

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: P643910

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

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643910  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-45)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGF-830-U-AFL-W  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND  
AUTOMOTIVE FRONTLINE OPTICS  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

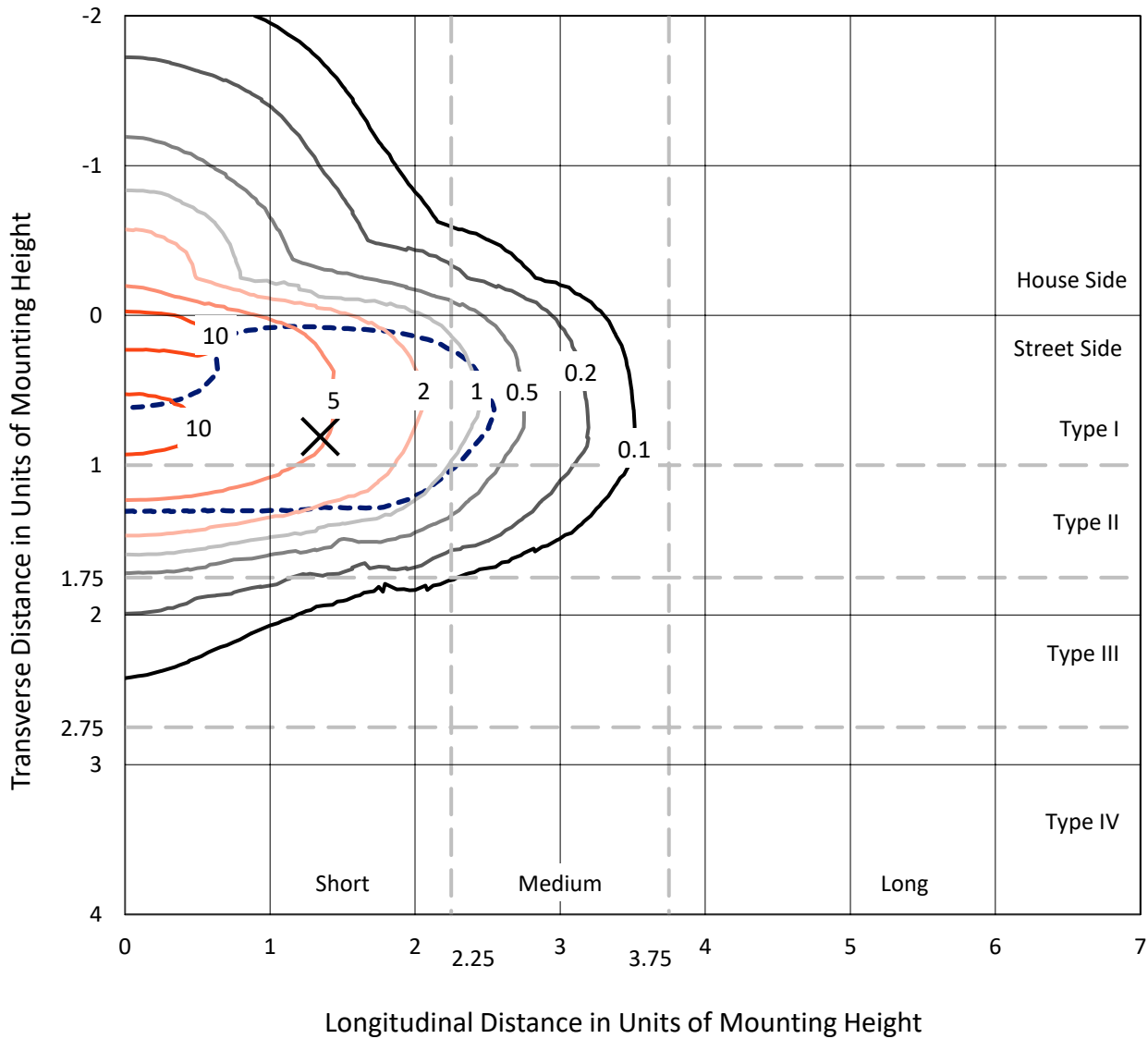
Lumens per Lamp: N/A  
Luminaire Lumens: 40260.9 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 372.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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



REPORT NUMBER: P643910  
 CATALOG NUMBER: GWS-SA6F-830-U-AFL-W

### Iso-Footcandle Lines of Horizontal Illumination

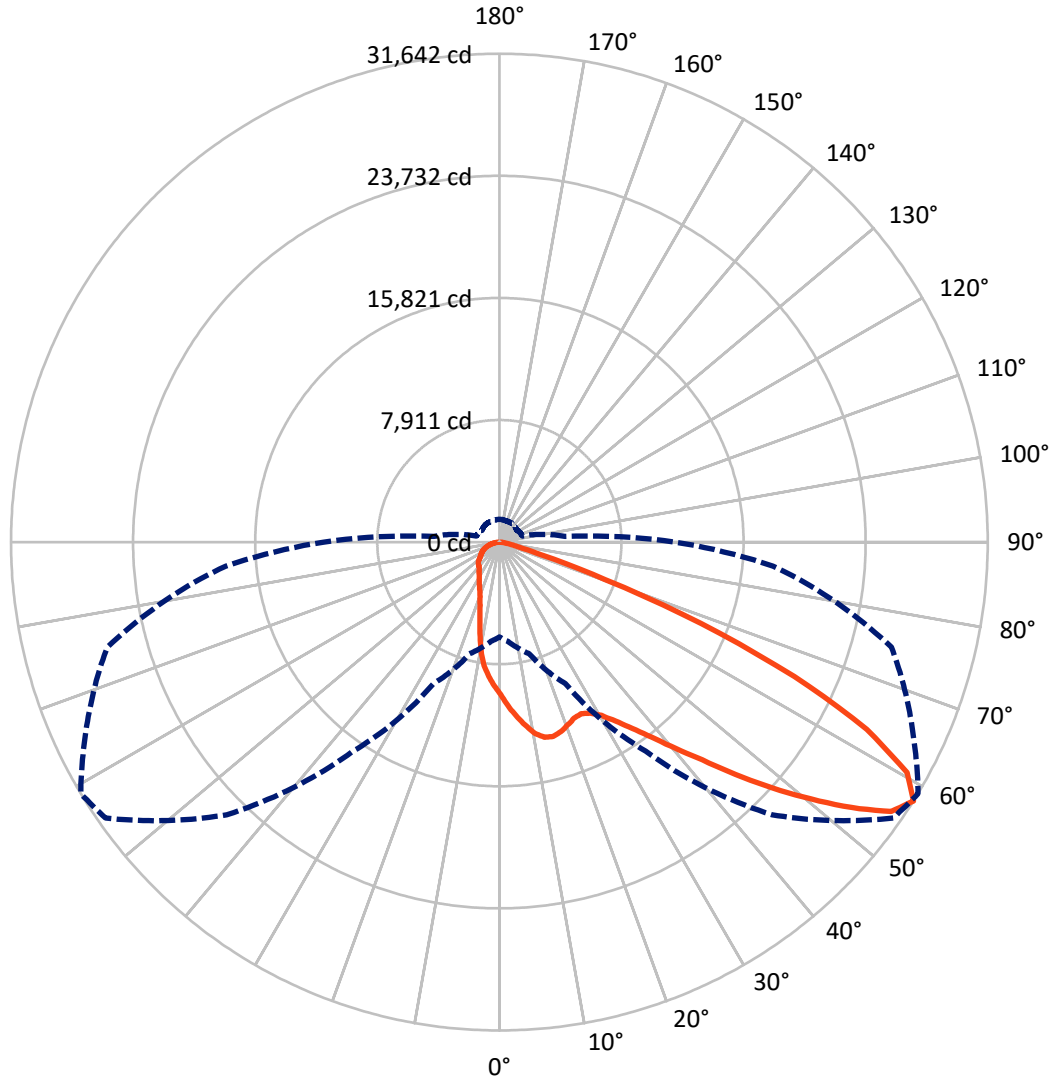
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6248.3	0.0	6248.3
	% Fixture	15.5	0.0	15.5
<b>Street Side</b>	Lumens	34012.6	0.0	34012.6
	% Fixture	84.5	0.0	84.5
<b>Total</b>	Lumens	40260.9	0.0	40260.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	917.7	2.3
10°-20°	2325.4	5.8
20°-30°	3769.5	9.4
30°-40°	6063.7	15.1
40°-50°	9416.4	23.4
50°-60°	10142.7	25.2
60°-70°	5886.4	14.6
70°-80°	1536.7	3.8
80°-90°	202.4	0.5
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°	40260.9	100.0
0°-180°	40260.9	100.0

**Coefficient of Utilization**



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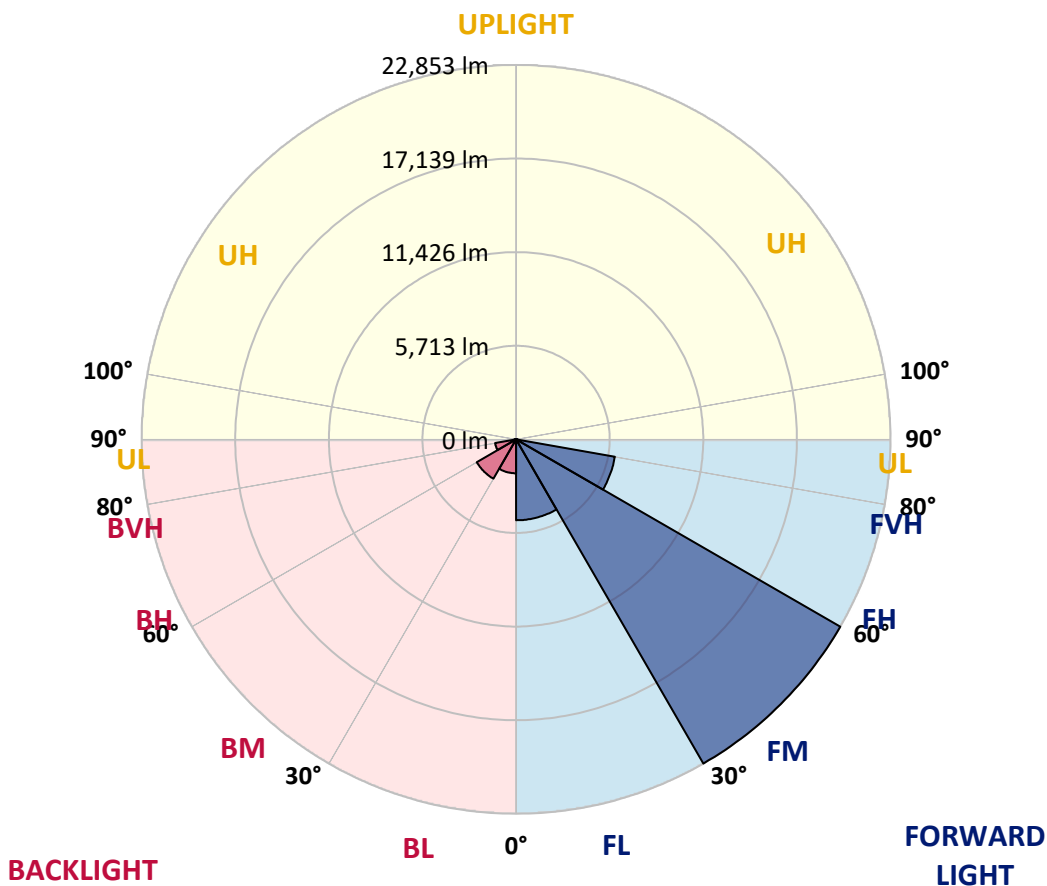
CATALOG NUMBER: GWS-SA6F-830-U-AFL-W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4939.6	12.3			
FM (30°-60°)	22852.5	56.8			
FH (60°-80°)	6123.5	15.2			G3/7500
FVH (80°-90°)	96.9	0.2			G1/100
BL (0°-30°)	2072.9	5.1	B3/2500		
BM (30°-60°)	2770.2	6.9	B3/5000		
BH (60°-80°)	1299.6	3.2	B3/2500		G3/2500
BVH (80°-90°)	105.5	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2
2.5°	11209.7	11116.2	11181.4	11065.2	11017.0	10889.4	10725.0	10614.5	10444.4	10223.4	10030.6
5°	12323.6	12258.4	12272.6	12147.9	12037.3	11824.7	11487.5	11300.4	11011.3	10566.3	10152.5
7.5°	12289.6	12366.1	12408.6	12516.3	12547.5	12527.7	12224.4	11963.6	11646.2	10977.3	10353.7
10°	11017.0	11161.5	11291.9	11660.4	12108.2	12675.0	12745.9	12590.0	12269.7	11501.6	10594.7
12.5°	9631.0	9741.5	9857.7	10299.9	10985.8	12119.5	12887.6	12984.0	12856.4	12020.3	10866.8
15°	8950.8	9001.8	9112.3	9404.2	9951.3	11209.7	12641.0	13063.3	13292.9	12570.2	11172.9
17.5°	8922.4	8945.1	8998.9	9154.8	9534.6	10506.8	12196.0	12904.6	13635.9	13151.2	11530.0
20°	9509.1	9449.6	9415.6	9412.8	9599.8	10271.5	11765.2	12649.5	13797.4	13746.4	11912.6
22.5°	10322.6	10342.4	10268.7	10087.3	10064.6	10438.8	11549.8	12391.6	13845.6	14273.6	12266.9
25°	11476.1	11575.3	11357.1	11011.3	10841.2	10923.4	11683.0	12312.3	13839.9	14712.9	12488.0
27.5°	12822.4	12899.0	12677.9	12224.4	11872.9	11674.5	12079.8	12547.5	13888.1	15092.7	12621.2
30°	14355.8	14381.3	14078.0	13601.9	13088.9	12663.7	12740.2	13032.2	14134.7	15591.6	12777.1
32.5°	16229.3	16337.0	15877.8	15123.9	14406.8	13862.6	13627.4	13814.4	14667.6	16181.1	13018.0
35°	18607.3	18644.1	18060.2	16980.4	15965.7	15211.8	14718.6	14817.8	15478.2	17005.9	13380.8
37.5°	20849.2	20886.0	20265.3	19262.0	17810.8	16779.1	16064.9	16019.5	16515.5	18170.8	13973.2
40°	22272.0	22376.9	22099.1	21469.9	20083.9	18692.3	17723.0	17567.1	17876.0	19596.4	14797.9
42.5°	23037.3	23082.6	23077.0	23159.2	22334.4	20951.2	19593.6	19281.8	19488.7	21135.5	15631.2
45°	23043.0	23156.3	23459.6	24250.4	24287.2	23425.6	21957.4	21469.9	21280.0	22685.8	16501.4
47.5°	22011.3	22133.1	22966.4	24522.5	25670.4	25865.9	24788.9	23811.1	23011.8	24020.8	17215.6
50°	18887.9	19194.0	20781.2	23533.3	25942.5	27821.6	27490.0	26163.5	24550.8	25052.5	17663.4
52.5°	16175.4	16164.1	17141.9	20738.7	24805.9	28683.2	30103.2	28584.0	26072.8	25707.2	17776.8
55°	11844.6	11909.8	12910.3	15860.8	21773.2	27849.9	31540.2	30811.8	27818.8	26055.8	17731.5
57.5°	6142.0	6465.1	7491.1	10121.3	16543.9	24981.6	31157.6	31642.3	29593.1	26302.4	17791.0
60°	3103.6	3041.2	3409.7	4832.5	9585.6	19511.4	28799.4	30344.1	29913.3	26495.1	17827.8
62.5°	2071.9	2054.9	1952.8	2239.1	3917.0	11555.5	24550.8	26716.2	27688.4	26041.7	17357.3
65°	1794.1	1760.1	1573.0	1561.7	1901.8	4792.8	17995.0	21002.3	22884.2	24026.5	16232.1
67.5°	1615.6	1564.5	1374.6	1281.1	1366.1	2105.9	10141.2	14086.5	16898.2	20319.2	13766.3
70°	1442.7	1417.2	1227.3	1091.2	1082.7	1283.9	3735.6	7270.0	10339.6	13862.6	10064.6
72.5°	1292.4	1247.1	1085.5	955.2	890.0	909.8	1621.2	2800.3	5351.2	8647.5	6020.1
75°	1119.6	1085.5	943.8	813.4	734.1	666.1	989.2	1295.3	2440.3	4109.8	2842.8
77.5°	864.5	841.8	745.4	646.2	600.9	496.0	600.9	816.3	1128.1	1731.8	1479.5
80°	501.7	515.8	555.5	504.5	442.2	354.3	391.1	470.5	677.4	938.2	839.0
82.5°	252.3	269.3	360.0	291.9	263.6	206.9	232.4	277.8	354.3	518.7	328.8
85°	19.8	19.8	65.2	73.7	90.7	73.7	93.5	113.4	161.6	206.9	110.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.5	14.2	25.5	48.2	31.2
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: P643910  
 CATALOG NUMBER: GWS-SA6F-830-U-AFL-W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2	9883.2
2.5°	9900.3	9755.7	9582.8	9441.1	9222.9	9106.6	8959.3	8777.9	8704.2	8670.2	8650.3
5°	9920.1	9665.0	9296.5	8956.4	8579.5	8281.9	7950.2	7604.5	7406.1	7357.9	7323.9
7.5°	9993.8	9636.7	9050.0	8488.8	7788.7	7139.6	6507.6	5881.2	5560.9	5439.0	5427.7
10°	10095.8	9625.3	8800.5	7868.1	6686.1	5660.1	4920.4	4430.0	4223.1	4155.1	4132.4
12.5°	10223.4	9616.8	8471.8	7006.4	5413.5	4444.2	4021.9	3942.5	3970.9	3965.2	3965.2
15°	10384.9	9628.2	8075.0	6031.4	4379.0	3857.5	3866.0	3959.5	4047.4	4061.6	4061.6
17.5°	10560.6	9616.8	7499.6	5053.6	3758.3	3718.6	3849.0	3979.4	4058.7	4070.1	4070.1
20°	10750.5	9563.0	6774.0	4132.4	3486.2	3630.8	3772.5	3874.5	3922.7	3934.0	3934.0
22.5°	10863.9	9409.9	5986.1	3497.5	3313.3	3491.9	3585.4	3690.3	3695.9	3605.2	3602.4
25°	10846.9	9123.7	5087.6	3089.4	3129.1	3285.0	3404.0	3330.3	3239.6	3188.6	3180.1
27.5°	10739.2	8692.8	4172.1	2780.5	2910.8	3086.6	3049.7	2987.4	2964.7	2908.0	2902.3
30°	10603.2	8162.8	3350.2	2539.5	2684.1	2845.6	2789.0	2783.3	2760.6	2698.3	2698.3
32.5°	10472.8	7615.8	2729.4	2361.0	2539.5	2550.9	2630.2	2635.9	2624.6	2516.9	2505.5
35°	10435.9	7068.8	2310.0	2219.3	2397.8	2392.2	2505.5	2502.7	2307.1	2156.9	2154.1
37.5°	10546.5	6513.2	2060.5	2103.1	2202.3	2276.0	2366.7	2202.3	2137.1	2046.4	2040.7
40°	10781.7	6000.2	1933.0	2035.0	2077.6	2185.3	2043.5	2054.9	2037.9	1969.8	1961.3
42.5°	11093.5	5563.8	1862.1	2012.4	2006.7	2035.0	1879.1	1924.5	1950.0	1899.0	1890.5
45°	11393.9	5184.0	1825.3	1927.3	1955.7	1791.3	1760.1	1802.6	1842.3	1822.5	1814.0
47.5°	11615.0	4855.2	1805.5	1811.1	1890.5	1709.1	1658.1	1677.9	1726.1	1734.6	1731.8
50°	11683.0	4574.6	1782.8	1714.8	1697.8	1626.9	1587.2	1581.5	1638.2	1677.9	1683.6
52.5°	11552.7	4325.2	1723.3	1629.7	1547.5	1558.9	1544.7	1516.4	1573.0	1626.9	1632.6
55°	11359.9	4183.4	1629.7	1547.5	1451.2	1496.5	1502.2	1476.7	1513.5	1550.4	1550.4
57.5°	11374.1	4265.6	1539.0	1471.0	1366.1	1425.7	1456.8	1445.5	1445.5	1473.8	1476.7
60°	11467.6	4384.7	1479.5	1374.6	1281.1	1343.5	1414.3	1403.0	1377.5	1414.3	1414.3
62.5°	11198.4	4226.0	1439.8	1281.1	1190.4	1264.1	1349.1	1343.5	1315.1	1374.6	1380.3
65°	10404.8	3800.8	1394.5	1164.9	1099.7	1184.7	1258.4	1278.3	1252.8	1332.1	1346.3
67.5°	8721.2	3197.1	1306.6	1054.4	1009.0	1088.4	1159.2	1187.6	1167.7	1261.3	1272.6
70°	6501.9	2587.7	1167.7	932.5	898.5	969.3	1034.5	1045.9	1048.7	1159.2	1170.6
72.5°	4146.6	2012.4	983.5	796.4	770.9	824.8	873.0	918.3	938.2	1043.0	1040.2
75°	2312.8	1496.5	790.8	674.6	629.2	671.7	728.4	782.3	839.0	992.0	1009.0
77.5°	1332.1	1051.5	626.4	541.4	487.5	532.9	581.0	657.6	827.6	960.8	943.8
80°	751.1	683.1	473.3	396.8	362.8	396.8	433.6	578.2	651.9	708.6	717.1
82.5°	351.5	382.6	323.1	243.8	243.8	266.4	300.4	447.8	493.2	402.5	351.5
85°	127.5	172.9	158.7	124.7	110.5	107.7	187.1	255.1	158.7	141.7	121.9
87.5°	34.0	48.2	45.3	31.2	17.0	14.2	0.0	0.0	0.0	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

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**

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)