

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: P641463

Luminaire Tested: GWS-SA5F-830-U-T2R-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-13)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5F-830-U-T2R-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY 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: 29181.1 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

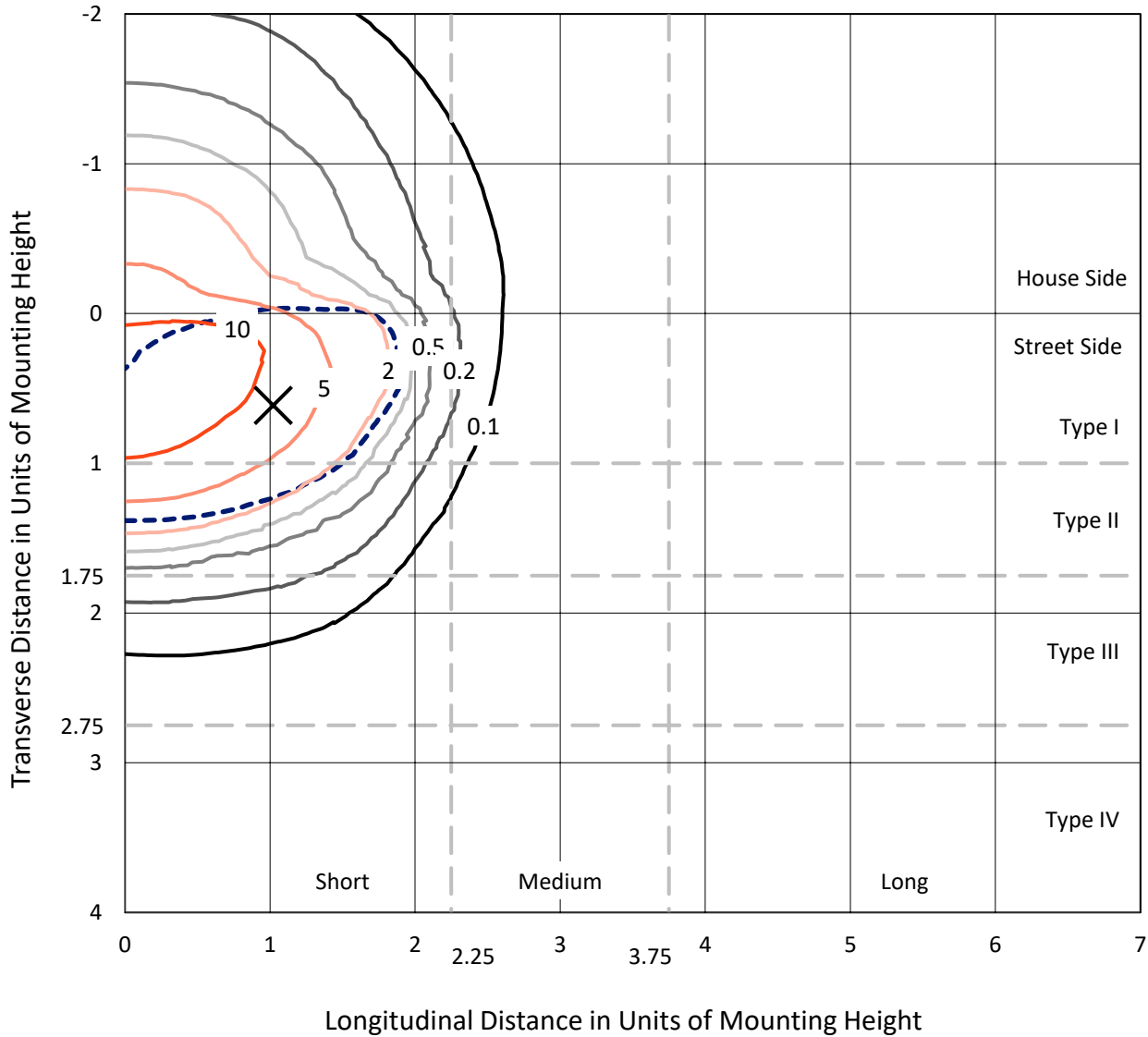
Input Watts (W): 310.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P641463
 CATALOG NUMBER: GWS-SA5F-830-U-T2R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

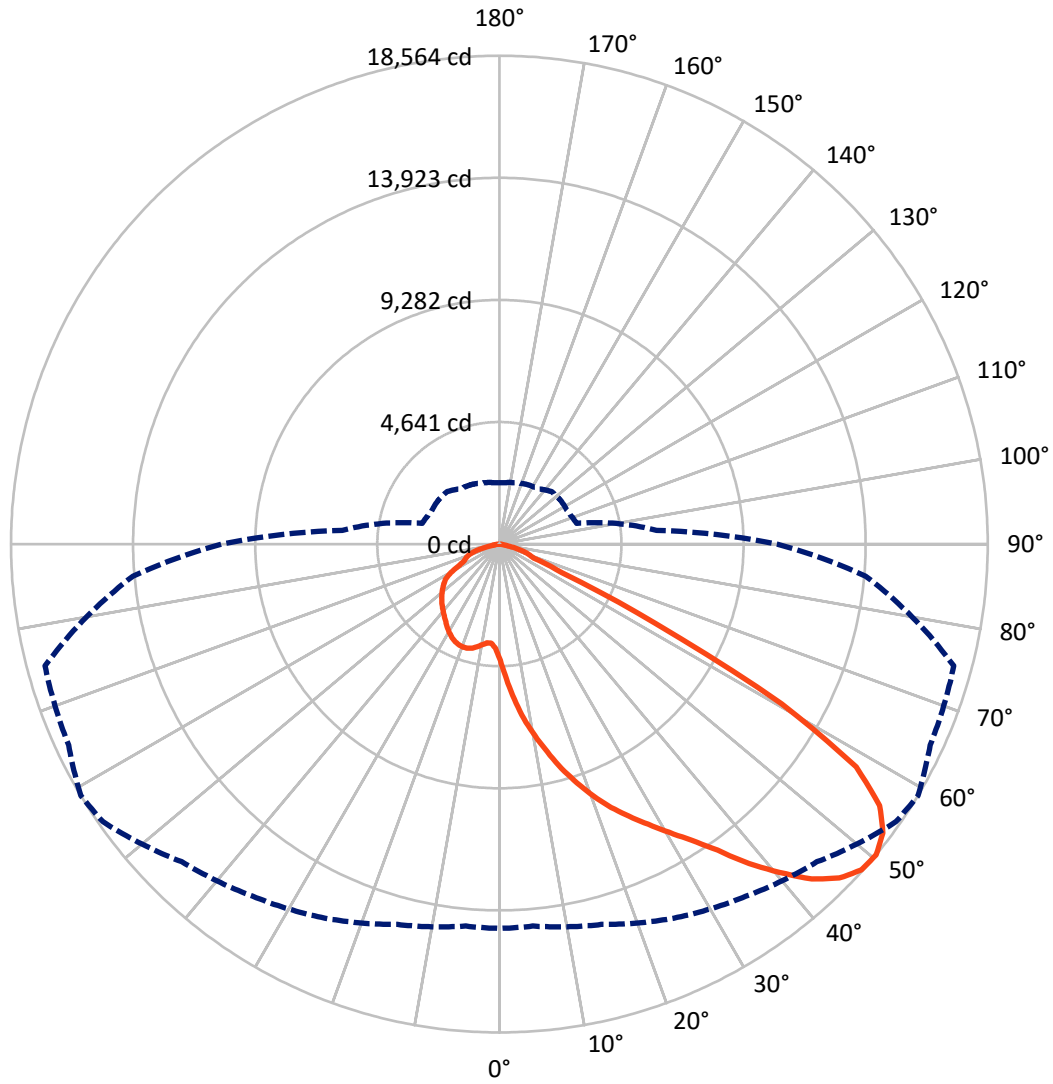
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6712.2	0.0	6712.2
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	22468.9	0.0	22468.9
	% Fixture	77.0	0.0	77.0
Total	Lumens	29181.1	0.0	29181.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	496.0	1.7
10°-20°	1800.5	6.2
20°-30°	3409.4	11.7
30°-40°	5653.8	19.4
40°-50°	7723.4	26.5
50°-60°	7010.9	24.0
60°-70°	2334.7	8.0
70°-80°	680.9	2.3
80°-90°	71.5	0.2
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°	29181.1	100.0
0°-180°	29181.1	100.0

Coefficient of Utilization



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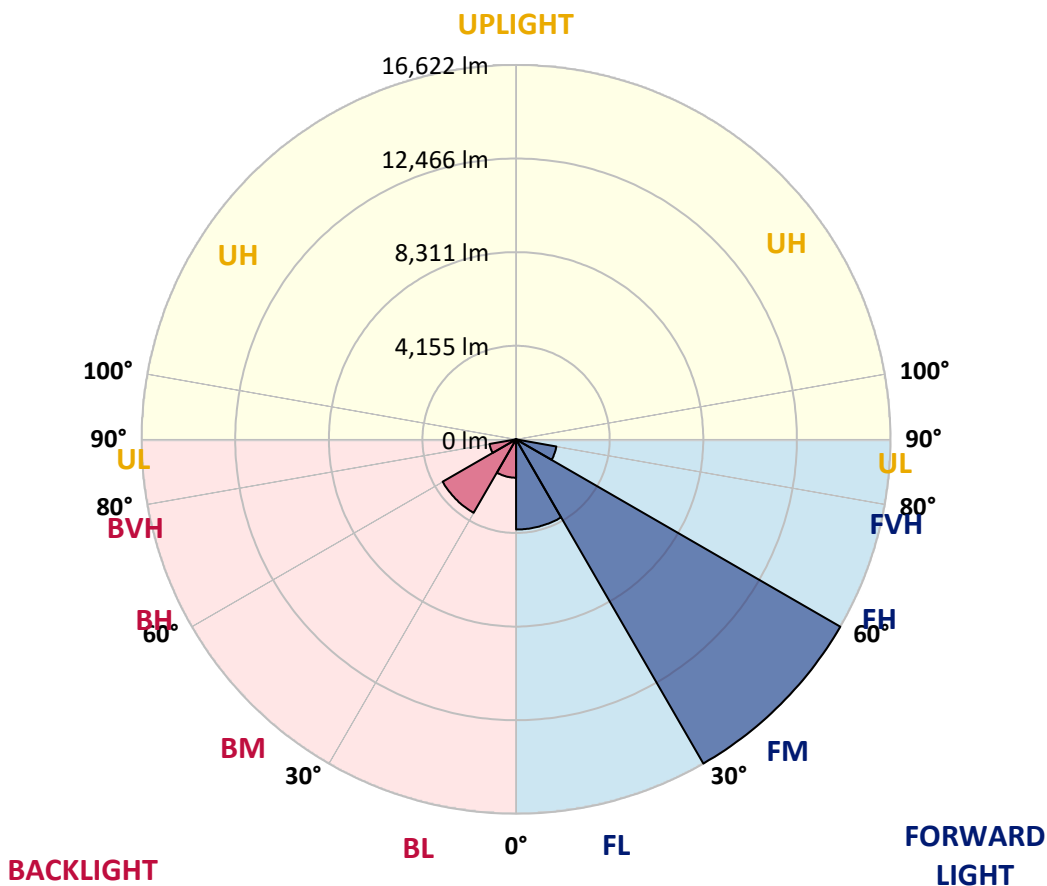
CATALOG NUMBER: GWS-SA5F-830-U-T2R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4001.4	13.7			
FM (30°-60°)	16621.9	57.0			
FH (60°-80°)	1817.6	6.2			G2/5000
FVH (80°-90°)	28.0	0.1			G1/100
BL (0°-30°)	1704.4	5.8	B3/2500		
BM (30°-60°)	3766.2	12.9	B3/5000		
BH (60°-80°)	1198.1	4.1	B3/2500		G3/2500
BVH (80°-90°)	43.6	0.1			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°	55°	59°	65°	75°	85°
0°	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1
2.5°	5728.5	5771.3	5704.7	5709.5	5543.1	5467.0	5253.1	5127.1	5043.9	4811.0	4599.4
5°	6883.7	6833.8	6781.5	6750.6	6605.6	6401.1	6134.9	5923.4	5728.5	5272.1	4832.4
7.5°	7592.0	7565.9	7530.2	7511.2	7368.6	7154.6	6888.4	6707.8	6424.9	5806.9	5115.2
10°	8193.4	8162.5	8141.1	8155.3	8038.9	7901.0	7611.0	7404.2	7085.7	6372.6	5457.5
12.5°	8659.3	8675.9	8683.0	8759.1	8709.2	8626.0	8326.5	8107.8	7753.6	6969.2	5859.2
15°	9027.7	9022.9	9106.1	9251.1	9331.9	9279.6	9039.6	8856.5	8423.9	7556.4	6291.8
17.5°	9113.3	9118.0	9248.7	9503.1	9766.9	9895.3	9759.8	9541.1	9113.3	8136.3	6741.1
20°	9182.2	9191.7	9327.2	9617.2	10002.2	10361.2	10382.6	10225.7	9857.2	8763.8	7197.4
22.5°	9617.2	9638.6	9674.2	9857.2	10204.3	10658.3	10907.9	10874.6	10565.6	9422.3	7689.5
25°	10760.5	10696.3	10522.8	10470.5	10603.6	10972.0	11397.5	11461.7	11309.6	10147.2	8219.5
27.5°	12172.4	12103.5	11846.8	11575.8	11288.2	11416.5	11870.5	12063.1	12065.4	10945.9	8752.0
30°	13453.6	13398.9	13189.7	12802.3	12305.5	12120.1	12455.3	12714.4	12868.9	11868.2	9358.1
32.5°	14549.4	14499.4	14216.6	13900.5	13415.6	13042.4	13163.6	13413.2	13774.5	13061.4	10111.6
35°	15471.6	15421.7	15150.7	14832.2	14383.0	14159.5	14116.8	14287.9	14756.2	14306.9	10976.8
37.5°	16220.4	16170.4	15887.6	15588.1	15245.8	15260.1	15324.3	15407.4	15676.0	15640.4	11901.4
40°	16705.3	16653.0	16450.9	16237.0	16020.7	16191.8	16510.4	16410.5	16553.1	16717.1	12752.4
42.5°	16921.6	16855.0	16738.5	16691.0	16624.4	16890.7	17503.9	17404.1	17232.9	17435.0	13384.7
45°	16705.3	16648.2	16645.8	16790.8	16945.3	17287.6	18190.9	18110.0	17677.4	17782.0	13762.6
47.5°	16042.1	15992.2	16127.7	16508.0	16888.3	17387.5	18497.5	18511.8	17993.6	17927.0	14007.4
50°	14608.8	14575.5	14967.7	15687.9	16344.0	17076.1	18400.0	18564.0	18069.6	17881.9	13976.5
52.5°	11694.6	11849.1	12702.5	13905.2	15179.3	16529.4	18038.7	18252.7	17703.6	17584.7	13810.1
55°	8005.6	8076.9	8930.2	10686.8	12707.2	15345.6	17209.2	17539.6	17271.0	17534.8	13983.6
57.5°	4145.4	4202.5	4875.1	6434.4	8618.9	12127.2	14905.9	15989.8	16398.6	17786.8	14523.2
60°	1701.9	1749.4	2027.5	2781.0	4347.5	7061.9	10727.2	12334.0	13294.3	16244.1	12897.4
62.5°	1236.0	1259.8	1392.9	1659.1	2277.1	3460.9	6070.8	6662.6	7337.7	10180.5	8188.6
65°	1041.1	1067.3	1174.2	1335.9	1661.5	2122.6	2593.3	2607.5	2873.7	4147.8	3035.4
67.5°	872.3	896.1	991.2	1129.1	1343.0	1507.0	1392.9	1395.3	1390.5	1504.6	1454.7
70°	679.8	698.8	793.9	941.3	1053.0	967.4	1088.6	1205.1	1155.2	1200.4	1269.3
72.5°	496.8	518.2	601.4	713.1	684.6	689.3	881.9	1000.7	972.2	1022.1	1086.3
75°	358.9	373.2	416.0	356.5	375.6	454.0	620.4	684.6	713.1	755.9	812.9
77.5°	116.5	116.5	130.7	164.0	204.4	252.0	316.1	342.3	385.1	432.6	473.0
80°	59.4	61.8	73.7	90.3	114.1	145.0	185.4	197.3	218.7	244.8	261.5
82.5°	28.5	30.9	35.7	45.2	59.4	76.1	102.2	114.1	128.4	145.0	156.9
85°	7.1	7.1	9.5	14.3	19.0	28.5	38.0	45.2	57.0	68.9	76.1
87.5°	0.0	0.0	0.0	0.0	0.0	2.4	7.1	9.5	11.9	14.3	19.0
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-SA5F-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1	4421.1
2.5°	4504.3	4371.2	4200.1	4055.1	3922.0	3819.8	3731.8	3689.0	3648.6	3620.1	3629.6
5°	4627.9	4399.8	4081.2	3860.2	3724.7	3655.8	3608.2	3584.5	3579.7	3560.7	3553.6
7.5°	4808.6	4482.9	4057.5	3834.0	3743.7	3708.1	3681.9	3667.6	3674.8	3655.8	3648.6
10°	5032.0	4620.8	4116.9	3919.6	3841.2	3815.0	3786.5	3767.5	3758.0	3729.4	3724.7
12.5°	5310.1	4791.9	4223.9	4028.9	3950.5	3905.3	3867.3	3834.0	3812.6	3777.0	3767.5
15°	5609.6	4982.1	4349.8	4135.9	4043.2	3976.7	3914.9	3864.9	3826.9	3779.4	3772.2
17.5°	5935.3	5181.8	4454.4	4209.6	4090.7	4002.8	3912.5	3838.8	3786.5	3724.7	3717.6
20°	6275.2	5383.8	4532.9	4245.2	4093.1	3974.3	3853.0	3755.6	3689.0	3627.2	3622.5
22.5°	6627.0	5569.2	4580.4	4235.7	4055.1	3907.7	3762.7	3653.4	3574.9	3501.3	3496.5
25°	6981.1	5747.5	4592.3	4197.7	3979.0	3807.9	3662.9	3534.5	3446.6	3363.4	3353.9
27.5°	7340.0	5897.2	4563.8	4121.6	3876.8	3691.4	3546.4	3420.4	3330.1	3246.9	3232.7
30°	7722.7	6025.6	4502.0	4021.8	3758.0	3567.8	3425.2	3330.1	3244.5	3161.4	3147.1
32.5°	8131.6	6137.3	4414.0	3900.6	3620.1	3444.2	3339.6	3254.1	3168.5	3094.8	3080.5
35°	8618.9	6211.0	4283.3	3743.7	3491.8	3353.9	3282.6	3182.7	3078.2	2997.3	2990.2
37.5°	9122.8	6268.0	4126.4	3594.0	3380.0	3301.6	3242.2	3106.7	2976.0	2878.5	2866.6
40°	9610.0	6315.6	3931.5	3453.7	3277.8	3263.6	3182.7	3014.0	2788.2	2678.8	2669.3
42.5°	10064.0	6329.8	3727.1	3304.0	3185.1	3178.0	3087.7	2826.2	2652.7	2583.8	2574.2
45°	10375.4	6318.0	3515.5	3163.7	3092.4	3054.4	2959.3	2690.7	2583.8	2522.0	2510.1
47.5°	10606.0	6256.2	3277.8	3016.4	2987.8	2935.5	2731.1	2605.1	2505.3	2443.5	2431.6
50°	10565.6	5999.4	3037.8	2873.7	2861.9	2816.7	2564.7	2498.2	2410.2	2343.7	2334.2
52.5°	10356.4	5512.2	2792.9	2716.9	2740.6	2652.7	2445.9	2369.8	2293.8	2217.7	2201.1
55°	10408.7	5160.4	2607.5	2564.7	2607.5	2407.9	2312.8	2232.0	2160.7	2087.0	2072.7
57.5°	10636.9	4813.3	2410.2	2400.7	2445.9	2220.1	2141.6	2039.4	1937.2	1877.8	1877.8
60°	8932.6	3508.4	2063.2	2087.0	2189.2	2068.0	1999.0	1894.4	1782.7	1730.4	1730.4
62.5°	5281.6	2201.1	1711.4	1685.3	1749.4	1825.5	1863.5	1778.0	1644.9	1575.9	1578.3
65°	2327.0	1602.1	1509.4	1488.0	1469.0	1521.3	1625.8	1633.0	1492.7	1411.9	1414.3
67.5°	1433.3	1449.9	1411.9	1395.3	1378.6	1369.1	1359.6	1364.4	1326.3	1252.7	1250.3
70°	1293.1	1338.2	1312.1	1297.8	1276.4	1259.8	1202.7	1110.0	1045.9	1026.8	1048.2
72.5°	1112.4	1174.2	1160.0	1152.8	1126.7	1086.3	1010.2	919.9	843.8	796.3	805.8
75°	839.1	889.0	896.1	898.5	870.0	831.9	753.5	677.4	610.9	561.0	572.8
77.5°	482.5	511.0	518.2	525.3	503.9	489.7	437.4	382.7	347.0	294.7	309.0
80°	268.6	280.5	280.5	282.9	271.0	254.3	218.7	187.8	171.1	147.4	149.7
82.5°	161.6	166.4	168.8	171.1	164.0	147.4	121.2	99.8	90.3	78.4	76.1
85°	78.4	83.2	83.2	85.6	73.7	64.2	49.9	38.0	33.3	23.8	26.1
87.5°	19.0	21.4	21.4	19.0	16.6	11.9	7.1	2.4	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

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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)