

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: P636995

Luminaire Tested: GWS-SA4B-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4B-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8950 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

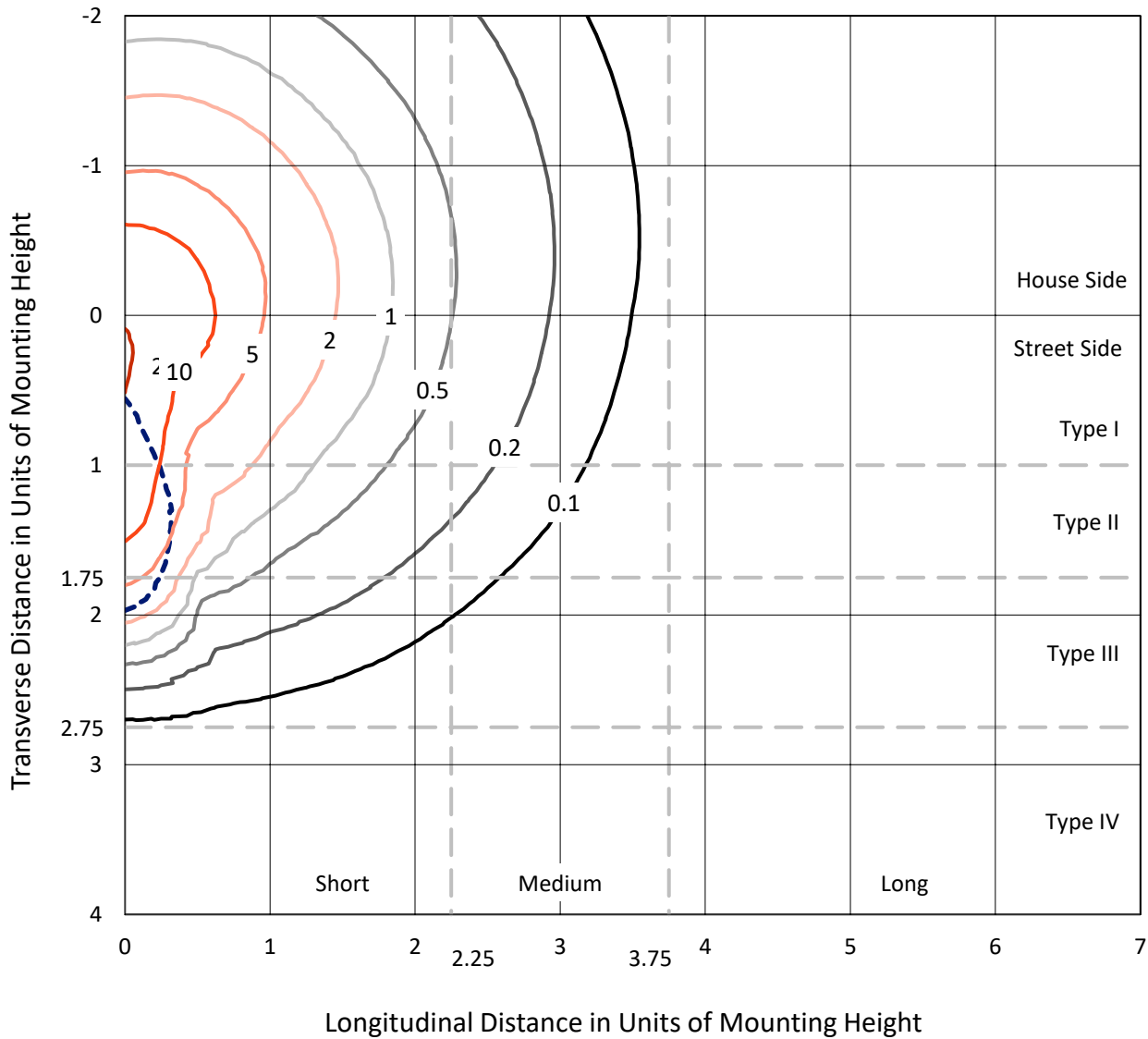
Input Watts (W): 94.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636995
 CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

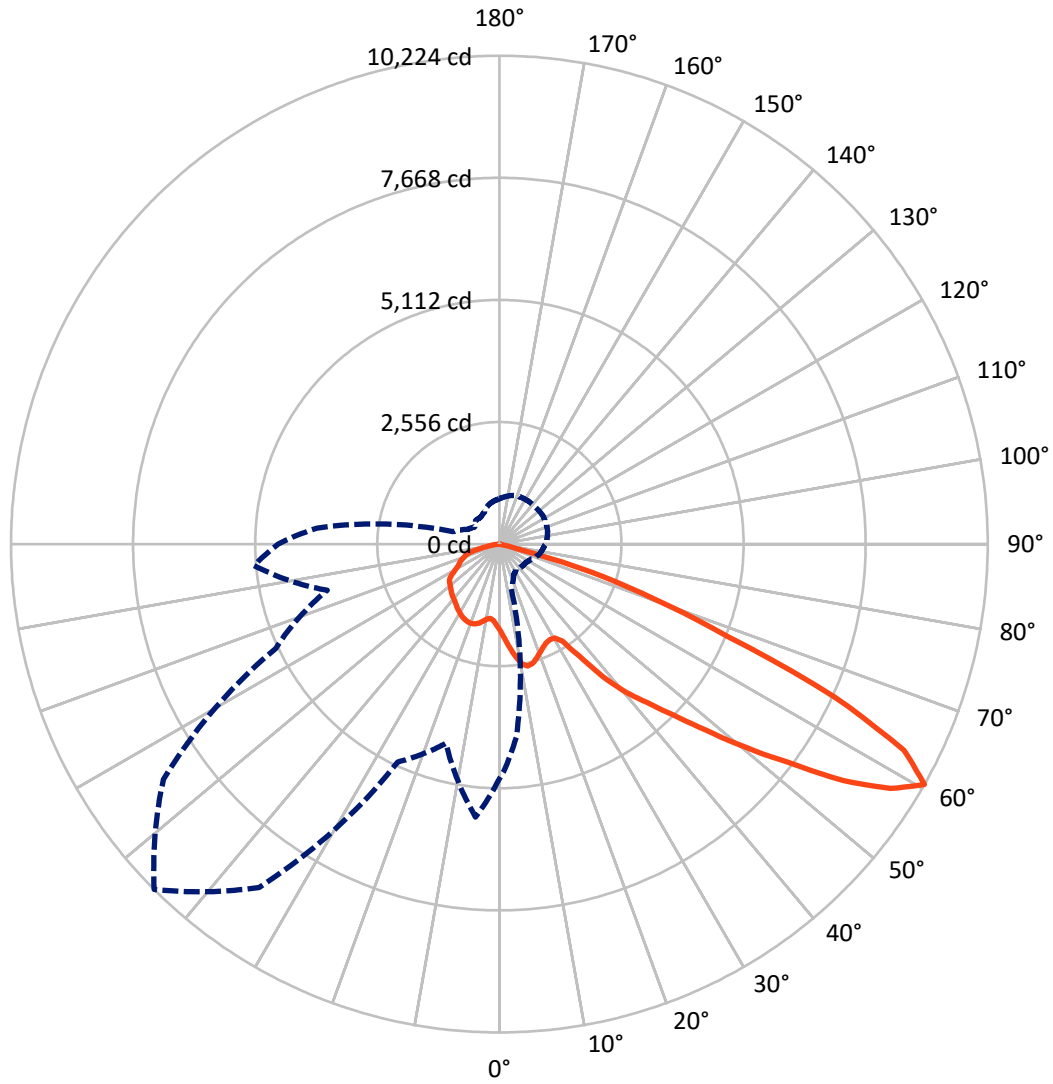
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.8 fc
 Type III - Short - N/A

REPORT NUMBER: P636995
CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P636995
 CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

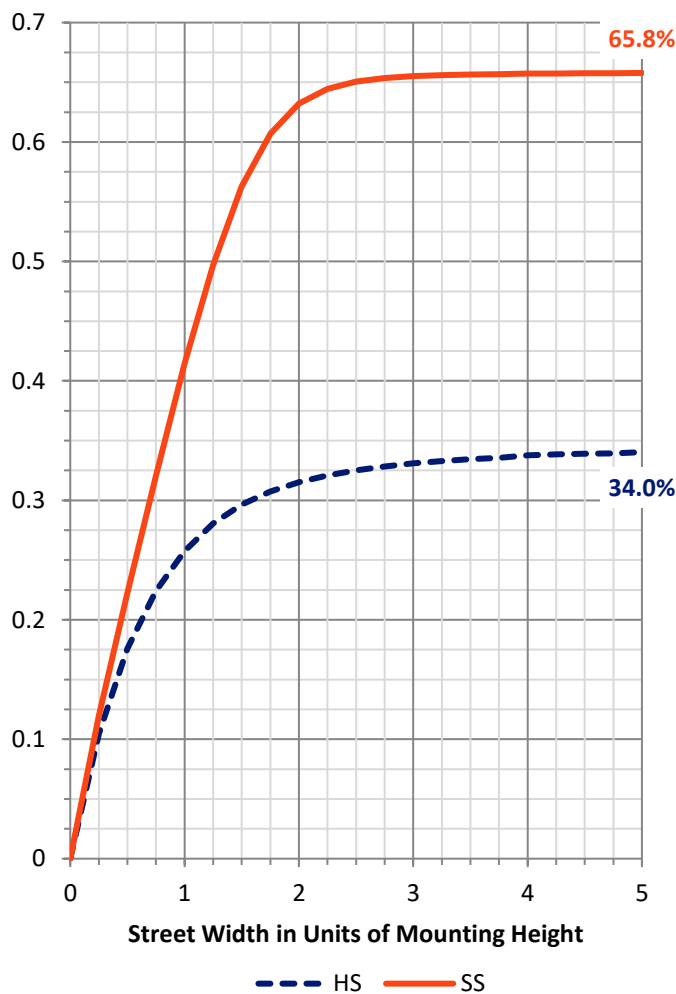
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3061.7	0.0	3061.7
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	5888.3	0.0	5888.3
	% Fixture	65.8	0.0	65.8
Total	Lumens	8950.0	0.0	8950.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.4	2.0
10°-20°	565.7	6.3
20°-30°	921.2	10.3
30°-40°	1294.2	14.5
40°-50°	1770.9	19.8
50°-60°	2272.0	25.4
60°-70°	1529.9	17.1
70°-80°	382.5	4.3
80°-90°	37.3	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°	8950.0	100.0
0°-180°	8950.0	100.0

Coefficient of Utilization



REPORT NUMBER: P636995

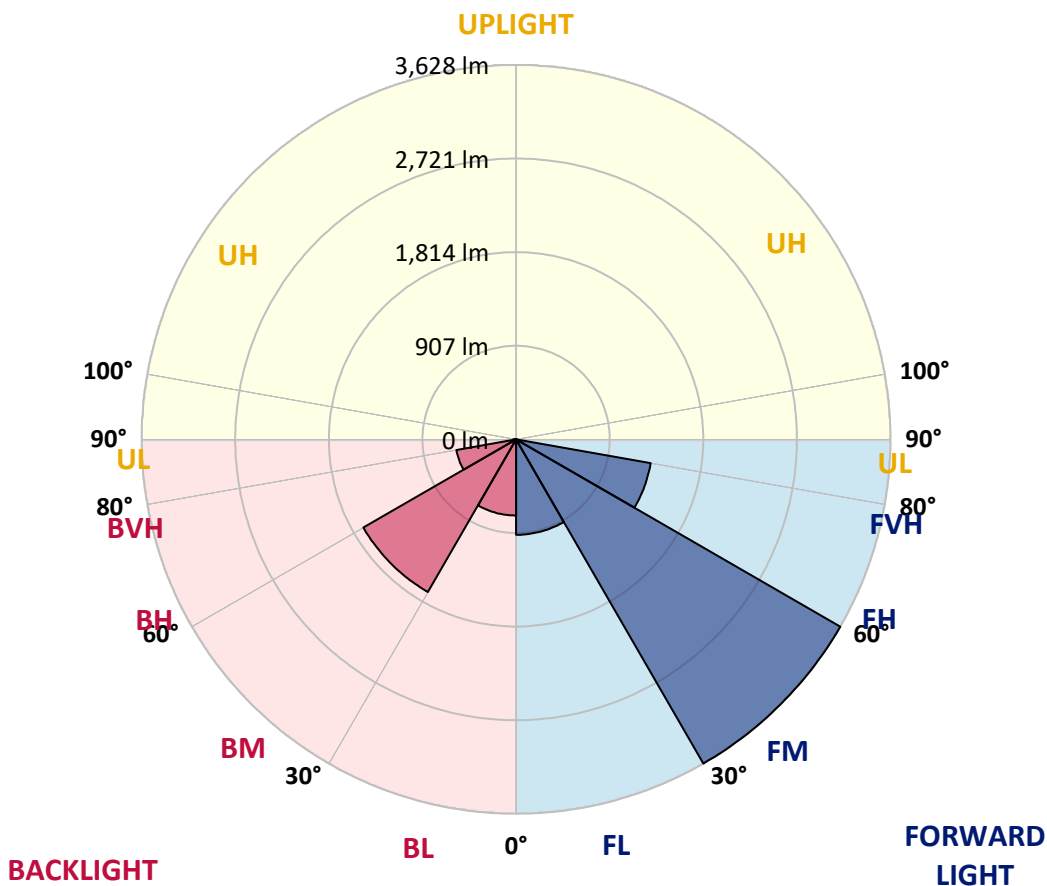
CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	925.2	10.3			
FM (30°-60°)	3628.4	40.5			
FH (60°-80°)	1325.0	14.8			G1/1800
FVH (80°-90°)	9.7	0.1			G0/10
BL (0°-30°)	738.1	8.2	B2/1000		
BM (30°-60°)	1708.7	19.1	B2/2500		
BH (60°-80°)	587.4	6.6	B2/1000		G2/1000
BVH (80°-90°)	27.6	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-G2

Type III Short





REPORT NUMBER: P636995

CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1
2.5°	1909.8	1905.7	1901.6	1869.4	1861.2	1838.1	1821.6	1801.0	1771.3	1754.8	1740.8
5°	2029.3	2022.7	2000.5	1934.5	1891.7	1844.7	1805.9	1763.1	1717.7	1688.1	1665.0
7.5°	2142.2	2140.6	2102.7	1993.9	1924.6	1857.0	1804.3	1741.7	1676.5	1632.0	1602.4
10°	2246.9	2234.6	2189.2	2047.5	1956.8	1879.3	1822.4	1753.2	1677.4	1617.2	1577.6
12.5°	2339.2	2323.6	2260.9	2096.9	1984.8	1889.2	1827.4	1770.5	1720.2	1669.9	1624.6
15°	2415.1	2396.1	2332.6	2143.1	2009.5	1883.4	1796.9	1752.4	1769.7	1791.9	1741.7
17.5°	2486.0	2466.2	2388.7	2176.9	2017.0	1848.0	1721.9	1702.9	1790.3	1891.7	1868.6
20°	2545.3	2523.0	2433.2	2193.3	2003.8	1780.4	1624.6	1657.6	1773.0	1894.1	1931.2
22.5°	2609.6	2591.5	2483.5	2217.2	1987.3	1687.3	1543.0	1623.8	1743.3	1849.6	1905.7
25°	2712.6	2690.4	2561.8	2259.3	1979.0	1599.9	1484.5	1590.8	1702.1	1798.5	1842.2
27.5°	2861.8	2820.6	2668.9	2332.6	1988.1	1517.5	1447.4	1550.4	1654.3	1736.7	1772.1
30°	3024.2	2974.7	2787.6	2408.5	2001.3	1467.2	1427.6	1504.3	1580.9	1663.3	1702.1
32.5°	3216.2	3172.6	2914.6	2465.3	1973.3	1444.1	1412.8	1454.0	1515.0	1580.9	1613.1
35°	3445.4	3367.1	3053.0	2511.5	1882.6	1410.3	1399.6	1398.8	1430.9	1495.2	1531.5
37.5°	3691.8	3607.8	3223.7	2561.0	1741.7	1356.7	1368.3	1333.6	1363.3	1414.4	1455.6
40°	3893.8	3805.6	3395.9	2628.6	1565.3	1272.7	1299.0	1261.9	1280.1	1332.8	1379.0
42.5°	4091.6	3997.6	3556.7	2705.2	1394.6	1190.2	1203.4	1189.4	1195.2	1250.4	1314.7
45°	4351.2	4245.7	3754.5	2759.6	1241.3	1125.1	1112.7	1088.8	1119.3	1191.0	1259.5
47.5°	4784.8	4658.7	4078.4	2795.1	1130.1	1088.0	1031.1	1017.1	1055.0	1135.0	1205.9
50°	5291.7	5182.9	4596.0	2793.4	1046.8	1056.7	952.0	939.7	1002.3	1083.1	1158.1
52.5°	5707.1	5596.7	5038.7	2711.0	978.4	989.9	905.9	871.2	957.0	1032.0	1107.0
55°	6042.6	5918.2	5242.3	2366.4	891.8	883.6	855.6	792.1	900.1	980.9	1050.9
57.5°	5862.1	5713.7	4995.8	1799.4	802.8	750.9	769.0	722.0	822.6	924.0	991.6
60°	4915.0	4781.5	4058.6	957.8	706.4	627.3	665.2	672.6	737.7	855.6	924.8
62.5°	3376.2	3278.9	2750.5	581.1	557.2	503.6	563.0	616.5	665.2	764.9	825.1
65°	1651.8	1623.0	1375.7	372.6	389.9	407.2	466.5	531.6	603.4	690.7	754.2
67.5°	455.0	458.3	417.1	291.0	307.4	355.3	402.2	454.2	525.9	606.7	670.9
70°	200.3	203.6	210.2	224.2	255.5	299.2	347.8	401.4	467.4	534.9	596.8
72.5°	139.3	142.6	152.5	170.6	198.6	239.9	286.0	337.1	405.5	462.4	513.5
75°	85.7	88.2	97.3	112.9	131.9	163.2	208.5	255.5	315.7	367.6	413.0
77.5°	45.3	43.7	49.5	60.2	76.7	93.1	123.6	153.3	196.2	238.2	276.1
80°	24.7	23.9	27.2	33.0	37.9	51.1	71.7	91.5	116.2	140.1	160.7
82.5°	10.7	9.9	10.7	14.0	17.3	24.7	36.3	50.3	64.3	80.8	94.0
85°	0.0	0.0	0.0	0.8	4.1	6.6	12.4	18.1	26.4	36.3	44.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	7.4
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: P636995

CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1
2.5°	1732.6	1712.0	1710.3	1693.8	1695.5	1696.3	1679.8	1673.2	1679.0	1685.6	1682.3
5°	1656.8	1635.3	1626.3	1610.6	1608.9	1601.5	1594.9	1586.7	1592.5	1598.2	1601.5
7.5°	1590.8	1576.8	1571.0	1566.9	1568.6	1565.3	1552.1	1544.7	1543.8	1546.3	1549.6
10°	1569.4	1557.8	1565.3	1576.8	1585.0	1590.8	1576.8	1564.4	1552.9	1548.0	1548.0
12.5°	1615.5	1600.7	1615.5	1627.9	1644.4	1648.5	1632.9	1619.7	1615.5	1620.5	1630.4
15°	1717.7	1683.1	1682.3	1689.7	1702.9	1709.5	1694.7	1688.1	1688.1	1719.4	1744.1
17.5°	1820.0	1763.1	1739.2	1735.1	1743.3	1745.8	1733.4	1727.6	1742.5	1803.5	1849.6
20°	1891.7	1822.4	1770.5	1760.6	1763.1	1763.9	1754.0	1749.9	1771.3	1845.5	1884.2
22.5°	1884.2	1833.1	1769.7	1757.3	1761.4	1759.8	1750.7	1749.1	1766.4	1830.7	1848.8
25°	1833.1	1793.6	1740.0	1731.8	1738.4	1737.5	1728.5	1724.3	1731.8	1774.6	1776.3
27.5°	1774.6	1740.0	1693.8	1691.4	1702.1	1707.9	1692.2	1679.8	1677.4	1706.2	1699.6
30°	1704.6	1679.0	1641.9	1643.6	1663.3	1666.6	1647.7	1629.6	1624.6	1640.3	1631.2
32.5°	1621.3	1613.1	1593.3	1597.4	1616.4	1623.0	1603.2	1584.2	1578.4	1583.4	1564.4
35°	1550.4	1547.1	1548.8	1556.2	1572.7	1577.6	1561.1	1546.3	1538.1	1520.8	1496.0
37.5°	1477.1	1486.1	1510.0	1524.0	1533.1	1531.5	1522.4	1511.7	1498.5	1466.4	1435.9
40°	1408.7	1431.7	1474.6	1490.3	1493.6	1494.4	1487.8	1478.7	1462.2	1419.4	1384.7
42.5°	1355.9	1381.5	1438.3	1462.2	1463.9	1465.5	1458.9	1451.5	1428.4	1371.6	1337.8
45°	1300.7	1334.5	1401.2	1430.1	1428.4	1427.6	1421.8	1418.5	1391.3	1325.4	1288.3
47.5°	1253.7	1293.3	1365.0	1389.7	1388.9	1388.0	1383.9	1383.9	1356.7	1285.0	1243.0
50°	1207.5	1252.9	1327.9	1348.5	1350.1	1348.5	1346.8	1349.3	1317.2	1240.5	1199.3
52.5°	1157.3	1208.4	1286.7	1305.6	1315.5	1319.6	1319.6	1313.9	1275.9	1196.0	1150.7
55°	1102.0	1150.7	1241.3	1266.9	1275.1	1282.5	1282.5	1271.0	1235.6	1154.8	1106.2
57.5°	1033.6	1076.5	1148.2	1173.7	1193.5	1198.5	1198.5	1179.5	1150.7	1073.2	1033.6
60°	959.4	996.5	1045.2	1072.4	1087.2	1077.3	1084.7	1079.8	1056.7	985.0	952.0
62.5°	860.5	898.4	952.0	980.0	986.6	976.7	986.6	985.8	954.5	890.2	850.6
65°	789.6	826.7	879.5	915.7	926.5	924.0	930.6	920.7	882.0	821.0	783.0
67.5°	705.6	745.1	806.1	846.5	868.8	871.2	880.3	859.7	820.1	753.4	705.6
70°	625.6	659.4	706.4	744.3	775.6	791.3	792.9	763.3	713.8	658.6	624.0
72.5°	541.5	576.2	633.0	674.2	713.8	731.9	731.9	695.7	642.1	581.1	544.0
75°	439.3	471.5	523.4	567.9	613.2	636.3	635.5	604.2	544.8	487.1	448.4
77.5°	297.6	321.5	354.4	388.2	394.8	413.0	422.0	382.5	349.5	318.2	283.5
80°	173.1	187.9	206.1	225.0	229.1	234.9	220.1	205.2	187.9	167.3	151.7
82.5°	101.4	111.3	120.3	135.2	137.7	139.3	126.1	119.5	105.5	93.1	83.2
85°	49.5	52.8	61.0	68.4	65.1	63.5	57.7	51.1	45.3	40.4	35.4
87.5°	9.9	9.9	14.8	14.0	11.5	9.9	5.8	7.4	1.6	1.6	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: P636995

CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1
2.5°	1693.0	1707.0	1724.3	1747.4	1773.8	1801.8	1829.0	1849.6	1870.2	1900.7	1895.8
5°	1606.5	1630.4	1657.6	1693.0	1735.9	1784.5	1838.9	1893.3	1951.8	2001.3	2022.7
7.5°	1556.2	1582.6	1614.7	1660.9	1716.1	1775.4	1852.1	1940.3	2035.1	2100.2	2140.6
10°	1556.2	1590.0	1632.0	1676.5	1725.2	1786.2	1881.0	1991.4	2113.4	2199.1	2246.1
12.5°	1646.0	1679.8	1688.9	1687.3	1714.5	1782.0	1904.0	2045.0	2190.9	2281.5	2339.2
15°	1786.2	1797.7	1729.3	1666.6	1670.8	1752.4	1914.7	2087.8	2257.6	2366.4	2429.1
17.5°	1880.1	1849.6	1727.6	1618.0	1594.9	1702.1	1914.7	2129.1	2328.5	2451.3	2509.9
20°	1887.5	1811.7	1685.6	1571.0	1511.7	1635.3	1901.6	2160.4	2396.9	2532.9	2595.6
22.5°	1822.4	1747.4	1641.1	1530.6	1443.3	1554.5	1880.1	2184.3	2455.5	2609.6	2687.1
25°	1748.2	1685.6	1595.8	1489.4	1396.3	1472.9	1860.3	2224.7	2537.1	2713.4	2791.8
27.5°	1675.7	1623.0	1541.4	1454.8	1369.9	1402.1	1848.0	2284.0	2634.3	2861.0	2928.6
30°	1604.8	1557.0	1482.8	1421.8	1355.9	1355.9	1837.3	2352.4	2762.9	3026.7	3094.3
32.5°	1533.1	1487.8	1427.6	1389.7	1347.7	1337.8	1807.6	2416.7	2895.6	3208.0	3277.2
35°	1466.4	1421.0	1374.9	1359.2	1343.5	1323.8	1734.2	2467.0	3025.0	3419.8	3479.2
37.5°	1403.7	1360.0	1325.4	1321.3	1322.9	1285.8	1618.8	2509.0	3186.6	3636.6	3667.9
40°	1349.3	1300.7	1273.5	1272.7	1280.9	1224.8	1472.9	2569.2	3371.2	3820.4	3807.2
42.5°	1300.7	1249.6	1216.6	1224.0	1219.1	1163.8	1330.3	2624.4	3531.9	3992.7	3966.3
45°	1252.9	1203.4	1157.3	1168.0	1162.2	1125.9	1209.2	2664.8	3710.0	4199.6	4202.9
47.5°	1206.7	1158.1	1111.9	1098.7	1097.9	1114.4	1116.0	2678.0	4000.1	4532.6	4457.6
50°	1163.8	1115.2	1067.4	1022.9	1040.2	1091.3	1046.8	2668.1	4434.5	4900.2	4690.8
52.5°	1119.3	1073.2	1020.4	940.5	985.8	1036.1	985.0	2632.7	4699.9	5225.0	5099.7
55°	1068.2	1024.5	952.8	855.6	910.8	921.5	921.5	2289.8	4812.8	5546.4	5623.9
57.5°	999.8	942.1	828.4	750.1	799.5	758.3	853.9	1602.4	4626.5	5445.0	5745.9
60°	922.3	860.5	740.2	684.1	699.0	626.4	727.8	1004.8	3834.4	4633.1	5154.1
62.5°	820.1	763.3	663.5	619.8	589.3	511.0	586.0	635.5	2628.6	3440.4	3795.7
65°	751.7	689.1	600.1	542.4	479.7	411.3	389.0	417.1	1413.6	1925.5	2165.3
67.5°	670.9	609.1	525.1	452.5	402.2	352.8	314.0	304.2	484.7	641.3	694.0
70°	594.3	534.9	464.9	397.3	347.0	298.4	260.5	233.3	224.2	222.5	219.3
72.5°	516.0	460.8	402.2	339.6	284.4	239.9	206.1	174.7	161.6	157.4	153.3
75°	422.8	379.2	320.6	253.0	208.5	167.3	140.9	120.3	108.8	104.7	99.7
77.5°	272.0	252.2	201.1	163.2	126.1	99.7	85.7	72.5	65.1	63.5	59.3
80°	145.1	135.2	111.3	94.0	75.0	61.0	53.6	46.2	42.0	40.4	38.7
82.5°	80.8	73.4	61.8	54.4	43.7	37.1	33.0	29.7	27.2	26.4	25.6
85°	36.3	31.3	24.7	23.1	20.6	19.0	18.1	16.5	15.7	14.8	14.0
87.5°	1.6	3.3	4.1	3.3	3.3	4.9	5.8	5.8	4.9	4.9	4.1
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: P636995

CATALOG NUMBER: GWS-SA4B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1	1805.1
2.5°	1926.3	1951.0	1953.5	1961.7	1951.0	1948.5	1931.2	1921.3	1912.3	1909.8
5°	2076.3	2125.8	2145.5	2159.5	2146.4	2139.8	2101.9	2062.3	2040.0	2029.3
7.5°	2230.4	2304.6	2343.4	2360.7	2362.3	2332.6	2267.5	2193.3	2156.3	2142.2
10°	2368.1	2459.6	2510.7	2543.7	2532.1	2495.8	2406.8	2306.3	2259.3	2246.9
12.5°	2470.3	2557.7	2597.2	2618.7	2617.8	2598.1	2514.0	2405.2	2351.6	2339.2
15°	2536.2	2588.2	2590.6	2595.6	2609.6	2636.0	2592.3	2491.7	2432.4	2415.1
17.5°	2588.2	2567.6	2528.8	2515.6	2546.9	2620.3	2646.7	2565.1	2500.8	2486.0
20°	2621.1	2517.3	2448.9	2423.3	2459.6	2579.1	2679.7	2631.0	2564.3	2545.3
22.5°	2646.7	2470.3	2359.8	2342.5	2380.5	2534.6	2713.4	2709.3	2636.0	2609.6
25°	2687.1	2439.0	2297.2	2284.8	2320.3	2513.2	2758.8	2815.7	2750.5	2712.6
27.5°	2750.5	2435.7	2265.1	2260.9	2309.6	2532.1	2823.9	2971.4	2889.8	2861.8
30°	2838.7	2467.0	2272.5	2280.7	2340.1	2600.5	2925.3	3149.5	3067.9	3024.2
32.5°	2965.7	2551.1	2385.4	2420.8	2464.5	2710.2	3073.6	3342.4	3280.5	3216.2
35°	3133.0	2781.9	2719.2	2870.1	2828.8	2950.0	3252.5	3576.4	3501.4	3445.4
37.5°	3356.4	3255.0	3312.7	3520.4	3420.7	3403.4	3470.9	3789.1	3747.9	3691.8
40°	3669.6	3690.2	3796.5	4069.4	3925.1	3813.8	3738.8	3949.0	3963.0	3893.8
42.5°	3877.3	3972.1	4228.4	4538.4	4339.7	4073.5	3963.0	4153.4	4154.2	4091.6
45°	3954.8	4202.9	4738.6	5095.5	4763.4	4221.8	4086.7	4431.2	4423.0	4351.2
47.5°	3926.8	4397.4	5268.6	5814.3	5307.4	4327.3	4069.4	4826.8	4893.6	4784.8
50°	3868.2	4592.8	5887.7	6694.6	5975.0	4439.4	4043.0	5265.3	5375.8	5291.7
52.5°	3927.6	4810.4	6619.6	7604.6	6812.5	4618.3	4221.0	5828.3	5808.5	5707.1
55°	4115.5	5067.5	7509.0	8747.8	7732.3	4920.8	4678.5	6364.9	6163.8	6042.6
57.5°	4106.4	5251.3	8288.7	9652.0	8532.7	5168.9	4837.6	6421.8	6015.4	5862.1
60°	3727.3	5167.3	8585.4	10224.1	8774.2	5032.1	4314.2	5736.0	5075.8	4915.0
62.5°	2781.9	4585.3	8010.1	9507.8	8090.9	4346.3	3244.3	4117.2	3647.3	3376.2
65°	1779.6	3587.2	6734.2	7702.7	6669.1	3324.2	1932.1	2207.4	1729.3	1651.8
67.5°	757.5	2532.1	5234.8	5148.3	4989.2	2153.8	746.0	621.5	463.2	455.0
70°	250.6	1722.7	3227.0	3433.8	2979.7	1483.7	246.5	208.5	207.7	200.3
72.5°	164.0	924.8	1816.7	2022.7	1917.2	853.9	149.2	139.3	142.6	139.3
75°	98.1	201.1	305.8	397.3	305.8	143.4	89.8	88.2	89.8	85.7
77.5°	57.7	56.0	54.4	54.4	53.6	49.5	45.3	43.7	44.5	45.3
80°	37.1	35.4	33.8	33.0	28.8	27.2	25.6	23.9	23.9	24.7
82.5°	23.9	22.3	20.6	18.1	14.8	12.4	11.5	9.9	9.9	10.7
85°	12.4	9.9	7.4	5.8	3.3	1.6	0.0	0.0	0.0	0.0
87.5°	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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



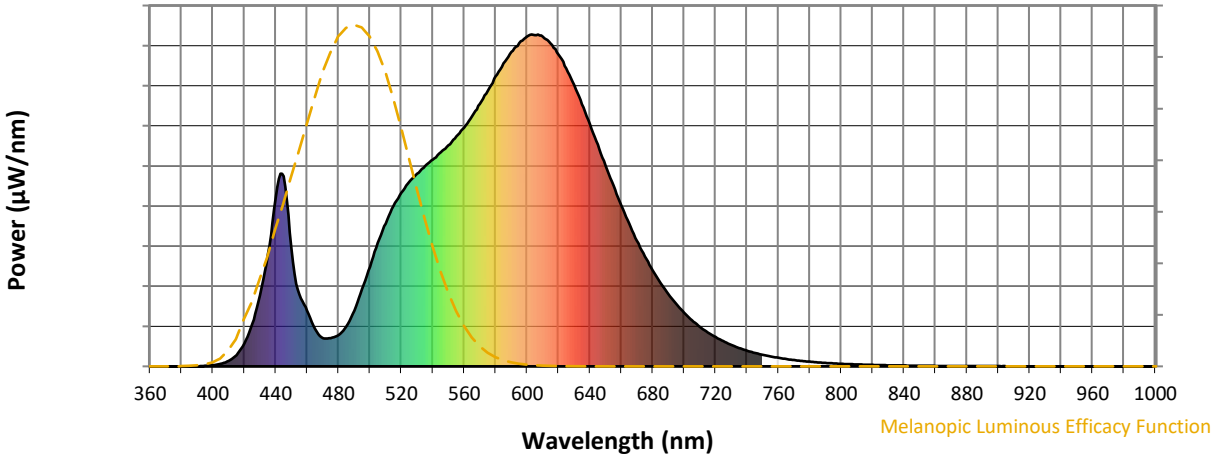
Scotopic Lumens: NR

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

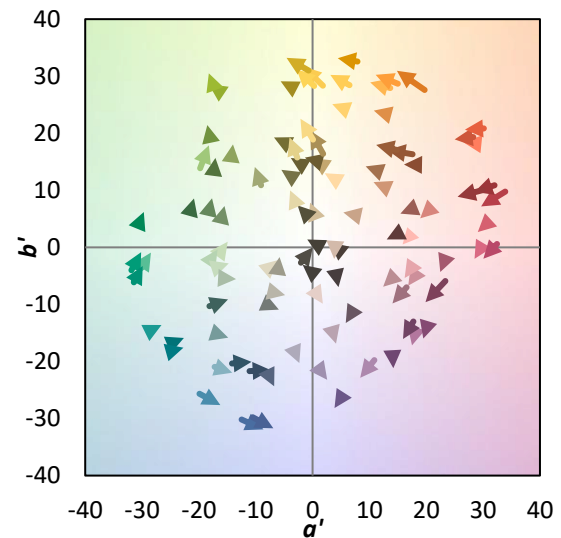
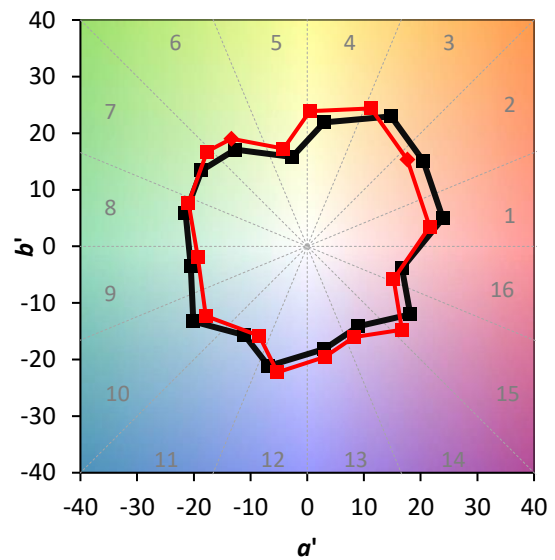
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

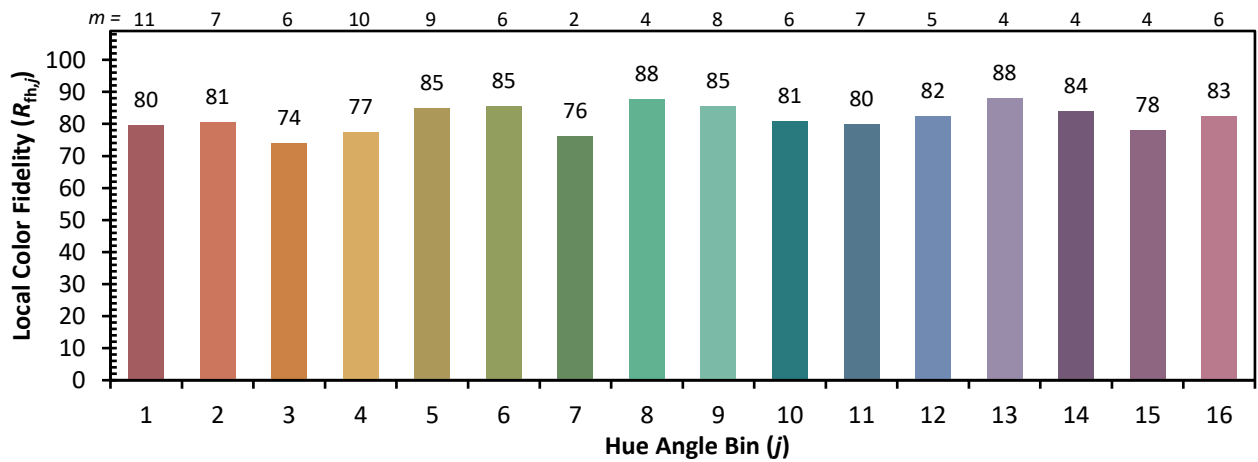
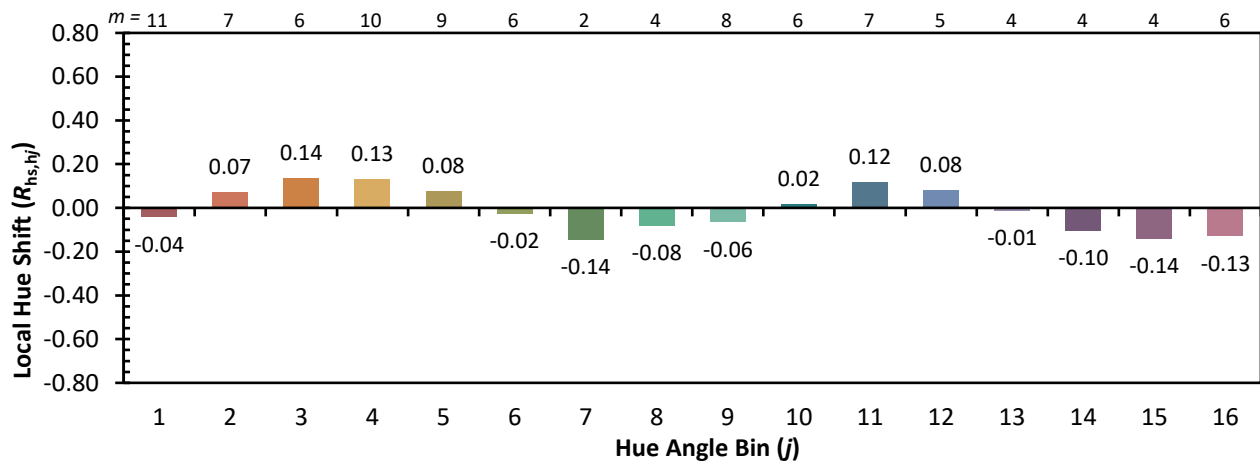
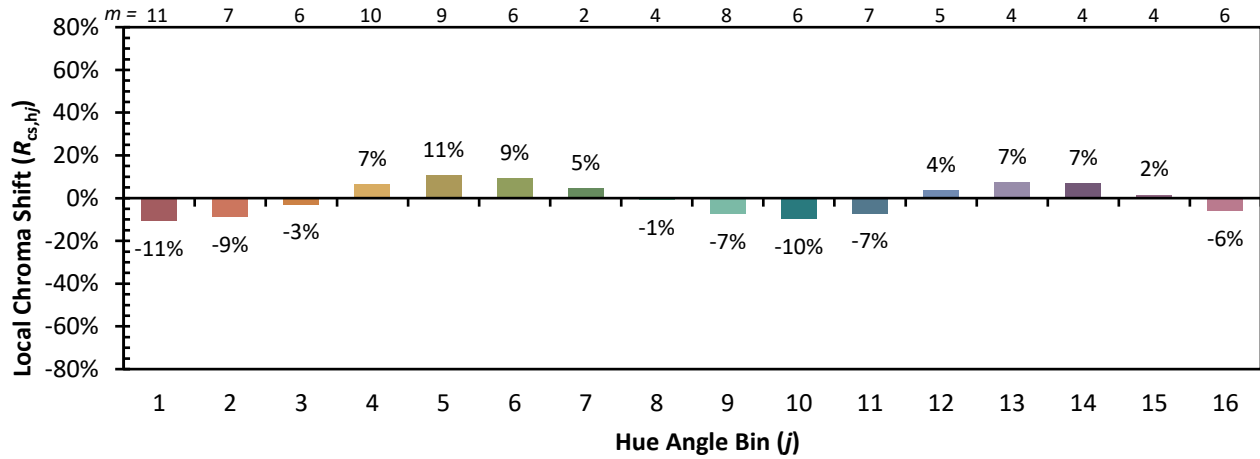


Individual Sample Fidelity Index ($R_{f,i}$)

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)