

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: P636011

Luminaire Tested: GWS-SA3E-830-U-SLR-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3E-830-U-SLR-W
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16541.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

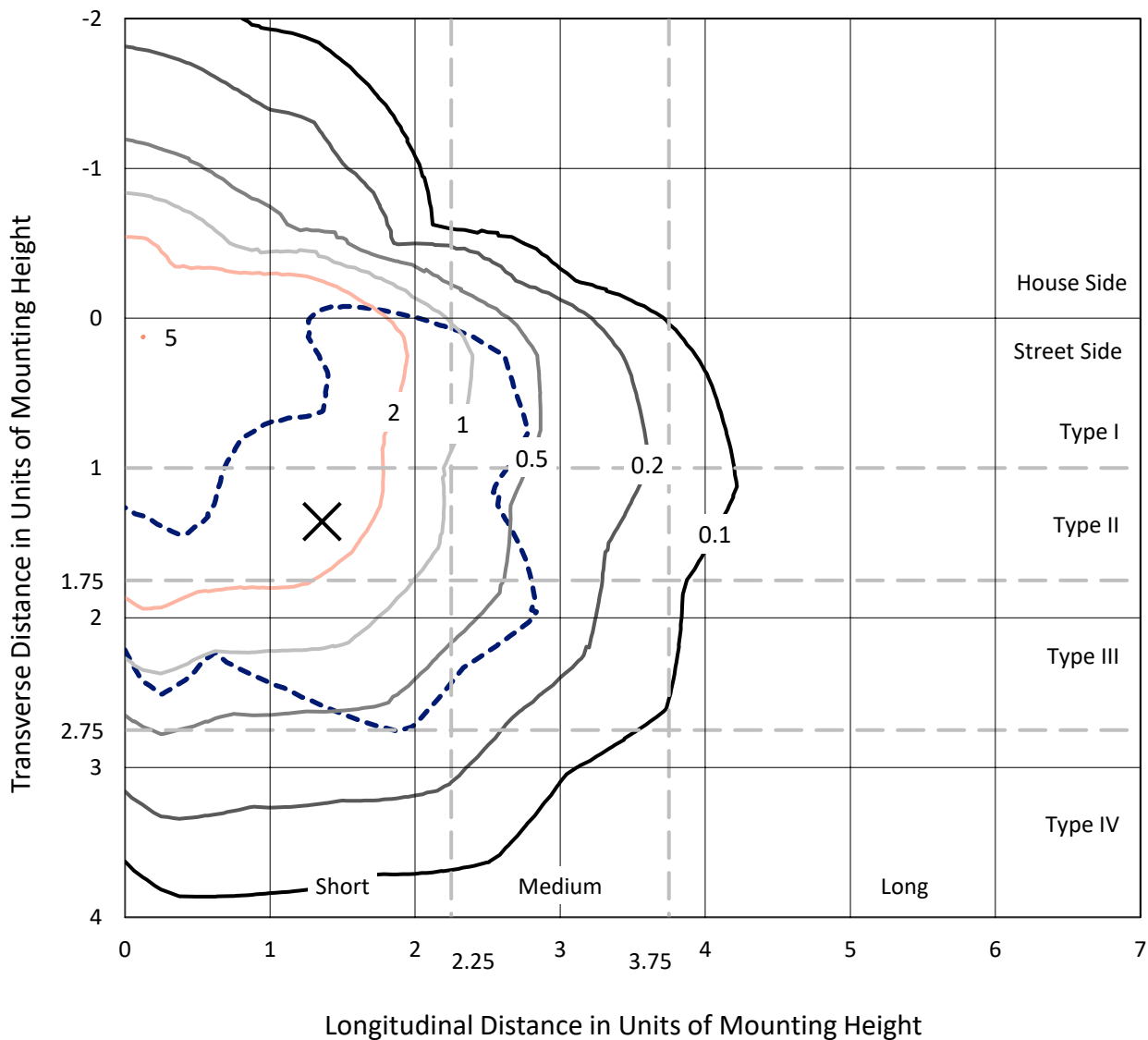
Input Watts (W): 159.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

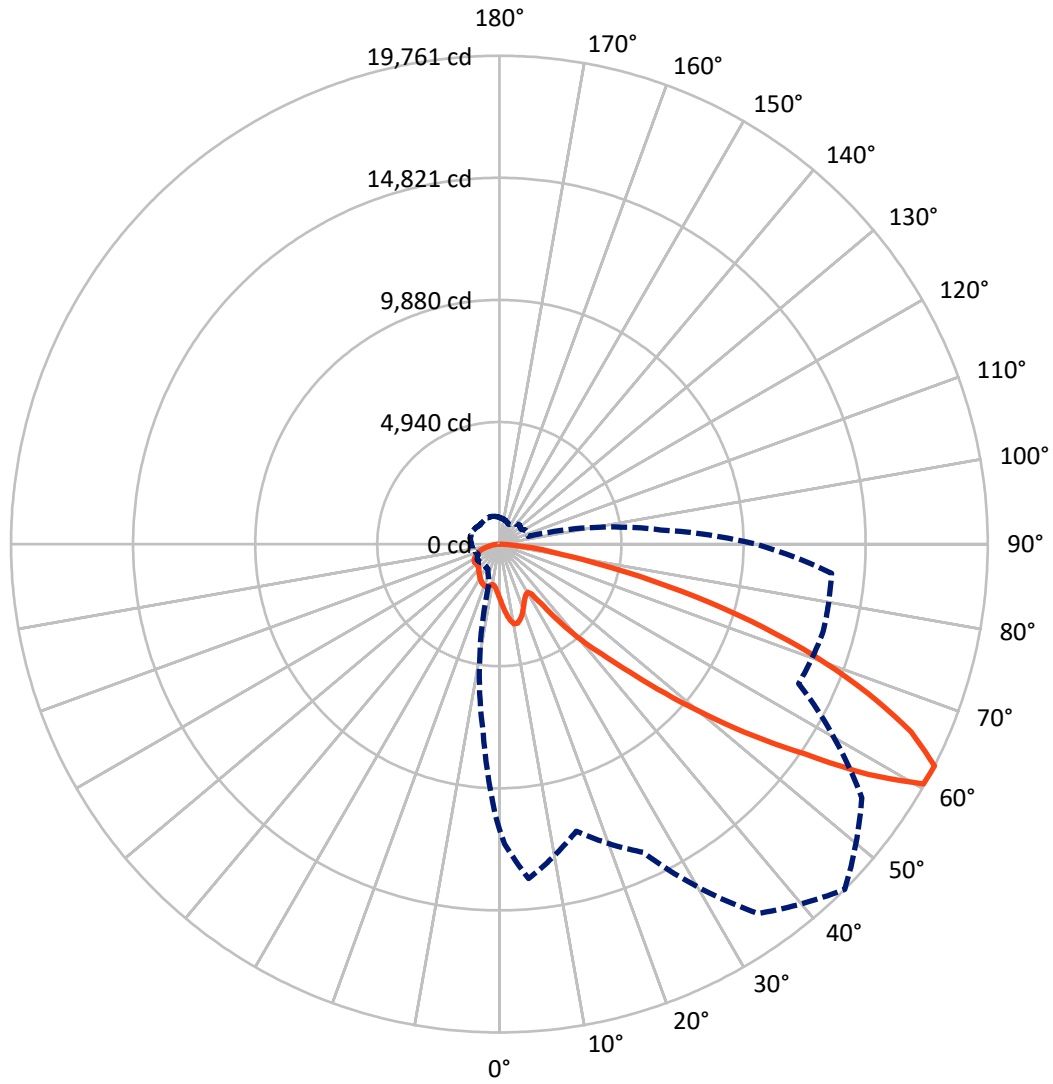
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3947.0	0.0	3947.0
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	12594.2	0.0	12594.2
	% Fixture	76.1	0.0	76.1
Total	Lumens	16541.2	0.0	16541.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.4	1.3
10°-20°	672.1	4.1
20°-30°	1044.0	6.3
30°-40°	1417.4	8.6
40°-50°	2246.5	13.6
50°-60°	3962.8	24.0
60°-70°	4409.2	26.7
70°-80°	2236.2	13.5
80°-90°	338.6	2.0
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°	16541.2	100.0
0°-180°	16541.2	100.0

Coefficient of Utilization



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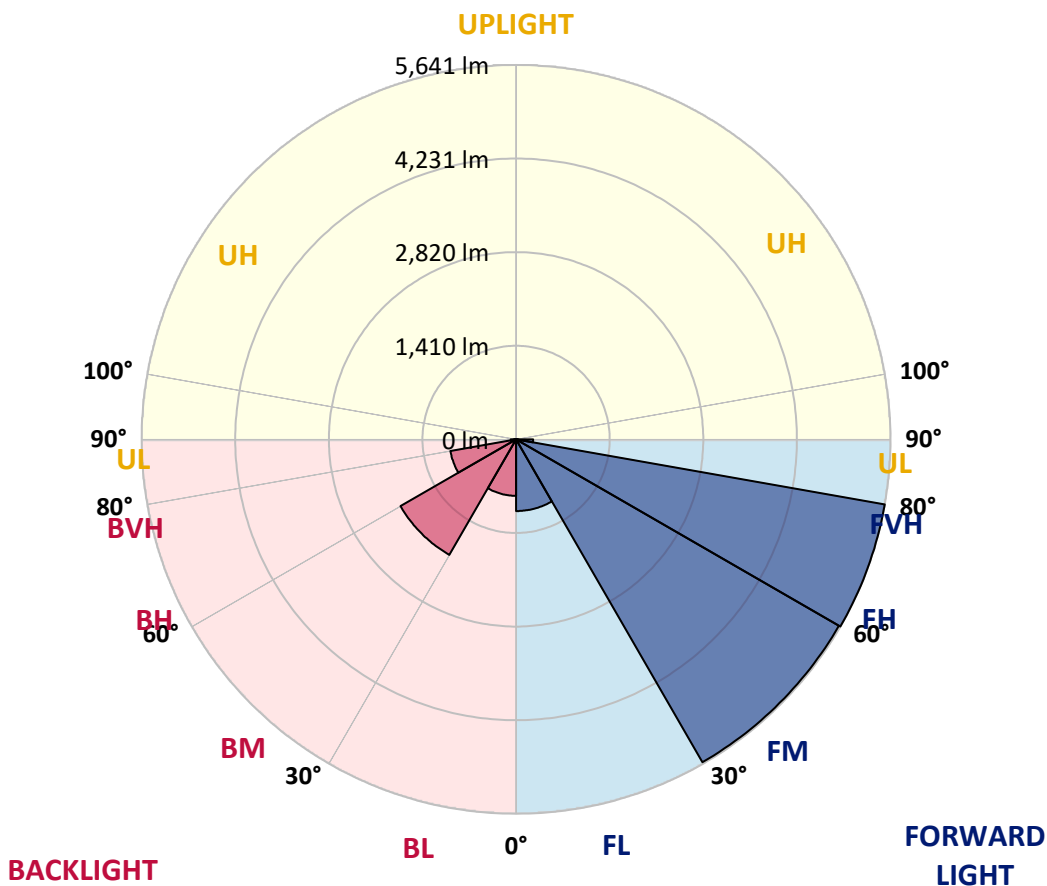
CATALOG NUMBER: GWS-SA3E-830-U-SLR-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1080.0	6.5			
FM (30°-60°)	5616.5	34.0			
FH (60°-80°)	5640.7	34.1			G3/7500
FVH (80°-90°)	257.0	1.6			G3/500
BL (0°-30°)	850.5	5.1	B2/1000		
BM (30°-60°)	2010.2	12.2	B2/2500		
BH (60°-80°)	1004.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	81.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4
2.5°	2359.4	2358.2	2382.0	2418.3	2452.1	2467.1	2492.2	2489.7	2469.6	2443.3	2434.6
5°	2544.8	2549.8	2591.1	2671.2	2760.2	2797.7	2814.0	2807.8	2771.4	2725.1	2643.7
7.5°	2712.6	2721.3	2785.2	2905.4	3015.6	3065.7	3105.8	3098.3	3045.7	2959.3	2839.1
10°	2835.3	2845.3	2921.7	3063.2	3186.0	3229.8	3281.1	3283.6	3237.3	3120.8	2998.1
12.5°	2958.0	2968.0	3039.4	3168.4	3248.6	3249.8	3279.9	3296.2	3298.7	3244.8	3122.1
15°	3085.8	3094.5	3159.7	3232.3	3228.5	3158.4	3158.4	3189.7	3258.6	3297.4	3212.3
17.5°	3194.7	3206.0	3256.1	3232.3	3120.8	2994.3	2979.3	3019.4	3139.6	3288.6	3279.9
20°	3284.9	3293.7	3321.2	3163.4	2960.5	2795.2	2766.4	2812.8	2975.6	3234.8	3331.2
22.5°	3371.3	3376.3	3361.3	3073.2	2787.7	2598.6	2563.5	2612.4	2787.7	3139.6	3375.1
25°	3474.0	3469.0	3397.6	2979.3	2629.9	2443.3	2407.0	2462.1	2644.9	3013.1	3422.6
27.5°	3593.0	3574.2	3428.9	2877.9	2508.4	2328.1	2303.1	2361.9	2532.2	2896.7	3460.2
30°	3694.4	3658.1	3433.9	2787.7	2445.8	2279.3	2264.2	2319.3	2477.1	2817.8	3507.8
32.5°	3807.1	3757.0	3462.7	2763.9	2480.9	2397.0	2417.0	2420.8	2492.2	2795.2	3579.2
35°	3968.7	3903.5	3541.6	2832.8	2841.6	2983.1	3055.7	2958.0	2718.8	2845.3	3714.4
37.5°	4212.9	4130.2	3701.9	3130.9	3586.7	3903.5	4078.9	3856.0	3407.6	3034.4	3918.6
40°	4509.7	4404.5	3907.3	3681.9	4283.0	4790.2	5102.0	4775.2	4116.4	3506.6	4205.4
42.5°	4924.2	4814.0	4305.6	4222.9	4928.0	5683.1	6090.1	5603.0	4741.4	4116.4	4665.0
45°	5646.8	5540.4	5035.7	4765.2	5683.1	6782.7	7353.8	6676.2	5376.3	4728.8	5524.1
47.5°	6981.8	6856.6	6120.2	5366.3	6544.7	8210.4	9009.3	8022.5	6036.3	5430.2	6966.8
50°	8584.8	8464.6	7481.5	6077.6	7496.5	9737.0	10847.8	9604.2	6796.5	6283.0	8691.3
52.5°	10513.4	10490.9	9423.9	6976.8	8487.1	11365.0	12887.8	11356.2	7629.3	7431.4	10644.9
55°	12251.7	12472.1	11891.0	8348.1	9767.0	13410.1	14985.5	13267.3	8758.9	9329.9	12932.9
57.5°	13188.4	13780.8	14673.7	11145.8	11628.0	15854.6	17574.1	15600.4	10700.0	12490.9	15054.4
60°	12569.8	13241.0	14859.0	13252.3	13473.9	17813.3	19710.6	17561.6	12606.1	14685.0	14934.2
62.5°	11540.3	12142.7	13581.6	12022.5	13759.5	18244.1	19760.7	17903.5	13363.7	13571.6	13490.2
65°	10319.3	10926.7	12450.8	10494.6	12851.5	17221.0	18303.0	16897.8	12002.4	12261.7	12291.7
67.5°	8697.5	9258.6	10810.2	9331.2	11714.4	15719.4	16065.0	15465.2	11053.2	11466.4	11034.4
70°	6498.4	7004.3	8374.4	7582.9	9874.7	13763.2	13484.0	13572.9	9987.4	10398.2	9217.2
72.5°	4440.8	4821.5	5996.2	5958.6	7561.6	11018.1	10628.6	11471.5	8341.8	8886.6	7026.9
75°	3105.8	3402.6	4334.4	4707.6	5715.7	8166.5	7569.2	8586.1	6514.7	7292.4	5127.1
77.5°	1906.1	2102.7	2737.6	3487.8	3676.9	5589.2	4701.3	6460.8	4574.8	5318.7	3420.1
80°	953.0	1048.2	1330.0	2192.9	2438.3	3293.7	2596.1	3750.8	3095.8	3293.7	1892.3
82.5°	288.0	318.1	389.5	832.8	1263.6	1896.0	1534.1	2179.1	1690.7	1544.1	745.1
85°	76.4	86.4	107.7	246.7	443.3	680.0	518.5	1055.7	810.3	569.8	280.5
87.5°	6.3	6.3	5.0	5.0	2.5	0.0	0.0	75.1	151.5	86.4	48.8
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°	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4
2.5°	2390.7	2385.7	2334.4	2296.8	2253.0	2210.4	2166.6	2127.7	2083.9	2040.1	2027.5
5°	2583.6	2548.5	2439.6	2348.1	2258.0	2179.1	2110.2	2038.8	1981.2	1924.8	1903.6
7.5°	2753.9	2692.5	2534.7	2395.7	2270.5	2172.8	2071.4	1967.4	1886.0	1805.9	1785.8
10°	2907.9	2826.5	2627.4	2452.1	2313.1	2201.6	2082.6	1943.6	1825.9	1728.2	1701.9
12.5°	3021.9	2933.0	2707.6	2505.9	2348.1	2222.9	2105.2	1982.5	1858.5	1732.0	1703.2
15°	3112.1	3019.4	2773.9	2547.3	2349.4	2187.8	2073.9	2031.3	1992.5	1868.5	1815.9
17.5°	3184.7	3087.0	2831.5	2572.3	2315.6	2081.4	1982.5	2045.1	2144.0	2066.4	1967.4
20°	3251.1	3152.1	2875.4	2589.8	2240.4	1934.9	1879.8	2012.5	2161.5	2159.0	2070.1
22.5°	3323.7	3227.3	2939.2	2599.9	2135.2	1785.8	1818.4	1964.9	2086.4	2122.7	2067.6
25°	3416.4	3331.2	3028.2	2622.4	2016.3	1683.1	1773.3	1903.6	2005.0	2013.8	1981.2
27.5°	3524.1	3460.2	3160.9	2675.0	1901.1	1630.5	1720.7	1817.1	1909.8	1913.6	1874.8
30°	3641.8	3599.2	3283.6	2718.8	1814.6	1614.3	1653.1	1730.7	1789.6	1799.6	1765.8
32.5°	3792.1	3754.5	3392.6	2690.0	1763.3	1610.5	1590.5	1630.5	1679.4	1679.4	1653.1
35°	3998.7	3946.1	3507.8	2579.8	1700.7	1595.5	1524.1	1535.4	1556.7	1560.4	1545.4
37.5°	4291.8	4205.4	3624.3	2361.9	1598.0	1541.6	1447.7	1433.9	1441.4	1451.5	1447.7
40°	4655.0	4513.4	3794.6	2100.2	1475.3	1437.7	1368.8	1342.5	1336.2	1356.3	1363.8
42.5°	5112.1	4895.4	3977.4	1856.0	1363.8	1318.7	1276.1	1253.6	1243.6	1277.4	1297.4
45°	5842.2	5485.3	4152.8	1614.3	1301.2	1217.3	1188.5	1172.2	1177.2	1217.3	1242.3
47.5°	7103.3	6385.7	4319.3	1461.5	1296.2	1144.6	1109.6	1113.3	1127.1	1169.7	1199.7
50°	8698.8	7591.7	4430.8	1397.6	1311.2	1100.8	1054.5	1074.5	1095.8	1137.1	1172.2
52.5°	10323.1	8715.0	4298.0	1362.5	1309.9	1102.1	1003.1	1063.2	1073.3	1114.6	1152.2
55°	11440.1	8840.3	3713.2	1308.7	1289.9	1152.2	963.1	1058.2	1064.5	1102.1	1135.9
57.5°	11865.9	8412.0	2831.5	1323.7	1229.8	1191.0	945.5	1023.2	1068.2	1100.8	1135.9
60°	11351.2	7604.2	1720.7	1362.5	1133.4	1188.5	956.8	959.3	1036.9	1092.0	1127.1
62.5°	10380.7	6567.3	1208.5	1252.3	1063.2	1122.1	983.1	884.2	981.8	1048.2	1079.5
65°	9268.6	5347.5	921.7	1078.3	1029.4	1019.4	991.9	817.8	906.7	971.8	999.4
67.5°	8110.2	4156.5	748.9	804.0	930.5	921.7	906.7	758.9	817.8	864.1	895.4
70°	6651.2	2907.9	632.4	603.6	797.7	826.5	792.7	685.0	703.8	751.4	776.5
72.5°	4865.3	1812.1	519.7	498.4	641.2	722.6	705.1	603.6	612.4	657.5	677.5
75°	3499.0	1036.9	417.0	410.8	489.7	618.7	583.6	519.7	529.7	563.6	577.3
77.5°	2224.2	577.3	321.9	330.6	350.7	462.1	498.4	444.6	444.6	464.6	475.9
80°	1191.0	330.6	235.4	239.2	245.5	353.2	393.2	344.4	344.4	330.6	344.4
82.5°	485.9	190.4	161.6	150.3	164.1	241.7	275.5	219.2	229.2	206.6	211.6
85°	160.3	95.2	80.1	78.9	77.6	106.4	132.7	109.0	130.2	82.7	86.4
87.5°	21.3	17.5	10.0	7.5	8.8	3.8	7.5	8.8	8.8	6.3	6.3
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°	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4
2.5°	2018.8	2008.8	1972.4	1981.2	1974.9	1964.9	1974.9	1956.2	1971.2	1976.2	2007.5
5°	1887.3	1863.5	1828.4	1810.9	1807.1	1797.1	1798.4	1789.6	1792.1	1813.4	1848.5
7.5°	1769.6	1747.0	1719.5	1706.9	1695.7	1684.4	1683.1	1681.9	1691.9	1710.7	1744.5
10°	1684.4	1671.9	1660.6	1665.6	1660.6	1655.6	1646.8	1646.8	1663.1	1696.9	1738.3
12.5°	1684.4	1681.9	1684.4	1699.4	1698.2	1699.4	1688.2	1694.4	1739.5	1797.1	1856.0
15°	1774.6	1754.5	1754.5	1762.0	1759.5	1759.5	1759.5	1785.8	1888.5	1977.4	2040.1
17.5°	1884.8	1825.9	1800.9	1797.1	1795.9	1795.9	1800.9	1857.2	2017.5	2111.4	2147.8
20°	1961.2	1849.7	1808.4	1792.1	1793.4	1795.9	1810.9	1888.5	2065.1	2112.7	2103.9
22.5°	1974.9	1830.9	1780.8	1757.0	1760.8	1763.3	1785.8	1868.5	2000.0	2007.5	1990.0
25°	1911.1	1778.3	1724.5	1705.7	1710.7	1709.4	1729.5	1789.6	1883.5	1881.0	1871.0
27.5°	1815.9	1694.4	1654.3	1641.8	1650.6	1640.6	1646.8	1693.2	1765.8	1763.3	1759.5
30°	1718.2	1613.0	1576.7	1570.4	1581.7	1566.7	1567.9	1606.8	1656.8	1654.3	1653.1
32.5°	1620.5	1531.6	1499.1	1499.1	1510.3	1494.0	1496.5	1530.4	1564.2	1554.2	1554.2
35°	1527.9	1465.2	1438.9	1433.9	1442.7	1431.4	1436.4	1467.7	1480.3	1466.5	1457.7
37.5°	1446.5	1418.9	1392.6	1375.1	1376.3	1377.6	1392.6	1416.4	1408.9	1388.8	1377.6
40°	1371.3	1371.3	1346.3	1313.7	1309.9	1318.7	1343.8	1370.1	1348.8	1326.2	1312.5
42.5°	1317.5	1328.7	1304.9	1272.4	1264.9	1279.9	1307.4	1326.2	1301.2	1276.1	1257.4
45°	1267.4	1294.9	1278.6	1242.3	1232.3	1249.8	1284.9	1292.4	1258.6	1234.8	1221.0
47.5°	1232.3	1269.9	1258.6	1223.5	1208.5	1233.6	1269.9	1268.6	1226.0	1201.0	1189.7
50°	1207.3	1254.8	1253.6	1223.5	1207.3	1238.6	1271.1	1254.8	1208.5	1182.2	1170.9
52.5°	1187.2	1253.6	1262.4	1244.8	1233.6	1261.1	1281.1	1249.8	1196.0	1168.4	1159.7
55°	1178.5	1258.6	1264.9	1248.6	1238.6	1263.6	1281.1	1259.9	1196.0	1170.9	1163.4
57.5°	1181.0	1252.3	1253.6	1231.1	1213.5	1244.8	1272.4	1266.1	1209.8	1181.0	1172.2
60°	1165.9	1218.5	1221.0	1186.0	1165.9	1203.5	1252.3	1248.6	1203.5	1173.4	1157.2
62.5°	1115.8	1162.2	1163.4	1130.9	1102.1	1155.9	1209.8	1208.5	1167.2	1137.1	1118.3
65°	1031.9	1080.8	1093.3	1062.0	1039.4	1097.1	1153.4	1150.9	1109.6	1082.0	1063.2
67.5°	928.0	980.6	1004.4	983.1	974.3	1026.9	1079.5	1078.3	1044.5	1018.2	1001.9
70°	801.5	845.3	885.4	885.4	879.1	939.3	995.6	990.6	959.3	939.3	926.7
72.5°	696.3	730.1	742.6	755.2	773.9	836.6	884.2	887.9	865.4	855.3	865.4
75°	592.4	613.6	624.9	614.9	647.5	712.6	775.2	781.5	757.7	741.4	745.1
77.5°	487.2	511.0	522.2	499.7	497.2	579.8	656.2	670.0	650.0	624.9	632.4
80°	351.9	383.2	402.0	387.0	382.0	418.3	523.5	538.5	519.7	499.7	511.0
82.5°	215.4	232.9	237.9	253.0	284.3	299.3	336.9	387.0	373.2	355.7	387.0
85°	85.2	101.4	112.7	127.7	149.0	176.6	207.9	248.0	225.4	217.9	256.7
87.5°	5.0	1.3	0.0	2.5	21.3	41.3	88.9	122.7	102.7	110.2	132.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P636011
 CATALOG NUMBER: GWS-SA3E-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4	2195.4
2.5°	2032.6	2065.1	2108.9	2145.3	2191.6	2235.4	2280.5	2325.6	2349.4	2359.4
5°	1888.5	1948.6	2018.8	2096.4	2186.6	2281.8	2378.2	2477.1	2539.7	2544.8
7.5°	1802.1	1888.5	1985.0	2082.6	2194.1	2325.6	2478.4	2631.2	2695.0	2712.6
10°	1829.7	1926.1	2002.5	2093.9	2216.6	2380.7	2561.0	2740.1	2814.0	2835.3
12.5°	1939.9	1958.7	1982.5	2066.4	2216.6	2428.3	2646.2	2859.1	2938.0	2958.0
15°	2031.3	1941.1	1898.6	1987.5	2186.6	2469.6	2736.4	2971.8	3067.0	3085.8
17.5°	2038.8	1883.5	1790.8	1871.0	2134.0	2498.4	2822.8	3097.0	3177.2	3194.7
20°	1962.4	1822.2	1701.9	1750.8	2062.6	2510.9	2885.4	3188.5	3267.4	3284.9
22.5°	1876.0	1772.1	1641.8	1639.3	1976.2	2524.7	2960.5	3274.9	3360.0	3371.3
25°	1794.6	1703.2	1593.0	1557.9	1876.0	2551.0	3062.0	3405.1	3470.2	3474.0
27.5°	1699.4	1629.3	1554.2	1520.3	1788.3	2601.1	3212.3	3560.4	3599.2	3593.0
30°	1613.0	1560.4	1526.6	1516.6	1733.2	2638.7	3355.0	3713.2	3715.7	3694.4
32.5°	1521.6	1501.6	1501.6	1534.1	1688.2	2629.9	3471.5	3862.2	3838.4	3807.1
35°	1440.2	1443.9	1470.2	1546.6	1613.0	2542.3	3582.9	4048.8	4013.8	3968.7
37.5°	1362.5	1391.4	1428.9	1502.8	1514.1	2412.0	3713.2	4313.1	4269.2	4212.9
40°	1296.2	1340.0	1383.8	1420.2	1408.9	2226.7	3894.8	4623.6	4574.8	4509.7
42.5°	1243.6	1286.2	1335.0	1338.8	1342.5	2033.8	4087.6	5004.4	4995.6	4924.2
45°	1209.8	1237.3	1283.7	1277.4	1338.8	1820.9	4265.5	5585.4	5700.7	5646.8
47.5°	1187.2	1208.5	1213.5	1239.8	1371.3	1630.5	4494.7	6722.6	7043.2	6981.8
50°	1174.7	1196.0	1139.6	1242.3	1376.3	1507.8	4811.5	8150.2	8666.2	8584.8
52.5°	1173.4	1168.4	1083.3	1268.6	1348.8	1432.7	4976.8	9192.2	10336.8	10513.4
55°	1175.9	1113.3	1054.5	1276.1	1293.7	1405.1	4423.3	9693.1	11878.5	12251.7
57.5°	1153.4	1053.2	1070.8	1246.1	1189.7	1479.0	3269.9	9514.0	12494.6	13188.4
60°	1110.8	995.6	1100.8	1164.7	1083.3	1352.5	2251.7	8715.0	11855.9	12569.8
62.5°	1049.5	955.5	1097.1	1059.5	1044.5	1107.1	1547.9	7596.7	10842.8	11540.3
65°	980.6	923.0	1038.2	958.0	966.8	851.6	1094.5	6334.3	9633.0	10319.3
67.5°	906.7	902.9	951.8	852.8	816.5	675.0	797.7	5077.0	8078.9	8697.5
70°	822.8	850.3	865.4	757.7	662.5	529.7	592.4	3550.4	5959.9	6498.4
72.5°	738.9	741.4	762.7	658.7	495.9	424.5	444.6	2150.3	4048.8	4440.8
75°	653.7	629.9	650.0	536.0	369.4	348.2	343.1	1328.7	2796.5	3105.8
77.5°	562.3	536.0	509.7	403.3	296.8	269.3	263.0	745.1	1715.7	1906.1
80°	457.1	422.0	380.7	295.6	216.7	192.9	191.6	363.2	855.3	953.0
82.5°	355.7	289.3	278.0	184.1	134.0	117.7	125.2	139.0	258.0	288.0
85°	249.2	210.4	147.8	73.9	60.1	48.8	47.6	41.3	68.9	76.4
87.5°	139.0	91.4	47.6	8.8	10.0	11.3	8.8	6.3	6.3	6.3
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

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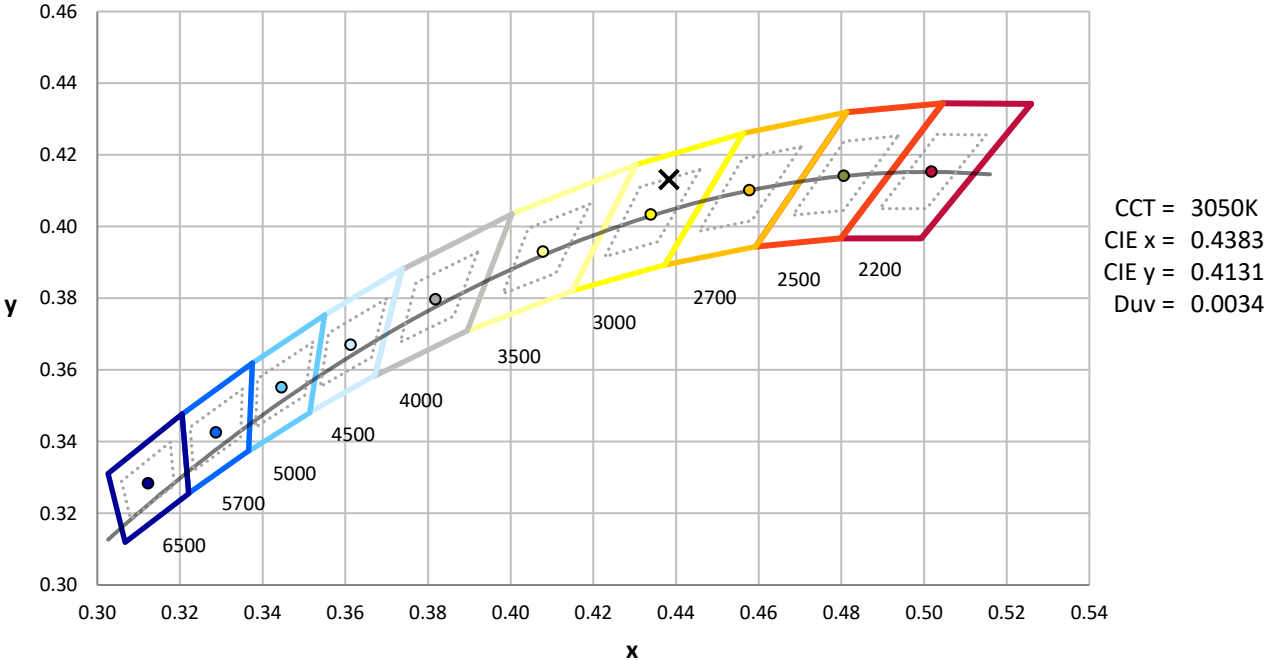
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



Point lies inside the ANSI 3000K 4-step quadrangle

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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

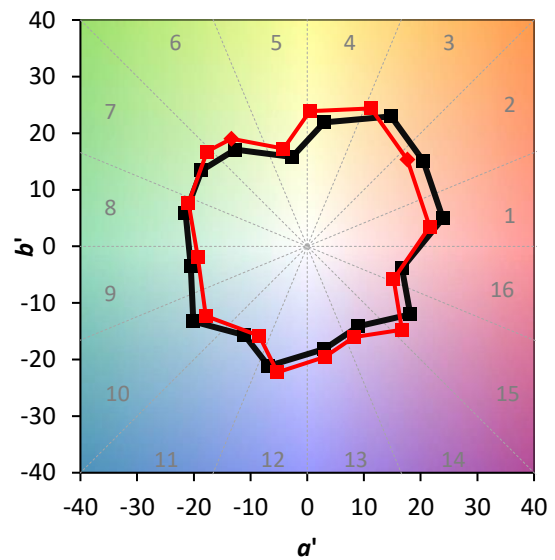
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

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

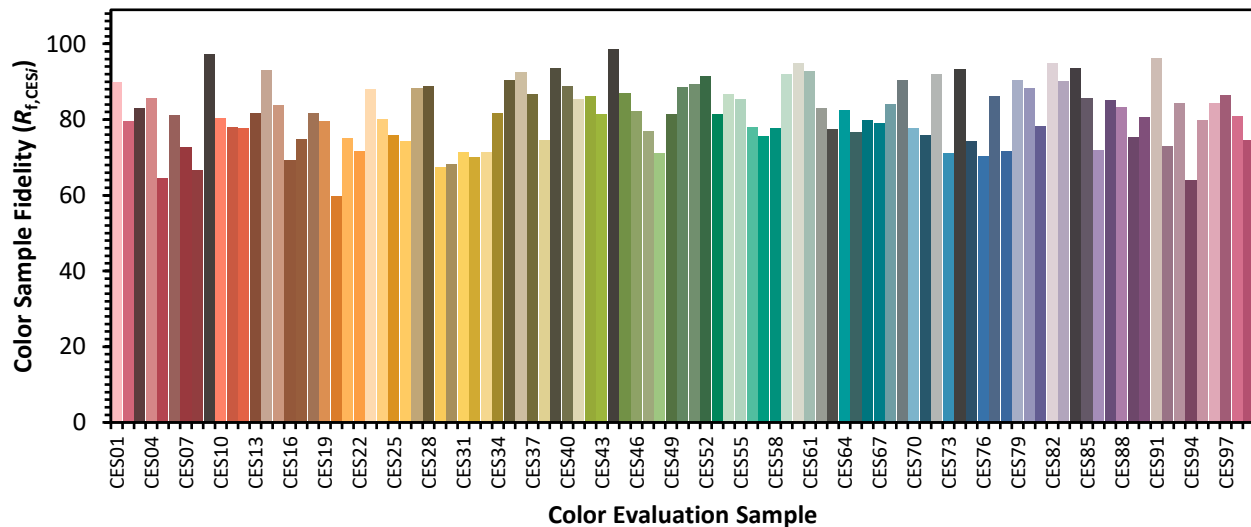


Color Vector Graphics

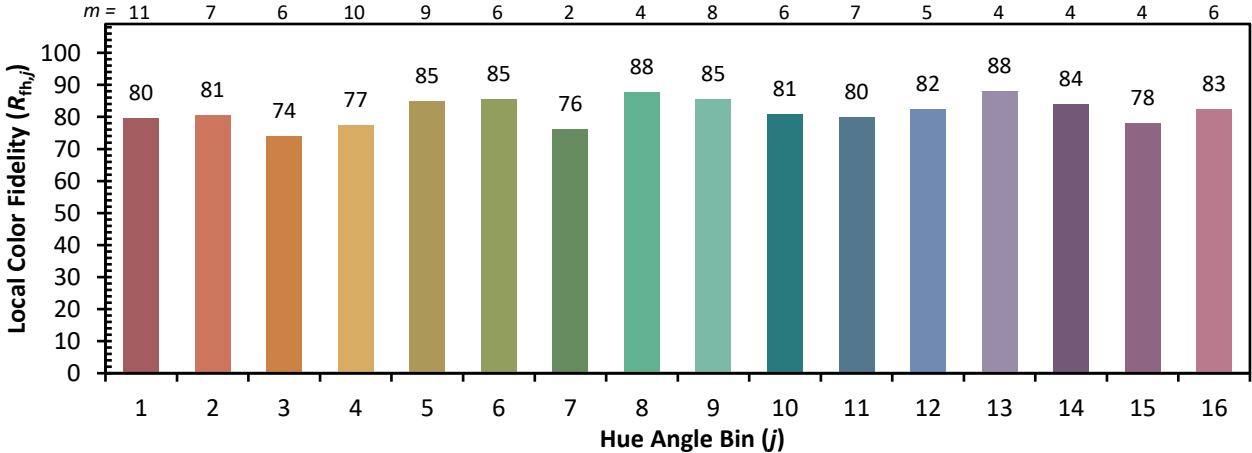


Individual Sample Fidelity Index ($R_{f,i}$)

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)