

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: P636517

Luminaire Tested: GWS-SA3F-830-U-T3-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-25)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3F-830-U-T3-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16577.9 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

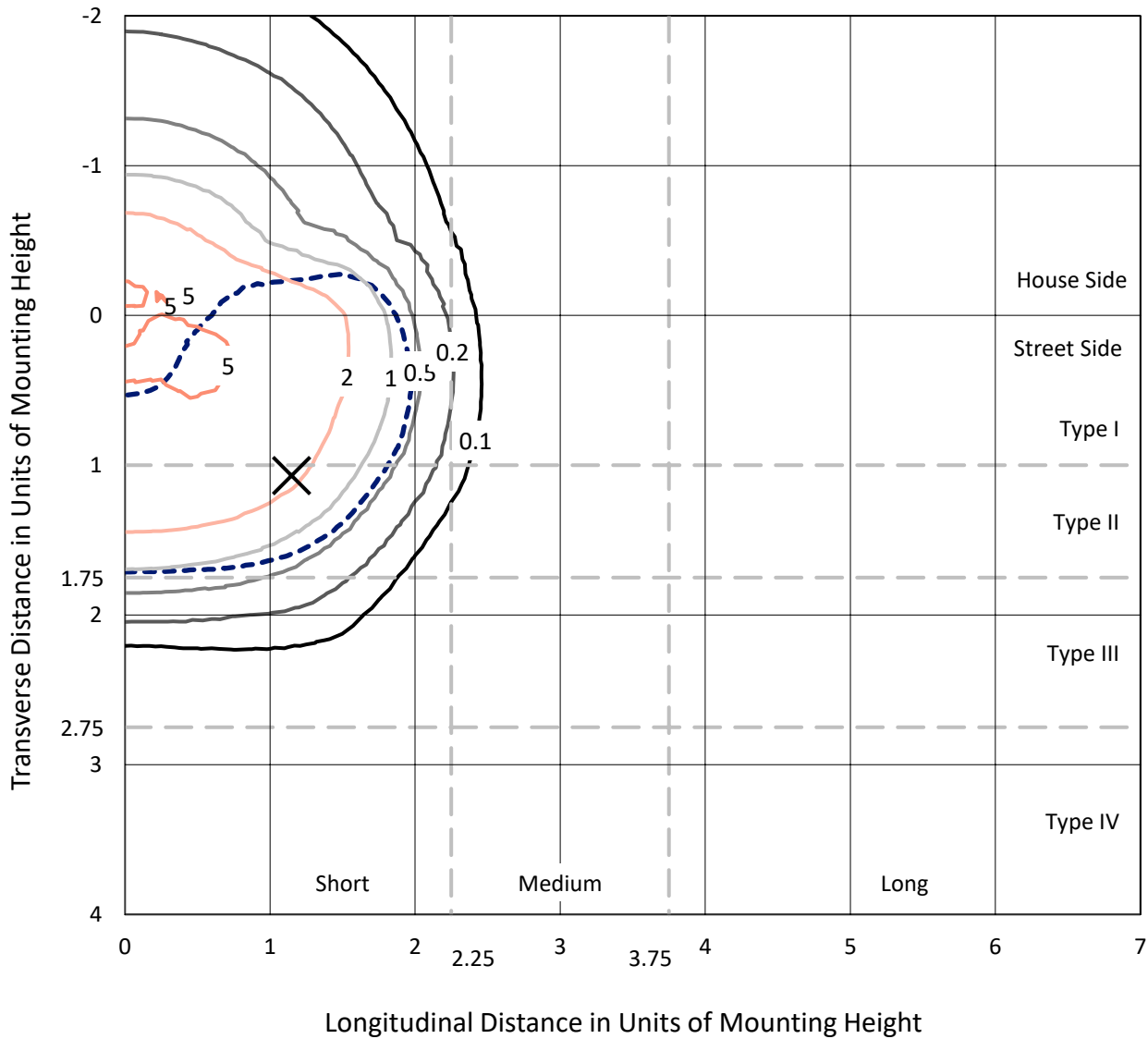
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

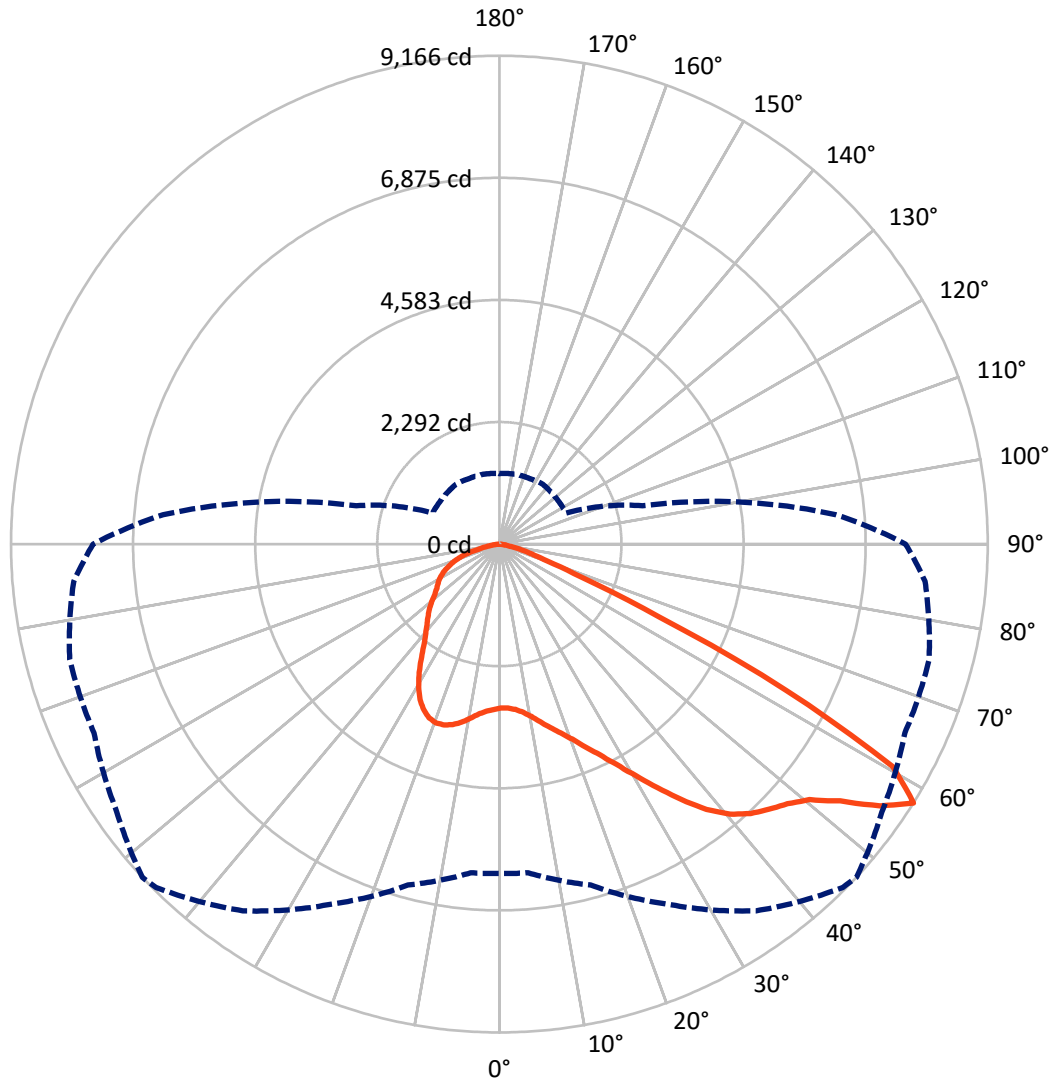
✕ Max cd
 - - - 1/2 Max cd



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 47-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5246.9	0.0	5246.9
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	11331.0	0.0	11331.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	16577.9	0.0	16577.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.2	1.8
10°-20°	997.3	6.0
20°-30°	1795.8	10.8
30°-40°	2712.4	16.4
40°-50°	3652.6	22.0
50°-60°	4389.1	26.5
60°-70°	2137.6	12.9
70°-80°	526.6	3.2
80°-90°	63.3	0.4
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°	16577.9	100.0
0°-180°	16577.9	100.0

Coefficient of Utilization



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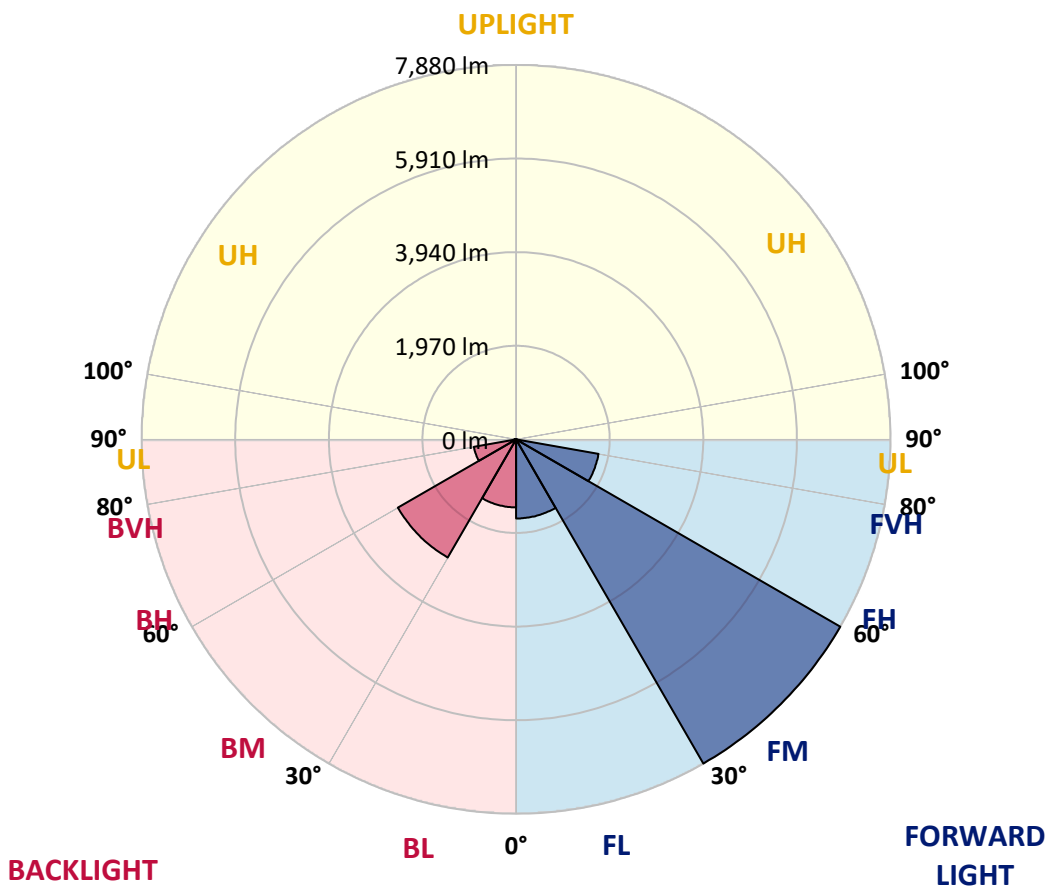
CATALOG NUMBER: GWS-SA3F-830-U-T3-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1665.2	10.0			
FM (30°-60°)	7880.3	47.5			
FH (60°-80°)	1761.7	10.6			G1/1800
FVH (80°-90°)	23.8	0.1			G1/100
BL (0°-30°)	1431.2	8.6	B3/2500		
BM (30°-60°)	2873.7	17.3	B3/5000		
BH (60°-80°)	902.4	5.4	B2/1000		G2/1000
BVH (80°-90°)	39.5	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4
2.5°	3068.8	3067.4	3067.4	3075.8	3075.8	3078.6	3082.7	3086.9	3088.3	3081.4	3066.0
5°	3102.2	3102.2	3102.2	3109.2	3109.2	3112.0	3117.6	3119.0	3117.6	3106.4	3091.1
7.5°	3155.2	3155.2	3156.5	3164.9	3171.9	3176.0	3185.8	3184.4	3180.2	3162.1	3142.6
10°	3241.5	3245.7	3249.8	3259.6	3273.5	3283.3	3290.2	3290.2	3284.6	3256.8	3231.7
12.5°	3364.0	3369.6	3373.8	3382.1	3393.3	3410.0	3425.3	3425.3	3418.3	3383.5	3345.9
15°	3507.4	3513.0	3511.6	3514.4	3535.3	3558.9	3571.5	3579.8	3582.6	3533.9	3475.4
17.5°	3671.7	3677.3	3671.7	3663.4	3666.2	3703.8	3726.0	3756.7	3774.8	3709.3	3616.0
20°	3820.7	3815.1	3815.1	3820.7	3829.1	3875.0	3908.4	3958.6	3980.8	3901.5	3756.7
22.5°	3978.1	3990.6	3985.0	3985.0	4018.4	4095.0	4135.4	4200.8	4224.5	4121.5	3926.5
25°	4181.3	4192.5	4189.7	4192.5	4231.5	4340.1	4380.5	4501.6	4525.3	4377.7	4114.5
27.5°	4404.1	4422.2	4430.6	4427.8	4490.5	4632.5	4682.6	4851.1	4894.2	4664.5	4315.0
30°	4693.7	4713.2	4720.2	4717.4	4791.2	4984.8	5041.8	5234.0	5295.3	5004.2	4569.8
32.5°	5029.3	5048.8	5069.7	5078.0	5172.7	5370.4	5452.6	5651.7	5739.4	5396.9	4877.5
35°	5362.1	5378.8	5419.2	5484.6	5614.1	5816.0	5888.4	6084.7	6169.7	5804.9	5249.3
37.5°	5729.7	5740.8	5775.6	5866.1	6052.7	6244.9	6317.3	6505.2	6515.0	6198.9	5669.8
40°	6132.1	6132.1	6125.1	6214.2	6409.2	6602.7	6665.4	6774.0	6716.9	6502.5	6079.2
42.5°	6473.2	6467.6	6473.2	6556.8	6701.6	6858.9	6913.2	6892.3	6819.9	6735.0	6449.5
45°	6780.9	6785.1	6835.2	6899.3	6974.5	7067.8	7099.8	6981.4	6916.0	6921.6	6746.1
47.5°	6989.8	6994.0	7110.9	7218.1	7264.1	7293.3	7279.4	7115.1	7081.7	7144.3	6974.5
50°	7017.6	7039.9	7241.8	7461.8	7576.0	7580.2	7541.2	7340.7	7330.9	7401.9	7097.0
52.5°	7023.2	7045.5	7297.5	7694.3	7990.9	8053.6	8009.0	7800.2	7698.5	7627.5	7247.4
55°	7002.3	7027.4	7305.9	7850.3	8418.4	8669.0	8673.2	8378.0	8053.6	8006.2	7676.2
57.5°	6182.2	6192.0	6623.6	7453.5	8401.7	9111.8	9166.1	8765.1	8394.7	8350.2	8020.2
60°	4306.7	4345.6	4814.9	5910.7	7058.0	8309.8	8485.2	8368.3	8120.4	7796.0	6881.2
62.5°	2156.8	2190.2	2660.9	3696.8	4867.8	5856.4	6044.4	6168.3	6226.8	5878.7	4685.4
65°	928.7	953.8	1246.2	1931.2	2755.5	3233.1	3298.6	3447.6	3812.4	3401.6	2524.4
67.5°	621.0	637.7	786.7	1178.0	1623.5	1654.2	1644.4	1676.4	1755.8	1449.5	1140.4
70°	476.2	490.1	590.4	863.3	1166.8	998.3	945.4	857.7	931.5	949.6	924.5
72.5°	345.3	356.5	431.6	589.0	731.0	637.7	629.4	673.9	774.2	802.0	786.7
75°	222.8	228.4	274.3	323.0	377.3	409.4	426.1	506.8	608.5	629.4	611.3
77.5°	149.0	153.2	179.6	207.5	214.4	215.8	221.4	257.6	327.2	366.2	362.0
80°	78.0	78.0	87.7	87.7	100.3	119.7	125.3	149.0	181.0	200.5	201.9
82.5°	30.6	32.0	37.6	41.8	50.1	61.3	65.4	78.0	94.7	108.6	121.1
85°	12.5	13.9	15.3	18.1	22.3	27.8	29.2	33.4	44.6	55.7	62.7
87.5°	0.0	0.0	1.4	1.4	2.8	4.2	4.2	5.6	7.0	12.5	16.7
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-T3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4	3074.4
2.5°	3084.1	3066.0	3084.1	3089.7	3105.0	3110.6	3100.9	3099.5	3099.5	3085.5	3081.4
5°	3105.0	3088.3	3106.4	3114.8	3137.1	3151.0	3153.8	3164.9	3171.9	3166.3	3164.9
7.5°	3156.5	3135.7	3155.2	3167.7	3196.9	3219.2	3229.0	3254.0	3272.1	3269.3	3267.9
10°	3247.1	3219.2	3241.5	3262.4	3294.4	3320.8	3322.2	3336.2	3354.3	3348.7	3345.9
12.5°	3351.5	3325.0	3350.1	3371.0	3408.6	3419.7	3401.6	3396.0	3398.8	3391.9	3386.3
15°	3479.6	3442.0	3464.3	3487.9	3508.8	3496.3	3457.3	3442.0	3440.6	3430.8	3425.3
17.5°	3607.7	3560.3	3577.0	3589.6	3579.8	3540.8	3492.1	3465.7	3453.1	3433.6	3428.1
20°	3734.4	3674.5	3671.7	3662.0	3617.4	3546.4	3481.0	3428.1	3396.0	3369.6	3359.8
22.5°	3879.2	3795.7	3753.9	3709.3	3611.9	3496.3	3397.4	3322.2	3270.7	3237.3	3226.2
25°	4035.1	3916.8	3830.5	3741.3	3556.2	3389.1	3251.2	3148.2	3086.9	3050.7	3038.2
27.5°	4189.7	4026.8	3897.3	3745.5	3444.8	3234.5	3049.3	2910.1	2848.8	2819.6	2809.8
30°	4398.6	4173.0	3976.7	3691.2	3298.6	3020.1	2789.0	2648.3	2607.9	2587.1	2578.7
32.5°	4639.4	4358.2	4082.5	3577.0	3112.0	2769.5	2525.8	2428.3	2400.5	2360.1	2358.7
35°	4956.9	4622.7	4182.7	3408.6	2876.7	2500.7	2323.9	2254.3	2204.2	2140.1	2134.5
37.5°	5327.3	4952.7	4237.0	3194.1	2602.4	2279.3	2173.5	2095.5	2014.8	1929.9	1918.7
40°	5710.2	5338.4	4241.2	2940.7	2333.6	2133.1	2044.0	1942.4	1842.1	1747.4	1734.9
42.5°	6112.6	5697.7	4167.4	2648.3	2113.6	2006.4	1915.9	1787.8	1675.0	1611.0	1604.0
45°	6471.8	5987.3	4000.3	2340.6	1950.7	1900.6	1785.0	1647.2	1587.3	1541.4	1531.6
47.5°	6754.5	6179.4	3774.8	2064.9	1818.5	1792.0	1641.6	1570.6	1524.7	1482.9	1473.1
50°	6893.7	6222.6	3481.0	1840.7	1695.9	1663.9	1560.9	1506.6	1475.9	1442.5	1434.2
52.5°	7066.4	6271.3	3227.6	1652.8	1576.2	1533.0	1494.0	1450.9	1428.6	1407.7	1400.7
55°	7463.2	6455.1	3093.9	1502.4	1462.0	1442.5	1436.9	1400.7	1393.8	1379.9	1367.3
57.5°	7624.7	6336.8	2777.8	1379.9	1371.5	1374.3	1388.2	1354.8	1347.8	1331.1	1322.8
60°	6132.1	4789.8	1881.1	1274.0	1296.3	1314.4	1328.3	1294.9	1285.2	1282.4	1271.3
62.5°	3929.3	2946.3	1313.0	1175.2	1208.6	1230.9	1239.2	1207.2	1200.2	1222.5	1223.9
65°	2045.4	1605.4	1065.2	1069.4	1097.2	1130.6	1147.3	1136.2	1133.4	1157.1	1158.5
67.5°	1044.3	981.6	928.7	944.0	966.3	1009.5	1048.5	1097.2	1113.9	1116.7	1118.1
70°	889.7	861.9	835.4	845.2	868.9	892.5	930.1	953.8	925.9	919.0	916.2
72.5°	757.5	736.6	724.0	735.2	747.7	743.5	732.4	743.5	747.7	749.1	750.5
75°	589.0	573.7	563.9	565.3	565.3	550.0	529.1	516.6	502.7	491.5	491.5
77.5°	360.6	363.4	373.2	371.8	370.4	364.8	343.9	332.8	299.4	289.6	289.6
80°	206.1	210.3	220.0	222.8	222.8	215.8	194.9	182.4	167.1	160.1	158.7
82.5°	125.3	130.9	136.5	139.2	140.6	132.3	114.2	104.4	96.1	89.1	89.1
85°	65.4	68.2	73.8	75.2	71.0	62.7	52.9	48.7	40.4	39.0	39.0
87.5°	18.1	19.5	22.3	18.1	16.7	12.5	7.0	5.6	2.8	1.4	1.4
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)