

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: P631554

Luminaire Tested: GWS-SA1F-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P631554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1F-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5236.3 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G1

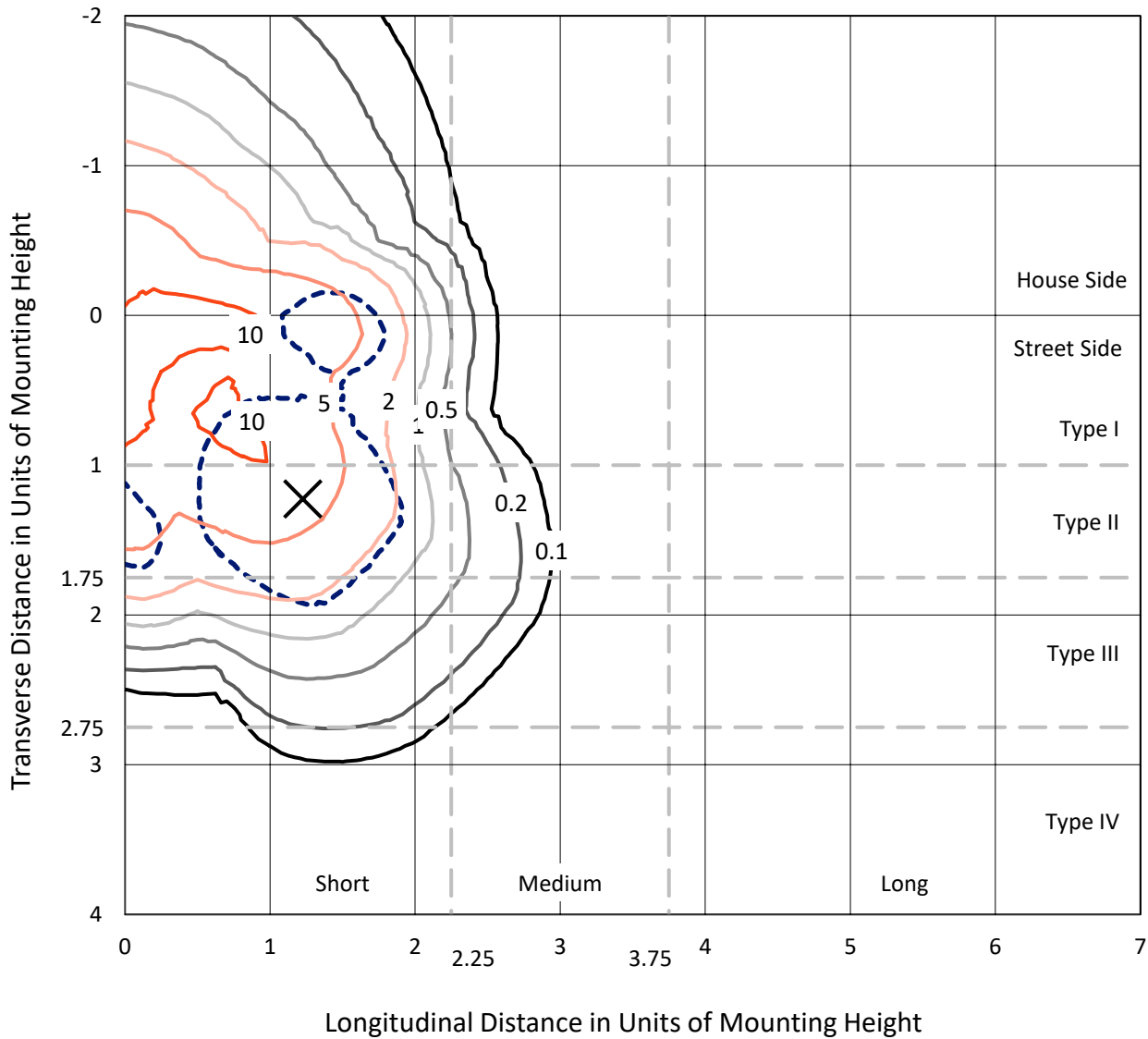
Input Watts (W): 67.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

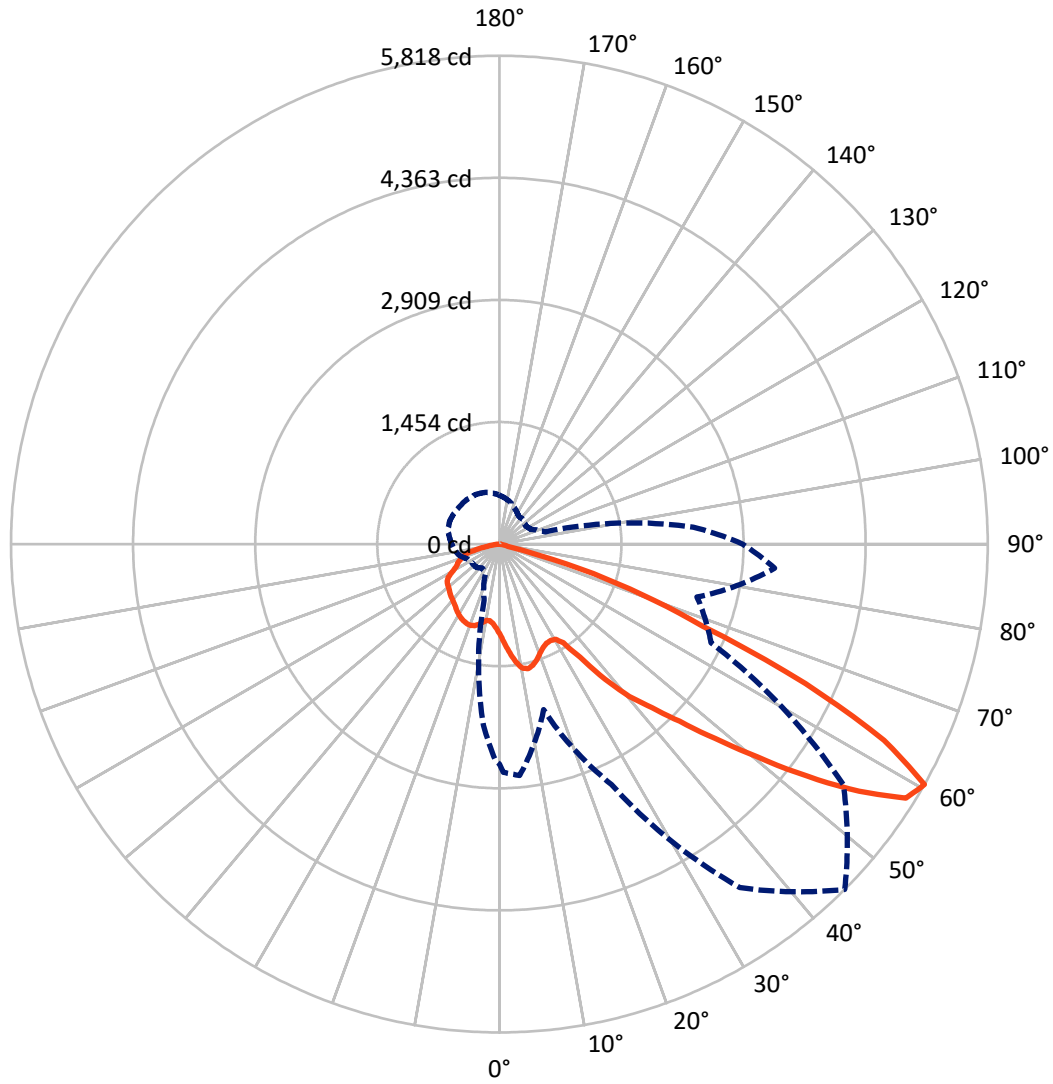
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1835.5	0.0	1835.5
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	3400.8	0.0	3400.8
	% Fixture	64.9	0.0	64.9
Total	Lumens	5236.3	0.0	5236.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	2.0
10°-20°	331.6	6.3
20°-30°	538.7	10.3
30°-40°	759.8	14.5
40°-50°	1050.0	20.1
50°-60°	1351.6	25.8
60°-70°	856.4	16.4
70°-80°	219.7	4.2
80°-90°	23.5	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°	5236.3	100.0
0°-180°	5236.3	100.0

Coefficient of Utilization



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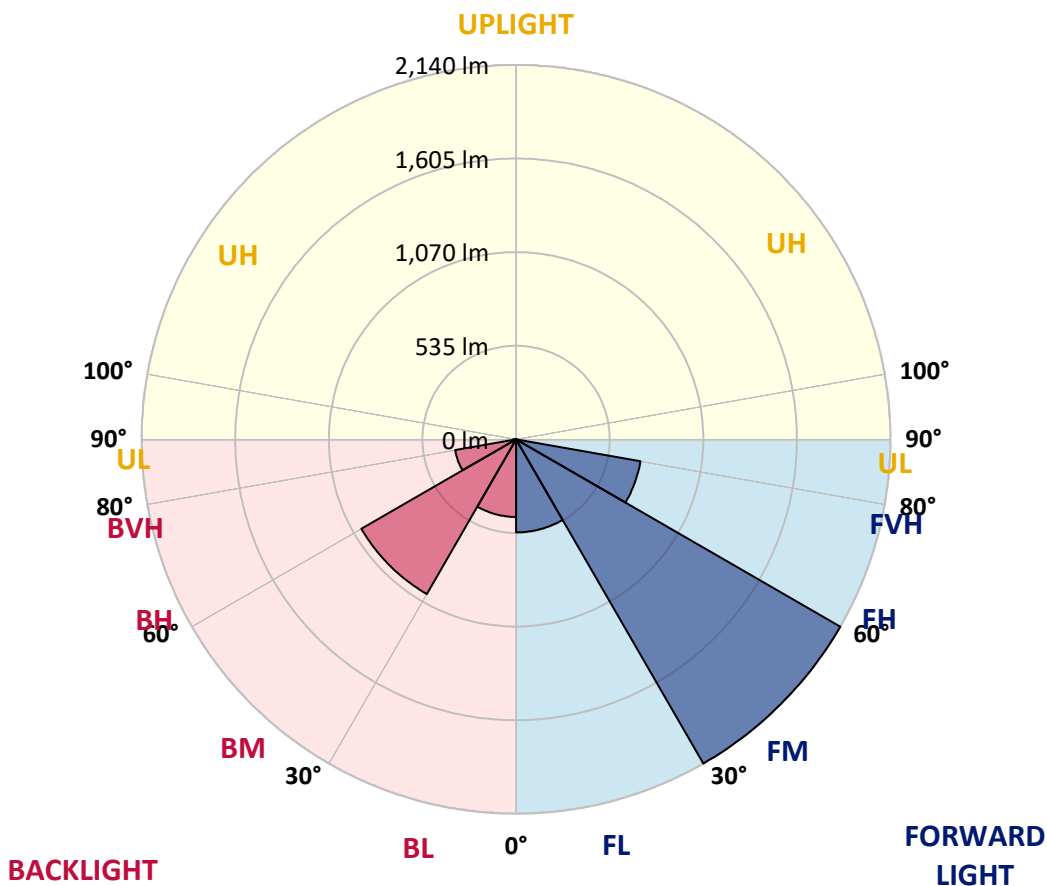
CATALOG NUMBER: GWS-SA1F-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	531.7	10.2			
FM (30°-60°)	2140.3	40.9			
FH (60°-80°)	722.4	13.8			G1/1800
FVH (80°-90°)	6.4	0.1			G0/10
BL (0°-30°)	443.6	8.5	B1/500		
BM (30°-60°)	1021.0	19.5	B2/2500		
BH (60°-80°)	353.7	6.8	B1/500		G1/500
BVH (80°-90°)	17.1	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-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1125.1	1132.8	1137.6	1146.7	1163.0	1172.1	1182.2	1171.2	1174.0	1172.6	1154.9
5°	1191.8	1200.9	1213.4	1240.3	1270.5	1287.3	1303.1	1300.7	1285.8	1260.9	1243.1
7.5°	1254.2	1264.7	1286.3	1330.0	1374.6	1400.5	1419.7	1407.2	1394.7	1355.4	1310.8
10°	1303.1	1309.3	1338.6	1397.1	1449.0	1478.2	1501.7	1498.9	1481.6	1437.5	1377.5
12.5°	1349.2	1353.5	1385.2	1443.7	1490.2	1503.2	1522.4	1528.6	1522.9	1489.7	1430.7
15°	1398.6	1406.7	1436.0	1480.6	1501.7	1488.3	1495.0	1512.3	1528.6	1528.6	1474.4
17.5°	1444.6	1451.8	1481.6	1500.8	1480.6	1445.1	1447.0	1469.1	1508.0	1548.8	1514.2
20°	1485.4	1492.1	1521.4	1503.2	1439.4	1387.6	1386.1	1413.0	1475.8	1561.7	1556.9
22.5°	1530.1	1539.6	1564.1	1505.1	1401.0	1335.3	1334.8	1362.6	1447.5	1574.7	1605.9
25°	1593.4	1608.3	1620.7	1521.9	1380.4	1301.2	1307.4	1333.8	1438.4	1595.8	1678.3
27.5°	1687.4	1699.4	1698.5	1556.9	1379.4	1287.3	1300.2	1330.9	1454.7	1633.2	1754.6
30°	1789.1	1795.4	1785.3	1605.9	1401.5	1295.9	1315.1	1351.6	1496.0	1695.1	1866.9
32.5°	1901.9	1909.6	1890.4	1679.3	1452.8	1359.7	1401.9	1419.7	1554.0	1784.3	1985.9
35°	2031.4	2046.3	2006.5	1776.2	1603.9	1592.4	1653.8	1630.8	1677.3	1889.9	2113.0
37.5°	2167.7	2168.2	2111.1	1919.6	1900.4	1920.1	2042.9	1971.0	1938.8	2007.4	2242.5
40°	2283.3	2280.4	2192.6	2113.0	2158.6	2236.8	2385.0	2274.7	2190.2	2165.3	2350.0
42.5°	2399.0	2388.4	2299.6	2235.8	2336.6	2497.3	2664.8	2529.5	2351.5	2308.8	2456.0
45°	2546.7	2543.4	2436.4	2284.8	2497.3	2789.0	3011.2	2791.9	2446.9	2392.2	2632.6
47.5°	2785.2	2768.9	2569.8	2280.9	2648.0	3177.7	3458.3	3122.5	2513.6	2394.2	2917.6
50°	3018.4	2998.2	2729.0	2280.4	2803.4	3580.7	3986.1	3524.1	2581.8	2405.7	3207.4
52.5°	3253.9	3253.9	2990.5	2334.7	2966.5	4030.7	4595.9	4024.5	2697.9	2556.3	3563.9
55°	3394.0	3431.5	3284.6	2426.3	3157.5	4560.4	5199.0	4564.7	2877.3	2828.4	3893.0
57.5°	3216.0	3286.1	3265.0	2362.5	3270.2	4949.5	5710.5	4974.5	2966.1	2860.5	3843.6
60°	2620.6	2718.0	2766.5	2040.1	3158.9	4994.6	5817.5	5001.3	2782.8	2435.9	3292.3
62.5°	1742.1	1822.2	1896.1	1457.6	2734.8	4493.2	5145.3	4494.7	2324.1	1817.9	2280.9
65°	854.5	914.0	993.6	861.7	2136.5	3754.4	4011.5	3632.0	1681.2	1017.6	1163.5
67.5°	223.6	240.4	251.4	334.4	1530.5	2697.4	2616.3	2656.6	1080.0	332.5	304.2
70°	116.1	117.1	116.6	138.2	1034.4	1714.3	1803.1	1668.2	753.8	139.1	119.9
72.5°	83.0	83.5	82.0	93.1	499.5	982.1	1017.6	1006.6	394.9	82.5	82.0
75°	54.2	54.7	53.7	54.7	75.3	111.8	103.2	108.4	65.7	52.3	52.3
77.5°	32.1	32.6	32.1	33.1	32.1	32.1	29.7	29.7	28.3	28.3	28.8
80°	21.6	21.6	21.1	22.1	20.2	20.2	19.2	18.7	17.3	16.8	16.8
82.5°	13.0	13.4	13.0	13.0	12.0	12.0	11.0	10.6	9.1	9.1	8.6
85°	6.7	6.7	6.2	6.2	5.3	4.8	3.8	3.8	2.9	2.4	2.4
87.5°	1.0	1.0	0.5	0.5	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°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1150.1	1140.5	1126.1	1112.2	1099.2	1085.8	1070.4	1054.6	1041.1	1027.2	1020.0
5°	1219.6	1200.0	1162.5	1129.4	1099.7	1075.2	1048.8	1026.3	1005.2	987.9	979.3
7.5°	1282.5	1251.8	1195.2	1142.9	1102.6	1069.0	1032.5	998.9	970.6	949.5	941.3
10°	1340.5	1304.1	1229.7	1163.5	1116.5	1079.0	1034.4	988.8	951.4	923.6	916.9
12.5°	1387.6	1345.8	1257.1	1180.3	1124.6	1084.3	1045.0	1005.6	968.7	932.7	927.0
15°	1429.3	1379.9	1277.7	1190.8	1121.7	1070.4	1037.3	1032.5	1032.5	991.7	980.2
17.5°	1465.3	1411.1	1294.5	1195.6	1103.5	1029.1	1009.0	1050.7	1097.8	1068.5	1042.6
20°	1506.5	1440.8	1308.4	1195.6	1069.9	976.9	974.9	1045.9	1115.5	1116.0	1088.6
22.5°	1548.3	1475.4	1324.7	1191.3	1023.9	916.4	951.9	1026.8	1088.6	1115.0	1096.3
25°	1615.9	1523.3	1350.6	1188.0	970.1	875.1	931.3	1001.3	1053.6	1081.4	1069.5
27.5°	1701.8	1586.7	1390.0	1193.2	916.9	850.7	909.2	968.2	1015.7	1040.2	1031.5
30°	1797.8	1659.6	1432.2	1202.4	878.5	838.2	882.8	930.3	972.5	997.0	993.2
32.5°	1920.1	1738.8	1468.6	1189.9	856.9	832.0	855.0	889.1	929.8	945.2	948.5
35°	2066.5	1826.1	1496.5	1140.9	837.2	825.2	824.8	845.9	874.7	899.1	901.5
37.5°	2201.3	1928.3	1527.2	1057.0	801.7	808.4	789.3	801.7	830.0	854.5	864.1
40°	2334.7	2031.9	1569.9	950.0	755.2	771.0	748.5	757.1	779.7	811.8	827.2
42.5°	2464.2	2125.5	1615.0	840.6	708.7	718.7	701.9	710.6	734.1	774.4	791.7
45°	2605.3	2252.1	1650.0	737.4	668.3	664.0	650.6	663.1	698.6	742.7	763.3
47.5°	2872.0	2451.7	1673.0	668.8	646.8	615.6	600.2	627.1	667.4	712.0	737.0
50°	3197.8	2740.6	1666.3	625.2	628.0	565.7	560.4	595.9	639.1	685.6	713.0
52.5°	3455.9	3024.1	1590.0	583.4	591.6	534.0	518.7	570.5	611.7	659.2	687.5
55°	3653.1	3119.6	1355.9	534.0	532.1	511.0	478.8	544.1	584.4	628.5	659.2
57.5°	3492.4	2907.0	1005.2	465.9	454.4	465.4	434.2	499.5	550.8	594.5	621.8
60°	2898.4	2317.9	559.9	412.6	380.0	406.9	402.1	452.4	514.3	560.4	583.9
62.5°	1967.6	1543.5	332.0	326.3	308.0	346.4	371.8	404.9	465.9	503.3	525.4
65°	980.7	749.9	220.7	244.2	246.6	285.0	333.0	369.4	420.3	458.7	480.7
67.5°	284.5	233.2	167.9	186.6	212.5	243.3	281.6	324.8	374.2	419.8	445.7
70°	122.8	124.3	133.4	155.5	180.9	212.5	250.9	293.2	334.9	369.9	389.6
72.5°	86.8	90.2	100.3	122.8	146.8	177.0	215.4	256.2	286.4	321.9	342.6
75°	55.7	58.1	66.2	83.5	101.2	130.5	167.0	204.4	235.6	261.0	280.7
77.5°	30.7	31.2	37.9	48.0	60.0	78.7	105.6	134.8	157.9	172.2	190.0
80°	17.8	17.8	21.1	27.3	34.5	46.1	60.9	75.3	89.2	98.4	107.0
82.5°	9.6	9.6	11.0	14.9	18.7	25.4	34.1	41.3	49.9	54.7	60.5
85°	2.9	2.9	3.8	5.3	6.7	9.6	13.4	17.3	21.1	24.5	27.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1018.6	1011.9	1008.0	1003.2	1004.7	1000.4	998.0	999.4	990.8	999.4	1008.0
5°	975.9	966.3	958.6	952.4	949.5	943.7	940.4	940.4	935.1	943.7	954.3
7.5°	938.5	930.8	927.0	923.1	918.8	913.5	907.8	905.8	902.5	911.6	920.7
10°	913.5	914.5	916.9	922.2	921.2	917.8	909.2	904.4	904.4	915.0	928.9
12.5°	925.0	935.1	940.9	950.5	952.4	949.5	940.9	937.0	946.6	962.5	985.5
15°	969.7	976.4	981.2	988.8	988.4	986.0	979.3	982.1	1013.8	1044.5	1065.1
17.5°	1018.1	1010.4	1009.5	1014.3	1015.7	1012.8	1009.0	1022.0	1074.3	1103.0	1113.6
20°	1053.1	1026.8	1021.0	1022.9	1026.8	1025.3	1025.3	1046.4	1100.6	1114.1	1100.6
22.5°	1063.7	1026.3	1017.6	1018.1	1023.4	1023.9	1026.3	1048.3	1080.0	1080.5	1059.9
25°	1046.9	1010.9	1004.7	1005.6	1011.9	1011.4	1012.4	1024.8	1038.7	1033.0	1017.6
27.5°	1015.2	984.0	982.1	987.4	995.6	991.2	988.4	991.7	998.4	991.2	977.8
30°	979.3	952.9	953.8	963.9	972.5	965.3	958.1	960.1	960.5	952.9	937.5
32.5°	941.3	921.7	925.0	935.6	945.7	938.0	930.3	929.4	920.2	911.1	896.2
35°	903.4	895.8	900.1	908.7	917.4	911.1	906.3	903.4	883.8	870.3	857.9
37.5°	868.9	874.7	882.3	887.6	890.5	890.0	887.1	880.4	854.5	838.7	822.4
40°	838.2	855.9	864.1	866.5	870.8	869.9	869.4	859.8	825.7	808.9	790.2
42.5°	810.4	835.3	849.2	851.6	854.0	854.5	853.1	839.2	800.3	780.6	762.9
45°	783.5	816.1	833.9	831.5	834.8	834.8	836.3	818.0	775.3	755.2	736.5
47.5°	760.0	798.4	814.7	811.8	813.7	815.2	816.6	795.5	748.0	728.8	709.6
50°	738.4	779.2	793.1	794.1	794.1	797.4	796.9	776.3	725.0	704.3	685.1
52.5°	715.4	759.5	774.4	780.6	782.5	784.0	777.3	753.3	701.5	676.5	658.8
55°	688.5	739.4	752.8	760.9	764.8	763.8	754.7	730.2	677.5	652.5	632.4
57.5°	647.7	696.2	715.4	719.2	725.4	721.6	711.0	690.4	639.1	614.1	593.5
60°	603.1	638.1	653.5	656.8	652.0	653.5	652.0	632.4	587.7	568.1	547.0
62.5°	544.6	575.7	592.1	596.4	588.2	593.5	591.6	567.1	522.5	501.9	483.1
65°	500.4	534.5	553.7	556.1	553.7	556.1	549.4	519.6	477.4	456.3	437.1
67.5°	465.9	500.9	521.1	527.8	525.4	524.9	514.3	479.8	436.1	413.1	388.6
70°	406.4	437.1	463.0	479.3	479.3	470.2	450.0	417.9	382.9	363.2	344.0
72.5°	359.8	398.7	424.1	440.9	444.3	439.0	410.7	376.6	336.3	316.7	296.5
75°	296.5	334.4	361.8	383.8	388.2	382.4	349.8	316.2	278.8	259.6	239.4
77.5°	198.2	220.7	242.8	262.9	258.6	262.4	240.4	214.9	191.9	177.5	168.4
80°	111.8	126.7	133.4	144.4	144.4	144.4	130.0	118.0	105.1	96.9	87.8
82.5°	63.3	72.9	75.8	84.9	87.3	87.8	78.2	70.5	62.4	58.1	51.8
85°	29.3	34.5	35.0	40.3	42.2	46.1	41.7	36.5	31.7	29.7	25.9
87.5°	1.0	2.9	3.8	7.2	9.6	11.0	12.0	12.0	10.1	9.1	7.7
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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CATALOG NUMBER: GWS-SA1F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1018.6	1030.1	1043.5	1053.1	1070.4	1084.8	1099.7	1116.0	1128.0	1125.1
5°	967.3	986.4	1010.9	1033.5	1065.6	1098.2	1134.2	1171.2	1192.8	1191.8
7.5°	938.5	965.8	995.6	1025.8	1063.7	1110.7	1165.9	1223.5	1252.7	1254.2
10°	953.8	983.1	1003.2	1028.7	1068.5	1127.5	1193.7	1262.8	1296.4	1303.1
12.5°	1002.3	999.9	998.4	1016.7	1064.7	1139.5	1220.6	1303.1	1341.0	1349.2
15°	1048.3	998.9	969.2	981.7	1047.4	1147.2	1247.0	1347.3	1390.0	1398.6
17.5°	1057.0	982.1	927.0	935.6	1020.0	1149.6	1272.4	1390.4	1436.5	1444.6
20°	1033.0	960.5	896.2	884.3	985.5	1143.3	1288.2	1426.4	1476.8	1485.4
22.5°	1002.8	941.3	873.2	842.0	943.3	1137.1	1306.0	1464.3	1522.4	1530.1
25°	971.1	916.9	851.6	804.1	895.3	1133.3	1335.7	1514.2	1584.3	1593.4
27.5°	937.5	887.1	832.9	785.9	851.1	1138.1	1378.0	1594.8	1674.5	1687.4
30°	901.5	857.4	820.9	779.7	820.9	1142.4	1424.5	1677.3	1770.9	1789.1
32.5°	864.1	830.0	808.4	782.5	802.2	1132.3	1465.3	1769.9	1886.1	1901.9
35°	826.7	802.2	792.6	787.8	777.3	1095.4	1498.4	1863.5	2017.5	2031.4
37.5°	791.7	773.4	770.5	775.8	738.9	1034.9	1536.8	1982.5	2146.6	2167.7
40°	759.0	742.2	741.8	740.8	696.7	952.4	1588.6	2103.4	2273.7	2283.3
42.5°	728.8	707.7	711.5	700.0	662.1	863.1	1637.5	2206.6	2392.2	2399.0
45°	701.9	674.1	678.4	664.0	645.8	769.6	1680.7	2328.4	2542.4	2546.7
47.5°	676.0	646.3	634.3	633.3	642.9	683.2	1722.9	2563.0	2777.5	2785.2
50°	652.0	619.9	585.8	606.9	625.2	618.4	1775.7	2814.4	3020.3	3018.4
52.5°	629.0	586.8	538.3	579.1	579.1	570.5	1760.8	2967.0	3220.8	3253.9
55°	602.6	533.5	488.9	532.6	511.5	527.3	1497.4	3016.9	3347.0	3394.0
57.5°	550.3	467.8	428.9	452.4	420.8	488.9	1075.7	2769.3	3132.5	3216.0
60°	499.9	419.3	393.9	389.6	348.3	398.7	697.1	2168.2	2578.4	2620.6
62.5°	440.9	377.6	356.0	322.9	280.2	290.3	422.2	1426.9	1732.5	1742.1
65°	396.3	342.1	300.8	261.5	229.3	210.6	249.5	688.0	866.0	854.5
67.5°	340.2	293.2	253.8	225.5	199.1	175.6	166.0	204.4	231.3	223.6
70°	302.7	257.6	219.7	192.9	168.4	144.9	128.1	120.4	118.0	116.1
72.5°	261.0	221.7	182.3	156.4	133.4	111.8	96.4	87.3	84.9	83.0
75°	208.2	171.3	135.3	110.8	90.7	75.3	65.3	57.6	56.1	54.2
77.5°	137.7	109.9	80.6	65.7	53.7	45.6	38.9	34.1	33.1	32.1
80°	75.8	63.3	49.4	39.8	32.1	27.8	25.4	22.6	22.1	21.6
82.5°	45.1	37.9	28.3	22.6	18.7	16.8	15.4	13.9	13.4	13.0
85°	22.6	17.8	12.5	10.6	9.6	8.6	8.6	7.2	6.7	6.7
87.5°	5.8	4.8	2.9	2.4	2.4	2.4	1.9	1.4	1.4	1.0
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

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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			

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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

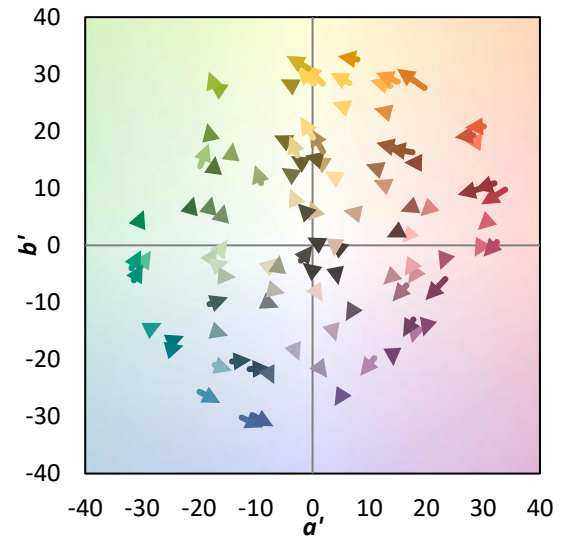
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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