

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: P643427

Luminaire Tested: GWS-SA6E-830-U-SL4-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643427  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGE-830-U-SL4-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

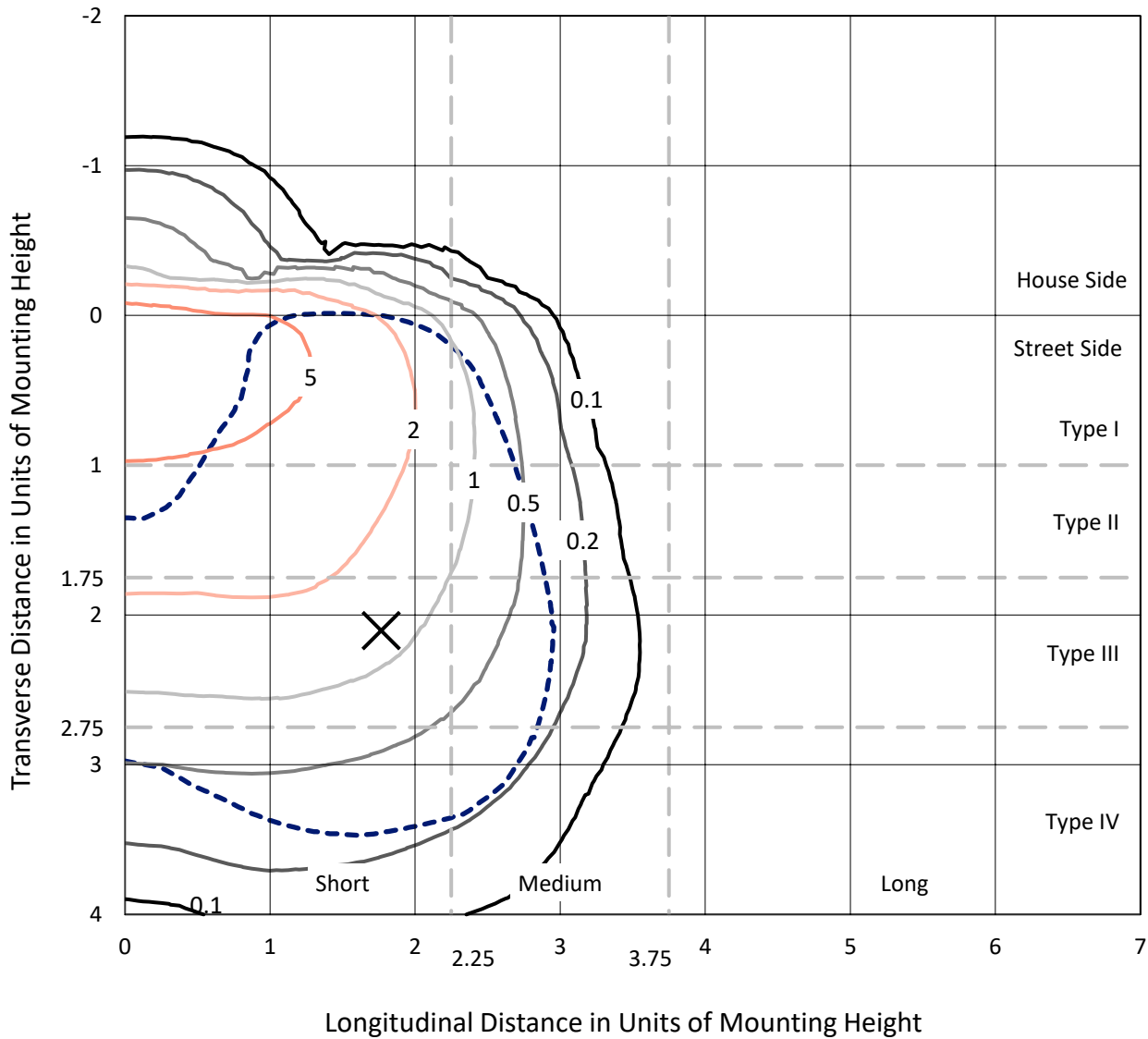
Lumens per Lamp: N/A  
Luminaire Lumens: 28018.5 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 323.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P643427  
 CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

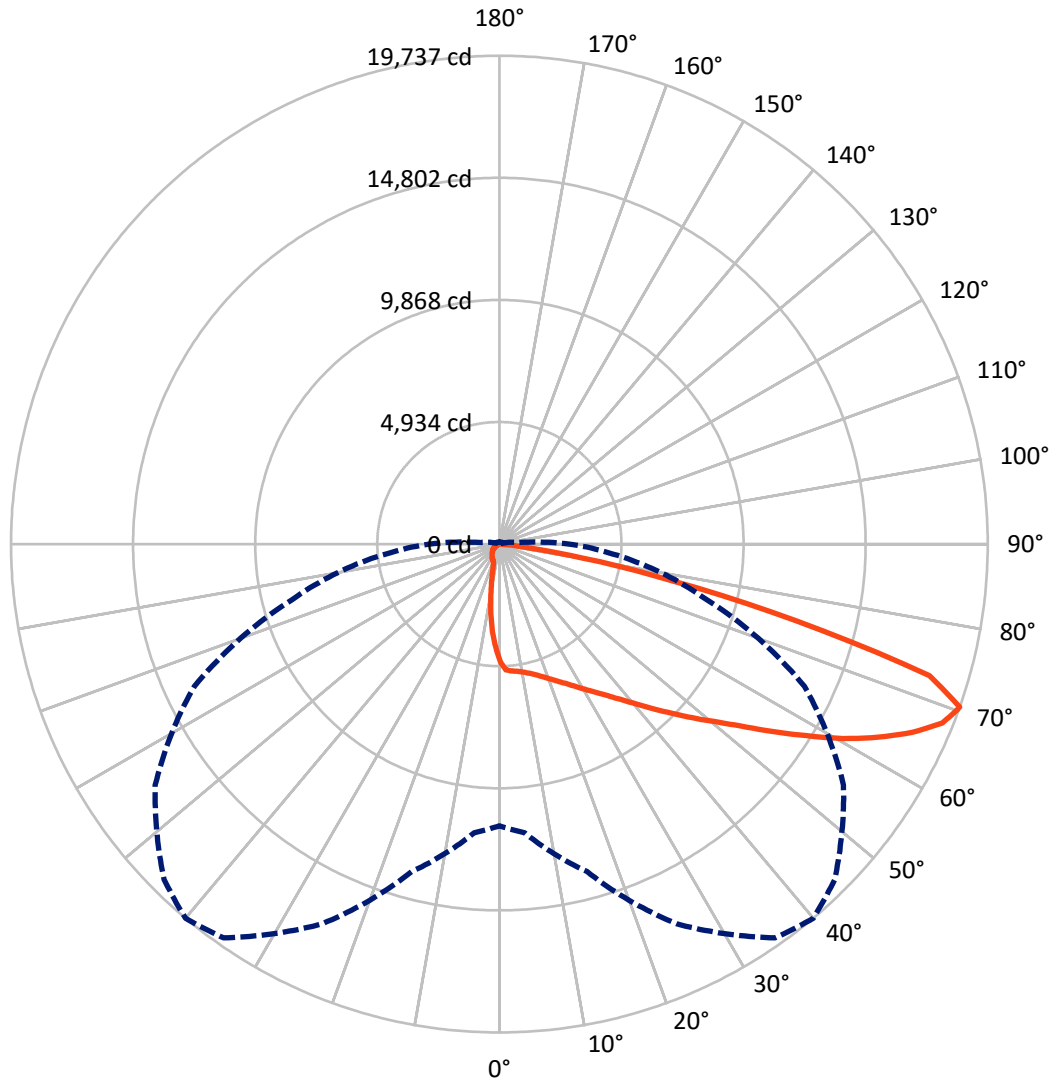
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc  
 Type IV - Short - N/A

REPORT NUMBER: P643427  
CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P643427  
 CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2291.2	0.0	2291.2
	% Fixture	8.2	0.0	8.2
<b>Street Side</b>	Lumens	25727.3	0.0	25727.3
	% Fixture	91.8	0.0	91.8
<b>Total</b>	Lumens	28018.5	0.0	28018.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.8	1.4
10°-20°	1019.2	3.6
20°-30°	1705.7	6.1
30°-40°	2679.1	9.6
40°-50°	4237.7	15.1
50°-60°	6181.7	22.1
60°-70°	7663.1	27.4
70°-80°	3877.1	13.8
80°-90°	253.1	0.9
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°	28018.5	100.0
0°-180°	28018.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P643427

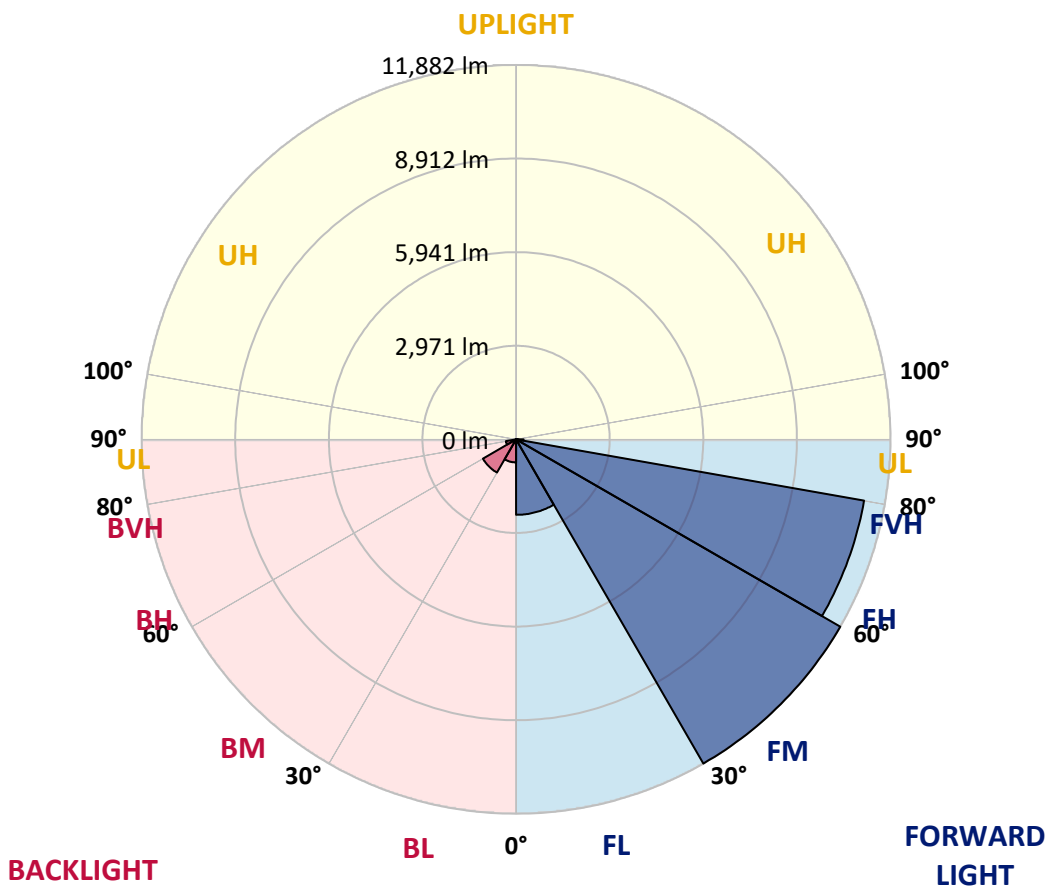
CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2395.1	8.5			
FM (30°-60°)	11882.3	42.4			
FH (60°-80°)	11213.5	40.0			G4/12000
FVH (80°-90°)	236.4	0.8			G3/500
BL (0°-30°)	731.7	2.6	B2/1000		
BM (30°-60°)	1216.1	4.3	B2/2500		
BH (60°-80°)	326.7	1.2	B1/500		G1/500
BVH (80°-90°)	16.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type IV Short





REPORT NUMBER: P643427

CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4
2.5°	5111.3	5129.1	5126.6	5134.2	5116.4	5088.4	5083.3	5045.0	4976.2	4889.5	4792.6
5°	5215.8	5236.2	5220.9	5213.3	5180.1	5149.5	5141.9	5101.1	5022.1	4904.8	4736.6
7.5°	5305.0	5310.1	5299.9	5282.1	5233.7	5192.9	5164.8	5108.8	5014.4	4897.2	4703.4
10°	5320.3	5317.8	5322.9	5325.4	5294.9	5259.2	5236.2	5159.7	5039.9	4915.0	4706.0
12.5°	5302.5	5302.5	5335.6	5373.9	5373.9	5356.0	5333.1	5264.3	5124.0	4976.2	4757.0
15°	5325.4	5333.1	5396.8	5468.2	5491.1	5473.3	5463.1	5391.7	5246.4	5083.3	4848.7
17.5°	5407.0	5414.7	5516.6	5623.7	5651.7	5631.4	5611.0	5539.6	5384.1	5205.6	4953.2
20°	5526.8	5547.2	5677.2	5814.9	5840.4	5814.9	5774.1	5674.7	5519.2	5338.2	5052.7
22.5°	5746.1	5758.8	5899.0	6044.3	6057.1	6016.3	5955.1	5817.5	5654.3	5478.4	5164.8
25°	6036.7	6054.5	6194.7	6335.0	6301.8	6240.6	6156.5	6001.0	5814.9	5644.1	5307.6
27.5°	6383.4	6403.8	6541.4	6663.8	6577.1	6505.8	6411.4	6217.7	6029.0	5873.5	5491.1
30°	6758.1	6776.0	6898.3	7008.0	6893.2	6809.1	6697.0	6498.1	6306.9	6189.6	5751.2
32.5°	7120.1	7117.6	7234.9	7324.1	7206.8	7140.5	7038.6	6837.2	6684.2	6633.2	6138.7
35°	7456.6	7456.6	7553.5	7642.7	7558.6	7522.9	7428.6	7268.0	7181.3	7242.5	6656.2
37.5°	7795.7	7777.8	7869.6	7969.0	7961.4	7963.9	7910.4	7833.9	7839.0	8055.7	7367.4
40°	8076.1	8068.5	8175.5	8305.5	8407.5	8489.1	8456.0	8484.0	8644.6	9049.9	8277.5
42.5°	8300.4	8318.3	8456.0	8662.4	8919.9	9085.6	9108.6	9223.3	9636.3	10263.4	9304.9
45°	8557.9	8560.5	8751.7	9067.8	9478.2	9740.8	9832.6	10128.3	10714.6	11522.7	10431.6
47.5°	8874.0	8843.4	9057.6	9501.2	10095.1	10482.6	10645.8	11015.4	11923.0	12751.5	11349.4
50°	9223.3	9167.2	9409.4	10013.6	10786.0	11270.4	11601.8	12142.2	13121.1	13761.0	12032.6
52.5°	9628.6	9575.1	9850.4	10602.4	11614.5	12203.4	12629.1	13174.7	14148.5	14530.9	12440.5
55°	10143.6	10090.0	10380.7	11308.6	12593.4	13358.2	13804.3	14263.2	15104.5	15099.4	12736.2
57.5°	10714.6	10640.7	11043.5	12200.8	13814.5	14609.9	15063.7	15288.0	15831.0	15540.4	12935.0
60°	11369.8	11303.5	11861.8	13263.9	15224.3	15961.0	16246.5	16154.8	16427.5	15800.4	12866.2
62.5°	11961.2	11930.6	12624.0	14390.7	16567.8	17189.8	17268.8	16868.6	16866.0	15805.5	12402.2
65°	12575.6	12634.2	13664.1	15688.3	17918.9	18337.0	18201.8	17577.3	17041.9	15181.0	11030.7
67.5°	12805.0	12975.8	14349.9	16860.9	18984.5	19310.8	19073.7	17931.6	16310.3	13080.3	8399.9
70°	11387.6	11708.8	13702.4	16927.2	19425.5	19736.5	19168.0	16978.2	13597.8	8665.0	4601.4
72.5°	8659.9	9034.6	11418.2	13860.4	17470.2	18178.9	17207.6	13832.4	8764.4	3795.9	1544.9
75°	4846.2	5251.5	8504.4	10436.7	11729.2	12376.7	12019.8	8874.0	3882.6	991.7	461.4
77.5°	1639.2	1774.3	3956.5	6457.3	7742.2	7160.9	6062.2	4407.7	1427.6	377.3	244.7
80°	971.3	1022.3	1473.5	3214.6	4073.7	3377.8	2666.5	1629.0	726.5	201.4	170.8
82.5°	290.6	344.2	813.2	1193.1	1595.8	994.2	841.3	930.5	377.3	109.6	142.8
85°	0.0	0.0	173.4	369.6	418.1	163.2	163.2	527.7	68.8	45.9	104.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	12.7	7.6	10.2	22.9
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: P643427

CATALOG NUMBER: GWS-SA6E-830-U-SL4-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4	4754.4
2.5°	4723.8	4634.6	4530.1	4430.6	4336.3	4214.0	4155.3	4083.9	4022.8	3989.6	4007.5
5°	4629.5	4489.3	4275.1	4058.5	3839.2	3632.7	3446.6	3321.7	3209.5	3150.9	3163.7
7.5°	4547.9	4359.3	4025.3	3671.0	3319.2	2964.8	2676.7	2452.4	2279.1	2207.7	2194.9
10°	4512.2	4275.1	3803.5	3293.7	2753.2	2276.5	1868.6	1621.3	1445.4	1358.8	1374.1
12.5°	4530.1	4231.8	3614.9	2924.0	2223.0	1667.2	1277.2	1045.2	920.3	869.3	856.6
15°	4581.1	4221.6	3446.6	2546.7	1715.7	1165.0	882.1	787.7	762.2	757.1	757.1
17.5°	4639.7	4224.2	3273.3	2164.3	1302.7	864.2	754.6	736.7	729.1	724.0	726.5
20°	4698.3	4224.2	3074.4	1776.8	978.9	746.9	718.9	706.2	698.5	696.0	696.0
22.5°	4769.7	4224.2	2852.6	1417.4	785.2	708.7	685.8	678.1	670.5	667.9	665.4
25°	4856.4	4226.7	2607.9	1108.9	713.8	675.6	657.7	650.1	642.4	637.3	637.3
27.5°	4981.3	4247.1	2337.7	864.2	673.0	645.0	629.7	622.0	614.4	606.7	606.7
30°	5162.3	4298.1	2034.3	713.8	634.8	611.8	596.5	591.4	583.8	576.1	573.6
32.5°	5432.5	4387.3	1720.8	639.9	599.1	576.1	558.3	553.2	545.5	537.9	535.3
35°	5809.8	4550.5	1414.8	594.0	553.2	530.2	520.1	517.5	507.3	499.7	499.7
37.5°	6363.0	4815.6	1121.7	548.1	515.0	497.1	484.4	479.3	469.1	461.4	458.9
40°	7038.6	5159.7	871.9	512.4	479.3	461.4	448.7	441.0	428.3	418.1	413.0
42.5°	7900.2	5580.4	688.3	474.2	446.1	428.3	418.1	402.8	384.9	369.6	367.1
45°	8797.6	6013.7	568.5	438.5	415.5	400.2	387.5	367.1	341.6	323.8	318.7
47.5°	9485.9	6284.0	497.1	400.2	382.4	369.6	354.3	328.9	298.3	277.9	272.8
50°	9977.9	6324.8	443.6	364.5	354.3	341.6	318.7	288.1	254.9	234.5	229.4
52.5°	10220.1	6141.2	400.2	331.4	323.8	311.0	283.0	249.8	214.1	193.7	188.6
55°	10329.7	5794.5	359.4	303.4	293.2	277.9	247.3	211.6	175.9	158.1	153.0
57.5°	10286.3	5282.1	323.8	275.3	262.6	244.7	211.6	173.4	145.3	127.5	124.9
60°	9965.1	4563.2	288.1	247.3	232.0	211.6	178.4	142.8	117.3	104.5	102.0
62.5°	9271.7	3671.0	252.4	214.1	203.9	183.5	153.0	117.3	96.9	89.2	86.7
65°	7851.8	2595.2	216.7	181.0	175.9	155.5	127.5	96.9	84.1	79.0	76.5
67.5°	5644.1	1578.0	183.5	155.5	150.4	132.6	107.1	84.1	76.5	73.9	73.9
70°	2837.3	746.9	145.3	127.5	127.5	109.6	91.8	76.5	73.9	71.4	71.4
72.5°	963.6	318.7	109.6	99.4	104.5	94.3	79.0	71.4	71.4	71.4	71.4
75°	328.9	168.3	76.5	71.4	76.5	76.5	68.8	68.8	71.4	71.4	71.4
77.5°	214.1	112.2	53.5	48.4	58.6	58.6	58.6	63.7	68.8	68.8	68.8
80°	175.9	61.2	35.7	33.1	43.3	43.3	48.4	58.6	63.7	63.7	63.7
82.5°	150.4	38.2	20.4	22.9	30.6	33.1	40.8	48.4	56.1	58.6	58.6
85°	102.0	20.4	15.3	17.8	20.4	25.5	33.1	40.8	45.9	51.0	51.0
87.5°	28.0	7.6	10.2	12.7	12.7	17.8	25.5	30.6	35.7	38.2	38.2
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**

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			

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)