

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: P640945

Luminaire Tested: GWS-SA5E-830-U-SL2-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640945
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-SA5E-830-U-SL2-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25399.7 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

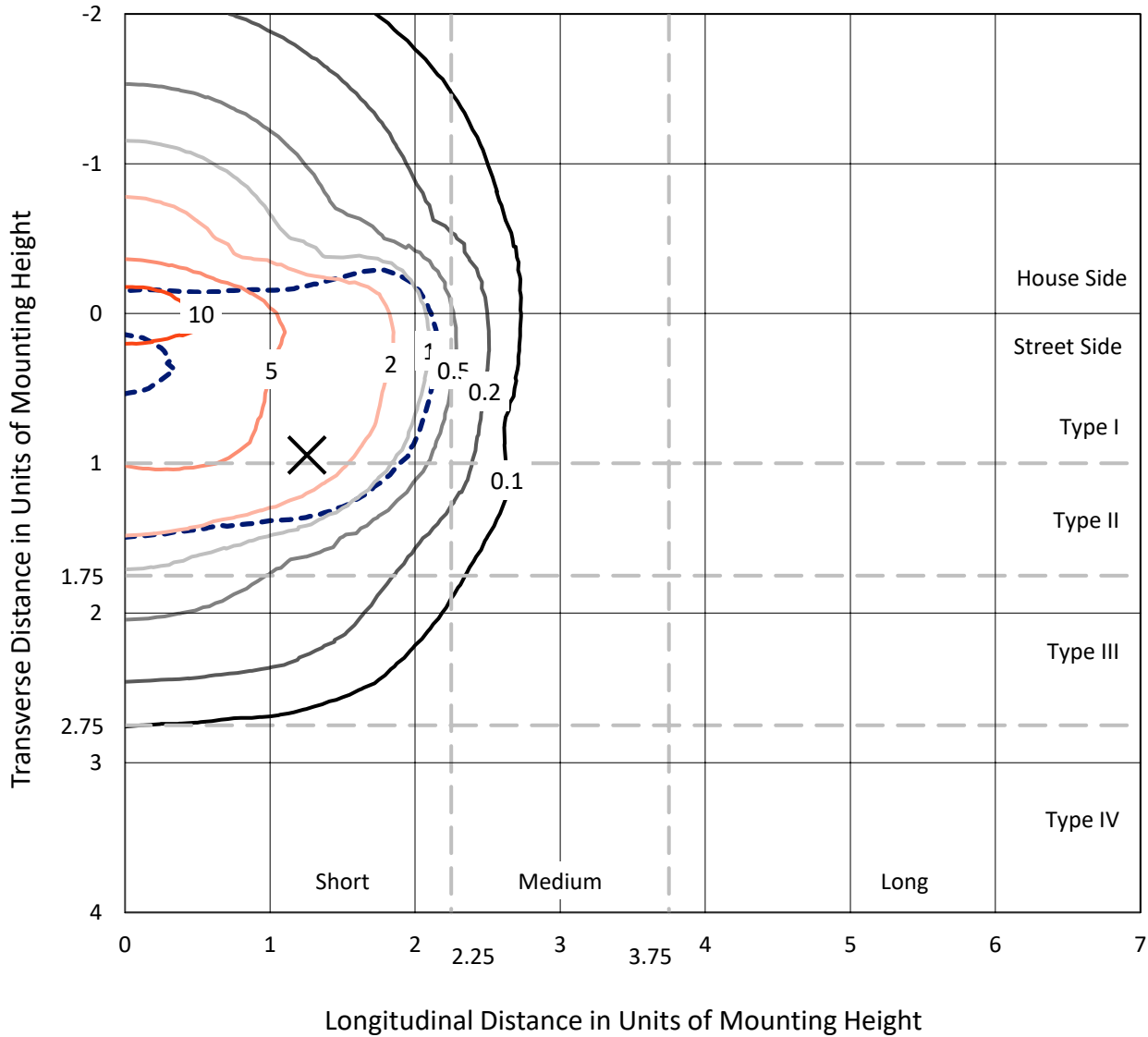
Input Watts (W): 269.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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 CATALOG NUMBER: GWS-SA5E-830-U-SL2-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

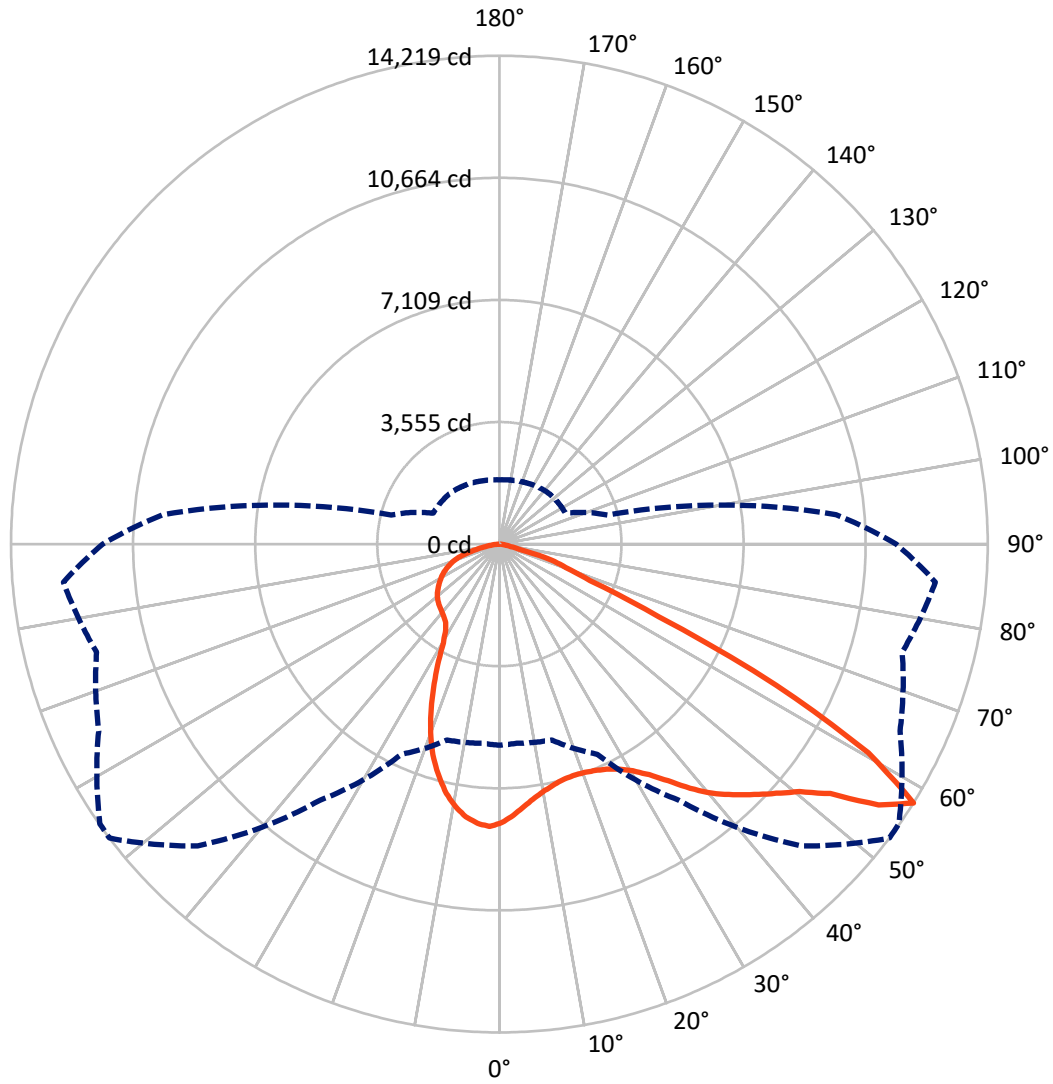
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 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	7941.6	0.0	7941.6
	% Fixture	31.3	0.0	31.3
Street Side	Lumens	17458.2	0.0	17458.2
	% Fixture	68.7	0.0	68.7
Total	Lumens	25399.7	0.0	25399.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	733.5	2.9
10°-20°	1924.3	7.6
20°-30°	2835.1	11.2
30°-40°	3968.4	15.6
40°-50°	5216.8	20.5
50°-60°	6116.7	24.1
60°-70°	3603.4	14.2
70°-80°	896.4	3.5
80°-90°	105.2	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°	25399.7	100.0
0°-180°	25399.7	100.0

Coefficient of Utilization



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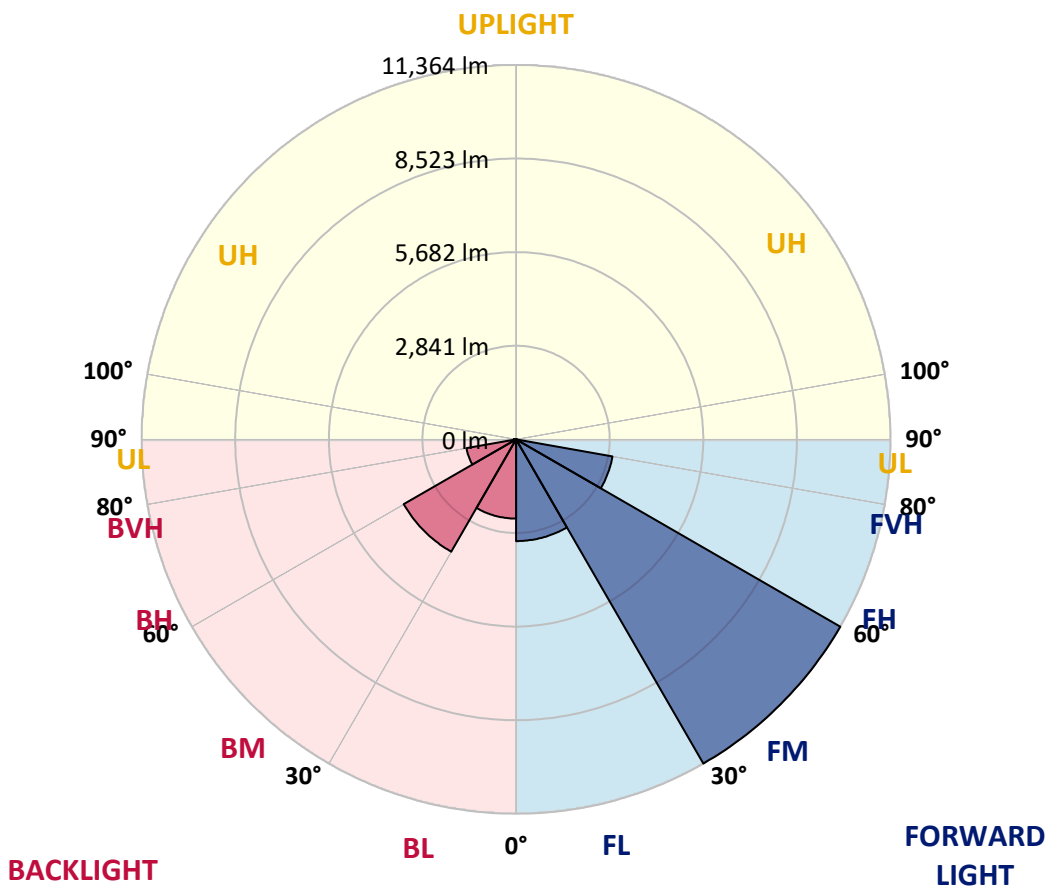
CATALOG NUMBER: GWS-SA5E-830-U-SL2-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3088.1	12.2			
FM (30°-60°)	11364.1	44.7			
FH (60°-80°)	2970.8	11.7			G2/5000
FVH (80°-90°)	35.2	0.1			G1/100
BL (0°-30°)	2404.7	9.5	B3/2500		
BM (30°-60°)	3937.8	15.5	B3/5000		
BH (60°-80°)	1529.0	6.0	B3/2500		G3/2500
BVH (80°-90°)	70.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8
2.5°	7644.8	7666.1	7670.4	7736.7	7741.0	7837.2	7901.3	7888.5	7954.8	8036.0	8100.1
5°	7279.2	7281.3	7302.7	7381.8	7424.6	7550.7	7657.6	7657.6	7785.9	7952.6	8095.8
7.5°	6977.8	6975.6	6994.9	7082.5	7153.1	7304.9	7450.2	7467.3	7646.9	7890.6	8123.6
10°	6697.7	6712.7	6734.1	6841.0	6930.7	7118.9	7292.0	7319.8	7546.4	7847.9	8162.1
12.5°	6518.1	6520.3	6552.4	6672.1	6787.5	6988.5	7170.2	7204.4	7465.2	7807.2	8189.9
15°	6402.7	6404.8	6439.1	6571.6	6706.3	6909.4	7095.4	7133.8	7418.2	7800.8	8243.4
17.5°	6351.4	6349.3	6381.3	6513.9	6661.4	6873.0	7071.8	7118.9	7439.5	7850.0	8337.4
20°	6351.4	6353.5	6370.6	6490.4	6640.0	6864.5	7095.4	7153.1	7522.9	7961.2	8482.8
22.5°	6441.2	6449.7	6458.3	6539.5	6657.1	6877.3	7157.4	7234.3	7702.5	8147.2	8673.1
25°	6616.5	6618.6	6627.2	6693.4	6746.9	6913.6	7260.0	7375.4	7982.5	8418.7	8912.5
27.5°	6851.6	6881.6	6890.1	6932.9	6932.9	7003.4	7420.3	7587.0	8360.9	8809.9	9218.2
30°	7180.9	7191.6	7206.5	7253.6	7202.2	7172.3	7655.5	7869.2	8799.2	9282.3	9585.9
32.5°	7469.5	7493.0	7574.2	7651.2	7559.3	7465.2	8001.8	8254.0	9220.3	9774.0	9977.1
35°	7715.3	7773.0	7929.1	8100.1	8036.0	7941.9	8461.4	8724.4	9566.7	10126.8	10323.4
37.5°	8012.5	8057.4	8271.1	8549.1	8606.8	8561.9	9021.5	9209.6	9797.5	10216.5	10511.6
40°	8313.9	8382.3	8658.1	9042.9	9263.1	9295.2	9538.9	9665.0	9876.6	10041.2	10475.2
42.5°	8621.7	8739.3	9117.7	9566.7	9957.9	10030.6	9975.0	10028.4	9851.0	9799.7	10306.3
45°	8998.0	9137.0	9564.5	10137.4	10652.7	10766.0	10402.5	10353.4	9846.7	9707.7	10201.6
47.5°	9442.7	9581.6	9989.9	10656.9	11315.4	11398.7	10840.8	10751.0	9996.3	9848.8	10342.7
50°	9836.0	9932.2	10297.8	11043.9	11933.2	11982.4	11323.9	11214.9	10368.3	10240.1	10783.1
52.5°	9436.2	9425.6	9810.4	10729.6	12253.9	12846.0	12067.9	11963.1	11086.6	10889.9	11465.0
55°	8006.1	7884.2	8228.4	9132.7	11358.1	13613.5	13401.9	13192.4	12044.4	11544.1	12104.2
57.5°	5853.3	5819.1	5902.5	6751.2	9098.5	12424.9	14218.5	14199.3	12871.7	12142.7	12741.3
60°	4577.0	4525.7	4303.4	4326.9	6201.8	9705.6	12339.4	12905.9	13384.8	12501.9	13185.9
62.5°	4064.0	4025.5	3910.0	3591.5	3694.1	6507.5	9045.0	9564.5	11695.9	11041.7	11326.1
65°	3364.9	3354.2	3450.4	3437.6	3095.5	3593.6	5105.1	5628.8	7354.0	7446.0	7354.0
67.5°	2445.6	2426.4	2670.1	3151.1	2980.1	2712.9	2845.4	3027.1	3771.1	3386.3	3048.5
70°	1590.5	1562.7	1703.8	2276.8	2668.0	2364.4	2050.1	2020.2	2073.7	1289.1	1393.8
72.5°	1066.8	1034.7	1032.6	1252.8	1611.9	1592.7	1588.4	1573.4	1404.5	1017.6	1128.8
75°	594.3	568.7	562.2	540.9	577.2	587.9	626.4	647.8	701.2	771.7	855.1
77.5°	100.5	98.3	124.0	158.2	218.1	280.1	346.3	365.6	451.1	534.4	587.9
80°	55.6	57.7	74.8	91.9	121.9	166.7	213.8	226.6	277.9	322.8	365.6
82.5°	29.9	29.9	38.5	49.2	66.3	87.6	115.4	126.1	160.3	188.1	218.1
85°	10.7	10.7	15.0	19.2	27.8	36.3	44.9	51.3	70.5	96.2	109.0
87.5°	0.0	0.0	0.0	0.0	2.1	4.3	8.6	8.6	10.7	19.2	27.8
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°	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8	8110.8
2.5°	8153.6	8095.8	8174.9	8211.3	8224.1	8232.7	8177.1	8138.6	8125.8	8085.2	8061.6
5°	8183.5	8145.0	8219.8	8219.8	8166.4	8110.8	7997.5	7918.4	7862.8	7796.6	7785.9
7.5°	8234.8	8207.0	8247.6	8164.3	8029.6	7879.9	7683.3	7529.3	7405.3	7324.1	7326.2
10°	8303.2	8269.0	8236.9	8051.0	7805.1	7529.3	7227.9	7003.4	6798.2	6704.1	6652.8
12.5°	8348.1	8298.9	8164.3	7856.4	7495.1	7125.3	6699.9	6366.4	6069.2	5934.5	5923.8
15°	8403.7	8313.9	8044.5	7604.2	7101.8	6597.2	6050.0	5586.1	5184.2	4974.7	4964.0
17.5°	8476.4	8328.9	7901.3	7315.5	6687.0	5943.1	5254.7	4671.1	4243.5	4081.1	4108.9
20°	8579.0	8346.0	7738.8	6994.9	6171.8	5199.1	4341.9	3805.3	3640.7	3630.0	3608.6
22.5°	8694.4	8356.7	7559.3	6635.7	5547.6	4406.0	3587.2	3358.5	3356.3	3409.8	3422.6
25°	8824.8	8365.2	7356.2	6216.7	4872.0	3615.0	3172.5	3104.1	3157.5	3258.0	3270.8
27.5°	8991.6	8382.3	7110.3	5757.1	4153.7	3123.3	2943.7	2926.6	2990.8	3084.8	3080.6
30°	9237.4	8444.3	6849.5	5229.1	3416.2	2890.3	2804.8	2806.9	2832.6	2877.5	2883.9
32.5°	9487.6	8540.5	6595.1	4634.7	2992.9	2757.8	2719.3	2715.0	2715.0	2734.2	2738.5
35°	9724.8	8649.5	6319.3	4014.8	2787.7	2680.8	2655.1	2642.3	2635.9	2631.6	2625.2
37.5°	9857.4	8703.0	6050.0	3403.4	2678.7	2629.5	2603.8	2586.7	2563.2	2546.1	2541.8
40°	9799.7	8641.0	5737.9	2945.9	2612.4	2580.3	2550.4	2526.9	2494.8	2479.8	2471.3
42.5°	9607.3	8448.6	5397.9	2730.0	2558.9	2526.9	2490.5	2452.1	2430.7	2417.9	2415.7
45°	9404.2	8215.6	4987.5	2603.8	2507.6	2469.2	2426.4	2383.6	2360.1	2353.7	2351.6
47.5°	9397.8	8100.1	4551.4	2503.4	2445.6	2407.2	2353.7	2311.0	2285.3	2276.8	2268.2
50°	9680.0	8217.7	4059.7	2415.7	2381.5	2340.9	2281.0	2234.0	2201.9	2191.2	2189.1
52.5°	10265.7	8660.2	3619.3	2328.1	2296.0	2249.0	2199.8	2152.8	2114.3	2095.0	2092.9
55°	10898.5	9222.5	3345.7	2238.3	2195.5	2154.9	2110.0	2058.7	2015.9	1986.0	1981.7
57.5°	11552.7	9836.0	3262.3	2125.0	2092.9	2065.1	2011.7	1956.1	1906.9	1879.1	1872.7
60°	12091.4	10364.1	3418.3	2005.3	1988.2	1951.8	1902.6	1849.2	1815.0	1793.6	1789.3
62.5°	10122.5	8437.9	2759.9	1874.8	1874.8	1836.4	1780.8	1742.3	1718.8	1703.8	1699.6
65°	6424.1	5224.8	1883.4	1744.4	1742.3	1691.0	1644.0	1618.3	1607.6	1584.1	1579.8
67.5°	2798.4	2387.9	1609.8	1611.9	1603.3	1547.8	1500.7	1481.5	1460.1	1434.5	1432.3
70°	1451.6	1479.4	1440.9	1464.4	1449.4	1383.2	1338.3	1308.3	1263.4	1237.8	1239.9
72.5°	1171.5	1201.4	1244.2	1280.5	1248.5	1195.0	1124.5	1088.1	1030.4	1002.6	1004.8
75°	893.6	925.7	966.3	1004.8	979.1	912.8	867.9	831.6	765.3	733.3	739.7
77.5°	615.7	632.8	682.0	679.8	671.3	652.0	585.8	543.0	474.6	436.1	440.4
80°	382.7	393.4	416.9	427.6	423.3	397.6	344.2	312.1	271.5	248.0	250.1
82.5°	230.9	237.3	258.7	260.8	258.7	239.4	198.8	175.3	149.6	136.8	136.8
85°	117.6	121.9	134.7	134.7	121.9	102.6	91.9	81.2	66.3	59.9	59.9
87.5°	32.1	32.1	40.6	34.2	27.8	25.7	12.8	10.7	4.3	2.1	2.1
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^{\wedge}/nm	Lumens (ϕ/nm)	λ (nm)	Power W^{\wedge}/nm	Lumens (ϕ/nm)	λ (nm)	Power W^{\wedge}/nm	Lumens (ϕ/nm)	λ (nm)	Power W^{\wedge}/nm	Lumens (ϕ/nm)	λ (nm)	Power W^{\wedge}/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)