

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: P637493

Luminaire Tested: GWS-SA4C-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P637493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4C-830-U-SLR-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT 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: 8226.7 lumens
Efficiency: N/A
Efficacy: 64.0 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): 128.5
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



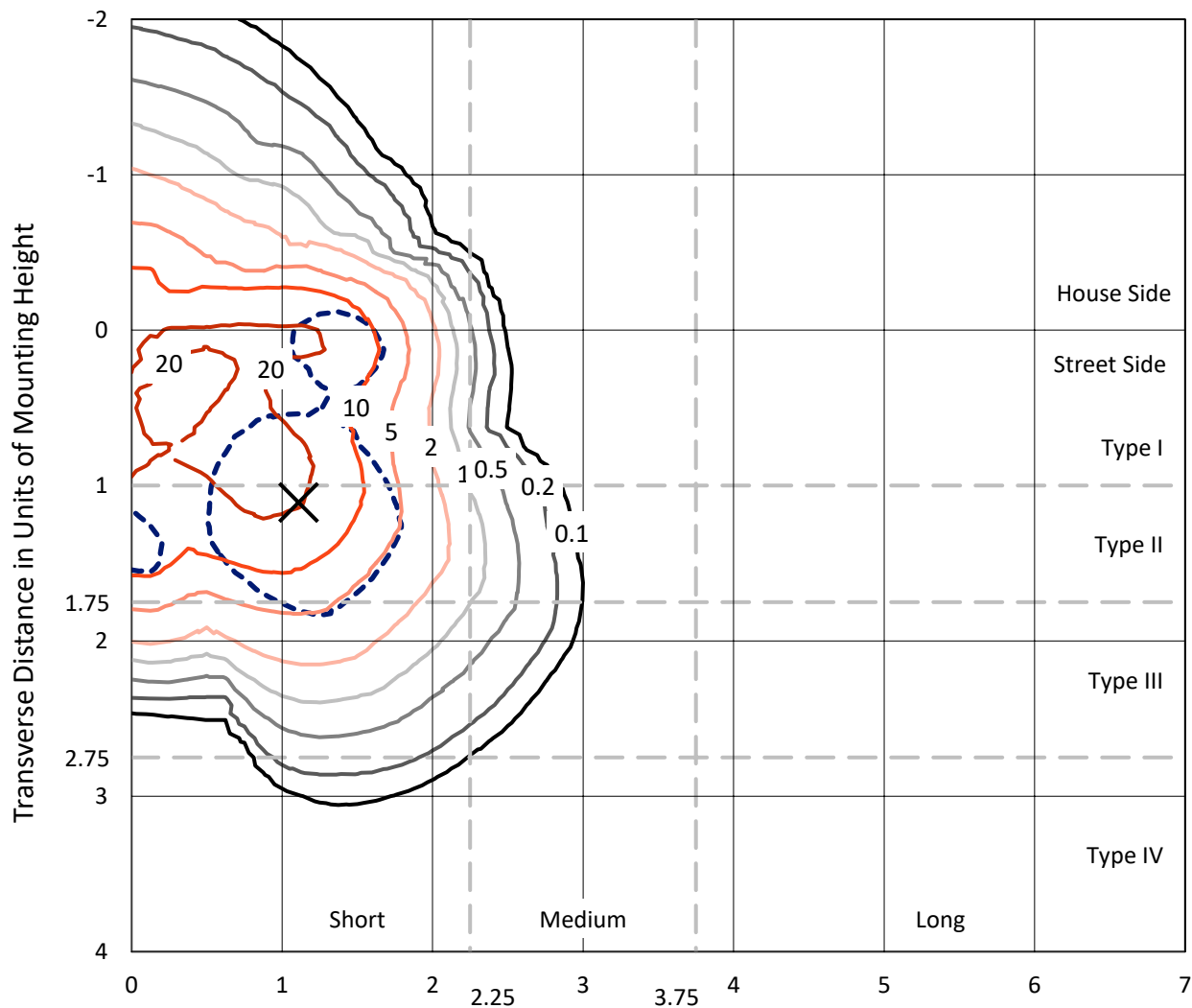
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd



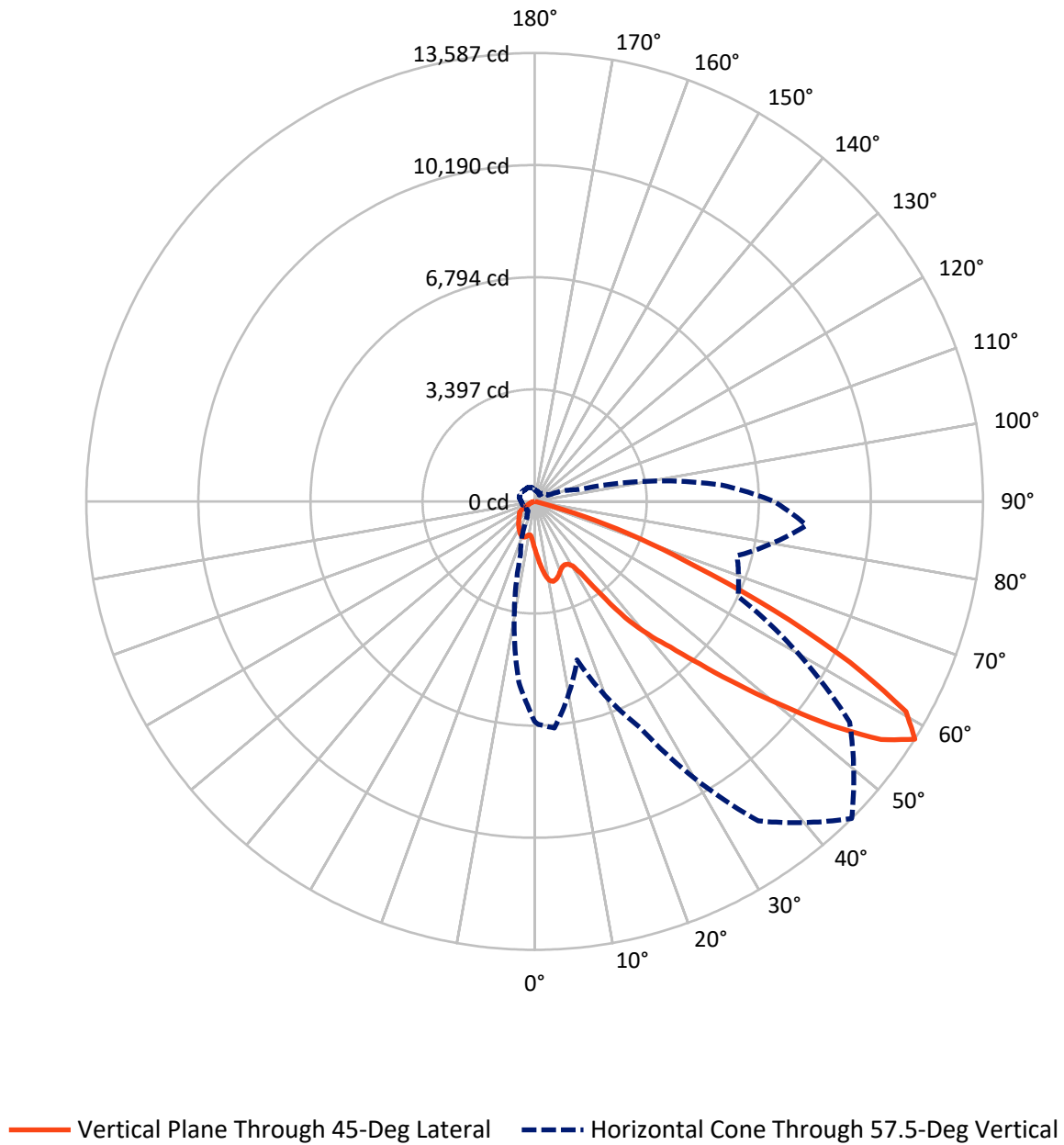
Longitudinal Distance in Units of Mounting Height

Based on 10 foot mounting height. Maximum calculated value = 25.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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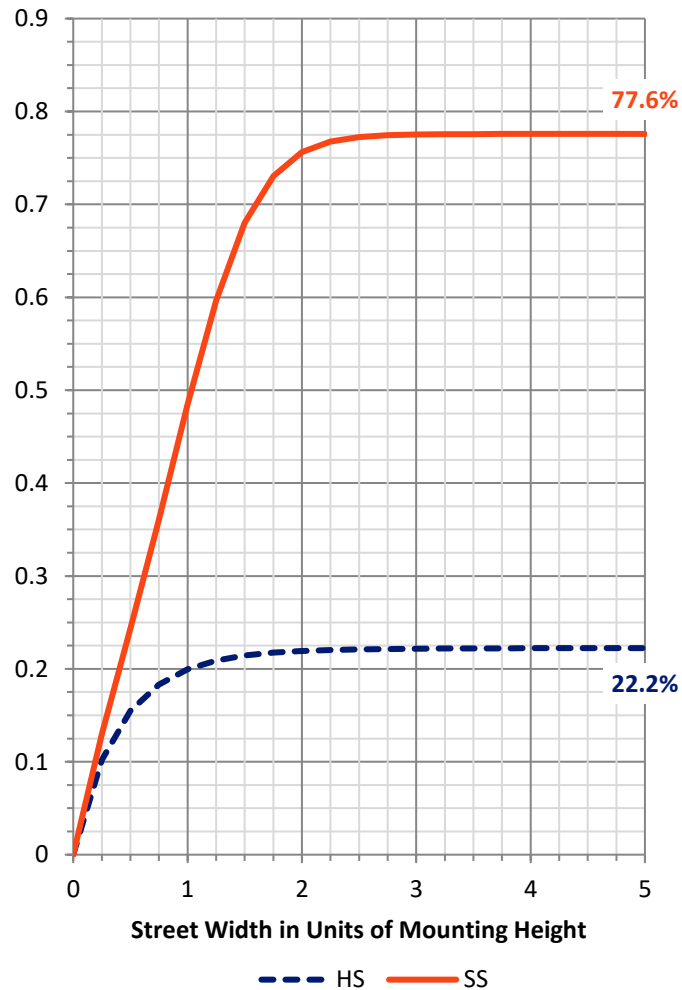
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1842.2	0.0	1842.2
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	6384.5	0.0	6384.5
	% Fixture	77.6	0.0	77.6
Total	Lumens	8226.7	0.0	8226.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.2	1.7
10°-20°	460.2	5.6
20°-30°	747.5	9.1
30°-40°	1155.0	14.0
40°-50°	1852.0	22.5
50°-60°	2531.2	30.8
60°-70°	1225.9	14.9
70°-80°	112.2	1.4
80°-90°	0.3	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°	8226.7	100.0
0°-180°	8226.7	100.0

Coefficient of Utilization



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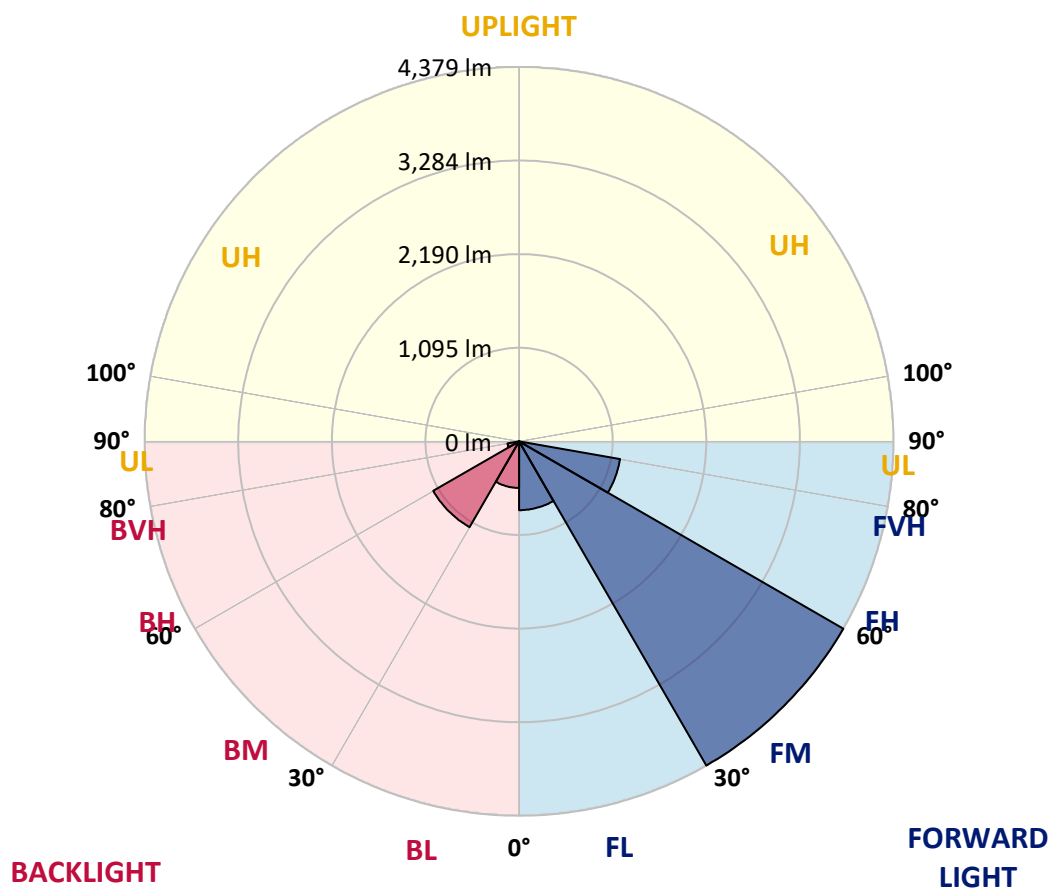
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	804.8	9.8			
FM	(30°-60°)	4379.3	53.2			
FH	(60°-80°)	1200.1	14.6			G1/1800
FVH	(80°-90°)	0.3	0.0			G0/10
BL	(0°-30°)	545.1	6.6	B2/1000		
BM	(30°-60°)	1159.0	14.1	B2/2500		
BH	(60°-80°)	138.1	1.7	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°	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9
2.5°	1566.4	1576.4	1593.0	1628.3	1658.2	1678.1	1686.9	1684.7	1672.5	1663.7	1646.0
5°	1734.5	1734.5	1766.5	1847.2	1909.1	1947.8	1967.7	1955.5	1931.2	1892.5	1832.8
7.5°	1881.5	1887.0	1941.2	2056.1	2150.1	2205.4	2237.4	2230.8	2187.7	2113.6	1994.2
10°	1996.4	2003.1	2074.9	2215.3	2325.9	2382.2	2429.8	2434.2	2386.7	2288.3	2151.2
12.5°	2108.1	2114.7	2189.9	2324.8	2422.0	2445.3	2487.3	2503.8	2491.7	2422.0	2279.4
15°	2228.6	2244.1	2308.2	2408.8	2449.7	2422.0	2449.7	2479.5	2520.4	2513.8	2385.6
17.5°	2346.9	2357.9	2423.2	2458.5	2413.2	2341.3	2354.6	2390.0	2482.8	2573.5	2490.6
20°	2456.3	2471.8	2526.0	2479.5	2342.5	2230.8	2231.9	2278.3	2419.8	2610.0	2597.8
22.5°	2571.3	2594.5	2633.2	2502.7	2277.2	2143.5	2149.0	2191.0	2370.1	2644.2	2719.4
25°	2721.6	2743.7	2769.2	2560.2	2256.2	2100.4	2121.4	2160.1	2370.1	2702.8	2869.8
27.5°	2925.0	2940.5	2941.6	2667.5	2292.7	2107.0	2151.2	2195.4	2440.8	2820.0	3070.9
30°	3180.4	3204.7	3172.6	2834.4	2406.6	2195.4	2260.6	2315.9	2593.4	3017.9	3367.2
32.5°	3491.0	3525.3	3482.2	3082.0	2644.2	2500.5	2618.8	2650.9	2836.6	3304.2	3703.3
35°	3855.8	3884.6	3838.1	3424.7	3199.2	3225.7	3440.2	3399.3	3325.2	3656.8	4095.7
37.5°	4256.0	4282.5	4193.0	3944.3	4019.4	4134.4	4477.1	4336.7	4097.9	4111.2	4521.3
40°	4623.0	4651.7	4511.3	4509.1	4663.9	4873.9	5287.4	5093.9	4768.9	4705.9	4920.4
42.5°	5003.3	5023.2	4896.0	4809.8	5161.4	5593.6	6031.3	5770.5	5213.3	5144.8	5420.0
45°	5546.1	5588.1	5361.4	4958.0	5609.1	6421.6	7031.8	6522.2	5516.2	5460.9	6185.0
47.5°	6344.2	6375.1	5913.1	5050.8	6025.8	7453.0	8282.0	7497.2	5782.6	5656.6	7230.8
50°	7004.1	7025.1	6420.5	5152.5	6469.1	8565.0	9707.0	8653.5	6082.2	5980.5	8206.9
52.5°	7490.5	7570.1	7087.1	5361.4	7051.7	9872.8	11284.5	10023.1	6549.8	6606.2	9016.1
55°	7591.1	7699.5	7542.5	5489.7	7564.6	11204.9	12741.4	11249.1	7016.3	7080.4	9288.0
57.5°	6671.4	6757.6	6888.1	4972.3	7552.4	11815.1	13587.1	11655.9	6804.1	6349.7	8269.9
60°	4997.7	5057.4	5294.0	3800.5	6945.6	11275.6	12928.3	10963.9	5949.5	4845.2	6301.1
62.5°	2963.7	2990.2	3289.8	2461.8	5764.9	9710.3	10721.8	9460.5	4701.5	3258.9	3859.1
65°	1137.5	1126.5	1355.3	1214.9	4239.4	7734.8	7974.7	7212.0	3225.7	1493.5	1471.4
67.5°	175.8	168.0	226.6	359.3	3057.7	5360.3	5262.0	5197.8	2020.8	348.2	304.0
70°	39.8	39.8	48.6	106.1	1868.2	3149.4	3370.5	3213.5	1293.4	74.1	39.8
72.5°	18.8	18.8	23.2	45.3	676.5	1297.8	1512.3	1489.0	420.1	24.3	14.4
75°	6.6	7.7	7.7	9.9	40.9	67.4	154.8	110.5	26.5	0.0	0.0
77.5°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.1	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°	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9
2.5°	1607.3	1599.6	1570.8	1532.2	1494.6	1461.4	1427.1	1386.2	1356.4	1322.1	1311.1
5°	1786.4	1737.8	1659.3	1577.5	1502.3	1438.2	1376.3	1310.0	1261.3	1212.7	1196.1
7.5°	1937.9	1866.0	1738.9	1616.2	1513.4	1422.7	1333.2	1242.5	1171.8	1114.3	1096.6
10°	2073.8	1990.9	1820.7	1669.2	1539.9	1434.9	1326.5	1212.7	1120.9	1052.4	1035.8
12.5°	2191.0	2094.8	1890.3	1709.0	1550.9	1430.5	1325.4	1234.8	1151.9	1073.4	1052.4
15°	2289.4	2183.3	1948.9	1735.6	1534.4	1375.2	1283.4	1269.1	1262.4	1176.2	1135.3
17.5°	2385.6	2266.2	1996.4	1747.7	1487.9	1277.9	1211.6	1276.8	1346.4	1290.1	1238.1
20°	2486.2	2350.2	2045.1	1749.9	1410.6	1168.5	1157.4	1260.2	1348.7	1331.0	1282.3
22.5°	2604.4	2455.2	2105.9	1748.8	1313.3	1075.6	1117.6	1228.2	1300.0	1298.9	1260.2
25°	2775.8	2587.9	2187.7	1755.5	1207.2	1003.8	1073.4	1174.0	1232.6	1230.4	1198.3
27.5°	2959.3	2745.9	2293.8	1772.0	1116.5	961.7	1021.4	1099.9	1150.8	1148.6	1120.9
30°	3216.9	2928.3	2395.5	1773.1	1051.3	939.6	964.0	1018.1	1066.8	1061.2	1040.2
32.5°	3529.7	3134.0	2480.6	1710.1	1010.4	918.6	904.3	931.9	969.5	961.7	956.2
35°	3907.8	3378.3	2553.6	1572.0	947.4	876.6	837.9	843.5	870.0	874.4	872.2
37.5°	4338.9	3669.0	2644.2	1389.6	862.3	815.8	763.9	759.4	774.9	789.3	800.3
40°	4764.5	3996.2	2766.9	1204.9	784.9	738.4	688.7	677.6	684.3	709.7	732.9
42.5°	5243.2	4375.4	2899.6	1046.9	731.8	653.3	605.8	584.8	603.6	644.5	672.1
45°	5933.0	4907.1	3028.9	920.8	709.7	578.2	514.0	511.8	532.8	585.9	616.8
47.5°	6901.3	5594.7	3114.1	822.5	708.6	519.6	443.3	456.6	480.9	532.8	568.2
50°	7845.4	6455.8	3020.1	747.3	685.4	480.9	390.2	416.8	441.1	486.4	522.9
52.5°	8414.7	6919.0	2654.2	676.5	613.5	463.2	338.3	384.7	389.1	430.0	468.7
55°	8355.0	6619.4	2032.9	567.1	507.4	437.8	284.1	347.1	349.3	380.3	413.4
57.5°	7251.8	5683.1	1396.2	459.9	381.4	361.5	234.4	292.9	313.9	332.7	357.1
60°	5404.6	4146.5	622.4	373.6	242.1	244.3	200.1	221.1	253.1	275.3	296.3
62.5°	3184.8	2385.6	253.1	224.4	133.8	153.7	161.4	161.4	181.3	197.9	211.1
65°	1203.8	834.6	102.8	112.8	69.6	71.9	95.1	117.2	132.7	147.0	164.7
67.5°	211.1	145.9	53.1	42.0	40.9	36.5	48.6	76.3	85.1	96.2	103.9
70°	35.4	29.8	22.1	21.0	18.8	19.9	32.1	54.2	59.7	63.0	66.3
72.5°	9.9	8.8	6.6	5.5	4.4	5.5	19.9	42.0	44.2	46.4	49.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	7.7	29.8	32.1	33.2	36.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	8.8	11.1	8.8
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°	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9
2.5°	1304.4	1282.3	1270.2	1263.5	1263.5	1254.7	1244.7	1241.4	1255.8	1255.8	1280.1
5°	1175.1	1157.4	1137.5	1125.3	1106.6	1109.9	1098.8	1097.7	1112.1	1118.7	1144.1
7.5°	1085.6	1063.4	1051.3	1043.5	1033.6	1029.2	1019.2	1015.9	1023.6	1034.7	1059.0
10°	1025.9	1022.5	1021.4	1027.0	1027.0	1021.4	1012.6	1007.1	1009.3	1030.3	1057.9
12.5°	1041.3	1048.0	1050.2	1059.0	1063.4	1059.0	1052.4	1054.6	1069.0	1107.7	1148.6
15°	1108.8	1103.2	1101.0	1105.5	1108.8	1104.3	1102.1	1118.7	1168.5	1223.7	1270.2
17.5°	1180.6	1145.2	1129.8	1129.8	1132.0	1129.8	1132.0	1164.0	1244.7	1300.0	1334.3
20°	1217.1	1151.9	1127.6	1122.0	1126.5	1127.6	1135.3	1171.8	1260.2	1298.9	1306.6
22.5°	1206.0	1124.2	1096.6	1092.2	1096.6	1101.0	1108.8	1139.7	1222.6	1242.5	1239.2
25°	1150.8	1070.1	1048.0	1048.0	1057.9	1056.8	1060.1	1082.2	1150.8	1162.9	1157.4
27.5°	1081.1	1004.9	986.1	997.1	1006.0	1003.8	1004.9	1023.6	1074.5	1077.8	1072.3
30°	1010.4	944.1	926.4	939.6	951.8	949.6	950.7	969.5	1001.5	998.2	990.5
32.5°	938.5	889.9	876.6	884.4	903.2	900.9	905.4	925.3	937.4	923.1	914.2
35°	872.2	846.8	836.8	841.2	855.6	858.9	866.7	879.9	879.9	862.3	846.8
37.5°	810.3	807.0	800.3	794.8	808.1	818.0	829.1	844.6	822.5	797.0	782.7
40°	752.8	767.2	758.3	744.0	751.7	766.1	788.2	800.3	773.8	748.4	724.1
42.5°	699.8	724.1	720.8	703.1	709.7	723.0	748.4	758.3	727.4	698.6	675.4
45°	648.9	683.2	685.4	663.3	669.9	683.2	713.0	716.3	676.5	645.6	629.0
47.5°	604.7	642.3	643.4	626.8	629.0	647.8	675.4	676.5	631.2	602.5	581.5
50°	562.7	605.8	609.1	594.7	596.9	619.1	642.3	637.8	589.2	559.4	540.6
52.5°	511.8	570.4	578.2	571.5	580.4	598.0	612.4	596.9	540.6	510.7	494.1
55°	456.6	532.8	549.4	545.0	554.9	569.3	572.6	562.7	491.9	462.1	446.6
57.5°	392.4	438.9	467.6	458.8	466.5	480.9	490.8	483.1	430.0	406.8	393.5
60°	325.0	356.0	362.6	348.2	341.6	367.0	390.2	380.3	335.0	320.6	305.1
62.5°	237.7	273.0	277.5	258.7	250.9	278.6	298.5	288.5	238.8	223.3	211.1
65°	190.1	223.3	232.1	214.5	210.0	231.0	243.2	218.9	183.5	166.9	153.7
67.5°	124.9	151.4	174.7	173.6	164.7	171.3	162.5	142.6	117.2	108.3	99.5
70°	77.4	92.9	107.2	112.8	111.7	109.4	97.3	82.9	75.2	71.9	67.4
72.5°	59.7	75.2	86.2	89.5	90.6	87.3	77.4	64.1	56.4	52.0	48.6
75°	44.2	56.4	65.2	69.6	71.9	69.6	59.7	50.9	43.1	39.8	36.5
77.5°	15.5	18.8	23.2	25.4	24.3	23.2	21.0	21.0	16.6	15.5	13.3
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

REPORT NUMBER: P637493

CATALOG NUMBER: GWS-SA4C-830-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9	1445.9
2.5°	1307.7	1327.6	1364.1	1397.3	1432.7	1469.1	1508.9	1549.8	1568.6	1566.4
5°	1182.8	1225.9	1285.6	1350.9	1423.8	1502.3	1589.6	1679.2	1717.9	1734.5
7.5°	1104.3	1165.1	1243.6	1326.5	1422.7	1534.4	1665.9	1806.3	1862.7	1881.5
10°	1114.3	1185.0	1250.3	1331.0	1433.8	1578.6	1742.2	1909.1	1975.4	1996.4
12.5°	1195.0	1210.5	1228.2	1294.5	1423.8	1611.7	1811.8	2010.8	2087.1	2108.1
15°	1268.0	1196.1	1162.9	1223.7	1388.4	1635.0	1882.6	2120.3	2204.3	2228.6
17.5°	1271.3	1162.9	1088.9	1136.4	1331.0	1644.9	1952.2	2231.9	2323.7	2346.9
20°	1230.4	1126.5	1031.4	1032.5	1252.5	1642.7	2009.7	2332.5	2435.3	2456.3
22.5°	1170.7	1083.3	985.0	950.7	1168.5	1638.3	2072.7	2439.7	2551.4	2571.3
25°	1104.3	1028.1	940.7	888.8	1084.4	1642.7	2161.2	2580.1	2702.8	2721.6
27.5°	1032.5	967.3	906.5	864.5	1013.7	1659.3	2267.3	2759.2	2905.1	2925.0
30°	957.3	908.7	884.4	858.9	969.5	1663.7	2382.2	2968.1	3152.7	3180.4
32.5°	883.3	856.7	857.8	862.3	927.5	1632.8	2487.3	3200.3	3446.8	3491.0
35°	814.7	807.0	829.1	851.2	866.7	1553.2	2579.0	3474.4	3810.5	3855.8
37.5°	756.1	762.8	790.4	812.5	800.3	1440.4	2700.6	3817.1	4217.3	4256.0
40°	699.8	716.3	748.4	758.3	749.5	1308.9	2846.5	4147.7	4569.9	4623.0
42.5°	647.8	660.0	705.3	707.5	735.1	1175.1	2986.9	4503.6	4975.6	5003.3
45°	605.8	603.6	650.0	664.4	753.9	1027.0	3124.0	4977.8	5506.3	5546.1
47.5°	564.9	562.7	573.7	639.0	761.7	889.9	3260.0	5672.1	6275.6	6344.2
50°	526.2	529.5	495.2	626.8	719.6	784.9	3321.9	6314.3	6975.4	7004.1
52.5°	491.9	479.8	420.1	587.0	630.1	685.4	3146.1	6606.2	7408.7	7490.5
55°	443.3	375.9	346.0	476.4	497.5	598.0	2576.8	6437.0	7446.3	7591.1
57.5°	379.2	295.2	294.1	351.5	351.5	554.9	1650.4	5499.6	6417.1	6671.4
60°	291.8	228.8	243.2	244.3	225.5	404.6	926.4	3984.0	4744.6	4997.7
62.5°	207.8	174.7	183.5	145.9	129.3	202.3	444.4	2293.8	2928.3	2963.7
65°	139.3	118.3	96.2	80.7	79.6	86.2	183.5	829.1	1008.2	1137.5
67.5°	91.8	71.9	50.9	50.9	57.5	57.5	69.6	137.1	192.3	175.8
70°	59.7	49.7	32.1	31.0	37.6	37.6	35.4	37.6	39.8	39.8
72.5°	44.2	37.6	18.8	16.6	21.0	22.1	19.9	18.8	18.8	18.8
75°	33.2	26.5	11.1	7.7	9.9	13.3	11.1	7.7	7.7	6.6
77.5°	13.3	9.9	4.4	3.3	5.5	7.7	6.6	3.3	2.2	2.2
80°	1.1	2.2	2.2	2.2	3.3	4.4	5.5	2.2	1.1	1.1
82.5°	0.0	1.1	1.1	1.1	2.2	3.3	4.4	2.2	1.1	1.1
85°	0.0	0.0	0.0	0.0	2.2	3.3	2.2	1.1	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.1	3.3	2.2	1.1	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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

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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 $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

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TM-30-18

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)