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: P438624

Luminaire Tested: **IST-SA1D-830-U-SLR-HSS**

Issue Date: 12/10/2020

Report Generated By 670245982

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P438624
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-23)
Test Lab:	INNOVATION CENTER
Issue Date:	12/10/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	IST-SA1D-830-U-SLR-HSS
Description:	IMPACT ELITE LED TRAPEZOID LUMINAIRE
	(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3397 lumens
Efficiency:	N/A
Efficacy:	75.2 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):	45.2
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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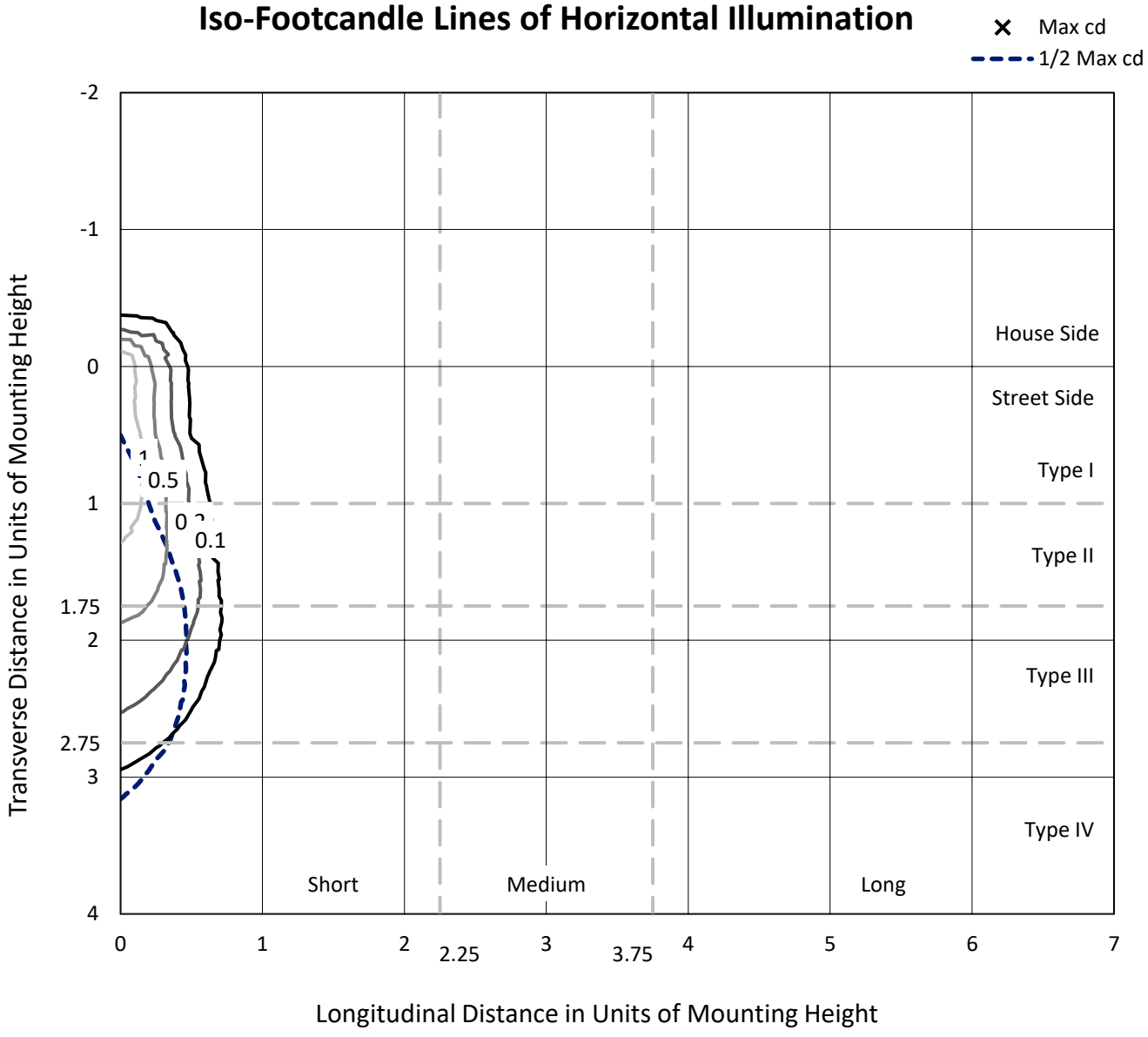
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
Type IV - Short - N/A

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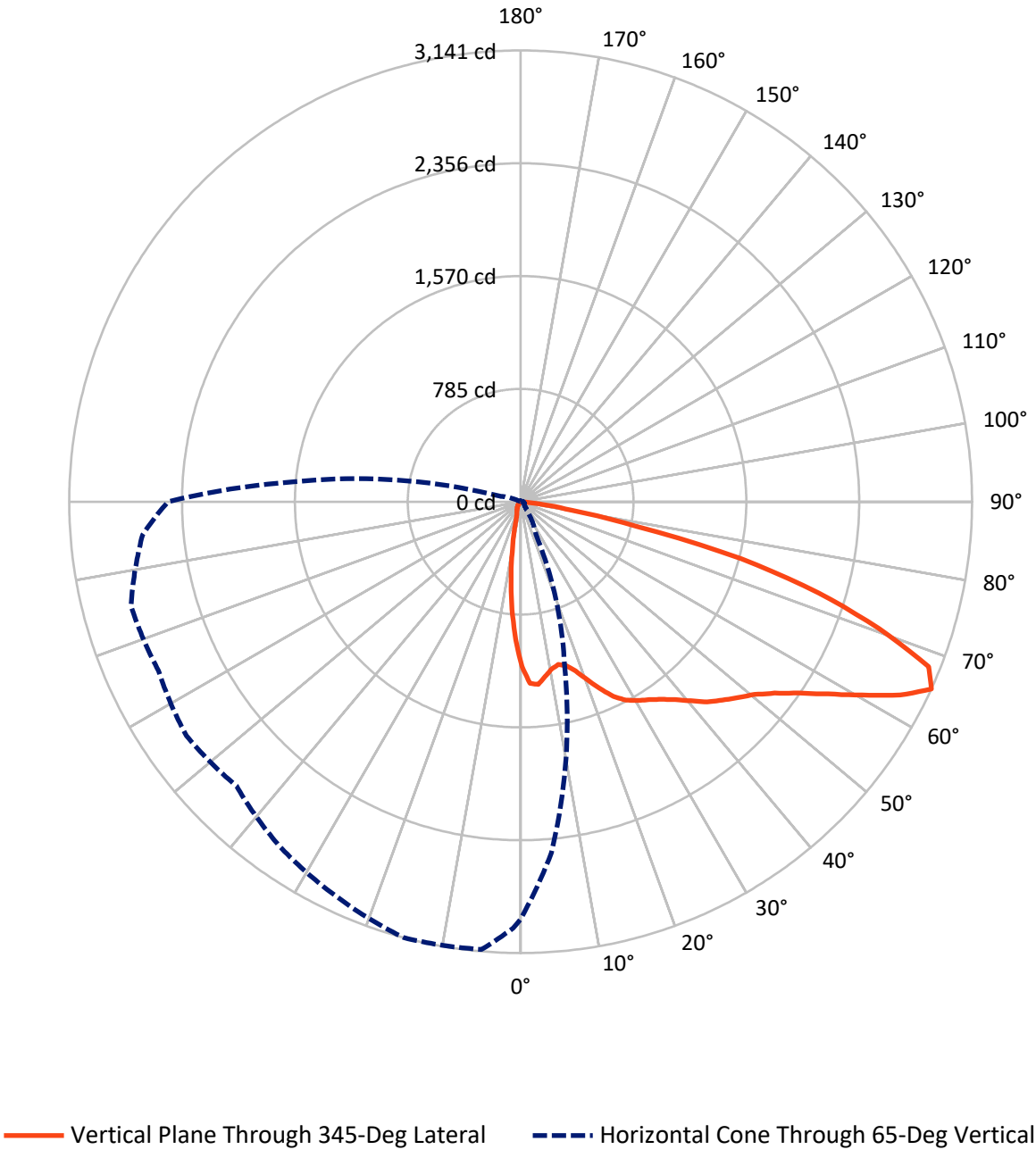
Luminous Intensity Polar Plot



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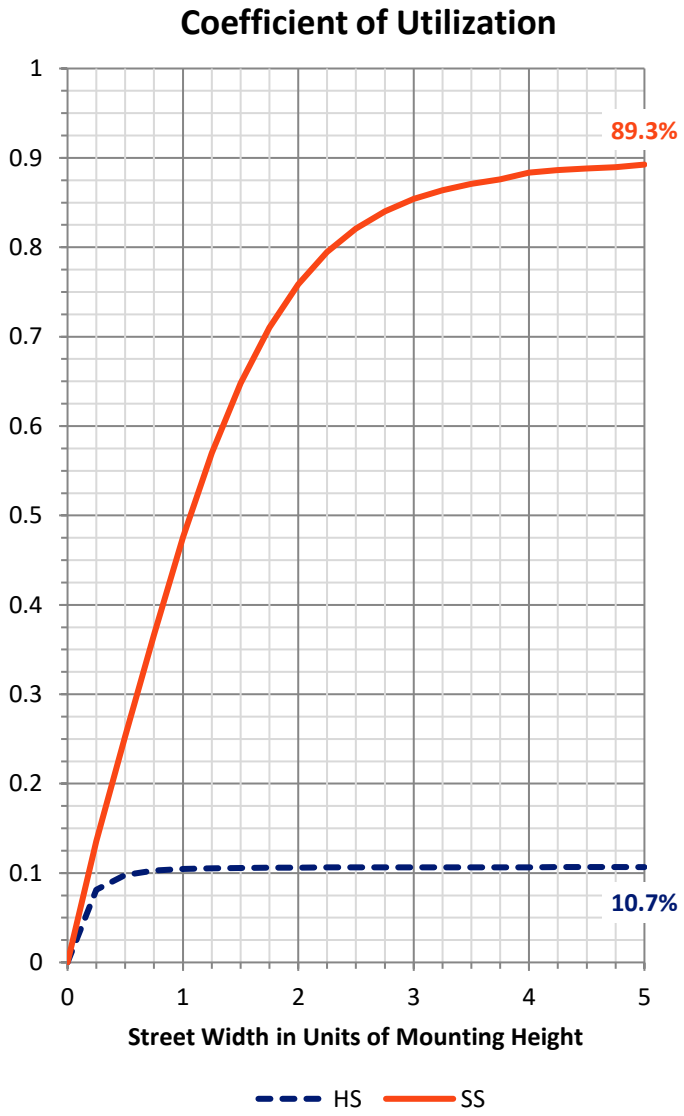
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	366.2	0.0	366.2
	% Fixture	10.8	0.0	10.8
Street Side	Lumens	3030.8	0.0	3030.8
	% Fixture	89.2	0.0	89.2
Total	Lumens	3397.0	0.0	3397.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	2.5
10°-20°	165.6	4.9
20°-30°	241.6	7.1
30°-40°	359.1	10.6
40°-50°	526.4	15.5
50°-60°	757.5	22.3
60°-70°	849.7	25.0
70°-80°	372.8	11.0
80°-90°	39.2	1.2
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°	3397.0	100.0
0°-180°	3397.0	100.0



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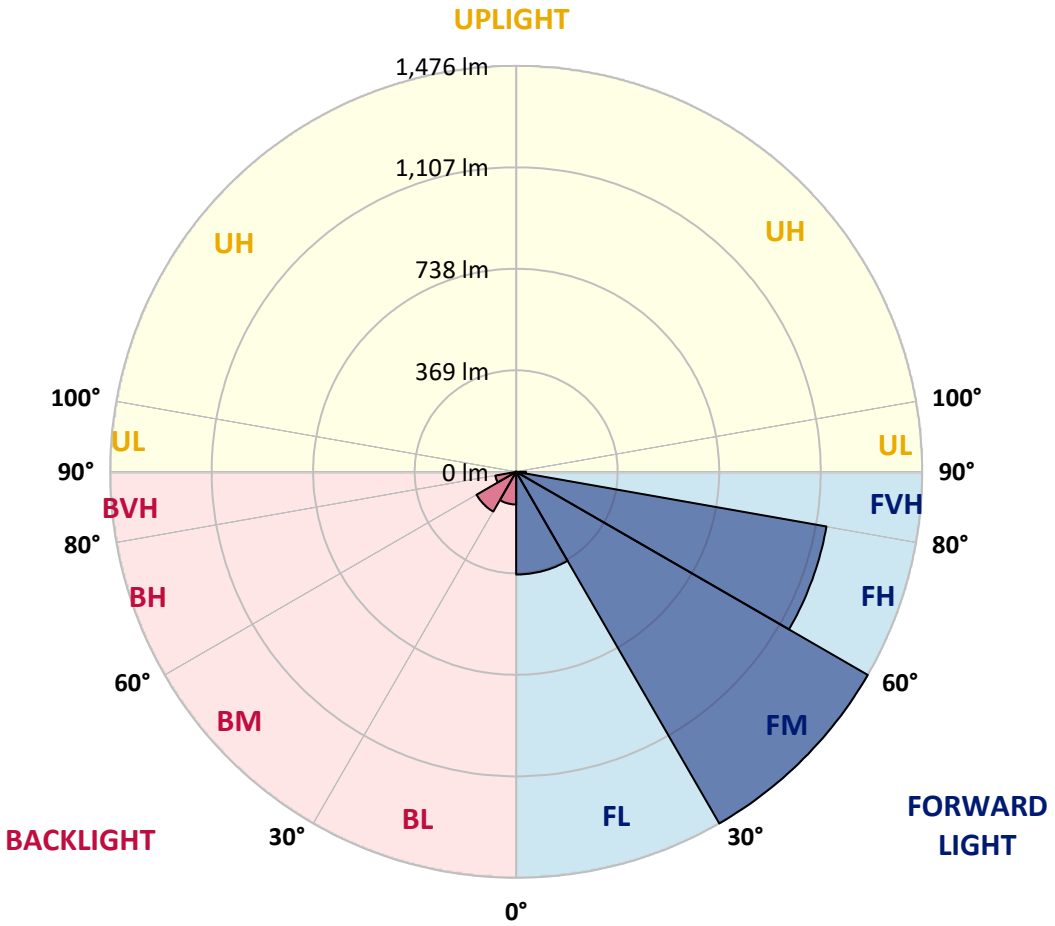
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	373.5	11.0			
FM	(30°-60°)	1476.2	43.5			
FH	(60°-80°)	1145.6	33.7			G1/1800
FVH	(80°-90°)	35.4	1.0			G1/100
BL	(0°-30°)	118.8	3.5	B1/500		
BM	(30°-60°)	166.7	4.9	B0/220		
BH	(60°-80°)	77.0	2.3	B0/110		G0/110
BVH	(80°-90°)	3.8	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 IV Short



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REPORT NUMBER: P438624
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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4
2.5°	1213.3	1213.3	1195.3	1152.9	1113.8	1066.5	1040.4	1015.9	989.8	971.9	944.2
5°	1156.2	1144.8	1118.7	1040.4	957.2	901.8	859.4	784.4	748.5	722.4	711.0
7.5°	1061.6	1055.1	1012.7	921.4	821.9	732.2	675.1	613.2	564.2	544.7	510.4
10°	996.4	989.8	936.0	812.1	696.3	631.1	585.4	541.4	494.1	446.8	410.9
12.5°	963.8	950.7	898.5	758.3	658.8	595.2	543.0	489.2	430.5	378.3	335.9
15°	971.9	950.7	892.0	748.5	631.1	552.8	486.0	407.7	349.0	287.0	247.9
17.5°	1029.0	1006.2	934.4	756.7	595.2	495.7	407.7	319.6	241.3	184.3	164.7
20°	1135.0	1110.5	1012.7	774.6	572.4	438.7	314.7	220.1	159.8	133.7	122.3
22.5°	1270.3	1237.7	1121.9	803.9	546.3	381.6	238.1	156.5	122.3	106.0	97.8
25°	1412.2	1379.6	1250.8	848.0	530.0	332.7	184.3	122.3	99.5	89.7	84.8
27.5°	1541.0	1500.3	1366.5	913.2	510.4	288.6	153.3	106.0	89.7	78.3	75.0
30°	1658.4	1611.2	1482.3	968.6	482.7	249.5	132.1	97.8	83.2	73.4	68.5
32.5°	1757.9	1720.4	1576.9	1007.8	459.9	228.3	117.4	86.4	71.8	63.6	60.3
35°	1877.0	1841.1	1668.2	1040.4	445.2	218.5	107.6	81.5	66.9	58.7	52.2
37.5°	2038.4	1986.2	1769.3	1069.8	428.9	210.4	99.5	76.6	63.6	53.8	48.9
40°	2183.5	2126.5	1886.7	1091.0	420.7	203.8	97.8	73.4	60.3	50.6	45.7
42.5°	2312.4	2260.2	1981.3	1099.1	414.2	192.4	96.2	71.8	60.3	48.9	42.4
45°	2393.9	2346.6	2093.8	1120.3	414.2	184.3	89.7	71.8	58.7	47.3	40.8
47.5°	2468.9	2423.3	2191.7	1143.1	407.7	177.7	81.5	78.3	58.7	45.7	37.5
50°	2578.2	2542.3	2315.6	1211.6	396.3	168.0	73.4	76.6	60.3	44.0	37.5
52.5°	2716.8	2700.5	2498.3	1304.6	380.0	150.0	65.2	71.8	60.3	42.4	35.9
55°	2870.1	2863.5	2689.1	1389.4	360.4	128.8	60.3	65.2	58.7	39.1	32.6
57.5°	2963.0	2963.0	2813.0	1436.7	344.1	102.7	53.8	53.8	57.1	35.9	29.4
60°	2997.3	2961.4	2798.3	1431.8	316.4	84.8	48.9	44.0	60.3	31.0	26.1
62.5°	2994.0	2915.7	2661.3	1353.5	278.9	78.3	42.4	37.5	44.0	27.7	22.8
65°	*2905.9*	*2811.4*	*2452.6*	*1179.0*	*251.1*	*78.3*	*35.9*	*31.0*	*29.4*	*24.5*	*17.9*
67.5°	2663.0	2605.9	2147.7	999.6	231.6	78.3	31.0	26.1	22.8	19.6	16.3
70°	2261.8	2186.8	1730.2	771.3	216.9	78.3	26.1	22.8	21.2	16.3	13.0
72.5°	1474.2	1431.8	1058.3	530.0	177.7	76.6	22.8	21.2	19.6	14.7	11.4
75°	802.3	742.0	582.2	189.2	127.2	55.4	19.6	17.9	14.7	13.0	9.8
77.5°	347.3	334.3	296.8	50.6	37.5	16.3	11.4	11.4	9.8	9.8	6.5
80°	45.7	34.2	39.1	14.7	13.0	8.2	6.5	4.9	4.9	4.9	3.3
82.5°	1.6	1.6	0.0	1.6	4.9	3.3	0.0	0.0	1.6	1.6	1.6
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°	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4
2.5°	957.2	937.7	923.0	923.0	942.6	931.1	944.2	936.0	958.9	970.3	967.0
5°	686.5	694.7	686.5	699.6	720.8	732.2	738.7	755.0	753.4	759.9	771.3
7.5°	497.4	497.4	500.6	497.4	516.9	538.1	549.6	544.7	541.4	534.9	546.3
10°	399.5	381.6	360.4	360.4	363.7	375.1	376.7	368.5	357.1	335.9	342.5
12.5°	313.1	300.1	287.0	259.3	257.7	251.1	249.5	226.7	208.7	202.2	202.2
15°	229.9	221.8	207.1	194.1	181.0	174.5	163.1	135.3	117.4	115.8	117.4
17.5°	153.3	148.4	143.5	143.5	138.6	127.2	115.8	97.8	89.7	86.4	88.1
20°	114.2	112.5	107.6	109.3	109.3	99.5	88.1	79.9	76.6	76.6	78.3
22.5°	94.6	93.0	88.1	88.1	88.1	83.2	75.0	70.1	68.5	68.5	68.5
25°	81.5	79.9	76.6	75.0	75.0	71.8	65.2	62.0	60.3	60.3	60.3
27.5°	73.4	71.8	68.5	65.2	65.2	62.0	58.7	53.8	53.8	53.8	53.8
30°	65.2	63.6	62.0	58.7	57.1	53.8	50.6	48.9	47.3	47.3	47.3
32.5°	58.7	57.1	55.4	53.8	50.6	47.3	44.0	42.4	40.8	40.8	40.8
35°	50.6	47.3	45.7	47.3	45.7	40.8	39.1	35.9	34.2	34.2	34.2
37.5°	45.7	42.4	39.1	37.5	37.5	37.5	34.2	31.0	29.4	27.7	29.4
40°	42.4	39.1	35.9	32.6	31.0	32.6	29.4	26.1	24.5	22.8	24.5
42.5°	39.1	35.9	31.0	27.7	24.5	27.7	24.5	21.2	19.6	17.9	19.6
45°	37.5	34.2	29.4	24.5	21.2	21.2	21.2	17.9	14.7	14.7	14.7
47.5°	35.9	32.6	26.1	21.2	17.9	16.3	16.3	13.0	11.4	9.8	9.8
50°	34.2	31.0	24.5	17.9	14.7	13.0	13.0	9.8	8.2	8.2	8.2
52.5°	32.6	29.4	22.8	16.3	13.0	9.8	8.2	6.5	6.5	4.9	4.9
55°	29.4	26.1	19.6	14.7	11.4	8.2	6.5	4.9	4.9	3.3	4.9
57.5°	27.7	24.5	17.9	13.0	9.8	6.5	4.9	3.3	3.3	3.3	3.3
60°	24.5	21.2	14.7	9.8	6.5	4.9	3.3	3.3	3.3	1.6	1.6
62.5°	19.6	17.9	13.0	8.2	4.9	3.3	1.6	1.6	1.6	1.6	1.6
65°	*17.9*	*16.3*	*11.4*	*6.5*	*3.3*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*	*1.6*
67.5°	14.7	13.0	8.2	4.9	1.6	1.6	0.0	1.6	1.6	0.0	0.0
70°	11.4	11.4	6.5	3.3	1.6	0.0	0.0	1.6	1.6	0.0	0.0
72.5°	9.8	9.8	6.5	1.6	0.0	0.0	0.0	1.6	1.6	1.6	0.0
75°	8.2	8.2	6.5	3.3	0.0	0.0	0.0	1.6	1.6	1.6	1.6
77.5°	6.5	4.9	3.3	1.6	0.0	0.0	0.0	1.6	1.6	1.6	1.6
80°	3.3	3.3	1.6	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	0.0	0.0	0.0	0.0	0.0	1.6	3.3	3.3	1.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.3	3.3	3.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.3	3.3	3.3	3.3
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°	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4
2.5°	975.2	1001.3	1030.6	1048.6	1087.7	1121.9	1162.7	1198.6	1241.0	1263.8	1272.0
5°	782.7	797.4	834.9	883.9	927.9	989.8	1061.6	1141.5	1227.9	1268.7	1298.1
7.5°	539.8	552.8	606.6	652.3	725.7	805.6	903.4	1012.7	1125.2	1182.3	1234.5
10°	352.2	370.2	415.8	479.4	572.4	670.2	769.7	883.9	1014.3	1081.2	1151.3
12.5°	203.8	225.0	280.5	363.7	455.0	559.3	662.1	787.6	932.8	1006.2	1077.9
15°	117.4	125.6	158.2	231.6	334.3	461.5	582.2	717.5	887.1	968.6	1053.4
17.5°	88.1	93.0	102.7	133.7	213.6	353.9	523.5	696.3	892.0	1001.3	1076.3
20°	78.3	81.5	86.4	97.8	135.3	251.1	451.7	681.6	939.3	1079.5	1170.9
22.5°	70.1	73.4	78.3	86.4	102.7	169.6	376.7	680.0	1017.6	1195.3	1298.1
25°	62.0	65.2	70.1	78.3	91.3	122.3	291.9	675.1	1115.4	1322.5	1451.3
27.5°	53.8	57.1	62.0	70.1	81.5	101.1	221.8	660.4	1232.8	1459.5	1596.5
30°	47.3	50.6	55.4	62.0	73.4	88.1	169.6	636.0	1333.9	1581.8	1694.3
32.5°	40.8	44.0	48.9	55.4	65.2	76.6	137.0	583.8	1412.2	1678.0	1774.2
35°	34.2	37.5	42.4	48.9	57.1	65.2	112.5	499.0	1492.1	1777.5	1870.4
37.5°	29.4	32.6	35.9	42.4	50.6	58.7	93.0	445.2	1550.8	1901.4	1992.7
40°	24.5	27.7	32.6	37.5	44.0	55.4	75.0	373.4	1609.5	2020.5	2105.3
42.5°	19.6	22.8	27.7	34.2	40.8	48.9	60.3	308.2	1668.2	2128.1	2208.0
45°	14.7	17.9	22.8	31.0	40.8	42.4	48.9	262.5	1682.9	2229.2	2297.7
47.5°	11.4	13.0	17.9	26.1	39.1	37.5	40.8	228.3	1710.6	2309.1	2385.7
50°	8.2	9.8	14.7	24.5	34.2	31.0	35.9	215.3	1749.8	2371.1	2411.8
52.5°	6.5	8.2	11.4	21.2	27.7	27.7	32.6	228.3	1800.3	2444.4	2478.7
55°	4.9	6.5	9.8	14.7	21.2	24.5	31.0	246.2	1898.2	2573.3	2566.8
57.5°	3.3	4.9	8.2	11.4	16.3	21.2	29.4	274.0	1997.6	2718.4	2724.9
60°	3.3	4.9	6.5	9.8	14.7	17.9	26.1	277.2	1981.3	2739.6	2835.8
62.5°	1.6	3.3	6.5	8.2	11.4	14.7	22.8	233.2	1824.8	2636.9	2777.1
65°	*1.6*	*3.3*	*4.9*	*8.2*	*9.8*	*13.0*	*17.9*	*148.4*	*1588.3*	*2454.2*	*2640.1*
67.5°	1.6	3.3	4.9	6.5	8.2	11.4	14.7	76.6	1347.0	2265.1	2444.4
70°	1.6	3.3	4.9	6.5	8.2	9.8	13.0	37.5	1020.8	1909.6	2141.1
72.5°	1.6	3.3	4.9	6.5	6.5	8.2	11.4	26.1	655.5	1435.0	1658.4
75°	1.6	3.3	3.3	4.9	6.5	8.2	9.8	17.9	424.0	965.4	1257.3
77.5°	1.6	3.3	3.3	4.9	6.5	8.2	11.4	16.3	309.8	662.1	869.2
80°	1.6	3.3	3.3	4.9	6.5	6.5	8.2	11.4	166.3	438.7	552.8
82.5°	3.3	3.3	4.9	4.9	4.9	6.5	8.2	8.2	86.4	280.5	373.4
85°	3.3	3.3	4.9	4.9	6.5	6.5	6.5	8.2	37.5	117.4	185.9
87.5°	3.3	4.9	4.9	4.9	6.5	6.5	6.5	6.5	4.9	6.5	6.5
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: P438624
CATALOG NUMBER: IST-SA1D-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1146.4	1146.4	1146.4	1146.4	1146.4	1146.4	*1146.4*	1146.4	1146.4	1146.4
2.5°	1296.4	1317.6	1327.4	1319.3	1312.7	1293.2	*1265.4*	1237.7	1214.9	1213.3
5°	1364.9	1410.6	1446.4	1428.5	1404.0	1347.0	*1276.9*	1198.6	1169.2	1156.2
7.5°	1350.2	1449.7	1510.0	1493.7	1444.8	1337.2	*1227.9*	1125.2	1077.9	1061.6
10°	1283.4	1417.1	1497.0	1492.1	1446.4	1319.3	*1183.9*	1060.0	1009.4	996.4
12.5°	1221.4	1353.5	1430.1	1433.4	1417.1	1299.7	*1162.7*	1030.6	970.3	963.8
15°	1188.8	1301.3	1347.0	1356.8	1363.3	1298.1	*1182.3*	1050.2	986.6	971.9
17.5°	1195.3	1249.1	1260.5	1252.4	1296.4	1299.7	*1237.7*	1118.7	1046.9	1029.0
20°	1234.5	1214.9	1177.4	1185.5	1234.5	1306.2	*1320.9*	1239.3	1157.8	1135.0
22.5°	1309.5	1213.3	1138.2	1131.7	1195.3	1317.6	*1410.6*	1368.2	1283.4	1270.3
25°	1420.4	1237.7	1121.9	1108.9	1164.3	1329.0	*1501.9*	1503.5	1436.7	1412.2
27.5°	1528.0	1276.9	1120.3	1107.3	1164.3	1343.7	*1563.9*	1637.2	1567.1	1541.0
30°	1590.0	1322.5	1146.4	1121.9	1185.5	1356.8	*1604.6*	1743.2	1681.3	1658.4
32.5°	1647.0	1371.4	1174.1	1144.8	1226.3	1392.6	*1642.1*	1839.5	1785.6	1757.9
35°	1694.3	1428.5	1226.3	1180.6	1286.6	1444.8	*1687.8*	1945.4	1911.2	1877.0
37.5°	1740.0	1485.6	1299.7	1273.6	1387.7	1519.8	*1748.1*	2056.3	2072.6	2038.4
40°	1805.2	1550.8	1425.2	1404.0	1536.1	1634.0	*1821.5*	2167.2	2221.0	2183.5
42.5°	1867.2	1634.0	1552.4	1572.0	1715.5	1766.1	*1904.7*	2268.3	2328.7	2312.4
45°	1924.2	1736.7	1736.7	1784.0	1909.6	1911.2	*1968.3*	2338.5	2402.1	2393.9
47.5°	1999.3	1863.9	1927.5	2058.0	2124.8	2036.8	*2036.8*	2405.3	2491.7	2468.9
50°	2072.6	2033.5	2180.3	2299.3	2358.0	2188.4	*2106.9*	2495.0	2597.7	2578.2
52.5°	2152.6	2198.2	2416.7	2534.1	2568.4	2361.3	*2212.9*	2584.7	2716.8	2716.8
55°	2281.4	2338.5	2666.2	2764.1	2813.0	2504.8	*2348.2*	2711.9	2861.9	2870.1
57.5°	2413.5	2473.8	2806.5	2930.4	2994.0	2716.8	*2522.7*	2881.5	2964.6	2963.0
60°	2552.1	2615.7	2915.7	3038.0	3131.0	2933.7	*2729.8*	3036.4	3013.6	2997.3
62.5°	2723.3	2723.3	2956.5	3013.6	3126.1	3070.6	*2963.0*	3124.5	3031.5	2994.0
65°	*2806.5*	*2780.4*	*2839.1*	*2796.7*	*2925.5*	*3031.5*	*3140.8*	*3127.7*	*2967.9*	*2905.9*
67.5°	2762.4	2604.3	2503.2	2439.6	2467.3	2649.9	*3062.5*	2972.8	2710.3	2663.0
70°	2460.8	2082.4	1987.8	1886.7	1832.9	2022.1	*2646.7*	2625.5	2305.8	2261.8
72.5°	2005.8	1503.5	1275.2	1378.0	1325.8	1539.4	*2168.9*	1852.5	1513.3	1474.2
75°	1665.0	1118.7	831.7	833.3	841.5	1011.0	*1585.1*	1100.7	831.7	802.3
77.5°	1205.1	787.6	671.9	601.7	608.3	645.8	*825.1*	469.6	383.2	347.3
80°	735.5	487.6	543.0	482.7	466.4	358.8	*355.5*	68.5	45.7	45.7
82.5°	401.2	309.8	288.6	104.4	161.4	195.7	*161.4*	3.3	1.6	1.6
85°	203.8	123.9	58.7	17.9	21.2	17.9	*3.3*	0.0	0.0	0.0
87.5°	6.5	4.9	4.9	3.3	3.3	1.6	*1.6*	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.

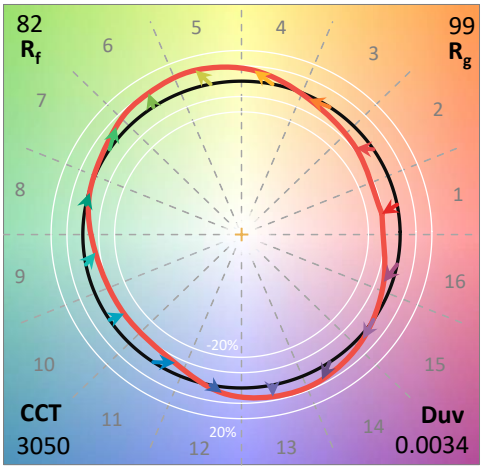
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

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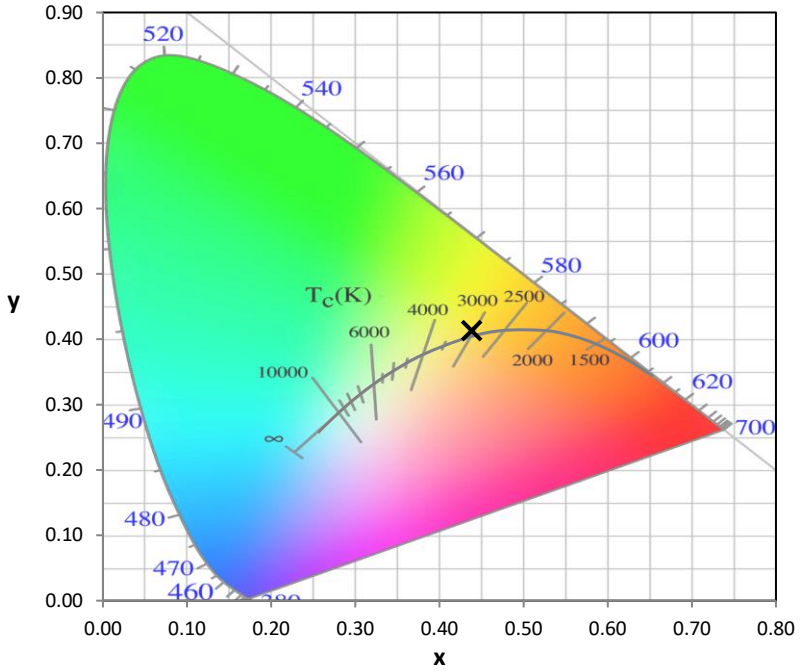
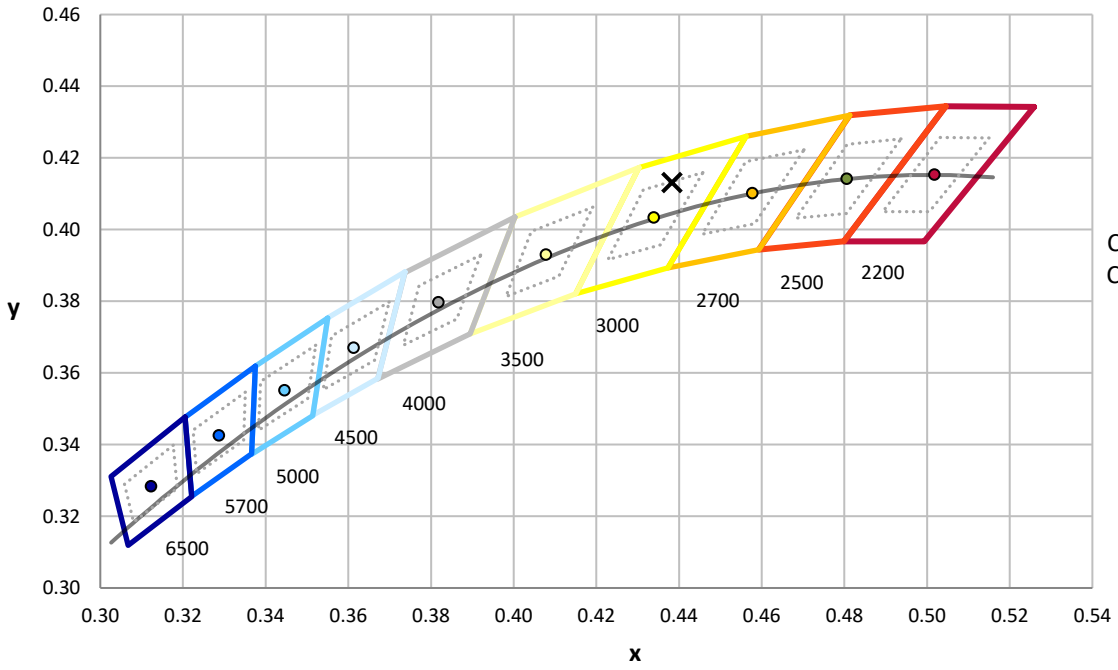
CIE 1931 Chromaticity Diagram



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

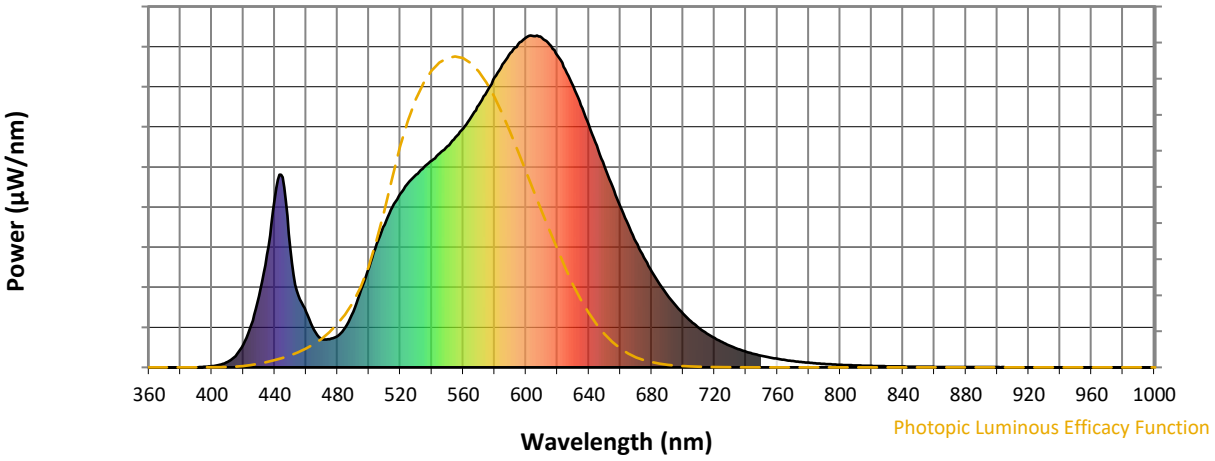


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

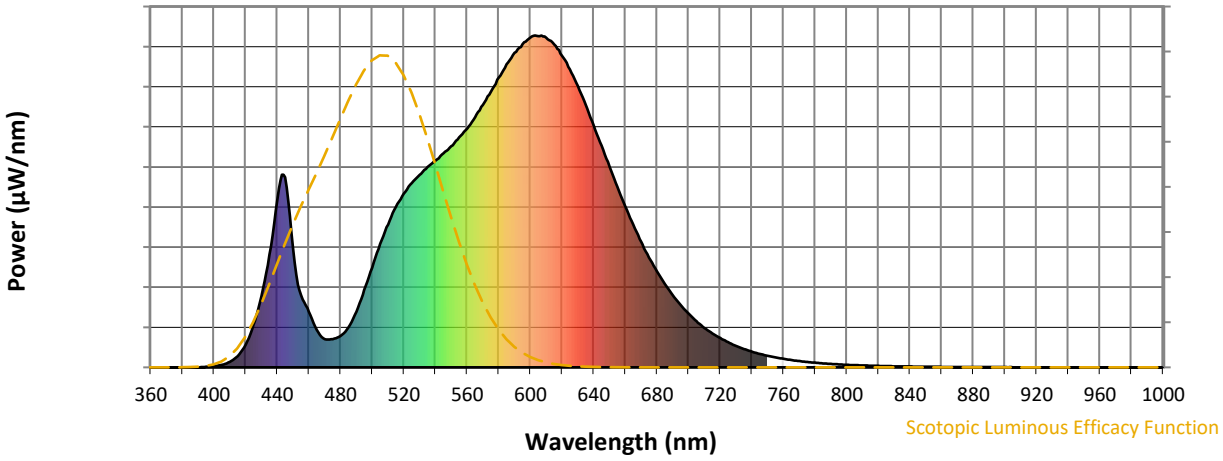


Photopic Lumens: NR

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

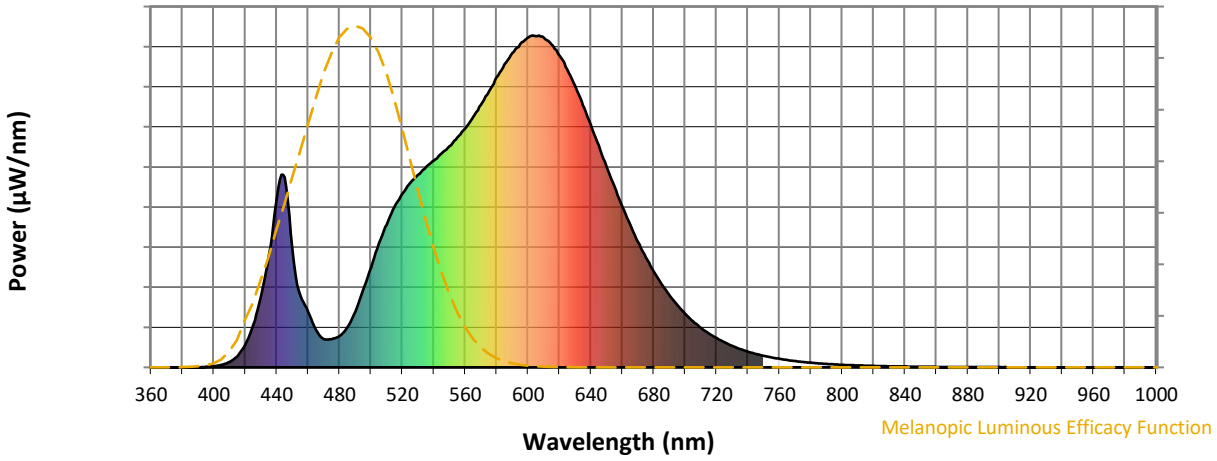


Scotopic Lumens: NR **S/P: 1.27**

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			

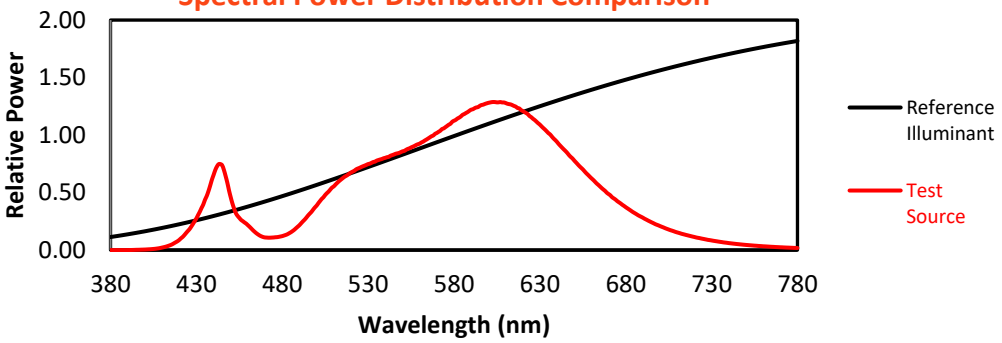
REPORT NUMBER: SP1-2408-195-9

TM-30-18

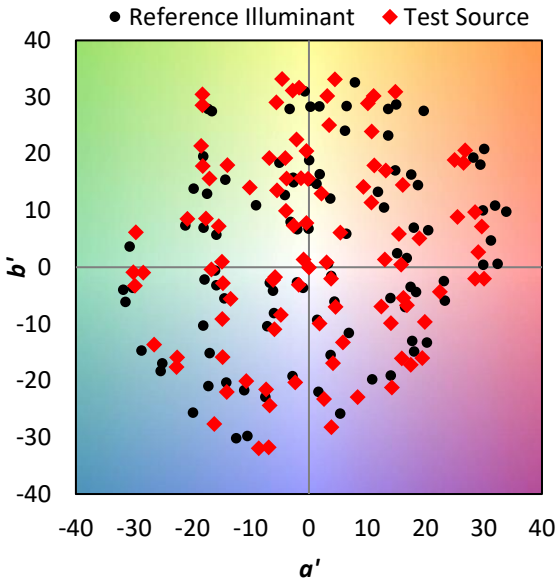
Summary

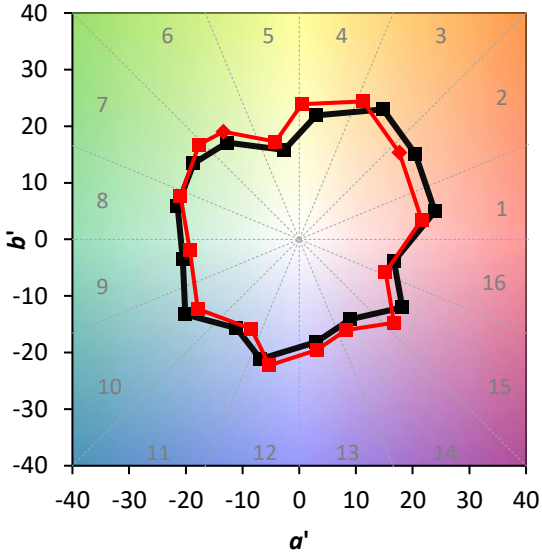
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

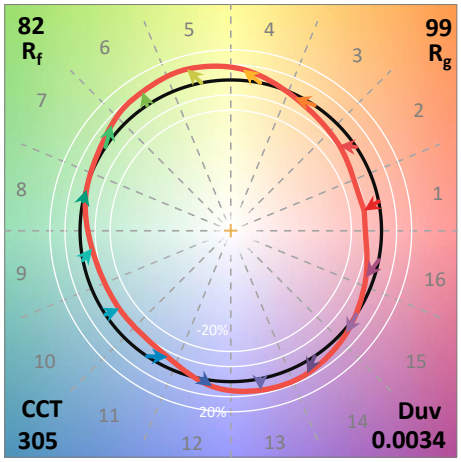
Spectral Power Distribution Comparison

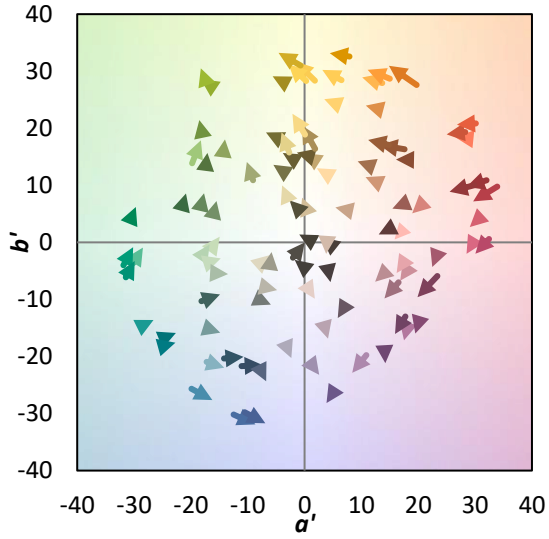


Color Vector Graphics









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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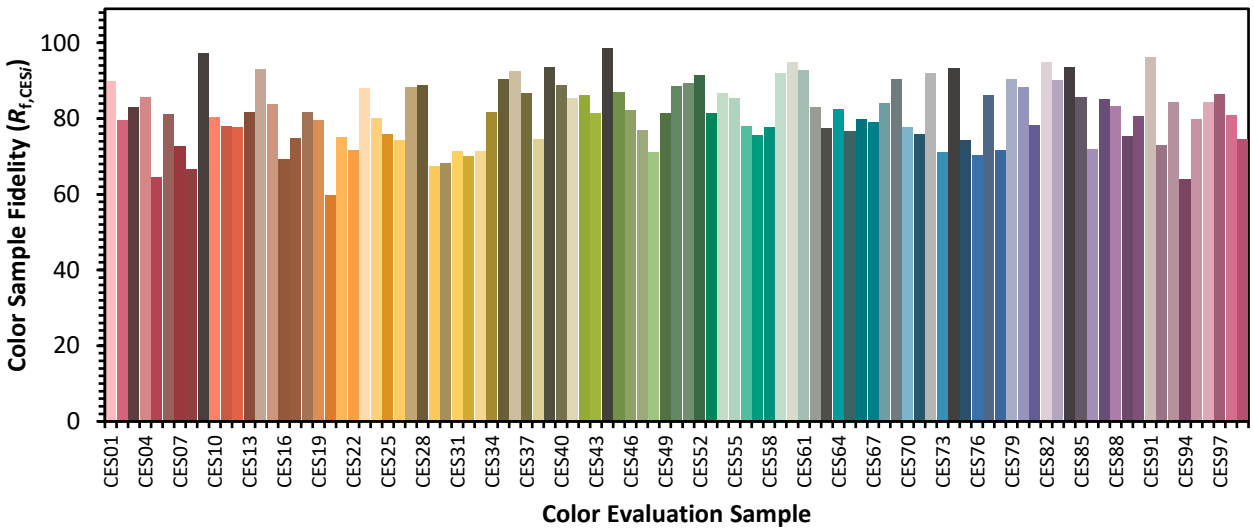

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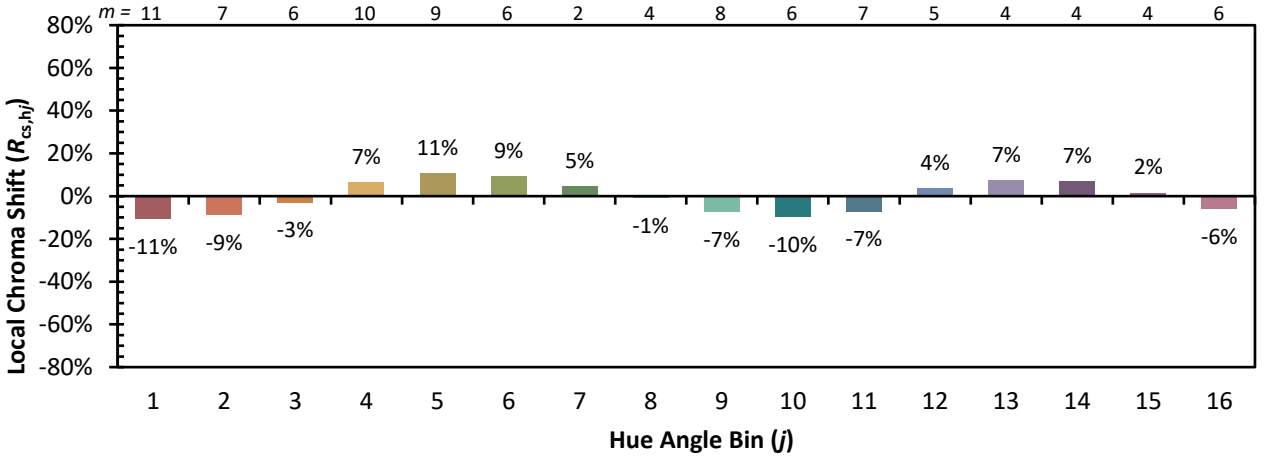
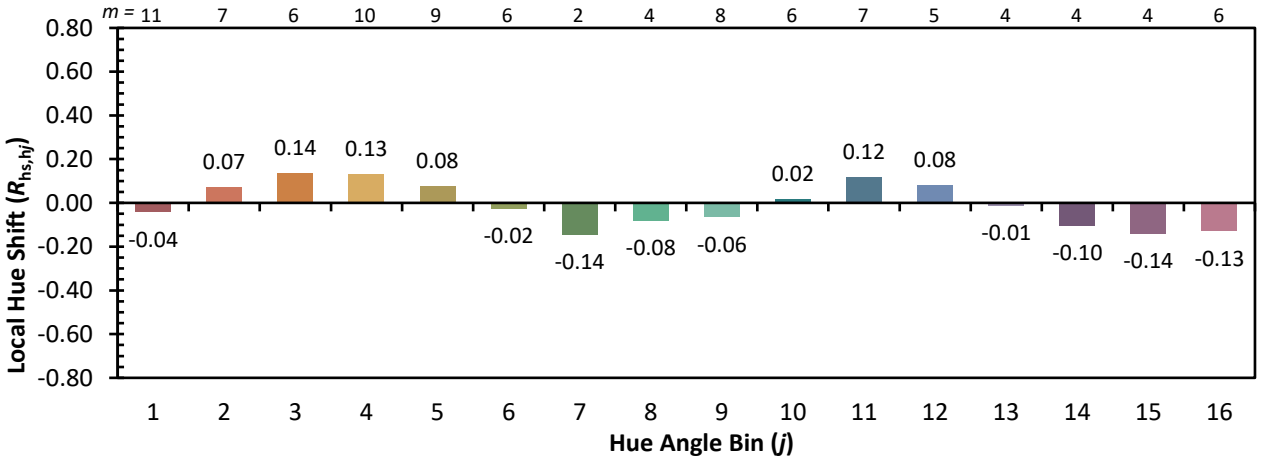
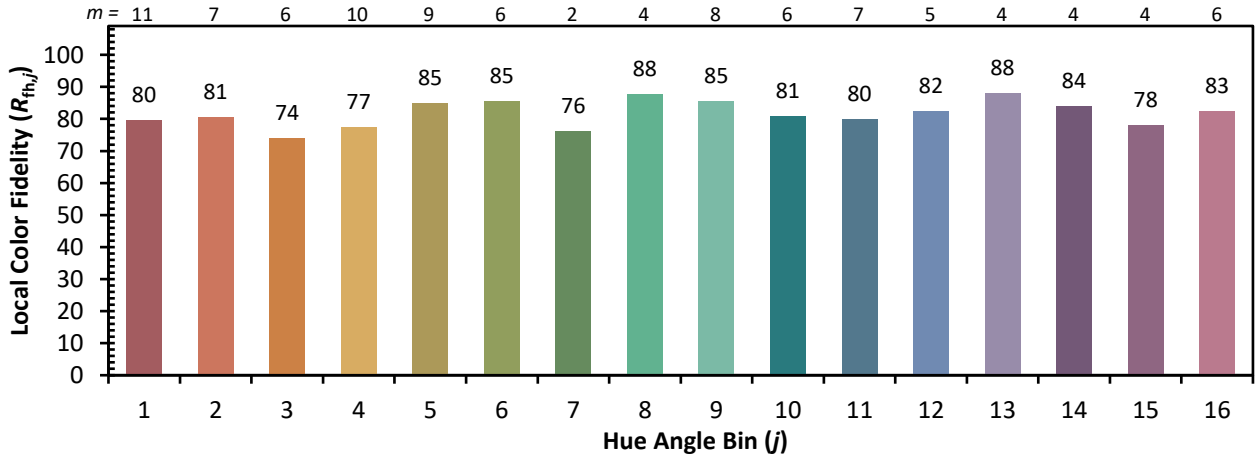
Color Rendition by Hue-Angle Bin







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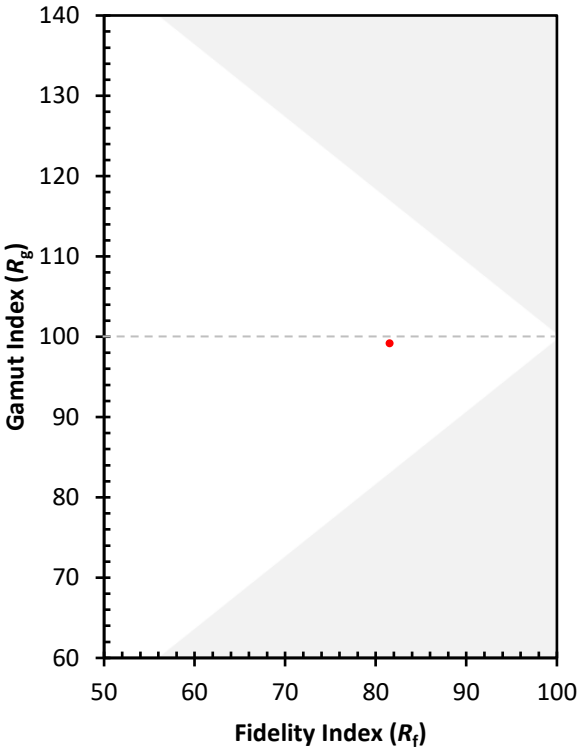
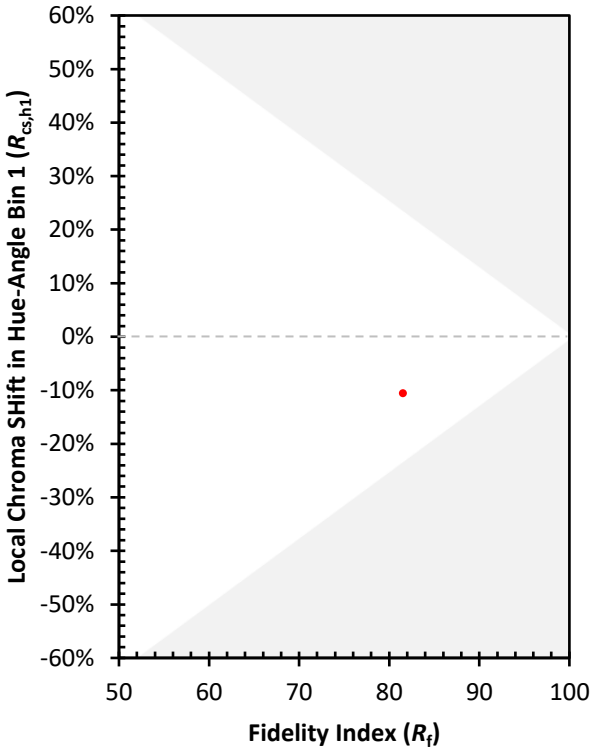
Measure Comparisons





(END OF REPORT)