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: P638483

Luminaire Tested: GWS-SA4E-830-U-SLR-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:	P638483
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-SLR-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT 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:	12969.5 lumens
Efficiency:	N/A
Efficacy:	64.0 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):	202.6
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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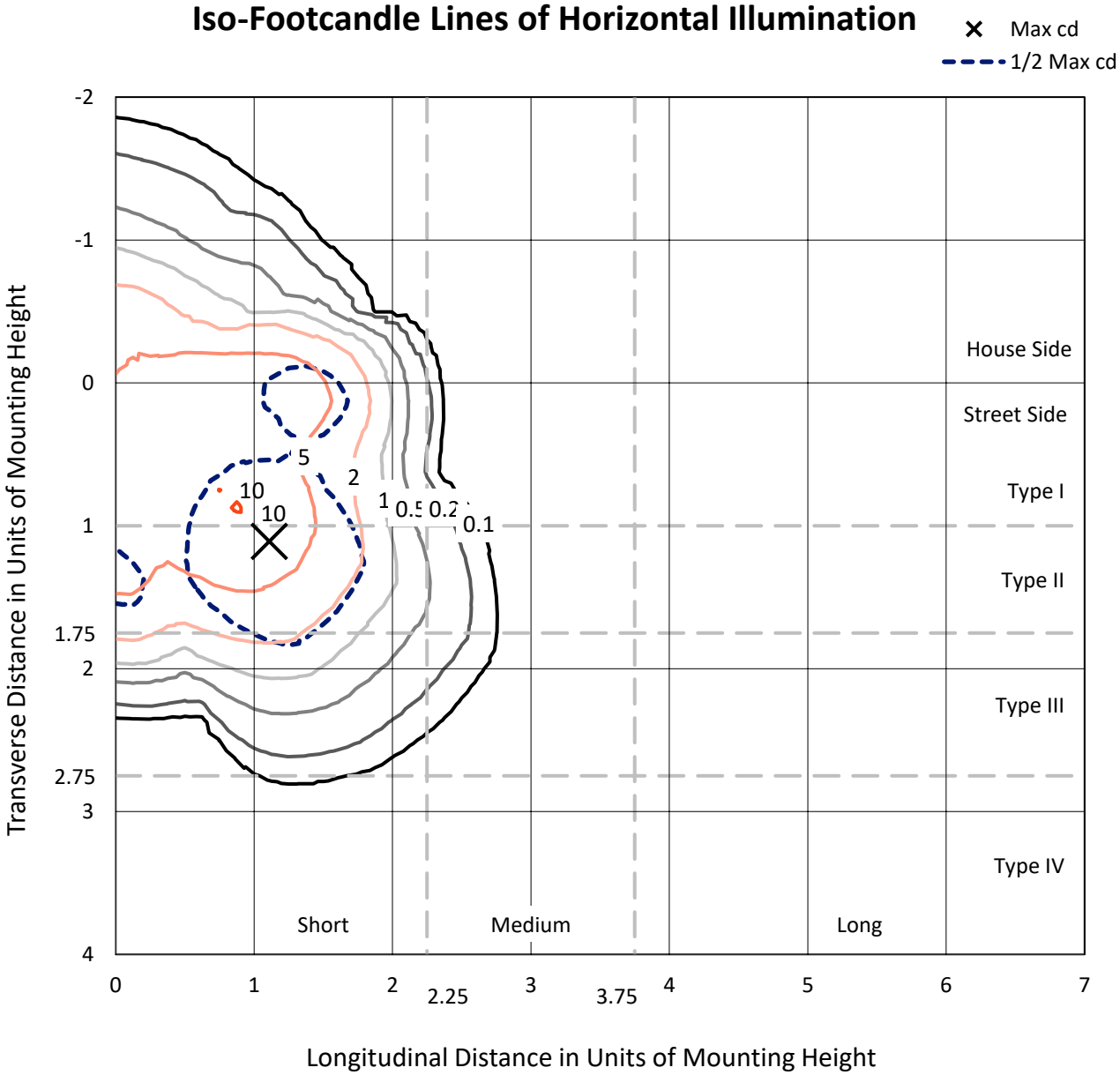
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 10.2 fc
Type III - Short - N/A

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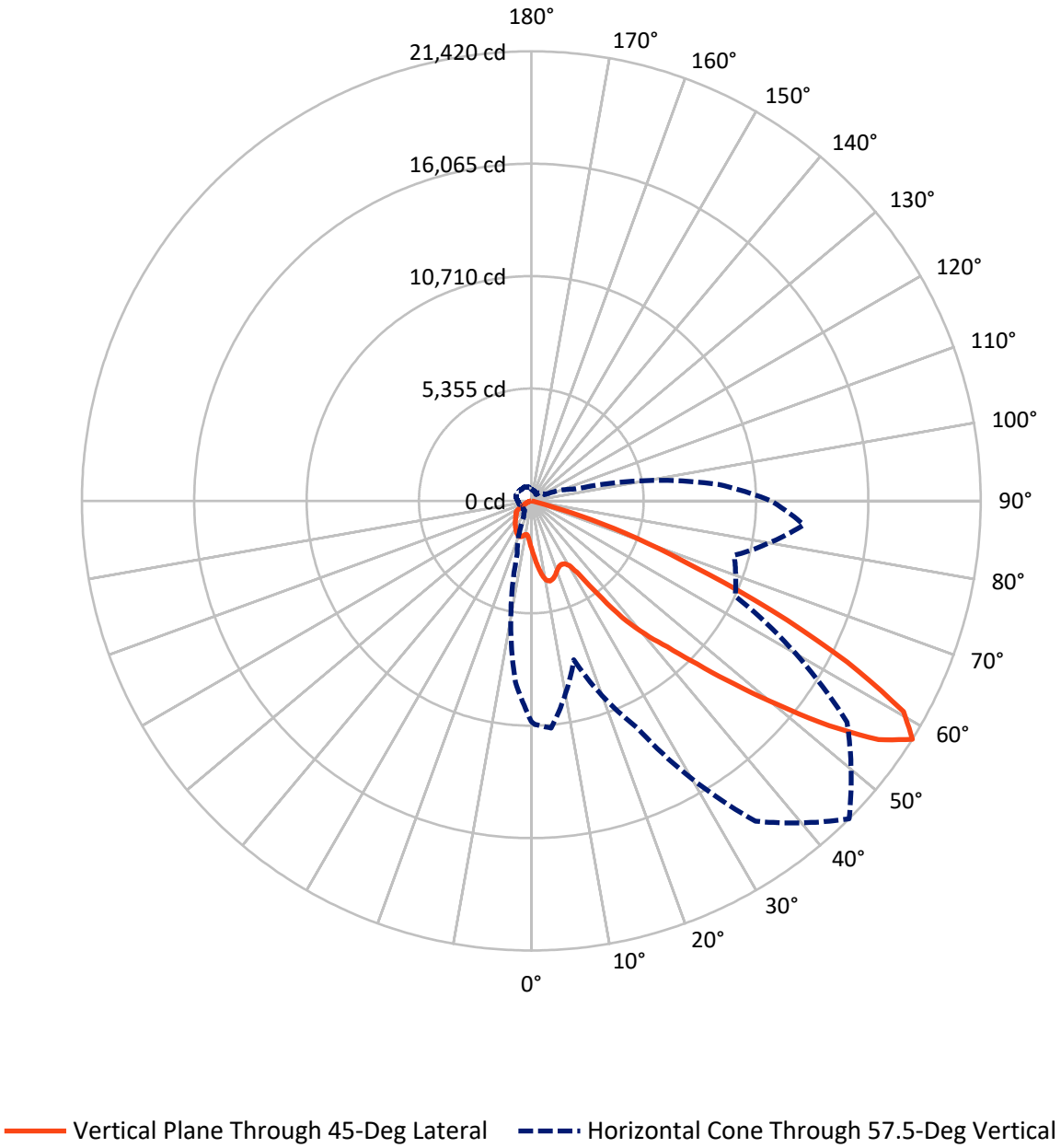
Luminous Intensity Polar Plot



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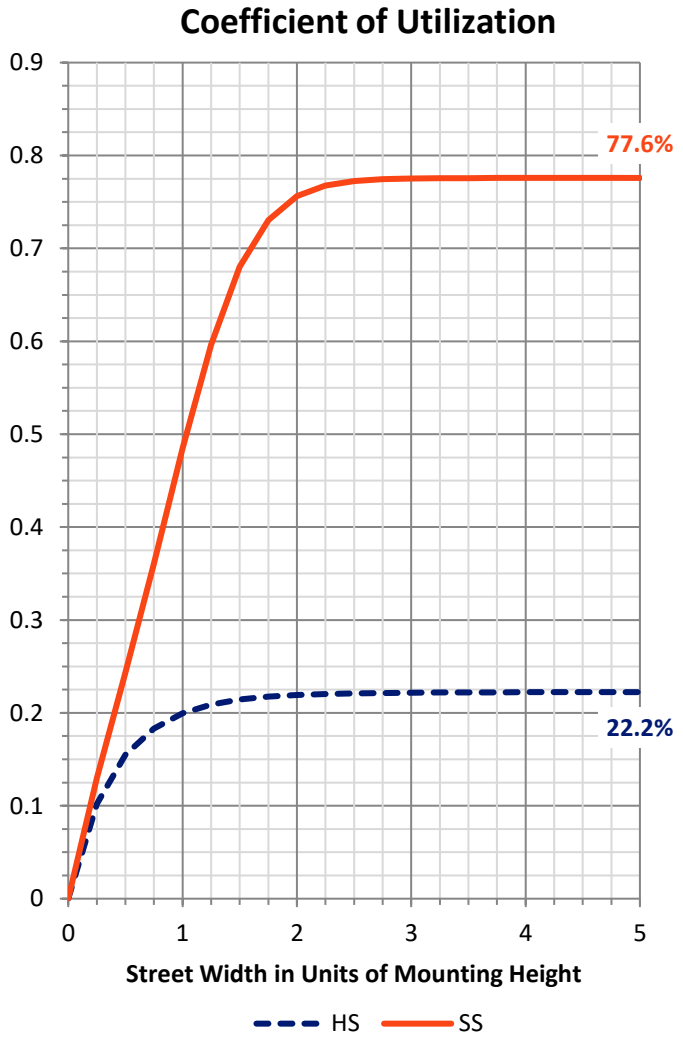
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2904.2	0.0	2904.2
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	10065.3	0.0	10065.3
	% Fixture	77.6	0.0	77.6
Total	Lumens	12969.5	0.0	12969.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.3	1.7
10°-20°	725.4	5.6
20°-30°	1178.4	9.1
30°-40°	1820.9	14.0
40°-50°	2919.8	22.5
50°-60°	3990.5	30.8
60°-70°	1932.7	14.9
70°-80°	177.0	1.4
80°-90°	0.5	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°	12969.5	100.0
0°-180°	12969.5	100.0



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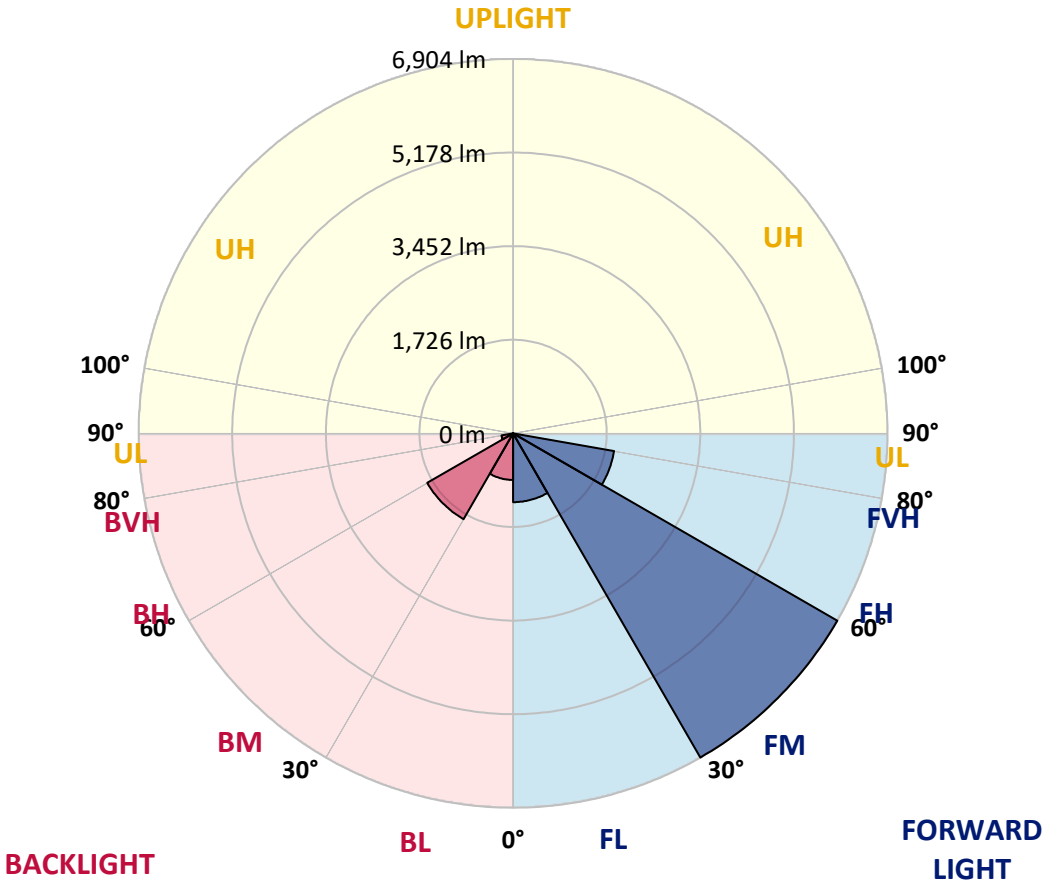
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1268.8	9.8			
FM	(30°-60°)	6904.0	53.2			
FH	(60°-80°)	1892.0	14.6			G2/5000
FVH	(80°-90°)	0.5	0.0			G0/10
BL	(0°-30°)	859.3	6.6	B2/1000		
BM	(30°-60°)	1827.2	14.1	B2/2500		
BH	(60°-80°)	217.7	1.7	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°	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5
2.5°	2469.5	2485.2	2511.3	2567.1	2614.1	2645.5	2659.5	2656.0	2636.8	2622.9	2595.0
5°	2734.4	2734.4	2784.9	2912.2	3009.7	3070.7	3102.1	3082.9	3044.6	2983.6	2889.5
7.5°	2966.2	2974.9	3060.3	3241.5	3389.7	3476.8	3527.3	3516.9	3448.9	3332.2	3143.9
10°	3147.4	3157.9	3271.2	3492.5	3666.8	3755.6	3830.6	3837.6	3762.6	3607.5	3391.4
12.5°	3323.4	3333.9	3452.4	3665.0	3818.4	3855.0	3921.2	3947.3	3928.2	3818.4	3593.6
15°	3513.4	3537.8	3638.9	3797.5	3862.0	3818.4	3862.0	3909.0	3973.5	3963.0	3760.9
17.5°	3699.9	3717.3	3820.1	3875.9	3804.4	3691.2	3712.1	3767.8	3914.2	4057.1	3926.4
20°	3872.4	3896.8	3982.2	3909.0	3692.9	3516.9	3518.6	3591.8	3814.9	4114.7	4095.5
22.5°	4053.7	4090.3	4151.3	3945.6	3590.1	3379.2	3387.9	3454.1	3736.5	4168.7	4287.2
25°	4290.7	4325.5	4365.6	4036.2	3557.0	3311.2	3344.4	3405.4	3736.5	4261.0	4524.2
27.5°	4611.3	4635.7	4637.5	4205.3	3614.5	3321.7	3391.4	3461.1	3848.0	4445.8	4841.4
30°	5013.9	5052.3	5001.7	4468.4	3794.0	3461.1	3563.9	3651.1	4088.5	4757.7	5308.4
32.5°	5503.6	5557.7	5489.7	4858.8	4168.7	3942.1	4128.6	4179.1	4471.9	5209.1	5838.2
35°	6078.7	6124.1	6050.9	5399.1	5043.5	5085.4	5423.5	5359.0	5242.2	5765.0	6456.9
37.5°	6709.6	6751.4	6610.3	6218.2	6336.7	6517.9	7058.2	6836.8	6460.4	6481.3	7127.9
40°	7288.2	7333.5	7112.2	7108.7	7352.7	7683.8	8335.6	8030.6	7518.3	7418.9	7757.0
42.5°	7887.7	7919.1	7718.7	7582.7	8136.9	8818.4	9508.5	9097.2	8218.9	8110.8	8544.7
45°	8743.4	8809.6	8452.4	7816.3	8842.8	10123.7	11085.7	10282.3	8696.4	8609.2	9750.7
47.5°	10001.7	10050.5	9322.0	7962.7	9499.8	11749.7	13056.8	11819.4	9116.4	8917.7	11399.4
50°	11042.1	11075.2	10121.9	8123.0	10198.6	13502.9	15303.2	13642.3	9588.7	9428.3	12938.2
52.5°	11808.9	11934.4	11172.8	8452.4	11117.1	15564.6	17790.1	15801.6	10325.8	10414.7	14213.9
55°	11967.5	12138.3	11890.8	8654.5	11925.7	17664.6	20087.0	17734.3	11061.3	11162.4	14642.7
57.5°	10517.6	10653.5	10859.1	7838.9	11906.5	18626.6	21420.3	18375.7	10726.7	10010.4	13037.6
60°	7879.0	7973.1	8346.1	5991.6	10949.8	17776.1	20381.6	17284.7	9379.5	7638.5	9933.7
62.5°	4672.3	4714.2	5186.5	3881.1	9088.5	15308.4	16903.0	14914.5	7412.0	5137.7	6084.0
65°	1793.3	1775.9	2136.6	1915.3	6683.5	12194.1	12572.3	11369.8	5085.4	2354.5	2319.6
67.5°	277.1	264.9	357.3	566.4	4820.5	8450.6	8295.5	8194.5	3185.8	549.0	479.3
70°	62.7	62.7	76.7	167.3	2945.3	4965.1	5313.7	5066.2	2039.0	116.8	62.7
72.5°	29.6	29.6	36.6	71.5	1066.6	2046.0	2384.1	2347.5	662.2	38.3	22.7
75°	10.5	12.2	12.2	15.7	64.5	106.3	244.0	174.3	41.8	0.0	0.0
77.5°	3.5	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.7	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°	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5
2.5°	2534.0	2521.8	2476.5	2415.5	2356.2	2303.9	2249.9	2185.4	2138.4	2084.3	2066.9
5°	2816.3	2739.6	2615.9	2486.9	2368.4	2267.3	2169.7	2065.2	1988.5	1911.8	1885.7
7.5°	3055.1	2941.8	2741.4	2547.9	2385.8	2242.9	2101.8	1958.9	1847.3	1756.7	1728.8
10°	3269.4	3138.7	2870.3	2631.6	2427.7	2262.1	2091.3	1911.8	1767.2	1659.1	1633.0
12.5°	3454.1	3302.5	2980.1	2694.3	2445.1	2255.1	2089.6	1946.7	1816.0	1692.2	1659.1
15°	3609.3	3441.9	3072.5	2736.1	2418.9	2168.0	2023.3	2000.7	1990.2	1854.3	1789.8
17.5°	3760.9	3572.7	3147.4	2755.3	2345.8	2014.6	1910.1	2012.9	2122.7	2033.8	1951.9
20°	3919.5	3705.1	3224.1	2758.8	2223.8	1842.1	1824.7	1986.7	2126.2	2098.3	2021.6
22.5°	4105.9	3870.7	3320.0	2757.0	2070.4	1695.7	1761.9	1936.2	2049.5	2047.7	1986.7
25°	4376.1	4079.8	3448.9	2767.5	1903.1	1582.4	1692.2	1850.8	1943.2	1939.7	1889.2
27.5°	4665.4	4329.0	3616.2	2793.6	1760.2	1516.2	1610.3	1734.0	1814.2	1810.7	1767.2
30°	5071.4	4616.6	3776.6	2795.4	1657.4	1481.3	1519.7	1605.1	1681.8	1673.0	1639.9
32.5°	5564.6	4940.7	3910.8	2696.0	1592.9	1448.2	1425.6	1469.1	1528.4	1516.2	1507.5
35°	6160.7	5325.9	4025.8	2478.2	1493.5	1382.0	1321.0	1329.7	1371.6	1378.5	1375.0
37.5°	6840.3	5784.2	4168.7	2190.6	1359.4	1286.2	1204.2	1197.3	1221.7	1244.3	1261.8
40°	7511.3	6300.1	4362.1	1899.6	1237.4	1164.2	1085.7	1068.3	1078.8	1118.9	1155.4
42.5°	8265.9	6897.8	4571.3	1650.4	1153.7	1030.0	955.0	921.9	951.5	1016.0	1059.6
45°	9353.4	7736.1	4775.2	1451.7	1118.9	911.5	810.4	806.9	840.0	923.7	972.5
47.5°	10880.0	8820.1	4909.4	1296.6	1117.1	819.1	698.8	719.8	758.1	840.0	895.8
50°	12368.4	10177.7	4761.2	1178.1	1080.5	758.1	615.2	657.0	695.4	766.8	824.3
52.5°	13265.9	10907.9	4184.4	1066.6	967.2	730.2	533.3	606.5	613.5	677.9	738.9
55°	13171.8	10435.6	3204.9	894.0	799.9	690.1	447.9	547.2	550.7	599.5	651.8
57.5°	*11432.5*	*8959.5*	*2201.1*	*725.0*	*601.3*	*569.9*	*369.5*	*461.8*	*494.9*	*524.6*	*562.9*
60°	8520.3	6537.1	981.2	589.1	381.7	385.1	315.4	348.6	399.1	433.9	467.1
62.5°	5020.9	3760.9	399.1	353.8	210.9	242.2	254.4	254.4	285.8	312.0	332.9
65°	1897.9	1315.8	162.1	177.8	109.8	113.3	149.9	184.7	209.1	231.8	259.7
67.5°	332.9	230.0	83.7	66.2	64.5	57.5	76.7	120.3	134.2	151.6	163.8
70°	55.8	47.1	34.9	33.1	29.6	31.4	50.5	85.4	94.1	99.3	104.6
72.5°	15.7	13.9	10.5	8.7	7.0	8.7	31.4	66.2	69.7	73.2	78.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	12.2	47.1	50.5	52.3	57.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	13.9	17.4	13.9
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5
2.5°	2056.5	2021.6	2002.4	1992.0	1992.0	1978.0	1962.3	1957.1	1979.8	1979.8	2018.1
5°	1852.6	1824.7	1793.3	1774.1	1744.5	1749.7	1732.3	1730.6	1753.2	1763.7	1803.8
7.5°	1711.4	1676.5	1657.4	1645.2	1629.5	1622.5	1606.8	1601.6	1613.8	1631.2	1669.6
10°	1617.3	1612.1	1610.3	1619.0	1619.0	1610.3	1596.4	1587.7	1591.1	1624.3	1667.8
12.5°	1641.7	1652.1	1655.6	1669.6	1676.5	1669.6	1659.1	1662.6	1685.2	1746.2	1810.7
15°	1748.0	1739.3	1735.8	1742.8	1748.0	1741.0	1737.5	1763.7	1842.1	1929.2	2002.4
17.5°	1861.3	1805.5	1781.1	1781.1	1784.6	1781.1	1784.6	1835.1	1962.3	2049.5	2103.5
20°	1918.8	1816.0	1777.6	1768.9	1775.9	1777.6	1789.8	1847.3	1986.7	2047.7	2059.9
22.5°	1901.4	1772.4	1728.8	1721.8	1728.8	1735.8	1748.0	1796.8	1927.5	1958.9	1953.6
25°	1814.2	1687.0	1652.1	1652.1	1667.8	1666.1	1671.3	1706.2	1814.2	1833.4	1824.7
27.5°	1704.4	1584.2	1554.5	1572.0	1585.9	1582.4	1584.2	1613.8	1694.0	1699.2	1690.5
30°	1592.9	1488.3	1460.4	1481.3	1500.5	1497.0	1498.8	1528.4	1578.9	1573.7	1561.5
32.5°	1479.6	1402.9	1382.0	1394.2	1423.8	1420.3	1427.3	1458.7	1477.9	1455.2	1441.3
35°	1375.0	1335.0	1319.3	1326.2	1348.9	1354.1	1366.3	1387.2	1387.2	1359.4	1335.0
37.5°	1277.4	1272.2	1261.8	1253.0	1274.0	1289.6	1307.1	1331.5	1296.6	1256.5	1233.9
40°	1186.8	1209.5	1195.5	1172.9	1185.1	1207.7	1242.6	1261.8	1219.9	1179.8	1141.5
42.5°	1103.2	1141.5	1136.3	1108.4	1118.9	1139.8	1179.8	1195.5	1146.7	1101.4	1064.8
45°	1023.0	1077.0	1080.5	1045.7	1056.1	1077.0	1124.1	1129.3	1066.6	1017.8	991.6
47.5°	953.3	1012.5	1014.3	988.1	991.6	1021.3	1064.8	1066.6	995.1	949.8	916.7
50°	887.1	955.0	960.3	937.6	941.1	975.9	1012.5	1005.6	928.9	881.8	852.2
52.5°	806.9	899.3	911.5	901.0	914.9	942.8	965.5	941.1	852.2	805.2	779.0
55°	719.8	840.0	866.2	859.2	874.9	897.5	902.7	887.1	775.5	728.5	704.1
57.5°	*618.7*	*691.9*	*737.2*	*723.2*	*735.4*	*758.1*	*773.8*	*761.6*	*677.9*	*641.3*	*620.4*
60°	512.4	561.2	571.6	549.0	538.5	578.6	615.2	599.5	528.1	505.4	481.0
62.5°	374.7	430.5	437.4	407.8	395.6	439.2	470.5	454.9	376.4	352.0	332.9
65°	299.8	352.0	366.0	338.1	331.1	364.2	383.4	345.1	289.3	263.2	242.2
67.5°	196.9	238.8	275.4	273.6	259.7	270.1	256.2	224.8	184.7	170.8	156.8
70°	122.0	146.4	169.0	177.8	176.0	172.5	153.4	130.7	118.5	113.3	106.3
72.5°	94.1	118.5	135.9	141.2	142.9	137.7	122.0	101.1	88.9	81.9	76.7
75°	69.7	88.9	102.8	109.8	113.3	109.8	94.1	80.2	68.0	62.7	57.5
77.5°	24.4	29.6	36.6	40.1	38.3	36.6	33.1	33.1	26.1	24.4	20.9
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

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

Scaled Data Report

REPORT NUMBER: P638483
CATALOG NUMBER: GWS-SA4E-830-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5	2279.5
2.5°	2061.7	2093.1	2150.6	2202.8	2258.6	2316.1	2378.9	2443.3	2473.0	2469.5
5°	1864.8	1932.7	2026.8	2129.7	2244.7	2368.4	2506.1	2647.3	2708.2	2734.4
7.5°	1741.0	1836.9	1960.6	2091.3	2242.9	2418.9	2626.3	2847.7	2936.5	2966.2
10°	1756.7	1868.2	1971.1	2098.3	2260.4	2488.7	2746.6	3009.7	3114.3	3147.4
12.5°	1883.9	1908.3	1936.2	2040.8	2244.7	2540.9	2856.4	3170.1	3290.3	3323.4
15°	1998.9	1885.7	1833.4	1929.2	2188.9	2577.5	2967.9	3342.6	3475.1	3513.4
17.5°	2004.2	1833.4	1716.6	1791.6	2098.3	2593.2	3077.7	3518.6	3663.3	3699.9
20°	1939.7	1775.9	1626.0	1627.7	1974.5	2589.7	3168.3	3677.2	3839.3	3872.4
22.5°	1845.6	1707.9	1552.8	1498.8	1842.1	2582.8	3267.7	3846.3	4022.3	4053.7
25°	1741.0	1620.8	1483.1	1401.2	1709.6	2589.7	3407.1	4067.6	4261.0	4290.7
27.5°	1627.7	1524.9	1429.1	1362.8	1598.1	2615.9	3574.4	4349.9	4580.0	4611.3
30°	1509.2	1432.5	1394.2	1354.1	1528.4	2622.9	3755.6	4679.3	4970.3	5013.9
32.5°	1392.5	1350.6	1352.4	1359.4	1462.2	2574.1	3921.2	5045.3	5433.9	5503.6
35°	1284.4	1272.2	1307.1	1341.9	1366.3	2448.6	4065.9	5477.5	6007.3	6078.7
37.5°	1192.0	1202.5	1246.1	1280.9	1261.8	2270.8	4257.6	6017.7	6648.6	6709.6
40°	1103.2	1129.3	1179.8	1195.5	1181.6	2063.4	4487.6	6538.8	7204.6	7288.2
42.5°	1021.3	1040.4	1111.9	1115.4	1158.9	1852.6	4708.9	7100.0	7844.2	7887.7
45°	955.0	951.5	1024.7	1047.4	1188.6	1619.0	4925.0	7847.6	8680.7	8743.4
47.5°	890.5	887.1	904.5	1007.3	1200.8	1402.9	5139.4	8942.1	9893.6	10001.7
50°	829.6	834.8	780.8	988.1	1134.5	1237.4	5237.0	9954.6	10996.8	11042.1
52.5°	775.5	756.4	662.2	925.4	993.4	1080.5	4959.9	10414.7	11680.0	11808.9
55°	698.8	592.5	545.5	751.1	784.2	942.8	4062.4	10148.1	11739.2	11967.5
57.5°	*597.8*	*465.3*	*463.6*	*554.2*	*554.2*	*874.9*	*2601.9*	*8670.2*	*10116.7*	*10517.6*
60°	460.1	360.8	383.4	385.1	355.5	637.8	1460.4	6280.9	7479.9	7879.0
62.5°	327.6	275.4	289.3	230.0	203.9	318.9	700.6	3616.2	4616.6	4672.3
65°	219.6	186.5	151.6	127.2	125.5	135.9	289.3	1307.1	1589.4	1793.3
67.5°	144.6	113.3	80.2	80.2	90.6	90.6	109.8	216.1	303.2	277.1
70°	94.1	78.4	50.5	48.8	59.3	59.3	55.8	59.3	62.7	62.7
72.5°	69.7	59.3	29.6	26.1	33.1	34.9	31.4	29.6	29.6	29.6
75°	52.3	41.8	17.4	12.2	15.7	20.9	17.4	12.2	12.2	10.5
77.5°	20.9	15.7	7.0	5.2	8.7	12.2	10.5	5.2	3.5	3.5
80°	1.7	3.5	3.5	3.5	5.2	7.0	8.7	3.5	1.7	1.7
82.5°	0.0	1.7	1.7	1.7	3.5	5.2	7.0	3.5	1.7	1.7
85°	0.0	0.0	0.0	0.0	3.5	5.2	3.5	1.7	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.7	5.2	3.5	1.7	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.

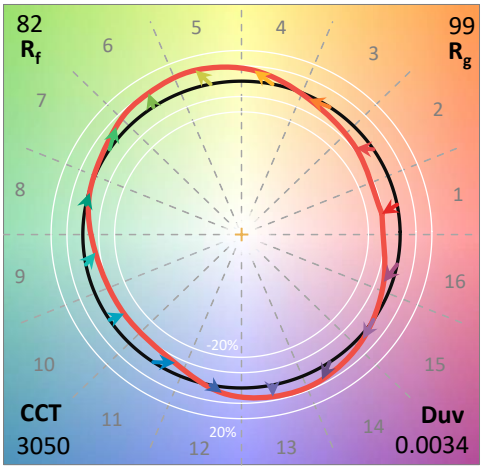
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

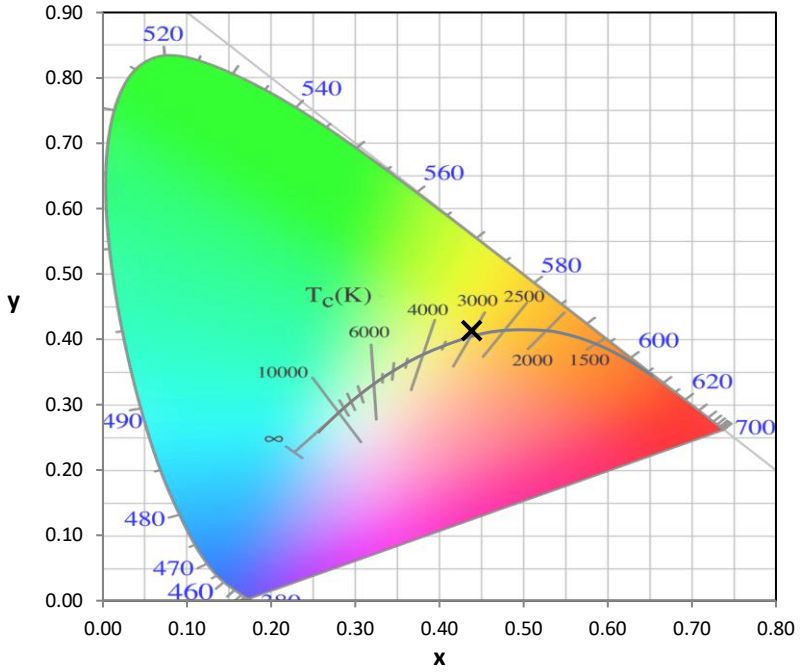
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

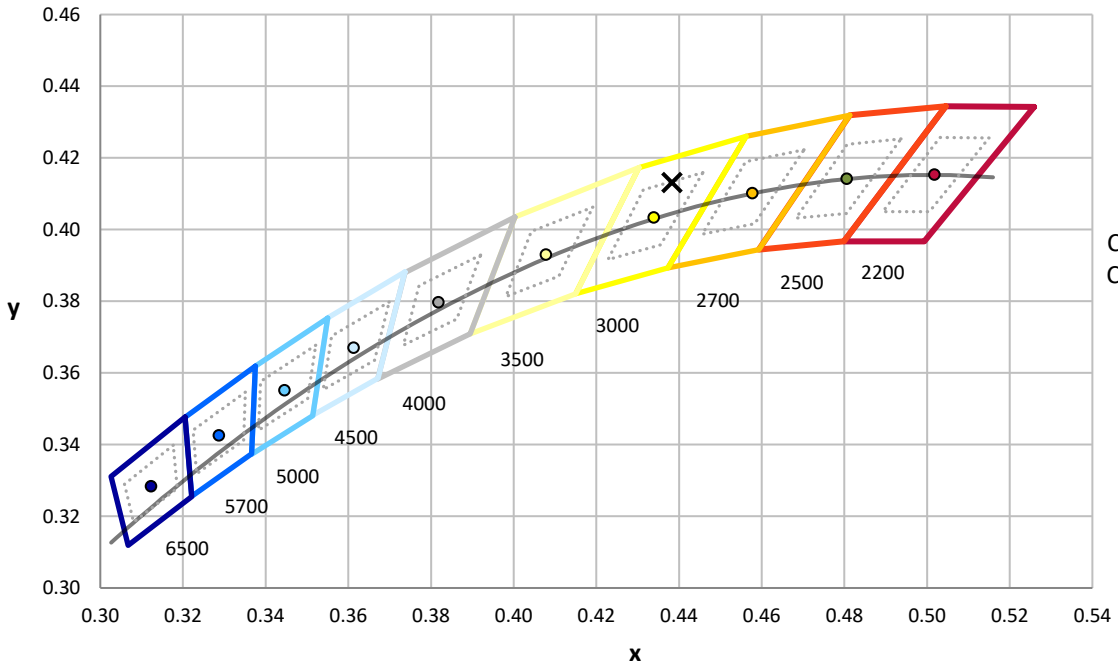
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

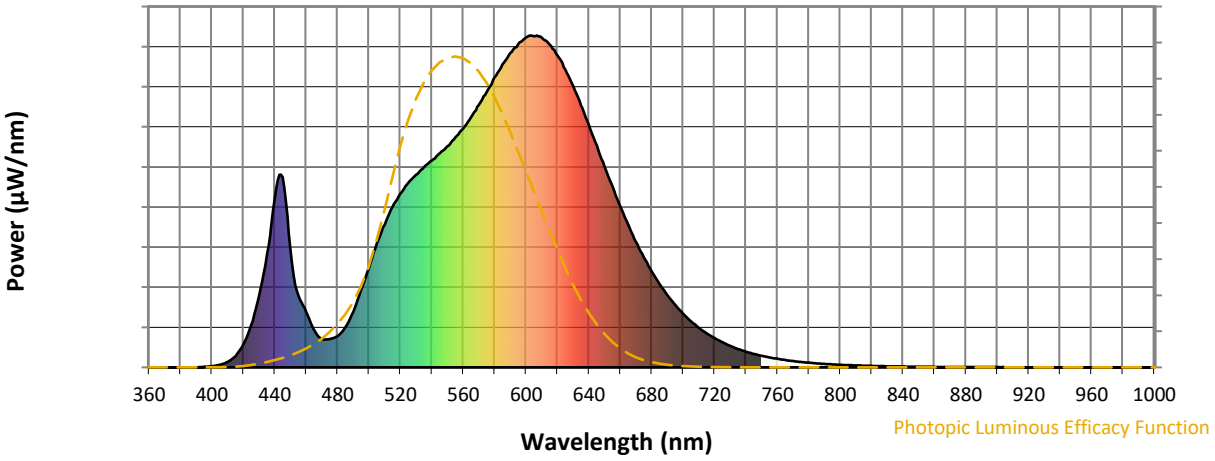


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

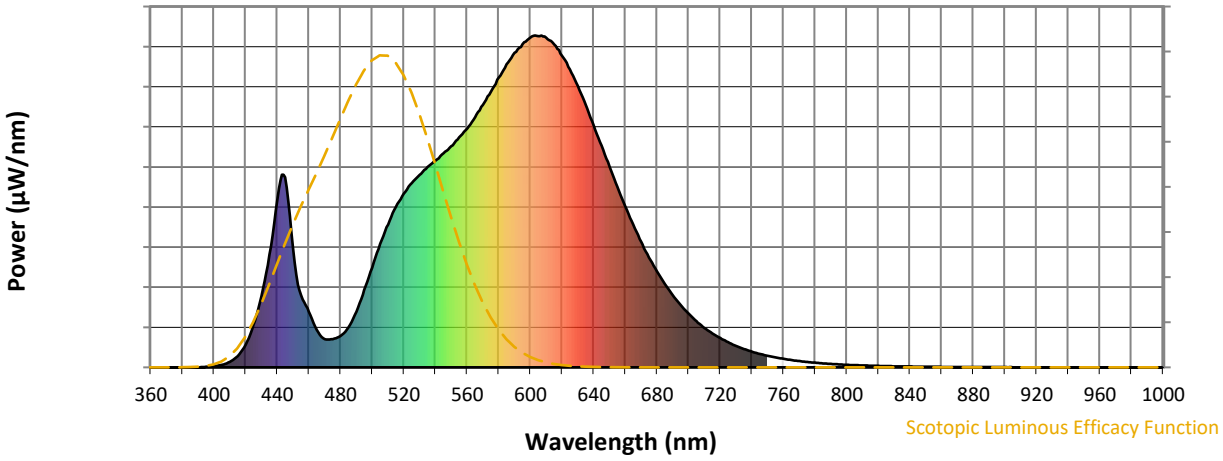


Photopic Lumens: NR

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

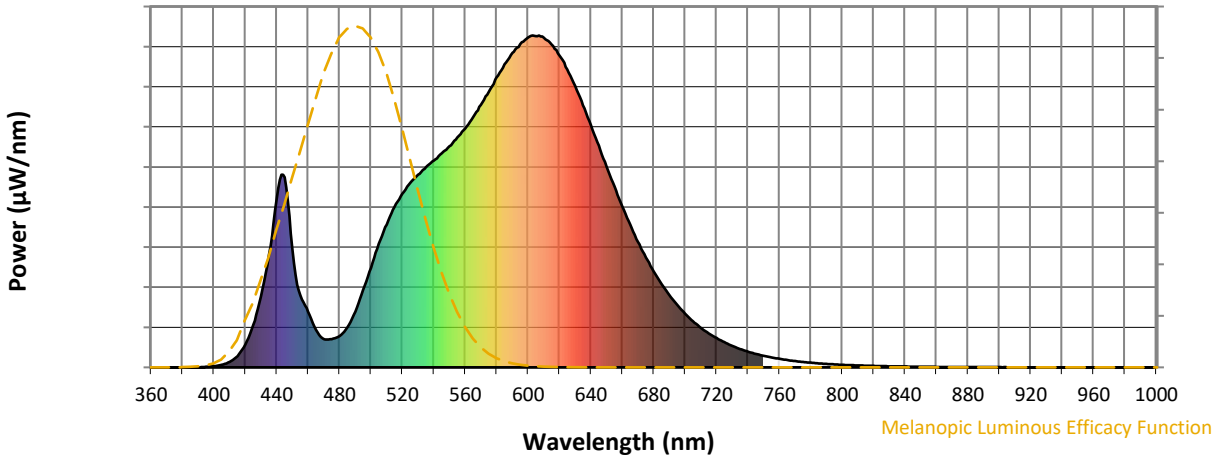


Scotopic Lumens: NR **S/P: 1.27**

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			

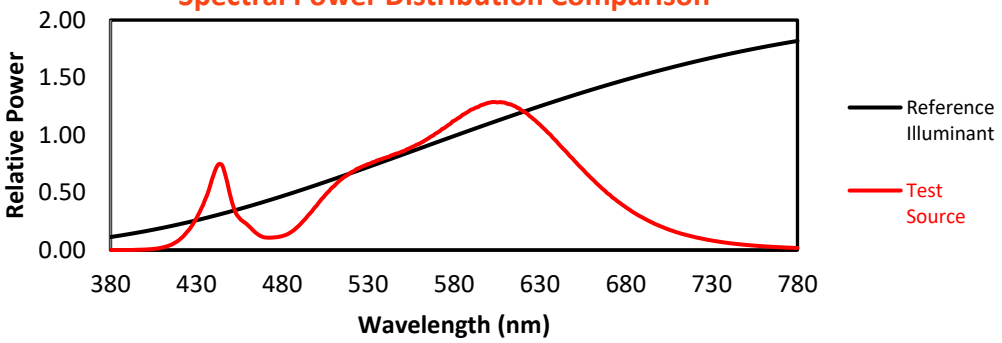
REPORT NUMBER: SP1-2408-195-9

TM-30-18

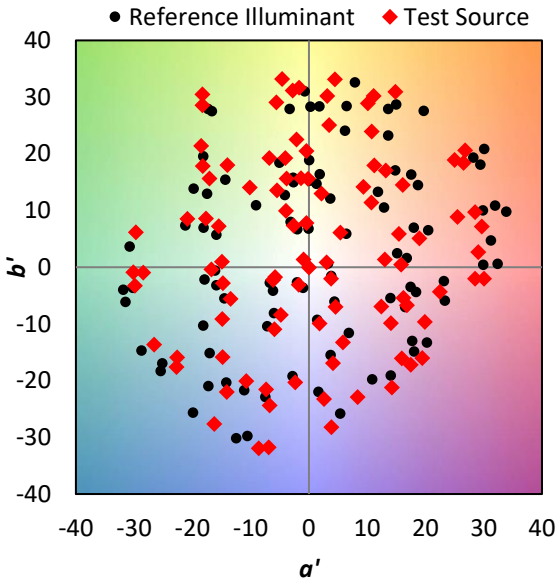
Summary

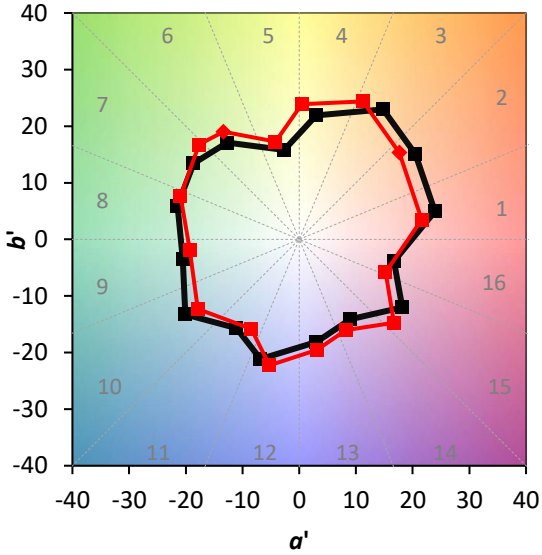
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

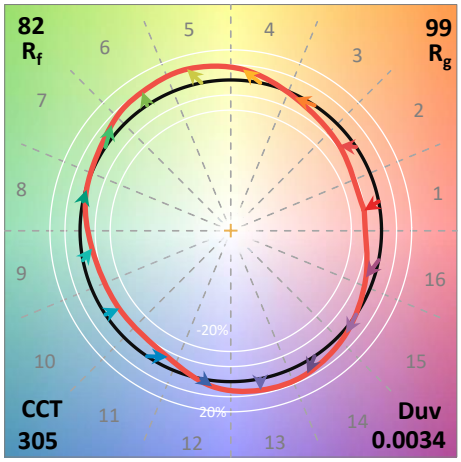
Spectral Power Distribution Comparison

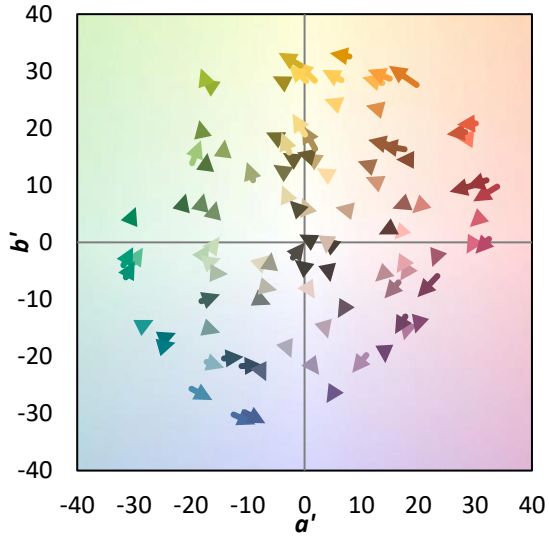


Color Vector Graphics









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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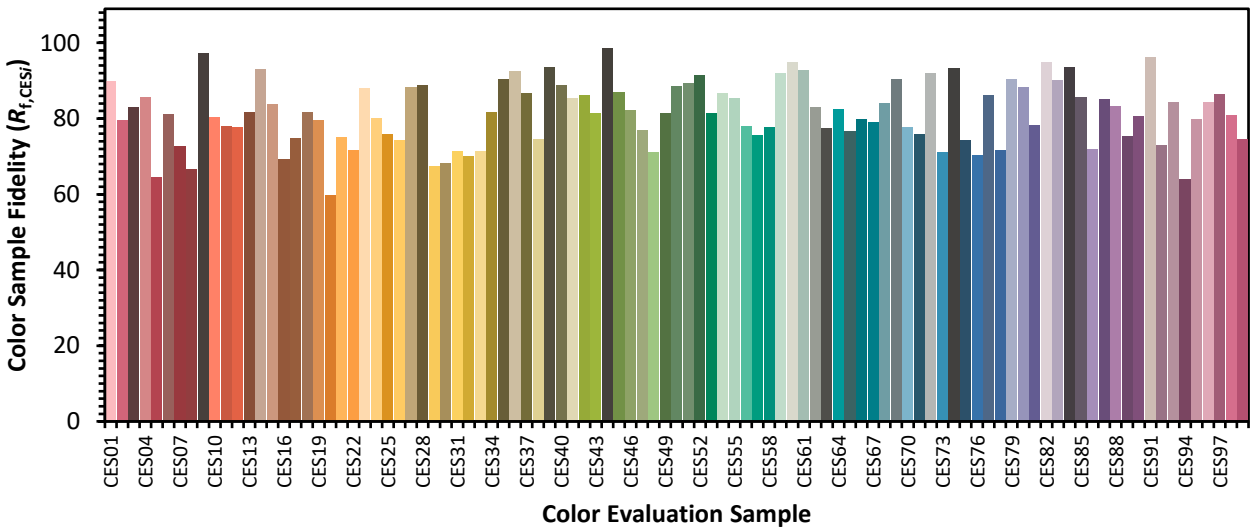

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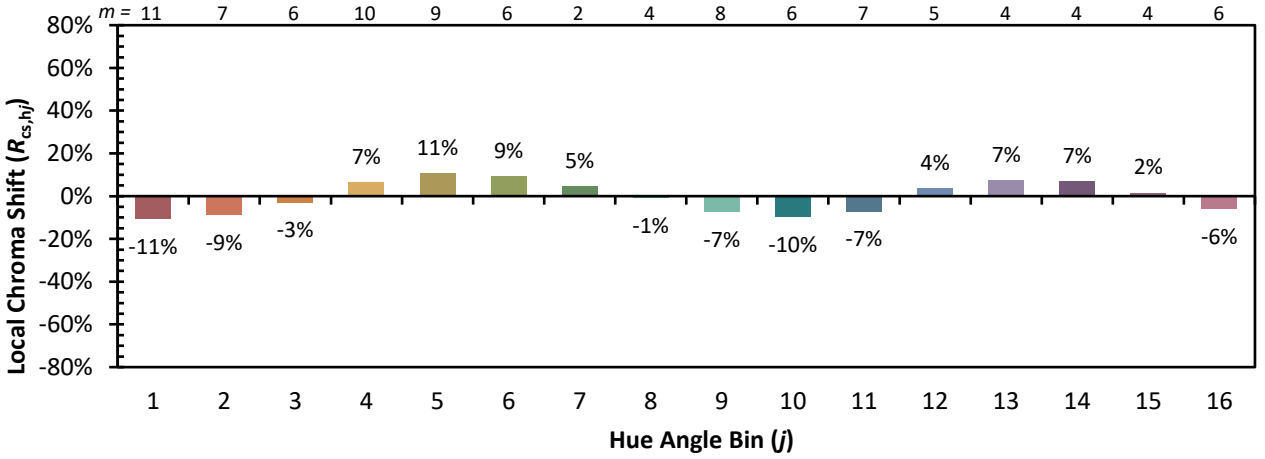
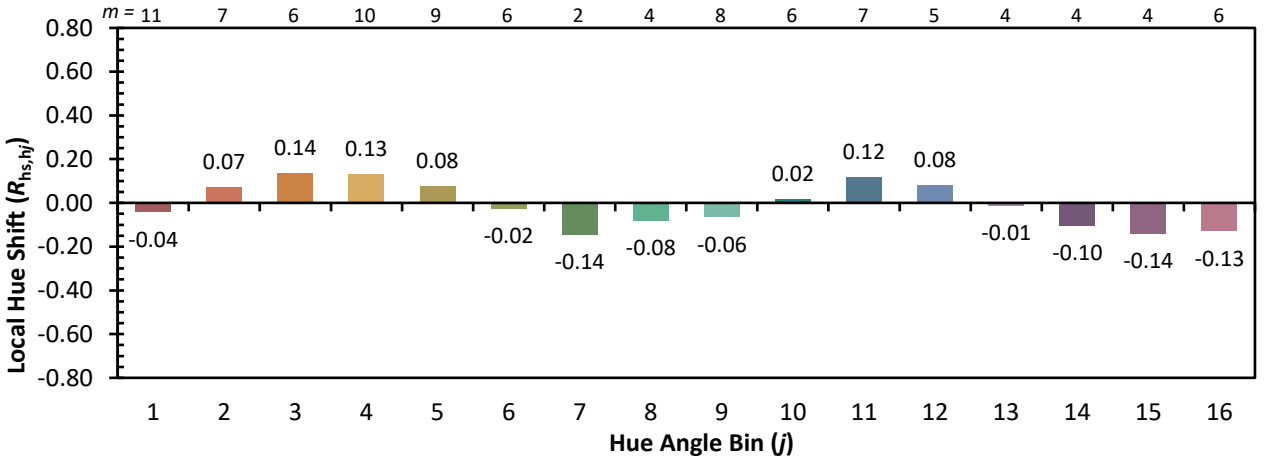
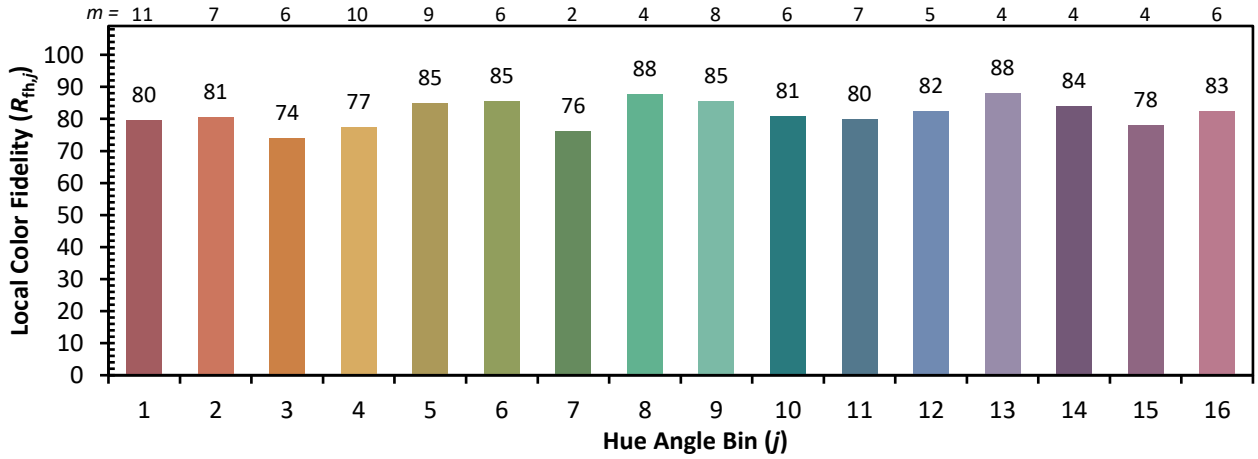
Color Rendition by Hue-Angle Bin







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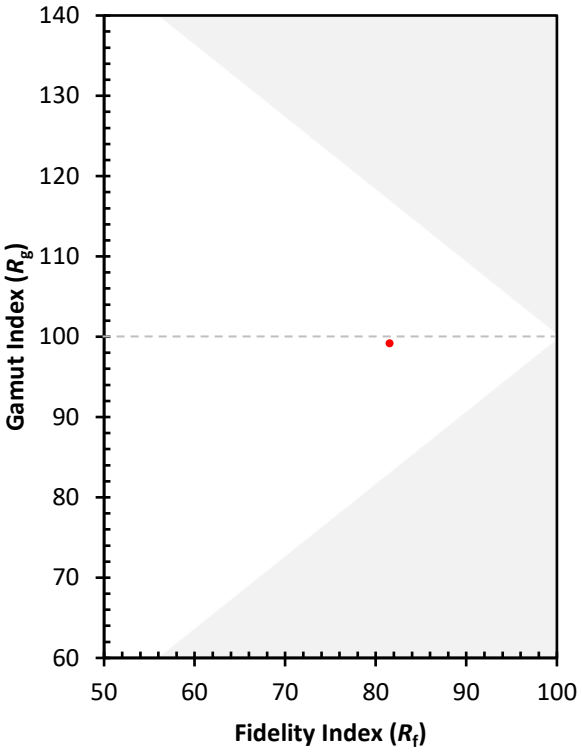
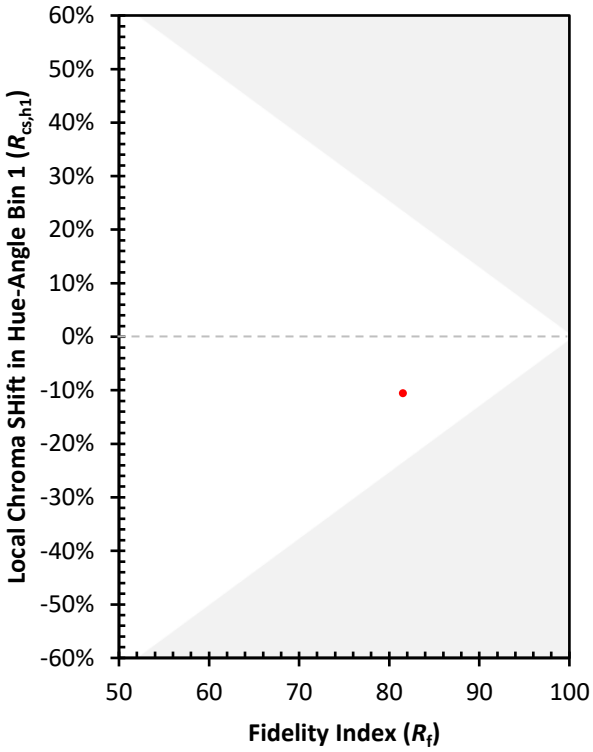
Measure Comparisons





(END OF REPORT)