

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: P643950

Luminaire Tested: GWS-SA6F-830-U-T4FT-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-54)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGF-830-U-T4FT-W  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

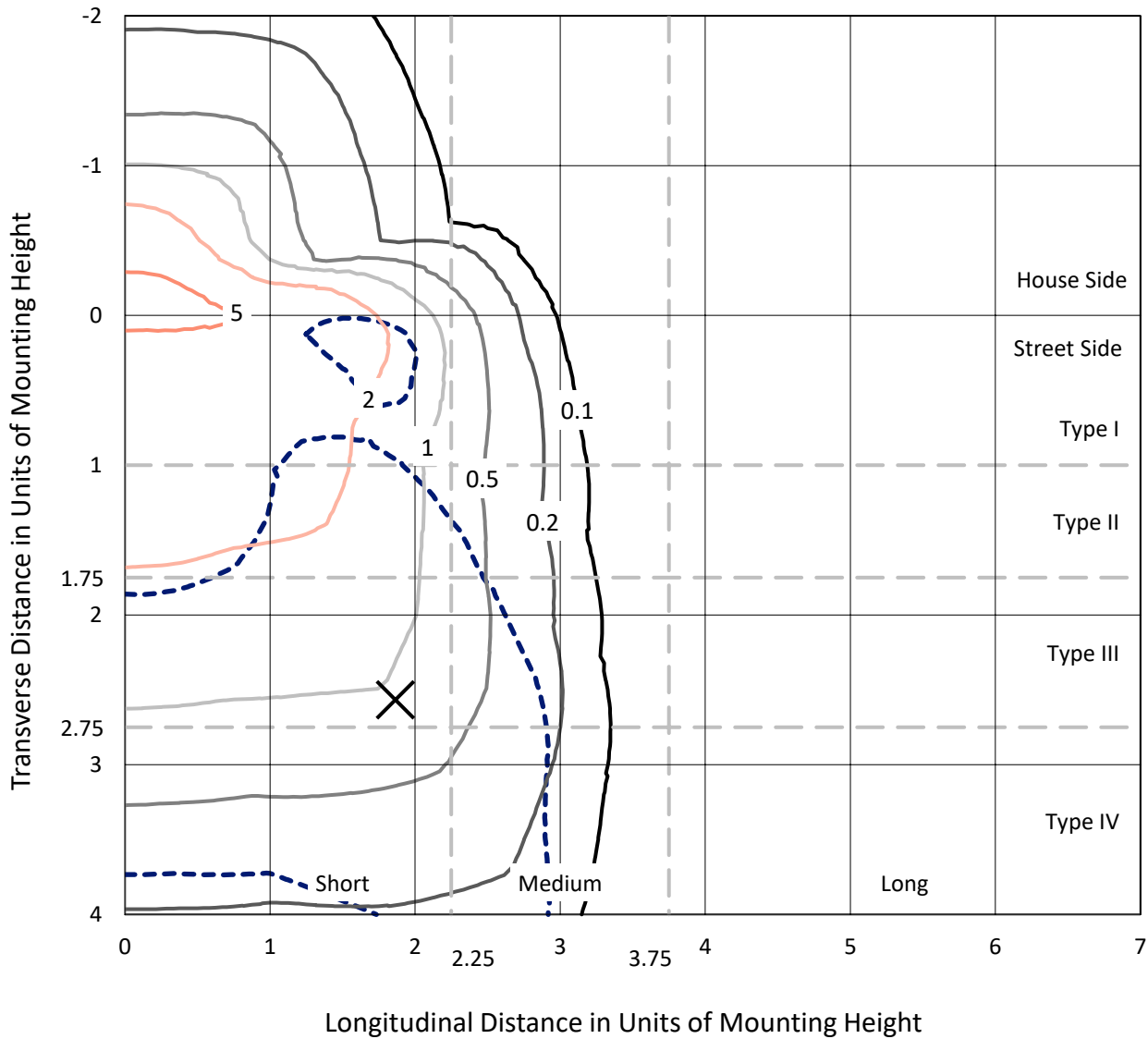
Lumens per Lamp: N/A  
Luminaire Lumens: 38189 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 372.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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-T4FT-W

### Iso-Footcandle Lines of Horizontal Illumination

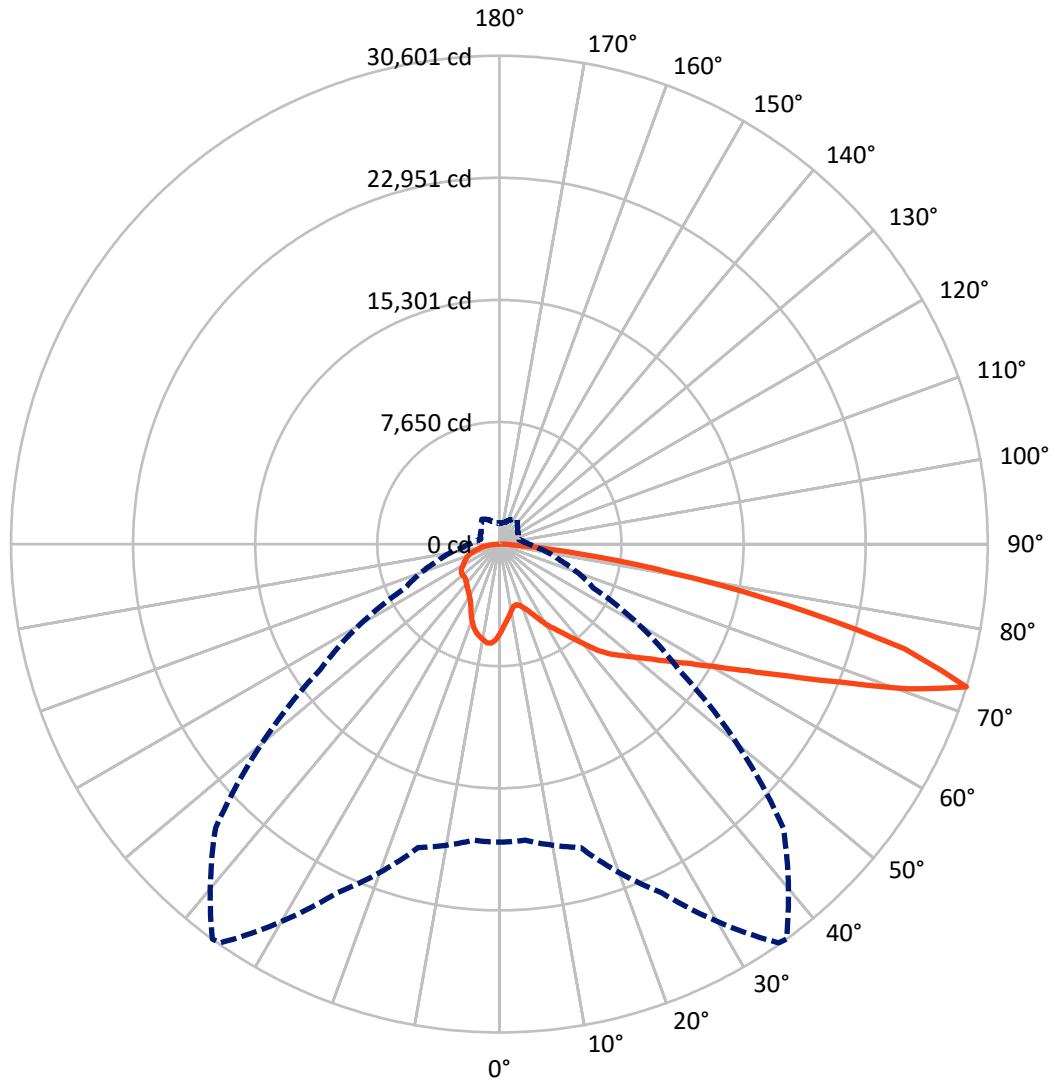
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8804.2	0.0	8804.2
	% Fixture	23.1	0.0	23.1
<b>Street Side</b>	Lumens	29384.8	0.0	29384.8
	% Fixture	76.9	0.0	76.9
<b>Total</b>	Lumens	38189.0	0.0	38189.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	522.4	1.4
10°-20°	1474.0	3.9
20°-30°	2441.1	6.4
30°-40°	3655.8	9.6
40°-50°	5333.4	14.0
50°-60°	7591.1	19.9
60°-70°	9590.8	25.1
70°-80°	6834.3	17.9
80°-90°	746.1	2.0
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°	38189.0	100.0
0°-180°	38189.0	100.0

**Coefficient of Utilization**



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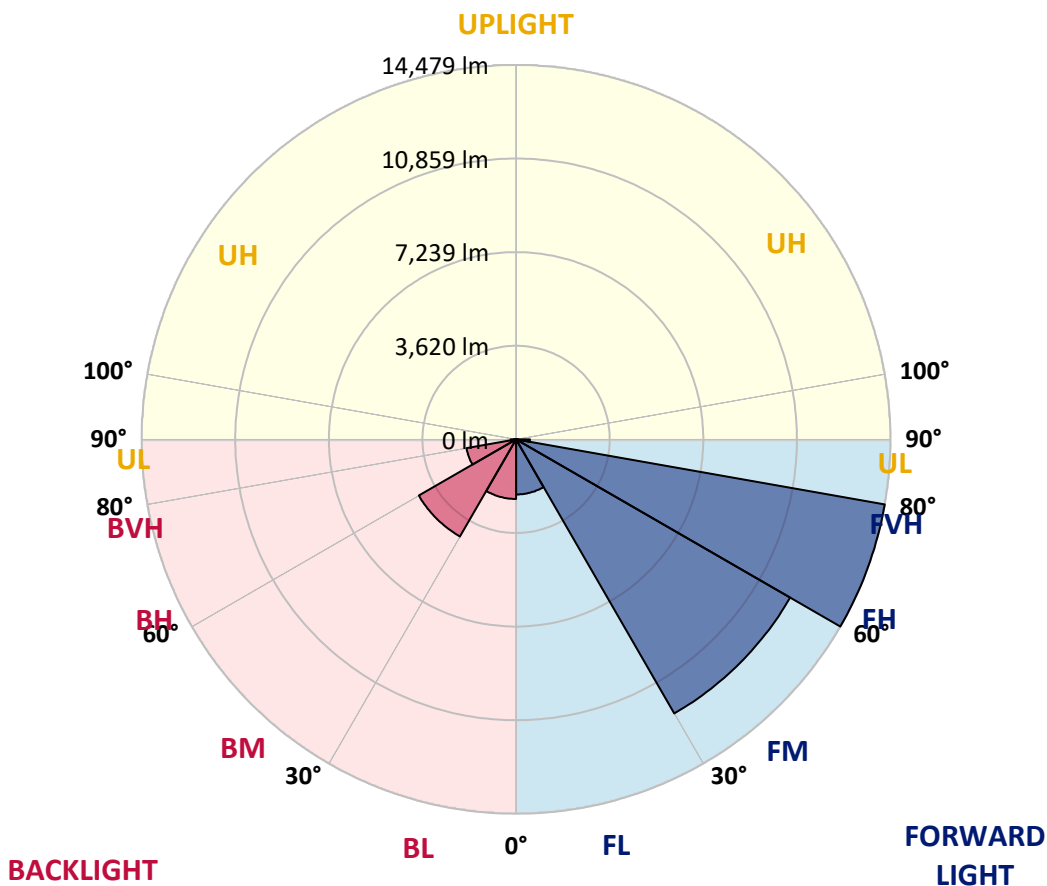
CATALOG NUMBER: GWS-SA6F-830-U-T4FT-W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2132.0	5.6			
FM (30°-60°)	12238.6	32.0			
FH (60°-80°)	14478.7	37.9			G5
FVH (80°-90°)	535.5	1.4			G4/750
BL (0°-30°)	2305.5	6.0	B3/2500		
BM (30°-60°)	4341.7	11.4	B3/5000		
BH (60°-80°)	1946.4	5.1	B3/2500		G3/2500
BVH (80°-90°)	210.6	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1
2.5°	5098.8	5090.3	5073.3	5124.3	5175.3	5169.7	5240.5	5308.5	5382.2	5458.8	5560.8
5°	4690.7	4685.0	4670.8	4747.4	4823.9	4821.1	4937.3	5047.8	5198.0	5362.4	5566.5
7.5°	4282.5	4268.4	4288.2	4384.6	4492.3	4503.6	4662.3	4843.7	5062.0	5308.5	5597.6
10°	3922.6	3919.8	3928.3	4036.0	4197.5	4208.9	4412.9	4665.2	4954.3	5283.0	5668.5
12.5°	3829.1	3823.4	3800.7	3854.6	3976.4	3993.5	4217.4	4526.3	4880.6	5297.2	5764.9
15°	3982.1	3967.9	3888.6	3863.1	3922.6	3936.8	4126.7	4444.1	4838.1	5322.7	5886.7
17.5°	4245.7	4237.2	4087.0	3982.1	4021.8	4033.1	4174.8	4429.9	4826.7	5373.7	6036.9
20°	4631.2	4594.3	4359.1	4200.4	4200.4	4217.4	4302.4	4492.3	4840.9	5436.1	6207.0
22.5°	5141.3	5067.6	4736.0	4520.6	4463.9	4486.6	4523.5	4648.2	4900.4	5540.9	6419.6
25°	5713.8	5645.8	5251.9	4948.6	4869.2	4877.7	4846.6	4869.2	5030.8	5685.5	6683.1
27.5°	6323.2	6277.9	5858.4	5472.9	5348.2	5348.2	5237.7	5183.8	5212.2	5849.9	6977.9
30°	6867.4	6805.0	6450.7	6028.4	5864.1	5864.1	5654.3	5538.1	5470.1	6051.1	7371.9
32.5°	7153.6	7116.8	6881.5	6558.4	6357.2	6326.0	6144.6	6008.6	5849.9	6348.7	7904.7
35°	7527.8	7519.3	7377.5	7125.3	6870.2	6824.9	6700.2	6592.5	6317.5	6720.0	8613.3
37.5°	7998.2	7984.1	7961.4	7811.2	7505.1	7496.6	7386.0	7255.7	6898.6	7255.7	9472.0
40°	8525.4	8499.9	8471.6	8468.7	8284.5	8253.3	8244.8	8097.4	7598.6	7901.9	10367.7
42.5°	9251.0	9163.1	8896.7	9015.7	9151.8	9123.4	9231.1	9010.1	8471.6	8670.0	11215.1
45°	10143.8	9928.4	9401.2	9435.2	9778.1	9834.8	10209.0	10155.1	9432.4	9557.1	12107.9
47.5°	10679.4	10492.4	10002.1	9973.7	10401.7	10472.5	11286.0	11388.0	10466.9	10625.6	13210.4
50°	11118.7	10988.4	10585.9	10625.6	11079.1	11149.9	12354.5	12572.7	11441.8	11719.6	14491.5
52.5°	11648.7	11461.7	11149.9	11337.0	11892.5	11977.5	13542.0	13777.3	12320.5	12921.3	15817.9
55°	11946.3	11869.8	11875.5	12161.7	12859.0	12975.2	14786.3	14746.6	13125.4	13950.2	16815.6
57.5°	12632.2	12603.9	12864.6	12972.3	13987.0	14137.2	16030.5	15690.4	13856.6	14746.6	17294.6
60°	13842.5	13771.6	13998.3	14162.7	15381.4	15594.0	17419.3	16614.3	14352.6	15338.9	17133.0
62.5°	15543.0	15455.1	15463.6	15724.4	17249.2	17473.1	18963.9	17385.3	14505.7	15429.6	16109.8
65°	17657.3	17529.8	17385.3	17739.5	19729.2	19916.2	20644.6	17946.4	14140.0	14556.7	13972.8
67.5°	19887.9	19783.0	19613.0	20355.5	22940.4	23053.7	22529.4	17898.3	12980.8	12221.3	9800.8
70°	20018.3	20043.8	20848.7	23535.6	27132.2	27160.6	24312.2	16928.9	10512.2	7921.7	4883.4
72.5°	18674.8	18632.3	19681.0	24116.6	30505.0	30601.3	25153.9	13714.9	6496.1	3950.9	2290.1
75°	15168.9	15242.6	16345.1	21101.0	26145.9	26230.9	20505.8	8086.1	3086.5	1933.0	1465.3
77.5°	6530.1	6941.1	9114.9	14865.6	18725.9	18462.3	10568.9	3276.4	1646.7	1377.4	1122.4
80°	1884.8	2046.3	3248.0	7068.6	11220.8	11022.4	4183.3	1227.2	1147.9	1034.5	804.9
82.5°	609.4	674.6	1190.4	2814.4	5028.0	5022.3	1587.2	725.6	751.1	702.9	518.7
85°	170.1	195.6	365.6	853.1	1556.0	1524.8	459.1	342.9	399.6	405.3	257.9
87.5°	0.0	0.0	2.8	5.7	5.7	5.7	11.3	51.0	116.2	147.4	104.9
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: P643950  
 CATALOG NUMBER: GWS-SA6F-830-U-T4FT-W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1	5589.1
2.5°	5623.1	5614.6	5730.8	5821.5	5906.6	5963.3	5980.3	5991.6	6014.3	6025.6	6014.3
5°	5662.8	5705.3	5898.1	6039.8	6153.1	6221.2	6224.0	6218.3	6235.3	6221.2	6212.7
7.5°	5747.8	5830.0	6073.8	6224.0	6297.7	6300.5	6232.5	6153.1	6113.5	6079.5	6068.1
10°	5861.2	5983.1	6249.5	6348.7	6326.0	6221.2	6071.0	5946.2	5875.4	5824.4	5813.0
12.5°	6017.1	6153.1	6405.4	6402.6	6260.8	6073.8	5898.1	5747.8	5645.8	5586.3	5566.5
15°	6164.5	6337.4	6518.8	6385.6	6161.6	5934.9	5708.2	5506.9	5370.9	5277.4	5260.4
17.5°	6345.9	6530.1	6601.0	6331.7	6036.9	5745.0	5441.8	5178.2	4993.9	4883.4	4874.9
20°	6555.6	6720.0	6640.6	6238.2	5875.4	5492.8	5081.8	4787.0	4588.6	4480.9	4489.4
22.5°	6799.4	6918.4	6652.0	6110.6	5651.5	5135.7	4676.5	4393.1	4259.9	4203.2	4206.0
25°	7060.1	7136.6	6632.1	5937.7	5308.5	4699.2	4259.9	4129.5	4118.2	4104.0	4109.7
27.5°	7369.0	7352.0	6572.6	5694.0	4846.6	4191.8	3967.9	4002.0	4047.3	4041.6	4047.3
30°	7782.8	7621.3	6496.1	5356.7	4296.7	3766.7	3795.1	3891.4	3950.9	3956.6	3973.6
32.5°	8256.2	7918.9	6374.2	4897.6	3772.4	3528.6	3633.5	3749.7	3820.6	3834.7	3857.4
35°	8820.2	8259.0	6158.8	4325.1	3395.4	3386.9	3483.3	3562.6	3639.2	3644.8	3644.8
37.5°	9469.2	8599.1	5815.9	3693.0	3163.0	3265.1	3355.7	3372.8	3392.6	3375.6	3384.1
40°	10064.4	8927.9	5328.4	3117.7	2973.1	3157.3	3233.9	3177.2	3114.8	3072.3	3080.8
42.5°	10563.2	9151.8	4682.2	2715.2	2780.4	3061.0	3120.5	3004.3	2882.4	2803.1	2814.4
45°	11124.4	9358.7	3922.6	2443.1	2616.0	2993.0	3032.6	2882.4	2726.5	2607.5	2590.5
47.5°	11898.2	9781.0	3248.0	2253.2	2499.8	2956.1	3021.3	2817.2	2613.2	2434.6	2414.8
50°	12853.3	10379.0	2684.0	2128.5	2446.0	2936.3	3018.5	2746.4	2502.6	2292.9	2278.7
52.5°	13896.3	10962.9	2267.4	2032.2	2392.1	2876.8	3004.3	2667.0	2386.4	2159.7	2142.7
55°	14590.7	11192.4	1986.8	1941.5	2304.2	2783.2	2947.6	2590.5	2210.7	2003.8	1978.3
57.5°	14794.8	10897.7	1791.2	1859.3	2190.9	2652.9	2839.9	2428.9	2103.0	1938.6	1918.8
60°	14443.3	10155.1	1669.4	1791.2	2066.2	2485.6	2652.9	2335.4	2018.0	1870.6	1856.4
62.5°	13451.3	9010.1	1575.8	1720.4	1938.6	2309.9	2533.8	2222.0	1924.5	1808.2	1788.4
65°	11456.0	7388.9	1499.3	1646.7	1816.8	2142.7	2403.4	2108.7	1822.4	1734.6	1711.9
67.5°	8012.4	5189.5	1417.1	1558.8	1694.9	1981.1	2267.4	2003.8	1717.6	1652.4	1629.7
70°	3916.9	2752.1	1317.9	1456.8	1564.5	1816.8	2131.4	1876.3	1578.7	1541.8	1510.7
72.5°	1864.9	1539.0	1201.7	1317.9	1385.9	1598.5	1904.6	1692.0	1414.3	1334.9	1281.1
75°	1249.9	1094.0	1048.7	1153.5	1170.5	1340.6	1632.5	1459.6	1247.1	1156.4	1111.0
77.5°	946.6	836.1	881.5	975.0	941.0	1102.5	1343.4	1300.9	1125.2	1043.0	1020.3
80°	666.0	609.4	700.1	756.7	731.2	938.1	1210.2	1113.9	926.8	836.1	819.1
82.5°	419.5	408.1	515.8	524.3	532.8	742.6	994.8	875.8	719.9	592.4	549.8
85°	209.7	232.4	308.9	308.9	306.1	382.6	566.8	493.2	388.3	308.9	300.4
87.5°	70.9	99.2	133.2	107.7	82.2	65.2	73.7	90.7	96.4	93.5	93.5
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



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

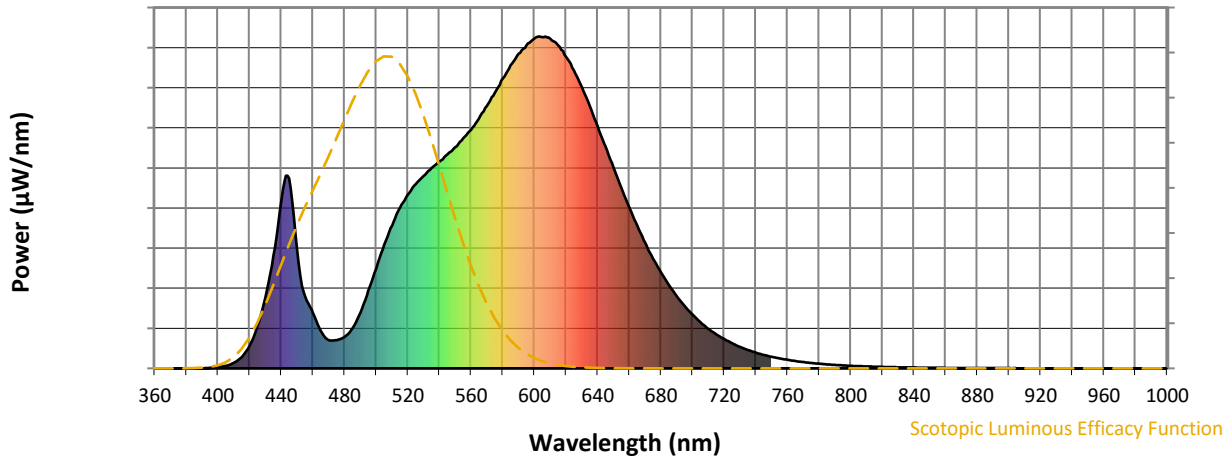


**Photopic Lumens: NR**

$\lambda$ (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**

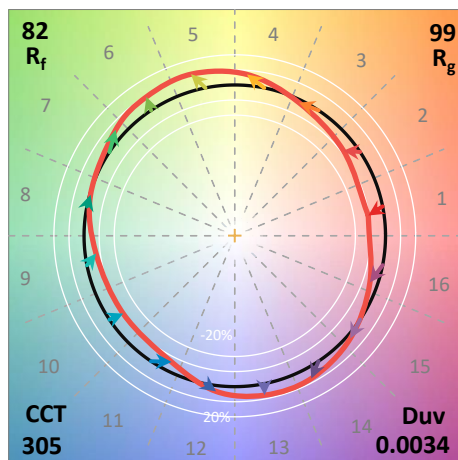
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)