

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1435515

Luminaire Tested: **GALN-SB5A-840-U-T4LG**

Issue Date: 03/24/202

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Report Generated By 670245763



**Test Information**

Test Method: LM-79-08  
 Report Number: P1435515  
 Test Lab: INNOVATION CENTER(G1)  
 Issue Date: 03/24/202  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: McGRAW-EDISON  
 Catalog Number: GALN-SB5A-840-U-T4LG  
 Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 5xLight Square PACKAGE 80CRI 4000K FIXTURE w/ TYPE IV LOW GLARE  
 Light Source: (130) 4000K CCT, 80 CRI LEDS  
 Ballast/Driver: ELECTRONIC DRIVER

Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
a	good	reflector
b	good	lens
c	good	housing
d	good	cord

**Summary**

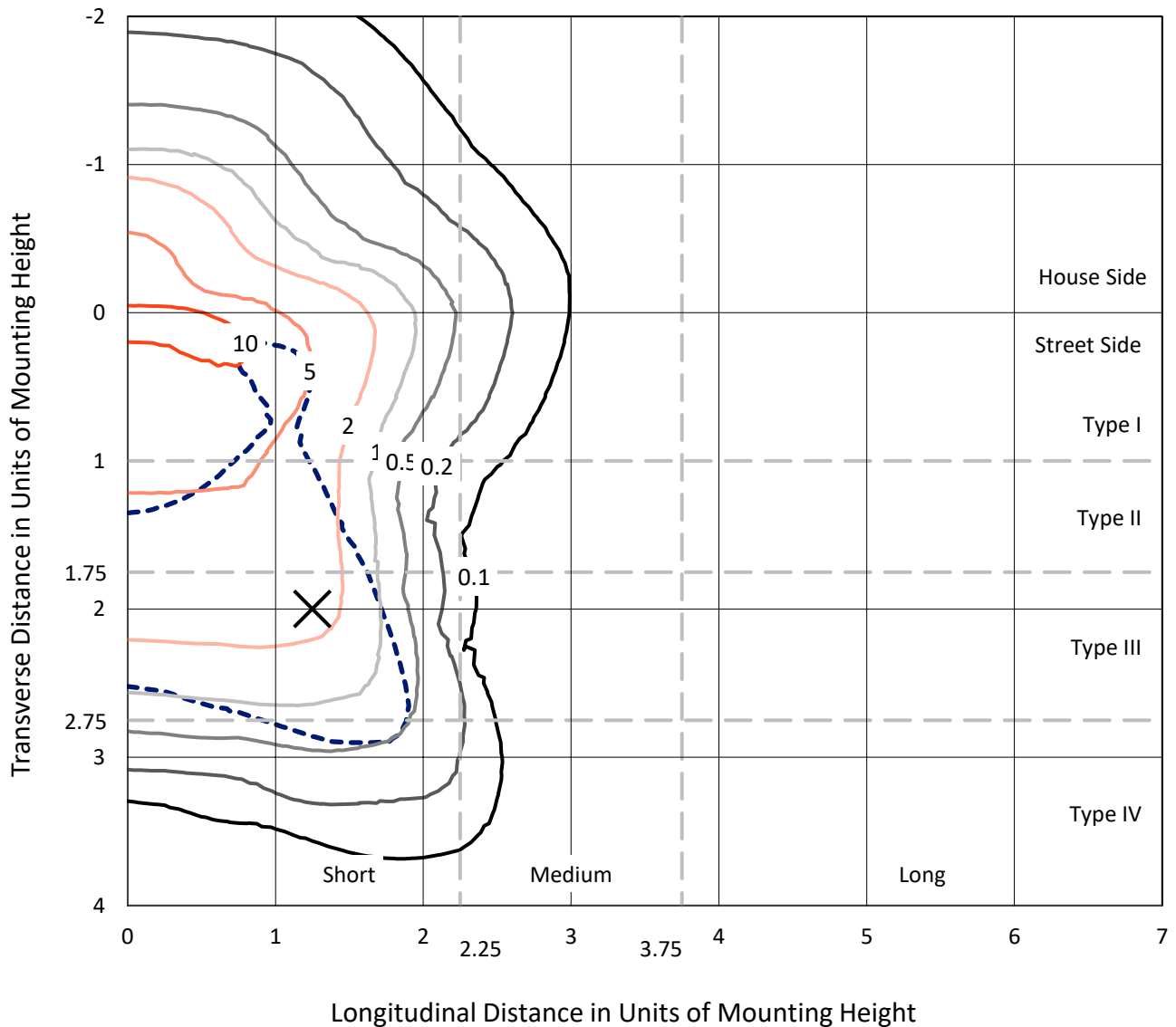
Lumens per Lamp: N/A  
 Luminaire Lumens: 21209.3 lumens  
 Efficiency: N/A  
 Efficacy: 149.7 lumens/watt  
 Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
 IES Classification: Type IV - Short  
 BUG Rating: B3 - U0 - G3

Input Watts (W): 141.7  
 Input Voltage (V): 120  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: 0.97  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 28.75 FT

REPORT NUMBER: P1435515  
 CATALOG NUMBER: GALN-SB5A-840-U-T4LG

### Iso-Footcandle Lines of Horizontal Illumination

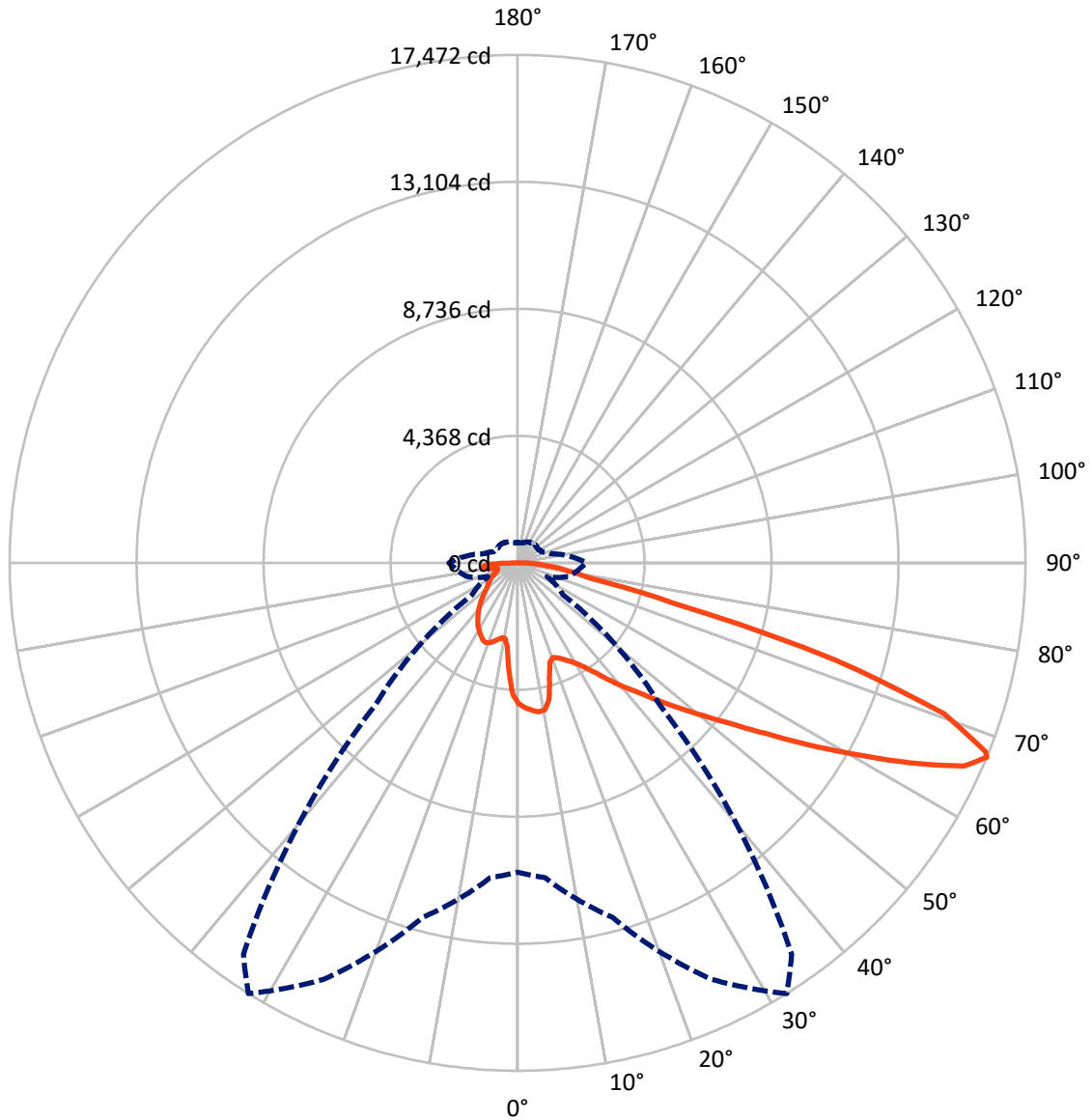
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 13.1 fc  
 Type IV - Short - N/A

REPORT NUMBER: P1435515  
CATALOG NUMBER: GALN-SB5A-840-U-T4LG

### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P1435515  
 CATALOG NUMBER: GALN-SB5A-840-U-T4LG

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5021.2	0.0	5021.2
	% Fixture	23.7	0.0	23.7
<b>Street Side</b>	Lumens	16188.1	0.0	16188.1
	% Fixture	76.3	0.0	76.3
<b>Total</b>	Lumens	21209.3	0.0	21209.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	423.4	2.0
10°-20°	1124.2	5.3
20°-30°	1835.9	8.7
30°-40°	2705.9	12.8
40°-50°	3731.6	17.6
50°-60°	4714.1	22.2
60°-70°	4562.4	21.5
70°-80°	1628.3	7.7
80°-90°	483.5	2.3
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°	21209.3	100.0
0°-180°	21209.3	100.0

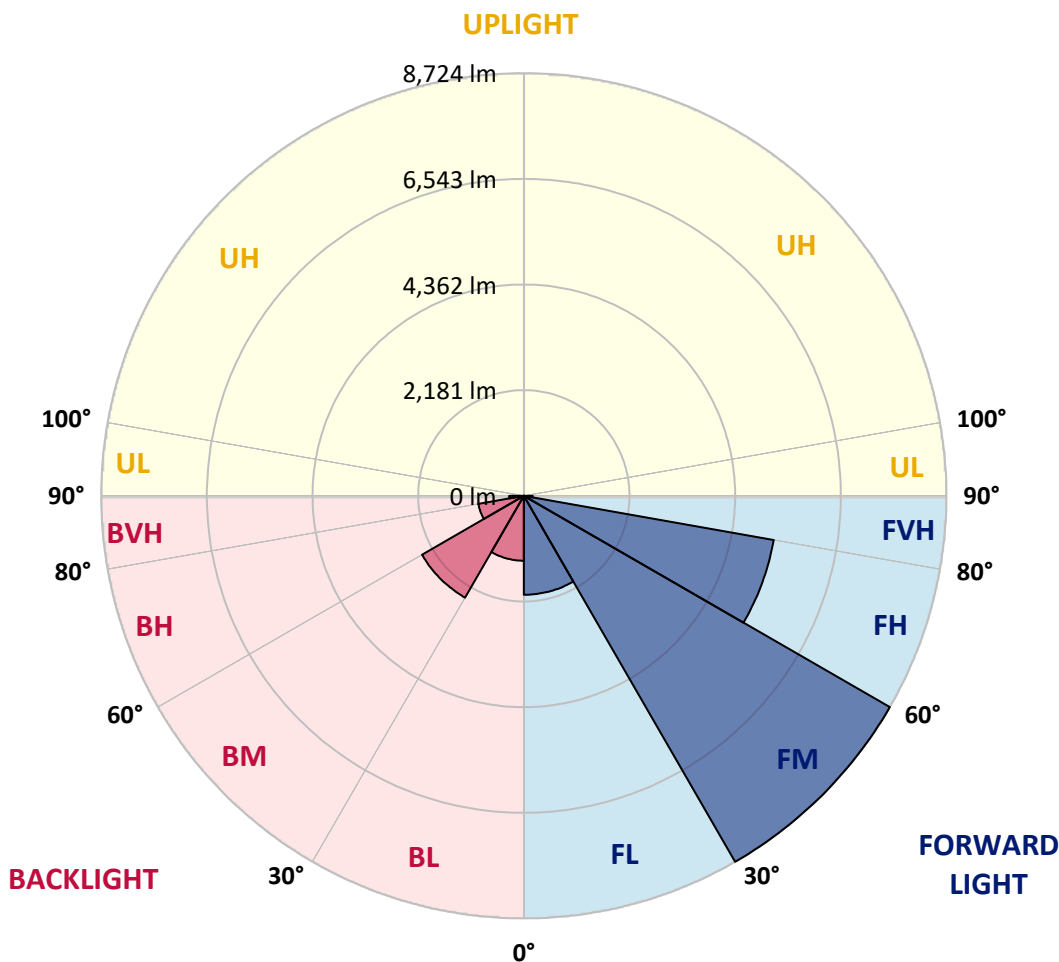


REPORT NUMBER: P1435515  
 CATALOG NUMBER: GALN-SB5A-840-U-T4LG

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2043.6	9.6			
FM (30°-60°)	8724.1	41.1			
FH (60°-80°)	5238.3	24.7			G3/7500
FVH (80°-90°)	182.2	0.9			G2/225
BL (0°-30°)	1339.9	6.3	B3/2500		
BM (30°-60°)	2427.5	11.4	B2/2500		
BH (60°-80°)	952.4	4.5	B2/1000		G2/1000
BVH (80°-90°)	301.3	1.4			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type IV Short





REPORT NUMBER: P1435515

CATALOG NUMBER: GALN-SB5A-840-U-T4LG

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9
2.5°	5029.6	5015.4	5001.3	5010.7	4991.9	4987.2	4963.6	4954.2	4926.0	4921.3	4869.5
5°	5133.2	5104.9	5100.2	5109.6	5090.8	5090.8	5072.0	5057.8	5015.4	4991.9	4916.5
7.5°	5133.2	5128.5	5137.9	5170.9	5175.6	5175.6	5175.6	5180.3	5137.9	5104.9	4987.2
10°	4841.2	4794.1	4897.7	5062.5	5142.6	5189.7	5274.5	5326.3	5293.3	5269.7	5109.6
12.5°	3970.0	3974.7	4139.5	4492.7	4812.9	4949.5	5302.7	5491.1	5505.2	5467.5	5265.0
15°	3367.2	3390.7	3475.5	3729.8	4097.1	4299.6	5137.9	5637.1	5750.1	5712.4	5453.4
17.5°	3183.5	3197.6	3235.3	3381.3	3588.5	3753.3	4690.5	5731.3	6046.8	5999.7	5665.3
20°	3155.3	3164.7	3211.8	3334.2	3475.5	3569.7	4233.7	5655.9	6324.6	6305.8	5858.4
22.5°	3160.0	3169.4	3230.6	3400.1	3546.1	3626.2	4087.7	5481.7	6616.6	6635.5	6056.2
25°	3169.4	3174.1	3268.3	3494.3	3678.0	3776.9	4181.9	5326.3	6861.5	7021.6	6272.8
27.5°	3221.2	3235.3	3362.5	3616.8	3833.4	3946.4	4403.2	5378.1	7129.9	7459.6	6531.9
30°	3362.5	3371.9	3527.3	3791.0	4026.5	4144.2	4667.0	5585.3	7459.6	7911.7	6786.2
32.5°	3583.8	3593.2	3772.2	4045.3	4299.6	4440.9	5010.7	5980.9	7826.9	8387.3	7040.5
35°	3889.9	3894.6	4097.1	4389.1	4657.5	4817.7	5411.0	6428.2	8208.4	8792.3	7228.8
37.5°	4252.5	4285.5	4492.7	4798.8	5114.3	5260.3	5882.0	6951.0	8547.4	9136.1	7337.1
40°	4751.7	4761.1	4963.6	5260.3	5594.7	5736.0	6352.9	7445.5	8919.5	9338.6	7436.0
42.5°	5265.0	5345.1	5514.6	5844.3	6093.9	6206.9	6889.8	7897.6	9216.2	9348.0	7393.7
45°	5952.6	6013.8	6183.4	6475.3	6724.9	6856.8	7469.0	8312.0	9366.9	9268.0	7299.5
47.5°	6739.1	6776.7	6913.3	7177.0	7454.9	7549.1	8071.8	8547.4	9423.4	9211.5	7257.1
50°	7666.8	7666.8	7765.7	7991.7	8246.0	8377.9	8627.5	8688.7	9588.2	9112.6	7365.4
52.5°	8448.6	8486.2	8618.1	8938.3	9192.6	9343.3	9060.8	8905.4	9253.8	8561.6	7398.4
55°	9197.3	9239.7	9536.4	9936.7	10370.0	10534.8	9602.3	8797.0	8128.3	7756.3	7172.3
57.5°	9913.2	10002.6	10374.7	11156.4	11811.0	11796.9	10289.9	7826.9	6635.5	6866.2	6677.8
60°	10911.5	11005.7	11599.1	12583.3	13383.9	13049.6	10299.3	6513.0	5170.9	5481.7	5750.1
62.5°	11745.1	11905.2	12776.4	14415.3	15149.9	14627.2	9446.9	4987.2	3433.1	3824.0	4445.6
65°	11669.7	11881.7	13233.2	15762.1	16859.4	16374.4	8199.0	3155.3	1770.7	2613.7	3112.9
67°	10643.1	10873.9	12625.7	15809.2	17471.6	16435.6	6922.7	1907.3	1125.5	1813.1	2161.6
67.5°	10054.4	10393.5	12324.3	15719.8	17358.6	16176.6	6348.2	1596.5	1059.6	1685.9	1968.5
70°	6183.4	6729.6	9249.1	13897.3	15559.6	13539.3	3527.3	904.2	861.8	1130.2	1361.0
72.5°	1860.2	2025.0	3569.7	8914.8	11420.1	10035.6	1587.0	697.0	772.3	908.9	1050.2
75°	904.2	965.4	1474.0	3645.0	5561.7	5533.5	885.4	598.1	715.8	762.9	828.8
77.5°	579.2	616.9	918.3	2039.1	2547.8	2269.9	640.5	522.7	635.8	626.3	616.9
80°	362.6	381.5	588.7	1182.0	1879.0	1568.2	470.9	428.5	546.3	485.1	438.0
82.5°	235.5	259.0	376.7	720.5	1342.2	1167.9	310.8	306.1	452.1	386.2	339.1
85°	155.4	174.2	240.2	423.8	795.9	833.6	202.5	211.9	348.5	292.0	259.0
87.5°	56.5	70.6	122.4	188.4	372.0	461.5	84.8	80.1	169.5	136.6	108.3
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: P1435515

CATALOG NUMBER: GALN-SB5A-840-U-T4LG

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9	4845.9
2.5°	4860.0	4845.9	4780.0	4723.5	4681.1	4624.6	4563.3	4492.7	4445.6	4455.0	4440.9
5°	4883.6	4845.9	4718.8	4525.7	4337.3	4101.8	3800.4	3621.5	3484.9	3414.3	3433.1
7.5°	4935.4	4869.5	4601.0	4210.1	3720.4	3240.0	2943.3	2773.8	2693.7	2660.8	2656.1
10°	5024.9	4911.8	4450.3	3720.4	3079.9	2755.0	2646.6	2599.6	2590.1	2590.1	2585.4
12.5°	5133.2	4954.2	4196.0	3244.7	2773.8	2656.1	2637.2	2641.9	2656.1	2670.2	2646.6
15°	5265.0	4973.1	3880.5	2957.5	2712.6	2684.3	2712.6	2745.5	2769.1	2787.9	2764.4
17.5°	5396.9	4954.2	3583.8	2820.9	2722.0	2759.7	2816.2	2868.0	2882.1	2910.4	2891.5
20°	5491.1	4888.3	3329.5	2769.1	2745.5	2830.3	2901.0	2957.5	2985.7	3004.6	2985.7
22.5°	5561.7	4803.5	3145.8	2717.3	2745.5	2849.1	2933.9	2999.8	3032.8	3051.7	3028.1
25°	5622.9	4685.8	3004.6	2641.9	2689.0	2787.9	2882.1	2948.0	2995.1	3023.4	3009.3
27.5°	5698.3	4591.6	2872.7	2528.9	2571.3	2665.5	2764.4	2844.4	2933.9	2981.0	2971.6
30°	5783.1	4544.5	2745.5	2406.5	2434.7	2528.9	2646.6	2755.0	2877.4	2938.6	2938.6
32.5°	5882.0	4511.5	2627.8	2288.7	2312.3	2415.9	2528.9	2627.8	2759.7	2858.6	2853.9
35°	5924.3	4473.9	2533.6	2180.4	2227.5	2312.3	2401.8	2467.7	2604.3	2722.0	2731.4
37.5°	5966.7	4459.7	2486.5	2095.7	2133.3	2199.3	2246.4	2279.3	2406.5	2528.9	2533.6
40°	6018.5	4525.7	2519.5	2039.1	2006.2	2072.1	2095.7	2114.5	2180.4	2260.5	2260.5
42.5°	5985.6	4572.8	2594.8	1987.3	1850.8	1926.1	1935.5	1930.8	1935.5	1940.2	1935.5
45°	5900.8	4525.7	2594.8	1907.3	1685.9	1766.0	1761.3	1737.7	1700.1	1601.2	1587.0
47.5°	5882.0	4497.4	2495.9	1775.4	1521.1	1587.0	1596.5	1549.4	1441.1	1337.5	1304.5
50°	5962.0	4549.2	2340.5	1615.3	1379.8	1436.3	1459.9	1379.8	1257.4	1149.1	1130.2
52.5°	6079.8	4615.1	2114.5	1441.1	1262.1	1318.6	1346.9	1257.4	1130.2	1045.5	1036.1
55°	6065.6	4615.1	1860.2	1280.9	1172.6	1215.0	1262.1	1167.9	1069.0	1021.9	1017.2
57.5°	5759.5	4440.9	1671.8	1167.9	1087.9	1125.5	1186.8	1097.3	1003.1	1012.5	1026.6
60°	5161.4	3988.8	1530.5	1092.6	1012.5	1050.2	1116.1	1012.5	890.1	857.1	857.1
62.5°	4252.5	3287.1	1417.5	1017.2	941.9	989.0	1021.9	885.4	805.3	767.6	767.6
65°	3188.2	2543.0	1299.8	956.0	880.6	932.4	894.8	828.8	748.8	720.5	725.2
67°	2364.1	1973.2	1200.9	904.2	843.0	866.5	838.3	791.2	711.1	687.6	711.1
67.5°	2123.9	1874.3	1177.3	890.1	833.6	852.4	824.1	786.5	701.7	678.1	701.7
70°	1459.9	1441.1	1050.2	824.1	781.7	762.9	777.0	729.9	659.3	649.9	673.4
72.5°	1111.4	1149.1	941.9	767.6	725.2	701.7	734.7	687.6	616.9	631.1	654.6
75°	871.2	927.7	843.0	687.6	659.3	664.0	729.9	711.1	654.6	668.7	673.4
77.5°	645.2	748.8	720.5	598.1	574.5	640.5	824.1	880.6	781.7	758.2	725.2
80°	470.9	536.9	607.5	494.5	480.4	616.9	1017.2	1125.5	965.4	871.2	847.7
82.5°	348.5	376.7	499.2	395.6	348.5	551.0	1130.2	1323.3	1149.1	970.1	941.9
85°	249.6	292.0	395.6	292.0	230.8	452.1	1106.7	1295.1	1139.7	918.3	894.8
87.5°	89.5	127.2	169.5	131.9	117.7	310.8	913.6	932.4	711.1	324.9	329.7
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: SP1-2407-184-11

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-840-U-5WQ

Data in this report applies to families of products including GSS-SB1A-840-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-11  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 10/15/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: McGraw-Edison  
 Catalog Number: **GSS-SB1A-840-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 4000K CCT 26 LEDS

**Spectral Parameters**

CCT (K): 3897  
 CIE u': 0.2249  
 CIE v': 0.5084  
 Duv: 0.0039  
 CIE x: 0.3882  
 CIE y: 0.3900  
 CIE z: 0.2218  
 Peak Wavelength (nm): 445  
 Dominant Wavelength (nm): 577  
 Purity: 33.54925  
 Rf: 81.8  
 Rg: 98.6

CRI (Ra):	80.2		
R1:	78.9	R9:	6.7
R2:	83.5	R10:	61.9
R3:	88.3	R11:	81.9
R4:	82.1	R12:	58.9
R5:	78.8	R13:	79.2
R6:	78.4	R14:	93.2
R7:	85.8	R15:	71.9
R8:	65.8		



**Test Conditions**

Stabilization Time: 24M  
 Operation Time: 1H 24M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-11

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: SP1-2407-184-11

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-11

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

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	242	NR	620	792	NR	750	29	NR	880	1	NR
365	0	NR	495	320	NR	625	748	NR	755	25	NR	885	1	NR
370	0	NR	500	401	NR	630	703	NR	760	22	NR	890	1	NR
375	0	NR	505	479	NR	635	651	NR	765	19	NR	895	1	NR
380	0	NR	510	546	NR	640	599	NR	770	16	NR	900	1	NR
385	0	NR	515	602	NR	645	545	NR	775	14	NR	905	0	NR
390	2	NR	520	645	NR	650	493	NR	780	12	NR	910	0	NR
395	4	NR	525	674	NR	655	443	NR	785	10	NR	915	0	NR
400	6	NR	530	699	NR	660	394	NR	790	9	NR	920	0	NR
405	11	NR	535	718	NR	665	349	NR	795	8	NR	925	0	NR
410	22	NR	540	732	NR	670	307	NR	800	7	NR	930	0	NR
415	43	NR	545	749	NR	675	269	NR	805	6	NR	935	0	NR
420	86	NR	550	762	NR	680	235	NR	810	5	NR	940	0	NR
425	164	NR	555	778	NR	685	204	NR	815	5	NR	945	0	NR
430	288	NR	560	792	NR	690	178	NR	820	4	NR	950	0	NR
435	478	NR	565	809	NR	695	153	NR	825	3	NR	955	0	NR
440	766	NR	570	827	NR	700	132	NR	830	3	NR	960	0	NR
445	1000	NR	575	845	NR	705	114	NR	835	3	NR	965	0	NR
450	726	NR	580	862	NR	710	98	NR	840	2	NR	970	0	NR
455	425	NR	585	875	NR	715	84	NR	845	2	NR	975	0	NR
460	324	NR	590	887	NR	720	73	NR	850	2	NR	980	0	NR
465	225	NR	595	890	NR	725	63	NR	855	1	NR	985	0	NR
470	157	NR	600	887	NR	730	54	NR	860	1	NR	990	0	NR
475	147	NR	605	875	NR	735	46	NR	865	1	NR	995	0	NR
480	154	NR	610	856	NR	740	40	NR	870	1	NR	1000	0	NR
485	184	NR	615	828	NR	745	34	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-11

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.57**

$\lambda$ (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	242	NR	620	792	NR	750	29	NR	880	1	NR
365	0	NR	495	320	NR	625	748	NR	755	25	NR	885	1	NR
370	0	NR	500	401	NR	630	703	NR	760	22	NR	890	1	NR
375	0	NR	505	479	NR	635	651	NR	765	19	NR	895	1	NR
380	0	NR	510	546	NR	640	599	NR	770	16	NR	900	1	NR
385	0	NR	515	602	NR	645	545	NR	775	14	NR	905	0	NR
390	2	NR	520	645	NR	650	493	NR	780	12	NR	910	0	NR
395	4	NR	525	674	NR	655	443	NR	785	10	NR	915	0	NR
400	6	NR	530	699	NR	660	394	NR	790	9	NR	920	0	NR
405	11	NR	535	718	NR	665	349	NR	795	8	NR	925	0	NR
410	22	NR	540	732	NR	670	307	NR	800	7	NR	930	0	NR
415	43	NR	545	749	NR	675	269	NR	805	6	NR	935	0	NR
420	86	NR	550	762	NR	680	235	NR	810	5	NR	940	0	NR
425	164	NR	555	778	NR	685	204	NR	815	5	NR	945	0	NR
430	288	NR	560	792	NR	690	178	NR	820	4	NR	950	0	NR
435	478	NR	565	809	NR	695	153	NR	825	3	NR	955	0	NR
440	766	NR	570	827	NR	700	132	NR	830	3	NR	960	0	NR
445	1000	NR	575	845	NR	705	114	NR	835	3	NR	965	0	NR
450	726	NR	580	862	NR	710	98	NR	840	2	NR	970	0	NR
455	425	NR	585	875	NR	715	84	NR	845	2	NR	975	0	NR
460	324	NR	590	887	NR	720	73	NR	850	2	NR	980	0	NR
465	225	NR	595	890	NR	725	63	NR	855	1	NR	985	0	NR
470	157	NR	600	887	NR	730	54	NR	860	1	NR	990	0	NR
475	147	NR	605	875	NR	735	46	NR	865	1	NR	995	0	NR
480	154	NR	610	856	NR	740	40	NR	870	1	NR	1000	0	NR
485	184	NR	615	828	NR	745	34	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-11

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 3.06**

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	242	NR	620	792	NR	750	29	NR	880	1	NR
365	0	NR	495	320	NR	625	748	NR	755	25	NR	885	1	NR
370	0	NR	500	401	NR	630	703	NR	760	22	NR	890	1	NR
375	0	NR	505	479	NR	635	651	NR	765	19	NR	895	1	NR
380	0	NR	510	546	NR	640	599	NR	770	16	NR	900	1	NR
385	0	NR	515	602	NR	645	545	NR	775	14	NR	905	0	NR
390	2	NR	520	645	NR	650	493	NR	780	12	NR	910	0	NR
395	4	NR	525	674	NR	655	443	NR	785	10	NR	915	0	NR
400	6	NR	530	699	NR	660	394	NR	790	9	NR	920	0	NR
405	11	NR	535	718	NR	665	349	NR	795	8	NR	925	0	NR
410	22	NR	540	732	NR	670	307	NR	800	7	NR	930	0	NR
415	43	NR	545	749	NR	675	269	NR	805	6	NR	935	0	NR
420	86	NR	550	762	NR	680	235	NR	810	5	NR	940	0	NR
425	164	NR	555	778	NR	685	204	NR	815	5	NR	945	0	NR
430	288	NR	560	792	NR	690	178	NR	820	4	NR	950	0	NR
435	478	NR	565	809	NR	695	153	NR	825	3	NR	955	0	NR
440	766	NR	570	827	NR	700	132	NR	830	3	NR	960	0	NR
445	1000	NR	575	845	NR	705	114	NR	835	3	NR	965	0	NR
450	726	NR	580	862	NR	710	98	NR	840	2	NR	970	0	NR
455	425	NR	585	875	NR	715	84	NR	845	2	NR	975	0	NR
460	324	NR	590	887	NR	720	73	NR	850	2	NR	980	0	NR
465	225	NR	595	890	NR	725	63	NR	855	1	NR	985	0	NR
470	157	NR	600	887	NR	730	54	NR	860	1	NR	990	0	NR
475	147	NR	605	875	NR	735	46	NR	865	1	NR	995	0	NR
480	154	NR	610	856	NR	740	40	NR	870	1	NR	1000	0	NR
485	184	NR	615	828	NR	745	34	NR	875	1	NR			

**Summary**

$R_f = 81.8$   
 $R_g = 98.6$   
 CIE  $R_a = 80.2$   
 $R_9 = 6.7$



**Color Vector Graphics**



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

CES01 = 85	CES26 = 73	CES51 = 93	CES76 = 66
CES02 = 61	CES27 = 91	CES52 = 93	CES77 = 80
CES03 = 31	CES28 = 87	CES53 = 83	CES78 = 66
CES04 = 69	CES29 = 71	CES54 = 89	CES79 = 88
CES05 = 48	CES30 = 77	CES55 = 88	CES80 = 85
CES06 = 50	CES31 = 74	CES56 = 80	CES81 = 83
CES07 = 41	CES32 = 70	CES57 = 79	CES82 = 93
CES08 = 40	CES33 = 77	CES58 = 80	CES83 = 91
CES09 = 29	CES34 = 79	CES59 = 92	CES84 = 91
CES10 = 74	CES35 = 88	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 91	CES86 = 78
CES12 = 63	CES37 = 85	CES62 = 90	CES87 = 84
CES13 = 42	CES38 = 85	CES63 = 81	CES88 = 85
CES14 = 74	CES39 = 95	CES64 = 81	CES89 = 78
CES15 = 71	CES40 = 90	CES65 = 76	CES90 = 84
CES16 = 47	CES41 = 90	CES66 = 78	CES91 = 85
CES17 = 49	CES42 = 84	CES67 = 76	CES92 = 71
CES18 = 56	CES43 = 81	CES68 = 80	CES93 = 84
CES19 = 71	CES44 = 99	CES69 = 86	CES94 = 65
CES20 = 65	CES45 = 87	CES70 = 73	CES95 = 77
CES21 = 86	CES46 = 85	CES71 = 70	CES96 = 83
CES22 = 78	CES47 = 84	CES72 = 90	CES97 = 87
CES23 = 91	CES48 = 79	CES73 = 65	CES98 = 81
CES24 = 90	CES49 = 84	CES74 = 98	CES99 = 75
CES25 = 71	CES50 = 91	CES75 = 68	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)