

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: P637984

Luminaire Tested: GWS-SA4D-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P637984  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4D-830-U-SLL-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

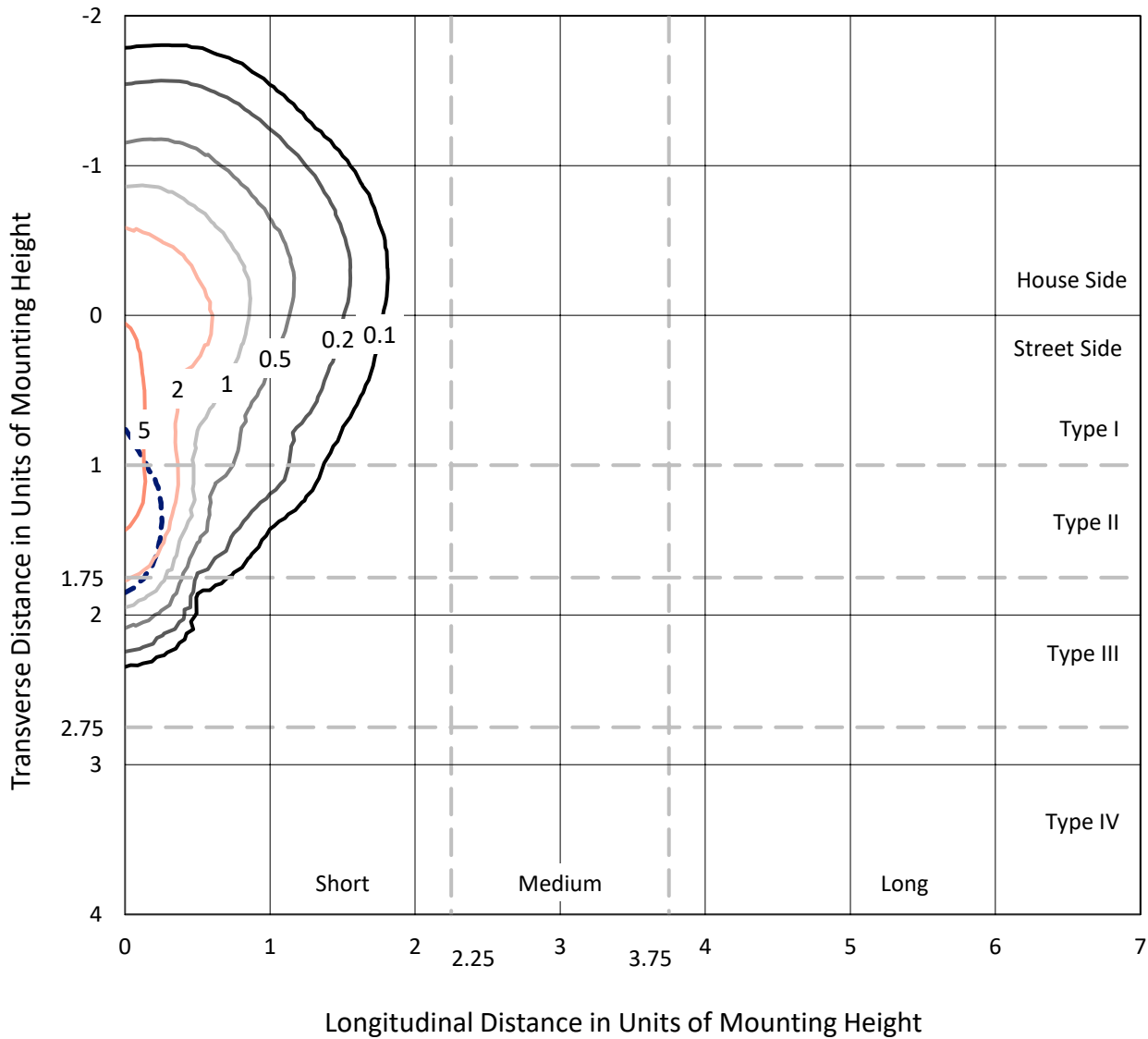
Lumens per Lamp: N/A  
Luminaire Lumens: 10431.5 lumens  
Efficiency: N/A  
Efficacy: 64.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 162.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

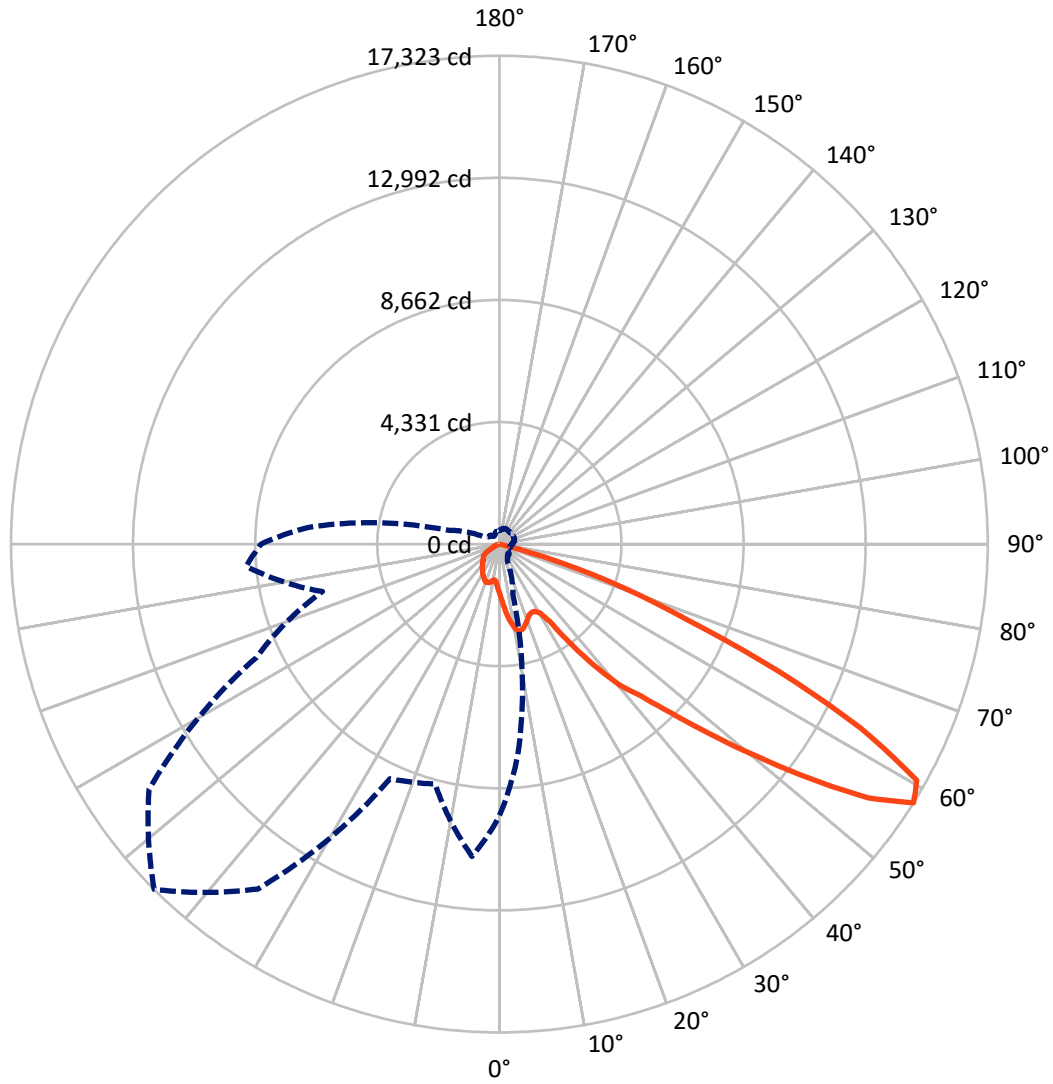
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2247.3	0.0	2247.3
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	8184.2	0.0	8184.2
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	10431.5	0.0	10431.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.2	1.7
10°-20°	576.5	5.5
20°-30°	935.5	9.0
30°-40°	1435.8	13.8
40°-50°	2293.1	22.0
50°-60°	3210.7	30.8
60°-70°	1646.2	15.8
70°-80°	158.5	1.5
80°-90°	0.0	0.0
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°	10431.5	100.0
0°-180°	10431.5	100.0

**Coefficient of Utilization**



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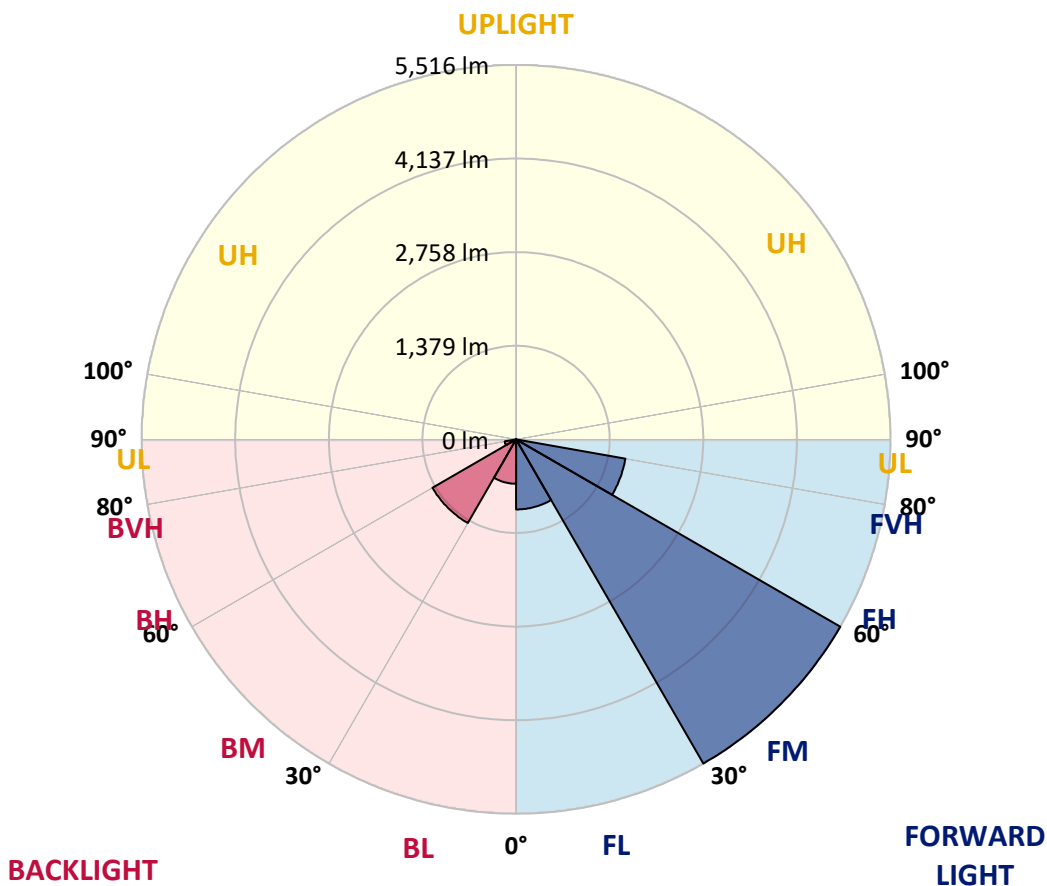
CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSBK

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1032.8	9.9			
FM (30°-60°)	5516.4	52.9			
FH (60°-80°)	1635.0	15.7			G1/1800
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	654.4	6.3	B2/1000		
BM (30°-60°)	1423.2	13.6	B2/2500		
BH (60°-80°)	169.7	1.6	B1/500		G1/500
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5
2.5°	1969.1	1964.9	1951.0	1903.6	1874.3	1828.2	1794.8	1751.5	1704.1	1674.8	1645.6
5°	2178.3	2167.1	2129.5	2020.7	1937.0	1846.4	1773.9	1694.4	1609.3	1553.5	1501.9
7.5°	2379.1	2362.4	2312.2	2128.1	2001.2	1871.5	1768.3	1652.5	1532.6	1448.9	1384.8
10°	2575.7	2538.1	2458.6	2232.7	2061.1	1904.9	1783.6	1651.1	1510.3	1404.3	1333.2
12.5°	2737.5	2709.6	2600.8	2331.7	2111.3	1911.9	1762.7	1640.0	1545.2	1474.0	1408.5
15°	2876.9	2846.3	2743.1	2420.9	2154.6	1884.0	1674.8	1567.5	1582.8	1610.7	1554.9
17.5°	3005.2	2973.2	2861.6	2494.8	2171.3	1815.7	1552.1	1500.5	1585.6	1690.2	1669.3
20°	3137.7	3101.5	2964.8	2554.8	2165.7	1708.3	1428.0	1443.4	1563.3	1683.2	1694.4
22.5°	3292.5	3254.9	3095.9	2631.5	2161.5	1580.0	1320.6	1393.2	1521.4	1623.3	1642.8
25°	3497.5	3452.9	3278.6	2744.5	2172.7	1462.9	1243.9	1344.3	1450.3	1542.4	1553.5
27.5°	3768.1	3710.9	3489.2	2883.9	2196.4	1370.8	1210.5	1277.4	1359.7	1442.0	1451.7
30°	4120.9	4048.4	3730.4	3005.2	2185.3	1306.7	1188.2	1210.5	1259.3	1326.2	1327.6
32.5°	4533.7	4434.7	4000.9	3109.8	2089.0	1259.3	1157.5	1142.1	1153.3	1204.9	1214.6
35°	5019.0	4890.7	4299.4	3208.8	1913.3	1167.2	1101.7	1050.1	1045.9	1071.0	1094.7
37.5°	5575.4	5422.0	4675.9	3335.8	1705.5	1071.0	1019.4	967.8	945.5	958.1	994.3
40°	6088.6	5918.4	5069.2	3489.2	1493.6	984.5	923.2	870.2	843.7	847.9	892.5
42.5°	6691.0	6515.3	5550.3	3690.0	1317.8	926.0	822.8	768.4	733.5	753.1	804.7
45°	7605.8	7406.4	6251.7	3864.3	1178.4	912.0	734.9	658.2	641.5	675.0	736.3
47.5°	8855.4	8611.3	7215.4	3970.3	1059.9	924.6	673.6	569.0	573.2	610.8	672.2
50°	10095.1	9831.5	8329.6	3830.8	962.2	899.5	642.9	499.2	525.7	559.2	615.0
52.5°	10947.2	10604.1	8872.1	3427.8	873.0	804.7	640.1	433.7	483.9	495.1	542.5
55°	10980.6	10558.1	8594.6	2702.6	751.7	679.1	610.8	379.3	437.9	442.1	482.5
57.5°	9625.1	9243.0	7511.0	1856.1	668.0	497.9	486.7	331.9	359.8	394.7	419.8
60°	7322.8	6997.8	5617.2	850.7	507.6	316.6	333.3	285.9	269.1	320.7	345.8
62.5°	4484.9	4277.1	3369.2	376.5	323.5	168.7	202.2	227.3	202.2	221.7	242.7
65°	1780.8	1688.8	1278.8	160.4	132.5	85.1	92.0	132.5	142.2	156.2	175.7
67.5°	309.6	292.9	214.8	71.1	54.4	51.6	44.6	61.4	86.5	96.2	111.6
70°	40.4	39.0	34.9	29.3	27.9	25.1	19.5	39.0	58.6	61.4	71.1
72.5°	9.8	8.4	8.4	7.0	8.4	2.8	2.8	20.9	41.8	43.2	50.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	26.5	29.3	34.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5
2.5°	1621.9	1594.0	1584.2	1570.3	1552.1	1557.7	1532.6	1524.2	1536.8	1553.5	1549.3
5°	1474.0	1443.4	1422.4	1390.4	1384.8	1372.2	1363.9	1352.7	1366.7	1386.2	1390.4
7.5°	1356.9	1330.4	1309.5	1299.7	1292.7	1287.2	1270.4	1262.1	1262.1	1270.4	1277.4
10°	1306.7	1287.2	1283.0	1285.8	1296.9	1295.5	1280.2	1269.0	1255.1	1248.1	1256.5
12.5°	1376.4	1344.3	1338.8	1340.2	1354.1	1352.7	1336.0	1322.0	1319.2	1322.0	1348.5
15°	1495.0	1446.1	1409.9	1402.9	1409.9	1407.1	1394.5	1386.2	1390.4	1430.8	1475.4
17.5°	1600.9	1525.6	1460.1	1435.0	1433.6	1429.4	1416.9	1414.1	1435.0	1510.3	1575.8
20°	1631.6	1557.7	1464.3	1432.2	1425.2	1421.0	1407.1	1411.3	1437.8	1528.4	1584.2
22.5°	1591.2	1520.1	1422.4	1390.4	1384.8	1383.4	1369.4	1375.0	1397.3	1476.8	1522.8
25°	1514.5	1454.5	1352.7	1324.8	1324.8	1322.0	1309.5	1312.3	1326.2	1395.9	1440.6
27.5°	1421.0	1363.9	1278.8	1250.9	1255.1	1259.3	1243.9	1239.8	1250.9	1316.5	1342.9
30°	1313.7	1273.2	1206.3	1181.2	1179.8	1196.5	1175.6	1170.0	1185.4	1237.0	1242.5
32.5°	1209.1	1189.5	1142.1	1122.6	1124.0	1126.8	1115.6	1115.6	1129.6	1157.5	1156.1
35°	1107.3	1094.7	1086.4	1072.4	1071.0	1065.4	1065.4	1068.2	1083.6	1093.3	1075.2
37.5°	1009.7	1022.2	1032.0	1018.0	1006.9	1006.9	1006.9	1019.4	1033.4	1029.2	998.5
40°	923.2	949.7	980.4	965.0	938.5	937.1	942.7	963.6	984.5	959.4	931.6
42.5°	849.3	882.7	926.0	917.6	888.3	884.1	888.3	914.8	931.6	899.5	868.8
45°	776.8	818.6	870.2	870.2	838.1	833.9	835.3	870.2	880.0	842.3	803.3
47.5°	715.4	761.4	815.8	815.8	789.3	780.9	787.9	824.2	831.1	778.2	741.9
50°	656.8	707.0	767.0	762.8	744.7	737.7	750.3	789.3	780.9	722.4	684.7
52.5°	582.9	635.9	718.2	722.4	712.6	714.0	729.3	754.4	730.7	659.6	627.5
55°	516.0	570.4	652.6	675.0	675.0	673.6	680.5	700.1	680.5	595.5	556.4
57.5°	443.5	489.5	557.8	563.4	567.6	552.2	562.0	588.5	578.7	506.2	483.9
60°	364.0	403.0	442.1	446.3	428.1	396.1	414.2	444.9	451.8	397.4	372.3
62.5°	258.0	295.6	341.7	341.7	323.5	291.5	315.2	341.7	331.9	276.1	260.8
65°	192.4	227.3	262.2	277.5	262.2	239.9	258.0	277.5	262.2	216.2	193.8
67.5°	124.1	147.8	168.7	181.3	184.1	181.3	189.7	184.1	166.0	135.3	122.7
70°	75.3	87.9	99.0	110.2	118.5	122.7	126.9	114.4	96.2	79.5	75.3
72.5°	54.4	65.5	75.3	83.7	93.4	96.2	96.2	87.9	71.1	55.8	51.6
75°	37.7	47.4	55.8	61.4	69.7	72.5	72.5	65.5	53.0	40.4	36.3
77.5°	1.4	9.8	9.8	8.4	11.2	13.9	13.9	16.7	15.3	11.2	9.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0





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**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5
2.5°	1557.7	1607.9	1621.9	1673.5	1719.5	1765.5	1821.3	1854.7	1904.9	1939.8	1959.3
5°	1404.3	1446.1	1496.3	1573.0	1652.5	1740.4	1846.4	1938.4	2054.2	2139.2	2167.1
7.5°	1292.7	1347.1	1405.7	1501.9	1610.7	1727.8	1877.1	2027.7	2204.8	2320.5	2394.4
10°	1271.8	1327.6	1405.7	1500.5	1614.9	1748.8	1931.4	2126.7	2348.4	2489.3	2572.9
12.5°	1372.2	1432.2	1465.7	1508.9	1595.4	1744.6	1978.9	2227.1	2487.9	2641.3	2730.5
15°	1520.1	1573.0	1518.7	1464.3	1520.1	1700.0	2005.4	2310.8	2610.6	2787.7	2879.7
17.5°	1621.9	1626.0	1507.5	1391.8	1407.1	1619.1	2015.1	2394.4	2741.7	2927.1	3023.4
20°	1612.1	1578.6	1458.7	1330.4	1283.0	1514.5	2004.0	2468.3	2874.2	3068.0	3162.8
22.5°	1536.8	1497.7	1395.9	1270.4	1178.4	1390.4	1984.4	2535.3	2995.5	3215.8	3305.1
25°	1446.1	1404.3	1320.6	1210.5	1111.5	1270.4	1969.1	2627.3	3148.9	3408.3	3478.0
27.5°	1340.2	1303.9	1232.8	1153.3	1083.6	1179.8	1964.9	2748.6	3334.4	3642.6	3691.4
30°	1237.0	1203.5	1147.7	1101.7	1072.4	1126.8	1951.0	2878.3	3556.1	3911.7	3964.7
32.5°	1137.9	1104.5	1069.6	1062.6	1064.0	1107.3	1903.6	3006.6	3819.7	4302.2	4341.2
35°	1052.9	1013.8	999.9	1016.6	1047.3	1073.8	1769.7	3112.6	4102.8	4727.5	4759.6
37.5°	972.0	933.0	931.6	972.0	1005.5	1022.2	1612.1	3217.2	4484.9	5159.8	5200.3
40°	898.1	859.0	873.0	921.8	948.3	956.7	1421.0	3376.2	4889.3	5615.8	5593.5
42.5°	835.3	794.9	803.3	866.0	889.7	912.0	1245.3	3508.7	5278.4	6048.1	6041.2
45°	774.0	743.3	737.7	806.0	827.0	916.2	1117.0	3610.5	5779.0	6599.0	6610.1
47.5°	714.0	690.3	691.7	721.0	772.6	937.1	1008.3	3677.4	6505.6	7472.0	7278.1
50°	659.6	641.5	656.8	623.4	737.7	910.6	914.8	3663.5	7317.2	8308.7	7919.6
52.5°	599.7	595.5	602.4	521.6	681.9	803.3	827.0	3478.0	7697.9	8880.5	8658.7
55°	538.3	536.9	481.1	417.0	570.4	641.5	708.4	2902.0	7685.3	9184.5	9453.6
57.5°	465.8	454.6	365.4	340.3	443.5	446.3	645.7	1900.8	6811.0	8456.5	9014.3
60°	352.8	344.5	267.8	276.1	309.6	285.9	514.6	946.9	5090.1	6587.8	7216.8
62.5°	244.0	232.9	199.4	213.4	199.4	163.2	315.2	468.6	3083.3	4159.9	4730.3
65°	178.5	166.0	136.7	117.1	93.4	93.4	119.9	179.9	1193.7	1768.3	2132.3
67.5°	110.2	104.6	80.9	58.6	57.2	61.4	62.8	89.3	192.4	306.8	375.1
70°	71.1	65.5	54.4	37.7	34.9	36.3	37.7	41.8	48.8	53.0	64.1
72.5°	48.8	46.0	39.0	20.9	16.7	18.1	19.5	19.5	23.7	22.3	26.5
75°	34.9	32.1	27.9	9.8	5.6	7.0	8.4	7.0	8.4	5.6	7.0
77.5°	9.8	9.8	7.0	1.4	0.0	1.4	2.8	2.8	1.4	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0



REPORT NUMBER: P637984

CATALOG NUMBER: GWS-SA4D-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5	1772.5
2.5°	2009.5	2041.6	2054.2	2036.0	2051.4	2026.3	2016.5	1978.9	1976.1	1969.1
5°	2280.1	2352.6	2395.8	2422.3	2391.6	2358.2	2308.0	2221.5	2195.0	2178.3
7.5°	2546.4	2659.4	2733.3	2768.2	2759.8	2691.5	2600.8	2455.8	2404.2	2379.1
10°	2777.9	2916.0	3005.2	3048.5	3030.3	2970.4	2840.7	2659.4	2591.1	2575.7
12.5°	2939.7	3066.6	3128.0	3165.6	3167.0	3143.3	3020.6	2837.9	2757.0	2737.5
15°	3041.5	3095.9	3097.3	3119.6	3158.6	3211.6	3154.5	2992.7	2906.2	2876.9
17.5°	3105.7	3045.7	2984.3	2989.9	3054.1	3194.9	3253.5	3129.4	3037.3	3005.2
20°	3151.7	2962.0	2847.7	2849.1	2914.6	3128.0	3321.8	3261.8	3167.0	3137.7
22.5°	3181.0	2888.1	2724.9	2720.8	2790.5	3048.5	3384.6	3419.4	3326.0	3292.5
25°	3240.9	2853.2	2651.0	2674.7	2736.1	3023.4	3469.6	3628.6	3542.1	3497.5
27.5°	3348.3	2888.1	2644.1	2698.4	2768.2	3097.3	3617.4	3907.5	3818.3	3768.1
30°	3533.8	3019.2	2751.4	2826.7	2910.4	3291.1	3865.7	4296.6	4168.3	4120.9
32.5°	3832.2	3291.1	3083.3	3245.1	3326.0	3609.1	4238.0	4733.1	4628.5	4533.7
35°	4243.6	3911.7	3888.0	4264.5	4245.0	4211.5	4695.4	5268.6	5111.0	5019.0
37.5°	4809.8	4910.2	5085.9	5459.6	5447.1	5191.9	5296.5	5774.8	5693.9	5575.4
40°	5516.8	5730.2	6028.6	6564.1	6396.8	6076.0	6034.2	6293.6	6228.0	6088.6
42.5°	5933.8	6301.9	6870.9	7352.0	7218.2	6657.6	6610.1	6986.7	6843.0	6691.0
45°	6127.6	6767.7	7883.4	8534.6	8128.8	7043.8	7025.7	7890.3	7809.5	7605.8
47.5°	6216.9	7237.7	9068.7	10054.7	9296.0	7382.7	7317.2	9201.2	9095.2	8855.4
50°	6315.9	7886.2	10496.7	11816.0	10705.9	7766.2	7813.6	10422.8	10378.2	10095.1
52.5°	6533.4	8572.3	12255.3	13829.7	12415.6	8367.3	8665.7	11574.7	11273.5	10947.2
55°	6859.8	9319.7	14084.9	15886.7	14160.2	9174.7	9587.5	12186.9	11341.8	10980.6
57.5°	6498.6	9506.6	15168.5	17323.0	14934.2	9177.5	8807.9	11125.7	9975.2	9625.1
60°	5157.0	8844.2	14751.5	17012.1	14274.6	8149.7	6744.0	8686.6	7557.0	7322.8
62.5°	3486.4	7417.6	12986.0	14387.5	12217.6	6410.7	4383.1	5649.3	4678.7	4484.9
65°	1910.5	5533.6	10492.6	10884.4	9562.4	4477.9	2255.0	2451.6	1867.3	1780.8
67.5°	527.1	3851.7	7720.2	7221.0	6709.2	2916.0	582.9	437.9	312.4	309.6
70°	132.5	2547.8	4625.7	4767.9	4113.9	1867.3	111.6	53.0	41.8	40.4
72.5°	55.8	1096.1	2195.0	2522.7	2105.8	864.6	40.4	15.3	12.6	9.8
75°	7.0	87.9	186.9	283.1	193.8	93.4	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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

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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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**

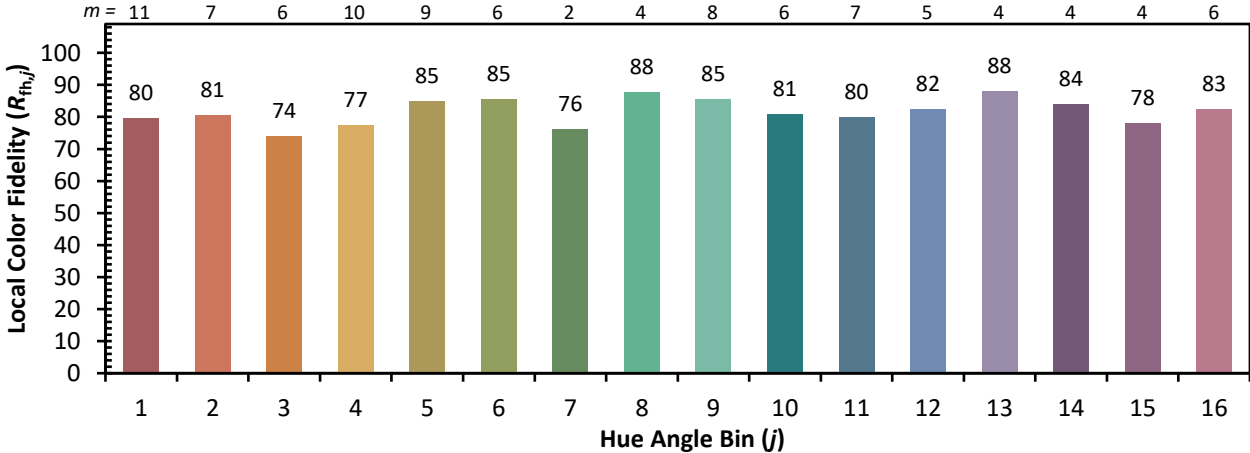


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)