

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: P636997

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

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P636997  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-37)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4B-830-U-SLL-W  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR LEFT OPTICS  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

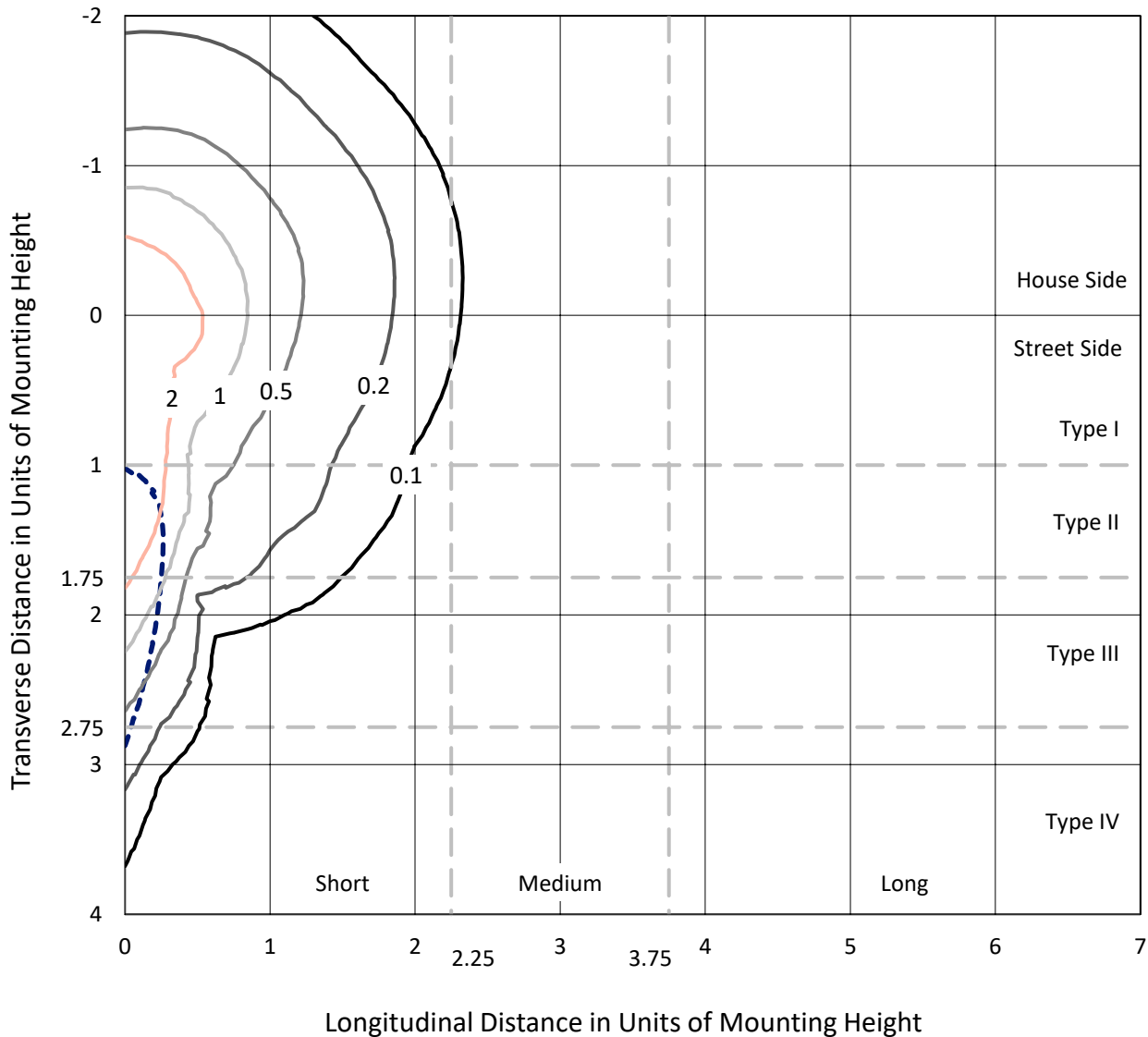
Lumens per Lamp: N/A  
Luminaire Lumens: 10776.6 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 94.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

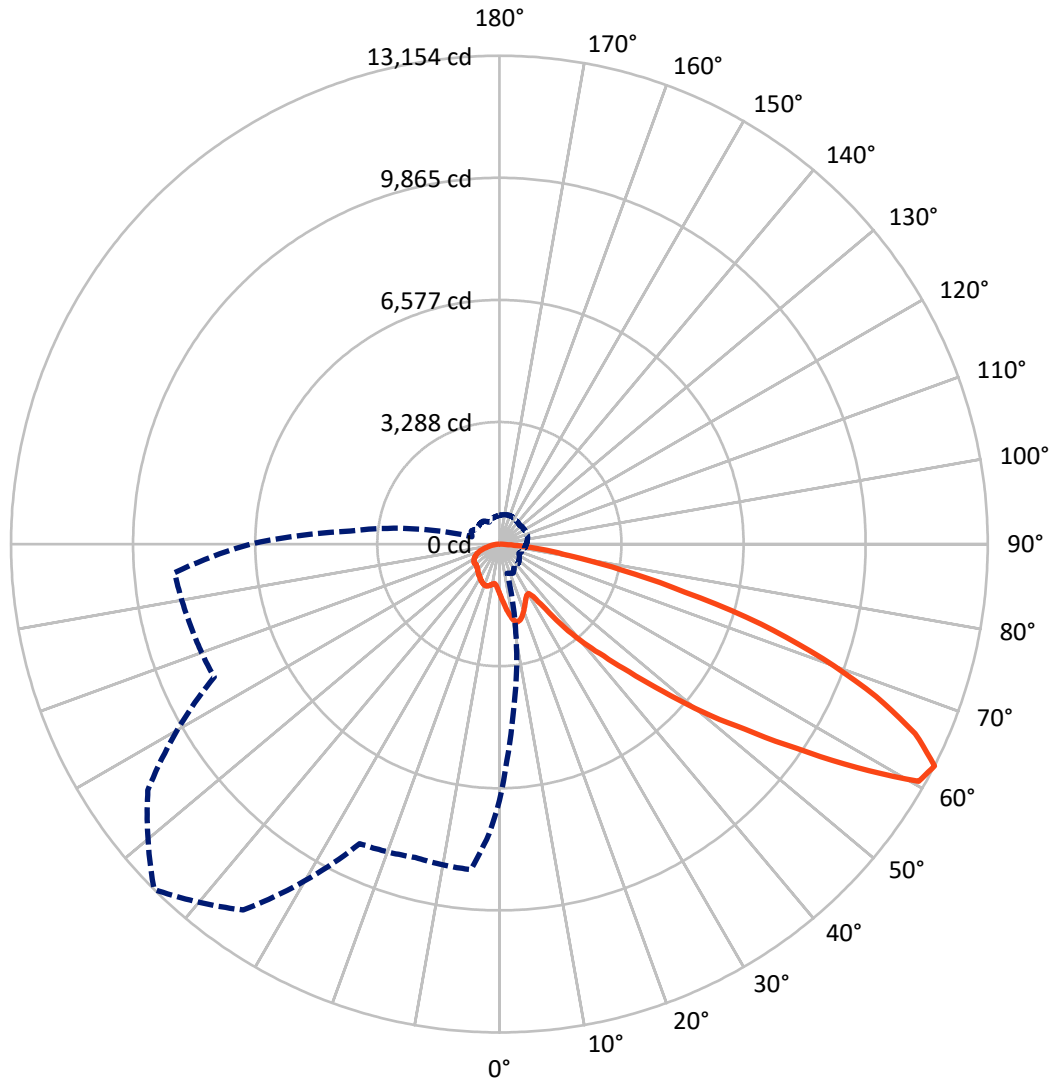
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2576.7	0.0	2576.7
	% Fixture	23.9	0.0	23.9
<b>Street Side</b>	Lumens	8199.9	0.0	8199.9
	% Fixture	76.1	0.0	76.1
<b>Total</b>	Lumens	10776.6	0.0	10776.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.4	1.2
10°-20°	430.2	4.0
20°-30°	677.2	6.3
30°-40°	928.3	8.6
40°-50°	1448.4	13.4
50°-60°	2497.3	23.2
60°-70°	2894.0	26.9
70°-80°	1527.6	14.2
80°-90°	241.3	2.2
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°	10776.6	100.0
0°-180°	10776.6	100.0

**Coefficient of Utilization**



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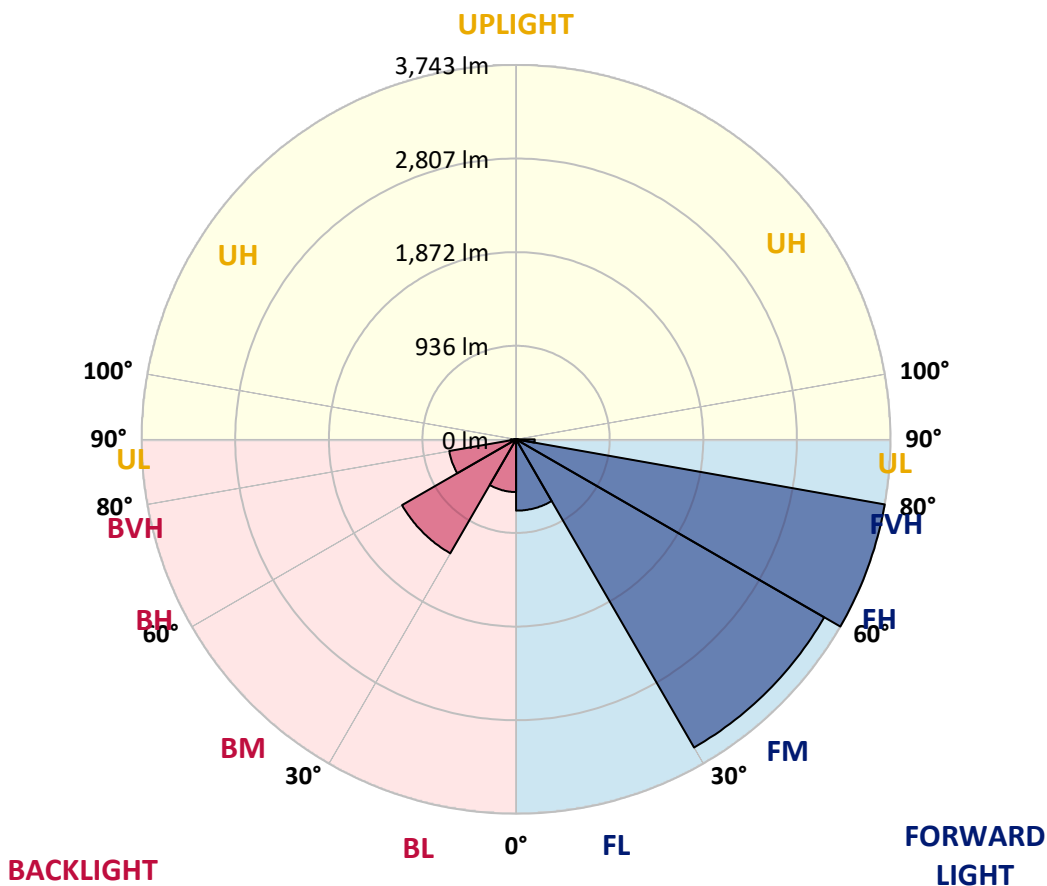
CATALOG NUMBER: GWS-SA4B-830-U-SLL-W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	712.7	6.6			
FM (30°-60°)	3557.7	33.0			
FH (60°-80°)	3743.2	34.7			G2/5000
FVH (80°-90°)	186.3	1.7			G2/225
BL (0°-30°)	527.0	4.9	B2/1000		
BM (30°-60°)	1316.2	12.2	B2/2500		
BH (60°-80°)	678.5	6.3	B2/1000		G2/1000
BVH (80°-90°)	55.1	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°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1459.8	1454.1	1445.8	1417.8	1400.5	1380.7	1360.1	1336.2	1309.0	1290.0	1271.1
5°	1583.5	1574.4	1554.6	1487.9	1441.7	1391.4	1349.4	1301.6	1254.6	1222.4	1190.3
7.5°	1702.2	1690.7	1660.2	1557.9	1482.9	1410.4	1346.9	1277.7	1207.6	1159.8	1121.9
10°	1820.9	1797.0	1758.2	1624.7	1525.8	1441.7	1369.2	1284.3	1191.1	1126.0	1085.6
12.5°	1911.6	1889.3	1847.3	1685.7	1568.7	1463.1	1381.5	1303.2	1224.1	1154.9	1113.6
15°	1996.5	1967.6	1919.8	1742.6	1604.1	1462.3	1356.8	1288.4	1276.9	1259.5	1206.0
17.5°	2057.5	2031.1	1981.6	1788.7	1623.9	1436.8	1288.4	1248.0	1299.9	1352.7	1301.6
20°	2111.0	2080.5	2030.3	1820.9	1628.0	1379.9	1205.1	1206.0	1287.6	1360.1	1347.7
22.5°	2156.4	2122.6	2078.1	1857.2	1626.4	1300.8	1132.6	1182.1	1263.7	1320.5	1322.2
25°	2212.4	2184.4	2147.3	1910.7	1626.4	1220.0	1079.8	1153.2	1223.3	1271.1	1269.4
27.5°	2280.9	2261.9	2231.4	1992.3	1641.2	1152.4	1050.2	1116.1	1171.3	1212.6	1211.7
30°	2357.5	2340.2	2317.1	2078.9	1666.7	1102.1	1033.7	1069.9	1110.3	1143.3	1143.3
32.5°	2435.8	2429.2	2404.5	2148.1	1647.0	1086.4	1019.7	1023.8	1045.2	1072.4	1069.9
35°	2544.6	2538.0	2506.7	2201.7	1561.2	1064.2	997.4	976.8	979.3	996.6	1002.4
37.5°	2703.7	2693.8	2647.7	2264.4	1431.8	1008.1	961.1	927.3	919.9	927.3	938.1
40°	2895.8	2880.9	2818.3	2349.3	1282.6	932.3	904.3	876.2	863.9	866.3	878.7
42.5°	3136.5	3105.2	3015.3	2439.1	1135.1	865.5	840.8	823.5	809.5	807.8	831.7
45°	3527.2	3441.5	3298.9	2519.1	1010.6	830.1	783.9	771.6	760.0	766.6	794.6
47.5°	4209.7	4051.5	3773.7	2587.5	934.8	830.9	738.6	725.4	724.6	737.8	769.1
50°	5147.8	4919.5	4490.8	2633.7	895.2	840.8	711.4	689.9	705.6	718.8	748.5
52.5°	6046.3	5697.6	5187.4	2632.8	877.9	842.4	718.8	657.0	705.6	708.9	736.9
55°	6813.7	6182.3	5375.3	2362.5	853.2	835.8	747.6	631.4	696.5	708.9	731.2
57.5°	7423.7	6490.6	5361.3	1908.3	928.2	799.6	765.0	625.6	670.2	710.6	736.1
60°	7356.1	6349.6	5015.9	1171.3	920.7	735.3	762.5	636.4	625.6	688.3	730.3
62.5°	6906.9	5844.3	4421.6	812.8	864.7	698.2	722.1	655.3	584.4	656.1	702.3
65°	6277.9	5192.3	3684.6	623.2	716.3	699.8	653.7	642.1	548.2	605.0	654.5
67.5°	5446.2	4383.7	2909.0	493.8	499.5	605.9	593.5	570.4	514.4	559.7	604.2
70°	4094.3	3199.1	2001.4	397.3	378.4	506.1	533.3	512.7	481.4	494.6	541.6
72.5°	2885.1	2088.8	1096.3	314.9	291.8	389.1	463.3	460.0	425.3	435.2	481.4
75°	2144.0	1478.0	685.0	248.9	237.4	278.6	388.2	398.1	369.3	380.8	416.3
77.5°	1426.9	957.0	380.8	184.6	184.6	203.6	289.3	335.5	314.1	323.1	347.9
80°	787.2	487.2	190.4	121.2	124.5	140.1	211.0	241.5	242.3	264.6	271.2
82.5°	248.9	155.0	84.9	70.9	66.8	80.0	136.0	173.1	161.6	206.1	189.6
85°	56.9	36.3	15.7	15.7	17.3	26.4	51.9	92.3	117.9	141.8	103.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	36.3	53.6	47.8
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°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1259.5	1243.1	1238.1	1224.1	1222.4	1209.3	1204.3	1204.3	1210.1	1210.1	1215.9
5°	1177.1	1156.5	1145.0	1128.5	1124.4	1114.5	1107.9	1108.7	1116.1	1121.1	1130.9
7.5°	1104.6	1090.6	1082.3	1074.9	1073.2	1071.6	1064.2	1063.4	1065.8	1073.2	1080.7
10°	1074.1	1064.2	1066.7	1072.4	1081.5	1086.4	1079.8	1076.5	1074.1	1079.0	1085.6
12.5°	1103.7	1093.9	1098.8	1108.7	1121.1	1126.0	1123.5	1122.7	1125.2	1144.1	1158.2
15°	1168.9	1149.9	1143.3	1147.4	1157.3	1162.3	1159.8	1163.1	1178.8	1228.2	1263.7
17.5°	1249.6	1203.5	1177.1	1169.7	1173.8	1177.9	1177.9	1186.2	1213.4	1285.9	1330.4
20°	1293.3	1233.2	1188.6	1170.5	1172.2	1176.3	1176.3	1187.8	1218.3	1295.8	1324.7
22.5°	1281.8	1226.6	1172.2	1152.4	1153.2	1156.5	1156.5	1166.4	1193.6	1262.0	1275.2
25°	1236.5	1187.8	1134.2	1116.9	1118.6	1124.4	1122.7	1128.5	1149.1	1205.1	1212.6
27.5°	1182.1	1139.2	1086.4	1073.2	1080.7	1092.2	1082.3	1083.1	1102.1	1149.1	1149.9
30°	1123.5	1088.1	1041.1	1031.2	1045.2	1051.0	1041.9	1041.9	1060.9	1093.0	1092.2
32.5°	1060.1	1037.8	1004.0	993.3	1009.0	1018.0	1006.5	1008.1	1023.0	1044.4	1036.2
35°	1000.7	989.2	973.5	966.1	976.0	984.2	976.8	980.1	994.1	999.9	988.3
37.5°	943.8	942.2	943.8	943.8	946.3	948.8	943.8	952.1	964.4	957.0	943.8
40°	894.4	901.0	916.6	912.5	910.0	912.5	909.2	923.2	935.6	922.4	906.7
42.5°	853.2	865.5	889.4	889.4	884.5	886.1	884.5	901.8	910.9	892.7	875.4
45°	817.7	835.8	866.3	870.5	862.2	862.2	865.5	887.0	890.3	865.5	847.4
47.5°	793.0	815.2	849.9	857.3	844.9	844.1	853.2	876.2	876.2	847.4	826.8
50°	775.7	800.4	841.6	851.5	839.1	835.8	850.7	872.9	868.0	833.4	812.8
52.5°	764.1	789.7	840.8	854.8	846.6	843.3	858.1	873.8	861.4	824.3	802.9
55°	756.7	784.7	843.3	854.8	845.7	840.0	854.8	868.8	862.2	819.4	798.8
57.5°	760.8	788.9	840.0	845.7	835.0	825.1	842.4	862.2	859.8	821.0	800.4
60°	754.2	779.8	821.8	823.5	805.3	789.7	815.2	844.9	844.9	815.2	797.1
62.5°	723.7	749.3	786.4	788.0	767.4	750.1	779.8	815.2	814.4	790.5	771.6
65°	673.5	697.4	739.4	743.5	722.9	704.8	735.3	768.3	770.7	749.3	732.8
67.5°	618.2	639.7	671.0	687.5	670.2	651.2	679.2	710.6	709.7	684.2	666.9
70°	552.3	572.1	600.9	614.9	604.2	586.1	611.6	628.1	620.7	608.3	596.8
72.5°	487.2	506.1	533.3	533.3	521.8	504.5	511.9	541.6	550.6	541.6	534.2
75°	418.7	435.2	454.2	458.3	432.8	401.4	436.1	461.6	472.3	468.2	459.1
77.5°	348.7	361.0	389.1	381.7	333.8	317.4	345.4	383.3	390.7	388.2	375.9
80°	268.7	276.1	305.8	291.0	253.9	243.2	255.5	285.2	286.9	278.6	263.0
82.5°	180.5	190.4	210.2	181.3	180.5	170.6	160.7	164.0	178.9	177.2	166.5
85°	92.3	97.3	116.2	108.8	93.1	80.8	76.7	81.6	73.4	66.8	57.7
87.5°	38.7	42.0	57.7	32.1	9.9	0.0	0.0	4.9	7.4	10.7	11.5
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°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1229.0	1238.1	1260.4	1288.4	1315.6	1343.6	1374.1	1393.1	1416.2	1445.8	1446.7
5°	1143.3	1163.9	1196.1	1238.9	1283.4	1334.6	1393.9	1443.4	1502.7	1549.7	1568.7
7.5°	1090.6	1120.2	1160.6	1215.0	1273.6	1337.0	1414.5	1497.8	1595.0	1657.7	1694.8
10°	1095.5	1140.8	1181.2	1227.4	1280.1	1348.6	1448.3	1558.8	1678.3	1760.7	1806.9
12.5°	1183.7	1231.5	1224.1	1221.6	1257.1	1340.3	1475.5	1620.6	1766.5	1848.9	1904.1
15°	1295.0	1313.1	1243.1	1190.3	1211.7	1310.6	1490.3	1675.8	1839.9	1940.4	1994.8
17.5°	1351.9	1315.6	1230.7	1151.6	1145.8	1265.3	1497.8	1731.9	1922.3	2022.8	2080.5
20°	1325.5	1272.7	1201.0	1126.0	1084.8	1203.5	1493.6	1776.4	1997.3	2109.4	2156.4
22.5°	1268.6	1222.4	1166.4	1094.7	1035.3	1135.9	1482.9	1820.9	2064.1	2177.0	2218.2
25°	1206.8	1172.2	1126.0	1063.4	1007.3	1076.5	1475.5	1880.2	2140.7	2248.7	2275.1
27.5°	1145.0	1119.4	1081.5	1032.9	1000.7	1035.3	1478.0	1957.7	2239.6	2341.9	2331.1
30°	1084.0	1061.7	1035.3	1013.9	999.9	1025.4	1471.4	2040.2	2348.4	2443.2	2379.8
32.5°	1026.3	1005.7	989.2	992.5	1000.7	1029.6	1437.6	2115.2	2448.2	2529.0	2432.5
35°	976.8	955.4	955.4	966.9	997.4	1015.5	1350.2	2173.7	2558.6	2639.4	2507.5
37.5°	930.6	911.7	924.0	943.0	971.9	977.6	1238.1	2230.6	2719.4	2795.2	2623.8
40°	890.3	871.3	893.5	917.5	932.3	929.8	1124.4	2309.7	2909.0	2987.3	2777.9
42.5°	858.1	840.8	860.6	891.1	893.5	896.0	1041.1	2385.5	3129.1	3228.8	3043.3
45°	831.7	819.4	829.3	859.8	859.8	897.7	989.2	2449.0	3460.4	3636.8	3530.5
47.5°	811.1	803.7	808.6	818.5	835.0	927.3	956.2	2497.6	4063.8	4410.0	4302.9
50°	799.6	792.2	798.8	778.1	827.6	942.2	945.5	2534.7	4859.3	5401.7	5269.0
52.5°	789.7	787.2	791.3	743.5	844.1	932.3	937.2	2485.3	5392.6	6377.7	6508.7
55°	786.4	788.0	768.3	718.0	863.9	899.3	912.5	2131.7	5537.7	7219.3	8032.9
57.5°	788.0	783.1	732.8	720.4	864.7	833.4	948.0	1520.8	5326.7	7585.3	9524.0
60°	782.3	757.5	689.9	742.7	826.8	755.9	922.4	991.6	4770.3	7304.2	9610.6
62.5°	756.7	720.4	652.9	755.1	759.2	709.7	837.5	764.1	4028.4	6702.4	8776.4
65°	719.6	671.0	621.5	729.5	690.8	688.3	629.8	612.5	3239.5	5986.1	7985.1
67.5°	658.6	610.0	598.4	671.0	621.5	610.0	506.1	507.8	2585.0	5222.8	7189.6
70°	589.4	540.7	549.8	606.7	553.1	506.9	409.7	422.9	1961.0	4351.5	6117.2
72.5°	544.0	478.9	479.7	534.2	486.3	410.5	337.1	348.7	1244.7	3279.9	4863.4
75°	459.1	422.0	403.9	432.8	413.0	319.8	283.6	281.1	737.8	2350.9	3641.8
77.5°	383.3	354.5	345.4	356.9	308.3	236.6	228.3	224.2	417.9	1506.0	2386.4
80°	277.8	270.4	269.5	275.3	237.4	173.9	173.9	174.8	225.0	817.7	1345.3
82.5°	176.4	192.9	170.6	189.6	161.6	123.6	115.4	131.1	129.4	348.7	567.1
85°	73.4	100.6	94.0	99.7	76.7	67.6	72.5	78.3	75.0	134.4	220.9
87.5°	14.0	16.5	18.1	17.3	17.3	21.4	23.9	28.9	28.9	38.7	66.8
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: P636997

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

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1478.0	1501.9	1496.9	1507.7	1493.6	1498.6	1470.6	1463.1	1458.2	1459.8
5°	1629.7	1678.3	1687.4	1705.5	1693.1	1693.1	1643.7	1606.6	1593.4	1583.5
7.5°	1783.8	1853.9	1900.0	1905.0	1898.4	1885.2	1813.5	1746.7	1722.8	1702.2
10°	1920.6	2004.7	2056.6	2081.4	2069.0	2048.4	1959.4	1867.9	1839.0	1820.9
12.5°	2025.3	2099.5	2134.1	2150.6	2149.0	2141.5	2069.0	1970.1	1939.6	1911.6
15°	2092.9	2130.0	2116.8	2116.0	2127.5	2157.2	2135.0	2057.5	2022.0	1996.5
17.5°	2136.6	2101.2	2042.6	2015.4	2040.2	2110.2	2161.3	2117.6	2085.5	2057.5
20°	2152.3	2026.1	1941.2	1891.0	1919.8	2021.2	2147.3	2161.3	2134.1	2111.0
22.5°	2134.1	1934.6	1819.2	1759.9	1787.9	1909.1	2106.1	2196.8	2178.6	2156.4
25°	2089.6	1839.0	1700.5	1647.0	1677.5	1801.1	2032.7	2229.7	2230.6	2212.4
27.5°	2034.4	1750.8	1617.3	1567.0	1596.7	1712.1	1961.0	2258.6	2287.4	2280.9
30°	1978.3	1698.1	1577.7	1542.3	1564.5	1666.7	1887.7	2288.3	2346.0	2357.5
32.5°	1952.8	1723.6	1670.9	1686.5	1657.7	1693.1	1861.3	2330.3	2416.9	2435.8
35°	1986.6	1950.3	2083.8	2145.7	2043.5	1909.1	1895.1	2393.8	2516.6	2544.6
37.5°	2150.6	2435.8	2635.3	2852.9	2675.7	2379.8	2062.4	2501.8	2659.2	2703.7
40°	2507.5	2859.5	3219.7	3500.8	3232.9	2834.8	2380.6	2662.5	2855.4	2895.8
42.5°	2843.9	3256.8	3753.1	4116.6	3768.7	3206.6	2723.5	2932.9	3114.2	3136.5
45°	3173.6	3646.7	4398.5	4903.8	4431.5	3560.2	3073.8	3389.5	3526.4	3527.2
47.5°	3560.2	4086.1	5208.0	5927.6	5311.0	3951.7	3402.7	4112.5	4302.9	4209.7
50°	4022.6	4523.0	6041.3	7118.7	6383.4	4433.1	3820.7	4993.6	5253.3	5147.8
52.5°	4641.7	5004.4	6959.6	8280.2	7552.3	4981.3	4426.5	6157.6	6243.3	6046.3
55°	5513.0	5699.3	8138.4	9714.4	8857.2	5656.4	5312.7	7618.2	7378.4	6813.7
57.5°	7497.1	6798.9	9651.8	11350.7	10333.5	6883.0	7254.7	9228.9	8375.8	7423.7
60°	9157.2	8134.3	11052.3	12974.6	11598.8	8234.8	9078.1	9509.2	8338.7	7356.1
62.5°	8597.5	8474.7	11557.6	13153.5	12030.7	8900.0	8739.3	8802.8	7794.6	6906.9
65°	7543.2	7817.7	11106.7	12305.2	11551.8	8304.1	7905.1	8149.9	7172.3	6277.9
67.5°	6920.9	7122.8	10304.7	10947.6	10681.4	7659.5	7256.4	7079.1	6206.2	5446.2
70°	6284.5	6451.8	9178.6	9243.8	9323.7	6587.9	5933.4	5405.8	4626.0	4094.3
72.5°	5430.5	5439.6	7755.1	7377.5	7529.2	5155.2	4776.0	4041.6	3367.3	2885.1
75°	4555.9	4307.0	6138.6	5156.9	5461.0	4010.2	3965.7	3045.8	2539.7	2144.0
77.5°	3473.6	3182.6	4484.2	3391.2	3835.5	2670.8	2981.5	2065.7	1787.1	1426.9
80°	2332.0	2150.6	2477.9	1914.0	2509.2	1840.7	1944.5	1170.5	1014.7	787.2
82.5°	1229.9	1050.2	1531.6	1135.1	1513.4	1011.4	729.5	361.9	308.3	248.9
85°	476.4	551.5	750.9	403.9	586.9	361.0	211.0	89.8	75.0	56.9
87.5°	92.3	142.6	78.3	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**

$\lambda$ (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**

$\lambda$ (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

**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)