

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: P642422

Luminaire Tested: GWS-SA6C-830-U-AFL-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642422  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-46)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA6C-830-U-AFL-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

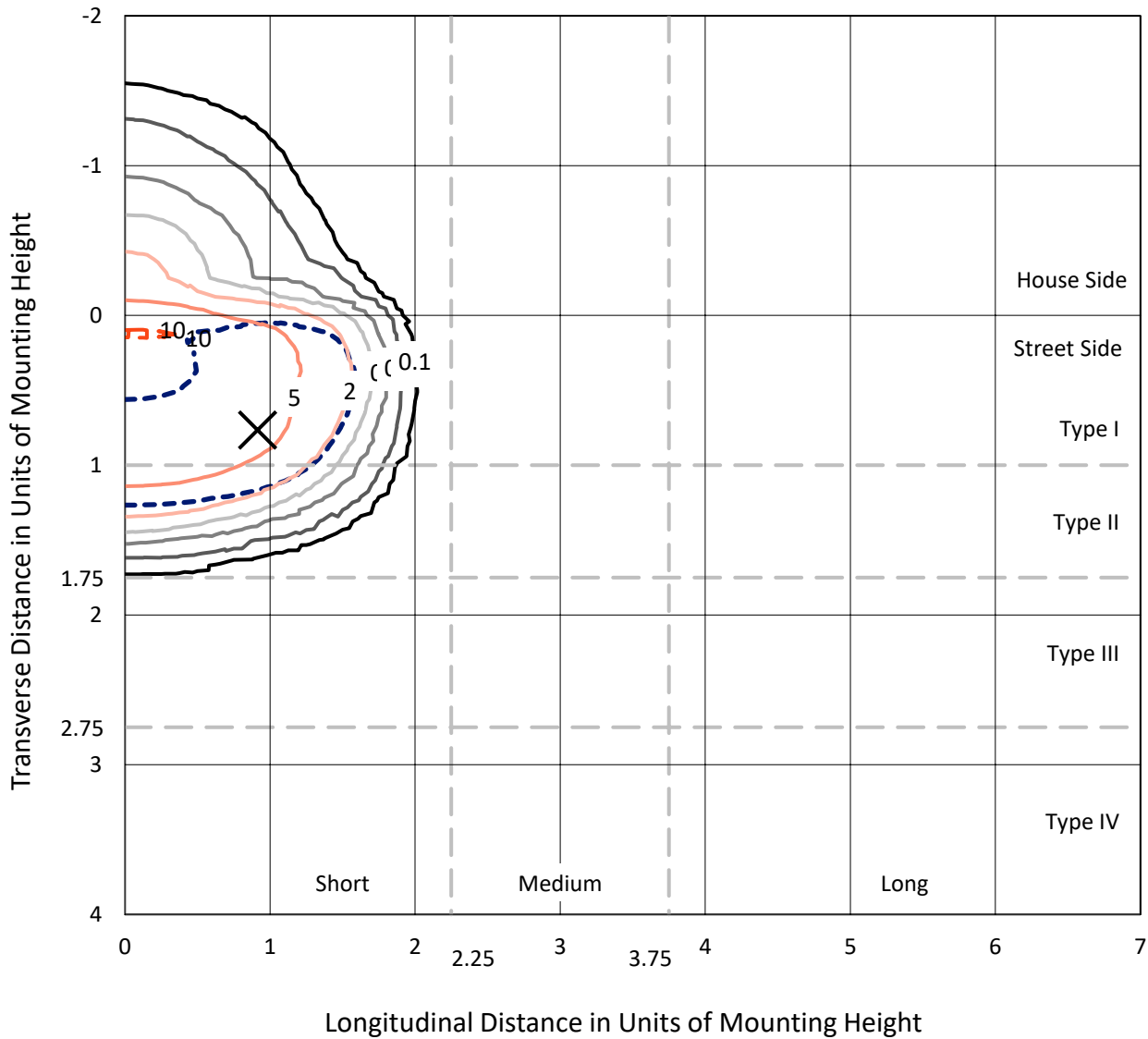
Lumens per Lamp: N/A  
Luminaire Lumens: 16988.3 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 189.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P642422  
 CATALOG NUMBER: GWS-SA6C-830-U-AFL-W-GRSBK

### Iso-Footcandle Lines of Horizontal Illumination

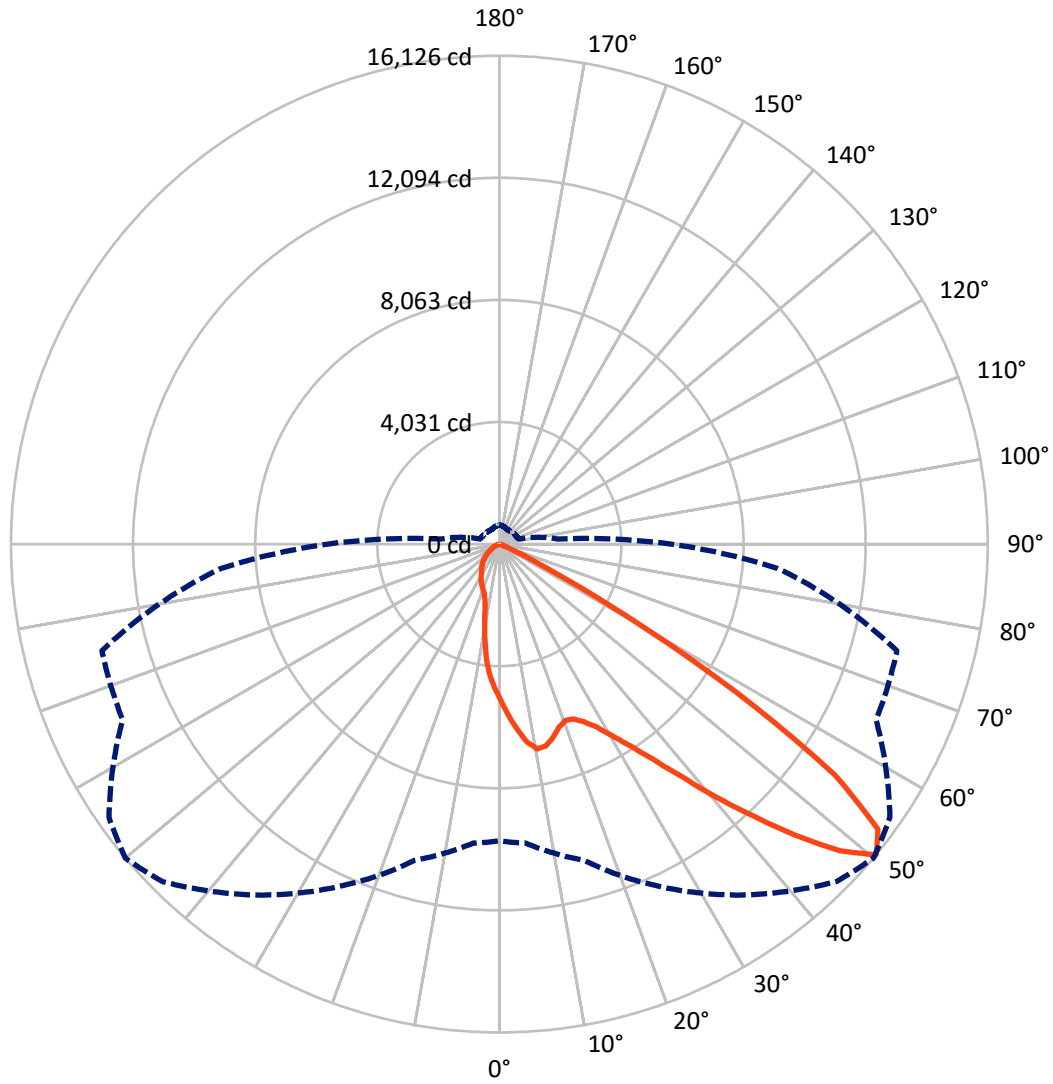
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



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

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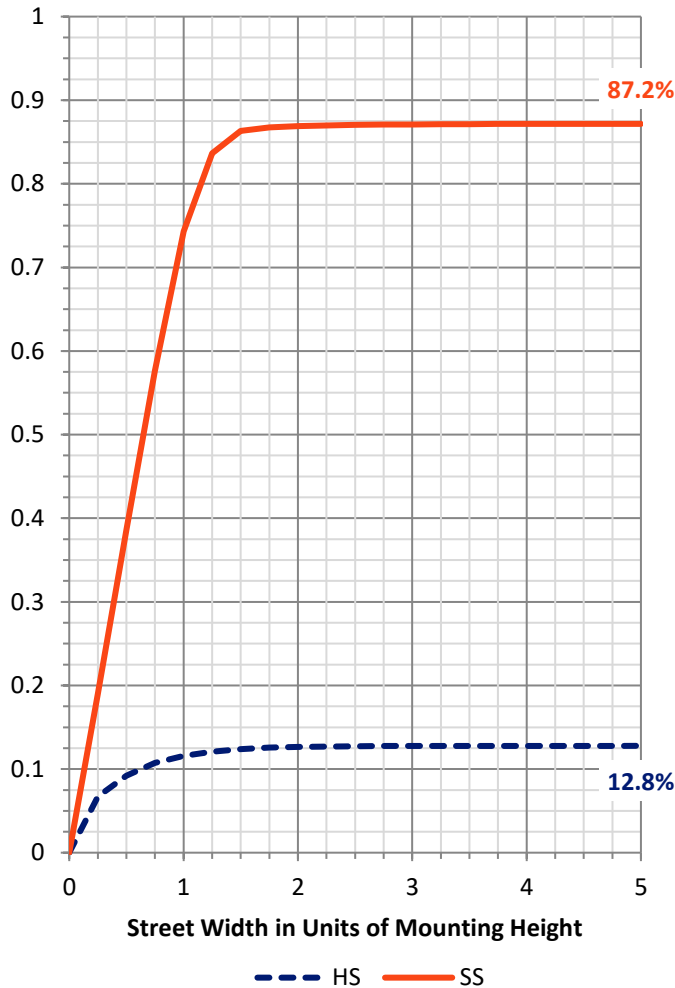
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2182.7	0.0	2182.7
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	14805.6	0.0	14805.6
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	16988.3	0.0	16988.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	477.4	2.8
10°-20°	1231.8	7.3
20°-30°	2033.0	12.0
30°-40°	3354.8	19.7
40°-50°	5308.1	31.2
50°-60°	4018.9	23.7
60°-70°	503.0	3.0
70°-80°	56.9	0.3
80°-90°	4.4	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°	16988.3	100.0
0°-180°	16988.3	100.0

**Coefficient of Utilization**



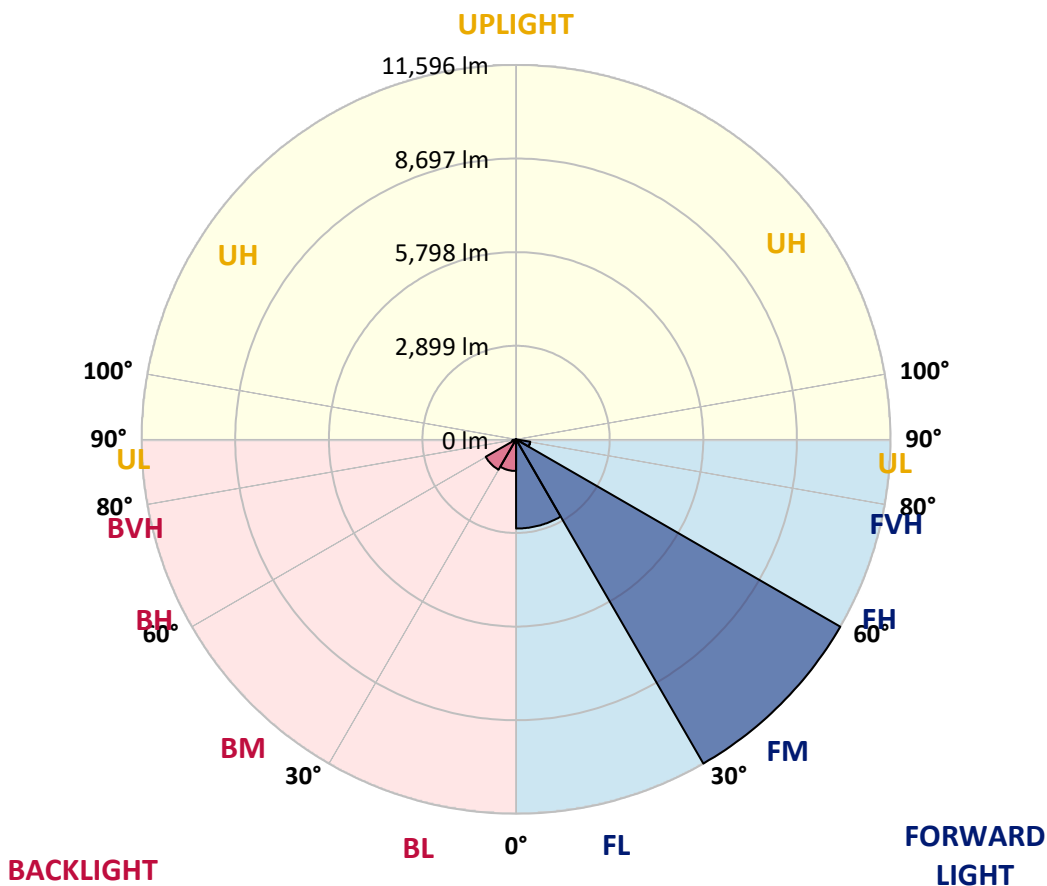
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2762.5	16.3			
FM (30°-60°)	11596.3	68.3			
FH (60°-80°)	444.7	2.6			G0/660
FVH (80°-90°)	2.0	0.0			G0/10
BL (0°-30°)	979.7	5.8	B2/1000		
BM (30°-60°)	1085.5	6.4	B2/2500		
BH (60°-80°)	115.2	0.7	B1/500		G1/500
BVH (80°-90°)	2.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8
2.5°	5864.7	5911.6	5898.7	5837.2	5770.9	5724.0	5651.3	5628.6	5463.7	5348.9	5227.6
5°	6572.9	6587.5	6571.3	6496.9	6380.5	6268.9	6149.3	6079.8	5803.3	5554.3	5300.4
7.5°	6742.7	6724.9	6755.7	6792.8	6776.7	6728.2	6602.0	6526.0	6196.2	5790.3	5405.5
10°	6212.4	6171.9	6286.7	6479.2	6681.3	6909.3	6876.9	6883.4	6579.4	6087.8	5542.9
12.5°	5509.0	5492.8	5578.5	5801.6	6197.8	6715.2	6839.7	7048.3	6930.3	6409.6	5699.8
15°	5200.1	5208.2	5260.0	5400.6	5685.2	6328.8	6627.9	7004.7	7244.0	6721.7	5872.8
17.5°	5247.0	5276.1	5274.5	5321.4	5494.4	6010.2	6359.5	6867.2	7486.5	7080.7	6071.7
20°	5565.6	5594.7	5551.0	5515.4	5573.7	5929.4	6218.8	6728.2	7649.8	7442.9	6281.9
22.5°	6042.6	6076.5	5973.0	5871.2	5834.0	6062.0	6272.2	6671.6	7774.3	7774.3	6469.5
25°	6619.8	6666.7	6506.6	6325.5	6222.1	6341.7	6500.2	6799.3	7902.1	8071.9	6597.2
27.5°	7265.0	7266.6	7129.2	6925.4	6731.4	6746.0	6841.4	7087.1	8042.8	8392.0	6697.4
30°	7991.0	7995.9	7813.1	7569.0	7324.8	7258.5	7339.4	7525.3	8335.4	8794.6	6836.5
32.5°	8928.8	8951.5	8689.5	8330.6	8013.6	7889.1	7936.0	8131.7	8801.1	9299.1	7045.1
35°	10196.5	10220.8	9834.3	9360.6	8856.1	8668.5	8715.4	8912.7	9475.4	10015.4	7378.2
37.5°	11448.1	11480.4	11089.1	10647.7	9955.6	9645.2	9693.7	9881.2	10487.6	11005.0	7911.8
40°	12313.1	12356.8	12235.5	11938.0	11296.1	10888.6	10946.8	11014.7	11601.7	12188.6	8603.8
42.5°	12769.1	12830.6	12882.3	13034.3	12696.4	12355.2	12256.5	12261.4	12735.2	13394.9	9323.4
45°	12796.6	12856.4	13121.6	13708.6	13965.7	13894.5	13715.0	13593.8	13600.2	14198.5	9772.9
47.5°	11907.3	12018.9	12515.3	13664.9	14631.9	15222.0	15131.5	14843.7	13964.1	14251.9	9724.4
50°	9800.4	9910.3	10812.6	12466.8	14146.8	15752.4	16125.9	15739.5	13726.4	13587.3	9224.7
52.5°	7117.9	7129.2	7714.5	9646.8	12180.5	14774.2	15653.8	15616.6	13364.2	12782.1	8542.4
55°	3381.1	3340.6	3998.7	5444.3	8424.4	11949.3	13432.1	13852.5	12850.0	12200.0	8013.6
57.5°	984.7	1004.1	1296.8	2124.7	4213.8	7636.9	9198.9	9981.5	10547.4	10030.0	6215.6
60°	441.4	443.0	493.2	646.8	1403.5	3552.5	4755.5	5724.0	6306.1	5843.7	3083.5
62.5°	320.2	321.8	341.2	365.4	477.0	1203.0	1783.5	2376.9	2420.6	1584.6	781.0
65°	266.8	266.8	270.0	270.0	286.2	430.1	541.7	698.5	588.6	436.6	305.6
67.5°	215.1	216.7	219.9	219.9	215.1	215.1	232.8	255.5	273.3	337.9	281.4
70°	168.2	166.5	166.5	168.2	163.3	139.1	150.4	171.4	187.6	263.6	244.2
72.5°	131.0	132.6	131.0	124.5	113.2	82.5	88.9	111.6	119.7	164.9	164.9
75°	98.6	100.3	93.8	71.1	46.9	25.9	34.0	55.0	69.5	80.8	59.8
77.5°	12.9	12.9	9.7	9.7	8.1	9.7	9.7	12.9	19.4	19.4	14.6
80°	1.6	1.6	1.6	3.2	4.9	6.5	6.5	6.5	6.5	8.1	8.1
82.5°	1.6	1.6	1.6	1.6	4.9	4.9	6.5	6.5	6.5	6.5	6.5
85°	0.0	0.0	0.0	1.6	3.2	4.9	4.9	6.5	6.5	6.5	6.5
87.5°	0.0	0.0	0.0	1.6	3.2	4.9	4.9	4.9	6.5	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GWS-SA6C-830-U-AFL-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8	5146.8
2.5°	5154.9	5061.1	4947.9	4870.3	4760.3	4687.6	4584.1	4514.5	4454.7	4407.8	4433.7
5°	5156.5	5007.7	4776.5	4579.2	4364.2	4166.9	3955.1	3788.5	3638.2	3570.2	3607.4
7.5°	5188.8	4975.4	4621.3	4270.4	3858.1	3450.6	3069.0	2758.5	2604.9	2532.2	2554.8
10°	5251.9	4960.8	4448.3	3866.1	3196.7	2640.5	2270.2	2060.0	1974.3	1929.0	1937.1
12.5°	5310.1	4951.1	4223.5	3334.2	2522.5	2048.7	1856.3	1827.2	1844.9	1846.6	1844.9
15°	5389.3	4933.3	3945.4	2787.6	2018.0	1770.6	1775.4	1817.5	1859.5	1872.4	1869.2
17.5°	5473.4	4905.9	3586.4	2263.7	1712.4	1689.7	1746.3	1802.9	1844.9	1851.4	1853.0
20°	5560.7	4849.3	3177.3	1848.2	1570.1	1628.3	1691.3	1733.4	1764.1	1773.8	1777.0
22.5°	5601.1	4729.6	2705.2	1550.7	1474.7	1552.3	1599.2	1654.1	1663.9	1628.3	1634.7
25°	5580.1	4527.5	2244.3	1350.2	1379.3	1456.9	1526.4	1498.9	1458.5	1432.6	1440.7
27.5°	5513.8	4259.1	1793.2	1203.0	1277.4	1376.0	1384.1	1353.4	1346.9	1325.9	1332.4
30°	5442.7	3950.2	1442.3	1085.0	1173.9	1277.4	1253.1	1264.5	1266.1	1241.8	1249.9
32.5°	5399.0	3626.8	1148.0	1005.7	1107.6	1127.0	1175.5	1198.2	1199.8	1143.2	1152.9
35°	5413.6	3308.3	971.8	941.1	1046.2	1041.3	1109.2	1122.2	1028.4	950.8	958.9
37.5°	5531.6	3014.0	871.5	890.9	939.5	976.6	1028.4	942.7	921.7	886.1	890.9
40°	5751.5	2763.4	811.7	860.2	866.7	926.5	847.3	858.6	860.2	837.6	842.4
42.5°	6008.6	2554.8	776.1	842.4	826.3	836.0	756.7	779.4	803.6	793.9	795.5
45°	6138.0	2351.1	745.4	781.0	785.8	693.7	675.9	700.1	730.9	735.7	737.3
47.5°	6023.2	2157.0	713.1	692.1	724.4	632.2	611.2	619.3	654.9	674.3	677.5
50°	5672.3	1933.9	664.6	612.8	595.0	567.6	548.1	549.8	590.2	624.1	630.6
52.5°	5179.1	1701.0	585.3	519.0	478.6	499.6	504.5	494.8	532.0	565.9	572.4
55°	4700.5	1410.0	464.1	422.0	384.8	430.1	443.0	430.1	441.4	464.1	465.7
57.5°	3309.9	797.2	355.7	349.3	318.5	368.7	389.7	370.3	350.9	365.4	368.7
60°	1534.5	417.2	273.3	273.3	265.2	316.9	352.5	325.0	287.8	294.3	299.1
62.5°	480.2	263.6	200.5	189.2	216.7	270.0	299.1	271.6	228.0	228.0	234.5
65°	271.6	226.4	158.5	145.5	176.2	216.7	234.5	205.4	166.5	163.3	163.3
67.5°	252.2	215.1	140.7	118.0	124.5	139.1	145.5	126.1	114.8	113.2	114.8
70°	208.6	179.5	113.2	80.8	76.0	74.4	77.6	72.8	69.5	71.1	76.0
72.5°	129.4	108.3	71.1	48.5	42.0	40.4	40.4	40.4	38.8	38.8	38.8
75°	46.9	40.4	32.3	24.3	21.0	19.4	19.4	21.0	19.4	17.8	16.2
77.5°	14.6	12.9	12.9	12.9	11.3	9.7	8.1	8.1	6.5	4.9	4.9
80°	8.1	8.1	8.1	8.1	6.5	6.5	4.9	3.2	1.6	1.6	0.0
82.5°	8.1	8.1	8.1	6.5	6.5	6.5	4.9	3.2	1.6	0.0	0.0
85°	6.5	6.5	6.5	6.5	6.5	6.5	4.9	3.2	1.6	0.0	0.0
87.5°	6.5	6.5	6.5	6.5	6.5	6.5	4.9	3.2	1.6	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

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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**

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			

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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)