

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: P643942

Luminaire Tested: GWS-SA6F-830-U-T3-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643942  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-25)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGF-830-U-T3-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

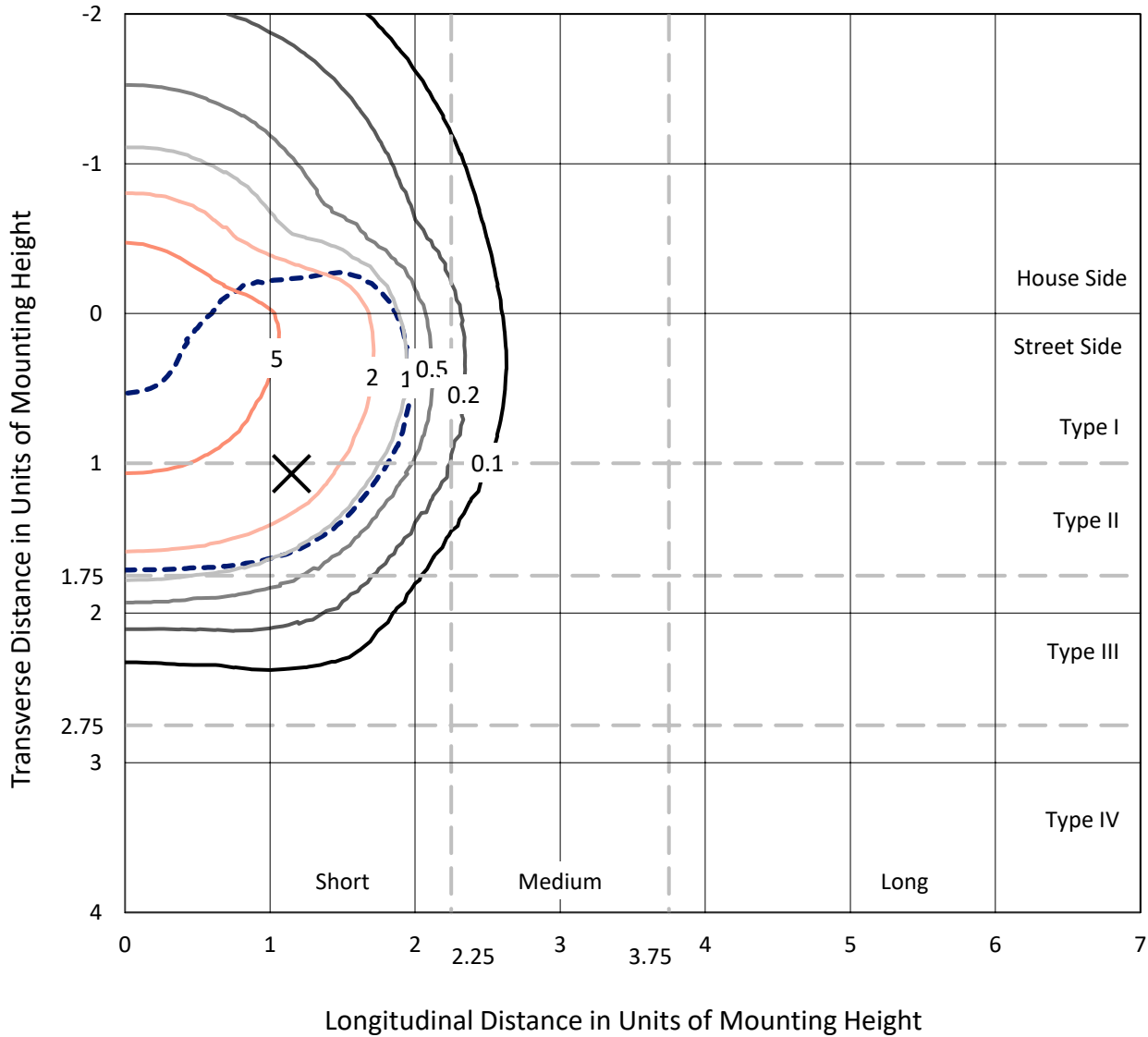
Lumens per Lamp: N/A  
Luminaire Lumens: 33744.9 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G3  
  
Input Watts (W): 372.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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-SA6F-830-U-T3-W-GRSWH

### Iso-Footcandle Lines of Horizontal Illumination

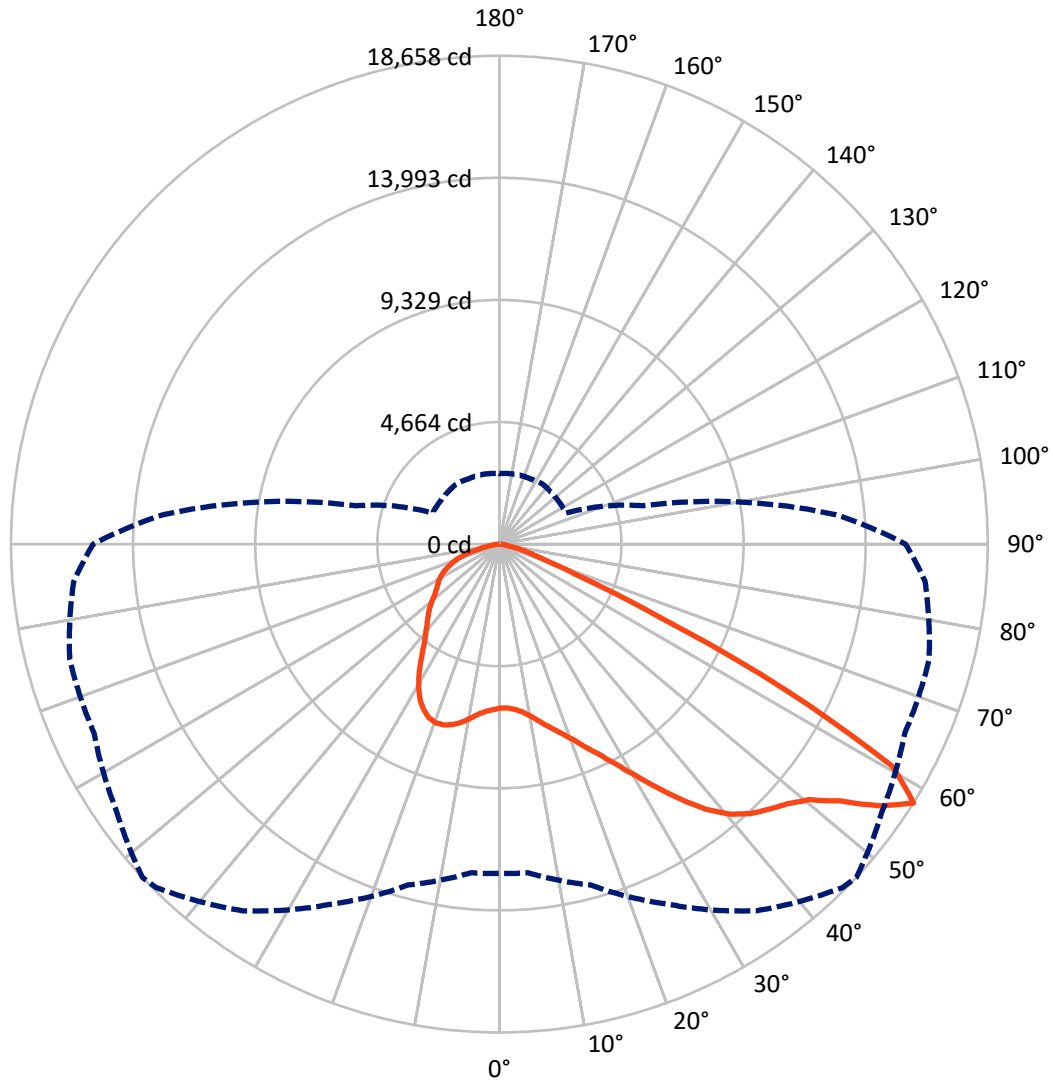
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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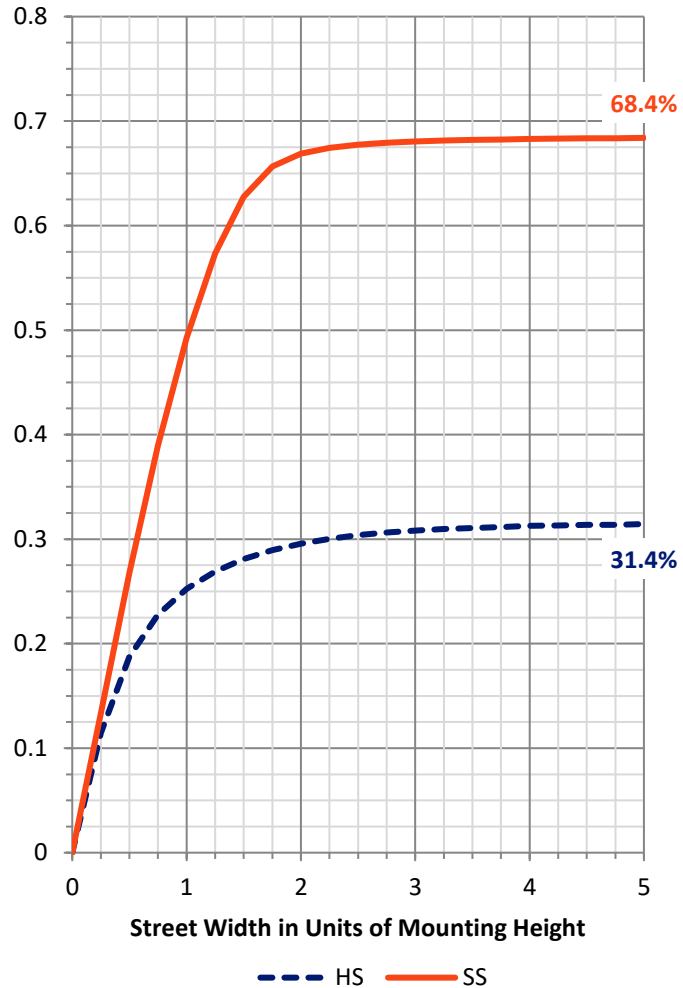
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10680.2	0.0	10680.2
	% Fixture	31.6	0.0	31.6
<b>Street Side</b>	Lumens	23064.7	0.0	23064.7
	% Fixture	68.4	0.0	68.4
<b>Total</b>	Lumens	33744.9	0.0	33744.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	617.2	1.8
10°-20°	2030.1	6.0
20°-30°	3655.5	10.8
30°-40°	5521.2	16.4
40°-50°	7434.9	22.0
50°-60°	8934.1	26.5
60°-70°	4351.1	12.9
70°-80°	1071.9	3.2
80°-90°	128.8	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°	33744.9	100.0
0°-180°	33744.9	100.0

**Coefficient of Utilization**



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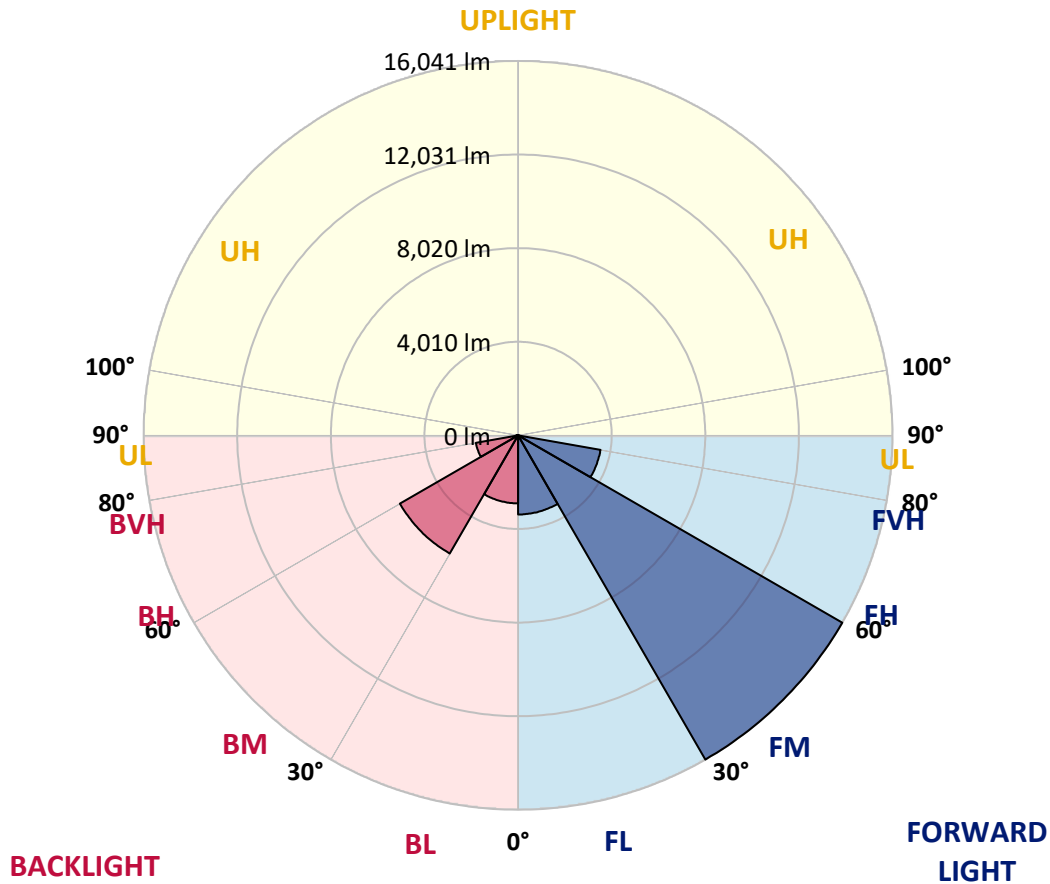
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3389.5	10.0			
FM (30°-60°)	16040.7	47.5			
FH (60°-80°)	3586.1	10.6			G2/5000
FVH (80°-90°)	48.4	0.1			G1/100
BL (0°-30°)	2913.4	8.6	B4/5000		
BM (30°-60°)	5849.5	17.3	B4/8500		
BH (60°-80°)	1836.9	5.4	B3/2500		G3/2500
BVH (80°-90°)	80.4	0.2			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°	47°	55°	65°	75°	85°
0°	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0
2.5°	6246.7	6243.9	6243.9	6260.9	6260.9	6266.5	6275.0	6283.5	6286.4	6272.2	6241.0
5°	6314.7	6314.7	6314.7	6328.9	6328.9	6334.6	6345.9	6348.7	6345.9	6323.2	6292.1
7.5°	6422.4	6422.4	6425.3	6442.3	6456.4	6464.9	6484.8	6481.9	6473.4	6436.6	6396.9
10°	6598.2	6606.7	6615.2	6635.0	6663.3	6683.2	6697.4	6697.4	6686.0	6629.3	6578.3
12.5°	6847.6	6858.9	6867.4	6884.4	6907.1	6941.1	6972.3	6972.3	6958.1	6887.2	6810.7
15°	7139.5	7150.8	7148.0	7153.7	7196.2	7244.4	7269.9	7286.9	7292.5	7193.3	7074.3
17.5°	7473.9	7485.3	7473.9	7456.9	7462.6	7539.1	7584.5	7646.8	7683.7	7550.5	7360.6
20°	7777.2	7765.9	7765.9	7777.2	7794.2	7887.7	7955.8	8057.8	8103.1	7941.6	7646.8
22.5°	8097.5	8123.0	8111.6	8111.6	8179.7	8335.6	8417.7	8551.0	8599.1	8389.4	7992.6
25°	8511.3	8533.9	8528.3	8533.9	8613.3	8834.4	8916.6	9163.2	9211.3	8910.9	8375.2
27.5°	8964.8	9001.6	9018.6	9012.9	9140.5	9429.6	9531.6	9874.6	9962.4	9494.8	8783.4
30°	9554.3	9594.0	9608.1	9602.5	9752.7	10146.6	10262.8	10654.0	10778.7	10186.3	9302.0
32.5°	10237.3	10277.0	10319.5	10336.5	10529.3	10931.7	11099.0	11504.3	11682.8	10985.6	9928.4
35°	10914.7	10948.7	11030.9	11164.1	11427.7	11838.7	11986.1	12385.7	12558.6	11816.0	10685.2
37.5°	11663.0	11685.6	11756.5	11940.7	12320.5	12711.6	12859.0	13241.7	13261.5	12618.1	11541.1
40°	12482.1	12482.1	12467.9	12649.3	13046.1	13440.0	13567.6	13788.7	13672.5	13236.0	12374.4
42.5°	13176.5	13165.1	13176.5	13346.5	13641.3	13961.6	14072.1	14029.6	13882.2	13709.3	13128.3
45°	13802.8	13811.3	13913.4	14043.7	14196.8	14386.7	14451.9	14211.0	14077.8	14089.1	13732.0
47.5°	14228.0	14236.5	14474.6	14692.8	14786.3	14845.8	14817.5	14483.1	14415.0	14542.6	14196.8
50°	14284.7	14330.0	14741.0	15188.8	15421.2	15429.7	15350.3	14942.2	14922.4	15066.9	14446.2
52.5°	14296.0	14341.3	14854.3	15662.1	16265.8	16393.3	16302.6	15877.5	15670.6	15526.1	14752.3
55°	14253.5	14304.5	14871.3	15979.5	17135.9	17646.1	17654.6	17053.7	16393.3	16297.0	15625.3
57.5°	12584.1	12603.9	13482.6	15171.8	17101.9	18547.4	18657.9	17841.7	17087.7	16997.0	16325.3
60°	8766.4	8845.7	9800.9	12031.4	14366.9	16914.8	17272.0	17033.9	16529.4	15869.0	14006.9
62.5°	4390.3	4458.3	5416.3	7525.0	9908.6	11920.9	12303.5	12555.8	12674.8	11966.2	9537.3
65°	1890.4	1941.5	2536.7	3931.1	5609.0	6581.1	6714.4	7017.6	7760.2	6924.1	5138.5
67.5°	1264.1	1298.1	1601.4	2397.8	3304.7	3367.1	3347.3	3412.4	3574.0	2950.5	2321.3
70°	969.3	997.7	1201.7	1757.2	2375.1	2032.2	1924.5	1745.9	1896.1	1933.0	1881.9
72.5°	702.9	725.6	878.6	1198.9	1488.0	1298.1	1281.1	1371.8	1575.8	1632.5	1601.4
75°	453.5	464.8	558.3	657.5	768.1	833.3	867.3	1031.7	1238.6	1281.1	1244.2
77.5°	303.3	311.8	365.6	422.3	436.5	439.3	450.6	524.3	666.1	745.4	736.9
80°	158.7	158.7	178.6	178.6	204.1	243.7	255.1	303.3	368.5	408.1	411.0
82.5°	62.4	65.2	76.5	85.0	102.0	124.7	133.2	158.7	192.7	221.1	246.6
85°	25.5	28.3	31.2	36.8	45.3	56.7	59.5	68.0	90.7	113.4	127.5
87.5°	0.0	0.0	2.8	2.8	5.7	8.5	8.5	11.3	14.2	25.5	34.0
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: P643942

CATALOG NUMBER: GWS-SA6F-830-U-T3-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0	6258.0
2.5°	6277.9	6241.0	6277.9	6289.2	6320.4	6331.7	6311.9	6309.1	6309.1	6280.7	6272.2
5°	6320.4	6286.4	6323.2	6340.2	6385.6	6413.9	6419.6	6442.3	6456.4	6445.1	6442.3
7.5°	6425.3	6382.7	6422.4	6447.9	6507.5	6552.8	6572.6	6623.7	6660.5	6654.8	6652.0
10°	6609.5	6552.8	6598.2	6640.7	6705.9	6759.7	6762.5	6790.9	6827.7	6816.4	6810.7
12.5°	6822.1	6768.2	6819.2	6861.7	6938.3	6960.9	6924.1	6912.8	6918.4	6904.3	6892.9
15°	7082.8	7006.3	7051.6	7099.8	7142.3	7116.8	7037.5	7006.3	7003.5	6983.6	6972.3
17.5°	7343.6	7247.2	7281.2	7306.7	7286.9	7207.5	7108.3	7054.5	7029.0	6989.3	6977.9
20°	7601.5	7479.6	7473.9	7454.1	7363.4	7218.9	7085.6	6977.9	6912.8	6858.9	6839.1
22.5°	7896.2	7726.2	7641.2	7550.5	7352.1	7116.8	6915.6	6762.5	6657.7	6589.6	6567.0
25°	8213.7	7972.8	7797.0	7615.6	7238.7	6898.6	6618.0	6408.3	6283.5	6209.9	6184.3
27.5°	8528.3	8196.7	7933.1	7624.2	7012.0	6584.0	6207.0	5923.6	5798.9	5739.4	5719.5
30°	8953.4	8494.3	8094.6	7513.6	6714.4	6147.5	5677.0	5390.8	5308.6	5266.1	5249.0
32.5°	9443.7	8871.2	8310.0	7281.2	6334.6	5637.3	5141.3	4942.9	4886.3	4804.1	4801.2
35°	10090.0	9409.7	8514.1	6938.3	5855.6	5090.3	4730.4	4588.7	4486.6	4356.3	4344.9
37.5°	10843.9	10081.5	8624.6	6501.8	5297.2	4639.7	4424.3	4265.6	4101.2	3928.3	3905.6
40°	11623.3	10866.5	8633.1	5986.0	4750.2	4342.1	4160.7	3953.8	3749.7	3557.0	3531.5
42.5°	12442.4	11597.8	8482.9	5390.8	4302.4	4084.2	3899.9	3639.2	3409.6	3279.2	3265.1
45°	13173.6	12187.3	8142.8	4764.4	3970.8	3868.8	3633.5	3352.9	3231.1	3137.5	3117.7
47.5°	13749.0	12578.4	7683.7	4203.2	3701.5	3647.7	3341.6	3197.0	3103.5	3018.5	2998.6
50°	14032.4	12666.3	7085.6	3746.9	3452.1	3386.9	3177.2	3066.7	3004.3	2936.3	2919.3
52.5°	14383.9	12765.5	6569.8	3364.3	3208.4	3120.5	3041.2	2953.3	2907.9	2865.4	2851.3
55°	15191.6	13139.6	6297.7	3058.2	2976.0	2936.3	2925.0	2851.3	2837.1	2808.7	2783.2
57.5°	15520.4	12898.7	5654.3	2808.7	2791.7	2797.4	2825.8	2757.7	2743.6	2709.6	2692.5
60°	12482.1	9749.8	3829.1	2593.3	2638.7	2675.5	2703.9	2635.9	2616.0	2610.4	2587.7
62.5°	7998.3	5997.3	2672.7	2392.1	2460.1	2505.5	2522.5	2457.3	2443.1	2488.5	2491.3
65°	4163.5	3267.9	2168.2	2176.7	2233.4	2301.4	2335.4	2312.8	2307.1	2355.3	2358.1
67.5°	2125.7	1998.2	1890.4	1921.6	1967.0	2054.8	2134.2	2233.4	2267.4	2273.1	2275.9
70°	1811.1	1754.4	1700.6	1720.4	1768.6	1816.8	1893.3	1941.5	1884.8	1870.6	1864.9
72.5°	1541.8	1499.3	1473.8	1496.5	1522.0	1513.5	1490.8	1513.5	1522.0	1524.8	1527.7
75°	1198.9	1167.7	1147.9	1150.7	1150.7	1119.5	1077.0	1051.5	1023.2	1000.5	1000.5
77.5°	734.1	739.7	759.6	756.7	753.9	742.6	700.1	677.4	609.4	589.5	589.5
80°	419.5	428.0	447.8	453.5	453.5	439.3	396.8	371.3	340.1	325.9	323.1
82.5°	255.1	266.4	277.8	283.4	286.3	269.3	232.4	212.6	195.6	181.4	181.4
85°	133.2	138.9	150.2	153.0	144.5	127.5	107.7	99.2	82.2	79.4	79.4
87.5°	36.8	39.7	45.3	36.8	34.0	25.5	14.2	11.3	5.7	2.8	2.8
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)