

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: P638490

Luminaire Tested: GWS-SA4E-830-U-T2-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-22)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4E-830-U-T2-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18209.9 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G3

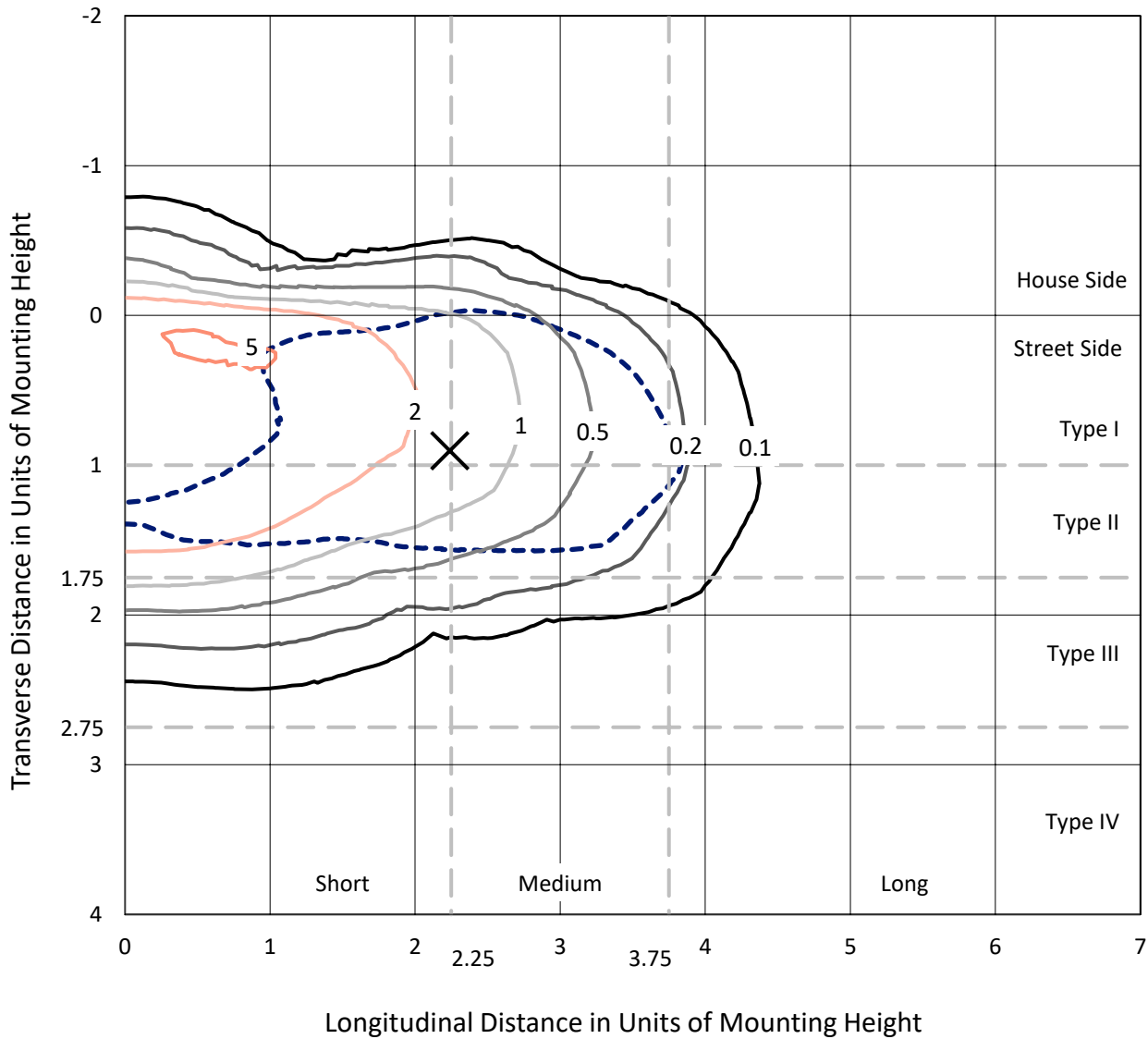
Input Watts (W): 202.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

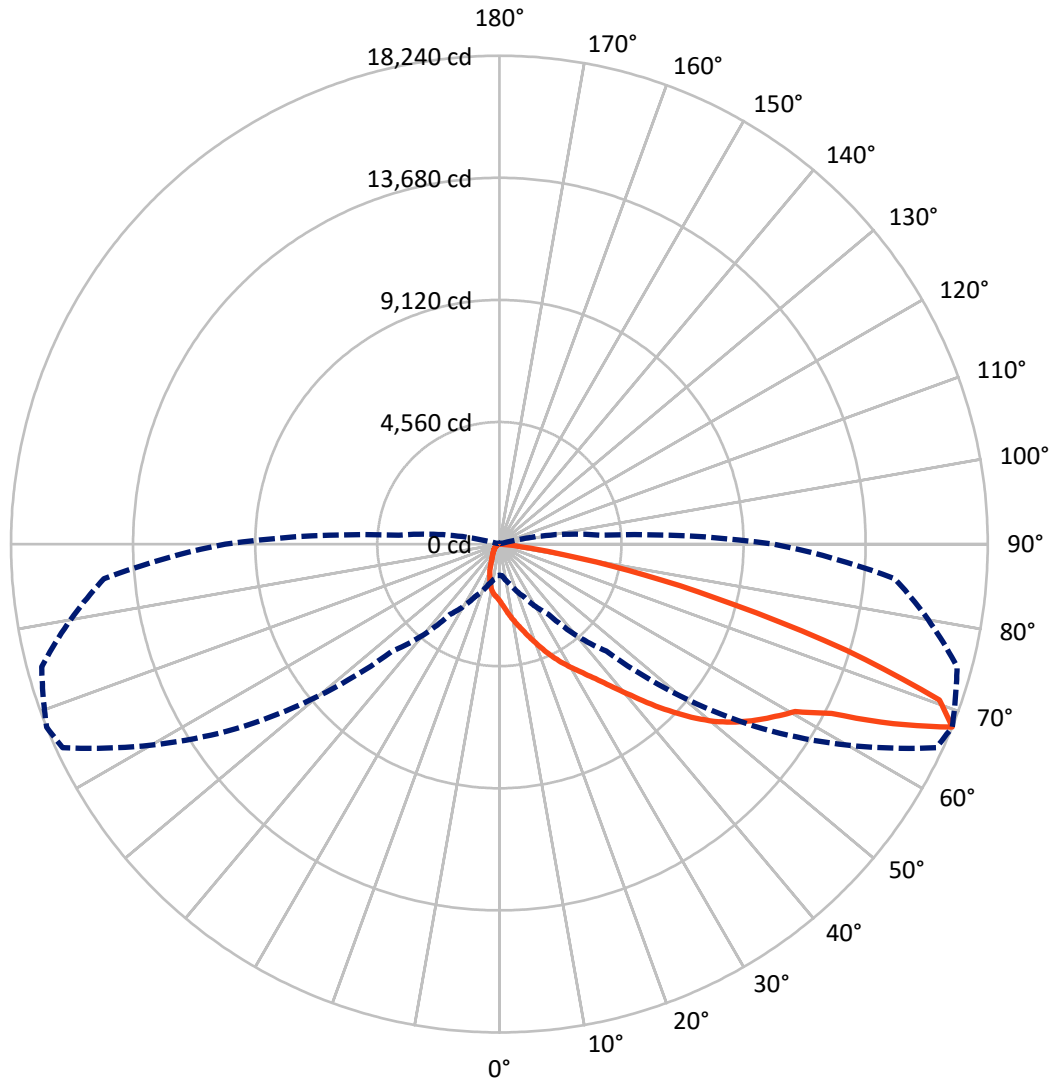
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1315.0	0.0	1315.0
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	16894.9	0.0	16894.9
	% Fixture	92.8	0.0	92.8
Total	Lumens	18209.9	0.0	18209.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.7	1.1
10°-20°	593.5	3.3
20°-30°	1020.0	5.6
30°-40°	1773.4	9.7
40°-50°	3094.3	17.0
50°-60°	4667.1	25.6
60°-70°	4679.9	25.7
70°-80°	2064.7	11.3
80°-90°	110.3	0.6
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°	18209.9	100.0
0°-180°	18209.9	100.0

Coefficient of Utilization



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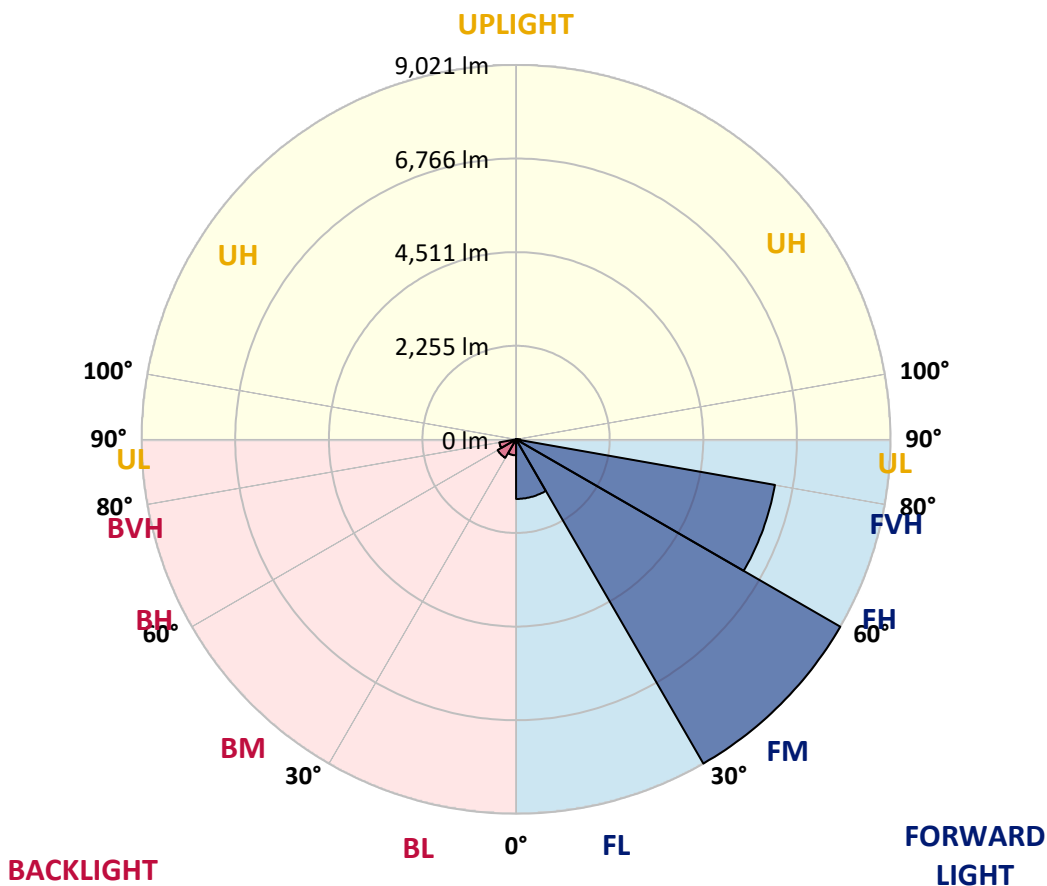
CATALOG NUMBER: GWS-SA4E-830-U-T2-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1435.5	7.9			
FM (30°-60°)	9021.1	49.5			
FH (60°-80°)	6334.2	34.8			G3/7500
FVH (80°-90°)	104.1	0.6			G2/225
BL (0°-30°)	384.7	2.1	B1/500		
BM (30°-60°)	513.7	2.8	B1/1000		
BH (60°-80°)	410.4	2.3	B1/500		G1/500
BVH (80°-90°)	6.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2
2.5°	2467.7	2483.4	2467.7	2471.2	2425.9	2405.0	2359.7	2296.9	2281.2	2241.2	2180.2
5°	2769.2	2783.2	2767.5	2764.0	2711.7	2673.4	2598.4	2490.4	2459.0	2380.6	2260.3
7.5°	2933.0	2941.7	2947.0	2955.7	2936.5	2905.1	2837.2	2703.0	2669.9	2542.7	2373.6
10°	2950.5	2957.4	2983.6	3035.8	3074.2	3093.4	3055.0	2931.3	2879.0	2755.3	2513.0
12.5°	2901.7	2912.1	2953.9	3041.1	3147.4	3245.0	3269.4	3161.3	3114.3	2955.7	2676.8
15°	2837.2	2845.9	2903.4	3021.9	3182.2	3361.7	3462.8	3415.8	3363.5	3197.9	2858.1
17.5°	2737.8	2750.0	2830.2	2990.5	3197.9	3454.1	3671.9	3687.6	3651.0	3471.5	3058.5
20°	2682.1	2690.8	2762.2	2927.8	3187.5	3522.1	3867.1	4015.3	3975.2	3787.0	3288.5
22.5°	2729.1	2736.1	2783.2	2912.1	3152.6	3560.4	4048.4	4342.9	4320.2	4125.1	3530.8
25°	2976.6	2999.3	2971.4	2994.0	3168.3	3581.3	4194.8	4670.5	4675.8	4478.8	3781.7
27.5°	3478.5	3448.9	3382.7	3269.4	3290.3	3637.1	4320.2	4979.0	5024.3	4823.9	4004.8
30°	3989.1	3971.7	3931.6	3755.6	3609.2	3760.8	4426.6	5294.4	5365.9	5163.7	4203.5
32.5°	4562.5	4579.9	4508.5	4297.6	4048.4	4011.8	4536.3	5594.2	5728.4	5548.9	4437.0
35°	5247.4	5252.6	5111.5	4877.9	4595.6	4426.6	4733.3	5925.3	6172.8	6040.3	4749.0
37.5°	5914.9	5946.2	5869.5	5501.8	5250.9	4942.4	5059.2	6350.5	6699.1	6646.8	5141.1
40°	6505.6	6554.4	6530.0	6174.5	5845.1	5585.5	5564.6	6849.0	7335.2	7394.4	5658.7
42.5°	6976.2	7007.5	7026.7	6774.0	6483.0	6336.6	6188.5	7427.5	8086.3	8328.5	6293.0
45°	7472.9	7483.3	7523.4	7352.6	7098.2	7110.4	6925.6	8129.9	8877.5	9363.7	7021.5
47.5°	8105.5	8140.3	8121.2	7941.7	7711.6	7849.3	7687.2	8853.1	9658.3	10468.6	7767.4
50°	8875.8	8912.4	8894.9	8685.8	8429.6	8487.1	8386.1	9555.4	10411.1	11510.8	8387.8
52.5°	9273.1	9302.7	9518.8	9612.9	9478.8	9112.8	8982.1	10327.5	11047.2	12368.2	8957.7
55°	9081.4	9102.3	9572.9	9970.2	10461.7	10095.7	9581.6	10923.5	11608.4	13037.4	9381.2
57.5°	8286.7	8400.0	9039.6	9712.3	10745.7	11066.4	10554.0	11571.8	12148.6	13502.7	9797.7
60°	6657.3	6652.0	7568.7	8776.4	10191.5	11333.0	11927.3	12448.4	12690.6	13860.0	10355.3
62.5°	3678.9	3712.0	4931.9	6523.1	8651.0	10642.9	12957.3	13962.8	13926.2	14483.9	11228.5
65°	1831.6	1897.8	2560.1	3736.4	5756.3	8795.6	13135.0	16273.7	16169.1	15953.0	13032.2
67.5°	1162.4	1188.5	1554.5	2171.5	3199.7	5653.4	12028.4	17997.3	18239.5	17695.8	14822.0
70°	752.9	796.4	1080.5	1484.8	1931.0	2913.9	8811.3	16880.2	17436.1	17504.1	13706.6
72.5°	409.5	440.9	690.1	1059.6	1394.2	1456.9	4949.4	12668.0	13562.0	14848.1	10723.1
75°	233.5	256.2	378.2	719.8	1023.0	887.1	2194.1	8480.2	9050.0	10611.5	7683.7
77.5°	141.2	160.3	212.6	350.3	641.3	592.5	829.5	5162.0	5524.5	6331.4	4032.7
80°	64.5	76.7	134.2	193.4	350.3	280.6	317.2	2406.7	2485.1	2598.4	1334.9
82.5°	29.6	34.9	61.0	115.0	198.7	162.1	122.0	555.9	782.5	740.7	339.8
85°	3.5	3.5	22.7	47.1	55.8	41.8	50.5	125.5	158.6	223.1	97.6
87.5°	0.0	0.0	1.7	1.7	3.5	5.2	10.5	15.7	22.7	36.6	24.4
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: P638490

CATALOG NUMBER: GWS-SA4E-830-U-T2-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2	2119.2
2.5°	2152.3	2103.5	2059.9	1995.4	1951.9	1903.1	1870.0	1829.9	1814.2	1802.0	1784.6
5°	2201.1	2122.7	2016.3	1897.8	1800.2	1707.9	1622.5	1566.7	1517.9	1511.0	1486.6
7.5°	2281.2	2164.5	1985.0	1791.5	1626.0	1472.6	1352.4	1254.8	1206.0	1190.3	1162.4
10°	2387.6	2227.2	1937.9	1641.7	1402.9	1219.9	1084.0	974.2	897.5	869.6	848.7
12.5°	2506.1	2284.7	1863.0	1456.9	1185.1	975.9	803.4	686.6	637.8	620.4	604.7
15°	2642.0	2338.8	1744.5	1272.2	972.4	718.0	596.0	545.5	524.6	519.3	514.1
17.5°	2772.7	2373.6	1603.3	1080.5	747.6	557.7	500.2	481.0	475.8	470.5	467.1
20°	2920.8	2398.0	1437.8	899.3	580.3	472.3	444.4	430.5	420.0	409.5	407.8
22.5°	3072.4	2398.0	1258.3	721.5	486.2	423.5	392.1	366.0	346.8	336.3	332.9
25°	3217.1	2364.9	1080.5	576.8	428.7	376.4	336.3	306.7	280.6	268.4	264.9
27.5°	3319.9	2279.5	925.4	488.0	388.6	334.6	285.8	252.7	231.8	219.6	217.8
30°	3384.4	2152.3	782.5	435.7	353.8	291.0	242.2	214.4	198.7	190.0	186.5
32.5°	3433.2	1995.4	655.3	399.1	320.7	252.7	210.9	188.2	174.3	167.3	165.6
35°	3530.8	1847.3	561.2	366.0	285.8	221.3	184.7	167.3	156.8	148.1	146.4
37.5°	3666.7	1723.6	486.2	336.3	252.7	196.9	167.3	151.6	142.9	134.2	132.4
40°	3867.1	1645.1	430.5	306.7	223.1	177.8	153.4	139.4	127.2	118.5	116.8
42.5°	4175.6	1608.5	393.9	277.1	196.9	160.3	141.2	123.7	111.5	102.8	101.1
45°	4543.3	1627.7	362.5	247.5	179.5	148.1	125.5	108.0	95.9	87.1	85.4
47.5°	4937.2	1695.7	336.3	219.6	162.1	135.9	111.5	92.4	81.9	73.2	71.5
50°	5348.5	1807.2	313.7	193.4	148.1	122.0	95.9	80.2	69.7	62.7	61.0
52.5°	5705.7	1958.8	291.0	174.3	135.9	108.0	83.7	69.7	59.3	52.3	50.5
55°	6047.3	2101.7	273.6	156.8	122.0	94.1	73.2	59.3	50.5	43.6	41.8
57.5°	6418.5	2253.4	252.7	141.2	109.8	83.7	64.5	50.5	43.6	36.6	34.9
60°	6958.8	2478.2	221.3	129.0	95.9	73.2	55.8	45.3	38.3	29.6	27.9
62.5°	7737.8	2887.7	186.5	111.5	81.9	62.7	47.1	38.3	31.4	24.4	20.9
65°	9194.7	3584.8	153.4	92.4	66.2	52.3	40.1	31.4	24.4	17.4	15.7
67.5°	10243.8	3766.1	123.7	74.9	54.0	40.1	33.1	24.4	17.4	12.2	10.5
70°	8955.9	2704.7	95.9	61.0	45.3	31.4	26.1	19.2	12.2	8.7	7.0
72.5°	6747.9	1767.1	71.5	47.1	34.9	26.1	19.2	15.7	10.5	7.0	5.2
75°	4755.9	1021.2	52.3	34.9	24.4	19.2	15.7	12.2	8.7	5.2	5.2
77.5°	2438.1	421.7	36.6	24.4	17.4	12.2	10.5	7.0	7.0	5.2	3.5
80°	740.7	139.4	20.9	15.7	12.2	8.7	5.2	5.2	5.2	3.5	1.7
82.5°	169.0	45.3	12.2	12.2	8.7	7.0	5.2	1.7	1.7	0.0	0.0
85°	43.6	13.9	10.5	8.7	8.7	7.0	3.5	1.7	0.0	0.0	0.0
87.5°	15.7	8.7	8.7	8.7	7.0	5.2	3.5	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

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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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

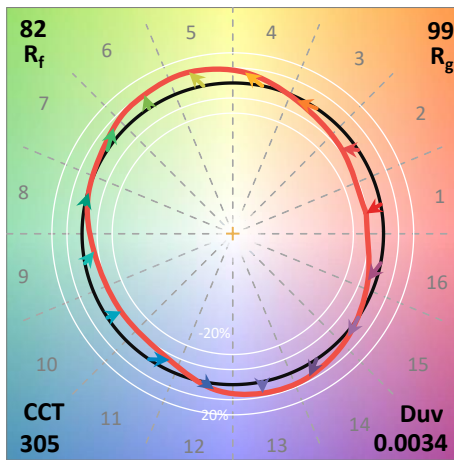
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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)