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: P638974

Luminaire Tested: GWS-SA4F-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:	P638974
	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-SA4F-830-U-SLL-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14493.3 lumens
Efficiency:	N/A
Efficacy:	64.3 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G2
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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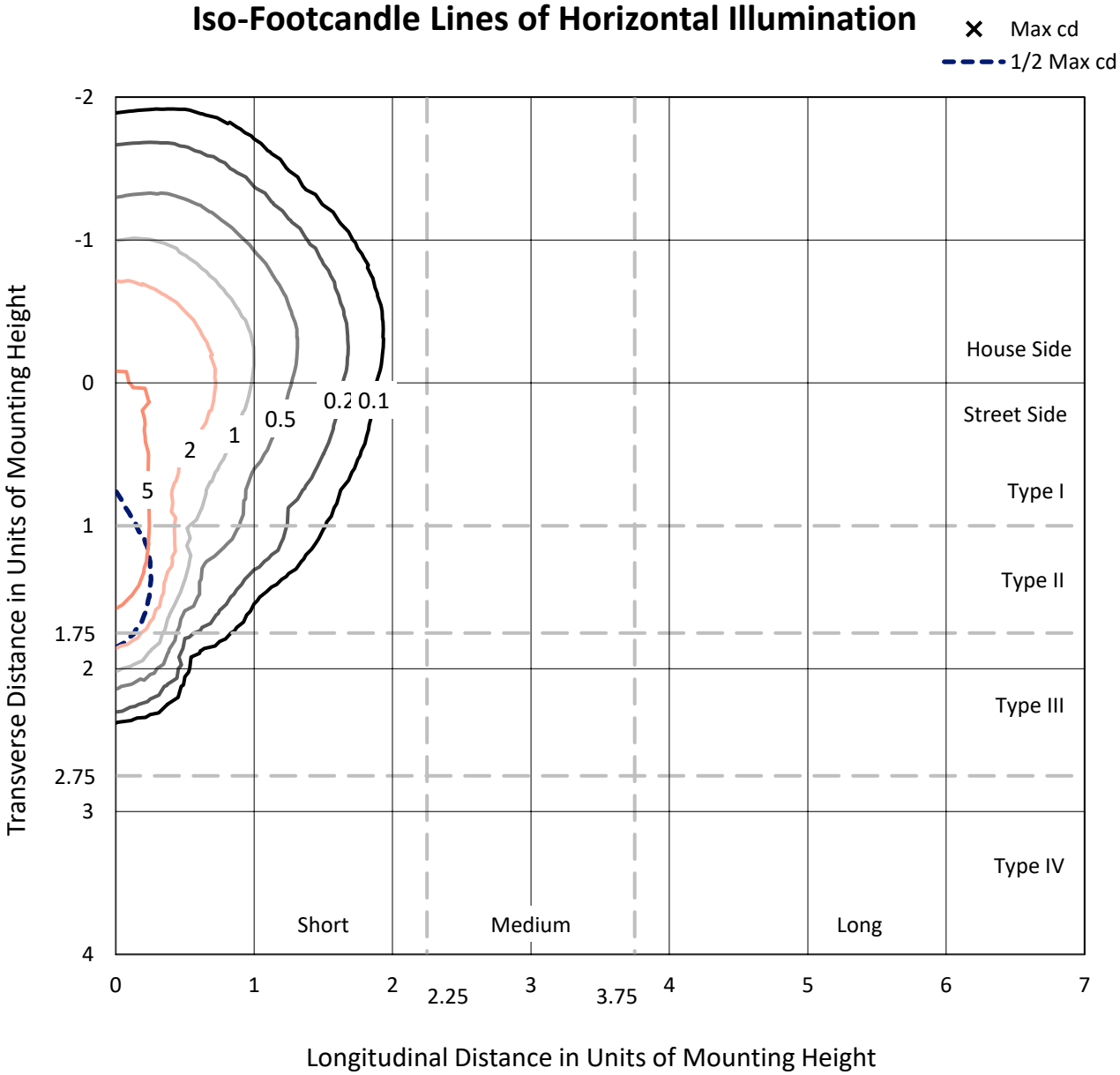
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 9.7 fc
Type III - Short - N/A

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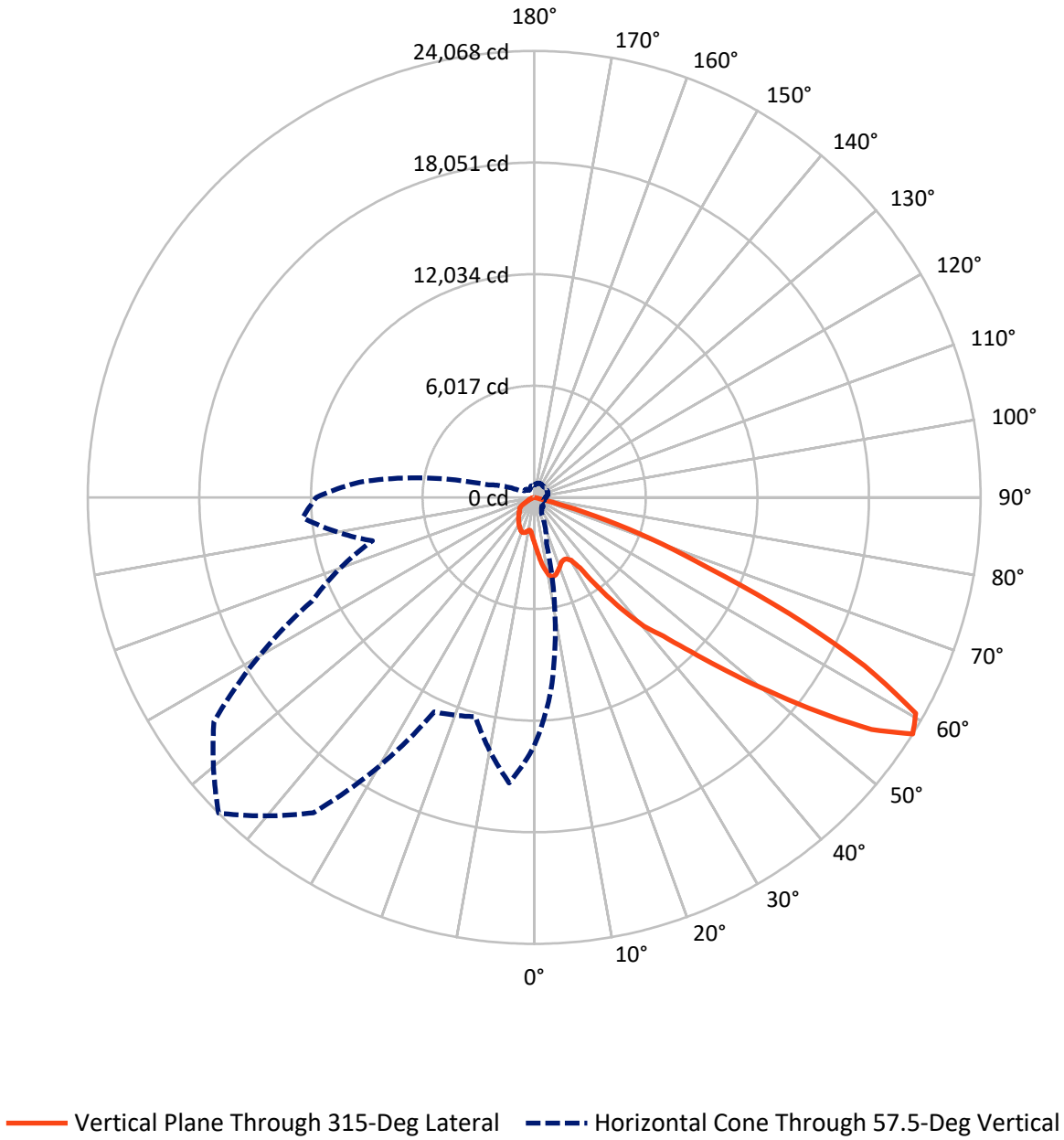
Luminous Intensity Polar Plot



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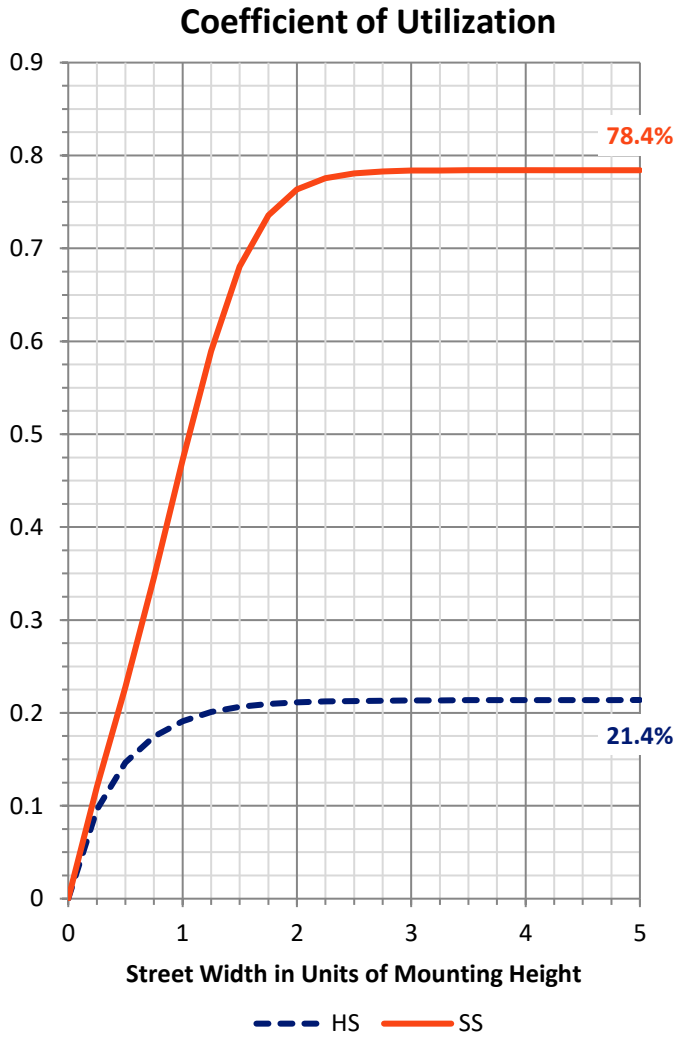
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3122.4	0.0	3122.4
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	11371.0	0.0	11371.0
	% Fixture	78.5	0.0	78.5
Total	Lumens	14493.3	0.0	14493.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	1.7
10°-20°	800.9	5.5
20°-30°	1299.8	9.0
30°-40°	1994.9	13.8
40°-50°	3186.0	22.0
50°-60°	4460.9	30.8
60°-70°	2287.2	15.8
70°-80°	220.2	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°	14493.3	100.0
0°-180°	14493.3	100.0



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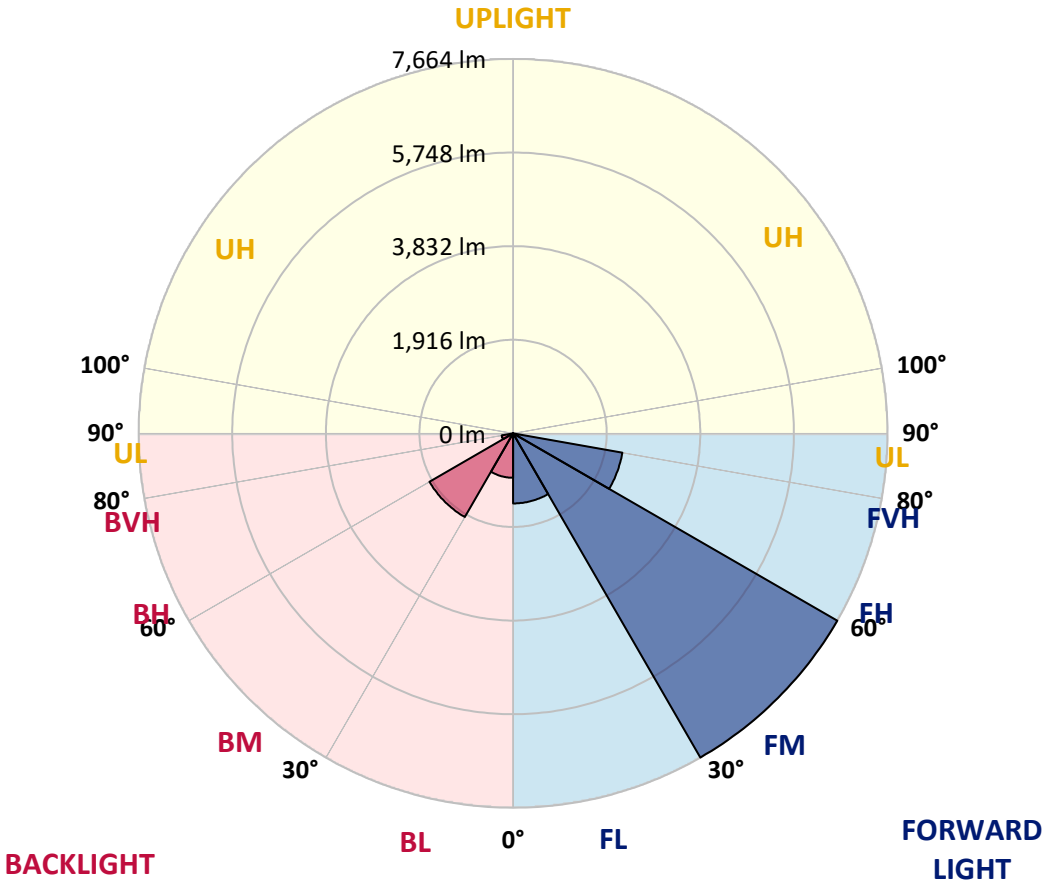
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1434.9	9.9			
FM	(30°-60°)	7664.4	52.9			
FH	(60°-80°)	2271.6	15.7			G2/5000
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	909.2	6.3	B2/1000		
BM	(30°-60°)	1977.3	13.6	B2/2500		
BH	(60°-80°)	235.8	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: B2-U0-G2
Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6
2.5°	2735.8	2730.0	2710.6	2644.8	2604.1	2540.1	2493.6	2433.6	2367.7	2327.0	2286.3
5°	3026.5	3011.0	2958.6	2807.5	2691.3	2565.3	2464.6	2354.1	2235.9	2158.4	2086.7
7.5°	3305.5	3282.2	3212.5	2956.7	2780.4	2600.2	2456.8	2296.0	2129.4	2013.1	1924.0
10°	3578.7	3526.3	3415.9	3102.0	2863.7	2646.7	2478.1	2294.1	2098.4	1951.1	1852.3
12.5°	3803.4	3764.7	3613.5	3239.6	2933.5	2656.4	2449.1	2278.6	2146.8	2048.0	1956.9
15°	3997.2	3954.5	3811.2	3363.6	2993.5	2617.6	2327.0	2177.8	2199.1	2237.9	2160.4
17.5°	4175.4	4130.9	3975.9	3466.3	3016.8	2522.7	2156.5	2084.8	2203.0	2348.3	2319.2
20°	4359.5	4309.1	4119.2	3549.6	3009.0	2373.5	1984.1	2005.4	2172.0	2338.6	2354.1
22.5°	4574.6	4522.2	4301.4	3656.2	3003.2	2195.2	1834.9	1935.6	2113.9	2255.3	2282.4
25°	4859.4	4797.4	4555.2	3813.1	3018.7	2032.5	1728.3	1867.8	2015.1	2142.9	2158.4
27.5°	5235.3	5155.8	4847.8	4006.9	3051.6	1904.6	1681.8	1774.8	1889.1	2003.4	2017.0
30°	5725.5	5624.7	5182.9	4175.4	3036.1	1815.5	1650.8	1681.8	1749.6	1842.6	1844.5
32.5°	6299.0	6161.4	5558.8	4320.7	2902.5	1749.6	1608.2	1586.9	1602.4	1674.0	1687.6
35°	6973.2	6795.0	5973.5	4458.3	2658.3	1621.7	1530.7	1459.0	1453.2	1488.0	1521.0
37.5°	7746.3	7533.2	6496.6	4634.6	2369.6	1488.0	1416.3	1344.7	1313.7	1331.1	1381.5
40°	8459.3	8223.0	7043.0	4847.8	2075.1	1367.9	1282.7	1209.0	1172.2	1178.0	1240.0
42.5°	9296.4	9052.2	7711.5	5126.8	1831.0	1286.5	1143.2	1067.6	1019.2	1046.3	1118.0
45°	10567.4	10290.3	8686.0	5369.0	1637.2	1267.2	1021.1	914.5	891.3	937.8	1023.0
47.5°	12303.4	11964.4	10024.9	5516.2	1472.5	1284.6	935.8	790.5	796.3	848.6	933.9
50°	14025.9	13659.7	11573.0	5322.5	1336.9	1249.7	893.2	693.6	730.5	777.0	854.5
52.5°	15209.8	14733.1	12326.7	4762.5	1212.9	1118.0	889.3	602.6	672.3	687.8	753.7
55°	15256.3	14669.2	11941.1	3755.0	1044.3	943.6	848.6	527.0	608.4	614.2	670.4
57.5°	*13373.0*	*12842.1*	*10435.6*	*2578.9*	*928.1*	*691.7*	*676.2*	*461.1*	*499.9*	*548.3*	*583.2*
60°	10174.1	9722.6	7804.5	1181.9	705.3	439.8	463.1	397.2	373.9	445.6	480.5
62.5°	6231.2	5942.5	4681.1	523.1	449.5	234.4	280.9	315.8	280.9	308.1	337.1
65°	2474.3	2346.4	1776.7	222.8	184.1	118.2	127.9	184.1	197.6	217.0	244.1
67.5°	430.1	406.9	298.4	98.8	75.6	71.7	62.0	85.3	120.1	133.7	155.0
70°	56.2	54.3	48.4	40.7	38.8	34.9	27.1	54.3	81.4	85.3	98.8
72.5°	13.6	11.6	11.6	9.7	11.6	3.9	3.9	29.1	58.1	60.1	69.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	36.8	40.7	48.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
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°	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6
2.5°	2253.4	2214.6	2201.1	2181.7	2156.5	2164.2	2129.4	2117.7	2135.2	2158.4	2152.6
5°	2048.0	2005.4	1976.3	1931.7	1924.0	1906.5	1894.9	1879.4	1898.8	1925.9	1931.7
7.5°	1885.2	1848.4	1819.4	1805.8	1796.1	1788.4	1765.1	1753.5	1753.5	1765.1	1774.8
10°	1815.5	1788.4	1782.5	1786.4	1801.9	1800.0	1778.7	1763.2	1743.8	1734.1	1745.7
12.5°	1912.4	1867.8	1860.0	1862.0	1881.4	1879.4	1856.2	1836.8	1832.9	1836.8	1873.6
15°	2077.1	2009.2	1958.9	1949.2	1958.9	1955.0	1937.6	1925.9	1931.7	1987.9	2049.9
17.5°	2224.3	2119.7	2028.6	1993.7	1991.8	1986.0	1968.6	1964.7	1993.7	2098.4	2189.4
20°	2266.9	2164.2	2034.4	1989.9	1980.2	1974.4	1955.0	1960.8	1997.6	2123.6	2201.1
22.5°	2210.7	2111.9	1976.3	1931.7	1924.0	1922.0	1902.7	1910.4	1941.4	2051.9	2115.8
25°	2104.2	2020.9	1879.4	1840.7	1840.7	1836.8	1819.4	1823.2	1842.6	1939.5	2001.5
27.5°	1974.4	1894.9	1776.7	1738.0	1743.8	1749.6	1728.3	1722.5	1738.0	1829.0	1865.9
30°	1825.2	1769.0	1676.0	1641.1	1639.2	1662.4	1633.4	1625.6	1646.9	1718.6	1726.4
32.5°	1679.9	1652.7	1586.9	1559.7	1561.7	1565.5	1550.0	1550.0	1569.4	1608.2	1606.2
35°	1538.4	1521.0	1509.4	1490.0	1488.0	1480.3	1480.3	1484.2	1505.5	1519.0	1493.9
37.5°	1402.8	1420.2	1433.8	1414.4	1398.9	1398.9	1398.9	1416.3	1435.7	1429.9	1387.3
40°	1282.7	1319.5	1362.1	1340.8	1304.0	1302.0	1309.8	1338.8	1367.9	1333.0	1294.3
42.5°	1180.0	1226.5	1286.5	1274.9	1234.2	1228.4	1234.2	1271.0	1294.3	1249.7	1207.1
45°	1079.2	1137.3	1209.0	1209.0	1164.5	1158.7	1160.6	1209.0	1222.6	1170.3	1116.0
47.5°	994.0	1057.9	1133.5	1133.5	1096.7	1085.0	1094.7	1145.1	1154.8	1081.2	1030.8
50°	912.6	982.3	1065.7	1059.8	1034.7	1025.0	1042.4	1096.7	1085.0	1003.7	951.3
52.5°	809.9	883.5	997.8	1003.7	990.1	992.0	1013.3	1048.2	1015.3	916.5	871.9
55°	716.9	792.5	906.8	937.8	937.8	935.8	945.5	972.7	945.5	827.3	773.1
57.5°	*616.1*	*680.1*	*775.0*	*782.8*	*788.6*	*767.3*	*780.8*	*817.6*	*804.1*	*703.3*	*672.3*
60°	505.7	560.0	614.2	620.0	594.8	550.3	575.5	618.1	627.8	552.2	517.3
62.5°	358.4	410.8	474.7	474.7	449.5	404.9	437.9	474.7	461.1	383.6	362.3
65°	267.4	315.8	364.3	385.6	364.3	333.3	358.4	385.6	364.3	300.3	269.3
67.5°	172.4	205.4	234.4	251.9	255.8	251.9	263.5	255.8	230.6	187.9	170.5
70°	104.6	122.1	137.6	153.1	164.7	170.5	176.3	158.9	133.7	110.4	104.6
72.5°	75.6	91.1	104.6	116.3	129.8	133.7	133.7	122.1	98.8	77.5	71.7
75°	52.3	65.9	77.5	85.3	96.9	100.8	100.8	91.1	73.6	56.2	50.4
77.5°	1.9	13.6	13.6	11.6	15.5	19.4	19.4	23.3	21.3	15.5	13.6
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°	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6
2.5°	2164.2	2234.0	2253.4	2325.1	2389.0	2452.9	2530.4	2576.9	2646.7	2695.1	2722.3
5°	1951.1	2009.2	2079.0	2185.6	2296.0	2418.1	2565.3	2693.2	2854.0	2972.2	3011.0
7.5°	1796.1	1871.7	1953.1	2086.7	2237.9	2400.6	2607.9	2817.2	3063.3	3224.1	3326.8
10°	1767.0	1844.5	1953.1	2084.8	2243.7	2429.7	2683.5	2954.8	3262.8	3458.5	3574.8
12.5°	1906.5	1989.9	2036.4	2096.4	2216.6	2423.9	2749.4	3094.3	3456.6	3669.7	3793.7
15°	2111.9	2185.6	2110.0	2034.4	2111.9	2361.9	2786.2	3210.5	3627.1	3873.2	4001.0
17.5°	2253.4	2259.2	2094.5	1933.7	1955.0	2249.5	2799.8	3326.8	3809.2	4066.9	4200.6
20°	2239.8	2193.3	2026.7	1848.4	1782.5	2104.2	2784.3	3429.5	3993.3	4262.6	4394.4
22.5°	2135.2	2080.9	1939.5	1765.1	1637.2	1931.7	2757.1	3522.5	4161.9	4468.0	4592.0
25°	2009.2	1951.1	1834.9	1681.8	1544.2	1765.1	2735.8	3650.3	4375.0	4735.4	4832.3
27.5°	1862.0	1811.6	1712.8	1602.4	1505.5	1639.2	2730.0	3818.9	4632.7	5060.9	5128.7
30°	1718.6	1672.1	1594.6	1530.7	1490.0	1565.5	2710.6	3999.1	4940.8	5434.8	5508.5
32.5°	1581.0	1534.5	1486.1	1476.4	1478.4	1538.4	2644.8	4177.4	5307.0	5977.3	6031.6
35°	1462.9	1408.6	1389.2	1412.5	1455.1	1491.9	2458.8	4324.6	5700.3	6568.3	6612.9
37.5°	1350.5	1296.2	1294.3	1350.5	1397.0	1420.2	2239.8	4469.9	6231.2	7168.9	7225.1
40°	1247.8	1193.5	1212.9	1280.7	1317.5	1329.2	1974.4	4690.8	6793.1	7802.5	7771.5
42.5°	1160.6	1104.4	1116.0	1203.2	1236.2	1267.2	1730.2	4874.9	7333.6	8403.2	8393.5
45°	1075.3	1032.7	1025.0	1119.9	1149.0	1273.0	1552.0	5016.3	8029.2	9168.5	9184.0
47.5°	992.0	959.1	961.0	1001.7	1073.4	1302.0	1400.8	5109.3	9038.7	10381.4	10112.1
50°	916.5	891.3	912.6	866.1	1025.0	1265.2	1271.0	5089.9	10166.3	11543.9	11003.3
52.5°	833.1	827.3	837.0	724.6	947.5	1116.0	1149.0	4832.3	10695.3	12338.3	12030.2
55°	747.9	746.0	668.5	579.3	792.5	891.3	984.3	4032.0	10677.8	12760.7	13134.7
57.5°	*647.1*	*631.6*	*507.6*	*472.8*	*616.1*	*620.0*	*897.1*	*2640.9*	*9463.0*	*11749.3*	*12524.3*
60°	490.2	478.6	372.0	383.6	430.1	397.2	715.0	1315.6	7072.1	9153.0	10026.8
62.5°	339.1	323.6	277.1	296.4	277.1	226.7	437.9	651.0	4283.9	5779.7	6572.2
65°	248.0	230.6	189.9	162.8	129.8	129.8	166.6	249.9	1658.5	2456.8	2962.5
67.5°	153.1	145.3	112.4	81.4	79.4	85.3	87.2	124.0	267.4	426.3	521.2
70°	98.8	91.1	75.6	52.3	48.4	50.4	52.3	58.1	67.8	73.6	89.1
72.5°	67.8	63.9	54.3	29.1	23.3	25.2	27.1	27.1	32.9	31.0	36.8
75°	48.4	44.6	38.8	13.6	7.8	9.7	11.6	9.7	11.6	7.8	9.7
77.5°	13.6	13.6	9.7	1.9	0.0	1.9	3.9	3.9	1.9	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	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: P638974
CATALOG NUMBER: GWS-SA4F-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6	2462.6
2.5°	2792.0	2836.6	2854.0	2828.8	2850.1	2815.3	2801.7	2749.4	2745.5	2735.8
5°	3167.9	3268.6	3328.7	3365.5	3322.9	3276.4	3206.6	3086.5	3049.7	3026.5
7.5°	3538.0	3694.9	3797.6	3846.0	3834.4	3739.5	3613.5	3412.0	3340.3	3305.5
10°	3859.6	4051.4	4175.4	4235.5	4210.3	4127.0	3946.8	3694.9	3600.0	3578.7
12.5°	4084.4	4260.7	4345.9	4398.2	4400.2	4367.2	4196.7	3942.9	3830.5	3803.4
15°	4225.8	4301.4	4303.3	4334.3	4388.6	4462.2	4382.7	4158.0	4037.9	3997.2
17.5°	4314.9	4231.6	4146.4	4154.1	4243.2	4438.9	4520.3	4347.9	4220.0	4175.4
20°	4378.9	4115.4	3956.5	3958.4	4049.5	4345.9	4615.2	4531.9	4400.2	4359.5
22.5°	4419.6	4012.7	3786.0	3780.2	3877.0	4235.5	4702.4	4750.9	4621.1	4574.6
25°	4502.9	3964.2	3683.3	3716.2	3801.5	4200.6	4820.6	5041.5	4921.4	4859.4
27.5°	4652.1	4012.7	3673.6	3749.2	3846.0	4303.3	5026.0	5429.0	5305.0	5235.3
30°	4909.8	4194.8	3822.8	3927.4	4043.7	4572.6	5370.9	5969.6	5791.3	5725.5
32.5°	5324.4	4572.6	4283.9	4508.7	4621.1	5014.4	5888.2	6576.0	6430.7	6299.0
35°	5896.0	5434.8	5401.9	5925.0	5897.9	5851.4	6523.7	7320.1	7101.1	6973.2
37.5°	6682.6	6822.1	7066.2	7585.5	7568.1	7213.5	7358.8	8023.4	7911.0	7746.3
40°	7664.9	7961.4	8376.0	9120.0	8887.5	8441.9	8383.8	8744.2	8653.1	8459.3
42.5°	8244.3	8755.8	9546.3	10214.8	10028.8	9249.9	9184.0	9707.1	9507.6	9296.4
45°	8513.6	9402.9	10953.0	11857.8	11294.0	9786.6	9761.4	10962.7	10850.3	10567.4
47.5°	8637.6	10055.9	12599.9	13969.7	12915.7	10257.4	10166.3	12784.0	12636.7	12303.4
50°	8775.2	10956.8	14583.9	16416.9	14874.6	10790.2	10856.1	14481.3	14419.2	14025.9
52.5°	9077.4	11910.1	17027.2	19214.7	17250.0	11625.3	12039.9	16081.7	15663.2	15209.8
55°	9530.8	12948.6	19569.3	22072.6	19673.9	12747.1	13320.7	16932.3	15758.1	15256.3
57.5°	9029.0	13208.3	21074.7	24068.2	20749.2	12751.0	12237.6	15457.8	13859.3	13373.0
60°	7165.1	12287.9	20495.4	23636.2	19832.8	11323.0	9370.0	12069.0	10499.6	10174.1
62.5°	4843.9	10305.8	18042.5	19989.7	16974.9	8906.9	6089.7	7849.0	6500.5	6231.2
65°	2654.4	7688.2	14578.1	15122.6	13285.8	6221.5	3133.0	3406.2	2594.4	2474.3
67.5°	732.4	5351.5	10726.3	10032.6	9321.6	4051.4	809.9	608.4	434.0	430.1
70°	184.1	3539.9	6426.9	6624.5	5715.8	2594.4	155.0	73.6	58.1	56.2
72.5°	77.5	1522.9	3049.7	3505.0	2925.7	1201.3	56.2	21.3	17.4	13.6
75°	9.7	122.1	259.6	393.3	269.3	129.8	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.

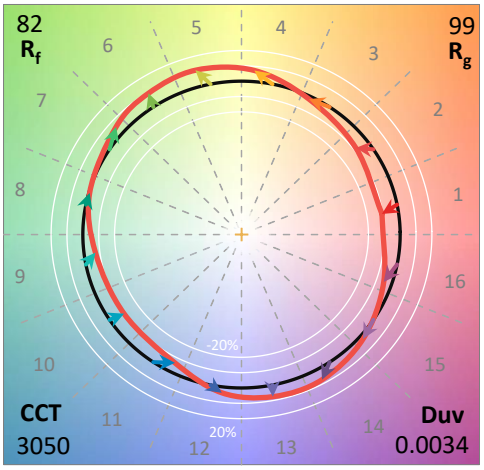
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

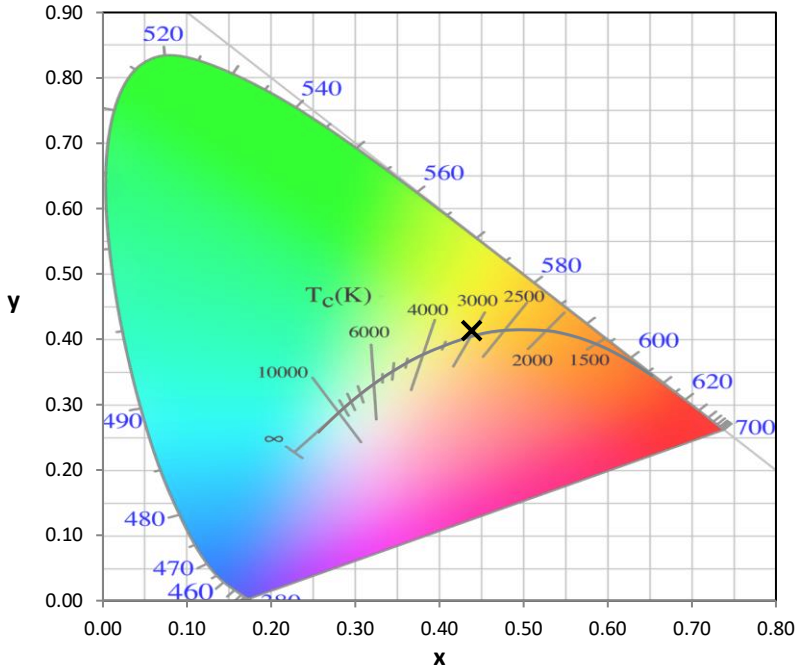
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

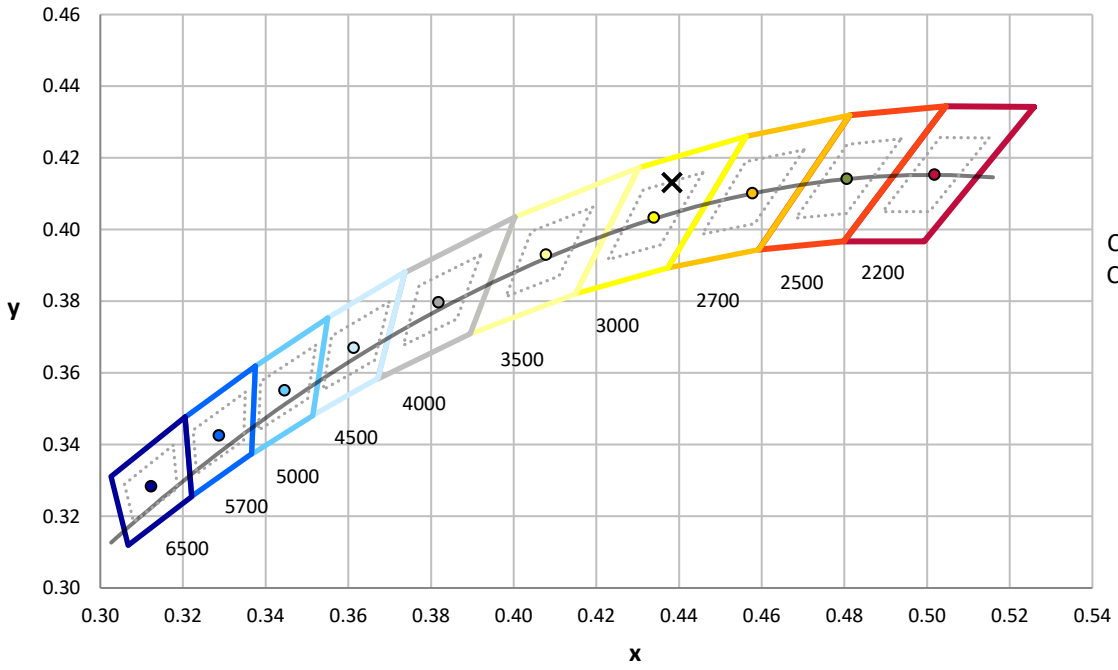
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

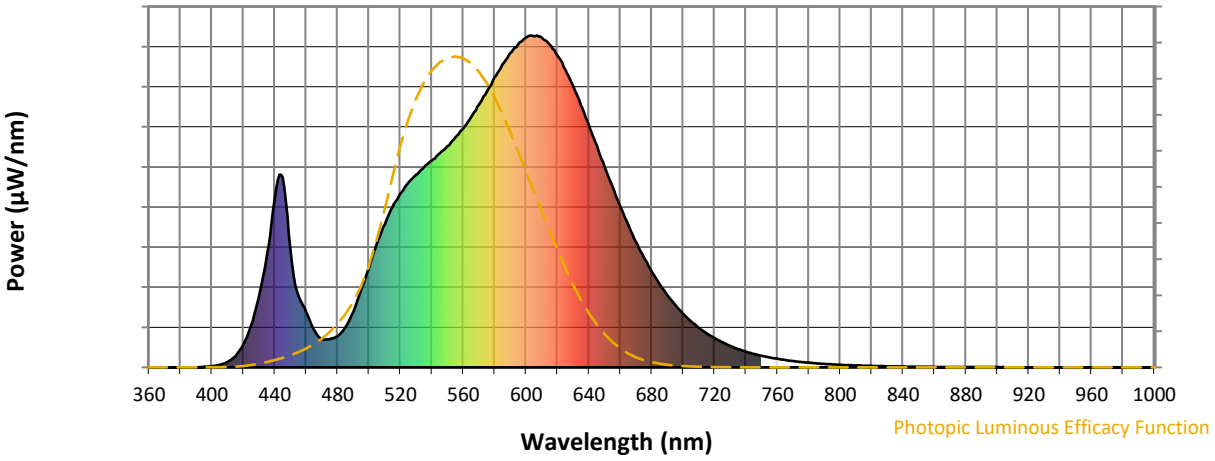


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

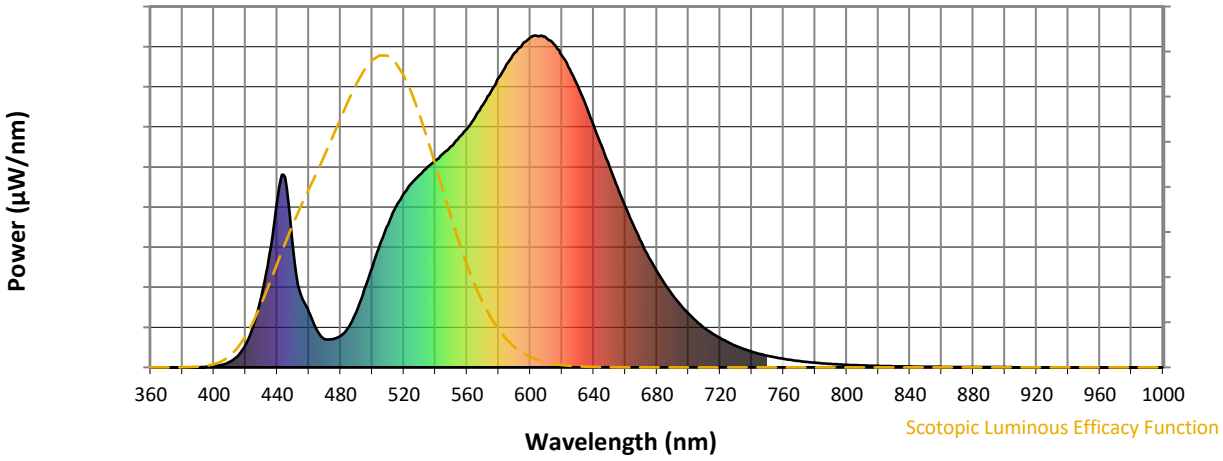


Photopic Lumens: NR

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

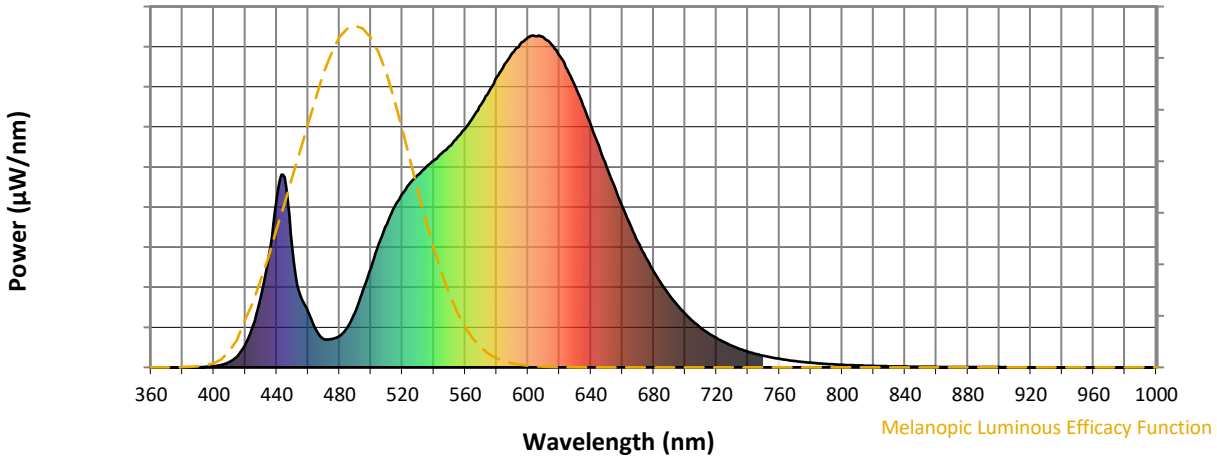


Scotopic Lumens: NR **S/P: 1.27**

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			

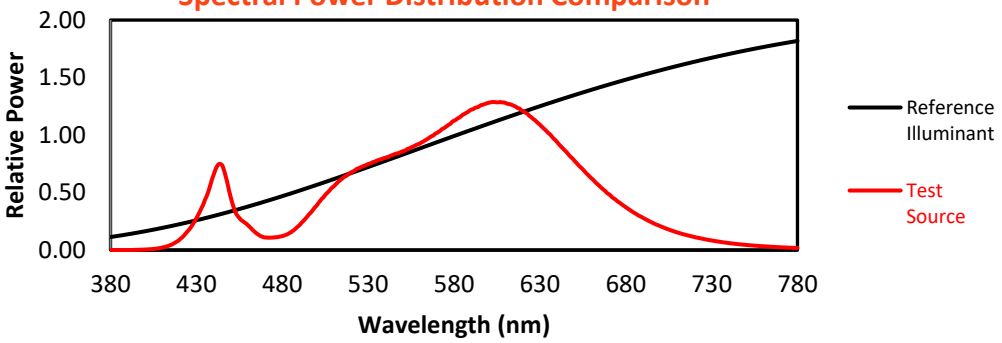
REPORT NUMBER: SP1-2408-195-9

TM-30-18

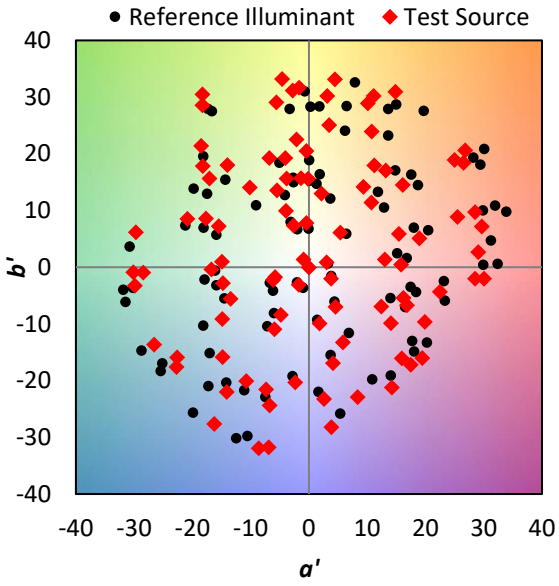
Summary

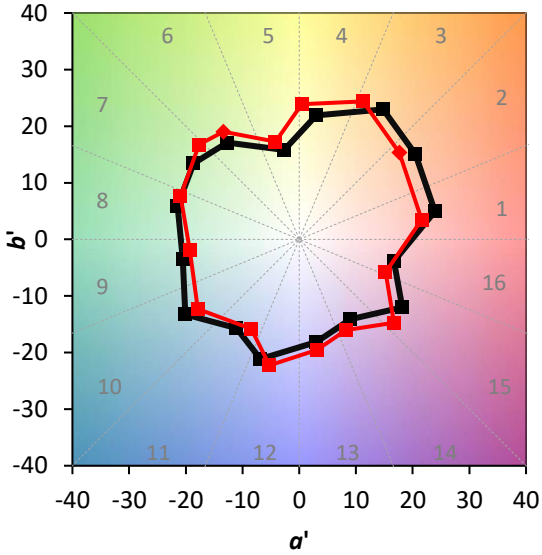
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

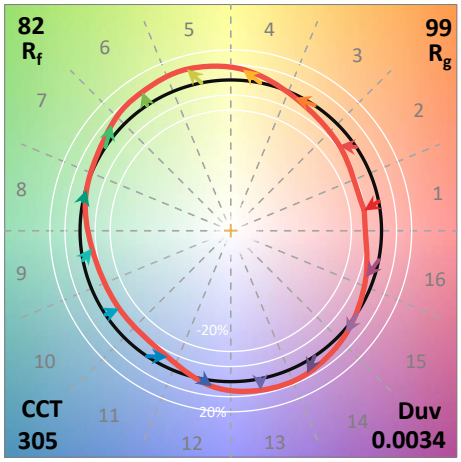
Spectral Power Distribution Comparison

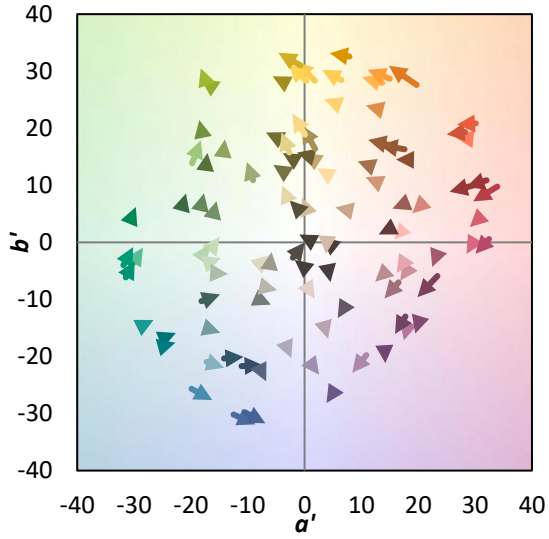


Color Vector Graphics









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
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CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
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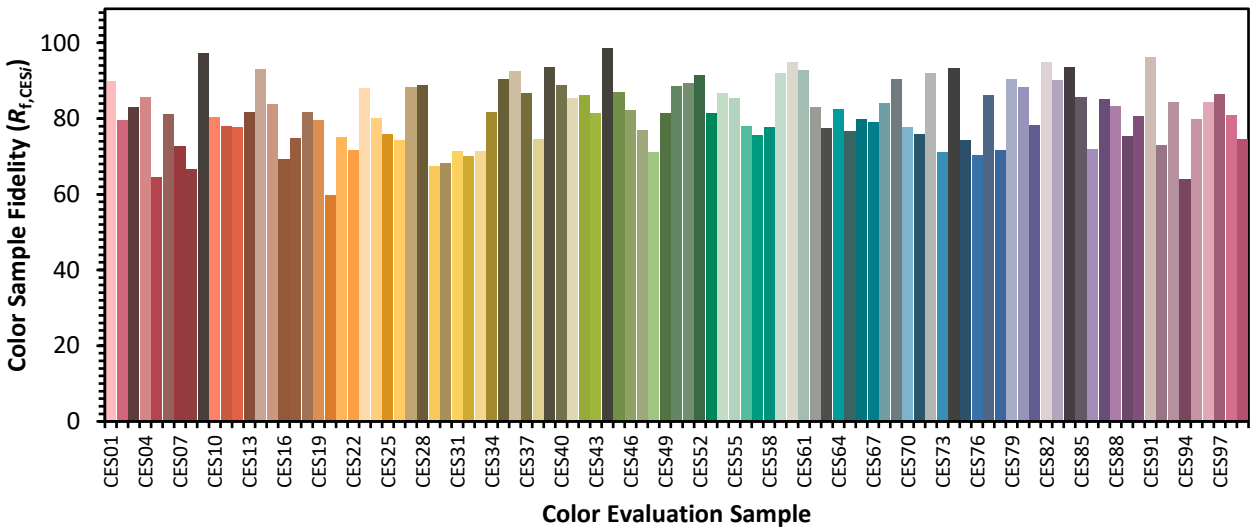

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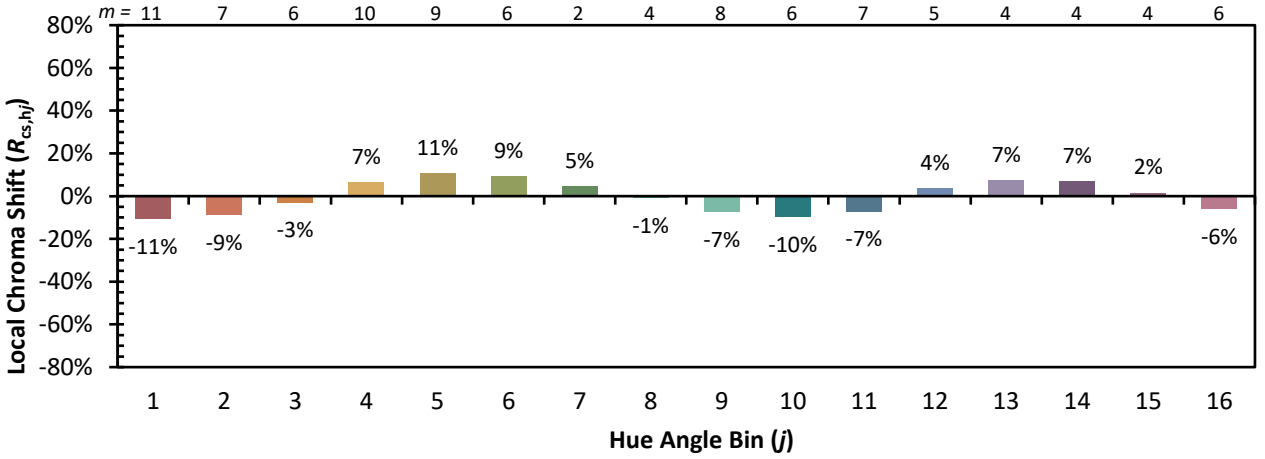
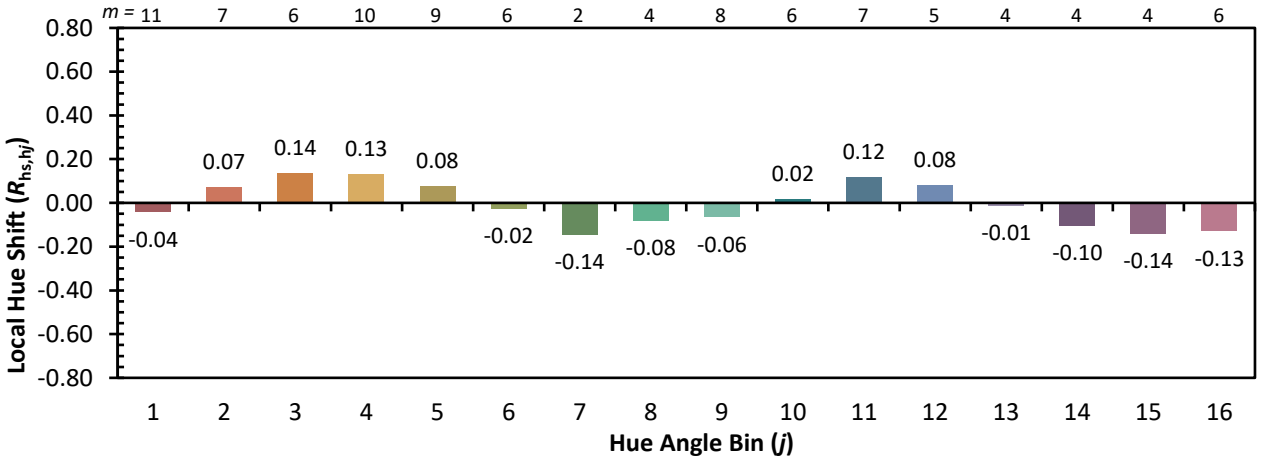
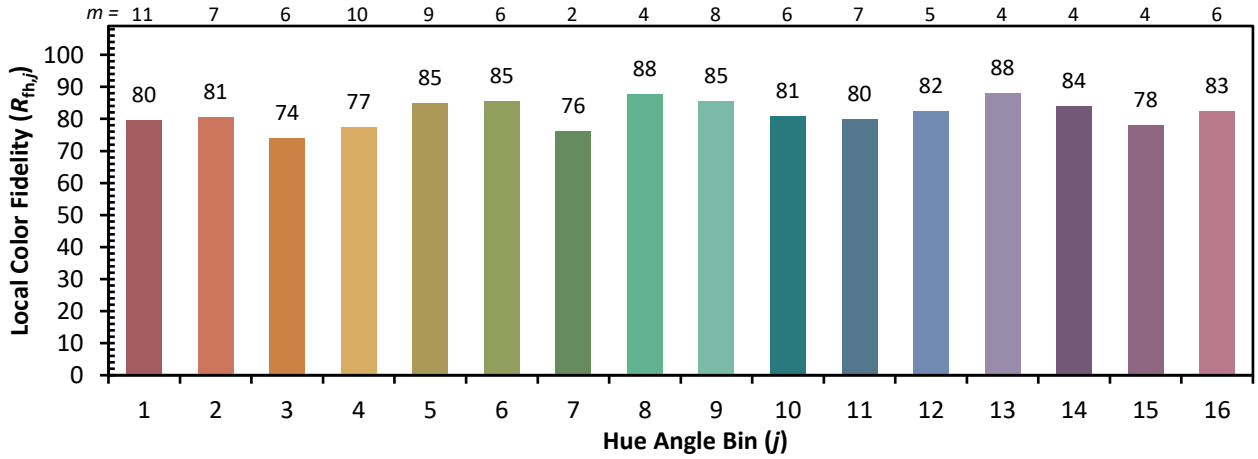
Color Rendition by Hue-Angle Bin







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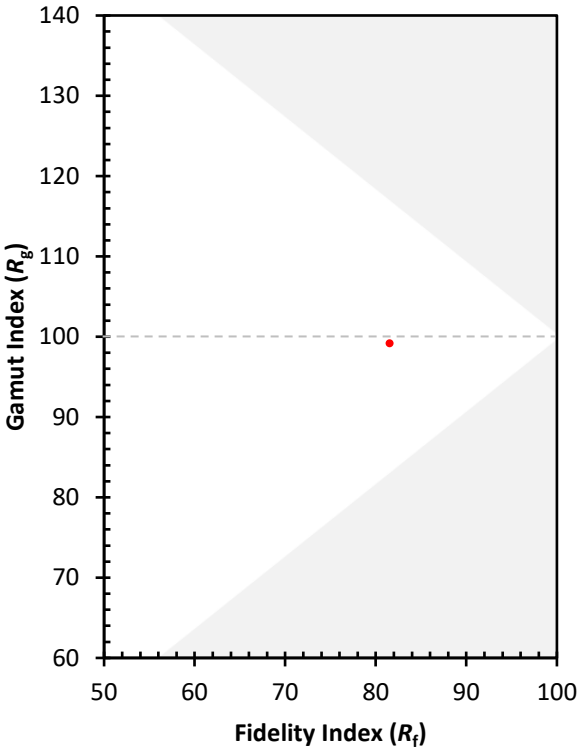
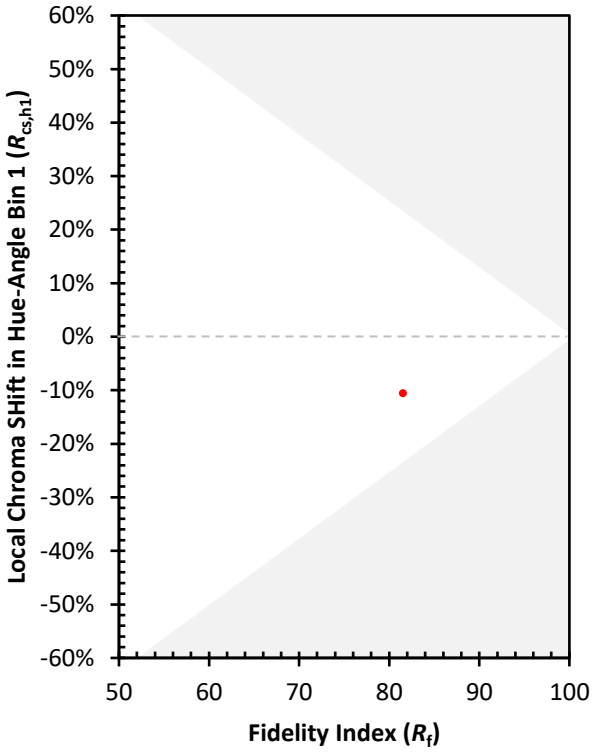
Measure Comparisons





(END OF REPORT)