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: P437254

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

Issue Date: 12/9/2020

Report Generated By 670245982

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437254
	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-SA1B-830-U-SLL-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 450mA 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:	2057 lumens
Efficiency:	N/A
Efficacy:	81.0 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B0 - U0 - G1

Input Watts (W):	25.4
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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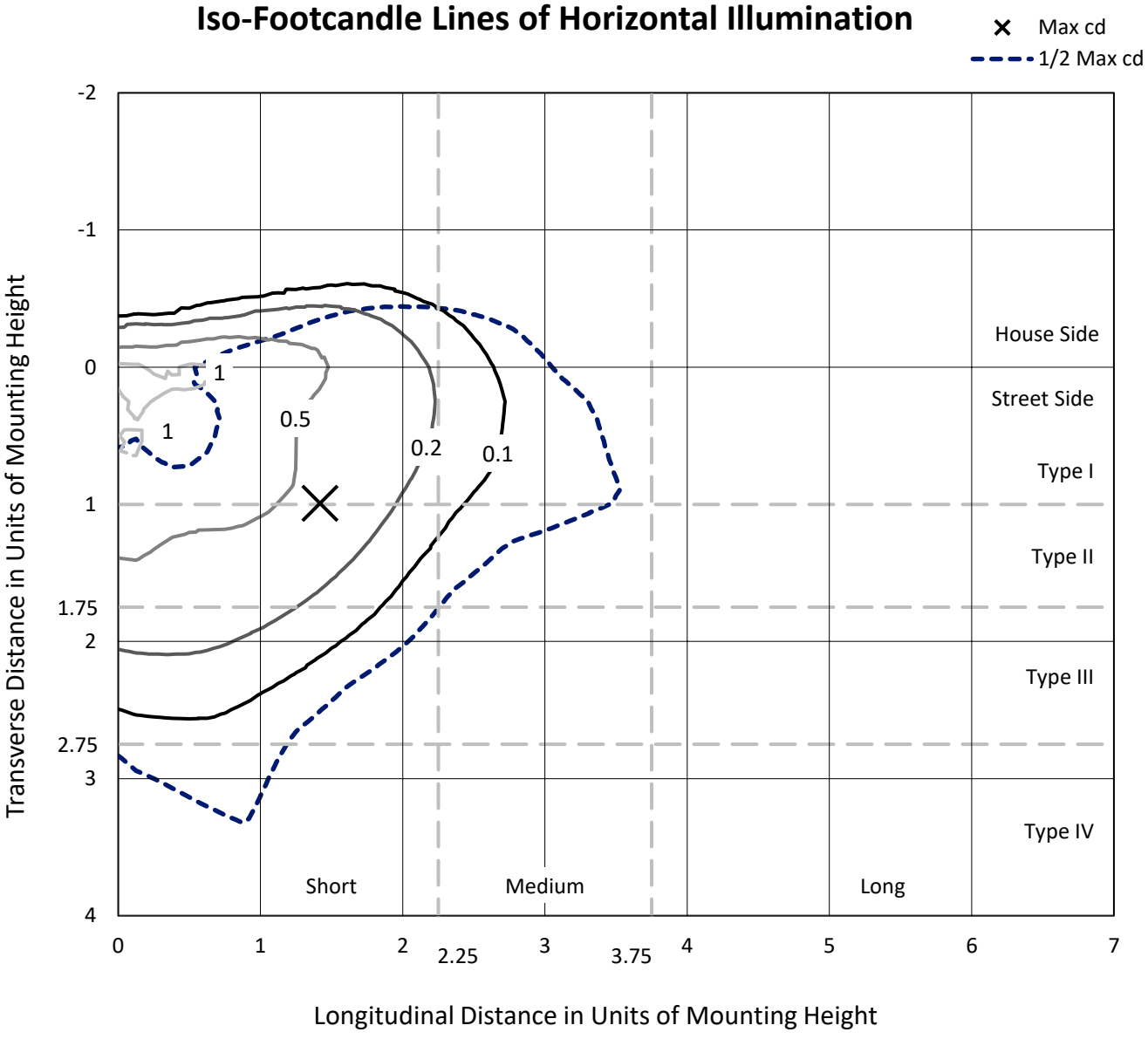
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
Type IV - Short - N/A

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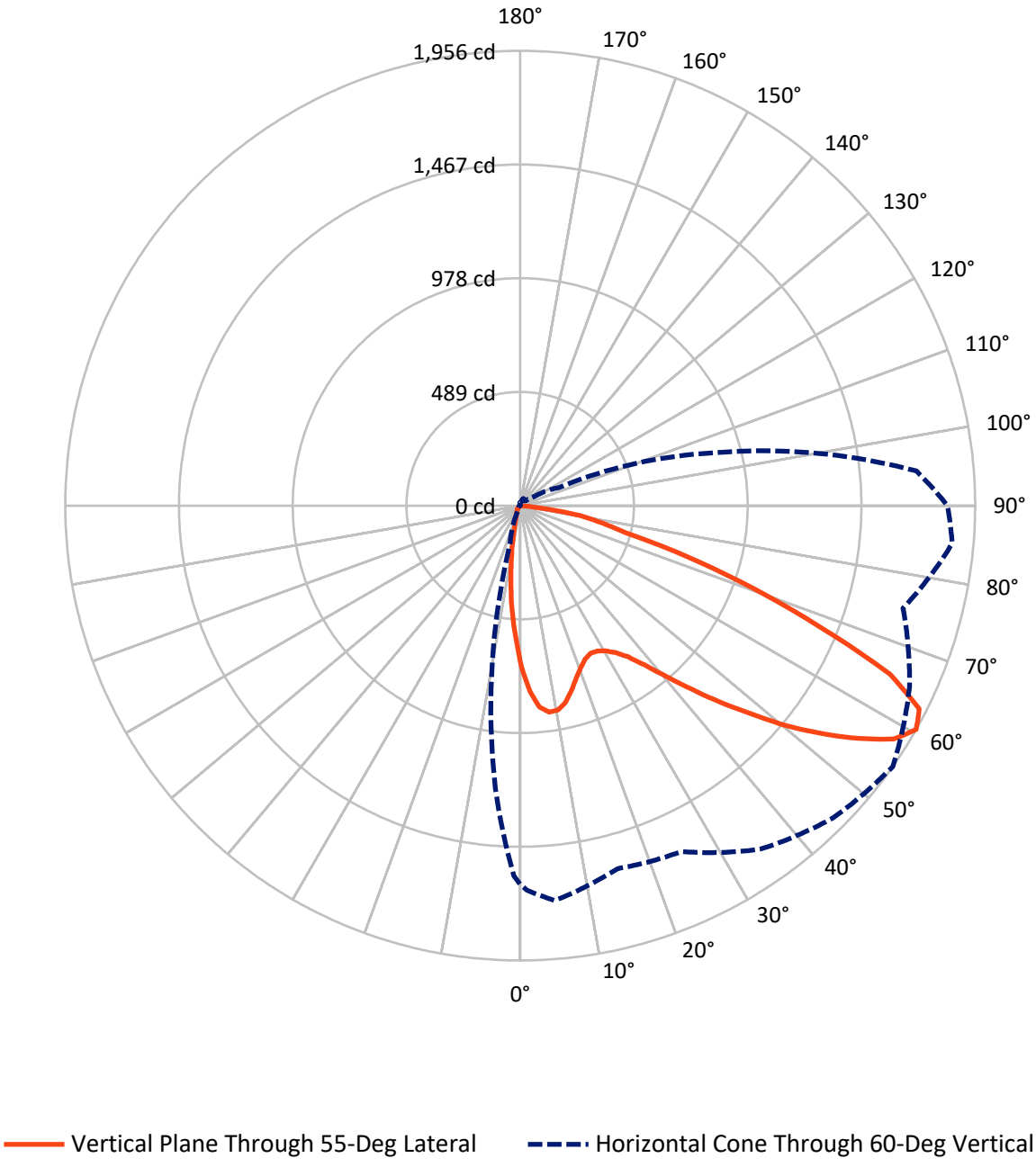
Luminous Intensity Polar Plot



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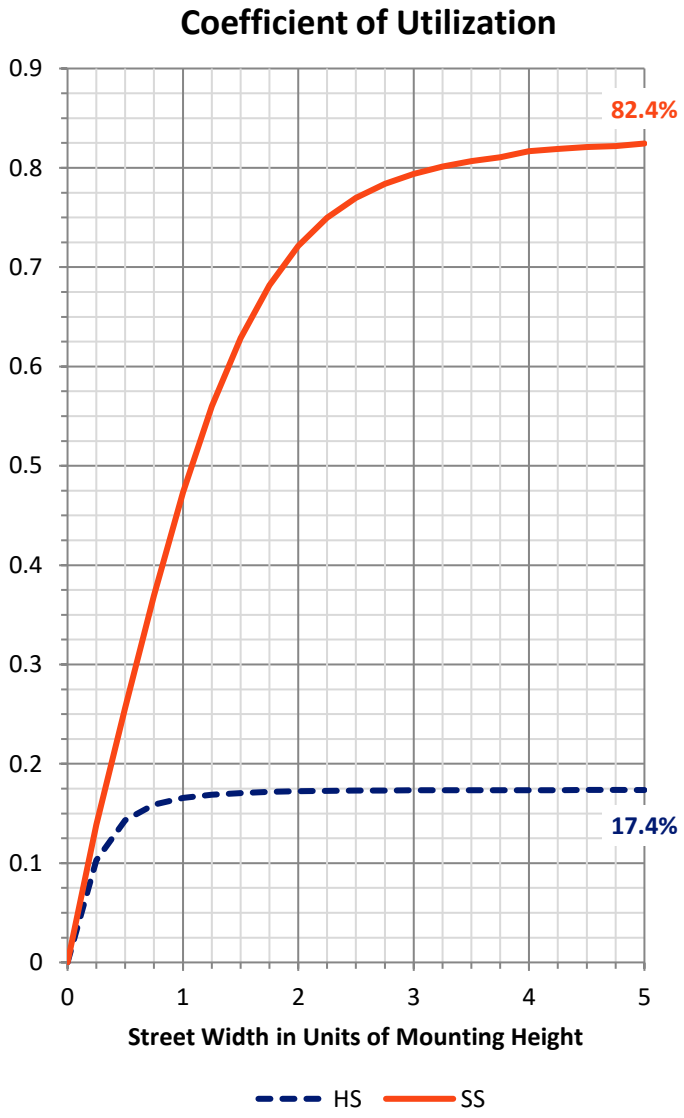
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	360.3	0.0	360.3
	% Fixture	17.5	0.0	17.5
Street Side	Lumens	1696.7	0.0	1696.7
	% Fixture	82.5	0.0	82.5
Total	Lumens	2057.0	0.0	2057.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	2.5
10°-20°	101.3	4.9
20°-30°	148.9	7.2
30°-40°	222.7	10.8
40°-50°	329.5	16.0
50°-60°	473.6	23.0
60°-70°	507.6	24.7
70°-80°	205.1	10.0
80°-90°	16.6	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°	2057.0	100.0
0°-180°	2057.0	100.0



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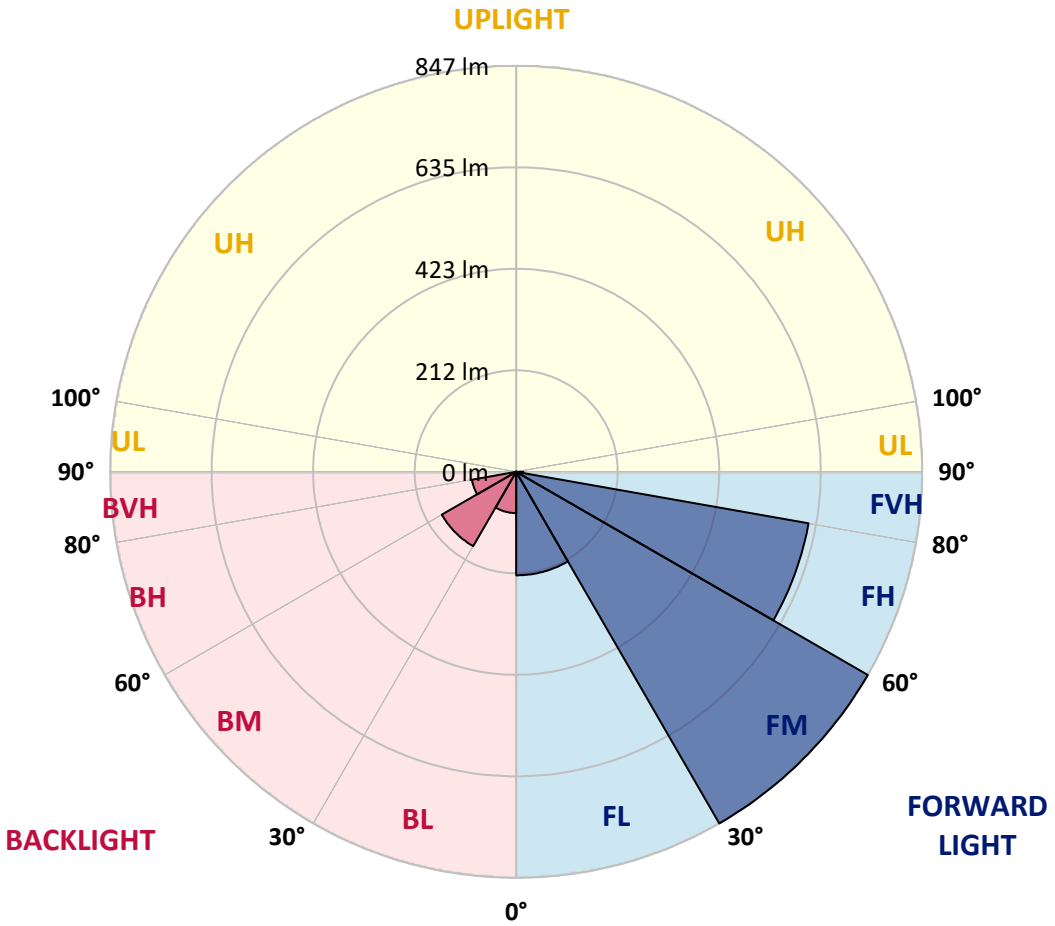
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	215.9	10.5			
FM	(30°-60°)	846.7	41.2			
FH	(60°-80°)	619.0	30.1			G0/660
FVH	(80°-90°)	15.1	0.7			G1/100
BL	(0°-30°)	86.1	4.2	B0/110		
BM	(30°-60°)	179.0	8.7	B0/220		
BH	(60°-80°)	93.7	4.6	B0/110		G0/110
BVH	(80°-90°)	1.5	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	694.1	694.1	694.1	694.1	694.1	694.1	694.1	*694.1*	694.1	694.1	694.1
2.5°	745.7	745.7	751.6	769.5	789.4	799.3	810.2	*799.3*	797.3	781.4	769.5
5°	722.9	727.8	746.7	794.3	845.0	870.8	884.7	*869.8*	843.0	808.2	764.6
7.5°	671.2	677.2	699.0	776.5	846.0	897.6	922.4	*896.6*	850.9	787.4	723.8
10°	615.6	626.5	655.3	743.7	824.1	885.7	920.4	*893.6*	837.0	755.6	677.2
12.5°	578.9	586.8	625.5	713.9	800.3	854.9	873.8	*867.8*	816.2	740.7	658.3
15°	572.9	582.8	623.6	711.9	777.5	810.2	817.2	*825.1*	807.3	742.7	664.3
17.5°	598.7	609.7	655.3	726.8	756.6	756.6	763.6	*779.4*	796.3	762.6	700.0
20°	651.4	666.3	716.9	765.5	745.7	721.9	722.9	*743.7*	789.4	807.3	763.6
22.5°	721.9	741.7	803.3	826.1	757.6	703.0	698.0	*715.9*	790.4	852.9	850.9
25°	815.2	839.0	898.6	897.6	786.4	695.0	690.1	*703.0*	799.3	902.6	927.4
27.5°	899.6	919.5	979.0	954.2	815.2	705.0	694.1	*708.0*	806.3	939.3	995.9
30°	971.1	988.0	1040.6	994.9	840.0	721.9	703.0	*724.8*	821.2	959.2	1057.5
32.5°	1025.7	1050.5	1099.2	1026.7	869.8	743.7	723.8	*753.6*	846.0	985.0	1111.1
35°	1099.2	1112.1	1169.7	1058.5	909.5	790.4	758.6	*798.3*	886.7	1018.7	1170.7
37.5°	1162.7	1196.5	1234.2	1091.2	958.2	848.0	813.2	*869.8*	942.3	1057.5	1240.2
40°	1238.2	1276.9	1317.6	1137.9	1002.9	923.4	908.5	*964.1*	1025.7	1114.1	1308.7
42.5°	1307.7	1343.4	1371.2	1192.5	1057.5	1008.8	1019.7	*1078.3*	1111.1	1172.6	1367.3
45°	1363.3	1395.1	1436.8	1230.2	1118.0	1104.1	1159.7	*1205.4*	1195.5	1223.3	1419.9
47.5°	1420.9	1459.6	1476.5	1270.0	1196.5	1229.2	1328.5	*1338.5*	1283.9	1270.0	1465.6
50°	1460.6	1489.4	1500.3	1318.6	1292.8	1394.1	1473.5	*1490.4*	1380.2	1306.7	1525.1
52.5°	1509.2	1537.1	1550.0	1376.2	1396.1	1542.0	1634.4	*1630.4*	1473.5	1367.3	1583.7
55°	1595.6	1621.5	1634.4	1446.7	1469.5	1669.1	1771.4	*1767.4*	1584.7	1454.6	1671.1
57.5°	1657.2	1679.0	1699.9	1526.1	1560.9	1750.5	1864.7	*1894.5*	1718.8	1564.9	1766.4
60°	*1629.4*	*1654.2*	*1704.9*	*1616.5*	*1641.3*	*1803.2*	*1900.5*	*1956.1*	*1846.8*	*1703.9*	*1864.7*
62.5°	1551.0	1587.7	1640.3	1688.0	1703.9	1812.1	1850.8	*1925.3*	1915.4	1843.9	1909.4
65°	1451.7	1489.4	1540.0	1697.9	1690.0	1679.0	1701.9	*1746.6*	1816.1	1911.4	1887.6
67.5°	1272.9	1327.5	1391.1	1581.7	1469.5	1407.0	1412.9	*1388.1*	1528.1	1814.1	1776.3
70°	1036.6	1092.2	1160.7	1341.4	1132.9	1050.5	1071.4	*1055.5*	1165.7	1556.9	1522.2
72.5°	729.8	789.4	873.8	1118.0	789.4	656.3	706.0	*747.7*	878.7	1249.1	1118.0
75°	483.6	526.3	586.8	842.0	563.0	440.9	451.8	*468.7*	587.8	944.3	706.0
77.5°	250.2	292.9	319.7	450.8	348.5	347.5	339.6	*361.4*	367.4	567.0	368.4
80°	140.0	153.9	167.8	219.4	174.8	206.5	213.5	*261.1*	242.3	284.0	153.9
82.5°	68.5	86.4	94.3	135.0	112.2	82.4	40.7	*85.4*	144.0	153.9	71.5
85°	1.0	2.0	5.0	10.9	3.0	3.0	0.0	*3.0*	14.9	18.9	24.8
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°	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
2.5°	756.6	748.7	725.8	706.0	675.2	662.3	641.4	636.5	619.6	602.7	592.8
5°	742.7	719.9	673.2	627.5	585.8	547.1	518.3	494.5	467.7	456.7	463.7
7.5°	687.1	655.3	587.8	534.2	474.6	429.9	389.2	368.4	343.6	333.6	326.7
10°	641.4	602.7	525.3	454.8	398.2	363.4	338.6	308.8	280.0	257.2	254.2
12.5°	612.6	570.9	484.5	410.1	368.4	334.6	305.8	267.1	234.3	212.5	202.6
15°	611.6	560.0	471.6	393.2	344.5	301.8	265.1	221.4	187.7	159.9	149.9
17.5°	647.4	584.8	477.6	375.3	310.8	255.2	207.5	161.8	129.1	110.2	100.3
20°	709.9	641.4	488.5	357.5	278.0	207.5	146.0	110.2	88.4	79.4	75.5
22.5°	785.4	704.0	508.4	343.6	244.3	156.9	103.3	79.4	69.5	63.5	62.6
25°	876.8	783.4	536.2	333.6	213.5	121.1	80.4	65.5	59.6	55.6	53.6
27.5°	957.2	859.9	577.9	325.7	183.7	99.3	68.5	57.6	51.6	48.7	47.7
30°	1016.8	922.4	625.5	307.8	159.9	86.4	64.5	54.6	47.7	43.7	42.7
32.5°	1085.3	970.1	648.4	289.9	146.0	76.5	56.6	48.7	43.7	39.7	38.7
35°	1160.7	1036.6	671.2	276.0	137.0	68.5	51.6	42.7	36.7	32.8	31.8
37.5°	1248.1	1110.1	692.1	264.1	132.1	63.5	48.7	39.7	33.8	29.8	27.8
40°	1345.4	1167.7	706.0	256.2	125.1	60.6	46.7	37.7	31.8	26.8	25.8
42.5°	1422.9	1234.2	709.9	253.2	118.2	59.6	44.7	36.7	29.8	25.8	23.8
45°	1478.5	1292.8	723.8	250.2	113.2	55.6	43.7	35.7	27.8	23.8	21.8
47.5°	1519.2	1355.3	736.8	247.2	108.2	50.6	46.7	35.7	26.8	21.8	19.9
50°	1594.6	1428.8	761.6	239.3	101.3	45.7	46.7	34.8	25.8	20.9	18.9
52.5°	1676.1	1524.1	817.2	230.4	92.3	40.7	42.7	34.8	24.8	19.9	17.9
55°	1753.5	1640.3	868.8	218.4	77.4	36.7	39.7	34.8	22.8	18.9	16.9
57.5°	1810.1	1717.8	896.6	203.6	61.6	32.8	32.8	32.8	19.9	15.9	14.9
60°	*1836.9*	*1709.8*	*883.7*	*184.7*	*49.6*	*28.8*	*26.8*	*33.8*	*17.9*	*13.9*	*12.9*
62.5°	1816.1	1627.4	827.1	164.8	43.7	24.8	21.8	29.8	15.9	11.9	10.9
65°	1751.5	1488.4	732.8	148.9	42.7	20.9	17.9	17.9	12.9	9.9	8.9
67.5°	1591.7	1305.7	620.6	134.0	43.7	17.9	14.9	13.9	10.9	7.9	7.0
70°	1323.6	1049.5	469.7	127.1	43.7	14.9	12.9	10.9	7.9	7.0	6.0
72.5°	841.0	651.4	325.7	112.2	43.7	11.9	10.9	9.9	6.0	5.0	3.0
75°	498.4	396.2	152.9	86.4	36.7	9.9	7.9	6.0	3.0	2.0	2.0
77.5°	292.9	254.2	66.5	47.7	15.9	6.0	4.0	2.0	1.0	0.0	0.0
80°	120.1	104.3	24.8	13.9	7.0	3.0	1.0	0.0	0.0	0.0	0.0
82.5°	70.5	73.5	8.9	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	21.8	33.8	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
2.5°	591.8	581.9	577.9	571.9	567.0	561.0	568.9	575.9	568.0	576.9	590.8
5°	456.7	441.9	461.7	448.8	455.8	447.8	436.9	438.9	440.9	436.9	447.8
7.5°	316.7	323.7	328.7	327.7	333.6	322.7	322.7	315.8	305.8	309.8	307.8
10°	240.3	226.4	231.4	230.4	241.3	226.4	216.5	205.5	204.5	206.5	204.5
12.5°	191.6	174.8	163.8	157.9	156.9	149.9	141.0	130.1	123.1	122.1	128.1
15°	144.0	131.1	121.1	112.2	111.2	97.3	85.4	77.4	70.5	71.5	75.5
17.5°	99.3	95.3	92.3	84.4	79.4	67.5	57.6	52.6	50.6	50.6	51.6
20°	72.5	70.5	68.5	65.5	60.6	51.6	45.7	43.7	42.7	42.7	43.7
22.5°	60.6	57.6	55.6	54.6	50.6	43.7	39.7	37.7	37.7	37.7	37.7
25°	51.6	49.6	48.7	46.7	43.7	37.7	34.8	33.8	32.8	32.8	33.8
27.5°	46.7	42.7	40.7	40.7	37.7	33.8	30.8	29.8	28.8	28.8	29.8
30°	41.7	38.7	36.7	34.8	32.8	28.8	26.8	25.8	25.8	25.8	25.8
32.5°	36.7	34.8	32.8	30.8	27.8	25.8	23.8	22.8	21.8	21.8	21.8
35°	29.8	27.8	27.8	26.8	23.8	21.8	19.9	18.9	17.9	18.9	18.9
37.5°	25.8	22.8	22.8	22.8	20.9	18.9	16.9	15.9	14.9	14.9	15.9
40°	23.8	19.9	18.9	18.9	18.9	15.9	13.9	12.9	11.9	11.9	12.9
42.5°	20.9	17.9	15.9	14.9	15.9	13.9	10.9	9.9	9.9	9.9	9.9
45°	19.9	15.9	13.9	11.9	12.9	11.9	8.9	7.9	7.9	7.9	7.9
47.5°	17.9	13.9	11.9	8.9	8.9	8.9	7.0	6.0	6.0	6.0	6.0
50°	16.9	12.9	8.9	7.9	7.0	7.0	6.0	5.0	4.0	4.0	5.0
52.5°	15.9	11.9	7.9	6.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0
55°	14.9	9.9	7.0	5.0	4.0	3.0	3.0	3.0	3.0	2.0	3.0
57.5°	12.9	8.9	5.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
60°	*11.9*	*7.0*	*4.0*	*2.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*
62.5°	9.9	6.0	3.0	2.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0
65°	7.9	5.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	6.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1.0	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: P437254
CATALOG NUMBER: ISS-SA1B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
2.5°	589.8	595.8	617.6	637.5	659.3	683.1	703.0	731.8	740.7	745.7
5°	445.8	467.7	494.5	518.3	561.0	600.7	647.4	698.0	718.9	722.9
7.5°	321.7	336.6	365.4	413.1	451.8	511.4	571.9	639.4	671.2	671.2
10°	221.4	246.2	283.0	327.7	379.3	431.9	502.4	578.9	608.7	615.6
12.5°	141.0	168.8	218.4	267.1	326.7	378.3	448.8	535.2	568.9	578.9
15°	81.4	100.3	146.0	199.6	271.1	336.6	416.0	521.3	563.0	572.9
17.5°	54.6	61.6	86.4	133.1	212.5	299.9	406.1	536.2	586.8	598.7
20°	45.7	48.7	57.6	82.4	149.9	261.1	402.1	568.9	630.5	651.4
22.5°	39.7	42.7	48.7	60.6	107.2	220.4	399.2	616.6	700.0	721.9
25°	34.8	37.7	42.7	51.6	75.5	179.7	404.1	684.1	789.4	815.2
27.5°	30.8	33.8	38.7	44.7	60.6	139.0	405.1	747.7	872.8	899.6
30°	26.8	29.8	33.8	38.7	48.7	107.2	387.2	812.2	940.3	971.1
32.5°	23.8	25.8	29.8	33.8	40.7	83.4	350.5	861.9	995.9	1025.7
35°	19.9	21.8	25.8	28.8	35.7	67.5	309.8	907.5	1062.4	1099.2
37.5°	16.9	18.9	21.8	25.8	31.8	52.6	269.1	947.3	1127.0	1162.7
40°	13.9	16.9	19.9	22.8	28.8	40.7	224.4	989.9	1200.4	1238.2
42.5°	11.9	13.9	16.9	20.9	24.8	32.8	184.7	1016.8	1263.0	1307.7
45°	8.9	11.9	15.9	20.9	20.9	25.8	158.9	1036.6	1307.7	1363.3
47.5°	7.0	9.9	13.9	19.9	18.9	21.8	146.0	1071.4	1369.2	1420.9
50°	6.0	7.9	13.9	16.9	15.9	18.9	149.9	1102.1	1415.9	1460.6
52.5°	5.0	7.0	11.9	12.9	13.9	16.9	157.9	1158.7	1474.5	1509.2
55°	4.0	6.0	8.9	10.9	11.9	15.9	170.8	1229.2	1551.0	1595.6
57.5°	3.0	5.0	7.0	8.9	10.9	14.9	179.7	1273.9	1622.4	1657.2
60°	*3.0*	*4.0*	*6.0*	*7.9*	*9.9*	*13.9*	*166.8*	*1221.3*	*1591.7*	*1629.4*
62.5°	2.0	4.0	5.0	7.0	7.9	10.9	123.1	1106.1	1499.3	1551.0
65°	1.0	3.0	4.0	5.0	6.0	7.9	70.5	967.1	1390.1	1451.7
67.5°	0.0	2.0	3.0	4.0	4.0	6.0	32.8	780.4	1210.4	1272.9
70°	0.0	1.0	2.0	2.0	3.0	5.0	16.9	551.1	952.2	1036.6
72.5°	1.0	1.0	2.0	2.0	2.0	4.0	10.9	333.6	640.4	729.8
75°	1.0	1.0	1.0	1.0	2.0	3.0	7.0	214.5	403.1	483.6
77.5°	1.0	2.0	1.0	1.0	1.0	2.0	4.0	119.2	220.4	250.2
80°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	10.9	104.3	140.0
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	53.6	68.5
85°	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	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

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

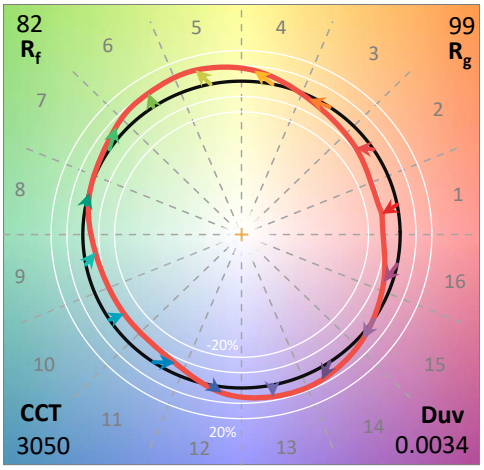
Test Information

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

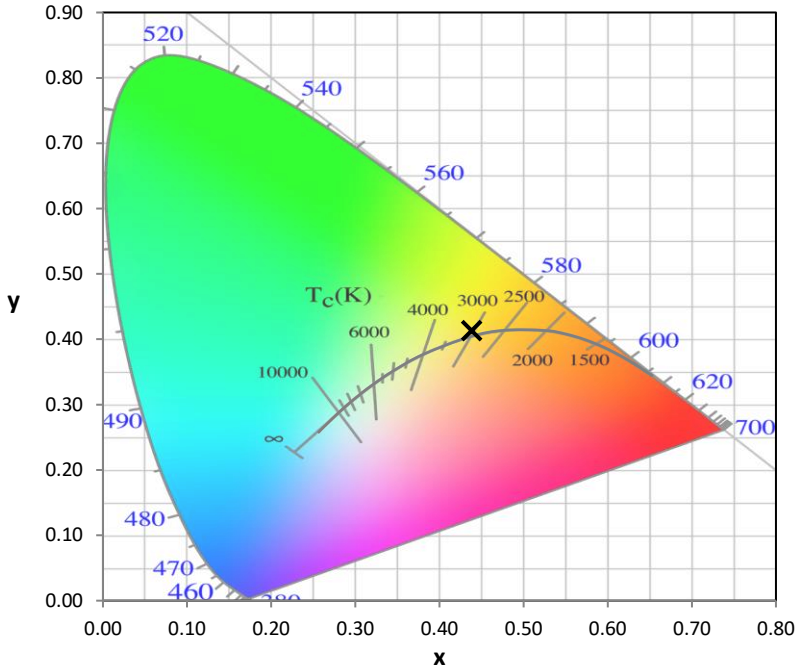
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

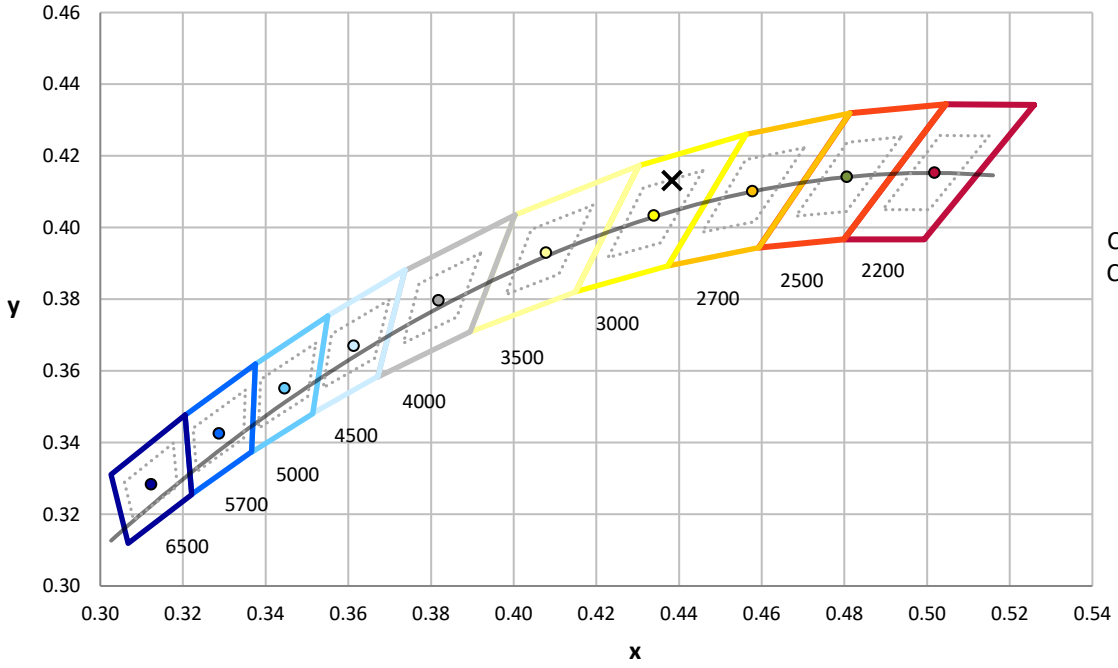
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

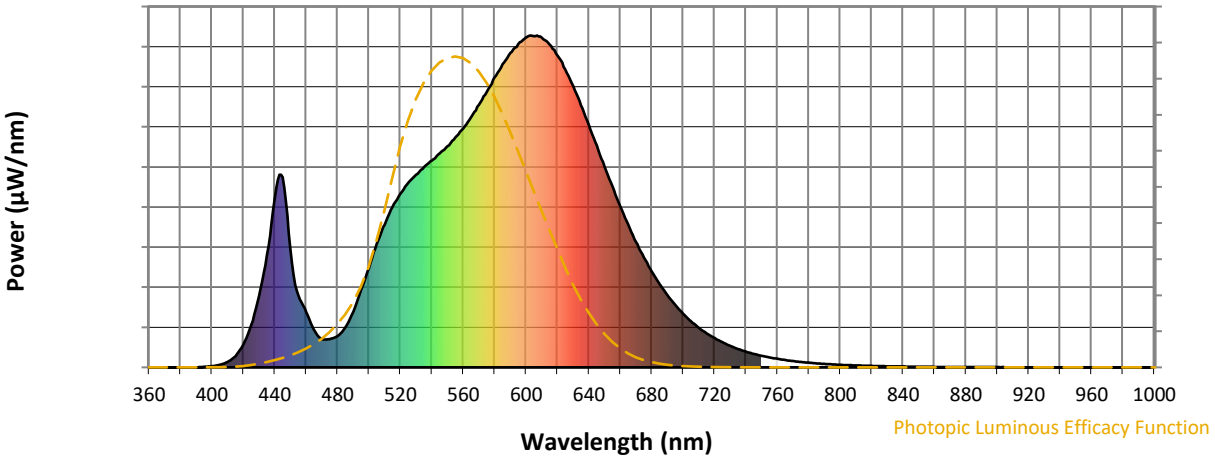


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

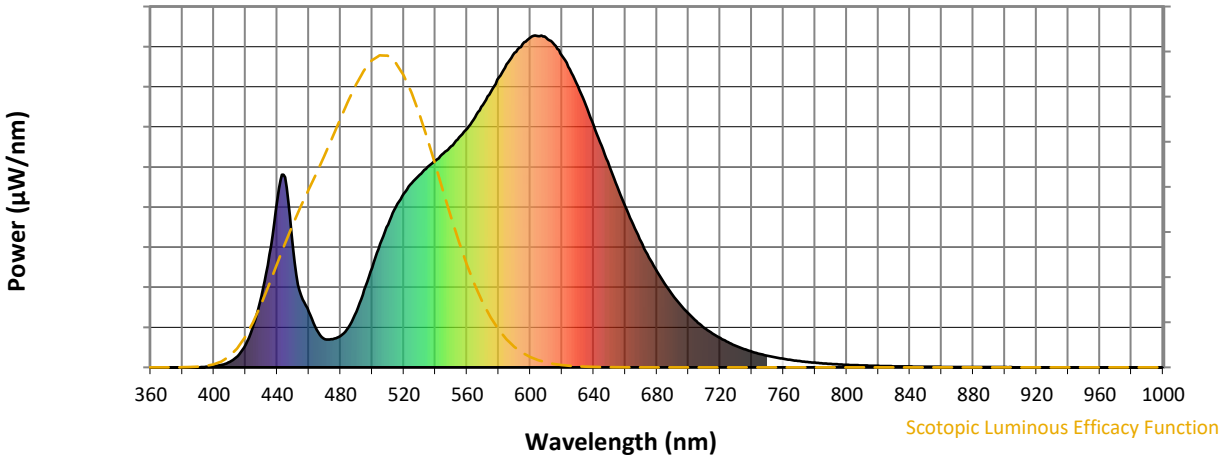


Photopic Lumens: NR

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

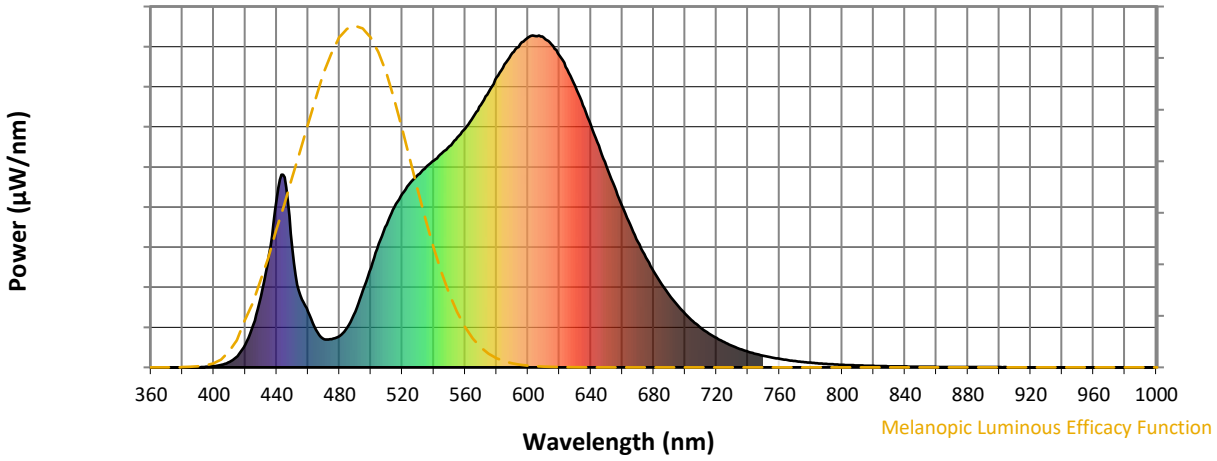


Scotopic Lumens: NR **S/P: 1.27**

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			

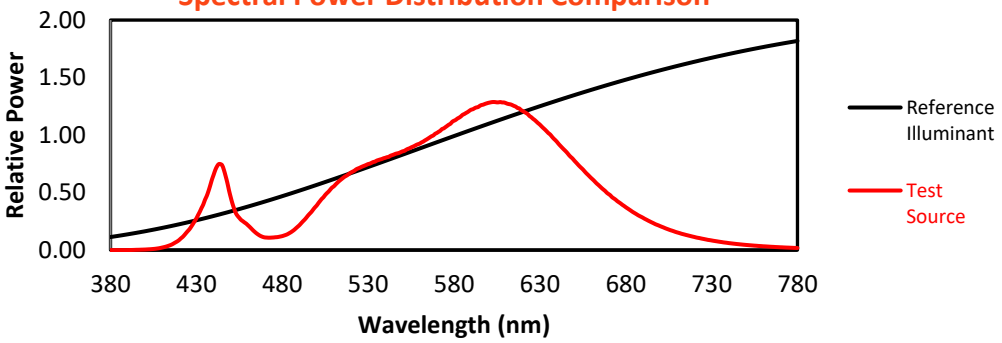
REPORT NUMBER: SP1-2408-195-9

TM-30-18

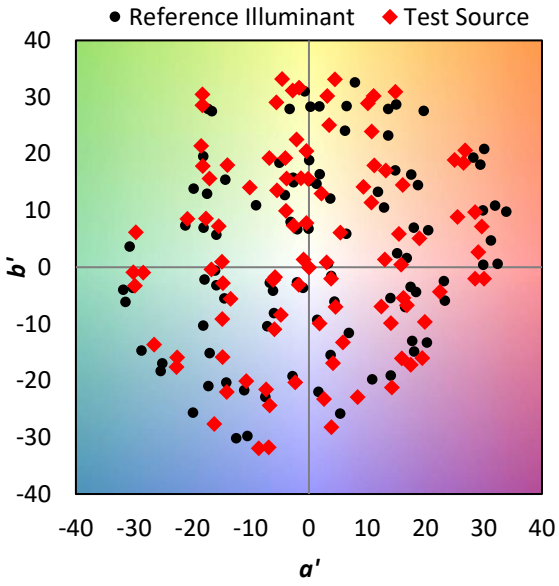
Summary

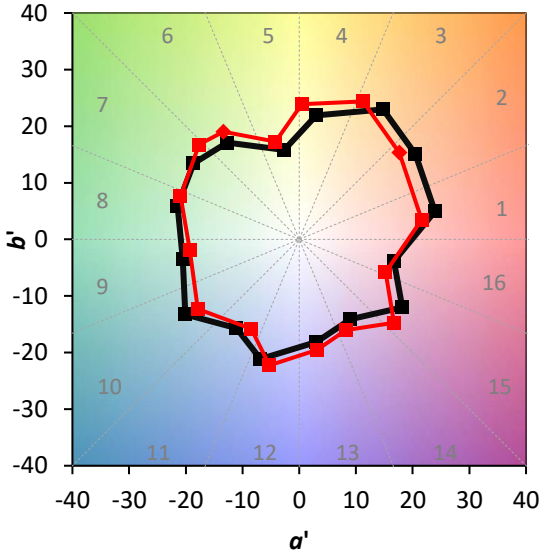
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

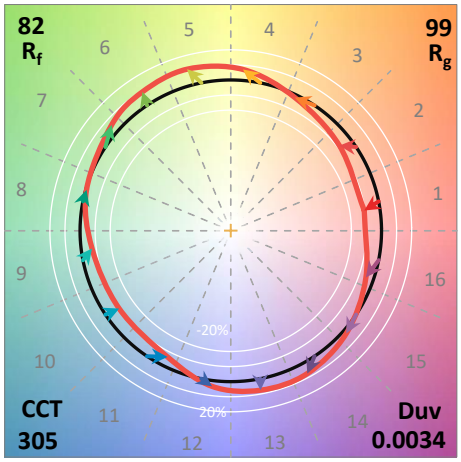
Spectral Power Distribution Comparison

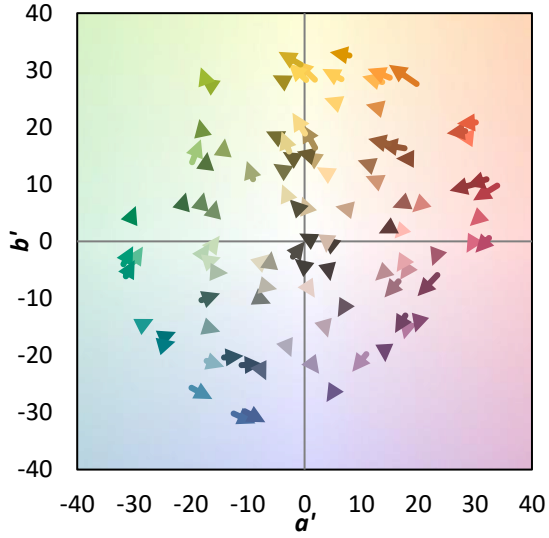


Color Vector Graphics







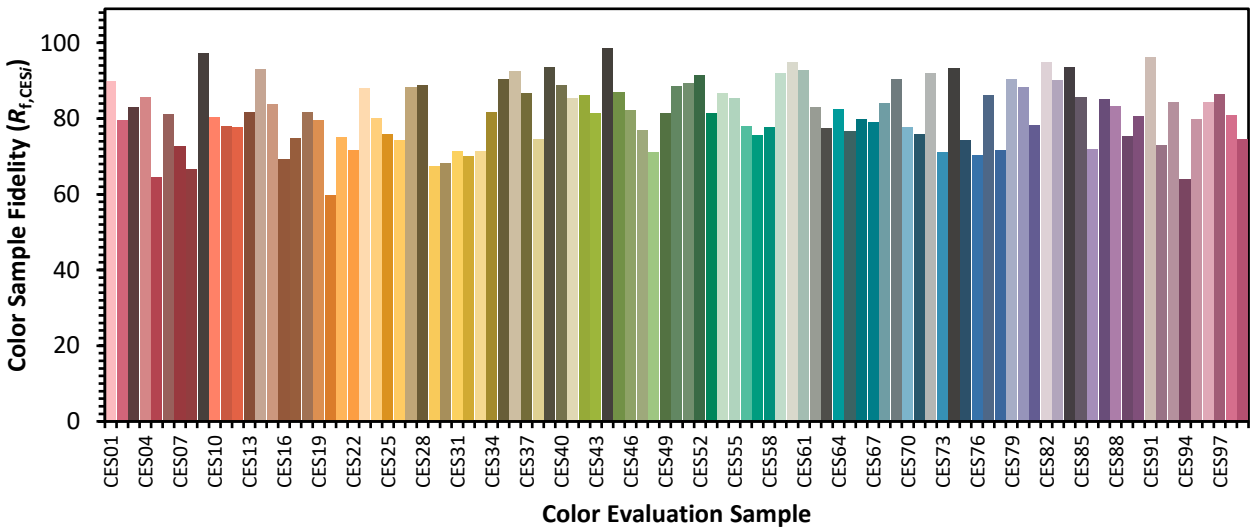


REPORT NUMBER: SP1-2408-195-9

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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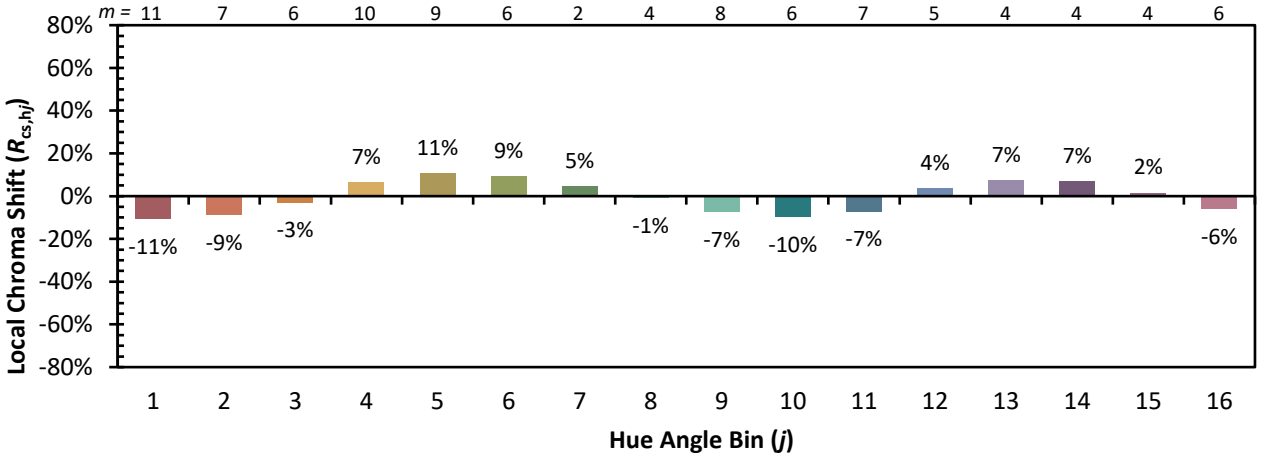
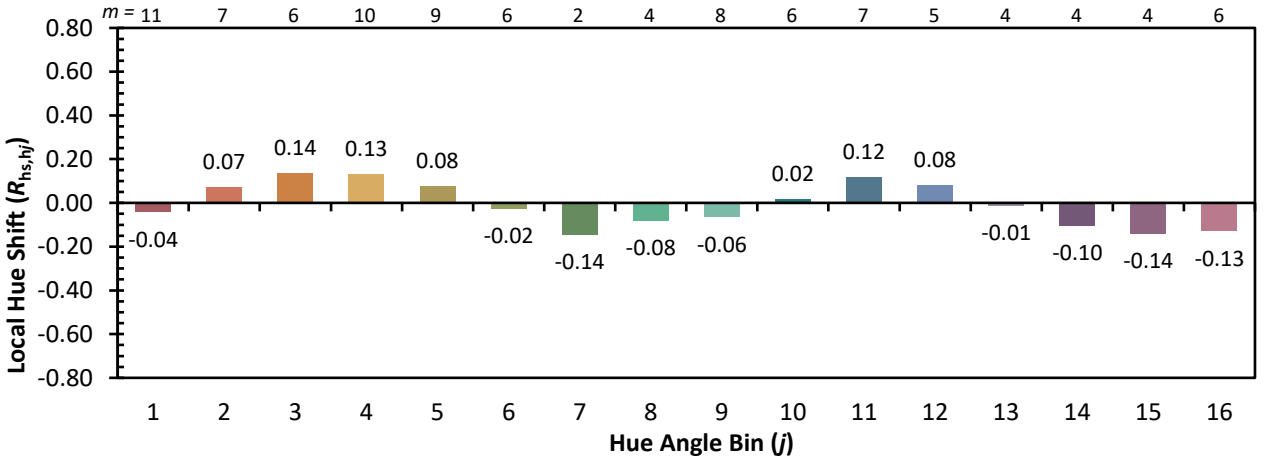
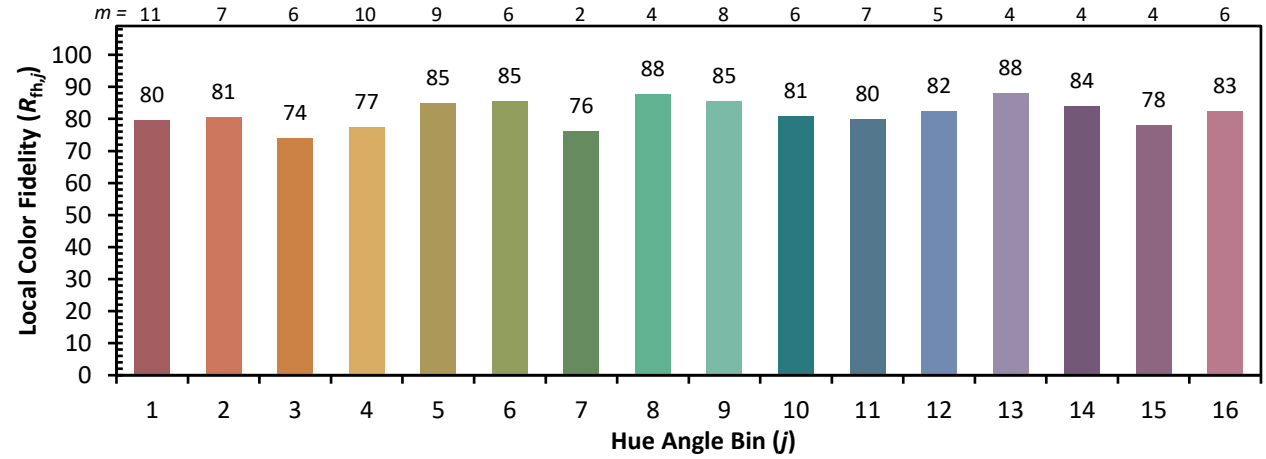
Color Rendition by Hue-Angle Bin







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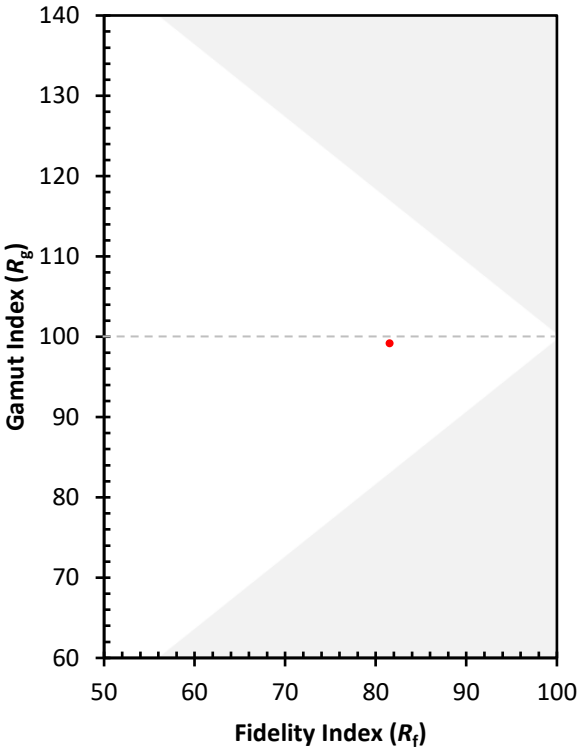
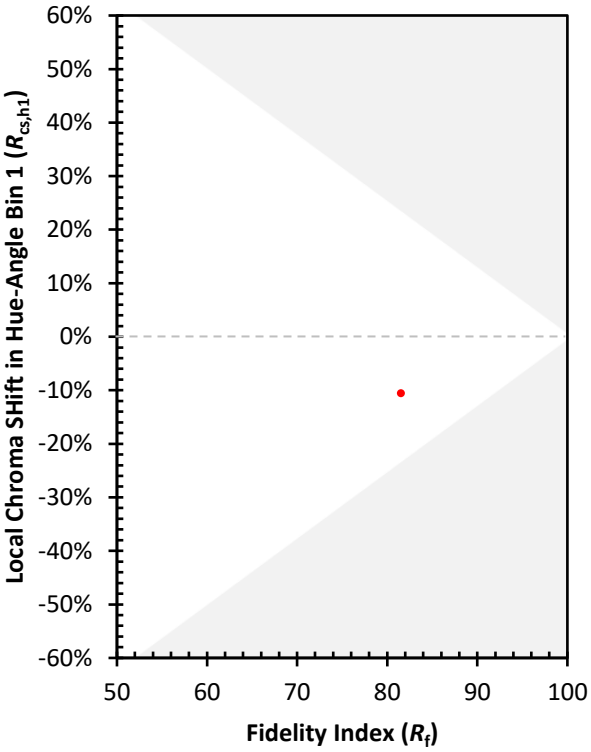
Measure Comparisons





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