

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: P629583

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

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P629583  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-19)  
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  
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2824.8 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

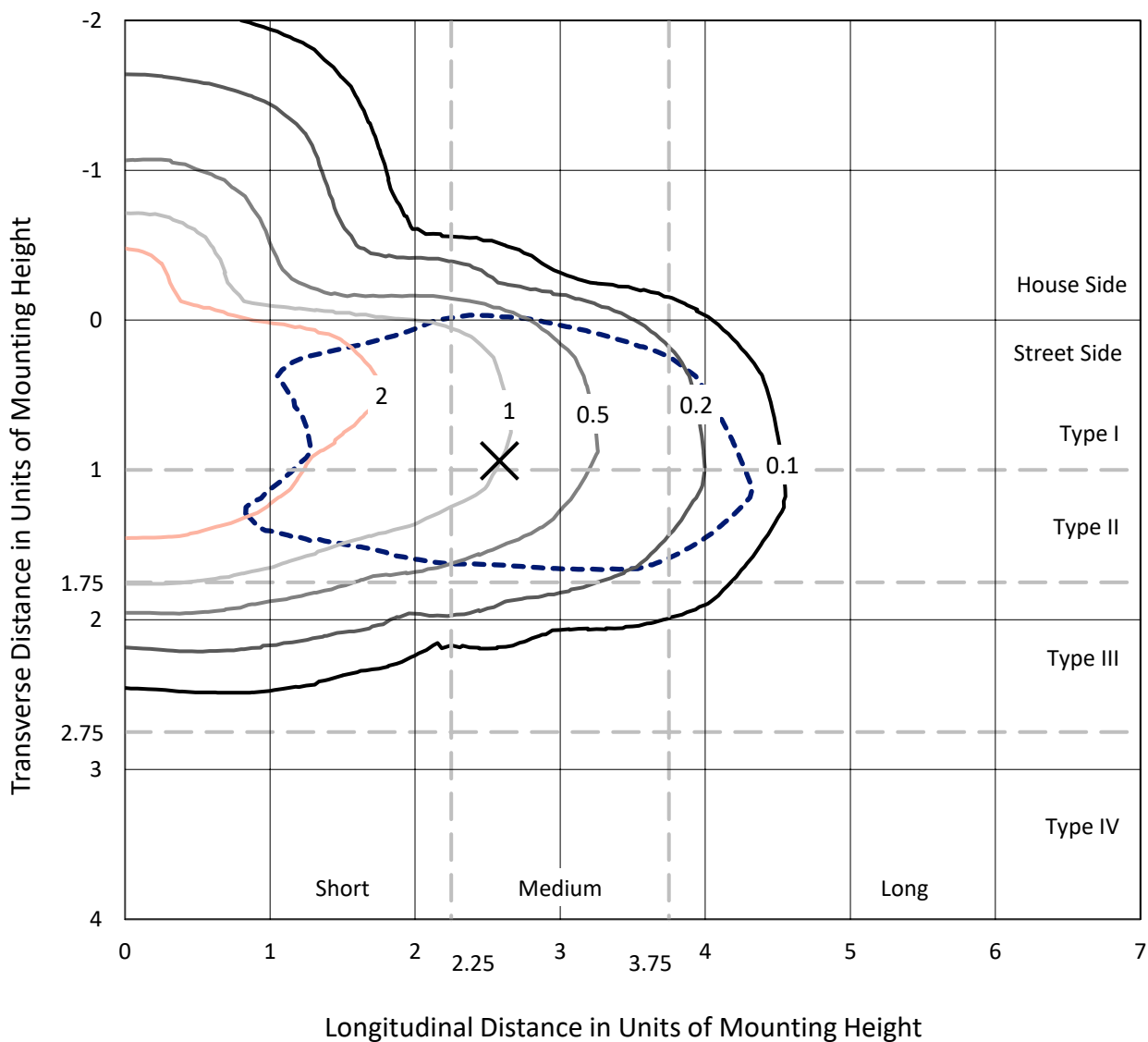
Input Watts (W): 25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P629583  
 CATALOG NUMBER: GWS-SA1B-830-U-T2-W

### Iso-Footcandle Lines of Horizontal Illumination

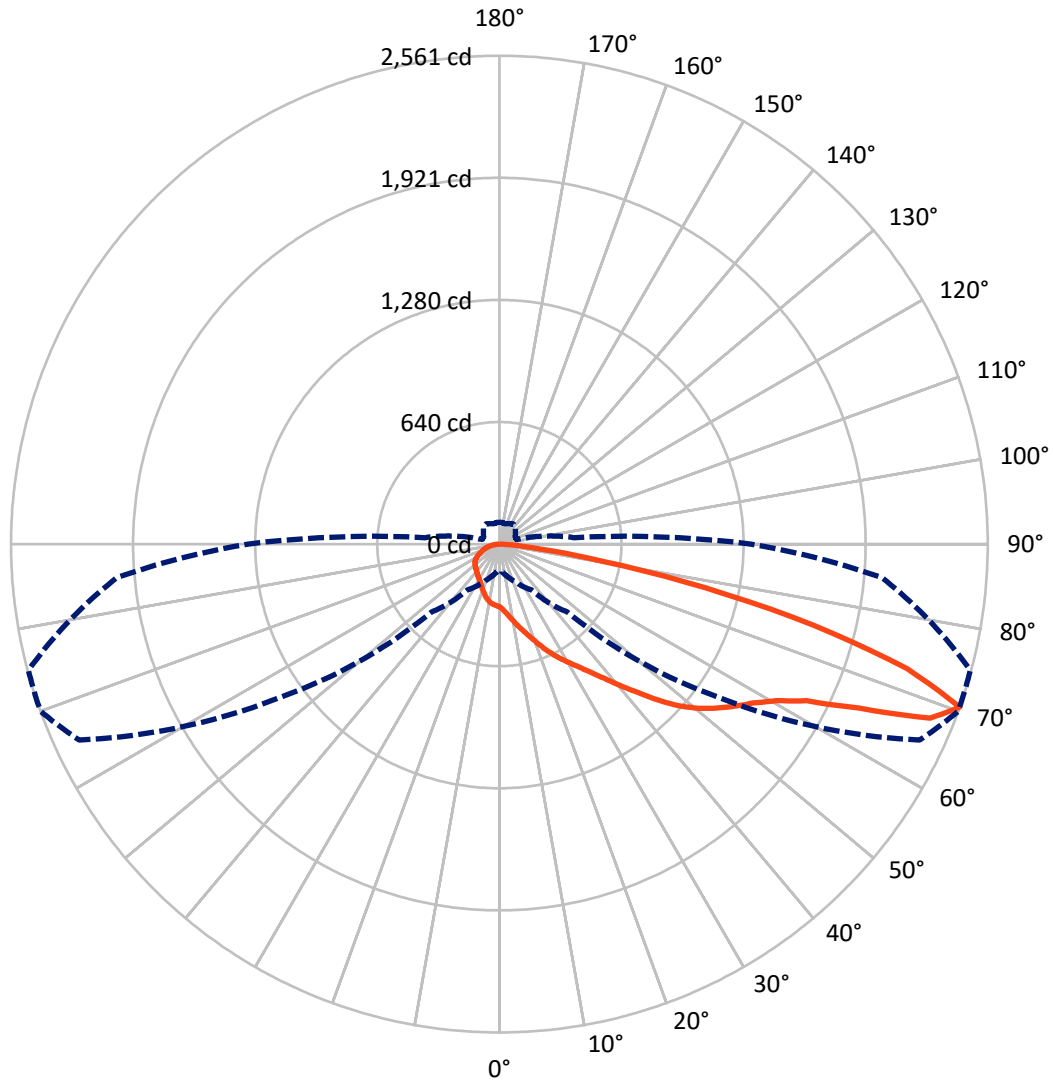
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type II - Medium - N/A

REPORT NUMBER: P629583  
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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	506.2	0.0	506.2
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	2318.6	0.0	2318.6
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	2824.8	0.0	2824.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.5	1.2
10°-20°	108.9	3.9
20°-30°	193.0	6.8
30°-40°	290.4	10.3
40°-50°	439.3	15.6
50°-60°	629.4	22.3
60°-70°	695.7	24.6
70°-80°	392.6	13.9
80°-90°	42.0	1.5
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°	2824.8	100.0
0°-180°	2824.8	100.0

**Coefficient of Utilization**



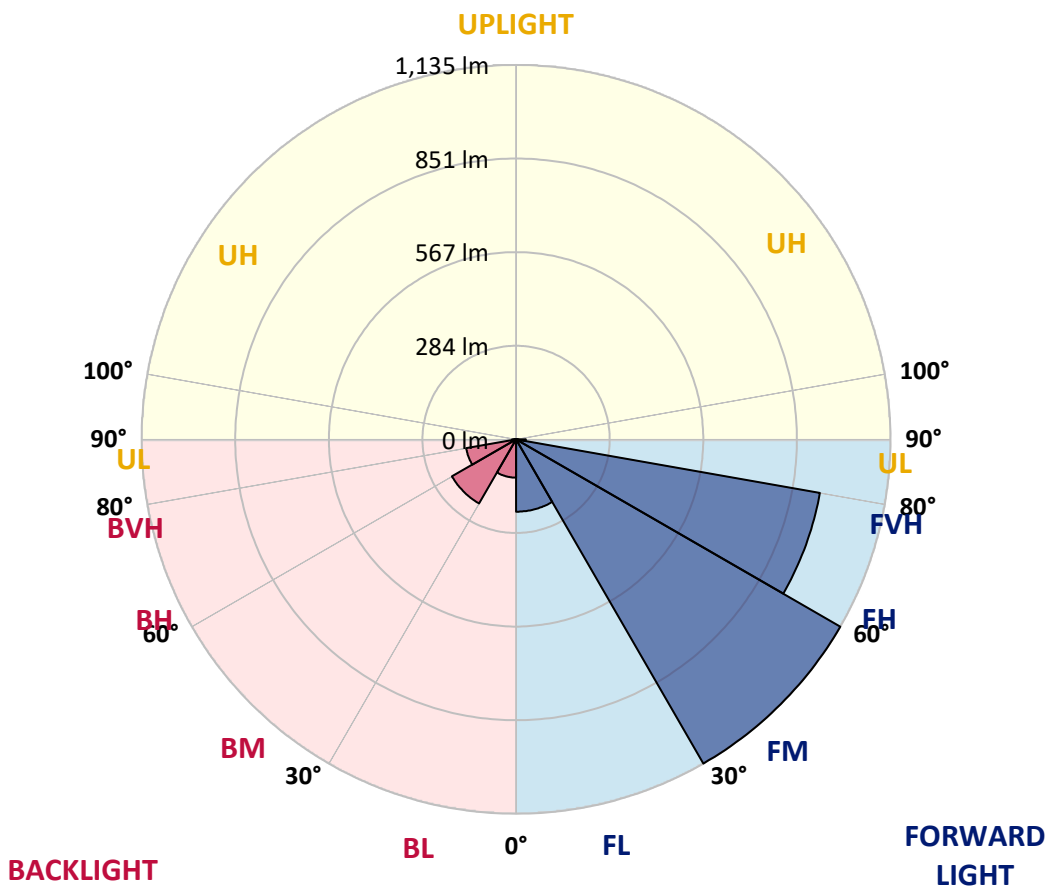
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	219.3	7.8			
FM (30°-60°)	1134.7	40.2			
FH (60°-80°)	934.9	33.1			G1/1800
FVH (80°-90°)	29.7	1.1			G1/100
BL (0°-30°)	116.1	4.1	B1/500		
BM (30°-60°)	224.4	7.9	B1/1000		
BH (60°-80°)	153.4	5.4	B1/500		G1/500
BVH (80°-90°)	12.3	0.4			G1/100
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 Medium





REPORT NUMBER: P629583  
 CATALOG NUMBER: GWS-SA1B-830-U-T2-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4
2.5°	364.9	364.3	364.7	364.3	362.1	356.6	352.1	346.4	342.5	340.2	334.9
5°	407.8	407.2	405.8	403.7	399.6	392.1	380.9	368.4	360.9	355.1	343.9
7.5°	438.6	438.6	438.4	436.0	433.1	425.2	411.9	395.6	384.5	374.7	356.4
10°	454.3	455.4	456.8	460.3	459.7	455.4	442.9	425.4	411.5	400.1	372.7
12.5°	462.9	463.5	466.0	473.1	480.5	481.5	474.1	455.8	440.7	425.4	390.9
15°	473.9	474.1	477.4	486.0	496.8	507.6	505.8	487.4	471.9	455.0	411.1
17.5°	482.5	483.9	489.9	499.9	513.3	528.2	537.2	525.8	506.6	487.2	433.1
20°	485.6	486.6	494.3	509.7	528.0	549.1	569.1	566.0	546.6	523.7	458.0
22.5°	496.6	496.6	502.3	515.2	536.8	567.4	599.9	607.8	590.7	564.0	484.8
25°	520.9	520.1	522.7	528.0	544.4	582.1	630.3	654.2	635.0	605.0	511.5
27.5°	554.2	553.7	553.5	554.4	559.9	595.0	656.0	697.4	678.3	644.4	535.4
30°	590.3	589.1	591.7	589.3	588.0	610.3	677.8	736.2	721.3	683.4	555.2
32.5°	639.5	637.2	636.6	628.7	623.8	634.2	695.4	780.3	768.5	725.4	577.4
35°	704.4	702.3	691.9	679.3	664.8	669.7	717.2	823.4	824.2	778.1	606.6
37.5°	769.9	770.3	762.1	732.3	717.4	714.6	750.5	875.8	893.4	840.9	644.4
40°	824.4	826.8	826.8	795.4	773.2	770.5	797.2	938.1	973.0	918.1	692.1
42.5°	865.8	868.1	875.2	852.6	829.1	838.3	854.0	1000.5	1063.2	1013.4	752.5
45°	911.3	913.2	917.1	904.0	890.3	914.8	918.3	1075.2	1166.5	1120.3	822.8
47.5°	971.8	970.1	970.5	960.9	950.3	989.9	989.1	1138.1	1266.3	1237.5	898.9
50°	1046.9	1049.9	1047.1	1028.1	1015.6	1051.8	1056.5	1207.7	1354.1	1353.4	975.6
52.5°	1119.1	1120.3	1135.5	1136.3	1110.8	1103.2	1115.4	1277.9	1428.1	1459.6	1049.3
55°	1122.8	1127.5	1172.8	1205.5	1246.7	1186.1	1175.0	1344.9	1499.8	1563.5	1125.9
57.5°	1044.6	1052.2	1129.1	1199.5	1314.3	1328.3	1277.1	1431.4	1571.4	1665.7	1214.4
60°	877.7	893.4	997.9	1105.7	1283.8	1430.6	1485.9	1549.0	1665.5	1770.2	1322.0
62.5°	560.5	566.6	713.2	893.6	1146.9	1420.6	1713.3	1756.1	1808.8	1906.4	1487.7
65°	280.6	300.2	386.2	533.3	827.0	1251.8	1828.2	2135.6	2071.1	2139.5	1756.3
67.5°	190.4	196.8	240.2	320.4	485.0	886.8	1757.0	2455.2	2436.2	2447.5	2042.7
70°	140.4	144.5	178.8	227.0	293.3	503.5	1398.8	2431.1	2560.7	2556.7	2012.7
72.5°	102.5	104.5	130.4	173.3	217.4	260.4	854.2	1963.9	2235.4	2353.2	1760.2
75°	74.5	76.9	90.6	129.6	169.0	162.5	421.7	1418.6	1704.7	1931.3	1434.1
77.5°	55.5	58.6	64.9	81.2	118.4	116.3	182.3	921.1	1102.6	1261.4	871.1
80°	40.0	40.6	44.3	52.0	75.1	68.2	86.7	480.3	550.7	603.3	341.5
82.5°	24.3	24.9	29.6	32.0	46.5	42.9	45.1	155.5	222.9	236.6	127.6
85°	7.1	7.6	13.5	14.7	19.4	18.4	18.2	63.3	75.5	96.5	50.2
87.5°	0.0	0.0	0.0	0.0	0.2	1.2	2.2	11.2	16.9	23.5	12.2
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: P629583  
 CATALOG NUMBER: GWS-SA1B-830-U-T2-W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4	329.4
2.5°	332.9	328.2	325.8	321.5	318.4	315.3	312.3	309.4	308.2	306.4	306.8
5°	338.8	331.5	324.1	315.8	308.6	302.7	297.4	292.7	290.6	288.8	289.6
7.5°	347.8	336.8	322.7	307.4	296.2	288.0	282.5	279.2	278.2	276.8	276.8
10°	359.2	342.7	318.0	296.2	282.7	276.2	273.7	273.5	274.5	274.7	274.3
12.5°	371.9	348.4	311.1	282.9	271.5	269.4	271.3	274.7	278.2	280.0	279.6
15°	384.9	352.1	299.2	270.2	263.3	266.0	271.9	278.8	285.5	289.0	288.8
17.5°	397.2	352.9	283.9	258.0	256.2	262.9	273.1	283.9	293.1	298.0	298.2
20°	410.9	351.5	268.2	247.0	249.0	260.0	273.5	286.6	297.4	302.3	303.5
22.5°	423.3	346.6	252.9	236.6	242.9	256.6	270.2	282.5	292.1	296.8	298.4
25°	434.5	337.2	236.2	227.8	238.2	251.7	262.1	270.6	277.4	280.2	282.5
27.5°	440.7	323.1	223.5	220.8	233.7	244.7	250.4	253.1	255.3	254.5	256.2
30°	441.9	305.5	212.5	215.3	227.0	235.1	236.4	233.7	229.8	223.5	224.9
32.5°	440.7	285.3	203.3	209.4	219.4	224.3	222.7	215.7	206.4	196.6	197.2
35°	441.1	264.9	195.7	202.9	210.6	213.3	209.2	199.6	189.6	180.6	180.2
37.5°	445.6	247.8	189.4	196.6	202.1	202.5	198.0	188.0	182.9	176.1	175.3
40°	458.0	235.1	183.7	190.2	193.7	193.5	188.4	181.2	184.7	182.5	181.9
42.5°	478.4	227.4	179.0	183.5	185.9	186.4	182.3	177.8	185.3	182.5	181.5
45°	511.3	227.0	175.7	176.8	180.6	183.5	180.6	175.5	178.4	164.5	161.9
47.5°	550.3	233.9	173.3	170.8	177.6	182.7	178.2	170.0	164.1	151.4	149.6
50°	597.2	248.0	171.0	164.5	173.1	179.6	175.1	163.9	154.9	148.2	147.2
52.5°	652.9	266.6	168.2	157.4	166.3	178.0	175.1	163.3	151.4	145.3	144.3
55°	711.3	288.0	164.9	148.8	158.8	178.4	176.6	159.0	148.8	145.5	144.7
57.5°	783.8	313.7	159.0	138.8	152.1	174.7	170.8	156.6	147.0	144.3	143.5
60°	877.9	351.9	147.8	128.6	144.3	168.2	165.7	152.5	142.1	139.8	139.2
62.5°	1026.9	416.6	134.1	118.8	135.1	154.5	158.2	144.7	135.9	135.7	135.5
65°	1269.8	494.3	118.0	110.0	125.5	143.3	148.2	136.8	129.6	131.9	131.6
67.5°	1440.0	501.1	104.7	100.8	114.3	131.0	138.2	128.6	120.8	125.1	124.9
70°	1318.9	390.9	93.3	91.2	102.3	117.8	127.4	118.4	110.6	114.7	113.9
72.5°	1112.4	299.6	82.5	81.2	90.0	103.9	113.5	108.2	100.0	100.0	98.2
75°	894.0	247.2	71.0	70.4	76.3	89.8	100.6	91.6	84.1	83.7	82.5
77.5°	512.7	162.1	59.6	59.2	61.0	75.1	78.2	76.3	70.6	68.0	67.2
80°	204.3	84.3	46.9	44.3	46.1	55.1	61.6	58.6	53.7	50.4	48.6
82.5°	79.2	42.3	33.1	29.0	31.6	39.8	44.7	43.7	40.4	33.1	31.0
85°	32.2	20.6	19.8	16.7	18.4	21.4	25.7	22.2	18.4	13.1	12.5
87.5°	8.6	7.6	7.3	4.5	3.5	1.0	0.2	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

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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)