

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P631552

Luminaire Tested: GWS-SA1F-830-U-SLL-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P631552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-37)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1F-830-U-SLL-W
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6272.6 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

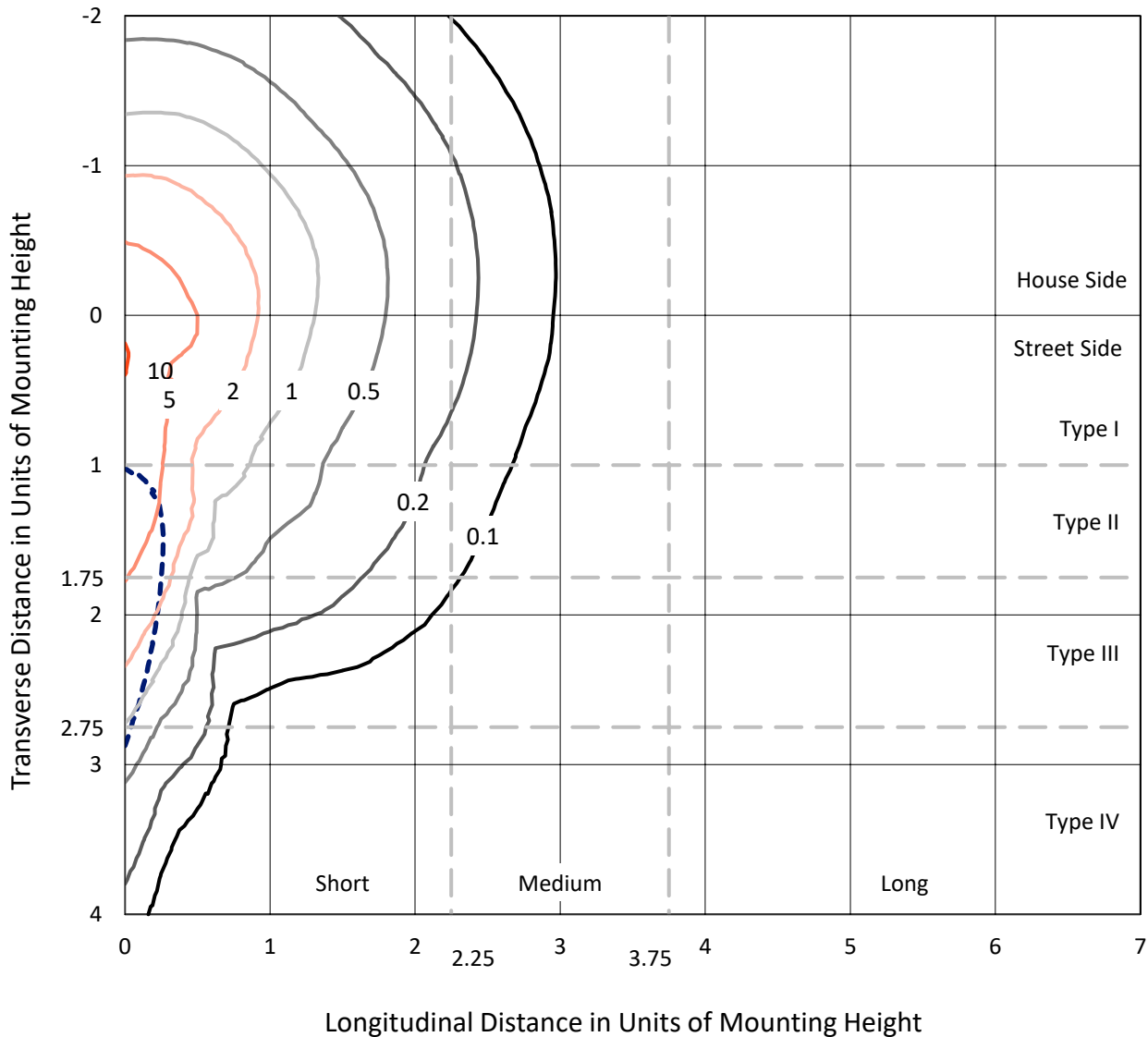
Input Watts (W): 67.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

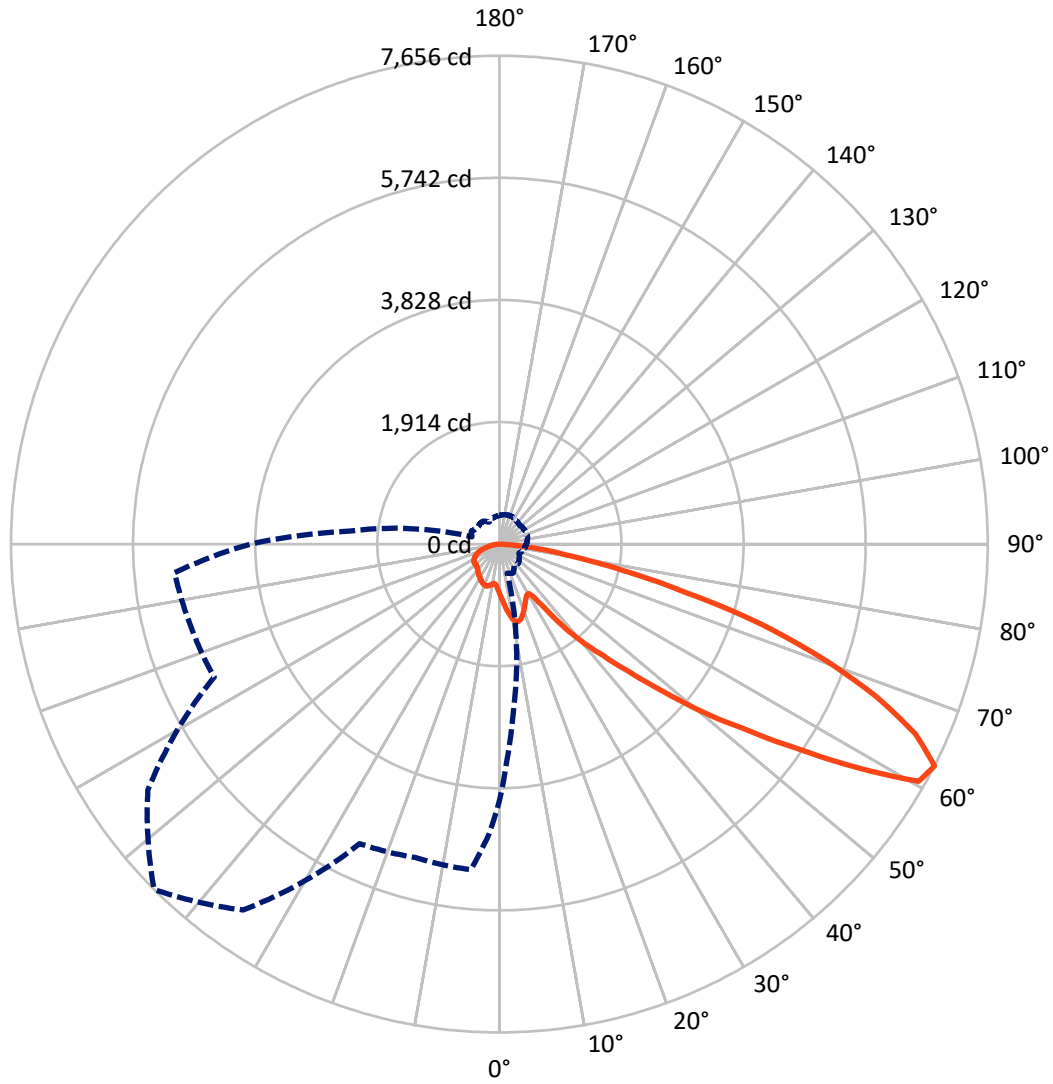
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1499.8	0.0	1499.8
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	4772.8	0.0	4772.8
	% Fixture	76.1	0.0	76.1
Total	Lumens	6272.6	0.0	6272.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	1.2
10°-20°	250.4	4.0
20°-30°	394.2	6.3
30°-40°	540.3	8.6
40°-50°	843.0	13.4
50°-60°	1453.6	23.2
60°-70°	1684.5	26.9
70°-80°	889.1	14.2
80°-90°	140.5	2.2
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°	6272.6	100.0
0°-180°	6272.6	100.0

Coefficient of Utilization



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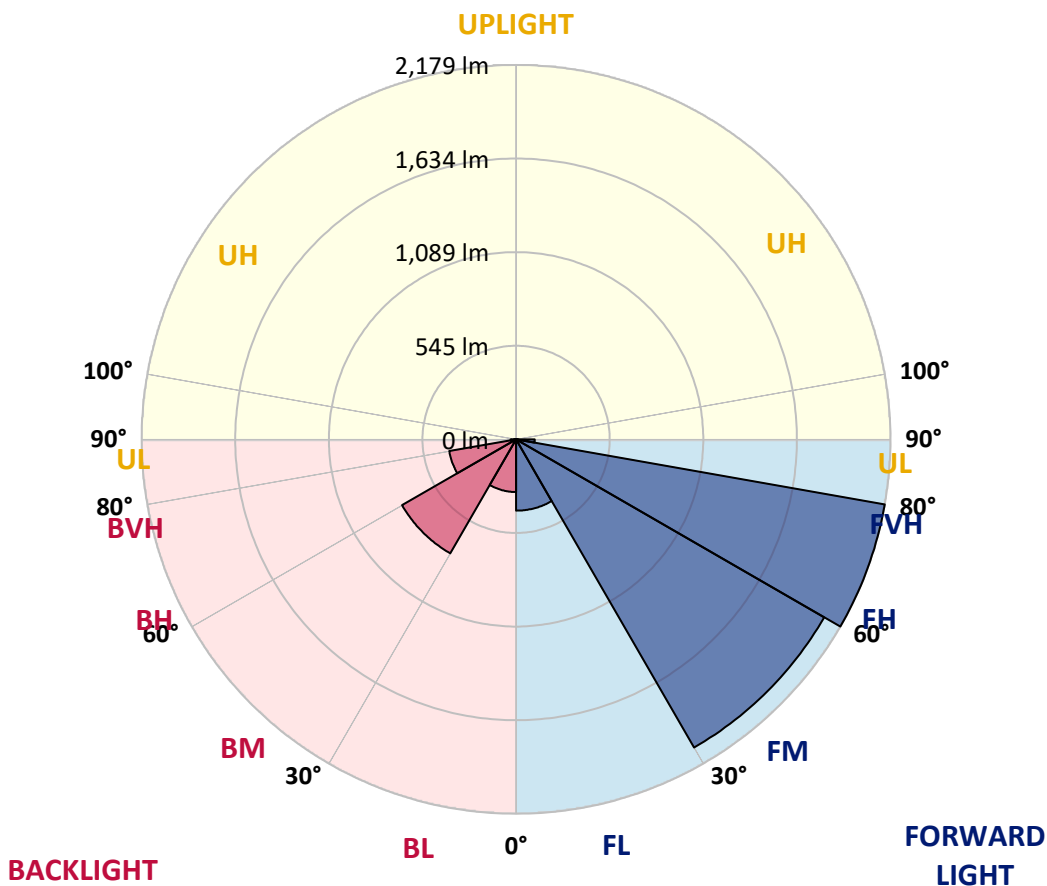
CATALOG NUMBER: GWS-SA1F-830-U-SLL-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.9	6.6			
FM (30°-60°)	2070.8	33.0			
FH (60°-80°)	2178.7	34.7			G2/5000
FVH (80°-90°)	108.4	1.7			G2/225
BL (0°-30°)	306.8	4.9	B1/500		
BM (30°-60°)	766.1	12.2	B1/1000		
BH (60°-80°)	394.9	6.3	B1/500		G1/500
BVH (80°-90°)	32.0	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	849.7	846.4	841.6	825.2	815.2	803.7	791.7	777.7	761.9	750.9	739.8
5°	921.7	916.4	904.9	866.0	839.2	809.9	785.4	757.6	730.2	711.5	692.8
7.5°	990.8	984.1	966.3	906.8	863.1	820.9	784.0	743.7	702.9	675.1	653.0
10°	1059.9	1045.9	1023.4	945.7	888.1	839.2	796.9	747.5	693.3	655.4	631.9
12.5°	1112.6	1099.7	1075.2	981.2	913.0	851.6	804.1	758.6	712.5	672.2	648.2
15°	1162.1	1145.3	1117.4	1014.3	933.7	851.2	789.7	749.9	743.2	733.1	701.9
17.5°	1197.6	1182.2	1153.4	1041.2	945.2	836.3	749.9	726.4	756.6	787.3	757.6
20°	1228.8	1211.0	1181.7	1059.9	947.6	803.2	701.5	701.9	749.4	791.7	784.5
22.5°	1255.1	1235.5	1209.6	1081.0	946.6	757.1	659.2	688.0	735.5	768.6	769.6
25°	1287.8	1271.5	1249.9	1112.2	946.6	710.1	628.5	671.2	712.0	739.8	738.9
27.5°	1327.6	1316.6	1298.8	1159.7	955.3	670.8	611.3	649.6	681.8	705.8	705.3
30°	1372.2	1362.1	1348.7	1210.0	970.1	641.5	601.7	622.8	646.3	665.5	665.5
32.5°	1417.8	1414.0	1399.6	1250.3	958.6	632.4	593.5	595.9	608.4	624.2	622.8
35°	1481.1	1477.3	1459.1	1281.5	908.7	619.4	580.6	568.6	570.0	580.1	583.4
37.5°	1573.7	1568.0	1541.1	1318.0	833.4	586.8	559.4	539.8	535.4	539.8	546.0
40°	1685.5	1676.9	1640.4	1367.4	746.6	542.6	526.3	510.0	502.8	504.3	511.5
42.5°	1825.6	1807.4	1755.1	1419.7	660.7	503.8	489.4	479.3	471.2	470.2	484.1
45°	2053.0	2003.1	1920.1	1466.2	588.2	483.2	456.3	449.1	442.4	446.2	462.5
47.5°	2450.3	2358.2	2196.5	1506.1	544.1	483.6	429.9	422.2	421.7	429.4	447.6
50°	2996.3	2863.4	2613.9	1532.9	521.1	489.4	414.1	401.6	410.7	418.4	435.7
52.5°	3519.3	3316.3	3019.3	1532.5	511.0	490.3	418.4	382.4	410.7	412.6	428.9
55°	3966.0	3598.5	3128.7	1375.1	496.6	486.5	435.2	367.5	405.4	412.6	425.6
57.5°	4321.0	3777.9	3120.6	1110.7	540.2	465.4	445.2	364.2	390.1	413.6	428.5
60°	4281.7	3695.8	2919.5	681.8	535.9	428.0	443.8	370.4	364.2	400.6	425.1
62.5°	4020.2	3401.7	2573.6	473.1	503.3	406.4	420.3	381.4	340.2	381.9	408.8
65°	3654.1	3022.2	2144.7	362.7	416.9	407.3	380.5	373.8	319.1	352.2	381.0
67.5°	3170.0	2551.5	1693.2	287.4	290.8	352.6	345.5	332.0	299.4	325.8	351.7
70°	2383.1	1862.1	1164.9	231.3	220.2	294.6	310.4	298.4	280.2	287.9	315.2
72.5°	1679.3	1215.8	638.1	183.3	169.8	226.5	269.6	267.7	247.6	253.3	280.2
75°	1247.9	860.3	398.7	144.9	138.2	162.2	226.0	231.7	214.9	221.7	242.3
77.5°	830.5	557.0	221.7	107.5	107.5	118.5	168.4	195.3	182.8	188.1	202.5
80°	458.2	283.6	110.8	70.5	72.4	81.6	122.8	140.6	141.1	154.0	157.9
82.5°	144.9	90.2	49.4	41.3	38.9	46.5	79.2	100.8	94.0	119.9	110.4
85°	33.1	21.1	9.1	9.1	10.1	15.4	30.2	53.7	68.6	82.5	60.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	21.1	31.2	27.8
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°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	733.1	723.5	720.6	712.5	711.5	703.9	701.0	701.0	704.3	704.3	707.7
5°	685.1	673.2	666.4	656.8	654.4	648.7	644.8	645.3	649.6	652.5	658.3
7.5°	642.9	634.8	630.0	625.7	624.7	623.7	619.4	618.9	620.4	624.7	629.0
10°	625.2	619.4	620.9	624.2	629.5	632.4	628.5	626.6	625.2	628.0	631.9
12.5°	642.4	636.7	639.6	645.3	652.5	655.4	654.0	653.5	654.9	666.0	674.1
15°	680.3	669.3	665.5	667.9	673.6	676.5	675.1	677.0	686.1	714.9	735.5
17.5°	727.4	700.5	685.1	680.8	683.2	685.6	685.6	690.4	706.3	748.5	774.4
20°	752.8	717.8	691.9	681.3	682.3	684.7	684.7	691.4	709.1	754.2	771.0
22.5°	746.1	713.9	682.3	670.8	671.2	673.2	673.2	678.9	694.7	734.6	742.2
25°	719.7	691.4	660.2	650.1	651.1	654.4	653.5	656.8	668.8	701.5	705.8
27.5°	688.0	663.1	632.4	624.7	629.0	635.7	630.0	630.4	641.5	668.8	669.3
30°	654.0	633.3	606.0	600.2	608.4	611.7	606.5	606.5	617.5	636.2	635.7
32.5°	617.0	604.1	584.4	578.2	587.3	592.5	585.8	586.8	595.4	607.9	603.1
35°	582.5	575.8	566.6	562.3	568.1	572.9	568.6	570.5	578.6	582.0	575.3
37.5°	549.4	548.4	549.4	549.4	550.8	552.2	549.4	554.2	561.4	557.0	549.4
40°	520.6	524.4	533.5	531.1	529.7	531.1	529.2	537.4	544.6	536.9	527.8
42.5°	496.6	503.8	517.7	517.7	514.8	515.8	514.8	524.9	530.2	519.6	509.5
45°	476.0	486.5	504.3	506.7	501.9	501.9	503.8	516.3	518.2	503.8	493.2
47.5°	461.6	474.5	494.7	499.0	491.8	491.3	496.6	510.0	510.0	493.2	481.2
50°	451.5	465.9	489.9	495.6	488.4	486.5	495.1	508.1	505.2	485.1	473.1
52.5°	444.8	459.6	489.4	497.5	492.7	490.8	499.5	508.6	501.4	479.8	467.3
55°	440.5	456.8	490.8	497.5	492.3	488.9	497.5	505.7	501.9	476.9	464.9
57.5°	442.8	459.2	488.9	492.3	486.0	480.3	490.3	501.9	500.4	477.9	465.9
60°	439.0	453.9	478.4	479.3	468.8	459.6	474.5	491.8	491.8	474.5	464.0
62.5°	421.3	436.1	457.7	458.7	446.7	436.6	453.9	474.5	474.0	460.1	449.1
65°	392.0	405.9	430.4	432.8	420.8	410.2	428.0	447.2	448.6	436.1	426.5
67.5°	359.8	372.3	390.6	400.1	390.1	379.0	395.3	413.6	413.1	398.2	388.2
70°	321.5	333.0	349.8	357.9	351.7	341.1	356.0	365.6	361.3	354.1	347.4
72.5°	283.6	294.6	310.4	310.4	303.7	293.6	298.0	315.2	320.5	315.2	310.9
75°	243.7	253.3	264.4	266.8	251.9	233.7	253.8	268.7	274.9	272.5	267.2
77.5°	203.0	210.1	226.5	222.1	194.3	184.7	201.0	223.1	227.4	226.0	218.8
80°	156.4	160.7	178.0	169.4	147.8	141.5	148.7	166.0	167.0	162.2	153.1
82.5°	105.1	110.8	122.3	105.6	105.1	99.3	93.6	95.5	104.1	103.2	96.9
85°	53.7	56.6	67.7	63.3	54.2	47.0	44.6	47.5	42.7	38.9	33.6
87.5°	22.6	24.5	33.6	18.7	5.8	0.0	0.0	2.9	4.3	6.2	6.7
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°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	715.4	720.6	733.6	749.9	765.8	782.1	799.8	810.9	824.3	841.6	842.0
5°	665.5	677.5	696.2	721.1	747.0	776.8	811.3	840.1	874.7	902.0	913.0
7.5°	634.8	652.0	675.5	707.2	741.3	778.2	823.3	871.8	928.4	964.9	986.5
10°	637.6	664.0	687.5	714.4	745.1	784.9	843.0	907.3	976.9	1024.8	1051.7
12.5°	689.0	716.8	712.5	711.1	731.7	780.1	858.8	943.3	1028.2	1076.2	1108.3
15°	753.8	764.3	723.5	692.8	705.3	762.9	867.5	975.4	1070.9	1129.4	1161.1
17.5°	786.9	765.8	716.3	670.3	666.9	736.5	871.8	1008.0	1118.9	1177.4	1211.0
20°	771.5	740.8	699.1	655.4	631.4	700.5	869.4	1034.0	1162.5	1227.8	1255.1
22.5°	738.4	711.5	678.9	637.2	602.6	661.2	863.1	1059.9	1201.4	1267.1	1291.1
25°	702.4	682.3	655.4	618.9	586.3	626.6	858.8	1094.4	1246.0	1308.9	1324.2
27.5°	666.4	651.6	629.5	601.2	582.5	602.6	860.3	1139.5	1303.6	1363.1	1356.9
30°	630.9	618.0	602.6	590.1	582.0	596.9	856.4	1187.5	1366.9	1422.1	1385.2
32.5°	597.3	585.3	575.8	577.7	582.5	599.3	836.8	1231.2	1425.0	1472.0	1415.9
35°	568.6	556.1	556.1	562.8	580.6	591.1	785.9	1265.2	1489.3	1536.3	1459.5
37.5°	541.7	530.7	537.8	548.9	565.7	569.0	720.6	1298.3	1582.8	1627.0	1527.2
40°	518.2	507.1	520.1	534.0	542.6	541.2	654.4	1344.4	1693.2	1738.8	1616.9
42.5°	499.5	489.4	500.9	518.7	520.1	521.5	606.0	1388.5	1821.3	1879.4	1771.4
45°	484.1	476.9	482.7	500.4	500.4	522.5	575.8	1425.5	2014.2	2116.8	2055.0
47.5°	472.1	467.8	470.7	476.4	486.0	539.8	556.6	1453.8	2365.4	2566.9	2504.5
50°	465.4	461.1	464.9	452.9	481.7	548.4	550.3	1475.4	2828.4	3144.1	3066.8
52.5°	459.6	458.2	460.6	432.8	491.3	542.6	545.5	1446.6	3138.8	3712.2	3788.4
55°	457.7	458.7	447.2	417.9	502.8	523.5	531.1	1240.7	3223.3	4202.0	4675.6
57.5°	458.7	455.8	426.5	419.3	503.3	485.1	551.8	885.2	3100.4	4415.1	5543.5
60°	455.3	440.9	401.6	432.3	481.2	440.0	536.9	577.2	2776.6	4251.4	5593.9
62.5°	440.5	419.3	380.0	439.5	441.9	413.1	487.5	444.8	2344.8	3901.2	5108.4
65°	418.9	390.6	361.8	424.6	402.1	400.6	366.6	356.5	1885.6	3484.3	4647.8
67.5°	383.4	355.0	348.3	390.6	361.8	355.0	294.6	295.6	1504.6	3040.0	4184.8
70°	343.1	314.7	320.0	353.1	321.9	295.1	238.5	246.1	1141.4	2532.8	3560.5
72.5°	316.7	278.8	279.2	310.9	283.1	238.9	196.2	203.0	724.5	1909.1	2830.8
75°	267.2	245.7	235.1	251.9	240.4	186.2	165.0	163.6	429.4	1368.4	2119.7
77.5°	223.1	206.3	201.0	207.8	179.4	137.7	132.9	130.5	243.3	876.6	1389.0
80°	161.7	157.4	156.9	160.3	138.2	101.2	101.2	101.7	131.0	476.0	783.0
82.5°	102.7	112.3	99.3	110.4	94.0	72.0	67.2	76.3	75.3	203.0	330.1
85°	42.7	58.5	54.7	58.1	44.6	39.3	42.2	45.6	43.7	78.2	128.6
87.5°	8.2	9.6	10.6	10.1	10.1	12.5	13.9	16.8	16.8	22.6	38.9
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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CATALOG NUMBER: GWS-SA1F-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1	782.1
2.5°	860.3	874.2	871.3	877.5	869.4	872.3	856.0	851.6	848.8	849.7
5°	948.6	976.9	982.1	992.7	985.5	985.5	956.7	935.1	927.4	921.7
7.5°	1038.3	1079.1	1105.9	1108.8	1105.0	1097.3	1055.5	1016.7	1002.8	990.8
10°	1117.9	1166.9	1197.1	1211.5	1204.3	1192.3	1140.5	1087.2	1070.4	1059.9
12.5°	1178.9	1222.0	1242.2	1251.8	1250.8	1246.5	1204.3	1146.7	1129.0	1112.6
15°	1218.2	1239.8	1232.1	1231.6	1238.3	1255.6	1242.7	1197.6	1176.9	1162.1
17.5°	1243.6	1223.0	1188.9	1173.1	1187.5	1228.3	1258.0	1232.6	1213.9	1197.6
20°	1252.7	1179.3	1129.9	1100.6	1117.4	1176.5	1249.9	1258.0	1242.2	1228.8
22.5°	1242.2	1126.1	1058.9	1024.4	1040.7	1111.2	1225.9	1278.6	1268.1	1255.1
25°	1216.3	1070.4	989.8	958.6	976.4	1048.3	1183.2	1297.8	1298.3	1287.8
27.5°	1184.1	1019.1	941.4	912.1	929.4	996.5	1141.4	1314.6	1331.4	1327.6
30°	1151.5	988.4	918.3	897.7	910.6	970.1	1098.7	1331.9	1365.5	1372.2
32.5°	1136.6	1003.2	972.5	981.7	964.9	985.5	1083.4	1356.4	1406.8	1417.8
35°	1156.3	1135.2	1212.9	1248.9	1189.4	1111.2	1103.0	1393.3	1464.8	1481.1
37.5°	1251.8	1417.8	1533.9	1660.6	1557.4	1385.2	1200.4	1456.2	1547.8	1573.7
40°	1459.5	1664.4	1874.1	2037.7	1881.7	1650.0	1385.6	1549.7	1662.0	1685.5
42.5°	1655.3	1895.7	2184.5	2396.1	2193.6	1866.4	1585.2	1707.1	1812.7	1825.6
45°	1847.2	2122.6	2560.2	2854.3	2579.4	2072.2	1789.1	1972.9	2052.6	2053.0
47.5°	2072.2	2378.3	3031.3	3450.2	3091.3	2300.1	1980.6	2393.7	2504.5	2450.3
50°	2341.4	2632.6	3516.4	4143.5	3715.5	2580.3	2223.8	2906.6	3057.7	2996.3
52.5°	2701.7	2912.8	4050.9	4819.5	4395.9	2899.4	2576.5	3584.1	3634.0	3519.3
55°	3208.9	3317.3	4737.0	5654.4	5155.4	3292.3	3092.3	4434.3	4294.6	3966.0
57.5°	4363.7	3957.3	5617.9	6606.8	6014.7	4006.3	4222.7	5371.8	4875.2	4321.0
60°	5330.0	4734.6	6433.1	7551.9	6751.2	4793.1	5284.0	5534.9	4853.6	4281.7
62.5°	5004.2	4932.8	6727.2	7656.1	7002.6	5180.3	5086.8	5123.7	4536.9	4020.2
65°	4390.6	4550.4	6464.7	7162.4	6723.8	4833.4	4601.2	4743.7	4174.7	3654.1
67.5°	4028.3	4145.9	5997.9	6372.1	6217.2	4458.2	4223.6	4120.5	3612.4	3170.0
70°	3657.9	3755.3	5342.5	5380.4	5426.9	3834.5	3453.6	3146.5	2692.6	2383.1
72.5°	3160.9	3166.2	4513.9	4294.2	4382.4	3000.6	2779.9	2352.4	1960.0	1679.3
75°	2651.8	2506.9	3573.0	3001.6	3178.6	2334.2	2308.3	1772.8	1478.2	1247.9
77.5°	2021.8	1852.5	2610.1	1973.9	2232.5	1554.5	1735.4	1202.4	1040.2	830.5
80°	1357.3	1251.8	1442.3	1114.1	1460.5	1071.4	1131.8	681.3	590.6	458.2
82.5°	715.9	611.3	891.5	660.7	880.9	588.7	424.6	210.6	179.4	144.9
85°	277.3	321.0	437.1	235.1	341.6	210.1	122.8	52.3	43.7	33.1
87.5°	53.7	83.0	45.6	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

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.

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
 CIE u': 0.2476
 CIE v': 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 Rf: 81.5
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



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

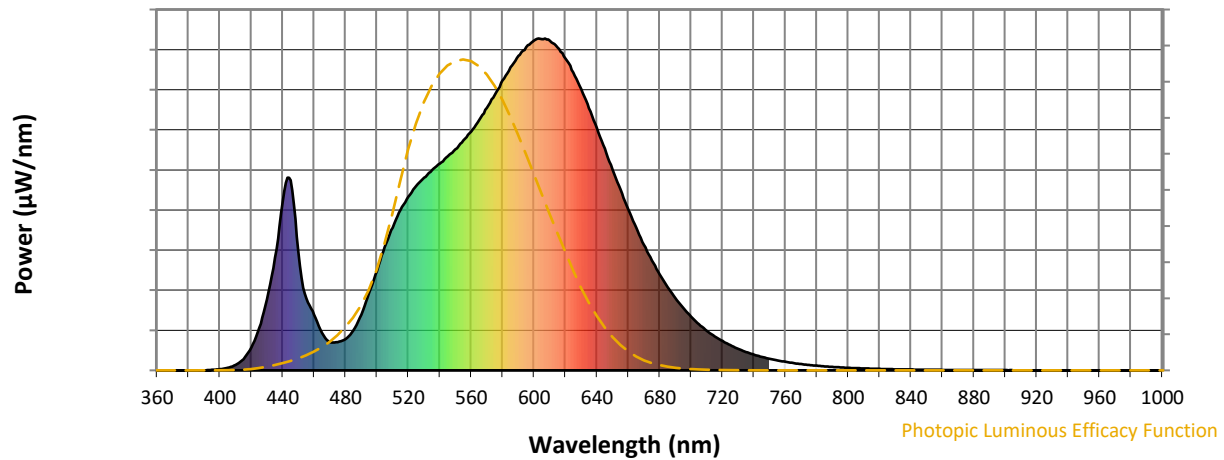


CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

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

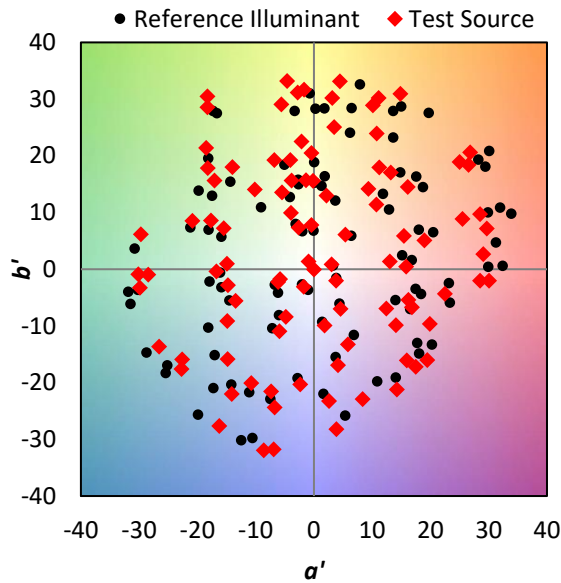
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

Summary

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



Color Vector Graphics

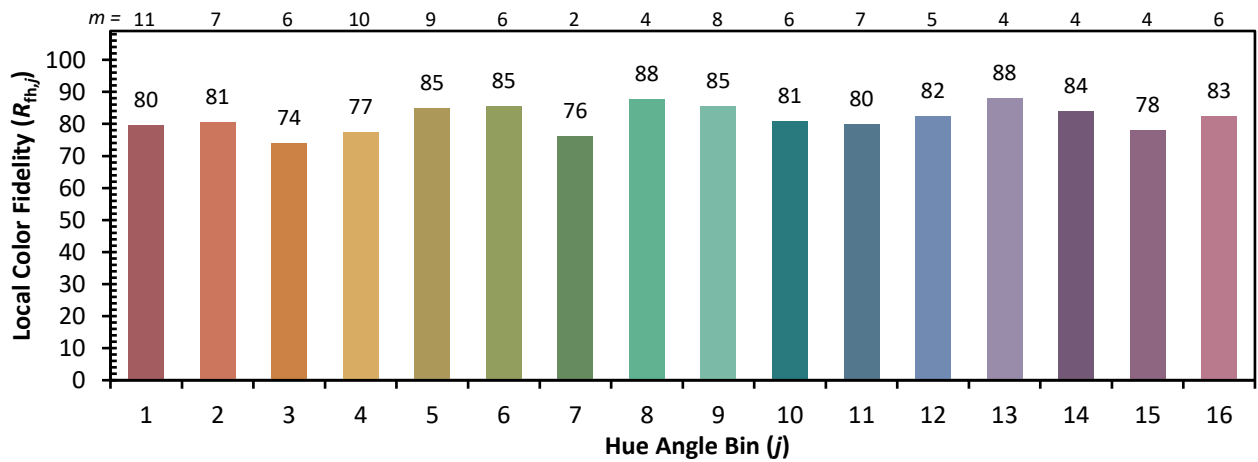
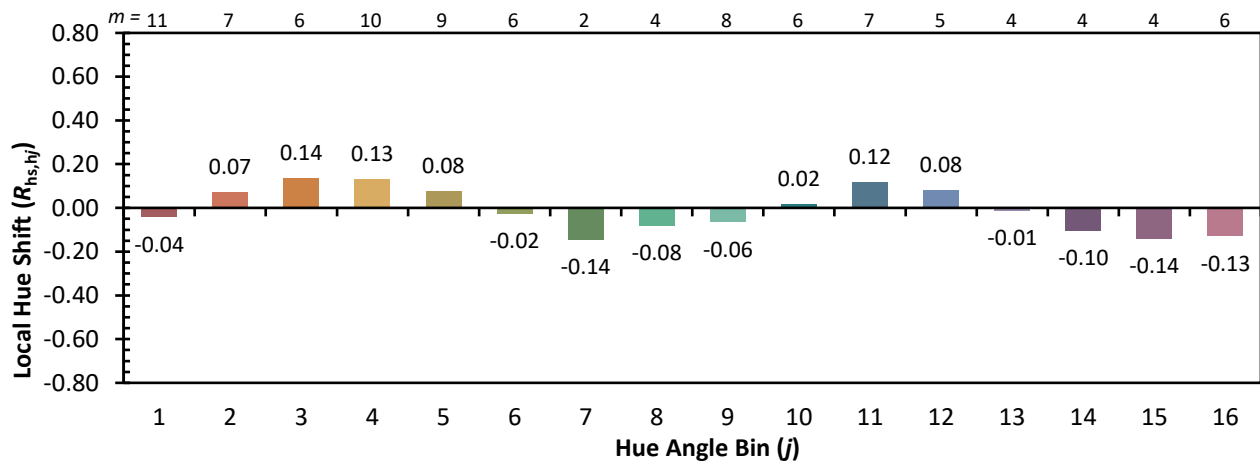
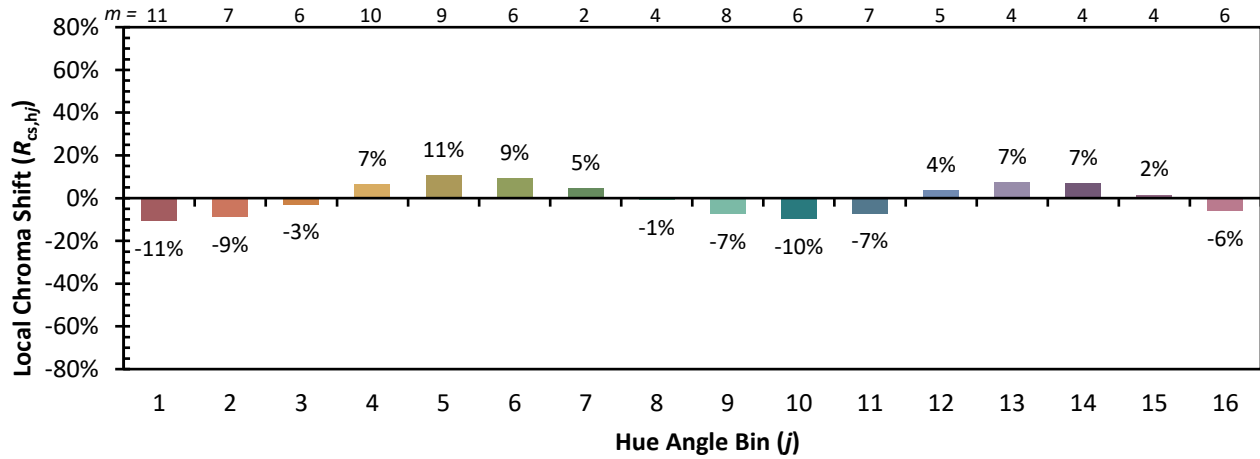


Individual Sample Fidelity Index ($R_{f,i}$)

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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)