

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: P636999

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

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636999
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-SA4B-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT 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: 8996.1 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

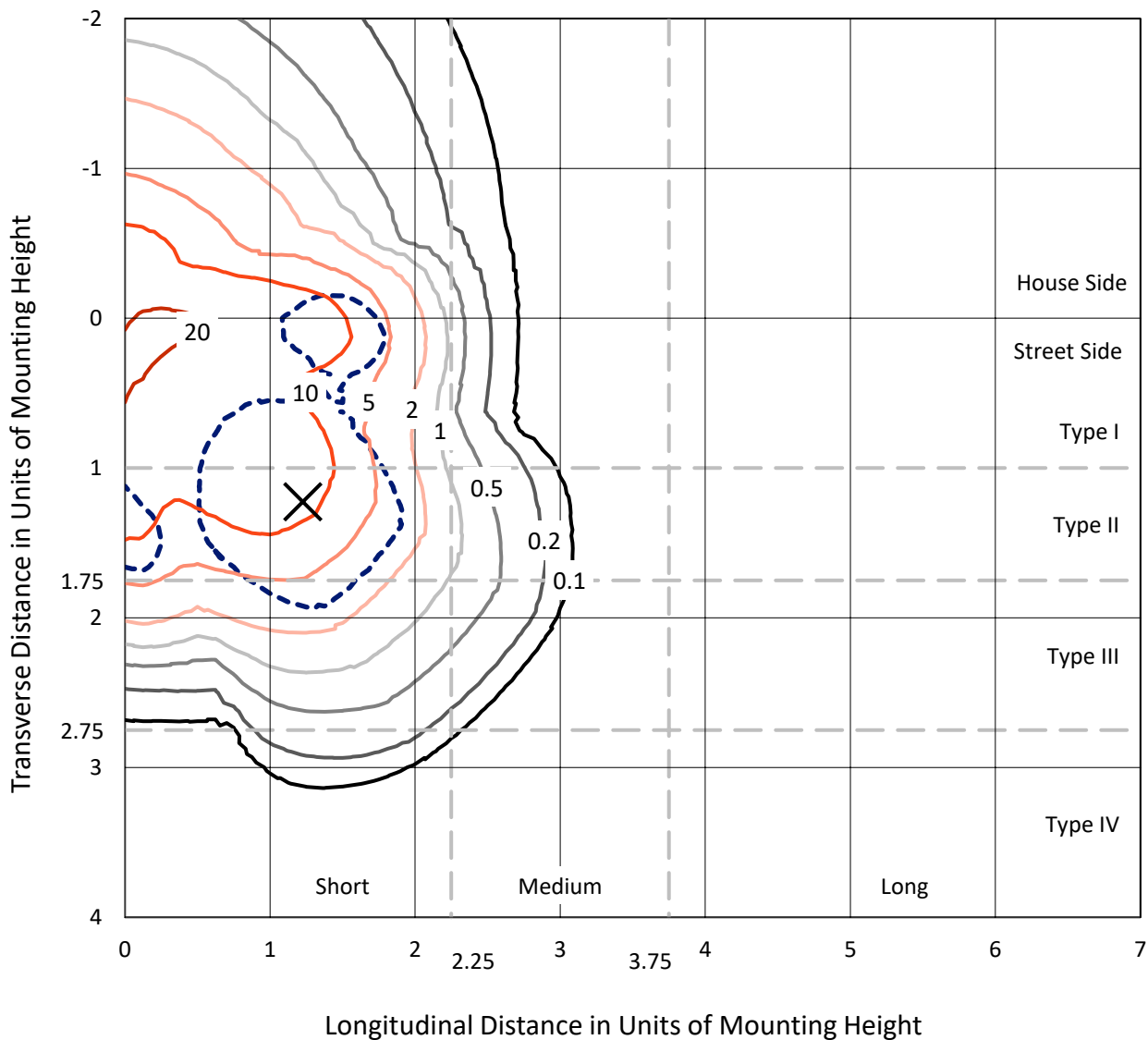
Input Watts (W): 94.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636999
 CATALOG NUMBER: GWS-SA4B-830-U-SLR-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

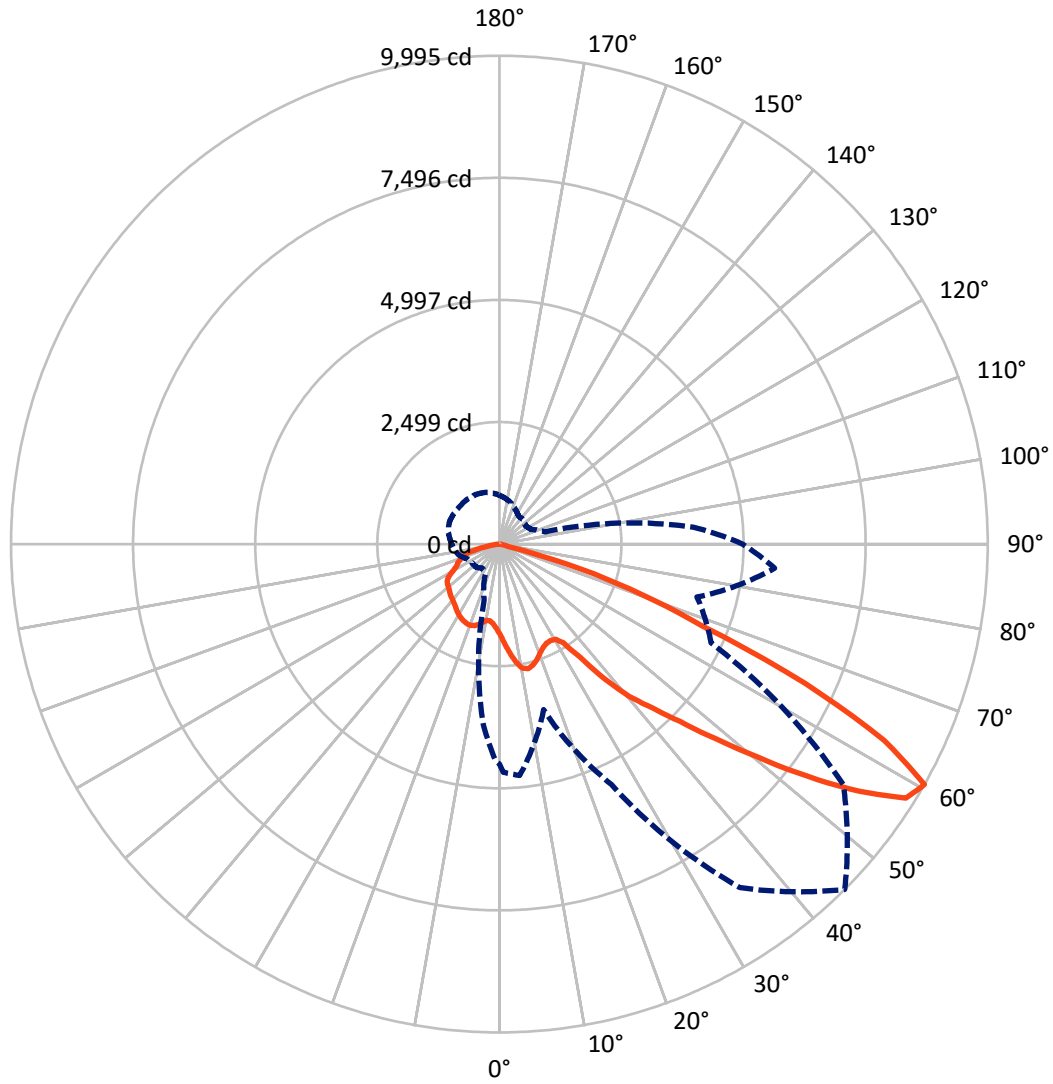
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 24.6 fc
 Type III - Short - N/A

REPORT NUMBER: P636999
CATALOG NUMBER: GWS-SA4B-830-U-SLR-W-GRSWH

Luminous Intensity Polar Plot



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

REPORT NUMBER: P636999

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

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3153.5	0.0	3153.5
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	5842.6	0.0	5842.6
	% Fixture	64.9	0.0	64.9
Total	Lumens	8996.1	0.0	8996.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.3	2.0
10°-20°	569.8	6.3
20°-30°	925.5	10.3
30°-40°	1305.3	14.5
40°-50°	1803.9	20.1
50°-60°	2322.1	25.8
60°-70°	1471.3	16.4
70°-80°	377.5	4.2
80°-90°	40.4	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°	8996.1	100.0
0°-180°	8996.1	100.0

Coefficient of Utilization



REPORT NUMBER: P636999

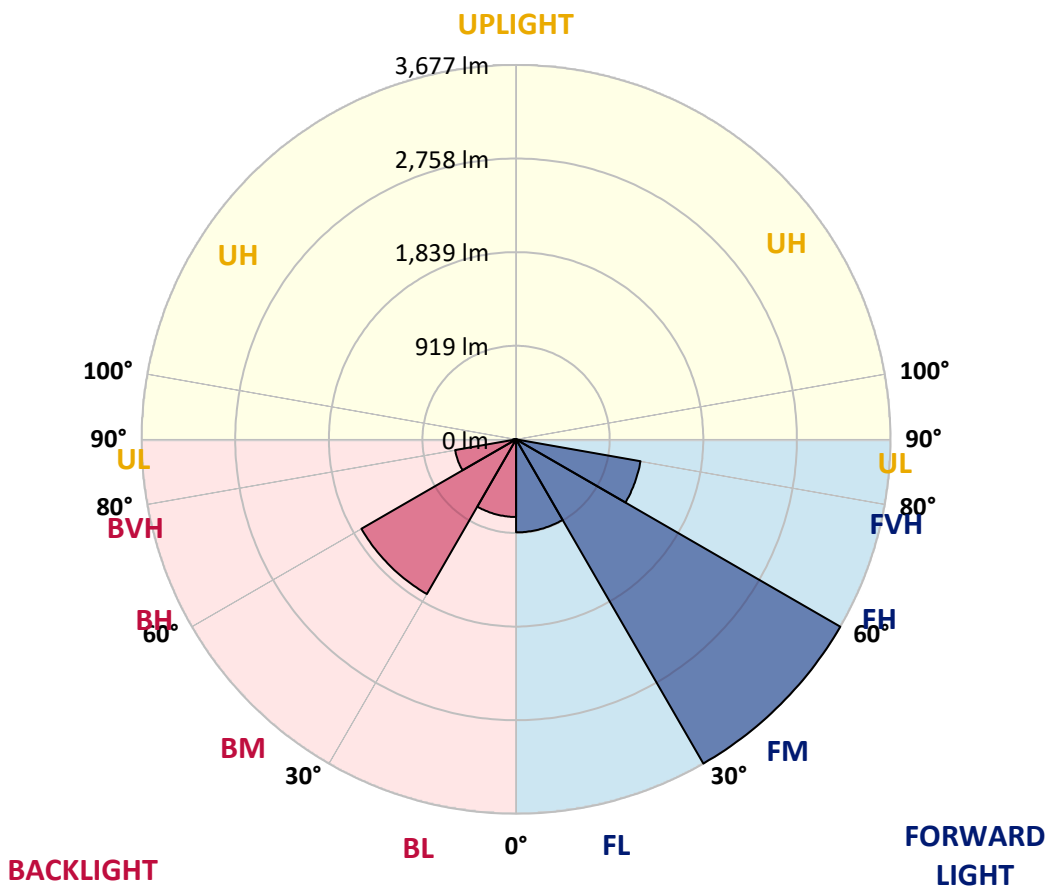
CATALOG NUMBER: GWS-SA4B-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	913.4	10.2			
FM (30°-60°)	3677.1	40.9			
FH (60°-80°)	1241.1	13.8			G1/1800
FVH (80°-90°)	11.0	0.1			G1/100
BL (0°-30°)	762.2	8.5	B2/1000		
BM (30°-60°)	1754.2	19.5	B2/2500		
BH (60°-80°)	607.7	6.8	B2/1000		G2/1000
BVH (80°-90°)	29.4	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: P636999

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

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1
2.5°	1933.0	1946.2	1954.4	1970.1	1998.1	2013.7	2031.1	2012.1	2017.0	2014.6	1984.1
5°	2047.5	2063.2	2084.6	2130.8	2182.7	2211.6	2238.8	2234.7	2209.1	2166.2	2135.7
7.5°	2154.7	2172.8	2209.9	2284.9	2361.6	2406.1	2439.1	2417.6	2396.2	2328.6	2252.0
10°	2238.8	2249.5	2299.8	2400.3	2489.4	2539.6	2580.0	2575.1	2545.4	2469.6	2366.5
12.5°	2317.9	2325.3	2379.7	2480.3	2560.3	2582.5	2615.5	2626.2	2616.3	2559.4	2458.0
15°	2402.8	2416.8	2467.1	2543.8	2580.0	2557.0	2568.5	2598.2	2626.2	2626.2	2533.0
17.5°	2481.9	2494.3	2545.4	2578.4	2543.8	2482.8	2486.1	2524.0	2590.7	2660.8	2601.5
20°	2552.0	2563.5	2613.8	2582.5	2472.9	2383.9	2381.4	2427.5	2535.5	2683.1	2674.8
22.5°	2628.7	2645.2	2687.2	2585.8	2406.9	2294.0	2293.2	2341.0	2486.9	2705.3	2758.9
25°	2737.5	2763.0	2784.5	2614.7	2371.5	2235.5	2246.2	2291.5	2471.2	2741.6	2883.4
27.5°	2899.0	2919.6	2918.0	2674.8	2369.8	2211.6	2233.8	2286.6	2499.3	2805.9	3014.4
30°	3073.8	3084.5	3067.2	2758.9	2407.8	2226.4	2259.4	2322.0	2570.1	2912.2	3207.3
32.5°	3267.5	3280.7	3247.7	2885.0	2496.0	2336.0	2408.6	2439.1	2669.9	3065.5	3411.7
35°	3490.1	3515.6	3447.2	3051.5	2755.6	2735.8	2841.3	2801.8	2881.7	3246.9	3630.2
37.5°	3724.2	3725.0	3626.9	3298.0	3265.0	3298.8	3509.8	3386.2	3331.0	3448.8	3852.7
40°	3922.8	3917.9	3767.0	3630.2	3708.5	3842.8	4097.6	3908.0	3762.9	3720.0	4037.4
42.5°	4121.5	4103.3	3950.8	3841.2	4014.3	4290.4	4578.1	4345.7	4039.9	3966.5	4219.6
45°	4375.3	4369.6	4185.8	3925.3	4290.4	4791.6	5173.3	4796.6	4203.9	4109.9	4522.9
47.5°	4785.0	4757.0	4414.9	3918.7	4549.3	5459.3	5941.5	5364.5	4318.5	4113.2	5012.5
50°	5185.6	5151.0	4688.6	3917.9	4816.3	6151.7	6848.2	6054.4	4435.5	4133.0	5510.4
52.5°	5590.3	5590.3	5137.8	4011.0	5096.6	6924.9	7895.9	6914.2	4635.0	4391.8	6122.8
55°	5831.0	5895.3	5643.1	4168.4	5424.7	7834.9	8932.0	7842.3	4943.3	4859.2	6688.3
57.5°	5525.2	5645.6	5609.3	4058.8	5618.4	8503.4	9810.7	8546.3	5095.8	4914.4	6603.4
60°	4502.3	4669.6	4752.9	3504.9	5427.1	8580.9	9994.5	8592.4	4780.9	4184.9	5656.3
62.5°	2993.0	3130.7	3257.6	2504.2	4698.5	7719.5	8839.7	7722.0	3992.9	3123.2	3918.7
65°	1468.1	1570.3	1707.1	1480.4	3670.6	6450.1	6891.9	6239.9	2888.3	1748.3	1998.9
67.5°	384.1	413.0	431.9	574.5	2629.5	4634.2	4494.9	4564.1	1855.5	571.2	522.6
70°	199.5	201.1	200.3	237.4	1777.2	2945.2	3097.7	2866.1	1295.0	239.0	206.1
72.5°	142.6	143.4	141.0	159.9	858.1	1687.3	1748.3	1729.4	678.4	141.8	141.0
75°	93.1	94.0	92.3	94.0	129.4	192.1	177.2	186.3	112.9	89.8	89.8
77.5°	55.2	56.1	55.2	56.9	55.2	55.2	51.1	51.1	48.6	48.6	49.5
80°	37.1	37.1	36.3	37.9	34.6	34.6	33.0	32.1	29.7	28.9	28.9
82.5°	22.3	23.1	22.3	22.3	20.6	20.6	19.0	18.1	15.7	15.7	14.8
85°	11.5	11.5	10.7	10.7	9.1	8.2	6.6	6.6	4.9	4.1	4.1
87.5°	1.6	1.6	0.8	0.8	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: P636999

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1
2.5°	1975.8	1959.3	1934.6	1910.7	1888.5	1865.4	1839.0	1811.8	1788.7	1764.8	1752.4
5°	2095.4	2061.6	1997.3	1940.4	1889.3	1847.2	1801.9	1763.2	1726.9	1697.2	1682.4
7.5°	2203.3	2150.6	2053.3	1963.5	1894.2	1836.5	1773.9	1716.2	1667.5	1631.3	1617.3
10°	2303.1	2240.4	2112.7	1998.9	1918.1	1853.8	1777.2	1698.9	1634.6	1586.8	1575.2
12.5°	2383.9	2312.1	2159.6	2027.8	1932.1	1862.9	1795.3	1727.7	1664.2	1602.4	1592.5
15°	2455.6	2370.7	2195.1	2045.9	1927.2	1839.0	1782.1	1773.9	1773.9	1703.8	1684.0
17.5°	2517.4	2424.2	2223.9	2054.1	1895.9	1768.1	1733.5	1805.2	1886.0	1835.7	1791.2
20°	2588.3	2475.3	2247.8	2054.1	1838.2	1678.3	1675.0	1797.0	1916.5	1917.3	1870.3
22.5°	2660.0	2534.7	2275.9	2046.7	1759.0	1574.4	1635.4	1764.0	1870.3	1915.7	1883.5
25°	2776.2	2617.1	2320.4	2040.9	1666.7	1503.5	1600.0	1720.3	1810.1	1858.0	1837.3
27.5°	2923.8	2725.9	2388.0	2050.0	1575.2	1461.5	1562.0	1663.4	1745.0	1787.1	1772.2
30°	3088.6	2851.2	2460.5	2065.7	1509.3	1440.0	1516.7	1598.3	1670.8	1712.9	1706.3
32.5°	3298.8	2987.2	2523.2	2044.2	1472.2	1429.3	1468.9	1527.4	1597.5	1623.9	1629.6
35°	3550.2	3137.3	2571.0	1960.2	1438.4	1417.8	1417.0	1453.2	1502.7	1544.7	1548.8
37.5°	3781.9	3312.8	2623.7	1815.9	1377.4	1388.9	1356.0	1377.4	1426.0	1468.1	1484.5
40°	4011.0	3490.9	2697.1	1632.1	1297.4	1324.6	1285.9	1300.7	1339.5	1394.7	1421.1
42.5°	4233.6	3651.6	2774.6	1444.2	1217.5	1234.8	1205.9	1220.8	1261.2	1330.4	1360.1
45°	4475.9	3869.2	2834.7	1266.9	1148.2	1140.8	1117.7	1139.2	1200.2	1276.0	1311.4
47.5°	4934.2	4212.1	2874.3	1149.1	1111.1	1057.6	1031.2	1077.3	1146.6	1223.2	1266.1
50°	5493.9	4708.4	2862.8	1074.1	1079.0	971.8	962.8	1023.8	1098.0	1177.9	1224.9
52.5°	5937.4	5195.5	2731.7	1002.3	1016.4	917.4	891.1	980.1	1051.0	1132.6	1181.2
55°	6276.2	5359.5	2329.4	917.4	914.1	877.9	822.6	934.7	1004.0	1079.8	1132.6
57.5°	6000.0	4994.4	1726.9	800.4	780.6	799.6	746.0	858.1	946.3	1021.3	1068.3
60°	4979.5	3982.2	961.9	708.9	652.8	699.0	690.8	777.3	883.6	962.8	1003.2
62.5°	3380.4	2651.7	570.4	560.5	529.2	595.1	638.8	695.7	800.4	864.7	902.6
65°	1684.9	1288.4	379.2	419.6	423.7	489.6	572.1	634.7	722.1	788.0	825.9
67.5°	488.8	400.6	288.5	320.6	365.2	417.9	483.9	558.0	642.9	721.3	765.8
70°	211.0	213.5	229.2	267.1	310.8	365.2	431.1	503.6	575.4	635.5	669.3
72.5°	149.2	155.0	172.3	211.0	252.2	304.2	370.1	440.2	492.1	553.1	588.5
75°	95.6	99.7	113.8	143.4	173.9	224.2	286.9	351.1	404.7	448.4	482.2
77.5°	52.8	53.6	65.1	82.4	103.0	135.2	181.3	231.6	271.2	295.9	326.4
80°	30.5	30.5	36.3	47.0	59.3	79.1	104.7	129.4	153.3	169.0	183.8
82.5°	16.5	16.5	19.0	25.6	32.1	43.7	58.5	70.9	85.7	94.0	103.9
85°	4.9	4.9	6.6	9.1	11.5	16.5	23.1	29.7	36.3	42.0	47.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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: P636999

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1
2.5°	1750.0	1738.4	1731.8	1723.6	1726.1	1718.6	1714.5	1717.0	1702.2	1717.0	1731.8
5°	1676.6	1660.1	1646.9	1636.2	1631.3	1621.4	1615.6	1615.6	1606.5	1621.4	1639.5
7.5°	1612.3	1599.1	1592.5	1585.9	1578.5	1569.5	1559.6	1556.3	1550.5	1566.2	1581.8
10°	1569.5	1571.1	1575.2	1584.3	1582.6	1576.9	1562.0	1553.8	1553.8	1571.9	1595.8
12.5°	1589.2	1606.5	1616.4	1632.9	1636.2	1631.3	1616.4	1609.8	1626.3	1653.5	1693.1
15°	1665.9	1677.4	1685.7	1698.9	1698.0	1693.9	1682.4	1687.3	1741.7	1794.5	1829.9
17.5°	1749.1	1736.0	1734.3	1742.6	1745.0	1740.1	1733.5	1755.7	1845.6	1895.0	1913.2
20°	1809.3	1764.0	1754.1	1757.4	1764.0	1761.5	1761.5	1797.8	1890.9	1914.0	1890.9
22.5°	1827.5	1763.2	1748.3	1749.1	1758.2	1759.0	1763.2	1801.1	1855.5	1856.3	1820.9
25°	1798.6	1736.8	1726.1	1727.7	1738.4	1737.6	1739.3	1760.7	1784.6	1774.7	1748.3
27.5°	1744.2	1690.6	1687.3	1696.4	1710.4	1703.0	1698.0	1703.8	1715.4	1703.0	1679.9
30°	1682.4	1637.0	1638.7	1656.0	1670.8	1658.5	1646.1	1649.4	1650.2	1637.0	1610.7
32.5°	1617.3	1583.5	1589.2	1607.4	1624.7	1611.5	1598.3	1596.7	1581.0	1565.3	1539.8
35°	1552.1	1539.0	1546.4	1561.2	1576.0	1565.3	1557.1	1552.1	1518.3	1495.3	1473.8
37.5°	1492.8	1502.7	1515.9	1524.9	1529.9	1529.1	1524.1	1512.6	1468.1	1440.9	1412.8
40°	1440.0	1470.5	1484.5	1488.7	1496.1	1494.4	1493.6	1477.1	1418.6	1389.8	1357.6
42.5°	1392.2	1435.1	1459.0	1463.1	1467.2	1468.1	1465.6	1441.7	1374.9	1341.1	1310.6
45°	1346.1	1402.1	1432.6	1428.5	1434.3	1434.3	1436.7	1405.4	1332.1	1297.4	1265.3
47.5°	1305.7	1371.6	1399.6	1394.7	1398.0	1400.5	1402.9	1366.7	1285.1	1252.1	1219.1
50°	1268.6	1338.7	1362.6	1364.2	1364.2	1370.0	1369.1	1333.7	1245.5	1210.1	1177.1
52.5°	1229.0	1304.9	1330.4	1341.1	1344.4	1346.9	1335.4	1294.1	1205.1	1162.3	1131.8
55°	1182.9	1270.2	1293.3	1307.3	1313.9	1312.3	1296.6	1254.6	1163.9	1121.0	1086.4
57.5°	1112.8	1196.0	1229.0	1235.6	1246.3	1239.7	1221.6	1186.2	1098.0	1055.1	1019.6
60°	1036.1	1096.3	1122.7	1128.5	1120.2	1122.7	1120.2	1086.4	1009.8	976.0	939.7
62.5°	935.6	989.2	1017.2	1024.6	1010.6	1019.6	1016.4	974.3	897.7	862.2	830.1
65°	859.7	918.3	951.2	955.4	951.2	955.4	943.8	892.7	820.2	783.9	750.9
67.5°	800.4	860.6	895.2	906.7	902.6	901.8	883.6	824.3	749.3	709.7	667.7
70°	698.2	750.9	795.4	823.5	823.5	807.8	773.2	718.0	657.8	624.0	591.0
72.5°	618.2	685.0	728.7	757.5	763.3	754.2	705.6	647.1	577.8	544.0	509.4
75°	509.4	574.5	621.5	659.4	666.9	657.0	600.9	543.2	478.9	445.9	411.3
77.5°	340.4	379.2	417.1	451.7	444.3	450.9	413.0	369.3	329.7	305.0	289.3
80°	192.1	217.6	229.2	248.1	248.1	248.1	223.4	202.8	180.5	166.5	150.8
82.5°	108.8	125.3	130.2	145.9	150.0	150.8	134.4	121.2	107.2	99.7	89.0
85°	50.3	59.3	60.2	69.2	72.5	79.1	71.7	62.6	54.4	51.1	44.5
87.5°	1.6	4.9	6.6	12.4	16.5	19.0	20.6	20.6	17.3	15.7	13.2
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: P636999

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

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1	1848.1
2.5°	1750.0	1769.8	1792.8	1809.3	1839.0	1863.7	1889.3	1917.3	1937.9	1933.0
5°	1661.8	1694.7	1736.8	1775.5	1830.8	1886.8	1948.6	2012.1	2049.2	2047.5
7.5°	1612.3	1659.3	1710.4	1762.3	1827.5	1908.2	2003.0	2101.9	2152.2	2154.7
10°	1638.7	1689.0	1723.6	1767.3	1835.7	1937.1	2050.8	2169.5	2227.2	2238.8
12.5°	1721.9	1717.8	1715.4	1746.7	1829.1	1957.7	2097.0	2238.8	2303.9	2317.9
15°	1801.1	1716.2	1665.1	1686.5	1799.4	1970.9	2142.3	2314.6	2388.0	2402.8
17.5°	1815.9	1687.3	1592.5	1607.4	1752.4	1975.0	2186.0	2388.8	2467.9	2481.9
20°	1774.7	1650.2	1539.8	1519.2	1693.1	1964.3	2213.2	2450.6	2537.2	2552.0
22.5°	1722.8	1617.3	1500.2	1446.6	1620.6	1953.6	2243.7	2515.7	2615.5	2628.7
25°	1668.4	1575.2	1463.1	1381.5	1538.1	1947.0	2294.8	2601.5	2721.8	2737.5
27.5°	1610.7	1524.1	1431.0	1350.2	1462.3	1955.2	2367.4	2739.9	2876.8	2899.0
30°	1548.8	1473.0	1410.4	1339.5	1410.4	1962.6	2447.3	2881.7	3042.5	3073.8
32.5°	1484.5	1426.0	1388.9	1344.4	1378.2	1945.3	2517.4	3040.8	3240.3	3267.5
35°	1420.3	1378.2	1361.7	1353.5	1335.4	1881.9	2574.3	3201.6	3466.1	3490.1
37.5°	1360.1	1328.8	1323.8	1332.9	1269.4	1778.0	2640.2	3406.0	3687.9	3724.2
40°	1304.0	1275.2	1274.4	1272.7	1196.9	1636.2	2729.2	3613.7	3906.3	3922.8
42.5°	1252.1	1215.8	1222.4	1202.6	1137.5	1482.9	2813.3	3790.9	4109.9	4121.5
45°	1205.9	1158.1	1165.5	1140.8	1109.5	1322.2	2887.5	4000.3	4367.9	4375.3
47.5°	1161.4	1110.3	1089.7	1088.1	1104.6	1173.8	2960.0	4403.4	4771.8	4785.0
50°	1120.2	1065.0	1006.5	1042.7	1074.1	1062.5	3050.7	4835.3	5188.9	5185.6
52.5°	1080.6	1008.1	924.9	994.9	994.9	980.1	3025.2	5097.4	5533.5	5590.3
55°	1035.3	916.6	840.0	915.0	878.7	905.9	2572.6	5183.1	5750.3	5831.0
57.5°	945.5	803.7	736.9	777.3	722.9	840.0	1848.1	4757.8	5381.8	5525.2
60°	858.9	720.4	676.7	669.3	598.4	685.0	1197.7	3725.0	4429.7	4502.3
62.5°	757.5	648.7	611.6	554.7	481.4	498.7	725.4	2451.4	2976.5	2993.0
65°	680.9	587.7	516.8	449.2	394.0	361.9	428.6	1182.0	1487.8	1468.1
67.5°	584.4	503.6	436.1	387.4	342.1	301.7	285.2	351.1	397.3	384.1
70°	520.1	442.6	377.5	331.4	289.3	248.9	220.1	206.9	202.8	199.5
72.5°	448.4	380.8	313.2	268.7	229.2	192.1	165.7	150.0	145.9	142.6
75°	357.7	294.3	232.5	190.4	155.8	129.4	112.1	98.9	96.4	93.1
77.5°	236.6	188.8	138.5	112.9	92.3	78.3	66.8	58.5	56.9	55.2
80°	130.2	108.8	84.9	68.4	55.2	47.8	43.7	38.7	37.9	37.1
82.5°	77.5	65.1	48.6	38.7	32.1	28.9	26.4	23.9	23.1	22.3
85°	38.7	30.5	21.4	18.1	16.5	14.8	14.8	12.4	11.5	11.5
87.5°	9.9	8.2	4.9	4.1	4.1	4.1	3.3	2.5	2.5	1.6
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

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

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

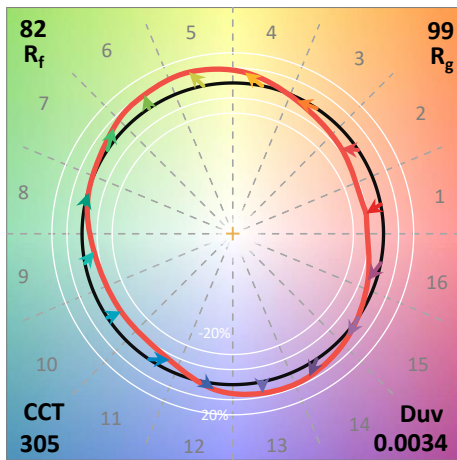
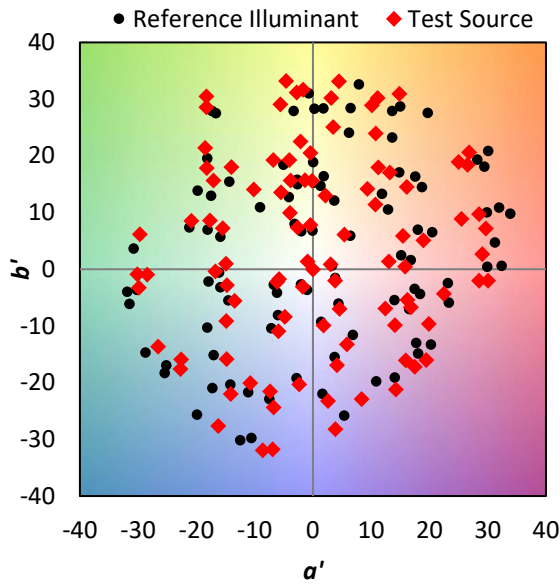
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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