

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: P634523

Luminaire Tested: GWS-SA3B-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3B-830-U-SLR-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4408.2 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G0

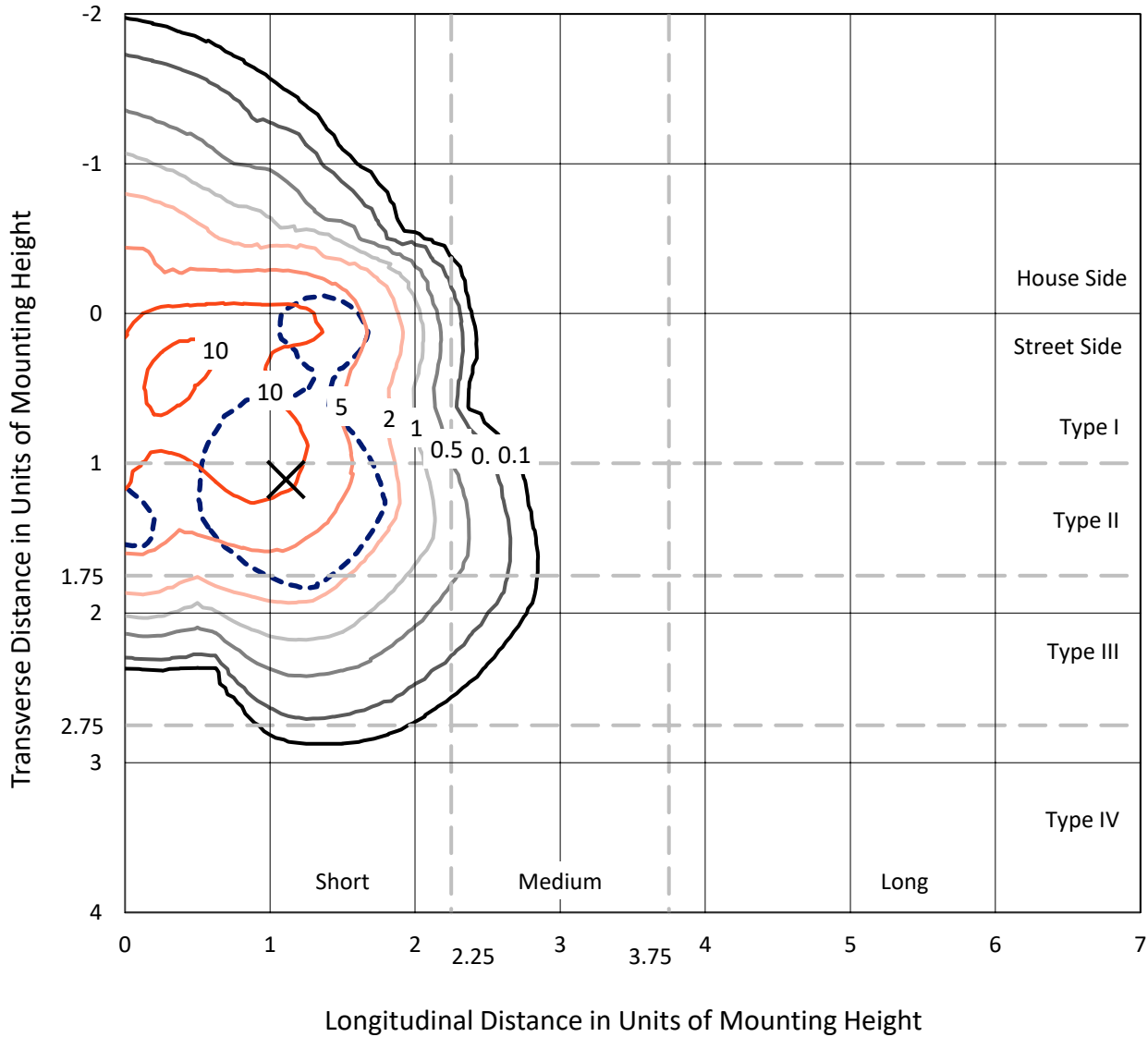
Input Watts (W): 68.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

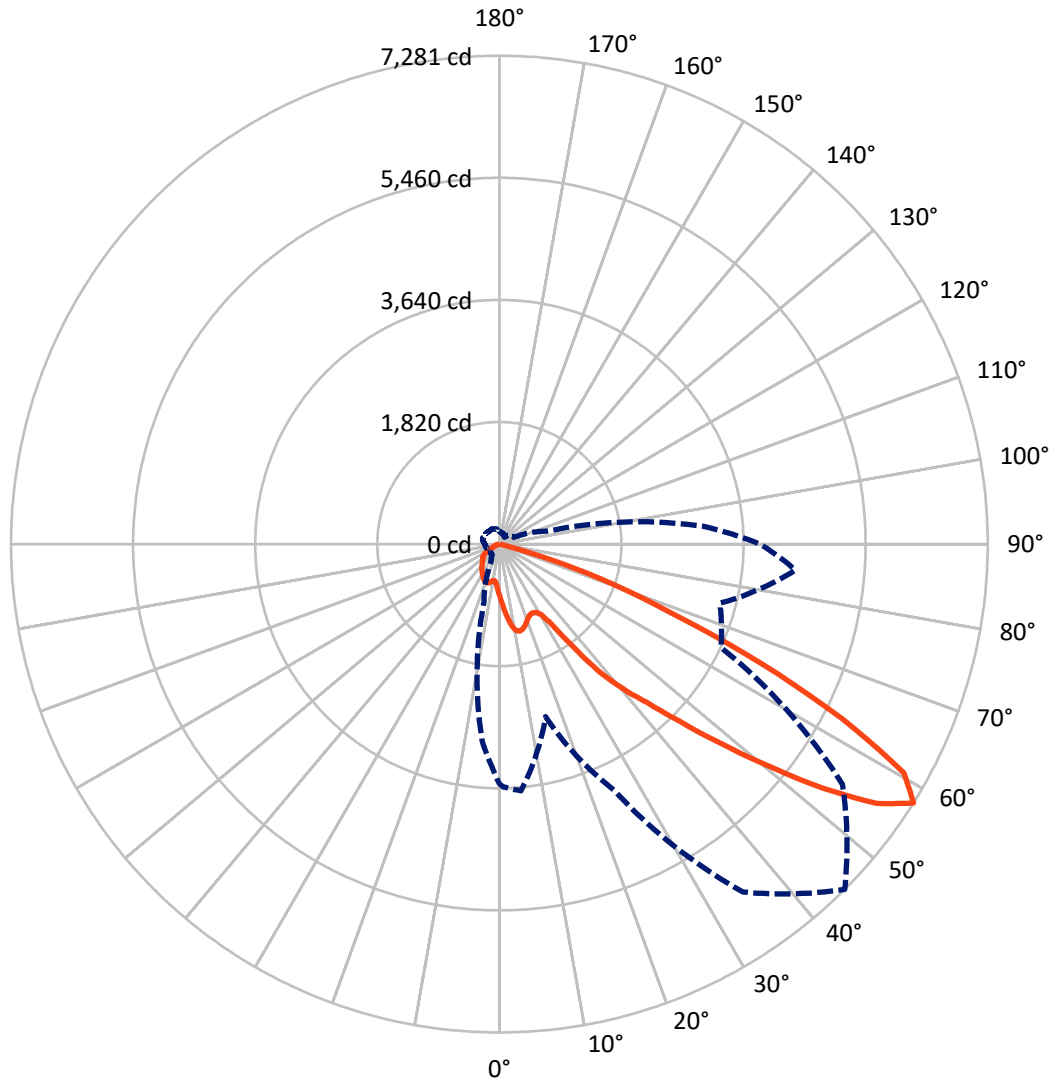
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	987.1	0.0	987.1
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	3421.1	0.0	3421.1
	% Fixture	77.6	0.0	77.6
Total	Lumens	4408.2	0.0	4408.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.2	1.7
10°-20°	246.6	5.6
20°-30°	400.5	9.1
30°-40°	618.9	14.0
40°-50°	992.4	22.5
50°-60°	1356.3	30.8
60°-70°	656.9	14.9
70°-80°	60.1	1.4
80°-90°	0.2	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4408.2	100.0
0°-180°	4408.2	100.0

Coefficient of Utilization



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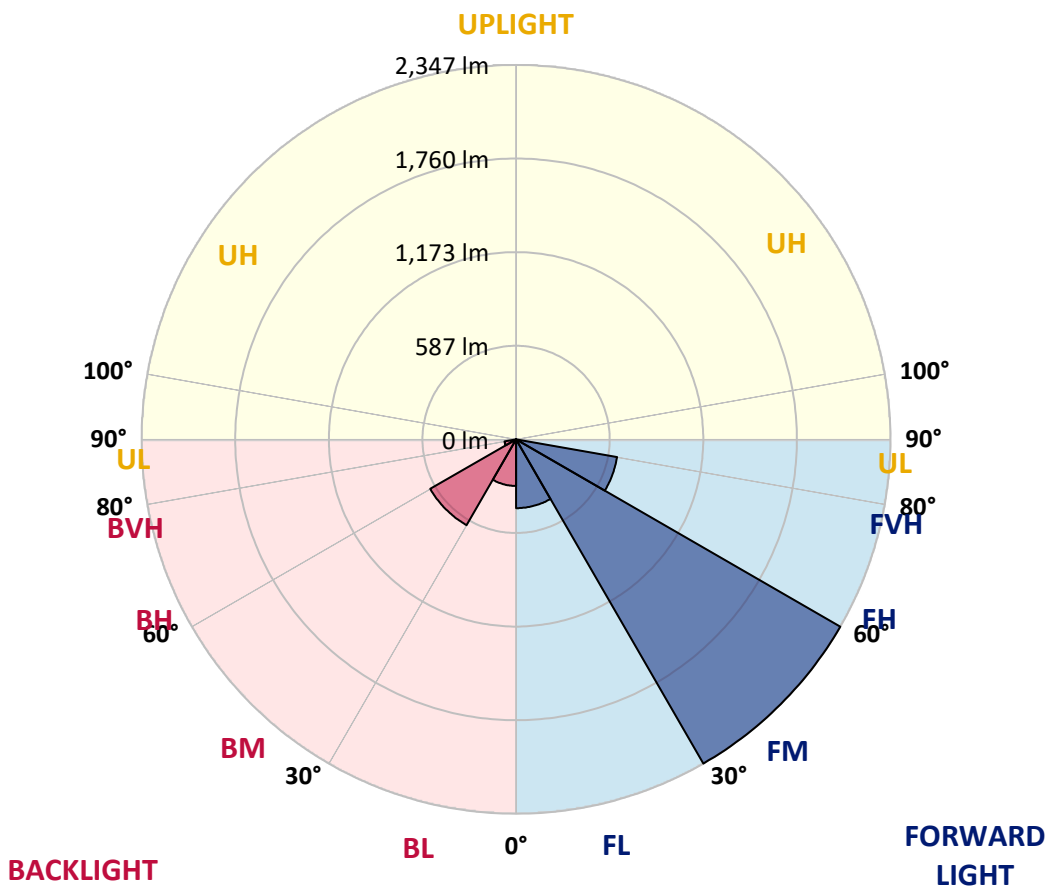
CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	431.3	9.8			
FM (30°-60°)	2346.6	53.2			
FH (60°-80°)	643.1	14.6			G0/660
FVH (80°-90°)	0.2	0.0			G0/10
BL (0°-30°)	292.1	6.6	B1/500		
BM (30°-60°)	621.1	14.1	B1/1000		
BH (60°-80°)	74.0	1.7	B0/110		G0/110
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	839.4	844.7	853.6	872.5	888.5	899.2	903.9	902.7	896.2	891.5	882.0
5°	929.4	929.4	946.6	989.8	1023.0	1043.7	1054.4	1047.9	1034.8	1014.1	982.1
7.5°	1008.2	1011.1	1040.2	1101.8	1152.1	1181.7	1198.9	1195.4	1172.3	1132.6	1068.6
10°	1069.8	1073.3	1111.8	1187.1	1246.3	1276.5	1302.0	1304.3	1278.9	1226.2	1152.7
12.5°	1129.6	1133.2	1173.4	1245.7	1297.8	1310.3	1332.8	1341.7	1335.1	1297.8	1221.4
15°	1194.2	1202.5	1236.8	1290.7	1312.6	1297.8	1312.6	1328.6	1350.5	1347.0	1278.3
17.5°	1257.6	1263.5	1298.4	1317.4	1293.1	1254.6	1261.7	1280.7	1330.4	1379.0	1334.6
20°	1316.2	1324.5	1353.5	1328.6	1255.2	1195.4	1195.9	1220.8	1296.6	1398.5	1392.0
22.5°	1377.8	1390.2	1411.0	1341.1	1220.2	1148.6	1151.5	1174.0	1270.0	1416.9	1457.2
25°	1458.4	1470.2	1483.8	1371.9	1209.0	1125.5	1136.7	1157.4	1270.0	1448.3	1537.7
27.5°	1567.3	1575.6	1576.2	1429.3	1228.5	1129.0	1152.7	1176.4	1307.9	1511.1	1645.5
30°	1704.2	1717.2	1700.0	1518.8	1289.5	1176.4	1211.3	1241.0	1389.6	1617.1	1804.3
32.5°	1870.6	1889.0	1865.9	1651.5	1416.9	1339.9	1403.3	1420.4	1520.0	1770.5	1984.4
35°	2066.1	2081.5	2056.6	1835.1	1714.2	1728.5	1843.4	1821.5	1781.8	1959.5	2194.6
37.5°	2280.5	2294.7	2246.8	2113.5	2153.8	2215.4	2399.0	2323.8	2195.8	2202.9	2422.7
40°	2477.2	2492.6	2417.4	2416.2	2499.1	2611.7	2833.2	2729.5	2555.4	2521.6	2636.5
42.5°	2681.0	2691.6	2623.5	2577.3	2765.7	2997.3	3231.8	3092.0	2793.5	2756.8	2904.3
45°	2971.8	2994.3	2872.9	2656.7	3005.6	3440.9	3767.9	3494.8	2955.8	2926.2	3314.2
47.5°	3399.5	3416.1	3168.5	2706.4	3228.9	3993.6	4437.9	4017.3	3098.6	3031.0	3874.5
50°	3753.1	3764.4	3440.3	2760.9	3466.4	4589.5	5201.4	4636.9	3259.1	3204.6	4397.6
52.5°	4013.7	4056.4	3797.5	2872.9	3778.6	5290.2	6046.7	5370.8	3509.6	3539.9	4831.2
55°	4067.6	4125.7	4041.6	2941.6	4053.4	6004.0	6827.4	6027.7	3759.6	3794.0	4976.9
57.5°	3574.8	3621.0	3690.9	2664.4	4046.9	6331.0	7280.5	6245.7	3645.9	3402.4	4431.3
60°	2678.0	2710.0	2836.7	2036.5	3721.7	6041.9	6927.5	5874.9	3188.0	2596.3	3376.4
62.5°	1588.1	1602.3	1762.8	1319.2	3089.1	5203.2	5745.2	5069.3	2519.2	1746.2	2067.9
65°	609.5	603.6	726.2	651.0	2271.6	4144.6	4273.2	3864.5	1728.5	800.3	788.4
67.5°	94.2	90.0	121.4	192.5	1638.4	2872.3	2819.6	2785.2	1082.8	186.6	162.9
70°	21.3	21.3	26.1	56.9	1001.1	1687.6	1806.1	1721.9	693.0	39.7	21.3
72.5°	10.1	10.1	12.4	24.3	362.5	695.4	810.3	797.9	225.1	13.0	7.7
75°	3.6	4.1	4.1	5.3	21.9	36.1	82.9	59.2	14.2	0.0	0.0
77.5°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	861.3	857.1	841.7	821.0	800.9	783.1	764.7	742.8	726.8	708.4	702.5
5°	957.2	931.2	889.1	845.3	805.0	770.6	737.5	701.9	675.9	649.8	640.9
7.5°	1038.4	999.9	931.8	866.0	810.9	762.3	714.4	665.8	627.9	597.1	587.6
10°	1111.2	1066.8	975.6	894.4	825.1	768.9	710.8	649.8	600.6	563.9	555.0
12.5°	1174.0	1122.5	1012.9	915.8	831.1	766.5	710.2	661.7	617.2	575.2	563.9
15°	1226.7	1169.9	1044.3	930.0	822.2	736.9	687.7	680.0	676.5	630.3	608.3
17.5°	1278.3	1214.3	1069.8	936.5	797.3	684.8	649.2	684.2	721.5	691.3	663.4
20°	1332.2	1259.3	1095.8	937.7	755.8	626.1	620.2	675.3	722.7	713.2	687.1
22.5°	1395.6	1315.6	1128.4	937.1	703.7	576.4	598.9	658.1	696.6	696.0	675.3
25°	1487.4	1386.7	1172.3	940.6	646.8	537.9	575.2	629.1	660.5	659.3	642.1
27.5°	1585.7	1471.4	1229.1	949.5	598.3	515.3	547.3	589.4	616.6	615.4	600.6
30°	1723.7	1569.1	1283.6	950.1	563.3	503.5	516.5	545.6	571.6	568.7	557.4
32.5°	1891.4	1679.3	1329.2	916.4	541.4	492.2	484.5	499.3	519.5	515.3	512.4
35°	2093.9	1810.2	1368.3	842.3	507.6	469.7	449.0	452.0	466.2	468.5	467.4
37.5°	2325.0	1966.0	1416.9	744.6	462.0	437.2	409.3	406.9	415.2	422.9	428.9
40°	2553.0	2141.3	1482.6	645.7	420.6	395.7	369.0	363.1	366.7	380.3	392.7
42.5°	2809.5	2344.5	1553.7	561.0	392.1	350.1	324.6	313.4	323.4	345.3	360.1
45°	3179.1	2629.4	1623.0	493.4	380.3	309.8	275.4	274.3	285.5	313.9	330.5
47.5°	3698.0	2997.9	1668.6	440.7	379.7	278.4	237.5	244.6	257.7	285.5	304.5
50°	4203.9	3459.3	1618.3	400.4	367.3	257.7	209.1	223.3	236.3	260.6	280.2
52.5°	4508.9	3707.5	1422.2	362.5	328.8	248.2	181.3	206.1	208.5	230.4	251.2
55°	4477.0	3547.0	1089.3	303.9	271.9	234.6	152.2	186.0	187.2	203.8	221.5
57.5°	3885.8	3045.3	748.1	246.4	204.4	193.7	125.6	157.0	168.2	178.3	191.3
60°	2896.0	2221.9	333.5	200.2	129.7	130.9	107.2	118.5	135.6	147.5	158.7
62.5°	1706.5	1278.3	135.6	120.2	71.7	82.3	86.5	86.5	97.1	106.0	113.1
65°	645.1	447.2	55.1	60.4	37.3	38.5	50.9	62.8	71.1	78.8	88.3
67.5°	113.1	78.2	28.4	22.5	21.9	19.5	26.1	40.9	45.6	51.5	55.7
70°	19.0	16.0	11.8	11.3	10.1	10.7	17.2	29.0	32.0	33.8	35.5
72.5°	5.3	4.7	3.6	3.0	2.4	3.0	10.7	22.5	23.7	24.9	26.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	4.1	16.0	17.2	17.8	19.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.7	5.9	4.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	699.0	687.1	680.6	677.1	677.1	672.3	667.0	665.2	672.9	672.9	685.9
5°	629.7	620.2	609.5	603.0	592.9	594.7	588.8	588.2	595.9	599.5	613.1
7.5°	581.7	569.8	563.3	559.2	553.8	551.5	546.1	544.4	548.5	554.4	567.5
10°	549.7	547.9	547.3	550.3	550.3	547.3	542.6	539.6	540.8	552.1	566.9
12.5°	558.0	561.5	562.7	567.5	569.8	567.5	563.9	565.1	572.8	593.5	615.4
15°	594.1	591.2	590.0	592.3	594.1	591.8	590.6	599.5	626.1	655.7	680.6
17.5°	632.6	613.7	605.4	605.4	606.6	605.4	606.6	623.7	667.0	696.6	715.0
20°	652.2	617.2	604.2	601.2	603.6	604.2	608.3	627.9	675.3	696.0	700.2
22.5°	646.2	602.4	587.6	585.2	587.6	590.0	594.1	610.7	655.1	665.8	664.0
25°	616.6	573.4	561.5	561.5	566.9	566.3	568.1	579.9	616.6	623.1	620.2
27.5°	579.3	538.4	528.4	534.3	539.0	537.9	538.4	548.5	575.8	577.5	574.6
30°	541.4	505.9	496.4	503.5	510.0	508.8	509.4	519.5	536.7	534.9	530.7
32.5°	502.9	476.8	469.7	473.9	483.9	482.8	485.1	495.8	502.3	494.6	489.9
35°	467.4	453.7	448.4	450.8	458.5	460.3	464.4	471.5	471.5	462.0	453.7
37.5°	434.2	432.4	428.9	425.9	433.0	438.3	444.3	452.6	440.7	427.1	419.4
40°	403.4	411.1	406.3	398.6	402.8	410.5	422.3	428.9	414.6	401.0	388.0
42.5°	375.0	388.0	386.2	376.7	380.3	387.4	401.0	406.3	389.8	374.4	361.9
45°	347.7	366.1	367.3	355.4	359.0	366.1	382.1	383.8	362.5	345.9	337.0
47.5°	324.0	344.2	344.7	335.9	337.0	347.1	361.9	362.5	338.2	322.8	311.6
50°	301.5	324.6	326.4	318.7	319.9	331.7	344.2	341.8	315.7	299.7	289.7
52.5°	274.3	305.7	309.8	306.2	311.0	320.5	328.2	319.9	289.7	273.7	264.8
55°	244.6	285.5	294.4	292.0	297.4	305.1	306.8	301.5	263.6	247.6	239.3
57.5°	210.3	235.2	250.6	245.8	250.0	257.7	263.0	258.9	230.4	218.0	210.9
60°	174.1	190.7	194.3	186.6	183.0	196.7	209.1	203.8	179.5	171.8	163.5
62.5°	127.4	146.3	148.7	138.6	134.5	149.3	159.9	154.6	127.9	119.7	113.1
65°	101.9	119.7	124.4	114.9	112.5	123.8	130.3	117.3	98.3	89.4	82.3
67.5°	66.9	81.2	93.6	93.0	88.3	91.8	87.1	76.4	62.8	58.0	53.3
70°	41.5	49.8	57.5	60.4	59.8	58.6	52.1	44.4	40.3	38.5	36.1
72.5°	32.0	40.3	46.2	48.0	48.6	46.8	41.5	34.4	30.2	27.8	26.1
75°	23.7	30.2	34.9	37.3	38.5	37.3	32.0	27.2	23.1	21.3	19.5
77.5°	8.3	10.1	12.4	13.6	13.0	12.4	11.3	11.3	8.9	8.3	7.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GWS-SA3B-830-U-SLR-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	700.7	711.4	731.0	748.7	767.7	787.2	808.6	830.5	840.5	839.4
5°	633.8	656.9	688.9	723.8	762.9	805.0	851.8	899.8	920.5	929.4
7.5°	591.8	624.3	666.4	710.8	762.3	822.2	892.7	967.9	998.1	1008.2
10°	597.1	635.0	669.9	713.2	768.3	845.9	933.5	1023.0	1058.5	1069.8
12.5°	640.3	648.6	658.1	693.6	762.9	863.6	970.9	1077.5	1118.3	1129.6
15°	679.4	640.9	623.1	655.7	744.0	876.1	1008.8	1136.1	1181.1	1194.2
17.5°	681.2	623.1	583.5	608.9	713.2	881.4	1046.1	1195.9	1245.1	1257.6
20°	659.3	603.6	552.7	553.3	671.1	880.2	1076.9	1249.8	1304.9	1316.2
22.5°	627.3	580.5	527.8	509.4	626.1	877.9	1110.6	1307.3	1367.1	1377.8
25°	591.8	550.9	504.1	476.2	581.1	880.2	1158.0	1382.5	1448.3	1458.4
27.5°	553.3	518.3	485.7	463.2	543.2	889.1	1214.9	1478.5	1556.7	1567.3
30°	513.0	486.9	473.9	460.3	519.5	891.5	1276.5	1590.4	1689.4	1704.2
32.5°	473.3	459.1	459.7	462.0	497.0	874.9	1332.8	1714.8	1846.9	1870.6
35°	436.6	432.4	444.3	456.1	464.4	832.2	1381.9	1861.7	2041.8	2066.1
37.5°	405.2	408.7	423.5	435.4	428.9	771.8	1447.1	2045.4	2259.8	2280.5
40°	375.0	383.8	401.0	406.3	401.6	701.3	1525.3	2222.5	2448.8	2477.2
42.5°	347.1	353.6	377.9	379.1	393.9	629.7	1600.5	2413.2	2666.1	2681.0
45°	324.6	323.4	348.3	356.0	404.0	550.3	1674.0	2667.3	2950.5	2971.8
47.5°	302.7	301.5	307.4	342.4	408.1	476.8	1746.8	3039.3	3362.7	3399.5
50°	282.0	283.7	265.4	335.9	385.6	420.6	1780.0	3383.5	3737.7	3753.1
52.5°	263.6	257.1	225.1	314.5	337.6	367.3	1685.8	3539.9	3969.9	4013.7
55°	237.5	201.4	185.4	255.3	266.6	320.5	1380.8	3449.2	3990.0	4067.6
57.5°	203.2	158.2	157.6	188.4	188.4	297.4	884.4	2946.9	3438.6	3574.8
60°	156.4	122.6	130.3	130.9	120.8	216.8	496.4	2134.8	2542.3	2678.0
62.5°	111.4	93.6	98.3	78.2	69.3	108.4	238.1	1229.1	1569.1	1588.1
65°	74.6	63.4	51.5	43.2	42.6	46.2	98.3	444.3	540.2	609.5
67.5°	49.2	38.5	27.2	27.2	30.8	30.8	37.3	73.5	103.1	94.2
70°	32.0	26.7	17.2	16.6	20.1	20.1	19.0	20.1	21.3	21.3
72.5°	23.7	20.1	10.1	8.9	11.3	11.8	10.7	10.1	10.1	10.1
75°	17.8	14.2	5.9	4.1	5.3	7.1	5.9	4.1	4.1	3.6
77.5°	7.1	5.3	2.4	1.8	3.0	4.1	3.6	1.8	1.2	1.2
80°	0.6	1.2	1.2	1.2	1.8	2.4	3.0	1.2	0.6	0.6
82.5°	0.0	0.6	0.6	0.6	1.2	1.8	2.4	1.2	0.6	0.6
85°	0.0	0.0	0.0	0.0	1.2	1.8	1.2	0.6	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.6	1.8	1.2	0.6	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

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

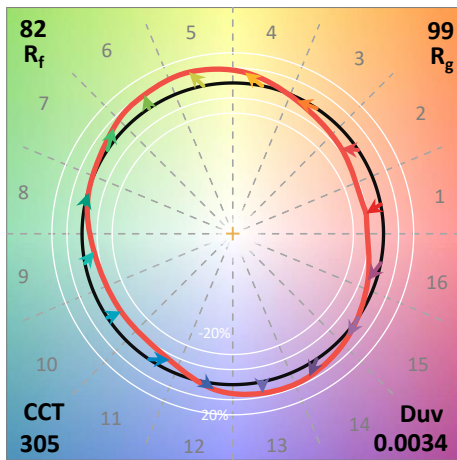
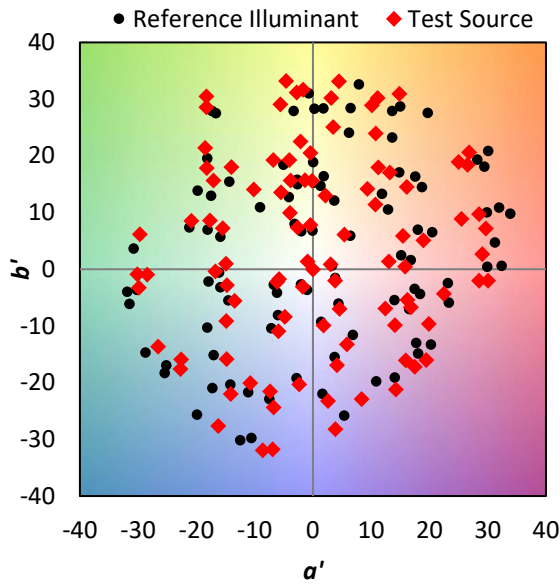
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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