

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: P634029

Luminaire Tested: GWS-SA2F-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634029
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-SA2F-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: 10082.7 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

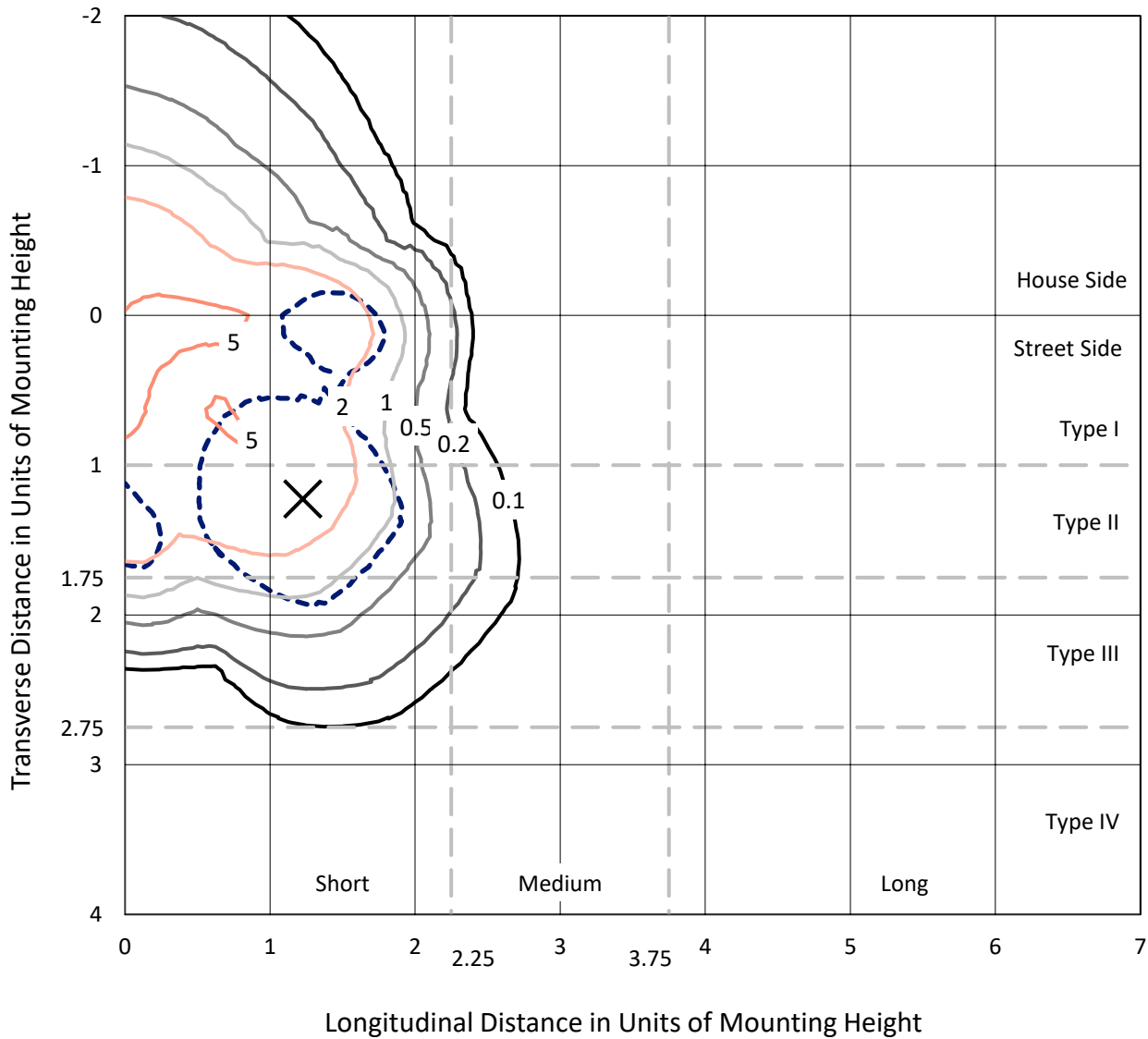
Input Watts (W): 124.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P634029
 CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

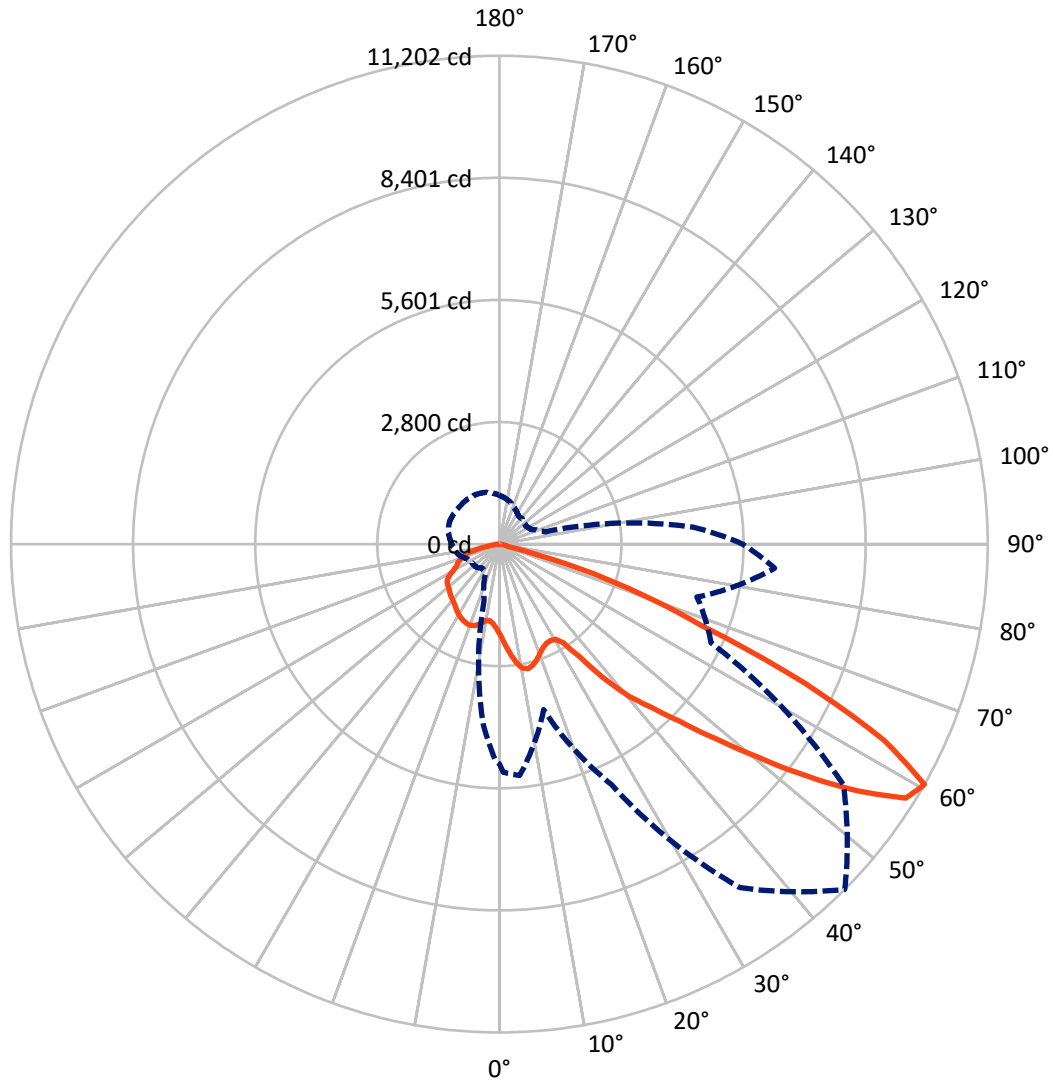
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - N/A

REPORT NUMBER: P634029
CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

Luminous Intensity Polar Plot



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

REPORT NUMBER: P634029

CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3534.4	0.0	3534.4
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	6548.4	0.0	6548.4
	% Fixture	64.9	0.0	64.9
Total	Lumens	10082.7	0.0	10082.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.1	2.0
10°-20°	638.6	6.3
20°-30°	1037.3	10.3
30°-40°	1462.9	14.5
40°-50°	2021.7	20.1
50°-60°	2602.6	25.8
60°-70°	1649.0	16.4
70°-80°	423.1	4.2
80°-90°	45.2	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°	10082.7	100.0
0°-180°	10082.7	100.0

Coefficient of Utilization



REPORT NUMBER: P634029

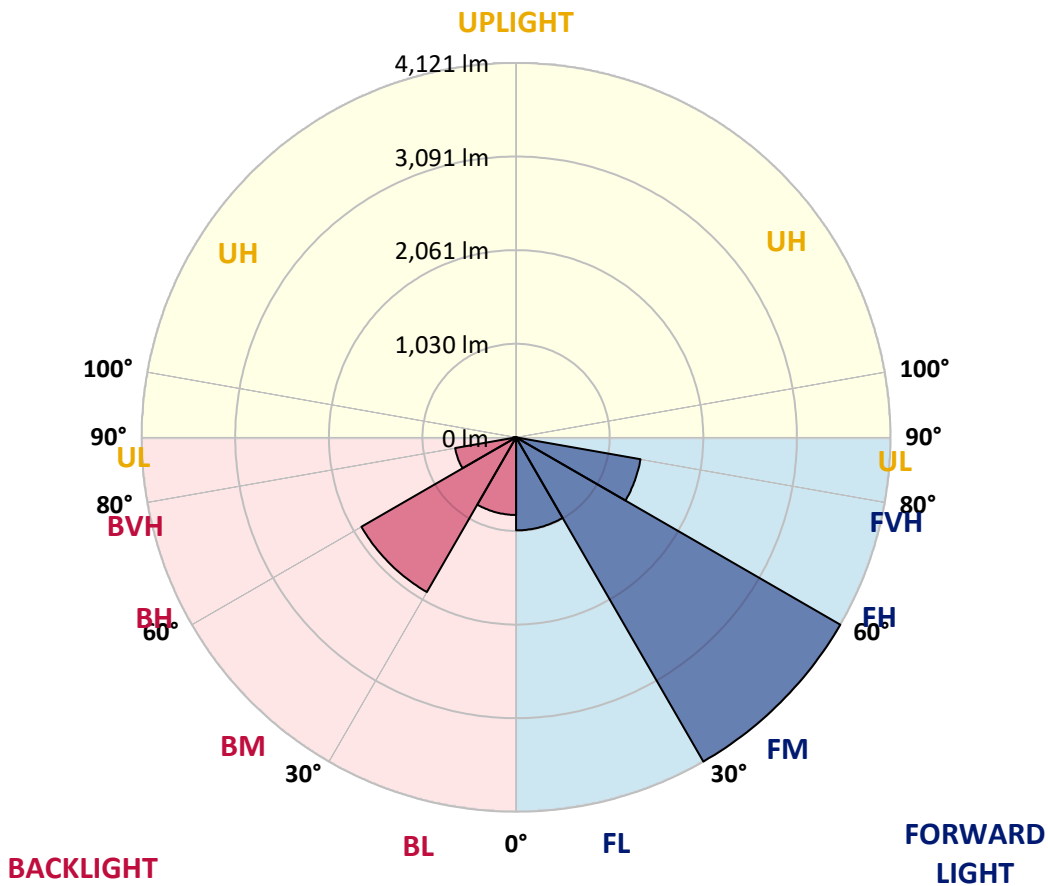
CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1023.8	10.2			
FM (30°-60°)	4121.2	40.9			
FH (60°-80°)	1391.1	13.8			G1/1800
FVH (80°-90°)	12.3	0.1			G1/100
BL (0°-30°)	854.2	8.5	B2/1000		
BM (30°-60°)	1966.0	19.5	B2/2500		
BH (60°-80°)	681.1	6.8	B2/1000		G2/1000
BVH (80°-90°)	33.0	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: P634029
 CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3
2.5°	2166.4	2181.2	2190.5	2208.0	2239.4	2257.0	2276.4	2255.1	2260.7	2257.9	2223.7
5°	2294.9	2312.4	2336.4	2388.2	2446.4	2478.7	2509.2	2504.6	2475.9	2427.9	2393.7
7.5°	2415.0	2435.3	2476.9	2560.9	2646.8	2696.7	2733.7	2709.7	2685.6	2609.9	2524.0
10°	2509.2	2521.2	2577.6	2690.3	2790.0	2846.4	2891.7	2886.1	2852.9	2767.9	2652.4
12.5°	2597.9	2606.2	2667.2	2779.9	2869.5	2894.4	2931.4	2943.4	2932.3	2868.6	2754.9
15°	2693.0	2708.7	2765.1	2851.0	2891.7	2865.8	2878.7	2912.0	2943.4	2943.4	2839.0
17.5°	2781.7	2795.6	2852.9	2889.8	2851.0	2782.7	2786.3	2828.8	2903.7	2982.2	2915.7
20°	2860.3	2873.2	2929.5	2894.4	2771.6	2671.8	2669.0	2720.8	2841.8	3007.1	2997.9
22.5°	2946.2	2964.6	3011.8	2898.1	2697.7	2571.1	2570.2	2623.7	2787.3	3032.1	3092.1
25°	3068.1	3096.8	3120.8	2930.5	2657.9	2505.5	2517.5	2568.3	2769.7	3072.7	3231.6
27.5°	3249.2	3272.3	3270.4	2997.9	2656.1	2478.7	2503.6	2562.8	2801.1	3144.8	3378.5
30°	3445.1	3457.1	3437.7	3092.1	2698.6	2495.3	2532.3	2602.5	2880.6	3264.0	3594.7
32.5°	3662.2	3676.9	3640.0	3233.5	2797.4	2618.2	2699.5	2733.7	2992.4	3435.8	3823.8
35°	3911.6	3940.2	3863.6	3420.1	3088.4	3066.3	3184.5	3140.2	3229.8	3639.1	4068.7
37.5°	4174.0	4174.9	4065.0	3696.3	3659.4	3697.3	3933.8	3795.2	3733.3	3865.4	4318.1
40°	4396.6	4391.1	4222.0	4068.7	4156.4	4307.0	4592.5	4380.0	4217.4	4169.4	4525.0
42.5°	4619.3	4598.9	4428.0	4305.2	4499.2	4808.7	5131.1	4870.6	4527.8	4445.6	4729.2
45°	4903.8	4897.4	4691.3	4399.4	4808.7	5370.4	5798.1	5375.9	4711.7	4606.3	5069.2
47.5°	5363.0	5331.6	4948.2	4392.0	5098.8	6118.7	6659.1	6012.4	4840.1	4610.0	5618.0
50°	5812.0	5773.2	5254.9	4391.1	5398.1	6894.7	7675.4	6785.7	4971.3	4632.2	6176.0
52.5°	6265.6	6265.6	5758.4	4495.5	5712.2	7761.3	8849.6	7749.3	5194.8	4922.3	6862.4
55°	6535.3	6607.4	6324.7	4671.9	6079.9	8781.2	10010.9	8789.6	5540.4	5446.1	7496.2
57.5°	6192.6	6327.5	6286.8	4549.1	6297.0	9530.5	10995.7	9578.5	5711.3	5508.0	7401.0
60°	5046.1	5233.6	5326.9	3928.2	6082.7	9617.3	11201.7	9630.3	5358.4	4690.4	6339.5
62.5°	3354.5	3508.8	3651.1	2806.7	5266.0	8651.9	9907.4	8654.7	4475.2	3500.5	4392.0
65°	1645.4	1759.9	1913.3	1659.2	4113.9	7229.2	7724.3	6993.6	3237.2	1959.5	2240.3
67.5°	430.5	462.9	484.1	643.9	2947.1	5193.9	5037.8	5115.4	2079.6	640.2	585.7
70°	223.6	225.4	224.5	266.1	1991.8	3300.9	3471.8	3212.2	1451.4	267.9	231.0
72.5°	159.8	160.8	158.0	179.2	961.7	1891.1	1959.5	1938.2	760.3	158.9	158.0
75°	104.4	105.3	103.5	105.3	145.0	215.3	198.6	208.8	126.6	100.7	100.7
77.5°	61.9	62.8	61.9	63.7	61.9	61.9	57.3	57.3	54.5	54.5	55.4
80°	41.6	41.6	40.6	42.5	38.8	38.8	37.0	36.0	33.3	32.3	32.3
82.5°	24.9	25.9	24.9	24.9	23.1	23.1	21.2	20.3	17.6	17.6	16.6
85°	12.9	12.9	12.0	12.0	10.2	9.2	7.4	7.4	5.5	4.6	4.6
87.5°	1.8	1.8	0.9	0.9	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: P634029

CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3
2.5°	2214.5	2196.0	2168.3	2141.5	2116.6	2090.7	2061.1	2030.6	2004.8	1978.0	1964.1
5°	2348.4	2310.6	2238.5	2174.8	2117.5	2070.4	2019.5	1976.1	1935.5	1902.2	1885.6
7.5°	2469.5	2410.3	2301.3	2200.6	2123.0	2058.3	1988.1	1923.5	1869.0	1828.3	1812.6
10°	2581.2	2511.0	2367.8	2240.3	2149.8	2077.7	1991.8	1904.1	1832.0	1778.4	1765.5
12.5°	2671.8	2591.4	2420.5	2272.7	2165.5	2087.9	2012.2	1936.4	1865.3	1796.0	1784.9
15°	2752.2	2657.0	2460.2	2293.0	2160.0	2061.1	1997.4	1988.1	1988.1	1909.6	1887.4
17.5°	2821.5	2717.1	2492.6	2302.2	2124.9	1981.7	1942.9	2023.2	2113.8	2057.4	2007.5
20°	2900.9	2774.3	2519.4	2302.2	2060.2	1881.0	1877.3	2014.0	2148.0	2148.9	2096.2
22.5°	2981.3	2840.9	2550.8	2293.9	1971.5	1764.6	1832.9	1977.0	2096.2	2147.0	2111.0
25°	3111.5	2933.2	2600.7	2287.5	1868.0	1685.1	1793.2	1928.1	2028.8	2082.4	2059.3
27.5°	3276.9	3055.2	2676.4	2297.6	1765.5	1638.0	1750.7	1864.3	1955.8	2002.9	1986.3
30°	3461.7	3195.6	2757.7	2315.2	1691.6	1614.0	1699.9	1791.4	1872.7	1919.8	1912.4
32.5°	3697.3	3348.0	2827.9	2291.2	1650.0	1602.0	1646.3	1711.9	1790.4	1820.0	1826.5
35°	3979.0	3516.2	2881.5	2196.9	1612.1	1589.0	1588.1	1628.8	1684.2	1731.3	1735.9
37.5°	4238.6	3713.0	2940.6	2035.3	1543.8	1556.7	1519.7	1543.8	1598.3	1645.4	1663.9
40°	4495.5	3912.5	3022.9	1829.2	1454.1	1484.6	1441.2	1457.8	1501.3	1563.2	1592.7
42.5°	4744.9	4092.7	3109.7	1618.6	1364.5	1383.9	1351.6	1368.2	1413.5	1491.1	1524.4
45°	5016.5	4336.6	3177.1	1420.0	1286.9	1278.6	1252.7	1276.8	1345.1	1430.1	1469.9
47.5°	5530.2	4720.9	3221.5	1287.9	1245.4	1185.3	1155.7	1207.5	1285.1	1371.0	1419.0
50°	6157.5	5277.1	3208.5	1203.8	1209.3	1089.2	1079.1	1147.4	1230.6	1320.2	1372.8
52.5°	6654.5	5823.1	3061.7	1123.4	1139.1	1028.3	998.7	1098.5	1177.9	1269.4	1323.9
55°	7034.2	6006.9	2610.8	1028.3	1024.6	983.9	922.0	1047.7	1125.3	1210.2	1269.4
57.5°	6724.7	5597.6	1935.5	897.1	874.9	896.1	836.1	961.7	1060.6	1144.7	1197.3
60°	5581.0	4463.1	1078.1	794.5	731.7	783.4	774.2	871.2	990.4	1079.1	1124.3
62.5°	3788.7	2972.0	639.3	628.2	593.1	667.0	716.0	779.7	897.1	969.1	1011.6
65°	1888.4	1444.0	425.0	470.2	474.9	548.8	641.2	711.4	809.3	883.2	925.7
67.5°	547.8	449.0	323.3	359.4	409.3	468.4	542.3	625.4	720.6	808.4	858.3
70°	236.5	239.3	256.8	299.3	348.3	409.3	483.2	564.5	644.9	712.3	750.2
72.5°	167.2	173.7	193.1	236.5	282.7	340.9	414.8	493.3	551.5	619.9	659.6
75°	107.2	111.8	127.5	160.8	194.9	251.3	321.5	393.6	453.6	502.6	540.5
77.5°	59.1	60.1	73.0	92.4	115.5	151.5	203.2	259.6	303.9	331.7	365.8
80°	34.2	34.2	40.6	52.7	66.5	88.7	117.3	145.0	171.8	189.4	206.0
82.5°	18.5	18.5	21.2	28.6	36.0	49.0	65.6	79.5	96.1	105.3	116.4
85°	5.5	5.5	7.4	10.2	12.9	18.5	25.9	33.3	40.6	47.1	53.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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: P634029

CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3
2.5°	1961.3	1948.4	1941.0	1931.8	1934.6	1926.2	1921.6	1924.4	1907.8	1924.4	1941.0
5°	1879.1	1860.6	1845.9	1833.9	1828.3	1817.2	1810.8	1810.8	1800.6	1817.2	1837.5
7.5°	1807.1	1792.3	1784.9	1777.5	1769.2	1759.0	1747.9	1744.2	1737.8	1755.3	1772.9
10°	1759.0	1760.9	1765.5	1775.6	1773.8	1767.3	1750.7	1741.5	1741.5	1761.8	1788.6
12.5°	1781.2	1800.6	1811.7	1830.2	1833.9	1828.3	1811.7	1804.3	1822.8	1853.3	1897.6
15°	1867.1	1880.0	1889.3	1904.1	1903.1	1898.5	1885.6	1891.1	1952.1	2011.2	2051.0
17.5°	1960.4	1945.6	1943.8	1953.0	1955.8	1950.3	1942.9	1967.8	2068.5	2123.9	2144.3
20°	2027.9	1977.0	1966.0	1969.7	1977.0	1974.3	1974.3	2014.9	2119.3	2145.2	2119.3
22.5°	2048.2	1976.1	1959.5	1960.4	1970.6	1971.5	1976.1	2018.6	2079.6	2080.5	2040.8
25°	2015.9	1946.6	1934.6	1936.4	1948.4	1947.5	1949.3	1973.4	2000.1	1989.1	1959.5
27.5°	1954.9	1894.8	1891.1	1901.3	1917.0	1908.7	1903.1	1909.6	1922.5	1908.7	1882.8
30°	1885.6	1834.8	1836.6	1856.0	1872.7	1858.8	1844.9	1848.6	1849.6	1834.8	1805.2
32.5°	1812.6	1774.7	1781.2	1801.5	1820.9	1806.1	1791.4	1789.5	1772.0	1754.4	1725.8
35°	1739.6	1724.8	1733.2	1749.8	1766.4	1754.4	1745.2	1739.6	1701.7	1675.9	1651.9
37.5°	1673.1	1684.2	1699.0	1709.1	1714.7	1713.8	1708.2	1695.3	1645.4	1614.9	1583.5
40°	1614.0	1648.2	1663.9	1668.5	1676.8	1674.9	1674.0	1655.5	1590.0	1557.6	1521.6
42.5°	1560.4	1608.4	1635.2	1639.8	1644.5	1645.4	1642.6	1615.8	1541.0	1503.1	1468.9
45°	1508.7	1571.5	1605.7	1601.0	1607.5	1607.5	1610.3	1575.2	1492.9	1454.1	1418.1
47.5°	1463.4	1537.3	1568.7	1563.2	1566.9	1569.6	1572.4	1531.8	1440.3	1403.3	1366.4
50°	1421.8	1500.3	1527.1	1529.0	1529.0	1535.4	1534.5	1494.8	1395.9	1356.2	1319.3
52.5°	1377.5	1462.5	1491.1	1503.1	1506.8	1509.6	1496.6	1450.5	1350.7	1302.6	1268.5
55°	1325.7	1423.7	1449.5	1465.2	1472.6	1470.8	1453.2	1406.1	1304.5	1256.4	1217.6
57.5°	1247.2	1340.5	1377.5	1384.9	1396.9	1389.5	1369.2	1329.4	1230.6	1182.5	1142.8
60°	1161.3	1228.7	1258.3	1264.8	1255.5	1258.3	1255.5	1217.6	1131.7	1093.8	1053.2
62.5°	1048.6	1108.6	1140.0	1148.4	1132.6	1142.8	1139.1	1092.0	1006.1	966.4	930.3
65°	963.6	1029.2	1066.1	1070.7	1066.1	1070.7	1057.8	1000.5	919.2	878.6	841.6
67.5°	897.1	964.5	1003.3	1016.2	1011.6	1010.7	990.4	923.9	839.8	795.4	748.3
70°	782.5	841.6	891.5	922.9	922.9	905.4	866.6	804.7	737.2	699.4	662.4
72.5°	692.9	767.7	816.7	849.0	855.5	845.3	790.8	725.2	647.6	609.7	570.9
75°	570.9	643.9	696.6	739.1	747.4	736.3	673.5	608.8	536.8	499.8	461.0
77.5°	381.6	425.0	467.5	506.3	498.0	505.3	462.9	413.9	369.5	341.8	324.3
80°	215.3	243.9	256.8	278.1	278.1	278.1	250.4	227.3	202.3	186.6	169.1
82.5°	121.9	140.4	146.0	163.5	168.1	169.1	150.6	135.8	120.1	111.8	99.8
85°	56.4	66.5	67.4	77.6	81.3	88.7	80.4	70.2	61.0	57.3	49.9
87.5°	1.8	5.5	7.4	13.9	18.5	21.2	23.1	23.1	19.4	17.6	14.8
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: P634029

CATALOG NUMBER: GWS-SA2F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3	2071.3
2.5°	1961.3	1983.5	2009.4	2027.9	2061.1	2088.8	2117.5	2148.9	2172.0	2166.4
5°	1862.5	1899.4	1946.6	1990.0	2051.9	2114.7	2184.0	2255.1	2296.7	2294.9
7.5°	1807.1	1859.7	1917.0	1975.2	2048.2	2138.7	2245.0	2355.8	2412.2	2415.0
10°	1836.6	1893.0	1931.8	1980.7	2057.4	2171.1	2298.6	2431.6	2496.3	2509.2
12.5°	1929.9	1925.3	1922.5	1957.6	2050.0	2194.2	2350.3	2509.2	2582.2	2597.9
15°	2018.6	1923.5	1866.2	1890.2	2016.8	2208.9	2401.1	2594.2	2676.4	2693.0
17.5°	2035.3	1891.1	1784.9	1801.5	1964.1	2213.6	2450.1	2677.3	2766.0	2781.7
20°	1989.1	1849.6	1725.8	1702.7	1897.6	2201.5	2480.5	2746.6	2843.6	2860.3
22.5°	1930.9	1812.6	1681.4	1621.4	1816.3	2189.5	2514.7	2819.6	2931.4	2946.2
25°	1869.9	1765.5	1639.8	1548.4	1723.9	2182.1	2572.0	2915.7	3050.6	3068.1
27.5°	1805.2	1708.2	1603.8	1513.3	1638.9	2191.4	2653.3	3070.9	3224.3	3249.2
30°	1735.9	1650.9	1580.7	1501.3	1580.7	2199.7	2742.9	3229.8	3409.9	3445.1
32.5°	1663.9	1598.3	1556.7	1506.8	1544.7	2180.3	2821.5	3408.1	3631.7	3662.2
35°	1591.8	1544.7	1526.2	1517.0	1496.6	2109.2	2885.2	3588.3	3884.8	3911.6
37.5°	1524.4	1489.3	1483.7	1493.9	1422.7	1992.8	2959.1	3817.4	4133.3	4174.0
40°	1461.5	1429.2	1428.3	1426.4	1341.4	1833.9	3058.9	4050.2	4378.1	4396.6
42.5°	1403.3	1362.7	1370.1	1347.9	1274.9	1662.0	3153.1	4248.8	4606.3	4619.3
45°	1351.6	1298.0	1306.3	1278.6	1243.5	1481.9	3236.3	4483.5	4895.5	4903.8
47.5°	1301.7	1244.4	1221.3	1219.5	1238.0	1315.6	3317.6	4935.2	5348.2	5363.0
50°	1255.5	1193.6	1128.0	1168.7	1203.8	1190.8	3419.2	5419.3	5815.7	5812.0
52.5°	1211.2	1129.9	1036.6	1115.1	1115.1	1098.5	3390.5	5713.1	6201.8	6265.6
55°	1160.4	1027.3	941.4	1025.5	984.8	1015.3	2883.4	5809.2	6444.8	6535.3
57.5°	1059.7	900.8	825.9	871.2	810.2	941.4	2071.3	5332.5	6031.8	6192.6
60°	962.7	807.4	758.5	750.2	670.7	767.7	1342.4	4174.9	4964.8	5046.1
62.5°	849.0	727.1	685.5	621.8	539.5	558.9	813.0	2747.5	3336.0	3354.5
65°	763.1	658.7	579.3	503.5	441.6	405.6	480.4	1324.8	1667.6	1645.4
67.5°	655.0	564.5	488.7	434.2	383.4	338.1	319.7	393.6	445.3	430.5
70°	583.0	496.1	423.1	371.4	324.3	279.0	246.7	231.9	227.3	223.6
72.5°	502.6	426.8	351.1	301.2	256.8	215.3	185.7	168.1	163.5	159.8
75°	401.0	329.8	260.5	213.4	174.6	145.0	125.6	110.9	108.1	104.4
77.5°	265.1	211.6	155.2	126.6	103.5	87.8	74.8	65.6	63.7	61.9
80°	146.0	121.9	95.2	76.7	61.9	53.6	49.0	43.4	42.5	41.6
82.5°	86.8	73.0	54.5	43.4	36.0	32.3	29.6	26.8	25.9	24.9
85°	43.4	34.2	24.0	20.3	18.5	16.6	16.6	13.9	12.9	12.9
87.5°	11.1	9.2	5.5	4.6	4.6	4.6	3.7	2.8	2.8	1.8
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



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

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

Summary

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



Color Vector Graphics

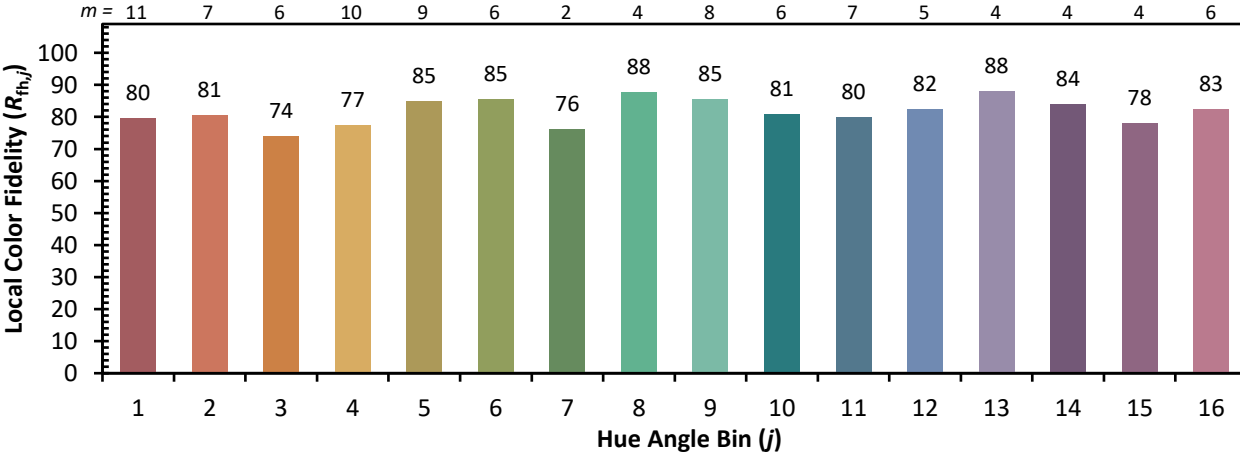


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)