

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: P632035

Luminaire Tested: GWS-SA2B-830-U-SL2-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P632035  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-29)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA2B-830-U-SL2-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

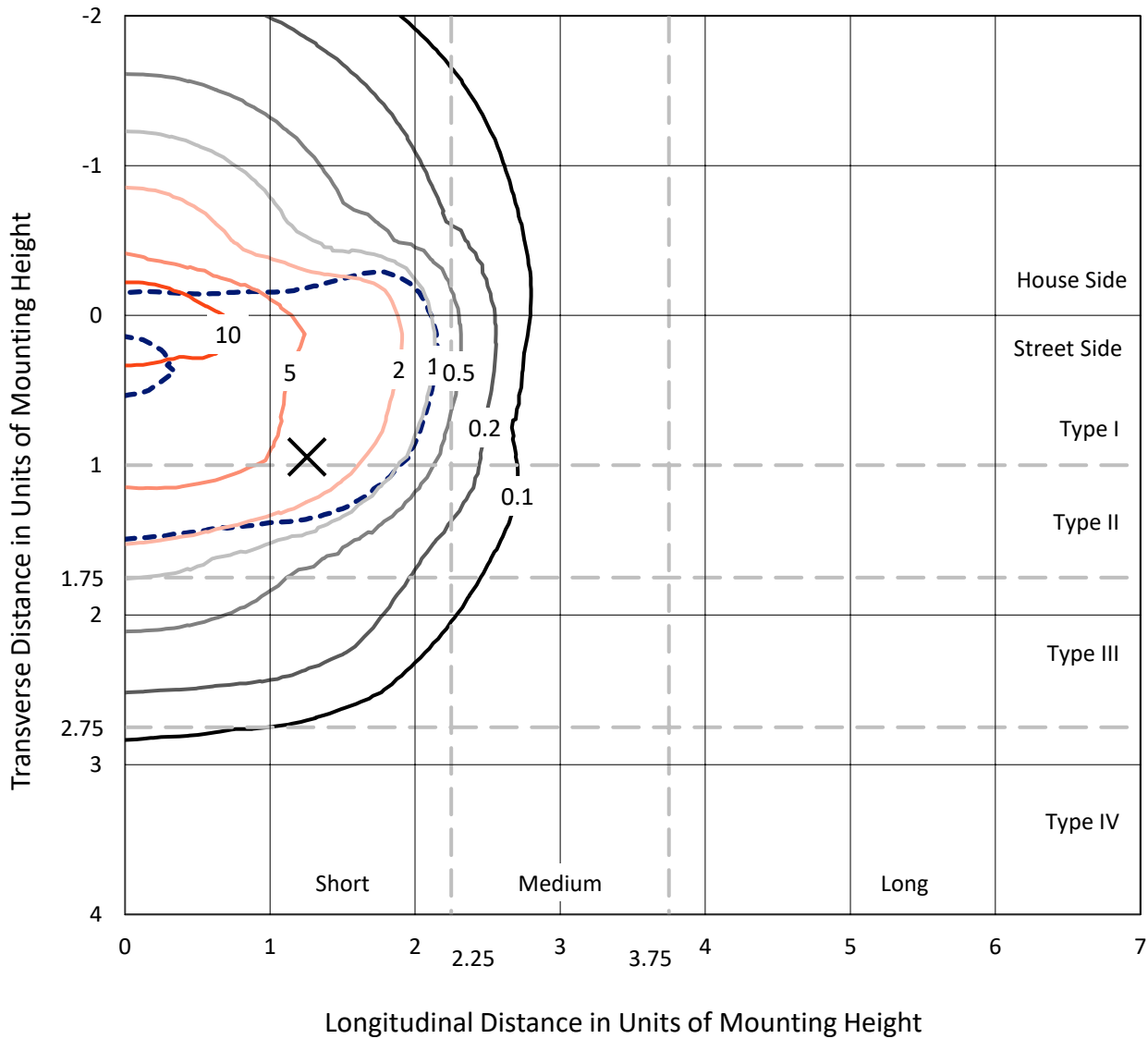
Lumens per Lamp: N/A  
Luminaire Lumens: 4669.3 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 46.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
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



REPORT NUMBER: P632035  
 CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

### Iso-Footcandle Lines of Horizontal Illumination

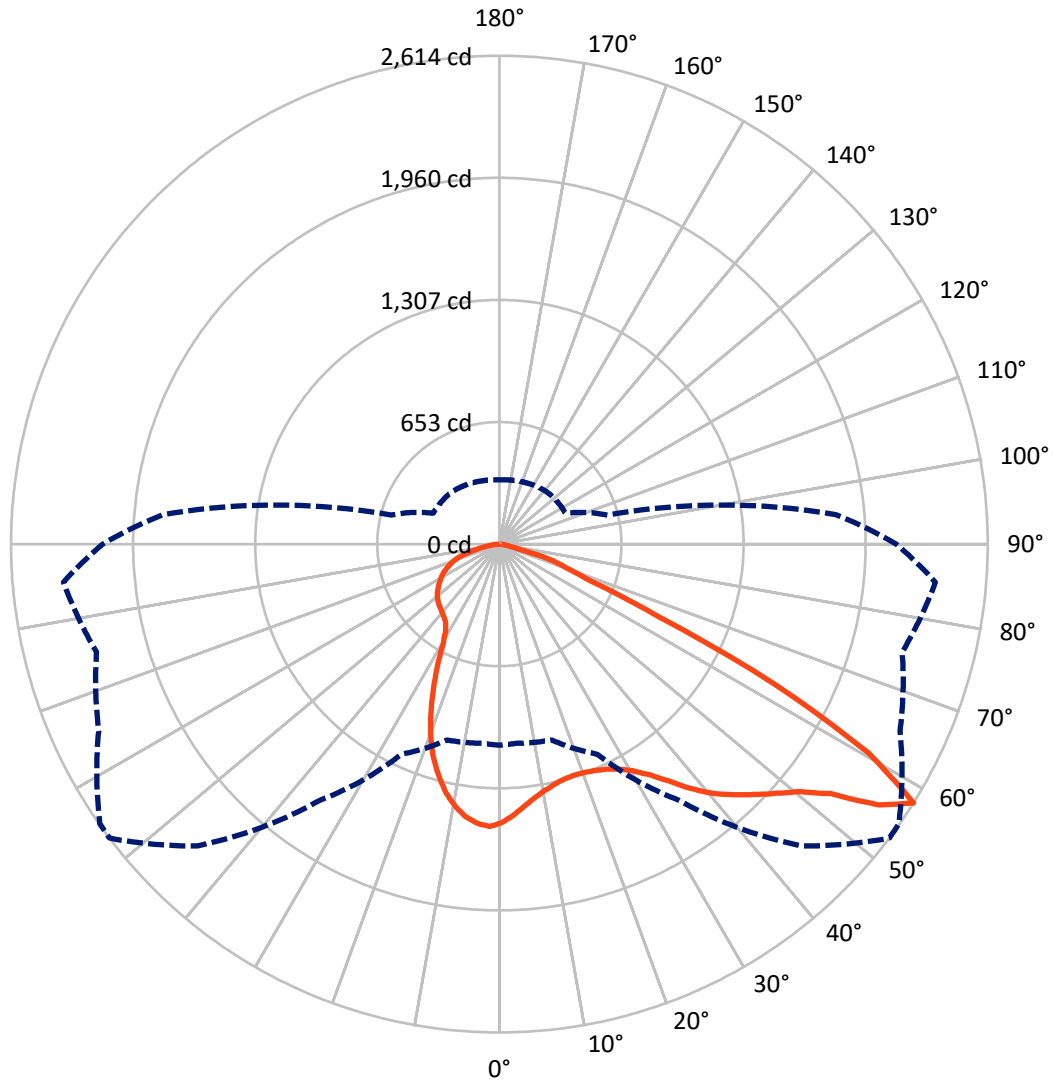
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.9 fc  
 Type II - Short - N/A

REPORT NUMBER: P632035  
CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

### Luminous Intensity Polar Plot



— Vertical Plane Through 53-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P632035

CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1459.9	0.0	1459.9
	% Fixture	31.3	0.0	31.3
<b>Street Side</b>	Lumens	3209.4	0.0	3209.4
	% Fixture	68.7	0.0	68.7
<b>Total</b>	Lumens	4669.3	0.0	4669.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.8	2.9
10°-20°	353.7	7.6
20°-30°	521.2	11.2
30°-40°	729.5	15.6
40°-50°	959.0	20.5
50°-60°	1124.4	24.1
60°-70°	662.4	14.2
70°-80°	164.8	3.5
80°-90°	19.3	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°	4669.3	100.0
0°-180°	4669.3	100.0

**Coefficient of Utilization**



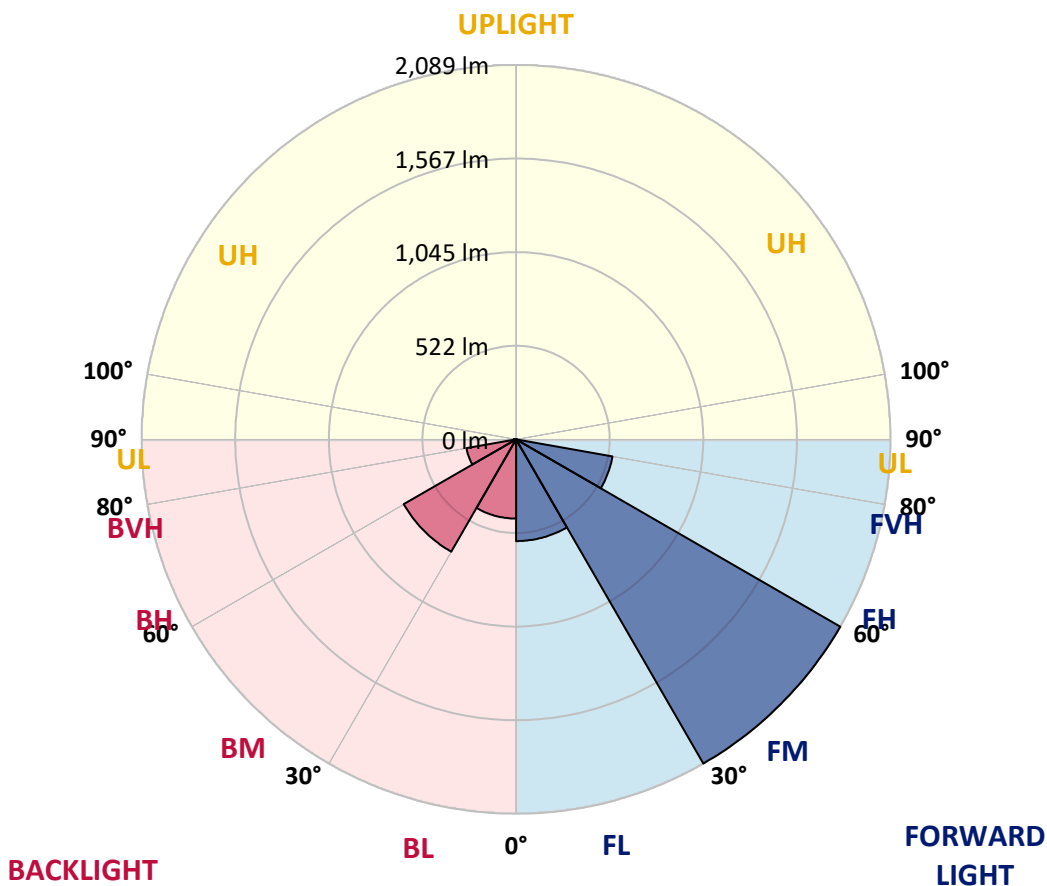
REPORT NUMBER: P632035

CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	567.7	12.2			
FM (30°-60°)	2089.1	44.7			
FH (60°-80°)	546.1	11.7			G0/660
FVH (80°-90°)	6.5	0.1			G0/10
BL (0°-30°)	442.1	9.5	B1/500		
BM (30°-60°)	723.9	15.5	B1/1000		
BH (60°-80°)	281.1	6.0	B1/500		G1/500
BVH (80°-90°)	12.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type II Short





REPORT NUMBER: P632035

CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0
2.5°	1405.4	1409.3	1410.1	1422.3	1423.0	1440.7	1452.5	1450.2	1462.3	1477.3	1489.1
5°	1338.2	1338.6	1342.5	1357.0	1364.9	1388.1	1407.7	1407.7	1431.3	1462.0	1488.3
7.5°	1282.7	1282.4	1285.9	1302.0	1315.0	1342.9	1369.6	1372.7	1405.8	1450.6	1493.4
10°	1231.3	1234.0	1237.9	1257.6	1274.1	1308.7	1340.5	1345.6	1387.3	1442.7	1500.5
12.5°	1198.3	1198.6	1204.5	1226.5	1247.8	1284.7	1318.1	1324.4	1372.3	1435.2	1505.6
15°	1177.0	1177.4	1183.7	1208.1	1232.8	1270.2	1304.4	1311.4	1363.7	1434.0	1515.4
17.5°	1167.6	1167.2	1173.1	1197.5	1224.6	1263.5	1300.0	1308.7	1367.6	1443.1	1532.7
20°	1167.6	1168.0	1171.1	1193.1	1220.7	1261.9	1304.4	1315.0	1383.0	1463.5	1559.4
22.5°	1184.1	1185.7	1187.2	1202.2	1223.8	1264.3	1315.8	1329.9	1416.0	1497.7	1594.4
25°	1216.3	1216.7	1218.3	1230.5	1240.3	1271.0	1334.6	1355.8	1467.5	1547.6	1638.4
27.5°	1259.6	1265.1	1266.6	1274.5	1274.5	1287.5	1364.1	1394.7	1537.0	1619.5	1694.6
30°	1320.1	1322.0	1324.8	1333.4	1324.0	1318.5	1407.3	1446.6	1617.6	1706.4	1762.2
32.5°	1373.1	1377.5	1392.4	1406.5	1389.6	1372.3	1471.0	1517.4	1695.0	1796.8	1834.1
35°	1418.3	1428.9	1457.6	1489.1	1477.3	1460.0	1555.5	1603.8	1758.7	1861.6	1897.8
37.5°	1473.0	1481.2	1520.5	1571.6	1582.2	1574.0	1658.5	1693.0	1801.1	1878.1	1932.4
40°	1528.4	1540.9	1591.6	1662.4	1702.9	1708.8	1753.6	1776.7	1815.6	1845.9	1925.7
42.5°	1585.0	1606.6	1676.1	1758.7	1830.6	1843.9	1833.7	1843.6	1810.9	1801.5	1894.6
45°	1654.1	1679.7	1758.3	1863.6	1958.3	1979.1	1912.3	1903.3	1810.1	1784.6	1875.4
47.5°	1735.9	1761.4	1836.5	1959.1	2080.1	2095.5	1992.9	1976.4	1837.7	1810.5	1901.3
50°	1808.2	1825.9	1893.1	2030.2	2193.7	2202.8	2081.7	2061.7	1906.0	1882.5	1982.3
52.5°	1734.7	1732.7	1803.5	1972.5	2252.7	2361.5	2218.5	2199.2	2038.1	2001.9	2107.6
55°	1471.8	1449.4	1512.6	1678.9	2088.0	2502.6	2463.7	2425.2	2214.1	2122.2	2225.2
57.5°	1076.0	1069.7	1085.1	1241.1	1672.6	2284.1	2613.8	2610.3	2366.2	2232.2	2342.3
60°	841.4	832.0	791.1	795.4	1140.1	1784.2	2268.4	2372.5	2460.6	2298.3	2424.0
62.5°	747.1	740.0	718.8	660.2	679.1	1196.3	1662.8	1758.3	2150.1	2029.8	2082.1
65°	618.6	616.6	634.3	631.9	569.1	660.6	938.5	1034.8	1351.9	1368.8	1351.9
67.5°	449.6	446.1	490.9	579.3	547.8	498.7	523.1	556.5	693.2	622.5	560.4
70°	292.4	287.3	313.2	418.5	490.5	434.7	376.9	371.4	381.2	237.0	256.2
72.5°	196.1	190.2	189.8	230.3	296.3	292.8	292.0	289.2	258.2	187.1	207.5
75°	109.3	104.5	103.4	99.4	106.1	108.1	115.1	119.1	128.9	141.9	157.2
77.5°	18.5	18.1	22.8	29.1	40.1	51.5	63.7	67.2	82.9	98.2	108.1
80°	10.2	10.6	13.8	16.9	22.4	30.7	39.3	41.7	51.1	59.3	67.2
82.5°	5.5	5.5	7.1	9.0	12.2	16.1	21.2	23.2	29.5	34.6	40.1
85°	2.0	2.0	2.8	3.5	5.1	6.7	8.3	9.4	13.0	17.7	20.0
87.5°	0.0	0.0	0.0	0.0	0.4	0.8	1.6	1.6	2.0	3.5	5.1
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: P632035

CATALOG NUMBER: GWS-SA2B-830-U-SL2-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0	1491.0
2.5°	1498.9	1488.3	1502.8	1509.5	1511.9	1513.4	1503.2	1496.1	1493.8	1486.3	1482.0
5°	1504.4	1497.3	1511.1	1511.1	1501.3	1491.0	1470.2	1455.7	1445.4	1433.3	1431.3
7.5°	1513.8	1508.7	1516.2	1500.9	1476.1	1448.6	1412.4	1384.1	1361.3	1346.4	1346.8
10°	1526.4	1520.1	1514.2	1480.0	1434.8	1384.1	1328.7	1287.5	1249.7	1232.4	1223.0
12.5°	1534.7	1525.6	1500.9	1444.3	1377.9	1309.9	1231.7	1170.3	1115.7	1091.0	1089.0
15°	1544.9	1528.4	1478.9	1397.9	1305.5	1212.8	1112.2	1026.9	953.0	914.5	912.5
17.5°	1558.2	1531.1	1452.5	1344.8	1229.3	1092.5	966.0	858.7	780.1	750.2	755.3
20°	1577.1	1534.3	1422.7	1285.9	1134.6	955.8	798.2	699.5	669.3	667.3	663.4
22.5°	1598.3	1536.2	1389.6	1219.9	1019.8	810.0	659.5	617.4	617.0	626.8	629.2
25°	1622.3	1537.8	1352.3	1142.8	895.6	664.6	583.2	570.6	580.5	598.9	601.3
27.5°	1652.9	1540.9	1307.1	1058.3	763.6	574.2	541.2	538.0	549.8	567.1	566.3
30°	1698.1	1552.3	1259.2	961.3	628.0	531.3	515.6	516.0	520.7	529.0	530.2
32.5°	1744.1	1570.0	1212.4	852.0	550.2	507.0	499.9	499.1	499.1	502.6	503.4
35°	1787.7	1590.1	1161.7	738.0	512.5	492.8	488.1	485.7	484.6	483.8	482.6
37.5°	1812.1	1599.9	1112.2	625.7	492.4	483.4	478.7	475.5	471.2	468.1	467.3
40°	1801.5	1588.5	1054.8	541.6	480.2	474.3	468.8	464.5	458.6	455.9	454.3
42.5°	1766.1	1553.1	992.3	501.9	470.4	464.5	457.8	450.8	446.8	444.5	444.1
45°	1728.8	1510.3	916.9	478.7	461.0	453.9	446.1	438.2	433.9	432.7	432.3
47.5°	1727.6	1489.1	836.7	460.2	449.6	442.5	432.7	424.8	420.1	418.5	417.0
50°	1779.5	1510.7	746.3	444.1	437.8	430.3	419.3	410.7	404.8	402.8	402.4
52.5°	1887.2	1592.0	665.3	428.0	422.1	413.4	404.4	395.7	388.7	385.1	384.7
55°	2003.5	1695.4	615.0	411.5	403.6	396.1	387.9	378.5	370.6	365.1	364.3
57.5°	2123.8	1808.2	599.7	390.6	384.7	379.6	369.8	359.6	350.6	345.4	344.3
60°	2222.8	1905.3	628.4	368.6	365.5	358.8	349.8	339.9	333.7	329.7	328.9
62.5°	1860.8	1551.2	507.4	344.7	344.7	337.6	327.4	320.3	316.0	313.2	312.4
65°	1181.0	960.5	346.2	320.7	320.3	310.9	302.2	297.5	295.5	291.2	290.4
67.5°	514.4	439.0	295.9	296.3	294.7	284.5	275.9	272.3	268.4	263.7	263.3
70°	266.8	272.0	264.9	269.2	266.5	254.3	246.0	240.5	232.3	227.5	227.9
72.5°	215.4	220.9	228.7	235.4	229.5	219.7	206.7	200.0	189.4	184.3	184.7
75°	164.3	170.2	177.6	184.7	180.0	167.8	159.6	152.9	140.7	134.8	136.0
77.5°	113.2	116.3	125.4	125.0	123.4	119.9	107.7	99.8	87.2	80.2	81.0
80°	70.3	72.3	76.6	78.6	77.8	73.1	63.3	57.4	49.9	45.6	46.0
82.5°	42.4	43.6	47.6	47.9	47.6	44.0	36.5	32.2	27.5	25.2	25.2
85°	21.6	22.4	24.8	24.8	22.4	18.9	16.9	14.9	12.2	11.0	11.0
87.5°	5.9	5.9	7.5	6.3	5.1	4.7	2.4	2.0	0.8	0.4	0.4
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 (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (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			

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)