

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: P635021

Luminaire Tested: GWS-SA3C-830-U-SLR-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P635021
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-SA3C-830-U-SLR-W
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10492.3 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 93
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



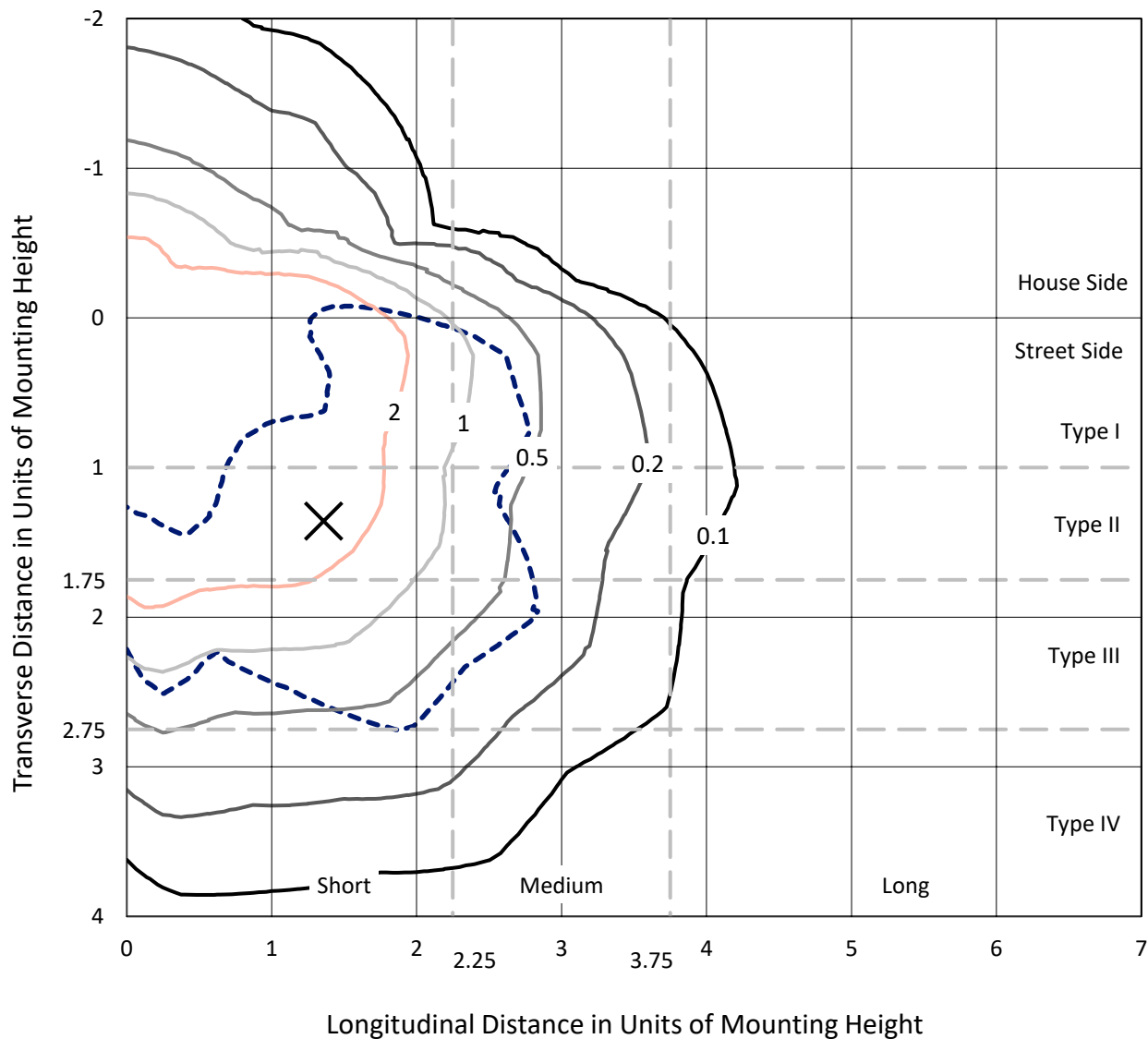
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

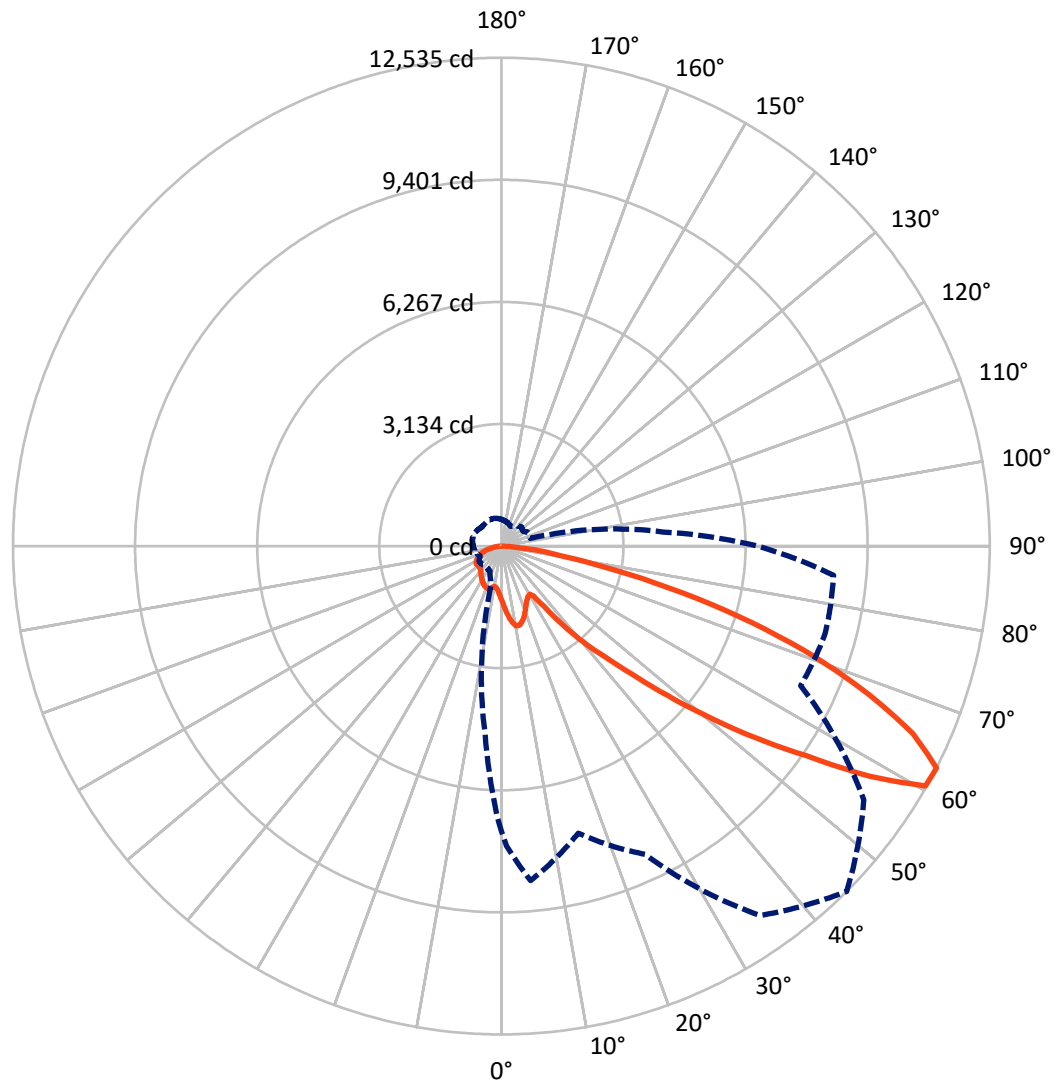


Based on 20 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - N/A

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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
House Side	Lumens	2503.7	0.0	2503.7
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	7988.6	0.0	7988.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	10492.3	0.0	10492.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	1.3
10°-20°	426.3	4.1
20°-30°	662.2	6.3
30°-40°	899.1	8.6
40°-50°	1425.0	13.6
50°-60°	2513.7	24.0
60°-70°	2796.8	26.7
70°-80°	1418.4	13.5
80°-90°	214.8	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°	10492.3	100.0
0°-180°	10492.3	100.0

Coefficient of Utilization



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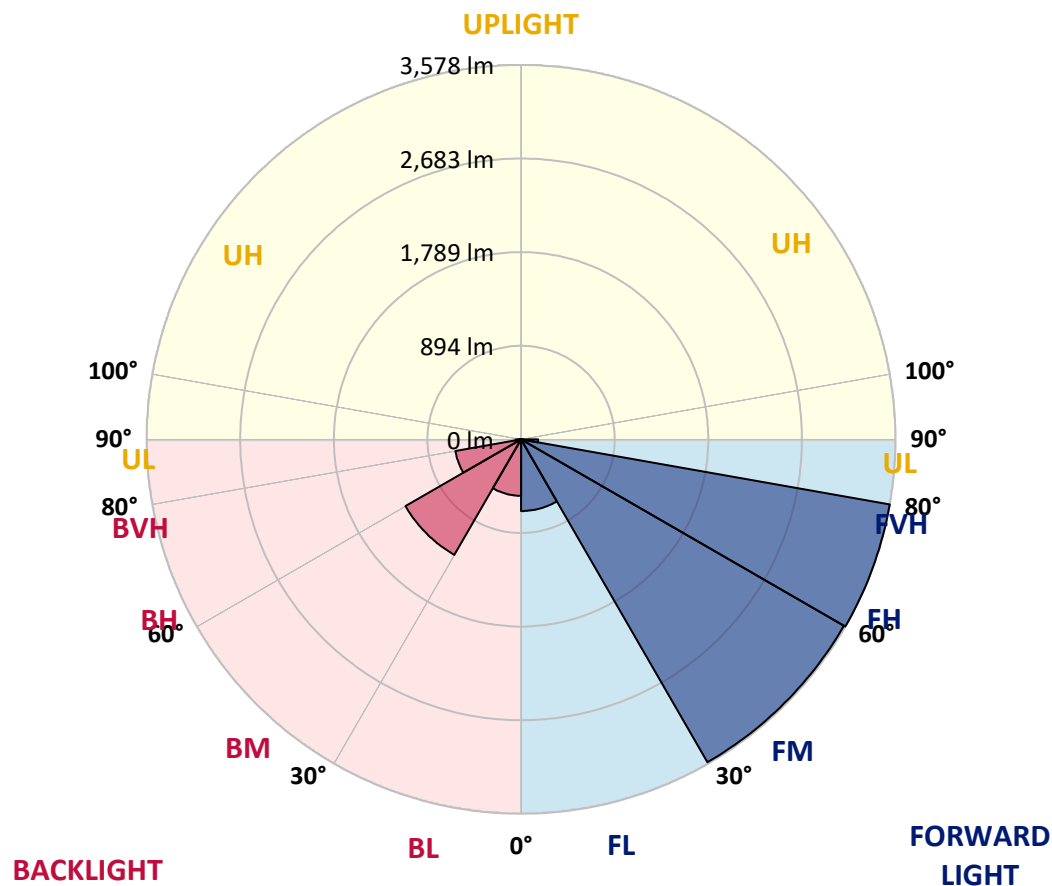
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	685.1	6.5			
FM	(30°-60°)	3562.6	34.0			
FH	(60°-80°)	3578.0	34.1			G2/5000
FVH	(80°-90°)	163.0	1.6			G2/225
BL	(0°-30°)	539.5	5.1	B2/1000		
BM	(30°-60°)	1275.1	12.2	B2/2500		
BH	(60°-80°)	637.3	6.1	B2/1000		G2/1000
BVH	(80°-90°)	51.8	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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1496.6	1495.8	1510.9	1533.9	1555.4	1564.9	1580.8	1579.2	1566.5	1549.8	1544.3
5°	1614.2	1617.4	1643.6	1694.4	1750.8	1774.6	1785.0	1781.0	1758.0	1728.6	1676.9
7.5°	1720.6	1726.2	1766.7	1843.0	1912.9	1944.6	1970.1	1965.3	1931.9	1877.1	1800.9
10°	1798.5	1804.8	1853.3	1943.0	2020.9	2048.7	2081.3	2082.9	2053.5	1979.6	1901.7
12.5°	1876.3	1882.7	1928.0	2009.8	2060.6	2061.4	2080.5	2090.8	2092.4	2058.2	1980.4
15°	1957.3	1962.9	2004.2	2050.3	2047.9	2003.4	2003.4	2023.3	2067.0	2091.6	2037.6
17.5°	2026.5	2033.6	2065.4	2050.3	1979.6	1899.4	1889.8	1915.2	1991.5	2086.0	2080.5
20°	2083.7	2089.2	2106.7	2006.6	1877.9	1773.0	1754.8	1784.2	1887.4	2051.9	2113.0
22.5°	2138.5	2141.6	2132.1	1949.4	1768.3	1648.3	1626.1	1657.1	1768.3	1991.5	2140.8
25°	2203.6	2200.4	2155.1	1889.8	1668.2	1549.8	1526.8	1561.7	1677.7	1911.3	2171.0
27.5°	2279.1	2267.2	2175.0	1825.5	1591.1	1476.7	1460.9	1498.2	1606.2	1837.4	2194.9
30°	2343.4	2320.4	2178.2	1768.3	1551.4	1445.8	1436.2	1471.2	1571.3	1787.3	2225.0
32.5°	2414.9	2383.1	2196.5	1753.2	1573.7	1520.4	1533.1	1535.5	1580.8	1773.0	2270.3
35°	2517.4	2476.1	2246.5	1796.9	1802.4	1892.2	1938.3	1876.3	1724.6	1804.8	2356.1
37.5°	2672.3	2619.9	2348.2	1985.9	2275.1	2476.1	2587.3	2445.9	2161.5	1924.8	2485.6
40°	2860.6	2793.8	2478.5	2335.5	2716.8	3038.5	3236.3	3029.0	2611.1	2224.3	2667.5
42.5°	3123.5	3053.6	2731.1	2678.6	3125.9	3604.9	3863.1	3554.0	3007.5	2611.1	2959.1
45°	3581.8	3514.3	3194.2	3022.6	3604.9	4302.3	4664.6	4234.8	3410.3	2999.6	3504.0
47.5°	4428.7	4349.2	3882.1	3403.9	4151.4	5207.9	5714.7	5088.8	3828.9	3444.4	4419.1
50°	5445.5	5369.2	4745.6	3855.1	4755.1	6176.3	6880.9	6092.1	4311.1	3985.4	5513.0
52.5°	6668.8	6654.5	5977.7	4425.5	5383.5	7209.0	8174.9	7203.4	4839.3	4713.8	6752.2
55°	7771.4	7911.2	7542.6	5295.3	6195.3	8506.2	9505.5	8415.6	5555.9	5918.1	8203.5
57.5°	8365.6	8741.3	9307.7	7070.0	7375.8	10056.8	11147.5	9895.6	6787.2	7923.1	9549.2
60°	7973.2	8398.9	9425.3	8406.1	8546.7	11299.2	12502.7	11139.5	7996.2	9314.9	9472.9
62.5°	7320.2	7702.3	8615.0	7626.0	8727.8	11572.5	12534.5	11356.4	8476.8	8608.7	8557.0
65°	6545.7	6930.9	7897.7	6656.9	8151.9	10923.5	11609.8	10718.5	7613.3	7777.7	7796.8
67.5°	5516.9	5872.8	6857.1	5918.9	7430.6	9971.0	10190.3	9809.8	7011.2	7273.3	6999.3
70°	4122.0	4442.9	5312.0	4810.0	6263.7	8730.2	8553.1	8609.5	6335.2	6595.7	5846.6
72.5°	2816.9	3058.4	3803.5	3779.6	4796.4	6988.9	6741.9	7276.5	5291.3	5636.9	4457.2
75°	1970.1	2158.3	2749.3	2986.1	3625.5	5180.1	4801.2	5446.2	4132.3	4625.7	3252.2
77.5°	1209.0	1333.8	1736.5	2212.3	2332.3	3545.3	2982.1	4098.2	2901.9	3373.7	2169.4
80°	604.5	664.9	843.6	1391.0	1546.7	2089.2	1646.7	2379.2	1963.7	2089.2	1200.3
82.5°	182.7	201.8	247.1	528.3	801.5	1202.7	973.1	1382.2	1072.4	979.5	472.7
85°	48.5	54.8	68.3	156.5	281.2	431.3	328.9	669.7	514.0	361.4	177.9
87.5°	4.0	4.0	3.2	3.2	1.6	0.0	0.0	47.7	96.1	54.8	31.0
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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1516.5	1513.3	1480.7	1456.9	1429.1	1402.1	1374.3	1349.6	1321.8	1294.0	1286.1
5°	1638.8	1616.6	1547.4	1489.5	1432.3	1382.2	1338.5	1293.2	1256.7	1221.0	1207.5
7.5°	1746.8	1707.9	1607.8	1519.6	1440.2	1378.2	1313.9	1248.0	1196.3	1145.5	1132.8
10°	1844.5	1792.9	1666.6	1555.4	1467.2	1396.5	1321.0	1232.9	1158.2	1096.2	1079.6
12.5°	1916.8	1860.4	1717.4	1589.5	1489.5	1410.0	1335.3	1257.5	1178.9	1098.6	1080.4
15°	1974.0	1915.2	1759.5	1615.8	1490.3	1387.8	1315.5	1288.5	1263.9	1185.2	1151.8
17.5°	2020.1	1958.1	1796.1	1631.6	1468.8	1320.3	1257.5	1297.2	1360.0	1310.7	1248.0
20°	2062.2	1999.4	1823.9	1642.8	1421.1	1227.3	1192.4	1276.6	1371.1	1369.5	1313.1
22.5°	2108.3	2047.1	1864.4	1649.1	1354.4	1132.8	1153.4	1246.4	1323.4	1346.5	1311.5
25°	2167.1	2113.0	1920.8	1663.4	1278.9	1067.6	1124.8	1207.5	1271.8	1277.4	1256.7
27.5°	2235.4	2194.9	2005.0	1696.8	1205.9	1034.3	1091.5	1152.6	1211.4	1213.8	1189.2
30°	2310.0	2283.0	2082.9	1724.6	1151.1	1024.0	1048.6	1097.8	1135.2	1141.5	1120.1
32.5°	2405.4	2381.5	2152.0	1706.3	1118.5	1021.6	1008.9	1034.3	1065.3	1065.3	1048.6
35°	2536.4	2503.1	2225.0	1636.4	1078.8	1012.0	966.8	973.9	987.4	989.8	980.3
37.5°	2722.3	2667.5	2298.9	1498.2	1013.6	977.9	918.3	909.6	914.3	920.7	918.3
40°	2952.7	2862.9	2407.0	1332.2	935.8	911.9	868.3	851.6	847.6	860.3	865.1
42.5°	3242.6	3105.2	2522.9	1177.3	865.1	836.5	809.5	795.2	788.8	810.3	823.0
45°	3705.8	3479.4	2634.2	1024.0	825.4	772.1	753.9	743.5	746.7	772.1	788.0
47.5°	4505.7	4050.5	2739.8	927.0	822.2	726.1	703.8	706.2	714.9	741.9	761.0
50°	5517.7	4815.5	2810.5	886.5	831.7	698.3	668.9	681.6	695.1	721.3	743.5
52.5°	6548.0	5528.1	2726.3	864.3	830.9	699.1	636.3	674.4	680.8	707.0	730.8
55°	7256.6	5607.5	2355.3	830.1	818.2	730.8	610.9	671.2	675.2	699.1	720.5
57.5°	7526.7	5335.8	1796.1	839.7	780.1	755.5	599.8	649.0	677.6	698.3	720.5
60°	7200.2	4823.5	1091.5	864.3	718.9	753.9	606.9	608.5	657.7	692.7	714.9
62.5°	6584.6	4165.7	766.6	794.4	674.4	711.8	623.6	560.8	622.8	664.9	684.8
65°	5879.2	3392.0	584.7	684.0	653.0	646.6	629.1	518.7	575.1	616.4	633.9
67.5°	5144.4	2636.5	475.0	510.0	590.2	584.7	575.1	481.4	518.7	548.1	568.0
70°	4218.9	1844.5	401.2	382.9	506.0	524.3	502.8	434.5	446.4	476.6	492.5
72.5°	3086.2	1149.5	329.7	316.2	406.7	458.4	447.2	382.9	388.5	417.0	429.8
75°	2219.5	657.7	264.5	260.6	310.6	392.4	370.2	329.7	336.0	357.5	366.2
77.5°	1410.8	366.2	204.2	209.7	222.4	293.1	316.2	282.0	282.0	294.7	301.9
80°	755.5	209.7	149.3	151.7	155.7	224.0	249.4	218.5	218.5	209.7	218.5
82.5°	308.2	120.7	102.5	95.3	104.1	153.3	174.8	139.0	145.4	131.1	134.2
85°	101.7	60.4	50.8	50.0	49.3	67.5	84.2	69.1	82.6	52.4	54.8
87.5°	13.5	11.1	6.4	4.8	5.6	2.4	4.8	5.6	5.6	4.0	4.0
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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1280.5	1274.2	1251.1	1256.7	1252.7	1246.4	1252.7	1240.8	1250.3	1253.5	1273.4
5°	1197.1	1182.0	1159.8	1148.7	1146.3	1139.9	1140.7	1135.2	1136.8	1150.3	1172.5
7.5°	1122.5	1108.2	1090.7	1082.7	1075.6	1068.4	1067.6	1066.8	1073.2	1085.1	1106.6
10°	1068.4	1060.5	1053.3	1056.5	1053.3	1050.2	1044.6	1044.6	1054.9	1076.4	1102.6
12.5°	1068.4	1066.8	1068.4	1078.0	1077.2	1078.0	1070.8	1074.8	1103.4	1139.9	1177.3
15°	1125.6	1112.9	1112.9	1117.7	1116.1	1116.1	1116.1	1132.8	1197.9	1254.3	1294.0
17.5°	1195.5	1158.2	1142.3	1139.9	1139.1	1139.1	1142.3	1178.1	1279.7	1339.3	1362.4
20°	1244.0	1173.3	1147.1	1136.8	1137.5	1139.1	1148.7	1197.9	1309.9	1340.1	1334.6
22.5°	1252.7	1161.4	1129.6	1114.5	1116.9	1118.5	1132.8	1185.2	1268.6	1273.4	1262.3
25°	1212.2	1128.0	1093.9	1081.9	1085.1	1084.3	1097.0	1135.2	1194.7	1193.2	1186.8
27.5°	1151.8	1074.8	1049.4	1041.4	1047.0	1040.6	1044.6	1074.0	1120.1	1118.5	1116.1
30°	1089.9	1023.2	1000.1	996.1	1003.3	993.8	994.6	1019.2	1051.0	1049.4	1048.6
32.5°	1027.9	971.5	950.9	950.9	958.0	947.7	949.3	970.7	992.2	985.8	985.8
35°	969.1	929.4	912.7	909.6	915.1	908.0	911.2	931.0	939.0	930.2	924.7
37.5°	917.5	900.0	883.3	872.2	873.0	873.8	883.3	898.4	893.7	881.0	873.8
40°	869.8	869.8	854.0	833.3	830.9	836.5	852.4	869.0	855.5	841.2	832.5
42.5°	835.7	842.8	827.7	807.1	802.3	811.9	829.3	841.2	825.4	809.5	797.6
45°	803.9	821.4	811.1	788.0	781.7	792.8	815.0	819.8	798.3	783.3	774.5
47.5°	781.7	805.5	798.3	776.1	766.6	782.5	805.5	804.7	777.7	761.8	754.7
50°	765.8	796.0	795.2	776.1	765.8	785.6	806.3	796.0	766.6	749.9	742.7
52.5°	753.1	795.2	800.7	789.6	782.5	799.9	812.6	792.8	758.6	741.2	735.6
55°	747.5	798.3	802.3	792.0	785.6	801.5	812.6	799.1	758.6	742.7	738.0
57.5°	749.1	794.4	795.2	780.9	769.8	789.6	807.1	803.1	767.4	749.1	743.5
60°	739.6	772.9	774.5	752.3	739.6	763.4	794.4	792.0	763.4	744.3	734.0
62.5°	707.8	737.2	738.0	717.3	699.1	733.2	767.4	766.6	740.4	721.3	709.4
65°	654.6	685.5	693.5	673.6	659.3	695.9	731.6	730.0	703.8	686.3	674.4
67.5°	588.6	622.0	637.1	623.6	618.0	651.4	684.8	684.0	662.5	645.8	635.5
70°	508.4	536.2	561.6	561.6	557.7	595.8	631.5	628.4	608.5	595.8	587.8
72.5°	441.7	463.1	471.1	479.0	490.9	530.6	560.8	563.2	548.9	542.6	548.9
75°	375.7	389.2	396.4	390.0	410.7	452.0	491.7	495.7	480.6	470.3	472.7
77.5°	309.0	324.1	331.3	317.0	315.4	367.8	416.3	425.0	412.3	396.4	401.2
80°	223.2	243.1	255.0	245.5	242.3	265.3	332.0	341.6	329.7	317.0	324.1
82.5°	136.6	147.8	150.9	160.5	180.3	189.9	213.7	245.5	236.7	225.6	245.5
85°	54.0	64.3	71.5	81.0	94.5	112.0	131.9	157.3	143.0	138.2	162.8
87.5°	3.2	0.8	0.0	1.6	13.5	26.2	56.4	77.8	65.1	69.9	84.2
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: P635021

CATALOG NUMBER: GWS-SA3C-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1289.3	1309.9	1337.7	1360.8	1390.2	1418.0	1446.6	1475.2	1490.3	1496.6
5°	1197.9	1236.1	1280.5	1329.8	1387.0	1447.4	1508.5	1571.3	1611.0	1614.2
7.5°	1143.1	1197.9	1259.1	1321.0	1391.7	1475.2	1572.1	1669.0	1709.5	1720.6
10°	1160.6	1221.8	1270.2	1328.2	1406.0	1510.1	1624.5	1738.1	1785.0	1798.5
12.5°	1230.5	1242.4	1257.5	1310.7	1406.0	1540.3	1678.5	1813.6	1863.6	1876.3
15°	1288.5	1231.3	1204.3	1260.7	1387.0	1566.5	1735.7	1885.1	1945.4	1957.3
17.5°	1293.2	1194.7	1136.0	1186.8	1353.6	1584.8	1790.5	1964.5	2015.3	2026.5
20°	1244.8	1155.8	1079.6	1110.5	1308.3	1592.7	1830.2	2022.5	2072.5	2083.7
22.5°	1190.0	1124.0	1041.4	1039.8	1253.5	1601.5	1877.9	2077.3	2131.3	2138.5
25°	1138.3	1080.4	1010.4	988.2	1190.0	1618.1	1942.3	2159.9	2201.2	2203.6
27.5°	1078.0	1033.5	985.8	964.4	1134.4	1649.9	2037.6	2258.4	2283.0	2279.1
30°	1023.2	989.8	968.3	962.0	1099.4	1673.8	2128.1	2355.3	2356.9	2343.4
32.5°	965.2	952.5	952.5	973.1	1070.8	1668.2	2202.0	2449.9	2434.8	2414.9
35°	913.5	915.9	932.6	981.1	1023.2	1612.6	2272.7	2568.2	2546.0	2517.4
37.5°	864.3	882.6	906.4	953.3	960.4	1530.0	2355.3	2735.8	2708.0	2672.3
40°	822.2	850.0	877.8	900.8	893.7	1412.4	2470.5	2932.8	2901.9	2860.6
42.5°	788.8	815.8	846.8	849.2	851.6	1290.1	2592.8	3174.3	3168.8	3123.5
45°	767.4	784.8	814.2	810.3	849.2	1155.0	2705.6	3542.9	3616.0	3581.8
47.5°	753.1	766.6	769.8	786.4	869.8	1034.3	2851.0	4264.2	4467.6	4428.7
50°	745.1	758.6	722.9	788.0	873.0	956.4	3052.0	5169.8	5497.1	5445.5
52.5°	744.3	741.2	687.1	804.7	855.5	908.8	3156.9	5830.7	6556.8	6668.8
55°	745.9	706.2	668.9	809.5	820.6	891.3	2805.7	6148.5	7534.7	7771.4
57.5°	731.6	668.1	679.2	790.4	754.7	938.2	2074.1	6034.9	7925.5	8365.6
60°	704.6	631.5	698.3	738.8	687.1	857.9	1428.3	5528.1	7520.4	7973.2
62.5°	665.7	606.1	695.9	672.0	662.5	702.2	981.8	4818.7	6877.7	7320.2
65°	622.0	585.5	658.5	607.7	613.3	540.2	694.3	4018.0	6110.3	6545.7
67.5°	575.1	572.7	603.7	541.0	517.9	428.2	506.0	3220.4	5124.5	5516.9
70°	521.9	539.4	548.9	480.6	420.2	336.0	375.7	2252.1	3780.4	4122.0
72.5°	468.7	470.3	483.8	417.8	314.6	269.3	282.0	1363.9	2568.2	2816.9
75°	414.7	399.6	412.3	340.0	234.3	220.8	217.7	842.8	1773.8	1970.1
77.5°	356.7	340.0	323.3	255.8	188.3	170.8	166.8	472.7	1088.3	1209.0
80°	289.9	267.7	241.5	187.5	137.4	122.3	121.5	230.4	542.6	604.5
82.5°	225.6	183.5	176.4	116.8	85.0	74.7	79.4	88.2	163.6	182.7
85°	158.1	133.5	93.7	46.9	38.1	31.0	30.2	26.2	43.7	48.5
87.5°	88.2	58.0	30.2	5.6	6.4	7.1	5.6	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



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 $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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 $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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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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			

REPORT NUMBER: SP1-2408-195-9

TM-30-18

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)