

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: P633039

Luminaire Tested: GWS-SA2D-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P633039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2D-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7257 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G1

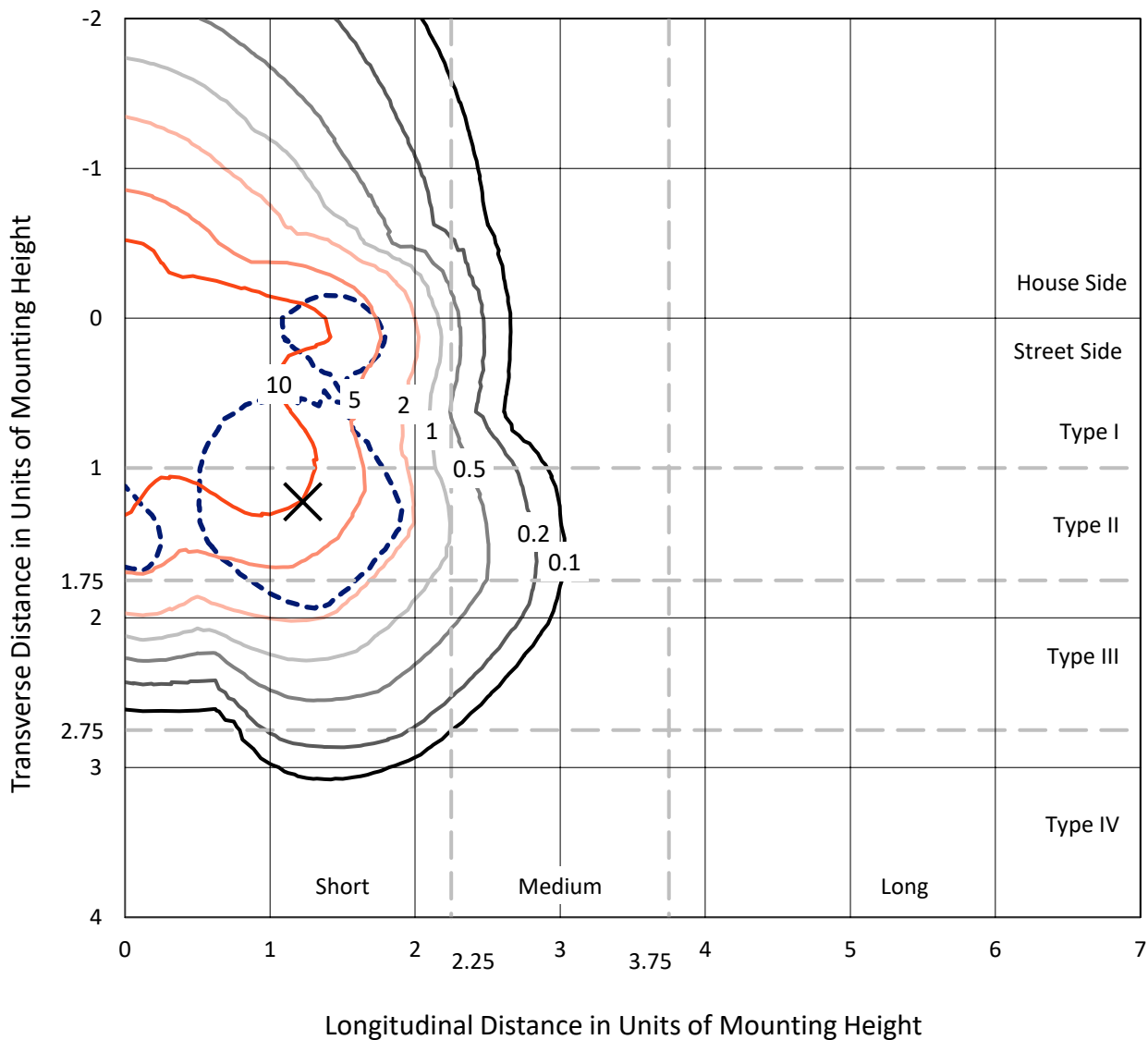
Input Watts (W): 82.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P633039
 CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

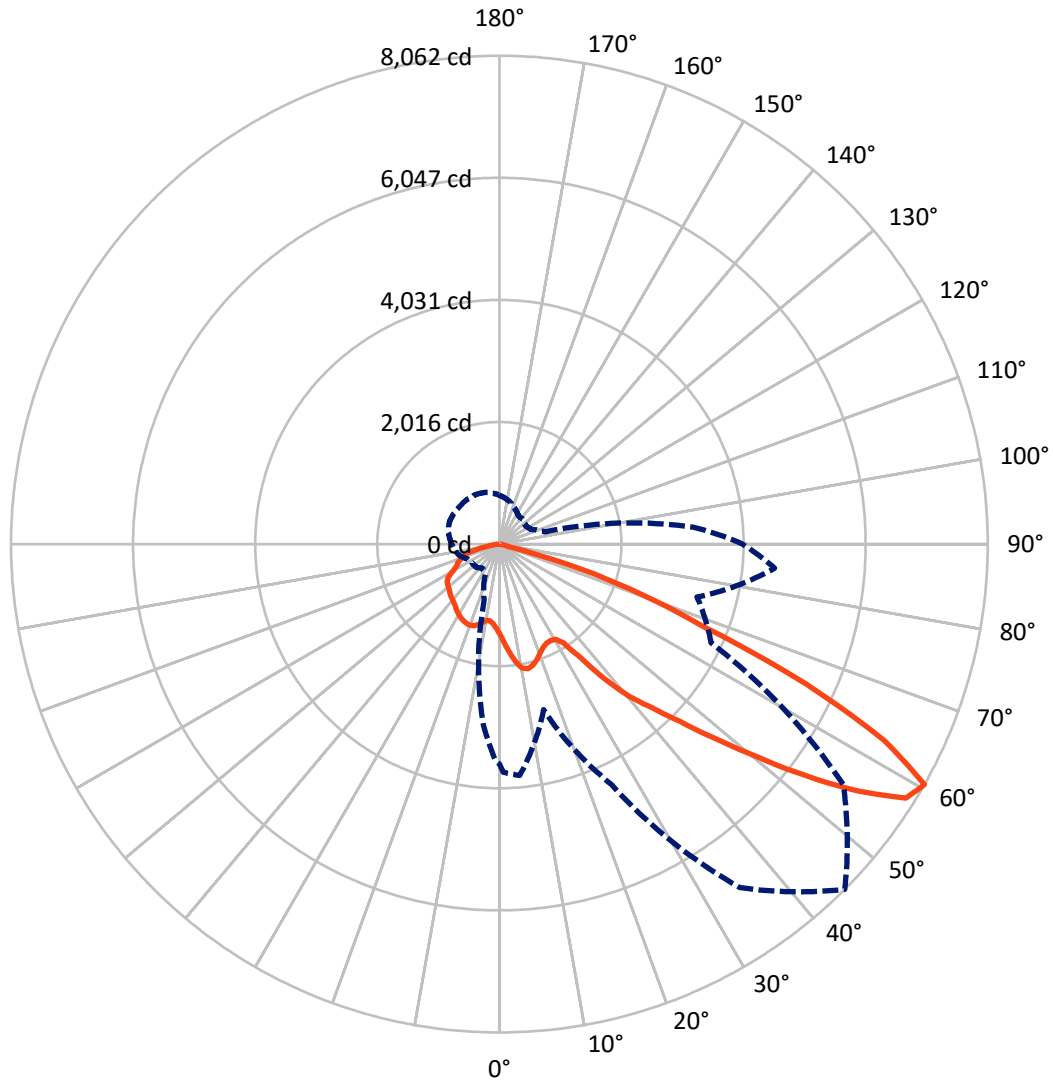
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.9 fc
 Type III - Short - N/A

REPORT NUMBER: P633039
CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P633039

CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2543.8	0.0	2543.8
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	4713.2	0.0	4713.2
	% Fixture	64.9	0.0	64.9
Total	Lumens	7257.0	0.0	7257.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	2.0
10°-20°	459.6	6.3
20°-30°	746.6	10.3
30°-40°	1052.9	14.5
40°-50°	1455.1	20.1
50°-60°	1873.2	25.8
60°-70°	1186.9	16.4
70°-80°	304.6	4.2
80°-90°	32.6	0.4
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°	7257.0	100.0
0°-180°	7257.0	100.0

Coefficient of Utilization



REPORT NUMBER: P633039

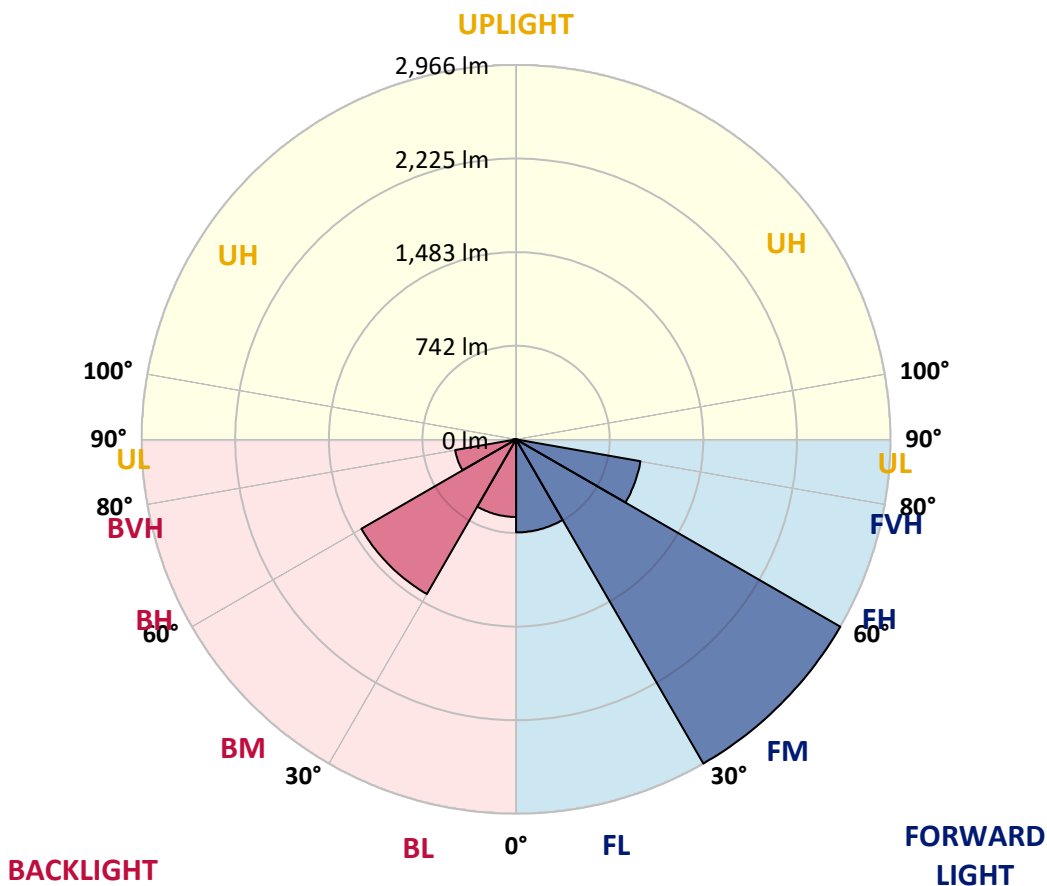
CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	736.9	10.2			
FM (30°-60°)	2966.2	40.9			
FH (60°-80°)	1001.2	13.8			G1/1800
FVH (80°-90°)	8.8	0.1			G0/10
BL (0°-30°)	614.8	8.5	B2/1000		
BM (30°-60°)	1415.1	19.5	B2/2500		
BH (60°-80°)	490.2	6.8	B1/500		G1/500
BVH (80°-90°)	23.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type III Short





REPORT NUMBER: P633039

CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8
2.5°	1559.3	1569.9	1576.6	1589.2	1611.8	1624.5	1638.4	1623.1	1627.1	1625.1	1600.5
5°	1651.7	1664.4	1681.6	1718.9	1760.8	1784.0	1806.0	1802.7	1782.0	1747.5	1722.9
7.5°	1738.2	1752.8	1782.7	1843.2	1905.1	1941.0	1967.6	1950.3	1933.0	1878.5	1816.6
10°	1806.0	1814.6	1855.2	1936.3	2008.1	2048.7	2081.3	2077.3	2053.3	1992.2	1909.0
12.5°	1869.8	1875.8	1919.7	2000.8	2065.3	2083.3	2109.9	2118.5	2110.5	2064.6	1982.9
15°	1938.3	1949.6	1990.2	2052.0	2081.3	2062.7	2072.0	2095.9	2118.5	2118.5	2043.4
17.5°	2002.1	2012.1	2053.3	2079.9	2052.0	2002.8	2005.5	2036.1	2089.9	2146.4	2098.6
20°	2058.7	2068.0	2108.5	2083.3	1994.8	1923.0	1921.0	1958.3	2045.4	2164.4	2157.7
22.5°	2120.5	2133.8	2167.7	2085.9	1941.6	1850.5	1849.9	1888.4	2006.1	2182.3	2225.6
25°	2208.3	2228.9	2246.2	2109.2	1913.0	1803.3	1812.0	1848.5	1993.5	2211.6	2326.0
27.5°	2338.6	2355.2	2353.9	2157.7	1911.7	1784.0	1802.0	1844.5	2016.1	2263.5	2431.7
30°	2479.6	2488.2	2474.3	2225.6	1942.3	1796.0	1822.6	1873.1	2073.3	2349.2	2587.3
32.5°	2635.8	2646.5	2619.9	2327.3	2013.4	1884.4	1943.0	1967.6	2153.7	2472.9	2752.2
35°	2815.4	2836.0	2780.8	2461.6	2222.9	2206.9	2292.1	2260.1	2324.6	2619.2	2928.4
37.5°	3004.2	3004.9	2925.7	2660.4	2633.8	2661.1	2831.3	2731.6	2687.0	2782.1	3107.9
40°	3164.5	3160.5	3038.8	2928.4	2991.6	3100.0	3305.4	3152.5	3035.5	3000.9	3256.9
42.5°	3324.7	3310.1	3187.1	3098.6	3238.3	3461.0	3693.1	3505.6	3258.9	3199.7	3403.8
45°	3529.5	3524.9	3376.6	3166.5	3461.0	3865.3	4173.2	3869.3	3391.2	3315.4	3648.5
47.5°	3860.0	3837.4	3561.4	3161.1	3669.8	4403.9	4792.9	4327.4	3483.6	3318.1	4043.5
50°	4183.2	4155.2	3782.2	3160.5	3885.3	4962.5	5524.3	4884.0	3578.1	3334.0	4445.1
52.5°	4509.6	4509.6	4144.6	3235.6	4111.3	5586.2	6369.5	5577.5	3739.0	3542.8	4939.2
55°	4703.8	4755.7	4552.2	3362.6	4376.0	6320.3	7205.3	6326.3	3987.7	3919.8	5395.3
57.5°	4457.1	4554.2	4524.9	3274.2	4532.2	6859.5	7914.1	6894.1	4110.7	3964.4	5326.9
60°	3631.9	3766.9	3834.1	2827.3	4378.0	6922.0	8062.4	6931.4	3856.7	3375.9	4562.8
62.5°	2414.4	2525.5	2627.9	2020.1	3790.2	6227.2	7130.8	6229.2	3221.0	2519.5	3161.1
65°	1184.3	1266.7	1377.1	1194.2	2961.0	5203.2	5559.6	5033.6	2330.0	1410.3	1612.5
67.5°	309.9	333.1	348.4	463.5	2121.2	3738.3	3625.9	3681.8	1496.8	460.8	421.6
70°	160.9	162.2	161.6	191.5	1433.6	2375.8	2498.9	2312.0	1044.6	192.8	166.2
72.5°	115.0	115.7	113.7	129.0	692.2	1361.1	1410.3	1395.0	547.2	114.4	113.7
75°	75.1	75.8	74.5	75.8	104.4	154.9	143.0	150.3	91.1	72.5	72.5
77.5°	44.6	45.2	44.6	45.9	44.6	44.6	41.2	41.2	39.2	39.2	39.9
80°	29.9	29.9	29.3	30.6	27.9	27.9	26.6	25.9	23.9	23.3	23.3
82.5°	18.0	18.6	18.0	18.0	16.6	16.6	15.3	14.6	12.6	12.6	12.0
85°	9.3	9.3	8.6	8.6	7.3	6.6	5.3	5.3	4.0	3.3	3.3
87.5°	1.3	1.3	0.7	0.7	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



REPORT NUMBER: P633039

CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8
2.5°	1593.9	1580.6	1560.6	1541.3	1523.4	1504.8	1483.5	1461.5	1442.9	1423.6	1413.7
5°	1690.3	1663.0	1611.2	1565.3	1524.0	1490.1	1453.6	1422.3	1393.1	1369.1	1357.1
7.5°	1777.4	1734.8	1656.4	1583.9	1528.0	1481.5	1431.0	1384.4	1345.2	1315.9	1304.6
10°	1857.8	1807.3	1704.2	1612.5	1547.3	1495.5	1433.6	1370.4	1318.6	1280.0	1270.7
12.5°	1923.0	1865.2	1742.1	1635.8	1558.6	1502.8	1448.2	1393.7	1342.5	1292.6	1284.7
15°	1980.9	1912.4	1770.7	1650.4	1554.6	1483.5	1437.6	1431.0	1431.0	1374.4	1358.5
17.5°	2030.7	1955.6	1794.0	1657.0	1529.4	1426.3	1398.4	1456.2	1521.4	1480.8	1444.9
20°	2087.9	1996.8	1813.3	1657.0	1482.8	1353.8	1351.2	1449.6	1546.0	1546.7	1508.8
22.5°	2145.8	2044.7	1835.9	1651.1	1419.0	1270.0	1319.2	1423.0	1508.8	1545.3	1519.4
25°	2239.5	2111.2	1871.8	1646.4	1344.5	1212.9	1290.7	1387.7	1460.2	1498.8	1482.2
27.5°	2358.6	2199.0	1926.3	1653.7	1270.7	1178.9	1260.1	1341.9	1407.7	1441.6	1429.6
30°	2491.5	2300.0	1984.9	1666.3	1217.5	1161.7	1223.5	1289.3	1347.8	1381.7	1376.4
32.5°	2661.1	2409.8	2035.4	1649.1	1187.6	1153.0	1184.9	1232.1	1288.7	1309.9	1314.6
35°	2863.9	2530.8	2074.0	1581.2	1160.3	1143.7	1143.0	1172.3	1212.2	1246.1	1249.4
37.5°	3050.8	2672.4	2116.5	1464.9	1111.1	1120.4	1093.8	1111.1	1150.4	1184.3	1197.6
40°	3235.6	2816.0	2175.7	1316.6	1046.6	1068.6	1037.3	1049.3	1080.5	1125.1	1146.4
42.5°	3415.1	2945.7	2238.2	1165.0	982.1	996.1	972.8	984.8	1017.4	1073.2	1097.2
45°	3610.6	3121.2	2286.7	1022.0	926.3	920.3	901.7	919.0	968.2	1029.3	1057.9
47.5°	3980.3	3397.9	2318.7	926.9	896.3	853.1	831.8	869.1	924.9	986.8	1021.4
50°	4431.8	3798.2	2309.3	866.4	870.4	784.0	776.7	825.9	885.7	950.2	988.1
52.5°	4789.6	4191.1	2203.6	808.6	819.9	740.1	718.8	790.6	847.8	913.6	952.9
55°	5062.9	4323.5	1879.1	740.1	737.4	708.2	663.6	754.0	809.9	871.1	913.6
57.5°	4840.1	4028.9	1393.1	645.7	629.7	645.0	601.8	692.2	763.4	823.9	861.8
60°	4016.9	3212.3	776.0	571.9	526.6	563.9	557.2	627.0	712.8	776.7	809.2
62.5°	2726.9	2139.1	460.1	452.2	426.9	480.1	515.3	561.2	645.7	697.5	728.1
65°	1359.1	1039.3	305.9	338.5	341.8	395.0	461.5	512.0	582.5	635.7	666.3
67.5°	394.3	323.2	232.7	258.7	294.6	337.1	390.3	450.2	518.7	581.8	617.7
70°	170.2	172.2	184.9	215.4	250.7	294.6	347.8	406.3	464.1	512.7	539.9
72.5°	120.4	125.0	139.0	170.2	203.5	245.4	298.6	355.1	397.0	446.2	474.8
75°	77.1	80.5	91.8	115.7	140.3	180.9	231.4	283.3	326.5	361.7	389.0
77.5°	42.6	43.2	52.5	66.5	83.1	109.1	146.3	186.8	218.8	238.7	263.3
80°	24.6	24.6	29.3	37.9	47.9	63.8	84.4	104.4	123.7	136.3	148.3
82.5°	13.3	13.3	15.3	20.6	25.9	35.2	47.2	57.2	69.2	75.8	83.8
85°	4.0	4.0	5.3	7.3	9.3	13.3	18.6	23.9	29.3	33.9	38.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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: P633039

CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8
2.5°	1411.7	1402.4	1397.0	1390.4	1392.4	1386.4	1383.1	1385.1	1373.1	1385.1	1397.0
5°	1352.5	1339.2	1328.6	1319.9	1315.9	1307.9	1303.3	1303.3	1296.0	1307.9	1322.6
7.5°	1300.6	1290.0	1284.7	1279.3	1273.4	1266.1	1258.1	1255.4	1250.8	1263.4	1276.0
10°	1266.1	1267.4	1270.7	1278.0	1276.7	1272.0	1260.1	1253.4	1253.4	1268.0	1287.3
12.5°	1282.0	1296.0	1304.0	1317.3	1319.9	1315.9	1304.0	1298.6	1311.9	1333.9	1365.8
15°	1343.8	1353.2	1359.8	1370.4	1369.8	1366.5	1357.1	1361.1	1405.0	1447.6	1476.2
17.5°	1411.0	1400.4	1399.0	1405.7	1407.7	1403.7	1398.4	1416.3	1488.8	1528.7	1543.3
20°	1459.5	1423.0	1415.0	1417.7	1423.0	1421.0	1421.0	1450.2	1525.4	1544.0	1525.4
22.5°	1474.2	1422.3	1410.3	1411.0	1418.3	1419.0	1422.3	1452.9	1496.8	1497.4	1468.9
25°	1450.9	1401.0	1392.4	1393.7	1402.4	1401.7	1403.0	1420.3	1439.6	1431.6	1410.3
27.5°	1407.0	1363.8	1361.1	1368.5	1379.8	1373.8	1369.8	1374.4	1383.7	1373.8	1355.2
30°	1357.1	1320.6	1321.9	1335.9	1347.8	1337.9	1327.9	1330.5	1331.2	1320.6	1299.3
32.5°	1304.6	1277.4	1282.0	1296.6	1310.6	1300.0	1289.3	1288.0	1275.4	1262.7	1242.1
35°	1252.1	1241.4	1247.4	1259.4	1271.4	1262.7	1256.1	1252.1	1224.8	1206.2	1188.9
37.5°	1204.2	1212.2	1222.8	1230.1	1234.1	1233.5	1229.5	1220.2	1184.3	1162.3	1139.7
40°	1161.7	1186.3	1197.6	1200.9	1206.9	1205.5	1204.9	1191.6	1144.4	1121.1	1095.2
42.5°	1123.1	1157.7	1176.9	1180.3	1183.6	1184.3	1182.3	1163.0	1109.1	1081.9	1057.3
45°	1085.9	1131.1	1155.7	1152.3	1157.0	1157.0	1159.0	1133.7	1074.5	1046.6	1020.7
47.5°	1053.3	1106.5	1129.1	1125.1	1127.7	1129.7	1131.7	1102.5	1036.6	1010.0	983.4
50°	1023.3	1079.9	1099.1	1100.5	1100.5	1105.1	1104.5	1075.9	1004.7	976.1	949.5
52.5°	991.4	1052.6	1073.2	1081.9	1084.5	1086.5	1077.2	1044.0	972.1	937.6	913.0
55°	954.2	1024.7	1043.3	1054.6	1059.9	1058.6	1046.0	1012.0	938.9	904.3	876.4
57.5°	897.7	964.8	991.4	996.7	1005.4	1000.1	985.4	956.9	885.7	851.1	822.5
60°	835.8	884.4	905.7	910.3	903.7	905.7	903.7	876.4	814.6	787.3	758.0
62.5°	754.7	797.9	820.5	826.5	815.2	822.5	819.9	786.0	724.1	695.5	669.6
65°	693.5	740.7	767.3	770.7	767.3	770.7	761.4	720.1	661.6	632.4	605.8
67.5°	645.7	694.2	722.1	731.4	728.1	727.4	712.8	664.9	604.4	572.5	538.6
70°	563.2	605.8	641.7	664.3	664.3	651.6	623.7	579.2	530.6	503.4	476.8
72.5°	498.7	552.6	587.8	611.1	615.7	608.4	569.2	522.0	466.1	438.9	410.9
75°	410.9	463.5	501.4	532.0	537.9	530.0	484.7	438.2	386.3	359.7	331.8
77.5°	274.6	305.9	336.5	364.4	358.4	363.7	333.1	297.9	266.0	246.0	233.4
80°	154.9	175.5	184.9	200.1	200.1	200.1	180.2	163.6	145.6	134.3	121.7
82.5°	87.8	101.1	105.1	117.7	121.0	121.7	108.4	97.7	86.4	80.5	71.8
85°	40.6	47.9	48.5	55.9	58.5	63.8	57.8	50.5	43.9	41.2	35.9
87.5°	1.3	4.0	5.3	10.0	13.3	15.3	16.6	16.6	14.0	12.6	10.6
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: P633039
 CATALOG NUMBER: GWS-SA2D-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8	1490.8
2.5°	1411.7	1427.6	1446.2	1459.5	1483.5	1503.4	1524.0	1546.7	1563.3	1559.3
5°	1340.5	1367.1	1401.0	1432.3	1476.8	1522.1	1571.9	1623.1	1653.0	1651.7
7.5°	1300.6	1338.5	1379.8	1421.6	1474.2	1539.3	1615.8	1695.6	1736.2	1738.2
10°	1321.9	1362.5	1390.4	1425.6	1480.8	1562.6	1654.4	1750.1	1796.7	1806.0
12.5°	1389.1	1385.7	1383.7	1409.0	1475.5	1579.2	1691.6	1806.0	1858.5	1869.8
15°	1452.9	1384.4	1343.2	1360.5	1451.6	1589.9	1728.2	1867.2	1926.3	1938.3
17.5°	1464.9	1361.1	1284.7	1296.6	1413.7	1593.2	1763.4	1927.0	1990.8	2002.1
20°	1431.6	1331.2	1242.1	1225.5	1365.8	1584.6	1785.4	1976.9	2046.7	2058.7
22.5°	1389.7	1304.6	1210.2	1167.0	1307.3	1575.9	1810.0	2029.4	2109.9	2120.5
25°	1345.8	1270.7	1180.3	1114.4	1240.8	1570.6	1851.2	2098.6	2195.6	2208.3
27.5°	1299.3	1229.5	1154.3	1089.2	1179.6	1577.2	1909.7	2210.3	2320.6	2338.6
30°	1249.4	1188.3	1137.7	1080.5	1137.7	1583.2	1974.2	2324.6	2454.3	2479.6
32.5°	1197.6	1150.4	1120.4	1084.5	1111.8	1569.3	2030.7	2453.0	2613.9	2635.8
35°	1145.7	1111.8	1098.5	1091.8	1077.2	1518.1	2076.6	2582.6	2796.1	2815.4
37.5°	1097.2	1071.9	1067.9	1075.2	1024.0	1434.3	2129.8	2747.5	2975.0	3004.2
40°	1051.9	1028.7	1028.0	1026.7	965.5	1319.9	2201.6	2915.1	3151.2	3164.5
42.5°	1010.0	980.8	986.1	970.2	917.6	1196.2	2269.4	3058.1	3315.4	3324.7
45°	972.8	934.2	940.2	920.3	895.0	1066.6	2329.3	3227.0	3523.5	3529.5
47.5°	936.9	895.7	879.1	877.7	891.0	946.9	2387.8	3552.1	3849.4	3860.0
50°	903.7	859.1	811.9	841.2	866.4	857.1	2461.0	3900.6	4185.8	4183.2
52.5°	871.7	813.2	746.1	802.6	802.6	790.6	2440.3	4112.0	4463.8	4509.6
55°	835.2	739.4	677.6	738.1	708.8	730.8	2075.3	4181.2	4638.6	4703.8
57.5°	762.7	648.3	594.5	627.0	583.2	677.6	1490.8	3838.0	4341.4	4457.1
60°	692.9	581.2	545.9	539.9	482.7	552.6	966.2	3004.9	3573.4	3631.9
62.5°	611.1	523.3	493.4	447.5	388.3	402.3	585.1	1977.5	2401.1	2414.4
65°	549.2	474.1	416.9	362.4	317.8	291.9	345.8	953.5	1200.2	1184.3
67.5°	471.4	406.3	351.8	312.5	276.0	243.4	230.1	283.3	320.5	309.9
70°	419.6	357.1	304.5	267.3	233.4	200.8	177.5	166.9	163.6	160.9
72.5°	361.7	307.2	252.7	216.8	184.9	154.9	133.7	121.0	117.7	115.0
75°	288.6	237.4	187.5	153.6	125.7	104.4	90.4	79.8	77.8	75.1
77.5°	190.8	152.3	111.7	91.1	74.5	63.2	53.9	47.2	45.9	44.6
80°	105.1	87.8	68.5	55.2	44.6	38.6	35.2	31.3	30.6	29.9
82.5°	62.5	52.5	39.2	31.3	25.9	23.3	21.3	19.3	18.6	18.0
85°	31.3	24.6	17.3	14.6	13.3	12.0	12.0	10.0	9.3	9.3
87.5°	8.0	6.6	4.0	3.3	3.3	3.3	2.7	2.0	2.0	1.3
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

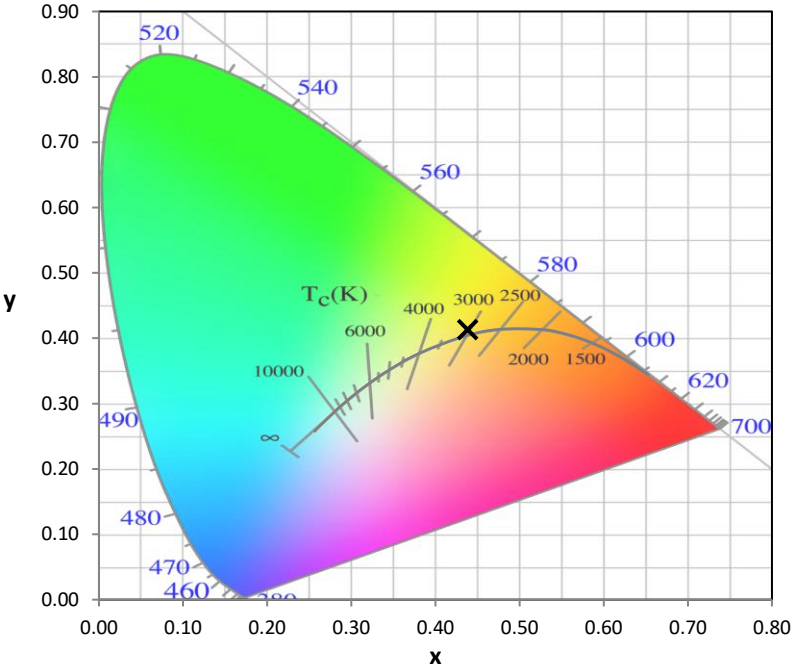
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

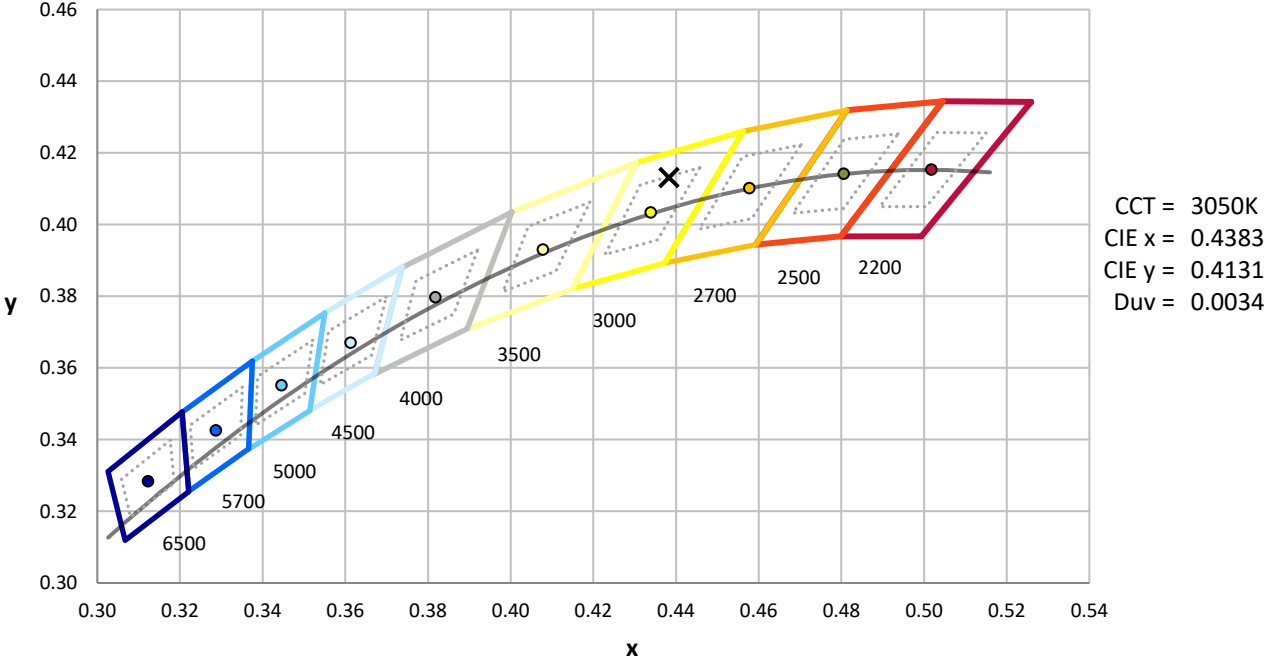
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



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)