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: P438625

Luminaire Tested: **ISW-SA1D-830-U-SLR**

Issue Date: 12/10/2020

Report Generated By 670245982

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P438625
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-22)
Test Lab:	INNOVATION CENTER
Issue Date:	12/10/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISW-SA1D-830-U-SLR
Description:	IMPACT ELITE LED WEDGE LUMINAIRE
	(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4041 lumens
Efficiency:	N/A
Efficacy:	89.4 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G1

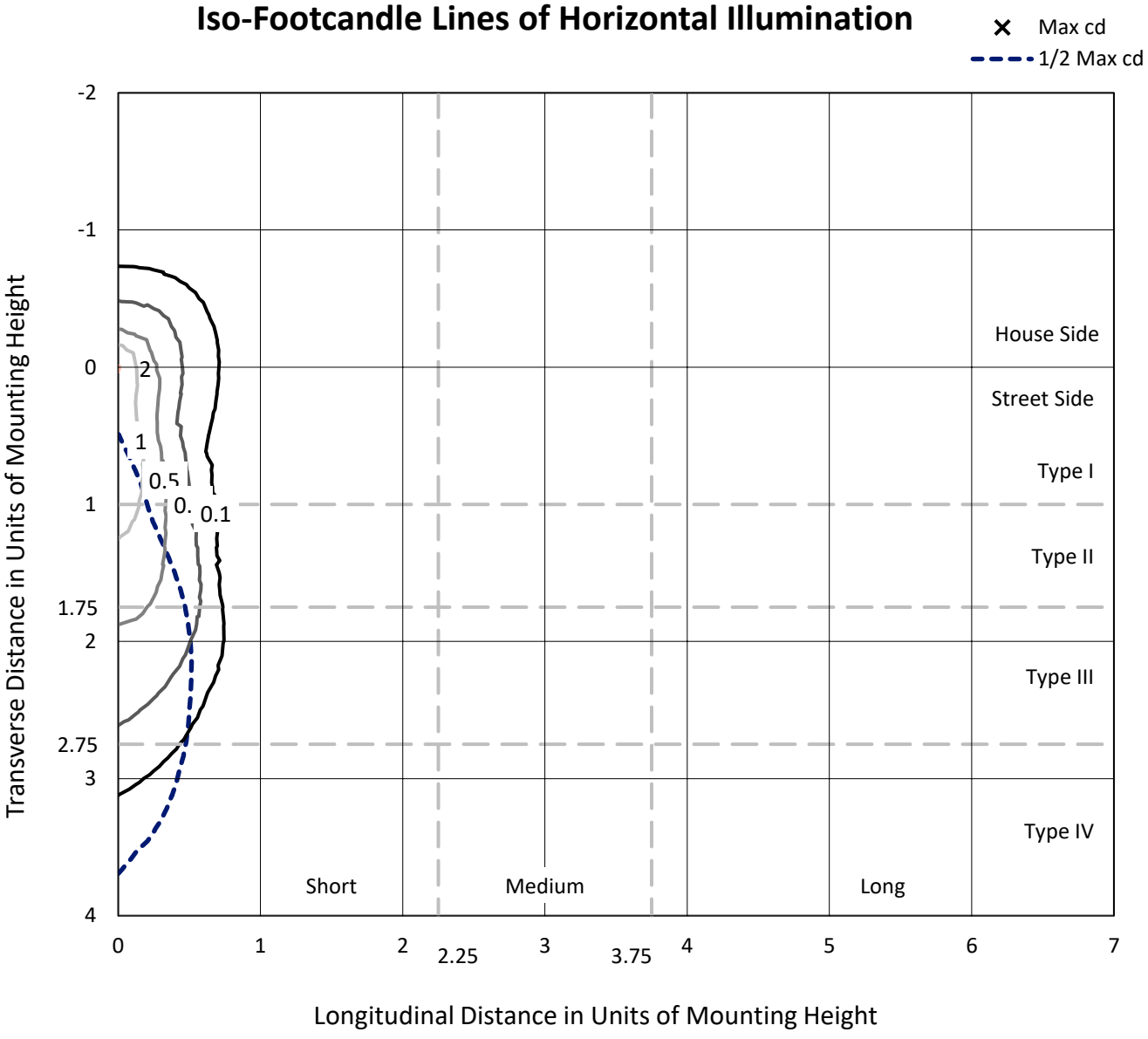
Input Watts (W):	45.2
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

Iso-Footcandle Lines of Horizontal Illumination



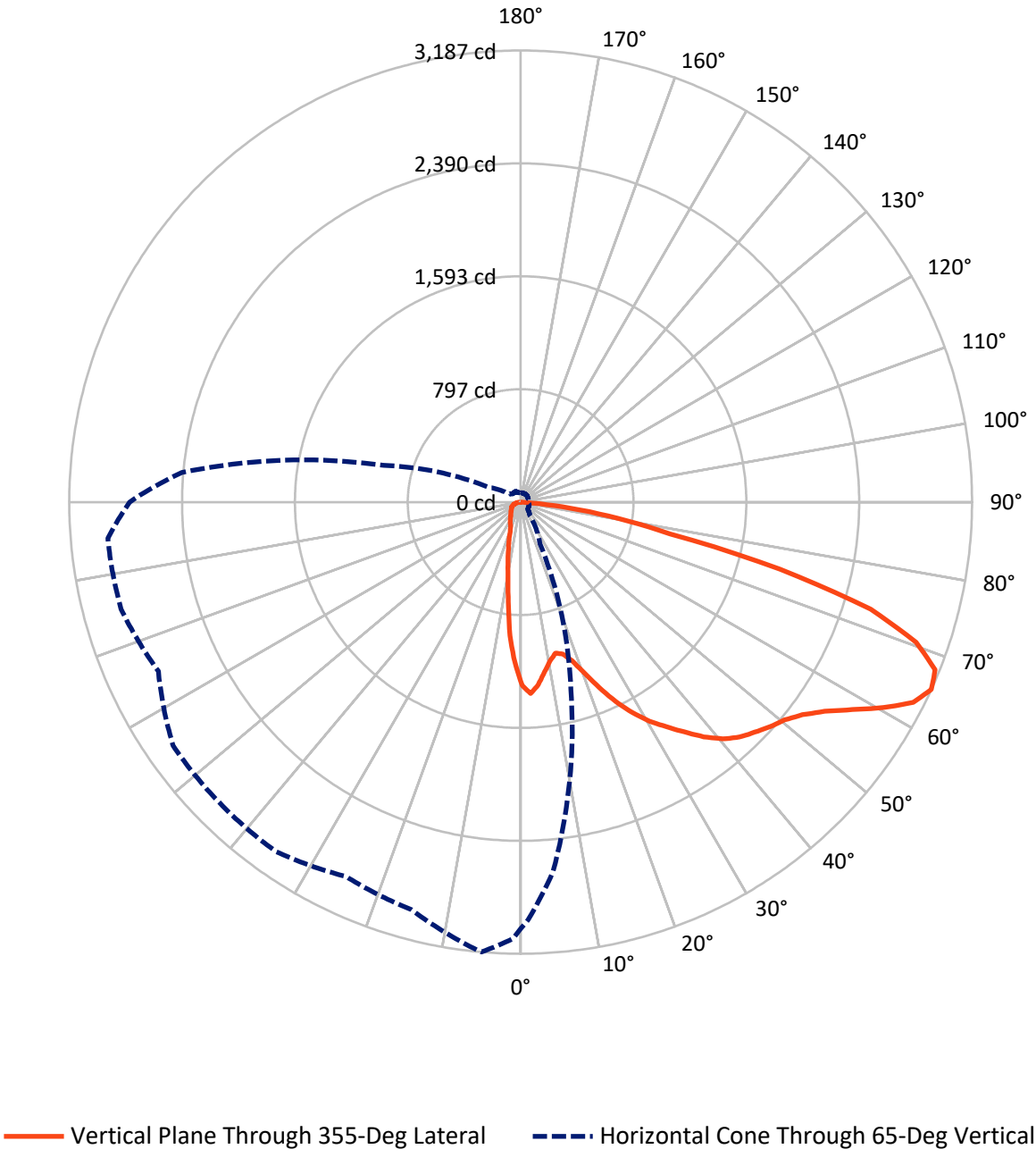
Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

Luminous Intensity Polar Plot



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

Scaled Data Report

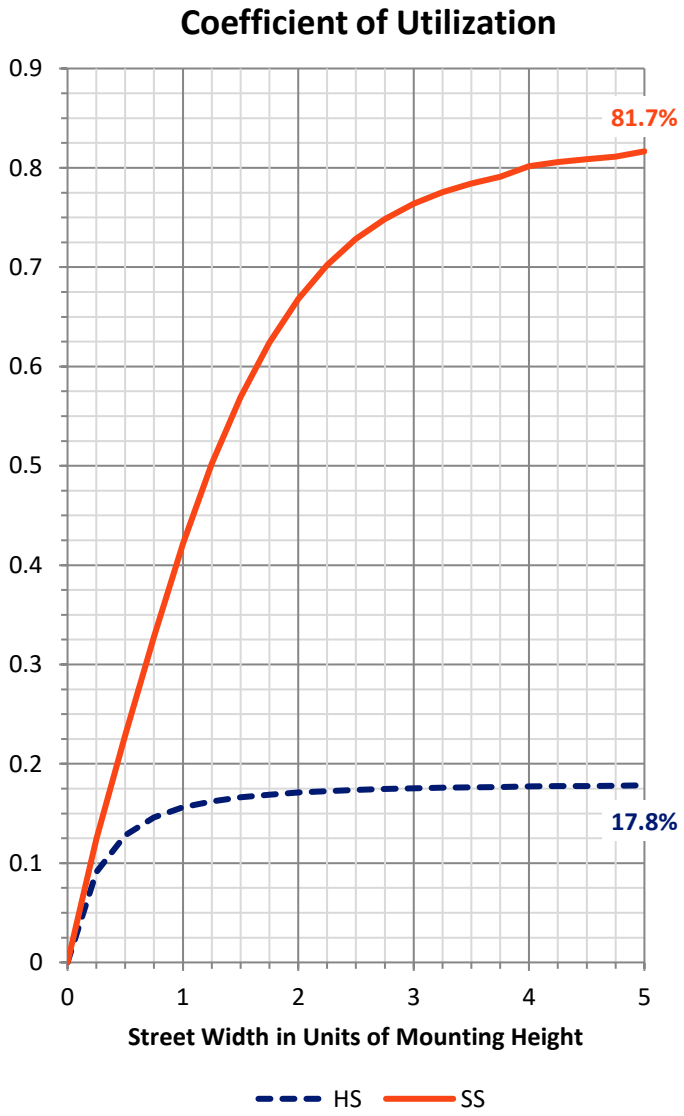
REPORT NUMBER: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	728.5	0.0	728.5
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	3312.5	0.0	3312.5
	% Fixture	82.0	0.0	82.0
Total	Lumens	4041.0	0.0	4041.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	2.4
10°-20°	201.6	5.0
20°-30°	287.3	7.1
30°-40°	410.6	10.2
40°-50°	573.4	14.2
50°-60°	797.6	19.7
60°-70°	971.6	24.0
70°-80°	598.4	14.8
80°-90°	102.8	2.5
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°	4041.0	100.0
0°-180°	4041.0	100.0



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

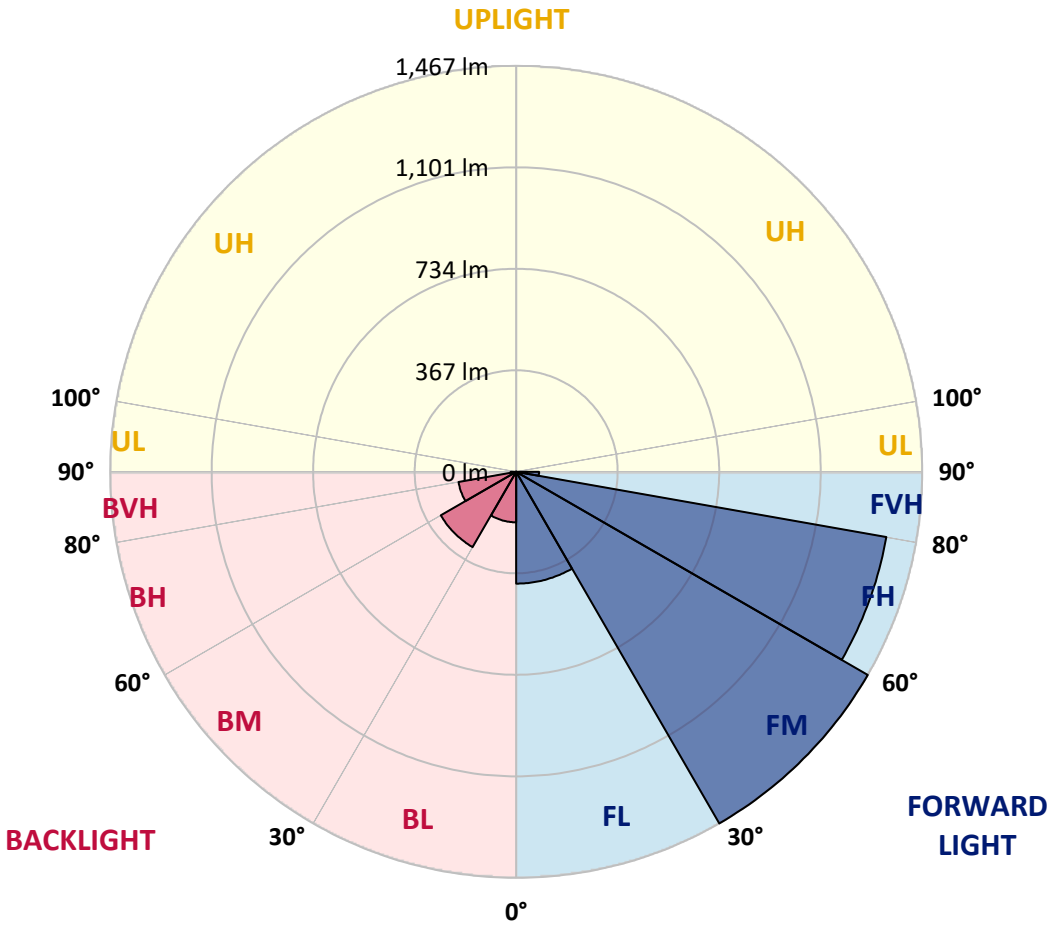
Scaled Data Report

REPORT NUMBER: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	404.0	10.0			
FM	(30°-60°)	1467.4	36.3			
FH	(60°-80°)	1358.5	33.6			G1/1800
FVH	(80°-90°)	82.6	2.0			G1/100
BL	(0°-30°)	182.4	4.5	B1/500		
BM	(30°-60°)	314.3	7.8	B1/1000		
BH	(60°-80°)	211.6	5.2	B1/500		G1/500
BVH	(80°-90°)	20.2	0.5			G1/100
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



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

Scaled Data Report

REPORT NUMBER: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0
2.5°	1325.7	1325.7	1309.3	1268.4	1230.8	1191.5	1178.4	1142.4	1119.5	1098.2	1106.4
5°	1248.8	1243.9	1214.4	1129.3	1063.8	1000.0	960.7	901.8	895.3	842.9	839.6
7.5°	1145.7	1142.4	1098.2	1001.6	926.4	826.5	767.6	716.9	672.7	641.6	631.8
10°	1075.3	1063.8	1009.8	892.0	782.3	710.3	677.6	633.4	595.7	556.5	523.7
12.5°	1029.5	1016.4	962.4	833.1	726.7	677.6	631.8	579.4	528.6	482.8	450.1
15°	1037.7	1016.4	955.8	818.3	707.0	636.7	572.8	510.6	451.7	401.0	360.1
17.5°	1096.6	1070.4	1003.3	828.2	675.9	582.7	495.9	423.9	351.9	299.5	266.8
20°	1199.7	1162.0	1076.9	856.0	653.0	531.9	417.4	322.4	247.1	211.1	201.3
22.5°	1325.7	1293.0	1176.8	878.9	628.5	474.6	330.6	232.4	194.8	176.8	171.9
25°	1456.6	1420.6	1291.3	916.5	608.8	422.3	260.2	184.9	166.9	158.8	155.5
27.5°	1590.8	1554.8	1404.3	977.1	585.9	366.6	209.5	162.0	148.9	142.4	142.4
30°	1685.8	1656.3	1505.7	1031.1	559.7	322.4	184.9	150.6	139.1	132.6	130.9
32.5°	1792.2	1751.2	1600.7	1067.1	540.1	288.1	168.6	140.8	130.9	122.8	122.8
35°	1911.6	1865.8	1689.0	1103.1	520.5	271.7	157.1	134.2	124.4	116.2	114.6
37.5°	2042.6	1983.6	1779.1	1134.2	499.2	263.5	150.6	127.7	117.8	111.3	108.0
40°	2186.6	2124.4	1898.5	1160.4	484.5	253.7	145.7	122.8	112.9	104.7	103.1
42.5°	2307.7	2252.1	1982.0	1176.8	477.9	240.6	144.0	117.8	109.7	99.8	96.6
45°	2369.9	2322.4	2083.5	1181.7	474.6	232.4	135.8	117.8	106.4	96.6	91.7
47.5°	2423.9	2389.5	2157.1	1206.2	466.5	224.2	126.0	124.4	104.7	91.7	86.7
50°	2515.6	2479.6	2271.7	1252.1	456.6	214.4	116.2	119.5	104.7	88.4	83.5
52.5°	2625.2	2615.4	2422.3	1324.1	441.9	201.3	106.4	112.9	104.7	86.7	80.2
55°	2785.6	2770.9	2622.0	1417.4	423.9	183.3	96.6	103.1	103.1	81.8	75.3
57.5°	2921.5	2923.1	2805.3	1482.8	407.5	153.8	90.0	88.4	98.2	76.9	70.4
60°	2983.7	2983.7	2864.2	1507.4	386.3	129.3	85.1	78.6	101.5	72.0	65.5
62.5°	3022.9	2990.2	2782.3	1484.5	361.7	116.2	76.9	72.0	81.8	67.1	60.6
65°	*3011.5*	*2949.3*	*2618.7*	*1368.3*	*325.7*	*112.9*	*72.0*	*65.5*	*65.5*	*62.2*	*57.3*
67.5°	2908.4	2811.8	2378.1	1171.9	288.1	111.3	65.5	60.6	58.9	55.6	52.4
70°	2628.5	2559.8	2091.7	955.8	263.5	111.3	60.6	54.0	52.4	49.1	47.5
72.5°	2149.0	2047.5	1669.4	716.9	243.9	111.3	55.6	47.5	45.8	44.2	42.6
75°	1468.1	1351.9	1173.5	440.3	191.5	96.6	49.1	39.3	39.3	37.6	36.0
77.5°	810.2	784.0	661.2	232.4	119.5	58.9	37.6	31.1	32.7	31.1	29.5
80°	469.7	441.9	392.8	112.9	68.7	34.4	22.9	22.9	24.6	24.6	22.9
82.5°	227.5	198.0	202.9	45.8	24.6	14.7	9.8	11.5	13.1	16.4	16.4
85°	8.2	8.2	16.4	3.3	0.0	0.0	0.0	0.0	0.0	3.3	4.9
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: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0
2.5°	1080.2	1080.2	1086.8	1114.6	1091.7	1088.4	1094.9	1106.4	1111.3	1134.2	1132.6
5°	833.1	828.2	847.8	874.0	888.7	896.9	910.0	939.5	928.0	946.0	942.7
7.5°	615.4	623.6	615.4	644.8	667.8	702.1	728.3	721.8	723.4	708.7	730.0
10°	502.5	499.2	479.5	489.4	502.5	523.7	541.7	545.0	561.4	535.2	553.2
12.5°	428.8	415.7	396.1	386.3	383.0	399.3	404.3	412.4	422.3	430.4	433.7
15°	343.7	333.9	320.8	306.1	302.8	302.8	314.2	325.7	338.8	342.1	353.5
17.5°	257.0	252.0	247.1	247.1	247.1	247.1	257.0	261.9	268.4	278.2	276.6
20°	194.8	194.8	196.4	204.6	209.5	212.8	219.3	221.0	219.3	221.0	221.0
22.5°	171.9	170.2	175.1	178.4	186.6	194.8	198.0	196.4	191.5	188.2	191.5
25°	155.5	157.1	158.8	163.7	170.2	178.4	180.0	178.4	173.5	173.5	173.5
27.5°	142.4	144.0	147.3	152.2	158.8	165.3	166.9	163.7	158.8	160.4	158.8
30°	132.6	135.8	137.5	142.4	147.3	153.8	153.8	150.6	147.3	147.3	147.3
32.5°	121.1	124.4	127.7	132.6	139.1	142.4	142.4	140.8	137.5	135.8	135.8
35°	114.6	114.6	117.8	124.4	127.7	130.9	132.6	130.9	127.7	124.4	122.8
37.5°	108.0	108.0	109.7	112.9	119.5	122.8	124.4	121.1	117.8	114.6	114.6
40°	101.5	101.5	103.1	104.7	111.3	116.2	116.2	111.3	108.0	109.7	108.0
42.5°	96.6	96.6	98.2	98.2	101.5	109.7	108.0	104.7	103.1	103.1	101.5
45°	91.7	90.0	91.7	91.7	93.3	101.5	101.5	96.6	96.6	98.2	96.6
47.5°	86.7	85.1	86.7	86.7	88.4	93.3	93.3	91.7	91.7	91.7	93.3
50°	81.8	81.8	81.8	81.8	83.5	85.1	88.4	86.7	86.7	86.7	88.4
52.5°	76.9	76.9	76.9	78.6	78.6	81.8	83.5	81.8	83.5	83.5	83.5
55°	73.7	72.0	72.0	75.3	75.3	78.6	80.2	78.6	80.2	80.2	80.2
57.5°	68.7	68.7	68.7	70.4	72.0	75.3	78.6	75.3	76.9	76.9	78.6
60°	63.8	63.8	63.8	67.1	68.7	72.0	73.7	72.0	73.7	73.7	73.7
62.5°	58.9	60.6	60.6	62.2	63.8	68.7	70.4	68.7	70.4	70.4	70.4
65°	*55.6*	*55.6*	*57.3*	*58.9*	*60.6*	*63.8*	*65.5*	*65.5*	*65.5*	*67.1*	*65.5*
67.5°	50.7	50.7	52.4	54.0	55.6	60.6	60.6	60.6	62.2	60.6	60.6
70°	45.8	45.8	47.5	49.1	50.7	55.6	55.6	55.6	57.3	54.0	54.0
72.5°	40.9	40.9	42.6	44.2	47.5	52.4	50.7	50.7	50.7	49.1	49.1
75°	36.0	36.0	37.6	39.3	40.9	47.5	45.8	44.2	44.2	42.6	42.6
77.5°	29.5	29.5	31.1	34.4	36.0	40.9	39.3	37.6	36.0	36.0	36.0
80°	22.9	24.6	26.2	27.8	29.5	32.7	31.1	29.5	27.8	27.8	27.8
82.5°	16.4	18.0	19.6	21.3	22.9	22.9	22.9	22.9	21.3	19.6	19.6
85°	6.5	9.8	13.1	13.1	14.7	13.1	14.7	13.1	11.5	11.5	9.8
87.5°	0.0	0.0	0.0	0.0	0.0	1.6	3.3	4.9	4.9	4.9	4.9
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: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0
2.5°	1145.7	1171.9	1186.6	1212.8	1240.6	1278.2	1309.3	1353.5	1392.8	1401.0	1410.8
5°	949.3	983.6	1000.0	1042.6	1108.0	1148.9	1214.4	1283.2	1368.3	1394.4	1428.8
7.5°	713.6	739.8	782.3	820.0	896.9	965.6	1054.0	1153.9	1253.7	1311.0	1366.6
10°	543.4	576.1	621.9	666.1	741.4	810.2	914.9	1026.2	1153.9	1206.2	1265.1
12.5°	451.7	477.9	523.7	584.3	654.7	720.1	798.7	919.8	1054.0	1121.1	1193.1
15°	365.0	392.8	450.1	517.2	585.9	659.6	734.9	851.1	1014.7	1083.5	1152.2
17.5°	291.3	315.9	365.0	437.0	512.3	594.1	685.8	833.1	1022.9	1108.0	1188.2
20°	225.9	247.1	284.8	350.2	427.2	523.7	641.6	826.5	1072.0	1191.5	1271.7
22.5°	194.8	202.9	224.2	270.1	348.6	461.5	600.7	831.4	1150.6	1304.4	1396.1
25°	173.5	180.0	188.2	216.0	278.2	397.7	564.7	841.3	1234.1	1432.1	1536.8
27.5°	160.4	163.7	168.6	181.7	227.5	345.3	528.6	854.3	1347.0	1561.4	1662.9
30°	147.3	147.3	152.2	165.3	199.7	307.7	502.5	880.5	1458.3	1672.7	1772.5
32.5°	134.2	134.2	142.4	153.8	181.7	276.6	476.3	888.7	1541.7	1770.9	1851.1
35°	122.8	126.0	132.6	145.7	170.2	253.7	451.7	874.0	1602.3	1854.4	1936.2
37.5°	116.2	117.8	126.0	137.5	155.5	232.4	427.2	854.3	1684.1	1965.6	2029.5
40°	108.0	111.3	119.5	130.9	145.7	216.0	399.3	833.1	1756.2	2090.0	2122.8
42.5°	103.1	106.4	112.9	124.4	139.1	196.4	373.2	816.7	1833.1	2196.4	2219.3
45°	98.2	101.5	109.7	119.5	139.1	181.7	347.0	805.2	1908.4	2278.3	2296.3
47.5°	93.3	96.6	104.7	117.8	137.5	173.5	329.0	793.8	1955.8	2348.6	2353.5
50°	90.0	93.3	103.1	121.1	132.6	170.2	320.8	805.2	2036.0	2404.3	2389.5
52.5°	85.1	90.0	101.5	126.0	126.0	166.9	314.2	846.2	2135.9	2486.1	2448.5
55°	83.5	86.7	98.2	121.1	114.6	158.8	314.2	877.3	2268.4	2648.1	2585.9
57.5°	78.6	81.8	94.9	112.9	104.7	145.7	311.0	928.0	2456.6	2826.5	2770.9
60°	73.7	78.6	91.7	101.5	94.9	129.3	296.2	983.6	2585.9	2923.1	2932.9
62.5°	70.4	75.3	91.7	88.4	86.7	112.9	273.3	1018.0	2572.9	2892.0	2985.3
65°	*65.5*	*70.4*	*83.5*	*80.2*	*81.8*	*101.5*	*243.9*	*1001.6*	*2401.0*	*2761.1*	*2924.7*
67.5°	60.6	65.5	72.0	72.0	75.3	98.2	212.8	906.7	2214.4	2602.3	2790.5
70°	55.6	58.9	62.2	65.5	68.7	96.6	188.2	777.4	2000.0	2450.1	2599.0
72.5°	49.1	50.7	54.0	57.3	63.8	91.7	178.4	631.8	1703.8	2121.1	2351.9
75°	42.6	44.2	47.5	50.7	55.6	86.7	163.7	479.5	1404.3	1676.0	1900.2
77.5°	36.0	37.6	40.9	42.6	47.5	76.9	140.8	347.0	1093.3	1207.9	1389.5
80°	27.8	29.5	32.7	32.7	39.3	57.3	109.7	242.2	767.6	856.0	950.9
82.5°	19.6	21.3	22.9	24.6	29.5	39.3	72.0	145.7	520.5	587.6	571.2
85°	11.5	13.1	13.1	16.4	18.0	26.2	40.9	75.3	340.4	268.4	265.1
87.5°	4.9	4.9	4.9	6.5	6.5	9.8	13.1	14.7	32.7	11.5	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: P438625
CATALOG NUMBER: ISW-SA1D-830-U-SLR

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	*1293.0*	1293.0	1293.0
2.5°	1425.5	1437.0	1445.2	1441.9	1437.0	1409.2	1381.4	*1351.9*	1325.7	1325.7
5°	1484.5	1531.9	1551.6	1535.2	1499.2	1441.9	1369.9	*1294.6*	1258.6	1248.8
7.5°	1453.4	1543.4	1590.8	1569.6	1522.1	1417.4	1307.7	*1209.5*	1155.5	1145.7
10°	1391.2	1509.0	1563.0	1556.5	1504.1	1383.0	1250.4	*1139.1*	1081.8	1075.3
12.5°	1319.2	1433.7	1502.5	1505.7	1471.4	1365.0	1225.9	*1093.3*	1042.6	1029.5
15°	1275.0	1374.8	1422.3	1410.8	1420.6	1350.3	1235.7	*1111.3*	1049.1	1037.7
17.5°	1276.6	1319.2	1330.6	1312.6	1350.3	1347.0	1291.3	*1176.8*	1108.0	1096.6
20°	1319.2	1283.2	1247.1	1243.9	1293.0	1358.4	1379.7	*1286.4*	1207.9	1199.7
22.5°	1392.8	1273.3	1198.0	1186.6	1248.8	1369.9	1464.8	*1420.6*	1347.0	1325.7
25°	1474.6	1283.2	1166.9	1152.2	1207.9	1378.1	1556.5	*1558.1*	1476.3	1456.6
27.5°	1563.0	1314.2	1166.9	1150.6	1209.5	1391.2	1617.0	*1682.5*	1607.2	1590.8
30°	1641.6	1358.4	1178.4	1160.4	1229.1	1404.3	1658.0	*1793.8*	1708.7	1685.8
32.5°	1689.0	1396.1	1206.2	1173.5	1263.5	1430.5	1695.6	*1888.7*	1823.3	1792.2
35°	1726.7	1440.3	1252.1	1209.5	1314.2	1473.0	1726.7	*1991.8*	1929.6	1911.6
37.5°	1754.5	1492.6	1299.5	1258.6	1381.4	1530.3	1770.9	*2101.5*	2081.8	2042.6
40°	1800.3	1525.4	1384.6	1369.9	1497.6	1620.3	1823.3	*2196.4*	2209.5	2186.6
42.5°	1841.3	1589.2	1505.7	1522.1	1646.5	1720.1	1893.6	*2266.8*	2337.2	2307.7
45°	1874.0	1677.6	1658.0	1712.0	1818.3	1847.8	1932.9	*2315.9*	2389.5	2369.9
47.5°	1919.8	1793.8	1860.9	1931.3	2019.7	1980.4	1973.8	*2368.3*	2443.6	2423.9
50°	1985.3	1929.6	2063.8	2155.5	2212.8	2088.4	2024.6	*2415.7*	2527.0	2515.6
52.5°	2052.4	2086.8	2270.1	2355.2	2392.8	2222.6	2096.6	*2491.0*	2625.2	2625.2
55°	2176.8	2240.6	2489.4	2543.4	2594.1	2343.7	2193.1	*2603.9*	2777.4	2785.6
57.5°	2358.4	2405.9	2656.3	2718.5	2731.6	2479.6	2345.4	*2761.1*	2906.7	2921.5
60°	2546.7	2569.6	2821.6	2877.3	2833.1	2654.7	2523.8	*2944.4*	2991.8	2983.7
62.5°	2754.5	2728.3	2936.2	2975.5	2964.0	2808.5	2748.0	*3111.3*	3054.0	3022.9
65°	*2919.8*	*2821.6*	*2995.1*	*3003.3*	*3009.8*	*2914.9*	*2977.1*	*3186.6*	*3080.2*	*3011.5*
67.5°	3019.7	2836.4	2875.6	2838.0	2864.2	2887.1	3132.6	*3155.5*	2968.9	2908.4
70°	2996.8	2628.5	2451.7	2409.2	2410.8	2571.2	3032.8	*2960.7*	2715.2	2628.5
72.5°	2785.6	2209.5	1952.6	1895.3	1906.7	1921.5	2549.9	*2584.3*	2194.8	2149.0
75°	2345.4	1702.1	1405.9	1392.8	1376.4	1440.3	2039.3	*1888.7*	1456.6	1468.1
77.5°	1913.3	1253.7	1032.7	965.6	955.8	965.6	1391.2	*1078.6*	846.2	810.2
80°	1379.7	834.7	770.9	756.1	710.3	571.2	728.3	*693.9*	477.9	469.7
82.5°	908.4	576.1	589.2	491.0	461.5	361.7	441.9	*353.5*	239.0	227.5
85°	471.4	299.5	247.1	108.0	121.1	101.5	96.6	*78.6*	8.2	8.2
87.5°	16.4	6.5	4.9	4.9	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

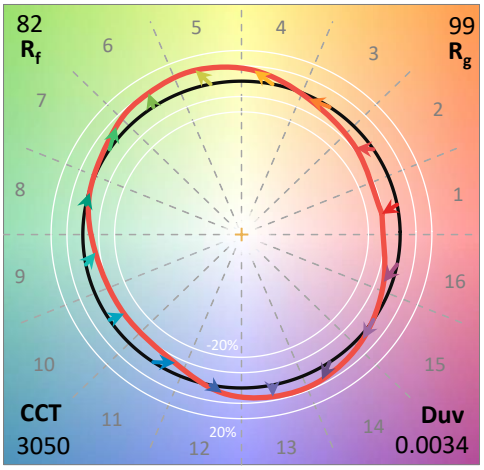
Test Information

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

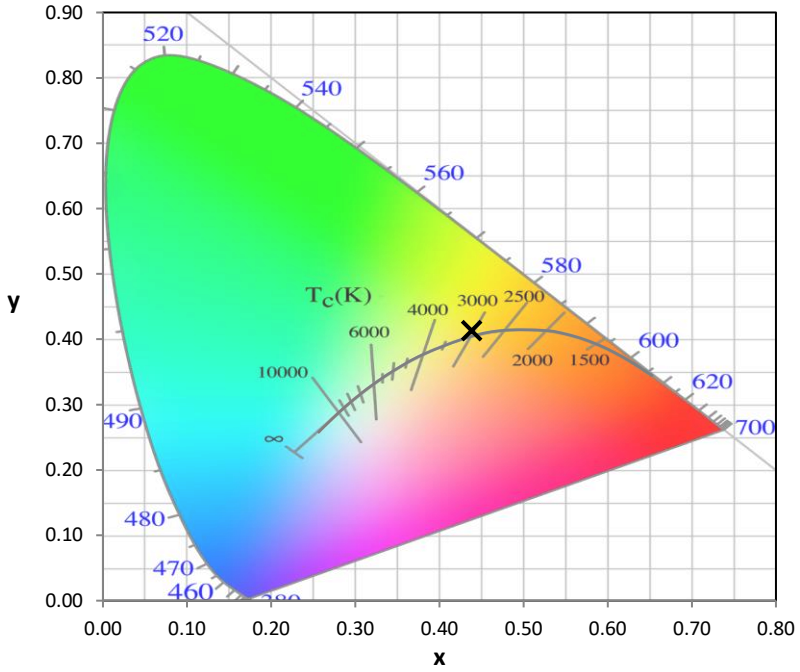
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

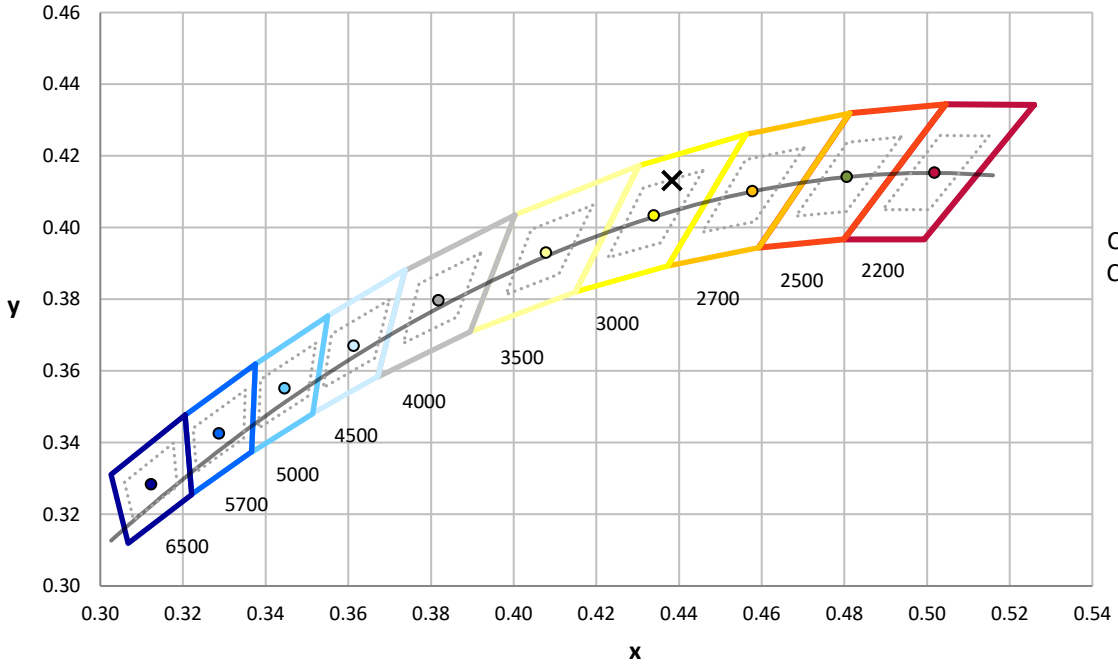
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

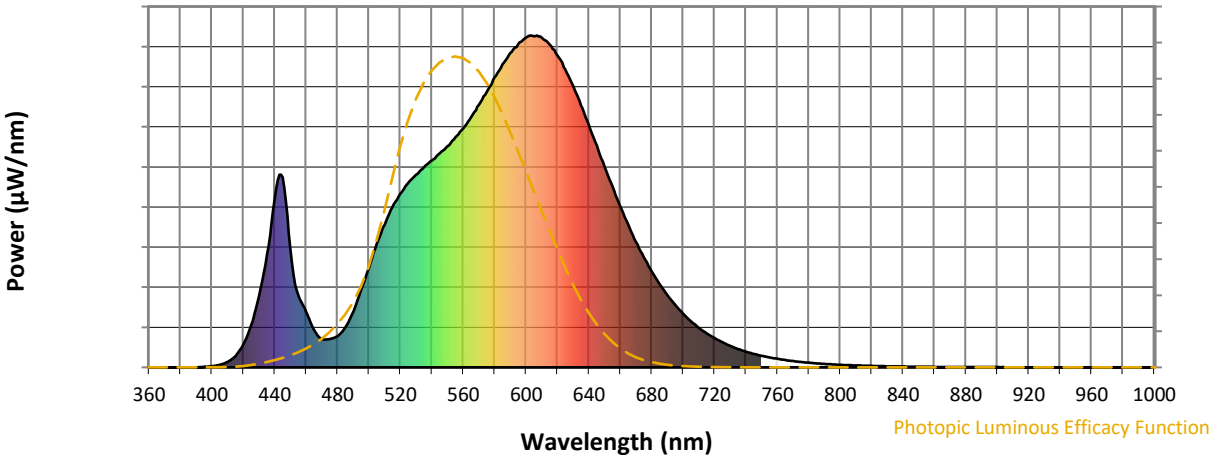


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

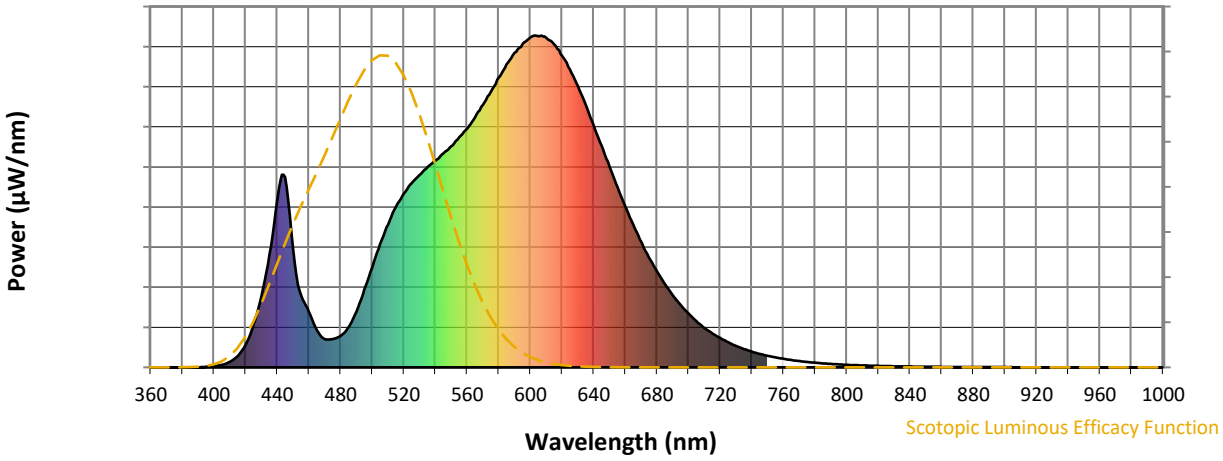


Photopic Lumens: NR

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

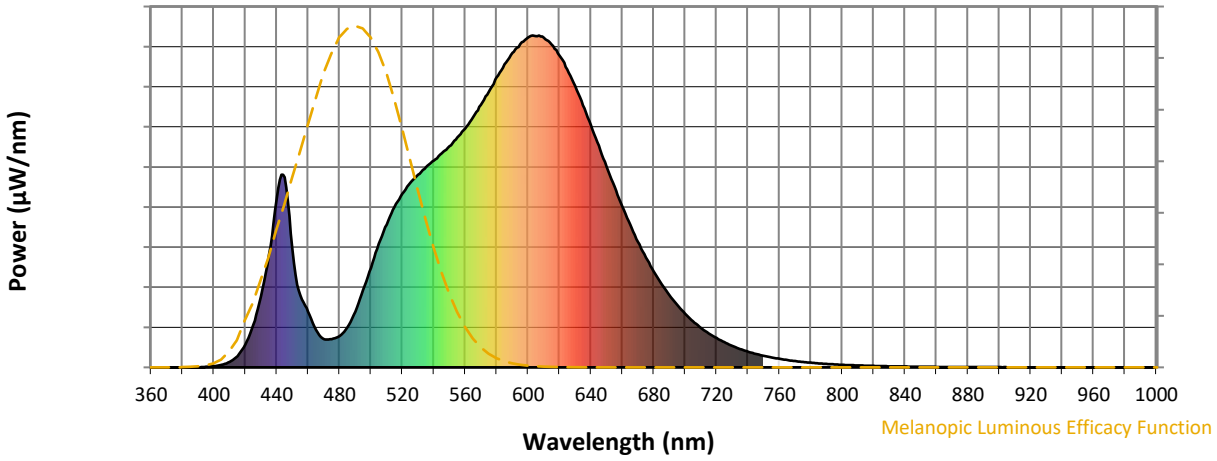


Scotopic Lumens: NR **S/P: 1.27**

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			

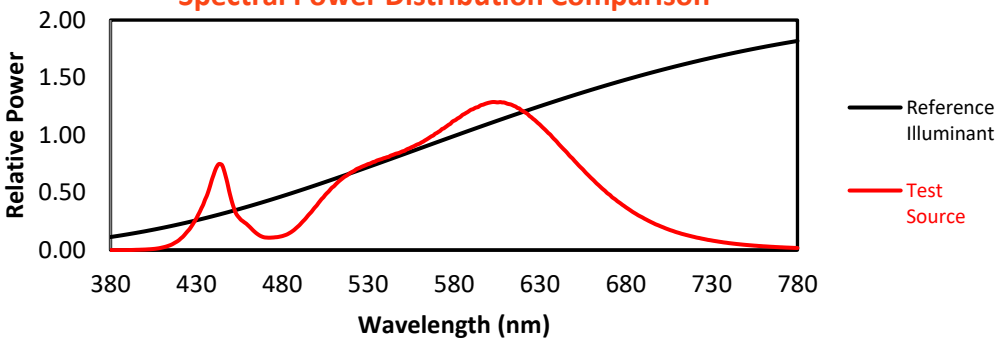
REPORT NUMBER: SP1-2408-195-9

TM-30-18

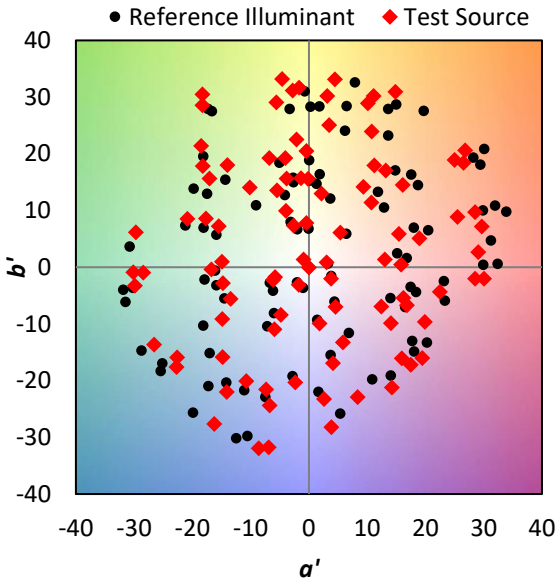
Summary

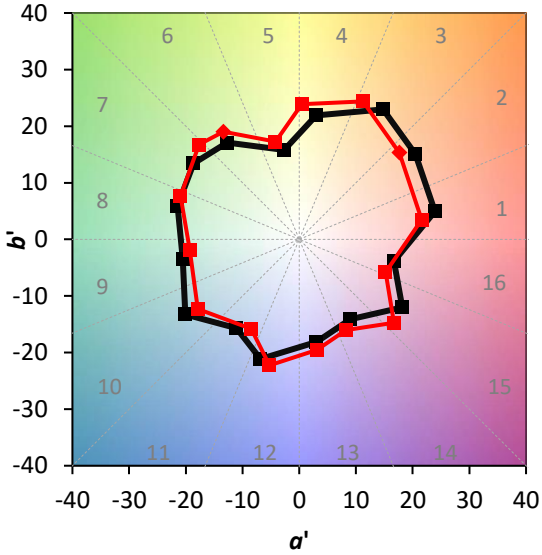
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

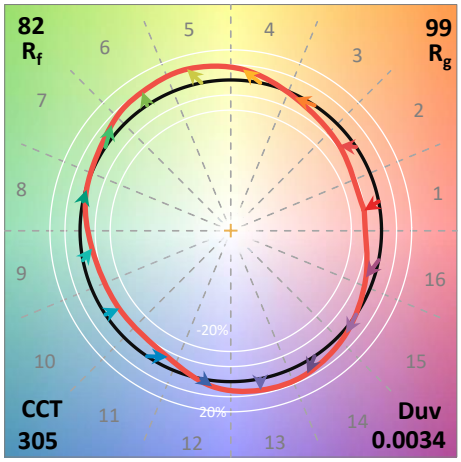
Spectral Power Distribution Comparison

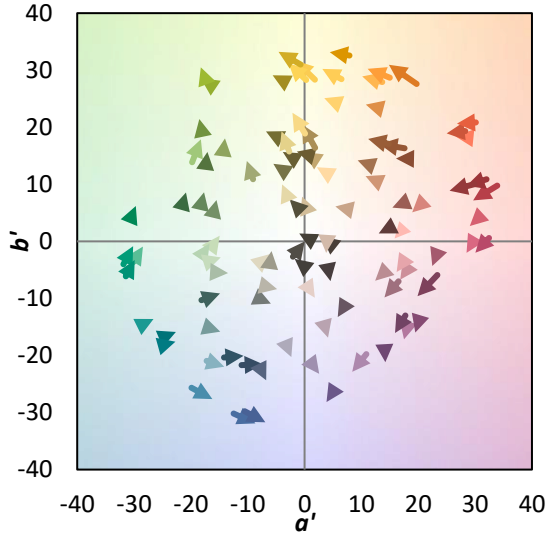


Color Vector Graphics







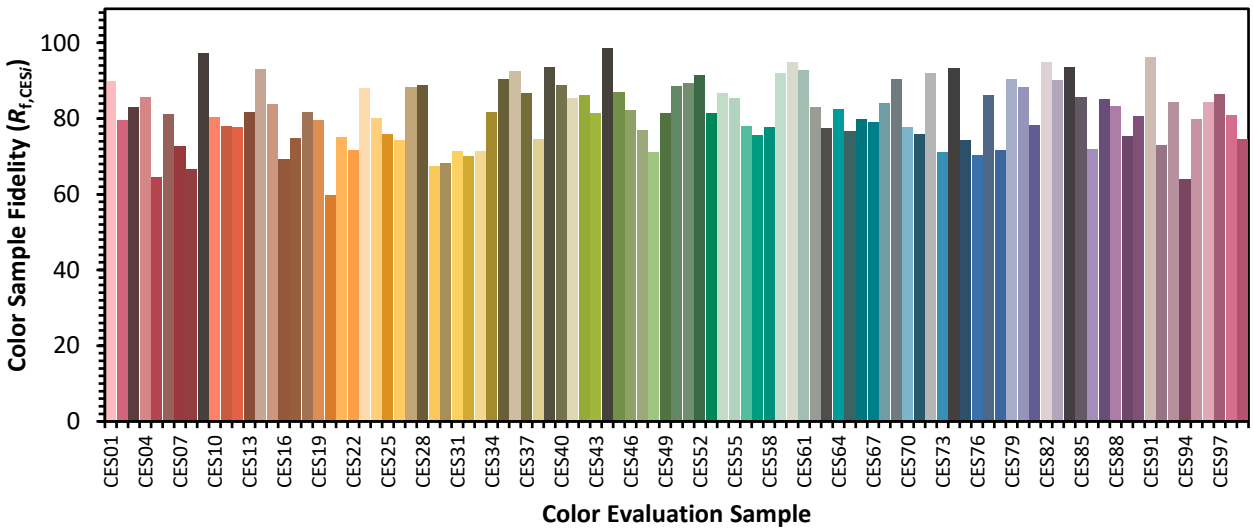


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

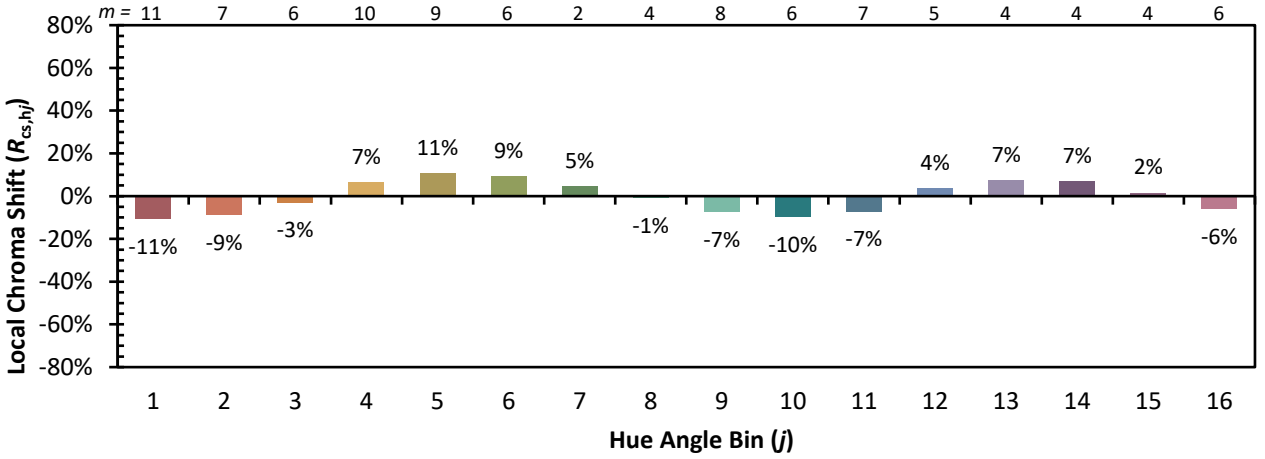
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	

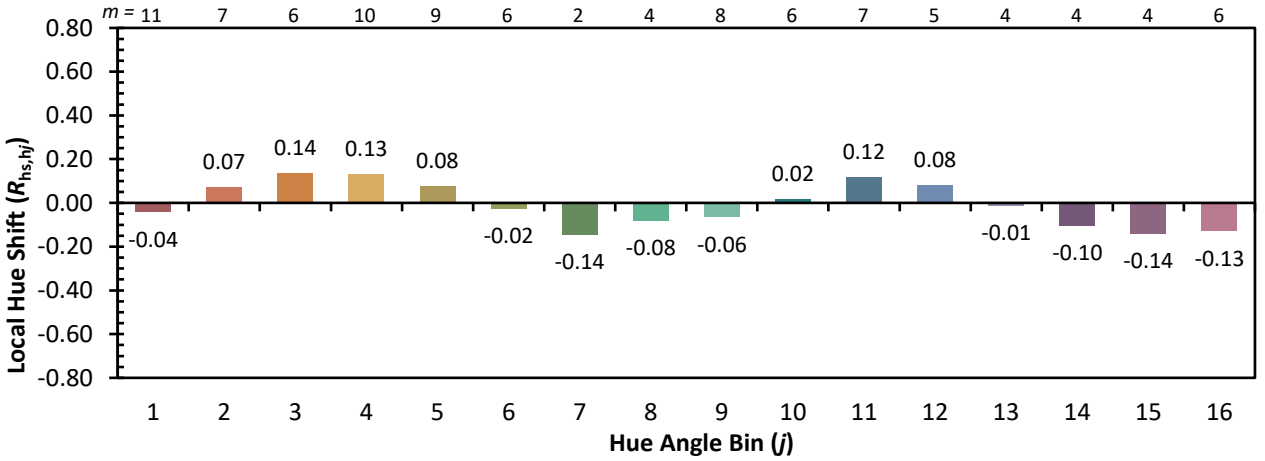


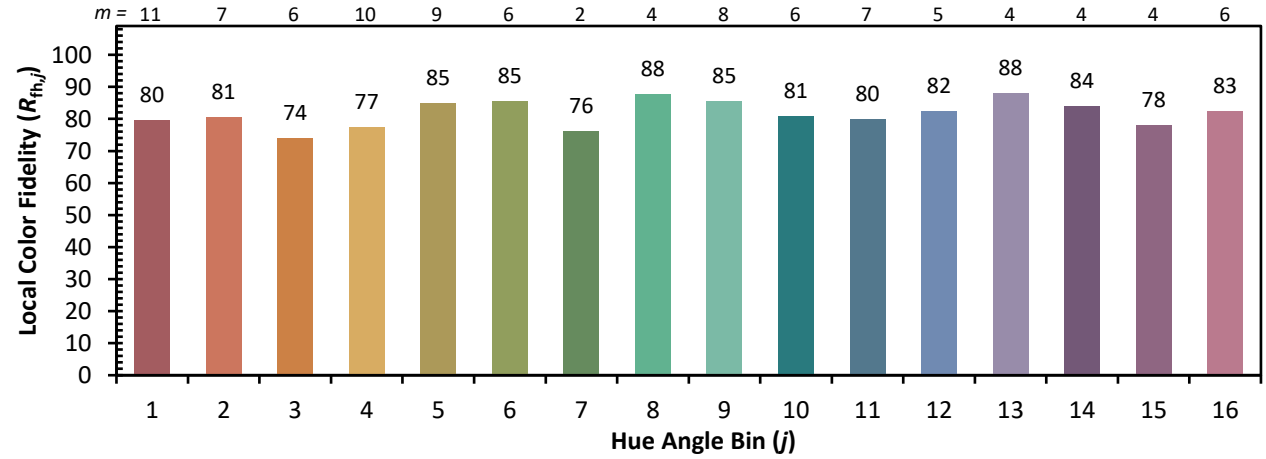
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



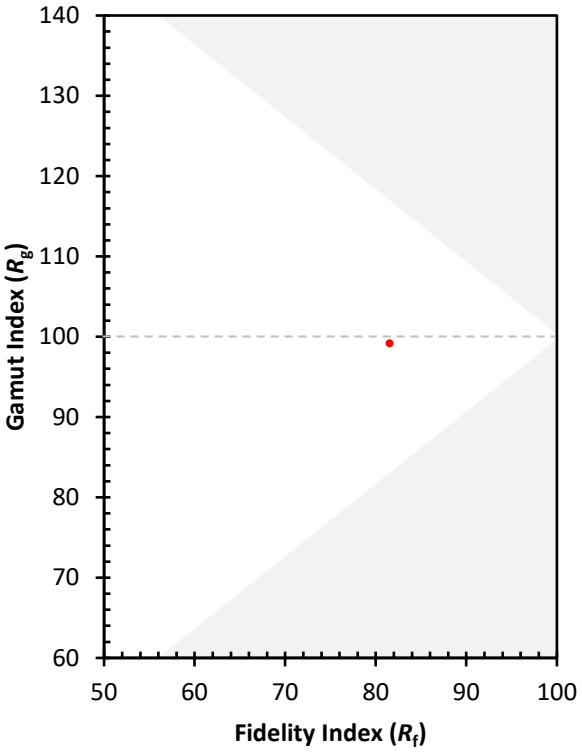


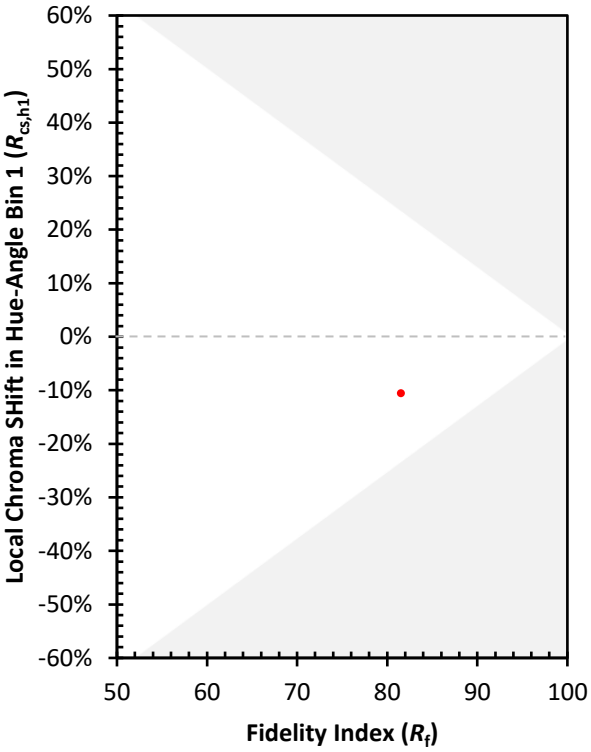


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)