

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: P636527

Luminaire Tested: GWS-SA3F-830-U-T4W-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636527
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-SA3F-830-U-T4W-W
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19256.9 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

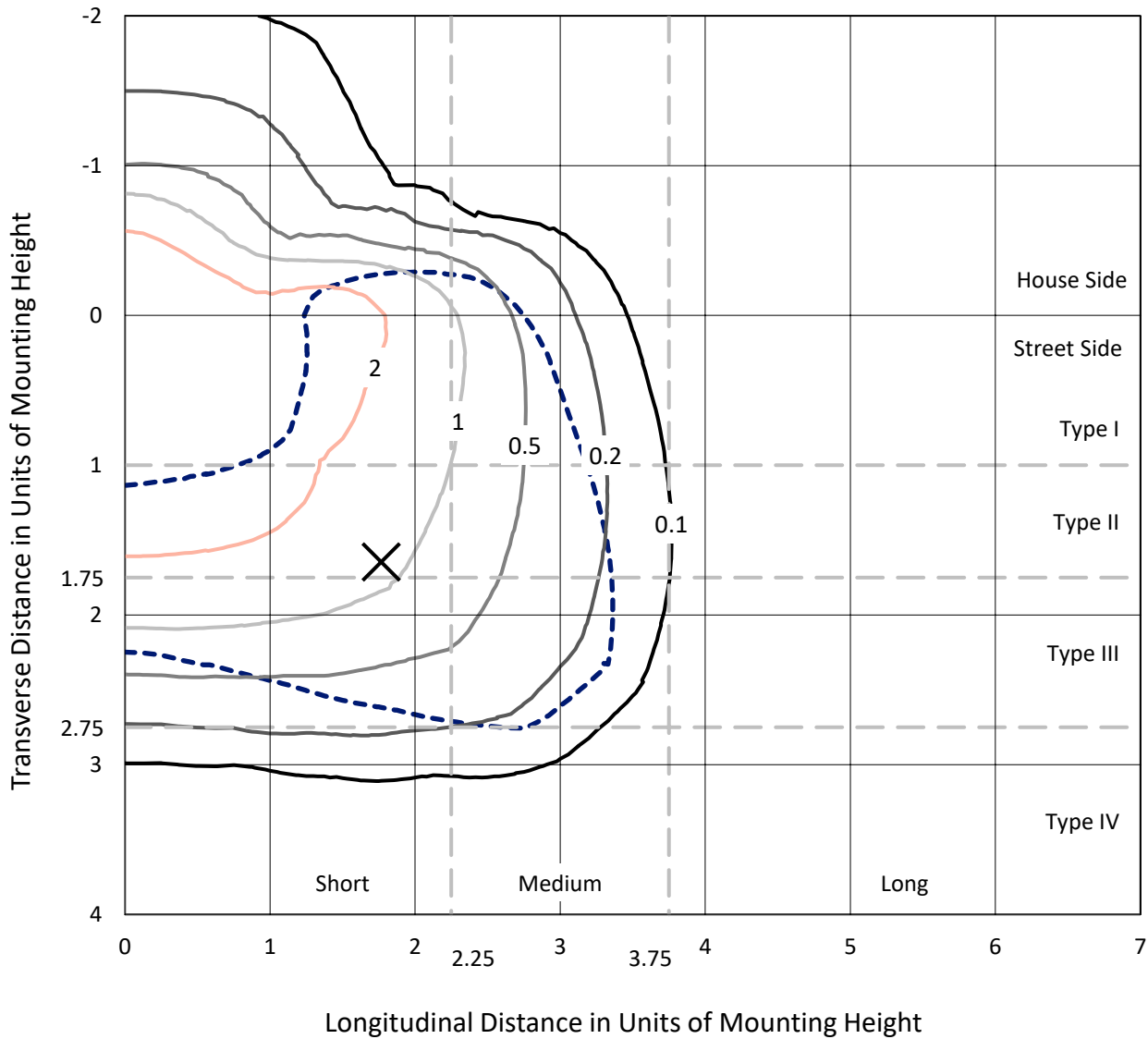
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636527
 CATALOG NUMBER: GWS-SA3F-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination

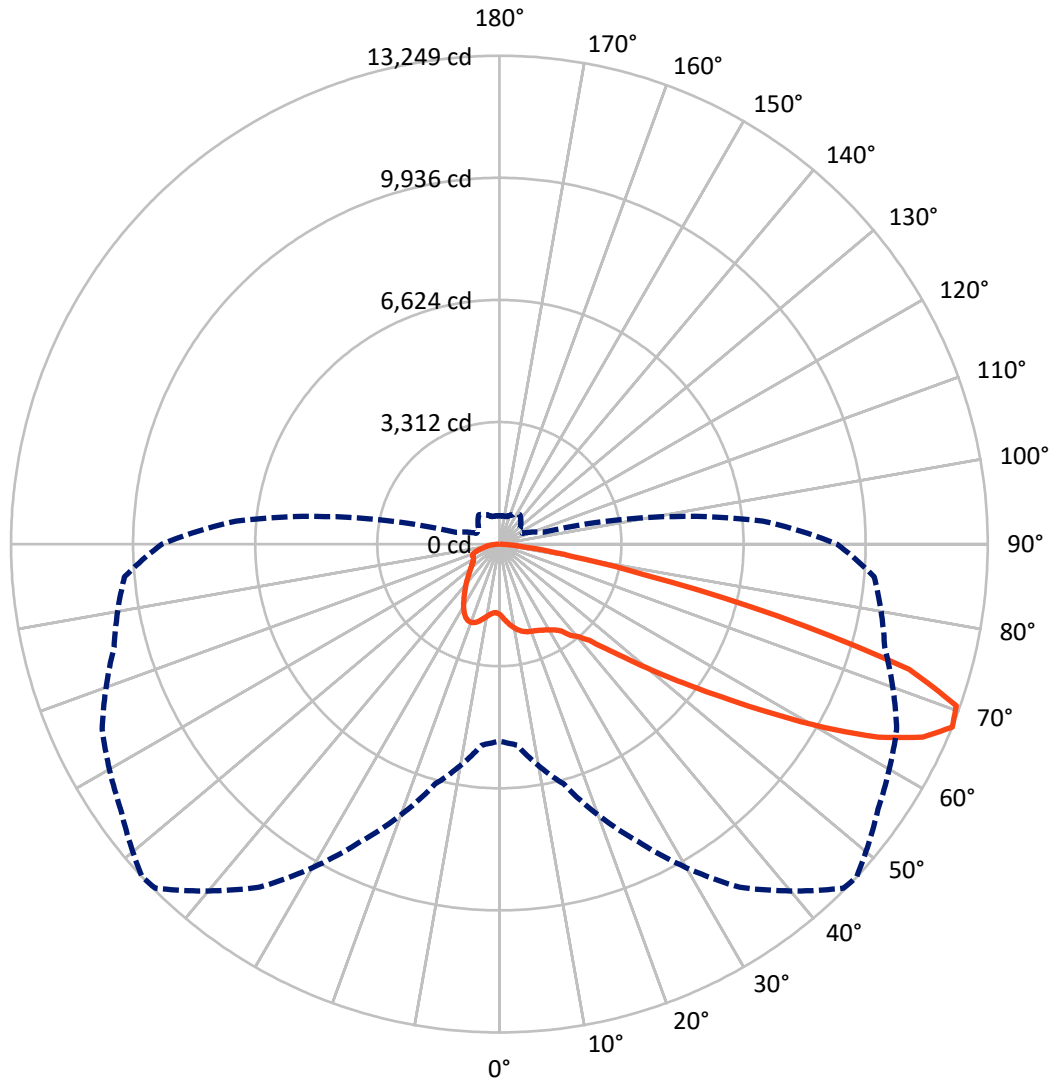
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Short - N/A

REPORT NUMBER: P636527
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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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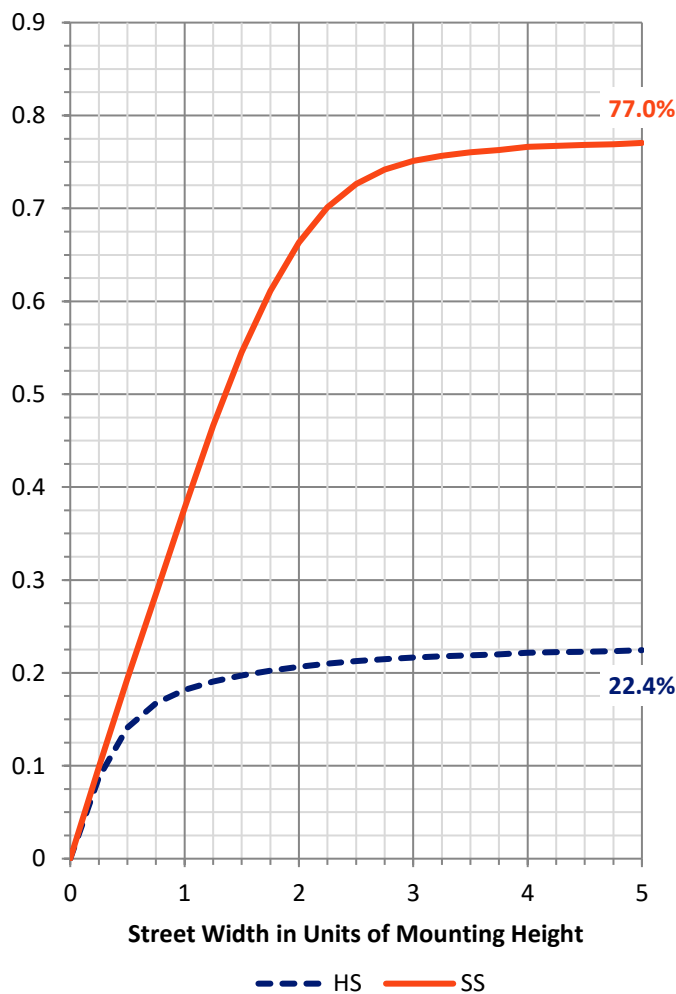
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4388.8	0.0	4388.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	14868.1	0.0	14868.1
	% Fixture	77.2	0.0	77.2
Total	Lumens	19256.9	0.0	19256.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.1	1.0
10°-20°	650.0	3.4
20°-30°	1104.8	5.7
30°-40°	1618.5	8.4
40°-50°	2465.9	12.8
50°-60°	4412.0	22.9
60°-70°	5887.4	30.6
70°-80°	2662.4	13.8
80°-90°	260.8	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°	19256.9	100.0
0°-180°	19256.9	100.0

Coefficient of Utilization



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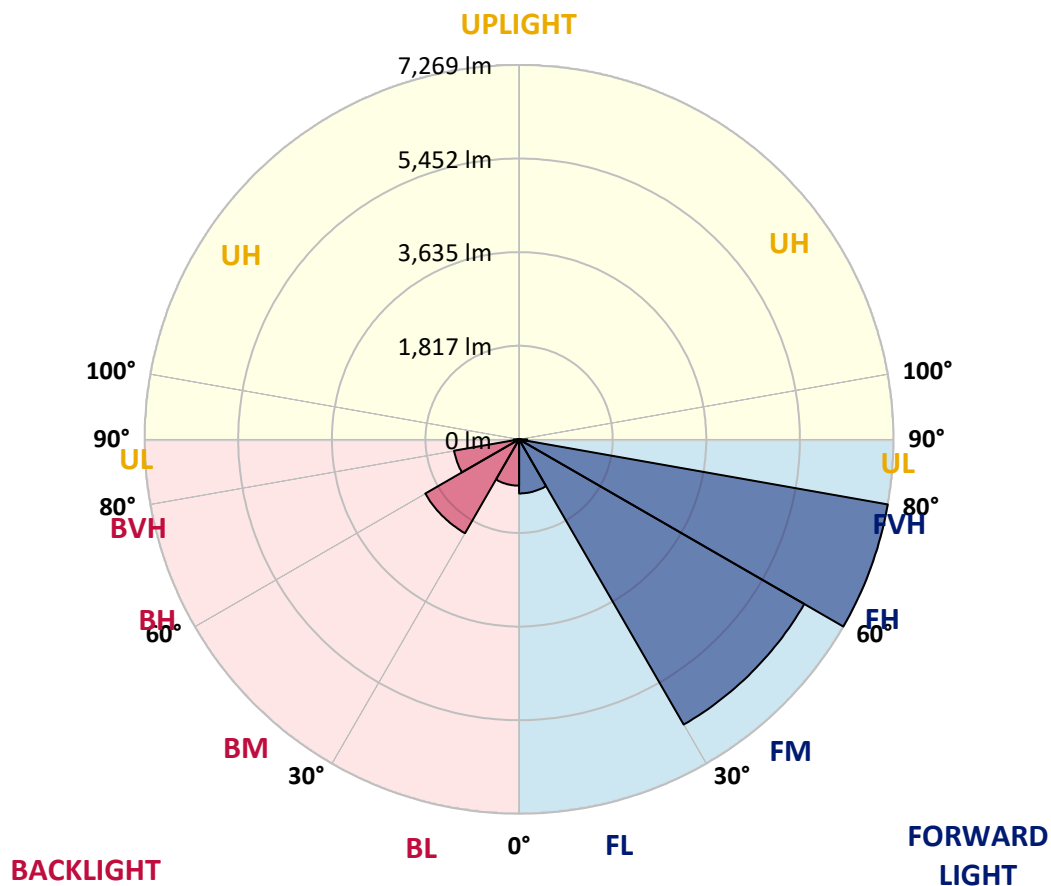
CATALOG NUMBER: GWS-SA3F-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1050.2	5.5			
FM (30°-60°)	6393.5	33.2			
FH (60°-80°)	7269.3	37.7			G3/7500
FVH (80°-90°)	155.2	0.8			G2/225
BL (0°-30°)	899.7	4.7	B2/1000		
BM (30°-60°)	2102.9	10.9	B2/2500		
BH (60°-80°)	1280.5	6.6	B3/2500		G3/2500
BVH (80°-90°)	105.7	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0
2.5°	2035.7	2042.6	2041.2	2030.1	2023.1	2010.6	2012.0	1992.5	1963.3	1943.8	1921.5
5°	2215.3	2226.4	2212.5	2194.4	2166.6	2126.2	2122.0	2077.4	2021.8	1982.8	1942.4
7.5°	2371.2	2378.2	2361.5	2330.9	2290.5	2236.2	2226.4	2173.5	2103.9	2042.6	1984.2
10°	2492.4	2500.7	2478.5	2438.1	2385.2	2330.9	2323.9	2269.6	2195.8	2123.4	2049.6
12.5°	2595.4	2598.2	2574.5	2520.2	2463.1	2407.4	2400.5	2350.4	2282.1	2208.3	2127.6
15°	2655.3	2656.7	2627.4	2567.6	2513.3	2464.5	2460.4	2417.2	2354.5	2284.9	2198.6
17.5°	2651.1	2653.9	2633.0	2580.1	2532.8	2503.5	2499.3	2471.5	2422.8	2360.1	2273.8
20°	2599.6	2602.4	2588.5	2553.6	2528.6	2520.2	2521.6	2513.3	2484.0	2432.5	2344.8
22.5°	2559.2	2563.4	2550.9	2525.8	2523.0	2542.5	2546.7	2550.9	2536.9	2491.0	2406.1
25°	2578.7	2585.7	2566.2	2531.4	2536.9	2580.1	2588.5	2602.4	2591.2	2552.3	2478.5
27.5°	2713.8	2717.9	2667.8	2596.8	2580.1	2626.0	2638.6	2660.9	2652.5	2616.3	2559.2
30°	3027.1	3024.3	2917.1	2743.0	2673.4	2691.5	2701.2	2733.3	2736.0	2712.4	2658.1
32.5°	3468.4	3454.5	3288.8	3011.7	2809.8	2765.3	2776.4	2819.6	2851.6	2826.6	2752.8
35°	3934.9	3922.4	3740.0	3415.5	3061.9	2907.3	2894.8	2928.2	2976.9	2907.3	2801.5
37.5°	4379.1	4359.6	4173.0	3772.0	3372.4	3156.6	3138.4	3105.0	3075.8	2942.1	2861.4
40°	4872.0	4849.7	4686.8	4232.9	3714.9	3347.3	3301.4	3169.1	3142.6	3057.7	3017.3
42.5°	5398.3	5398.3	5263.2	4816.3	4128.4	3620.2	3560.3	3361.2	3389.1	3333.4	3286.0
45°	5924.6	5939.9	5832.7	5403.9	4681.2	4135.4	4039.3	3756.7	3823.5	3798.4	3774.8
47.5°	6373.0	6402.2	6381.3	6004.0	5357.9	4762.0	4615.8	4322.0	4465.4	4525.3	4592.1
50°	6856.1	6888.2	6867.3	6718.3	6150.2	5520.8	5389.9	5086.4	5332.9	5512.5	5731.1
52.5°	7573.2	7619.2	7445.1	7388.0	7112.3	6382.7	6265.8	5920.4	6367.4	6665.4	7152.7
55°	8178.9	8177.5	8116.2	8247.1	8145.5	7436.8	7307.3	6994.0	7564.9	7880.9	8593.8
57.5°	8460.2	8493.6	8703.8	9074.2	9277.5	8724.7	8600.8	8280.5	8850.0	9014.3	9784.3
60°	8605.0	8646.7	9053.3	9785.7	10332.9	10131.0	10082.3	9674.3	9994.6	9975.1	10788.2
62.5°	8401.7	8485.2	9138.3	10111.5	11086.2	11544.3	11529.0	10912.2	10967.9	10777.1	11410.6
65°	7468.8	7559.3	8584.1	9948.6	11516.5	12619.2	12623.4	12033.0	11715.6	11167.0	11306.2
67.5°	5341.2	5470.7	6737.8	8901.6	11364.7	13199.9	13248.6	12541.3	11891.0	10821.7	10209.0
70°	2911.5	3006.2	3998.9	6470.4	9997.4	13060.6	13151.1	12296.2	11116.9	9361.0	7858.7
72.5°	1322.8	1353.4	1860.2	3550.6	6829.7	11242.2	11620.9	10973.4	9129.9	6914.6	4997.3
75°	605.7	619.6	810.4	1698.7	3568.7	7523.1	7789.0	8173.3	6353.5	4366.5	2605.2
77.5°	380.1	384.3	460.9	777.0	1779.5	3755.3	4035.1	4866.4	3720.5	2161.0	1088.8
80°	224.2	228.4	286.8	420.5	835.4	1718.2	1984.2	1924.3	1748.8	932.9	495.7
82.5°	112.8	117.0	165.7	239.5	455.3	683.7	804.8	809.0	651.6	505.4	279.9
85°	40.4	41.8	54.3	94.7	193.5	225.6	252.0	307.7	318.9	293.8	135.1
87.5°	0.0	0.0	1.4	2.8	5.6	22.3	23.7	44.6	93.3	104.4	54.3
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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 CATALOG NUMBER: GWS-SA3F-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0	1909.0
2.5°	1914.5	1893.7	1886.7	1879.7	1868.6	1864.4	1856.1	1847.7	1847.7	1839.3	1835.2
5°	1924.3	1896.4	1878.3	1870.0	1863.0	1867.2	1867.2	1870.0	1879.7	1874.2	1876.9
7.5°	1959.1	1927.1	1902.0	1895.0	1895.0	1911.8	1922.9	1936.8	1954.9	1957.7	1957.7
10°	2020.4	1982.8	1956.3	1952.1	1959.1	1982.8	1999.5	2016.2	2038.5	2039.9	2042.6
12.5°	2087.2	2049.6	2023.1	2028.7	2035.7	2066.3	2084.4	2098.3	2120.6	2120.6	2119.2
15°	2156.8	2115.0	2092.8	2103.9	2124.8	2159.6	2162.4	2163.8	2174.9	2172.1	2170.7
17.5°	2229.2	2184.7	2168.0	2184.7	2206.9	2223.6	2209.7	2190.2	2186.1	2180.5	2177.7
20°	2300.2	2254.3	2247.3	2259.9	2266.8	2252.9	2209.7	2173.5	2156.8	2148.5	2145.7
22.5°	2361.5	2322.5	2318.3	2318.3	2283.5	2234.8	2170.7	2122.0	2099.7	2088.6	2085.8
25°	2433.9	2397.7	2390.7	2353.1	2264.0	2174.9	2088.6	2044.0	2025.9	2020.4	2021.8
27.5°	2518.8	2493.8	2471.5	2364.3	2208.3	2069.1	1971.6	1952.1	1945.2	1952.1	1956.3
30°	2623.3	2598.2	2548.1	2350.4	2119.2	1931.2	1838.0	1836.6	1857.4	1875.6	1878.3
32.5°	2708.2	2697.1	2614.9	2305.8	1993.9	1779.5	1700.1	1705.7	1743.3	1768.3	1772.5
35°	2775.0	2793.1	2670.6	2232.0	1844.9	1636.1	1573.4	1576.2	1597.1	1631.9	1633.3
37.5°	2869.7	2931.0	2720.7	2119.2	1673.7	1512.1	1455.0	1434.2	1431.4	1441.1	1443.9
40°	3060.5	3152.4	2756.9	1954.9	1508.0	1400.7	1336.7	1296.3	1261.5	1235.1	1226.7
42.5°	3348.7	3454.5	2777.8	1755.8	1360.4	1290.7	1218.3	1166.8	1105.6	1049.9	1030.4
45°	3877.8	3912.6	2777.8	1544.2	1229.5	1187.7	1115.3	1054.0	976.1	910.6	896.7
47.5°	4724.4	4613.0	2780.6	1339.5	1113.9	1097.2	1034.5	964.9	878.6	824.3	815.9
50°	5999.8	5608.6	2837.7	1169.6	1017.8	1020.6	974.7	898.1	820.1	779.7	772.8
52.5°	7445.1	6835.2	2990.9	1044.3	937.1	958.0	932.9	859.1	789.5	754.7	747.7
55°	8804.1	7963.1	3121.7	955.2	868.9	905.1	903.7	835.4	772.8	738.0	733.8
57.5°	9959.8	8735.9	3102.2	882.8	810.4	856.3	877.2	820.1	761.6	732.4	728.2
60°	10678.2	9145.2	2825.2	815.9	765.8	821.5	861.9	815.9	767.2	760.2	761.6
62.5°	10990.1	9070.0	2293.3	765.8	736.6	804.8	878.6	845.2	818.7	835.4	845.2
65°	10505.6	8424.0	1687.6	728.2	708.7	809.0	917.6	891.1	818.7	829.9	834.0
67.5°	9160.5	7170.8	1219.7	690.6	673.9	821.5	973.3	884.2	771.4	771.4	763.0
70°	6601.3	5157.4	885.6	653.0	639.1	803.4	976.1	836.8	717.1	712.9	692.0
72.5°	3972.5	3042.4	690.6	611.3	586.2	712.9	914.8	781.1	664.2	629.4	604.3
75°	2063.5	1524.7	579.2	565.3	502.7	604.3	836.8	694.8	568.1	537.5	523.5
77.5°	884.2	712.9	497.1	504.0	417.7	508.2	675.3	601.5	504.0	465.1	452.5
80°	435.8	405.2	392.7	403.8	334.2	392.7	582.0	526.3	427.5	382.9	364.8
82.5°	249.2	236.7	282.7	286.8	238.1	328.6	491.5	445.6	353.7	304.9	275.7
85°	115.6	123.9	171.3	172.7	147.6	225.6	321.6	250.6	188.0	155.9	149.0
87.5°	45.9	54.3	75.2	73.8	43.2	41.8	27.8	15.3	12.5	11.1	9.7
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: SP1-2408-195-9

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)