

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: P643420

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

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643420  
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-SAGE-830-U-SL2-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

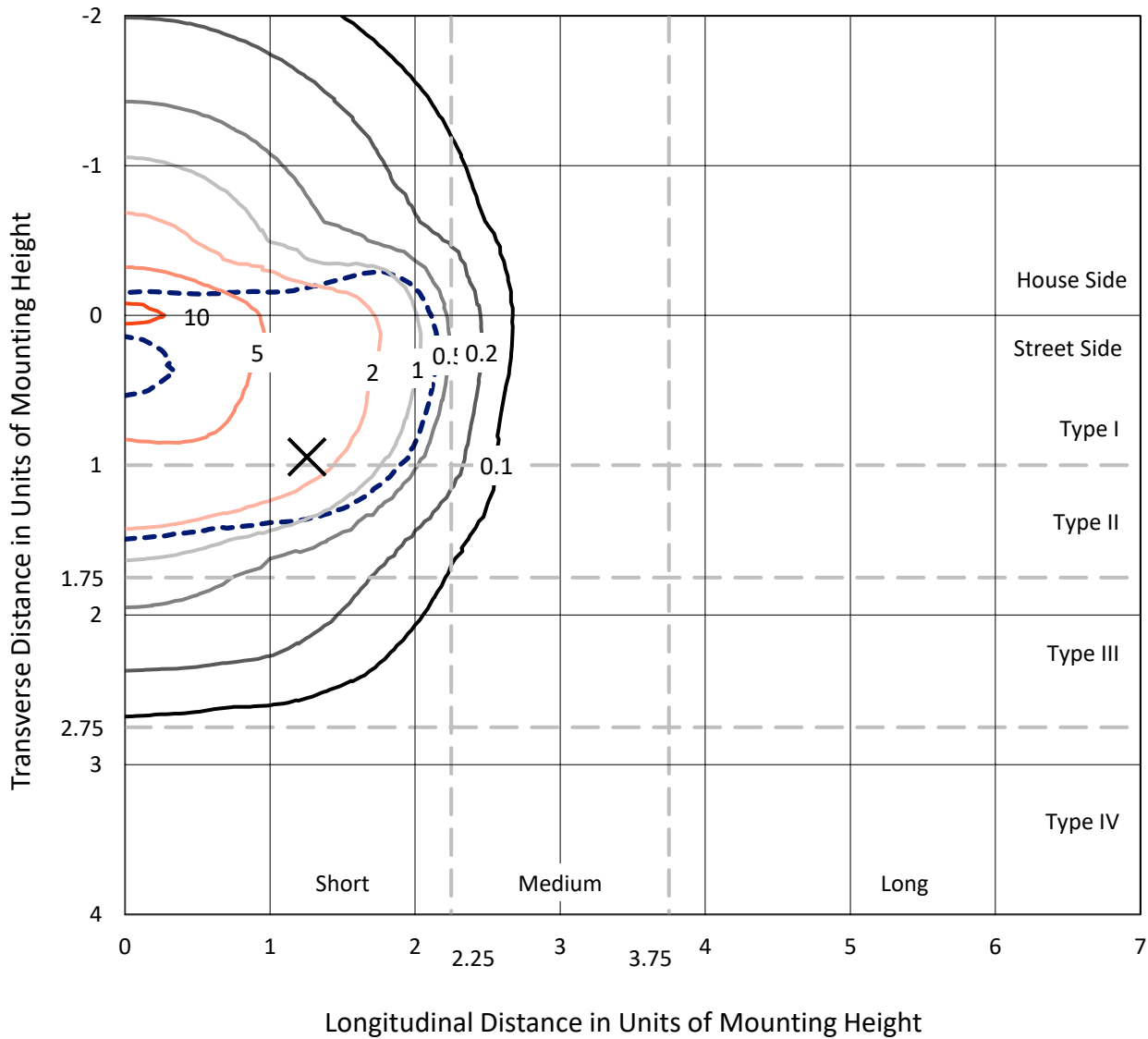
Lumens per Lamp: N/A  
Luminaire Lumens: 30287.4 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G3  
  
Input Watts (W): 323.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
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



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

### Iso-Footcandle Lines of Horizontal Illumination

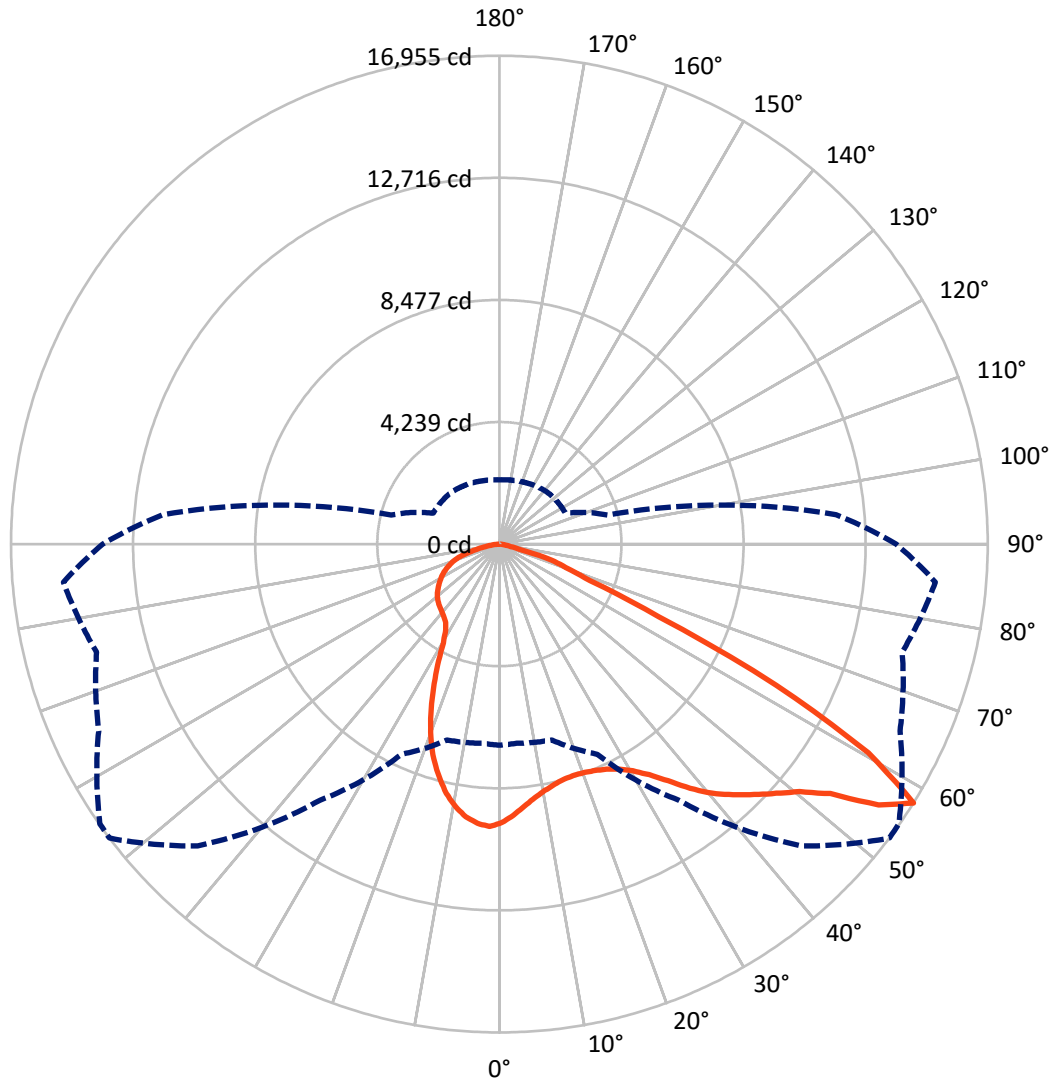
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9469.8	0.0	9469.8
	% Fixture	31.3	0.0	31.3
<b>Street Side</b>	Lumens	20817.6	0.0	20817.6
	% Fixture	68.7	0.0	68.7
<b>Total</b>	Lumens	30287.4	0.0	30287.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	874.6	2.9
10°-20°	2294.5	7.6
20°-30°	3380.7	11.2
30°-40°	4732.1	15.6
40°-50°	6220.7	20.5
50°-60°	7293.7	24.1
60°-70°	4296.8	14.2
70°-80°	1068.9	3.5
80°-90°	125.4	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°	30287.4	100.0
0°-180°	30287.4	100.0

**Coefficient of Utilization**



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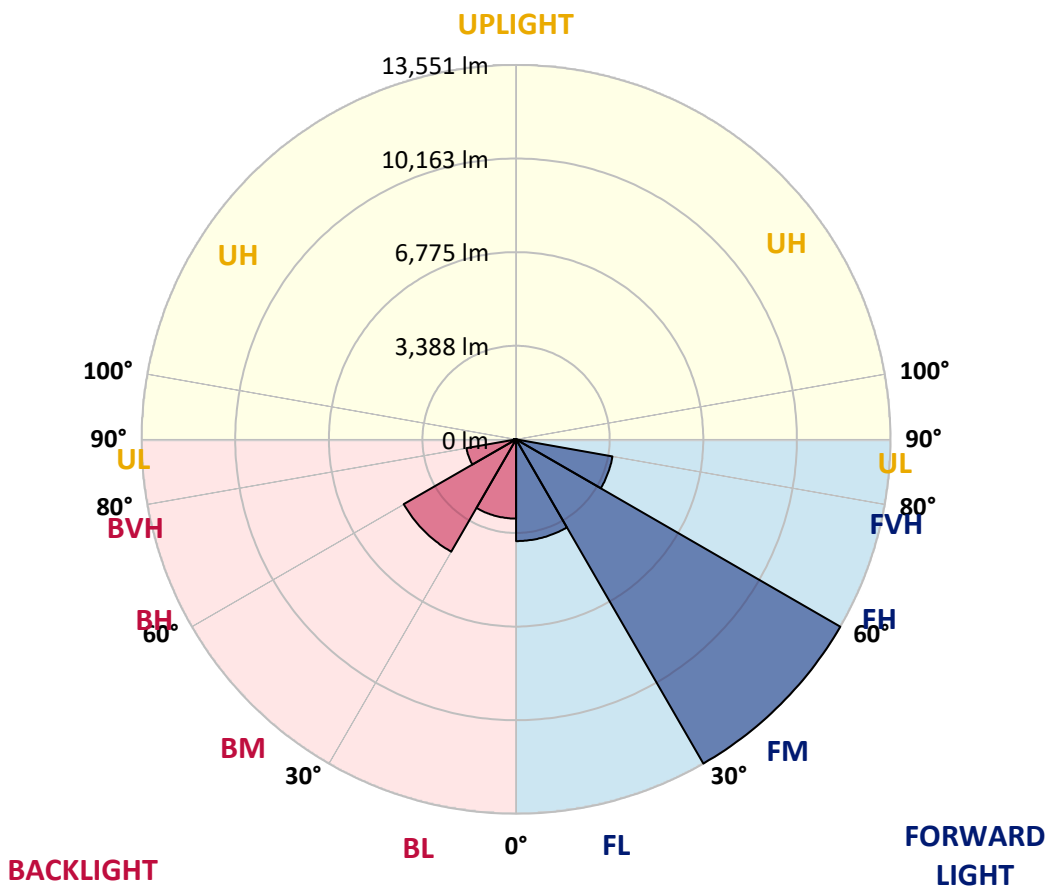
CATALOG NUMBER: GWS-SA6E-830-U-SL2-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3682.4	12.2			
FM (30°-60°)	13550.9	44.7			
FH (60°-80°)	3542.5	11.7			G2/5000
FVH (80°-90°)	42.0	0.1			G1/100
BL (0°-30°)	2867.5	9.5	B4/5000		
BM (30°-60°)	4695.6	15.5	B3/5000		
BH (60°-80°)	1823.2	6.0	B3/2500		G3/2500
BVH (80°-90°)	83.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6
2.5°	9115.9	9141.4	9146.5	9225.5	9230.6	9345.3	9421.8	9406.5	9485.5	9582.4	9658.8
5°	8680.0	8682.5	8708.0	8802.3	8853.3	9003.7	9131.2	9131.2	9284.1	9482.9	9653.7
7.5°	8320.5	8318.0	8340.9	8445.4	8529.6	8710.5	8883.9	8904.3	9118.4	9409.0	9686.9
10°	7986.6	8004.4	8029.9	8157.4	8264.4	8488.8	8695.2	8728.4	8998.6	9358.0	9732.8
12.5°	7772.4	7775.0	7813.2	7956.0	8093.6	8333.3	8549.9	8590.7	8901.7	9309.6	9765.9
15°	7634.8	7637.3	7678.1	7836.2	7996.8	8238.9	8460.7	8506.6	8845.7	9302.0	9829.6
17.5°	7573.6	7571.1	7609.3	7767.3	7943.2	8195.6	8432.7	8488.8	8871.1	9360.6	9941.8
20°	7573.6	7576.2	7596.6	7739.3	7917.7	8185.4	8460.7	8529.6	8970.6	9493.1	10115.1
22.5°	7680.7	7690.9	7701.1	7797.9	7938.1	8200.7	8534.7	8626.4	9184.7	9714.9	10342.0
25°	7889.7	7892.3	7902.5	7981.5	8045.2	8244.0	8657.0	8794.7	9518.6	10038.7	10627.5
27.5°	8170.1	8205.8	8216.0	8267.0	8267.0	8351.1	8848.2	9047.0	9969.8	10505.2	10992.1
30°	8562.7	8575.4	8593.3	8649.4	8588.2	8552.5	9128.6	9383.5	10492.4	11068.5	11430.5
32.5°	8906.8	8934.9	9031.7	9123.5	9013.9	8901.7	9541.6	9842.4	10994.6	11654.8	11897.0
35°	9200.0	9268.8	9454.9	9658.8	9582.4	9470.2	10089.7	10403.2	11407.6	12075.5	12310.0
37.5°	9554.3	9607.9	9862.8	10194.2	10263.0	10209.5	10757.5	10981.9	11682.9	12182.5	12534.3
40°	9913.8	9995.3	10324.2	10783.0	11045.6	11083.8	11374.4	11524.8	11777.2	11973.5	12491.0
42.5°	10280.8	10421.0	10872.2	11407.6	11874.1	11960.7	11894.5	11958.2	11746.6	11685.4	12289.6
45°	10729.5	10895.2	11405.0	12088.2	12702.6	12837.7	12404.3	12345.7	11741.5	11575.8	12164.7
47.5°	11259.7	11425.4	11912.3	12707.7	13492.8	13592.2	12926.9	12819.8	11920.0	11744.1	12332.9
50°	11728.8	11843.5	12279.4	13169.1	14229.5	14288.1	13503.0	13373.0	12363.5	12210.6	12858.1
52.5°	11252.1	11239.3	11698.2	12794.3	14611.9	15318.0	14390.1	14265.2	13220.0	12985.5	13671.2
55°	9546.7	9401.4	9811.8	10890.1	13543.8	16233.2	15980.8	15731.0	14362.1	13765.6	14433.5
57.5°	6979.7	6938.9	7038.3	8050.3	10849.3	14815.8	16954.6	16931.6	15348.6	14479.3	15193.1
60°	5457.8	5396.6	5131.5	5159.5	7395.2	11573.3	14713.9	15389.4	15960.4	14907.6	15723.3
62.5°	4846.0	4800.1	4662.4	4282.6	4405.0	7759.7	10785.6	11405.0	13946.6	13166.5	13505.6
65°	4012.4	3999.7	4114.4	4099.1	3691.2	4285.2	6087.4	6712.0	8769.2	8878.8	8769.2
67.5°	2916.3	2893.3	3183.9	3757.5	3553.6	3234.9	3393.0	3609.6	4496.8	4037.9	3635.1
70°	1896.6	1863.4	2031.7	2714.9	3181.4	2819.4	2444.7	2409.0	2472.7	1537.2	1662.1
72.5°	1272.0	1233.8	1231.3	1493.8	1922.1	1899.1	1894.0	1876.2	1674.8	1213.4	1346.0
75°	708.7	678.1	670.4	644.9	688.3	701.0	746.9	772.4	836.1	920.3	1019.7
77.5°	119.8	117.3	147.9	188.6	260.0	333.9	413.0	435.9	537.9	637.3	701.0
80°	66.3	68.8	89.2	109.6	145.3	198.8	254.9	270.2	331.4	384.9	435.9
82.5°	35.7	35.7	45.9	58.6	79.0	104.5	137.7	150.4	191.2	224.3	260.0
85°	12.7	12.7	17.8	22.9	33.1	43.3	53.5	61.2	84.1	114.7	130.0
87.5°	0.0	0.0	0.0	0.0	2.5	5.1	10.2	10.2	12.7	22.9	33.1
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: P643420

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

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6	9671.6
2.5°	9722.6	9653.7	9748.1	9791.4	9806.7	9816.9	9750.6	9704.7	9689.4	9641.0	9613.0
5°	9758.3	9712.4	9801.6	9801.6	9737.9	9671.6	9536.5	9442.2	9375.9	9296.9	9284.1
7.5°	9819.4	9786.3	9834.7	9735.3	9574.7	9396.3	9161.7	8978.2	8830.4	8733.5	8736.0
10°	9901.0	9860.2	9822.0	9600.2	9307.1	8978.2	8618.8	8351.1	8106.4	7994.2	7933.0
12.5°	9954.5	9895.9	9735.3	9368.2	8937.4	8496.4	7989.1	7591.5	7237.1	7076.5	7063.8
15°	10020.8	9913.8	9592.6	9067.4	8468.4	7866.8	7214.2	6661.0	6181.8	5931.9	5919.2
17.5°	10107.5	9931.6	9421.8	8723.3	7973.8	7086.7	6265.9	5570.0	5060.1	4866.4	4899.5
20°	10229.9	9952.0	9228.0	8340.9	7359.5	6199.6	5177.4	4537.5	4341.3	4328.5	4303.0
22.5°	10367.5	9964.7	9013.9	7912.7	6615.1	5253.9	4277.5	4004.8	4002.2	4065.9	4081.2
25°	10523.0	9974.9	8771.7	7413.0	5809.6	4310.7	3783.0	3701.4	3765.1	3884.9	3900.2
27.5°	10721.8	9995.3	8478.6	6864.9	4953.1	3724.4	3510.2	3489.8	3566.3	3678.5	3673.4
30°	11015.0	10069.3	8167.6	6235.3	4073.6	3446.5	3344.5	3347.1	3377.7	3431.2	3438.8
32.5°	11313.3	10184.0	7864.2	5526.6	3568.9	3288.4	3242.6	3237.5	3237.5	3260.4	3265.5
35°	11596.2	10314.0	7535.4	4787.4	3324.1	3196.7	3166.1	3150.8	3143.1	3138.0	3130.4
37.5°	11754.3	10377.7	7214.2	4058.3	3194.1	3135.5	3104.9	3084.5	3056.5	3036.1	3031.0
40°	11685.4	10303.8	6842.0	3512.8	3115.1	3076.9	3041.2	3013.1	2974.9	2957.0	2946.9
42.5°	11456.0	10074.4	6436.7	3255.3	3051.4	3013.1	2969.8	2923.9	2898.4	2883.1	2880.6
45°	11213.8	9796.5	5947.2	3104.9	2990.2	2944.3	2893.3	2842.3	2814.3	2806.6	2804.1
47.5°	11206.2	9658.8	5427.2	2985.1	2916.3	2870.4	2806.6	2755.7	2725.1	2714.9	2704.7
50°	11542.7	9799.0	4840.9	2880.6	2839.8	2791.4	2720.0	2663.9	2625.7	2612.9	2610.4
52.5°	12241.2	10326.7	4315.8	2776.1	2737.8	2681.7	2623.1	2567.0	2521.1	2498.2	2495.6
55°	12995.7	10997.2	3989.5	2669.0	2618.0	2569.6	2516.0	2454.9	2403.9	2368.2	2363.1
57.5°	13775.8	11728.8	3890.0	2533.9	2495.6	2462.5	2398.8	2332.5	2273.9	2240.7	2233.1
60°	14418.2	12358.4	4076.1	2391.1	2370.7	2327.4	2268.8	2205.0	2164.3	2138.8	2133.7
62.5°	12070.4	10061.6	3291.0	2235.6	2235.6	2189.7	2123.5	2077.6	2049.5	2031.7	2026.6
65°	7660.3	6230.2	2245.8	2080.1	2077.6	2016.4	1960.3	1929.7	1917.0	1888.9	1883.8
67.5°	3336.9	2847.4	1919.5	1922.1	1911.9	1845.6	1789.5	1766.6	1741.1	1710.5	1707.9
70°	1730.9	1764.0	1718.1	1746.2	1728.3	1649.3	1595.8	1560.1	1506.6	1476.0	1478.5
72.5°	1397.0	1432.6	1483.6	1527.0	1488.7	1425.0	1340.9	1297.5	1228.7	1195.6	1198.1
75°	1065.6	1103.8	1152.2	1198.1	1167.5	1088.5	1035.0	991.6	912.6	874.4	882.0
77.5°	734.2	754.6	813.2	810.6	800.4	777.5	698.5	647.5	565.9	520.0	525.1
80°	456.3	469.0	497.1	509.8	504.7	474.1	410.4	372.2	323.7	295.7	298.3
82.5°	275.3	283.0	308.5	311.0	308.5	285.5	237.1	209.0	178.4	163.1	163.1
85°	140.2	145.3	160.6	160.6	145.3	122.4	109.6	96.9	79.0	71.4	71.4
87.5°	38.2	38.2	48.4	40.8	33.1	30.6	15.3	12.7	5.1	2.5	2.5
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

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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

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**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			

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**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			

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**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)