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: P437769

Luminaire Tested: **ISS-SA1E-830-U-SLR-HSS**

Issue Date: 12/9/2020

Report Generated By 670245982

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437769
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-23)
Test Lab:	INNOVATION CENTER
Issue Date:	12/9/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISS-SA1E-830-U-SLR-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 1050mA 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:	4249 lumens
Efficiency:	N/A
Efficacy:	73.0 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):	58.2
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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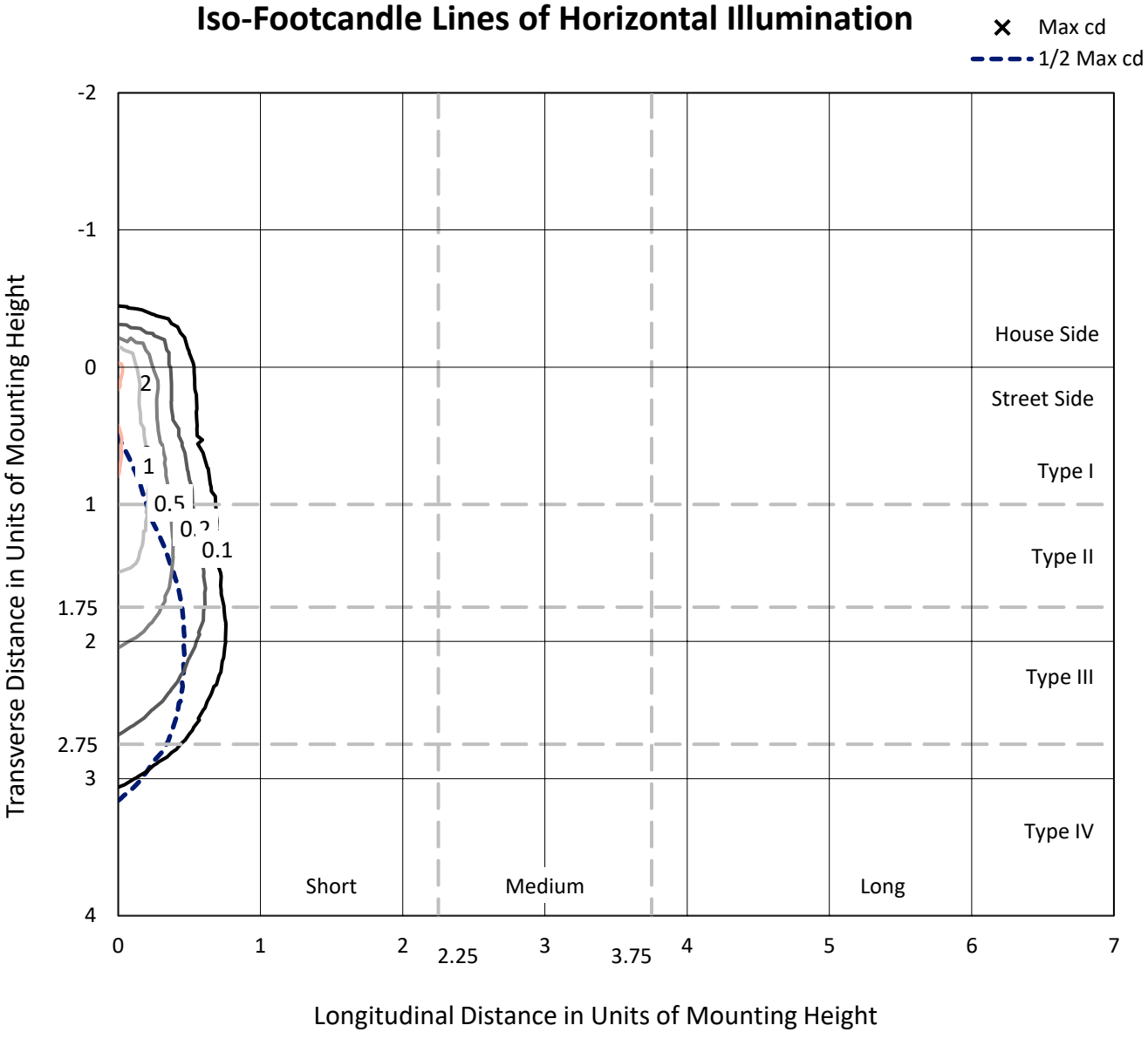
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
Type IV - Short - N/A

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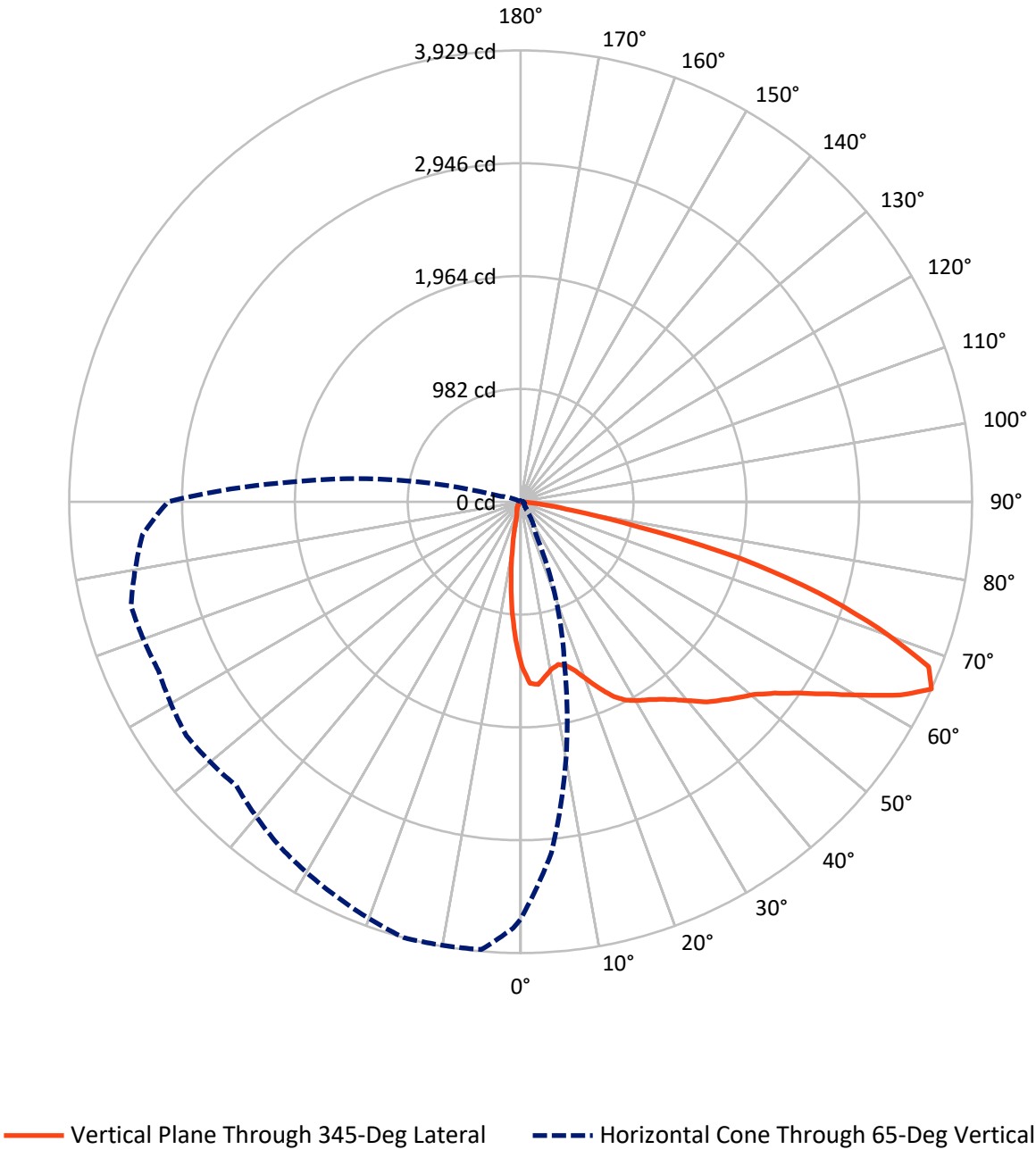
Luminous Intensity Polar Plot



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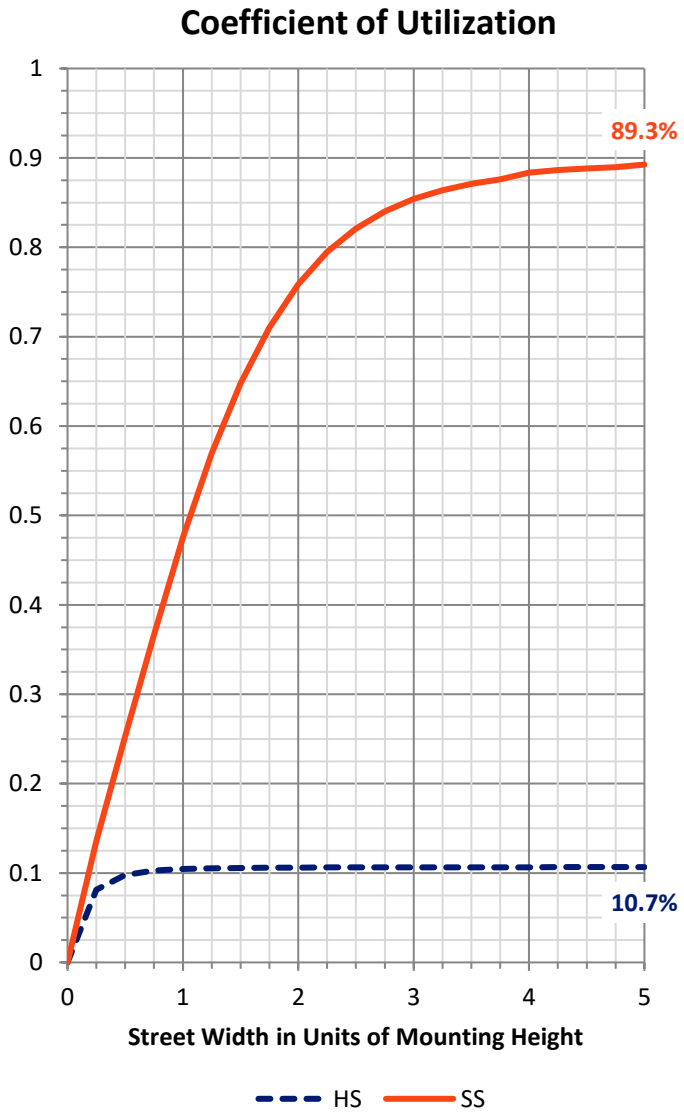
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	458.1	0.0	458.1
	% Fixture	10.8	0.0	10.8
Street Side	Lumens	3790.9	0.0	3790.9
	% Fixture	89.2	0.0	89.2
Total	Lumens	4249.0	0.0	4249.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	2.5
10°-20°	207.2	4.9
20°-30°	302.2	7.1
30°-40°	449.1	10.6
40°-50°	658.4	15.5
50°-60°	947.4	22.3
60°-70°	1062.9	25.0
70°-80°	466.3	11.0
80°-90°	49.1	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°	4249.0	100.0
0°-180°	4249.0	100.0



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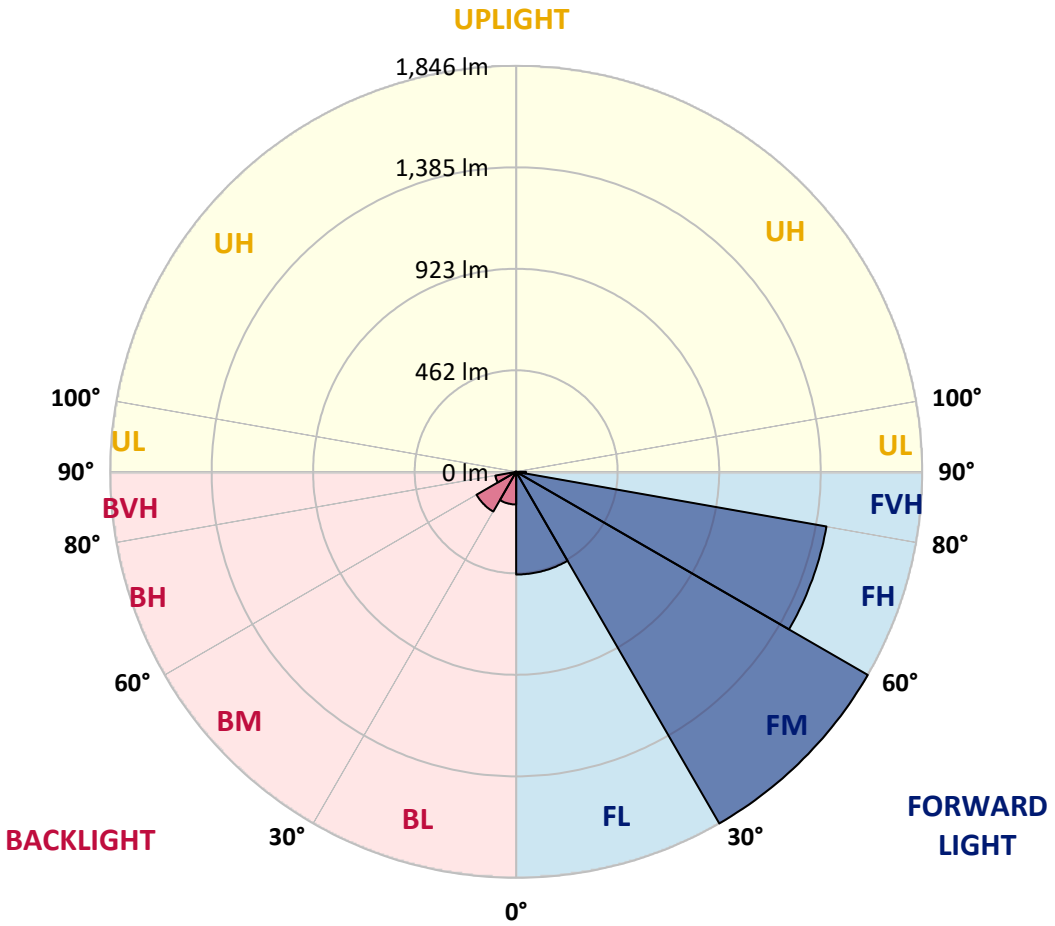
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	467.2	11.0			
FM	(30°-60°)	1846.5	43.5			
FH	(60°-80°)	1432.9	33.7			G1/1800
FVH	(80°-90°)	44.3	1.0			G1/100
BL	(0°-30°)	148.6	3.5	B1/500		
BM	(30°-60°)	208.5	4.9	B0/220		
BH	(60°-80°)	96.3	2.3	B0/110		G0/110
BVH	(80°-90°)	4.8	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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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1517.6	1517.6	1495.1	1442.1	1393.1	1334.0	1301.3	1270.7	1238.1	1215.7	1181.0
5°	1446.2	1431.9	1399.2	1301.3	1197.3	1128.0	1074.9	981.1	936.2	903.6	889.3
7.5°	1327.9	1319.7	1266.7	1152.4	1028.0	915.8	844.4	766.9	705.7	681.3	638.4
10°	1246.3	1238.1	1170.8	1015.8	871.0	789.4	732.3	677.2	618.0	558.9	514.0
12.5°	1205.5	1189.2	1123.9	948.5	824.0	744.5	679.2	611.9	538.5	473.2	420.2
15°	1215.7	1189.2	1115.7	936.2	789.4	691.5	607.8	509.9	436.5	359.0	310.0
17.5°	1287.1	1258.5	1168.8	946.4	744.5	620.1	509.9	399.8	301.9	230.5	206.0
20°	1419.6	1389.0	1266.7	968.9	715.9	548.7	393.7	275.4	199.9	167.3	153.0
22.5°	1588.9	1548.1	1403.3	1005.6	683.3	477.3	297.8	195.8	153.0	132.6	122.4
25°	1766.4	1725.6	1564.5	1060.7	662.9	416.1	230.5	153.0	124.4	112.2	106.1
27.5°	1927.5	1876.5	1709.3	1142.2	638.4	361.0	191.7	132.6	112.2	97.9	93.8
30°	2074.4	2015.2	1854.1	1211.6	603.8	312.1	165.2	122.4	104.0	91.8	85.7
32.5°	2198.8	2151.9	1972.4	1260.5	575.2	285.6	146.9	108.1	89.7	79.5	75.5
35°	2347.7	2302.8	2086.6	1301.3	556.8	273.3	134.6	102.0	83.6	73.4	65.3
37.5°	2549.7	2484.4	2213.1	1338.1	536.4	263.1	124.4	95.9	79.5	67.3	61.2
40°	2731.2	2659.8	2360.0	1364.6	526.2	255.0	122.4	91.8	75.5	63.2	57.1
42.5°	2892.3	2827.1	2478.3	1374.8	518.1	240.7	120.3	89.7	75.5	61.2	53.0
45°	2994.3	2935.2	2619.0	1401.3	518.1	230.5	112.2	89.7	73.4	59.2	51.0
47.5°	3088.1	3031.0	2741.4	1429.8	509.9	222.3	102.0	97.9	73.4	57.1	46.9
50°	3224.8	3179.9	2896.4	1515.5	495.7	210.1	91.8	95.9	75.5	55.1	46.9
52.5°	3398.2	3377.8	3124.9	1631.8	475.3	187.7	81.6	89.7	75.5	53.0	44.9
55°	3589.9	3581.7	3363.5	1737.8	450.8	161.1	75.5	81.6	73.4	49.0	40.8
57.5°	3706.2	3706.2	3518.5	1797.0	430.4	128.5	67.3	67.3	71.4	44.9	36.7
60°	3749.0	3704.1	3500.2	1790.9	395.7	106.1	61.2	55.1	75.5	38.8	32.6
62.5°	3744.9	3647.0	3328.8	1693.0	348.8	97.9	53.0	46.9	55.1	34.7	28.6
65°	*3634.8*	*3516.5*	*3067.7*	*1474.7*	*314.1*	*97.9*	*44.9*	*38.8*	*36.7*	*30.6*	*22.4*
67.5°	3330.9	3259.5	2686.3	1250.3	289.6	97.9	38.8	32.6	28.6	24.5	20.4
70°	2829.1	2735.3	2164.1	964.8	271.3	97.9	32.6	28.6	26.5	20.4	16.3
72.5°	1843.9	1790.9	1323.8	662.9	222.3	95.9	28.6	26.5	24.5	18.4	14.3
75°	1003.5	928.1	728.2	236.6	159.1	69.4	24.5	22.4	18.4	16.3	12.2
77.5°	434.5	418.1	371.2	63.2	46.9	20.4	14.3	14.3	12.2	12.2	8.2
80°	57.1	42.8	49.0	18.4	16.3	10.2	8.2	6.1	6.1	6.1	4.1
82.5°	2.0	2.0	0.0	2.0	6.1	4.1	0.0	0.0	2.0	2.0	2.0
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°	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1197.3	1172.8	1154.5	1154.5	1179.0	1164.7	1181.0	1170.8	1199.4	1213.6	1209.6
5°	858.7	868.9	858.7	875.0	901.6	915.8	924.0	944.4	942.4	950.5	964.8
7.5°	622.1	622.1	626.2	622.1	646.6	673.1	687.4	681.3	677.2	669.0	683.3
10°	499.7	477.3	450.8	450.8	454.9	469.1	471.2	461.0	446.7	420.2	428.3
12.5°	391.6	375.3	359.0	324.3	322.3	314.1	312.1	283.5	261.1	252.9	252.9
15°	287.6	277.4	259.0	242.7	226.4	218.3	204.0	169.3	146.9	144.8	146.9
17.5°	191.7	185.6	179.5	179.5	173.4	159.1	144.8	122.4	112.2	108.1	110.1
20°	142.8	140.7	134.6	136.7	136.7	124.4	110.1	99.9	95.9	95.9	97.9
22.5°	118.3	116.3	110.1	110.1	110.1	104.0	93.8	87.7	85.7	85.7	85.7
25°	102.0	99.9	95.9	93.8	93.8	89.7	81.6	77.5	75.5	75.5	75.5
27.5°	91.8	89.7	85.7	81.6	81.6	77.5	73.4	67.3	67.3	67.3	67.3
30°	81.6	79.5	77.5	73.4	71.4	67.3	63.2	61.2	59.2	59.2	59.2
32.5°	73.4	71.4	69.4	67.3	63.2	59.2	55.1	53.0	51.0	51.0	51.0
35°	63.2	59.2	57.1	59.2	57.1	51.0	49.0	44.9	42.8	42.8	42.8
37.5°	57.1	53.0	49.0	46.9	46.9	46.9	42.8	38.8	36.7	34.7	36.7
40°	53.0	49.0	44.9	40.8	38.8	40.8	36.7	32.6	30.6	28.6	30.6
42.5°	49.0	44.9	38.8	34.7	30.6	34.7	30.6	26.5	24.5	22.4	24.5
45°	46.9	42.8	36.7	30.6	26.5	26.5	26.5	22.4	18.4	18.4	18.4
47.5°	44.9	40.8	32.6	26.5	22.4	20.4	20.4	16.3	14.3	12.2	12.2
50°	42.8	38.8	30.6	22.4	18.4	16.3	16.3	12.2	10.2	10.2	10.2
52.5°	40.8	36.7	28.6	20.4	16.3	12.2	10.2	8.2	8.2	6.1	6.1
55°	36.7	32.6	24.5	18.4	14.3	10.2	8.2	6.1	6.1	4.1	6.1
57.5°	34.7	30.6	22.4	16.3	12.2	8.2	6.1	4.1	4.1	4.1	4.1
60°	30.6	26.5	18.4	12.2	8.2	6.1	4.1	4.1	4.1	2.0	2.0
62.5°	24.5	22.4	16.3	10.2	6.1	4.1	2.0	2.0	2.0	2.0	2.0
65°	*22.4*	*20.4*	*14.3*	*8.2*	*4.1*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*
67.5°	18.4	16.3	10.2	6.1	2.0	2.0	0.0	2.0	2.0	0.0	0.0
70°	14.3	14.3	8.2	4.1	2.0	0.0	0.0	2.0	2.0	0.0	0.0
72.5°	12.2	12.2	8.2	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0
75°	10.2	10.2	8.2	4.1	0.0	0.0	0.0	2.0	2.0	2.0	2.0
77.5°	8.2	6.1	4.1	2.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
80°	4.1	4.1	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	4.1	4.1	2.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.1	4.1	4.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.1	4.1	4.1	4.1
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°	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1219.8	1252.4	1289.1	1311.5	1360.5	1403.3	1454.3	1499.2	1552.2	1580.8	1591.0
5°	979.1	997.4	1044.3	1105.5	1160.6	1238.1	1327.9	1427.8	1535.9	1586.9	1623.6
7.5°	675.1	691.5	758.8	815.9	907.7	1007.6	1130.0	1266.7	1407.4	1478.8	1544.1
10°	440.6	463.0	520.1	599.7	715.9	838.3	962.7	1105.5	1268.7	1352.3	1440.0
12.5°	255.0	281.5	350.8	454.9	569.1	699.6	828.1	985.2	1166.7	1258.5	1348.3
15°	146.9	157.1	197.9	289.6	418.1	577.2	728.2	897.5	1109.6	1211.6	1317.7
17.5°	110.1	116.3	128.5	167.3	267.2	442.6	654.8	871.0	1115.7	1252.4	1346.2
20°	97.9	102.0	108.1	122.4	169.3	314.1	565.0	852.6	1174.9	1350.3	1464.5
22.5°	87.7	91.8	97.9	108.1	128.5	212.1	471.2	850.6	1272.8	1495.1	1623.6
25°	77.5	81.6	87.7	97.9	114.2	153.0	365.1	844.4	1395.2	1654.2	1815.4
27.5°	67.3	71.4	77.5	87.7	102.0	126.5	277.4	826.1	1542.0	1825.5	1996.9
30°	59.2	63.2	69.4	77.5	91.8	110.1	212.1	795.5	1668.5	1978.5	2119.3
32.5°	51.0	55.1	61.2	69.4	81.6	95.9	171.3	730.2	1766.4	2098.9	2219.2
35°	42.8	46.9	53.0	61.2	71.4	81.6	140.7	624.2	1866.3	2223.3	2339.6
37.5°	36.7	40.8	44.9	53.0	63.2	73.4	116.3	556.8	1939.8	2378.3	2492.5
40°	30.6	34.7	40.8	46.9	55.1	69.4	93.8	467.1	2013.2	2527.2	2633.3
42.5°	24.5	28.6	34.7	42.8	51.0	61.2	75.5	385.5	2086.6	2661.8	2761.8
45°	18.4	22.4	28.6	38.8	51.0	53.0	61.2	328.4	2105.0	2788.3	2874.0
47.5°	14.3	16.3	22.4	32.6	49.0	46.9	51.0	285.6	2139.7	2888.2	2984.1
50°	10.2	12.2	18.4	30.6	42.8	38.8	44.9	269.2	2188.6	2965.8	3016.7
52.5°	8.2	10.2	14.3	26.5	34.7	34.7	40.8	285.6	2251.9	3057.5	3100.4
55°	6.1	8.2	12.2	18.4	26.5	30.6	38.8	308.0	2374.2	3218.7	3210.5
57.5°	4.1	6.1	10.2	14.3	20.4	26.5	36.7	342.7	2498.7	3400.2	3408.4
60°	4.1	6.1	8.2	12.2	18.4	22.4	32.6	346.8	2478.3	3426.7	3547.1
62.5°	2.0	4.1	8.2	10.2	14.3	18.4	28.6	291.7	2282.4	3298.2	3473.6
65°	*2.0*	*4.1*	*6.1*	*10.2*	*12.2*	*16.3*	*22.4*	*185.6*	*1986.7*	*3069.8*	*3302.3*
67.5°	2.0	4.1	6.1	8.2	10.2	14.3	18.4	95.9	1684.8	2833.2	3057.5
70°	2.0	4.1	6.1	8.2	10.2	12.2	16.3	46.9	1276.9	2388.5	2678.2
72.5°	2.0	4.1	6.1	8.2	8.2	10.2	14.3	32.6	820.0	1795.0	2074.4
75°	2.0	4.1	4.1	6.1	8.2	10.2	12.2	22.4	530.3	1207.5	1572.6
77.5°	2.0	4.1	4.1	6.1	8.2	10.2	14.3	20.4	387.5	828.1	1087.2
80°	2.0	4.1	4.1	6.1	8.2	8.2	10.2	14.3	208.1	548.7	691.5
82.5°	4.1	4.1	6.1	6.1	6.1	8.2	10.2	10.2	108.1	350.8	467.1
85°	4.1	4.1	6.1	6.1	8.2	8.2	8.2	10.2	46.9	146.9	232.5
87.5°	4.1	6.1	6.1	6.1	8.2	8.2	8.2	8.2	6.1	8.2	8.2
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: P437769
CATALOG NUMBER: ISS-SA1E-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1433.9	1433.9	1433.9	1433.9	1433.9	1433.9	*1433.9*	1433.9	1433.9	1433.9
2.5°	1621.6	1648.1	1660.3	1650.1	1642.0	1617.5	*1582.8*	1548.1	1519.6	1517.6
5°	1707.2	1764.4	1809.2	1786.8	1756.2	1684.8	*1597.1*	1499.2	1462.5	1446.2
7.5°	1688.9	1813.3	1888.8	1868.4	1807.2	1672.6	*1535.9*	1407.4	1348.3	1327.9
10°	1605.3	1772.5	1872.5	1866.3	1809.2	1650.1	*1480.8*	1325.8	1262.6	1246.3
12.5°	1527.8	1693.0	1788.8	1792.9	1772.5	1625.7	*1454.3*	1289.1	1213.6	1205.5
15°	1487.0	1627.7	1684.8	1697.0	1705.2	1623.6	*1478.8*	1313.6	1234.0	1215.7
17.5°	1495.1	1562.4	1576.7	1566.5	1621.6	1625.7	*1548.1*	1399.2	1309.5	1287.1
20°	1544.1	1519.6	1472.7	1482.9	1544.1	1633.8	*1652.2*	1550.2	1448.2	1419.6
22.5°	1637.9	1517.6	1423.7	1415.6	1495.1	1648.1	*1764.4*	1711.3	1605.3	1588.9
25°	1776.6	1548.1	1403.3	1387.0	1456.4	1662.4	*1878.6*	1880.6	1797.0	1766.4
27.5°	1911.2	1597.1	1401.3	1385.0	1456.4	1680.7	*1956.1*	2047.9	1960.2	1927.5
30°	1988.7	1654.2	1433.9	1403.3	1482.9	1697.0	*2007.1*	2180.5	2103.0	2074.4
32.5°	2060.1	1715.4	1468.6	1431.9	1533.9	1741.9	*2054.0*	2300.8	2233.5	2198.8
35°	2119.3	1786.8	1533.9	1476.8	1609.3	1807.2	*2111.1*	2433.4	2390.6	2347.7
37.5°	2176.4	1858.2	1625.7	1593.0	1735.8	1901.0	*2186.6*	2572.1	2592.5	2549.7
40°	2258.0	1939.8	1782.7	1756.2	1921.4	2043.8	*2278.4*	2710.8	2778.1	2731.2
42.5°	2335.5	2043.8	1941.8	1966.3	2145.8	2209.0	*2382.4*	2837.3	2912.7	2892.3
45°	2406.9	2172.3	2172.3	2231.5	2388.5	2390.6	*2461.9*	2925.0	3004.5	2994.3
47.5°	2500.7	2331.4	2410.9	2574.1	2657.8	2547.6	*2547.6*	3008.6	3116.7	3088.1
50°	2592.5	2543.5	2727.1	2876.0	2949.4	2737.3	*2635.3*	3120.8	3249.3	3224.8
52.5°	2692.4	2749.5	3022.9	3169.7	3212.6	2953.5	*2767.9*	3233.0	3398.2	3398.2
55°	2853.6	2925.0	3334.9	3457.3	3518.5	3133.0	*2937.2*	3392.1	3579.7	3589.9
57.5°	3018.8	3094.3	3510.4	3665.4	3744.9	3398.2	*3155.4*	3604.2	3708.2	3706.2
60°	3192.2	3271.7	3647.0	3800.0	3916.3	3669.5	*3414.5*	3798.0	3769.4	3749.0
62.5°	3406.3	3406.3	3698.0	3769.4	3910.1	3840.8	*3706.2*	3908.1	3791.8	3744.9
65°	*3510.4*	*3477.7*	*3551.2*	*3498.1*	*3659.3*	*3791.8*	*3928.5*	*3912.2*	*3712.3*	*3634.8*
67.5°	3455.3	3257.4	3131.0	3051.4	3086.1	3314.5	*3830.6*	3718.4	3390.0	3330.9
70°	3077.9	2604.7	2486.4	2360.0	2292.6	2529.3	*3310.5*	3283.9	2884.2	2829.1
72.5°	2508.9	1880.6	1595.1	1723.6	1658.3	1925.5	*2712.8*	2317.1	1892.9	1843.9
75°	2082.6	1399.2	1040.3	1042.3	1052.5	1264.6	*1982.6*	1376.8	1040.3	1003.5
77.5°	1507.4	985.2	840.4	752.7	760.8	807.7	*1032.1*	587.4	479.3	434.5
80°	919.9	609.9	679.2	603.8	583.4	448.7	*444.7*	85.7	57.1	57.1
82.5°	501.8	387.5	361.0	130.5	201.9	244.8	*201.9*	4.1	2.0	2.0
85°	255.0	155.0	73.4	22.4	26.5	22.4	*4.1*	0.0	0.0	0.0
87.5°	8.2	6.1	6.1	4.1	4.1	2.0	*2.0*	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

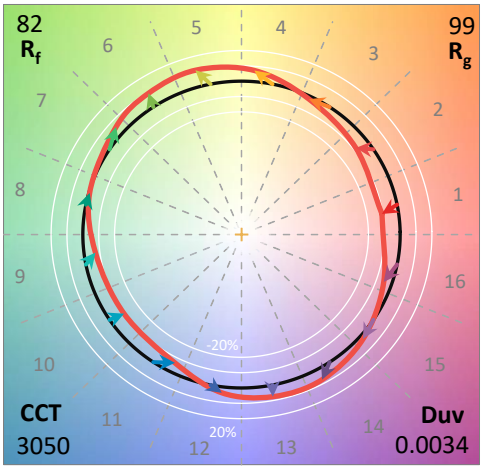
Test Information

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

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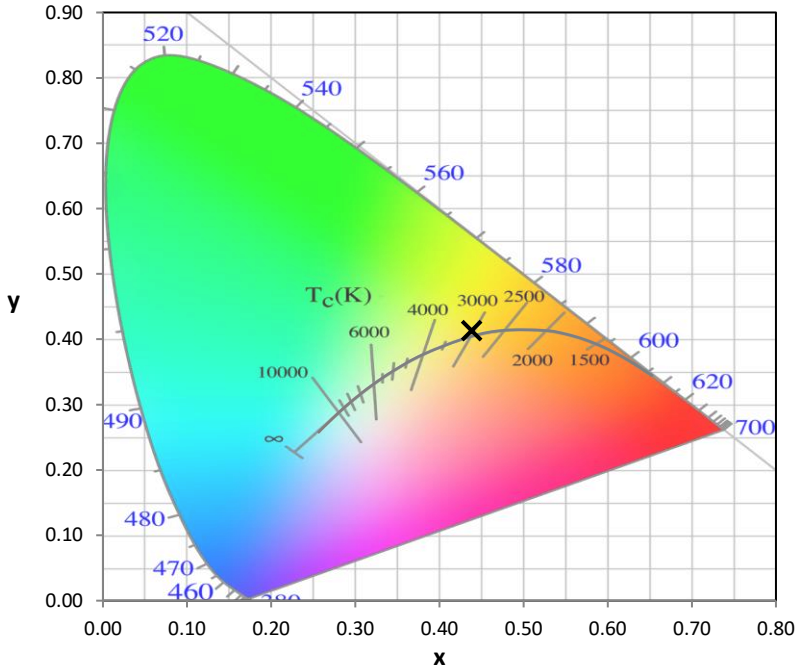
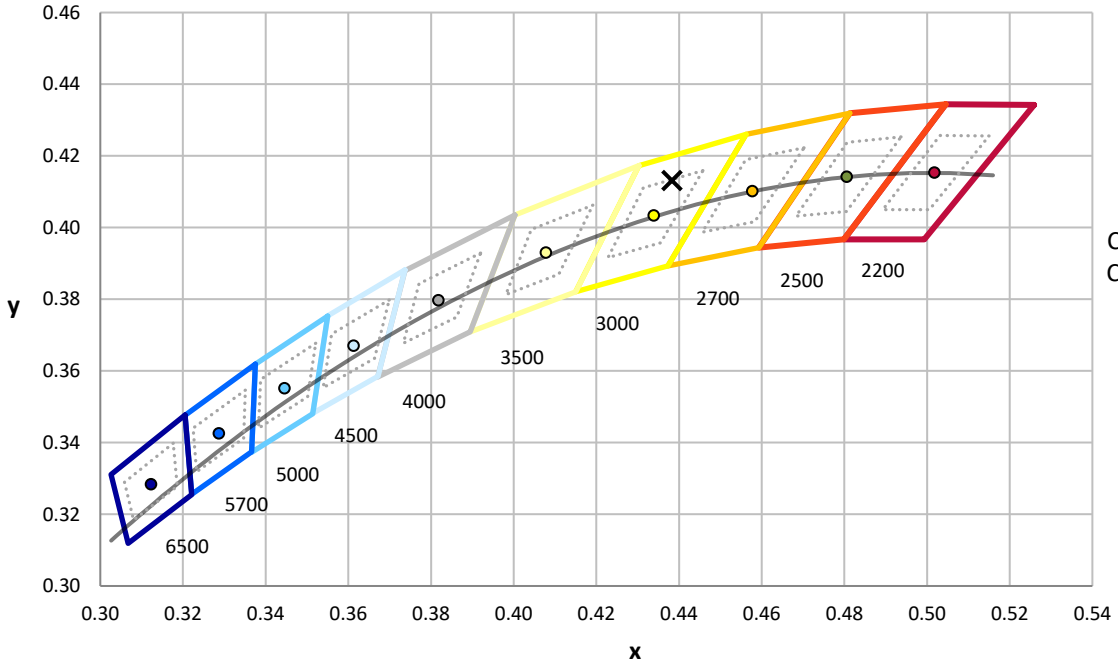
CIE 1931 Chromaticity Diagram



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

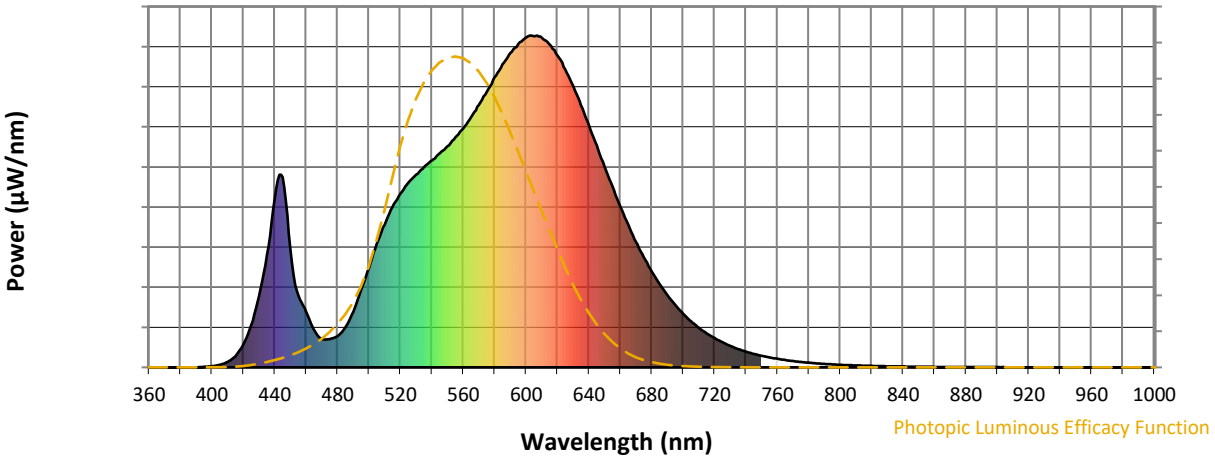


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

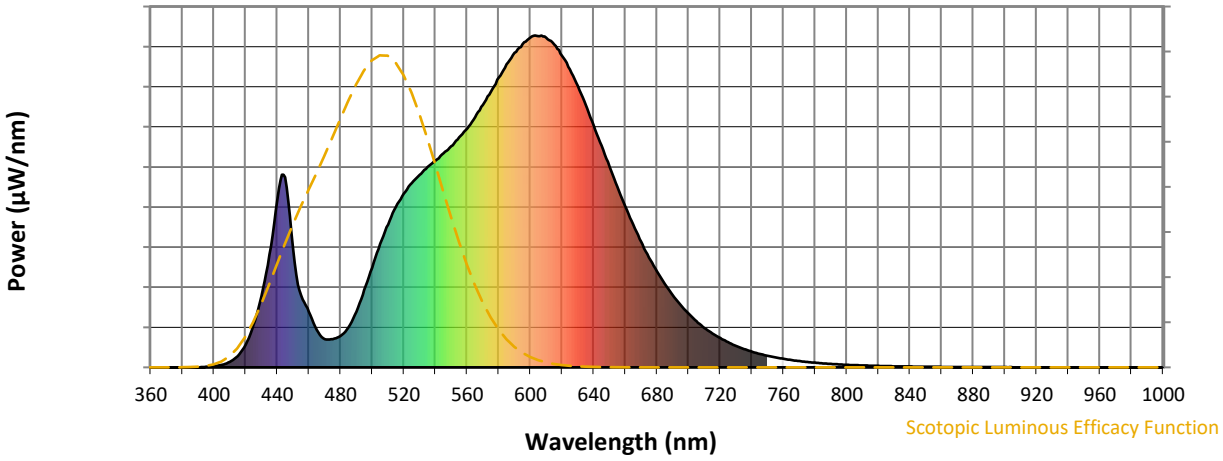


Photopic Lumens: NR

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

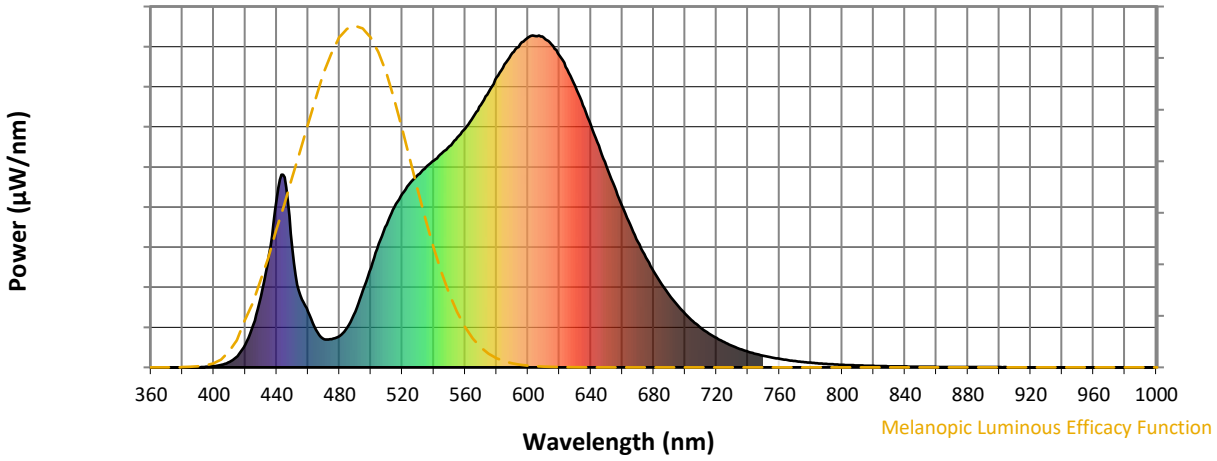


Scotopic Lumens: NR **S/P: 1.27**

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			

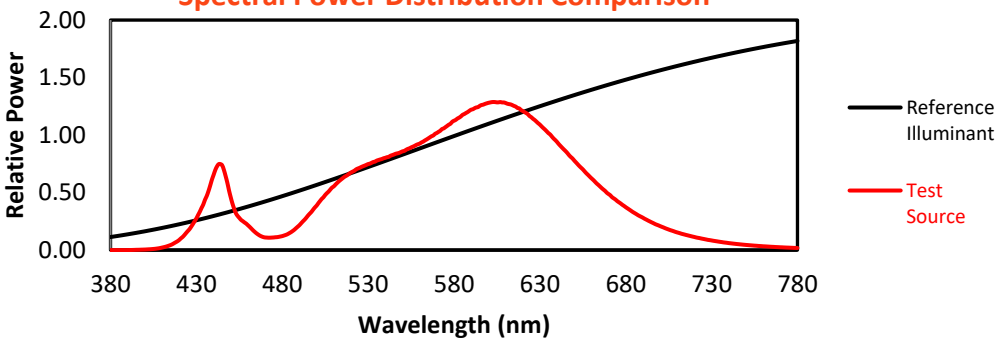
REPORT NUMBER: SP1-2408-195-9

TM-30-18

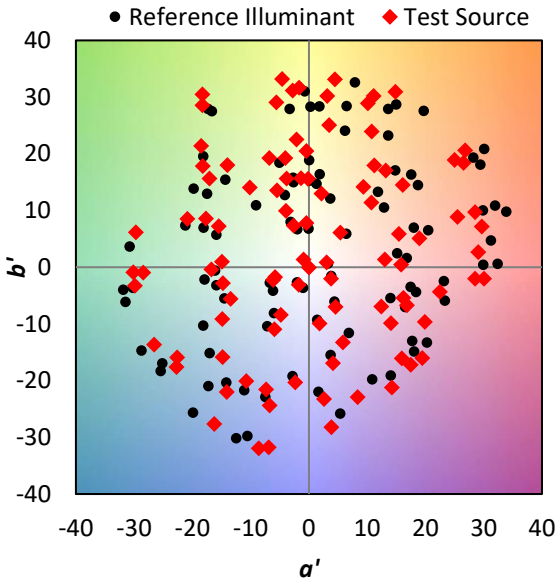
Summary

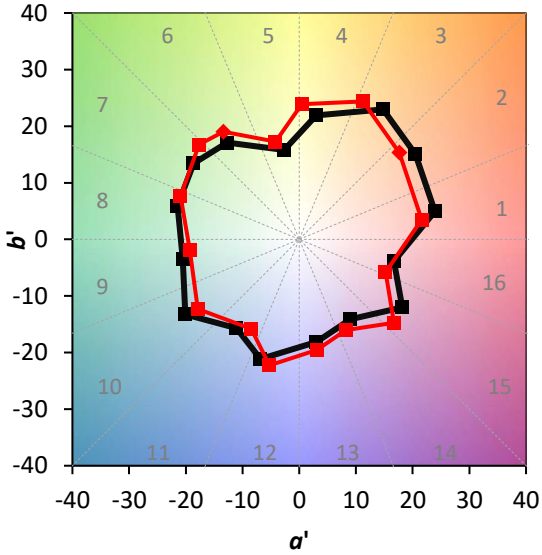
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

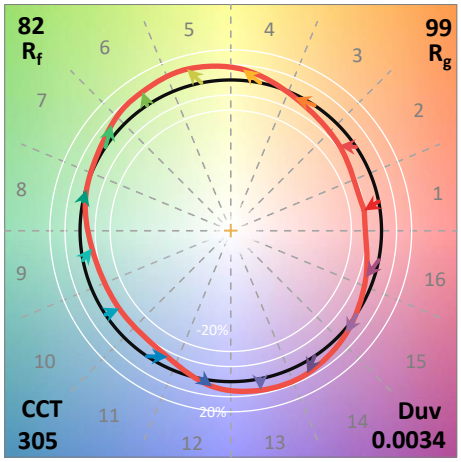
Spectral Power Distribution Comparison

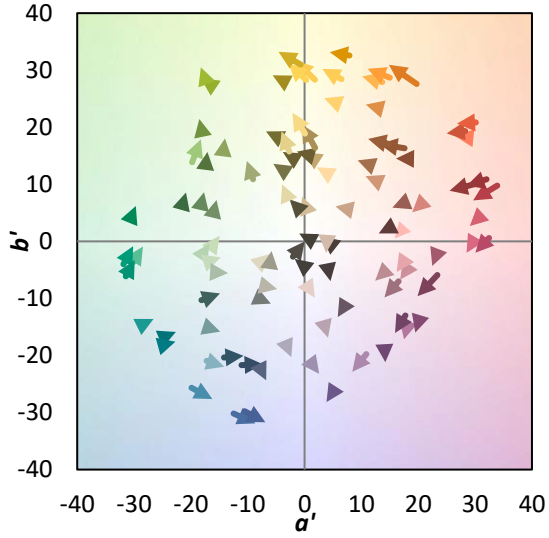


Color Vector Graphics







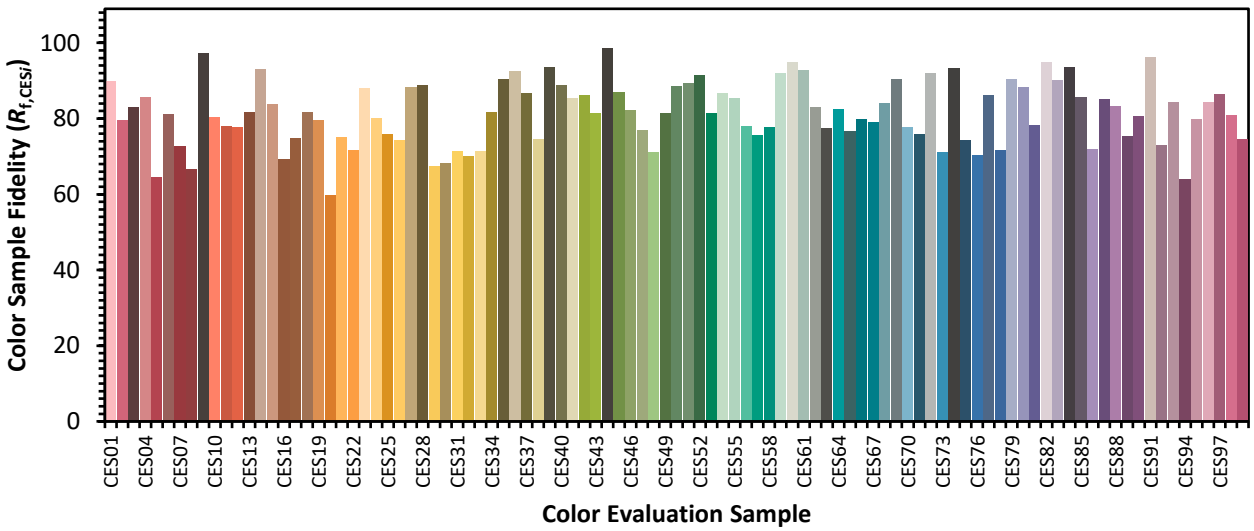


REPORT NUMBER: SP1-2408-195-9

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
CES25 = 72	CES50 = 89	CES75 = 74	



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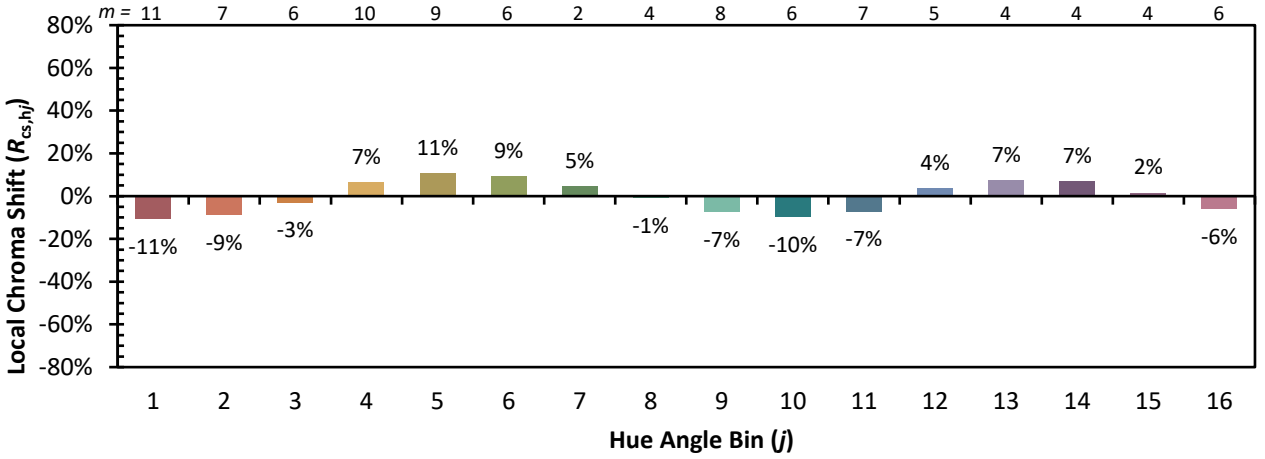
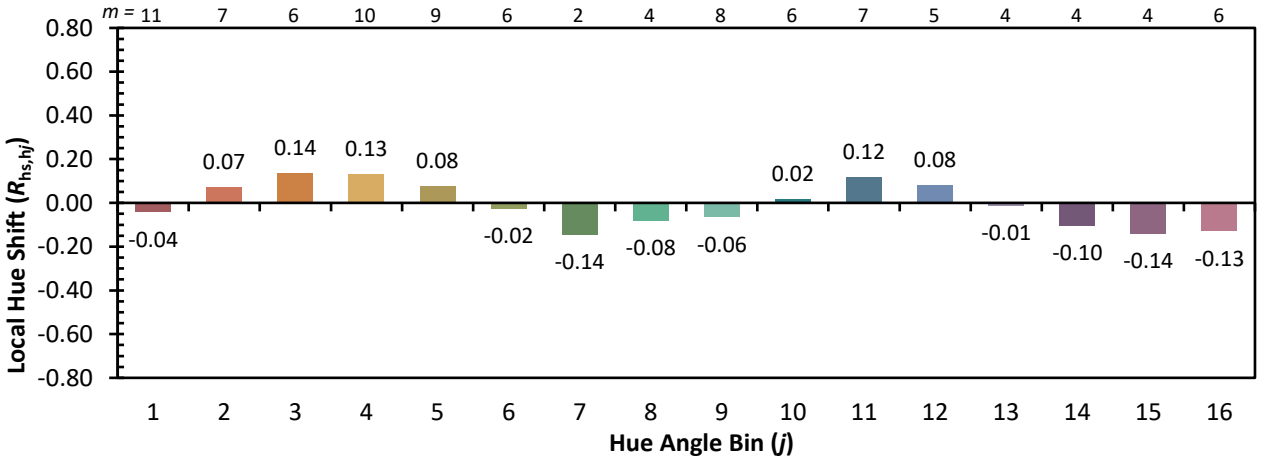
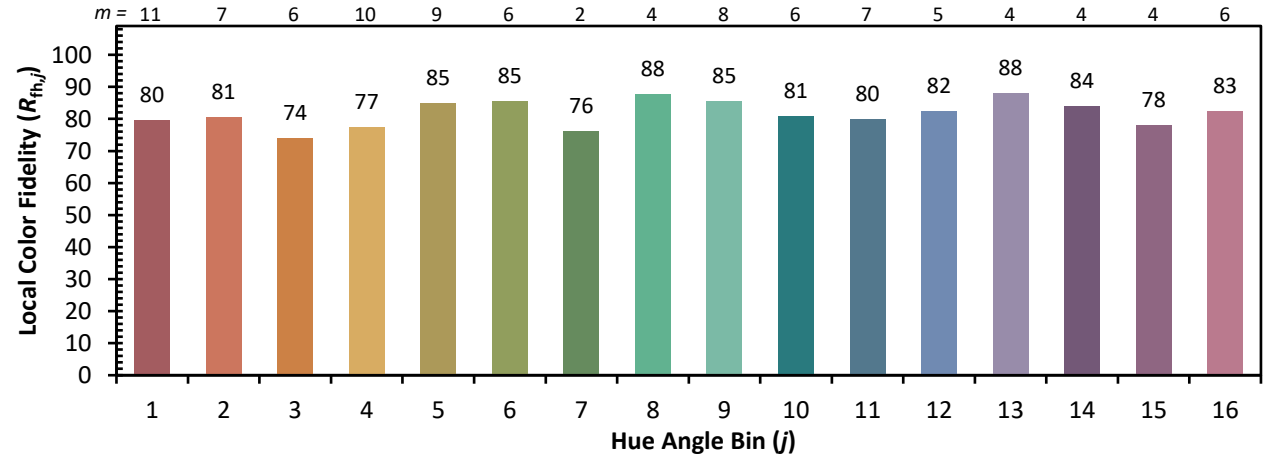
Color Rendition by Hue-Angle Bin







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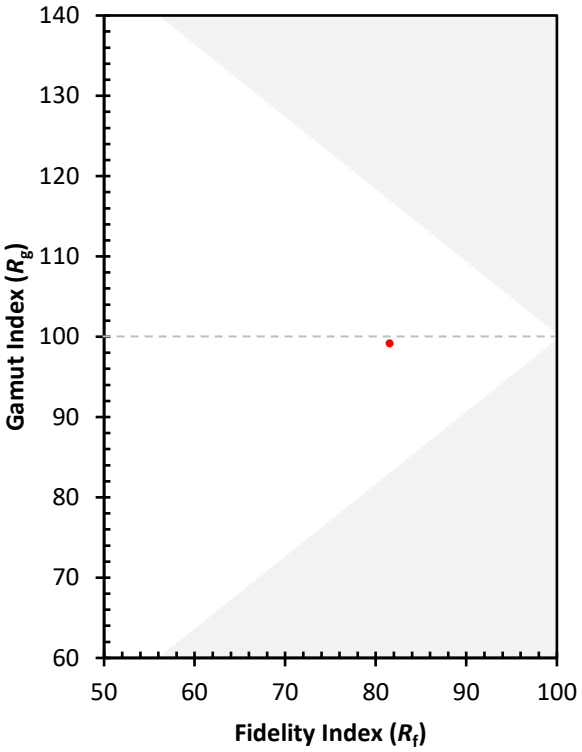
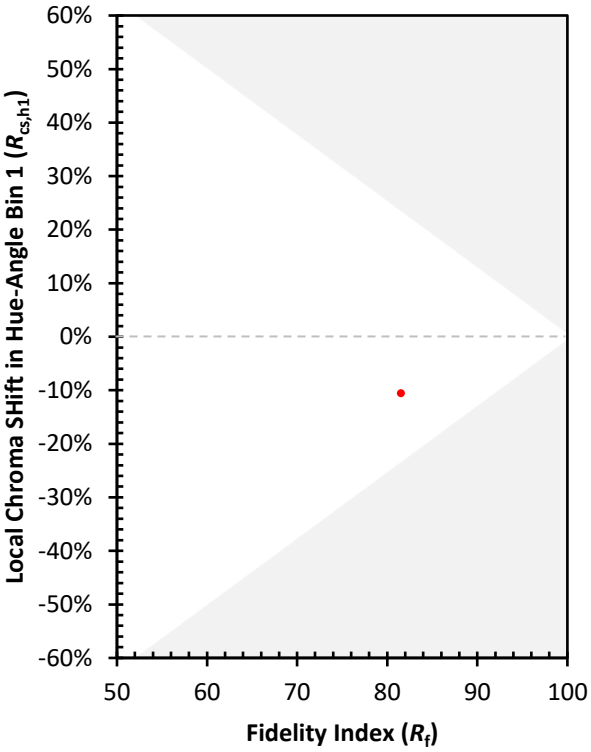
Measure Comparisons





(END OF REPORT)