

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: P636499

Luminaire Tested: GWS-SA3F-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636499
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-SA3F-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10415.1 lumens
Efficiency: N/A
Efficacy: 56.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G1

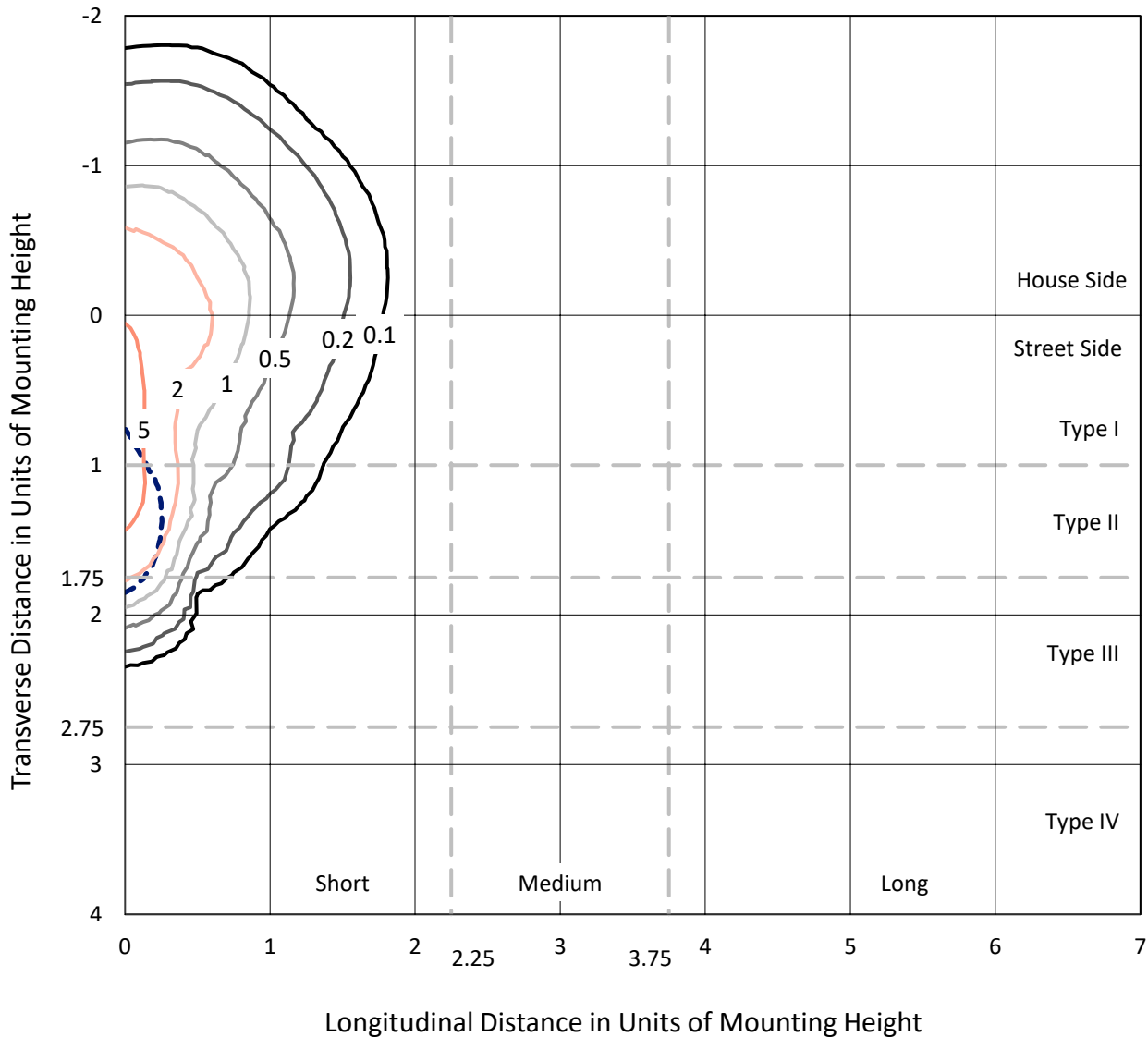
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

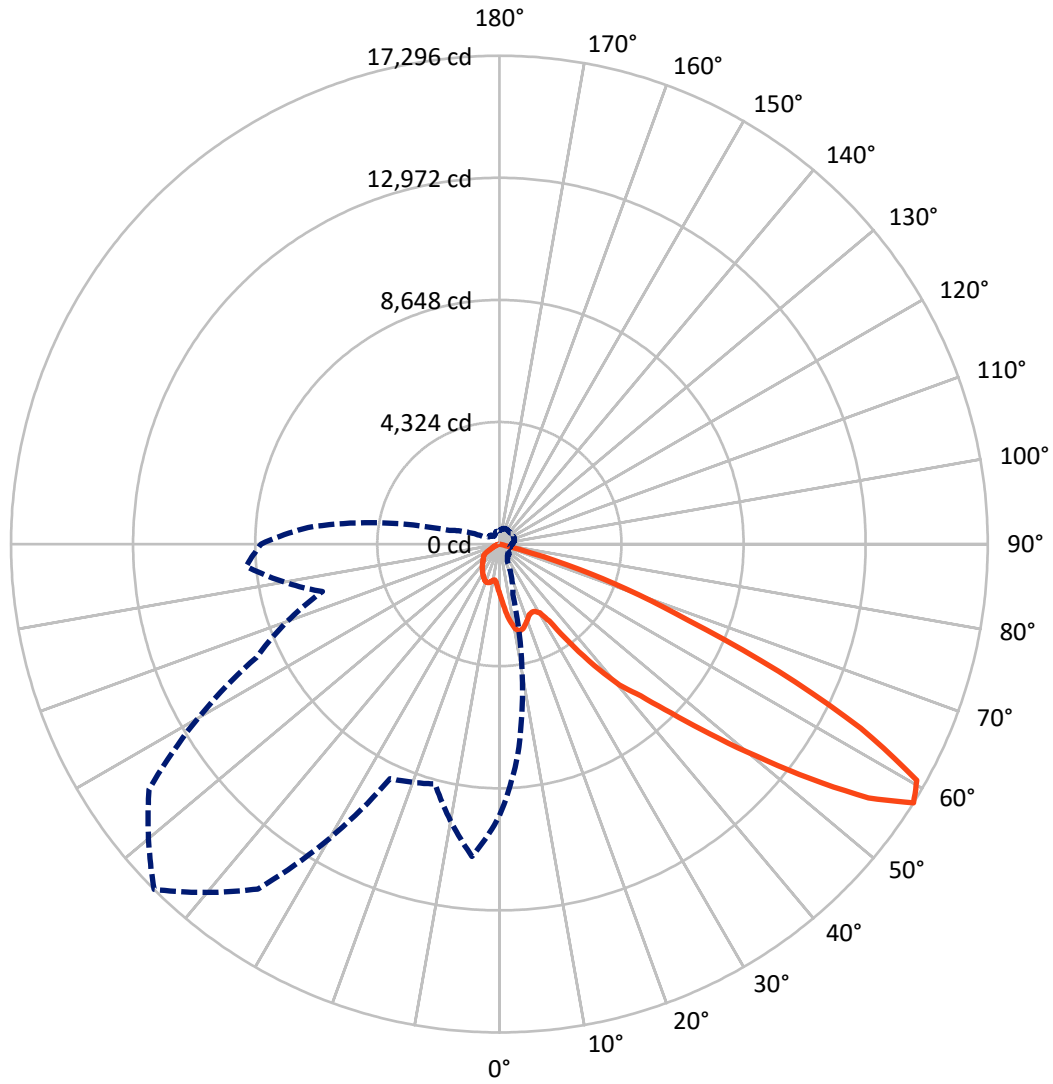
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.9 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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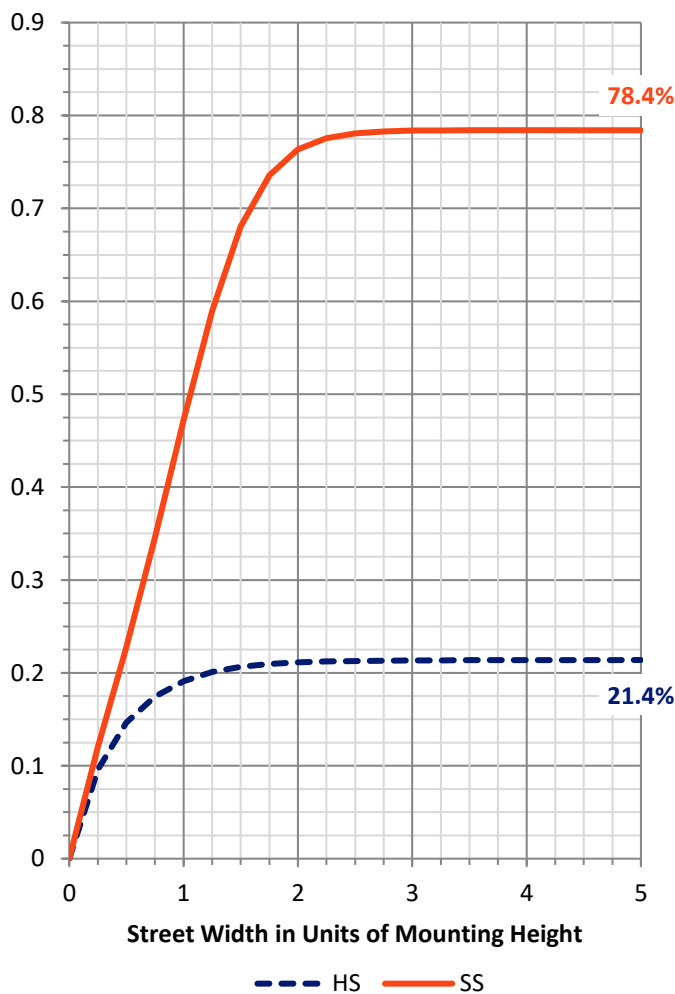
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2243.8	0.0	2243.8
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	8171.3	0.0	8171.3
	% Fixture	78.5	0.0	78.5
Total	Lumens	10415.1	0.0	10415.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	1.7
10°-20°	575.5	5.5
20°-30°	934.0	9.0
30°-40°	1433.5	13.8
40°-50°	2289.5	22.0
50°-60°	3205.7	30.8
60°-70°	1643.6	15.8
70°-80°	158.2	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°	10415.1	100.0
0°-180°	10415.1	100.0

Coefficient of Utilization



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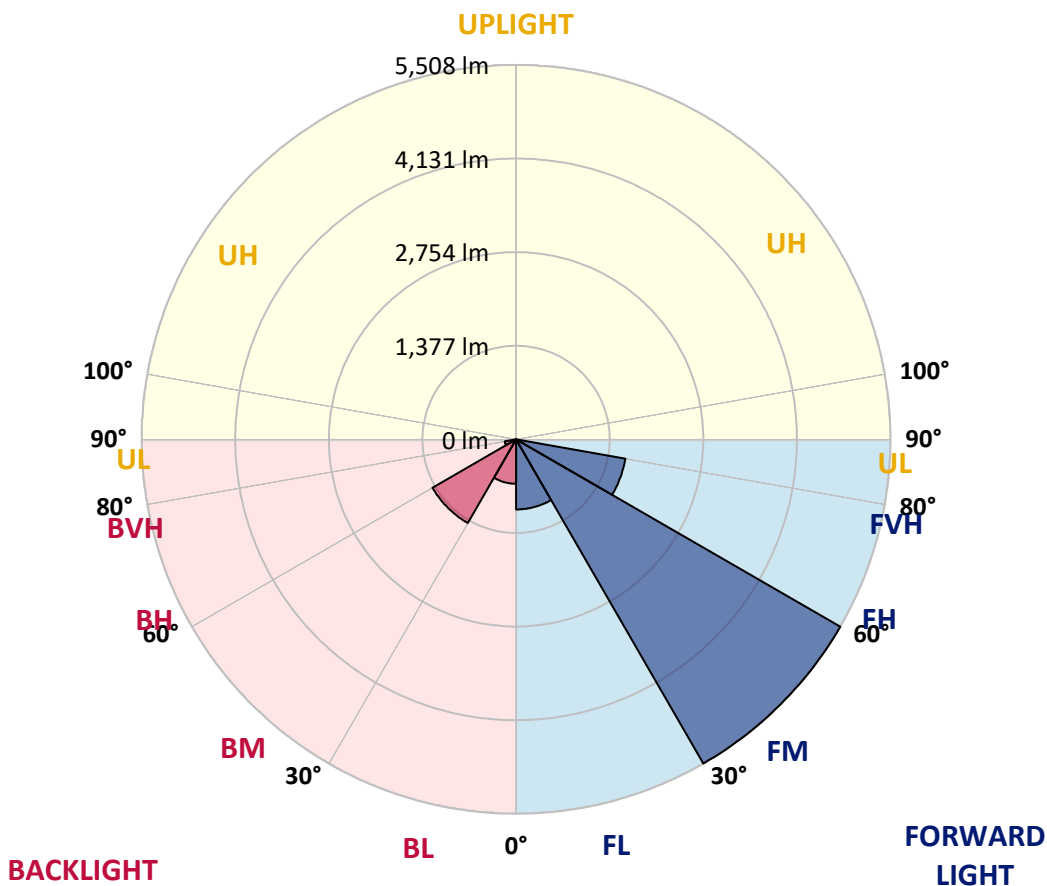
CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1031.2	9.9			
FM (30°-60°)	5507.8	52.9			
FH (60°-80°)	1632.4	15.7			G1/1800
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	653.3	6.3	B2/1000		
BM (30°-60°)	1421.0	13.6	B2/2500		
BH (60°-80°)	169.5	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°	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7
2.5°	1966.0	1961.8	1947.9	1900.6	1871.3	1825.4	1792.0	1748.8	1701.5	1672.2	1643.0
5°	2174.9	2163.7	2126.1	2017.5	1934.0	1843.5	1771.1	1691.7	1606.8	1551.1	1499.6
7.5°	2375.4	2358.6	2308.5	2124.7	1998.0	1868.5	1765.5	1649.9	1530.2	1446.7	1382.6
10°	2571.7	2534.1	2454.7	2229.2	2057.9	1902.0	1780.8	1648.5	1507.9	1402.1	1331.1
12.5°	2733.2	2705.3	2596.7	2328.0	2108.0	1908.9	1759.9	1637.4	1542.7	1471.7	1406.3
15°	2872.4	2841.8	2738.8	2417.1	2151.2	1881.1	1672.2	1565.0	1580.3	1608.2	1552.5
17.5°	3000.5	2968.5	2857.1	2490.9	2167.9	1812.8	1549.7	1498.2	1583.1	1687.5	1666.6
20°	3132.8	3096.6	2960.1	2550.8	2162.3	1705.6	1425.8	1441.1	1560.8	1680.6	1691.7
22.5°	3287.3	3249.8	3091.0	2627.4	2158.1	1577.5	1318.6	1391.0	1519.1	1620.7	1640.2
25°	3492.0	3447.5	3273.4	2740.1	2169.3	1460.6	1242.0	1342.2	1448.0	1539.9	1551.1
27.5°	3762.1	3705.0	3483.7	2879.4	2193.0	1368.7	1208.6	1275.4	1357.5	1439.7	1449.4
30°	4114.4	4042.0	3724.5	3000.5	2181.8	1304.6	1186.3	1208.6	1257.3	1324.1	1325.5
32.5°	4526.5	4427.7	3994.7	3104.9	2085.7	1257.3	1155.7	1140.3	1151.5	1203.0	1212.7
35°	5011.1	4883.0	4292.6	3203.8	1910.3	1165.4	1100.0	1048.4	1044.3	1069.3	1093.0
37.5°	5566.6	5413.5	4668.6	3330.5	1702.8	1069.3	1017.8	966.3	944.0	956.5	992.7
40°	6079.0	5909.1	5061.2	3483.7	1491.2	983.0	921.7	868.8	842.4	846.6	891.1
42.5°	6680.5	6505.1	5541.6	3684.2	1315.8	924.5	821.5	767.2	732.4	751.9	803.4
45°	7593.9	7394.8	6241.9	3858.2	1176.5	910.6	733.8	657.2	640.5	673.9	735.2
47.5°	8841.4	8597.8	7204.0	3964.0	1058.2	923.1	672.5	568.1	572.3	609.9	671.1
50°	10079.2	9816.1	8316.5	3824.8	960.7	898.1	641.9	498.5	524.9	558.3	614.0
52.5°	10930.0	10587.4	8858.1	3422.4	871.6	803.4	639.1	433.0	483.1	494.3	541.6
55°	10963.4	10541.5	8581.1	2698.4	750.5	678.1	609.9	378.7	437.2	441.4	481.8
57.5°	9610.0	9228.5	7499.2	1853.2	666.9	497.1	485.9	331.4	359.2	394.0	419.1
60°	7311.2	6986.8	5608.4	849.3	506.8	316.1	332.8	285.4	268.7	320.2	345.3
62.5°	4477.8	4270.3	3363.9	375.9	323.0	168.5	201.9	227.0	201.9	221.4	242.3
65°	1778.0	1686.1	1276.8	160.1	132.3	84.9	91.9	132.3	142.0	155.9	175.4
67.5°	309.1	292.4	214.4	71.0	54.3	51.5	44.6	61.3	86.3	96.1	111.4
70°	40.4	39.0	34.8	29.2	27.8	25.1	19.5	39.0	58.5	61.3	71.0
72.5°	9.7	8.4	8.4	7.0	8.4	2.8	2.8	20.9	41.8	43.2	50.1
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	26.5	29.2	34.8
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°	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7
2.5°	1619.3	1591.5	1581.7	1567.8	1549.7	1555.3	1530.2	1521.8	1534.4	1551.1	1546.9
5°	1471.7	1441.1	1420.2	1388.2	1382.6	1370.1	1361.7	1350.6	1364.5	1384.0	1388.2
7.5°	1354.8	1328.3	1307.4	1297.7	1290.7	1285.1	1268.4	1260.1	1260.1	1268.4	1275.4
10°	1304.6	1285.1	1281.0	1283.7	1294.9	1293.5	1278.2	1267.0	1253.1	1246.2	1254.5
12.5°	1374.3	1342.2	1336.7	1338.1	1352.0	1350.6	1333.9	1320.0	1317.2	1320.0	1346.4
15°	1492.6	1443.9	1407.7	1400.7	1407.7	1404.9	1392.4	1384.0	1388.2	1428.6	1473.1
17.5°	1598.4	1523.2	1457.8	1432.7	1431.3	1427.2	1414.6	1411.8	1432.7	1507.9	1573.4
20°	1629.1	1555.3	1462.0	1429.9	1423.0	1418.8	1404.9	1409.1	1435.5	1526.0	1581.7
22.5°	1588.7	1517.7	1420.2	1388.2	1382.6	1381.2	1367.3	1372.9	1395.1	1474.5	1520.4
25°	1512.1	1452.2	1350.6	1322.7	1322.7	1320.0	1307.4	1310.2	1324.1	1393.7	1438.3
27.5°	1418.8	1361.7	1276.8	1248.9	1253.1	1257.3	1242.0	1237.8	1248.9	1314.4	1340.8
30°	1311.6	1271.2	1204.4	1179.3	1177.9	1194.6	1173.8	1168.2	1183.5	1235.0	1240.6
32.5°	1207.2	1187.7	1140.3	1120.8	1122.2	1125.0	1113.9	1113.9	1127.8	1155.7	1154.3
35°	1105.5	1093.0	1084.6	1070.7	1069.3	1063.8	1063.8	1066.5	1081.9	1091.6	1073.5
37.5°	1008.1	1020.6	1030.3	1016.4	1005.3	1005.3	1005.3	1017.8	1031.7	1027.6	996.9
40°	921.7	948.2	978.8	963.5	937.1	935.7	941.2	962.1	983.0	957.9	930.1
42.5°	847.9	881.4	924.5	916.2	886.9	882.8	886.9	913.4	930.1	898.1	867.4
45°	775.5	817.3	868.8	868.8	836.8	832.6	834.0	868.8	878.6	841.0	802.0
47.5°	714.3	760.2	814.5	814.5	788.1	779.7	786.7	822.9	829.8	776.9	740.7
50°	655.8	705.9	765.8	761.6	743.5	736.6	749.1	788.1	779.7	721.2	683.6
52.5°	582.0	634.9	717.1	721.2	711.5	712.9	728.2	753.3	729.6	658.6	626.6
55°	515.2	569.5	651.6	673.9	673.9	672.5	679.5	699.0	679.5	594.5	555.5
57.5°	442.8	488.7	556.9	562.5	566.7	551.4	561.1	587.6	577.8	505.4	483.1
60°	363.4	402.4	441.4	445.6	427.5	395.4	413.5	444.2	451.1	396.8	371.8
62.5°	257.6	295.2	341.1	341.1	323.0	291.0	314.7	341.1	331.4	275.7	260.4
65°	192.1	227.0	261.8	277.1	261.8	239.5	257.6	277.1	261.8	215.8	193.5
67.5°	123.9	147.6	168.5	181.0	183.8	181.0	189.4	183.8	165.7	135.1	122.5
70°	75.2	87.7	98.9	110.0	118.3	122.5	126.7	114.2	96.1	79.4	75.2
72.5°	54.3	65.4	75.2	83.5	93.3	96.1	96.1	87.7	71.0	55.7	51.5
75°	37.6	47.3	55.7	61.3	69.6	72.4	72.4	65.4	52.9	40.4	36.2
77.5°	1.4	9.7	9.7	8.4	11.1	13.9	13.9	16.7	15.3	11.1	9.7
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°	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7
2.5°	1555.3	1605.4	1619.3	1670.8	1716.8	1762.7	1818.4	1851.8	1902.0	1936.8	1956.3
5°	1402.1	1443.9	1494.0	1570.6	1649.9	1737.7	1843.5	1935.4	2050.9	2135.9	2163.7
7.5°	1290.7	1345.0	1403.5	1499.6	1608.2	1725.1	1874.1	2024.5	2201.3	2316.9	2390.7
10°	1269.8	1325.5	1403.5	1498.2	1612.3	1746.0	1928.4	2123.3	2344.7	2485.3	2568.9
12.5°	1370.1	1429.9	1463.4	1506.5	1592.9	1741.8	1975.7	2223.6	2484.0	2637.1	2726.2
15°	1517.7	1570.6	1516.3	1462.0	1517.7	1697.3	2002.2	2307.1	2606.5	2783.3	2875.2
17.5°	1619.3	1623.5	1505.1	1389.6	1404.9	1616.5	2011.9	2390.7	2737.4	2922.5	3018.6
20°	1609.6	1576.1	1456.4	1328.3	1281.0	1512.1	2000.8	2464.5	2869.6	3063.2	3157.9
22.5°	1534.4	1495.4	1393.7	1268.4	1176.5	1388.2	1981.3	2531.3	2990.8	3210.8	3299.9
25°	1443.9	1402.1	1318.6	1208.6	1109.7	1268.4	1966.0	2623.2	3143.9	3402.9	3472.5
27.5°	1338.1	1301.8	1230.8	1151.5	1081.9	1177.9	1961.8	2744.3	3329.1	3636.8	3685.6
30°	1235.0	1201.6	1145.9	1100.0	1070.7	1125.0	1947.9	2873.8	3550.5	3905.5	3958.5
32.5°	1136.2	1102.7	1067.9	1061.0	1062.4	1105.5	1900.6	3001.9	3813.7	4295.4	4334.4
35°	1051.2	1012.2	998.3	1015.0	1045.7	1072.1	1766.9	3107.7	4096.3	4720.1	4752.1
37.5°	970.5	931.5	930.1	970.5	1003.9	1020.6	1609.6	3212.2	4477.8	5151.7	5192.1
40°	896.7	857.7	871.6	920.3	946.8	955.2	1418.8	3370.9	4881.6	5607.0	5584.7
42.5°	834.0	793.6	802.0	864.7	888.3	910.6	1243.4	3503.2	5270.1	6038.6	6031.7
45°	772.8	742.1	736.6	804.8	825.7	914.8	1115.3	3604.8	5769.9	6588.6	6599.8
47.5°	712.9	689.2	690.6	719.8	771.4	935.7	1006.7	3671.6	6495.3	7460.2	7266.7
50°	658.6	640.5	655.8	622.4	736.6	909.2	913.4	3657.7	7305.7	8295.6	7907.2
52.5°	598.7	594.5	601.5	520.7	680.9	802.0	825.7	3472.5	7685.8	8866.5	8645.1
55°	537.4	536.1	480.4	416.3	569.5	640.5	707.3	2897.5	7673.3	9170.0	9438.8
57.5°	465.0	453.9	364.8	339.7	442.8	445.6	644.7	1897.8	6800.2	8443.2	9000.2
60°	352.3	343.9	267.3	275.7	309.1	285.4	513.8	945.4	5082.1	6577.5	7205.4
62.5°	243.7	232.5	199.1	213.0	199.1	162.9	314.7	467.8	3078.5	4153.4	4722.9
65°	178.2	165.7	136.5	117.0	93.3	93.3	119.7	179.6	1191.9	1765.5	2128.9
67.5°	110.0	104.4	80.8	58.5	57.1	61.3	62.7	89.1	192.1	306.3	374.5
70°	71.0	65.4	54.3	37.6	34.8	36.2	37.6	41.8	48.7	52.9	64.0
72.5°	48.7	45.9	39.0	20.9	16.7	18.1	19.5	19.5	23.7	22.3	26.5
75°	34.8	32.0	27.8	9.7	5.6	7.0	8.4	7.0	8.4	5.6	7.0
77.5°	9.7	9.7	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: P636499

CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7	1769.7
2.5°	2006.4	2038.4	2050.9	2032.8	2048.2	2023.1	2013.3	1975.7	1973.0	1966.0
5°	2276.5	2348.9	2392.1	2418.5	2387.9	2354.5	2304.3	2218.0	2191.6	2174.9
7.5°	2542.4	2655.2	2729.0	2763.8	2755.5	2687.2	2596.7	2451.9	2400.4	2375.4
10°	2773.6	2911.4	3000.5	3043.7	3025.6	2965.7	2836.2	2655.2	2587.0	2571.7
12.5°	2935.1	3061.8	3123.0	3160.6	3162.0	3138.4	3015.8	2833.4	2752.7	2733.2
15°	3036.7	3091.0	3092.4	3114.7	3153.7	3206.6	3149.5	2988.0	2901.7	2872.4
17.5°	3100.8	3040.9	2979.6	2985.2	3049.3	3189.9	3248.4	3124.4	3032.5	3000.5
20°	3146.7	2957.4	2843.2	2844.6	2910.0	3123.0	3316.6	3256.7	3162.0	3132.8
22.5°	3176.0	2883.6	2720.7	2716.5	2786.1	3043.7	3379.2	3414.0	3320.8	3287.3
25°	3235.8	2848.8	2646.9	2670.5	2731.8	3018.6	3464.2	3622.9	3536.6	3492.0
27.5°	3343.0	2883.6	2639.9	2694.2	2763.8	3092.4	3611.8	3901.4	3812.3	3762.1
30°	3528.2	3014.4	2747.1	2822.3	2905.8	3286.0	3859.6	4289.8	4161.7	4114.4
32.5°	3826.2	3286.0	3078.5	3240.0	3320.8	3603.4	4231.4	4725.6	4621.2	4526.5
35°	4236.9	3905.5	3881.9	4257.8	4238.3	4204.9	4688.1	5260.3	5103.0	5011.1
37.5°	4802.2	4902.5	5077.9	5451.1	5438.5	5183.7	5288.2	5765.7	5685.0	5566.6
40°	5508.1	5721.2	6019.1	6553.8	6386.7	6066.5	6024.7	6283.7	6218.2	6079.0
42.5°	5924.5	6292.0	6860.1	7340.5	7206.8	6647.1	6599.8	6975.7	6832.3	6680.5
45°	6118.0	6757.1	7871.0	8521.2	8116.0	7032.8	7014.7	7877.9	7797.2	7593.9
47.5°	6207.1	7226.3	9054.5	10038.9	9281.4	7371.1	7305.7	9186.7	9080.9	8841.4
50°	6306.0	7873.8	10480.2	11797.4	10689.1	7754.0	7801.4	10406.4	10361.9	10079.2
52.5°	6523.2	8558.8	12236.0	13808.0	12396.1	8354.1	8652.1	11556.5	11255.8	10930.0
55°	6849.0	9305.1	14062.8	15861.7	14137.9	9160.3	9572.4	12167.8	11324.0	10963.4
57.5°	6488.4	9491.7	15144.6	17295.8	14910.7	9163.1	8794.1	11108.2	9959.5	9610.0
60°	5148.9	8830.3	14728.3	16985.3	14252.1	8136.9	6733.4	8673.0	7545.2	7311.2
62.5°	3480.9	7405.9	12965.6	14364.9	12198.4	6400.6	4376.2	5640.4	4671.3	4477.8
65°	1907.5	5524.9	10476.1	10867.3	9547.4	4470.8	2251.4	2447.8	1864.4	1778.0
67.5°	526.3	3845.7	7708.1	7209.6	6698.6	2911.4	582.0	437.2	311.9	309.1
70°	132.3	2543.8	4618.4	4760.5	4107.4	1864.4	111.4	52.9	41.8	40.4
72.5°	55.7	1094.4	2191.6	2518.8	2102.5	863.3	40.4	15.3	12.5	9.7
75°	7.0	87.7	186.6	282.6	193.5	93.3	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

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)