

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: P636502

Luminaire Tested: GWS-SA3F-830-U-SLL-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636502
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-SA3F-830-U-SLL-W
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18204.2 lumens
Efficiency: N/A
Efficacy: 99.4 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

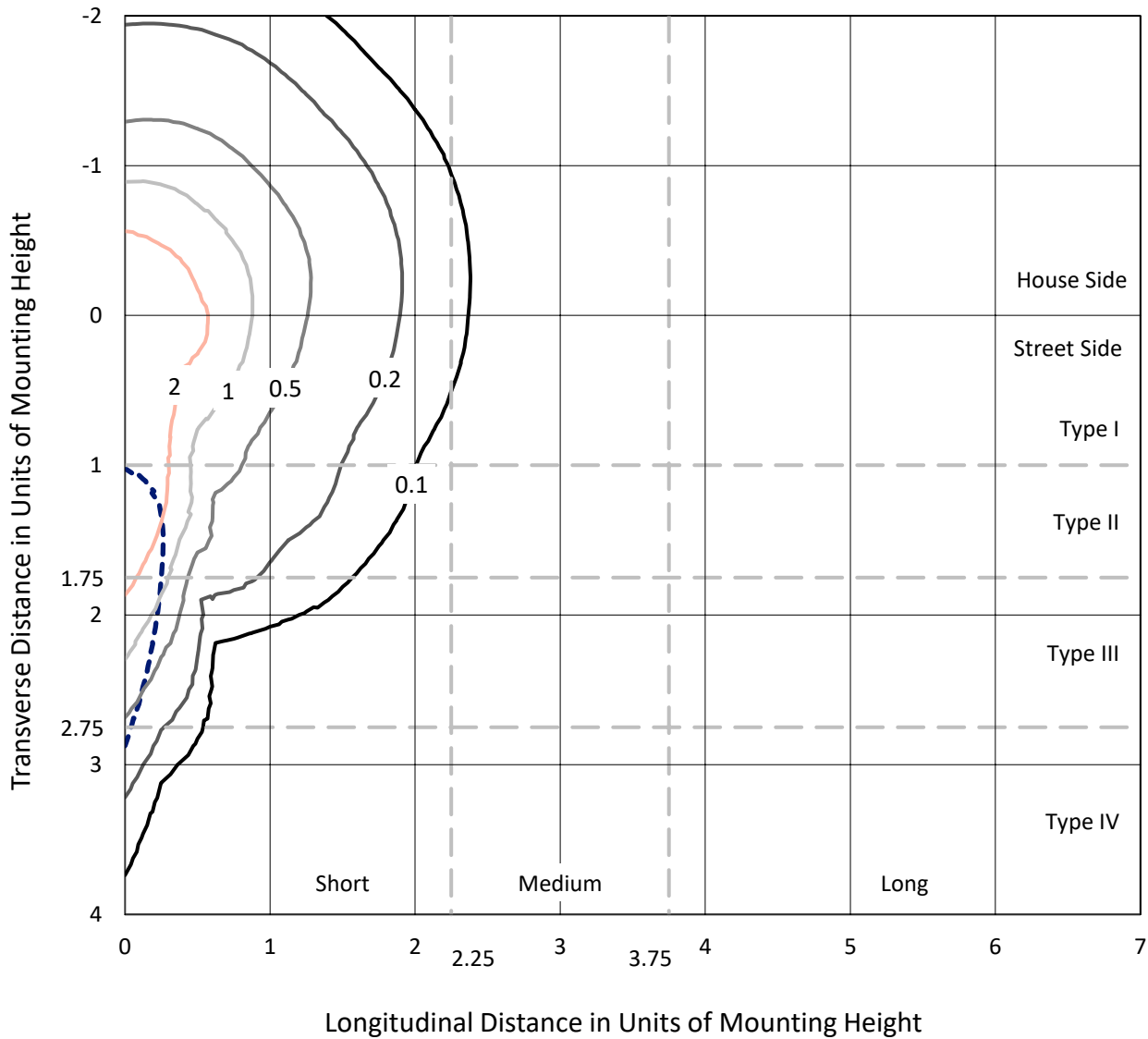
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636502
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

Iso-Footcandle Lines of Horizontal Illumination

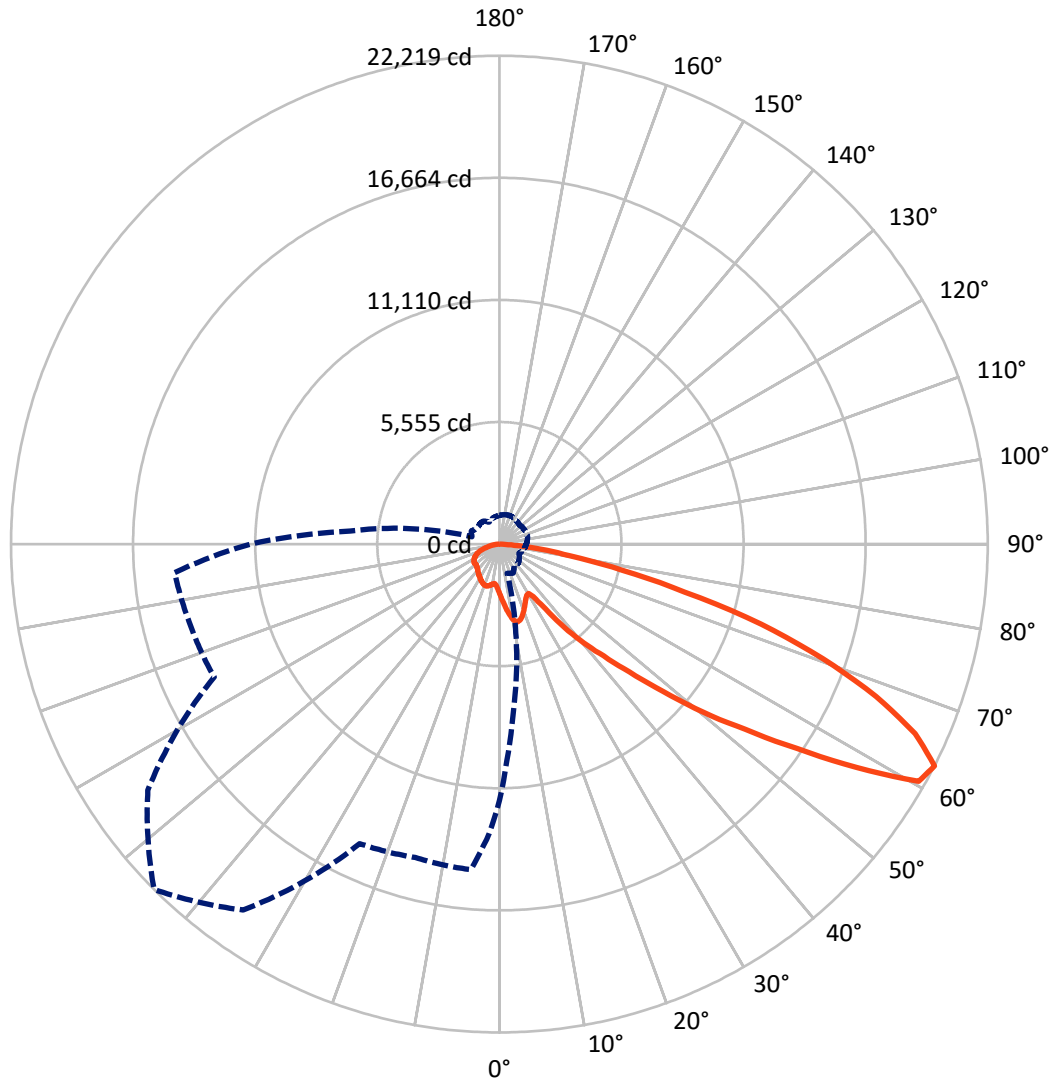
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - N/A

REPORT NUMBER: P636502
CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

Luminous Intensity Polar Plot



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

REPORT NUMBER: P636502

CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4352.6	0.0	4352.6
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	13851.6	0.0	13851.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	18204.2	0.0	18204.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.6	1.2
10°-20°	726.7	4.0
20°-30°	1144.0	6.3
30°-40°	1568.0	8.6
40°-50°	2446.6	13.4
50°-60°	4218.5	23.2
60°-70°	4888.7	26.9
70°-80°	2580.5	14.2
80°-90°	407.6	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°	18204.2	100.0
0°-180°	18204.2	100.0

Coefficient of Utilization



REPORT NUMBER: P636502

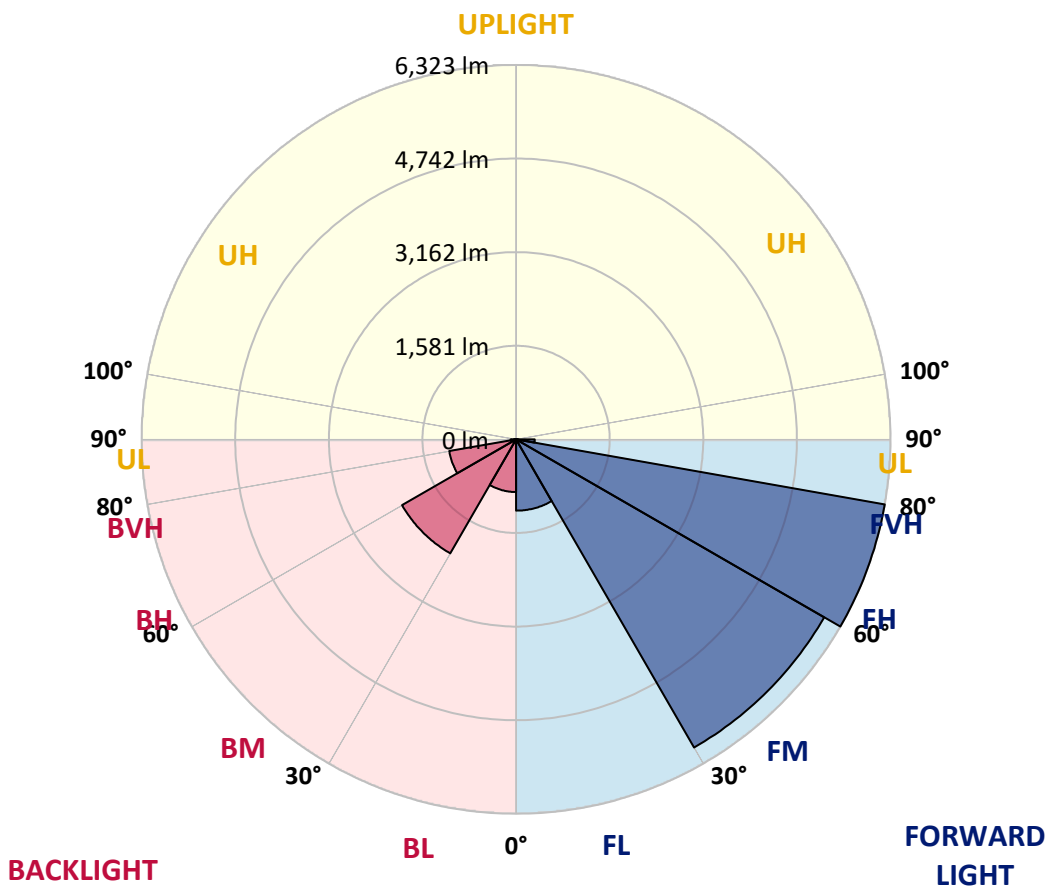
CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1204.0	6.6			
FM (30°-60°)	6009.8	33.0			
FH (60°-80°)	6323.1	34.7			G3/7500
FVH (80°-90°)	314.6	1.7			G3/500
BL (0°-30°)	890.3	4.9	B2/1000		
BM (30°-60°)	2223.3	12.2	B2/2500		
BH (60°-80°)	1146.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	93.0	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





REPORT NUMBER: P636502
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7
2.5°	2466.0	2456.3	2442.4	2395.0	2365.8	2332.3	2297.5	2257.2	2211.2	2179.2	2147.2
5°	2674.9	2659.6	2626.2	2513.4	2435.4	2350.4	2279.4	2198.7	2119.3	2065.0	2010.7
7.5°	2875.4	2855.9	2804.4	2631.7	2505.0	2382.5	2275.3	2158.3	2039.9	1959.2	1895.1
10°	3075.9	3035.5	2970.1	2744.5	2577.4	2435.4	2312.9	2169.4	2012.1	1902.1	1833.9
12.5°	3229.1	3191.5	3120.5	2847.6	2649.8	2471.6	2333.7	2201.5	2067.8	1950.8	1881.2
15°	3372.5	3323.8	3243.0	2943.6	2709.7	2470.2	2292.0	2176.4	2156.9	2127.7	2037.1
17.5°	3475.5	3431.0	3347.4	3021.6	2743.1	2427.0	2176.4	2108.2	2195.9	2285.0	2198.7
20°	3566.1	3514.5	3429.6	3075.9	2750.1	2331.0	2035.8	2037.1	2175.0	2297.5	2276.6
22.5°	3642.6	3585.5	3510.4	3137.2	2747.3	2197.3	1913.2	1996.8	2134.6	2230.7	2233.5
25°	3737.3	3690.0	3627.3	3227.7	2747.3	2060.8	1824.1	1948.0	2066.4	2147.2	2144.4
27.5°	3852.9	3820.9	3769.4	3365.5	2772.4	1946.6	1774.0	1885.4	1978.7	2048.3	2046.9
30°	3982.4	3953.2	3914.2	3511.7	2815.5	1861.7	1746.1	1807.4	1875.6	1931.3	1931.3
32.5°	4114.7	4103.5	4061.8	3628.7	2782.1	1835.2	1722.5	1729.4	1765.6	1811.6	1807.4
35°	4298.5	4287.3	4234.4	3719.2	2637.3	1797.6	1684.9	1650.0	1654.2	1683.5	1693.2
37.5°	4567.2	4550.5	4472.5	3825.0	2418.7	1703.0	1623.6	1566.5	1554.0	1566.5	1584.6
40°	4891.7	4866.6	4760.8	3968.5	2166.6	1574.9	1527.5	1480.2	1459.3	1463.5	1484.3
42.5°	5298.3	5245.3	5093.6	4120.2	1917.4	1462.1	1420.3	1391.1	1367.4	1364.6	1405.0
45°	5958.3	5813.5	5572.6	4255.3	1707.1	1402.2	1324.2	1303.3	1283.8	1295.0	1342.3
47.5°	7111.2	6843.9	6374.6	4370.9	1579.0	1403.6	1247.6	1225.4	1224.0	1246.2	1299.2
50°	8695.8	8310.1	7586.0	4448.9	1512.2	1420.3	1201.7	1165.5	1191.9	1214.2	1264.3
52.5°	10213.6	9624.6	8762.7	4447.5	1483.0	1423.1	1214.2	1109.8	1191.9	1197.5	1244.8
55°	11510.0	10443.3	9080.1	3990.7	1441.2	1411.9	1262.9	1066.6	1176.6	1197.5	1235.1
57.5°	12540.4	10964.1	9056.5	3223.5	1567.9	1350.7	1292.2	1056.9	1132.1	1200.3	1243.5
60°	12426.2	10726.0	8473.0	1978.7	1555.4	1242.1	1288.0	1075.0	1056.9	1162.7	1233.7
62.5°	11667.3	9872.4	7469.1	1373.0	1460.7	1179.4	1219.8	1107.0	987.2	1108.4	1186.4
65°	10604.9	8771.0	6224.2	1052.7	1210.0	1182.2	1104.2	1084.7	926.0	1022.1	1105.6
67.5°	9199.9	7405.0	4913.9	834.1	843.8	1023.4	1002.6	963.6	868.9	945.5	1020.7
70°	6916.3	5404.1	3380.9	671.2	639.1	855.0	900.9	866.1	813.2	835.5	914.8
72.5°	4873.6	3528.5	1852.0	531.9	492.9	657.2	782.6	777.0	718.5	735.2	813.2
75°	3621.8	2496.7	1157.1	420.5	401.0	470.6	655.8	672.6	623.8	643.3	703.2
77.5°	2410.3	1616.6	643.3	311.9	311.9	343.9	488.7	566.7	530.5	545.8	587.6
80°	1329.8	822.9	321.7	204.7	210.3	236.7	356.5	408.0	409.4	447.0	458.1
82.5°	420.5	261.8	143.4	119.8	112.8	135.1	229.8	292.4	272.9	348.1	320.3
85°	96.1	61.3	26.5	26.5	29.2	44.6	87.7	156.0	199.1	239.5	174.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	61.3	90.5	80.8
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: P636502
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7
2.5°	2127.7	2099.8	2091.5	2067.8	2065.0	2042.7	2034.4	2034.4	2044.1	2044.1	2053.9
5°	1988.4	1953.6	1934.1	1906.3	1899.3	1882.6	1871.4	1872.8	1885.4	1893.7	1910.4
7.5°	1865.9	1842.2	1828.3	1815.7	1813.0	1810.2	1797.6	1796.3	1800.4	1813.0	1825.5
10°	1814.4	1797.6	1801.8	1811.6	1826.9	1835.2	1824.1	1818.5	1814.4	1822.7	1833.9
12.5°	1864.5	1847.8	1856.1	1872.8	1893.7	1902.1	1897.9	1896.5	1900.7	1932.7	1956.4
15°	1974.5	1942.5	1931.3	1938.3	1955.0	1963.3	1959.2	1964.7	1991.2	2074.7	2134.6
17.5°	2110.9	2033.0	1988.4	1975.9	1982.8	1989.8	1989.8	2003.7	2049.7	2172.2	2247.4
20°	2184.7	2083.1	2007.9	1977.3	1980.1	1987.0	1987.0	2006.5	2058.0	2188.9	2237.7
22.5°	2165.3	2072.0	1980.1	1946.6	1948.0	1953.6	1953.6	1970.3	2016.3	2131.8	2154.1
25°	2088.7	2006.5	1916.0	1886.8	1889.5	1899.3	1896.5	1906.3	1941.1	2035.8	2048.3
27.5°	1996.8	1924.4	1835.2	1813.0	1825.5	1845.0	1828.3	1829.7	1861.7	1941.1	1942.5
30°	1897.9	1838.0	1758.7	1741.9	1765.6	1775.4	1760.1	1760.1	1792.1	1846.4	1845.0
32.5°	1790.7	1753.1	1696.0	1677.9	1704.4	1719.7	1700.2	1703.0	1728.0	1764.2	1750.3
35°	1690.4	1670.9	1644.5	1631.9	1648.7	1662.6	1650.0	1655.6	1679.3	1689.0	1669.5
37.5°	1594.4	1591.6	1594.4	1594.4	1598.5	1602.7	1594.4	1608.3	1629.2	1616.6	1594.4
40°	1510.8	1521.9	1548.4	1541.4	1537.3	1541.4	1535.9	1559.5	1580.4	1558.1	1531.7
42.5°	1441.2	1462.1	1502.4	1502.4	1494.1	1496.9	1494.1	1523.3	1538.7	1508.0	1478.8
45°	1381.3	1411.9	1463.5	1470.4	1456.5	1456.5	1462.1	1498.3	1503.8	1462.1	1431.4
47.5°	1339.5	1377.1	1435.6	1448.1	1427.3	1425.9	1441.2	1480.2	1480.2	1431.4	1396.6
50°	1310.3	1352.1	1421.7	1438.4	1417.5	1411.9	1437.0	1474.6	1466.2	1407.8	1373.0
52.5°	1290.8	1334.0	1420.3	1444.0	1430.0	1424.5	1449.5	1476.0	1455.1	1392.4	1356.2
55°	1278.3	1325.6	1424.5	1444.0	1428.6	1418.9	1444.0	1467.6	1456.5	1384.1	1349.3
57.5°	1285.2	1332.6	1418.9	1428.6	1410.5	1393.8	1423.1	1456.5	1452.3	1386.9	1352.1
60°	1274.1	1317.3	1388.3	1391.1	1360.4	1334.0	1377.1	1427.3	1427.3	1377.1	1346.5
62.5°	1222.6	1265.7	1328.4	1331.2	1296.4	1267.1	1317.3	1377.1	1375.7	1335.4	1303.3
65°	1137.6	1178.0	1249.0	1256.0	1221.2	1190.5	1242.1	1297.8	1301.9	1265.7	1237.9
67.5°	1044.3	1080.5	1133.5	1161.3	1132.1	1100.0	1147.4	1200.3	1198.9	1155.7	1126.5
70°	932.9	966.4	1015.1	1038.8	1020.7	990.0	1033.2	1061.0	1048.5	1027.6	1008.1
72.5°	822.9	855.0	900.9	900.9	881.4	852.2	864.7	914.8	930.2	914.8	902.3
75°	707.4	735.2	767.2	774.2	731.0	678.1	736.6	779.8	797.9	790.9	775.6
77.5°	589.0	609.9	657.2	644.7	563.9	536.1	583.4	647.5	660.0	655.8	635.0
80°	453.9	466.5	516.6	491.5	428.9	410.8	431.7	481.8	484.6	470.6	444.2
82.5°	304.9	321.7	355.1	306.3	304.9	288.2	271.5	277.1	302.2	299.4	281.3
85°	156.0	164.3	196.3	183.8	157.3	136.5	129.5	137.9	123.9	112.8	97.5
87.5°	65.4	71.0	97.5	54.3	16.7	0.0	0.0	8.4	12.5	18.1	19.5
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: P636502
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7
2.5°	2076.1	2091.5	2129.0	2176.4	2222.3	2269.7	2321.2	2353.2	2392.2	2442.4	2443.7
5°	1931.3	1966.1	2020.4	2092.8	2168.0	2254.4	2354.6	2438.2	2538.4	2617.8	2649.8
7.5°	1842.2	1892.3	1960.6	2052.5	2151.3	2258.5	2389.4	2530.1	2694.4	2800.2	2862.9
10°	1850.6	1927.1	1995.4	2073.4	2162.5	2278.0	2446.5	2633.1	2835.0	2974.3	3052.2
12.5°	1999.6	2080.3	2067.8	2063.6	2123.5	2264.1	2492.5	2737.5	2984.0	3123.3	3216.5
15°	2187.5	2218.2	2099.8	2010.7	2046.9	2214.0	2517.5	2830.8	3107.9	3277.8	3369.7
17.5°	2283.6	2222.3	2078.9	1945.2	1935.5	2137.4	2530.1	2925.5	3247.2	3417.1	3514.5
20°	2239.1	2149.9	2028.8	1902.1	1832.5	2033.0	2523.1	3000.7	3373.9	3563.3	3642.6
22.5°	2143.0	2065.0	1970.3	1849.2	1748.9	1918.8	2505.0	3075.9	3486.7	3677.4	3747.1
25°	2038.5	1980.1	1902.1	1796.3	1701.6	1818.5	2492.5	3176.2	3616.2	3798.6	3843.2
27.5°	1934.1	1890.9	1826.9	1744.7	1690.4	1748.9	2496.7	3307.1	3783.3	3955.9	3937.8
30°	1831.1	1793.5	1748.9	1712.7	1689.0	1732.2	2485.5	3446.3	3967.1	4127.2	4020.0
32.5°	1733.6	1698.8	1670.9	1676.5	1690.4	1739.2	2428.4	3573.0	4135.6	4272.0	4109.1
35°	1650.0	1613.8	1613.8	1633.3	1684.9	1715.5	2280.8	3671.9	4322.2	4458.6	4235.8
37.5°	1572.1	1540.0	1560.9	1593.0	1641.7	1651.4	2091.5	3768.0	4593.7	4721.8	4432.2
40°	1503.8	1471.8	1509.4	1549.8	1574.9	1570.7	1899.3	3901.6	4913.9	5046.2	4692.5
42.5°	1449.5	1420.3	1453.7	1505.2	1509.4	1513.6	1758.7	4029.7	5285.7	5454.2	5140.9
45°	1405.0	1384.1	1400.8	1452.3	1452.3	1516.4	1670.9	4137.0	5845.5	6143.5	5963.8
47.5°	1370.2	1357.6	1366.0	1382.7	1410.5	1566.5	1615.2	4219.1	6864.8	7449.6	7268.6
50°	1350.7	1338.1	1349.3	1314.5	1398.0	1591.6	1597.1	4281.8	8208.5	9124.7	8900.5
52.5°	1334.0	1329.8	1336.7	1256.0	1425.9	1574.9	1583.2	4198.2	9109.4	10773.4	10994.8
55°	1328.4	1331.2	1297.8	1212.8	1459.3	1519.2	1541.4	3600.9	9354.5	12195.0	13569.4
57.5°	1331.2	1322.8	1237.9	1217.0	1460.7	1407.8	1601.3	2569.1	8998.0	12813.3	16088.3
60°	1321.4	1279.7	1165.5	1254.6	1396.6	1276.9	1558.1	1675.1	8058.1	12338.5	16234.5
62.5°	1278.3	1217.0	1102.8	1275.5	1282.4	1198.9	1414.7	1290.8	6804.9	11322.0	14825.4
65°	1215.6	1133.5	1049.9	1232.3	1166.9	1162.7	1063.8	1034.6	5472.3	10111.9	13488.6
67.5°	1112.6	1030.4	1010.9	1133.5	1049.9	1030.4	855.0	857.7	4366.7	8822.5	12144.9
70°	995.6	913.4	928.8	1024.8	934.3	856.4	692.0	714.3	3312.6	7350.7	10333.3
72.5°	919.0	809.0	810.4	902.3	821.5	693.4	569.5	589.0	2102.6	5540.5	8215.4
75°	775.6	712.9	682.3	731.0	697.6	540.3	479.0	474.8	1246.2	3971.3	6151.8
77.5°	647.5	598.8	583.4	602.9	520.8	399.6	385.7	378.7	706.0	2544.0	4031.1
80°	469.3	456.7	455.3	465.1	401.0	293.8	293.8	295.2	380.1	1381.3	2272.5
82.5°	298.0	325.8	288.2	320.3	272.9	208.9	194.9	221.4	218.6	589.0	958.0
85°	123.9	169.9	158.7	168.5	129.5	114.2	122.5	132.3	126.7	227.0	373.2
87.5°	23.7	27.8	30.6	29.2	29.2	36.2	40.4	48.7	48.7	65.4	112.8
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: P636502
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7	2269.7
2.5°	2496.7	2537.0	2528.7	2546.8	2523.1	2531.5	2484.1	2471.6	2463.2	2466.0
5°	2752.9	2835.0	2850.3	2881.0	2860.1	2860.1	2776.5	2713.9	2691.6	2674.9
7.5°	3013.3	3131.6	3209.6	3217.9	3206.8	3184.5	3063.4	2950.6	2910.2	2875.4
10°	3244.4	3386.4	3474.2	3515.9	3495.0	3460.2	3309.8	3155.3	3106.5	3075.9
12.5°	3421.2	3546.6	3605.0	3632.9	3630.1	3617.6	3495.0	3327.9	3276.4	3229.1
15°	3535.4	3598.1	3575.8	3574.4	3593.9	3644.0	3606.4	3475.5	3415.7	3372.5
17.5°	3609.2	3549.3	3450.5	3404.5	3446.3	3564.7	3651.0	3577.2	3522.9	3475.5
20°	3635.7	3422.6	3279.2	3194.3	3243.0	3414.3	3627.3	3651.0	3605.0	3566.1
22.5°	3605.0	3268.1	3073.1	2972.9	3020.2	3224.9	3557.7	3710.9	3680.2	3642.6
25°	3529.9	3106.5	2872.6	2782.1	2833.6	3042.5	3433.8	3766.6	3768.0	3737.3
27.5°	3436.6	2957.6	2732.0	2647.0	2697.2	2892.1	3312.6	3815.3	3864.0	3852.9
30°	3341.9	2868.4	2665.1	2605.3	2642.9	2815.5	3188.7	3865.4	3962.9	3982.4
32.5°	3298.7	2911.6	2822.5	2848.9	2800.2	2860.1	3144.1	3936.4	4082.7	4114.7
35°	3355.8	3294.5	3520.1	3624.5	3451.9	3224.9	3201.2	4043.7	4251.1	4298.5
37.5°	3632.9	4114.7	4451.6	4819.3	4519.9	4020.0	3483.9	4226.1	4492.0	4567.2
40°	4235.8	4830.4	5438.9	5913.7	5461.2	4788.6	4021.4	4497.6	4823.4	4891.7
42.5°	4803.9	5501.6	6339.8	6953.9	6366.3	5416.6	4600.6	4954.3	5260.7	5298.3
45°	5360.9	6160.2	7430.1	8283.7	7485.8	6014.0	5192.4	5725.7	5956.9	5958.3
47.5°	6014.0	6902.4	8797.5	10013.1	8971.5	6675.4	5748.0	6946.9	7268.6	7111.2
50°	6795.1	7640.4	10205.2	12025.2	10783.1	7488.6	6454.0	8435.4	8874.1	8695.8
52.5°	7840.9	8453.5	11756.4	13987.1	12757.6	8414.6	7477.4	10401.6	10546.4	10213.6
55°	9312.7	9627.4	13747.6	16410.0	14961.8	9555.0	8974.3	12869.0	12463.8	11510.0
57.5°	12664.3	11484.9	16304.1	19174.0	17455.7	11626.9	12254.9	15589.8	14148.6	12540.4
60°	15468.7	13740.7	18669.9	21917.1	19593.1	13910.5	15335.0	16063.3	14086.0	12426.2
62.5°	14523.2	14315.7	19523.5	22219.3	20322.7	15034.2	14762.7	14869.9	13167.0	11667.3
65°	12742.3	13206.0	18761.8	20786.4	19513.7	14027.5	13353.6	13767.1	12115.7	10604.9
67.5°	11691.0	12032.1	17407.0	18493.1	18043.3	12938.6	12257.7	11958.3	10483.7	9199.9
70°	10616.0	10898.7	15504.9	15614.9	15750.0	11128.4	10022.8	9131.7	7814.4	6916.3
72.5°	9173.4	9188.8	13100.1	12462.4	12718.6	8708.4	8067.8	6827.2	5688.1	4873.6
75°	7696.0	7275.5	10369.5	8711.1	9225.0	6774.2	6699.1	5145.1	4290.1	3621.8
77.5°	5867.8	5376.2	7574.9	5728.5	6479.1	4511.5	5036.5	3489.5	3018.8	2410.3
80°	3939.2	3632.9	4185.7	3233.3	4238.6	3109.3	3284.8	1977.3	1714.1	1329.8
82.5°	2077.5	1774.0	2587.2	1917.4	2556.5	1708.5	1232.3	611.3	520.8	420.5
85°	804.8	931.5	1268.5	682.3	991.4	609.9	356.5	151.8	126.7	96.1
87.5°	156.0	240.9	132.3	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

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

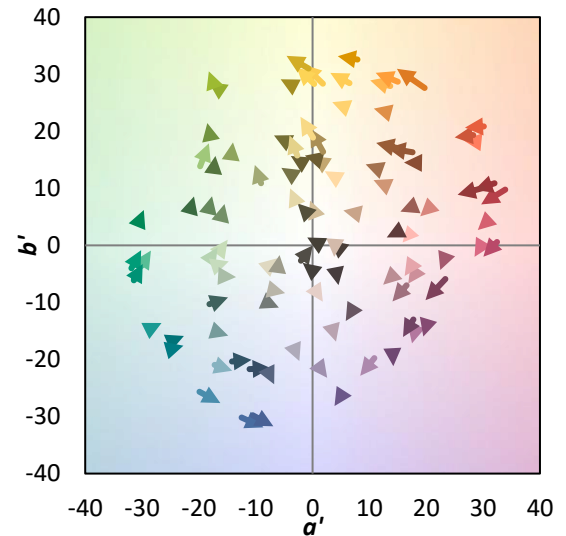
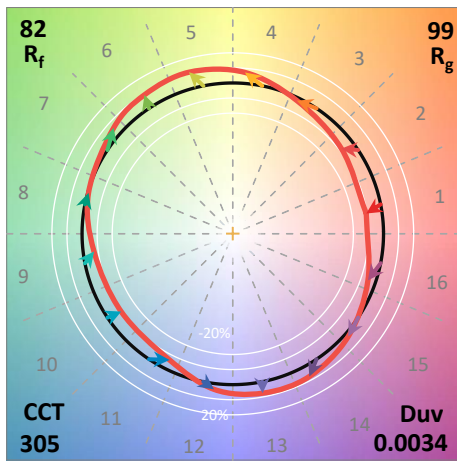
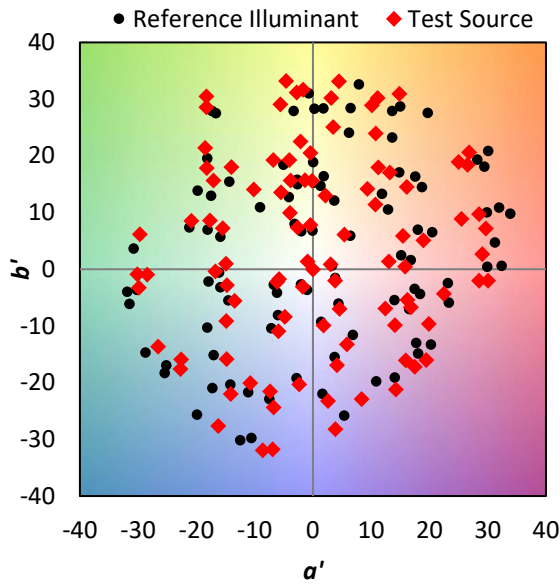
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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