

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: P634031

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

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)
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
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12202 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

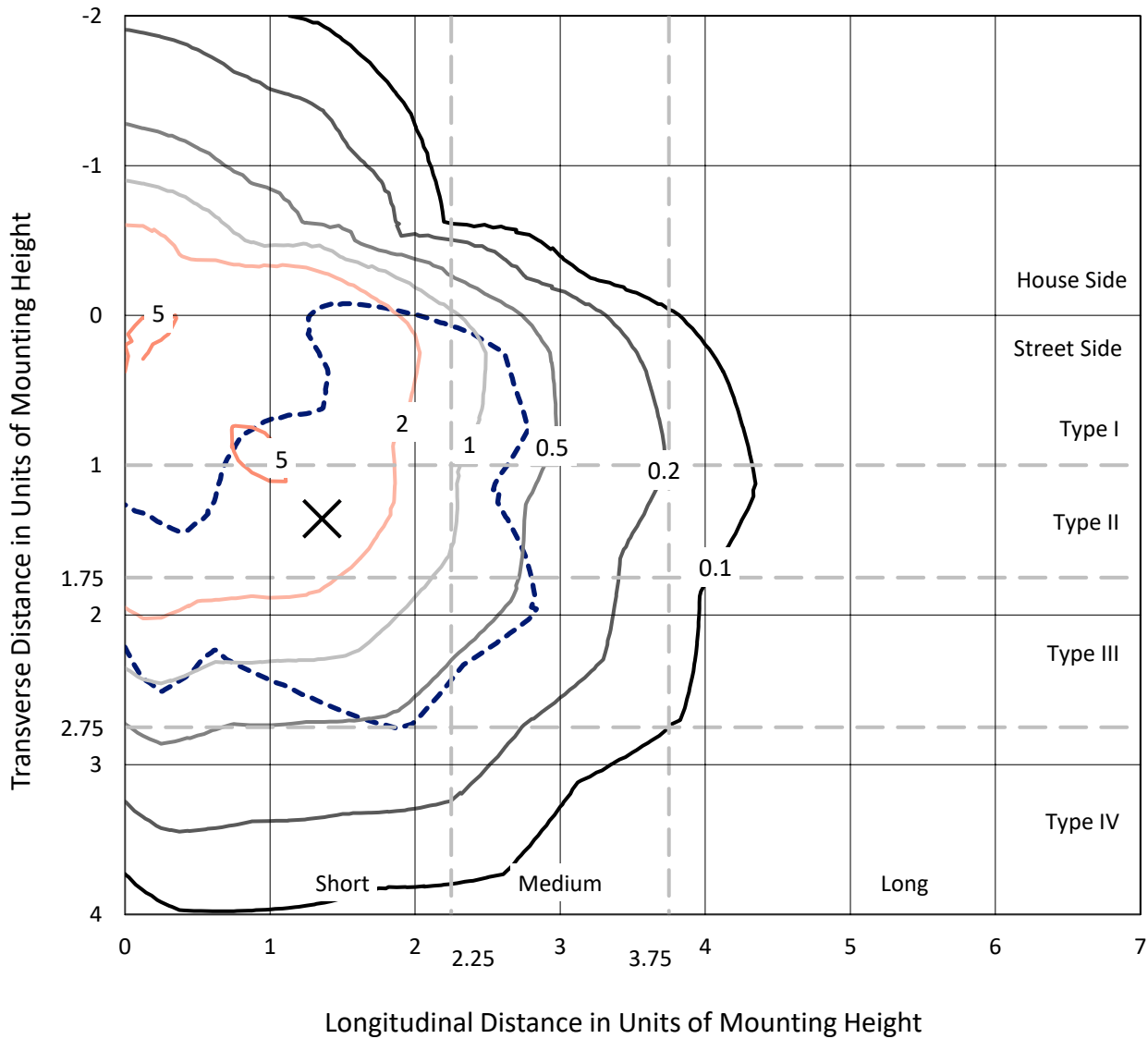
Input Watts (W): 124.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

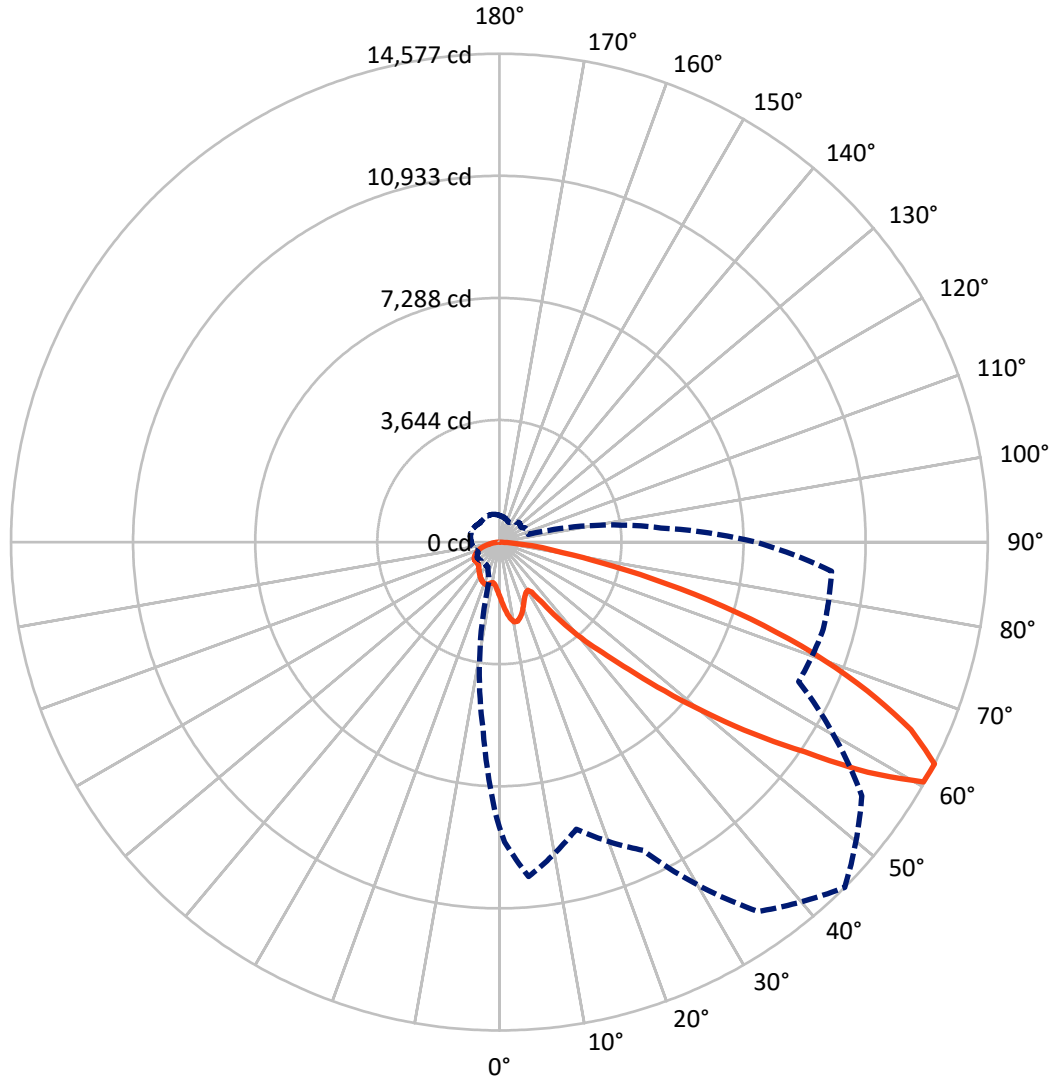
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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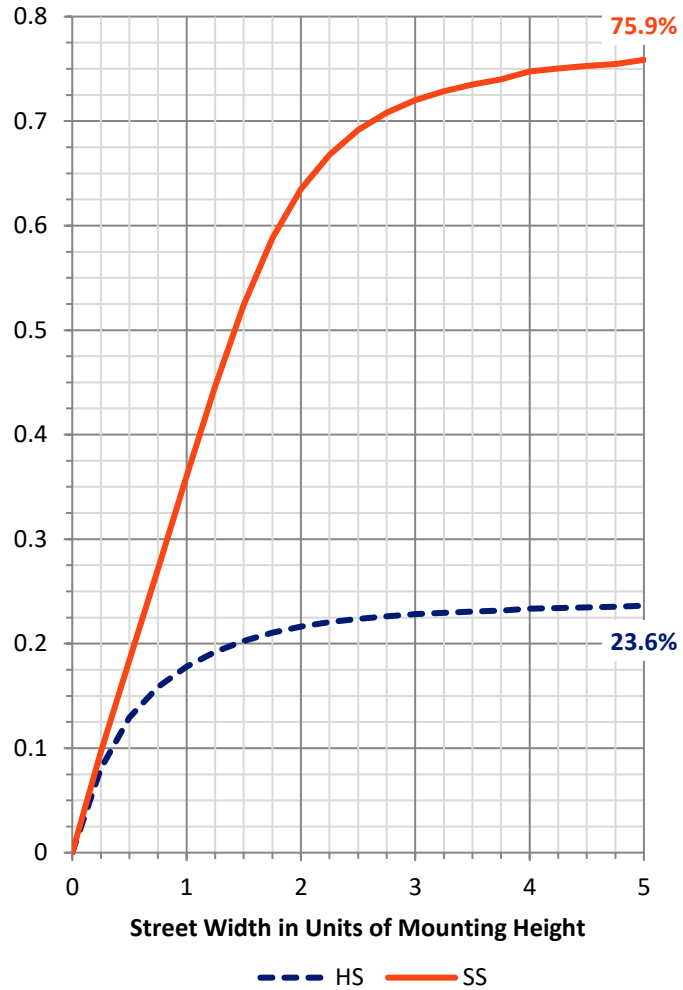
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2911.6	0.0	2911.6
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	9290.4	0.0	9290.4
	% Fixture	76.1	0.0	76.1
Total	Lumens	12202.0	0.0	12202.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.2	1.3
10°-20°	495.8	4.1
20°-30°	770.1	6.3
30°-40°	1045.6	8.6
40°-50°	1657.2	13.6
50°-60°	2923.2	24.0
60°-70°	3252.6	26.7
70°-80°	1649.6	13.5
80°-90°	249.8	2.0
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°	12202.0	100.0
0°-180°	12202.0	100.0

Coefficient of Utilization



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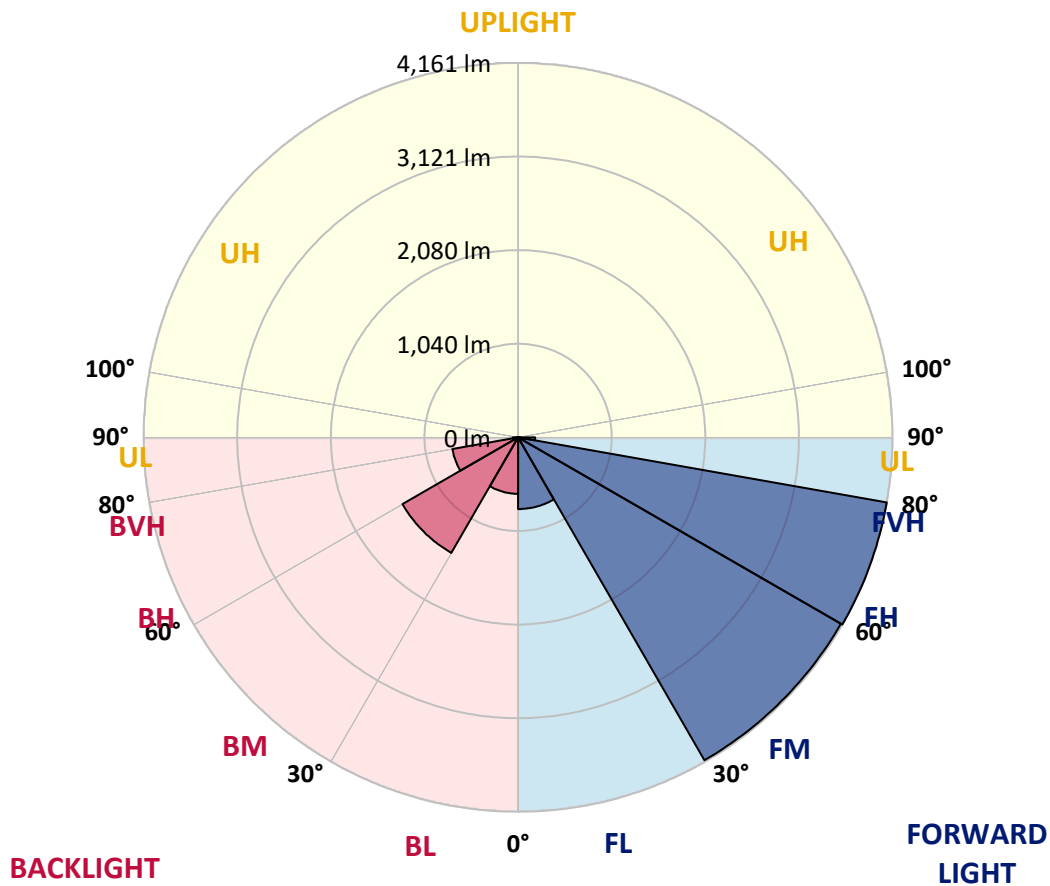
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	796.7	6.5			
FM (30°-60°)	4143.1	34.0			
FH (60°-80°)	4161.0	34.1			G2/5000
FVH (80°-90°)	189.6	1.6			G2/225
BL (0°-30°)	627.4	5.1	B2/1000		
BM (30°-60°)	1482.9	12.2	B2/2500		
BH (60°-80°)	741.1	6.1	B2/1000		G2/1000
BVH (80°-90°)	60.2	0.5			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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5
2.5°	1740.5	1739.6	1757.1	1783.9	1808.8	1819.9	1838.4	1836.6	1821.8	1802.4	1795.9
5°	1877.2	1880.9	1911.4	1970.5	2036.1	2063.8	2075.8	2071.2	2044.4	2010.2	1950.2
7.5°	2001.0	2007.5	2054.6	2143.3	2224.6	2261.5	2291.1	2285.5	2246.7	2183.0	2094.3
10°	2091.5	2098.9	2155.3	2259.7	2350.2	2382.5	2420.4	2422.3	2388.1	2302.2	2211.6
12.5°	2182.1	2189.5	2242.1	2337.3	2396.4	2397.3	2419.5	2431.5	2433.3	2393.6	2303.1
15°	2276.3	2282.8	2330.8	2384.4	2381.6	2329.9	2329.9	2353.0	2403.8	2432.4	2369.6
17.5°	2356.7	2365.0	2401.9	2384.4	2302.2	2208.9	2197.8	2227.3	2316.0	2425.9	2419.5
20°	2423.2	2429.6	2450.0	2333.6	2183.9	2062.0	2040.7	2074.9	2195.0	2386.2	2457.4
22.5°	2486.9	2490.6	2479.5	2267.1	2056.4	1916.9	1891.1	1927.1	2056.4	2316.0	2489.7
25°	2562.7	2559.0	2506.3	2197.8	1940.0	1802.4	1775.6	1816.2	1951.1	2222.7	2524.8
27.5°	2650.4	2636.6	2529.4	2122.9	1850.4	1717.4	1698.9	1742.3	1868.0	2136.8	2552.5
30°	2725.3	2698.5	2533.1	2056.4	1804.2	1681.4	1670.3	1710.9	1827.3	2078.6	2587.6
32.5°	2808.4	2771.5	2554.4	2038.9	1830.1	1768.2	1783.0	1785.7	1838.4	2062.0	2640.3
35°	2927.6	2879.5	2612.6	2089.7	2096.1	2200.5	2254.1	2182.1	2005.6	2098.9	2740.0
37.5°	3107.7	3046.8	2730.8	2309.5	2645.8	2879.5	3008.9	2844.4	2513.7	2238.4	2890.6
40°	3326.7	3249.1	2882.3	2716.0	3159.5	3533.6	3763.6	3522.5	3036.6	2586.7	3102.2
42.5°	3632.5	3551.2	3176.1	3115.1	3635.2	4192.3	4492.5	4133.2	3497.6	3036.6	3441.2
45°	4165.5	4087.0	3714.7	3515.1	4192.3	5003.4	5424.7	4924.9	3966.0	3488.3	4075.0
47.5°	5150.3	5057.9	4514.7	3958.6	4827.9	6056.6	6646.0	5918.0	4452.8	4005.7	5139.2
50°	6332.8	6244.1	5518.9	4483.3	5530.0	7182.7	8002.1	7084.8	5013.6	4634.8	6411.3
52.5°	7755.5	7738.8	6951.7	5146.6	6260.7	8383.7	9507.0	8377.2	5627.9	5481.9	7852.5
55°	9037.7	9200.3	8771.7	6158.2	7204.9	9892.3	11054.4	9786.9	6461.2	6882.5	9540.3
57.5°	9728.7	10165.7	10824.4	8222.0	8577.7	11695.5	12964.0	11508.0	7893.1	9214.2	11105.2
60°	9272.4	9767.5	10961.1	9775.9	9939.4	13140.4	14540.0	12954.7	9299.2	10832.7	11016.5
62.5°	8513.0	8957.3	10018.8	8868.7	10150.0	13458.2	14576.9	13206.9	9858.1	10011.4	9951.4
65°	7612.3	8060.3	9184.6	7741.6	9480.2	12703.4	13501.6	12465.1	8853.9	9045.1	9067.3
67.5°	6415.9	6829.8	7974.4	6883.4	8641.4	11595.8	11850.7	11408.2	8153.6	8458.5	8139.8
70°	4793.7	5166.9	6177.6	5593.7	7284.3	10152.8	9946.8	10012.3	7367.5	7670.5	6799.3
72.5°	3275.9	3556.7	4423.2	4395.5	5578.0	8127.8	7840.5	8462.2	6153.6	6555.4	5183.5
75°	2291.1	2510.0	3197.3	3472.6	4216.3	6024.2	5583.6	6333.7	4805.7	5379.4	3782.1
77.5°	1406.1	1551.1	2019.5	2572.8	2712.3	4123.0	3468.0	4766.0	3374.7	3923.5	2522.9
80°	703.0	773.2	981.1	1617.6	1798.7	2429.6	1915.1	2766.8	2283.7	2429.6	1395.9
82.5°	212.5	234.7	287.3	614.3	932.1	1398.7	1131.7	1607.4	1247.2	1139.1	549.7
85°	56.4	63.7	79.4	182.0	327.0	501.6	382.5	778.8	597.7	420.3	206.9
87.5°	4.6	4.6	3.7	3.7	1.8	0.0	0.0	55.4	111.8	63.7	36.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5
2.5°	1763.6	1759.9	1722.0	1694.3	1662.0	1630.5	1598.2	1569.6	1537.2	1504.9	1495.7
5°	1905.8	1880.0	1799.6	1732.2	1665.6	1607.4	1556.6	1504.0	1461.5	1419.9	1404.2
7.5°	2031.5	1986.2	1869.8	1767.3	1674.9	1602.8	1528.0	1451.3	1391.3	1332.1	1317.4
10°	2145.1	2085.1	1938.2	1808.8	1706.3	1624.1	1536.3	1433.8	1346.9	1274.9	1255.5
12.5°	2229.2	2163.6	1997.3	1848.6	1732.2	1639.8	1552.9	1462.4	1370.9	1277.6	1256.4
15°	2295.7	2227.3	2046.3	1879.0	1733.1	1613.9	1529.8	1498.4	1469.8	1378.3	1339.5
17.5°	2349.3	2277.2	2088.8	1897.5	1708.1	1535.4	1462.4	1508.6	1581.6	1524.3	1451.3
20°	2398.2	2325.3	2121.1	1910.5	1652.7	1427.3	1386.7	1484.6	1594.5	1592.7	1527.1
22.5°	2451.8	2380.7	2168.2	1917.8	1575.1	1317.4	1341.4	1449.5	1539.1	1565.9	1525.2
25°	2520.2	2457.4	2233.8	1934.5	1487.3	1241.6	1308.1	1404.2	1479.0	1485.5	1461.5
27.5°	2599.6	2552.5	2331.7	1973.3	1402.4	1202.8	1269.3	1340.5	1408.8	1411.6	1383.0
30°	2686.5	2655.1	2422.3	2005.6	1338.6	1190.8	1219.4	1276.7	1320.1	1327.5	1302.6
32.5°	2797.3	2769.6	2502.6	1984.4	1300.7	1188.0	1173.3	1202.8	1238.8	1238.8	1219.4
35°	2949.8	2911.0	2587.6	1903.1	1254.5	1176.9	1124.3	1132.6	1148.3	1151.1	1140.0
37.5°	3165.9	3102.2	2673.5	1742.3	1178.8	1137.2	1067.9	1057.8	1063.3	1070.7	1067.9
40°	3433.8	3329.4	2799.2	1549.2	1088.3	1060.5	1009.7	990.3	985.7	1000.5	1006.0
42.5°	3771.0	3611.2	2934.0	1369.1	1006.0	972.8	941.4	924.7	917.4	942.3	957.1
45°	4309.6	4046.3	3063.4	1190.8	959.8	898.0	876.7	864.7	868.4	898.0	916.4
47.5°	5239.9	4710.6	3186.3	1078.1	956.2	844.4	818.5	821.3	831.4	862.8	885.0
50°	6416.8	5600.2	3268.5	1031.0	967.2	812.0	777.9	792.6	808.3	838.8	864.7
52.5°	7615.0	6428.9	3170.5	1005.1	966.3	813.0	740.0	784.3	791.7	822.2	849.9
55°	8439.1	6521.2	2739.1	965.4	951.5	849.9	710.4	780.6	785.2	813.0	837.9
57.5°	8753.2	6205.3	2088.8	976.5	907.2	878.6	697.5	754.8	788.0	812.0	837.9
60°	8373.5	5609.4	1269.3	1005.1	836.1	876.7	705.8	707.6	764.9	805.6	831.4
62.5°	7657.5	4844.5	891.5	923.8	784.3	827.7	725.2	652.2	724.3	773.2	796.3
65°	6837.2	3944.7	679.9	795.4	759.4	752.0	731.7	603.3	668.8	716.9	737.2
67.5°	5982.7	3066.2	552.4	593.1	686.4	679.9	668.8	559.8	603.3	637.4	660.5
70°	4906.4	2145.1	466.5	445.3	588.5	609.7	584.8	505.3	519.2	554.3	572.8
72.5°	3589.0	1336.8	383.4	367.7	473.0	533.0	520.1	445.3	451.7	485.0	499.8
75°	2581.2	764.9	307.6	303.0	361.2	456.4	430.5	383.4	390.8	415.7	425.9
77.5°	1640.7	425.9	237.4	243.9	258.7	340.9	367.7	328.0	328.0	342.7	351.1
80°	878.6	243.9	173.7	176.4	181.1	260.5	290.1	254.1	254.1	243.9	254.1
82.5°	358.4	140.4	119.2	110.9	121.0	178.3	203.2	161.7	169.1	152.4	156.1
85°	118.2	70.2	59.1	58.2	57.3	78.5	97.9	80.4	96.1	61.0	63.7
87.5°	15.7	12.9	7.4	5.5	6.5	2.8	5.5	6.5	6.5	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5
2.5°	1489.2	1481.8	1455.0	1461.5	1456.9	1449.5	1456.9	1443.0	1454.1	1457.8	1480.9
5°	1392.2	1374.6	1348.8	1335.8	1333.1	1325.7	1326.6	1320.1	1322.0	1337.7	1363.6
7.5°	1305.4	1288.7	1268.4	1259.2	1250.9	1242.5	1241.6	1240.7	1248.1	1261.9	1286.9
10°	1242.5	1233.3	1225.0	1228.7	1225.0	1221.3	1214.8	1214.8	1226.8	1251.8	1282.3
12.5°	1242.5	1240.7	1242.5	1253.6	1252.7	1253.6	1245.3	1249.9	1283.2	1325.7	1369.1
15°	1309.1	1294.3	1294.3	1299.8	1298.0	1298.0	1298.0	1317.4	1393.1	1458.7	1504.9
17.5°	1390.3	1346.9	1328.5	1325.7	1324.8	1324.8	1328.5	1370.0	1488.3	1557.6	1584.3
20°	1446.7	1364.5	1334.0	1322.0	1322.9	1324.8	1335.8	1393.1	1523.4	1558.5	1552.0
22.5°	1456.9	1350.6	1313.7	1296.1	1298.9	1300.7	1317.4	1378.3	1475.3	1480.9	1467.9
25°	1409.7	1311.8	1272.1	1258.2	1261.9	1261.0	1275.8	1320.1	1389.4	1387.6	1380.2
27.5°	1339.5	1249.9	1220.4	1211.1	1217.6	1210.2	1214.8	1249.0	1302.6	1300.7	1298.0
30°	1267.5	1189.9	1163.1	1158.5	1166.8	1155.7	1156.6	1185.3	1222.2	1220.4	1219.4
32.5°	1195.4	1129.8	1105.8	1105.8	1114.1	1102.1	1104.0	1128.9	1153.8	1146.5	1146.5
35°	1127.1	1080.9	1061.5	1057.8	1064.2	1055.9	1059.6	1082.7	1092.0	1081.8	1075.3
37.5°	1067.0	1046.7	1027.3	1014.4	1015.3	1016.2	1027.3	1044.8	1039.3	1024.5	1016.2
40°	1011.6	1011.6	993.1	969.1	966.3	972.8	991.3	1010.7	995.0	978.3	968.2
42.5°	971.9	980.2	962.6	938.6	933.1	944.1	964.5	978.3	959.8	941.4	927.5
45°	934.9	955.2	943.2	916.4	909.0	922.0	947.8	953.4	928.4	910.9	900.7
47.5°	909.0	936.8	928.4	902.6	891.5	910.0	936.8	935.8	904.4	885.9	877.6
50°	890.6	925.7	924.7	902.6	890.6	913.7	937.7	925.7	891.5	872.1	863.8
52.5°	875.8	924.7	931.2	918.3	910.0	930.3	945.1	922.0	882.2	861.9	855.5
55°	869.3	928.4	933.1	921.0	913.7	932.1	945.1	929.4	882.2	863.8	858.2
57.5°	871.2	923.8	924.7	908.1	895.2	918.3	938.6	934.0	892.4	871.2	864.7
60°	860.1	898.9	900.7	874.9	860.1	887.8	923.8	921.0	887.8	865.6	853.6
62.5°	823.1	857.3	858.2	834.2	813.0	852.7	892.4	891.5	861.0	838.8	825.0
65°	761.2	797.3	806.5	783.4	766.8	809.3	850.8	849.0	818.5	798.2	784.3
67.5°	684.5	723.4	740.9	725.2	718.7	757.5	796.3	795.4	770.5	751.1	739.1
70°	591.2	623.6	653.1	653.1	648.5	692.9	734.4	730.7	707.6	692.9	683.6
72.5°	513.6	538.6	547.8	557.1	570.9	617.1	652.2	655.0	638.4	631.0	638.4
75°	437.0	452.7	461.0	453.6	477.6	525.7	571.8	576.5	558.9	546.9	549.7
77.5°	359.4	376.9	385.2	368.6	366.8	427.7	484.1	494.2	479.5	461.0	466.5
80°	259.6	282.7	296.5	285.5	281.8	308.6	386.2	397.2	383.4	368.6	376.9
82.5°	158.9	171.8	175.5	186.6	209.7	220.8	248.5	285.5	275.3	262.4	285.5
85°	62.8	74.8	83.1	94.2	109.9	130.3	153.4	182.9	166.3	160.7	189.4
87.5°	3.7	0.9	0.0	1.8	15.7	30.5	65.6	90.5	75.8	81.3	97.9
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: P634031
 CATALOG NUMBER: GWS-SA2F-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5	1619.5
2.5°	1499.4	1523.4	1555.7	1582.5	1616.7	1649.0	1682.3	1715.5	1733.1	1740.5
5°	1393.1	1437.5	1489.2	1546.5	1613.0	1683.2	1754.3	1827.3	1873.5	1877.2
7.5°	1329.4	1393.1	1464.3	1536.3	1618.5	1715.5	1828.2	1940.9	1988.1	2001.0
10°	1349.7	1420.8	1477.2	1544.6	1635.2	1756.2	1889.2	2021.3	2075.8	2091.5
12.5°	1431.0	1444.9	1462.4	1524.3	1635.2	1791.3	1952.0	2109.1	2167.3	2182.1
15°	1498.4	1431.9	1400.5	1466.1	1613.0	1821.8	2018.5	2192.2	2262.4	2276.3
17.5°	1504.0	1389.4	1321.1	1380.2	1574.2	1843.0	2082.3	2284.6	2343.7	2356.7
20°	1447.6	1344.2	1255.5	1291.5	1521.5	1852.3	2128.5	2352.0	2410.2	2423.2
22.5°	1383.9	1307.2	1211.1	1209.3	1457.8	1862.4	2183.9	2415.8	2478.6	2486.9
25°	1323.8	1256.4	1175.1	1149.2	1383.9	1881.8	2258.7	2511.9	2559.9	2562.7
27.5°	1253.6	1201.9	1146.5	1121.5	1319.2	1918.8	2369.6	2626.4	2655.1	2650.4
30°	1189.9	1151.1	1126.1	1118.7	1278.6	1946.5	2474.9	2739.1	2741.0	2725.3
32.5°	1122.4	1107.7	1107.7	1131.7	1245.3	1940.0	2560.8	2849.1	2831.5	2808.4
35°	1062.4	1065.2	1084.6	1140.9	1189.9	1875.4	2643.0	2986.7	2960.8	2927.6
37.5°	1005.1	1026.4	1054.1	1108.6	1116.9	1779.3	2739.1	3181.6	3149.3	3107.7
40°	956.2	988.5	1020.8	1047.6	1039.3	1642.6	2873.1	3410.7	3374.7	3326.7
42.5°	917.4	948.8	984.8	987.6	990.3	1500.3	3015.3	3691.6	3685.1	3632.5
45°	892.4	912.7	946.9	942.3	987.6	1343.2	3146.5	4120.2	4205.2	4165.5
47.5°	875.8	891.5	895.2	914.6	1011.6	1202.8	3315.6	4959.1	5195.6	5150.3
50°	866.5	882.2	840.7	916.4	1015.3	1112.3	3549.3	6012.2	6392.8	6332.8
52.5°	865.6	861.9	799.1	935.8	995.0	1056.8	3671.3	6780.8	7625.2	7755.5
55°	867.5	821.3	777.9	941.4	954.3	1036.5	3262.9	7150.4	8762.4	9037.7
57.5°	850.8	776.9	789.9	919.2	877.6	1091.0	2412.1	7018.3	9216.9	9728.7
60°	819.4	734.4	812.0	859.2	799.1	997.7	1661.0	6428.9	8745.8	9272.4
62.5°	774.2	704.9	809.3	781.6	770.5	816.7	1141.8	5603.9	7998.4	8513.0
65°	723.4	680.9	765.8	706.7	713.2	628.2	807.4	4672.7	7106.0	7612.3
67.5°	668.8	666.1	702.1	629.1	602.3	497.9	588.5	3745.2	5959.6	6415.9
70°	606.9	627.3	638.4	558.9	488.7	390.8	437.0	2619.0	4396.5	4793.7
72.5°	545.1	546.9	562.6	485.9	365.8	313.2	328.0	1586.2	2986.7	3275.9
75°	482.2	464.7	479.5	395.4	272.5	256.8	253.1	980.2	2062.9	2291.1
77.5°	414.8	395.4	376.0	297.5	218.9	198.6	194.0	549.7	1265.6	1406.1
80°	337.2	311.3	280.8	218.0	159.8	142.3	141.3	267.9	631.0	703.0
82.5°	262.4	213.4	205.1	135.8	98.8	86.8	92.4	102.5	190.3	212.5
85°	183.8	155.2	109.0	54.5	44.3	36.0	35.1	30.5	50.8	56.4
87.5°	102.5	67.4	35.1	6.5	7.4	8.3	6.5	4.6	4.6	4.6
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

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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)