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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324315

Luminaire Tested: **GLEON-SA1B-830-U-SLL-HSS**

Issue Date: 3/3/2020

Report Generated By E0585644

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P324315
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)
Test Lab:	INNOVATION CENTER
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GLEON-SA1B-830-U-SLL-HSS
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
	ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3526 lumens
Efficiency:	N/A
Efficacy:	80.1 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B1 - U0 - G1

Input Watts (W):	44
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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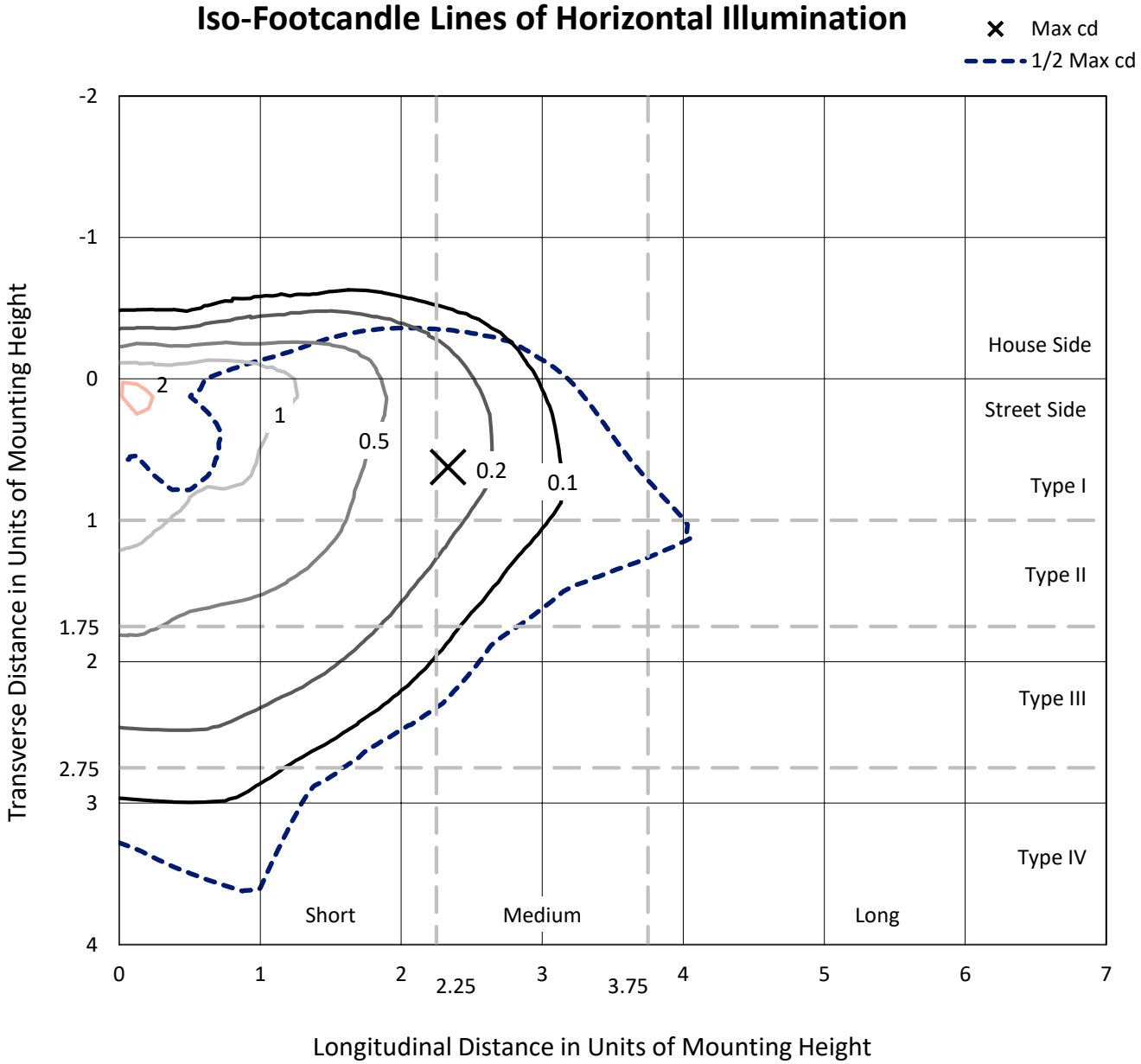
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type III - Medium - N/A

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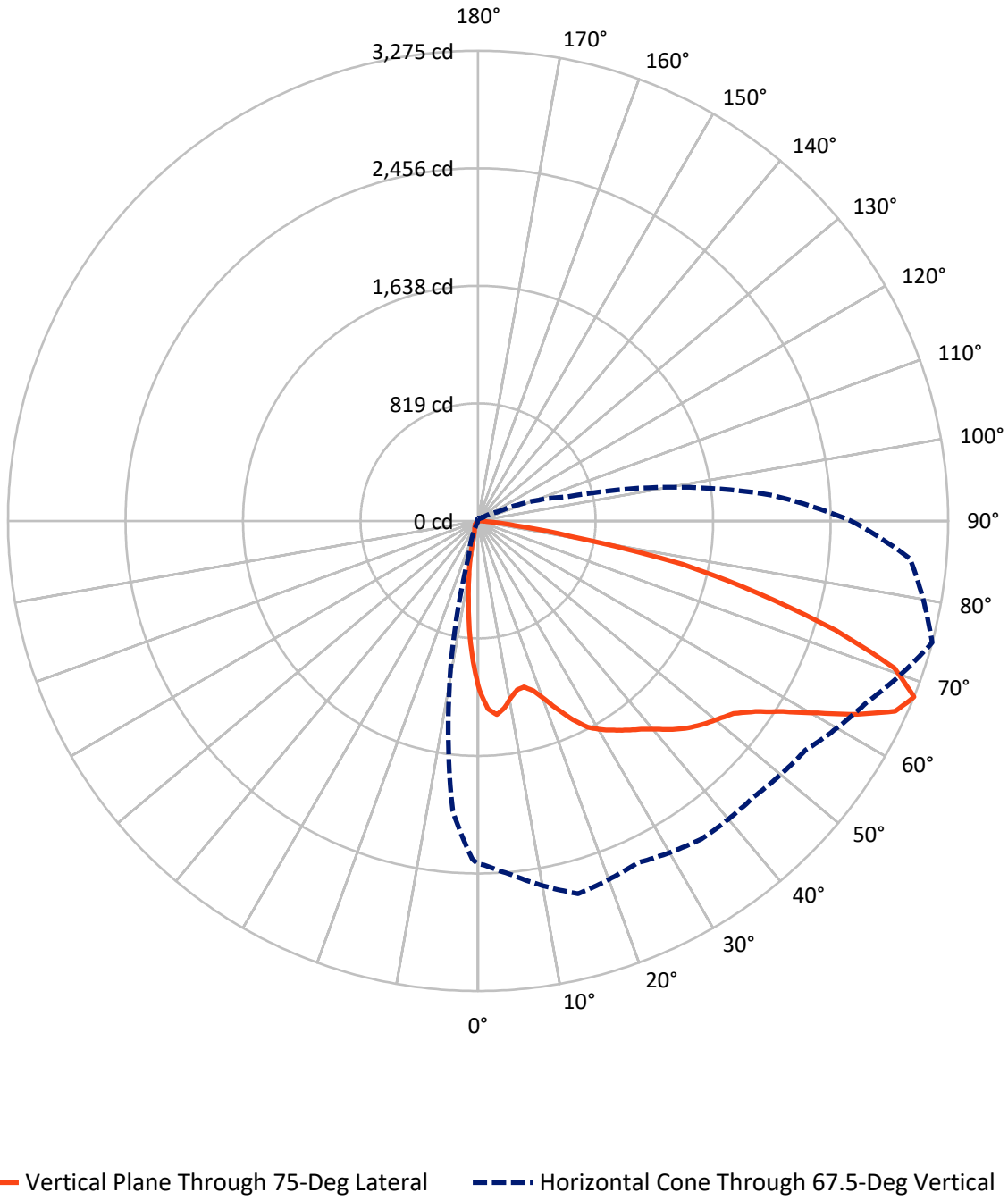
Luminous Intensity Polar Plot



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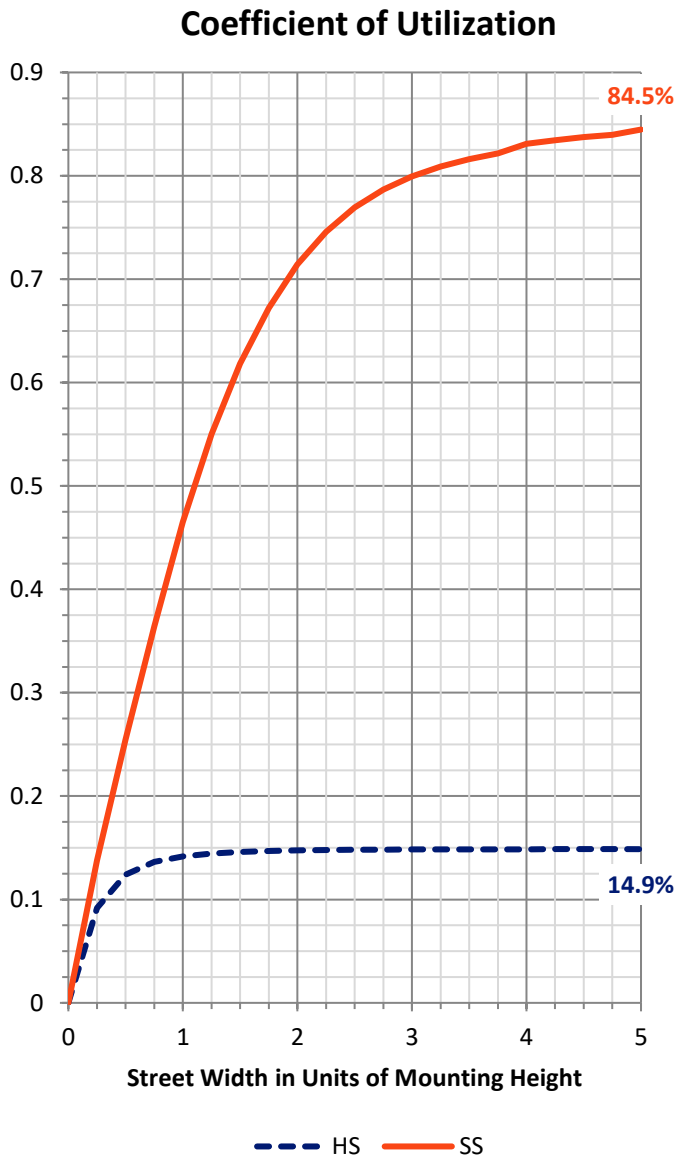
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	529.1	0.0	529.1
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	2996.9	0.0	2996.9
	% Fixture	85.0	0.0	85.0
Total	Lumens	3526.0	0.0	3526.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	2.5
10°-20°	176.7	5.0
20°-30°	249.9	7.1
30°-40°	367.5	10.4
40°-50°	528.2	15.0
50°-60°	743.6	21.1
60°-70°	868.4	24.6
70°-80°	443.0	12.6
80°-90°	58.9	1.7
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°	3526.0	100.0
0°-180°	3526.0	100.0



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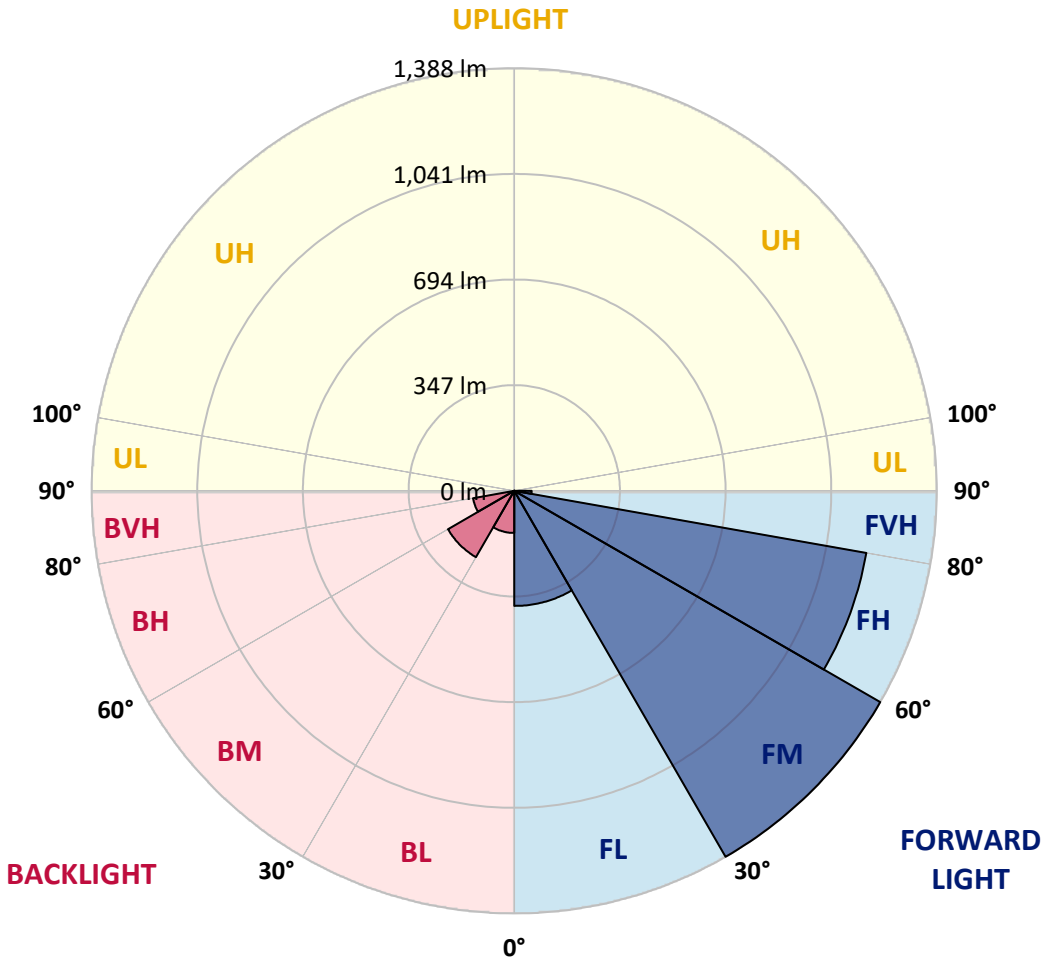
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	378.0	10.7			
FM	(30°-60°)	1387.8	39.4			
FH	(60°-80°)	1174.1	33.3			G1/1800
FVH	(80°-90°)	57.1	1.6			G1/100
BL	(0°-30°)	138.4	3.9	B1/500		
BM	(30°-60°)	251.5	7.1	B1/1000		
BH	(60°-80°)	137.4	3.9	B1/500		G1/500
BVH	(80°-90°)	1.8	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	*1182.9*	1182.9
2.5°	1282.3	1284.3	1294.7	1318.7	1344.9	1346.9	1364.6	1346.4	1340.3	*1310.9*	1280.5
5°	1292.0	1299.7	1335.2	1405.9	1467.2	1486.9	1500.9	1465.2	1427.6	*1355.8*	1279.1
7.5°	1214.0	1226.8	1282.8	1415.4	1525.0	1573.4	1582.6	1526.7	1434.6	*1316.4*	1201.1
10°	1114.1	1128.8	1196.3	1359.3	1509.8	1592.8	1605.5	1532.2	1399.9	*1252.6*	1116.8
12.5°	1033.3	1050.5	1119.4	1296.2	1457.5	1549.4	1574.4	1513.6	1369.8	*1207.3*	1059.1
15°	996.0	1015.7	1088.2	1255.4	1399.6	1471.9	1492.6	1466.4	1353.1	*1200.1*	1045.8
17.5°	1017.4	1038.8	1113.6	1258.9	1345.1	1376.0	1392.7	1403.4	1353.1	*1243.4*	1084.9
20°	1105.1	1128.1	1207.3	1294.5	1300.0	1288.5	1306.3	1343.9	1368.8	*1325.6*	1178.7
22.5°	1226.3	1253.4	1342.8	1355.5	1278.0	1234.4	1236.7	1295.7	1397.4	*1429.8*	1309.0
25°	1374.2	1407.2	1498.1	1446.3	1287.1	1202.1	1201.3	1255.9	1425.3	*1534.2*	1454.2
27.5°	1521.0	1557.4	1637.2	1557.2	1325.1	1196.3	1194.6	1243.9	1452.5	*1627.0*	1612.7
30°	1644.1	1679.5	1748.3	1637.6	1366.0	1210.0	1202.0	1256.7	1468.7	*1687.3*	1728.3
32.5°	1744.3	1772.7	1828.3	1692.9	1409.7	1236.5	1219.2	1291.1	1496.3	*1738.3*	1834.5
35°	1854.5	1884.4	1906.7	1745.5	1458.8	1274.8	1249.9	1345.8	1538.7	*1790.1*	1950.9
37.5°	1980.3	2010.0	2007.4	1793.6	1521.2	1338.1	1322.2	1432.3	1604.7	*1841.3*	2080.9
40°	2103.4	2133.8	2112.1	1846.2	1594.3	1442.5	1430.8	1562.2	1693.0	*1907.0*	2233.2
42.5°	2218.7	2251.6	2205.1	1896.0	1681.5	1574.1	1594.1	1729.6	1803.6	*1987.8*	2364.5
45°	2311.5	2345.1	2283.1	1944.4	1773.4	1733.8	1794.1	1915.0	1936.6	*2056.2*	2453.2
47.5°	2379.0	2410.8	2337.3	1992.8	1891.0	1929.0	2034.1	2109.4	2056.7	*2115.4*	2516.2
50°	2422.1	2446.8	2353.1	2053.5	2045.3	2156.9	2284.1	2320.9	2169.7	*2168.9*	2592.7
52.5°	2449.5	2460.7	2364.8	2116.8	2206.3	2404.9	2529.0	2540.5	2286.2	*2227.7*	2695.7
55°	2543.9	2552.9	2447.7	2193.4	2339.4	2622.2	2750.5	2739.8	2417.9	*2342.8*	2817.3
57.5°	2704.9	2714.4	2618.9	2303.7	2447.2	2756.5	2911.0	2930.2	2572.4	*2504.5*	2947.6
60°	2785.7	2803.4	2769.4	2443.3	2551.6	2842.4	3020.4	3081.7	2765.5	*2717.6*	3073.9
62.5°	2712.4	2738.1	2787.6	2598.2	2655.3	2889.6	3054.5	3136.0	2963.3	*2966.0*	3151.7
65°	2566.1	2586.6	2670.5	2683.0	2715.4	2883.8	2970.3	3060.2	3084.4	*3194.1*	3147.5
67.5°	*2389.4*	*2397.1*	*2468.2*	*2689.7*	*2628.2*	*2708.1*	*2717.4*	*2783.9*	*2988.7*	*3275.0*	*3021.1*
70°	2135.0	2139.2	2201.3	2466.0	2258.6	2276.1	2262.3	2275.8	2569.4	*3078.0*	2701.9
72.5°	1718.2	1728.8	1817.1	2048.0	1645.4	1594.8	1703.7	1697.7	1978.8	*2600.5*	2006.7
75°	1265.1	1283.3	1416.8	1649.6	1154.9	1044.6	1124.1	1145.3	1406.7	*2011.6*	1254.9
77.5°	885.8	899.3	1028.6	1212.6	835.8	747.0	718.2	743.5	928.5	*1455.2*	632.2
80°	510.3	515.3	597.8	700.2	563.2	644.4	583.8	601.1	556.4	*647.4*	271.9
82.5°	333.9	334.7	367.0	416.7	350.8	407.6	301.7	385.7	342.2	*260.1*	88.5
85°	180.4	181.4	212.8	295.8	198.6	112.2	66.0	135.5	211.6	*59.6*	24.2
87.5°	19.9	18.2	64.1	107.6	55.1	10.2	3.5	15.2	33.9	*3.8*	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

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9
2.5°	1264.9	1251.1	1216.5	1179.9	1150.5	1122.9	1095.2	1061.3	1035.1	1029.7	1021.1
5°	1237.9	1193.9	1121.4	1048.6	990.0	916.0	869.1	832.5	796.7	794.6	787.4
7.5°	1143.3	1085.5	983.5	882.8	800.2	729.8	658.6	611.0	573.6	560.4	552.5
10°	1052.5	987.5	860.0	745.1	671.5	609.2	559.1	509.3	464.2	433.1	419.1
12.5°	989.0	917.2	776.7	677.6	624.9	565.7	504.6	442.5	390.5	353.1	330.2
15°	964.4	887.8	748.8	650.9	585.8	510.9	432.8	361.8	304.2	270.3	249.7
17.5°	993.7	904.5	746.6	618.3	527.3	434.3	347.9	264.1	209.8	184.1	170.9
20°	1067.8	957.6	745.8	578.4	457.8	343.4	235.7	173.7	140.8	126.4	120.3
22.5°	1172.7	1025.4	752.5	539.0	385.5	245.4	162.7	127.6	110.7	103.1	99.6
25°	1307.7	1120.6	771.3	503.3	317.5	183.1	126.8	106.9	95.0	89.0	86.5
27.5°	1451.5	1230.2	800.7	472.2	262.2	146.0	108.6	91.5	83.0	78.8	76.5
30°	1570.1	1357.1	830.5	437.6	222.2	127.3	99.4	83.5	73.7	71.0	68.8
32.5°	1673.8	1453.2	851.5	406.4	195.9	113.1	89.9	74.7	68.0	62.8	60.5
35°	1781.2	1533.2	850.9	384.5	177.9	102.4	81.8	66.8	58.8	52.8	50.9
37.5°	1897.5	1623.5	836.3	365.8	170.0	93.9	77.3	62.6	54.6	48.6	46.3
40°	2033.6	1718.4	821.5	348.3	167.9	87.0	74.2	59.3	50.8	44.9	42.6
42.5°	2166.2	1803.9	808.4	335.2	158.5	86.9	71.3	56.8	47.8	42.1	39.4
45°	2272.3	1883.6	805.9	327.4	148.7	89.9	69.8	55.1	45.4	39.8	37.2
47.5°	2360.5	1970.1	822.0	321.9	139.3	82.0	73.5	54.0	43.3	37.7	34.9
50°	2465.4	2076.4	859.7	312.8	129.4	73.8	84.2	54.3	41.4	35.7	32.7
52.5°	2611.7	2223.3	915.2	297.6	115.9	66.3	82.8	54.6	39.4	33.6	30.6
55°	2775.7	2406.9	974.8	272.4	97.0	56.5	71.0	52.3	35.6	31.2	28.4
57.5°	2948.1	2573.4	1010.2	242.4	77.2	48.8	56.8	47.6	31.4	28.1	26.2
60°	2975.2	2636.7	994.0	205.4	61.3	42.4	42.1	48.4	28.1	24.7	23.4
62.5°	2907.8	2557.2	915.7	172.5	51.3	37.2	34.6	42.3	25.4	22.0	20.7
65°	2778.4	2342.3	788.7	155.5	47.6	31.9	28.7	29.7	22.2	19.2	18.0
67.5°	*2598.3*	*2055.3*	*647.6*	*145.8*	*47.1*	*27.4*	*24.6*	*22.5*	*19.2*	*16.7*	*15.7*
70°	2230.2	1712.2	516.6	140.5	45.8	23.1	20.7	18.4	16.0	14.2	13.4
72.5°	1641.4	1213.3	401.9	134.6	46.1	18.4	18.0	15.2	12.9	11.0	10.7
75°	948.4	693.2	263.6	109.1	43.9	14.2	15.0	10.7	9.0	7.7	7.7
77.5°	505.4	422.8	100.4	45.4	16.0	9.0	8.5	6.3	5.7	4.7	4.5
80°	220.3	186.1	30.2	12.7	8.9	4.8	3.2	2.8	2.5	2.0	1.8
82.5°	78.0	67.3	9.9	6.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.7	12.7	0.0	1.5	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°	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9
2.5°	1003.4	999.7	978.0	978.8	982.6	988.2	975.1	981.1	997.3	1012.9	1018.7
5°	775.9	776.7	763.5	771.7	779.0	784.0	763.0	763.3	776.2	793.7	802.9
7.5°	546.7	545.4	546.0	565.6	579.4	569.4	577.3	550.0	551.7	564.2	554.9
10°	406.4	388.0	377.7	392.4	407.6	402.0	388.5	379.7	385.8	399.7	398.7
12.5°	319.4	293.0	277.4	266.9	279.4	269.1	268.8	261.1	252.7	254.2	276.4
15°	240.2	221.0	202.6	185.7	185.4	181.9	164.0	144.0	142.3	143.3	154.8
17.5°	165.2	158.7	151.2	136.6	132.8	118.1	100.7	92.7	88.7	90.5	94.4
20°	116.1	113.6	114.4	106.6	101.1	87.0	76.8	73.7	73.0	74.8	76.7
22.5°	96.2	91.7	91.2	87.7	82.2	72.0	66.5	64.6	63.8	65.5	66.8
25°	84.2	79.7	77.8	75.7	69.8	62.8	59.5	57.8	57.0	58.0	58.8
27.5°	74.2	70.0	68.3	66.8	61.1	56.1	53.4	51.9	51.3	51.6	52.4
30°	66.6	63.0	60.8	59.0	54.1	50.6	48.3	46.8	46.1	46.1	46.9
32.5°	58.8	56.8	54.8	52.4	47.9	45.6	43.3	41.6	40.9	41.1	41.8
35°	48.9	48.3	48.8	46.6	42.8	40.8	38.4	36.6	36.1	36.2	36.9
37.5°	43.4	40.4	42.3	41.1	38.9	36.2	33.2	31.6	30.7	31.2	31.6
40°	39.9	36.2	34.9	36.1	35.7	31.4	28.7	27.1	26.4	26.6	26.9
42.5°	36.9	32.6	29.6	29.4	31.4	27.4	24.6	23.1	22.2	22.2	22.5
45°	34.1	29.4	25.7	22.9	26.4	23.2	20.5	19.2	18.2	18.2	18.4
47.5°	31.9	26.7	22.4	18.7	19.9	19.0	16.9	15.5	14.5	14.5	14.7
50°	29.9	24.1	19.4	15.7	14.9	15.7	13.7	12.2	11.5	11.4	11.7
52.5°	27.7	21.4	16.5	13.4	11.7	11.9	10.7	9.7	8.9	8.9	9.2
55°	25.6	19.2	14.4	11.4	9.7	8.9	8.5	7.9	7.2	7.2	7.5
57.5°	23.4	16.9	12.2	9.4	7.7	7.0	7.0	6.5	6.0	6.0	6.3
60°	21.4	14.5	10.0	7.7	6.0	5.8	6.0	5.5	5.2	5.2	5.5
62.5°	19.0	12.4	8.2	6.3	4.8	4.7	5.2	4.8	4.5	4.5	4.8
65°	16.2	10.5	6.5	4.8	3.7	3.7	4.3	4.0	3.7	3.7	4.0
67.5°	*13.7*	*8.9*	*5.0*	*3.5*	*2.7*	*2.8*	*3.7*	*3.3*	*3.2*	*3.2*	*3.5*
70°	11.4	6.8	3.5	2.2	1.5	2.2	2.8	2.8	2.8	2.8	3.2
72.5°	8.5	4.7	2.0	0.8	0.7	1.5	2.3	2.7	2.5	2.5	3.0
75°	5.5	2.7	0.7	0.0	0.0	0.8	1.8	2.2	2.2	2.0	2.5
77.5°	3.2	0.8	0.0	0.0	0.0	0.0	1.2	1.0	0.8	0.7	1.2
80°	0.8	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: P324315
CATALOG NUMBER: GLEON-SA1B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9	1182.9
2.5°	1042.3	1062.0	1089.7	1119.1	1164.4	1200.3	1235.5	1265.8	1277.5	1282.3
5°	825.0	853.9	894.5	946.6	1028.2	1101.7	1176.2	1251.2	1283.8	1292.0
7.5°	592.0	628.9	680.5	745.8	841.5	936.7	1040.8	1150.8	1201.3	1214.0
10°	438.1	483.2	542.3	611.2	702.5	800.4	913.8	1039.6	1097.2	1114.1
12.5°	310.8	371.8	451.0	534.7	613.8	701.2	815.9	954.6	1015.0	1033.3
15°	182.6	241.5	335.2	447.3	548.7	637.2	753.8	911.0	977.6	996.0
17.5°	104.7	134.1	204.9	329.9	467.5	590.1	734.3	921.8	1000.3	1017.4
20°	80.0	89.4	118.1	212.5	372.6	543.9	734.3	983.3	1080.0	1105.1
22.5°	70.0	76.8	88.5	126.8	274.3	494.2	742.8	1072.2	1198.6	1226.3
25°	62.1	68.3	78.3	95.4	187.1	435.3	763.0	1181.2	1338.3	1374.2
27.5°	55.6	61.5	70.5	83.5	127.9	364.1	790.2	1309.2	1492.3	1521.0
30°	49.8	55.3	63.5	72.7	98.7	283.5	813.4	1429.8	1613.2	1644.1
32.5°	44.3	49.3	56.6	63.5	80.8	209.6	815.9	1525.3	1713.6	1744.3
35°	39.1	43.6	50.3	55.6	67.0	165.5	777.0	1608.2	1814.0	1854.5
37.5°	34.1	38.4	44.3	48.3	59.0	135.0	717.6	1700.5	1942.7	1980.3
40°	29.4	33.2	39.3	41.9	55.8	103.7	652.9	1797.4	2069.0	2103.4
42.5°	25.1	28.7	34.6	39.8	48.9	77.5	583.1	1888.3	2182.6	2218.7
45°	20.9	24.7	30.6	42.1	40.6	58.0	508.4	1948.6	2272.3	2311.5
47.5°	16.9	21.2	29.2	40.1	32.4	42.6	449.3	2005.7	2340.3	2379.0
50°	13.5	17.9	32.9	35.7	26.6	32.6	424.6	2056.8	2384.9	2422.1
52.5°	11.0	15.0	31.1	27.4	22.2	26.9	438.0	2139.7	2426.1	2449.5
55°	9.2	11.9	18.7	19.0	18.9	22.9	454.5	2258.6	2532.9	2543.9
57.5°	8.0	9.5	13.0	14.7	15.9	20.4	454.8	2429.3	2698.0	2704.9
60°	6.8	8.4	10.9	11.9	13.7	18.2	438.3	2488.9	2763.0	2785.7
62.5°	6.0	7.3	9.0	9.9	11.5	16.4	399.5	2402.6	2673.8	2712.4
65°	5.3	6.7	7.5	8.4	10.2	14.7	335.7	2229.9	2525.8	2566.1
67.5°	*4.7*	*5.8*	*6.7*	*7.5*	*9.2*	*13.0*	*247.2*	*2029.3*	*2356.0*	*2389.4*
70°	4.2	5.2	6.0	6.7	8.0	11.0	150.0	1721.9	2121.1	2135.0
72.5°	4.0	4.7	5.5	6.0	7.0	9.7	76.0	1265.4	1695.7	1718.2
75°	3.5	4.2	5.0	5.3	6.2	8.4	30.9	831.1	1228.8	1265.1
77.5°	2.8	3.8	4.5	4.8	5.3	6.8	15.7	531.2	862.4	885.8
80°	1.0	2.8	3.8	4.0	4.5	5.0	10.4	290.8	500.3	510.3
82.5°	0.0	1.8	3.0	2.8	3.2	3.8	6.7	138.3	330.2	333.9
85°	0.0	0.8	2.3	1.8	1.3	2.7	2.3	30.2	173.2	180.4
87.5°	0.0	0.0	0.2	0.8	0.7	1.0	0.3	0.2	15.7	19.9
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.

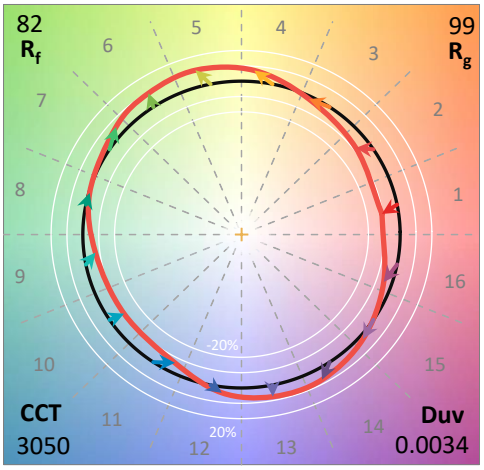
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

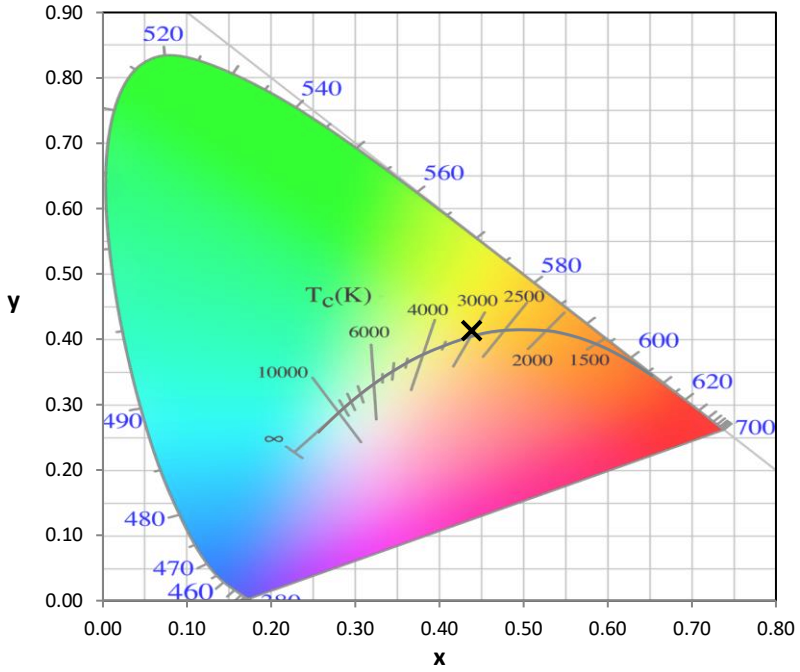
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

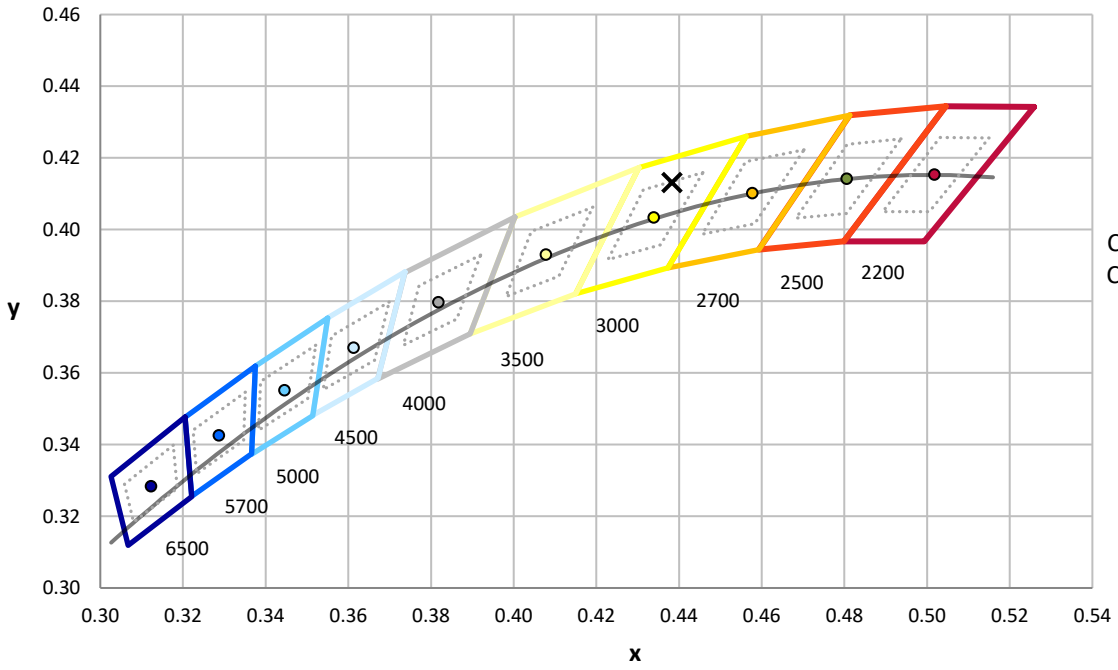
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

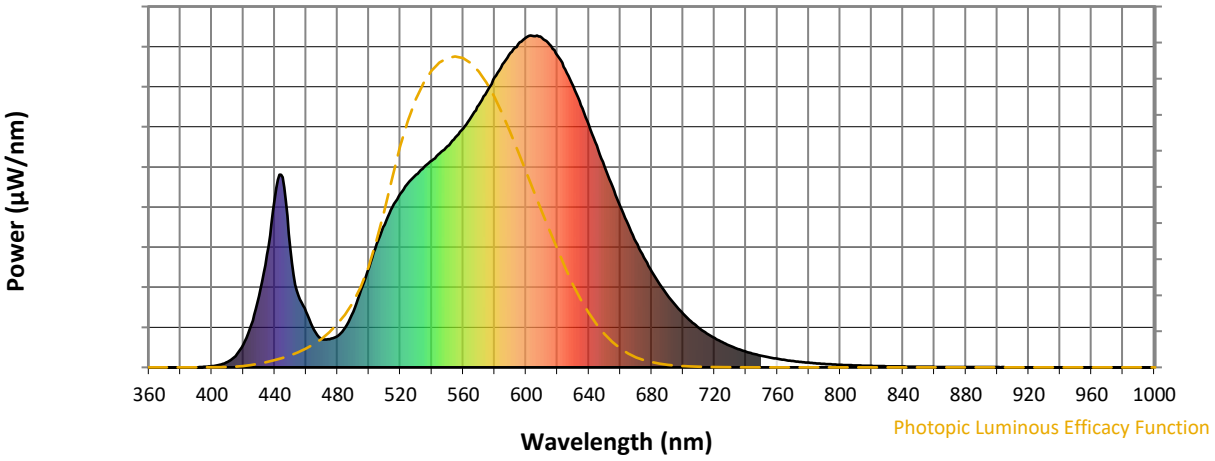


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

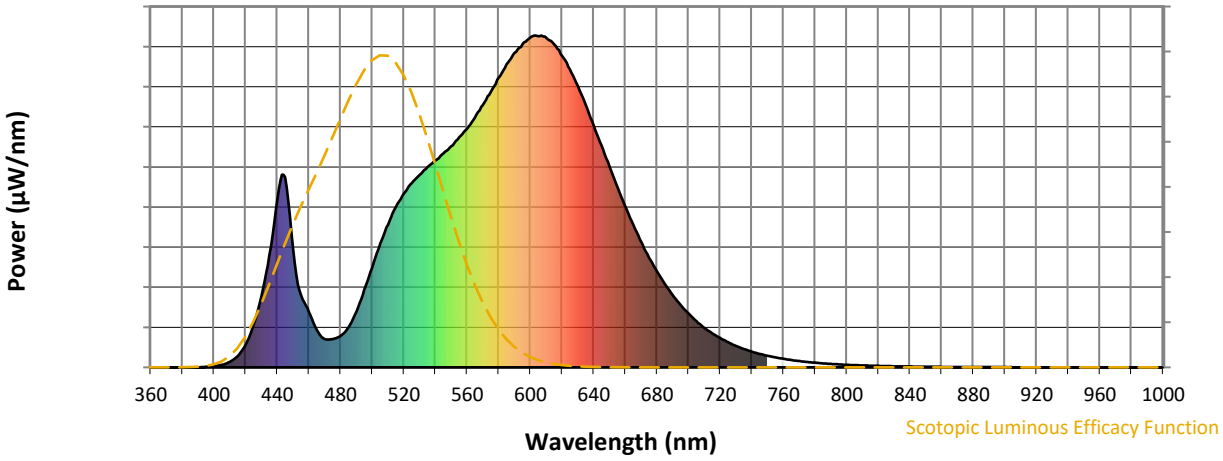


Photopic Lumens: NR

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

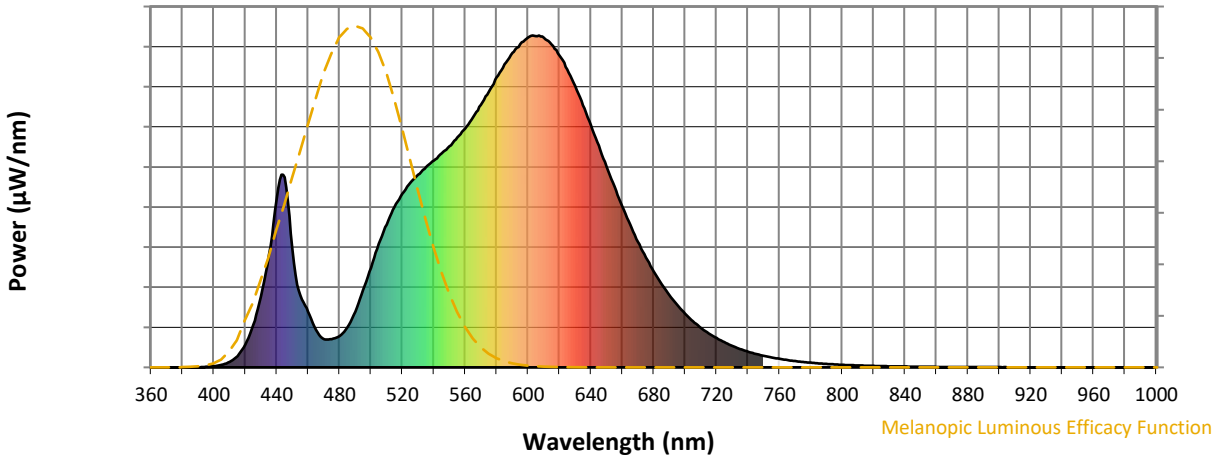


Scotopic Lumens: NR **S/P: 1.27**

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			

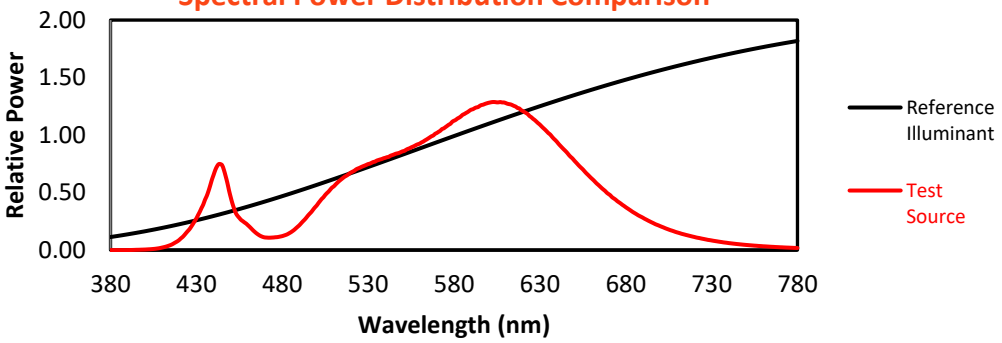
REPORT NUMBER: SP1-2408-195-9

TM-30-18

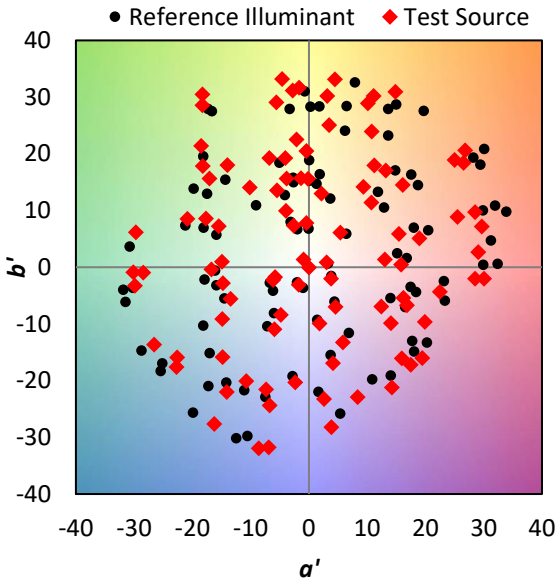
Summary

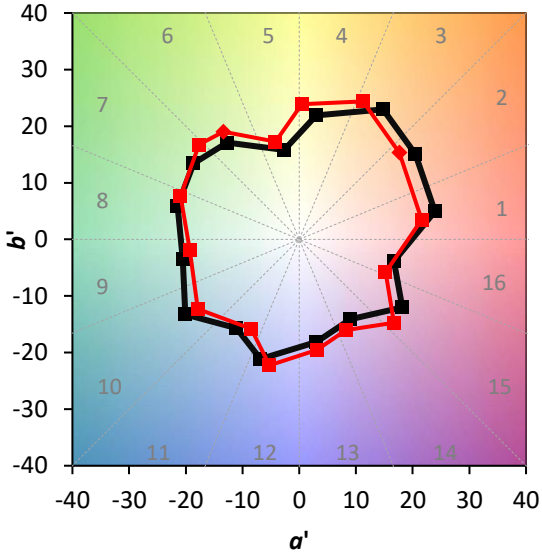
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

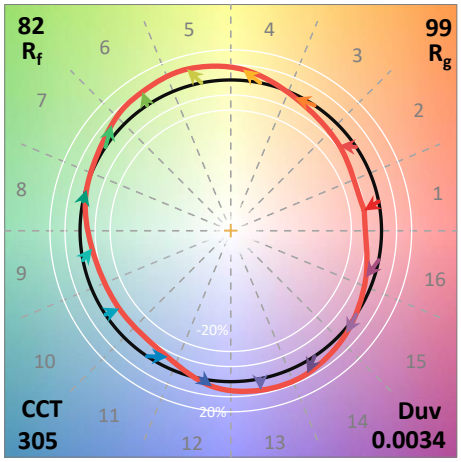
Spectral Power Distribution Comparison

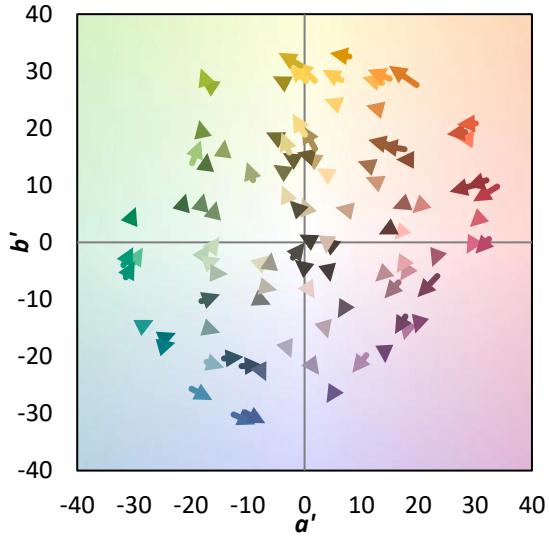


Color Vector Graphics









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
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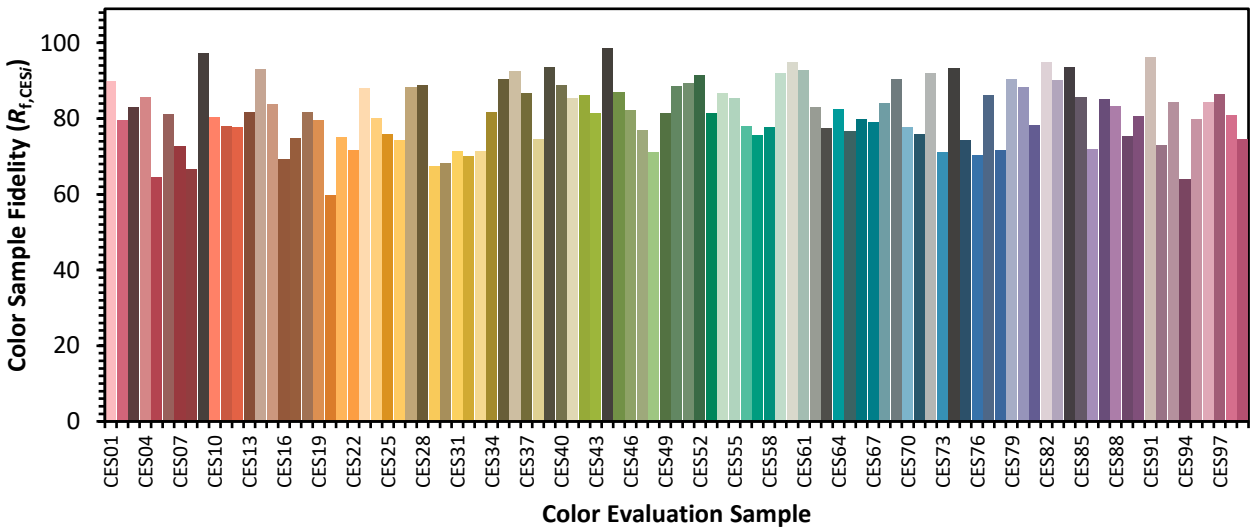

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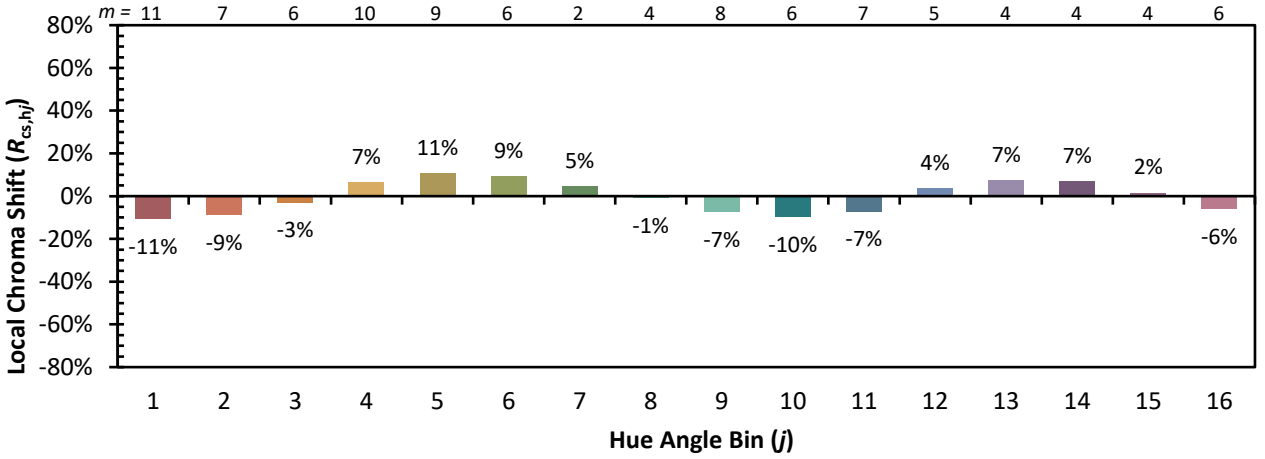
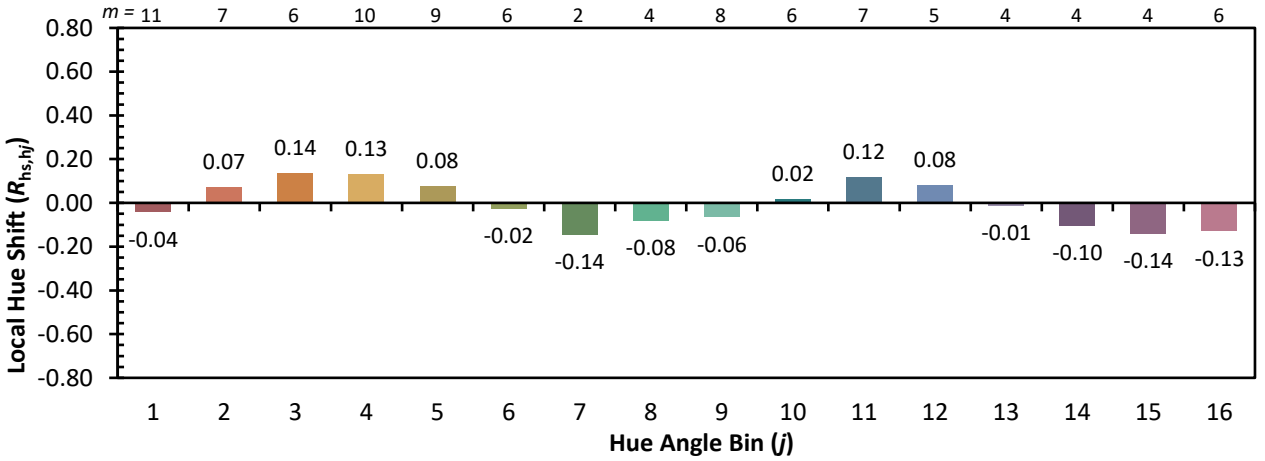
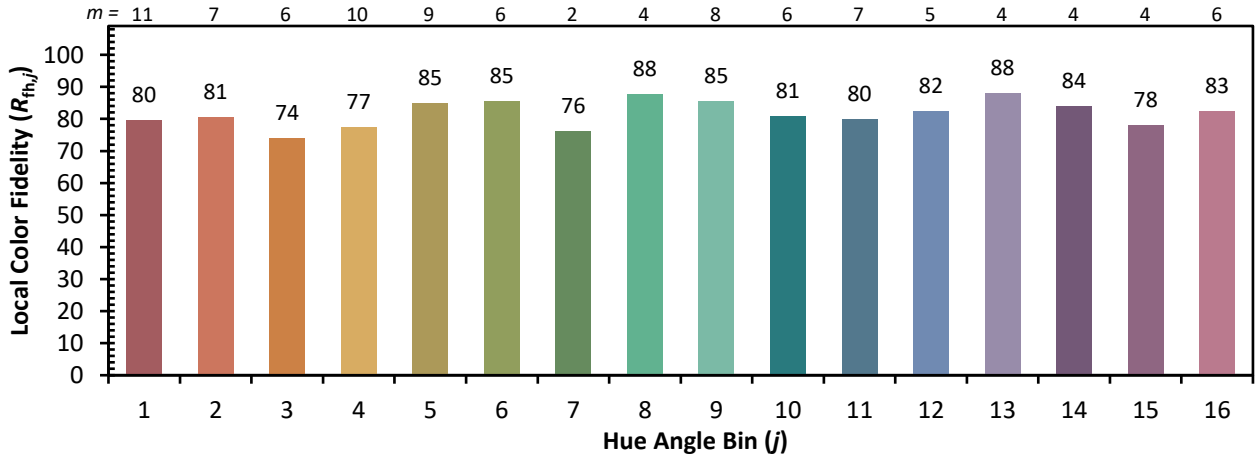
Color Rendition by Hue-Angle Bin







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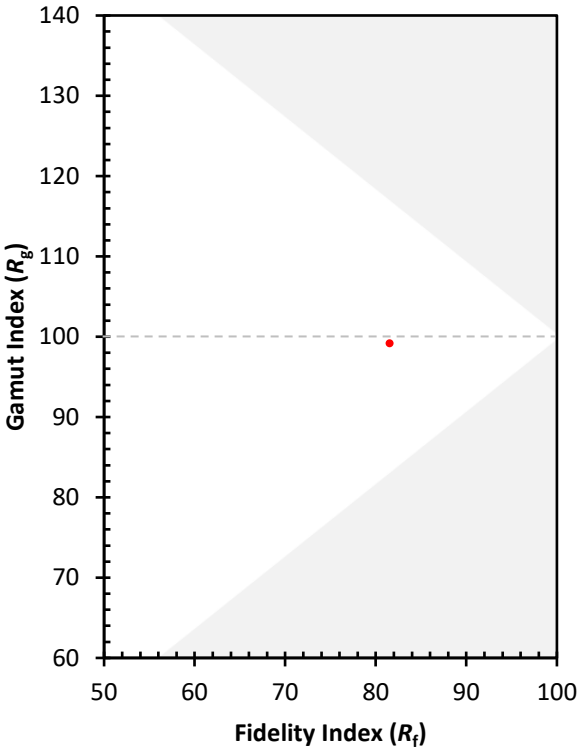
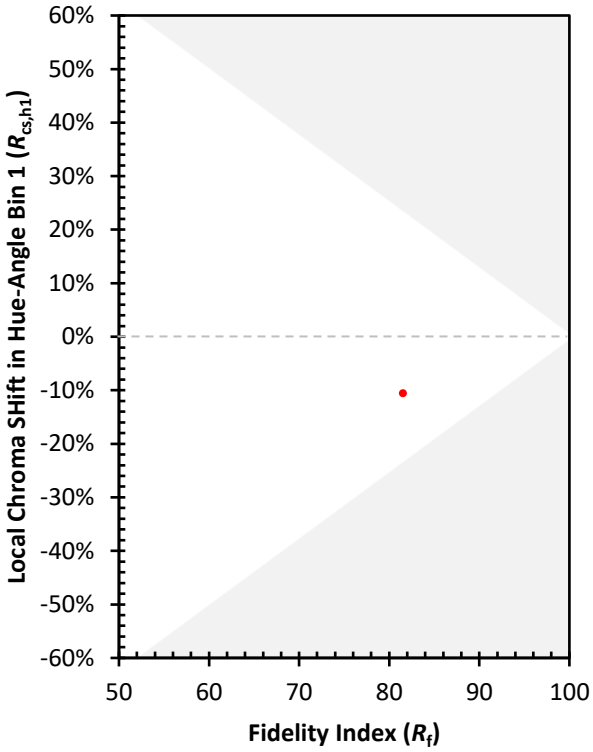
Measure Comparisons





(END OF REPORT)