

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: P634025

Luminaire Tested: GWS-SA2F-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2F-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10031 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

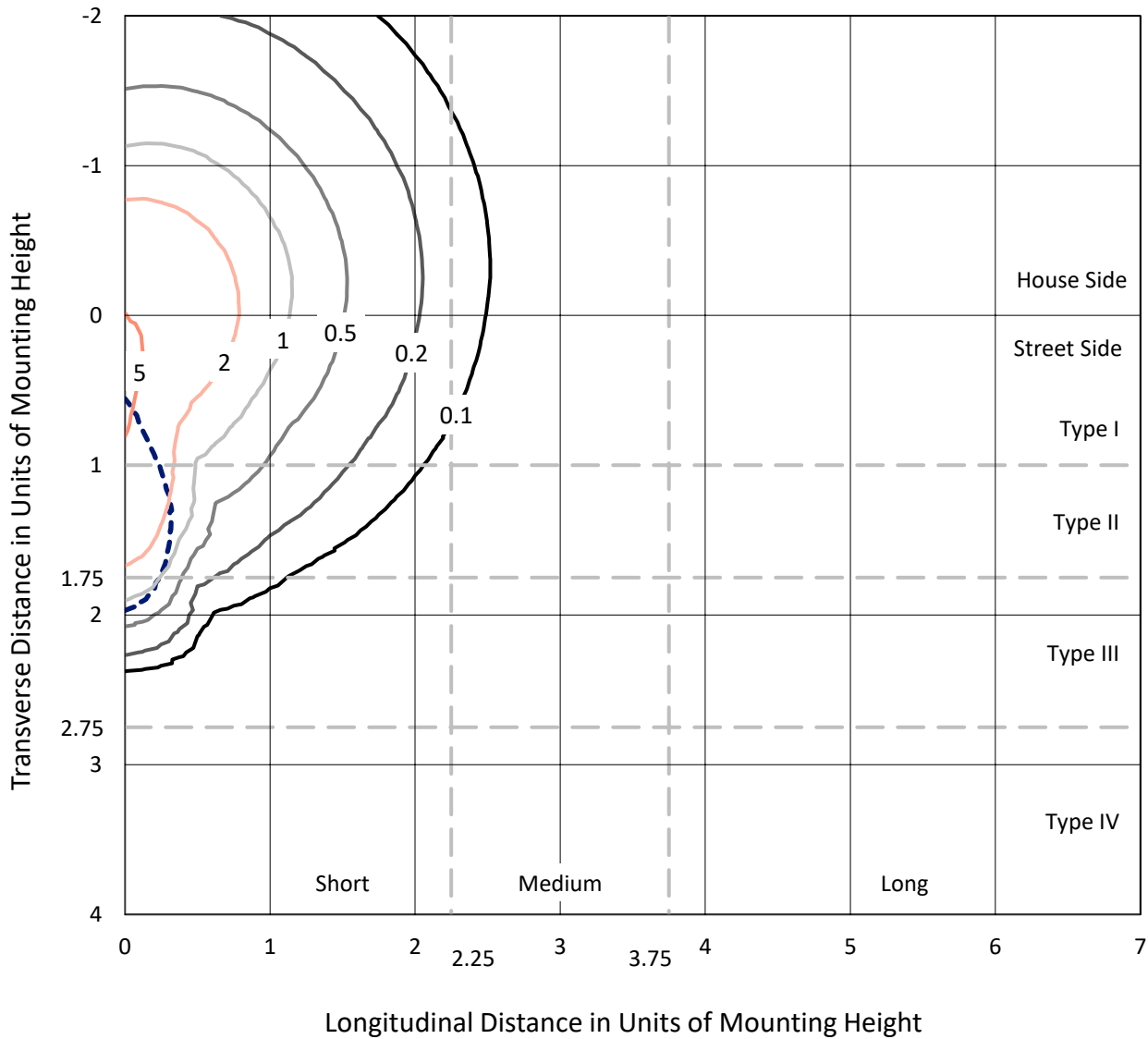
Input Watts (W): 124.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

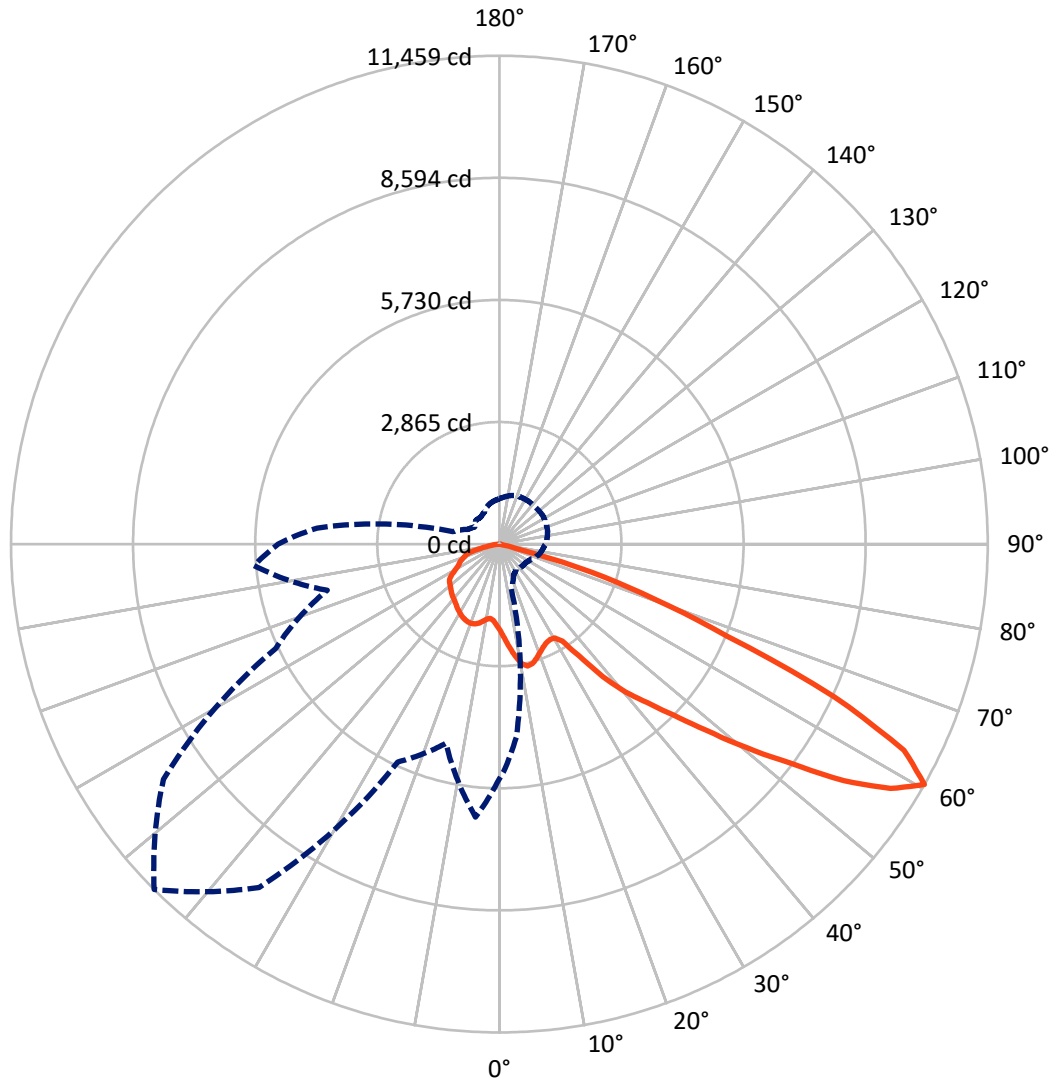
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3431.5	0.0	3431.5
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	6599.5	0.0	6599.5
	% Fixture	65.8	0.0	65.8
Total	Lumens	10031.0	0.0	10031.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.7	2.0
10°-20°	634.0	6.3
20°-30°	1032.5	10.3
30°-40°	1450.5	14.5
40°-50°	1984.8	19.8
50°-60°	2546.4	25.4
60°-70°	1714.7	17.1
70°-80°	428.7	4.3
80°-90°	41.8	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	10031.0	100.0
0°-180°	10031.0	100.0

Coefficient of Utilization



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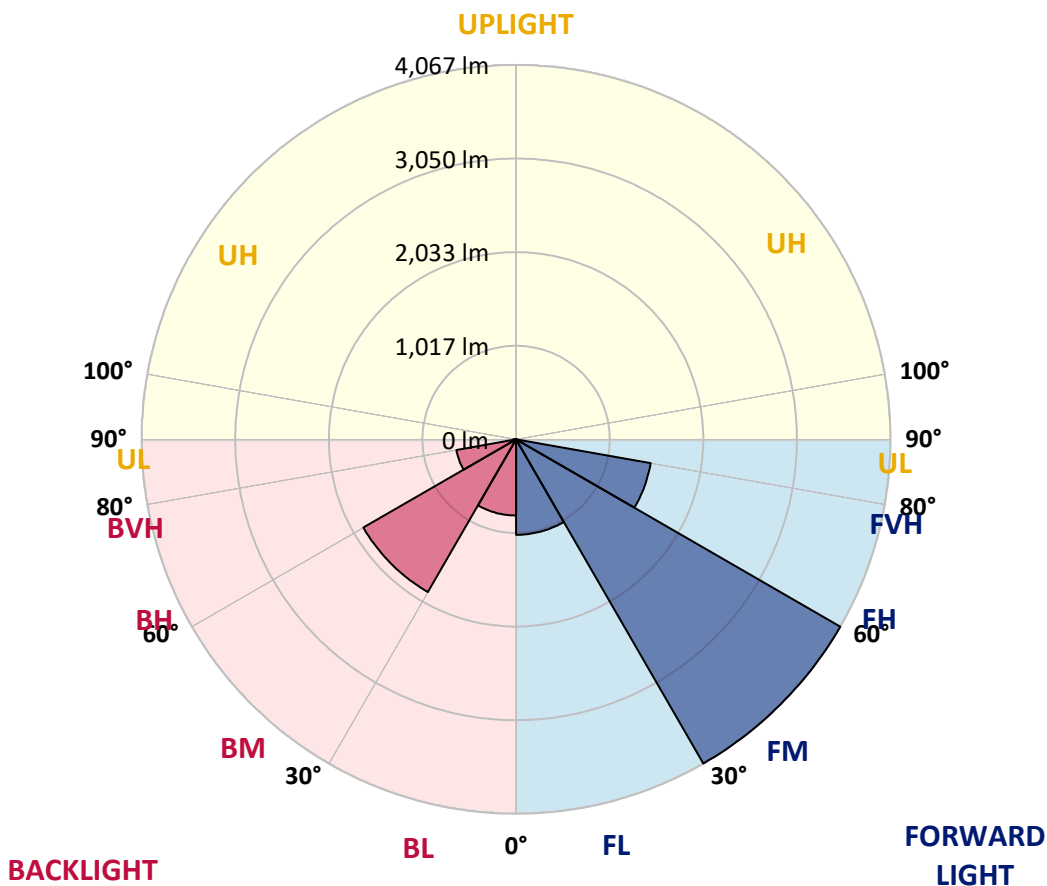
CATALOG NUMBER: GWS-SA2F-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1037.0	10.3			
FM (30°-60°)	4066.7	40.5			
FH (60°-80°)	1485.0	14.8			G1/1800
FVH (80°-90°)	10.9	0.1			G1/100
BL (0°-30°)	827.2	8.2	B2/1000		
BM (30°-60°)	1915.1	19.1	B2/2500		
BH (60°-80°)	658.3	6.6	B2/1000		G2/1000
BVH (80°-90°)	30.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1
2.5°	2140.5	2135.9	2131.2	2095.2	2086.0	2060.1	2041.6	2018.5	1985.3	1966.8	1951.1
5°	2274.4	2267.0	2242.1	2168.2	2120.1	2067.5	2024.1	1976.0	1925.2	1892.0	1866.1
7.5°	2401.0	2399.1	2356.6	2234.7	2157.1	2081.3	2022.2	1952.0	1879.0	1829.1	1795.9
10°	2518.3	2504.5	2453.6	2294.7	2193.1	2106.3	2042.5	1964.9	1880.0	1812.5	1768.2
12.5°	2621.8	2604.2	2534.0	2350.2	2224.5	2117.4	2048.1	1984.3	1928.0	1871.6	1820.8
15°	2706.8	2685.5	2614.4	2401.9	2252.3	2110.9	2013.9	1964.0	1983.4	2008.4	1952.0
17.5°	2786.2	2764.0	2677.2	2439.8	2260.6	2071.2	1929.8	1908.6	2006.5	2120.1	2094.3
20°	2852.7	2827.8	2727.1	2458.3	2245.8	1995.4	1820.8	1857.8	1987.1	2122.9	2164.5
22.5°	2924.8	2904.5	2783.4	2485.1	2227.3	1891.0	1729.4	1819.9	1953.9	2073.0	2135.9
25°	3040.3	3015.3	2871.2	2532.2	2218.1	1793.1	1663.8	1783.0	1907.7	2015.8	2064.7
27.5°	3207.5	3161.3	2991.3	2614.4	2228.2	1700.7	1622.2	1737.7	1854.1	1946.5	1986.2
30°	3389.5	3334.0	3124.3	2699.4	2243.0	1644.4	1600.0	1686.0	1771.9	1864.3	1907.7
32.5°	3604.7	3555.7	3266.6	2763.1	2211.6	1618.5	1583.4	1629.6	1698.0	1771.9	1807.9
35°	3861.5	3773.8	3421.8	2814.9	2110.0	1580.6	1568.6	1567.7	1603.7	1675.8	1716.4
37.5°	4137.7	4043.5	3613.0	2870.3	1952.0	1520.6	1533.5	1494.7	1528.0	1585.3	1631.5
40°	4364.1	4265.2	3806.1	2946.0	1754.3	1426.4	1455.9	1414.4	1434.7	1493.8	1545.5
42.5°	4585.8	4480.5	3986.2	3031.9	1563.1	1334.0	1348.8	1333.1	1339.5	1401.4	1473.5
45°	4876.8	4758.6	4208.0	3092.9	1391.3	1261.0	1247.1	1220.4	1254.5	1334.9	1411.6
47.5°	5362.7	5221.4	4571.0	3132.6	1266.5	1219.4	1155.7	1140.0	1182.5	1272.1	1351.5
50°	5930.9	5808.9	5151.2	3130.8	1173.2	1184.3	1067.0	1053.1	1123.4	1213.9	1298.0
52.5°	6396.5	6272.7	5647.3	3038.4	1096.6	1109.5	1015.3	976.5	1072.5	1156.6	1240.7
55°	6772.5	6633.0	5875.4	2652.3	999.6	990.3	958.9	887.8	1008.8	1099.3	1177.9
57.5°	6570.1	6403.9	5599.2	2016.7	899.8	841.6	861.9	809.3	922.0	1035.6	1111.3
60°	5508.7	5359.0	4548.8	1073.5	791.7	703.0	745.5	753.8	826.8	958.9	1036.5
62.5°	3783.9	3674.9	3082.8	651.3	624.5	564.4	631.0	691.0	745.5	857.3	924.7
65°	1851.3	1819.0	1541.8	417.6	437.0	456.4	522.9	595.9	676.2	774.2	845.3
67.5°	509.9	513.6	467.4	326.1	344.6	398.2	450.8	509.0	589.4	679.9	752.0
70°	224.5	228.2	235.6	251.3	286.4	335.3	389.8	449.9	523.8	599.6	668.8
72.5°	156.1	159.8	170.9	191.2	222.6	268.8	320.6	377.8	454.5	518.3	575.5
75°	96.1	98.8	109.0	126.6	147.8	182.9	233.7	286.4	353.8	412.0	462.8
77.5°	50.8	49.0	55.4	67.4	85.9	104.4	138.6	171.8	219.9	267.0	309.5
80°	27.7	26.8	30.5	37.0	42.5	57.3	80.4	102.5	130.3	157.0	180.1
82.5°	12.0	11.1	12.0	15.7	19.4	27.7	40.6	56.4	72.1	90.5	105.3
85°	0.0	0.0	0.0	0.9	4.6	7.4	13.9	20.3	29.6	40.6	49.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	8.3
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°	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1
2.5°	1941.9	1918.8	1916.9	1898.4	1900.3	1901.2	1882.7	1875.3	1881.8	1889.2	1885.5
5°	1856.9	1832.8	1822.7	1805.1	1803.3	1795.0	1787.6	1778.3	1784.8	1791.3	1795.0
7.5°	1783.0	1767.3	1760.8	1756.2	1758.0	1754.3	1739.5	1731.2	1730.3	1733.1	1736.8
10°	1758.9	1746.0	1754.3	1767.3	1776.5	1783.0	1767.3	1753.4	1740.5	1734.9	1734.9
12.5°	1810.7	1794.0	1810.7	1824.5	1843.0	1847.6	1830.1	1815.3	1810.7	1816.2	1827.3
15°	1925.2	1886.4	1885.5	1893.8	1908.6	1916.0	1899.4	1892.0	1892.0	1927.1	1954.8
17.5°	2039.8	1976.0	1949.2	1944.6	1953.9	1956.6	1942.8	1936.3	1952.9	2021.3	2073.0
20°	2120.1	2042.5	1984.3	1973.3	1976.0	1977.0	1965.9	1961.3	1985.3	2068.4	2111.8
22.5°	2111.8	2054.6	1983.4	1969.6	1974.2	1972.3	1962.2	1960.3	1979.7	2051.8	2072.1
25°	2054.6	2010.2	1950.2	1940.9	1948.3	1947.4	1937.2	1932.6	1940.9	1989.0	1990.8
27.5°	1989.0	1950.2	1898.4	1895.7	1907.7	1914.1	1896.6	1882.7	1880.0	1912.3	1904.9
30°	1910.4	1881.8	1840.2	1842.1	1864.3	1867.9	1846.7	1826.4	1820.8	1838.4	1828.2
32.5°	1817.1	1807.9	1785.7	1790.3	1811.6	1819.0	1796.8	1775.6	1769.1	1774.6	1753.4
35°	1737.7	1734.0	1735.8	1744.2	1762.6	1768.2	1749.7	1733.1	1723.8	1704.4	1676.7
37.5°	1655.5	1665.6	1692.4	1708.1	1718.3	1716.4	1706.3	1694.3	1679.5	1643.5	1609.3
40°	1578.8	1604.7	1652.7	1670.3	1673.9	1674.9	1667.5	1657.3	1638.8	1590.8	1552.0
42.5°	1519.7	1548.3	1612.1	1638.8	1640.7	1642.5	1635.1	1626.8	1601.0	1537.2	1499.3
45°	1457.8	1495.7	1570.5	1602.8	1601.0	1600.0	1593.6	1589.9	1559.4	1485.5	1443.9
47.5°	1405.1	1449.5	1529.8	1557.5	1556.6	1555.7	1551.1	1551.1	1520.6	1440.2	1393.1
50°	1353.4	1404.2	1488.3	1511.4	1513.2	1511.4	1509.5	1512.3	1476.2	1390.3	1344.1
52.5°	1297.0	1354.3	1442.1	1463.3	1474.4	1479.0	1479.0	1472.6	1430.1	1340.4	1289.6
55°	1235.1	1289.6	1391.3	1419.9	1429.1	1437.4	1437.4	1424.5	1384.8	1294.3	1239.8
57.5°	1158.5	1206.5	1286.9	1315.5	1337.7	1343.2	1343.2	1322.0	1289.6	1202.8	1158.5
60°	1075.3	1116.9	1171.4	1201.9	1218.5	1207.4	1215.7	1210.2	1184.3	1104.0	1067.0
62.5°	964.5	1007.0	1067.0	1098.4	1105.8	1094.7	1105.8	1104.9	1069.8	997.7	953.4
65°	885.0	926.6	985.7	1026.4	1038.4	1035.6	1043.0	1031.9	988.5	920.1	877.6
67.5°	790.8	835.1	903.5	948.8	973.7	976.5	986.6	963.5	919.2	844.4	790.8
70°	701.2	739.0	791.7	834.2	869.3	886.9	888.7	855.4	800.0	738.1	699.3
72.5°	606.9	645.7	709.5	755.7	800.0	820.3	820.3	779.7	719.6	651.3	609.7
75°	492.4	528.4	586.6	636.5	687.3	713.2	712.3	677.2	610.6	546.0	502.6
77.5°	333.5	360.3	397.2	435.1	442.5	462.8	473.0	428.6	391.7	356.6	317.8
80°	194.0	210.6	231.0	252.2	256.8	263.3	246.7	230.0	210.6	187.5	170.0
82.5°	113.6	124.7	134.9	151.5	154.3	156.1	141.3	134.0	118.2	104.4	93.3
85°	55.4	59.1	68.4	76.7	73.0	71.1	64.7	57.3	50.8	45.3	39.7
87.5°	11.1	11.1	16.6	15.7	12.9	11.1	6.5	8.3	1.8	1.8	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°	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1
2.5°	1897.5	1913.2	1932.6	1958.5	1988.0	2019.5	2049.9	2073.0	2096.1	2130.3	2124.8
5°	1800.5	1827.3	1857.8	1897.5	1945.5	2000.1	2061.0	2122.0	2187.6	2243.0	2267.0
7.5°	1744.2	1773.7	1809.7	1861.5	1923.4	1989.9	2075.8	2174.7	2280.9	2353.9	2399.1
10°	1744.2	1782.0	1829.1	1879.0	1933.5	2001.9	2108.1	2231.9	2368.7	2464.7	2517.4
12.5°	1844.9	1882.7	1892.9	1891.0	1921.5	1997.3	2134.0	2292.0	2455.5	2557.1	2621.8
15°	2001.9	2014.8	1938.2	1867.9	1872.6	1964.0	2146.0	2340.0	2530.3	2652.3	2722.5
17.5°	2107.2	2073.0	1936.3	1813.4	1787.6	1907.7	2146.0	2386.2	2609.8	2747.4	2813.0
20°	2115.5	2030.5	1889.2	1760.8	1694.3	1832.8	2131.2	2421.3	2686.4	2838.9	2909.1
22.5°	2042.5	1958.5	1839.3	1715.5	1617.6	1742.3	2107.2	2448.1	2752.0	2924.8	3011.6
25°	1959.4	1889.2	1788.5	1669.3	1564.9	1650.9	2085.0	2493.4	2843.5	3041.2	3128.9
27.5°	1878.1	1819.0	1727.5	1630.5	1535.4	1571.4	2071.2	2559.9	2952.5	3206.5	3282.3
30°	1798.7	1745.1	1661.9	1593.6	1519.7	1519.7	2059.2	2636.6	3096.6	3392.2	3468.0
32.5°	1718.3	1667.5	1600.0	1557.5	1510.4	1499.3	2025.9	2708.6	3245.3	3595.5	3673.1
35°	1643.5	1592.7	1540.9	1523.4	1505.8	1483.6	1943.7	2765.0	3390.4	3832.9	3899.4
37.5°	1573.3	1524.3	1485.5	1480.9	1482.7	1441.1	1814.4	2812.1	3571.5	4075.9	4111.0
40°	1512.3	1457.8	1427.3	1426.4	1435.6	1372.8	1650.9	2879.5	3778.4	4281.9	4267.1
42.5°	1457.8	1400.5	1363.5	1371.9	1366.3	1304.4	1491.0	2941.4	3958.5	4474.9	4445.4
45°	1404.2	1348.8	1297.0	1309.0	1302.6	1261.9	1355.2	2986.7	4158.1	4706.8	4710.5
47.5°	1352.5	1298.0	1246.2	1231.4	1230.5	1249.0	1250.8	3001.5	4483.3	5080.0	4996.0
50°	1304.4	1249.9	1196.3	1146.4	1165.8	1223.1	1173.2	2990.4	4970.1	5492.1	5257.4
52.5°	1254.5	1202.8	1143.7	1054.1	1104.9	1161.2	1104.0	2950.7	5267.6	5856.0	5715.6
55°	1197.3	1148.3	1067.9	958.9	1020.8	1032.8	1032.8	2566.3	5394.1	6216.3	6303.2
57.5°	1120.6	1055.9	928.4	840.7	896.1	849.9	957.1	1795.9	5185.4	6102.7	6439.9
60°	1033.7	964.5	829.6	766.8	783.4	702.1	815.7	1126.1	4297.6	5192.7	5776.6
62.5°	919.2	855.4	743.7	694.7	660.5	572.8	656.8	712.3	2946.0	3856.0	4254.1
65°	842.5	772.3	672.5	607.9	537.7	461.0	436.0	467.4	1584.3	2158.0	2426.9
67.5°	752.0	682.7	588.5	507.2	450.8	395.4	352.0	340.9	543.2	718.7	777.8
70°	666.1	599.6	521.0	445.3	388.9	334.4	291.9	261.4	251.3	249.4	245.7
72.5°	578.3	516.4	450.8	380.6	318.7	268.8	231.0	195.8	181.1	176.4	171.8
75°	473.9	425.0	359.4	283.6	233.7	187.5	158.0	134.9	121.9	117.3	111.8
77.5°	304.9	282.7	225.4	182.9	141.3	111.8	96.1	81.3	73.0	71.1	66.5
80°	162.6	151.5	124.7	105.3	84.1	68.4	60.0	51.7	47.1	45.3	43.4
82.5°	90.5	82.2	69.3	61.0	49.0	41.6	37.0	33.3	30.5	29.6	28.6
85°	40.6	35.1	27.7	25.9	23.1	21.2	20.3	18.5	17.6	16.6	15.7
87.5°	1.8	3.7	4.6	3.7	3.7	5.5	6.5	6.5	5.5	5.5	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



REPORT NUMBER: P634025

CATALOG NUMBER: GWS-SA2F-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1	2023.1
2.5°	2158.9	2186.7	2189.4	2198.7	2186.7	2183.9	2164.5	2153.4	2143.2	2140.5
5°	2327.1	2382.5	2404.7	2420.4	2405.6	2398.2	2355.7	2311.4	2286.4	2274.4
7.5°	2499.8	2583.0	2626.4	2645.8	2647.6	2614.4	2541.4	2458.3	2416.7	2401.0
10°	2654.1	2756.7	2813.9	2850.9	2837.9	2797.3	2697.5	2584.8	2532.2	2518.3
12.5°	2768.7	2866.6	2910.9	2934.9	2934.0	2911.9	2817.6	2695.7	2635.6	2621.8
15°	2842.6	2900.8	2903.5	2909.1	2924.8	2954.3	2905.4	2792.7	2726.2	2706.8
17.5°	2900.8	2877.7	2834.3	2819.5	2854.6	2936.8	2966.4	2874.9	2802.8	2786.2
20°	2937.7	2821.3	2744.6	2716.0	2756.7	2890.6	3003.3	2948.8	2874.0	2852.7
22.5°	2966.4	2768.7	2644.9	2625.5	2668.0	2840.7	3041.2	3036.6	2954.3	2924.8
25°	3011.6	2733.6	2574.7	2560.8	2600.5	2816.7	3092.0	3155.7	3082.8	3040.3
27.5°	3082.8	2729.9	2538.6	2534.0	2588.5	2837.9	3165.0	3330.3	3238.9	3207.5
30°	3181.6	2765.0	2546.9	2556.2	2622.7	2914.6	3278.6	3529.9	3438.4	3389.5
32.5°	3323.9	2859.2	2673.5	2713.2	2762.2	3037.5	3444.9	3746.1	3676.8	3604.7
35°	3511.4	3117.9	3047.7	3216.7	3170.5	3306.3	3645.4	4008.4	3924.3	3861.5
37.5°	3761.8	3648.1	3712.8	3945.6	3833.8	3814.4	3890.2	4246.8	4200.6	4137.7
40°	4112.8	4135.9	4255.1	4560.9	4399.2	4274.5	4190.4	4426.0	4441.7	4364.1
42.5°	4345.6	4451.8	4739.2	5086.5	4863.9	4565.5	4441.7	4655.1	4656.0	4585.8
45°	4432.4	4710.5	5311.0	5711.0	5338.7	4731.8	4580.3	4966.4	4957.2	4876.8
47.5°	4401.0	4928.5	5905.0	6516.6	5948.4	4850.0	4560.9	5409.8	5484.7	5362.7
50°	4335.4	5147.5	6598.8	7503.2	6696.7	4975.6	4531.3	5901.3	6025.1	5930.9
52.5°	4402.0	5391.4	7419.1	8523.1	7635.3	5176.1	4730.8	6532.3	6510.1	6396.5
55°	4612.6	5679.6	8415.9	9804.4	8666.3	5515.2	5243.6	7133.7	6908.3	6772.5
57.5°	4602.4	5885.6	9289.8	10817.8	9563.3	5793.2	5421.8	7197.4	6742.0	6570.1
60°	4177.5	5791.4	9622.4	11459.0	9834.0	5639.9	4835.2	6428.8	5688.8	5508.7
62.5°	3117.9	5139.2	8977.6	10656.2	9068.1	4871.3	3636.1	4614.4	4087.9	3783.9
65°	1994.5	4020.4	7547.5	8633.0	7474.6	3725.7	2165.4	2474.0	1938.2	1851.3
67.5°	849.0	2837.9	5867.1	5770.1	5591.8	2413.9	836.0	696.6	519.2	509.9
70°	280.8	1930.8	3616.7	3848.6	3339.6	1662.9	276.2	233.7	232.8	224.5
72.5°	183.8	1036.5	2036.1	2267.0	2148.8	957.1	167.2	156.1	159.8	156.1
75°	109.9	225.4	342.7	445.3	342.7	160.7	100.7	98.8	100.7	96.1
77.5°	64.7	62.8	61.0	61.0	60.0	55.4	50.8	49.0	49.9	50.8
80°	41.6	39.7	37.9	37.0	32.3	30.5	28.6	26.8	26.8	27.7
82.5°	26.8	24.9	23.1	20.3	16.6	13.9	12.9	11.1	11.1	12.0
85°	13.9	11.1	8.3	6.5	3.7	1.8	0.0	0.0	0.0	0.0
87.5°	2.8	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

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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

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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

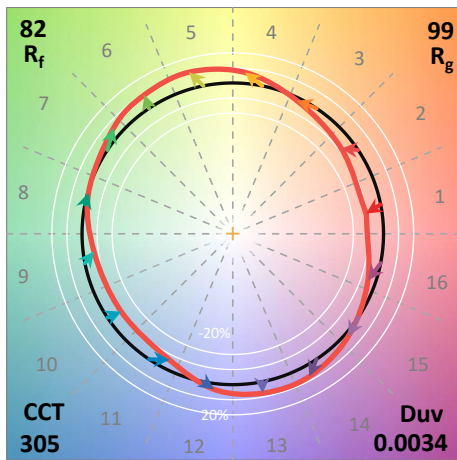
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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