

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: P630062

Luminaire Tested: GWS-SA1C-830-U-SL4-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P630062  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA1C-830-U-SL4-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

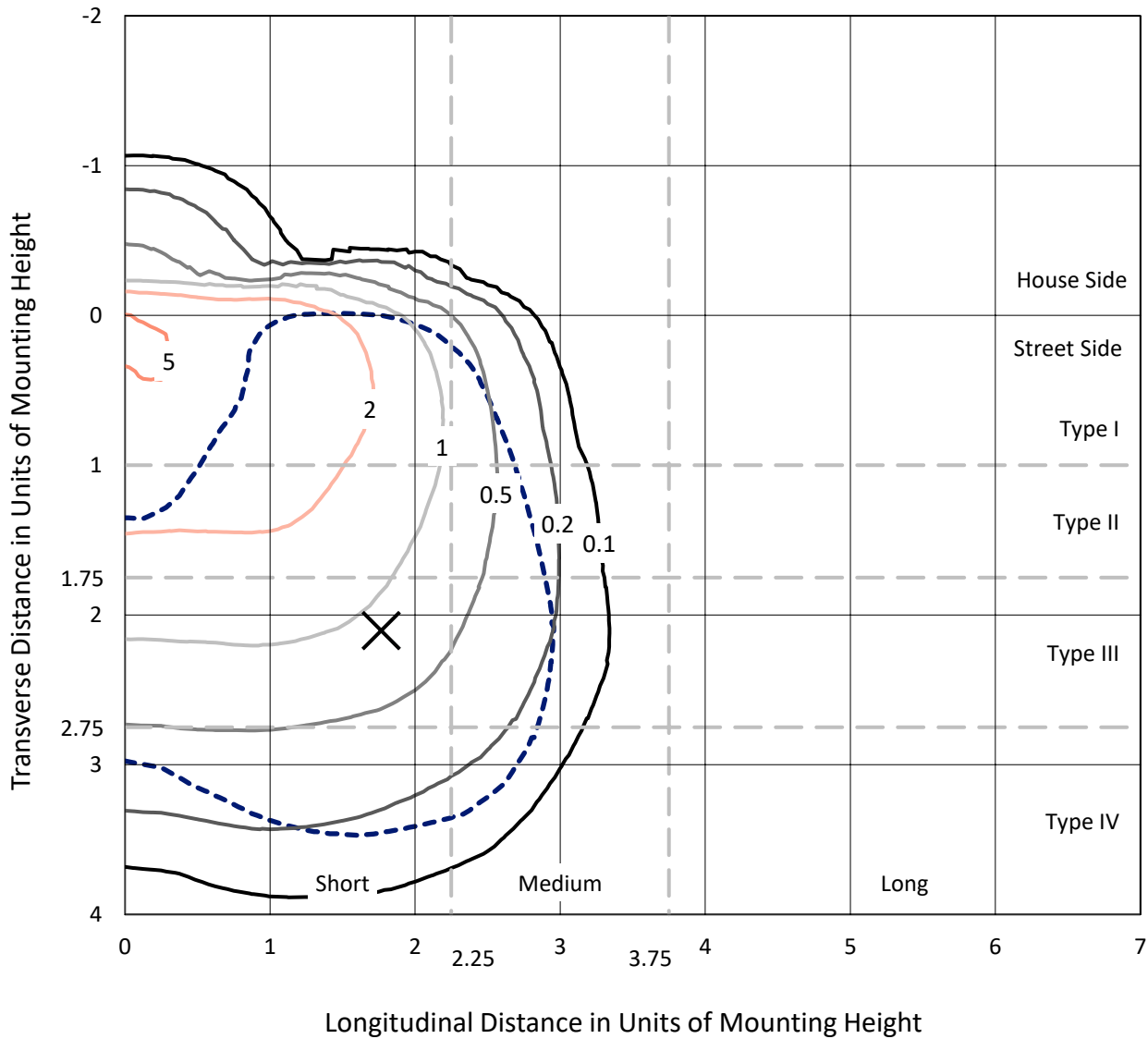
Lumens per Lamp: N/A  
Luminaire Lumens: 3008.5 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 34.1  
Input Voltage (V): 120  
Input Current (Ain): 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: P630062  
 CATALOG NUMBER: GWS-SA1C-830-U-SL4-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

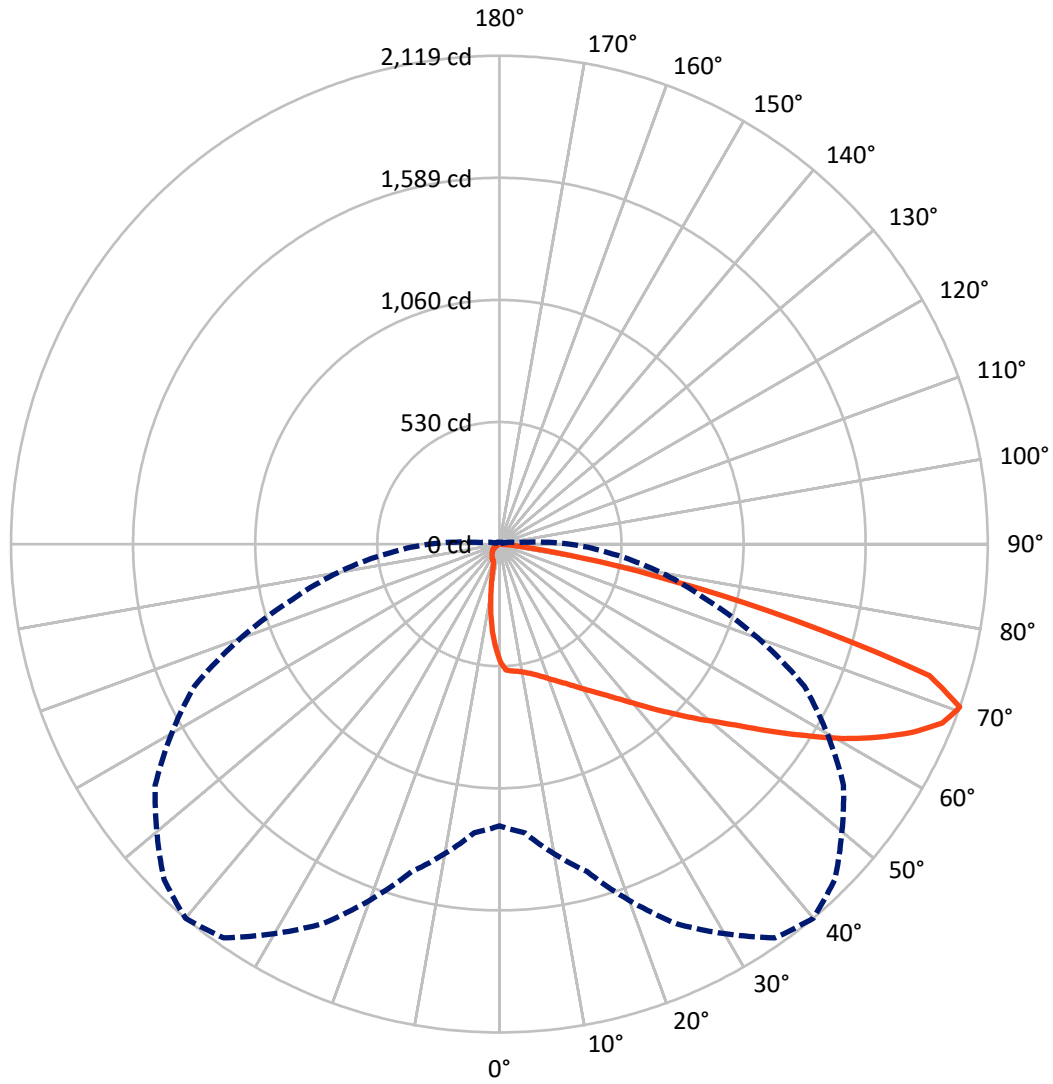
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P630062  
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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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 CATALOG NUMBER: GWS-SA1C-830-U-SL4-W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	246.0	0.0	246.0
	% Fixture	8.2	0.0	8.2
<b>Street Side</b>	Lumens	2762.5	0.0	2762.5
	% Fixture	91.8	0.0	91.8
<b>Total</b>	Lumens	3008.5	0.0	3008.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	1.4
10°-20°	109.4	3.6
20°-30°	183.2	6.1
30°-40°	287.7	9.6
40°-50°	455.0	15.1
50°-60°	663.8	22.1
60°-70°	822.8	27.3
70°-80°	416.3	13.8
80°-90°	27.2	0.9
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°	3008.5	100.0
0°-180°	3008.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P630062

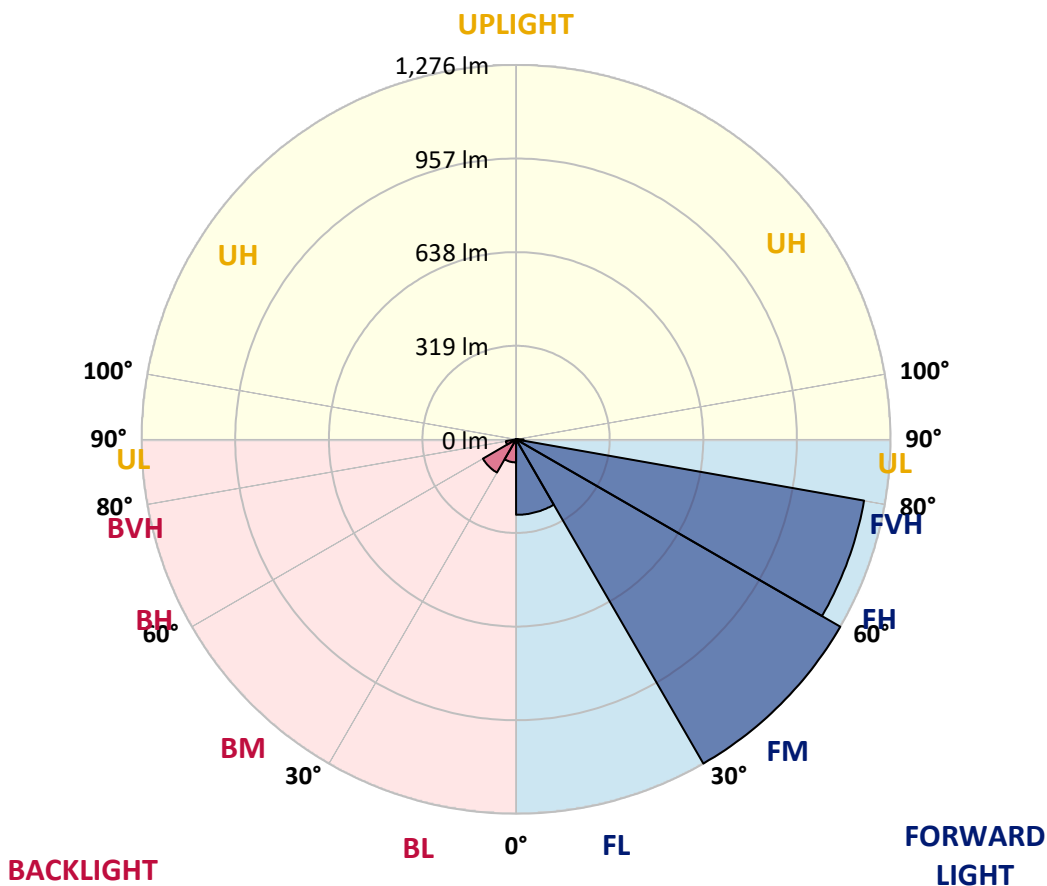
CATALOG NUMBER: GWS-SA1C-830-U-SL4-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	257.2	8.5			
FM (30°-60°)	1275.9	42.4			
FH (60°-80°)	1204.1	40.0			G1/1800
FVH (80°-90°)	25.4	0.8			G1/100
BL (0°-30°)	78.6	2.6	B0/110		
BM (30°-60°)	130.6	4.3	B0/220		
BH (60°-80°)	35.1	1.2	B0/110		G0/110
BVH (80°-90°)	1.8	0.1			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 IV Short





REPORT NUMBER: P630062

CATALOG NUMBER: GWS-SA1C-830-U-SL4-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5
2.5°	548.8	550.7	550.5	551.3	549.4	546.4	545.8	541.7	534.3	525.0	514.6
5°	560.1	562.2	560.6	559.8	556.2	552.9	552.1	547.7	539.2	526.7	508.6
7.5°	569.6	570.2	569.1	567.2	562.0	557.6	554.6	548.6	538.4	525.8	505.0
10°	571.3	571.0	571.5	571.8	568.5	564.7	562.2	554.0	541.2	527.8	505.3
12.5°	569.4	569.4	572.9	577.0	577.0	575.1	572.6	565.3	550.2	534.3	510.8
15°	571.8	572.6	579.5	587.2	589.6	587.7	586.6	578.9	563.3	545.8	520.6
17.5°	580.6	581.4	592.4	603.8	606.9	604.7	602.5	594.8	578.1	559.0	531.9
20°	593.4	595.6	609.6	624.4	627.1	624.4	620.0	609.3	592.6	573.2	542.5
22.5°	617.0	618.4	633.4	649.0	650.4	646.0	639.4	624.7	607.1	588.2	554.6
25°	648.2	650.1	665.2	680.2	676.7	670.1	661.1	644.4	624.4	606.0	569.9
27.5°	685.4	687.6	702.4	715.5	706.2	698.6	688.4	667.6	647.4	630.7	589.6
30°	725.7	727.6	740.7	752.5	740.2	731.1	719.1	697.7	677.2	664.6	617.5
32.5°	764.5	764.3	776.8	786.4	773.8	766.7	755.8	734.1	717.7	712.2	659.1
35°	800.7	800.7	811.1	820.6	811.6	807.8	797.6	780.4	771.1	777.7	714.7
37.5°	837.1	835.2	845.0	855.7	854.9	855.1	849.4	841.2	841.7	865.0	791.1
40°	867.2	866.4	877.9	891.8	902.8	911.5	908.0	911.0	928.2	971.7	888.8
42.5°	891.3	893.2	908.0	930.1	957.8	975.6	978.0	990.4	1034.7	1102.0	999.1
45°	918.9	919.2	939.7	973.7	1017.7	1045.9	1055.8	1087.5	1150.5	1237.3	1120.1
47.5°	952.9	949.6	972.6	1020.2	1084.0	1125.6	1143.1	1182.8	1280.2	1369.2	1218.6
50°	990.4	984.3	1010.3	1075.2	1158.2	1210.2	1245.7	1303.8	1408.9	1477.6	1292.0
52.5°	1033.9	1028.1	1057.7	1138.4	1247.1	1310.3	1356.1	1414.6	1519.2	1560.3	1335.8
55°	1089.2	1083.4	1114.6	1214.3	1352.2	1434.3	1482.2	1531.5	1621.9	1621.3	1367.6
57.5°	1150.5	1142.5	1185.8	1310.1	1483.3	1568.7	1617.5	1641.6	1699.9	1668.7	1388.9
60°	1220.8	1213.7	1273.7	1424.2	1634.7	1713.8	1744.5	1734.6	1763.9	1696.6	1381.5
62.5°	1284.3	1281.1	1355.5	1545.2	1779.0	1845.8	1854.2	1811.3	1811.0	1697.1	1331.7
65°	1350.3	1356.6	1467.2	1684.5	1924.0	1968.9	1954.4	1887.4	1829.9	1630.1	1184.4
67.5°	1374.9	1393.3	1540.8	1810.4	2038.5	2073.5	2048.0	1925.4	1751.3	1404.5	901.9
70°	1222.8	1257.2	1471.3	1817.6	2085.8	2119.2	2058.2	1823.0	1460.1	930.4	494.1
72.5°	929.9	970.1	1226.0	1488.3	1875.9	1952.0	1847.7	1485.3	941.1	407.6	165.9
75°	520.4	563.9	913.2	1120.7	1259.4	1329.0	1290.6	952.9	416.9	106.5	49.5
77.5°	176.0	190.5	424.8	693.4	831.3	768.9	650.9	473.3	153.3	40.5	26.3
80°	104.3	109.8	158.2	345.2	437.4	362.7	286.3	174.9	78.0	21.6	18.3
82.5°	31.2	37.0	87.3	128.1	171.4	106.8	90.3	99.9	40.5	11.8	15.3
85°	0.0	0.0	18.6	39.7	44.9	17.5	17.5	56.7	7.4	4.9	11.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	0.8	1.1	2.5
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: P630062  
 CATALOG NUMBER: GWS-SA1C-830-U-SL4-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5	510.5
2.5°	507.2	497.6	486.4	475.7	465.6	452.5	446.2	438.5	431.9	428.4	430.3
5°	497.1	482.0	459.0	435.8	412.2	390.1	370.1	356.7	344.6	338.3	339.7
7.5°	488.3	468.1	432.2	394.2	356.4	318.3	287.4	263.3	244.7	237.1	235.7
10°	484.5	459.0	408.4	353.7	295.6	244.4	200.6	174.1	155.2	145.9	147.5
12.5°	486.4	454.4	388.1	314.0	238.7	179.0	137.1	112.2	98.8	93.3	92.0
15°	491.9	453.3	370.1	273.5	184.2	125.1	94.7	84.6	81.8	81.3	81.3
17.5°	498.2	453.6	351.5	232.4	139.9	92.8	81.0	79.1	78.3	77.7	78.0
20°	504.5	453.6	330.1	190.8	105.1	80.2	77.2	75.8	75.0	74.7	74.7
22.5°	512.1	453.6	306.3	152.2	84.3	76.1	73.6	72.8	72.0	71.7	71.4
25°	521.5	453.8	280.0	119.1	76.6	72.5	70.6	69.8	69.0	68.4	68.4
27.5°	534.9	456.0	251.0	92.8	72.3	69.3	67.6	66.8	66.0	65.1	65.1
30°	554.3	461.5	218.4	76.6	68.2	65.7	64.1	63.5	62.7	61.9	61.6
32.5°	583.3	471.1	184.8	68.7	64.3	61.9	59.9	59.4	58.6	57.8	57.5
35°	623.8	488.6	151.9	63.8	59.4	56.9	55.8	55.6	54.5	53.7	53.7
37.5°	683.2	517.1	120.4	58.9	55.3	53.4	52.0	51.5	50.4	49.5	49.3
40°	755.8	554.0	93.6	55.0	51.5	49.5	48.2	47.4	46.0	44.9	44.3
42.5°	848.3	599.2	73.9	50.9	47.9	46.0	44.9	43.2	41.3	39.7	39.4
45°	944.6	645.7	61.0	47.1	44.6	43.0	41.6	39.4	36.7	34.8	34.2
47.5°	1018.5	674.7	53.4	43.0	41.1	39.7	38.0	35.3	32.0	29.8	29.3
50°	1071.4	679.1	47.6	39.1	38.0	36.7	34.2	30.9	27.4	25.2	24.6
52.5°	1097.4	659.4	43.0	35.6	34.8	33.4	30.4	26.8	23.0	20.8	20.3
55°	1109.2	622.2	38.6	32.6	31.5	29.8	26.6	22.7	18.9	17.0	16.4
57.5°	1104.5	567.2	34.8	29.6	28.2	26.3	22.7	18.6	15.6	13.7	13.4
60°	1070.0	490.0	30.9	26.6	24.9	22.7	19.2	15.3	12.6	11.2	10.9
62.5°	995.6	394.2	27.1	23.0	21.9	19.7	16.4	12.6	10.4	9.6	9.3
65°	843.1	278.7	23.3	19.4	18.9	16.7	13.7	10.4	9.0	8.5	8.2
67.5°	606.0	169.4	19.7	16.7	16.2	14.2	11.5	9.0	8.2	7.9	7.9
70°	304.7	80.2	15.6	13.7	13.7	11.8	9.9	8.2	7.9	7.7	7.7
72.5°	103.5	34.2	11.8	10.7	11.2	10.1	8.5	7.7	7.7	7.7	7.7
75°	35.3	18.1	8.2	7.7	8.2	8.2	7.4	7.4	7.7	7.7	7.7
77.5°	23.0	12.0	5.7	5.2	6.3	6.3	6.3	6.8	7.4	7.4	7.4
80°	18.9	6.6	3.8	3.6	4.7	4.7	5.2	6.3	6.8	6.8	6.8
82.5°	16.2	4.1	2.2	2.5	3.3	3.6	4.4	5.2	6.0	6.3	6.3
85°	10.9	2.2	1.6	1.9	2.2	2.7	3.6	4.4	4.9	5.5	5.5
87.5°	3.0	0.8	1.1	1.4	1.4	1.9	2.7	3.3	3.8	4.1	4.1
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



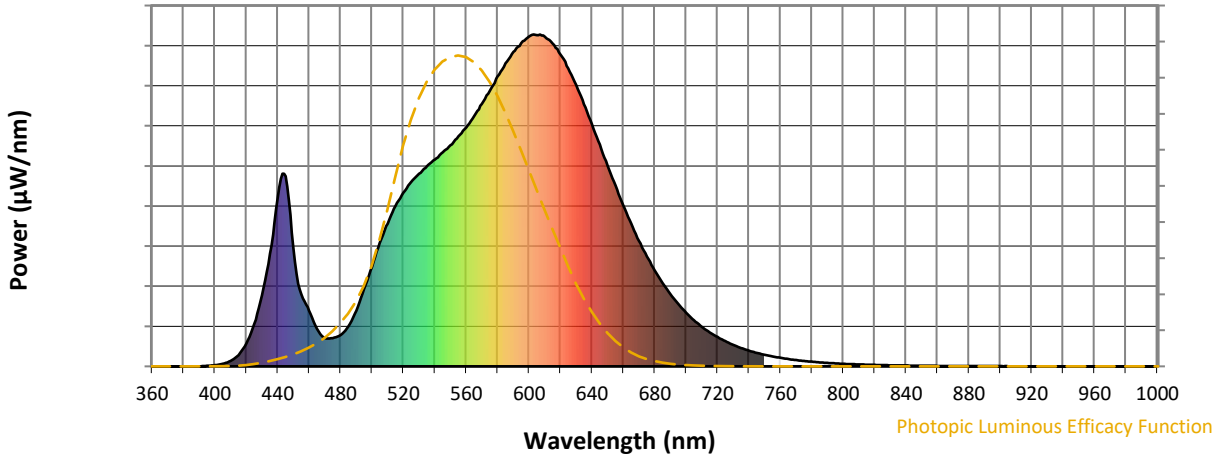
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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**



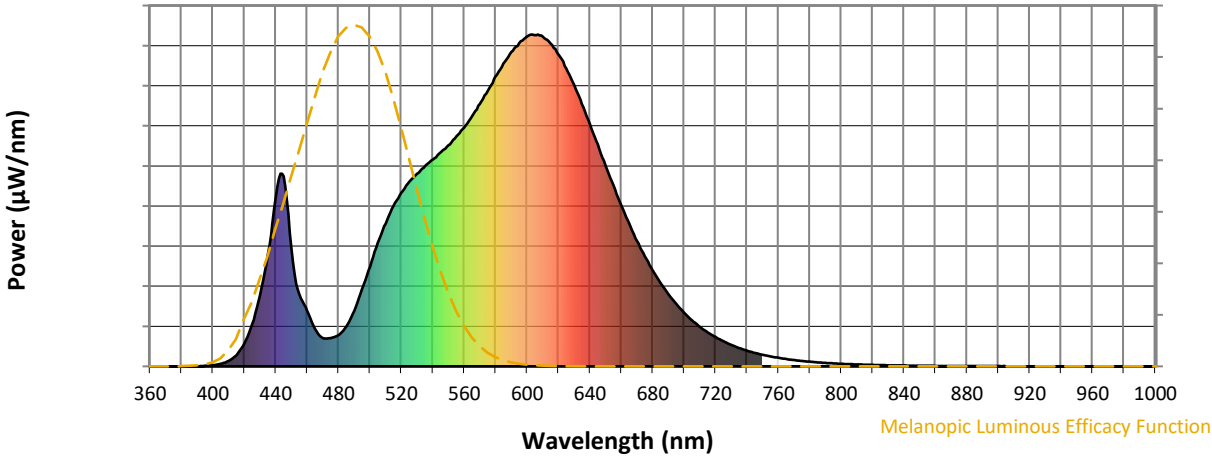
**Scotopic Lumens: NR**

**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

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)