

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: P629593

Luminaire Tested: GWS-SA1B-830-U-T3R-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P629593  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA1B-830-U-T3R-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

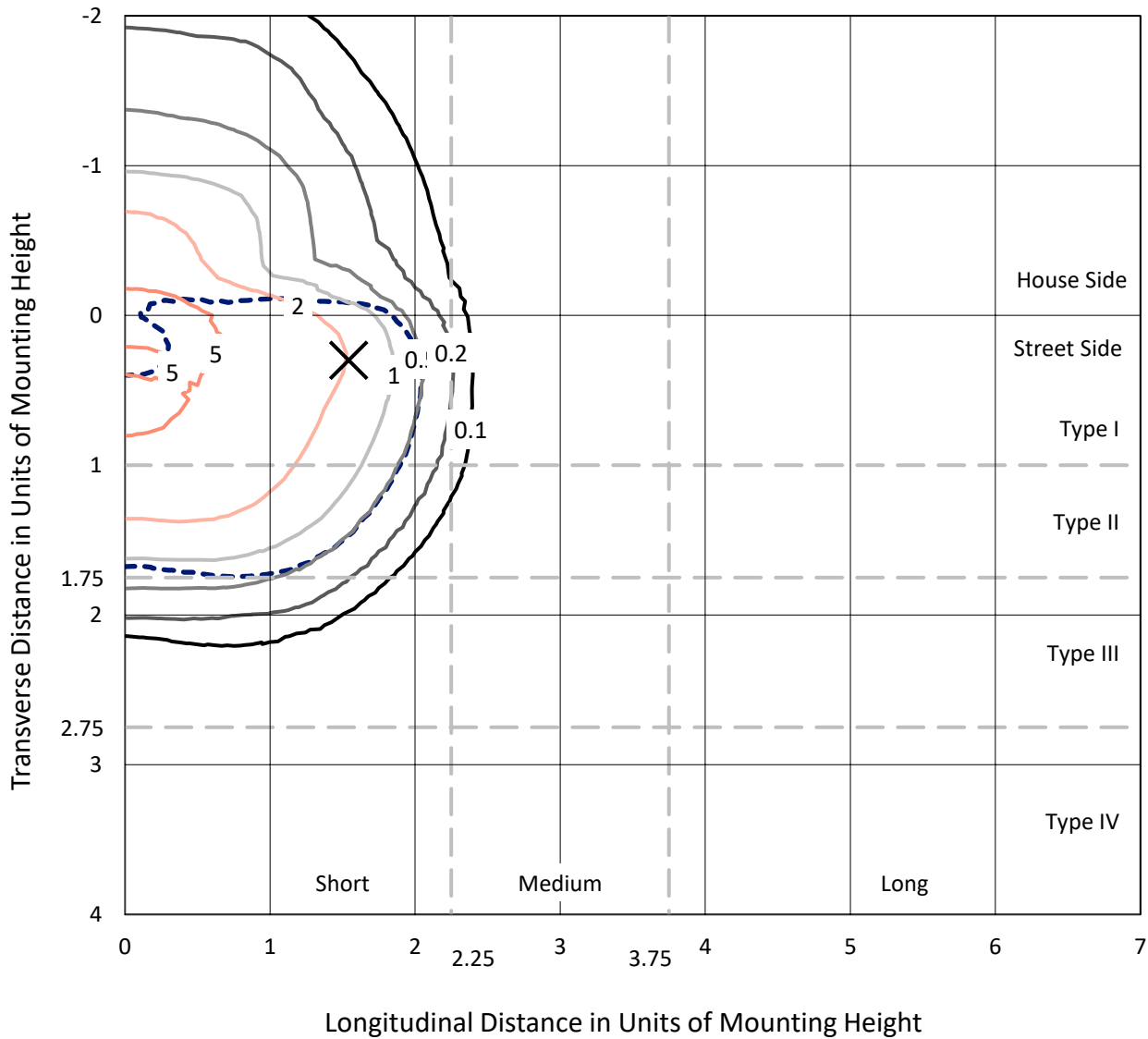
Lumens per Lamp: N/A  
Luminaire Lumens: 2496.2 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 25  
Input Voltage (V): 120  
Input Current (Ain): NR  
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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### Iso-Footcandle Lines of Horizontal Illumination

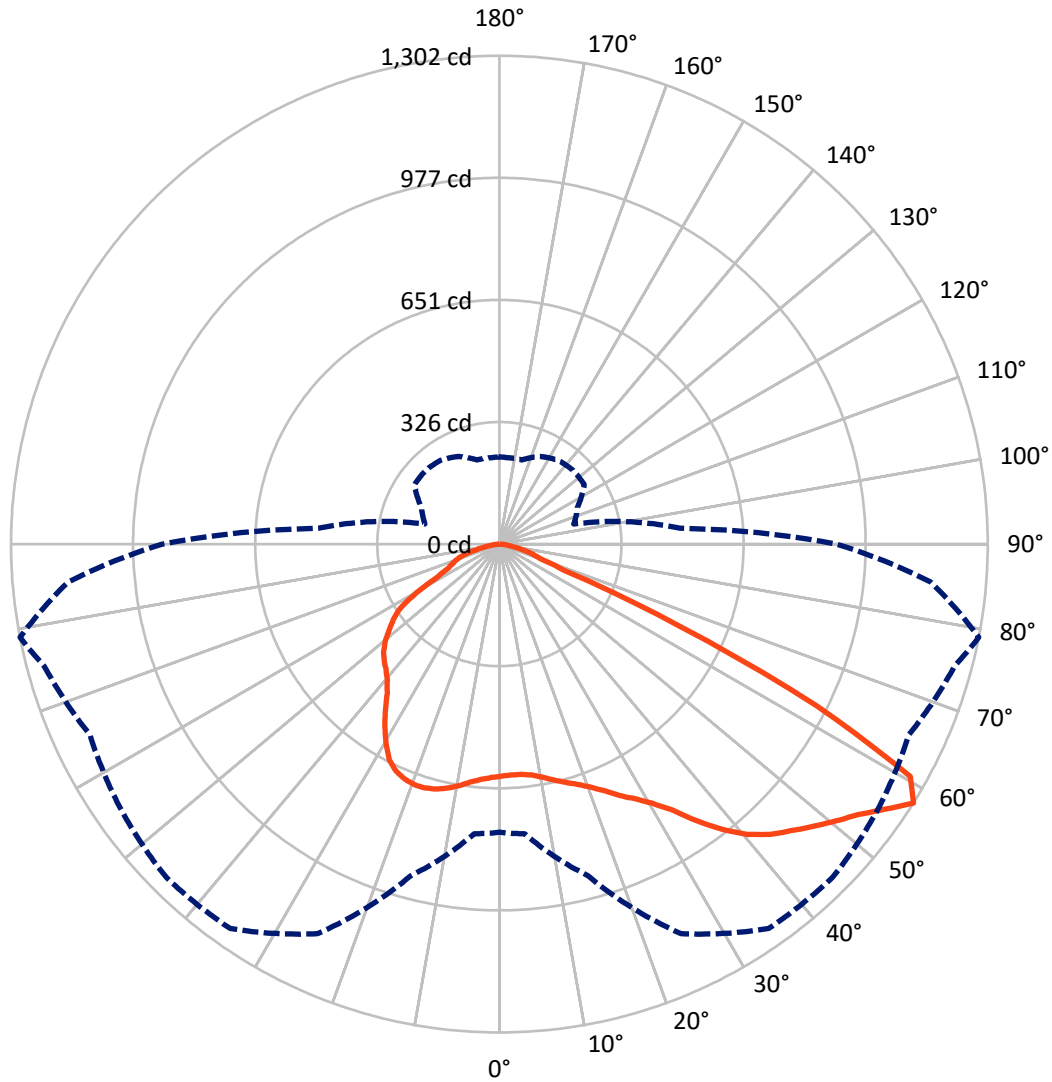
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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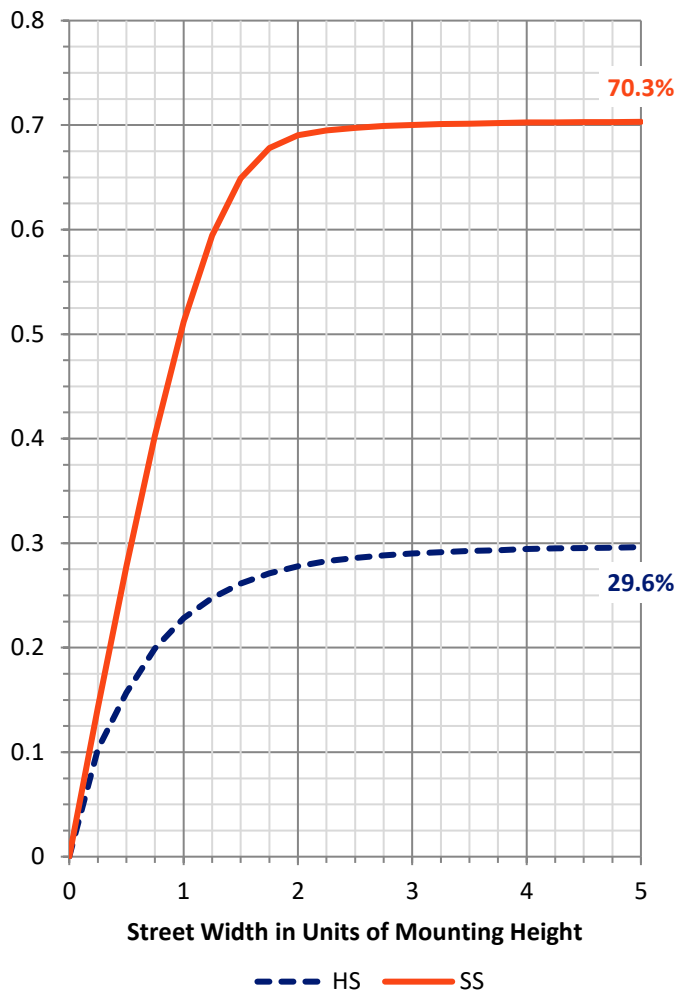
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	742.0	0.0	742.0
	% Fixture	29.7	0.0	29.7
<b>Street Side</b>	Lumens	1754.2	0.0	1754.2
	% Fixture	70.3	0.0	70.3
<b>Total</b>	Lumens	2496.2	0.0	2496.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.3	2.3
10°-20°	159.2	6.4
20°-30°	269.9	10.8
30°-40°	413.1	16.5
40°-50°	550.8	22.1
50°-60°	636.1	25.5
60°-70°	330.5	13.2
70°-80°	70.3	2.8
80°-90°	9.1	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°	2496.2	100.0
0°-180°	2496.2	100.0

**Coefficient of Utilization**



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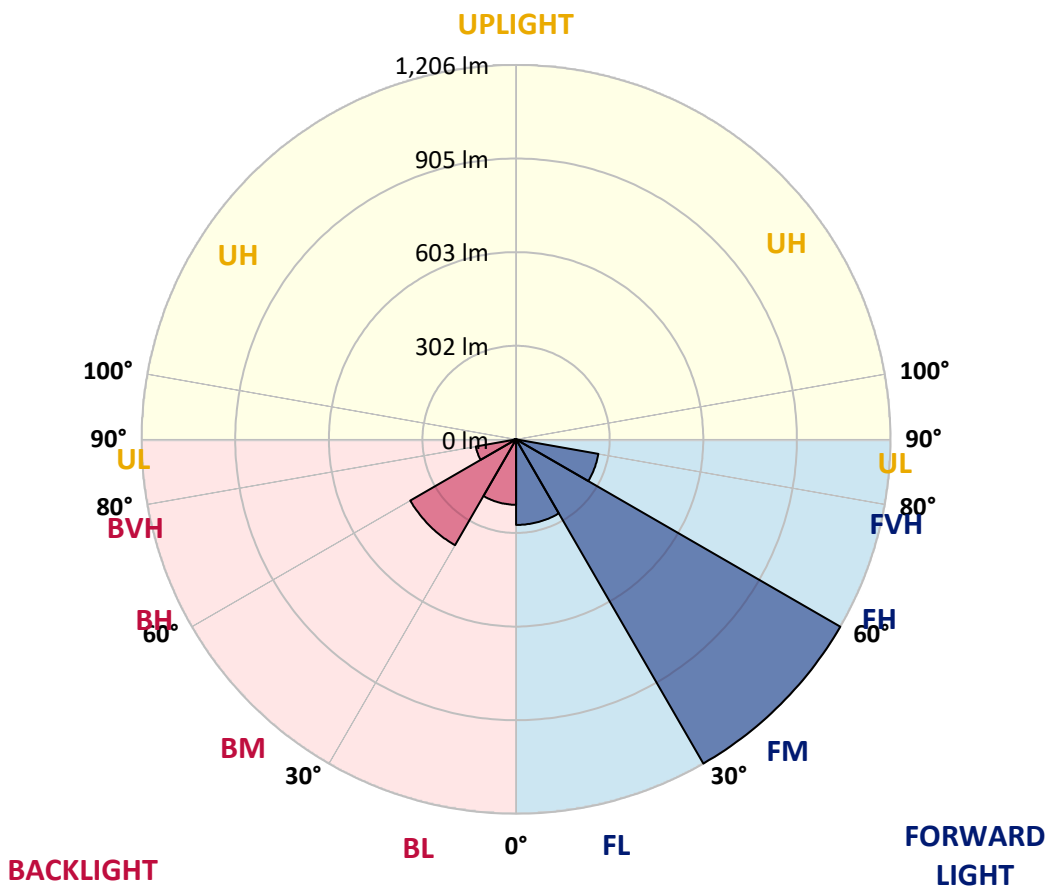
CATALOG NUMBER: GWS-SA1B-830-U-T3R-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	275.6	11.0			
FM (30°-60°)	1206.2	48.3			
FH (60°-80°)	269.1	10.8			G0/660
FVH (80°-90°)	3.2	0.1			G0/10
BL (0°-30°)	210.7	8.4	B1/500		
BM (30°-60°)	393.7	15.8	B1/1000		
BH (60°-80°)	131.7	5.3	B1/500		G1/500
BVH (80°-90°)	5.9	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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CATALOG NUMBER: GWS-SA1B-830-U-T3R-W-GRSWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6
2.5°	590.5	589.2	589.6	591.3	597.4	601.9	606.6	610.9	614.9	616.2	617.2
5°	569.4	567.2	567.8	570.4	577.6	585.1	593.5	603.7	613.5	616.8	621.1
7.5°	554.5	554.1	555.1	559.2	566.8	573.9	584.7	599.2	616.2	621.7	629.2
10°	534.7	533.9	538.0	546.4	558.8	570.2	583.1	600.2	623.9	632.1	643.7
12.5°	519.0	518.6	522.9	534.5	550.4	568.6	586.4	605.6	634.3	645.6	659.8
15°	528.2	526.4	526.6	534.7	549.0	570.4	594.5	615.1	644.7	659.0	677.4
17.5°	554.9	551.7	549.2	550.7	558.8	581.1	607.0	628.0	656.8	673.5	696.0
20°	591.9	590.0	583.3	578.8	580.7	600.2	626.6	646.2	672.5	691.3	715.4
22.5°	641.5	637.0	627.8	620.7	615.1	630.5	654.7	671.7	694.3	713.9	739.0
25°	702.9	696.4	681.9	670.7	658.8	674.5	696.2	709.0	724.3	742.5	766.4
27.5°	765.6	760.1	743.9	728.8	714.1	723.9	749.6	757.0	755.4	768.6	789.0
30°	832.3	825.4	810.1	793.7	774.7	781.1	804.1	807.8	790.5	801.5	815.4
32.5°	902.7	896.0	882.7	863.7	842.3	844.8	851.1	854.6	838.0	844.3	855.0
35°	974.4	968.0	954.6	935.8	920.1	905.2	889.2	903.1	893.5	905.8	905.0
37.5°	1039.9	1033.5	1025.2	1010.7	983.7	954.4	917.6	934.8	949.7	965.2	962.5
40°	1084.2	1079.9	1081.9	1079.7	1045.0	986.8	931.5	950.3	990.9	1017.4	1016.0
42.5°	1122.3	1118.0	1129.9	1138.4	1097.6	1016.8	938.2	956.2	1017.2	1058.6	1056.6
45°	1139.3	1138.0	1157.6	1184.8	1145.8	1048.6	955.6	968.4	1037.2	1090.3	1082.5
47.5°	1119.1	1123.3	1161.9	1207.8	1185.8	1086.4	991.1	994.4	1063.3	1124.6	1102.7
50°	1078.9	1088.2	1140.3	1208.5	1215.0	1129.1	1040.3	1032.1	1098.4	1161.1	1113.3
52.5°	1020.3	1030.1	1115.0	1203.8	1231.7	1178.5	1105.8	1094.2	1142.7	1197.6	1115.2
55°	885.8	899.0	1057.0	1193.1	1248.0	1223.4	1179.7	1156.0	1199.9	1247.8	1133.3
57.5°	768.4	775.4	915.8	1146.0	1251.3	1256.4	1232.3	1204.2	1256.6	1302.1	1153.8
60°	563.9	565.6	691.9	948.2	1151.1	1237.2	1228.0	1186.2	1229.7	1258.7	1060.3
62.5°	318.6	318.8	419.6	632.9	859.9	1008.4	1014.2	977.2	940.7	949.3	738.0
65°	119.6	130.8	191.6	311.0	495.8	595.3	619.0	627.6	566.8	529.0	395.7
67.5°	80.0	82.7	111.8	160.0	220.6	254.7	284.9	285.7	209.0	186.3	155.9
70°	61.0	63.7	88.0	114.5	111.8	103.3	111.6	108.6	112.3	115.3	118.6
72.5°	45.5	48.2	68.2	80.8	67.1	66.1	74.9	83.3	91.0	94.3	99.4
75°	30.2	32.2	45.9	43.3	37.1	43.9	54.7	63.1	67.6	71.4	75.3
77.5°	19.2	20.6	24.5	19.8	20.6	25.7	31.8	39.4	43.7	47.6	49.6
80°	8.8	8.6	8.4	9.4	11.6	15.1	19.2	23.7	26.9	28.6	29.8
82.5°	3.5	3.9	4.3	5.1	6.3	8.2	10.8	13.9	16.5	16.9	18.0
85°	1.4	1.6	1.8	2.2	2.9	3.7	4.5	6.3	8.0	8.6	9.2
87.5°	0.0	0.0	0.0	0.0	0.2	0.4	0.6	1.0	1.8	2.0	2.2
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: P629593

CATALOG NUMBER: GWS-SA1B-830-U-T3R-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6	618.6
2.5°	622.7	620.0	624.5	627.6	630.5	627.4	626.4	623.7	623.3	623.3	624.7
5°	628.4	626.6	631.3	633.1	632.9	626.2	622.1	616.8	614.1	614.1	614.5
7.5°	638.6	637.6	640.3	637.4	630.9	617.2	603.7	592.5	584.9	581.1	582.3
10°	655.6	654.3	652.1	641.5	622.7	594.3	566.8	546.4	534.1	527.2	527.6
12.5°	672.1	670.0	662.1	638.6	600.0	554.9	518.8	496.0	482.5	474.3	472.5
15°	690.3	684.9	667.8	623.9	563.1	506.8	469.0	444.3	429.8	424.9	424.7
17.5°	707.6	698.2	667.2	597.8	518.8	456.4	418.4	403.1	400.6	402.9	403.5
20°	725.2	710.1	660.5	561.7	466.2	406.2	386.6	392.9	402.1	408.2	409.6
22.5°	743.3	719.8	645.1	515.1	410.6	372.3	380.4	394.3	405.7	413.9	414.7
25°	763.7	729.0	622.3	458.2	366.1	362.9	379.0	393.7	405.9	415.3	417.0
27.5°	775.4	729.2	590.2	399.6	345.7	359.2	375.5	389.4	401.7	411.9	413.7
30°	786.8	723.7	539.4	352.1	339.8	354.9	369.6	382.5	394.1	404.1	406.4
32.5°	802.9	718.6	480.9	324.7	336.4	350.8	362.9	374.3	383.3	387.8	389.0
35°	822.9	712.1	418.6	312.9	334.1	347.6	358.2	364.3	352.7	350.2	352.9
37.5°	850.9	706.0	356.6	307.8	332.7	346.4	355.7	340.0	325.7	320.0	322.1
40°	881.1	702.5	314.5	303.7	333.3	347.6	345.5	322.3	301.7	289.6	289.2
42.5°	906.8	697.2	287.6	301.0	334.9	352.3	331.7	306.6	275.9	268.8	269.0
45°	924.1	683.7	273.3	298.2	336.4	353.3	325.1	284.9	263.1	258.6	258.4
47.5°	931.3	659.2	264.1	293.7	336.1	344.9	311.9	275.9	254.1	252.9	253.7
50°	926.6	619.0	254.7	284.9	331.2	336.1	296.6	268.0	248.0	254.7	259.6
52.5°	909.2	567.0	243.5	272.9	322.5	326.1	288.8	263.1	243.5	252.5	256.3
55°	904.8	524.7	229.2	257.2	309.4	308.4	280.6	260.6	240.4	237.0	237.6
57.5°	898.8	483.5	205.5	229.0	276.3	278.0	272.9	257.8	232.5	231.4	232.5
60°	780.9	370.6	183.3	197.6	227.0	235.7	264.1	252.5	219.6	215.3	215.1
62.5°	510.0	224.5	163.1	172.3	184.9	195.1	240.8	237.2	205.5	202.9	204.7
65°	274.3	160.0	148.4	153.9	160.8	168.6	199.6	211.2	185.7	176.3	176.5
67.5°	140.2	136.1	137.4	141.2	146.5	150.4	161.0	171.2	158.4	150.4	150.2
70°	120.0	123.3	125.1	127.4	130.8	130.2	131.2	133.1	132.1	128.2	128.0
72.5°	102.3	107.4	107.8	108.2	109.4	106.5	104.7	101.6	101.8	102.5	102.7
75°	77.8	82.7	83.9	83.3	84.5	80.8	78.4	75.3	71.6	71.0	71.4
77.5°	50.6	54.5	56.3	55.9	56.5	53.7	52.5	49.2	44.9	43.3	43.3
80°	30.6	32.9	34.3	34.7	35.3	33.3	31.2	28.4	26.5	24.7	24.7
82.5°	18.6	20.0	21.0	21.0	21.6	19.4	17.8	15.7	14.9	13.3	13.3
85°	9.4	10.4	10.8	10.6	10.2	8.4	7.8	6.7	6.3	5.5	5.5
87.5°	2.2	2.9	2.9	2.0	2.0	1.0	0.6	0.2	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

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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)