

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: P636985

Luminaire Tested: GWS-SA4B-830-U-SL2-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636985
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-29)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4B-830-U-SL2-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9793.2 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

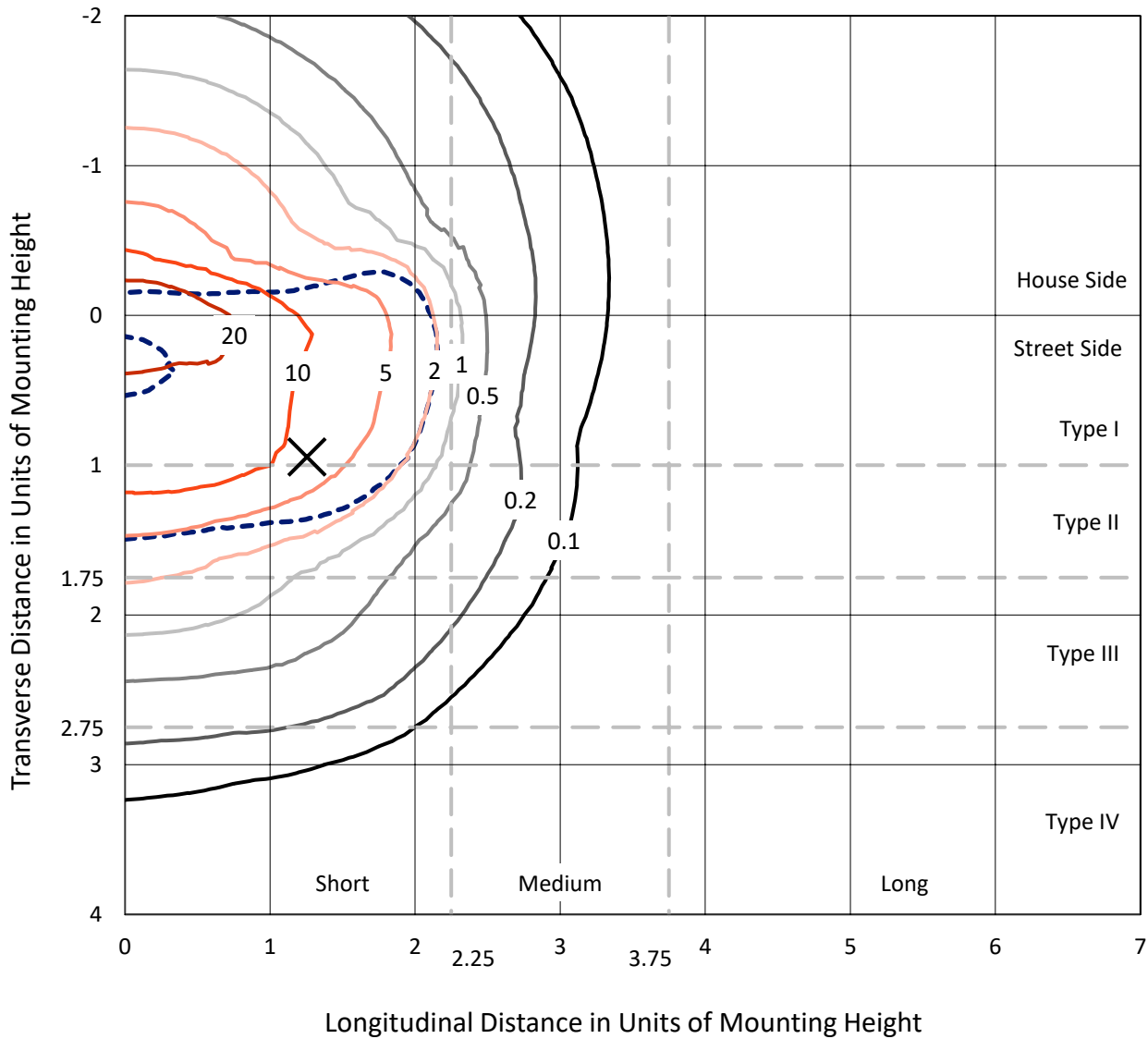
Input Watts (W): 94.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

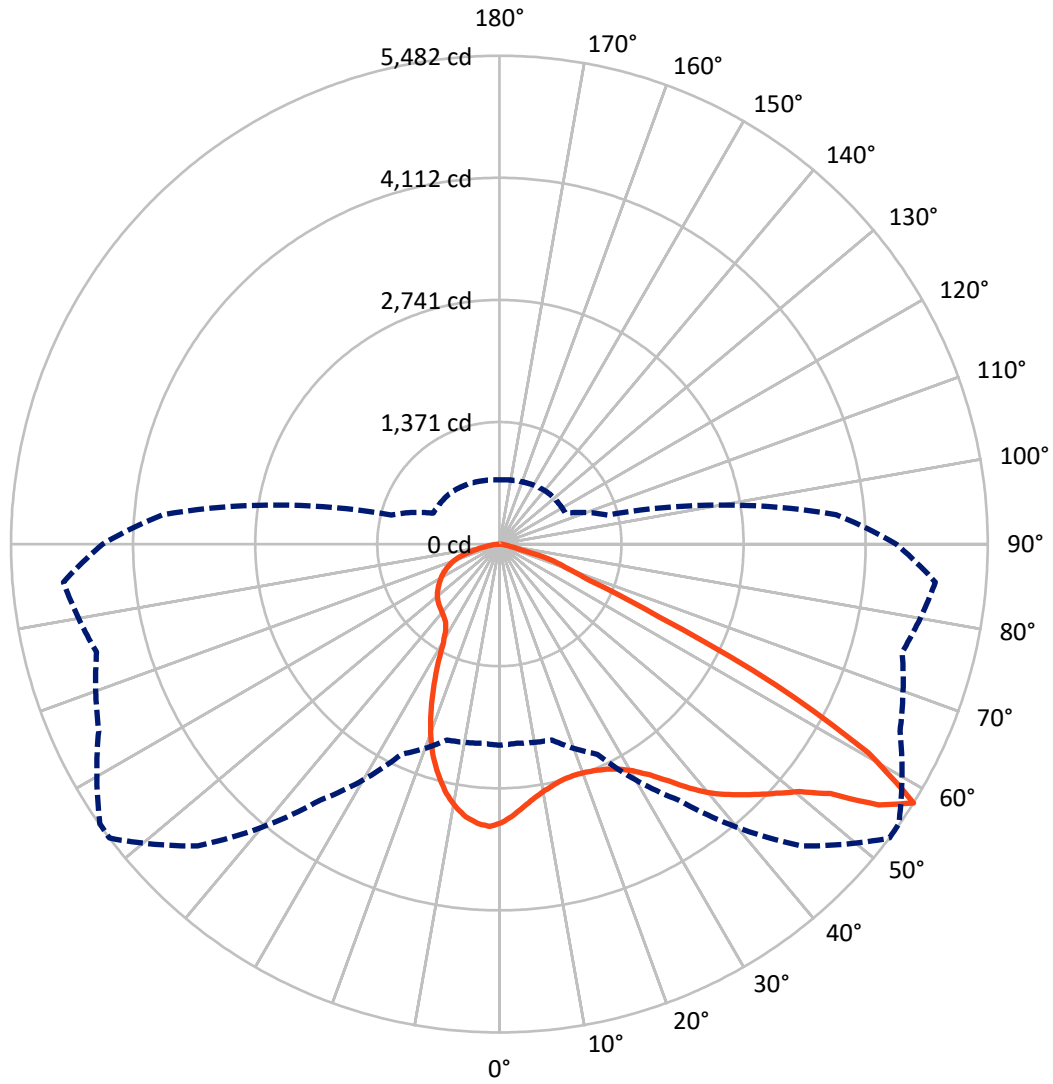
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 31.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 53-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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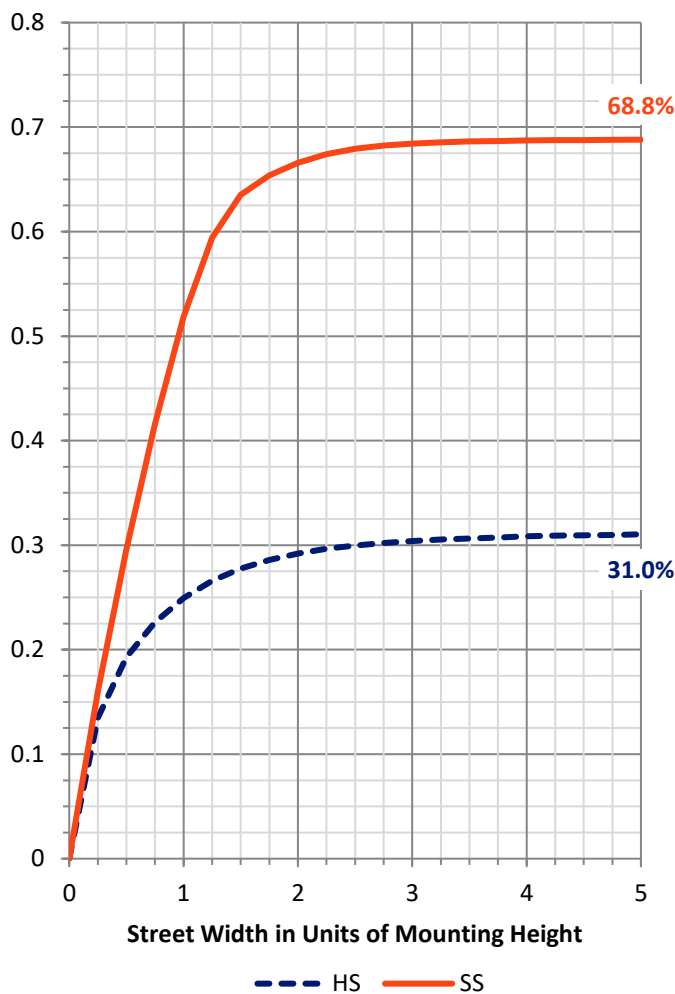
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3062.0	0.0	3062.0
	% Fixture	31.3	0.0	31.3
Street Side	Lumens	6731.2	0.0	6731.2
	% Fixture	68.7	0.0	68.7
Total	Lumens	9793.2	0.0	9793.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.8	2.9
10°-20°	741.9	7.6
20°-30°	1093.1	11.2
30°-40°	1530.1	15.6
40°-50°	2011.4	20.5
50°-60°	2358.4	24.1
60°-70°	1389.3	14.2
70°-80°	345.6	3.5
80°-90°	40.5	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°	9793.2	100.0
0°-180°	9793.2	100.0

Coefficient of Utilization



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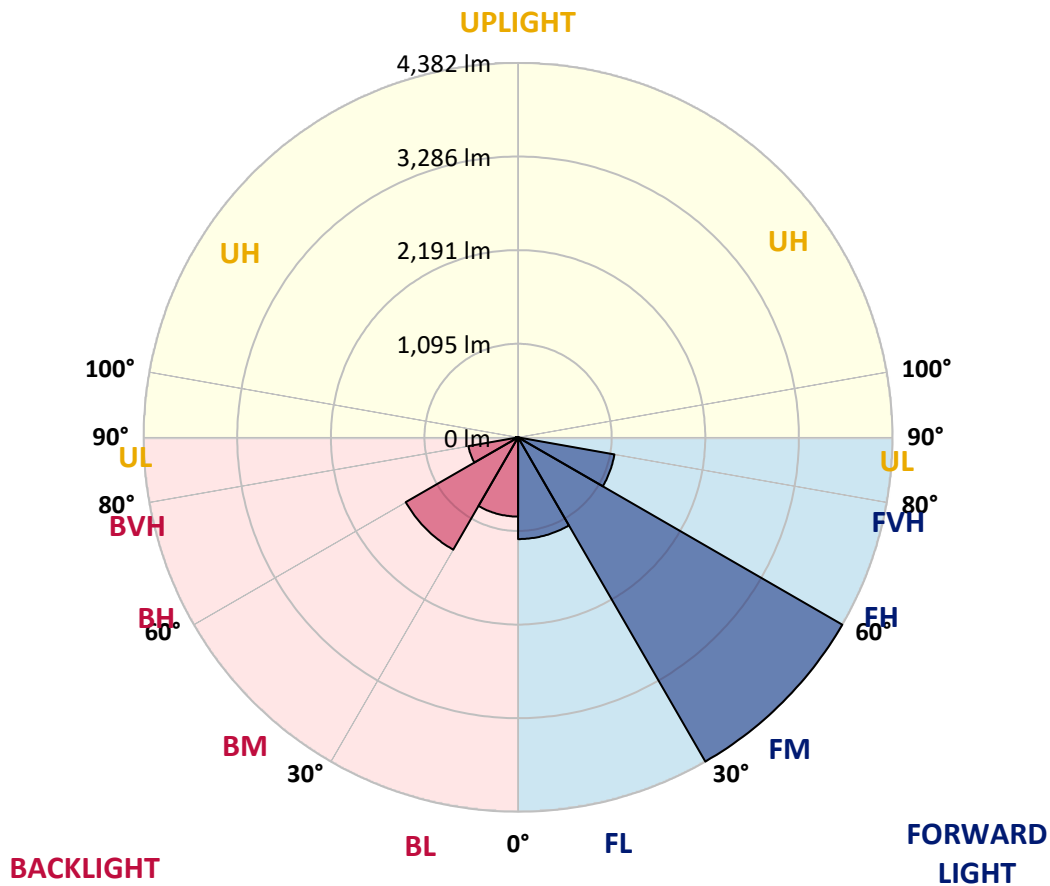
CATALOG NUMBER: GWS-SA4B-830-U-SL2-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1190.7	12.2			
FM (30°-60°)	4381.6	44.7			
FH (60°-80°)	1145.4	11.7			G1/1800
FVH (80°-90°)	13.6	0.1			G1/100
BL (0°-30°)	927.2	9.5	B2/1000		
BM (30°-60°)	1518.3	15.5	B2/2500		
BH (60°-80°)	589.5	6.0	B2/1000		G2/1000
BVH (80°-90°)	27.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2
2.5°	2947.5	2955.8	2957.4	2983.0	2984.6	3021.7	3046.5	3041.5	3067.1	3098.4	3123.1
5°	2806.6	2807.4	2815.7	2846.2	2862.6	2911.3	2952.5	2952.5	3001.9	3066.2	3121.5
7.5°	2690.4	2689.6	2697.0	2730.8	2758.0	2816.5	2872.5	2879.1	2948.4	3042.3	3132.2
10°	2582.4	2588.2	2596.4	2637.6	2672.2	2744.8	2811.5	2822.3	2909.6	3025.8	3147.0
12.5°	2513.2	2514.0	2526.3	2572.5	2617.0	2694.5	2764.6	2777.7	2878.3	3010.2	3157.7
15°	2468.7	2469.5	2482.7	2533.8	2585.7	2664.0	2735.7	2750.5	2860.2	3007.7	3178.3
17.5°	2448.9	2448.0	2460.4	2511.5	2568.4	2650.0	2726.6	2744.8	2868.4	3026.7	3214.6
20°	2448.9	2449.7	2456.3	2502.4	2560.1	2646.7	2735.7	2758.0	2900.6	3069.5	3270.7
22.5°	2483.5	2486.8	2490.1	2521.4	2566.7	2651.6	2759.6	2789.3	2969.8	3141.2	3344.0
25°	2551.1	2551.9	2555.2	2580.8	2601.4	2665.6	2799.2	2843.7	3077.8	3245.9	3436.3
27.5°	2641.7	2653.3	2656.6	2673.1	2673.1	2700.3	2861.0	2925.3	3223.7	3396.8	3554.2
30°	2768.7	2772.8	2778.6	2796.7	2776.9	2765.4	2951.7	3034.1	3392.6	3578.9	3696.0
32.5°	2880.0	2889.0	2920.3	2950.0	2914.6	2878.3	3085.2	3182.5	3555.0	3768.5	3846.8
35°	2974.7	2997.0	3057.2	3123.1	3098.4	3062.1	3262.4	3363.8	3688.6	3904.5	3980.3
37.5°	3089.3	3106.6	3189.1	3296.2	3318.5	3301.2	3478.4	3550.9	3777.6	3939.1	4052.9
40°	3205.5	3231.9	3338.2	3486.6	3571.5	3583.9	3677.8	3726.5	3808.1	3871.5	4038.9
42.5°	3324.2	3369.6	3515.5	3688.6	3839.4	3867.4	3846.0	3866.6	3798.2	3778.4	3973.7
45°	3469.3	3522.9	3687.7	3908.6	4107.3	4151.0	4010.8	3991.9	3796.5	3743.0	3933.4
47.5°	3640.7	3694.3	3851.8	4108.9	4362.8	4394.9	4179.8	4145.2	3854.2	3797.4	3987.8
50°	3792.4	3829.5	3970.4	4258.1	4601.0	4620.0	4366.1	4324.1	3997.6	3948.2	4157.6
52.5°	3638.3	3634.2	3782.5	4136.9	4724.6	4953.0	4652.9	4612.5	4274.6	4198.8	4420.5
55°	3086.8	3039.9	3172.6	3521.2	4379.3	5248.9	5167.3	5086.5	4643.9	4451.0	4666.9
57.5°	2256.8	2243.6	2275.8	2603.0	3508.0	4790.6	5482.1	5474.7	4962.9	4681.8	4912.6
60°	1764.7	1745.0	1659.2	1668.3	2391.2	3742.1	4757.6	4976.0	5160.7	4820.3	5084.0
62.5°	1566.9	1552.1	1507.6	1384.8	1424.3	2509.0	3487.4	3687.7	4509.5	4257.3	4366.9
65°	1297.4	1293.3	1330.4	1325.4	1193.5	1385.6	1968.3	2170.3	2835.4	2870.9	2835.4
67.5°	943.0	935.5	1029.5	1215.0	1149.0	1046.0	1097.1	1167.1	1454.0	1305.6	1175.4
70°	613.2	602.5	656.9	877.8	1028.7	911.6	790.5	778.9	799.5	497.0	537.4
72.5°	411.3	398.9	398.1	483.0	621.5	614.1	612.4	606.7	541.5	392.3	435.2
75°	229.1	219.3	216.8	208.5	222.5	226.7	241.5	249.8	270.4	297.6	329.7
77.5°	38.7	37.9	47.8	61.0	84.1	108.0	133.5	140.9	173.9	206.1	226.7
80°	21.4	22.3	28.8	35.4	47.0	64.3	82.4	87.4	107.2	124.5	140.9
82.5°	11.5	11.5	14.8	19.0	25.6	33.8	44.5	48.6	61.8	72.5	84.1
85°	4.1	4.1	5.8	7.4	10.7	14.0	17.3	19.8	27.2	37.1	42.0
87.5°	0.0	0.0	0.0	0.0	0.8	1.6	3.3	3.3	4.1	7.4	10.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2	3127.2
2.5°	3143.7	3121.5	3152.0	3166.0	3170.9	3174.2	3152.8	3137.9	3133.0	3117.3	3108.3
5°	3155.3	3140.4	3169.3	3169.3	3148.7	3127.2	3083.5	3053.1	3031.6	3006.1	3001.9
7.5°	3175.0	3164.3	3180.0	3147.8	3095.9	3038.2	2962.4	2903.0	2855.2	2823.9	2824.7
10°	3201.4	3188.2	3175.9	3104.2	3009.4	2903.0	2786.8	2700.3	2621.1	2584.9	2565.1
12.5°	3218.7	3199.8	3147.8	3029.1	2889.8	2747.3	2583.2	2454.6	2340.1	2288.1	2284.0
15°	3240.2	3205.5	3101.7	2931.9	2738.2	2543.7	2332.6	2153.8	1998.8	1918.0	1913.9
17.5°	3268.2	3211.3	3046.5	2820.6	2578.3	2291.4	2026.0	1801.0	1636.2	1573.5	1584.2
20°	3307.7	3217.9	2983.8	2697.0	2379.6	2004.6	1674.1	1467.2	1403.7	1399.6	1391.3
22.5°	3352.3	3222.0	2914.6	2558.5	2138.9	1698.8	1383.1	1294.9	1294.1	1314.7	1319.6
25°	3402.5	3225.3	2836.3	2396.9	1878.5	1393.8	1223.2	1196.8	1217.4	1256.2	1261.1
27.5°	3466.8	3231.9	2741.5	2219.7	1601.5	1204.2	1135.0	1128.4	1153.1	1189.4	1187.8
30°	3561.6	3255.8	2640.9	2016.1	1317.2	1114.4	1081.4	1082.3	1092.1	1109.5	1111.9
32.5°	3658.1	3292.9	2542.8	1787.0	1154.0	1063.3	1048.5	1046.8	1046.8	1054.2	1055.9
35°	3749.5	3334.9	2436.5	1548.0	1074.8	1033.6	1023.7	1018.8	1016.3	1014.7	1012.2
37.5°	3800.7	3355.6	2332.6	1312.2	1032.8	1013.8	1003.9	997.4	988.3	981.7	980.0
40°	3778.4	3331.6	2212.3	1135.8	1007.2	994.9	983.3	974.3	961.9	956.1	952.8
42.5°	3704.2	3257.5	2081.3	1052.6	986.6	974.3	960.3	945.4	937.2	932.2	931.4
45°	3625.9	3167.6	1923.0	1003.9	966.9	952.0	935.5	919.0	910.0	907.5	906.7
47.5°	3623.4	3123.1	1754.8	965.2	943.0	928.1	907.5	891.0	881.1	877.8	874.5
50°	3732.2	3168.4	1565.3	931.4	918.2	902.6	879.5	861.3	849.0	844.9	844.0
52.5°	3958.1	3339.1	1395.5	897.6	885.3	867.1	848.2	830.0	815.2	807.8	806.9
55°	4202.1	3555.8	1290.0	863.0	846.5	830.9	813.5	793.8	777.3	765.7	764.1
57.5°	4454.3	3792.4	1257.8	819.3	806.9	796.2	775.6	754.2	735.2	724.5	722.0
60°	4662.0	3996.0	1318.0	773.2	766.6	752.5	733.6	713.0	699.8	691.6	689.9
62.5°	3902.9	3253.3	1064.1	722.9	722.9	708.0	686.6	671.8	662.7	656.9	655.3
65°	2476.9	2014.5	726.2	672.6	671.8	652.0	633.9	624.0	619.8	610.8	609.1
67.5°	1079.0	920.7	620.7	621.5	618.2	596.8	578.6	571.2	563.0	553.1	552.3
70°	559.7	570.4	555.5	564.6	558.8	533.3	516.0	504.4	487.1	477.2	478.1
72.5°	451.7	463.2	479.7	493.7	481.4	460.8	433.6	419.5	397.3	386.6	387.4
75°	344.5	356.9	372.6	387.4	377.5	352.0	334.6	320.6	295.1	282.7	285.2
77.5°	237.4	244.0	262.9	262.1	258.8	251.4	225.8	209.4	183.0	168.1	169.8
80°	147.5	151.7	160.7	164.9	163.2	153.3	132.7	120.3	104.7	95.6	96.4
82.5°	89.0	91.5	99.7	100.6	99.7	92.3	76.7	67.6	57.7	52.8	52.8
85°	45.3	47.0	51.9	51.9	47.0	39.6	35.4	31.3	25.6	23.1	23.1
87.5°	12.4	12.4	15.7	13.2	10.7	9.9	4.9	4.1	1.6	0.8	0.8
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

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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

λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /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			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

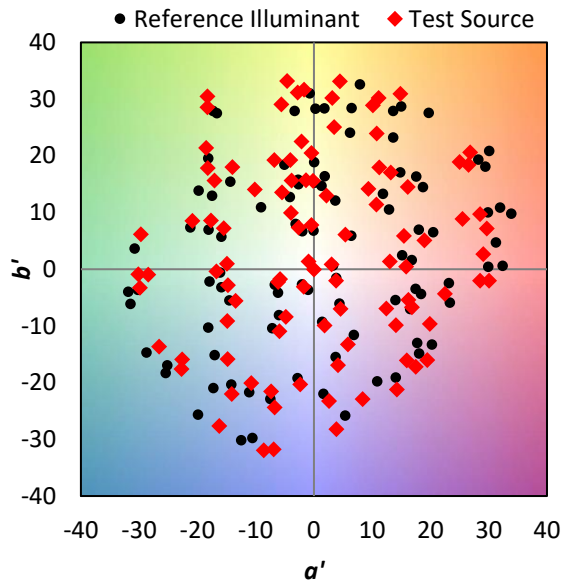
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

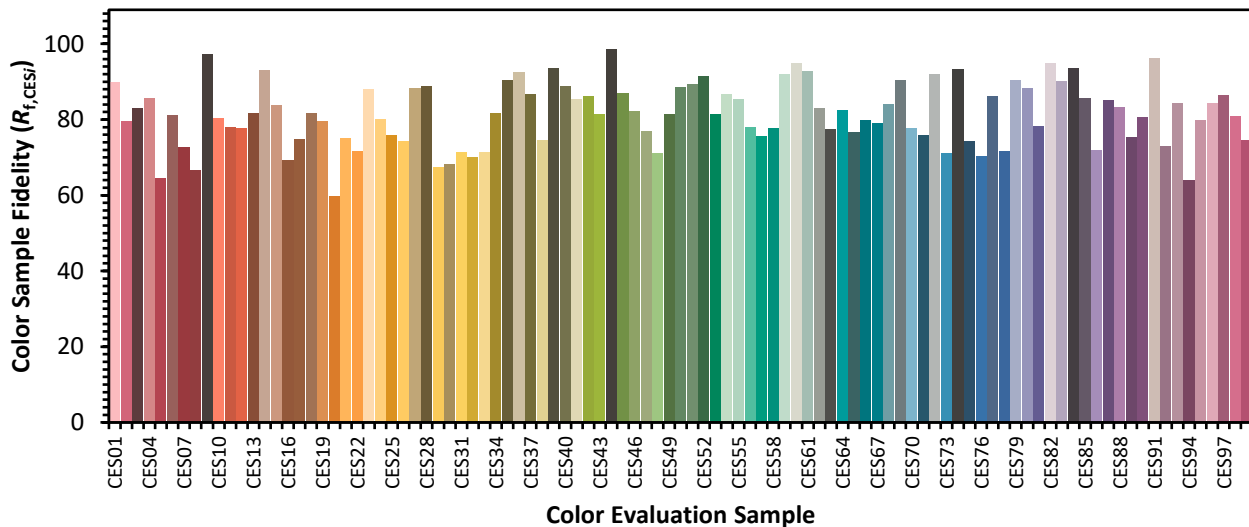


Color Vector Graphics

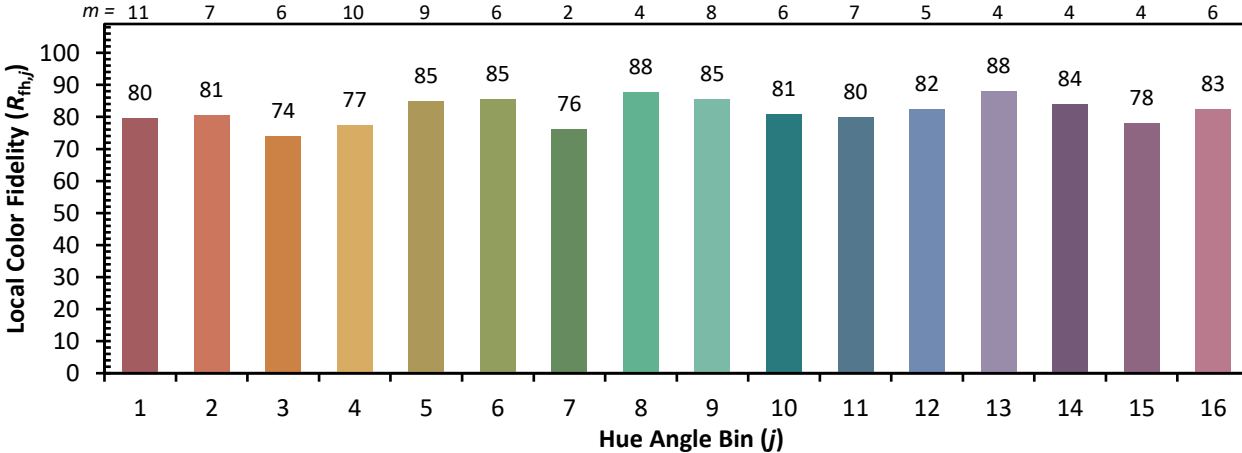


Individual Sample Fidelity Index ($R_{f,i}$)

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)