

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: P1438296

Luminaire Tested: **GALN-SB2D-830-U-T4LG-HSS**

Issue Date: 03/27/202

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: P1438296  
 Test Lab: INNOVATION CENTER(G1)  
 Issue Date: 03/27/202  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: McGRAW-EDISON  
 Catalog Number: GALN-SB2D-830-U-T4LG-HSS  
 Description: GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 2xLight  
 Square PACKAGE 80CRI 3000K FIXTURE w/ TYPE IV LOW GLARE WITH HOUSE SIDE  
 SHIELD  
 Light Source: (52) 3000K 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

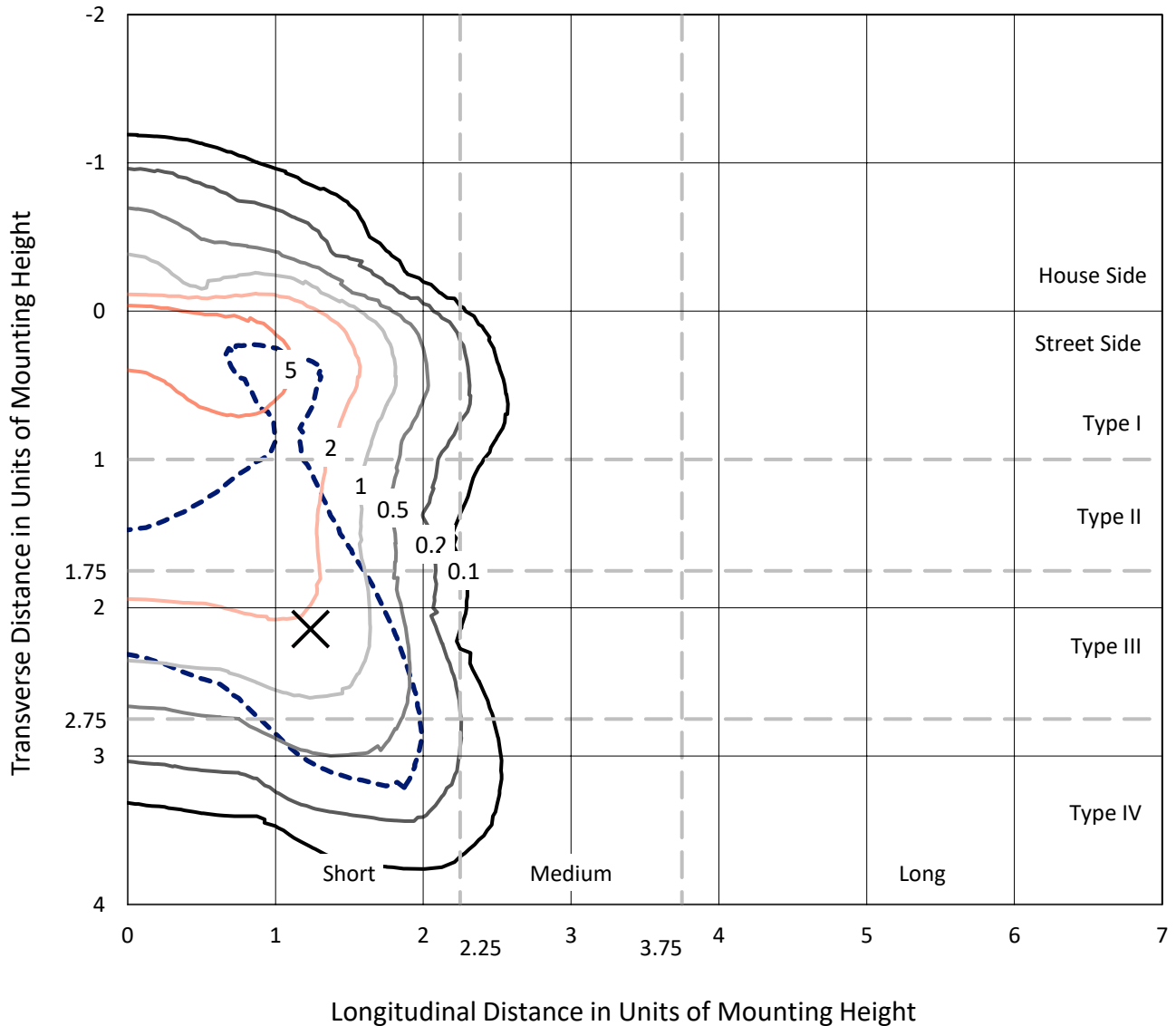
**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 13254.8 lumens  
 Efficiency: N/A  
 Efficacy: 89.8 lumens/watt  
 Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
 IES Classification: Type IV - Short  
 BUG Rating: B1 - U0 - G2  
  
 Input Watts (W): 147.6  
 Input Voltage (V): 120  
 Input Current (A<sub>in</sub>): 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: P1438296  
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### Iso-Footcandle Lines of Horizontal Illumination

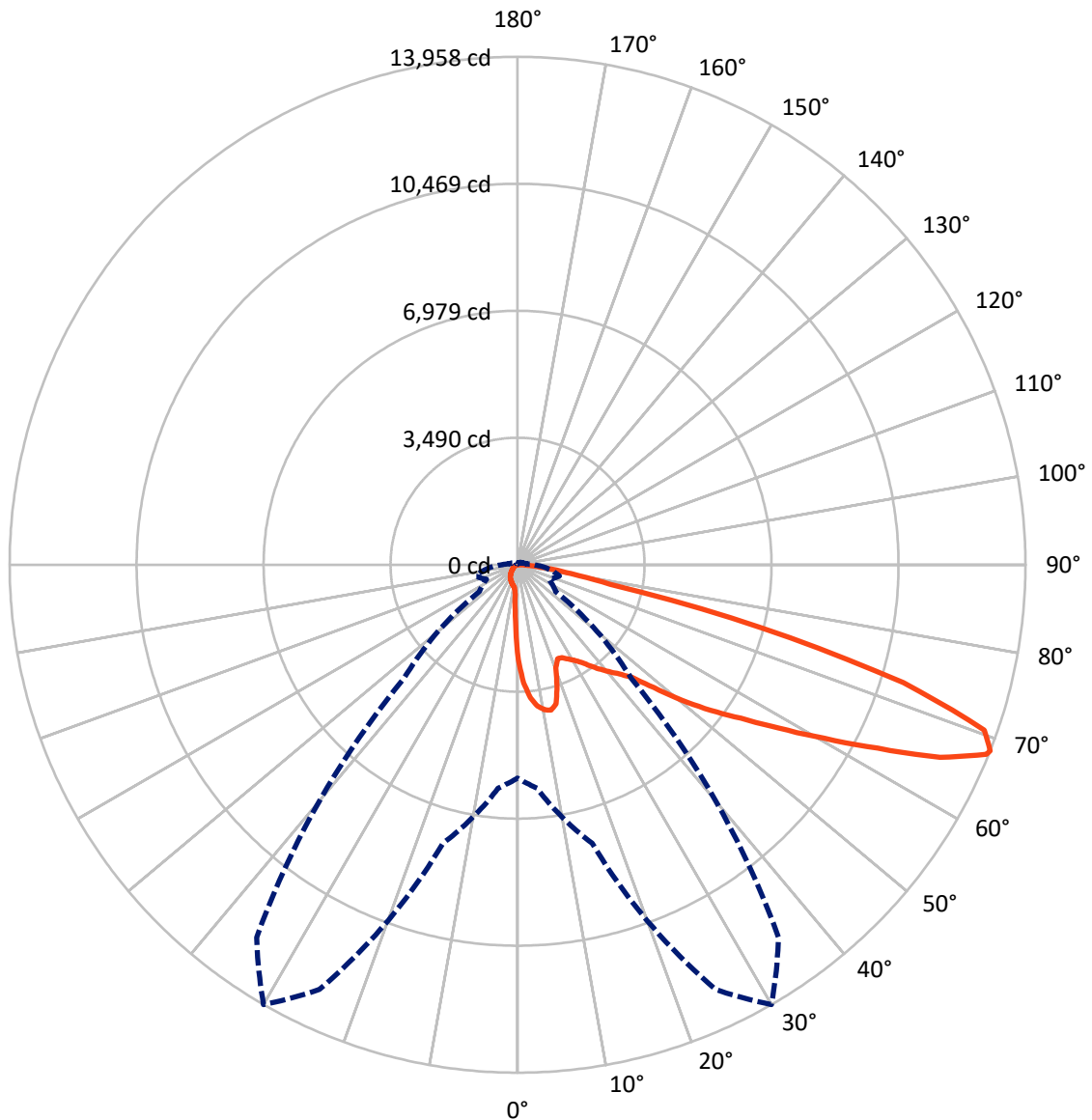
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 30-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1011.7	0.0	1011.7
	% Fixture	7.6	0.0	7.6
<b>Street Side</b>	Lumens	12243.1	0.0	12243.1
	% Fixture	92.4	0.0	92.4
<b>Total</b>	Lumens	13254.8	0.0	13254.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.5	1.7
10°-20°	643.9	4.9
20°-30°	1011.8	7.6
30°-40°	1587.0	12.0
40°-50°	2372.1	17.9
50°-60°	3155.6	23.8
60°-70°	3050.5	23.0
70°-80°	1096.5	8.3
80°-90°	111.9	0.8
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°	13254.8	100.0
0°-180°	13254.8	100.0

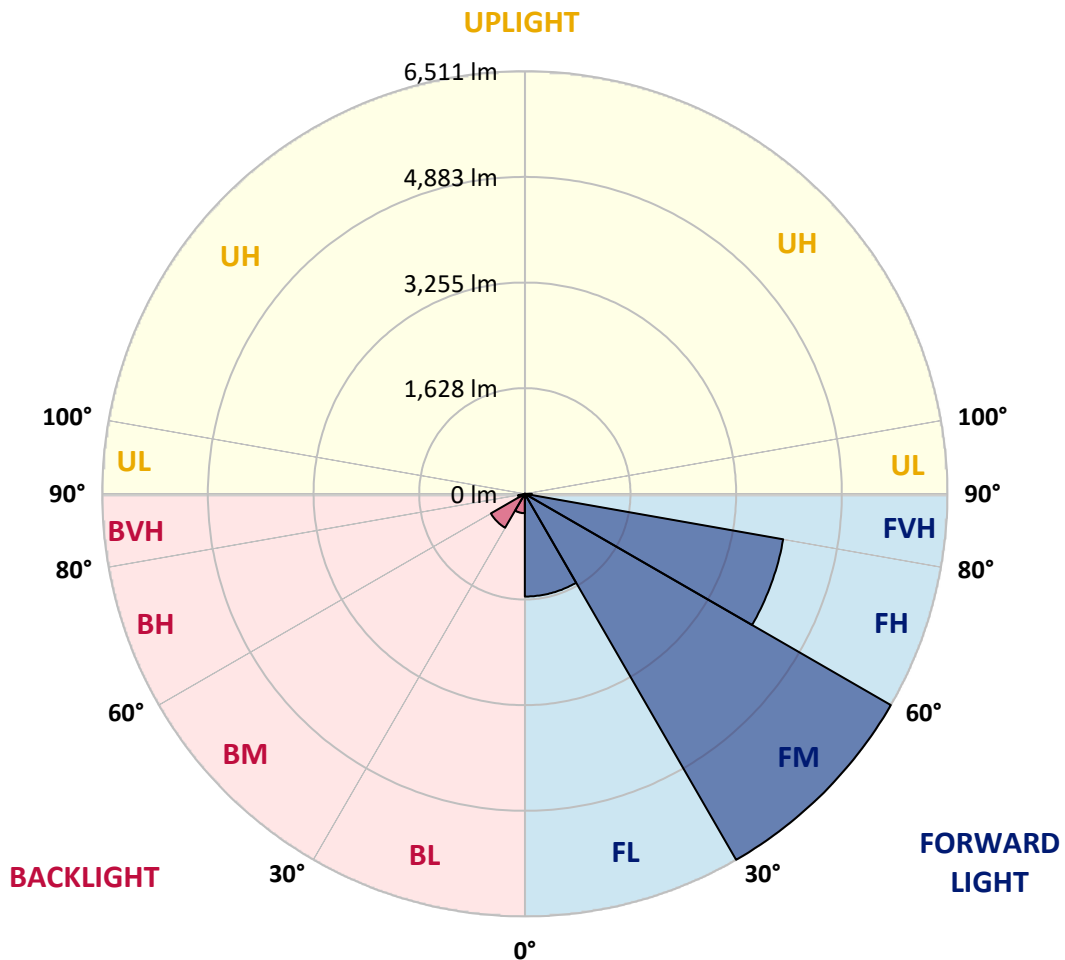


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1582.6	11.9			
FM (30°-60°)	6510.8	49.1			
FH (60°-80°)	4041.8	30.5			G2/5000
FVH (80°-90°)	107.9	0.8			G2/225
BL (0°-30°)	298.6	2.3	B1/500		
BM (30°-60°)	603.9	4.6	B1/1000		
BH (60°-80°)	105.2	0.8	B0/110		G0/110
BVH (80°-90°)	4.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	30°	35°	45°	55°	65°	75°	85°
0°	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7
2.5°	3340.6	3340.6	3316.8	3285.0	3249.2	3237.3	3169.8	3074.5	2975.2	2860.0	2693.1
5°	3769.6	3765.6	3718.0	3718.0	3670.3	3626.6	3559.1	3420.0	3261.2	3054.6	2764.6
7.5°	3960.3	3968.2	3948.3	3948.3	3920.5	3888.8	3849.0	3714.0	3527.3	3249.2	2836.1
10°	4027.8	4031.8	4031.8	4059.6	4051.6	4047.6	4043.7	3968.2	3773.6	3447.8	2911.6
12.5°	3864.9	3884.8	3940.4	4063.5	4103.3	4146.9	4206.5	4182.7	4047.6	3698.1	3026.8
15°	3340.6	3344.6	3499.5	3805.3	3968.2	4135.0	4365.4	4413.1	4325.7	3968.2	3146.0
17.5°	2756.7	2768.6	2891.7	3233.3	3495.5	3880.8	4456.8	4651.4	4619.6	4234.3	3257.2
20°	2514.4	2530.3	2589.9	2804.4	3003.0	3360.5	4365.4	4877.8	4889.7	4500.5	3360.5
22.5°	2458.8	2470.7	2518.4	2685.2	2808.3	3046.7	4055.6	5056.6	5195.6	4806.3	3483.6
25°	2442.9	2454.8	2526.3	2709.0	2824.2	3022.8	3773.6	5151.9	5557.1	5124.1	3602.8
27.5°	2431.0	2446.9	2562.1	2796.4	2931.5	3122.1	3721.9	5171.8	5902.6	5461.7	3797.4
30°	2446.9	2470.7	2621.6	2887.8	3042.7	3257.2	3845.1	5191.6	6284.0	5847.0	4043.7
32.5°	2510.4	2530.3	2713.0	3010.9	3189.7	3432.0	4055.6	5310.8	6645.4	6240.3	4278.0
35°	2581.9	2609.7	2828.2	3185.7	3400.2	3674.3	4341.6	5545.2	6991.0	6613.7	4520.3
37.5°	2669.3	2701.1	2963.2	3384.3	3630.6	3940.4	4651.4	5870.9	7296.9	6919.5	4762.6
40°	2788.5	2824.2	3118.2	3594.8	3861.0	4170.8	4957.3	6192.6	7531.2	7102.2	4921.5
42.5°	3257.2	3304.8	3428.0	3801.4	4099.3	4417.1	5259.2	6498.5	7618.6	7161.8	4953.3
45°	4131.1	4178.7	4146.9	4218.4	4417.1	4715.0	5588.8	6792.4	7630.5	7145.9	4937.4
47.5°	5008.9	5064.5	5036.7	4997.0	5040.7	5183.7	5958.3	6979.1	7567.0	7138.0	4937.4
50°	5847.0	5815.3	5819.2	5807.3	5847.0	5922.5	6315.8	7014.9	7551.1	7213.5	4981.1
52.5°	6295.9	6311.8	6411.1	6558.1	6645.4	6720.9	6724.9	7070.5	7435.9	7086.4	4929.5
55°	6736.8	6768.6	6999.0	7249.2	7443.9	7586.8	7134.0	7034.7	6748.7	6661.3	4659.4
57.5°	7233.3	7277.0	7602.7	8119.1	8460.7	8536.2	7539.2	6367.4	5712.0	6053.6	4135.0
60°	7916.5	7968.2	8401.1	9175.7	9684.2	9529.2	7571.0	5306.8	4536.2	5024.8	3412.1
62.5°	8452.8	8556.1	9338.6	10546.1	11106.2	10613.6	6979.1	4067.5	3169.8	3531.3	2490.6
65°	7880.8	8079.4	9354.5	12115.1	12762.6	11888.7	6049.6	2776.5	1787.5	2284.0	1592.8
67.5°	6371.4	6649.4	8305.8	12877.8	13898.6	12560.0	4762.6	1473.7	1024.8	1326.7	838.1
68°	5862.9	6164.8	7920.5	12877.8	13958.2	12500.4	4421.0	1275.1	945.4	1191.7	726.9
70°	4051.6	4266.1	6089.3	12154.8	13608.7	11396.2	2911.6	730.9	711.0	818.3	480.6
72.5°	1986.1	2216.5	3257.2	9632.5	11086.3	8758.6	1326.7	484.6	540.2	599.8	377.4
75°	790.5	838.1	1283.0	4750.7	6927.5	5588.8	695.1	365.4	464.7	468.7	297.9
77.5°	452.8	480.6	711.0	1747.8	2597.8	2498.5	448.9	262.2	369.4	337.6	194.6
80°	254.2	258.2	401.2	921.5	1485.6	1330.7	305.9	190.7	282.0	238.3	131.1
82.5°	127.1	143.0	254.2	508.4	826.2	846.1	162.9	135.1	226.4	170.8	107.2
85°	91.4	99.3	182.7	282.0	381.3	572.0	99.3	67.5	170.8	115.2	75.5
87.5°	47.7	59.6	115.2	139.0	154.9	194.6	47.7	31.8	95.3	67.5	39.7
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: P1438296

CATALOG NUMBER: GALN-SB2D-830-U-T4LG-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7	2613.7
2.5°	2613.7	2522.3	2335.6	2117.2	1946.4	1771.6	1628.6	1493.5	1430.0	1422.0	1437.9
5°	2601.8	2403.2	1978.1	1561.1	1219.5	981.1	850.0	782.5	746.8	730.9	734.9
7.5°	2577.9	2276.1	1596.8	1056.6	790.5	687.2	655.4	643.5	639.5	639.5	639.5
10°	2554.1	2105.3	1223.4	774.6	647.5	619.7	611.7	611.7	607.7	607.7	611.7
12.5°	2542.2	1946.4	949.3	647.5	603.8	591.9	583.9	579.9	579.9	579.9	583.9
15°	2514.4	1771.6	766.6	599.8	576.0	560.1	556.1	552.1	552.1	552.1	552.1
17.5°	2490.6	1600.8	667.3	568.0	548.2	532.3	528.3	524.3	524.3	528.3	528.3
20°	2454.8	1437.9	599.8	536.2	520.4	504.5	500.5	496.5	500.5	500.5	500.5
22.5°	2411.1	1302.9	560.1	512.4	492.5	476.7	476.7	476.7	476.7	476.7	480.6
25°	2383.3	1207.5	532.3	484.6	464.7	452.8	448.9	448.9	456.8	456.8	460.8
27.5°	2427.0	1183.7	536.2	476.7	440.9	429.0	425.0	425.0	433.0	436.9	440.9
30°	2558.1	1227.4	583.9	500.5	425.0	405.2	401.2	401.2	413.1	417.1	421.1
32.5°	2709.0	1318.8	655.4	532.3	413.1	381.3	373.4	373.4	385.3	389.3	393.2
35°	2915.6	1461.8	750.7	560.1	421.1	357.5	341.6	341.6	349.6	357.5	361.5
37.5°	3181.7	1696.1	862.0	579.9	421.1	329.7	309.8	305.9	313.8	313.8	317.8
40°	3459.8	2002.0	977.2	579.9	401.2	301.9	282.0	270.1	274.1	270.1	274.1
42.5°	3614.7	2248.2	1076.5	544.2	377.4	274.1	254.2	238.3	234.4	226.4	230.4
45°	3702.1	2359.5	1048.7	504.5	353.5	254.2	230.4	210.5	202.6	190.7	190.7
47.5°	3702.1	2371.4	897.7	472.7	329.7	238.3	206.6	186.7	174.8	162.9	166.8
50°	3658.4	2264.1	711.0	440.9	301.9	222.4	186.7	170.8	154.9	147.0	147.0
52.5°	3475.7	1914.6	544.2	401.2	270.1	202.6	166.8	150.9	135.1	131.1	131.1
55°	3161.8	1406.1	440.9	361.5	242.3	186.7	150.9	139.0	123.1	115.2	115.2
57.5°	2570.0	961.3	365.4	325.7	214.5	166.8	135.1	123.1	103.3	95.3	95.3
60°	1906.6	627.6	309.8	286.0	182.7	150.9	119.2	103.3	87.4	79.4	75.5
62.5°	1287.0	425.0	258.2	226.4	154.9	131.1	103.3	87.4	67.5	51.6	51.6
65°	802.4	329.7	214.5	178.7	135.1	115.2	87.4	67.5	47.7	35.7	31.8
67.5°	460.8	266.1	174.8	139.0	115.2	91.4	67.5	55.6	39.7	27.8	23.8
68°	425.0	254.2	162.9	131.1	107.2	87.4	63.6	51.6	35.7	23.8	23.8
70°	345.6	226.4	139.0	107.2	91.4	71.5	55.6	43.7	27.8	15.9	15.9
72.5°	305.9	190.7	119.2	83.4	63.6	59.6	43.7	31.8	19.9	11.9	7.9
75°	250.2	150.9	95.3	63.6	43.7	43.7	31.8	19.9	7.9	0.0	0.0
77.5°	162.9	111.2	75.5	39.7	23.8	27.8	19.9	7.9	0.0	0.0	0.0
80°	107.2	83.4	51.6	19.9	11.9	11.9	4.0	0.0	0.0	0.0	0.0
82.5°	75.5	55.6	31.8	7.9	4.0	4.0	0.0	0.0	0.0	0.0	0.0
85°	47.7	23.8	11.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	19.9	7.9	4.0	0.0	0.0	0.0	0.0	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: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-184-9  
 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-830-U-5WQ**  
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3000K CCT 26 LEDS

**Spectral Parameters**

CCT (K): 3055  
 CIE u': 0.2475  
 CIE v': 0.5247  
 Duv: 0.0032  
 CIE x: 0.4377  
 CIE y: 0.4124  
 CIE z: 0.1499  
 Peak Wavelength (nm): 604  
 Dominant Wavelength (nm): 581  
 Purity: 55.16339  
 Rf: 81.5  
 Rg: 99.2

CRI (Ra):	80.9		
R1:	79.5	R9:	6.8
R2:	85.6	R10:	67.1
R3:	92.1	R11:	82.5
R4:	82.4	R12:	63.4
R5:	78.9	R13:	80.2
R6:	81.7	R14:	95.1
R7:	85.1	R15:	71.7
R8:	61.9		



**Test Conditions**

Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 25.2

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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**

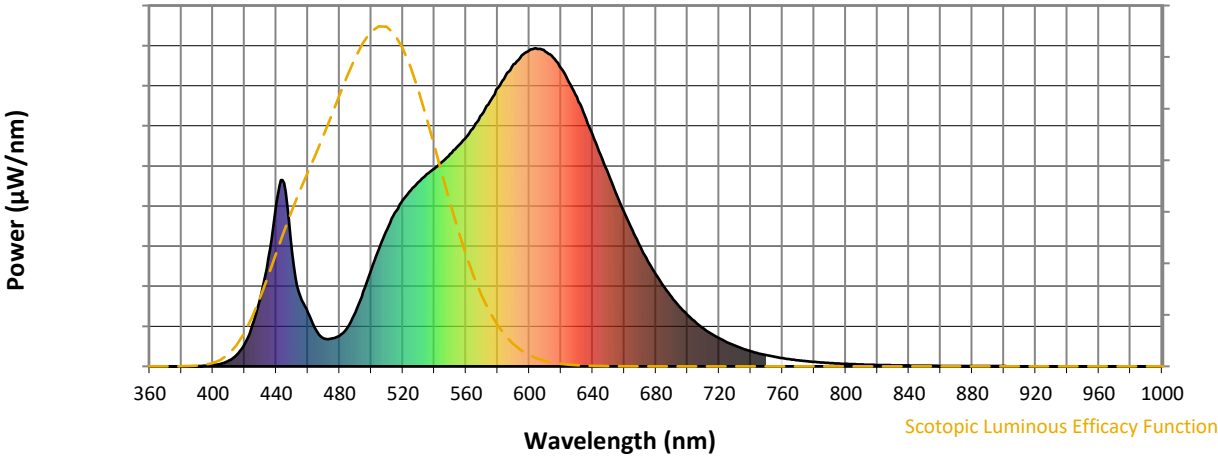


**Photopic Lumens: NR**

$\lambda$ (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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.28**

$\lambda$ (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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.33**

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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

**Summary**

$R_f = 81.5$   
 $R_g = 99.2$   
 $CIE R_a = 80.9$   
 $R_9 = 6.8$



**Color Vector Graphics**



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

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	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 = 93
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 = 90	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 77	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)