

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: P638998

Luminaire Tested: GWS-SA4F-830-U-T3R-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638998
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4F-830-U-T3R-W
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27477.3 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

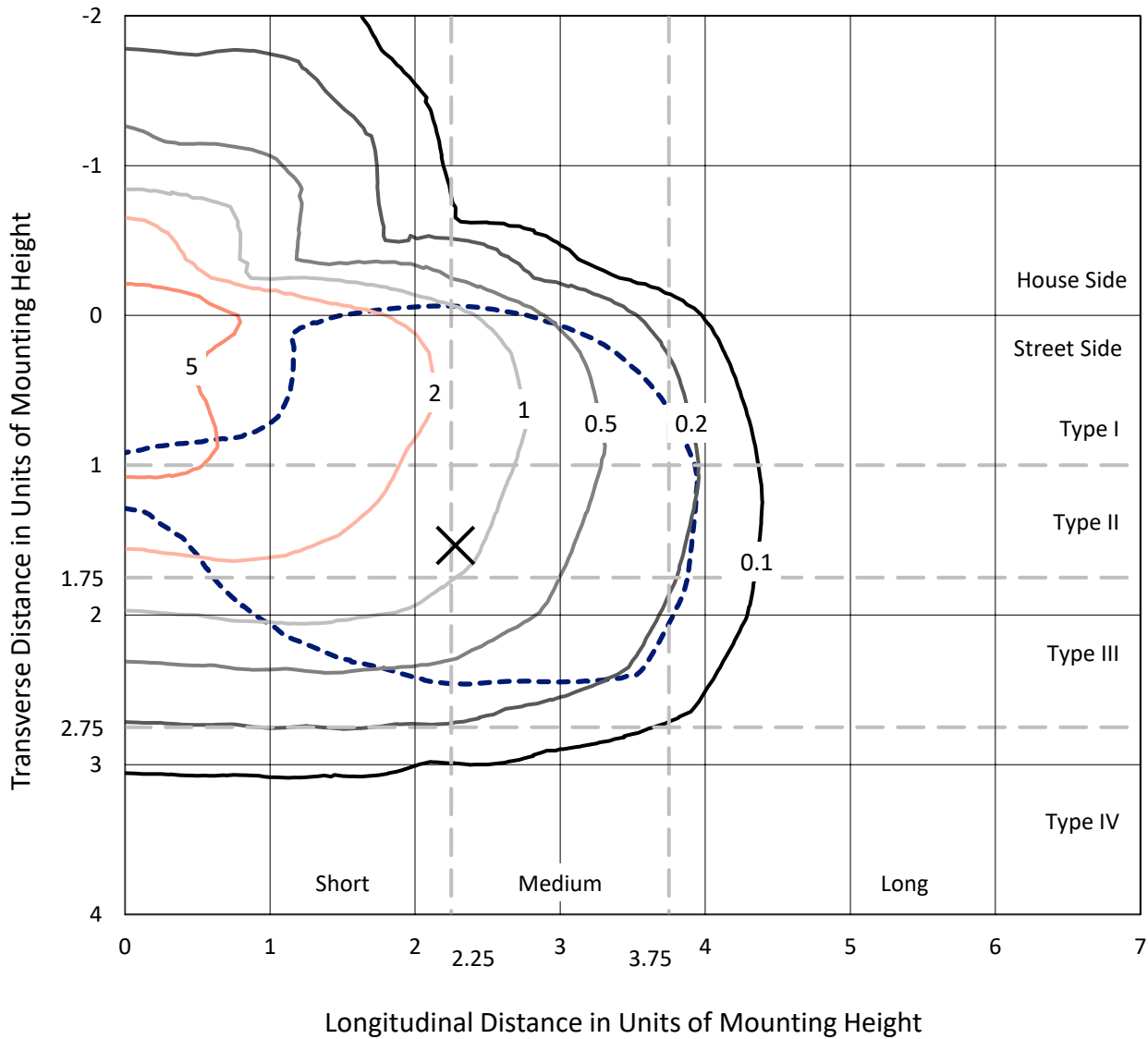
Input Watts (W): 225.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P638998
 CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

Iso-Footcandle Lines of Horizontal Illumination

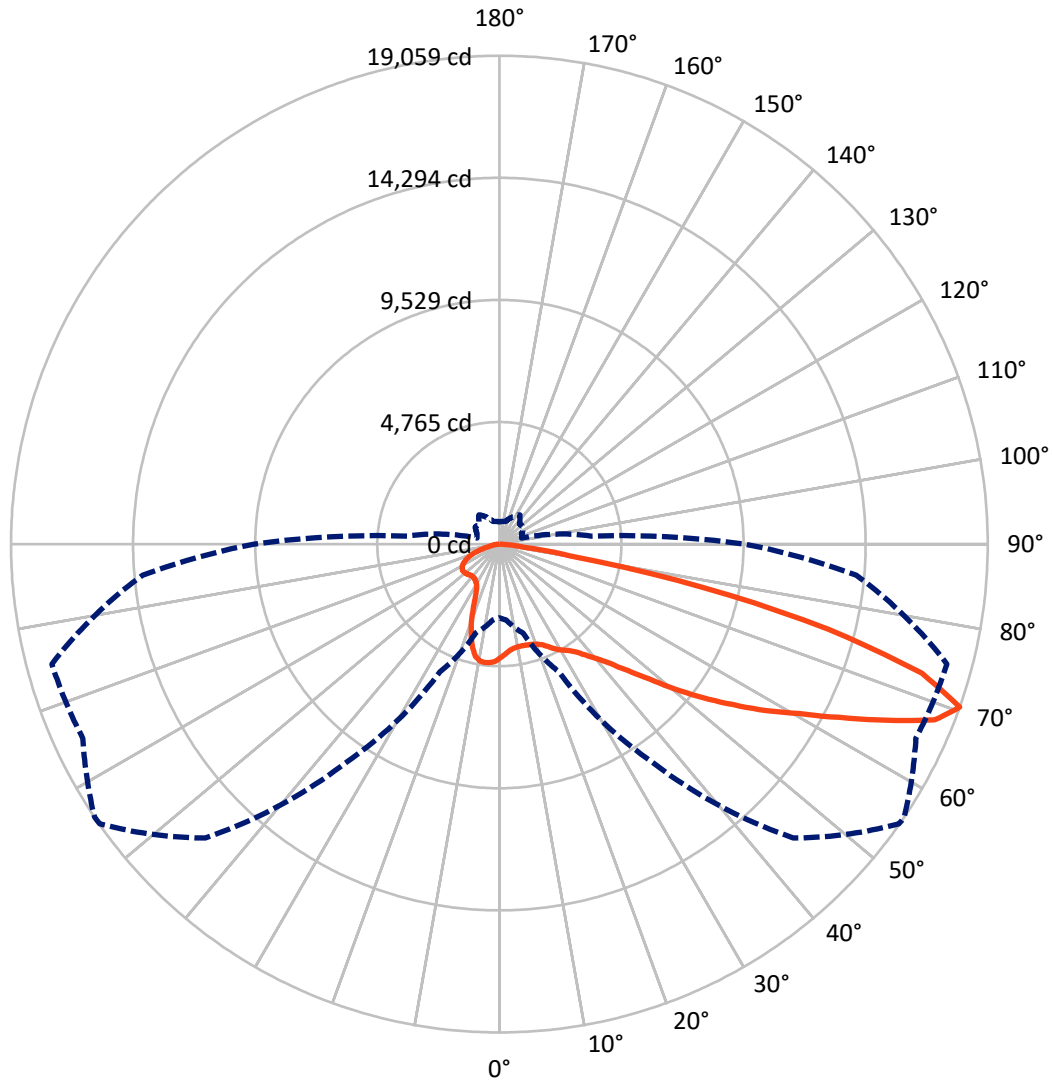
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
 Type III - Medium - N/A

REPORT NUMBER: P638998
CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P638998

CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5282.6	0.0	5282.6
	% Fixture	19.2	0.0	19.2
Street Side	Lumens	22194.7	0.0	22194.7
	% Fixture	80.8	0.0	80.8
Total	Lumens	27477.3	0.0	27477.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.4	1.5
10°-20°	1112.1	4.0
20°-30°	1838.6	6.7
30°-40°	2748.9	10.0
40°-50°	4090.8	14.9
50°-60°	5815.9	21.2
60°-70°	7203.2	26.2
70°-80°	3977.4	14.5
80°-90°	280.1	1.0
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°	27477.3	100.0
0°-180°	27477.3	100.0

Coefficient of Utilization



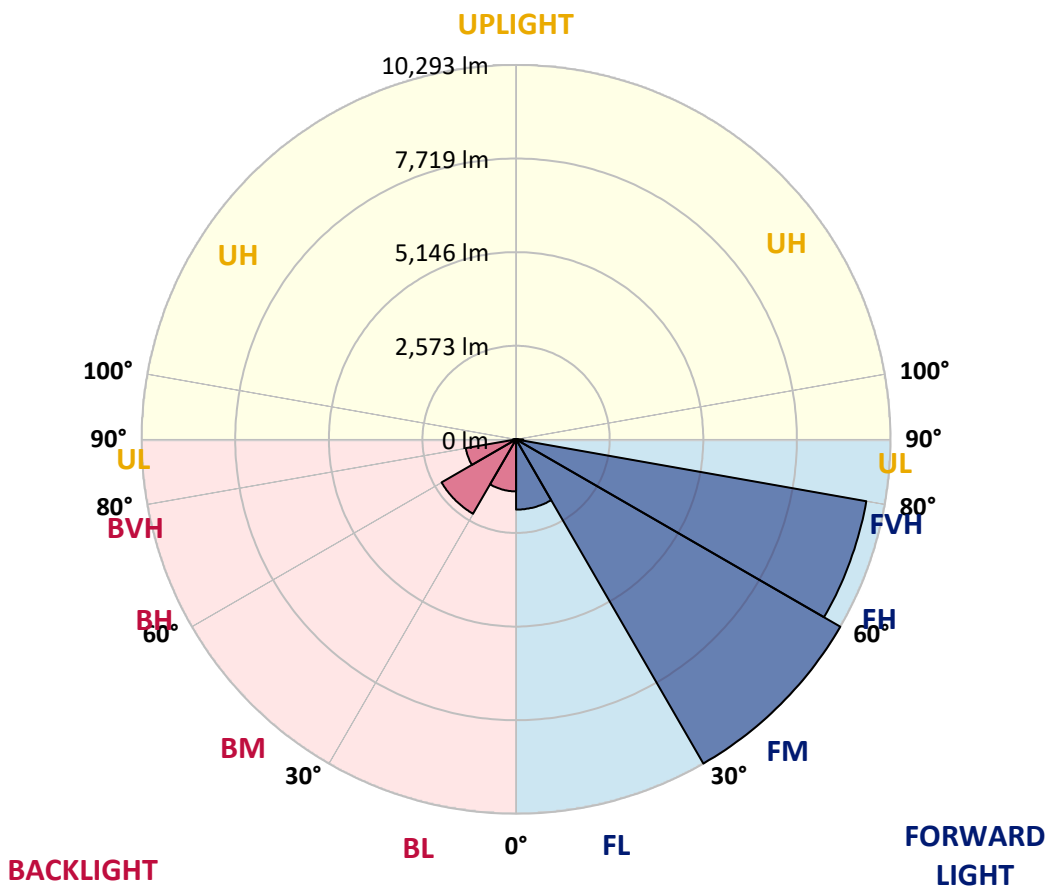
REPORT NUMBER: P638998

CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1931.1	7.0			
FM (30°-60°)	10292.6	37.5			
FH (60°-80°)	9776.4	35.6			G4/12000
FVH (80°-90°)	194.7	0.7			G2/225
BL (0°-30°)	1430.0	5.2	B3/2500		
BM (30°-60°)	2363.0	8.6	B2/2500		
BH (60°-80°)	1404.1	5.1	B3/2500		G3/2500
BVH (80°-90°)	85.5	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-G4
 Type III Medium





REPORT NUMBER: P638998
 CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3
2.5°	4150.4	4127.2	4154.3	4167.9	4202.7	4253.1	4297.7	4299.6	4322.9	4379.1	4433.3
5°	3962.5	3950.8	3958.6	3999.3	4036.1	4100.0	4167.9	4173.7	4239.6	4350.0	4458.5
7.5°	3817.2	3801.7	3830.7	3883.0	3929.5	4001.2	4090.4	4098.1	4191.1	4357.8	4524.4
10°	3607.9	3596.3	3650.5	3720.3	3821.0	3939.2	4057.4	4067.1	4189.2	4408.1	4640.6
12.5°	3516.8	3516.8	3540.1	3605.9	3716.4	3873.3	4051.6	4067.1	4220.2	4485.6	4789.8
15°	3658.3	3668.0	3648.6	3644.7	3689.3	3838.5	4059.4	4082.6	4278.3	4565.1	4937.1
17.5°	3943.1	3952.8	3902.4	3823.0	3778.4	3871.4	4088.4	4113.6	4340.3	4652.3	5096.0
20°	4342.3	4353.9	4243.4	4121.4	3968.3	3966.3	4144.6	4167.9	4419.8	4747.2	5264.6
22.5°	4809.2	4817.0	4677.5	4483.7	4249.2	4142.7	4241.5	4264.7	4522.5	4879.0	5446.7
25°	5349.8	5373.1	5204.5	4923.5	4605.8	4384.9	4402.3	4429.4	4706.5	5055.3	5661.8
27.5°	5927.2	5956.3	5762.5	5452.5	5014.6	4652.3	4609.6	4632.9	4902.2	5163.8	5776.1
30°	6518.2	6539.5	6345.8	5991.2	5454.5	4954.5	4784.0	4797.6	4987.5	5216.1	5892.4
32.5°	7175.1	7157.6	6971.6	6562.8	5962.1	5316.9	4946.8	4942.9	5082.4	5320.8	6059.0
35°	7791.3	7816.4	7618.8	7167.3	6520.2	5764.5	5190.9	5175.4	5283.9	5491.3	6293.5
37.5°	8537.2	8529.5	8293.1	7804.8	7080.1	6192.7	5533.9	5506.8	5545.5	5756.7	6620.9
40°	9070.1	9124.3	8971.3	8515.9	7735.1	6719.7	5935.0	5874.9	5884.6	6084.2	7058.8
42.5°	9506.1	9556.4	9571.9	9281.3	8484.9	7370.8	6434.9	6374.8	6380.6	6663.5	7597.5
45°	9841.3	9909.1	10128.0	10042.8	9329.7	8122.6	7111.1	7049.1	7053.0	7366.9	8248.5
47.5°	9978.8	10052.5	10496.2	10699.7	10226.9	9021.7	7952.1	7861.0	7874.6	8221.4	8992.6
50°	9934.3	10033.1	10633.8	11205.4	10978.7	9936.2	8957.7	8893.8	8841.5	9345.2	9800.6
52.5°	9550.6	9659.1	10620.2	11527.0	11592.9	10800.4	9996.3	9959.5	9947.8	10538.8	10703.5
55°	8421.0	8603.1	10153.2	11612.3	12073.4	11614.2	11122.1	11060.1	11120.1	11817.7	11616.2
57.5°	7795.1	7930.8	9238.7	11517.3	12466.8	12389.3	12245.9	12251.7	12319.5	13207.0	12722.5
60°	7438.6	7597.5	8731.0	11257.7	12844.6	13331.0	13422.0	13422.0	13544.1	14704.8	13846.4
62.5°	6965.8	7126.6	8256.3	10757.8	13193.4	14439.3	14900.5	14894.6	14943.1	16311.1	14945.0
65°	6006.7	6155.9	7303.0	9969.2	13363.9	15660.0	16580.4	16563.0	16466.1	17741.0	15671.6
67.5°	4361.6	4503.1	5594.0	8469.4	12749.7	16644.3	18310.7	18318.5	17739.1	18642.0	15710.4
70°	2875.5	2972.3	3596.3	5501.0	10368.3	16220.0	19035.4	19058.6	17934.8	18080.1	13982.0
72.5°	1794.3	1862.1	2245.7	3280.4	6126.8	12838.8	17175.2	17239.2	16134.7	15888.7	11488.3
75°	1191.6	1238.2	1493.9	1912.5	2834.8	6948.4	13055.8	13261.2	12931.8	12455.2	8004.4
77.5°	716.9	755.7	951.4	1214.9	1255.6	2714.6	7620.7	8151.7	8198.2	6502.7	3352.1
80°	327.5	372.0	525.1	693.7	668.5	945.6	2687.5	2811.5	3317.2	2065.5	1058.0
82.5°	193.8	213.1	348.8	344.9	284.8	459.2	966.9	992.1	842.9	755.7	451.5
85°	77.5	91.1	147.3	129.8	104.6	149.2	364.3	381.7	366.2	329.4	166.6
87.5°	0.0	0.0	0.0	0.0	1.9	3.9	32.9	34.9	50.4	91.1	50.4
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: P638998
 CATALOG NUMBER: GWS-SA4F-830-U-T3R-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3	4435.3
2.5°	4468.2	4456.6	4514.7	4559.3	4578.6	4598.0	4580.6	4574.8	4574.8	4536.0	4516.6
5°	4516.6	4522.5	4601.9	4638.7	4638.7	4623.2	4576.7	4543.8	4532.1	4481.8	4468.2
7.5°	4607.7	4632.9	4706.5	4704.6	4650.3	4565.1	4448.8	4359.7	4278.3	4243.4	4222.1
10°	4756.9	4789.8	4840.2	4758.8	4607.7	4382.9	4136.9	3943.1	3826.8	3733.8	3733.8
12.5°	4927.4	4958.4	4948.7	4760.8	4448.8	4028.4	3673.8	3450.9	3288.2	3202.9	3202.9
15°	5097.9	5123.1	5018.5	4671.7	4117.5	3557.5	3170.0	2902.6	2761.1	2681.7	2681.7
17.5°	5270.4	5268.4	5047.6	4466.3	3685.4	3036.3	2656.5	2449.2	2400.7	2387.2	2385.2
20°	5437.0	5392.5	5010.7	4123.3	3183.5	2511.2	2270.9	2284.5	2356.2	2387.2	2391.0
22.5°	5625.0	5514.5	4902.2	3685.4	2613.9	2146.9	2162.4	2274.8	2379.4	2425.9	2431.7
25°	5816.8	5619.2	4720.1	3171.9	2137.2	2013.2	2133.3	2259.3	2377.5	2437.6	2443.4
27.5°	5894.3	5619.2	4410.1	2577.1	1883.4	1957.0	2088.8	2210.8	2334.9	2404.6	2418.2
30°	5958.2	5570.7	3976.0	2040.3	1778.8	1902.8	2017.1	2129.5	2251.5	2336.8	2352.3
32.5°	6047.4	5528.1	3450.9	1714.8	1730.3	1850.4	1929.9	2024.8	2135.3	2191.5	2185.7
35°	6152.0	5462.2	2817.3	1559.8	1689.6	1805.9	1862.1	1918.3	1867.9	1865.9	1871.8
37.5°	6301.2	5404.1	2265.1	1490.0	1662.5	1774.9	1821.4	1701.2	1631.5	1602.4	1590.8
40°	6516.3	5380.8	1786.5	1449.4	1658.6	1772.9	1740.0	1554.0	1459.0	1358.3	1356.3
42.5°	6787.6	5363.4	1476.5	1430.0	1672.2	1817.5	1627.6	1457.1	1261.4	1216.8	1213.0
45°	7136.3	5336.3	1321.5	1426.1	1705.1	1852.4	1616.0	1323.4	1189.7	1170.3	1170.3
47.5°	7556.8	5293.6	1251.7	1426.1	1741.9	1836.9	1581.1	1294.3	1156.8	1178.1	1191.6
50°	8039.3	5239.4	1214.9	1422.2	1778.8	1836.9	1507.5	1288.5	1149.0	1259.5	1304.0
52.5°	8554.7	5177.4	1189.7	1406.7	1803.9	1838.8	1511.4	1307.9	1156.8	1278.8	1315.7
55°	9124.3	5167.7	1154.8	1373.8	1811.7	1788.4	1521.0	1350.5	1168.4	1158.7	1160.6
57.5°	9843.2	5283.9	1129.6	1325.3	1780.7	1685.7	1540.4	1381.5	1154.8	1156.8	1170.3
60°	10595.0	5502.9	1151.0	1278.8	1716.7	1588.9	1554.0	1366.0	1089.0	1058.0	1061.8
62.5°	11234.4	5669.5	1168.4	1257.5	1623.7	1503.6	1540.4	1331.2	1052.1	1044.4	1061.8
65°	11501.8	5532.0	1125.8	1213.0	1488.1	1399.0	1511.4	1286.6	1021.1	992.1	994.0
67.5°	11205.4	4886.7	1042.5	1114.1	1335.0	1265.3	1464.9	1228.5	978.5	943.6	935.9
70°	9571.9	3590.4	899.1	957.2	1149.0	1108.3	1393.2	1152.9	910.7	885.5	868.1
72.5°	7713.7	2542.2	746.0	761.5	901.0	933.9	1269.2	1058.0	833.2	761.5	736.3
75°	5369.2	1596.6	622.0	606.5	651.0	713.1	990.1	877.8	718.9	643.3	620.0
77.5°	2309.7	819.6	486.3	478.6	434.0	494.1	759.6	732.4	602.6	515.4	501.8
80°	773.1	474.7	350.7	337.1	288.7	346.8	534.8	585.2	472.8	381.7	358.5
82.5°	387.5	275.1	222.8	201.5	193.8	219.0	315.8	364.3	327.5	263.5	222.8
85°	189.9	156.9	122.1	120.1	100.8	94.9	131.8	155.0	147.3	108.5	102.7
87.5°	69.8	62.0	38.8	31.0	19.4	13.6	7.8	7.8	5.8	5.8	5.8
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

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



CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

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



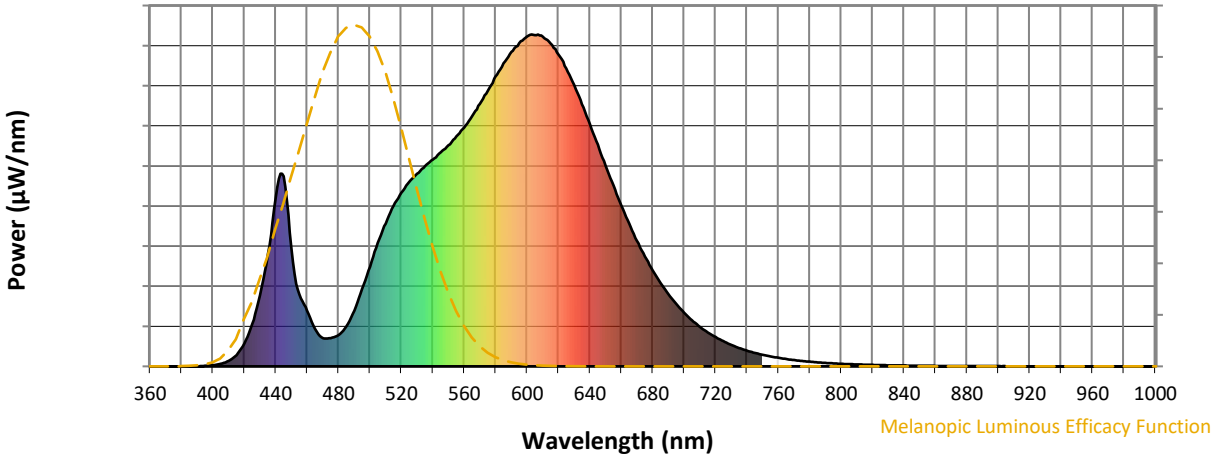
Scotopic Lumens: NR

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)