

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: P638479

Luminaire Tested: GWS-SA4E-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638479  
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-SA4E-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**

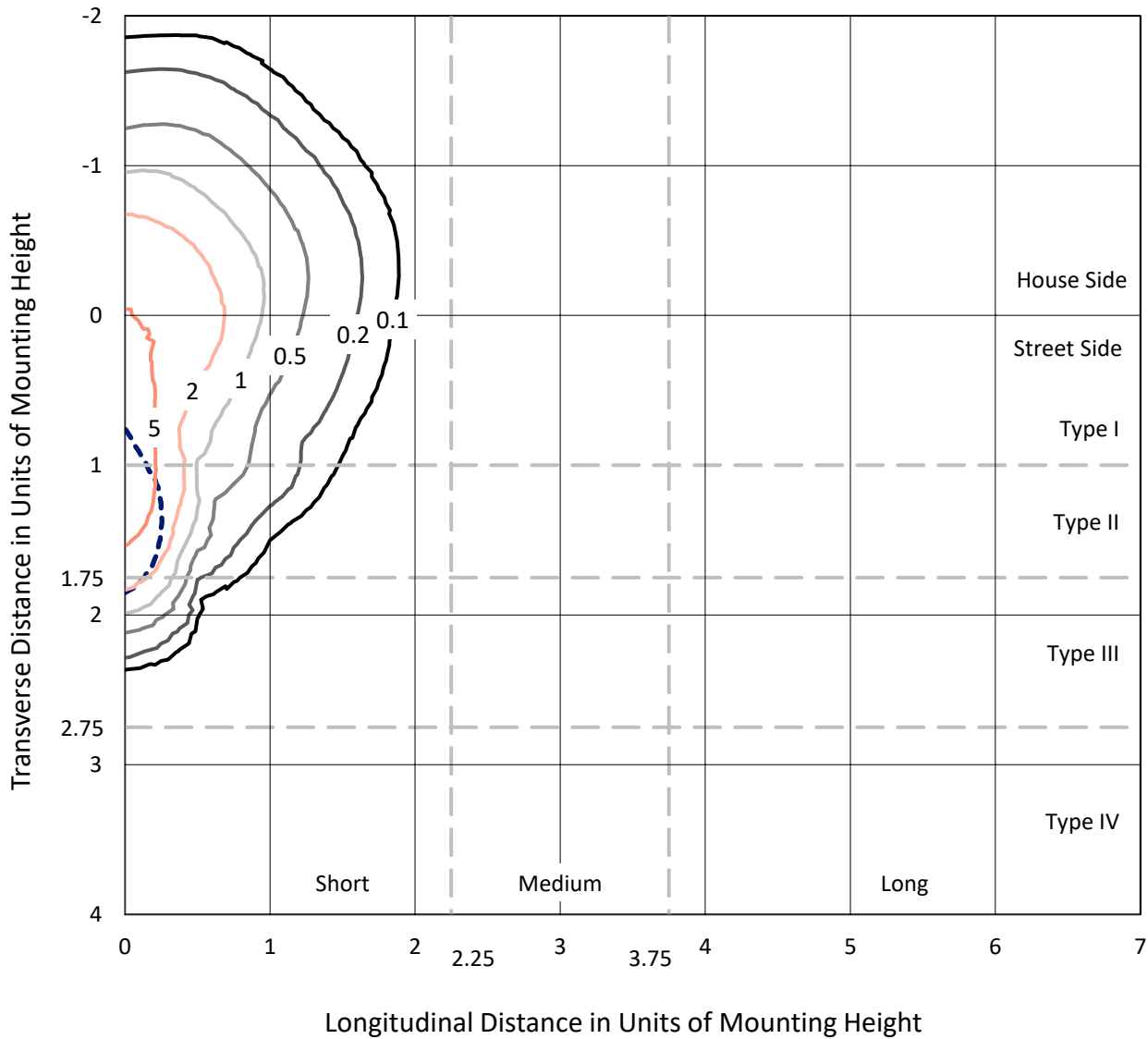
Lumens per Lamp: N/A  
Luminaire Lumens: 13035.7 lumens  
Efficiency: N/A  
Efficacy: 64.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 202.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

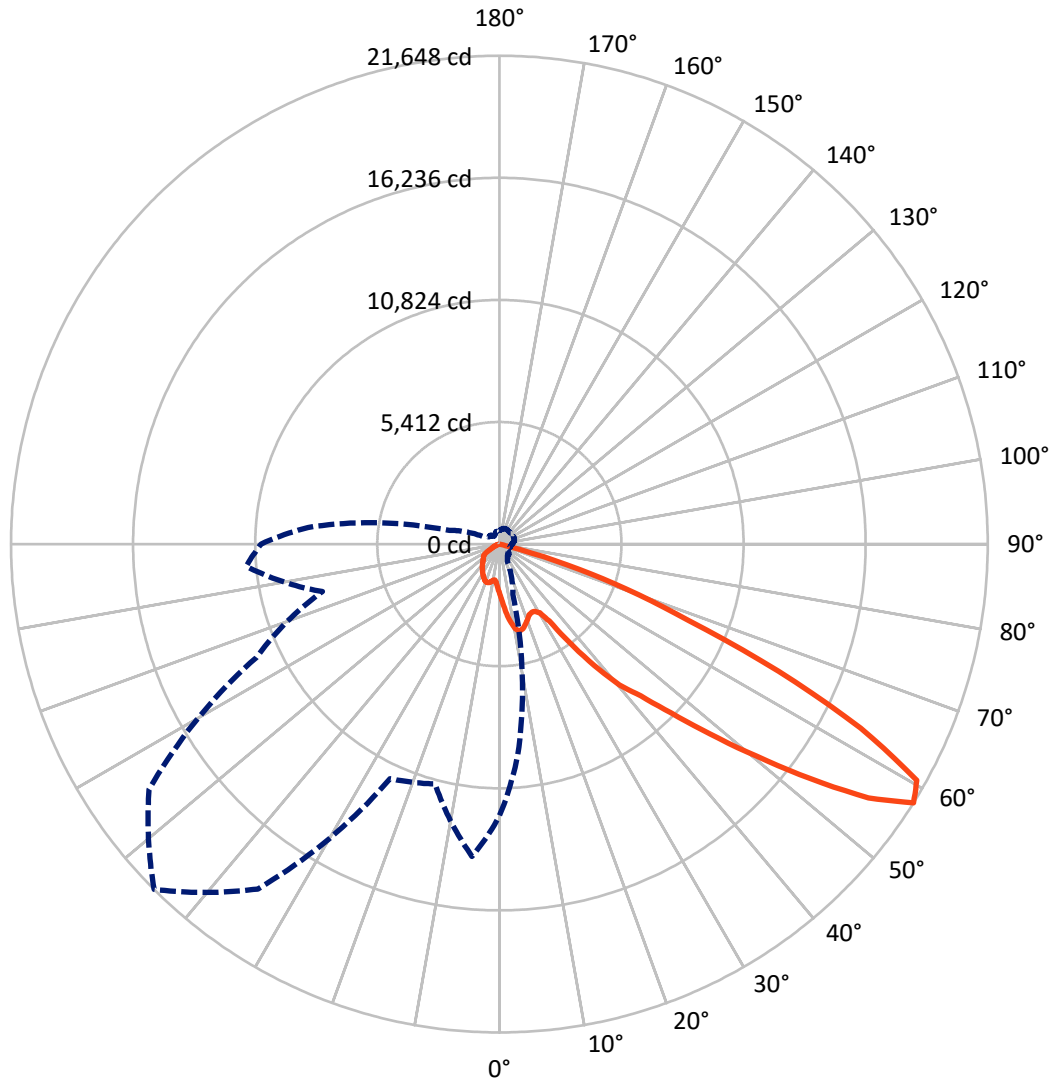
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.7 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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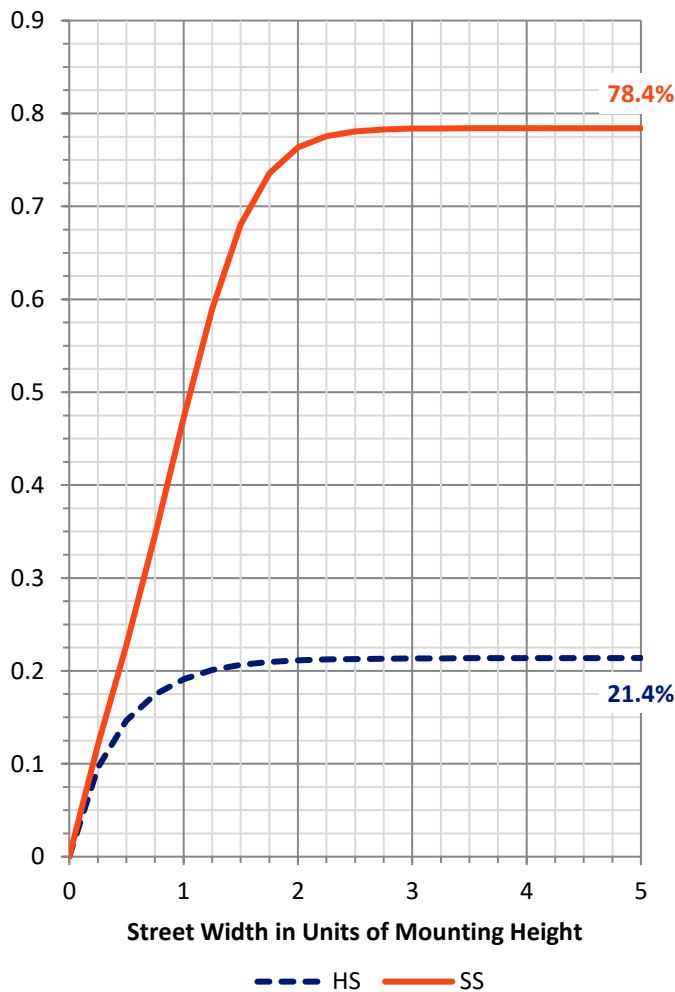
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2808.3	0.0	2808.3
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	10227.4	0.0	10227.4
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	13035.7	0.0	13035.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.9	1.7
10°-20°	720.4	5.5
20°-30°	1169.1	9.0
30°-40°	1794.2	13.8
40°-50°	2865.5	22.0
50°-60°	4012.3	30.8
60°-70°	2057.2	15.8
70°-80°	198.1	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°	13035.7	100.0
0°-180°	13035.7	100.0

**Coefficient of Utilization**



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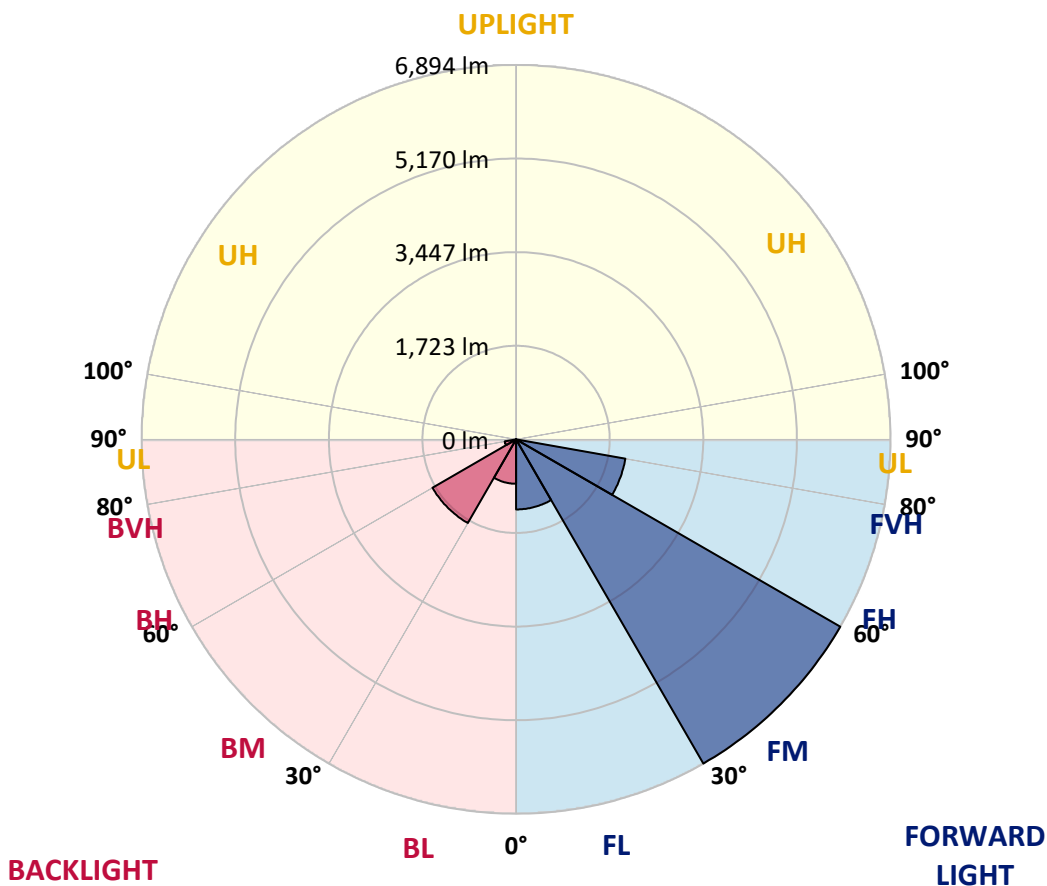
CATALOG NUMBER: GWS-SA4E-830-U-SLL-W-GRSBK

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1290.6	9.9			
FM (30°-60°)	6893.6	52.9			
FH (60°-80°)	2043.2	15.7			G2/5000
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	817.7	6.3	B2/1000		
BM (30°-60°)	1778.5	13.6	B2/2500		
BH (60°-80°)	212.1	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-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0
2.5°	2460.7	2455.4	2438.0	2378.8	2342.2	2284.7	2242.8	2188.8	2129.6	2093.0	2056.4
5°	2722.1	2708.1	2661.1	2525.2	2420.6	2307.3	2216.7	2117.4	2011.1	1941.4	1876.9
7.5°	2973.0	2952.1	2889.4	2659.3	2500.8	2338.7	2209.7	2065.1	1915.2	1810.7	1730.5
10°	3218.7	3171.7	3072.4	2790.0	2575.7	2380.5	2228.9	2063.3	1887.3	1754.9	1666.0
12.5°	3420.9	3386.0	3250.1	2913.8	2638.4	2389.2	2202.8	2049.4	1930.9	1842.0	1760.1
15°	3595.2	3556.8	3427.9	3025.3	2692.5	2354.4	2093.0	1958.8	1978.0	2012.8	1943.1
17.5°	3755.5	3715.4	3576.0	3117.7	2713.4	2269.0	1939.6	1875.1	1981.4	2112.1	2086.0
20°	3921.1	3875.7	3705.0	3192.6	2706.4	2134.8	1784.5	1803.7	1953.6	2103.4	2117.4
22.5°	4114.5	4067.4	3868.8	3288.5	2701.2	1974.5	1650.3	1740.9	1901.3	2028.5	2052.9
25°	4370.7	4314.9	4097.1	3429.6	2715.1	1828.1	1554.5	1680.0	1812.4	1927.4	1941.4
27.5°	4708.7	4637.3	4360.2	3603.9	2744.7	1713.1	1512.7	1596.3	1699.1	1801.9	1814.1
30°	5149.6	5059.0	4661.7	3755.5	2730.8	1632.9	1484.8	1512.7	1573.6	1657.3	1659.0
32.5°	5665.5	5541.8	4999.8	3886.2	2610.5	1573.6	1446.4	1427.3	1441.2	1505.7	1517.9
35°	6271.9	6111.6	5372.7	4009.9	2391.0	1458.6	1376.7	1312.2	1307.0	1338.4	1368.0
37.5°	6967.3	6775.6	5843.2	4168.5	2131.3	1338.4	1273.9	1209.4	1181.5	1197.2	1242.5
40°	7608.6	7396.0	6334.7	4360.2	1866.4	1230.3	1153.7	1087.4	1054.3	1059.6	1115.3
42.5°	8361.4	8141.8	6935.9	4611.2	1646.8	1157.1	1028.2	960.2	916.7	941.1	1005.5
45°	9504.6	9255.4	7812.5	4829.0	1472.6	1139.7	918.4	822.5	801.6	843.5	920.1
47.5°	11066.1	10761.1	9016.7	4961.4	1324.4	1155.4	841.7	711.0	716.2	763.3	840.0
50°	12615.3	12286.0	10409.1	4787.2	1202.5	1124.0	803.4	623.9	657.0	698.8	768.5
52.5°	13680.1	13251.4	11087.0	4283.5	1090.9	1005.5	799.9	542.0	604.7	618.7	677.9
55°	13721.9	13193.9	10740.2	3377.3	939.3	848.7	763.3	474.0	547.2	552.4	603.0
57.5°	12028.0	11550.5	9386.1	2319.5	834.7	622.1	608.2	414.8	449.6	493.2	524.5
60°	9150.9	8744.8	7019.6	1063.0	634.3	395.6	416.5	357.3	336.3	400.8	432.2
62.5°	5604.5	5344.8	4210.3	470.5	404.3	210.9	252.7	284.1	252.7	277.1	303.2
65°	2225.4	2110.4	1598.0	200.4	165.6	106.3	115.0	165.6	177.8	195.2	219.6
67.5°	386.9	366.0	268.4	88.9	68.0	64.5	55.8	76.7	108.0	120.2	139.4
70°	50.5	48.8	43.6	36.6	34.9	31.4	24.4	48.8	73.2	76.7	88.9
72.5°	12.2	10.5	10.5	8.7	10.5	3.5	3.5	26.1	52.3	54.0	62.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	33.1	36.6	43.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0
2.5°	2026.7	1991.9	1979.7	1962.3	1939.6	1946.6	1915.2	1904.8	1920.4	1941.4	1936.1
5°	1842.0	1803.7	1777.5	1737.5	1730.5	1714.8	1704.4	1690.4	1707.8	1732.2	1737.5
7.5°	1695.6	1662.5	1636.4	1624.2	1615.5	1608.5	1587.6	1577.1	1577.1	1587.6	1596.3
10°	1632.9	1608.5	1603.3	1606.8	1620.7	1619.0	1599.8	1585.8	1568.4	1559.7	1570.2
12.5°	1720.0	1680.0	1673.0	1674.7	1692.2	1690.4	1669.5	1652.1	1648.6	1652.1	1685.2
15°	1868.2	1807.2	1761.9	1753.1	1761.9	1758.4	1742.7	1732.2	1737.5	1788.0	1843.8
17.5°	2000.6	1906.5	1824.6	1793.2	1791.5	1786.3	1770.6	1767.1	1793.2	1887.3	1969.2
20°	2038.9	1946.6	1829.8	1789.7	1781.0	1775.8	1758.4	1763.6	1796.7	1910.0	1979.7
22.5°	1988.4	1899.5	1777.5	1737.5	1730.5	1728.7	1711.3	1718.3	1746.2	1845.5	1903.0
25°	1892.6	1817.6	1690.4	1655.6	1655.6	1652.1	1636.4	1639.9	1657.3	1744.4	1800.2
27.5°	1775.8	1704.4	1598.0	1563.2	1568.4	1573.6	1554.5	1549.3	1563.2	1645.1	1678.2
30°	1641.6	1591.1	1507.4	1476.1	1474.3	1495.2	1469.1	1462.1	1481.3	1545.8	1552.7
32.5°	1510.9	1486.5	1427.3	1402.9	1404.6	1408.1	1394.2	1394.2	1411.6	1446.4	1444.7
35°	1383.7	1368.0	1357.6	1340.1	1338.4	1331.4	1331.4	1334.9	1354.1	1366.3	1343.6
37.5°	1261.7	1277.4	1289.6	1272.2	1258.2	1258.2	1258.2	1273.9	1291.3	1286.1	1247.8
40°	1153.7	1186.8	1225.1	1205.9	1172.8	1171.1	1178.1	1204.2	1230.3	1199.0	1164.1
42.5°	1061.3	1103.1	1157.1	1146.7	1110.1	1104.9	1110.1	1143.2	1164.1	1124.0	1085.7
45°	970.7	1023.0	1087.4	1087.4	1047.4	1042.1	1043.9	1087.4	1099.6	1052.6	1003.8
47.5°	894.0	951.5	1019.5	1019.5	986.4	975.9	984.6	1029.9	1038.6	972.4	927.1
50°	820.8	883.5	958.5	953.3	930.6	921.9	937.6	986.4	975.9	902.7	855.7
52.5°	728.4	794.7	897.5	902.7	890.5	892.3	911.4	942.8	913.2	824.3	784.2
55°	644.8	712.8	815.6	843.5	843.5	841.7	850.4	874.8	850.4	744.1	695.3
57.5°	554.2	611.7	697.1	704.0	709.3	690.1	702.3	735.4	723.2	632.6	604.7
60°	454.8	503.6	552.4	557.7	535.0	494.9	517.6	555.9	564.6	496.7	465.3
62.5°	322.4	369.5	427.0	427.0	404.3	364.2	393.8	427.0	414.8	345.1	325.9
65°	240.5	284.1	327.6	346.8	327.6	299.7	322.4	346.8	327.6	270.1	242.2
67.5°	155.1	184.7	210.9	226.5	230.0	226.5	237.0	230.0	207.4	169.0	153.4
70°	94.1	109.8	123.7	137.7	148.1	153.4	158.6	142.9	120.2	99.3	94.1
72.5°	68.0	81.9	94.1	104.6	116.8	120.2	120.2	109.8	88.9	69.7	64.5
75°	47.1	59.3	69.7	76.7	87.1	90.6	90.6	81.9	66.2	50.5	45.3
77.5°	1.7	12.2	12.2	10.5	13.9	17.4	17.4	20.9	19.2	13.9	12.2
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°	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0
2.5°	1946.6	2009.3	2026.7	2091.2	2148.7	2206.2	2276.0	2317.8	2380.5	2424.1	2448.5
5°	1754.9	1807.2	1869.9	1965.8	2065.1	2174.9	2307.3	2422.3	2567.0	2673.3	2708.1
7.5°	1615.5	1683.4	1756.6	1876.9	2012.8	2159.2	2345.7	2533.9	2755.2	2899.8	2992.2
10°	1589.3	1659.0	1756.6	1875.1	2018.0	2185.3	2413.6	2657.6	2934.7	3110.7	3215.3
12.5°	1714.8	1789.7	1831.6	1885.6	1993.6	2180.1	2472.9	2783.1	3109.0	3300.7	3412.2
15°	1899.5	1965.8	1897.8	1829.8	1899.5	2124.3	2506.0	2887.6	3262.3	3483.6	3598.7
17.5°	2026.7	2032.0	1883.8	1739.2	1758.4	2023.3	2518.2	2992.2	3426.1	3657.9	3778.2
20°	2014.5	1972.7	1822.9	1662.5	1603.3	1892.6	2504.2	3084.6	3591.7	3833.9	3952.4
22.5°	1920.4	1871.6	1744.4	1587.6	1472.6	1737.5	2479.8	3168.2	3743.3	4018.6	4130.2
25°	1807.2	1754.9	1650.3	1512.7	1388.9	1587.6	2460.7	3283.2	3935.0	4259.1	4346.3
27.5°	1674.7	1629.4	1540.5	1441.2	1354.1	1474.3	2455.4	3434.8	4166.8	4551.9	4612.9
30°	1545.8	1503.9	1434.2	1376.7	1340.1	1408.1	2438.0	3596.9	4443.9	4888.2	4954.5
32.5°	1422.0	1380.2	1336.6	1327.9	1329.7	1383.7	2378.8	3757.2	4773.2	5376.2	5425.0
35°	1315.7	1266.9	1249.5	1270.4	1308.8	1341.9	2211.5	3889.7	5127.0	5907.7	5947.8
37.5°	1214.7	1165.9	1164.1	1214.7	1256.5	1277.4	2014.5	4020.4	5604.5	6448.0	6498.5
40°	1122.3	1073.5	1090.9	1151.9	1185.0	1195.5	1775.8	4219.1	6109.9	7017.8	6989.9
42.5°	1043.9	993.3	1003.8	1082.2	1111.8	1139.7	1556.2	4384.6	6596.1	7558.0	7549.3
45°	967.2	928.9	921.9	1007.3	1033.4	1144.9	1395.9	4511.8	7221.7	8246.4	8260.3
47.5°	892.3	862.6	864.4	901.0	965.5	1171.1	1260.0	4595.5	8129.6	9337.3	9095.1
50°	824.3	801.6	820.8	779.0	921.9	1138.0	1143.2	4578.0	9143.9	10382.9	9896.7
52.5°	749.4	744.1	752.8	651.8	852.2	1003.8	1033.4	4346.3	9619.6	11097.4	10820.4
55°	672.7	670.9	601.2	521.1	712.8	801.6	885.3	3626.5	9604.0	11477.4	11813.7
57.5°	582.1	568.1	456.6	425.2	554.2	557.7	806.9	2375.3	8511.3	10567.7	11264.7
60°	440.9	430.4	334.6	345.1	386.9	357.3	643.1	1183.3	6360.8	8232.5	9018.4
62.5°	305.0	291.0	249.2	266.6	249.2	203.9	393.8	585.5	3853.1	5198.4	5911.2
65°	223.1	207.4	170.8	146.4	116.8	116.8	149.9	224.8	1491.7	2209.7	2664.6
67.5°	137.7	130.7	101.1	73.2	71.5	76.7	78.4	111.5	240.5	383.4	468.8
70°	88.9	81.9	68.0	47.1	43.6	45.3	47.1	52.3	61.0	66.2	80.2
72.5°	61.0	57.5	48.8	26.1	20.9	22.7	24.4	24.4	29.6	27.9	33.1
75°	43.6	40.1	34.9	12.2	7.0	8.7	10.5	8.7	10.5	7.0	8.7
77.5°	12.2	12.2	8.7	1.7	0.0	1.7	3.5	3.5	1.7	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	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: P638479

CATALOG NUMBER: GWS-SA4E-830-U-SLL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0	2215.0
2.5°	2511.2	2551.3	2567.0	2544.3	2563.5	2532.1	2519.9	2472.9	2469.4	2460.7
5°	2849.3	2939.9	2993.9	3027.1	2988.7	2946.9	2884.2	2776.1	2743.0	2722.1
7.5°	3182.2	3323.3	3415.7	3459.2	3448.8	3363.4	3250.1	3068.9	3004.4	2973.0
10°	3471.4	3644.0	3755.5	3809.5	3786.9	3711.9	3549.9	3323.3	3237.9	3218.7
12.5°	3673.6	3832.2	3908.9	3955.9	3957.6	3928.0	3774.7	3546.4	3445.3	3420.9
15°	3800.8	3868.8	3870.5	3898.4	3947.2	4013.4	3942.0	3739.8	3631.8	3595.2
17.5°	3881.0	3806.0	3729.4	3736.3	3816.5	3992.5	4065.7	3910.6	3795.6	3755.5
20°	3938.5	3701.5	3558.6	3560.3	3642.2	3908.9	4151.1	4076.2	3957.6	3921.1
22.5°	3975.1	3609.1	3405.2	3400.0	3487.1	3809.5	4229.5	4273.1	4156.3	4114.5
25°	4050.0	3565.5	3312.9	3342.5	3419.2	3778.2	4335.8	4534.5	4426.4	4370.7
27.5°	4184.2	3609.1	3304.1	3372.1	3459.2	3870.5	4520.5	4883.0	4771.5	4708.7
30°	4416.0	3772.9	3438.3	3532.4	3637.0	4112.7	4830.7	5369.2	5208.9	5149.6
32.5°	4788.9	4112.7	3853.1	4055.2	4156.3	4510.1	5296.0	5914.7	5784.0	5665.5
35°	5303.0	4888.2	4858.6	5329.1	5304.7	5262.9	5867.6	6583.9	6387.0	6271.9
37.5°	6010.5	6136.0	6355.6	6822.6	6806.9	6488.0	6618.7	7216.5	7115.4	6967.3
40°	6894.1	7160.7	7533.6	8202.8	7993.7	7592.9	7540.6	7864.8	7782.9	7608.6
42.5°	7415.1	7875.2	8586.2	9187.5	9020.2	8319.6	8260.3	8730.9	8551.4	8361.4
45°	7657.4	8457.3	9851.4	10665.3	10158.1	8802.3	8779.7	9860.1	9759.1	9504.6
47.5°	7768.9	9044.6	11332.7	12564.8	11616.8	9225.8	9143.9	11498.3	11365.8	11066.1
50°	7892.6	9854.9	13117.2	14765.8	13378.6	9705.0	9764.3	13024.9	12969.1	12615.3
52.5°	8164.5	10712.3	15314.8	17282.3	15515.2	10456.1	10829.1	14464.3	14087.9	13680.1
55°	8572.3	11646.4	17601.2	19852.7	17695.3	11465.2	11981.0	15229.4	14173.3	13721.9
57.5°	8120.9	11879.9	18955.2	21647.7	18662.5	11468.6	11006.8	13903.2	12465.5	12028.0
60°	6444.5	11052.1	18434.2	21259.1	17838.2	10184.3	8427.6	10855.2	9443.6	9150.9
62.5°	4356.7	9269.4	16227.9	17979.3	15267.7	8011.1	5477.3	7059.6	5846.7	5604.5
65°	2387.5	6915.0	13112.0	13601.7	11949.6	5595.8	2817.9	3063.6	2333.5	2225.4
67.5°	658.7	4813.3	9647.5	9023.6	8384.1	3644.0	728.4	547.2	390.4	386.9
70°	165.6	3183.9	5780.5	5958.3	5140.9	2333.5	139.4	66.2	52.3	50.5
72.5°	69.7	1369.8	2743.0	3152.5	2631.5	1080.5	50.5	19.2	15.7	12.2
75°	8.7	109.8	233.5	353.8	242.2	116.8	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

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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**



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

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**

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			



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)