

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: P642957

Luminaire Tested: GWS-SA6D-830-U-T3R-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642957  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA6D-830-U-T3R-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

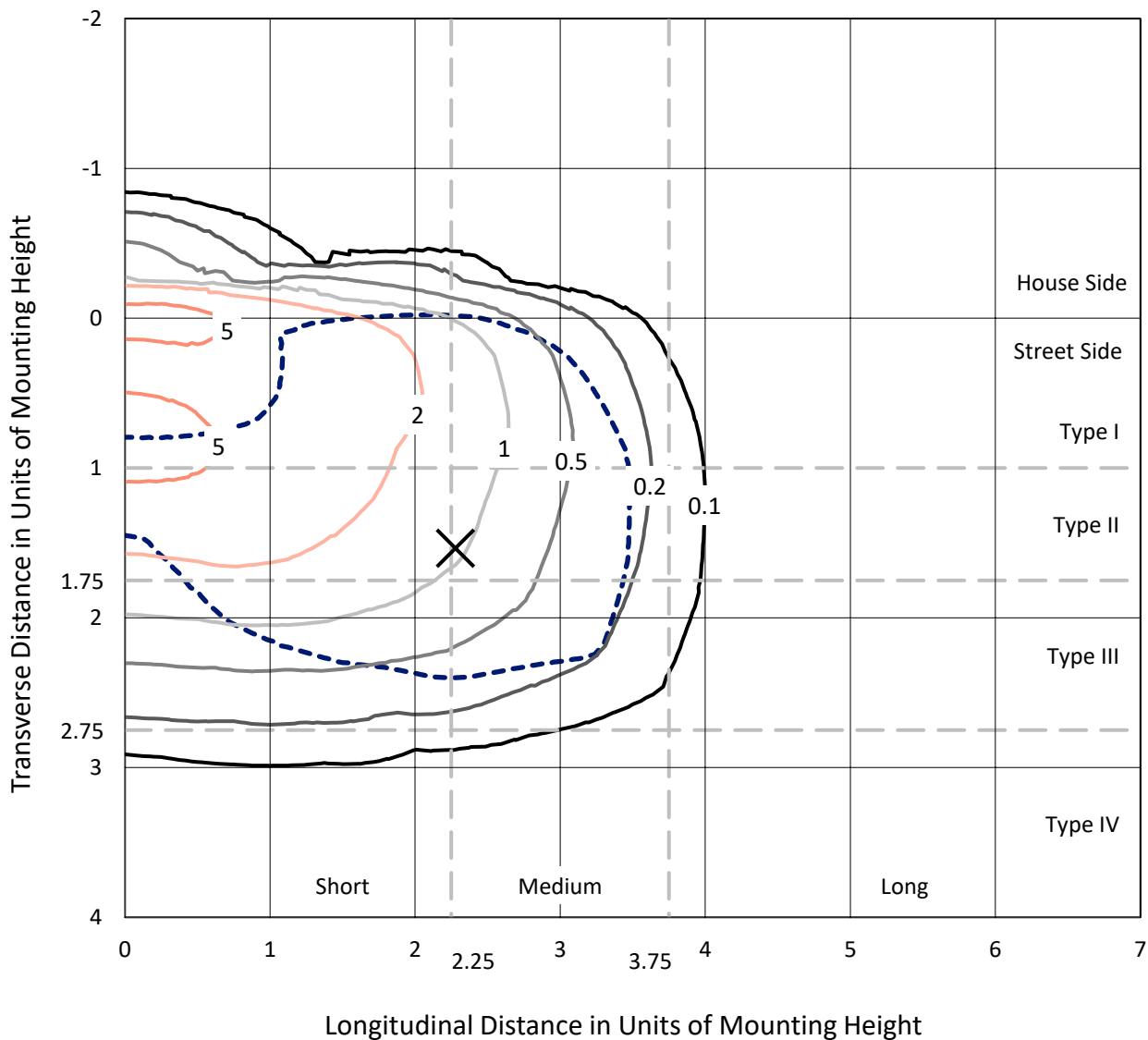
Lumens per Lamp: N/A  
Luminaire Lumens: 22276.3 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 245.7  
Input Voltage (V): 120  
Input Current (Ain): 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: P642957  
 CATALOG NUMBER: GWS-SA6D-830-U-T3R-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

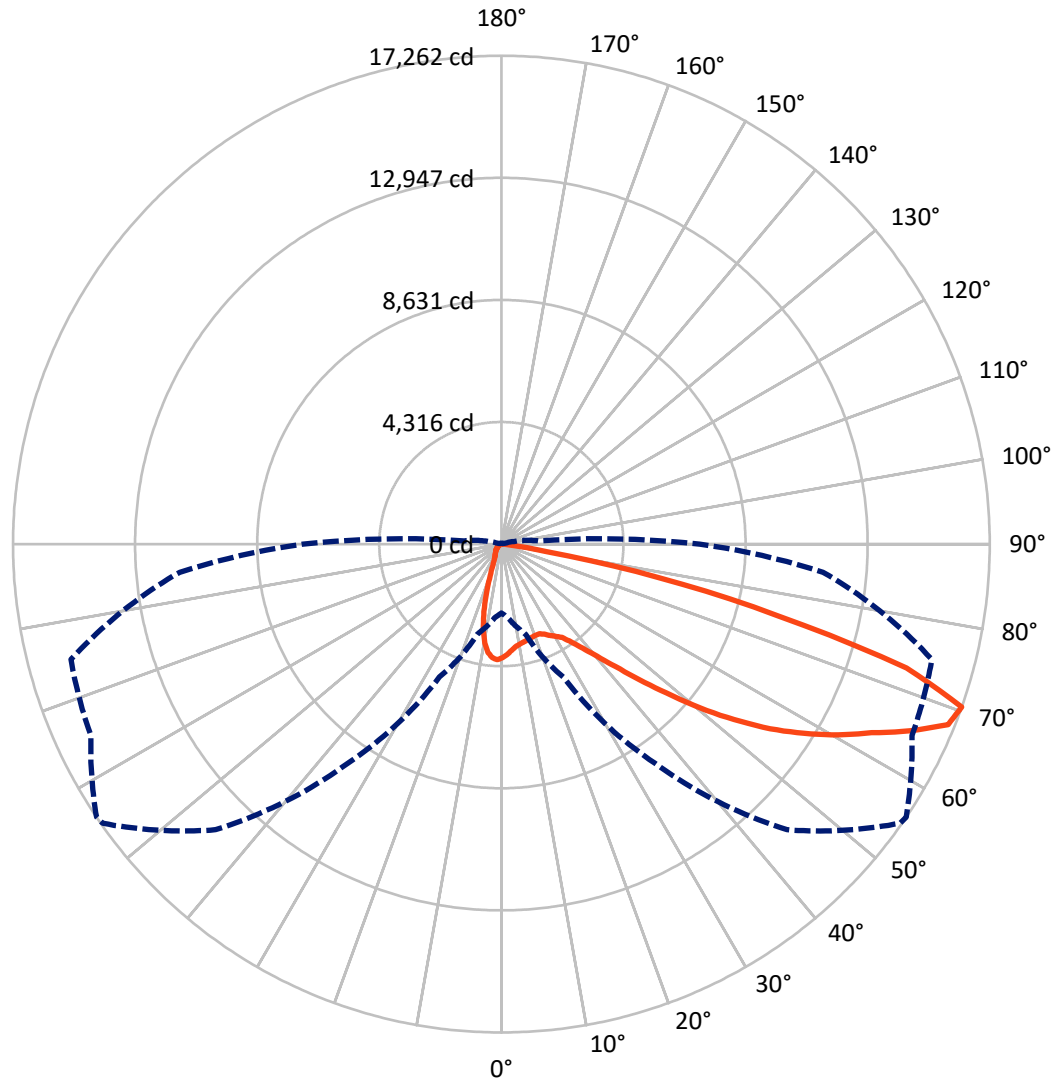
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Medium - N/A

REPORT NUMBER: P642957  
CATALOG NUMBER: GWS-SA6D-830-U-T3R-W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P642957

CATALOG NUMBER: GWS-SA6D-830-U-T3R-W-HSS

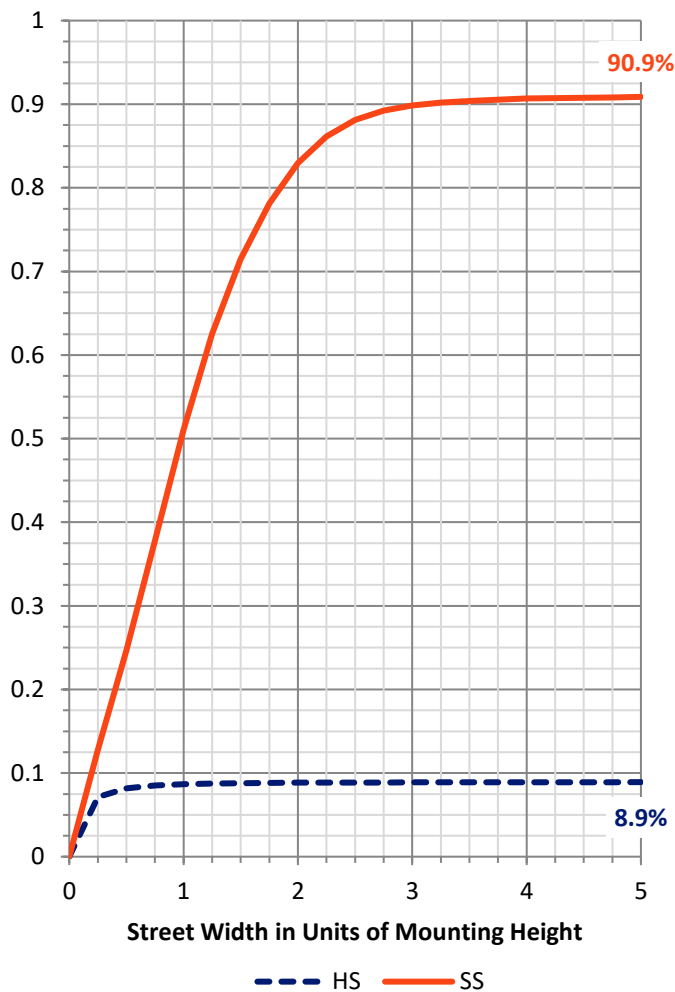
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2000.8	0.0	2000.8
	% Fixture	9.0	0.0	9.0
<b>Street Side</b>	Lumens	20275.5	0.0	20275.5
	% Fixture	91.0	0.0	91.0
<b>Total</b>	Lumens	22276.3	0.0	22276.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	344.9	1.5
10°-20°	775.6	3.5
20°-30°	1228.6	5.5
30°-40°	2118.7	9.5
40°-50°	3577.8	16.1
50°-60°	5257.0	23.6
60°-70°	6232.4	28.0
70°-80°	2657.8	11.9
80°-90°	83.4	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°	22276.3	100.0
0°-180°	22276.3	100.0

**Coefficient of Utilization**



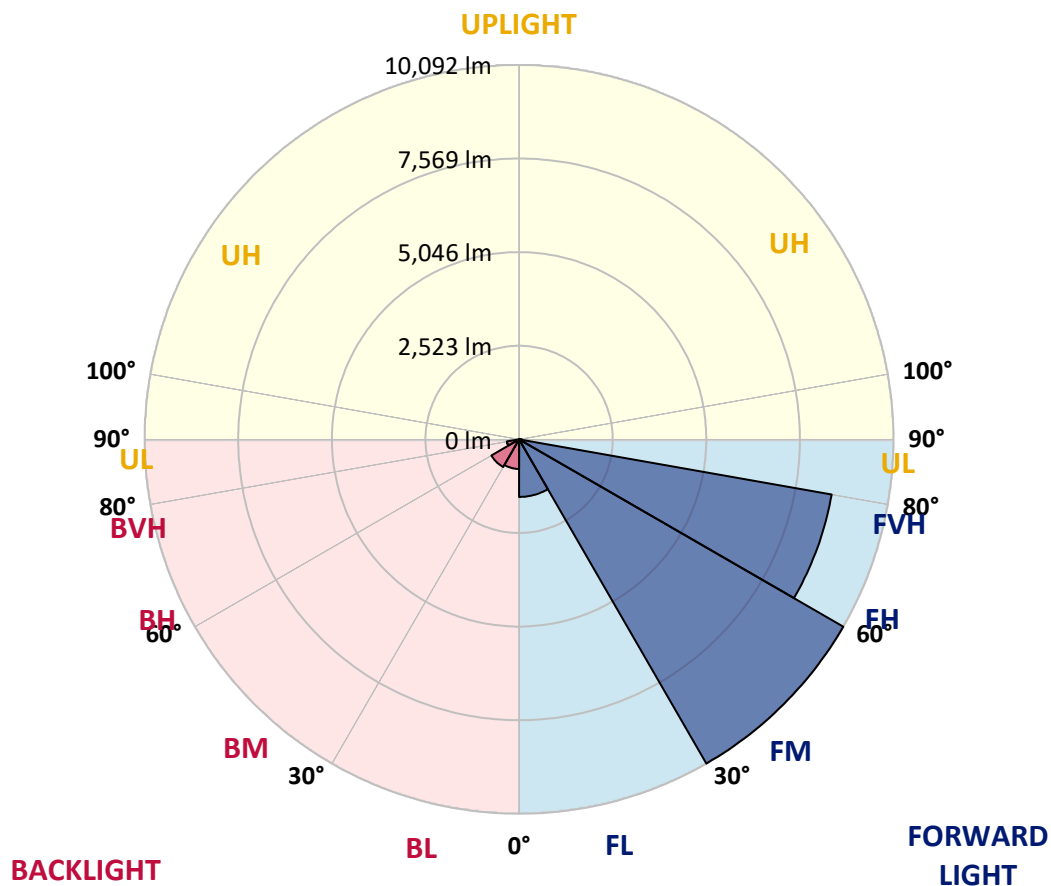
REPORT NUMBER: P642957

CATALOG NUMBER: GWS-SA6D-830-U-T3R-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1552.3	7.0			
FM (30°-60°)	10091.8	45.3			
FH (60°-80°)	8556.5	38.4			G4/12000
FVH (80°-90°)	75.0	0.3			G1/100
BL (0°-30°)	796.9	3.6	B2/1000		
BM (30°-60°)	861.8	3.9	B1/1000		
BH (60°-80°)	333.7	1.5	B1/500		G1/500
BVH (80°-90°)	8.5	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-G4**  
 Type III Medium





REPORT NUMBER: P642957

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6
2.5°	3739.2	3733.1	3737.2	3767.8	3824.9	3851.4	3896.3	3904.4	3941.2	3988.1	4006.4
5°	3496.5	3476.1	3486.3	3529.1	3594.4	3667.8	3751.4	3773.9	3865.7	3969.7	4047.2
7.5°	3274.1	3251.7	3276.1	3343.5	3435.3	3514.8	3639.3	3653.5	3800.4	3984.0	4124.8
10°	2925.3	2931.4	2980.4	3098.7	3239.4	3404.7	3571.9	3592.3	3773.9	4030.9	4249.2
12.5°	2658.0	2643.8	2696.8	2831.4	3029.3	3270.0	3520.9	3547.5	3775.9	4102.3	4408.3
15°	2533.6	2529.5	2552.0	2649.9	2841.6	3125.2	3474.0	3508.7	3802.4	4167.6	4559.3
17.5°	2537.7	2531.6	2529.5	2586.6	2729.4	3017.1	3423.0	3467.9	3824.9	4239.0	4718.4
20°	2715.2	2686.6	2635.6	2609.1	2694.8	2947.7	3388.3	3439.3	3857.5	4314.5	4887.7
22.5°	3086.4	3096.6	2960.0	2817.2	2776.4	2955.9	3384.3	3443.4	3928.9	4432.8	5095.8
25°	3829.0	3812.6	3559.7	3239.4	3017.1	3049.7	3455.7	3527.1	4069.7	4602.1	5291.6
27.5°	4759.2	4773.5	4426.7	3916.7	3451.6	3243.5	3586.2	3657.6	4232.9	4708.2	5422.2
30°	5773.0	5758.7	5387.5	4822.4	4067.6	3565.8	3716.8	3780.0	4314.5	4765.3	5556.8
32.5°	6731.8	6699.2	6332.0	5740.4	4853.0	4073.8	3896.3	3933.0	4422.6	4889.7	5738.4
35°	7549.8	7547.8	7227.5	6597.2	5660.8	4710.2	4204.3	4234.9	4624.5	5087.6	6005.6
37.5°	8394.4	8365.8	8006.8	7431.5	6491.1	5407.9	4675.5	4663.3	4942.8	5379.3	6334.0
40°	9087.9	9069.6	8794.2	8241.4	7354.0	6179.0	5246.7	5210.0	5320.2	5783.2	6791.0
42.5°	9602.0	9604.0	9518.4	9181.8	8267.9	7070.4	5964.8	5907.7	5905.6	6393.2	7394.8
45°	9991.6	10018.1	10146.7	10095.7	9347.0	8108.8	6884.8	6825.6	6725.7	7184.7	8086.3
47.5°	10173.2	10207.9	10595.4	10799.4	10291.5	9138.9	7980.2	7855.8	7660.0	8237.3	8859.5
50°	10154.8	10216.0	10756.6	11376.7	11148.3	10183.4	9173.6	9114.5	8794.2	9351.1	9624.4
52.5°	9738.7	9869.2	10766.8	11727.6	11807.2	11146.2	10407.8	10297.6	10142.6	10513.8	10342.5
55°	8608.5	8767.7	10336.4	11839.8	12321.2	11986.7	11615.4	11525.7	11268.6	11611.3	10968.8
57.5°	7994.5	8131.2	9430.6	11784.7	12757.8	12763.9	12690.5	12617.0	12404.9	12696.6	11703.1
60°	7625.3	7762.0	8947.2	11582.8	13153.5	13584.0	13700.2	13692.1	13386.1	13930.7	12564.0
62.5°	7084.7	7272.4	8443.3	11058.5	13435.0	14391.8	14742.6	14687.6	14346.9	15215.9	13416.7
65°	5993.3	6156.5	7411.1	10193.6	13269.8	15060.9	15872.8	15901.3	15507.6	16425.6	14089.9
67.5°	4202.3	4322.6	5569.0	8378.0	12147.8	15281.2	17029.4	17027.4	16356.2	17045.7	13792.0
70°	2435.7	2600.9	3290.4	5179.4	9451.0	14279.6	17202.8	17262.0	16011.5	15750.4	11413.5
72.5°	942.5	1079.1	1864.5	2751.9	4928.5	10938.2	14797.7	14971.1	13400.4	12149.9	7943.5
75°	281.5	314.2	877.2	1464.7	1978.7	5283.4	10018.1	10067.1	9192.0	7578.4	4071.7
77.5°	210.1	232.6	383.5	740.5	693.6	1601.4	5183.5	5660.8	4879.5	2707.0	1122.0
80°	142.8	169.3	273.4	361.1	257.0	426.3	1456.5	1599.3	1489.2	607.9	281.5
82.5°	63.2	81.6	193.8	181.6	93.8	122.4	448.8	477.3	308.0	183.6	97.9
85°	6.1	8.2	73.4	79.6	34.7	28.6	93.8	93.8	67.3	63.2	40.8
87.5°	0.0	0.0	2.0	4.1	4.1	6.1	8.2	10.2	12.2	16.3	20.4
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: P642957

CATALOG NUMBER: GWS-SA6D-830-U-T3R-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6	4016.6
2.5°	4053.4	4028.9	4059.5	4084.0	4090.1	4045.2	4018.7	3979.9	3971.8	3973.8	3963.6
5°	4108.4	4096.2	4118.6	4092.1	4022.8	3892.2	3780.0	3655.6	3588.3	3549.5	3545.4
7.5°	4210.4	4204.3	4179.8	4059.5	3843.2	3553.6	3274.1	3000.8	2831.4	2770.2	2760.0
10°	4361.4	4349.2	4249.2	3963.6	3502.6	2945.7	2476.5	2084.8	1846.1	1776.8	1691.1
12.5°	4534.8	4510.3	4292.0	3757.6	2988.5	2217.4	1632.0	1193.4	987.3	926.1	926.1
15°	4702.1	4649.0	4267.6	3416.9	2356.1	1442.2	911.9	689.5	626.3	609.9	609.9
17.5°	4873.4	4771.4	4171.7	2951.8	1627.9	852.7	607.9	565.1	556.9	558.9	561.0
20°	5034.6	4875.5	4002.4	2392.8	1038.3	595.7	544.7	534.5	530.4	534.5	532.4
22.5°	5210.0	4971.3	3745.3	1782.9	675.2	536.5	518.1	510.0	505.9	512.0	512.0
25°	5383.4	5040.7	3404.7	1199.5	536.5	499.8	489.6	481.4	477.3	479.4	479.4
27.5°	5473.2	5014.2	2957.9	765.0	481.4	463.1	452.9	442.7	436.5	434.5	436.5
30°	5534.4	4932.6	2411.2	544.7	436.5	414.1	403.9	395.7	379.4	369.2	373.3
32.5°	5630.2	4851.0	1817.6	456.9	399.8	365.1	348.8	328.4	306.0	295.8	295.8
35°	5744.5	4738.8	1275.0	412.1	361.1	324.4	293.8	259.1	232.6	224.4	224.4
37.5°	5895.4	4632.7	848.6	381.5	328.4	289.7	246.8	206.0	177.5	173.4	171.4
40°	6121.9	4542.9	597.7	359.0	299.9	253.0	202.0	159.1	138.7	132.6	132.6
42.5°	6415.6	4451.1	473.3	336.6	275.4	218.3	161.2	126.5	110.2	106.1	104.0
45°	6778.7	4343.0	412.1	316.2	250.9	181.6	128.5	106.1	93.8	89.8	89.8
47.5°	7172.4	4196.2	383.5	289.7	222.4	146.9	108.1	91.8	85.7	83.6	81.6
50°	7560.0	3998.3	359.0	265.2	189.7	120.4	93.8	83.6	79.6	77.5	77.5
52.5°	7898.6	3767.8	328.4	236.6	155.0	104.0	83.6	77.5	73.4	69.4	67.3
55°	8188.3	3516.9	289.7	204.0	126.5	91.8	77.5	71.4	67.3	63.2	61.2
57.5°	8561.6	3374.1	232.6	165.2	104.0	81.6	71.4	65.3	61.2	55.1	55.1
60°	8975.7	3270.0	173.4	130.6	89.8	75.5	65.3	59.2	55.1	49.0	49.0
62.5°	9308.2	3115.0	136.7	106.1	77.5	67.3	59.2	53.0	49.0	42.8	42.8
65°	9434.7	2794.7	112.2	83.6	63.2	59.2	53.0	49.0	42.8	36.7	36.7
67.5°	8863.5	2154.2	93.8	67.3	53.0	51.0	46.9	44.9	36.7	32.6	30.6
70°	7019.4	1313.7	77.5	55.1	44.9	42.8	42.8	38.8	32.6	30.6	28.6
72.5°	4810.2	677.3	63.2	44.9	38.8	38.8	36.7	34.7	30.6	28.6	28.6
75°	2498.9	226.4	49.0	34.7	30.6	32.6	32.6	30.6	28.6	28.6	26.5
77.5°	716.0	102.0	36.7	26.5	24.5	24.5	26.5	26.5	26.5	24.5	24.5
80°	185.6	59.2	26.5	20.4	20.4	20.4	20.4	22.4	24.5	22.4	22.4
82.5°	75.5	32.6	18.4	16.3	16.3	16.3	16.3	18.4	20.4	20.4	20.4
85°	46.9	16.3	14.3	14.3	14.3	12.2	12.2	14.3	14.3	16.3	16.3
87.5°	28.6	12.2	12.2	12.2	12.2	10.2	10.2	10.2	10.2	10.2	10.2
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)