

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: P629581

Luminaire Tested: GWS-SA1B-830-U-T2-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P629581  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-21)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA1B-830-U-T2-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS W/ FACTORY INSALLED GLARE SHIELD, WH  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2373.7 lumens  
Efficiency: N/A  
Efficacy: 94.9 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

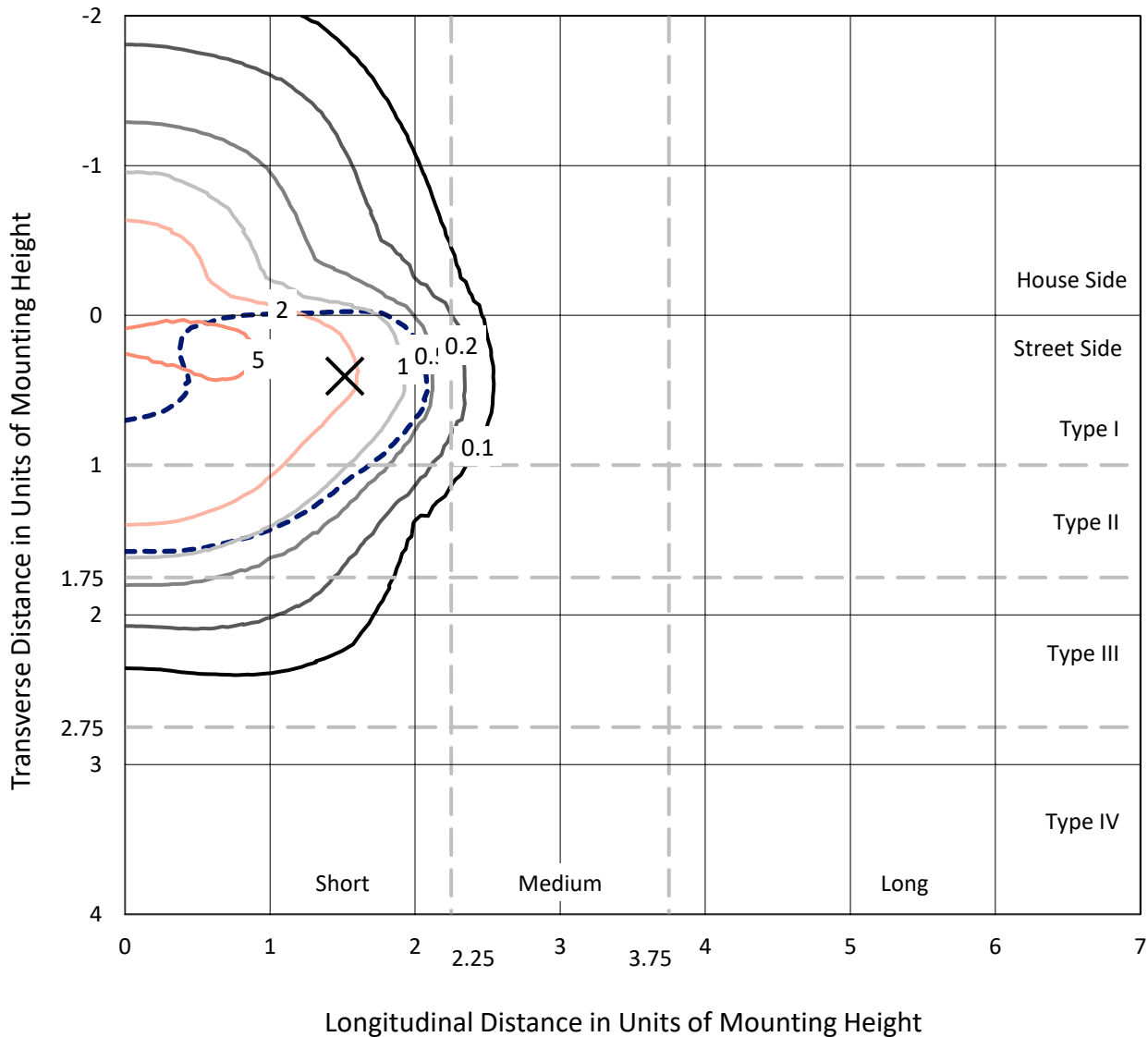
Input Watts (W): 25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

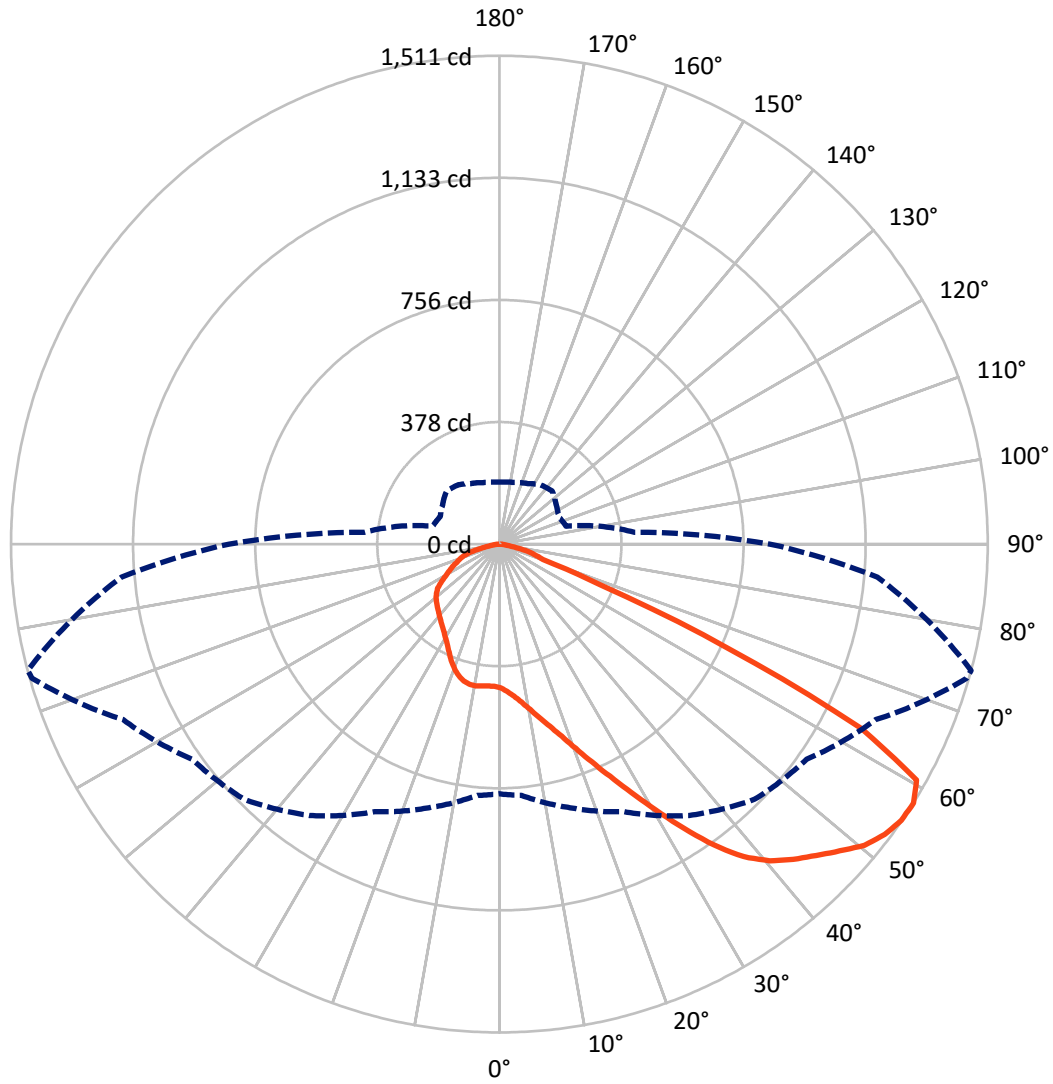
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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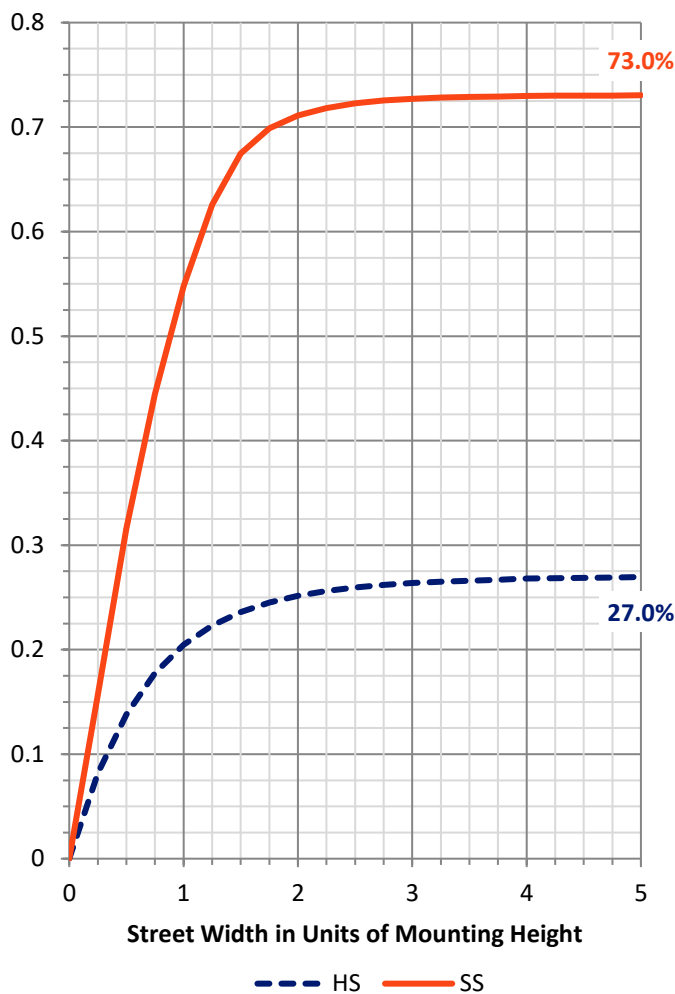
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	642.1	0.0	642.1
	% Fixture	27.1	0.0	27.1
<b>Street Side</b>	Lumens	1731.6	0.0	1731.6
	% Fixture	72.9	0.0	72.9
<b>Total</b>	Lumens	2373.7	0.0	2373.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.5	1.9
10°-20°	141.6	6.0
20°-30°	251.2	10.6
30°-40°	384.5	16.2
40°-50°	535.4	22.6
50°-60°	613.5	25.8
60°-70°	315.2	13.3
70°-80°	79.4	3.3
80°-90°	8.5	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°	2373.7	100.0
0°-180°	2373.7	100.0

**Coefficient of Utilization**



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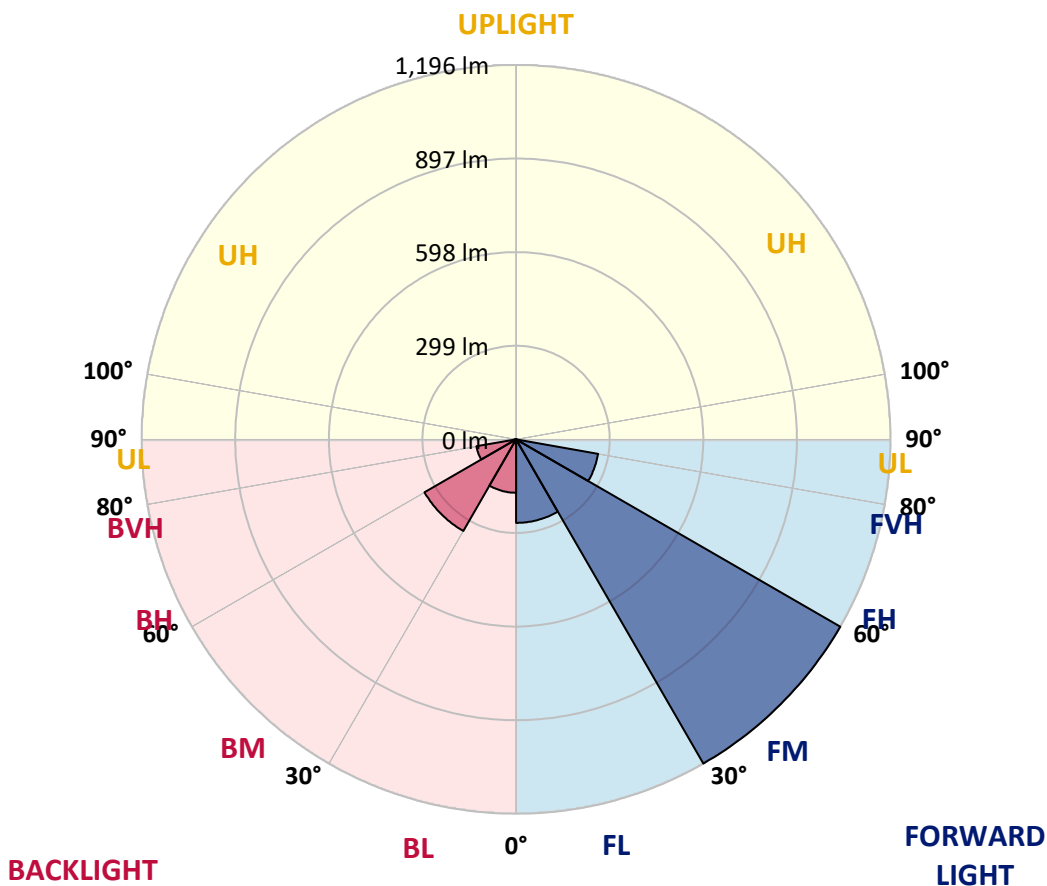
CATALOG NUMBER: GWS-SA1B-830-U-T2-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	266.7	11.2			
FM (30°-60°)	1195.7	50.4			
FH (60°-80°)	266.1	11.2			G0/660
FVH (80°-90°)	3.1	0.1			G0/10
BL (0°-30°)	170.6	7.2	B1/500		
BM (30°-60°)	337.7	14.2	B1/1000		
BH (60°-80°)	128.5	5.4	B1/500		G1/500
BVH (80°-90°)	5.3	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





REPORT NUMBER: P629581

CATALOG NUMBER: GWS-SA1B-830-U-T2-W-GRSWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5
2.5°	477.6	478.8	477.6	479.6	475.6	473.7	469.2	462.5	457.2	456.4	450.5
5°	514.7	517.4	515.8	515.0	509.4	505.4	498.6	485.2	474.1	472.5	460.9
7.5°	538.6	540.5	540.5	541.1	539.0	534.3	527.2	511.3	495.8	493.3	475.8
10°	546.6	548.0	550.7	555.8	559.9	561.3	556.6	541.3	522.3	519.9	495.4
12.5°	548.4	550.1	554.1	563.5	574.8	585.0	585.8	574.6	553.3	550.7	518.0
15°	551.9	553.5	559.0	570.7	587.2	606.8	618.8	611.1	587.6	584.8	543.7
17.5°	551.5	553.3	561.5	577.0	599.2	627.6	650.9	654.2	629.9	625.0	572.9
20°	550.5	552.1	560.9	579.9	607.4	646.4	688.4	705.4	679.3	674.8	607.0
22.5°	558.6	560.5	567.2	582.9	611.7	660.9	723.1	764.0	737.8	731.5	646.2
25°	577.0	579.7	583.7	594.6	619.5	673.7	758.7	830.3	803.6	796.0	688.8
27.5°	605.4	608.6	614.4	619.5	636.8	690.1	794.0	904.6	877.8	869.9	734.0
30°	640.1	644.4	651.7	655.2	667.0	714.2	832.3	981.1	965.6	954.6	784.8
32.5°	688.0	694.0	700.9	701.9	709.1	750.7	870.3	1057.1	1056.8	1049.1	842.5
35°	750.5	756.8	758.2	759.7	763.1	800.9	916.2	1126.2	1153.0	1144.0	905.4
37.5°	818.7	827.8	830.1	823.8	828.7	861.3	967.9	1181.8	1236.7	1227.1	966.2
40°	891.5	895.2	901.3	891.3	897.4	930.5	1018.5	1217.3	1299.1	1288.9	1014.2
42.5°	943.8	950.5	959.7	956.0	959.5	989.7	1054.0	1234.4	1343.6	1333.4	1048.7
45°	1000.5	1002.6	1008.5	1007.7	1009.7	1037.9	1079.5	1242.0	1383.4	1374.2	1078.1
47.5°	1049.9	1053.0	1056.8	1052.4	1047.9	1066.2	1100.3	1248.5	1429.3	1418.3	1108.9
50°	1097.5	1100.1	1104.8	1091.7	1075.0	1079.7	1110.5	1257.5	1472.4	1464.6	1133.2
52.5°	1106.2	1109.1	1131.1	1133.8	1112.4	1095.8	1128.5	1277.3	1497.7	1492.8	1142.0
55°	995.8	1000.9	1044.8	1095.2	1148.1	1142.8	1157.3	1287.7	1507.7	1508.9	1157.7
57.5°	772.9	780.3	844.4	913.6	1024.8	1116.9	1160.9	1285.0	1504.2	1511.0	1173.8
60°	507.0	511.3	587.2	664.8	780.1	907.4	1039.1	1237.3	1473.4	1483.0	1169.7
62.5°	306.2	311.1	372.1	430.9	498.8	583.9	704.8	994.4	1235.0	1256.5	936.8
65°	213.7	220.2	273.7	322.1	345.5	328.0	357.0	555.4	769.5	778.5	572.5
67.5°	154.9	159.4	203.3	260.8	286.8	231.7	176.5	245.9	335.1	338.4	236.1
70°	101.4	106.5	146.3	198.6	234.1	187.8	132.1	133.1	141.0	142.7	137.2
72.5°	55.7	58.8	90.4	131.9	138.4	112.3	103.1	110.6	116.1	116.1	117.6
75°	28.8	31.4	36.9	43.5	52.5	61.4	74.3	85.5	91.4	91.8	91.2
77.5°	14.7	15.7	19.8	21.4	23.5	27.3	35.5	45.5	50.8	52.9	52.5
80°	6.9	7.3	8.4	9.8	12.0	15.3	19.2	22.9	26.1	26.5	28.8
82.5°	3.7	4.1	4.5	5.3	6.5	8.2	11.2	13.5	15.5	15.9	17.8
85°	1.4	1.6	1.8	2.0	2.9	3.5	4.7	6.3	7.8	7.8	9.2
87.5°	0.0	0.0	0.0	0.0	0.2	0.4	0.8	1.0	1.4	1.4	2.4
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: P629581

CATALOG NUMBER: GWS-SA1B-830-U-T2-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5
2.5°	449.0	443.1	440.5	436.2	432.7	428.8	425.8	423.5	422.1	421.3	420.5
5°	456.4	447.4	440.3	431.7	425.8	420.0	415.4	412.1	410.5	409.2	408.4
7.5°	467.8	455.8	442.3	429.0	418.6	409.4	403.5	400.0	397.8	397.0	396.4
10°	483.5	466.8	444.5	423.5	408.0	398.0	393.9	392.3	392.5	392.1	391.9
12.5°	501.3	478.4	443.9	413.7	396.6	390.7	390.9	393.5	396.6	397.4	397.6
15°	520.5	489.8	438.0	401.1	387.6	388.2	393.5	399.8	405.6	407.8	408.2
17.5°	541.3	499.4	427.2	387.2	380.2	386.8	396.6	407.0	415.4	419.0	420.0
20°	564.5	507.6	411.9	373.5	373.3	384.1	398.4	412.1	422.7	427.6	428.4
22.5°	589.2	512.7	393.1	360.9	366.2	380.7	397.0	411.3	422.5	427.4	428.4
25°	614.1	514.3	372.5	349.2	358.8	375.1	390.0	401.5	412.1	416.4	417.2
27.5°	637.4	509.6	352.9	339.2	352.1	367.0	377.0	383.1	390.4	393.7	394.3
30°	661.1	500.3	336.4	331.3	344.5	355.8	360.2	360.7	363.5	363.5	363.9
32.5°	685.0	486.4	321.9	323.5	335.1	342.5	343.1	338.4	334.9	329.2	329.0
35°	712.5	472.3	310.0	314.7	324.1	328.6	326.8	317.8	309.4	300.0	299.6
37.5°	738.0	457.8	300.0	305.7	311.7	314.9	310.6	299.8	292.9	283.3	281.9
40°	759.1	444.7	290.4	296.4	299.2	302.1	295.1	286.4	287.4	282.1	281.9
42.5°	771.3	432.1	281.5	285.9	287.8	289.8	283.7	277.2	282.7	278.6	278.8
45°	780.3	421.1	273.3	274.9	279.4	282.5	276.8	269.4	270.6	254.9	251.3
47.5°	790.5	414.9	265.5	263.9	271.9	277.2	268.4	257.8	250.4	234.9	233.5
50°	801.3	412.7	257.4	252.9	262.5	267.6	257.4	244.1	234.5	226.1	225.3
52.5°	805.0	412.5	247.2	239.6	249.2	256.4	247.8	234.3	222.9	214.7	214.3
55°	819.5	418.4	234.1	221.5	230.4	245.1	238.8	219.4	210.2	206.6	206.1
57.5°	836.4	419.4	213.5	201.7	214.1	231.5	223.5	206.8	196.8	192.3	191.9
60°	829.5	394.3	191.4	186.6	200.2	218.6	211.2	196.8	185.1	180.8	180.4
62.5°	632.1	278.4	175.3	173.5	185.3	200.0	198.6	183.5	172.5	169.4	169.0
65°	380.2	195.5	159.8	159.6	168.0	182.1	183.9	171.7	160.0	155.7	155.7
67.5°	188.0	149.6	142.3	141.2	146.5	156.5	164.3	154.3	144.5	140.4	139.8
70°	132.9	131.9	129.4	126.5	127.6	131.6	134.9	126.5	116.1	112.1	111.2
72.5°	114.9	115.1	113.5	111.2	110.4	107.6	104.7	98.6	92.3	88.0	88.4
75°	89.2	89.6	90.6	89.8	87.6	84.5	81.4	73.7	68.6	64.5	63.7
77.5°	52.0	54.1	57.4	56.5	56.9	52.7	51.4	43.9	39.2	36.3	35.7
80°	29.4	30.6	32.0	33.1	31.8	30.0	27.3	23.3	21.8	19.8	19.4
82.5°	17.8	19.0	19.6	20.4	20.0	17.6	15.5	12.9	11.6	10.6	10.4
85°	9.0	9.8	10.4	10.8	9.6	8.0	7.1	5.7	4.9	4.3	4.3
87.5°	2.2	2.4	2.9	2.4	2.2	1.0	0.8	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  
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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**

$\lambda$ (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

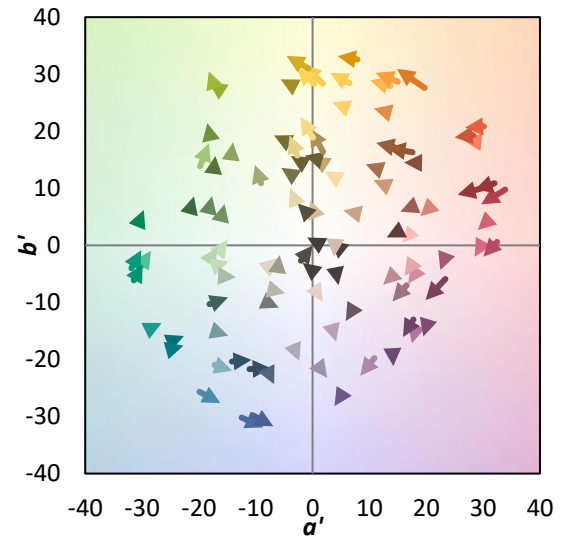
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625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