

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: P640487

Luminaire Tested: GWS-SA5D-830-U-T4W-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-52)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5D-830-U-T4W-W
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23659.7 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

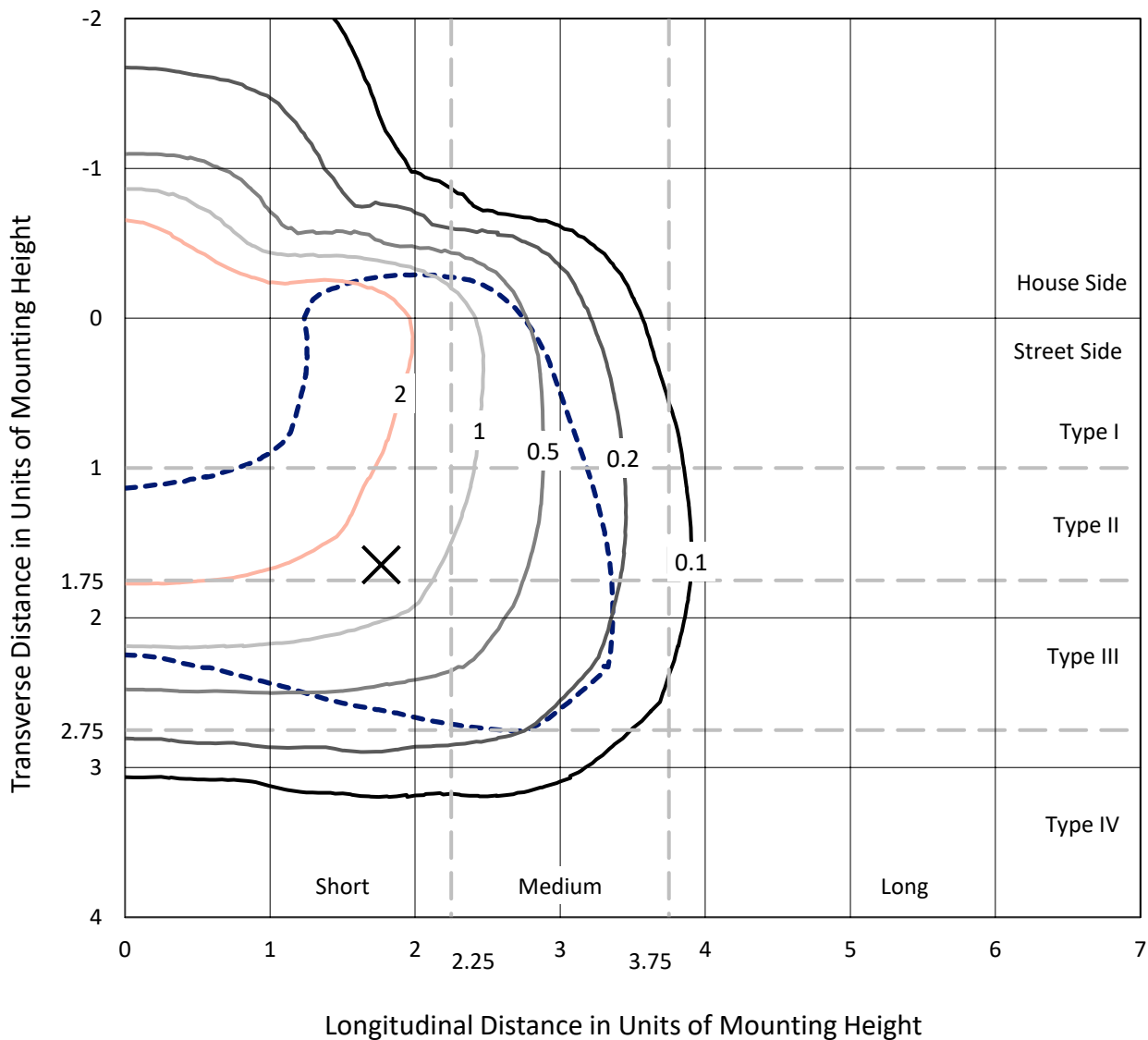
Input Watts (W): 204.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P640487
 CATALOG NUMBER: GWS-SA5D-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination

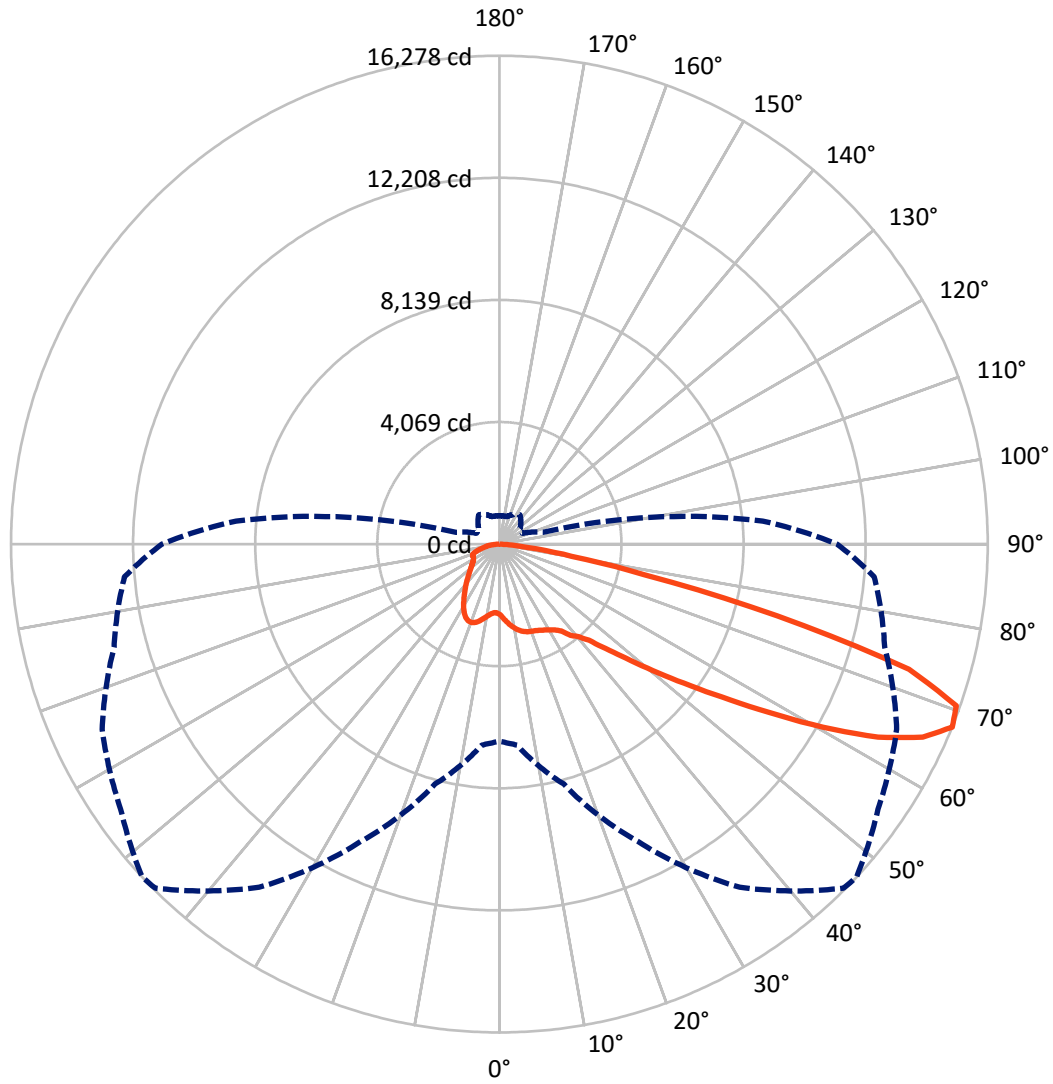
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - N/A

REPORT NUMBER: P640487
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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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CATALOG NUMBER: GWS-SA5D-830-U-T4W-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5392.2	0.0	5392.2
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	18267.5	0.0	18267.5
	% Fixture	77.2	0.0	77.2
Total	Lumens	23659.7	0.0	23659.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.7	1.0
10°-20°	798.6	3.4
20°-30°	1357.4	5.7
30°-40°	1988.5	8.4
40°-50°	3029.7	12.8
50°-60°	5420.8	22.9
60°-70°	7233.4	30.6
70°-80°	3271.1	13.8
80°-90°	320.5	1.4
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°	23659.7	100.0
0°-180°	23659.7	100.0

Coefficient of Utilization



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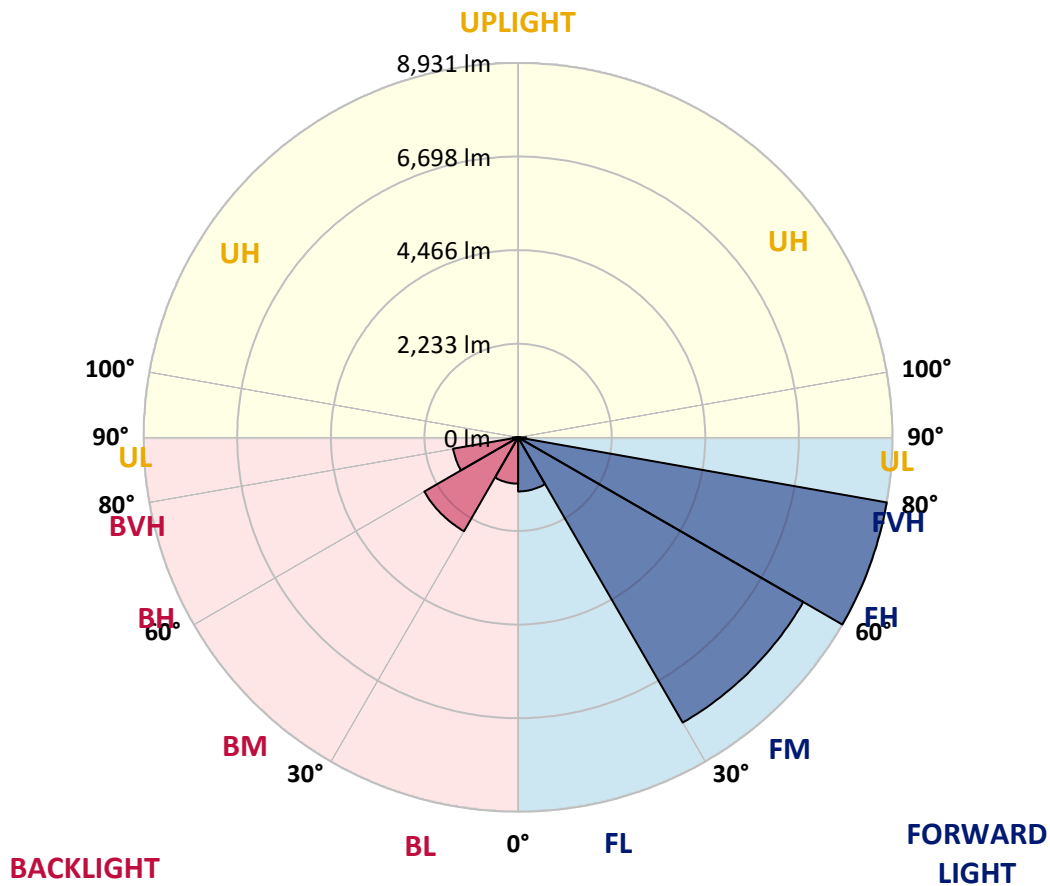
CATALOG NUMBER: GWS-SA5D-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1290.3	5.5			
FM (30°-60°)	7855.3	33.2			
FH (60°-80°)	8931.3	37.7			G4/12000
FVH (80°-90°)	190.6	0.8			G2/225
BL (0°-30°)	1105.4	4.7	B3/2500		
BM (30°-60°)	2583.7	10.9	B3/5000		
BH (60°-80°)	1573.3	6.6	B3/2500		G3/2500
BVH (80°-90°)	129.8	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





REPORT NUMBER: P640487
 CATALOG NUMBER: GWS-SA5D-830-U-T4W-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4
2.5°	2501.1	2509.7	2507.9	2494.3	2485.7	2470.3	2472.0	2448.1	2412.1	2388.2	2360.8
5°	2721.8	2735.5	2718.4	2696.1	2661.9	2612.3	2607.2	2552.4	2484.0	2436.1	2386.5
7.5°	2913.4	2921.9	2901.4	2863.8	2814.2	2747.4	2735.5	2670.5	2584.9	2509.7	2437.8
10°	3062.2	3072.5	3045.1	2995.5	2930.5	2863.8	2855.2	2788.5	2697.8	2608.9	2518.2
12.5°	3188.8	3192.2	3163.2	3096.4	3026.3	2957.9	2949.3	2887.7	2803.9	2713.2	2614.0
15°	3262.4	3264.1	3228.2	3154.6	3087.9	3028.0	3022.9	2969.8	2892.9	2807.3	2701.3
17.5°	3257.2	3260.7	3235.0	3170.0	3111.8	3075.9	3070.8	3036.6	2976.7	2899.7	2793.6
20°	3194.0	3197.4	3180.3	3137.5	3106.7	3096.4	3098.2	3087.9	3052.0	2988.7	2880.9
22.5°	3144.3	3149.5	3134.1	3103.3	3099.9	3123.8	3128.9	3134.1	3117.0	3060.5	2956.2
25°	3168.3	3176.8	3152.9	3110.1	3117.0	3170.0	3180.3	3197.4	3183.7	3135.8	3045.1
27.5°	3334.2	3339.4	3277.8	3190.5	3170.0	3226.5	3241.9	3269.2	3259.0	3214.5	3144.3
30°	3719.1	3715.7	3584.0	3370.2	3284.6	3306.9	3318.8	3358.2	3361.6	3332.5	3265.8
32.5°	4261.5	4244.3	4040.8	3700.3	3452.3	3397.5	3411.2	3464.2	3503.6	3472.8	3382.1
35°	4834.6	4819.2	4595.0	4196.4	3761.9	3572.0	3556.6	3597.7	3657.6	3572.0	3442.0
37.5°	5380.3	5356.3	5127.1	4634.4	4143.4	3878.2	3856.0	3815.0	3779.0	3614.8	3515.6
40°	5985.9	5958.5	5758.4	5200.7	4564.3	4112.6	4056.2	3893.6	3861.1	3756.8	3707.2
42.5°	6632.5	6632.5	6466.6	5917.5	5072.3	4447.9	4374.4	4129.7	4163.9	4095.5	4037.3
45°	7279.2	7298.0	7166.3	6639.4	5751.5	5080.9	4962.9	4615.6	4697.7	4666.9	4637.8
47.5°	7830.1	7866.0	7840.3	7376.7	6582.9	5850.7	5671.1	5310.1	5486.3	5559.9	5642.0
50°	8423.7	8463.0	8437.4	8254.3	7556.3	6783.1	6622.3	6249.3	6552.1	6772.8	7041.4
52.5°	9304.7	9361.2	9147.3	9077.2	8738.5	7842.0	7698.3	7274.1	7823.2	8189.3	8788.1
55°	10048.9	10047.2	9971.9	10132.7	10007.8	9137.1	8978.0	8593.0	9294.5	9682.8	10558.7
57.5°	10394.5	10435.5	10693.8	11148.9	11398.7	10719.5	10567.2	10173.8	10873.5	11075.3	12021.4
60°	10572.4	10623.7	11123.2	12023.1	12695.4	12447.3	12387.5	11886.2	12279.7	12255.7	13254.8
62.5°	10322.6	10425.3	11227.6	12423.4	13620.9	14183.7	14164.9	13407.1	13475.5	13241.1	14019.5
65°	9176.4	9287.6	10546.7	12223.2	14149.5	15504.4	15509.6	14784.2	14394.2	13720.1	13891.2
67.5°	6562.4	6721.5	8278.3	10936.8	13963.1	16217.8	16277.7	15408.6	14609.7	13295.9	12543.1
70°	3577.2	3693.5	4913.2	7949.8	12283.1	16046.7	16157.9	15107.5	13658.6	11501.3	9655.4
72.5°	1625.2	1662.8	2285.5	4362.4	8391.2	13812.5	14277.8	13482.3	11217.3	8495.5	6139.8
75°	744.2	761.3	995.7	2087.1	4384.6	9243.1	9569.9	10042.0	7806.1	5364.9	3200.8
77.5°	467.0	472.2	566.3	954.6	2186.3	4613.9	4957.7	5979.0	4571.1	2655.1	1337.8
80°	275.4	280.6	352.4	516.6	1026.4	2111.1	2437.8	2364.2	2148.7	1146.2	609.0
82.5°	138.6	143.7	203.6	294.2	559.4	840.0	988.8	993.9	800.6	621.0	343.9
85°	49.6	51.3	66.7	116.3	237.8	277.1	309.6	378.1	391.8	361.0	165.9
87.5°	0.0	0.0	1.7	3.4	6.8	27.4	29.1	54.7	114.6	128.3	66.7
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: P640487
 CATALOG NUMBER: GWS-SA5D-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4	2345.4
2.5°	2352.3	2326.6	2318.1	2309.5	2295.8	2290.7	2280.4	2270.2	2270.2	2259.9	2254.8
5°	2364.2	2330.0	2307.8	2297.5	2289.0	2294.1	2294.1	2297.5	2309.5	2302.7	2306.1
7.5°	2407.0	2367.7	2336.9	2328.3	2328.3	2348.8	2362.5	2379.6	2401.9	2405.3	2405.3
10°	2482.3	2436.1	2403.6	2398.5	2407.0	2436.1	2456.6	2477.2	2504.5	2506.2	2509.7
12.5°	2564.4	2518.2	2485.7	2492.5	2501.1	2538.7	2561.0	2578.1	2605.5	2605.5	2603.7
15°	2649.9	2598.6	2571.2	2584.9	2610.6	2653.4	2656.8	2658.5	2672.2	2668.8	2667.0
17.5°	2738.9	2684.2	2663.6	2684.2	2711.5	2732.1	2714.9	2691.0	2685.9	2679.0	2675.6
20°	2826.1	2769.7	2761.1	2776.5	2785.1	2768.0	2714.9	2670.5	2649.9	2639.7	2636.3
22.5°	2901.4	2853.5	2848.4	2848.4	2805.6	2745.7	2667.0	2607.2	2579.8	2566.1	2562.7
25°	2990.4	2945.9	2937.3	2891.2	2781.7	2672.2	2566.1	2511.4	2489.1	2482.3	2484.0
27.5°	3094.7	3063.9	3036.6	2904.8	2713.2	2542.2	2422.4	2398.5	2389.9	2398.5	2403.6
30°	3223.0	3192.2	3130.7	2887.7	2603.7	2372.8	2258.2	2256.5	2282.1	2304.4	2307.8
32.5°	3327.4	3313.7	3212.8	2833.0	2449.8	2186.3	2088.8	2095.7	2141.8	2172.6	2177.8
35°	3409.5	3431.7	3281.2	2742.3	2266.7	2010.1	1933.1	1936.6	1962.2	2005.0	2006.7
37.5°	3525.8	3601.1	3342.8	2603.7	2056.3	1857.9	1787.7	1762.1	1758.6	1770.6	1774.0
40°	3760.2	3873.1	3387.3	2401.9	1852.7	1721.0	1642.3	1592.7	1549.9	1517.4	1507.2
42.5°	4114.3	4244.3	3412.9	2157.2	1671.4	1585.9	1496.9	1433.6	1358.3	1289.9	1265.9
45°	4764.4	4807.2	3412.9	1897.2	1510.6	1459.3	1370.3	1295.0	1199.2	1118.8	1101.7
47.5°	5804.5	5667.7	3416.3	1645.7	1368.6	1348.1	1271.1	1185.5	1079.5	1012.8	1002.5
50°	7371.6	6890.9	3486.5	1437.0	1250.6	1254.0	1197.5	1103.4	1007.6	958.0	949.5
52.5°	9147.3	8398.0	3674.7	1283.1	1151.3	1177.0	1146.2	1055.5	970.0	927.2	918.7
55°	10817.0	9783.7	3835.5	1173.6	1067.5	1112.0	1110.3	1026.4	949.5	906.7	901.6
57.5°	12236.9	10733.2	3811.5	1084.6	995.7	1052.1	1077.8	1007.6	935.8	899.8	894.7
60°	13119.7	11236.1	3471.1	1002.5	940.9	1009.3	1058.9	1002.5	942.6	934.1	935.8
62.5°	13502.9	11143.8	2817.6	940.9	905.0	988.8	1079.5	1038.4	1005.9	1026.4	1038.4
65°	12907.5	10350.0	2073.4	894.7	870.8	993.9	1127.4	1094.9	1005.9	1019.6	1024.7
67.5°	11255.0	8810.3	1498.6	848.5	828.0	1009.3	1195.8	1086.3	947.8	947.8	937.5
70°	8110.6	6336.6	1088.0	802.3	785.2	987.1	1199.2	1028.2	881.0	875.9	850.2
72.5°	4880.7	3738.0	848.5	751.0	720.2	875.9	1124.0	959.7	816.0	773.3	742.5
75°	2535.3	1873.3	711.7	694.6	617.6	742.5	1028.2	853.7	698.0	660.3	643.2
77.5°	1086.3	875.9	610.7	619.3	513.2	624.4	829.7	739.0	619.3	571.4	556.0
80°	535.5	497.8	482.4	496.1	410.6	482.4	715.1	646.7	525.2	470.5	448.2
82.5°	306.2	290.8	347.3	352.4	292.5	403.7	603.9	547.4	434.5	374.7	338.7
85°	142.0	152.3	210.4	212.1	181.3	277.1	395.2	307.9	230.9	191.6	183.0
87.5°	56.5	66.7	92.4	90.7	53.0	51.3	34.2	18.8	15.4	13.7	12.0
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: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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)