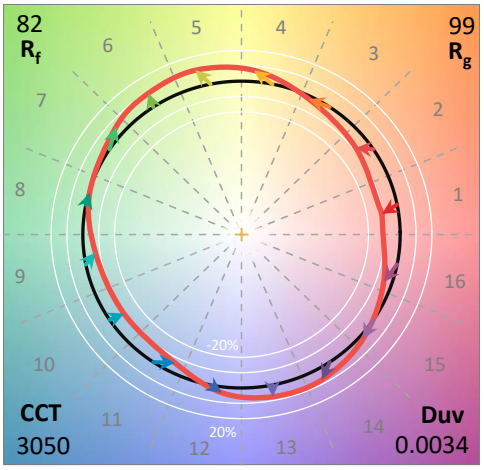
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

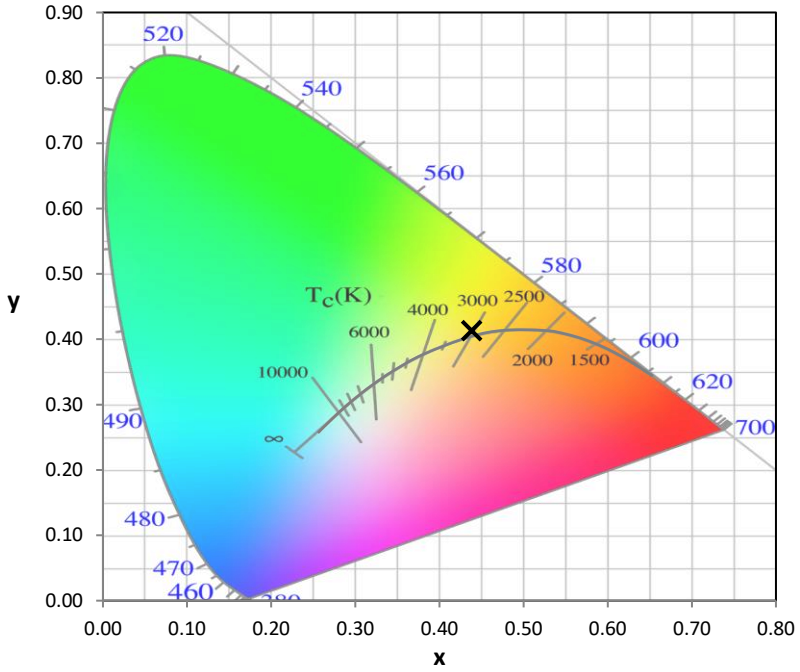
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

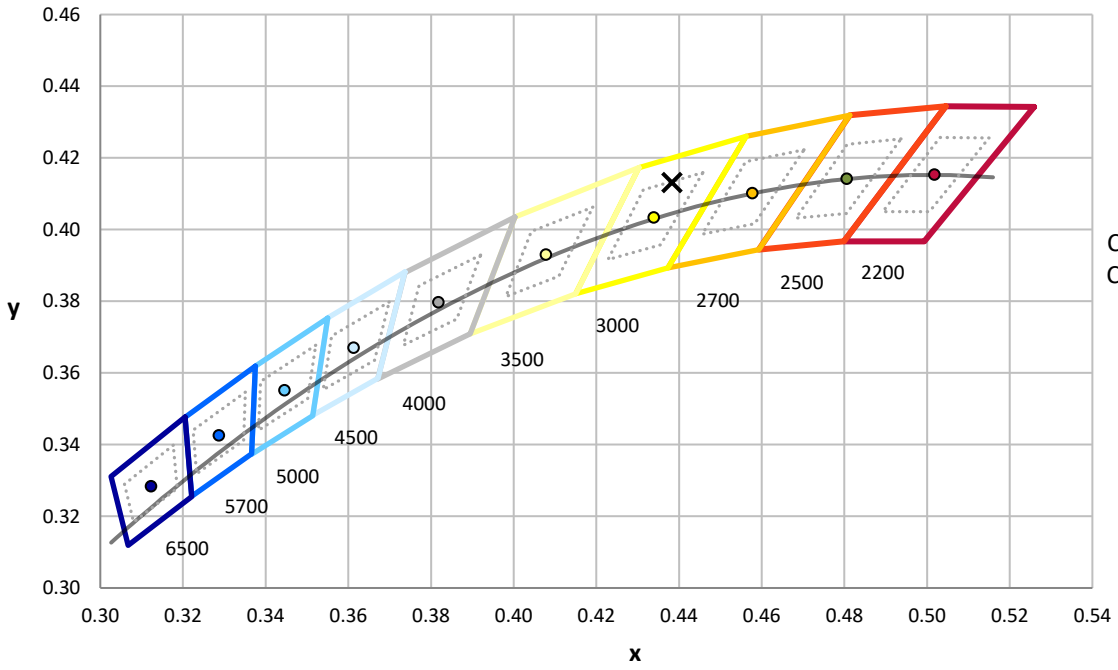
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

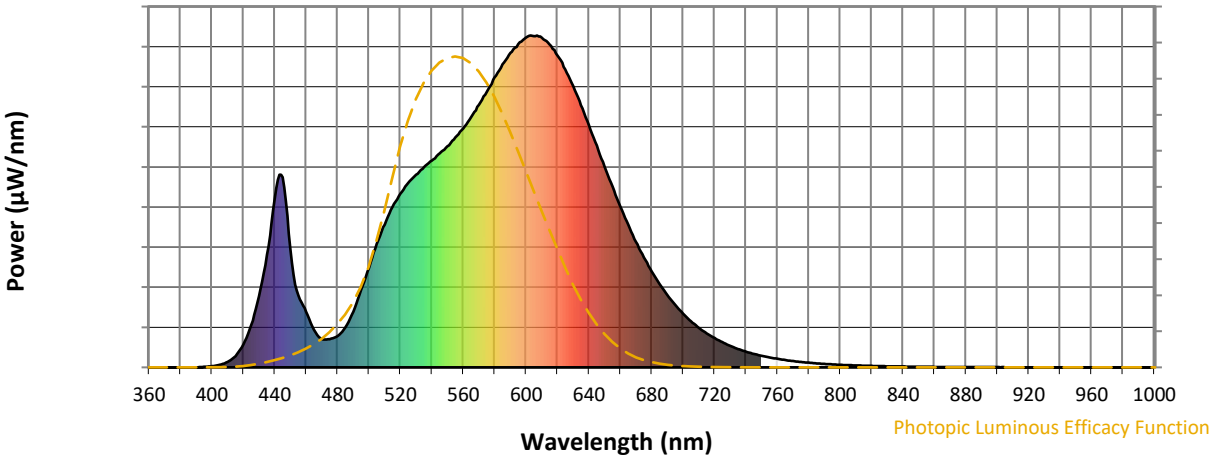


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

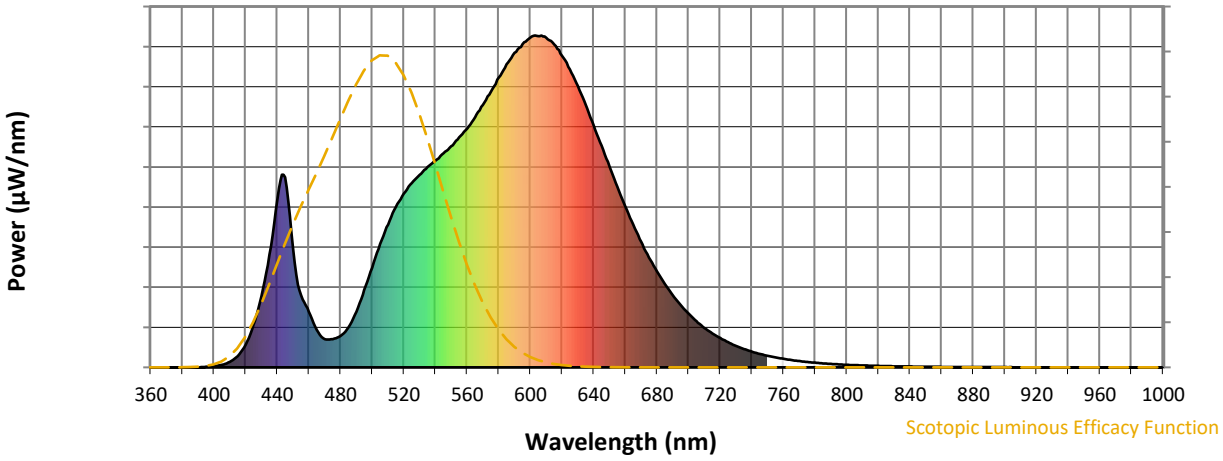


Photopic Lumens: NR

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

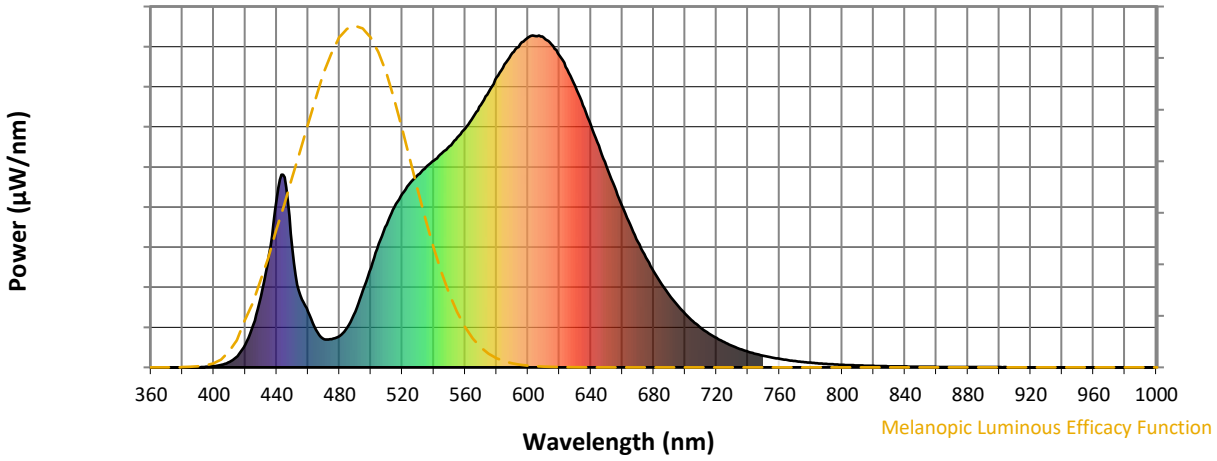


Scotopic Lumens: NR **S/P: 1.27**

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			

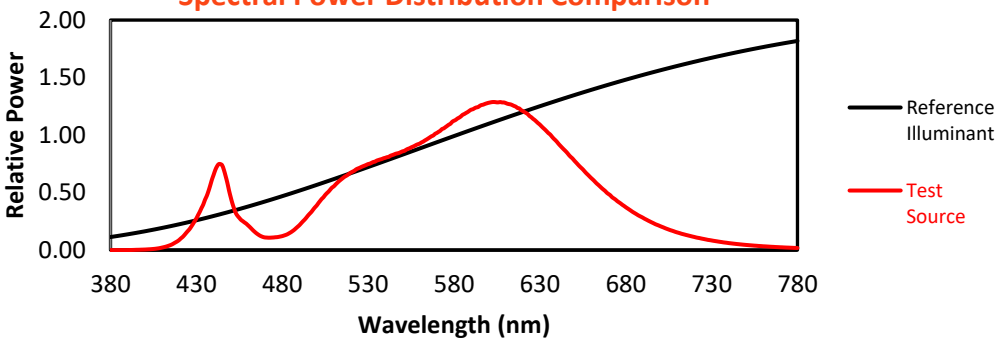
REPORT NUMBER: SP1-2408-195-9

TM-30-18

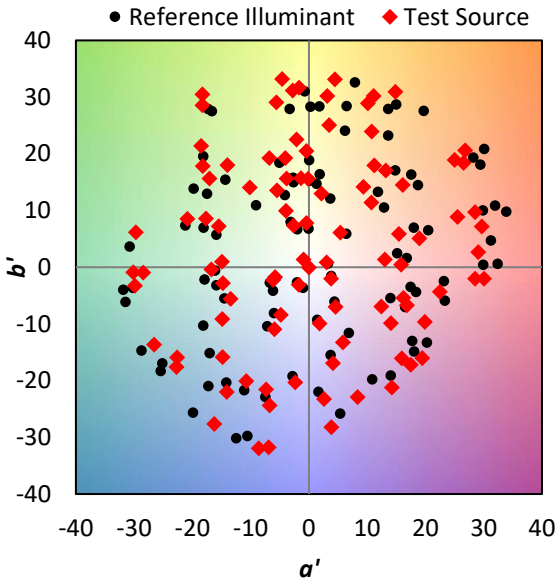
Summary

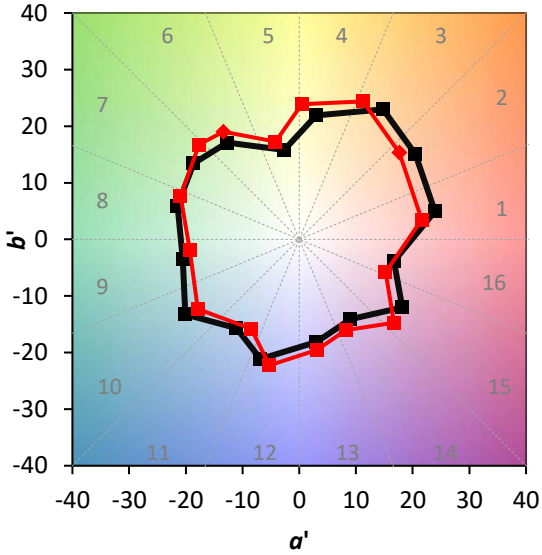
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

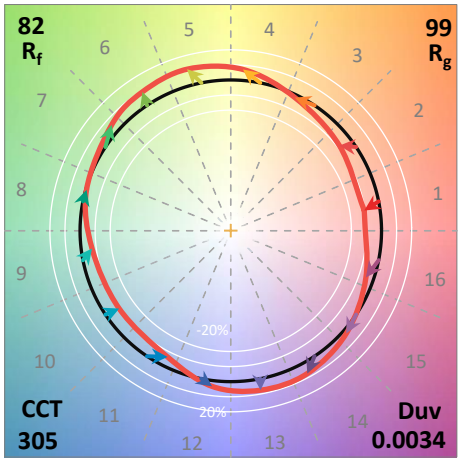
Spectral Power Distribution Comparison

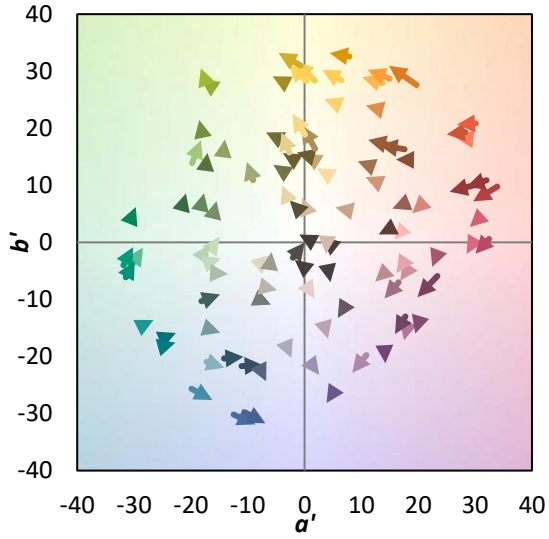


Color Vector Graphics









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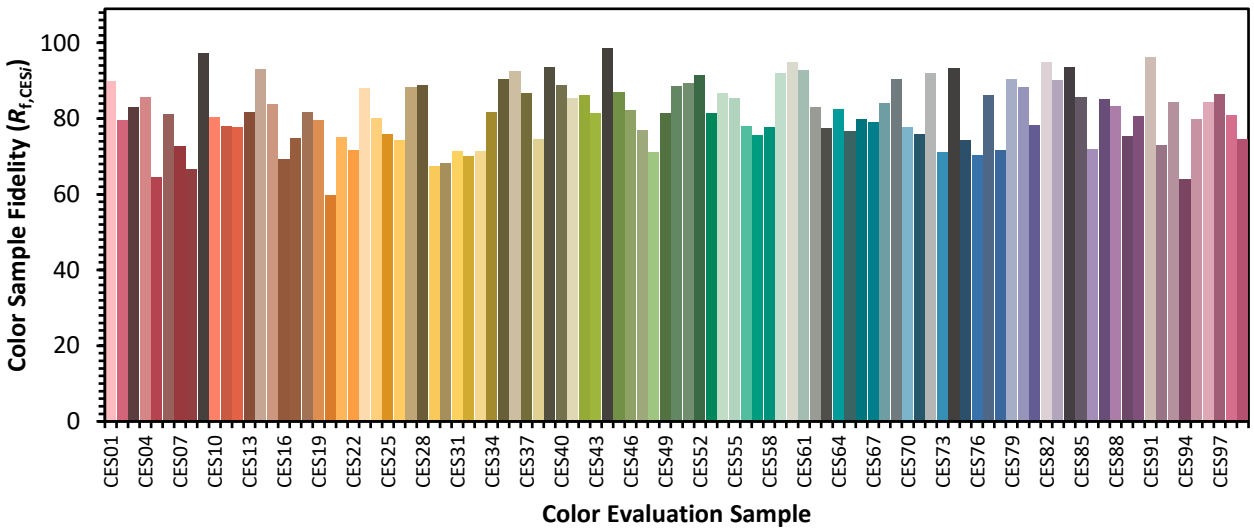
TM-30-18

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	



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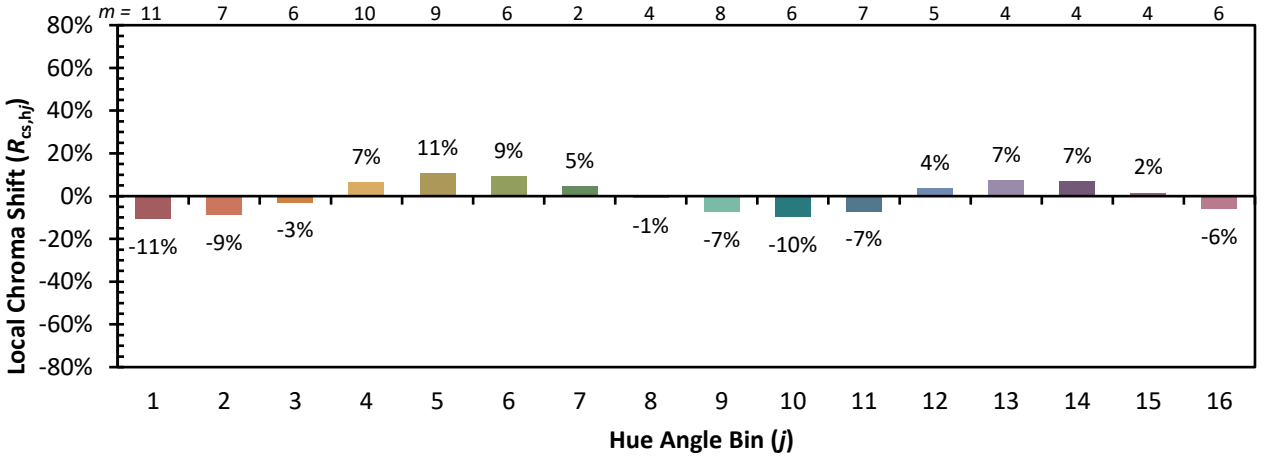
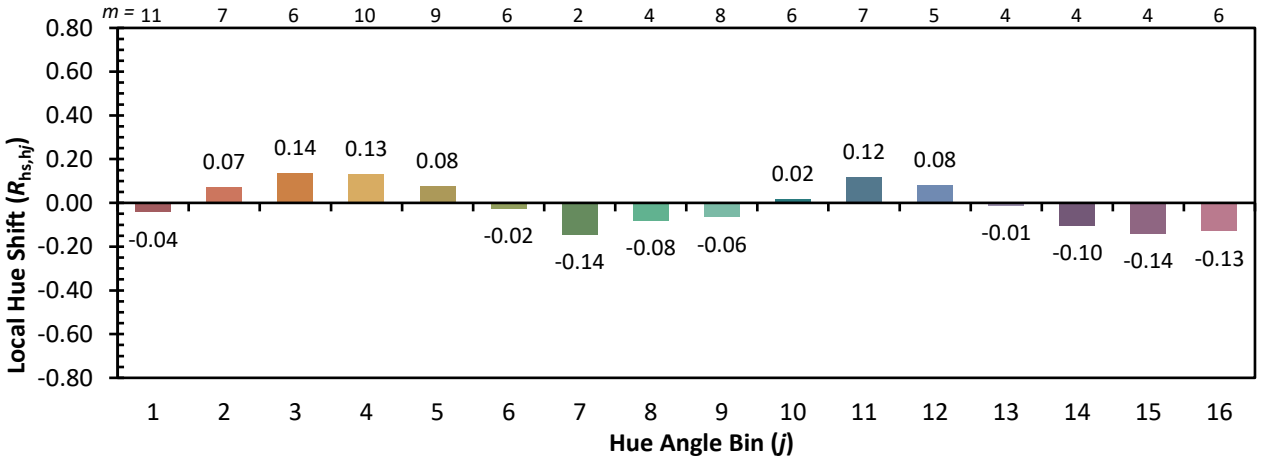
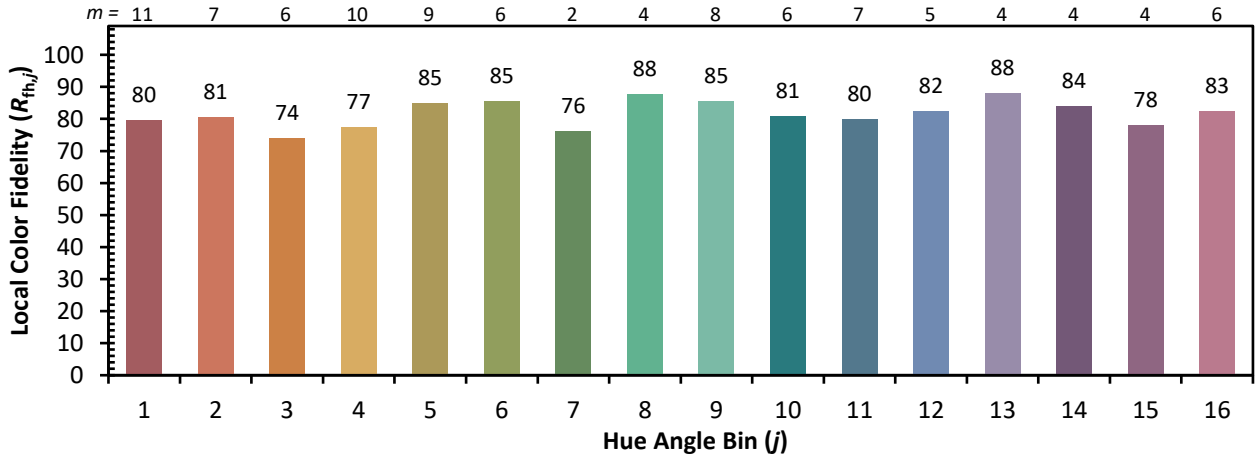
Color Rendition by Hue-Angle Bin







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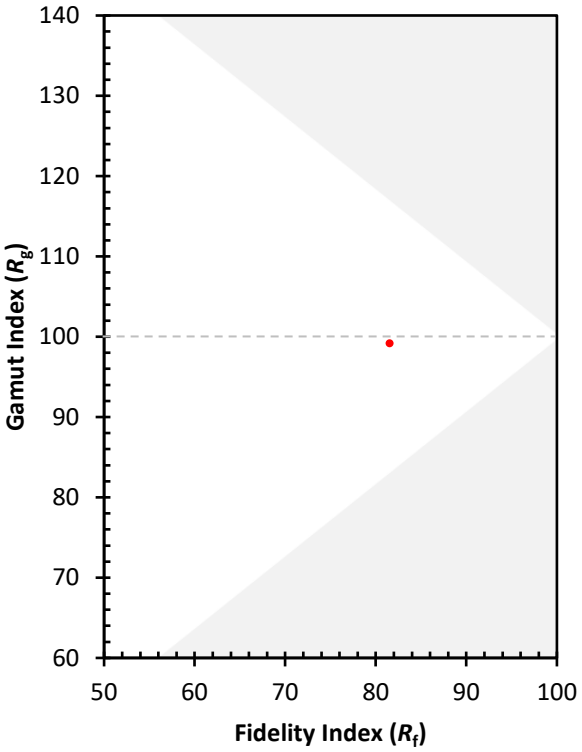
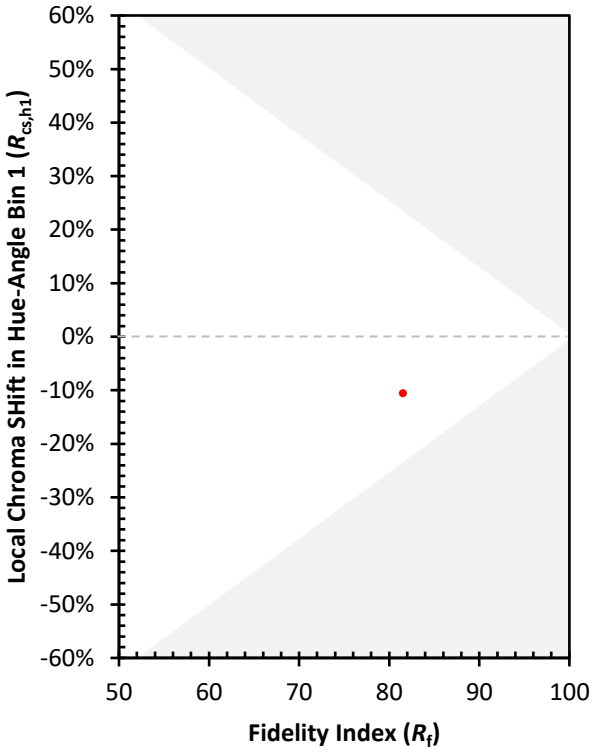
Measure Comparisons





(END OF REPORT)