

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: P632055

Luminaire Tested: GWS-SA2B-830-U-T2-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P632055  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-22)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA2B-830-U-T2-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

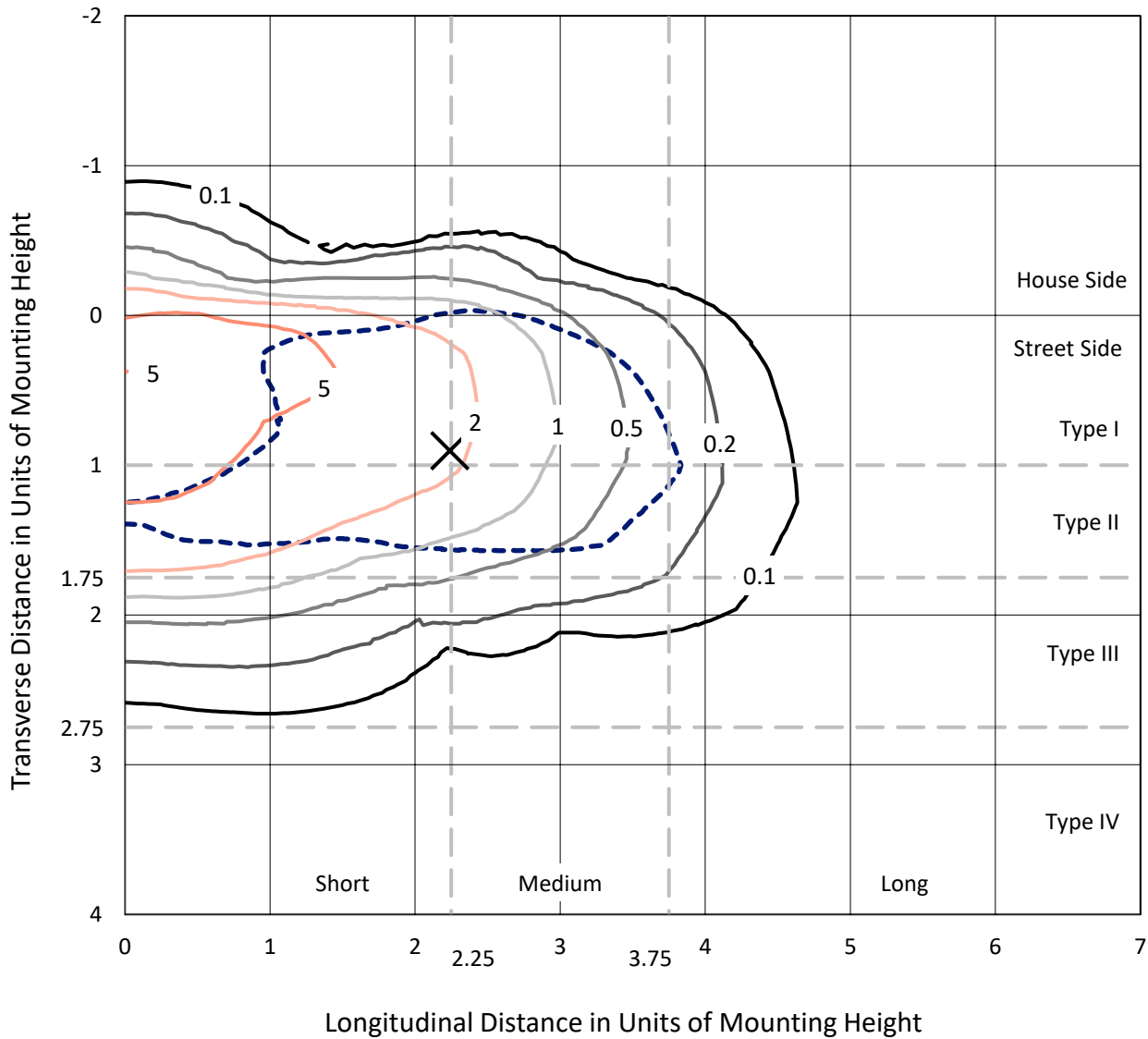
Lumens per Lamp: N/A  
Luminaire Lumens: 4106.5 lumens  
Efficiency: N/A  
Efficacy: 88.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 46.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P632055  
 CATALOG NUMBER: GWS-SA2B-830-U-T2-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

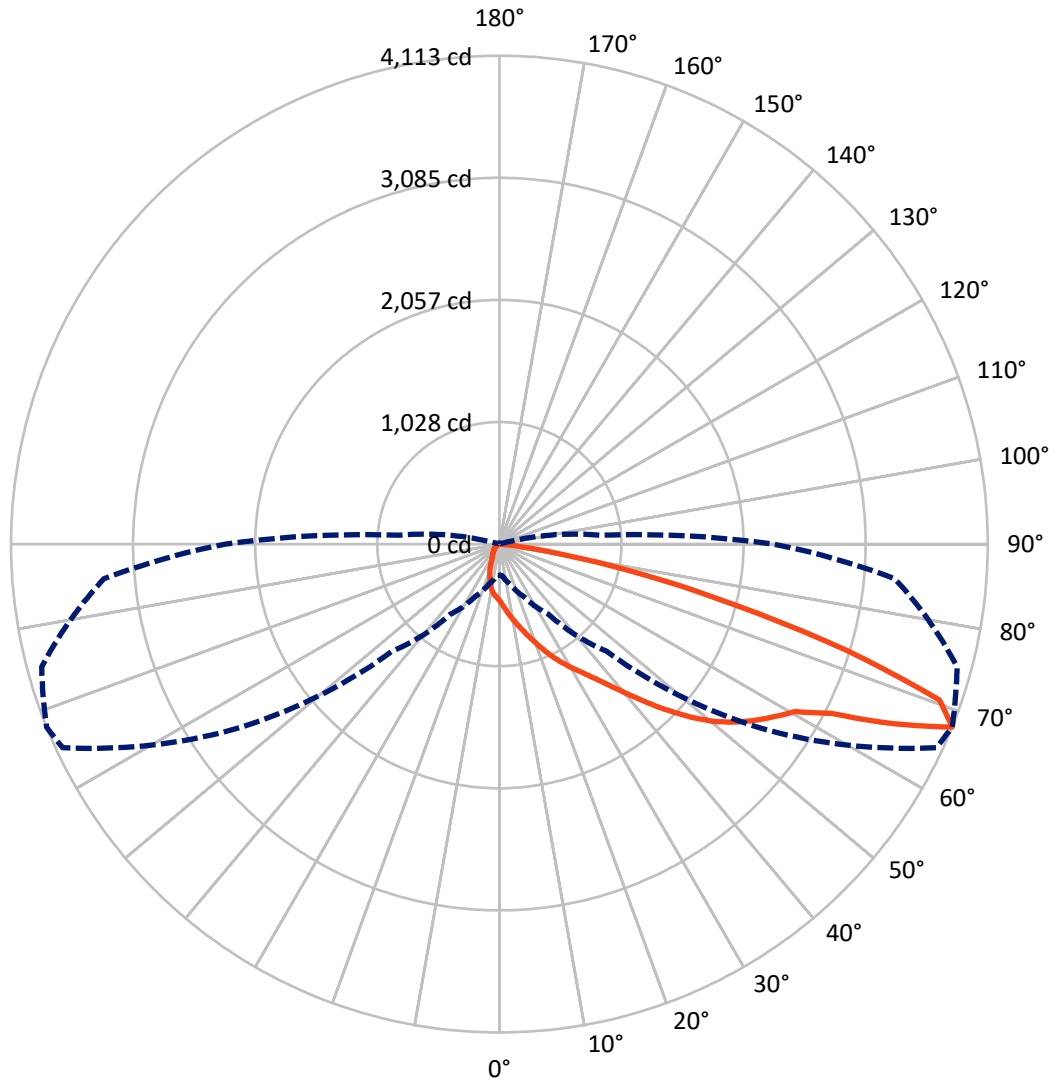
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc  
 Type II - Short - N/A

REPORT NUMBER: P632055  
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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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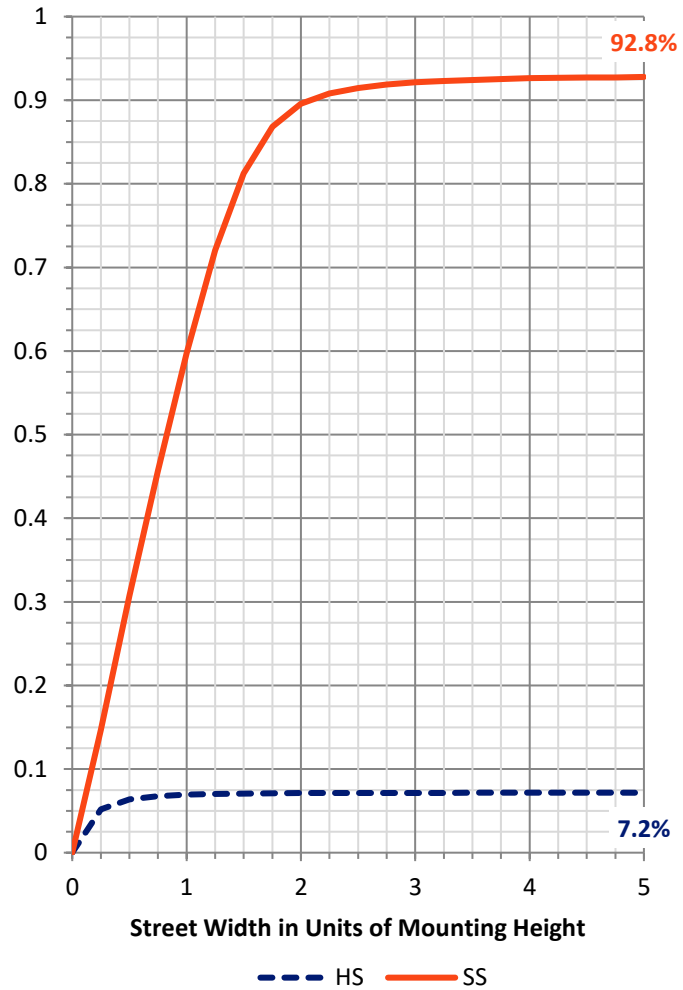
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	296.6	0.0	296.6
	% Fixture	7.2	0.0	7.2
<b>Street Side</b>	Lumens	3810.0	0.0	3810.0
	% Fixture	92.8	0.0	92.8
<b>Total</b>	Lumens	4106.5	0.0	4106.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.6	1.1
10°-20°	133.8	3.3
20°-30°	230.0	5.6
30°-40°	399.9	9.7
40°-50°	697.8	17.0
50°-60°	1052.5	25.6
60°-70°	1055.4	25.7
70°-80°	465.6	11.3
80°-90°	24.9	0.6
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°	4106.5	100.0
0°-180°	4106.5	100.0

**Coefficient of Utilization**

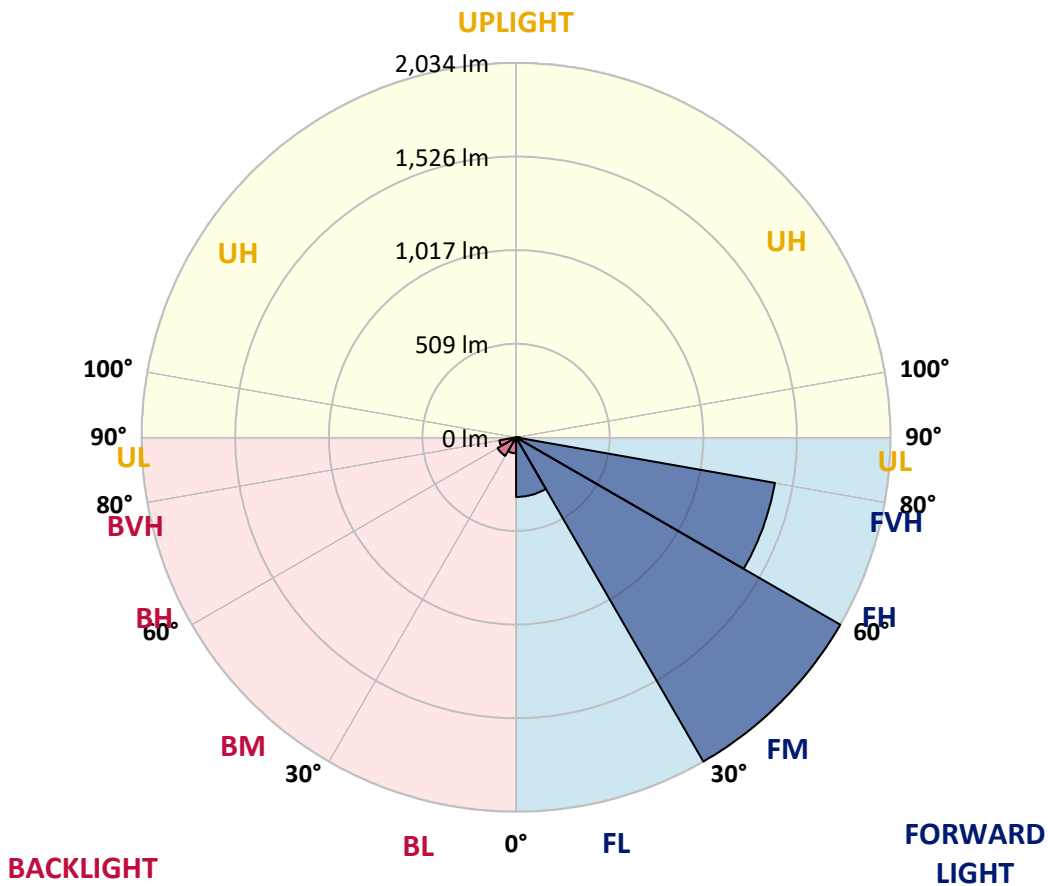


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	323.7	7.9			
FM (30°-60°)	2034.4	49.5			
FH (60°-80°)	1428.4	34.8			G1/1800
FVH (80°-90°)	23.5	0.6			G1/100
BL (0°-30°)	86.8	2.1	B0/110		
BM (30°-60°)	115.8	2.8	B0/220		
BH (60°-80°)	92.5	2.3	B0/110		G0/110
BVH (80°-90°)	1.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**  
 Type II Short





REPORT NUMBER: P632055

CATALOG NUMBER: GWS-SA2B-830-U-T2-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9
2.5°	556.5	560.0	556.5	557.3	547.1	542.3	532.1	518.0	514.4	505.4	491.6
5°	624.5	627.6	624.1	623.3	611.5	602.9	586.0	561.6	554.5	536.8	509.7
7.5°	661.4	663.4	664.6	666.5	662.2	655.1	639.8	609.5	602.1	573.4	535.3
10°	665.4	666.9	672.8	684.6	693.3	697.6	688.9	661.0	649.2	621.3	566.7
12.5°	654.4	656.7	666.1	685.8	709.8	731.8	737.3	712.9	702.3	666.5	603.7
15°	639.8	641.8	654.7	681.5	717.6	758.1	780.9	770.3	758.5	721.2	644.5
17.5°	617.4	620.2	638.2	674.4	721.2	778.9	828.1	831.6	823.3	782.9	689.7
20°	604.8	606.8	622.9	660.2	718.8	794.3	872.1	905.5	896.4	854.0	741.6
22.5°	615.4	617.0	627.6	656.7	710.9	802.9	912.9	979.4	974.3	930.2	796.2
25°	671.2	676.4	670.1	675.2	714.5	807.6	946.0	1053.2	1054.4	1010.0	852.8
27.5°	784.4	777.8	762.8	737.3	742.0	820.2	974.3	1122.8	1133.0	1087.8	903.1
30°	899.6	895.7	886.6	846.9	813.9	848.1	998.2	1193.9	1210.1	1164.5	947.9
32.5°	1028.9	1032.8	1016.7	969.1	912.9	904.7	1023.0	1261.5	1291.8	1251.3	1000.6
35°	1183.3	1184.5	1152.7	1100.0	1036.4	998.2	1067.4	1336.2	1392.0	1362.1	1070.9
37.5°	1333.9	1340.9	1323.6	1240.7	1184.1	1114.6	1140.9	1432.1	1510.7	1498.9	1159.4
40°	1467.1	1478.1	1472.6	1392.4	1318.1	1259.6	1254.9	1544.5	1654.2	1667.5	1276.1
42.5°	1573.2	1580.3	1584.6	1527.6	1462.0	1429.0	1395.6	1675.0	1823.5	1878.2	1419.1
45°	1685.2	1687.6	1696.6	1658.1	1600.7	1603.5	1561.8	1833.4	2002.0	2111.6	1583.4
47.5°	1827.9	1835.7	1831.4	1790.9	1739.0	1770.1	1733.5	1996.5	2178.0	2360.8	1751.6
50°	2001.6	2009.8	2005.9	1958.7	1901.0	1913.9	1891.1	2154.8	2347.8	2595.8	1891.5
52.5°	2091.2	2097.9	2146.6	2167.8	2137.5	2055.0	2025.5	2328.9	2491.2	2789.1	2020.0
55°	2047.9	2052.7	2158.8	2248.4	2359.2	2276.7	2160.7	2463.3	2617.8	2940.1	2115.5
57.5°	1868.7	1894.3	2038.5	2190.2	2423.3	2495.6	2380.0	2609.5	2739.6	3045.0	2209.5
60°	1501.3	1500.1	1706.8	1979.2	2298.3	2555.7	2689.7	2807.2	2861.9	3125.6	2335.2
62.5°	829.6	837.1	1112.2	1471.0	1950.9	2400.1	2922.0	3148.7	3140.5	3266.3	2532.1
65°	413.0	428.0	577.3	842.6	1298.1	1983.5	2962.1	3669.9	3646.3	3597.6	2938.9
67.5°	262.1	268.0	350.6	489.7	721.6	1274.9	2712.5	4058.5	4113.2	3990.6	3342.5
70°	169.8	179.6	243.7	334.8	435.4	657.1	1987.0	3806.6	3932.0	3947.3	3091.0
72.5°	92.4	99.4	155.6	238.9	314.4	328.6	1116.1	2856.7	3058.4	3348.4	2418.2
75°	52.7	57.8	85.3	162.3	230.7	200.0	494.8	1912.4	2040.9	2393.0	1732.8
77.5°	31.8	36.2	47.9	79.0	144.6	133.6	187.1	1164.1	1245.8	1427.8	909.4
80°	14.5	17.3	30.3	43.6	79.0	63.3	71.5	542.7	560.4	586.0	301.0
82.5°	6.7	7.9	13.8	25.9	44.8	36.5	27.5	125.4	176.5	167.0	76.6
85°	0.8	0.8	5.1	10.6	12.6	9.4	11.4	28.3	35.8	50.3	22.0
87.5°	0.0	0.0	0.4	0.4	0.8	1.2	2.4	3.5	5.1	8.3	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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 CATALOG NUMBER: GWS-SA2B-830-U-T2-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9	477.9
2.5°	485.4	474.4	464.5	450.0	440.2	429.2	421.7	412.7	409.1	406.4	402.4
5°	496.4	478.7	454.7	428.0	406.0	385.1	365.9	353.3	342.3	340.7	335.2
7.5°	514.4	488.1	447.6	404.0	366.7	332.1	305.0	283.0	272.0	268.4	262.1
10°	538.4	502.3	437.0	370.2	316.4	275.1	244.4	219.7	202.4	196.1	191.4
12.5°	565.1	515.2	420.1	328.6	267.2	220.1	181.2	154.8	143.8	139.9	136.4
15°	595.8	527.4	393.4	286.9	219.3	161.9	134.4	123.0	118.3	117.1	115.9
17.5°	625.3	535.3	361.6	243.7	168.6	125.8	112.8	108.5	107.3	106.1	105.3
20°	658.7	540.8	324.2	202.8	130.9	106.5	100.2	97.1	94.7	92.4	92.0
22.5°	692.9	540.8	283.7	162.7	109.6	95.5	88.4	82.5	78.2	75.8	75.1
25°	725.5	533.3	243.7	130.1	96.7	84.9	75.8	69.2	63.3	60.5	59.7
27.5°	748.7	514.0	208.7	110.0	87.6	75.5	64.5	57.0	52.3	49.5	49.1
30°	763.2	485.4	176.5	98.3	79.8	65.6	54.6	48.3	44.8	42.8	42.1
32.5°	774.2	450.0	147.8	90.0	72.3	57.0	47.6	42.4	39.3	37.7	37.3
35°	796.2	416.6	126.5	82.5	64.5	49.9	41.7	37.7	35.4	33.4	33.0
37.5°	826.9	388.7	109.6	75.8	57.0	44.4	37.7	34.2	32.2	30.3	29.9
40°	872.1	371.0	97.1	69.2	50.3	40.1	34.6	31.4	28.7	26.7	26.3
42.5°	941.6	362.7	88.8	62.5	44.4	36.2	31.8	27.9	25.2	23.2	22.8
45°	1024.6	367.1	81.7	55.8	40.5	33.4	28.3	24.4	21.6	19.7	19.3
47.5°	1113.4	382.4	75.8	49.5	36.5	30.7	25.2	20.8	18.5	16.5	16.1
50°	1206.1	407.5	70.7	43.6	33.4	27.5	21.6	18.1	15.7	14.1	13.8
52.5°	1286.7	441.7	65.6	39.3	30.7	24.4	18.9	15.7	13.4	11.8	11.4
55°	1363.7	474.0	61.7	35.4	27.5	21.2	16.5	13.4	11.4	9.8	9.4
57.5°	1447.4	508.2	57.0	31.8	24.8	18.9	14.5	11.4	9.8	8.3	7.9
60°	1569.3	558.9	49.9	29.1	21.6	16.5	12.6	10.2	8.6	6.7	6.3
62.5°	1744.9	651.2	42.1	25.2	18.5	14.1	10.6	8.6	7.1	5.5	4.7
65°	2073.5	808.4	34.6	20.8	14.9	11.8	9.0	7.1	5.5	3.9	3.5
67.5°	2310.1	849.3	27.9	16.9	12.2	9.0	7.5	5.5	3.9	2.8	2.4
70°	2019.6	609.9	21.6	13.8	10.2	7.1	5.9	4.3	2.8	2.0	1.6
72.5°	1521.7	398.5	16.1	10.6	7.9	5.9	4.3	3.5	2.4	1.6	1.2
75°	1072.5	230.3	11.8	7.9	5.5	4.3	3.5	2.8	2.0	1.2	1.2
77.5°	549.8	95.1	8.3	5.5	3.9	2.8	2.4	1.6	1.6	1.2	0.8
80°	167.0	31.4	4.7	3.5	2.8	2.0	1.2	1.2	1.2	0.8	0.4
82.5°	38.1	10.2	2.8	2.8	2.0	1.6	1.2	0.4	0.4	0.0	0.0
85°	9.8	3.1	2.4	2.0	2.0	1.6	0.8	0.4	0.0	0.0	0.0
87.5°	3.5	2.0	2.0	2.0	1.6	1.2	0.8	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**

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**



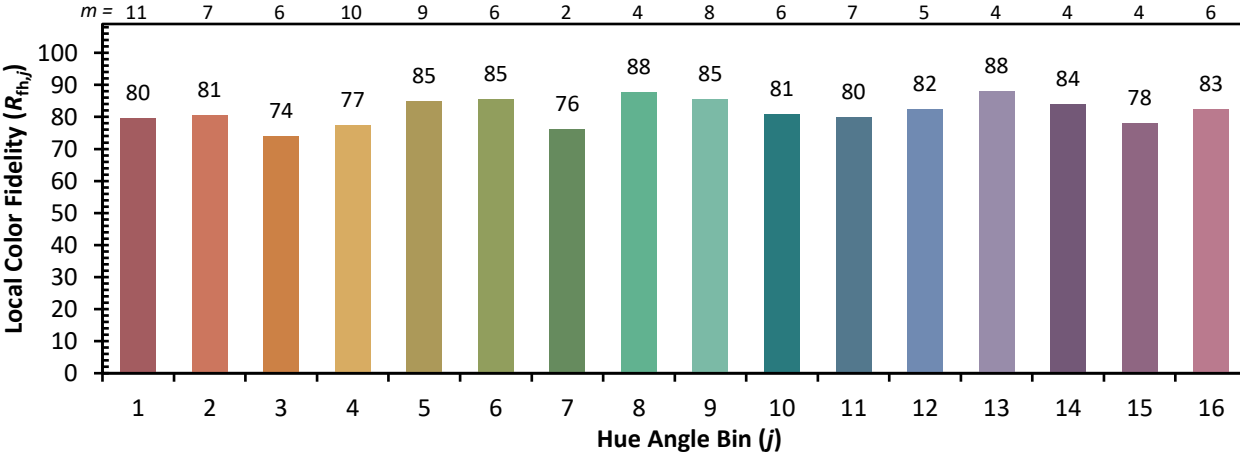


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

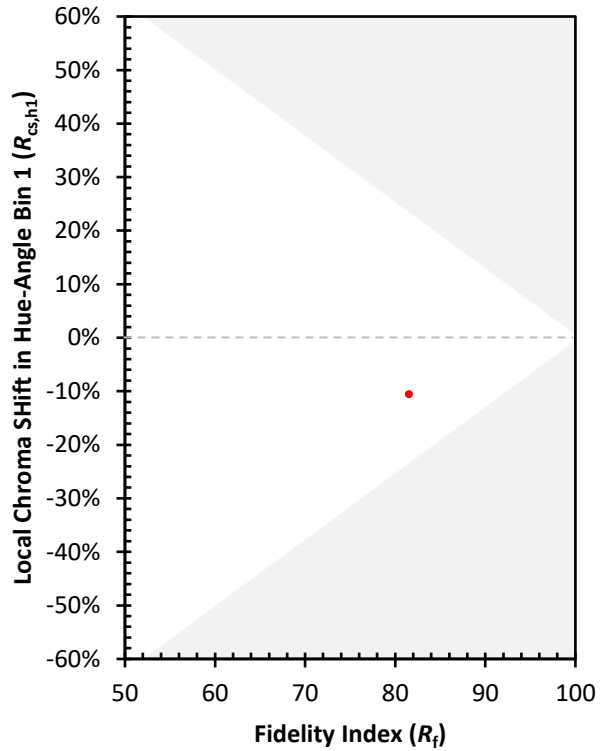
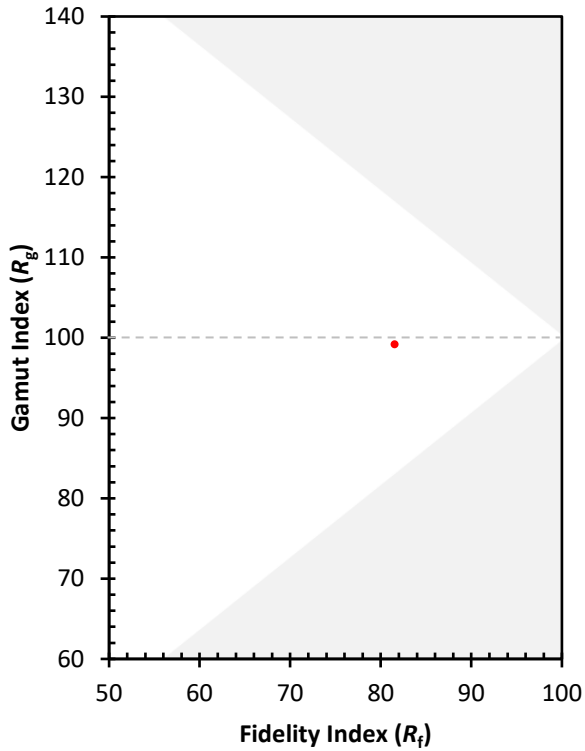
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)