

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: P637001

Luminaire Tested: GWS-SA4B-830-U-SLR-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P637001  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4B-830-U-SLR-W  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

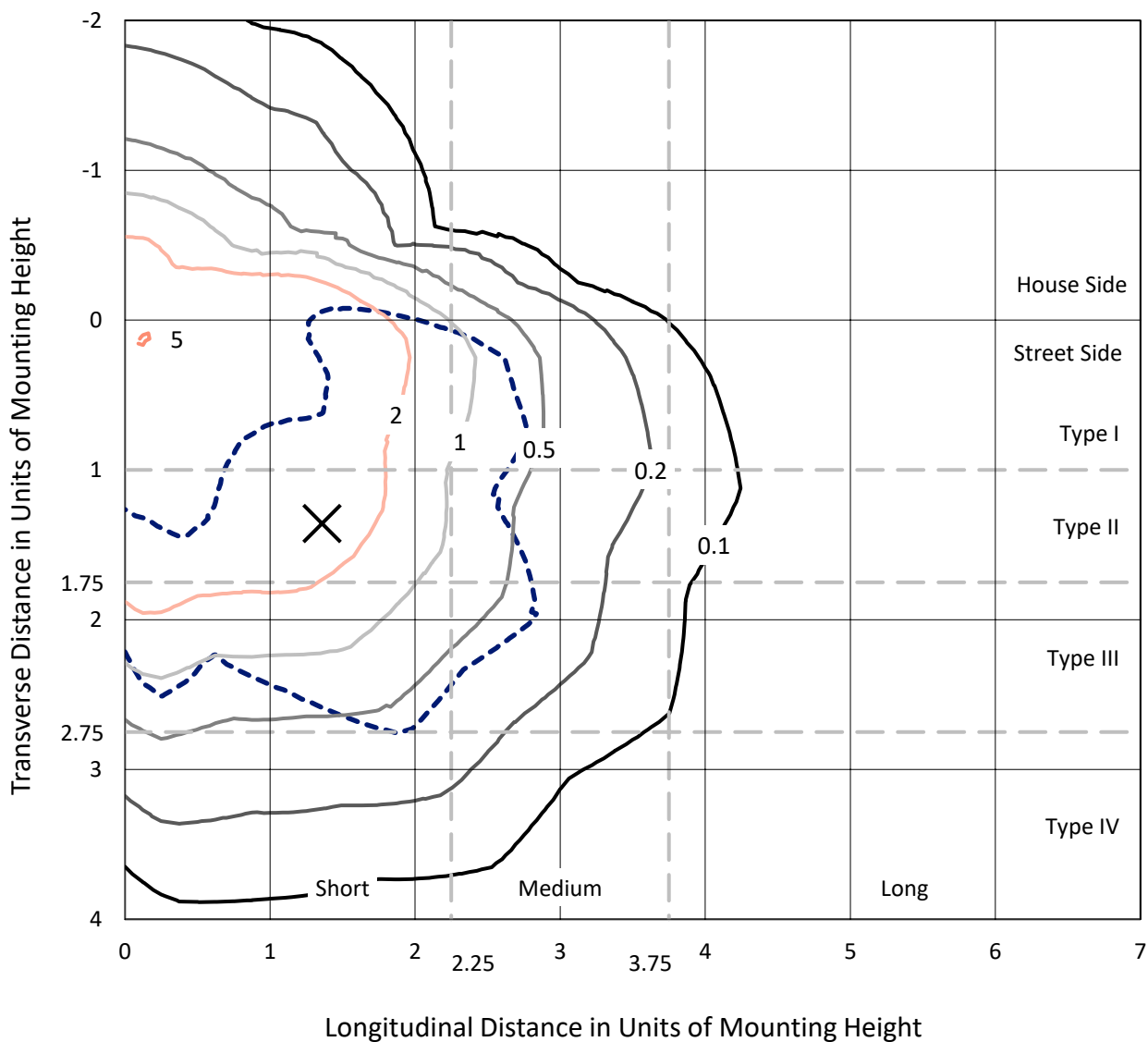
Lumens per Lamp: N/A  
Luminaire Lumens: 10887 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 94.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

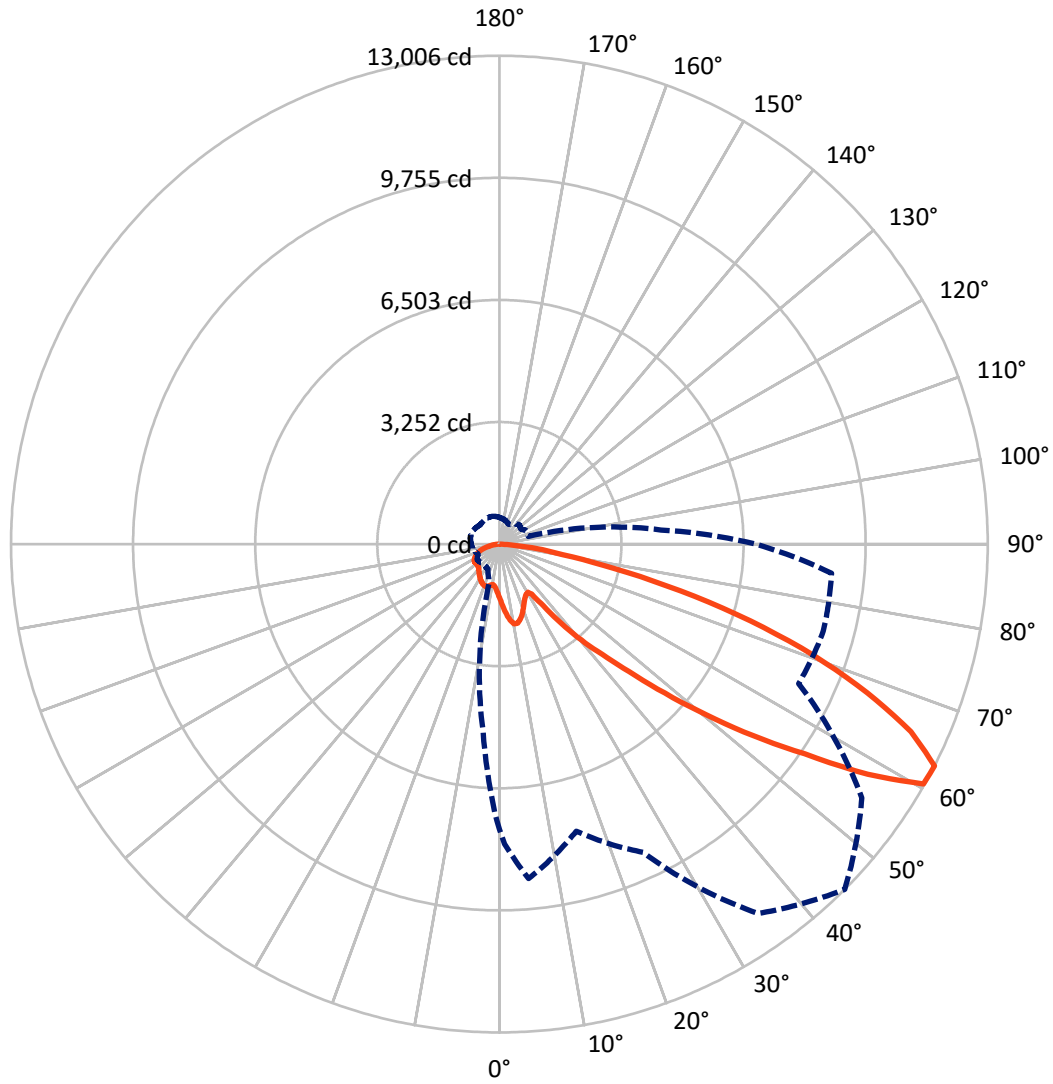
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2597.8	0.0	2597.8
	% Fixture	23.9	0.0	23.9
<b>Street Side</b>	Lumens	8289.2	0.0	8289.2
	% Fixture	76.1	0.0	76.1
<b>Total</b>	Lumens	10887.0	0.0	10887.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.1	1.3
10°-20°	442.4	4.1
20°-30°	687.1	6.3
30°-40°	932.9	8.6
40°-50°	1478.6	13.6
50°-60°	2608.2	24.0
60°-70°	2902.0	26.7
70°-80°	1471.8	13.5
80°-90°	222.9	2.0
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°	10887.0	100.0
0°-180°	10887.0	100.0

**Coefficient of Utilization**



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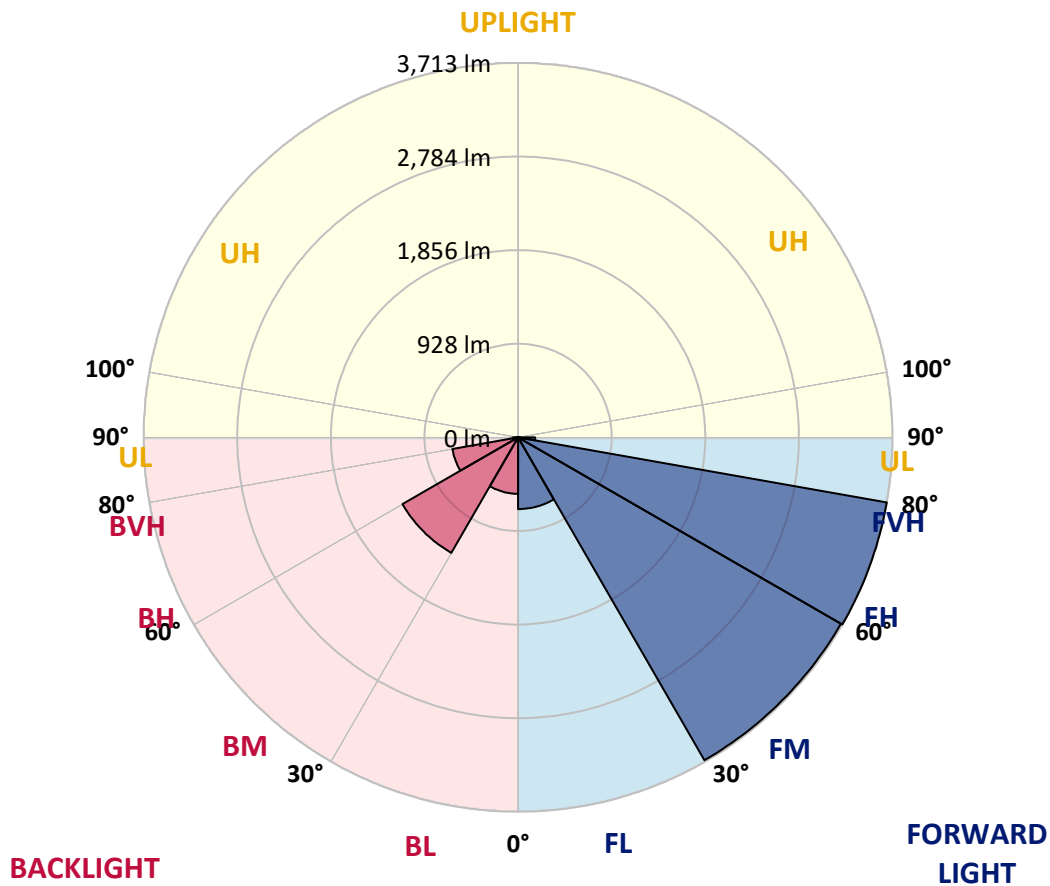
CATALOG NUMBER: GWS-SA4B-830-U-SLR-W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	710.8	6.5			
FM (30°-60°)	3696.6	34.0			
FH (60°-80°)	3712.6	34.1			G2/5000
FVH (80°-90°)	169.2	1.6			G2/225
BL (0°-30°)	559.8	5.1	B2/1000		
BM (30°-60°)	1323.1	12.2	B2/2500		
BH (60°-80°)	661.3	6.1	B2/1000		G2/1000
BVH (80°-90°)	53.7	0.5			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°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1552.9	1552.1	1567.7	1591.6	1613.9	1623.8	1640.3	1638.6	1625.4	1608.1	1602.4
5°	1674.9	1678.2	1705.4	1758.1	1816.7	1841.4	1852.1	1848.0	1824.1	1793.6	1740.0
7.5°	1785.3	1791.1	1833.2	1912.3	1984.8	2017.8	2044.2	2039.2	2004.6	1947.7	1868.6
10°	1866.1	1872.7	1923.0	2016.1	2096.9	2125.8	2159.6	2161.2	2130.7	2054.1	1973.3
12.5°	1946.9	1953.5	2000.5	2085.4	2138.1	2139.0	2158.7	2169.5	2171.1	2135.7	2054.9
15°	2031.0	2036.7	2079.6	2127.4	2124.9	2078.8	2078.8	2099.4	2144.7	2170.3	2114.2
17.5°	2102.7	2110.1	2143.1	2127.4	2054.1	1970.8	1960.9	1987.3	2066.4	2164.5	2158.7
20°	2162.0	2167.8	2185.9	2082.1	1948.5	1839.7	1820.8	1851.3	1958.4	2129.1	2192.5
22.5°	2218.9	2222.2	2212.3	2022.7	1834.8	1710.3	1687.3	1719.4	1834.8	2066.4	2221.4
25°	2286.5	2283.2	2236.2	1960.9	1730.9	1608.1	1584.2	1620.5	1740.8	1983.2	2252.7
27.5°	2364.8	2352.4	2256.8	1894.1	1651.0	1532.3	1515.8	1554.6	1666.7	1906.5	2277.4
30°	2431.6	2407.7	2260.1	1834.8	1609.8	1500.2	1490.3	1526.5	1630.4	1854.6	2308.8
32.5°	2505.7	2472.8	2279.1	1819.1	1632.9	1577.6	1590.8	1593.3	1640.3	1839.7	2355.7
35°	2612.1	2569.2	2331.0	1864.5	1870.2	1963.4	2011.2	1946.9	1789.5	1872.7	2444.8
37.5°	2772.8	2718.4	2436.5	2060.6	2360.7	2569.2	2684.6	2537.9	2242.8	1997.2	2579.1
40°	2968.2	2898.9	2571.7	2423.3	2819.0	3152.8	3358.0	3142.9	2709.3	2307.9	2767.9
42.5°	3241.0	3168.5	2833.8	2779.4	3243.5	3740.5	4008.4	3687.7	3120.6	2709.3	3070.4
45°	3716.6	3646.5	3314.3	3136.3	3740.5	4464.2	4840.1	4394.1	3538.5	3112.4	3635.8
47.5°	4595.2	4512.8	4028.2	3532.0	4307.6	5403.8	5929.7	5280.2	3972.9	3574.0	4585.4
50°	5650.3	5571.2	4924.1	4000.1	4934.0	6408.6	7139.7	6321.2	4473.3	4135.3	5720.4
52.5°	6919.7	6904.8	6202.6	4592.0	5586.0	7480.2	8482.5	7474.4	5021.4	4891.2	7006.2
55°	8063.7	8208.8	7826.3	5494.5	6428.4	8826.2	9863.1	8732.2	5764.9	6140.7	8512.1
57.5°	8680.3	9070.2	9657.9	7335.9	7653.3	10435.1	11566.8	10267.8	7042.5	8221.2	9908.4
60°	8273.1	8714.9	9779.8	8722.3	8868.2	11724.3	12973.0	11558.6	8297.0	9665.3	9829.3
62.5°	7595.6	7992.0	8939.1	7912.9	9056.1	12007.8	13006.0	11783.6	8795.7	8932.5	8878.9
65°	6791.9	7191.7	8194.8	6907.3	8458.6	11334.4	12046.6	11121.7	7899.7	8070.3	8090.1
67.5°	5724.5	6093.8	7115.0	6141.6	7710.1	10346.1	10573.6	10178.8	7274.9	7546.9	7262.6
70°	4277.1	4610.1	5511.8	4990.9	6499.3	9058.6	8874.8	8933.3	6573.5	6843.8	6066.6
72.5°	2922.8	3173.4	3946.6	3921.8	4976.9	7251.8	6995.5	7550.2	5490.4	5848.9	4624.9
75°	2044.2	2239.5	2852.8	3098.4	3761.9	5375.0	4981.8	5651.1	4287.8	4799.7	3374.5
77.5°	1254.5	1383.9	1801.8	2295.6	2420.0	3678.7	3094.3	4252.4	3011.0	3500.6	2251.1
80°	627.3	689.9	875.4	1443.3	1604.8	2167.8	1708.7	2468.7	2037.6	2167.8	1245.5
82.5°	189.6	209.4	256.3	548.1	831.7	1247.9	1009.7	1434.2	1112.8	1016.3	490.4
85°	50.3	56.9	70.9	162.4	291.8	447.6	341.2	694.9	533.3	375.0	184.6
87.5°	4.1	4.1	3.3	3.3	1.6	0.0	0.0	49.5	99.7	56.9	32.1
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°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1573.5	1570.2	1536.4	1511.7	1482.8	1454.8	1426.0	1400.4	1371.6	1342.7	1334.5
5°	1700.4	1677.4	1605.7	1545.5	1486.1	1434.2	1388.9	1341.9	1304.0	1266.9	1252.9
7.5°	1812.5	1772.2	1668.3	1576.8	1494.4	1430.1	1363.3	1294.9	1241.3	1188.6	1175.4
10°	1913.9	1860.4	1729.3	1613.9	1522.4	1449.0	1370.7	1279.3	1201.8	1137.5	1120.2
12.5°	1988.9	1930.4	1782.0	1649.3	1545.5	1463.1	1385.6	1304.8	1223.2	1140.0	1121.0
15°	2048.3	1987.3	1825.7	1676.5	1546.3	1440.0	1365.0	1336.9	1311.4	1229.8	1195.2
17.5°	2096.1	2031.8	1863.7	1693.0	1524.1	1369.9	1304.8	1346.0	1411.1	1360.0	1294.9
20°	2139.8	2074.7	1892.5	1704.6	1474.6	1273.5	1237.2	1324.6	1422.7	1421.0	1362.5
22.5°	2187.6	2124.1	1934.5	1711.2	1405.4	1175.4	1196.8	1293.3	1373.2	1397.1	1360.9
25°	2248.6	2192.5	1993.1	1726.0	1327.1	1107.8	1167.2	1252.9	1319.6	1325.4	1304.0
27.5°	2319.5	2277.4	2080.4	1760.6	1251.2	1073.2	1132.5	1196.0	1257.0	1259.5	1233.9
30°	2396.9	2368.9	2161.2	1789.5	1194.4	1062.5	1088.0	1139.1	1177.9	1184.5	1162.2
32.5°	2495.9	2471.1	2232.9	1770.5	1160.6	1060.0	1046.8	1073.2	1105.3	1105.3	1088.0
35°	2631.9	2597.2	2308.8	1698.0	1119.3	1050.1	1003.1	1010.5	1024.6	1027.0	1017.1
37.5°	2824.7	2767.9	2385.4	1554.6	1051.8	1014.7	952.8	943.8	948.7	955.3	952.8
40°	3063.8	2970.6	2497.5	1382.3	971.0	946.3	900.9	883.6	879.5	892.7	897.6
42.5°	3364.6	3222.0	2617.8	1221.6	897.6	867.9	839.9	825.1	818.5	840.7	853.9
45°	3845.2	3610.3	2733.2	1062.5	856.4	801.2	782.2	771.5	774.8	801.2	817.7
47.5°	4675.2	4202.9	2842.9	961.9	853.1	753.4	730.3	732.8	741.8	769.9	789.6
50°	5725.3	4996.7	2916.2	919.9	863.0	724.5	694.0	707.2	721.2	748.4	771.5
52.5°	6794.4	5736.0	2828.9	896.8	862.2	725.3	660.2	699.8	706.4	733.6	758.3
55°	7529.6	5818.4	2443.9	861.4	849.0	758.3	633.9	696.5	700.6	725.3	747.6
57.5°	7809.9	5536.6	1863.7	871.2	809.4	783.9	622.3	673.4	703.1	724.5	747.6
60°	7471.1	5004.9	1132.5	896.8	746.0	782.2	629.7	631.4	682.5	718.8	741.8
62.5°	6832.3	4322.4	795.4	824.3	699.8	738.5	647.0	581.9	646.2	689.9	710.5
65°	6100.3	3519.6	606.7	709.7	677.5	670.9	652.8	538.2	596.8	639.6	657.8
67.5°	5337.9	2735.7	492.9	529.2	612.4	606.7	596.8	499.5	538.2	568.7	589.3
70°	4377.6	1913.9	416.3	397.3	525.1	544.0	521.8	450.9	463.2	494.6	511.0
72.5°	3202.2	1192.7	342.1	328.1	422.0	475.6	464.1	397.3	403.1	432.7	445.9
75°	2303.0	682.5	274.5	270.4	322.3	407.2	384.1	342.1	348.7	370.9	380.0
77.5°	1463.9	380.0	211.8	217.6	230.8	304.2	328.1	292.6	292.6	305.8	313.2
80°	783.9	217.6	155.0	157.4	161.6	232.4	258.8	226.7	226.7	217.6	226.7
82.5°	319.8	125.3	106.3	98.9	108.0	159.1	181.3	144.2	150.8	136.0	139.3
85°	105.5	62.6	52.8	51.9	51.1	70.1	87.4	71.7	85.7	54.4	56.9
87.5°	14.0	11.5	6.6	4.9	5.8	2.5	4.9	5.8	5.8	4.1	4.1
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°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1328.7	1322.1	1298.2	1304.0	1299.9	1293.3	1299.9	1287.5	1297.4	1300.7	1321.3
5°	1242.2	1226.5	1203.4	1191.9	1189.4	1182.8	1183.6	1177.9	1179.5	1193.5	1216.6
7.5°	1164.7	1149.8	1131.7	1123.5	1116.0	1108.6	1107.8	1107.0	1113.6	1125.9	1148.2
10°	1108.6	1100.4	1093.0	1096.3	1093.0	1089.7	1083.9	1083.9	1094.6	1116.9	1144.1
12.5°	1108.6	1107.0	1108.6	1118.5	1117.7	1118.5	1111.1	1115.2	1144.9	1182.8	1221.6
15°	1168.0	1154.8	1154.8	1159.7	1158.1	1158.1	1158.1	1175.4	1243.0	1301.5	1342.7
17.5°	1240.5	1201.8	1185.3	1182.8	1182.0	1182.0	1185.3	1222.4	1327.9	1389.7	1413.6
20°	1290.8	1217.4	1190.2	1179.5	1180.3	1182.0	1191.9	1243.0	1359.2	1390.5	1384.8
22.5°	1299.9	1205.1	1172.1	1156.4	1158.9	1160.6	1175.4	1229.8	1316.3	1321.3	1309.7
25°	1257.8	1170.4	1135.0	1122.6	1125.9	1125.1	1138.3	1177.9	1239.7	1238.0	1231.4
27.5°	1195.2	1115.2	1088.8	1080.6	1086.4	1079.8	1083.9	1114.4	1162.2	1160.6	1158.1
30°	1130.9	1061.6	1037.7	1033.6	1041.0	1031.1	1032.0	1057.5	1090.5	1088.8	1088.0
32.5°	1066.6	1008.1	986.6	986.6	994.1	983.3	985.0	1007.2	1029.5	1022.9	1022.9
35°	1005.6	964.4	947.1	943.8	949.5	942.1	945.4	966.0	974.3	965.2	959.4
37.5°	952.0	933.9	916.6	905.0	905.9	906.7	916.6	932.2	927.3	914.1	906.7
40°	902.6	902.6	886.1	864.6	862.2	867.9	884.4	901.7	887.7	872.9	863.8
42.5°	867.1	874.5	858.9	837.4	832.5	842.4	860.5	872.9	856.4	839.9	827.6
45°	834.2	852.3	841.6	817.7	811.1	822.6	845.7	850.6	828.4	812.7	803.7
47.5°	811.1	835.8	828.4	805.3	795.4	811.9	835.8	835.0	807.0	790.5	783.0
50°	794.6	825.9	825.1	805.3	794.6	815.2	836.6	825.9	795.4	778.1	770.7
52.5°	781.4	825.1	830.9	819.3	811.9	830.0	843.2	822.6	787.2	769.0	763.3
55°	775.6	828.4	832.5	821.8	815.2	831.7	843.2	829.2	787.2	770.7	765.7
57.5°	777.3	824.3	825.1	810.2	798.7	819.3	837.4	833.3	796.2	777.3	771.5
60°	767.4	802.0	803.7	780.6	767.4	792.1	824.3	821.8	792.1	772.3	761.6
62.5°	734.4	764.9	765.7	744.3	725.3	760.8	796.2	795.4	768.2	748.4	736.1
65°	679.2	711.3	719.6	699.0	684.1	722.1	759.1	757.5	730.3	712.2	699.8
67.5°	610.8	645.4	661.1	647.0	641.3	675.9	710.5	709.7	687.4	670.1	659.4
70°	527.5	556.4	582.8	582.8	578.6	618.2	655.3	652.0	631.4	618.2	610.0
72.5°	458.3	480.5	488.8	497.0	509.4	550.6	581.9	584.4	569.6	563.0	569.6
75°	389.9	403.9	411.3	404.7	426.1	469.0	510.2	514.3	498.7	488.0	490.4
77.5°	320.6	336.3	343.7	328.9	327.2	381.6	431.9	441.0	427.8	411.3	416.3
80°	231.6	252.2	264.6	254.7	251.4	275.3	344.5	354.4	342.1	328.9	336.3
82.5°	141.8	153.3	156.6	166.5	187.1	197.0	221.7	254.7	245.6	234.1	254.7
85°	56.0	66.8	74.2	84.1	98.1	116.2	136.8	163.2	148.4	143.4	169.0
87.5°	3.3	0.8	0.0	1.6	14.0	27.2	58.5	80.8	67.6	72.5	87.4
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: P637001  
 CATALOG NUMBER: GWS-SA4B-830-U-SLR-W

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1337.8	1359.2	1388.1	1412.0	1442.5	1471.3	1501.0	1530.7	1546.3	1552.9
5°	1243.0	1282.5	1328.7	1379.8	1439.2	1501.8	1565.3	1630.4	1671.6	1674.9
7.5°	1186.1	1243.0	1306.5	1370.7	1444.1	1530.7	1631.2	1731.8	1773.8	1785.3
10°	1204.2	1267.7	1318.0	1378.2	1458.9	1566.9	1685.6	1803.5	1852.1	1866.1
12.5°	1276.8	1289.1	1304.8	1360.0	1458.9	1598.2	1741.7	1881.8	1933.7	1946.9
15°	1336.9	1277.6	1249.6	1308.1	1439.2	1625.4	1801.0	1956.0	2018.6	2031.0
17.5°	1341.9	1239.7	1178.7	1231.4	1404.5	1644.4	1857.9	2038.4	2091.1	2102.7
20°	1291.6	1199.3	1120.2	1152.3	1357.6	1652.6	1899.1	2098.6	2150.5	2162.0
22.5°	1234.7	1166.3	1080.6	1079.0	1300.7	1661.7	1948.5	2155.4	2211.5	2218.9
25°	1181.2	1121.0	1048.5	1025.4	1234.7	1679.0	2015.3	2241.2	2284.0	2286.5
27.5°	1118.5	1072.4	1022.9	1000.7	1177.0	1712.0	2114.2	2343.4	2368.9	2364.8
30°	1061.6	1027.0	1004.8	998.2	1140.8	1736.7	2208.2	2443.9	2445.6	2431.6
32.5°	1001.5	988.3	988.3	1009.7	1111.1	1730.9	2284.8	2542.0	2526.4	2505.7
35°	947.9	950.4	967.7	1018.0	1061.6	1673.2	2358.2	2664.8	2641.8	2612.1
37.5°	896.8	915.8	940.5	989.1	996.5	1587.5	2443.9	2838.8	2809.9	2772.8
40°	853.1	882.0	910.8	934.7	927.3	1465.5	2563.4	3043.2	3011.0	2968.2
42.5°	818.5	846.5	878.7	881.1	883.6	1338.6	2690.4	3293.7	3288.0	3241.0
45°	796.2	814.4	844.9	840.7	881.1	1198.5	2807.4	3676.2	3752.0	3716.6
47.5°	781.4	795.4	798.7	816.0	902.6	1073.2	2958.3	4424.6	4635.6	4595.2
50°	773.2	787.2	750.1	817.7	905.9	992.4	3166.8	5364.3	5703.9	5650.3
52.5°	772.3	769.0	713.0	835.0	887.7	943.0	3275.6	6050.1	6803.4	6919.7
55°	774.0	732.8	694.0	839.9	851.5	924.8	2911.3	6379.8	7818.1	8063.7
57.5°	759.1	693.2	704.7	820.1	783.0	973.5	2152.1	6261.9	8223.6	8680.3
60°	731.1	655.3	724.5	766.6	713.0	890.2	1482.0	5736.0	7803.3	8273.1
62.5°	690.7	628.9	722.1	697.3	687.4	728.6	1018.8	5000.0	7136.4	7595.6
65°	645.4	607.5	683.3	630.6	636.3	560.5	720.4	4169.1	6340.2	6791.9
67.5°	596.8	594.3	626.4	561.3	537.4	444.3	525.1	3341.5	5317.3	5724.5
70°	541.5	559.7	569.6	498.7	436.0	348.7	389.9	2336.8	3922.7	4277.1
72.5°	486.3	488.0	502.0	433.6	326.4	279.4	292.6	1415.3	2664.8	2922.8
75°	430.3	414.6	427.8	352.8	243.2	229.1	225.8	874.5	1840.6	2044.2
77.5°	370.1	352.8	335.5	265.4	195.3	177.2	173.1	490.4	1129.2	1254.5
80°	300.9	277.8	250.6	194.5	142.6	126.9	126.1	239.0	563.0	627.3
82.5°	234.1	190.4	183.0	121.2	88.2	77.5	82.4	91.5	169.8	189.6
85°	164.0	138.5	97.3	48.6	39.6	32.1	31.3	27.2	45.3	50.3
87.5°	91.5	60.2	31.3	5.8	6.6	7.4	5.8	4.1	4.1	4.1
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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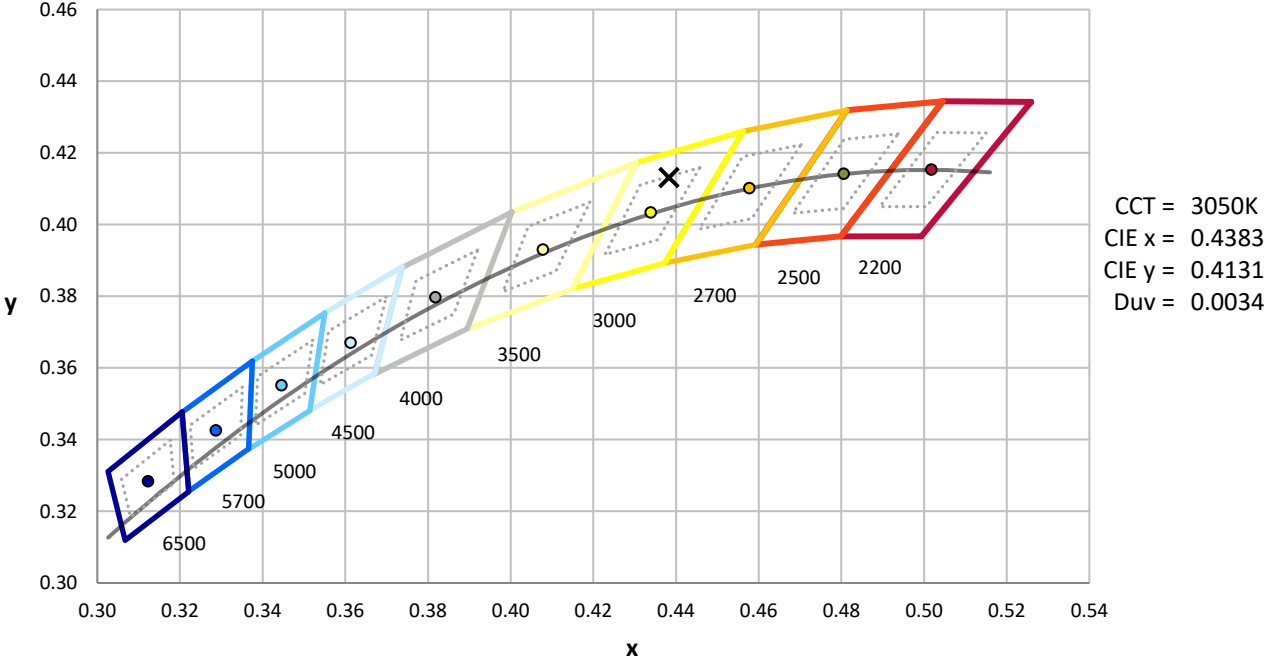
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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 <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

**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)