

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: P636486

Luminaire Tested: GWS-SA3F-830-U-RW-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-50)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3F-830-U-RW-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12588.7 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G0

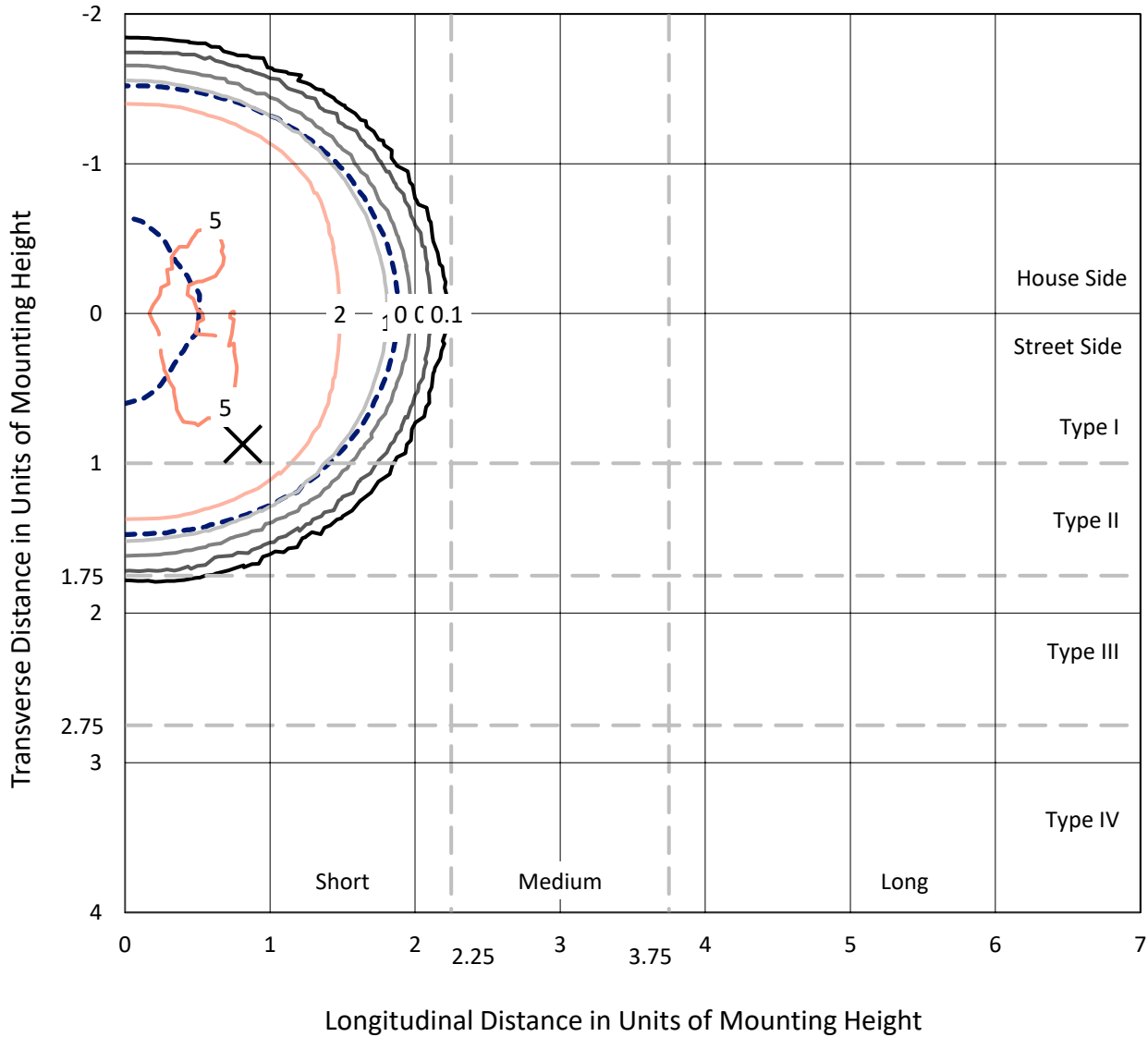
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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 CATALOG NUMBER: GWS-SA3F-830-U-RW-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

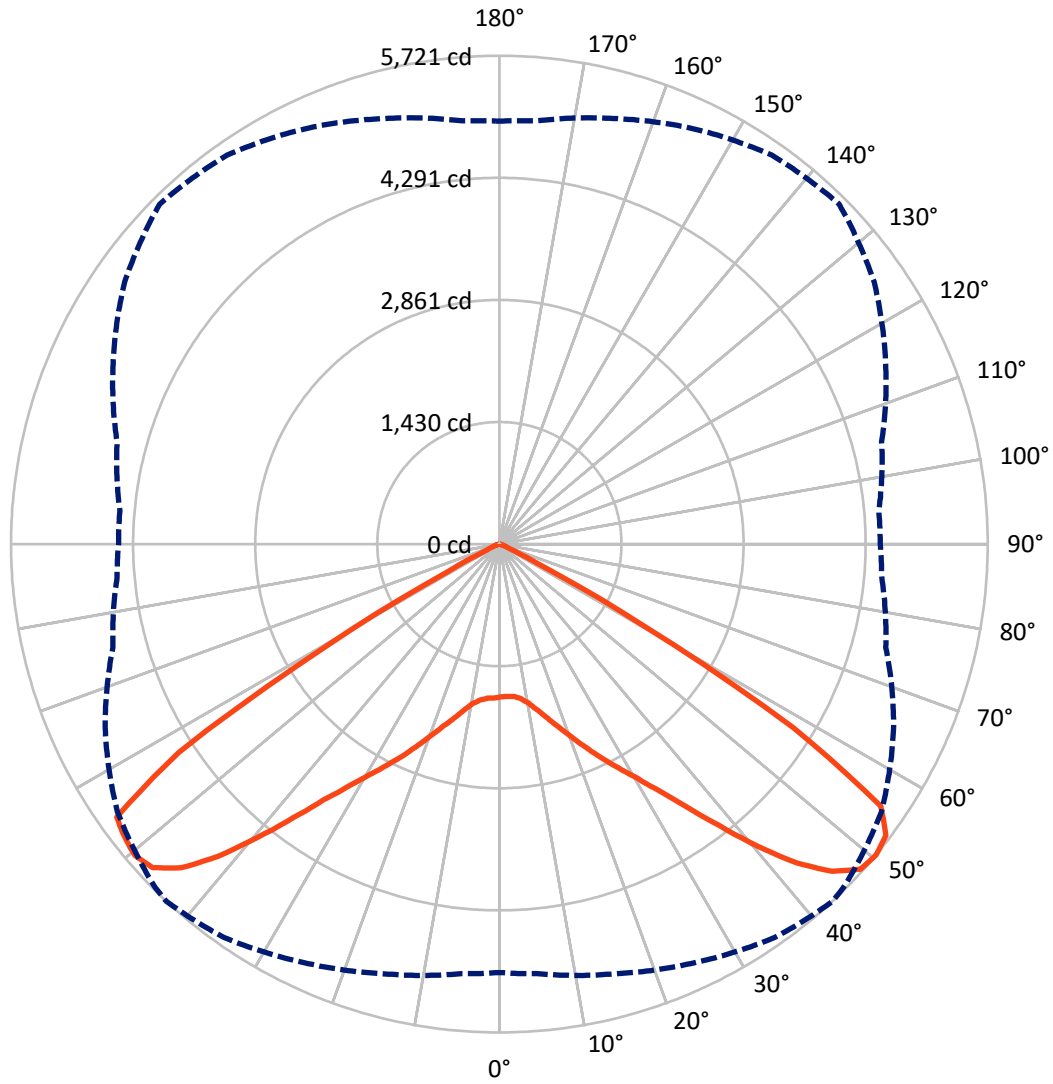
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type V - Short - N/A

REPORT NUMBER: P636486
CATALOG NUMBER: GWS-SA3F-830-U-RW-W-GRSBK

Luminous Intensity Polar Plot



— Vertical Plane Through 43-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6294.2	0.0	6294.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6294.5	0.0	6294.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	12588.7	0.0	12588.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.3	1.4
10°-20°	606.8	4.8
20°-30°	1227.6	9.8
30°-40°	2277.7	18.1
40°-50°	3780.9	30.0
50°-60°	3858.5	30.7
60°-70°	632.7	5.0
70°-80°	27.7	0.2
80°-90°	0.4	0.0
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°	12588.7	100.0
0°-180°	12588.7	100.0

Coefficient of Utilization



REPORT NUMBER: P636486

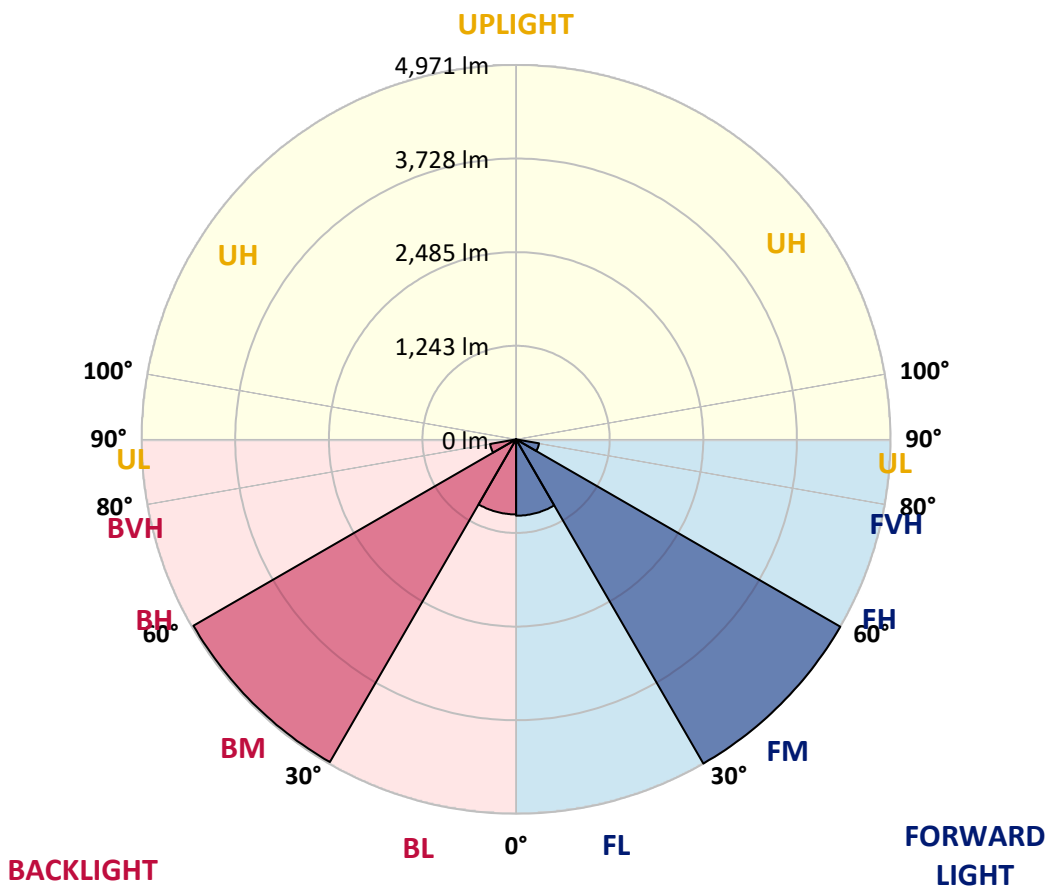
CATALOG NUMBER: GWS-SA3F-830-U-RW-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1014.2	8.1			
FM (30°-60°)	4970.6	39.5			
FH (60°-80°)	309.5	2.5			G0/660
FVH (80°-90°)	0.1	0.0			G0/10
BL (0°-30°)	996.6	7.9	B2/1000		
BM (30°-60°)	4946.5	39.3	B3/5000		
BH (60°-80°)	350.9	2.8	B1/500		G0/660
BVH (80°-90°)	0.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G0

Type V Short





REPORT NUMBER: P636486

CATALOG NUMBER: GWS-SA3F-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5
2.5°	1757.1	1761.3	1766.9	1772.4	1779.4	1786.4	1790.5	1803.1	1800.3	1811.4	1811.4
5°	1737.6	1741.8	1748.8	1761.3	1776.6	1791.9	1803.1	1828.1	1842.1	1864.3	1872.7
7.5°	1747.4	1753.0	1761.3	1780.8	1804.5	1828.1	1840.7	1881.0	1908.9	1950.7	1974.3
10°	1779.4	1785.0	1798.9	1832.3	1862.9	1896.4	1911.7	1963.2	2007.7	2064.8	2098.2
12.5°	1815.6	1822.6	1850.4	1900.5	1953.4	1998.0	2018.9	2076.0	2121.9	2186.0	2238.9
15°	1853.2	1864.3	1907.5	1981.3	2056.5	2116.3	2138.6	2199.9	2245.8	2314.1	2373.9
17.5°	1940.9	1953.4	2002.2	2081.5	2184.6	2254.2	2273.7	2337.7	2372.5	2418.5	2481.1
20°	2050.9	2074.6	2134.5	2230.5	2343.3	2410.1	2424.1	2486.7	2483.9	2503.4	2557.7
22.5°	2187.4	2204.1	2269.5	2383.7	2510.4	2584.2	2616.2	2642.7	2607.8	2591.1	2625.9
25°	2329.4	2348.9	2419.9	2545.2	2687.2	2772.1	2798.6	2819.5	2763.8	2701.1	2705.3
27.5°	2513.2	2527.1	2596.7	2730.4	2872.4	2968.5	2992.1	3028.3	2954.5	2854.3	2826.4
30°	2731.8	2745.7	2819.5	2960.1	3100.7	3182.9	3219.1	3263.6	3182.9	3057.6	3025.5
32.5°	2988.0	3001.9	3096.6	3241.4	3356.9	3446.0	3480.8	3528.2	3464.1	3323.5	3287.3
35°	3294.3	3302.6	3414.0	3571.3	3693.9	3780.2	3803.9	3859.6	3788.5	3647.9	3628.4
37.5°	3649.3	3659.1	3780.2	3962.6	4087.9	4184.0	4221.6	4236.9	4150.6	3993.2	3977.9
40°	4039.2	4071.2	4189.5	4385.9	4526.5	4647.6	4681.0	4629.5	4508.4	4294.0	4266.1
42.5°	4445.7	4473.6	4605.8	4818.9	4981.8	5105.7	5107.1	4995.7	4789.6	4493.1	4451.3
45°	4784.1	4795.2	4966.5	5180.9	5381.4	5469.1	5477.4	5275.6	4965.1	4608.6	4519.5
47.5°	5016.6	5034.7	5183.7	5389.7	5611.1	5690.5	5673.8	5421.8	5048.6	4683.8	4536.2
50°	5019.4	5050.0	5211.5	5410.6	5625.0	5721.1	5697.4	5463.5	5095.9	4686.6	4495.9
52.5°	4575.2	4625.3	4888.5	5176.7	5505.3	5669.6	5675.2	5517.8	5077.8	4642.0	4459.7
55°	3451.6	3505.9	3837.3	4328.8	4963.7	5421.8	5501.1	5453.8	5057.0	4661.5	4523.7
57.5°	1826.7	1785.0	1968.8	2456.1	3253.9	4064.2	4296.7	4675.5	4824.4	4685.2	4642.0
60°	398.2	424.7	565.3	761.6	1269.8	1911.7	2138.6	2787.5	3558.8	3901.3	4149.2
62.5°	171.3	168.5	175.4	199.1	291.0	484.5	591.7	966.3	1524.6	2094.1	2479.7
65°	140.6	142.0	147.6	147.6	137.8	139.2	146.2	221.4	356.4	499.8	671.1
67.5°	105.8	107.2	117.0	119.7	112.8	100.2	98.9	83.5	87.7	110.0	114.2
70°	66.8	66.8	72.4	75.2	75.2	69.6	68.2	59.9	58.5	66.8	75.2
72.5°	36.2	36.2	39.0	40.4	39.0	37.6	37.6	36.2	34.8	40.4	51.5
75°	15.3	15.3	16.7	16.7	15.3	15.3	15.3	15.3	15.3	18.1	27.8
77.5°	2.8	4.2	5.6	4.2	2.8	2.8	2.8	4.2	4.2	5.6	8.4
80°	1.4	1.4	2.8	1.4	0.0	0.0	0.0	0.0	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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



REPORT NUMBER: P636486

CATALOG NUMBER: GWS-SA3F-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5	1790.5
2.5°	1821.2	1805.9	1811.4	1814.2	1810.0	1807.3	1791.9	1787.8	1780.8	1769.7	1766.9
5°	1882.4	1869.9	1868.5	1860.2	1840.7	1817.0	1787.8	1775.2	1761.3	1747.4	1744.6
7.5°	1985.5	1970.2	1960.4	1932.6	1888.0	1850.4	1801.7	1775.2	1757.1	1739.0	1734.9
10°	2117.7	2099.6	2071.8	2020.3	1960.4	1906.1	1849.0	1814.2	1786.4	1761.3	1759.9
12.5°	2258.4	2238.9	2188.8	2123.3	2050.9	2000.8	1928.4	1879.7	1837.9	1800.3	1796.1
15°	2406.0	2382.3	2314.1	2236.1	2169.3	2117.7	2038.4	1960.4	1896.4	1842.1	1836.5
17.5°	2518.7	2489.5	2408.7	2350.3	2296.0	2243.1	2153.9	2050.9	1966.0	1900.5	1885.2
20°	2589.7	2561.9	2485.3	2453.3	2428.2	2390.6	2284.8	2177.6	2082.9	2002.2	1988.3
22.5°	2658.0	2624.6	2557.7	2557.7	2577.2	2561.9	2447.7	2325.2	2213.8	2120.5	2099.6
25°	2734.5	2708.1	2660.8	2699.7	2748.5	2747.1	2630.1	2477.0	2348.9	2244.4	2223.6
27.5°	2845.9	2819.5	2802.8	2876.6	2937.8	2933.7	2805.6	2639.9	2504.8	2401.8	2382.3
30°	3042.3	3017.2	2999.1	3088.2	3166.2	3136.9	2996.3	2836.2	2699.7	2582.8	2568.9
32.5°	3304.0	3277.6	3253.9	3343.0	3412.6	3375.0	3241.4	3091.0	2933.7	2819.5	2791.6
35°	3647.9	3592.2	3568.6	3674.4	3703.6	3661.8	3533.7	3401.5	3234.4	3103.5	3085.4
37.5°	4003.0	3937.5	3920.8	4012.7	4060.1	4044.7	3894.4	3756.5	3575.5	3430.7	3409.8
40°	4306.5	4246.6	4217.4	4360.8	4468.0	4477.8	4342.7	4174.2	3961.2	3810.8	3773.2
42.5°	4484.7	4433.2	4426.2	4649.0	4824.4	4949.8	4788.2	4614.2	4390.0	4220.2	4189.5
45°	4525.1	4491.7	4550.2	4842.5	5115.4	5343.8	5205.9	5022.2	4779.9	4600.3	4571.0
47.5°	4520.9	4509.8	4614.2	4942.8	5288.1	5569.3	5501.1	5293.7	5059.7	4871.8	4843.9
50°	4461.0	4462.4	4636.5	4992.9	5357.7	5630.6	5562.4	5370.2	5161.4	4976.2	4953.9
52.5°	4437.4	4429.0	4594.7	4977.6	5428.7	5602.8	5449.6	5233.8	5001.3	4772.9	4739.5
55°	4520.9	4500.0	4600.3	4965.1	5437.1	5587.4	5183.7	4715.8	4239.7	3969.5	3947.3
57.5°	4646.2	4623.9	4671.3	4873.2	5001.3	4646.2	3815.0	3060.4	2570.3	2362.8	2272.3
60°	4149.2	4133.8	4097.6	3854.0	3305.4	2493.7	1698.6	1083.2	778.3	629.3	629.3
62.5°	2574.4	2553.5	2357.2	1751.6	1272.6	736.5	405.2	253.4	192.1	179.6	178.2
65°	722.6	718.4	594.5	420.5	267.3	165.7	146.2	149.0	146.2	142.0	140.6
67.5°	108.6	119.7	119.7	97.5	93.3	104.4	122.5	130.9	123.9	117.0	114.2
70°	69.6	75.2	72.4	62.7	66.8	78.0	87.7	89.1	84.9	78.0	76.6
72.5°	48.7	54.3	44.6	40.4	41.8	45.9	50.1	50.1	48.7	45.9	43.2
75°	29.2	29.2	20.9	19.5	19.5	20.9	20.9	23.7	23.7	22.3	20.9
77.5°	9.7	11.1	7.0	5.6	5.6	5.6	7.0	8.4	8.4	7.0	5.6
80°	1.4	2.8	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8	1.4
82.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
87.5°	0.0	0.0	0.0	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: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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)