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: P437425

Luminaire Tested: **ISS-SA1C-830-U-SLL-HSS**

Issue Date: 12/9/2020

Report Generated By 670245982

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437425
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-21)
Test Lab:	INNOVATION CENTER
Issue Date:	12/9/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISS-SA1C-830-U-SLL-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 615mA 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:	2714 lumens
Efficiency:	N/A
Efficacy:	79.4 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G1

Input Watts (W):	34.2
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:	28.75 FT

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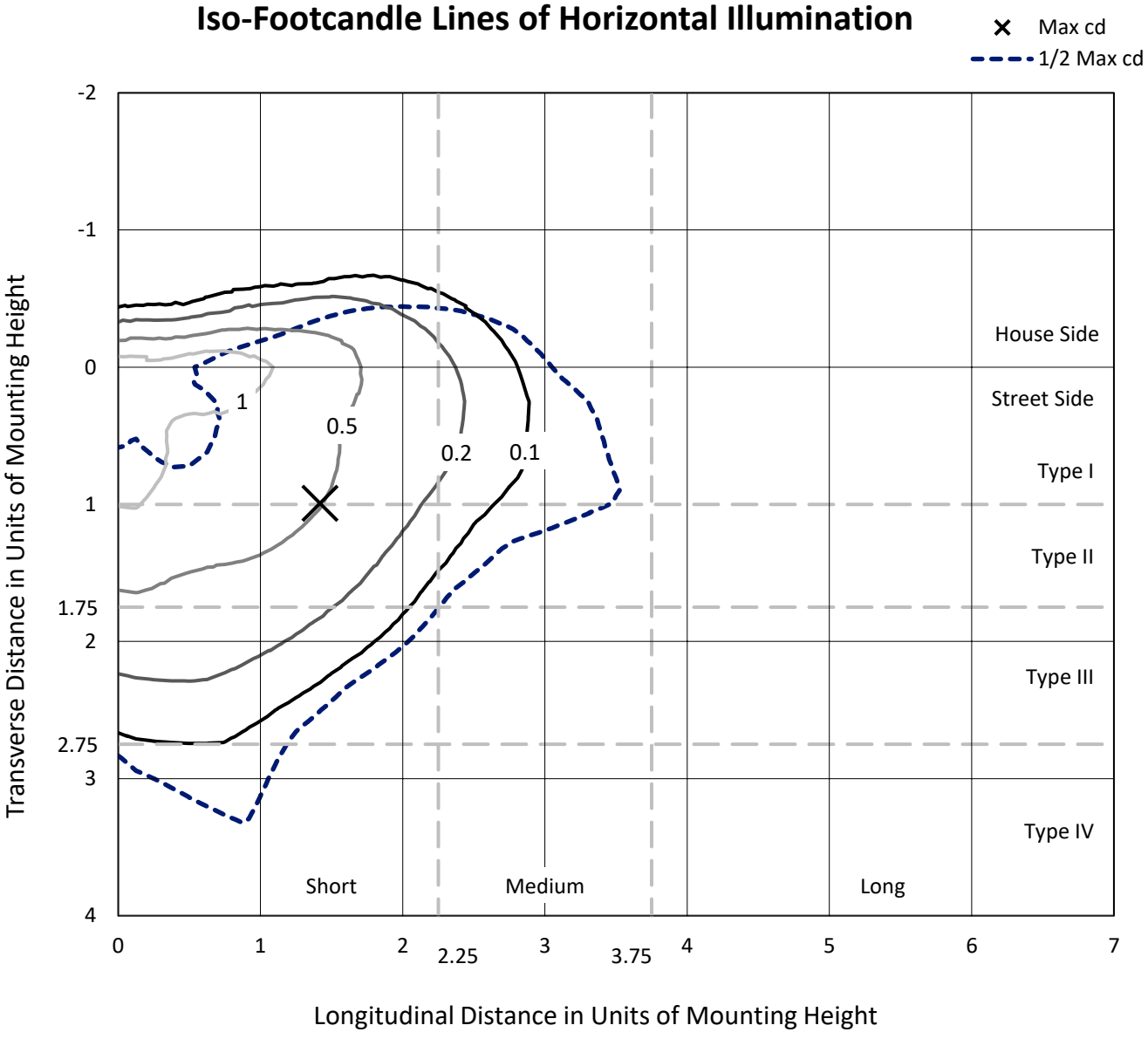
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
Type IV - Short - N/A

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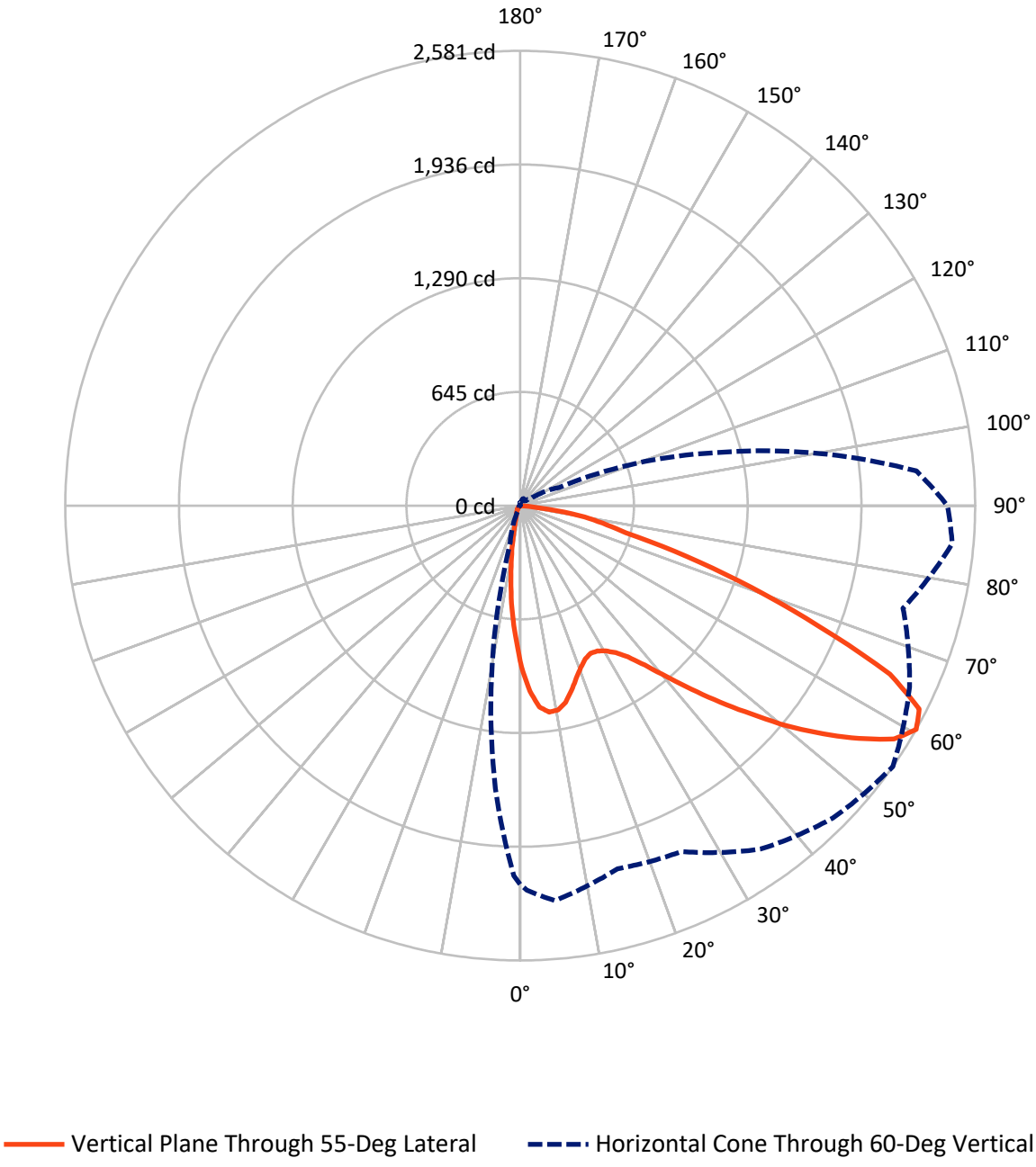
Luminous Intensity Polar Plot



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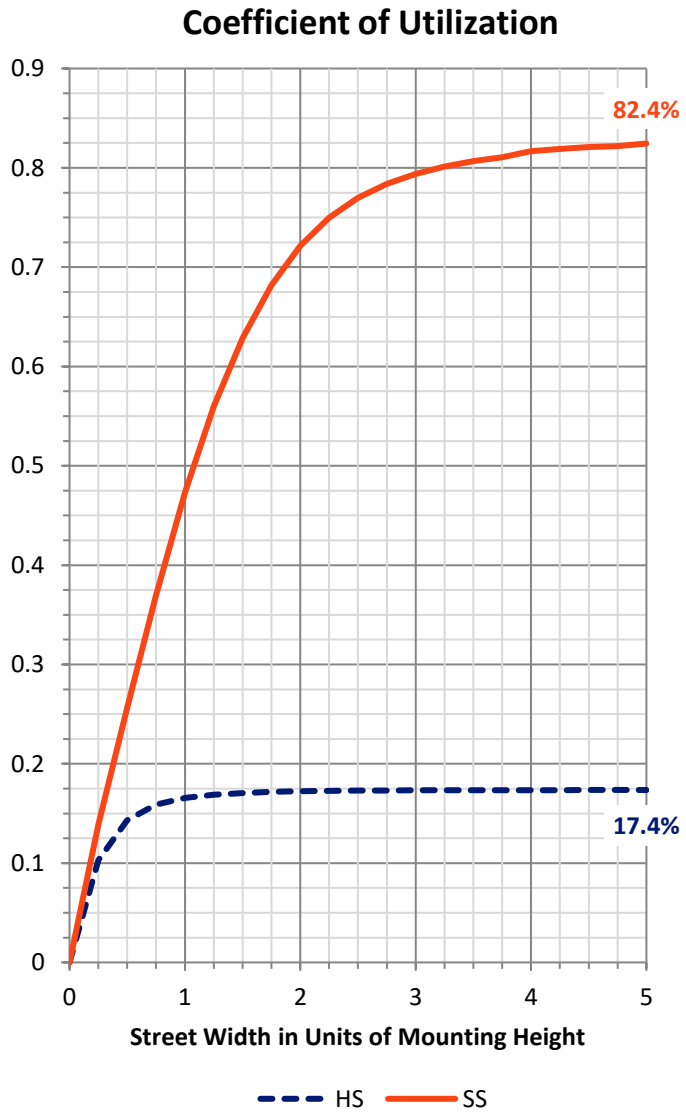
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	475.4	0.0	475.4
	% Fixture	17.5	0.0	17.5
Street Side	Lumens	2238.6	0.0	2238.6
	% Fixture	82.5	0.0	82.5
Total	Lumens	2714.0	0.0	2714.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.2	2.5
10°-20°	133.7	4.9
20°-30°	196.5	7.2
30°-40°	293.8	10.8
40°-50°	434.7	16.0
50°-60°	624.8	23.0
60°-70°	669.8	24.7
70°-80°	270.6	10.0
80°-90°	21.9	0.8
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°	2714.0	100.0
0°-180°	2714.0	100.0



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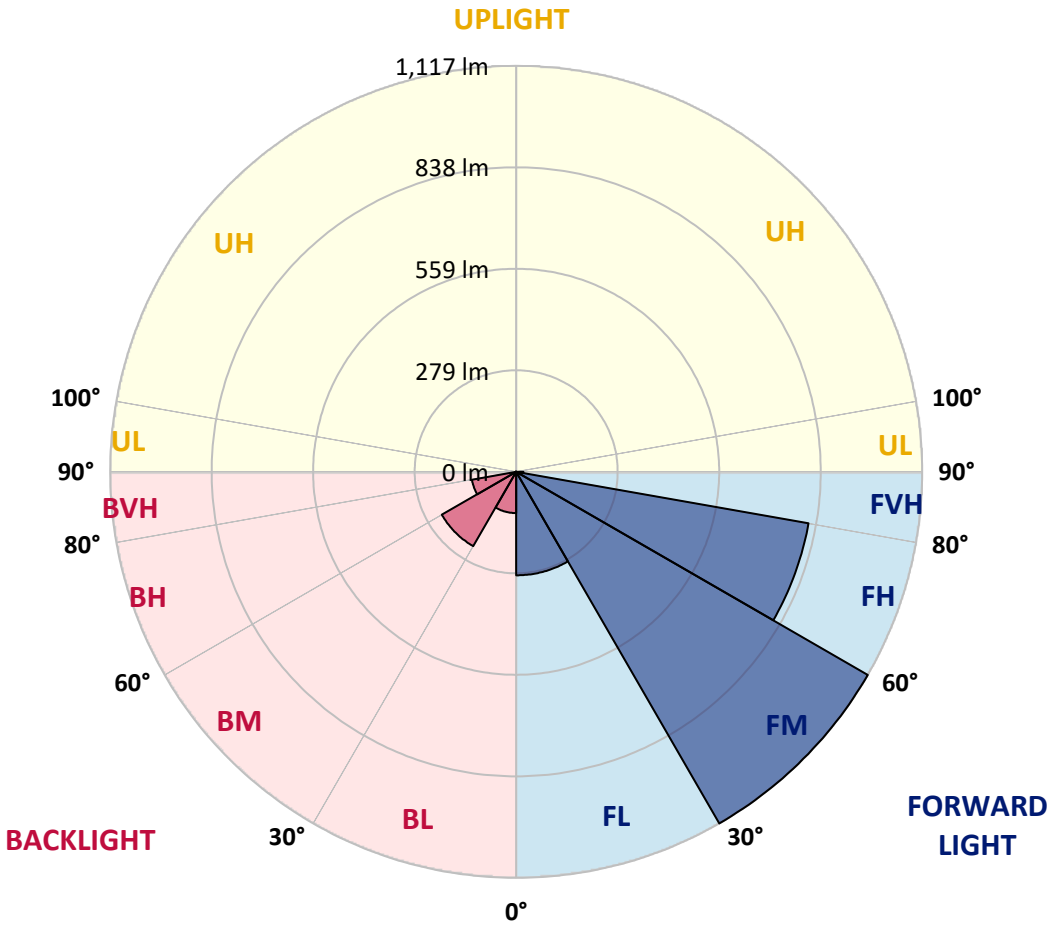
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	284.8	10.5			
FM	(30°-60°)	1117.1	41.2			
FH	(60°-80°)	816.7	30.1			G1/1800
FVH	(80°-90°)	19.9	0.7			G1/100
BL	(0°-30°)	113.6	4.2	B1/500		
BM	(30°-60°)	236.2	8.7	B1/1000		
BH	(60°-80°)	123.6	4.6	B1/500		G1/500
BVH	(80°-90°)	2.0	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	915.7	915.7	915.7	915.7	915.7	915.7	915.7	*915.7*	915.7	915.7	915.7
2.5°	983.9	983.9	991.7	1015.3	1041.5	1054.6	1069.0	*1054.6*	1052.0	1031.0	1015.3
5°	953.7	960.3	985.2	1048.1	1114.9	1148.9	1167.3	*1147.6*	1112.2	1066.4	1008.8
7.5°	885.6	893.5	922.3	1024.5	1116.2	1184.3	1217.1	*1183.0*	1122.7	1038.9	955.0
10°	812.2	826.7	864.6	981.2	1087.4	1168.6	1214.4	*1179.1*	1104.4	997.0	893.5
12.5°	763.8	774.2	825.3	941.9	1055.9	1128.0	1152.9	*1145.0*	1076.9	977.3	868.6
15°	755.9	769.0	822.7	939.3	1025.8	1069.0	1078.2	*1088.7*	1065.1	979.9	876.4
17.5°	790.0	804.4	864.6	959.0	998.3	998.3	1007.4	*1028.4*	1050.7	1006.1	923.6
20°	859.4	879.1	945.9	1010.1	983.9	952.4	953.7	*981.2*	1041.5	1065.1	1007.4
22.5°	952.4	978.6	1059.8	1090.0	999.6	927.5	921.0	*944.6*	1042.8	1125.3	1122.7
25°	1075.6	1107.0	1185.6	1184.3	1037.6	917.0	910.5	*927.5*	1054.6	1190.8	1223.6
27.5°	1186.9	1213.1	1291.7	1259.0	1075.6	930.1	915.7	*934.1*	1063.8	1239.3	1314.0
30°	1281.2	1303.5	1372.9	1312.7	1108.3	952.4	927.5	*956.3*	1083.4	1265.5	1395.2
32.5°	1353.3	1386.0	1450.2	1354.6	1147.6	981.2	955.0	*994.3*	1116.2	1299.6	1466.0
35°	1450.2	1467.3	1543.3	1396.5	1200.0	1042.8	1000.9	*1053.3*	1169.9	1344.1	1544.6
37.5°	1534.1	1578.6	1628.4	1439.8	1264.2	1118.8	1072.9	*1147.6*	1243.3	1395.2	1636.3
40°	1633.7	1684.7	1738.5	1501.3	1323.2	1218.4	1198.7	*1272.1*	1353.3	1469.9	1726.7
42.5°	1725.4	1772.5	1809.2	1573.4	1395.2	1331.0	1345.4	*1422.7*	1466.0	1547.2	1804.0
45°	1798.7	1840.6	1895.7	1623.2	1475.1	1456.8	1530.2	*1590.4*	1577.3	1614.0	1873.4
47.5°	1874.7	1925.8	1948.1	1675.6	1578.6	1621.9	1752.9	*1766.0*	1693.9	1675.6	1933.7
50°	1927.1	1965.1	1979.5	1739.8	1705.7	1839.3	1944.1	*1966.4*	1821.0	1724.0	2012.3
52.5°	1991.3	2028.0	2045.0	1815.8	1842.0	2034.5	2156.4	*2151.1*	1944.1	1804.0	2089.6
55°	2105.3	2139.3	2156.4	1908.8	1938.9	2202.2	2337.2	*2331.9*	2090.9	1919.2	2204.8
57.5°	2186.5	2215.3	2242.8	2013.6	2059.4	2309.6	2460.3	*2499.6*	2267.7	2064.7	2330.6
60°	*2149.8*	*2182.6*	*2249.4*	*2132.8*	*2165.5*	*2379.1*	*2507.5*	*2580.8*	*2436.7*	*2248.1*	*2460.3*
62.5°	2046.3	2094.8	2164.2	2227.1	2248.1	2390.9	2442.0	*2540.2*	2527.1	2432.8	2519.3
65°	1915.3	1965.1	2031.9	2240.2	2229.7	2215.3	2245.5	*2304.4*	2396.1	2521.9	2490.4
67.5°	1679.5	1751.6	1835.4	2086.9	1938.9	1856.4	1864.2	*1831.5*	2016.2	2393.5	2343.7
70°	1367.7	1441.1	1531.5	1769.9	1494.8	1386.0	1413.6	*1392.6*	1538.0	2054.2	2008.3
72.5°	962.9	1041.5	1152.9	1475.1	1041.5	866.0	931.5	*986.5*	1159.4	1648.1	1475.1
75°	638.0	694.3	774.2	1110.9	742.8	581.7	596.1	*618.4*	775.6	1245.9	931.5
77.5°	330.1	386.5	421.8	594.8	459.8	458.5	448.0	*476.9*	484.7	748.0	486.0
80°	184.7	203.1	221.4	289.5	230.6	272.5	281.7	*344.5*	319.7	374.7	203.1
82.5°	90.4	114.0	124.5	178.2	148.0	108.7	53.7	*112.7*	190.0	203.1	94.3
85°	1.3	2.6	6.6	14.4	3.9	3.9	0.0	*3.9*	19.7	24.9	32.8
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°	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7
2.5°	998.3	987.8	957.7	931.5	890.8	873.8	846.3	839.8	817.5	795.2	782.1
5°	979.9	949.8	888.2	828.0	772.9	721.8	683.9	652.4	617.0	602.6	611.8
7.5°	906.6	864.6	775.6	704.8	626.2	567.3	513.5	486.0	453.3	440.2	431.0
10°	846.3	795.2	693.0	600.0	525.3	479.5	446.7	407.4	369.4	339.3	335.4
12.5°	808.3	753.3	639.3	541.1	486.0	441.5	403.5	352.4	309.2	280.4	267.3
15°	807.0	738.9	622.3	518.8	454.6	398.3	349.8	292.1	247.6	210.9	197.8
17.5°	854.2	771.6	630.1	495.2	410.1	336.7	273.8	213.5	170.3	145.4	132.3
20°	936.7	846.3	644.6	471.6	366.8	273.8	192.6	145.4	116.6	104.8	99.6
22.5°	1036.3	928.8	670.8	453.3	322.3	207.0	136.2	104.8	91.7	83.8	82.5
25°	1156.8	1033.6	707.4	440.2	281.7	159.8	106.1	86.5	78.6	73.4	70.7
27.5°	1262.9	1134.5	762.5	429.7	242.4	131.0	90.4	76.0	68.1	64.2	62.9
30°	1341.5	1217.1	825.3	406.1	210.9	114.0	85.2	72.1	62.9	57.6	56.3
32.5°	1431.9	1279.9	855.5	382.5	192.6	100.9	74.7	64.2	57.6	52.4	51.1
35°	1531.5	1367.7	885.6	364.2	180.8	90.4	68.1	56.3	48.5	43.2	41.9
37.5°	1646.8	1464.7	913.1	348.5	174.2	83.8	64.2	52.4	44.5	39.3	36.7
40°	1775.1	1540.6	931.5	338.0	165.1	79.9	61.6	49.8	41.9	35.4	34.1
42.5°	1877.3	1628.4	936.7	334.1	155.9	78.6	59.0	48.5	39.3	34.1	31.4
45°	1950.7	1705.7	955.0	330.1	149.3	73.4	57.6	47.2	36.7	31.4	28.8
47.5°	2004.4	1788.2	972.1	326.2	142.8	66.8	61.6	47.2	35.4	28.8	26.2
50°	2104.0	1885.2	1004.8	315.7	133.6	60.3	61.6	45.9	34.1	27.5	24.9
52.5°	2211.4	2011.0	1078.2	303.9	121.8	53.7	56.3	45.9	32.8	26.2	23.6
55°	2313.6	2164.2	1146.3	288.2	102.2	48.5	52.4	45.9	30.1	24.9	22.3
57.5°	2388.3	2266.4	1183.0	268.6	81.2	43.2	43.2	43.2	26.2	21.0	19.7
60°	*2423.6*	*2255.9*	*1166.0*	*243.7*	*65.5*	*38.0*	*35.4*	*44.5*	*23.6*	*18.3*	*17.0*
62.5°	2396.1	2147.2	1091.3	217.5	57.6	32.8	28.8	39.3	21.0	15.7	14.4
65°	2311.0	1963.8	966.8	196.5	56.3	27.5	23.6	23.6	17.0	13.1	11.8
67.5°	2100.0	1722.7	818.8	176.9	57.6	23.6	19.7	18.3	14.4	10.5	9.2
70°	1746.3	1384.7	619.7	167.7	57.6	19.7	17.0	14.4	10.5	9.2	7.9
72.5°	1109.6	859.4	429.7	148.0	57.6	15.7	14.4	13.1	7.9	6.6	3.9
75°	657.7	522.7	201.8	114.0	48.5	13.1	10.5	7.9	3.9	2.6	2.6
77.5°	386.5	335.4	87.8	62.9	21.0	7.9	5.2	2.6	1.3	0.0	0.0
80°	158.5	137.6	32.8	18.3	9.2	3.9	1.3	0.0	0.0	0.0	0.0
82.5°	93.0	96.9	11.8	7.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	28.8	44.5	0.0	1.3	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°	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7
2.5°	780.8	767.7	762.5	754.6	748.0	740.2	750.7	759.8	749.4	761.1	779.5
5°	602.6	583.0	609.2	592.1	601.3	590.8	576.4	579.0	581.7	576.4	590.8
7.5°	417.9	427.1	433.6	432.3	440.2	425.8	425.8	416.6	403.5	408.7	406.1
10°	317.0	298.7	305.2	303.9	318.3	298.7	285.6	271.2	269.9	272.5	269.9
12.5°	252.8	230.6	216.2	208.3	207.0	197.8	186.0	171.6	162.4	161.1	169.0
15°	190.0	172.9	159.8	148.0	146.7	128.4	112.7	102.2	93.0	94.3	99.6
17.5°	131.0	125.8	121.8	111.4	104.8	89.1	76.0	69.4	66.8	66.8	68.1
20°	95.6	93.0	90.4	86.5	79.9	68.1	60.3	57.6	56.3	56.3	57.6
22.5°	79.9	76.0	73.4	72.1	66.8	57.6	52.4	49.8	49.8	49.8	49.8
25°	68.1	65.5	64.2	61.6	57.6	49.8	45.9	44.5	43.2	43.2	44.5
27.5°	61.6	56.3	53.7	53.7	49.8	44.5	40.6	39.3	38.0	38.0	39.3
30°	55.0	51.1	48.5	45.9	43.2	38.0	35.4	34.1	34.1	34.1	34.1
32.5°	48.5	45.9	43.2	40.6	36.7	34.1	31.4	30.1	28.8	28.8	28.8
35°	39.3	36.7	36.7	35.4	31.4	28.8	26.2	24.9	23.6	24.9	24.9
37.5°	34.1	30.1	30.1	30.1	27.5	24.9	22.3	21.0	19.7	19.7	21.0
40°	31.4	26.2	24.9	24.9	24.9	21.0	18.3	17.0	15.7	15.7	17.0
42.5°	27.5	23.6	21.0	19.7	21.0	18.3	14.4	13.1	13.1	13.1	13.1
45°	26.2	21.0	18.3	15.7	17.0	15.7	11.8	10.5	10.5	10.5	10.5
47.5°	23.6	18.3	15.7	11.8	11.8	11.8	9.2	7.9	7.9	7.9	7.9
50°	22.3	17.0	11.8	10.5	9.2	9.2	7.9	6.6	5.2	5.2	6.6
52.5°	21.0	15.7	10.5	7.9	6.6	6.6	5.2	5.2	3.9	3.9	3.9
55°	19.7	13.1	9.2	6.6	5.2	3.9	3.9	3.9	3.9	2.6	3.9
57.5°	17.0	11.8	6.6	5.2	2.6	2.6	2.6	2.6	2.6	2.6	2.6
60°	*15.7*	*9.2*	*5.2*	*2.6*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*	*1.3*
62.5°	13.1	7.9	3.9	2.6	1.3	0.0	1.3	1.3	1.3	1.3	1.3
65°	10.5	6.6	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7.9	5.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	6.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1.3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0
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

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

Scaled Data Report

REPORT NUMBER: P437425
CATALOG NUMBER: ISS-SA1C-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7
2.5°	778.2	786.0	814.9	841.1	869.9	901.3	927.5	965.5	977.3	983.9
5°	588.2	617.0	652.4	683.9	740.2	792.6	854.2	921.0	948.5	953.7
7.5°	424.5	444.1	482.1	545.0	596.1	674.7	754.6	843.7	885.6	885.6
10°	292.1	324.9	373.4	432.3	500.4	569.9	662.9	763.8	803.1	812.2
12.5°	186.0	222.7	288.2	352.4	431.0	499.1	592.1	706.1	750.7	763.8
15°	107.4	132.3	192.6	263.3	357.6	444.1	548.9	687.8	742.8	755.9
17.5°	72.1	81.2	114.0	175.5	280.4	395.6	535.8	707.4	774.2	790.0
20°	60.3	64.2	76.0	108.7	197.8	344.5	530.6	750.7	831.9	859.4
22.5°	52.4	56.3	64.2	79.9	141.5	290.8	526.6	813.6	923.6	952.4
25°	45.9	49.8	56.3	68.1	99.6	237.1	533.2	902.6	1041.5	1075.6
27.5°	40.6	44.5	51.1	59.0	79.9	183.4	534.5	986.5	1151.5	1186.9
30°	35.4	39.3	44.5	51.1	64.2	141.5	510.9	1071.6	1240.6	1281.2
32.5°	31.4	34.1	39.3	44.5	53.7	110.0	462.5	1137.1	1314.0	1353.3
35°	26.2	28.8	34.1	38.0	47.2	89.1	408.7	1197.4	1401.8	1450.2
37.5°	22.3	24.9	28.8	34.1	41.9	69.4	355.0	1249.8	1486.9	1534.1
40°	18.3	22.3	26.2	30.1	38.0	53.7	296.1	1306.1	1583.9	1633.7
42.5°	15.7	18.3	22.3	27.5	32.8	43.2	243.7	1341.5	1666.4	1725.4
45°	11.8	15.7	21.0	27.5	27.5	34.1	209.6	1367.7	1725.4	1798.7
47.5°	9.2	13.1	18.3	26.2	24.9	28.8	192.6	1413.6	1806.6	1874.7
50°	7.9	10.5	18.3	22.3	21.0	24.9	197.8	1454.2	1868.2	1927.1
52.5°	6.6	9.2	15.7	17.0	18.3	22.3	208.3	1528.8	1945.4	1991.3
55°	5.2	7.9	11.8	14.4	15.7	21.0	225.3	1621.9	2046.3	2105.3
57.5°	3.9	6.6	9.2	11.8	14.4	19.7	237.1	1680.8	2140.6	2186.5
60°	*3.9*	*5.2*	*7.9*	*10.5*	*13.1*	*18.3*	*220.1*	*1611.4*	*2100.0*	*2149.8*
62.5°	2.6	5.2	6.6	9.2	10.5	14.4	162.4	1459.4	1978.2	2046.3
65°	1.3	3.9	5.2	6.6	7.9	10.5	93.0	1276.0	1834.1	1915.3
67.5°	0.0	2.6	3.9	5.2	5.2	7.9	43.2	1029.7	1597.0	1679.5
70°	0.0	1.3	2.6	2.6	3.9	6.6	22.3	727.1	1256.4	1367.7
72.5°	1.3	1.3	2.6	2.6	2.6	5.2	14.4	440.2	845.0	962.9
75°	1.3	1.3	1.3	1.3	2.6	3.9	9.2	283.0	531.9	638.0
77.5°	1.3	2.6	1.3	1.3	1.3	2.6	5.2	157.2	290.8	330.1
80°	1.3	1.3	1.3	1.3	1.3	2.6	2.6	14.4	137.6	184.7
82.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	70.7	90.4
85°	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3	1.3
87.5°	0.0	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

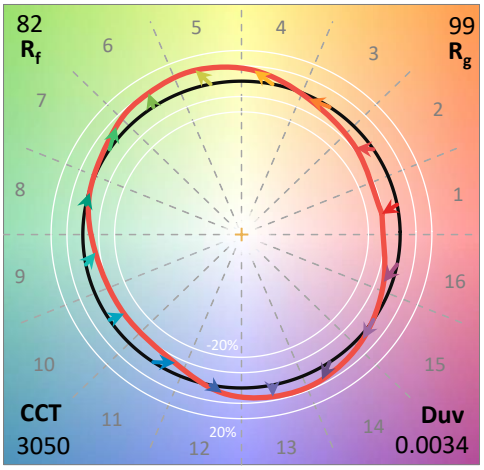
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

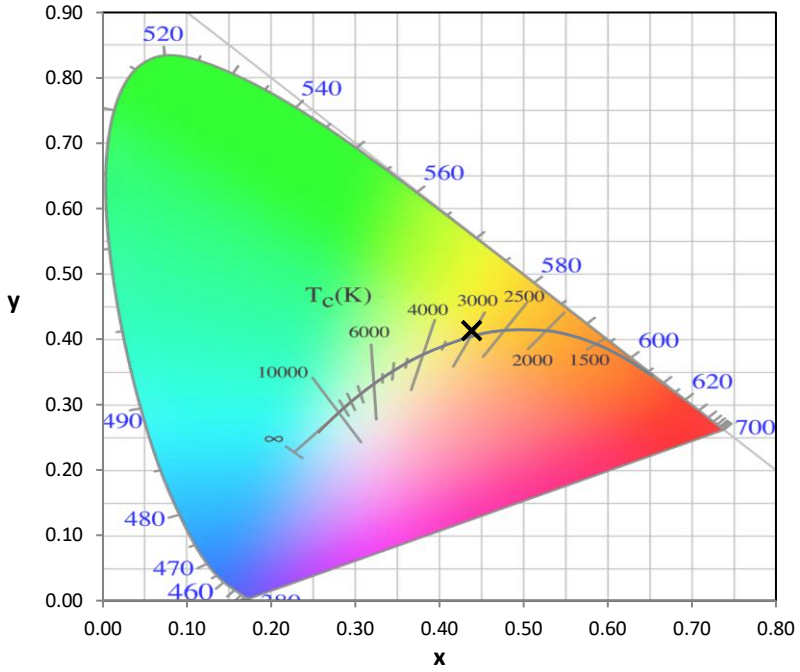
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

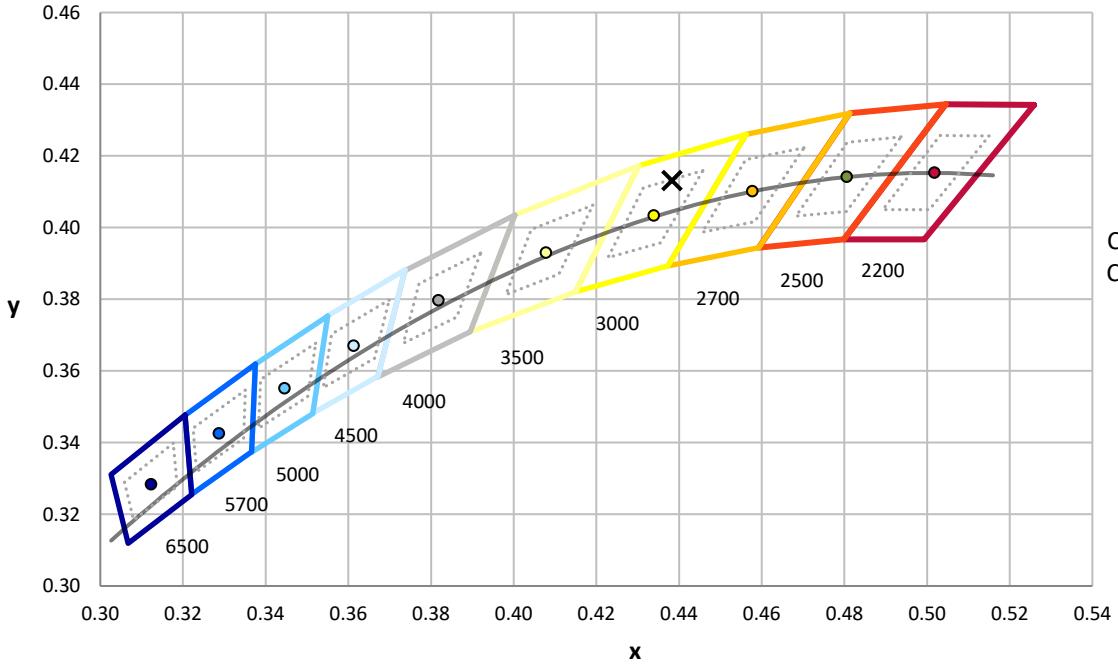
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

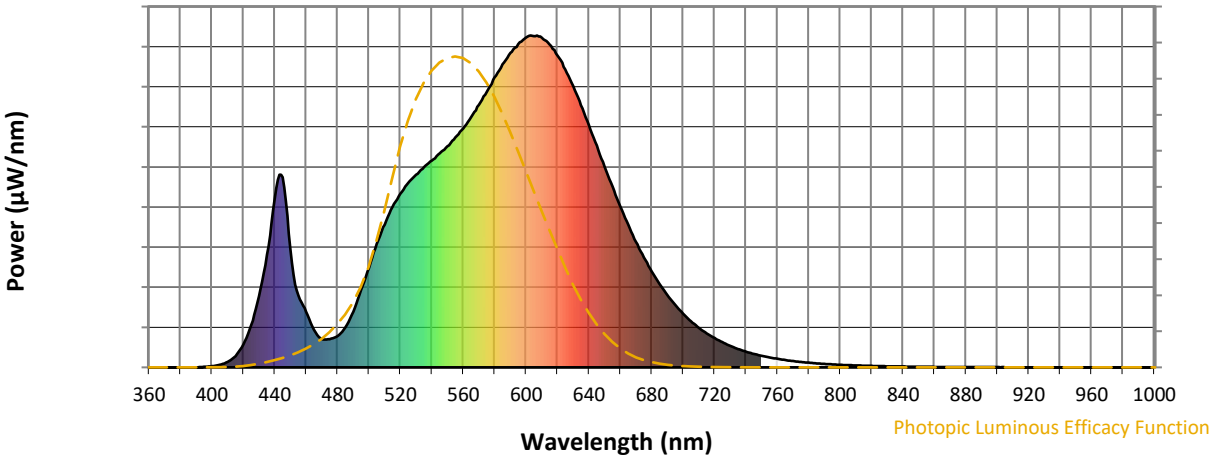


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

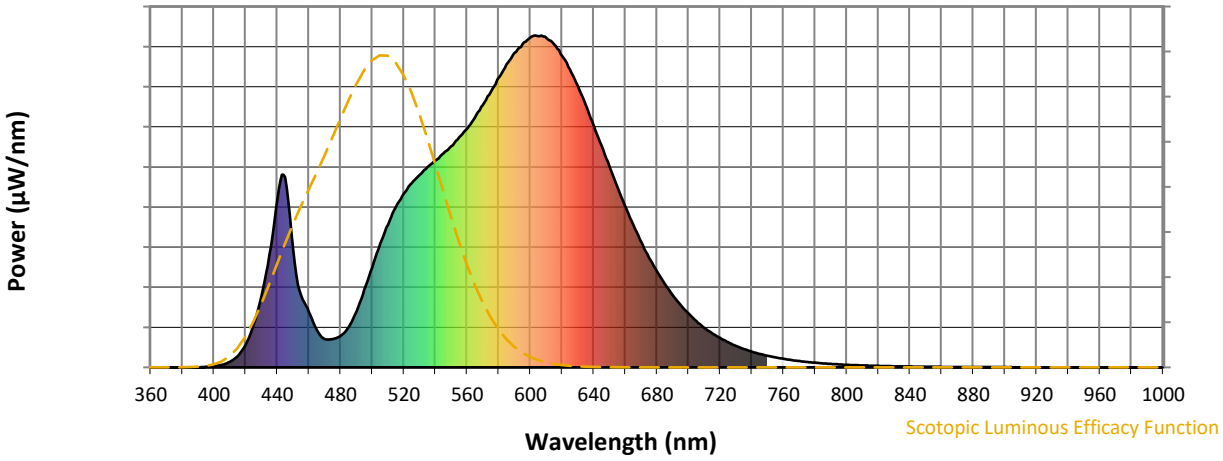


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

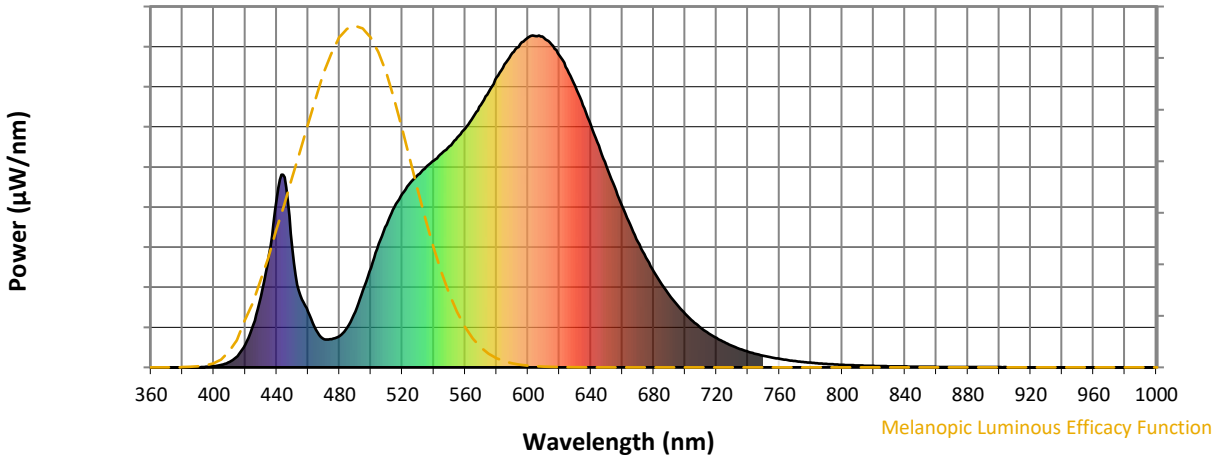


Scotopic Lumens: NR **S/P: 1.27**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

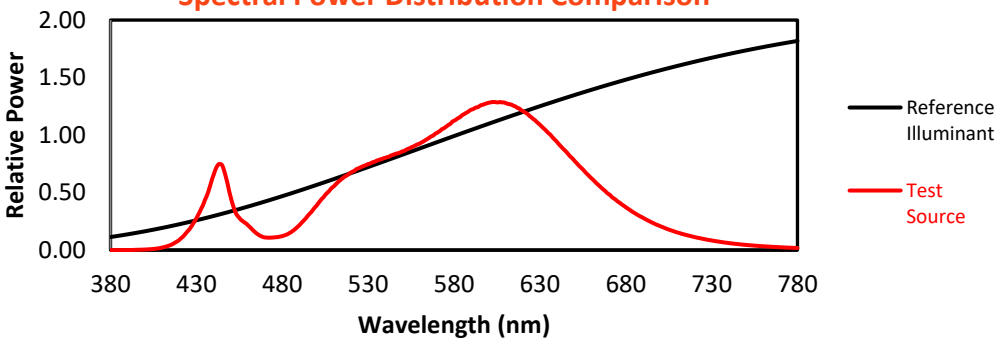
REPORT NUMBER: SP1-2408-195-9

TM-30-18

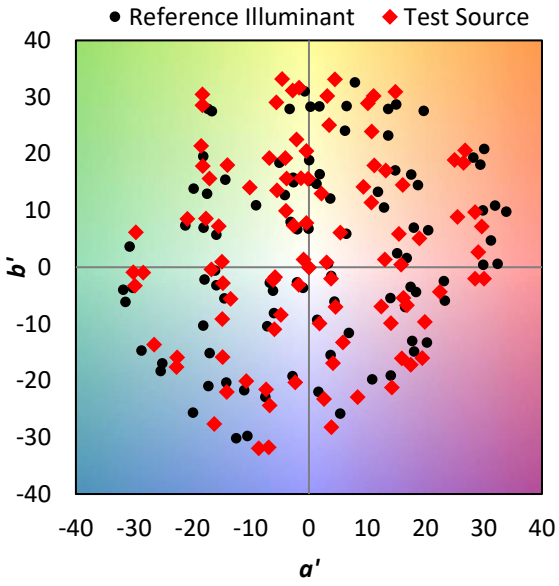
Summary

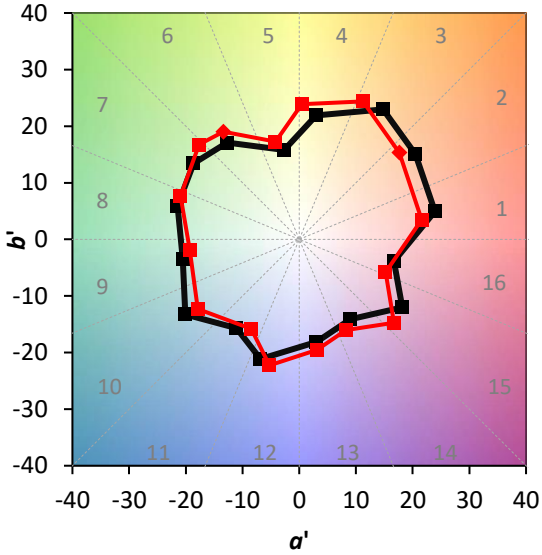
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

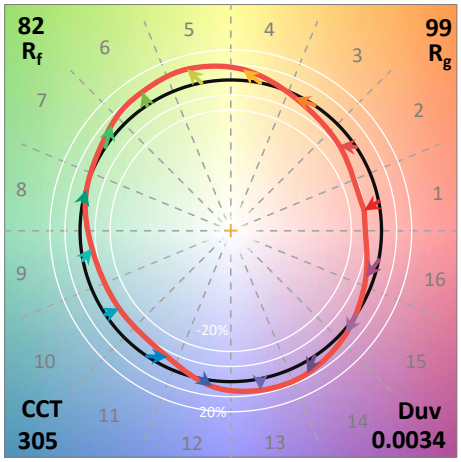
Spectral Power Distribution Comparison

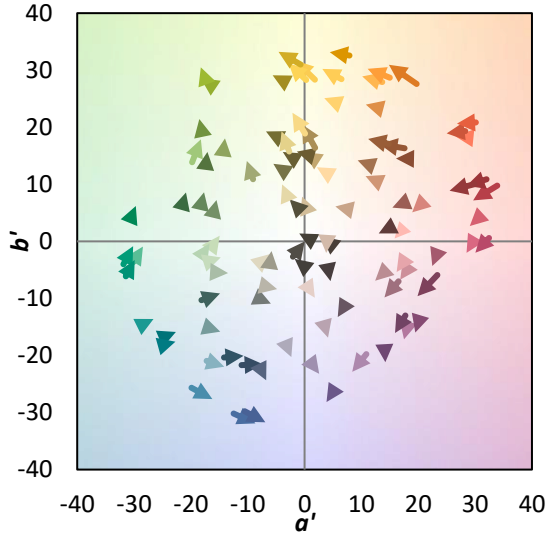


Color Vector Graphics







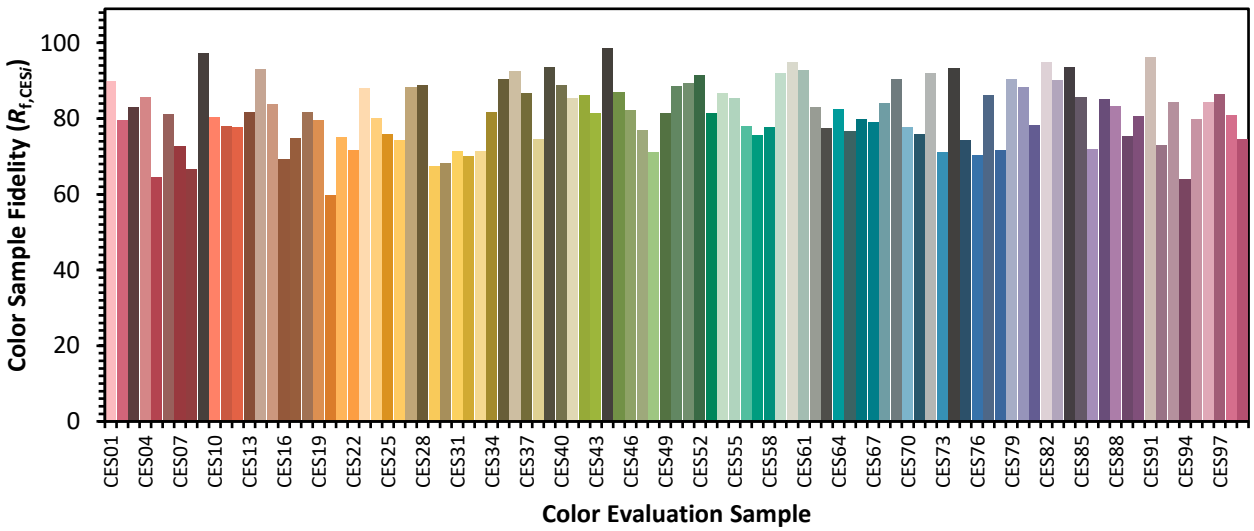


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



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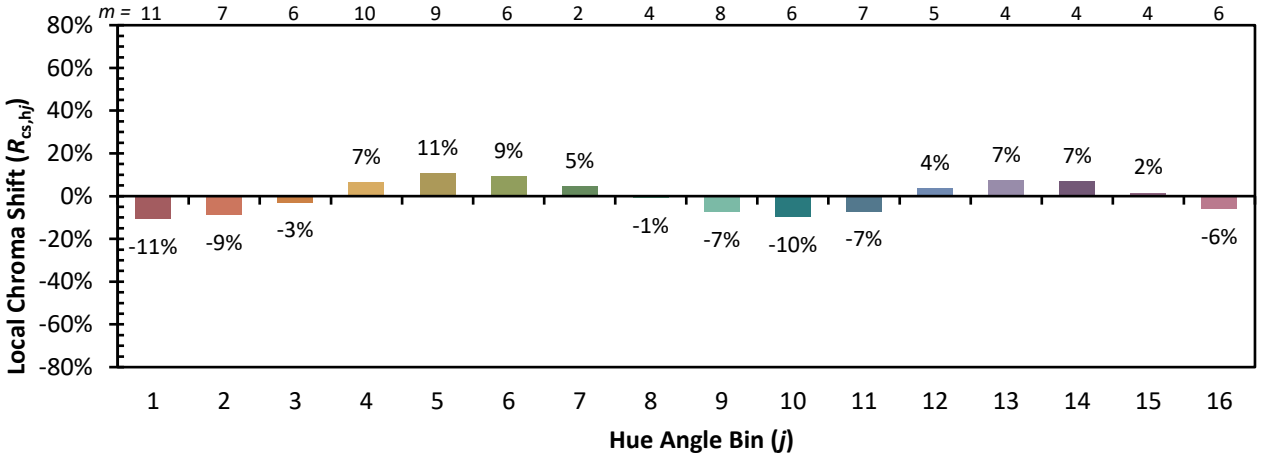
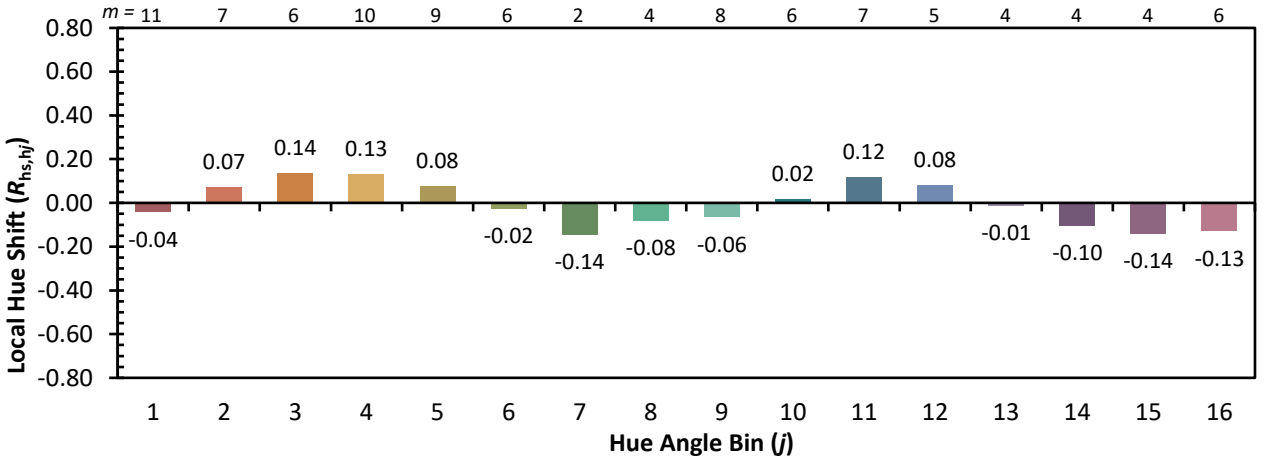
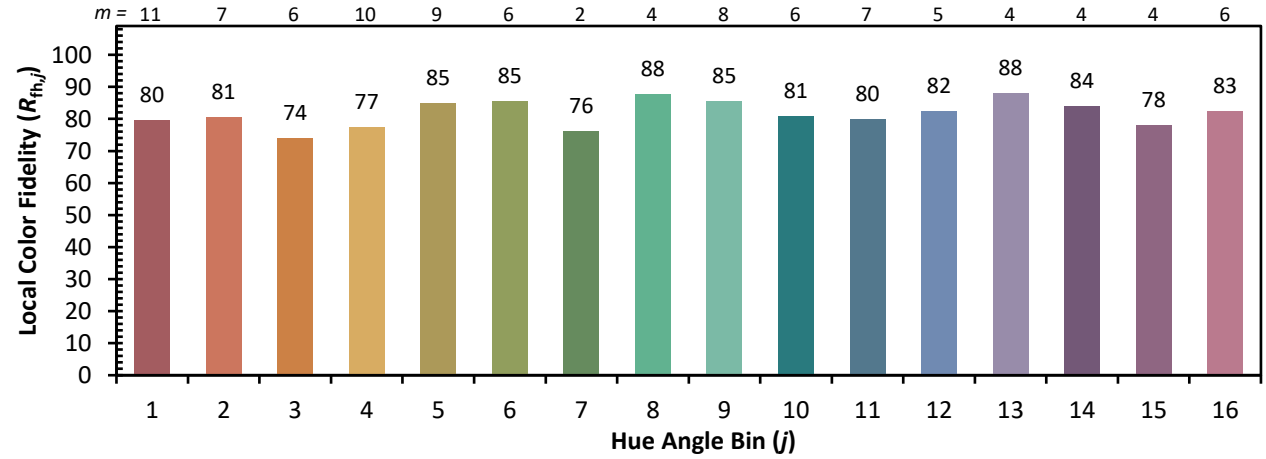
Color Rendition by Hue-Angle Bin







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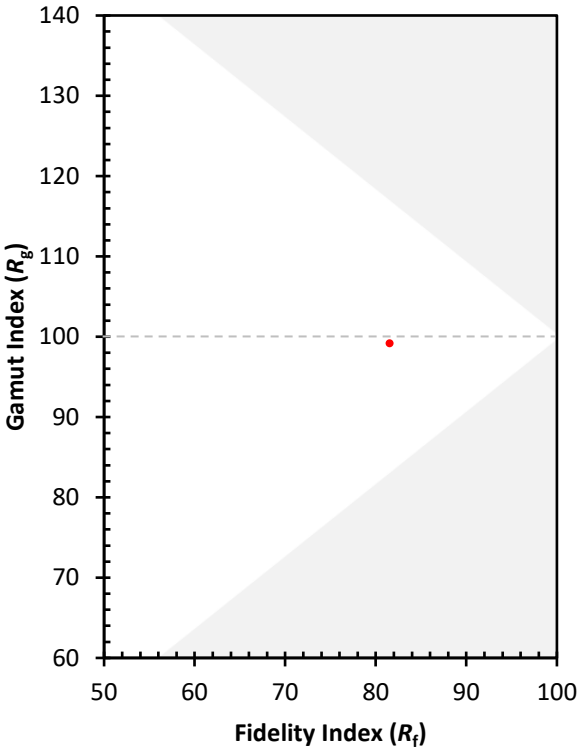
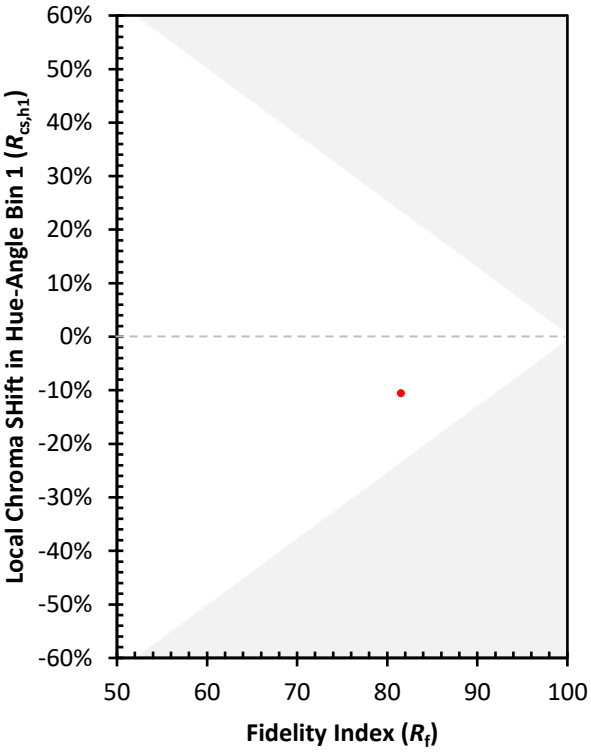
Measure Comparisons





(END OF REPORT)