

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: P632550

Luminaire Tested: GWS-SA2C-830-U-T2-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P632550  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-22)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA2C-830-U-T2-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

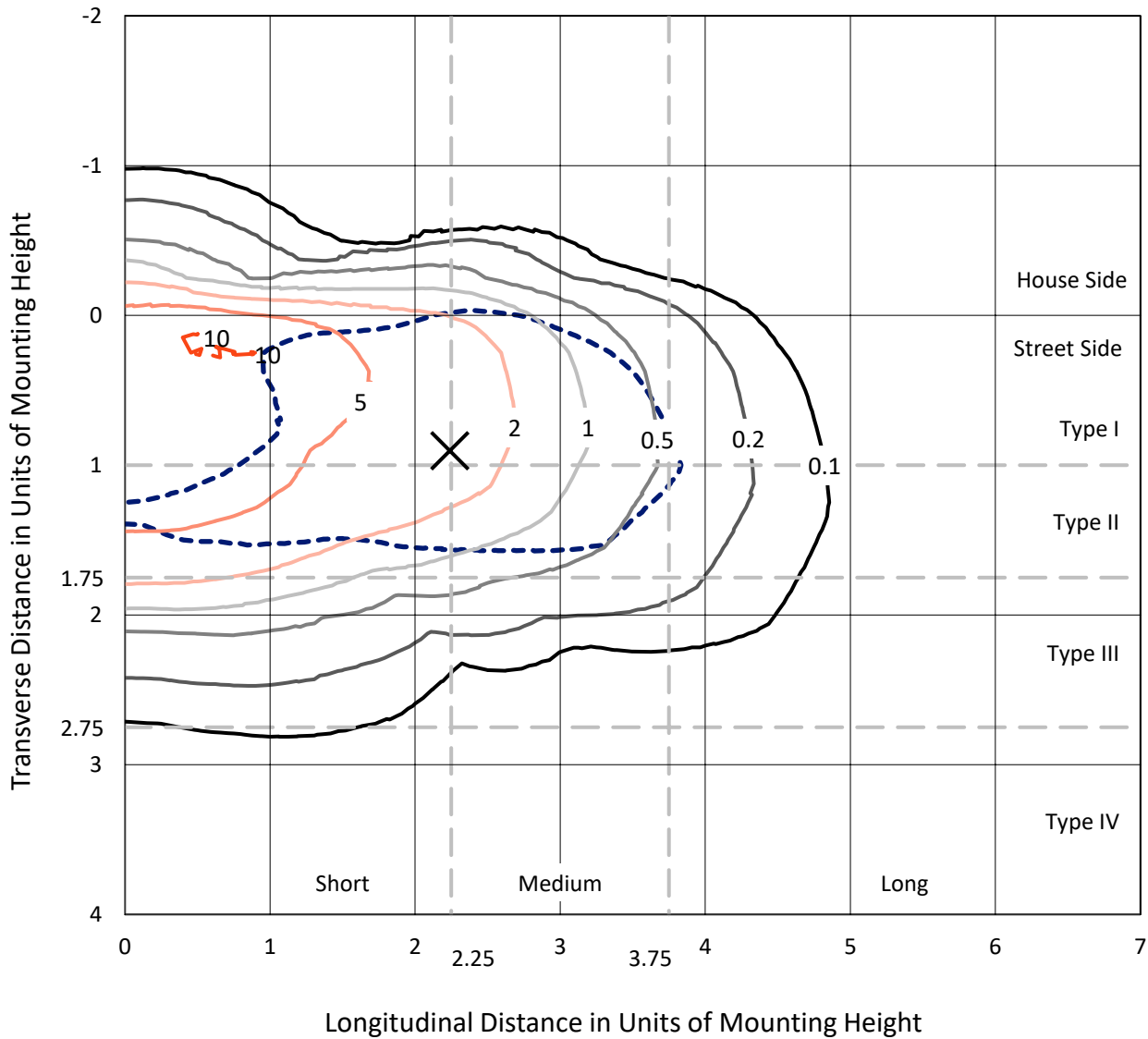
Lumens per Lamp: N/A  
Luminaire Lumens: 5507.3 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 63.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P632550  
 CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

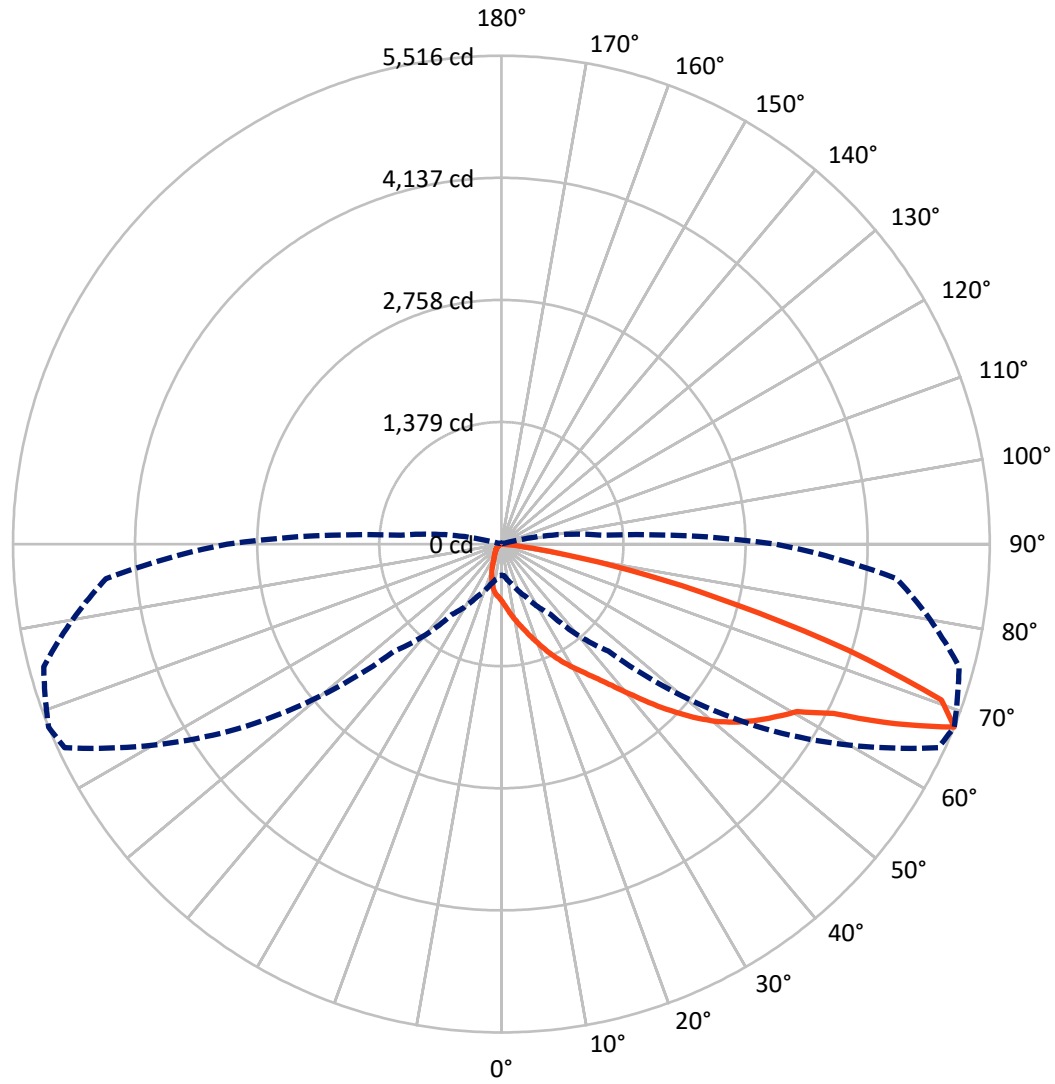
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type II - Short - N/A

REPORT NUMBER: P632550  
CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P632550

CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	397.7	0.0	397.7
	% Fixture	7.2	0.0	7.2
<b>Street Side</b>	Lumens	5109.6	0.0	5109.6
	% Fixture	92.8	0.0	92.8
<b>Total</b>	Lumens	5507.3	0.0	5507.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	1.1
10°-20°	179.5	3.3
20°-30°	308.5	5.6
30°-40°	536.3	9.7
40°-50°	935.8	17.0
50°-60°	1411.5	25.6
60°-70°	1415.4	25.7
70°-80°	624.5	11.3
80°-90°	33.4	0.6
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°	5507.3	100.0
0°-180°	5507.3	100.0

**Coefficient of Utilization**

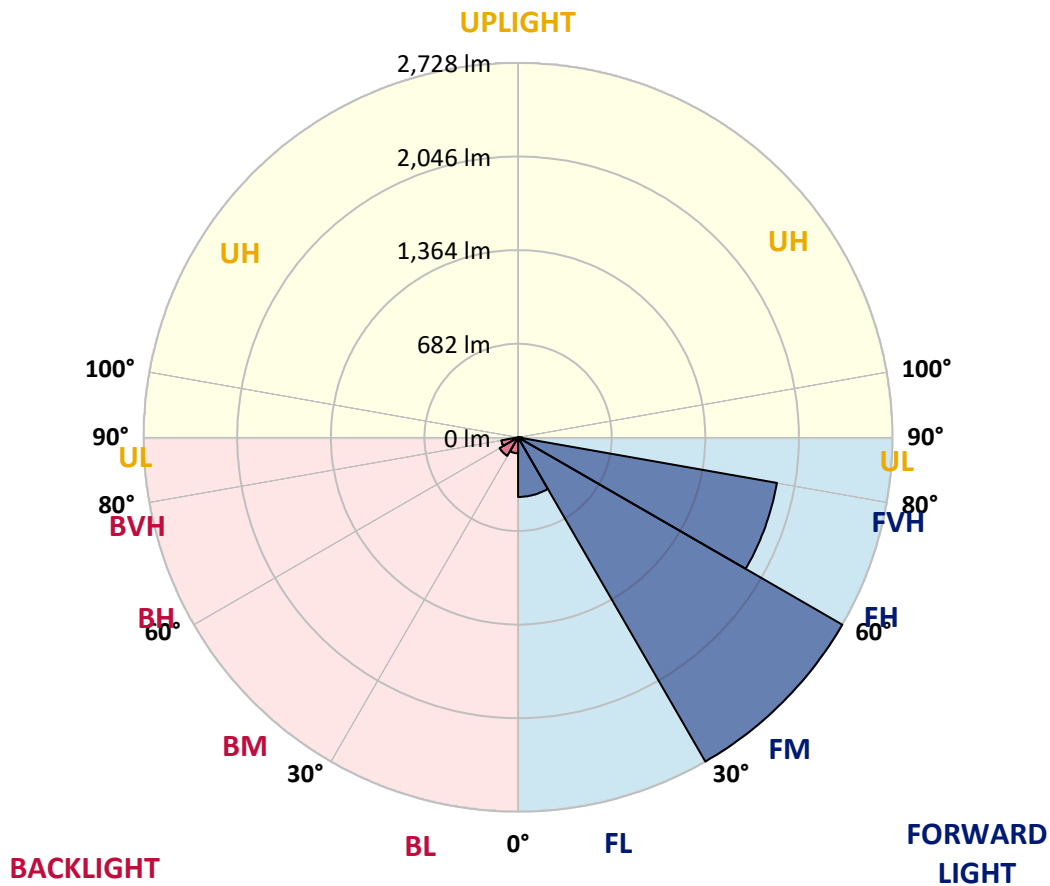


REPORT NUMBER: P632550  
 CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	434.1	7.9			
FM (30°-60°)	2728.3	49.5			
FH (60°-80°)	1915.7	34.8			G2/5000
FVH (80°-90°)	31.5	0.6			G1/100
BL (0°-30°)	116.3	2.1	B1/500		
BM (30°-60°)	155.3	2.8	B0/220		
BH (60°-80°)	124.1	2.3	B1/500		G1/500
BVH (80°-90°)	1.9	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-G2**  
 Type II Short





REPORT NUMBER: P632550

CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9
2.5°	746.3	751.1	746.3	747.4	733.7	727.3	713.6	694.7	689.9	677.8	659.4
5°	837.5	841.7	837.0	835.9	820.1	808.5	785.9	753.2	743.7	720.0	683.6
7.5°	887.0	889.7	891.3	893.9	888.1	878.6	858.1	817.5	807.5	769.0	717.9
10°	892.3	894.4	902.3	918.1	929.7	935.5	923.9	886.5	870.7	833.3	760.0
12.5°	877.6	880.7	893.4	919.7	951.9	981.4	988.8	956.1	941.9	893.9	809.6
15°	858.1	860.7	878.1	913.9	962.4	1016.7	1047.3	1033.0	1017.2	967.2	864.4
17.5°	828.0	831.7	856.0	904.4	967.2	1044.6	1110.5	1115.3	1104.2	1049.9	925.0
20°	811.2	813.8	835.4	885.5	964.0	1065.2	1169.6	1214.4	1202.2	1145.3	994.6
22.5°	825.4	827.5	841.7	880.7	953.5	1076.8	1224.4	1313.4	1306.6	1247.6	1067.8
25°	900.2	907.1	898.6	905.5	958.2	1083.1	1268.6	1412.5	1414.1	1354.6	1143.7
27.5°	1052.0	1043.1	1023.0	988.8	995.1	1100.0	1306.6	1505.8	1519.5	1458.9	1211.2
30°	1206.4	1201.2	1189.1	1135.8	1091.5	1137.4	1338.7	1601.2	1622.8	1561.7	1271.3
32.5°	1379.9	1385.1	1363.5	1299.7	1224.4	1213.3	1371.9	1691.9	1732.5	1678.2	1341.9
35°	1587.0	1588.6	1545.9	1475.3	1389.9	1338.7	1431.5	1792.0	1866.9	1826.8	1436.2
37.5°	1788.9	1798.3	1775.2	1663.9	1588.0	1494.8	1530.1	1920.6	2026.0	2010.2	1554.8
40°	1967.5	1982.3	1974.9	1867.4	1767.8	1689.2	1682.9	2071.4	2218.4	2236.3	1711.4
42.5°	2109.8	2119.3	2125.1	2048.7	1960.7	1916.4	1871.6	2246.3	2445.6	2518.8	1903.2
45°	2260.0	2263.2	2275.3	2223.7	2146.7	2150.4	2094.6	2458.8	2684.9	2831.9	2123.5
47.5°	2451.4	2461.9	2456.1	2401.8	2332.3	2373.9	2324.9	2677.5	2921.0	3166.1	2349.1
50°	2684.3	2695.4	2690.1	2626.9	2549.4	2566.8	2536.2	2889.9	3148.7	3481.3	2536.8
52.5°	2804.5	2813.5	2878.8	2907.3	2866.7	2756.0	2716.5	3123.4	3341.1	3740.6	2709.1
55°	2746.5	2752.9	2895.2	3015.3	3164.0	3053.3	2897.8	3303.6	3510.8	3943.0	2837.2
57.5°	2506.2	2540.4	2733.9	2937.3	3249.9	3346.9	3191.9	3499.7	3674.2	4083.7	2963.2
60°	2013.4	2011.8	2289.0	2654.3	3082.3	3427.5	3607.2	3764.8	3838.1	4191.7	3131.8
62.5°	1112.6	1122.6	1491.6	1972.8	2616.3	3218.8	3918.7	4222.8	4211.8	4380.4	3395.9
65°	553.9	574.0	774.3	1130.0	1740.9	2660.1	3972.5	4921.7	4890.1	4824.7	3941.4
67.5°	351.6	359.5	470.1	656.7	967.7	1709.8	3637.8	5443.0	5516.3	5351.8	4482.7
70°	227.7	240.9	326.8	449.1	584.0	881.3	2664.8	5105.1	5273.3	5293.8	4145.4
72.5°	123.9	133.3	208.7	320.5	421.7	440.6	1496.9	3831.2	4101.6	4490.6	3243.0
75°	70.6	77.5	114.4	217.7	309.4	268.3	663.6	2564.7	2737.0	3209.3	2323.8
77.5°	42.7	48.5	64.3	105.9	194.0	179.2	250.9	1561.2	1670.8	1914.8	1219.6
80°	19.5	23.2	40.6	58.5	105.9	84.9	95.9	727.9	751.6	785.9	403.7
82.5°	9.0	10.5	18.4	34.8	60.1	49.0	36.9	168.1	236.7	224.0	102.8
85°	1.1	1.1	6.9	14.2	16.9	12.6	15.3	37.9	48.0	67.5	29.5
87.5°	0.0	0.0	0.5	0.5	1.1	1.6	3.2	4.7	6.9	11.1	7.4
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: P632550  
 CATALOG NUMBER: GWS-SA2C-830-U-T2-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9
2.5°	650.9	636.2	623.0	603.5	590.3	575.6	565.5	553.4	548.7	545.0	539.7
5°	665.7	642.0	609.8	574.0	544.5	516.5	490.7	473.8	459.1	457.0	449.6
7.5°	689.9	654.6	600.3	541.8	491.8	445.4	409.0	379.5	364.7	360.0	351.6
10°	722.1	673.6	586.1	496.5	424.3	368.9	327.8	294.6	271.4	263.0	256.7
12.5°	757.9	691.0	563.4	440.6	358.4	295.2	243.0	207.7	192.9	187.6	182.9
15°	799.0	707.3	527.6	384.8	294.1	217.2	180.3	165.0	158.6	157.1	155.5
17.5°	838.6	717.9	484.9	326.8	226.1	168.7	151.3	145.5	143.9	142.3	141.3
20°	883.4	725.2	434.8	272.0	175.5	142.8	134.4	130.2	127.0	123.9	123.3
22.5°	929.2	725.2	380.5	218.2	147.1	128.1	118.6	110.7	104.9	101.7	100.7
25°	973.0	715.2	326.8	174.5	129.7	113.8	101.7	92.8	84.9	81.2	80.1
27.5°	1004.1	689.4	279.9	147.6	117.5	101.2	86.4	76.4	70.1	66.4	65.9
30°	1023.6	650.9	236.7	131.8	107.0	88.0	73.3	64.8	60.1	57.4	56.4
32.5°	1038.3	603.5	198.2	120.7	97.0	76.4	63.8	56.9	52.7	50.6	50.1
35°	1067.8	558.7	169.7	110.7	86.4	66.9	55.9	50.6	47.4	44.8	44.3
37.5°	1108.9	521.3	147.1	101.7	76.4	59.6	50.6	45.9	43.2	40.6	40.1
40°	1169.6	497.5	130.2	92.8	67.5	53.8	46.4	42.2	38.5	35.8	35.3
42.5°	1262.8	486.5	119.1	83.8	59.6	48.5	42.7	37.4	33.7	31.1	30.6
45°	1374.1	492.3	109.6	74.8	54.3	44.8	37.9	32.7	29.0	26.4	25.8
47.5°	1493.2	512.8	101.7	66.4	49.0	41.1	33.7	27.9	24.8	22.1	21.6
50°	1617.6	546.6	94.9	58.5	44.8	36.9	29.0	24.2	21.1	19.0	18.4
52.5°	1725.6	592.4	88.0	52.7	41.1	32.7	25.3	21.1	17.9	15.8	15.3
55°	1828.9	635.6	82.7	47.4	36.9	28.5	22.1	17.9	15.3	13.2	12.6
57.5°	1941.2	681.5	76.4	42.7	33.2	25.3	19.5	15.3	13.2	11.1	10.5
60°	2104.6	749.5	66.9	39.0	29.0	22.1	16.9	13.7	11.6	9.0	8.4
62.5°	2340.2	873.3	56.4	33.7	24.8	19.0	14.2	11.6	9.5	7.4	6.3
65°	2780.8	1084.2	46.4	27.9	20.0	15.8	12.1	9.5	7.4	5.3	4.7
67.5°	3098.1	1139.0	37.4	22.7	16.3	12.1	10.0	7.4	5.3	3.7	3.2
70°	2708.6	818.0	29.0	18.4	13.7	9.5	7.9	5.8	3.7	2.6	2.1
72.5°	2040.8	534.4	21.6	14.2	10.5	7.9	5.8	4.7	3.2	2.1	1.6
75°	1438.4	308.9	15.8	10.5	7.4	5.8	4.7	3.7	2.6	1.6	1.6
77.5°	737.4	127.5	11.1	7.4	5.3	3.7	3.2	2.1	2.1	1.6	1.1
80°	224.0	42.2	6.3	4.7	3.7	2.6	1.6	1.6	1.6	1.1	0.5
82.5°	51.1	13.7	3.7	3.7	2.6	2.1	1.6	0.5	0.5	0.0	0.0
85°	13.2	4.2	3.2	2.6	2.6	2.1	1.1	0.5	0.0	0.0	0.0
87.5°	4.7	2.6	2.6	2.6	2.1	1.6	1.1	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



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)