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: P438280

Luminaire Tested: **IST-SA1B-830-U-SLL-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:	P438280
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-21)
Test Lab:	INNOVATION CENTER
Issue Date:	12/10/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	IST-SA1B-830-U-SLL-HSS
Description:	IMPACT ELITE LED TRAPEZOID 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:	2059 lumens
Efficiency:	N/A
Efficacy:	81.1 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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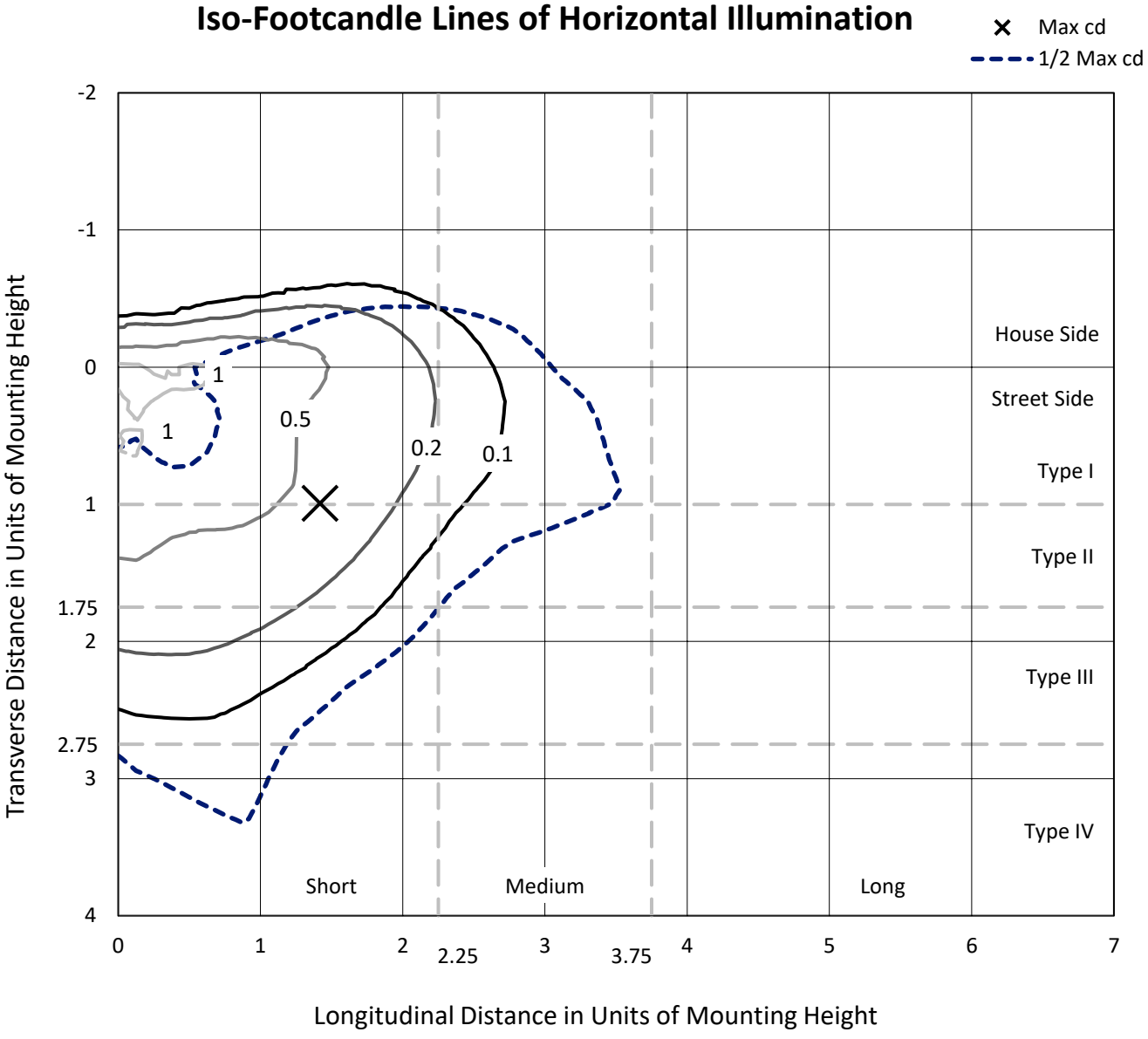
Iso-Footcandle Lines of Horizontal Illumination



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

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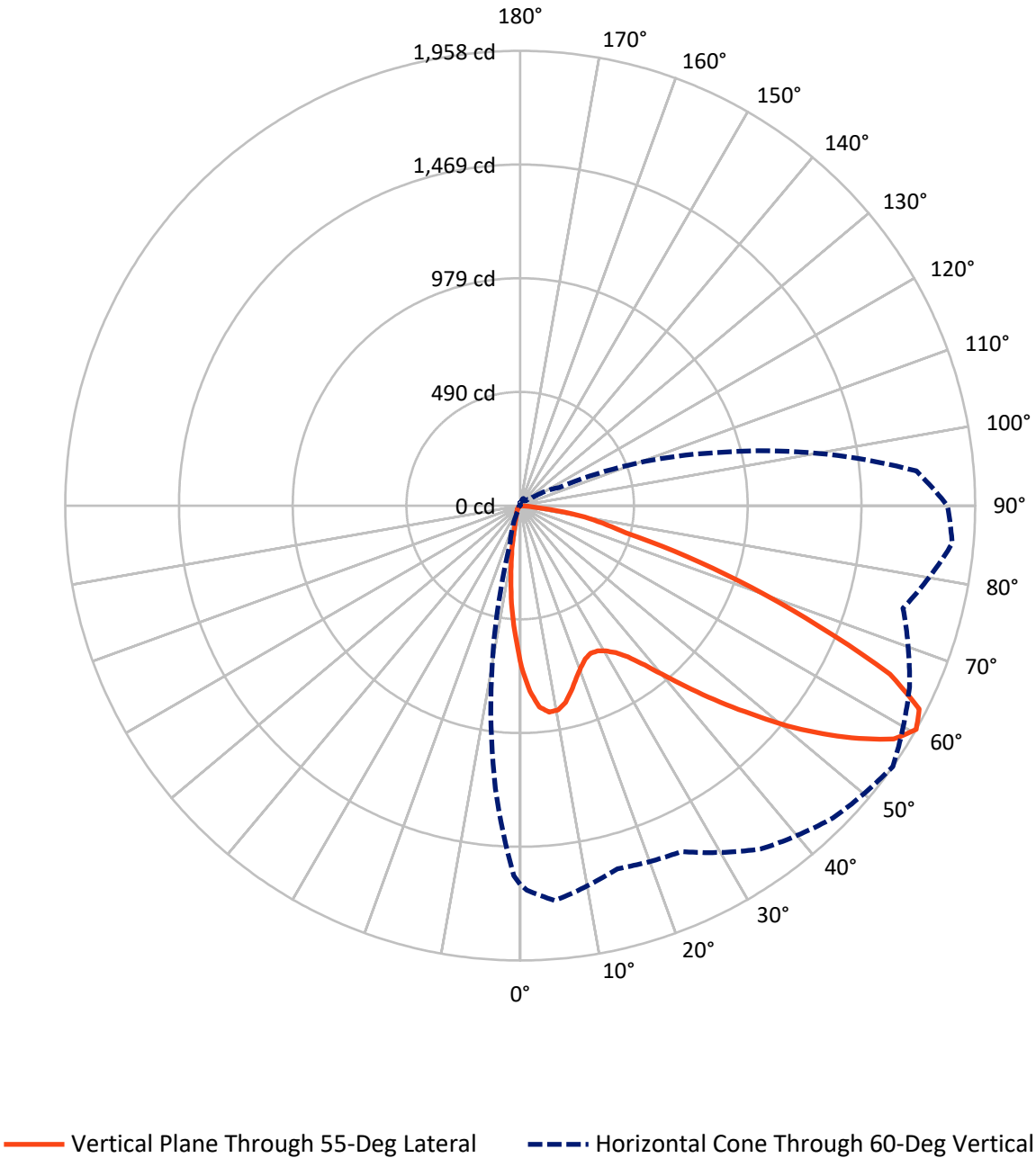
Luminous Intensity Polar Plot



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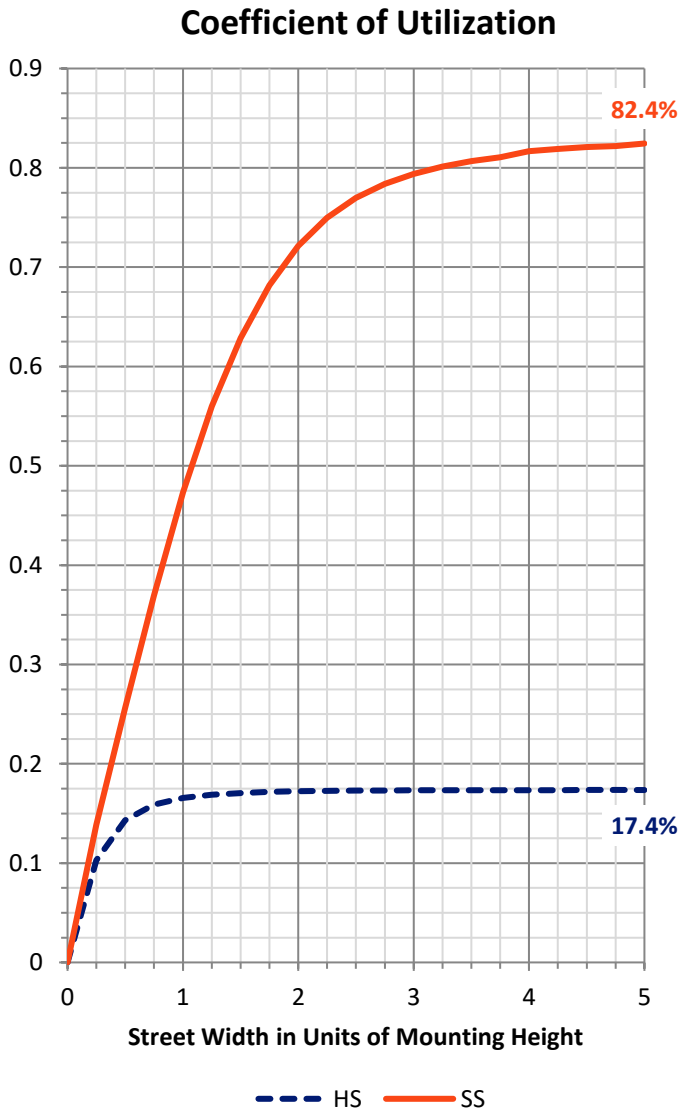
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	360.7	0.0	360.7
	% Fixture	17.5	0.0	17.5
Street Side	Lumens	1698.3	0.0	1698.3
	% Fixture	82.5	0.0	82.5
Total	Lumens	2059.0	0.0	2059.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.8	2.5
10°-20°	101.4	4.9
20°-30°	149.1	7.2
30°-40°	222.9	10.8
40°-50°	329.8	16.0
50°-60°	474.0	23.0
60°-70°	508.1	24.7
70°-80°	205.3	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°	2059.0	100.0
0°-180°	2059.0	100.0



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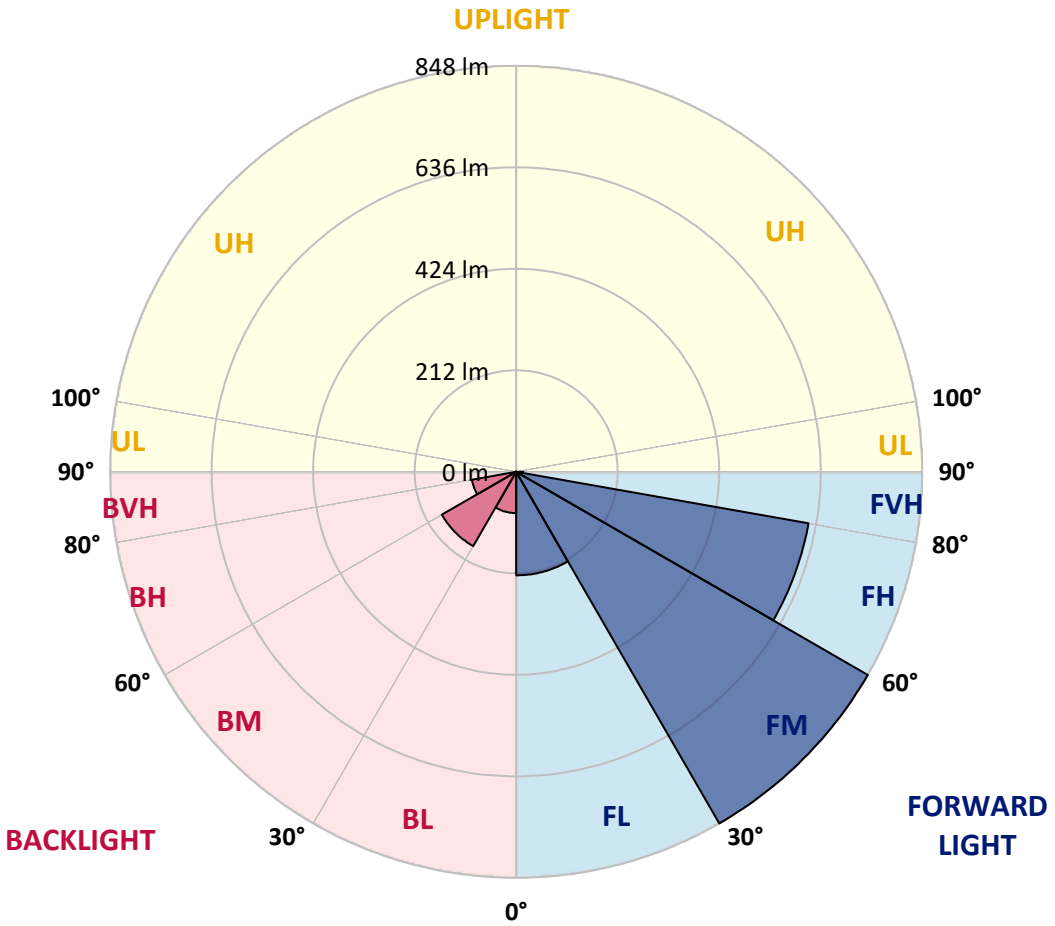
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	216.1	10.5			
FM	(30°-60°)	847.5	41.2			
FH	(60°-80°)	619.6	30.1			G0/660
FVH	(80°-90°)	15.1	0.7			G1/100
BL	(0°-30°)	86.2	4.2	B0/110		
BM	(30°-60°)	179.2	8.7	B0/220		
BH	(60°-80°)	93.8	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°	694.7	694.7	694.7	694.7	694.7	694.7	694.7	*694.7*	694.7	694.7	694.7
2.5°	746.4	746.4	752.4	770.3	790.1	800.1	811.0	*800.1*	798.1	782.2	770.3
5°	723.6	728.5	747.4	795.1	845.8	871.6	885.6	*870.7*	843.8	809.0	765.3
7.5°	671.9	677.8	699.7	777.2	846.8	898.5	923.3	*897.5*	851.8	788.2	724.5
10°	616.2	627.1	656.0	744.4	824.9	886.6	921.3	*894.5*	837.9	756.4	677.8
12.5°	579.4	587.4	626.2	714.6	801.1	855.7	874.6	*868.7*	817.0	741.4	659.0
15°	573.5	583.4	624.2	712.6	778.2	811.0	818.0	*825.9*	808.0	743.4	664.9
17.5°	599.3	610.3	656.0	727.5	757.3	757.3	764.3	*780.2*	797.1	763.3	700.7
20°	652.0	666.9	717.6	766.3	746.4	722.6	723.6	*744.4*	790.1	808.0	764.3
22.5°	722.6	742.4	804.1	826.9	758.3	703.7	698.7	*716.6*	791.1	853.8	851.8
25°	816.0	839.8	899.5	898.5	787.2	695.7	690.8	*703.7*	800.1	903.4	928.3
27.5°	900.5	920.3	980.0	955.1	816.0	705.7	694.7	*708.6*	807.0	940.2	996.9
30°	972.0	988.9	1041.6	995.9	840.8	722.6	703.7	*725.5*	821.9	960.1	1058.5
32.5°	1026.7	1051.5	1100.2	1027.7	870.7	744.4	724.5	*754.4*	846.8	985.9	1112.2
35°	1100.2	1113.2	1170.8	1059.5	910.4	791.1	759.3	*799.1*	887.5	1019.7	1171.8
37.5°	1163.8	1197.6	1235.4	1092.3	959.1	848.8	814.0	*870.7*	943.2	1058.5	1241.4
40°	1239.4	1278.1	1318.9	1139.0	1003.8	924.3	909.4	*965.1*	1026.7	1115.1	1310.0
42.5°	1309.0	1344.7	1372.6	1193.7	1058.5	1009.8	1020.7	*1079.4*	1112.2	1173.8	1368.6
45°	1364.6	1396.4	1438.2	1231.4	1119.1	1105.2	1160.9	*1206.6*	1196.6	1224.5	1421.3
47.5°	1422.3	1461.0	1477.9	1271.2	1197.6	1230.4	1329.8	*1339.8*	1285.1	1271.2	1467.0
50°	1462.0	1490.8	1501.8	1319.9	1294.0	1395.4	1474.9	*1491.8*	1381.5	1308.0	1526.6
52.5°	1510.7	1538.5	1551.5	1377.5	1397.4	1543.5	1635.9	*1632.0*	1474.9	1368.6	1585.3
55°	1597.2	1623.0	1635.9	1448.1	1471.0	1670.7	1773.1	*1769.1*	1586.3	1456.1	1672.7
57.5°	1658.8	1680.7	1701.5	1527.6	1562.4	1752.2	1866.5	*1896.3*	1720.4	1566.4	1768.1
60°	*1631.0*	*1655.8*	*1706.5*	*1618.1*	*1642.9*	*1804.9*	*1902.3*	*1958.0*	*1848.6*	*1705.5*	*1866.5*
62.5°	1552.5	1589.2	1641.9	1689.6	1705.5	1813.9	1852.6	*1927.2*	1917.2	1845.7	1911.3
65°	1453.1	1490.8	1541.5	1699.6	1691.6	1680.7	1703.5	*1748.3*	1817.8	1913.2	1889.4
67.5°	1274.2	1328.8	1392.4	1583.3	1471.0	1408.3	1414.3	*1389.5*	1529.6	1815.8	1778.1
70°	1037.6	1093.3	1161.9	1342.7	1134.0	1051.5	1072.4	*1056.5*	1166.8	1558.4	1523.6
72.5°	730.5	790.1	874.6	1119.1	790.1	657.0	706.7	*748.4*	879.6	1250.3	1119.1
75°	484.0	526.8	587.4	842.8	563.5	441.3	452.2	*469.1*	588.4	945.2	706.7
77.5°	250.5	293.2	320.0	451.2	348.9	347.9	339.9	*361.8*	367.7	567.5	368.7
80°	140.1	154.1	168.0	219.7	174.9	206.7	213.7	*261.4*	242.5	284.3	154.1
82.5°	68.6	86.5	94.4	135.2	112.3	82.5	40.7	*85.5*	144.1	154.1	71.6
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°	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7
2.5°	757.3	749.4	726.5	706.7	675.8	662.9	642.1	637.1	620.2	603.3	593.4
5°	743.4	720.6	673.9	628.1	586.4	547.6	518.8	495.0	468.1	457.2	464.1
7.5°	687.8	656.0	588.4	534.7	475.1	430.4	389.6	368.7	343.9	333.9	327.0
10°	642.1	603.3	525.8	455.2	398.6	363.8	338.9	309.1	280.3	257.4	254.4
12.5°	613.2	571.5	485.0	410.5	368.7	334.9	306.1	267.4	234.6	212.7	202.8
15°	612.2	560.6	472.1	393.6	344.9	302.1	265.4	221.6	187.8	160.0	150.1
17.5°	648.0	585.4	478.1	375.7	311.1	255.4	207.7	162.0	129.2	110.3	100.4
20°	710.6	642.1	489.0	357.8	278.3	207.7	146.1	110.3	88.5	79.5	75.5
22.5°	786.2	704.7	508.9	343.9	244.5	157.0	103.4	79.5	69.6	63.6	62.6
25°	877.6	784.2	536.7	333.9	213.7	121.3	80.5	65.6	59.6	55.7	53.7
27.5°	958.1	860.7	578.4	326.0	183.9	99.4	68.6	57.6	51.7	48.7	47.7
30°	1017.7	923.3	626.2	308.1	160.0	86.5	64.6	54.7	47.7	43.7	42.7
32.5°	1086.3	971.0	649.0	290.2	146.1	76.5	56.7	48.7	43.7	39.8	38.8
35°	1161.9	1037.6	671.9	276.3	137.2	68.6	51.7	42.7	36.8	32.8	31.8
37.5°	1249.3	1111.2	692.7	264.4	132.2	63.6	48.7	39.8	33.8	29.8	27.8
40°	1346.7	1168.8	706.7	256.4	125.2	60.6	46.7	37.8	31.8	26.8	25.8
42.5°	1424.2	1235.4	710.6	253.4	118.3	59.6	44.7	36.8	29.8	25.8	23.9
45°	1479.9	1294.0	724.5	250.5	113.3	55.7	43.7	35.8	27.8	23.9	21.9
47.5°	1520.7	1356.7	737.5	247.5	108.3	50.7	46.7	35.8	26.8	21.9	19.9
50°	1596.2	1430.2	762.3	239.5	101.4	45.7	46.7	34.8	25.8	20.9	18.9
52.5°	1677.7	1525.6	818.0	230.6	92.4	40.7	42.7	34.8	24.8	19.9	17.9
55°	1755.2	1641.9	869.7	218.7	77.5	36.8	39.8	34.8	22.9	18.9	16.9
57.5°	1811.9	1719.4	897.5	203.7	61.6	32.8	32.8	32.8	19.9	15.9	14.9
60°	*1838.7*	*1711.5*	*884.6*	*184.9*	*49.7*	*28.8*	*26.8*	*33.8*	*17.9*	*13.9*	*12.9*
62.5°	1817.8	1629.0	827.9	165.0	43.7	24.8	21.9	29.8	15.9	11.9	10.9
65°	1753.2	1489.8	733.5	149.1	42.7	20.9	17.9	17.9	12.9	9.9	8.9
67.5°	1593.2	1307.0	621.2	134.2	43.7	17.9	14.9	13.9	10.9	8.0	7.0
70°	1324.9	1050.5	470.1	127.2	43.7	14.9	12.9	10.9	8.0	7.0	6.0
72.5°	841.8	652.0	326.0	112.3	43.7	11.9	10.9	9.9	6.0	5.0	3.0
75°	498.9	396.6	153.1	86.5	36.8	9.9	8.0	6.0	3.0	2.0	2.0
77.5°	293.2	254.4	66.6	47.7	15.9	6.0	4.0	2.0	1.0	0.0	0.0
80°	120.3	104.4	24.8	13.9	7.0	3.0	1.0	0.0	0.0	0.0	0.0
82.5°	70.6	73.5	8.9	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	21.9	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°	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7
2.5°	592.4	582.4	578.4	572.5	567.5	561.5	569.5	576.5	568.5	577.5	591.4
5°	457.2	442.3	462.2	449.2	456.2	448.2	437.3	439.3	441.3	437.3	448.2
7.5°	317.1	324.0	329.0	328.0	333.9	323.0	323.0	316.1	306.1	310.1	308.1
10°	240.5	226.6	231.6	230.6	241.5	226.6	216.7	205.7	204.7	206.7	204.7
12.5°	191.8	174.9	164.0	158.0	157.0	150.1	141.1	130.2	123.2	122.2	128.2
15°	144.1	131.2	121.3	112.3	111.3	97.4	85.5	77.5	70.6	71.6	75.5
17.5°	99.4	95.4	92.4	84.5	79.5	67.6	57.6	52.7	50.7	50.7	51.7
20°	72.6	70.6	68.6	65.6	60.6	51.7	45.7	43.7	42.7	42.7	43.7
22.5°	60.6	57.6	55.7	54.7	50.7	43.7	39.8	37.8	37.8	37.8	37.8
25°	51.7	49.7	48.7	46.7	43.7	37.8	34.8	33.8	32.8	32.8	33.8
27.5°	46.7	42.7	40.7	40.7	37.8	33.8	30.8	29.8	28.8	28.8	29.8
30°	41.7	38.8	36.8	34.8	32.8	28.8	26.8	25.8	25.8	25.8	25.8
32.5°	36.8	34.8	32.8	30.8	27.8	25.8	23.9	22.9	21.9	21.9	21.9
35°	29.8	27.8	27.8	26.8	23.9	21.9	19.9	18.9	17.9	18.9	18.9
37.5°	25.8	22.9	22.9	22.9	20.9	18.9	16.9	15.9	14.9	14.9	15.9
40°	23.9	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	8.0	8.0	8.0	8.0
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	8.0	7.0	7.0	6.0	5.0	4.0	4.0	5.0
52.5°	15.9	11.9	8.0	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°	8.0	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: P438280
CATALOG NUMBER: IST-SA1B-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7	694.7
2.5°	590.4	596.3	618.2	638.1	659.9	683.8	703.7	732.5	741.4	746.4
5°	446.3	468.1	495.0	518.8	561.5	601.3	648.0	698.7	719.6	723.6
7.5°	322.0	336.9	365.8	413.5	452.2	511.9	572.5	640.1	671.9	671.9
10°	221.6	246.5	283.3	328.0	379.7	432.3	502.9	579.4	609.3	616.2
12.5°	141.1	169.0	218.7	267.4	327.0	378.7	449.2	535.7	569.5	579.4
15°	81.5	100.4	146.1	199.8	271.3	336.9	416.4	521.8	563.5	573.5
17.5°	54.7	61.6	86.5	133.2	212.7	300.2	406.5	536.7	587.4	599.3
20°	45.7	48.7	57.6	82.5	150.1	261.4	402.5	569.5	631.1	652.0
22.5°	39.8	42.7	48.7	60.6	107.3	220.6	399.5	617.2	700.7	722.6
25°	34.8	37.8	42.7	51.7	75.5	179.9	404.5	684.8	790.1	816.0
27.5°	30.8	33.8	38.8	44.7	60.6	139.1	405.5	748.4	873.6	900.5
30°	26.8	29.8	33.8	38.8	48.7	107.3	387.6	813.0	941.2	972.0
32.5°	23.9	25.8	29.8	33.8	40.7	83.5	350.8	862.7	996.9	1026.7
35°	19.9	21.9	25.8	28.8	35.8	67.6	310.1	908.4	1063.5	1100.2
37.5°	16.9	18.9	21.9	25.8	31.8	52.7	269.3	948.2	1128.1	1163.8
40°	13.9	16.9	19.9	22.9	28.8	40.7	224.6	990.9	1201.6	1239.4
42.5°	11.9	13.9	16.9	20.9	24.8	32.8	184.9	1017.7	1264.2	1309.0
45°	8.9	11.9	15.9	20.9	20.9	25.8	159.0	1037.6	1309.0	1364.6
47.5°	7.0	9.9	13.9	19.9	18.9	21.9	146.1	1072.4	1370.6	1422.3
50°	6.0	8.0	13.9	16.9	15.9	18.9	150.1	1103.2	1417.3	1462.0
52.5°	5.0	7.0	11.9	12.9	13.9	16.9	158.0	1159.9	1475.9	1510.7
55°	4.0	6.0	8.9	10.9	11.9	15.9	170.9	1230.4	1552.5	1597.2
57.5°	3.0	5.0	7.0	8.9	10.9	14.9	179.9	1275.2	1624.0	1658.8
60°	*3.0*	*4.0*	*6.0*	*8.0*	*9.9*	*13.9*	*167.0*	*1222.5*	*1593.2*	*1631.0*
62.5°	2.0	4.0	5.0	7.0	8.0	10.9	123.2	1107.2	1500.8	1552.5
65°	1.0	3.0	4.0	5.0	6.0	8.0	70.6	968.1	1391.5	1453.1
67.5°	0.0	2.0	3.0	4.0	4.0	6.0	32.8	781.2	1211.6	1274.2
70°	0.0	1.0	2.0	2.0	3.0	5.0	16.9	551.6	953.1	1037.6
72.5°	1.0	1.0	2.0	2.0	2.0	4.0	10.9	333.9	641.1	730.5
75°	1.0	1.0	1.0	1.0	2.0	3.0	7.0	214.7	403.5	484.0
77.5°	1.0	2.0	1.0	1.0	1.0	2.0	4.0	119.3	220.6	250.5
80°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	10.9	104.4	140.1
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	53.7	68.6
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

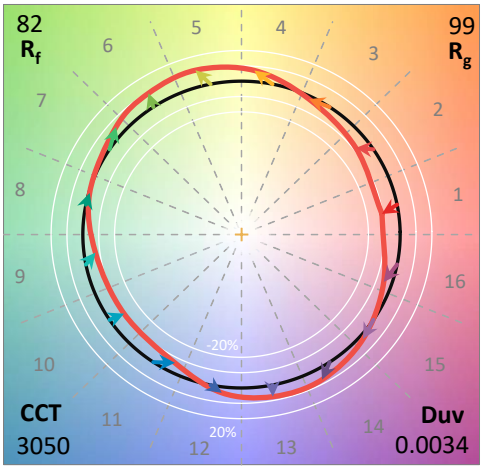
Test Information

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

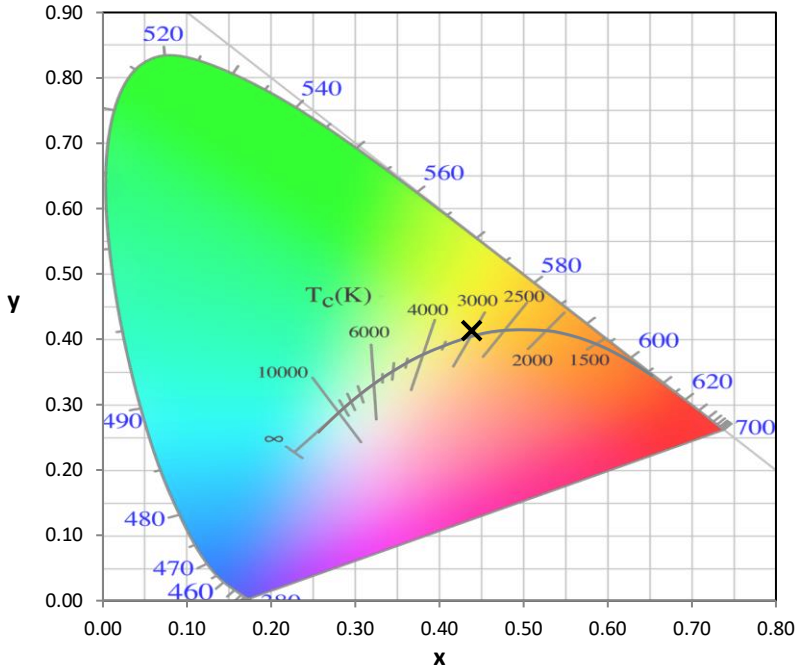
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

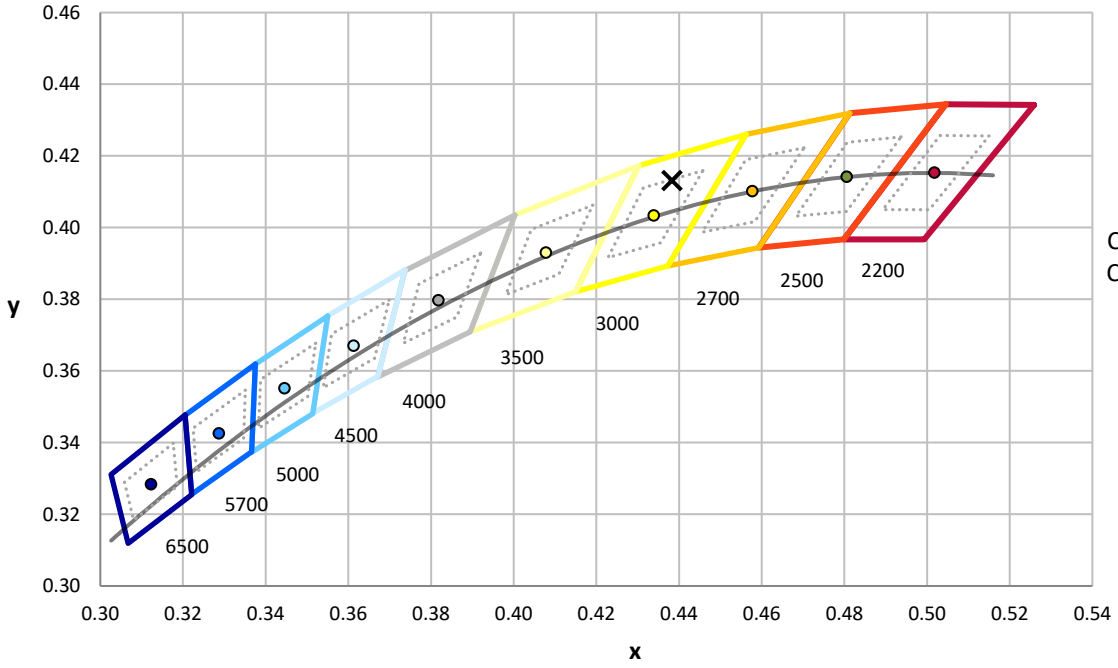
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

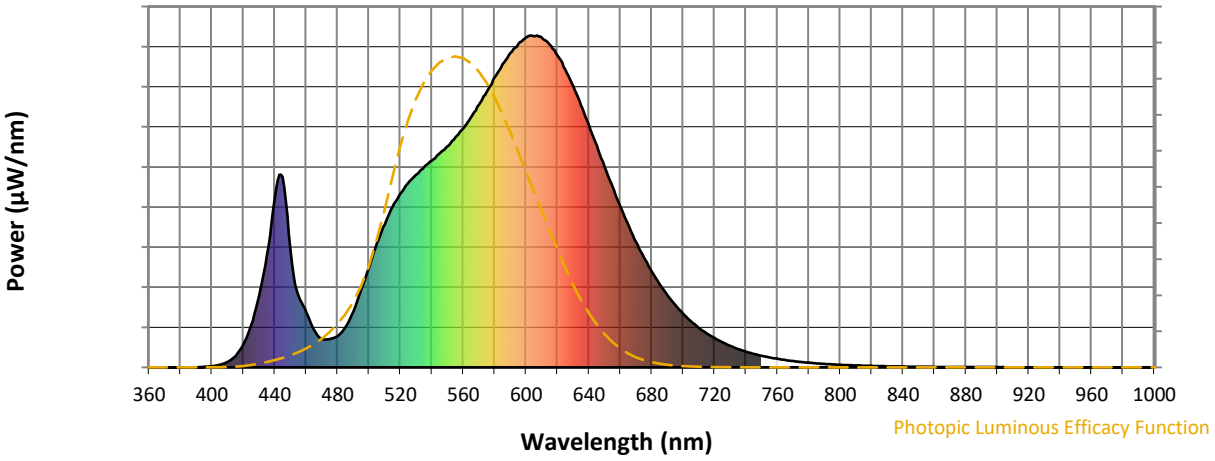


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

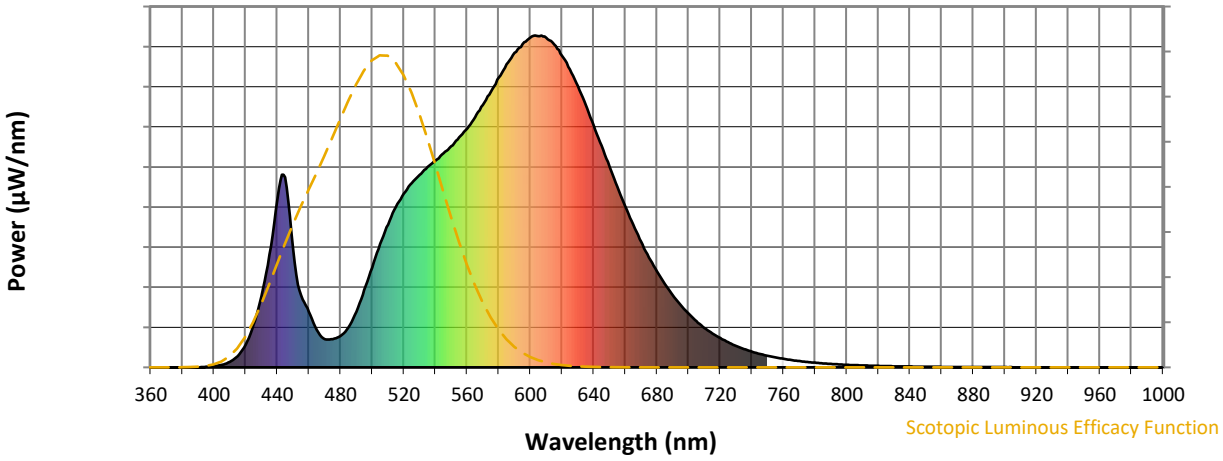


Photopic Lumens: NR

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

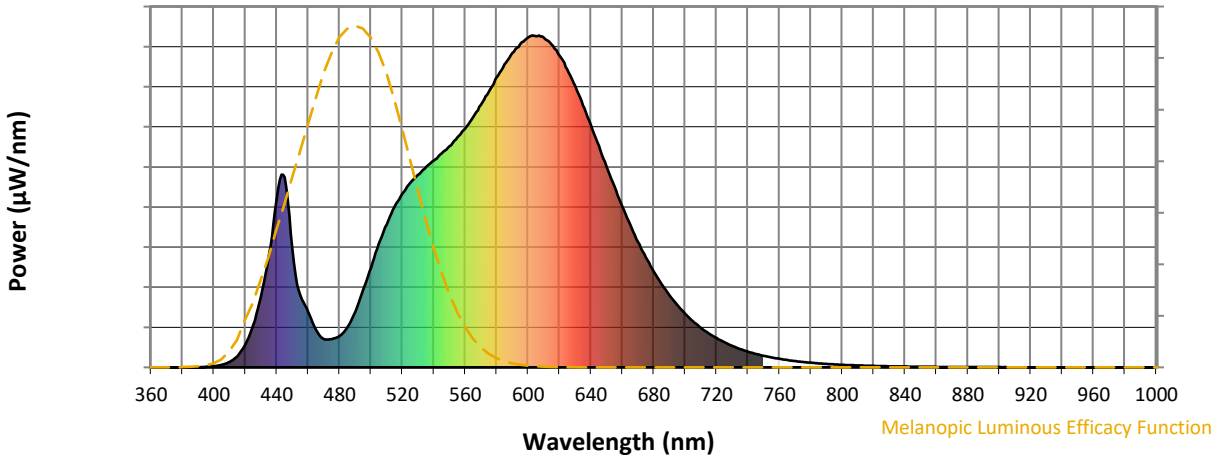


Scotopic Lumens: NR **S/P: 1.27**

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			

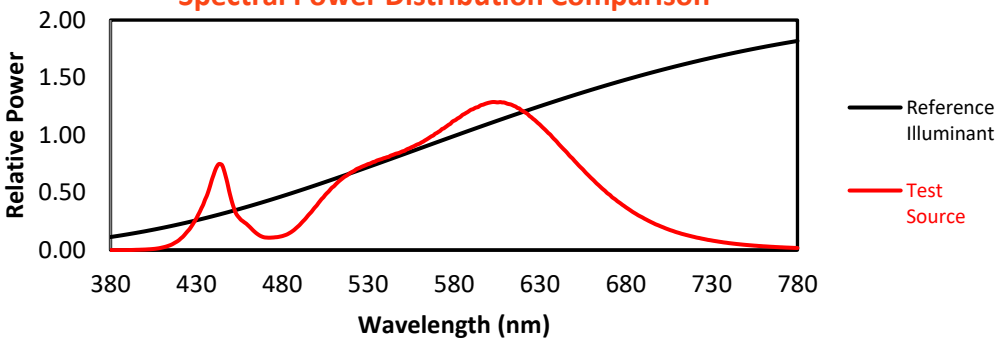
REPORT NUMBER: SP1-2408-195-9

TM-30-18

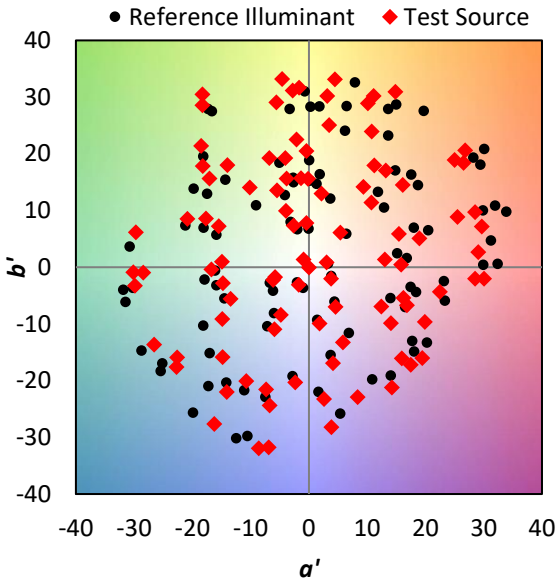
Summary

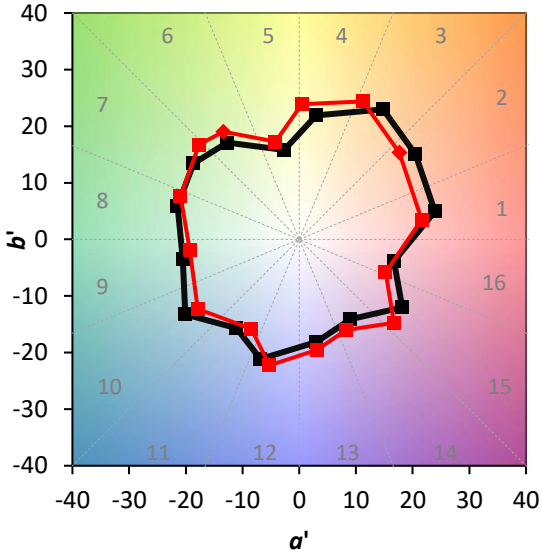
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

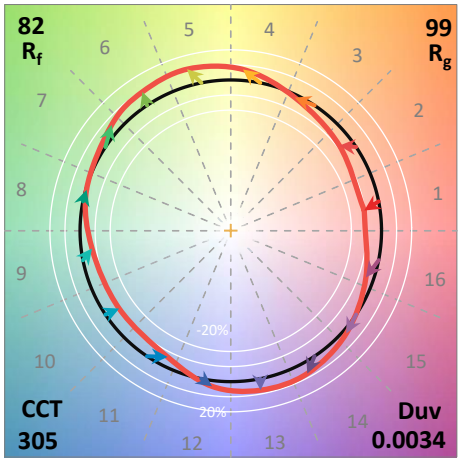
Spectral Power Distribution Comparison

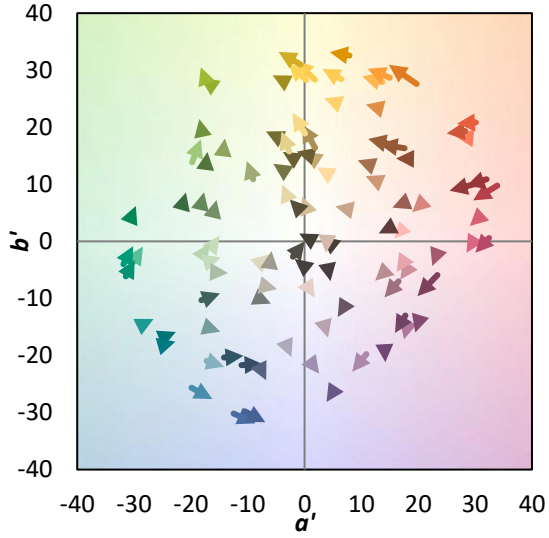


Color Vector Graphics







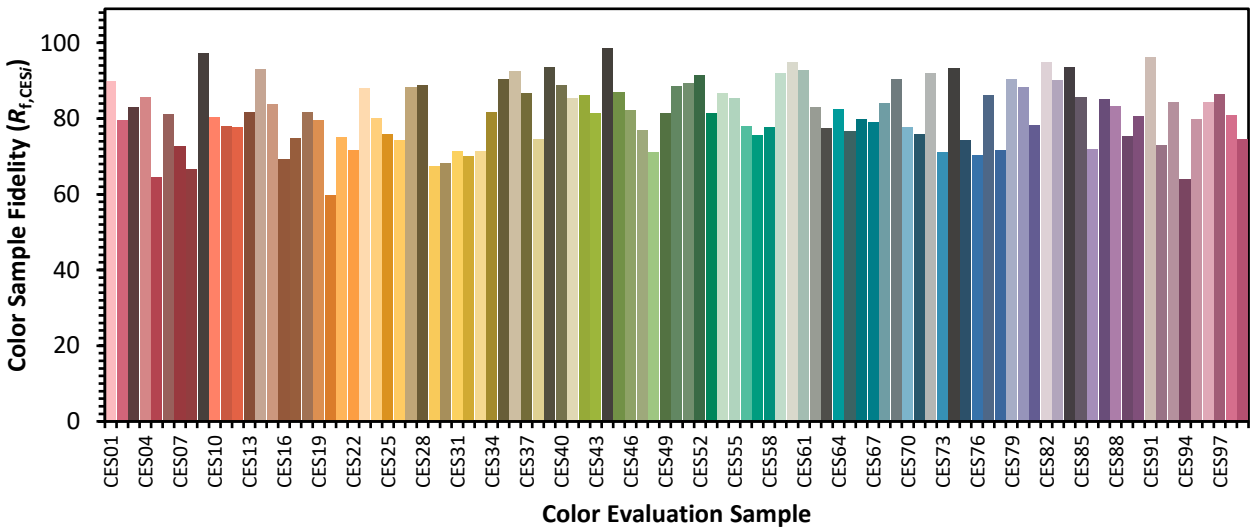


REPORT NUMBER: SP1-2408-195-9

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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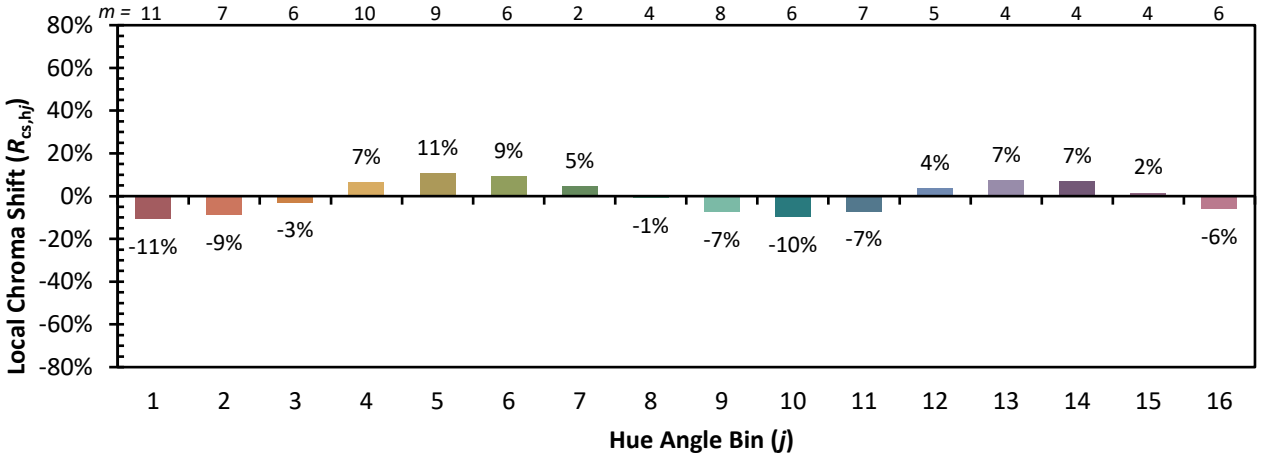
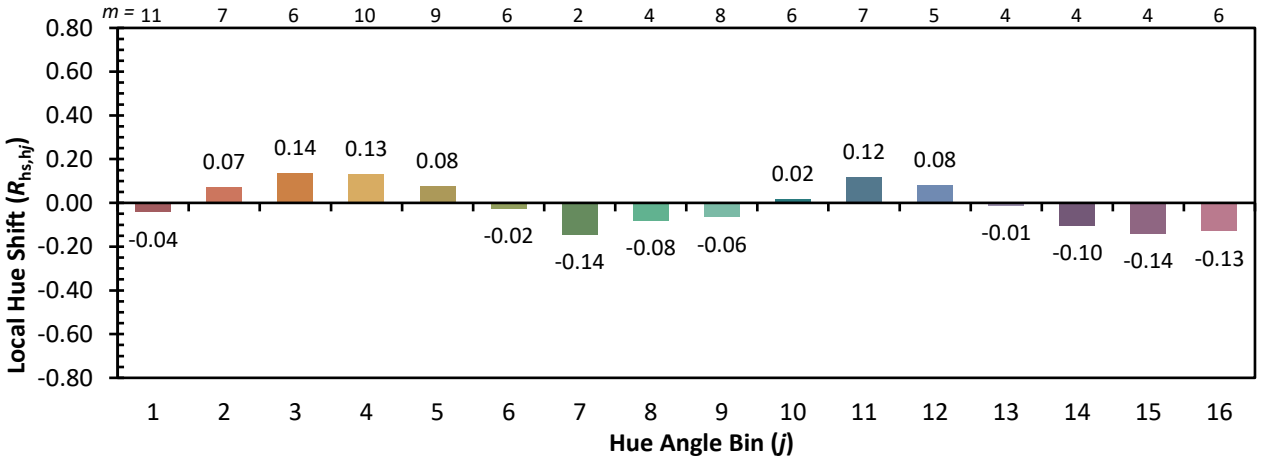
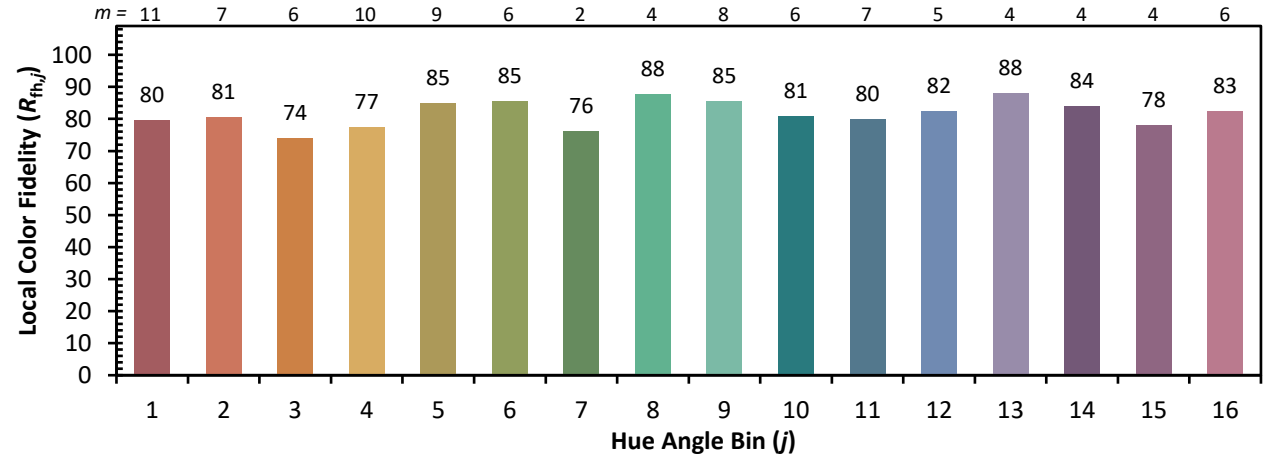
Color Rendition by Hue-Angle Bin







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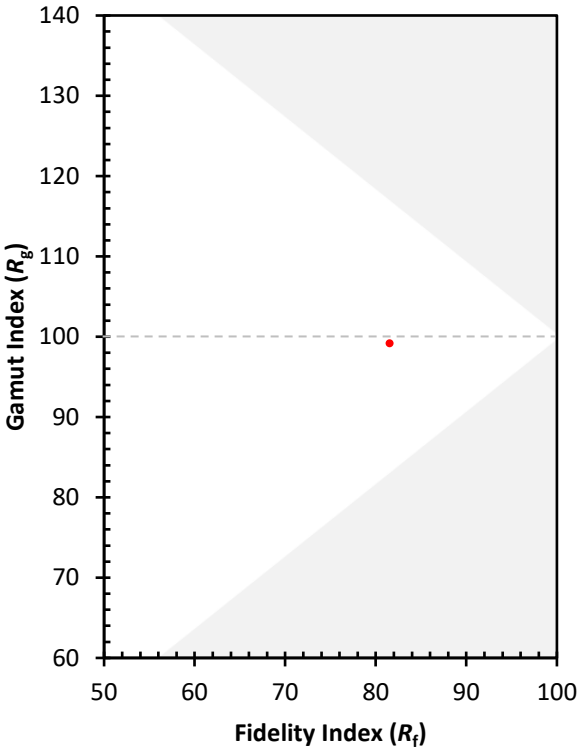
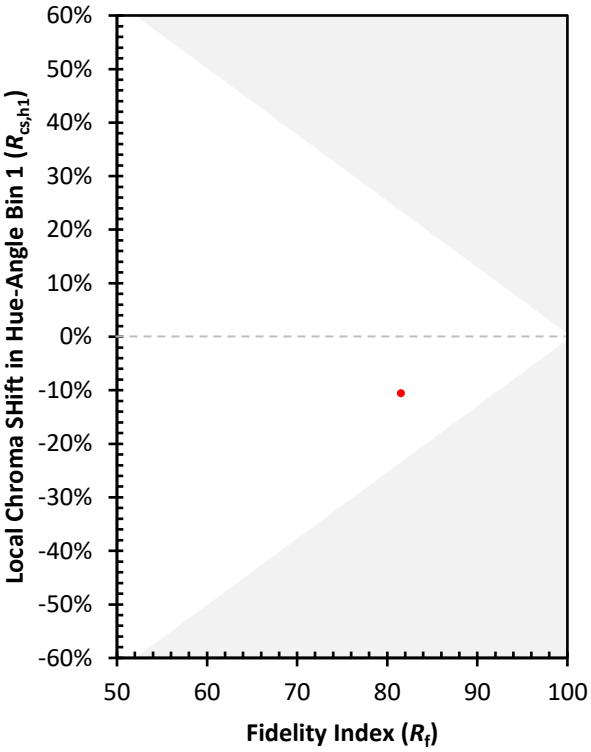
Measure Comparisons





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