

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: P635035

Luminaire Tested: GWS-SA3C-830-U-T3R-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P635035  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA3C-830-U-T3R-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (48) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

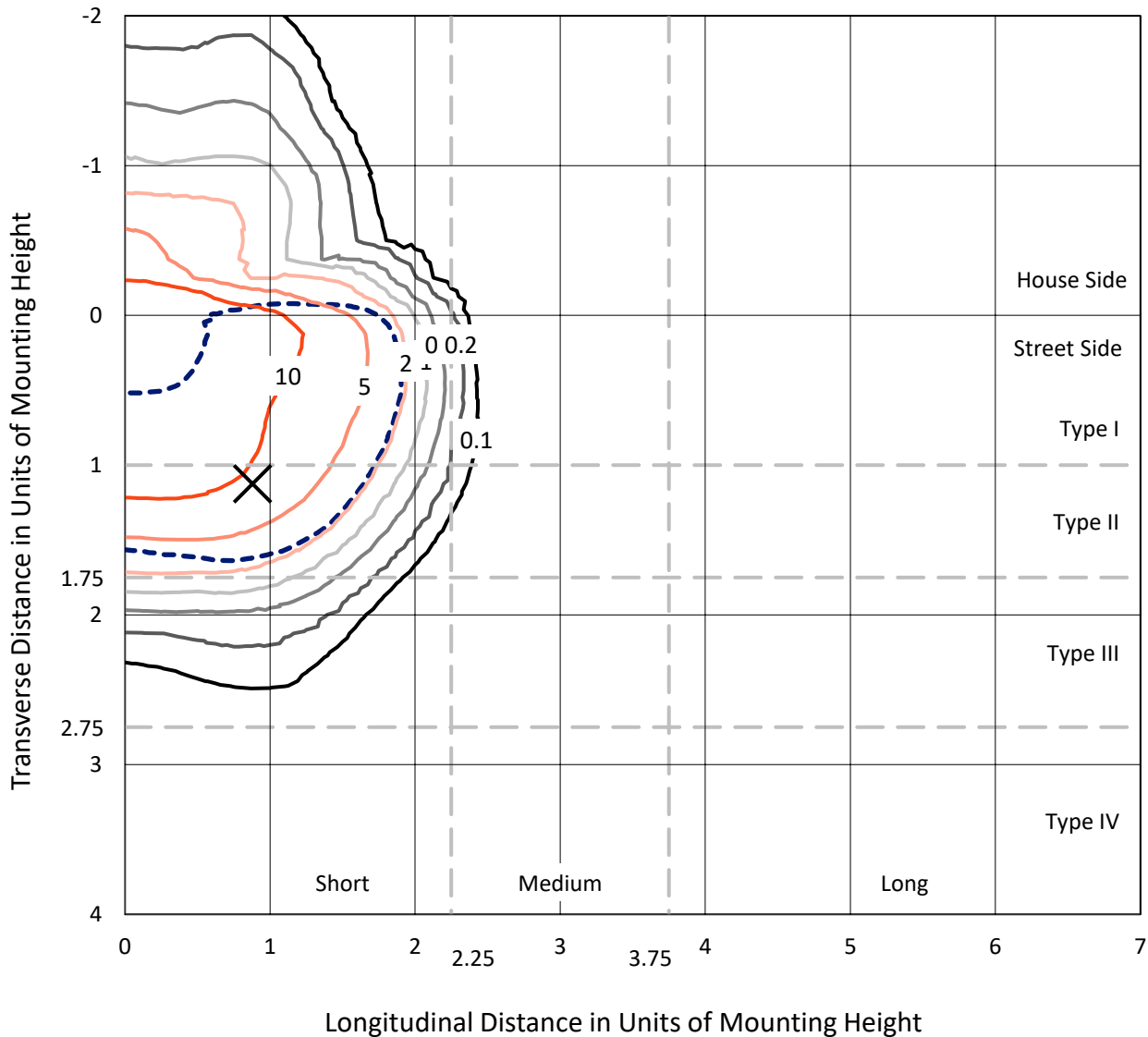
Lumens per Lamp: N/A  
Luminaire Lumens: 6950.1 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G0  
  
Input Watts (W): 93  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P635035  
 CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

### Iso-Footcandle Lines of Horizontal Illumination

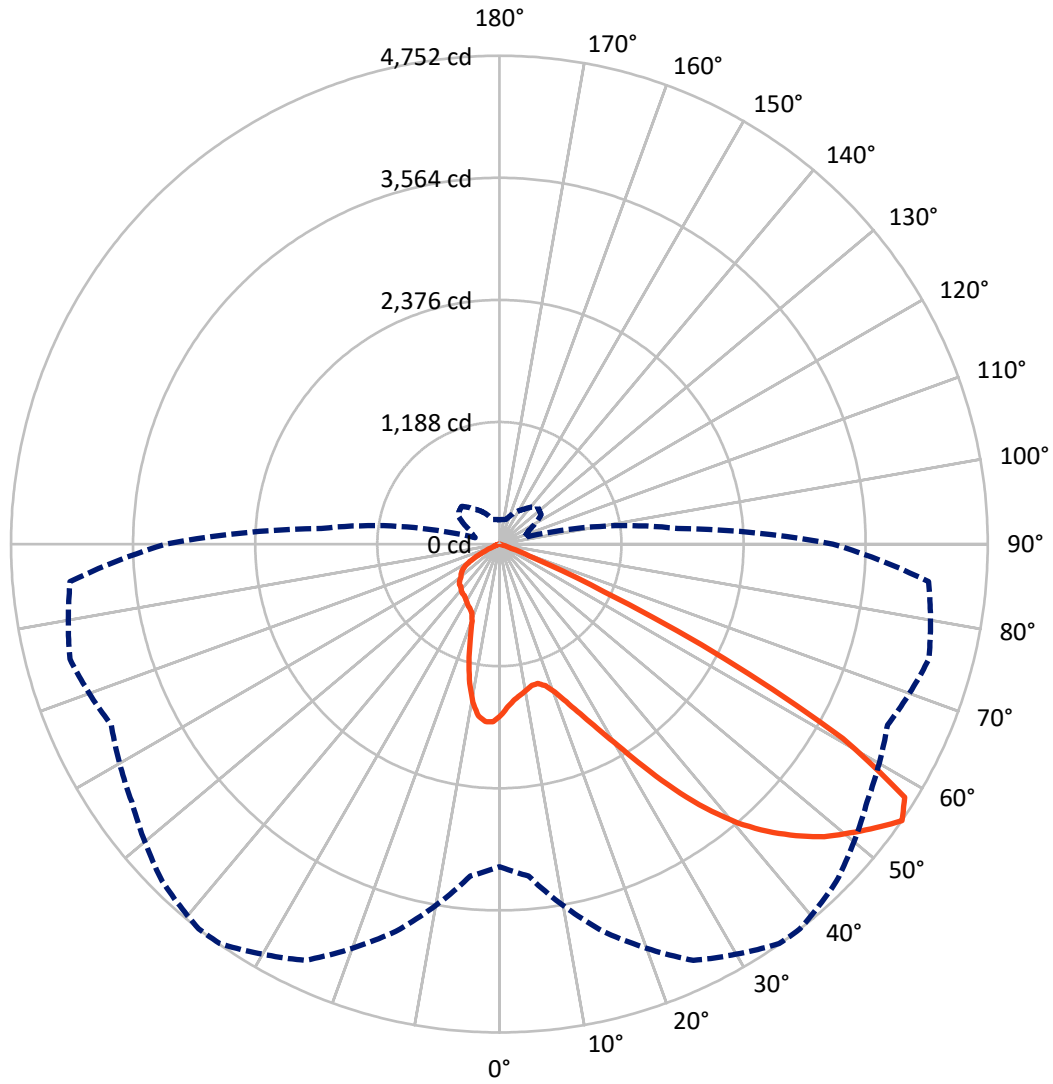
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.4 fc  
 Type II - Short - N/A

REPORT NUMBER: P635035  
CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

REPORT NUMBER: P635035  
 CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

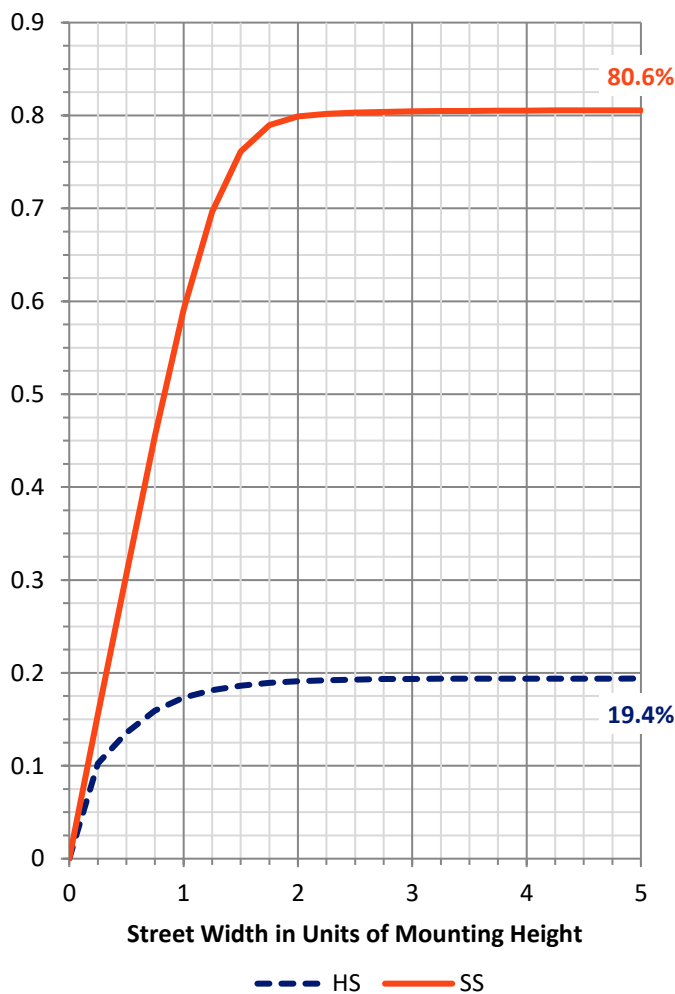
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1354.1	0.0	1354.1
	% Fixture	19.5	0.0	19.5
<b>Street Side</b>	Lumens	5596.0	0.0	5596.0
	% Fixture	80.5	0.0	80.5
<b>Total</b>	Lumens	6950.1	0.0	6950.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.1	2.2
10°-20°	414.9	6.0
20°-30°	712.0	10.2
30°-40°	1180.8	17.0
40°-50°	1735.9	25.0
50°-60°	2028.4	29.2
60°-70°	687.6	9.9
70°-80°	35.2	0.5
80°-90°	1.4	0.0
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°	6950.1	100.0
0°-180°	6950.1	100.0

**Coefficient of Utilization**



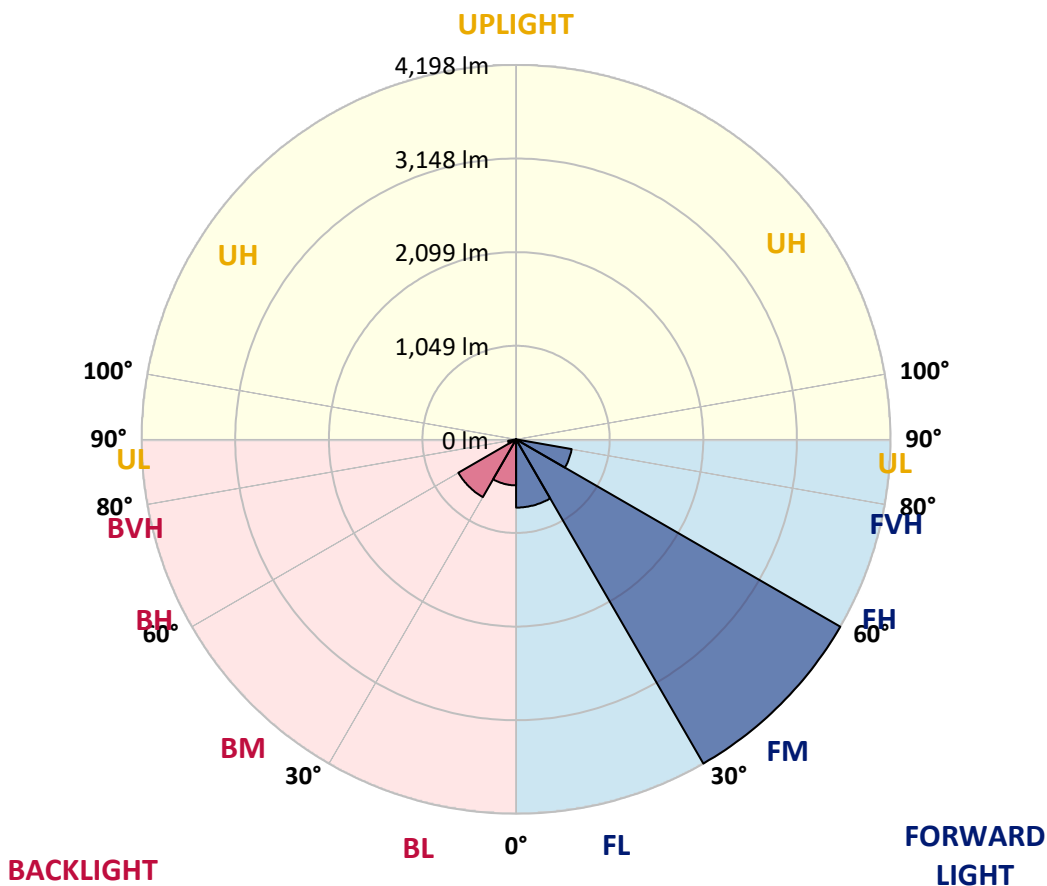
REPORT NUMBER: P635035

CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	765.0	11.0			
FM (30°-60°)	4197.7	60.4			
FH (60°-80°)	632.6	9.1			G0/660
FVH (80°-90°)	0.7	0.0			G0/10
BL (0°-30°)	515.9	7.4	B2/1000		
BM (30°-60°)	747.4	10.8	B1/1000		
BH (60°-80°)	90.2	1.3	B0/110		G0/110
BVH (80°-90°)	0.7	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G0**  
 Type II Short





REPORT NUMBER: P635035

CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7
2.5°	1552.3	1549.1	1555.5	1568.2	1580.1	1584.1	1596.0	1612.7	1623.0	1647.6	1667.5
5°	1482.4	1480.8	1487.1	1498.3	1514.2	1519.7	1538.0	1565.8	1593.6	1636.5	1678.6
7.5°	1418.8	1418.0	1427.6	1452.2	1475.2	1482.4	1504.6	1538.8	1576.1	1642.1	1704.0
10°	1335.4	1336.2	1354.5	1389.4	1431.5	1445.8	1481.6	1530.8	1579.3	1664.3	1750.1
12.5°	1308.4	1310.0	1319.5	1346.5	1392.6	1410.9	1460.9	1535.6	1597.6	1696.1	1809.7
15°	1374.3	1374.3	1366.4	1369.6	1390.2	1406.9	1459.3	1551.5	1628.6	1734.2	1868.5
17.5°	1502.2	1497.5	1477.6	1450.6	1443.5	1449.0	1491.1	1585.7	1672.2	1778.7	1935.2
20°	1675.4	1677.0	1638.1	1581.7	1536.4	1535.6	1561.0	1646.0	1735.0	1831.9	2007.5
22.5°	1885.2	1878.8	1827.2	1750.1	1671.5	1665.1	1675.4	1738.2	1825.6	1916.1	2096.5
25°	2128.2	2125.1	2052.0	1948.7	1844.6	1829.5	1829.5	1891.5	1955.1	2036.1	2202.9
27.5°	2382.5	2382.5	2311.8	2192.6	2054.4	2027.4	2023.4	2096.5	2138.6	2154.5	2292.7
30°	2643.8	2640.6	2570.7	2448.4	2300.6	2272.8	2261.7	2315.7	2345.9	2298.2	2404.7
32.5°	2909.2	2914.7	2844.0	2730.4	2598.5	2580.3	2546.1	2546.1	2570.7	2504.0	2581.1
35°	3194.4	3192.8	3137.2	3060.1	2947.3	2926.6	2870.2	2782.0	2819.4	2790.0	2824.9
37.5°	3446.2	3458.1	3431.1	3373.9	3282.5	3261.9	3168.9	3009.3	3037.9	3083.9	3114.9
40°	3702.0	3711.5	3738.5	3720.3	3605.1	3566.9	3401.7	3139.5	3171.3	3329.4	3418.4
42.5°	3953.0	3957.8	4012.6	4042.8	3888.7	3821.9	3578.1	3219.0	3252.3	3521.7	3677.4
45°	4112.7	4123.0	4213.6	4305.7	4138.9	4047.6	3731.4	3320.7	3335.0	3655.1	3868.8
47.5°	4106.3	4130.2	4300.2	4467.8	4354.2	4255.7	3915.7	3483.5	3459.7	3780.6	3995.1
50°	3978.4	4007.0	4250.9	4517.1	4509.1	4417.8	4120.6	3719.5	3644.8	3891.8	4011.0
52.5°	3713.1	3795.7	4164.3	4523.4	4633.8	4587.8	4374.1	4037.2	3895.0	4051.5	4036.4
55°	3139.5	3241.2	3901.4	4469.4	4746.6	4752.2	4640.2	4368.5	4166.7	4326.4	4192.9
57.5°	2383.3	2464.3	3002.9	3978.4	4560.0	4651.3	4743.5	4543.3	4334.3	4513.9	4229.5
60°	1436.3	1530.0	1880.4	2919.5	3682.9	3838.6	4200.1	4161.2	3909.3	3986.4	3468.4
62.5°	582.3	631.6	868.3	1608.7	2318.1	2463.5	2809.9	2868.6	2806.7	2728.0	2103.6
65°	212.9	232.8	348.0	664.9	1066.1	1119.3	1302.0	1406.1	1491.9	1270.3	782.5
67.5°	131.9	144.6	226.4	341.6	387.7	360.7	367.0	437.7	417.9	258.2	139.8
70°	97.7	108.0	177.2	236.7	156.5	120.8	81.8	87.4	78.6	69.1	68.3
72.5°	67.5	77.1	132.7	139.8	60.4	42.9	30.2	42.1	47.7	46.9	48.5
75°	44.5	51.6	83.4	54.8	15.1	11.9	10.3	22.2	28.6	28.6	29.4
77.5°	26.2	30.2	29.4	11.1	3.2	3.2	2.4	4.0	6.4	7.1	8.7
80°	3.2	2.4	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4	2.4
82.5°	0.8	0.8	0.8	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4
85°	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6	2.4	2.4
87.5°	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6	2.4	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: P635035

CATALOG NUMBER: GWS-SA3C-830-U-T3R-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7	1666.7
2.5°	1682.6	1677.0	1700.1	1716.7	1730.2	1736.6	1727.9	1727.1	1727.1	1709.6	1704.8
5°	1702.4	1704.8	1737.4	1751.7	1754.1	1746.1	1726.3	1712.8	1704.8	1686.5	1676.2
7.5°	1740.6	1748.5	1779.5	1777.1	1755.7	1719.1	1666.7	1626.2	1600.0	1571.4	1553.9
10°	1795.4	1810.5	1829.5	1796.2	1727.9	1634.9	1526.9	1449.8	1403.7	1371.2	1351.3
12.5°	1862.1	1877.2	1870.9	1792.2	1650.0	1484.0	1344.9	1233.7	1180.5	1151.1	1130.5
15°	1929.6	1939.2	1897.9	1744.5	1512.6	1289.3	1134.4	1024.0	958.9	935.0	917.6
17.5°	1998.8	1996.4	1902.6	1650.8	1329.1	1070.1	917.6	842.1	823.8	819.8	818.2
20°	2071.0	2049.6	1883.6	1516.5	1108.2	853.2	766.6	771.4	804.7	820.6	823.8
22.5°	2153.7	2099.6	1835.9	1334.6	882.6	711.0	719.7	766.6	811.9	833.3	836.5
25°	2241.8	2145.7	1756.5	1101.1	695.9	653.8	705.4	759.5	807.9	834.1	837.3
27.5°	2299.8	2156.8	1626.2	865.9	597.4	631.6	686.4	738.0	788.1	816.7	820.6
30°	2362.6	2152.1	1449.0	667.3	564.0	612.5	660.2	707.0	753.1	784.9	788.1
32.5°	2454.7	2148.9	1232.9	541.8	550.5	597.4	632.4	671.3	703.1	721.3	718.9
35°	2575.5	2144.9	981.1	488.6	542.6	585.5	613.3	631.6	596.6	585.5	587.9
37.5°	2730.4	2154.5	769.0	466.3	540.2	582.3	606.1	553.7	499.7	479.0	475.9
40°	2902.0	2179.1	586.3	457.6	548.1	590.3	579.1	492.5	425.8	385.3	376.6
42.5°	3074.4	2206.1	463.9	454.4	561.7	612.5	534.6	448.1	348.0	324.9	321.7
45°	3202.3	2201.3	401.2	448.8	573.6	625.2	522.7	384.5	310.6	300.3	301.1
47.5°	3266.6	2148.9	367.0	436.1	578.3	612.5	493.3	358.3	285.2	296.3	305.9
50°	3232.5	2013.1	335.2	411.5	568.0	595.8	446.5	338.4	272.5	318.6	340.0
52.5°	3191.2	1846.2	300.3	373.4	543.4	572.8	428.2	332.9	264.5	307.4	323.3
55°	3246.0	1740.6	243.1	314.6	494.9	518.8	413.9	332.1	246.3	239.1	236.7
57.5°	3168.9	1530.0	174.0	226.4	379.7	410.7	403.6	326.5	218.5	217.7	220.8
60°	2449.2	933.4	119.2	143.8	232.8	262.2	366.2	312.2	188.3	173.2	174.0
62.5°	1391.8	397.2	81.8	89.0	119.2	141.4	279.6	283.6	174.0	165.2	174.0
65°	484.6	142.2	63.6	59.6	65.9	75.5	160.5	219.3	158.1	143.0	144.6
67.5°	100.1	70.7	56.4	49.3	49.3	49.3	81.8	136.6	130.3	113.6	115.2
70°	63.6	60.4	49.3	42.1	40.5	37.3	46.9	75.5	89.8	82.6	83.4
72.5°	46.9	46.1	38.9	34.2	30.2	27.0	29.4	37.3	46.1	47.7	48.5
75°	28.6	29.4	25.4	21.4	19.1	16.7	17.5	17.5	17.5	15.9	17.5
77.5°	8.7	9.5	7.9	6.4	5.6	5.6	5.6	4.8	4.0	2.4	2.4
80°	2.4	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	0.0	0.0
82.5°	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	0.0	0.0	0.0
85°	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	0.0	0.0	0.0
87.5°	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	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**

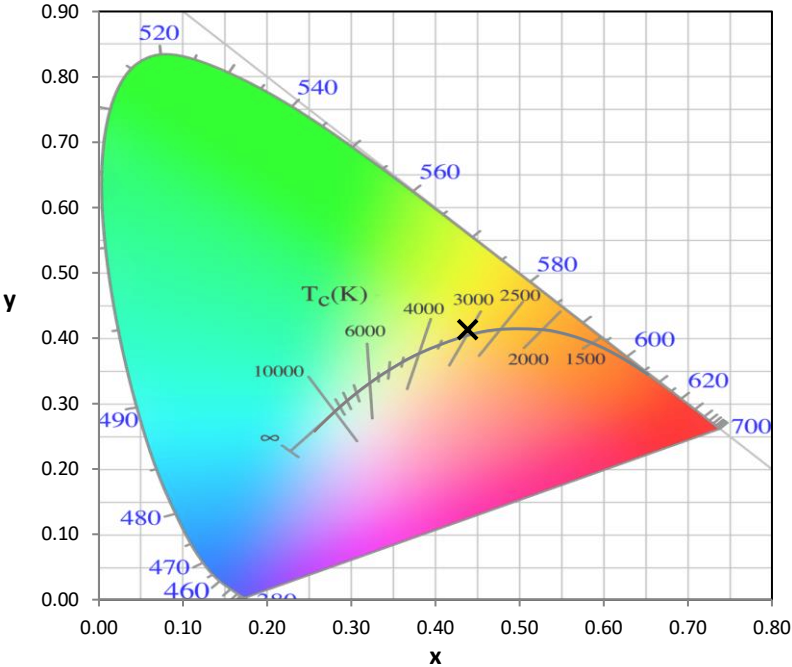
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

**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			

REPORT NUMBER: SP1-2408-195-9

**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			

REPORT NUMBER: SP1-2408-195-9

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.32**

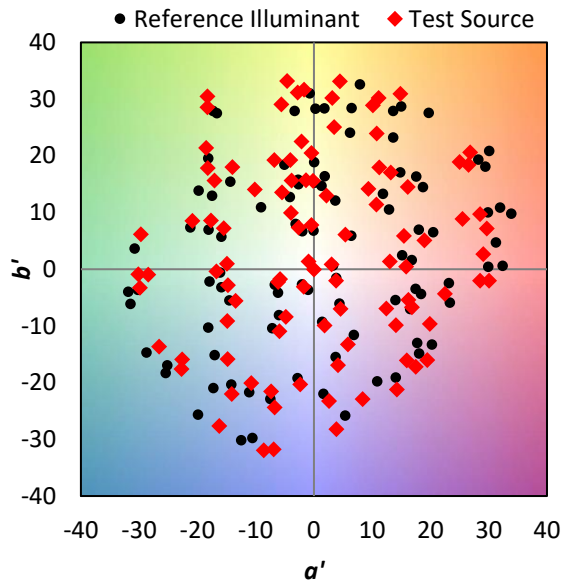
$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )
360	0	NR	490	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			

**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)