

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: P632531

Luminaire Tested: GWS-SA2C-830-U-SL2-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P632531  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-30)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA2C-830-U-SL2-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

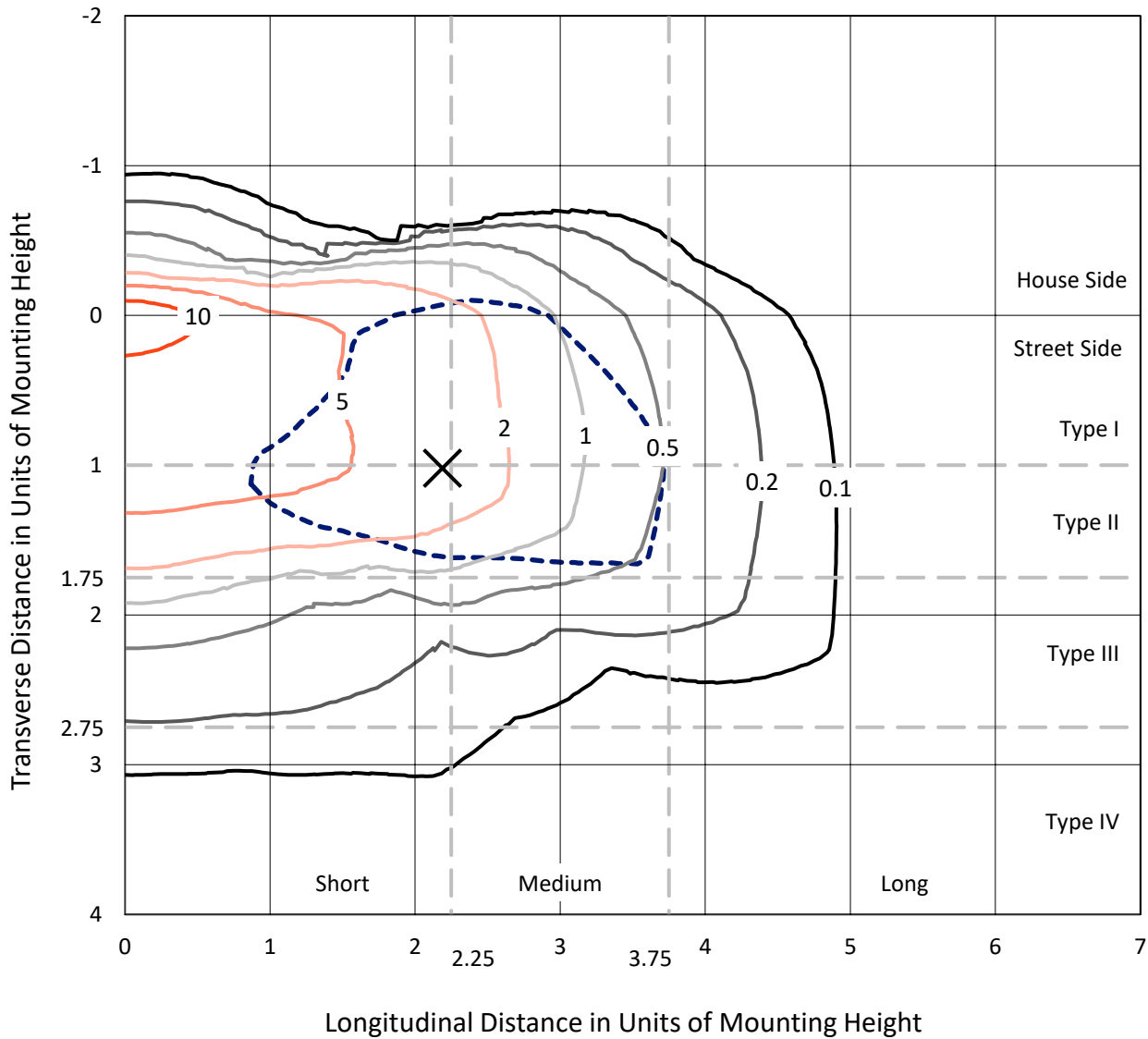
Lumens per Lamp: N/A  
Luminaire Lumens: 5828.3 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 63.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
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



REPORT NUMBER: P632531  
 CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

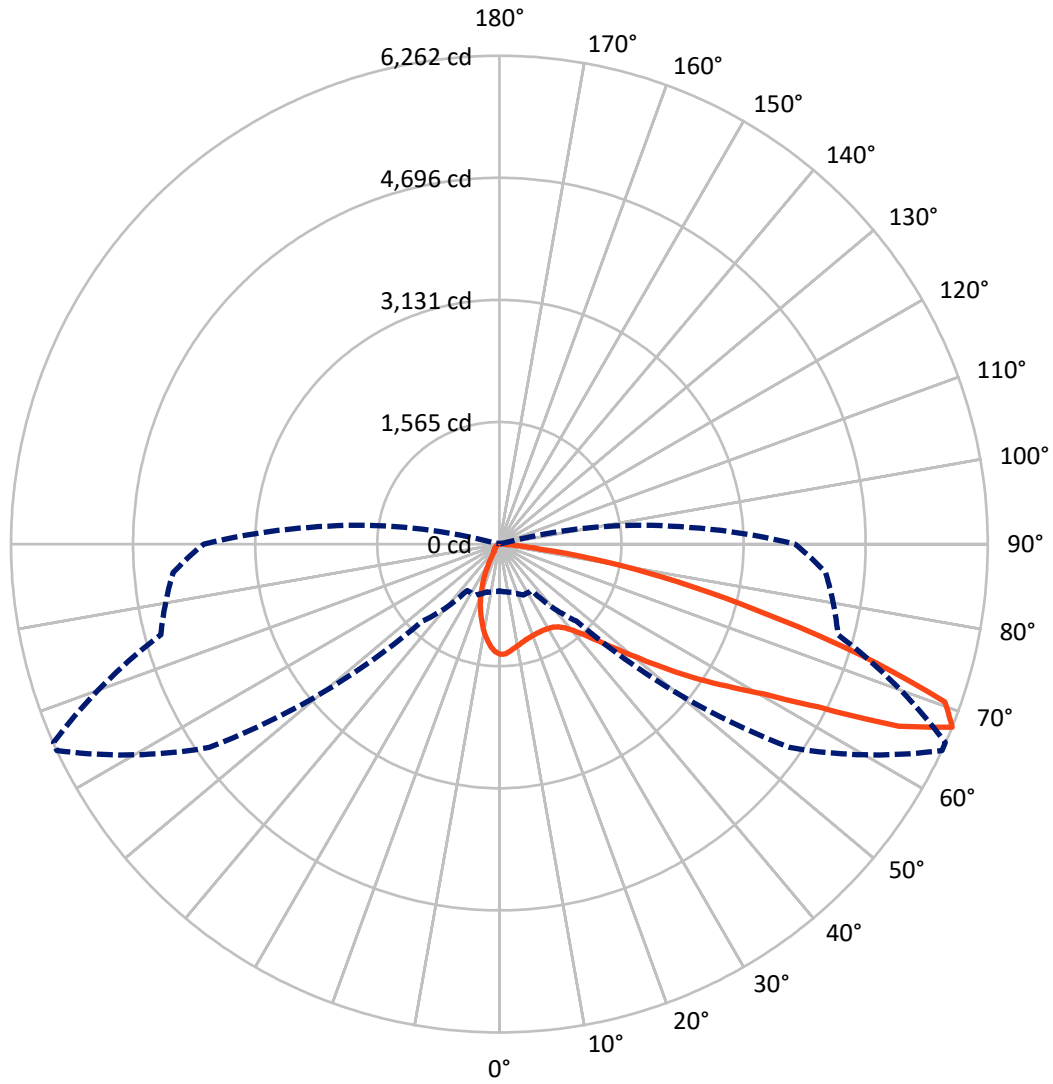
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.1 fc  
 Type II - Short - N/A

REPORT NUMBER: P632531  
CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P632531  
 CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	727.8	0.0	727.8
	% Fixture	12.5	0.0	12.5
<b>Street Side</b>	Lumens	5100.5	0.0	5100.5
	% Fixture	87.5	0.0	87.5
<b>Total</b>	Lumens	5828.3	0.0	5828.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.4	2.0
10°-20°	263.9	4.5
20°-30°	377.1	6.5
30°-40°	548.7	9.4
40°-50°	859.3	14.7
50°-60°	1340.5	23.0
60°-70°	1472.5	25.3
70°-80°	783.7	13.4
80°-90°	65.2	1.1
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°	5828.3	100.0
0°-180°	5828.3	100.0

**Coefficient of Utilization**

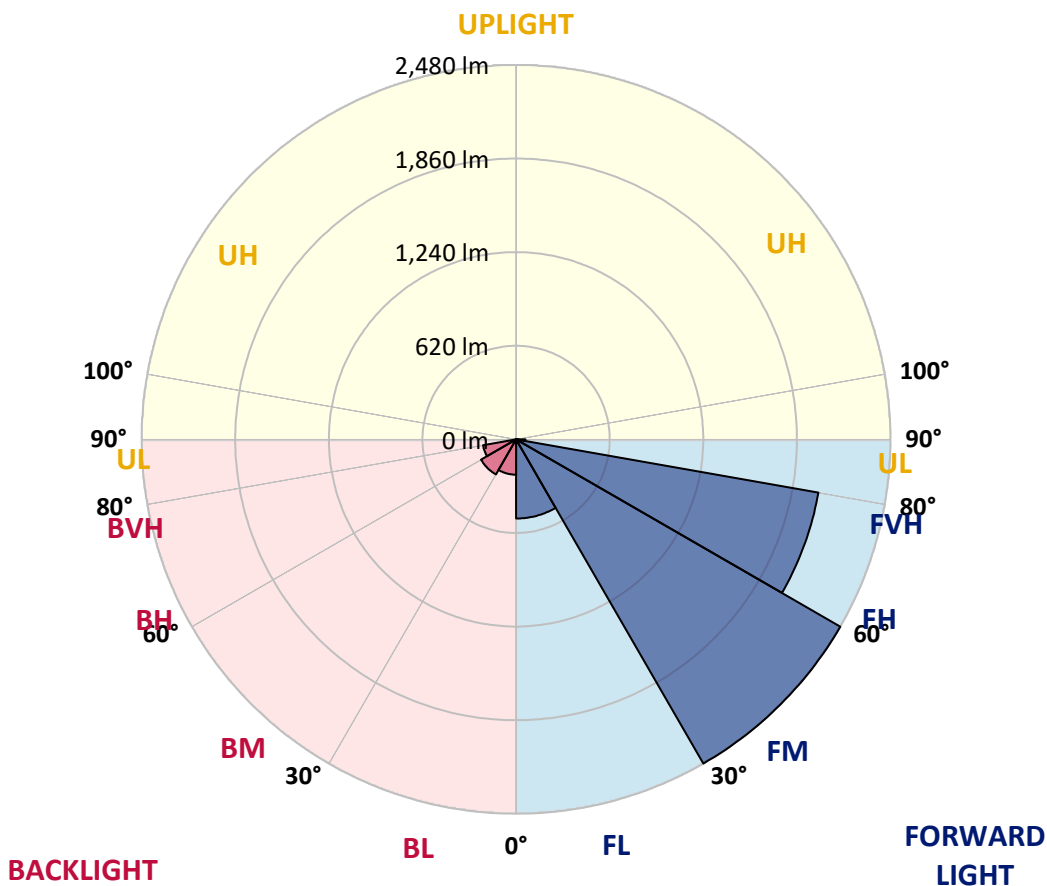


REPORT NUMBER: P632531  
 CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	524.5	9.0			
FM (30°-60°)	2480.4	42.6			
FH (60°-80°)	2033.9	34.9			G2/5000
FVH (80°-90°)	61.7	1.1			G1/100
BL (0°-30°)	233.9	4.0	B1/500		
BM (30°-60°)	268.1	4.6	B1/1000		
BH (60°-80°)	222.3	3.8	B1/500		G1/500
BVH (80°-90°)	3.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type II Short





REPORT NUMBER: P632531

CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5
2.5°	1364.5	1368.7	1362.9	1377.2	1379.8	1395.6	1404.6	1410.9	1410.4	1418.3	1418.3
5°	1284.4	1288.6	1285.5	1300.8	1312.9	1337.7	1358.2	1381.9	1383.0	1407.2	1416.2
7.5°	1216.4	1217.0	1217.0	1235.9	1251.7	1282.3	1312.9	1349.2	1353.5	1390.9	1414.6
10°	1160.6	1162.1	1162.7	1184.3	1201.7	1238.6	1277.6	1321.3	1326.1	1376.7	1413.5
12.5°	1122.1	1122.6	1124.7	1147.4	1166.4	1204.8	1244.4	1294.4	1300.8	1360.3	1408.8
15°	1103.6	1102.6	1103.6	1122.6	1141.6	1178.5	1219.1	1272.8	1279.7	1346.6	1409.3
17.5°	1102.6	1101.0	1100.0	1114.2	1126.3	1159.0	1200.1	1258.6	1266.0	1340.3	1415.1
20°	1117.9	1116.8	1111.5	1117.9	1120.5	1147.4	1188.0	1247.5	1254.9	1339.2	1427.8
22.5°	1157.9	1155.3	1147.4	1141.6	1127.4	1143.2	1179.5	1239.6	1248.1	1341.9	1444.1
25°	1217.5	1216.4	1206.4	1192.2	1155.8	1149.5	1180.1	1239.6	1247.5	1345.0	1461.5
27.5°	1307.1	1300.8	1288.1	1263.3	1211.2	1174.3	1190.6	1242.8	1250.7	1349.2	1475.7
30°	1398.3	1397.7	1393.5	1368.2	1290.7	1221.7	1212.7	1251.2	1258.6	1352.9	1488.9
32.5°	1492.6	1494.2	1504.7	1485.2	1400.4	1292.3	1252.8	1268.6	1273.9	1360.3	1500.5
35°	1582.2	1585.4	1613.3	1620.1	1533.7	1399.3	1318.2	1303.4	1303.9	1376.7	1515.8
37.5°	1668.1	1678.7	1723.5	1756.7	1699.7	1529.0	1412.5	1362.4	1358.2	1409.3	1539.0
40°	1765.6	1785.6	1842.0	1898.4	1880.5	1700.3	1541.1	1453.1	1444.1	1469.4	1580.6
42.5°	1873.7	1895.3	1970.1	2049.2	2057.6	1907.4	1701.8	1585.4	1570.1	1570.6	1658.6
45°	1989.6	2018.6	2105.6	2219.4	2270.5	2138.2	1900.0	1764.0	1748.7	1726.1	1784.1
47.5°	2141.9	2167.2	2251.0	2382.3	2480.3	2386.0	2159.8	1993.8	1965.9	1932.7	1979.1
50°	2273.2	2295.3	2367.5	2531.9	2735.9	2705.3	2454.5	2281.1	2254.2	2197.8	2236.3
52.5°	2302.2	2319.5	2386.0	2570.9	2931.4	3108.5	2815.5	2628.4	2609.4	2505.1	2519.8
55°	2172.0	2198.3	2257.9	2463.4	2982.6	3502.8	3284.0	3020.0	2980.5	2813.9	2840.3
57.5°	1843.1	1890.0	1945.9	2213.1	2844.0	3712.5	3938.6	3434.8	3398.9	3111.2	3111.7
60°	1350.8	1388.8	1426.2	1670.7	2515.1	3698.3	4532.6	3900.7	3835.3	3354.1	3345.2
62.5°	982.4	1001.9	1001.4	1088.4	1727.1	3454.8	4844.6	4602.7	4450.4	3614.0	3562.9
65°	772.7	772.1	794.8	823.3	964.5	2666.9	4883.1	5627.8	5463.4	3962.4	3855.9
67.5°	601.4	613.0	635.6	719.4	724.7	1395.6	4544.7	6261.9	6258.7	4494.1	4199.0
70°	463.8	479.6	511.8	634.0	669.4	781.1	3400.5	6061.1	6112.2	4731.8	3956.0
72.5°	297.8	296.7	344.2	512.3	643.0	650.9	1880.5	4814.6	4872.6	4286.0	3198.7
75°	166.5	167.6	194.5	313.6	599.3	612.4	931.3	3433.2	3479.1	3341.5	2457.6
77.5°	65.4	67.5	91.2	165.0	395.3	547.1	553.4	2341.2	2348.0	2070.8	1507.4
80°	26.4	27.9	46.4	102.2	240.9	368.4	395.3	1379.3	1351.4	801.6	438.5
82.5°	7.9	8.4	18.4	58.0	126.0	261.9	266.7	529.2	499.6	172.3	111.7
85°	0.5	0.5	4.2	17.9	44.8	65.9	177.6	172.3	152.8	43.2	49.5
87.5°	0.0	0.0	0.5	0.5	1.1	2.1	19.0	31.6	32.2	7.9	22.1
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: P632531

CATALOG NUMBER: GWS-SA2C-830-U-SL2-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5	1413.5
2.5°	1418.3	1399.3	1397.7	1383.0	1368.2	1349.8	1328.2	1312.4	1301.3	1281.8	1278.1
5°	1416.2	1390.9	1367.2	1325.0	1278.1	1227.5	1183.2	1142.1	1116.3	1098.9	1091.5
7.5°	1412.0	1379.8	1325.0	1245.4	1166.9	1078.3	1009.3	946.1	902.8	877.5	866.5
10°	1408.8	1365.6	1276.5	1155.8	1034.1	911.8	806.9	713.1	660.9	619.8	613.0
12.5°	1402.5	1345.0	1214.3	1050.9	893.9	731.5	597.7	482.8	403.2	367.4	354.7
15°	1396.2	1323.4	1152.1	940.3	741.0	540.8	378.4	267.7	212.9	196.1	195.0
17.5°	1395.1	1303.9	1084.7	835.4	580.8	354.2	215.6	173.4	161.8	157.6	157.6
20°	1398.3	1287.6	1018.3	714.7	423.2	215.6	160.8	150.2	143.4	139.7	139.7
22.5°	1401.4	1270.7	954.5	592.9	280.9	157.6	141.8	132.8	124.9	120.7	118.6
25°	1403.5	1252.3	883.9	470.7	183.4	137.0	124.4	112.8	103.3	98.0	98.0
27.5°	1403.0	1230.1	812.7	351.0	142.3	121.7	106.5	94.3	84.9	79.1	79.6
30°	1398.8	1205.9	738.9	245.1	124.4	106.5	91.2	78.5	69.0	64.3	63.8
32.5°	1395.6	1180.1	653.5	172.3	111.7	93.3	77.5	65.4	57.4	53.8	53.2
35°	1391.9	1154.8	572.4	131.2	100.7	80.6	65.4	55.3	49.0	45.9	45.9
37.5°	1393.0	1128.4	484.4	112.8	89.6	70.1	55.9	47.4	42.2	39.0	38.5
40°	1409.3	1112.6	397.9	102.2	79.6	60.6	48.5	41.1	35.8	32.7	32.2
42.5°	1449.9	1113.1	315.2	94.3	70.6	51.7	42.2	35.3	30.6	26.9	26.4
45°	1531.1	1135.3	241.9	85.9	61.1	44.8	36.4	30.0	25.3	22.1	21.6
47.5°	1663.9	1201.1	183.4	78.5	53.2	39.0	31.1	25.3	21.1	18.4	17.9
50°	1875.2	1320.3	144.4	69.6	44.8	33.7	26.4	21.1	17.4	14.8	14.2
52.5°	2129.3	1498.9	123.9	61.7	38.5	29.5	22.7	17.4	14.2	12.1	11.6
55°	2421.3	1712.4	114.4	53.8	32.7	25.3	18.4	14.2	11.6	10.0	9.0
57.5°	2689.0	1904.8	113.8	45.9	27.9	21.6	15.3	12.1	10.0	7.9	7.4
60°	2949.9	2065.5	107.0	37.9	24.2	17.9	13.2	10.0	8.4	6.9	6.3
62.5°	3186.5	2196.2	89.6	30.6	20.6	14.8	11.1	9.0	7.4	5.8	5.8
65°	3483.8	2362.8	68.5	24.8	16.9	12.1	9.5	7.9	6.9	5.3	5.3
67.5°	3791.1	2450.8	49.0	20.6	13.7	10.5	8.4	7.4	5.8	4.7	4.7
70°	3433.7	2070.8	35.3	16.9	11.6	9.0	7.4	6.9	5.8	4.7	4.2
72.5°	2681.6	1493.1	26.4	13.2	10.0	8.4	6.9	6.3	5.3	4.2	4.2
75°	1988.6	870.7	20.0	10.5	7.9	6.9	6.9	6.3	5.3	4.2	3.7
77.5°	1081.0	303.6	15.3	8.4	6.3	5.3	5.8	5.8	4.7	3.7	3.2
80°	286.2	83.3	10.5	6.3	5.3	4.2	4.2	5.3	4.2	3.2	3.2
82.5°	83.3	24.2	7.4	5.3	4.2	3.7	3.7	3.7	3.2	2.6	2.1
85°	40.6	9.0	5.3	4.2	3.7	3.2	2.6	2.6	2.1	1.6	1.6
87.5°	17.9	3.7	4.2	3.7	3.7	2.6	2.1	1.6	1.6	1.1	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



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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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)