

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: P643419

Luminaire Tested: GWS-SA6E-830-U-SL2-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643419  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-28)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGE-830-U-SL2-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

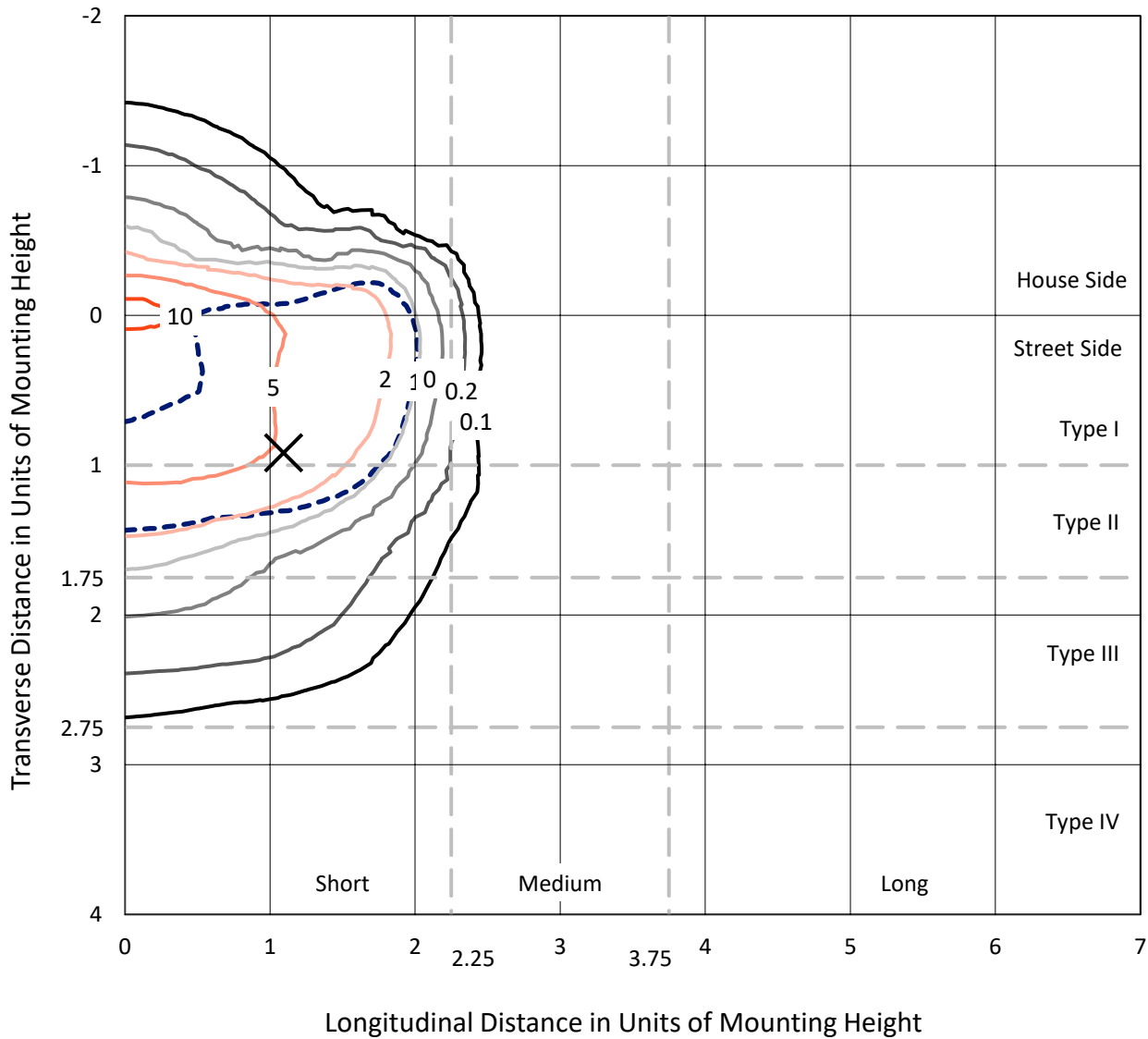
Lumens per Lamp: N/A  
Luminaire Lumens: 20880.7 lumens  
Efficiency: N/A  
Efficacy: 64.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 323.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P643419  
 CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

### Iso-Footcandle Lines of Horizontal Illumination

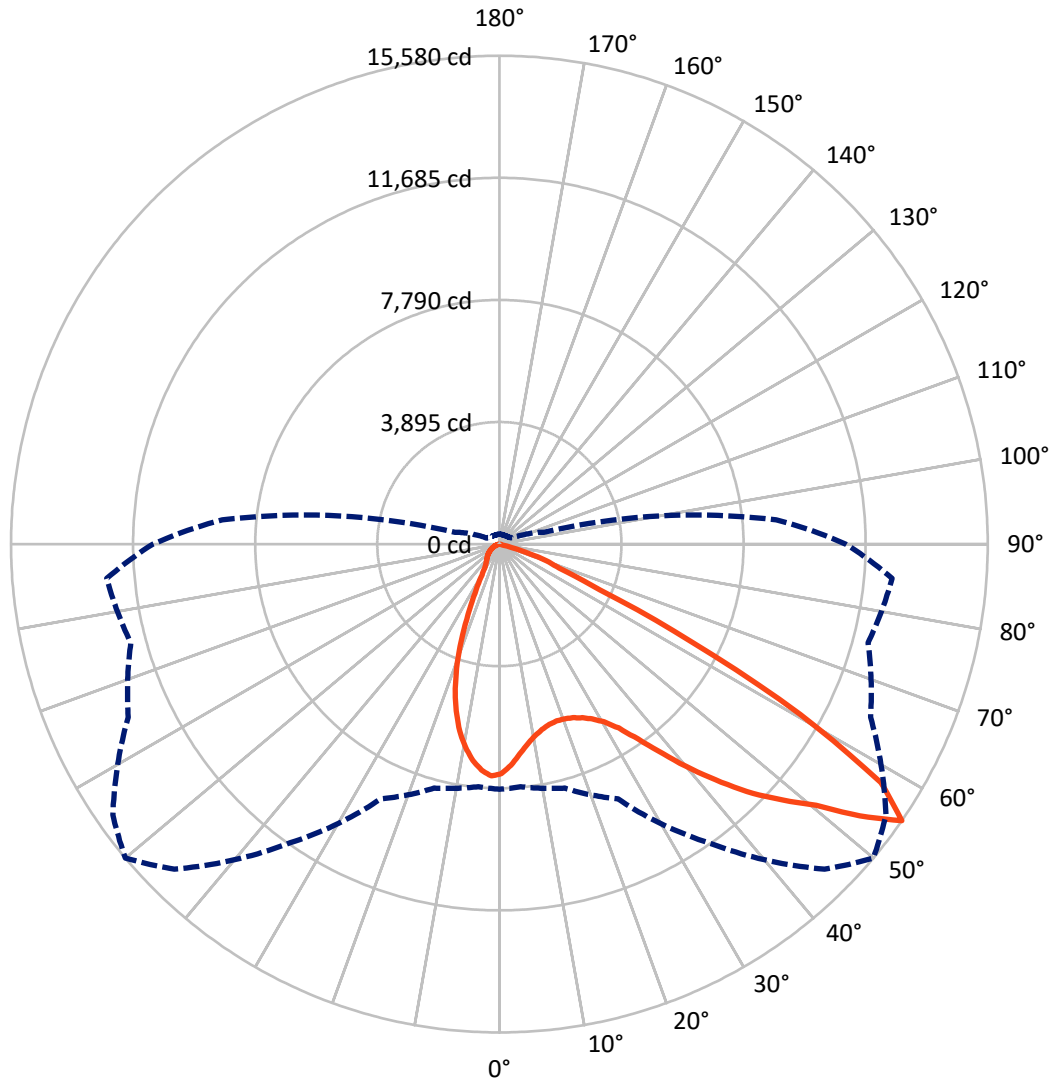
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 fc  
 Type II - Short - N/A

REPORT NUMBER: P643419  
CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

### Luminous Intensity Polar Plot



— Vertical Plane Through 50-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

REPORT NUMBER: P643419  
 CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

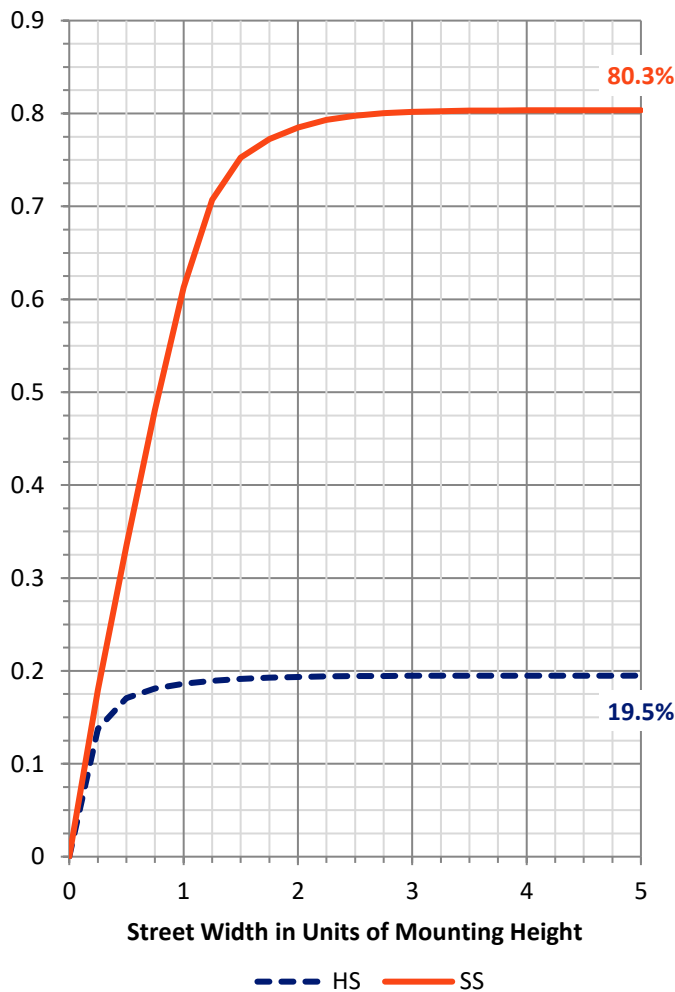
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4114.5	0.0	4114.5
	% Fixture	19.7	0.0	19.7
<b>Street Side</b>	Lumens	16766.2	0.0	16766.2
	% Fixture	80.3	0.0	80.3
<b>Total</b>	Lumens	20880.7	0.0	20880.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	643.4	3.1
10°-20°	1583.3	7.6
20°-30°	2233.2	10.7
30°-40°	3304.8	15.8
40°-50°	4767.7	22.8
50°-60°	5623.9	26.9
60°-70°	2508.7	12.0
70°-80°	215.7	1.0
80°-90°	0.1	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°	20880.7	100.0
0°-180°	20880.7	100.0

**Coefficient of Utilization**



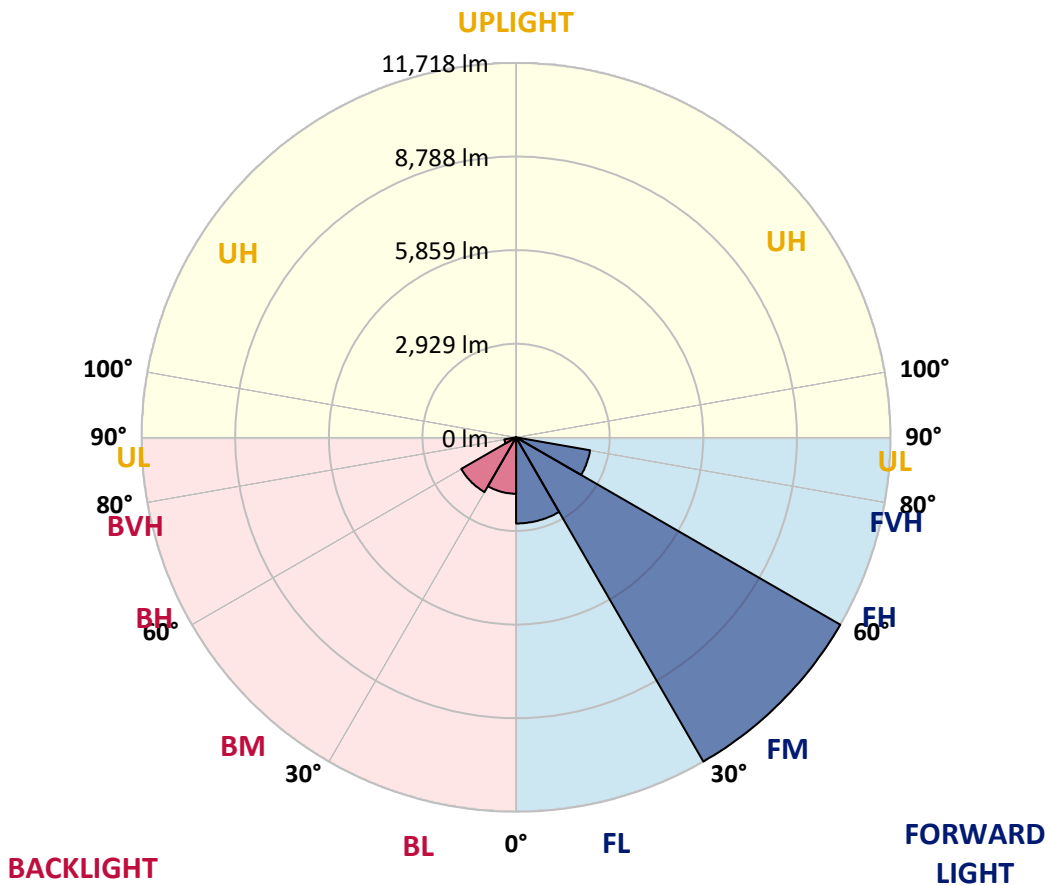
REPORT NUMBER: P643419

CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2695.8	12.9			
FM (30°-60°)	11717.6	56.1			
FH (60°-80°)	2352.9	11.3			G2/5000
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	1764.1	8.4	B3/2500		
BM (30°-60°)	1978.8	9.5	B2/2500		
BH (60°-80°)	371.5	1.8	B1/500		G1/500
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**  
 Type II Short





REPORT NUMBER: P643419

CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1
2.5°	6806.1	6811.2	6813.7	6882.6	6908.1	7010.0	7063.6	7091.6	7165.5	7252.2	7323.6
5°	6349.8	6342.2	6354.9	6441.6	6497.7	6648.1	6729.6	6785.7	6948.8	7152.8	7323.6
7.5°	5952.1	5967.4	5982.7	6077.1	6161.2	6324.3	6441.6	6525.7	6752.6	7055.9	7344.0
10°	5671.7	5671.7	5694.7	5801.7	5901.2	6102.5	6219.8	6326.9	6597.1	6969.2	7366.9
12.5°	5465.3	5467.8	5495.9	5618.2	5732.9	5941.9	6064.3	6168.8	6467.1	6882.6	7372.0
15°	5368.4	5360.8	5383.7	5513.7	5641.2	5837.4	5964.9	6066.9	6375.3	6834.1	7397.5
17.5°	5342.9	5337.8	5355.7	5483.1	5613.1	5804.3	5929.2	6031.2	6362.6	6849.4	7474.0
20°	5416.8	5406.6	5399.0	5508.6	5631.0	5819.6	5949.6	6064.3	6423.7	6933.5	7591.2
22.5°	5592.7	5592.7	5574.9	5628.4	5710.0	5880.8	6015.9	6166.3	6584.3	7101.8	7764.6
25°	5916.5	5891.0	5857.8	5880.8	5870.6	5977.6	6138.2	6347.3	6887.7	7379.6	7976.1
27.5°	6286.1	6309.0	6252.9	6255.5	6166.3	6128.0	6314.1	6630.2	7338.9	7772.2	8289.7
30°	6788.3	6770.4	6773.0	6765.3	6558.8	6377.8	6579.2	6999.8	7907.3	8371.2	8697.5
32.5°	7180.8	7206.3	7290.4	7338.9	7068.7	6778.1	6992.2	7502.0	8554.8	9054.4	9197.1
35°	7596.3	7642.2	7813.0	7971.0	7744.2	7410.2	7639.6	8167.3	9164.0	9729.9	9770.7
37.5°	8034.8	8126.5	8330.5	8608.3	8572.6	8276.9	8486.0	8949.9	9643.2	10137.8	10244.8
40°	8536.9	8626.2	8960.1	9360.3	9444.4	9378.1	9447.0	9717.2	9959.3	10155.6	10448.8
42.5°	9087.5	9209.9	9633.0	10168.4	10484.4	10543.1	10382.5	10354.4	10097.0	9951.7	10405.4
45°	9737.6	9880.3	10359.5	11052.9	11555.1	11634.1	11356.2	10996.8	10183.7	9801.3	10275.4
47.5°	10466.6	10601.7	11078.4	11911.9	12658.8	12689.4	12205.1	11626.4	10441.1	9974.6	10374.8
50°	10711.3	10795.4	11208.4	12187.2	13563.8	13798.3	13097.3	12335.1	10958.6	10484.4	10859.2
52.5°	9870.1	9903.2	10262.7	11251.7	13380.2	14886.7	14399.9	13393.0	11878.8	11261.9	11606.0
55°	7820.6	7767.1	8057.7	8965.2	11629.0	14665.0	15580.1	15055.0	13064.1	12174.5	12577.3
57.5°	5470.4	5406.6	5340.4	5954.7	8677.1	12432.0	14356.5	15286.9	14193.4	13079.4	13624.9
60°	4496.6	4435.4	4114.2	3831.3	5246.0	8926.9	11027.4	12778.6	14101.6	13033.5	13591.8
62.5°	3884.8	3849.1	3719.1	3334.2	3087.0	5095.6	6905.5	8582.8	10820.9	10234.6	10265.2
65°	3051.3	3041.1	3130.3	3171.1	2730.1	2819.3	3522.9	4460.9	5850.2	5516.3	5230.8
67.5°	2085.2	2062.2	2230.5	2742.8	2625.6	2225.4	2062.2	2080.1	2531.3	1547.3	1228.7
70°	1325.5	1272.0	1274.5	1700.2	2136.1	1756.3	1590.6	1399.5	1259.3	229.4	260.0
72.5°	848.8	815.7	701.0	767.3	989.1	856.5	864.1	744.3	497.1	122.4	142.7
75°	356.9	328.8	252.4	201.4	198.8	124.9	109.6	102.0	68.8	68.8	73.9
77.5°	2.5	0.0	0.0	2.5	5.1	2.5	2.5	5.1	10.2	15.3	17.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
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



REPORT NUMBER: P643419

CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1	7326.1
2.5°	7366.9	7305.7	7374.5	7400.0	7397.5	7400.0	7326.1	7275.1	7272.6	7208.9	7178.3
5°	7394.9	7346.5	7397.5	7364.3	7285.3	7185.9	7053.4	6938.6	6887.7	6813.7	6778.1
7.5°	7448.5	7397.5	7389.8	7257.3	7061.0	6852.0	6617.5	6408.4	6296.3	6161.2	6168.8
10°	7486.7	7428.1	7328.7	7058.5	6732.2	6398.2	6049.0	5738.0	5541.7	5360.8	5330.2
12.5°	7502.0	7415.3	7183.4	6775.5	6316.7	5880.8	5368.4	4924.9	4619.0	4381.9	4348.8
15°	7530.0	7389.8	6997.3	6433.9	5804.3	5187.4	4534.8	3928.2	3522.9	3250.1	3273.0
17.5°	7573.4	7361.8	6788.3	6051.6	5253.7	4381.9	3499.9	2804.0	2431.8	2273.8	2276.3
20°	7634.6	7328.7	6558.8	5631.0	4593.5	3471.9	2447.1	1922.0	1817.5	1812.4	1804.8
22.5°	7716.1	7295.5	6314.1	5169.6	3810.9	2431.8	1628.9	1465.7	1509.1	1593.2	1608.5
25°	7813.0	7254.7	6041.4	4649.6	2957.0	1595.7	1221.0	1195.5	1300.0	1412.2	1437.7
27.5°	7963.4	7234.3	5730.4	4058.2	2075.0	1144.5	999.2	1014.5	1108.9	1203.2	1226.1
30°	8218.3	7272.6	5391.3	3395.4	1333.2	912.6	866.7	889.6	940.6	989.1	1009.4
32.5°	8565.0	7384.7	5062.5	2671.5	950.8	792.8	782.6	795.3	815.7	843.8	851.4
35°	8970.3	7578.5	4723.5	1911.8	785.1	723.9	713.7	713.7	723.9	729.0	731.6
37.5°	9304.2	7782.4	4404.8	1272.0	703.6	670.4	655.1	647.5	644.9	650.0	652.6
40°	9449.5	7866.5	4058.2	925.3	644.9	622.0	599.0	576.1	576.1	593.9	596.5
42.5°	9347.5	7772.2	3658.0	764.7	604.1	571.0	535.3	514.9	525.1	543.0	548.1
45°	9130.9	7540.2	3217.0	675.5	563.4	520.0	479.2	466.5	476.7	499.6	504.7
47.5°	9095.2	7387.3	2689.3	616.9	520.0	476.7	433.3	420.6	433.3	451.2	456.3
50°	9449.5	7519.8	2103.0	565.9	479.2	430.8	395.1	382.4	390.0	400.2	405.3
52.5°	10097.0	8011.8	1697.7	517.5	430.8	384.9	362.0	346.7	346.7	356.9	359.4
55°	11052.9	8870.9	1465.7	461.4	374.7	349.2	328.8	313.5	313.5	318.6	321.2
57.5°	12154.1	9910.9	1519.3	387.5	328.8	316.1	298.2	285.5	290.6	290.6	290.6
60°	12001.2	9834.4	1626.3	326.3	290.6	285.5	270.2	265.1	277.9	267.7	262.6
62.5°	8840.3	6793.3	851.4	267.7	249.8	244.7	234.5	244.7	262.6	234.5	224.3
65°	4292.7	3288.3	341.6	219.2	211.6	206.5	201.4	216.7	226.9	183.5	173.3
67.5°	1009.4	820.8	221.8	186.1	175.9	165.7	170.8	173.3	165.7	124.9	119.8
70°	262.6	257.5	173.3	155.5	140.2	130.0	130.0	127.5	109.6	79.0	73.9
72.5°	142.7	140.2	124.9	117.3	96.9	86.7	89.2	79.0	61.2	45.9	43.3
75°	71.4	76.5	71.4	66.3	53.5	48.4	48.4	43.3	30.6	17.8	17.8
77.5°	15.3	17.8	17.8	15.3	12.7	10.2	10.2	12.7	5.1	0.0	0.0
80°	2.5	2.5	2.5	2.5	2.5	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



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**

$\lambda$ (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			

**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)