

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: P633543

Luminaire Tested: GWS-SA2E-830-U-T2R-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P633543
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-SA2E-830-U-T2R-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10201.2 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

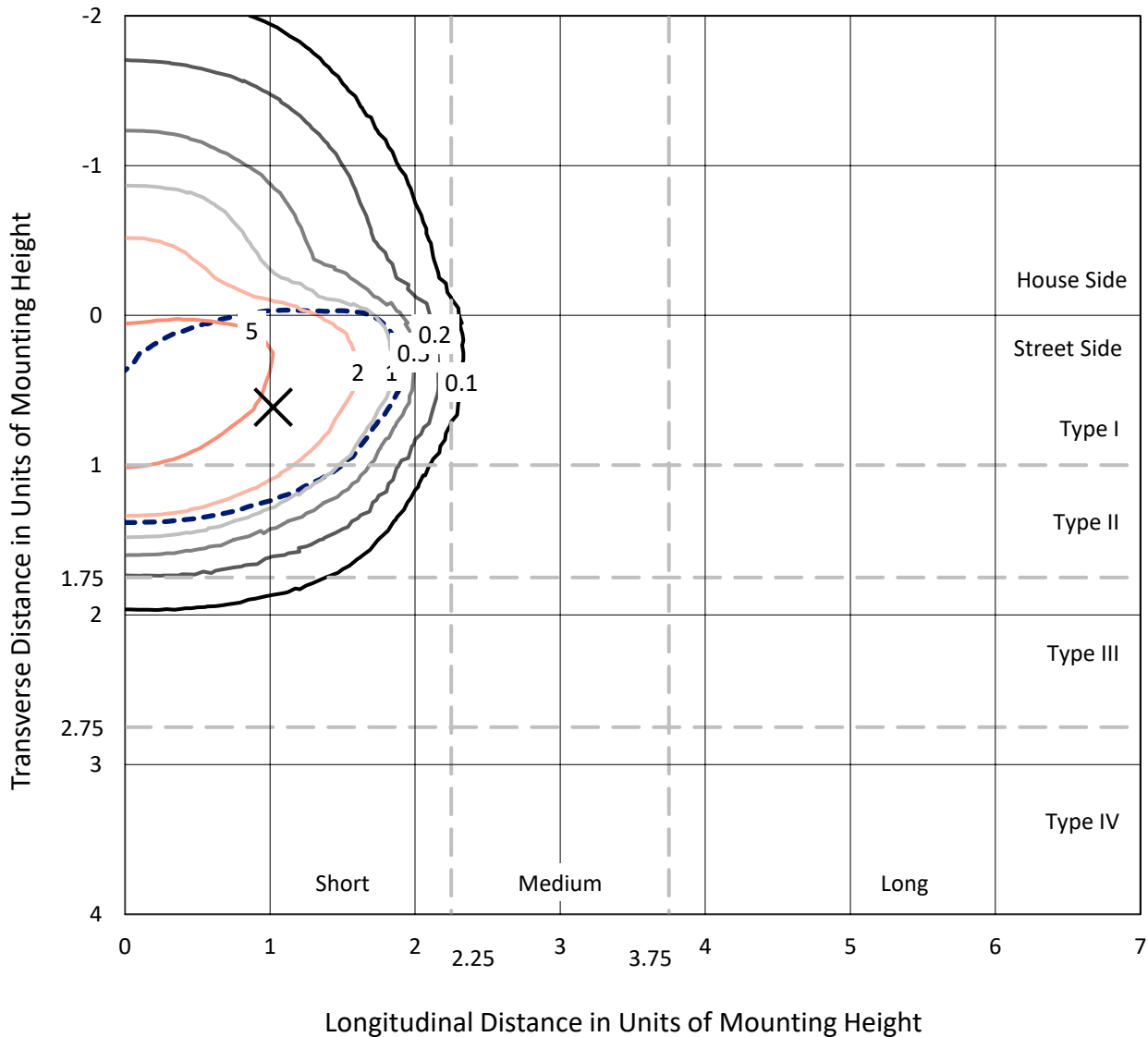
Input Watts (W): 108.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P633543
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Iso-Footcandle Lines of Horizontal Illumination

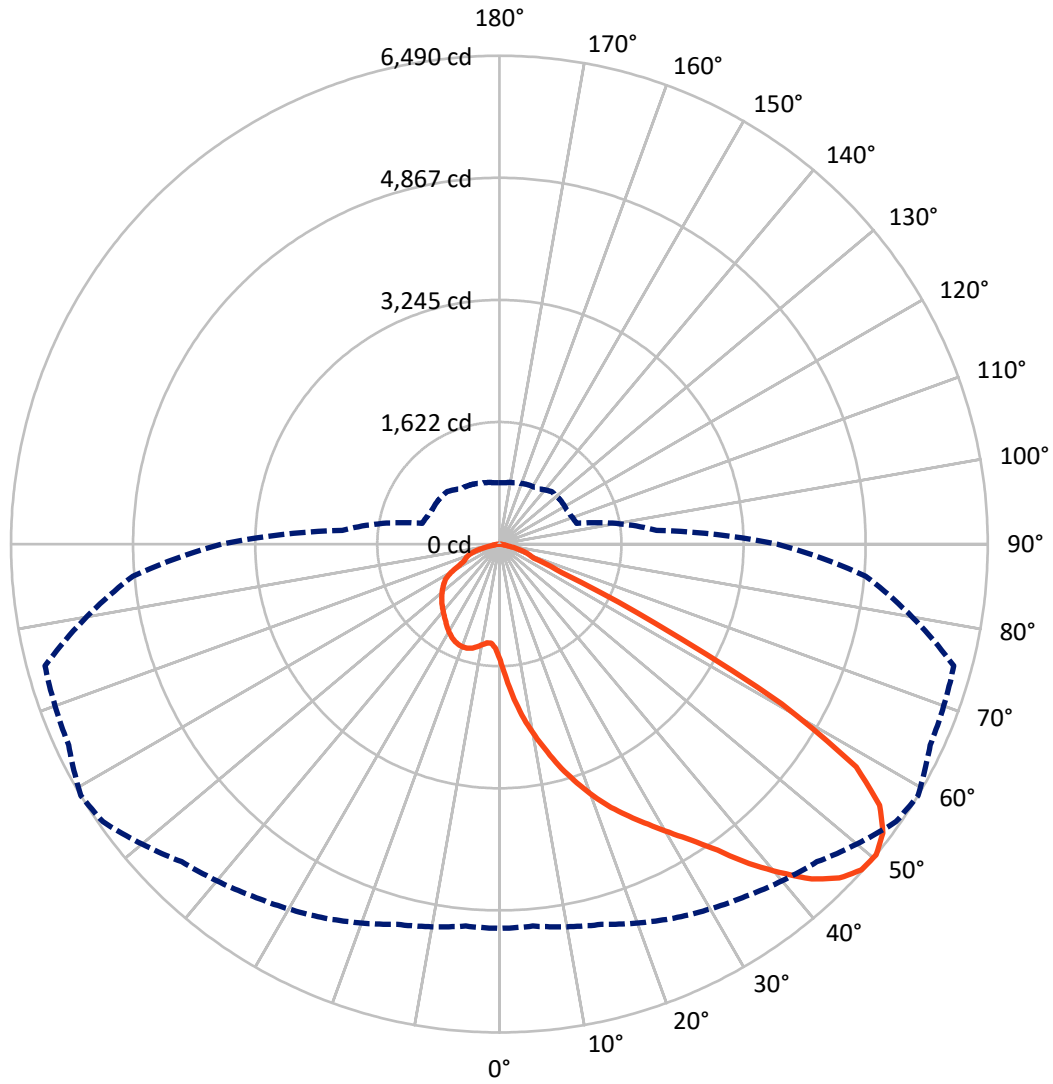
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.6 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	2346.5	0.0	2346.5
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	7854.7	0.0	7854.7
	% Fixture	77.0	0.0	77.0
Total	Lumens	10201.2	0.0	10201.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.4	1.7
10°-20°	629.4	6.2
20°-30°	1191.9	11.7
30°-40°	1976.5	19.4
40°-50°	2700.0	26.5
50°-60°	2450.9	24.0
60°-70°	816.2	8.0
70°-80°	238.0	2.3
80°-90°	25.0	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°	10201.2	100.0
0°-180°	10201.2	100.0

Coefficient of Utilization



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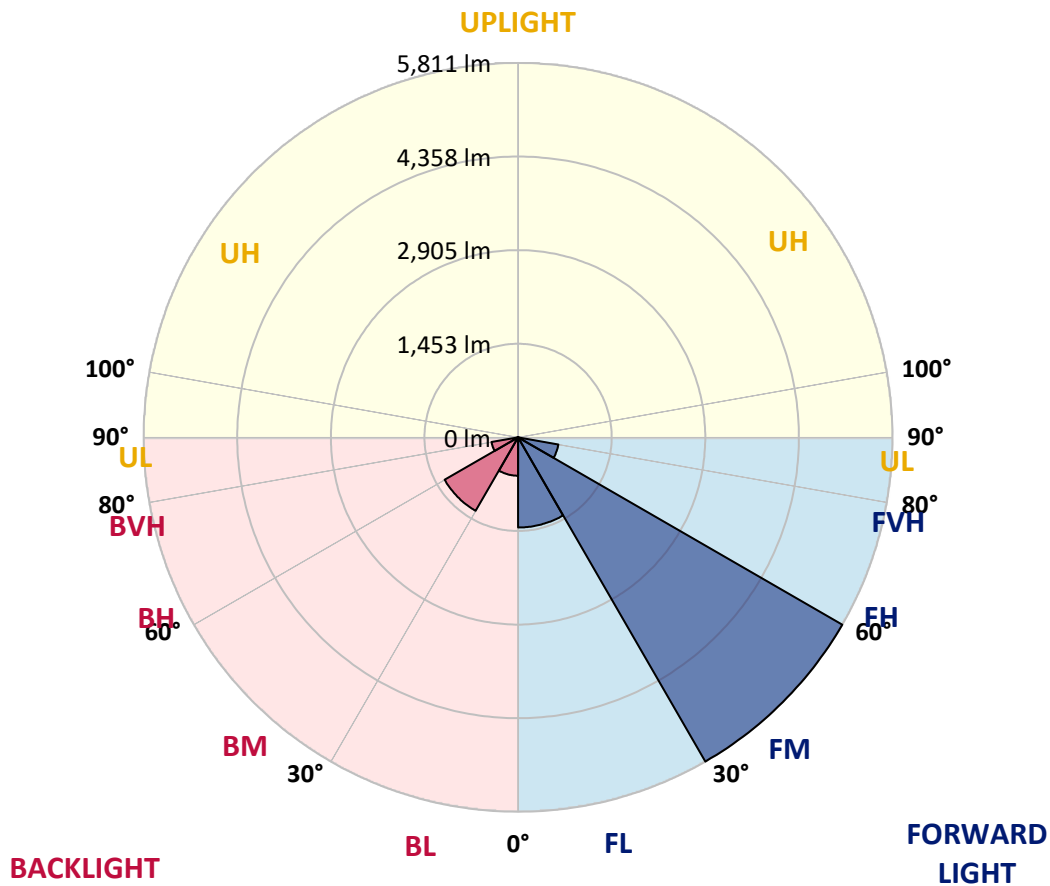
CATALOG NUMBER: GWS-SA2E-830-U-T2R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1398.8	13.7			
FM (30°-60°)	5810.7	57.0			
FH (60°-80°)	635.4	6.2			G0/660
FVH (80°-90°)	9.8	0.1			G0/10
BL (0°-30°)	595.8	5.8	B2/1000		
BM (30°-60°)	1316.6	12.9	B2/2500		
BH (60°-80°)	418.8	4.1	B1/500		G1/500
BVH (80°-90°)	15.2	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6
2.5°	2002.6	2017.5	1994.3	1995.9	1937.8	1911.2	1836.4	1792.3	1763.3	1681.8	1607.9
5°	2406.4	2389.0	2370.7	2359.9	2309.2	2237.7	2144.7	2070.7	2002.6	1843.0	1689.3
7.5°	2654.0	2644.9	2632.4	2625.8	2575.9	2501.1	2408.1	2344.9	2246.0	2030.0	1788.2
10°	2864.3	2853.5	2846.0	2851.0	2810.2	2762.1	2660.7	2588.4	2477.0	2227.8	1907.8
12.5°	3027.1	3032.9	3035.4	3062.0	3044.6	3015.5	2910.8	2834.3	2710.5	2436.3	2048.3
15°	3155.9	3154.3	3183.3	3234.0	3262.3	3244.0	3160.1	3096.1	2944.9	2641.6	2199.5
17.5°	3185.8	3187.5	3233.2	3322.1	3414.3	3459.2	3411.9	3335.4	3185.8	2844.3	2356.6
20°	3209.9	3213.3	3260.6	3362.0	3496.6	3622.1	3629.6	3574.7	3445.9	3063.7	2516.1
22.5°	3362.0	3369.5	3381.9	3445.9	3567.2	3725.9	3813.2	3801.6	3693.5	3293.9	2688.1
25°	3761.7	3739.2	3678.6	3660.3	3706.8	3835.6	3984.4	4006.8	3953.6	3547.3	2873.4
27.5°	4255.3	4231.2	4141.4	4046.7	3946.1	3991.0	4149.7	4217.0	4217.9	3826.5	3059.5
30°	4703.1	4684.0	4610.9	4475.5	4301.8	4237.0	4354.1	4444.7	4498.7	4148.9	3271.4
32.5°	5086.2	5068.8	4969.9	4859.4	4689.8	4559.4	4601.8	4689.0	4815.3	4566.0	3534.8
35°	5408.6	5391.2	5296.4	5185.1	5028.0	4949.9	4935.0	4994.8	5158.5	5001.4	3837.3
37.5°	5670.4	5652.9	5554.0	5449.3	5329.7	5334.7	5357.1	5386.2	5480.1	5467.6	4160.5
40°	5839.9	5821.6	5751.0	5676.2	5600.6	5660.4	5771.7	5736.8	5786.7	5844.0	4458.0
42.5°	5915.5	5892.2	5851.5	5834.9	5811.6	5904.7	6119.1	6084.2	6024.3	6095.0	4679.0
45°	5839.9	5819.9	5819.1	5869.8	5923.8	6043.4	6359.2	6331.0	6179.7	6216.3	4811.2
47.5°	5608.0	5590.6	5637.9	5770.9	5903.8	6078.3	6466.4	6471.4	6290.2	6267.0	4896.7
50°	5107.0	5095.3	5232.4	5484.2	5713.6	5969.5	6432.3	6489.7	6316.8	6251.2	4885.9
52.5°	4088.2	4142.3	4440.6	4861.0	5306.4	5778.4	6306.0	6380.8	6188.9	6147.3	4827.8
55°	2798.6	2823.5	3121.9	3735.9	4442.2	5364.6	6016.0	6131.5	6037.6	6129.9	4888.4
57.5°	1449.2	1469.1	1704.3	2249.4	3013.0	4239.5	5210.8	5589.8	5732.7	6217.9	5077.1
60°	595.0	611.6	708.8	972.2	1519.8	2468.7	3750.0	4311.8	4647.5	5678.7	4508.7
62.5°	432.1	440.4	486.9	580.0	796.0	1209.9	2122.2	2329.1	2565.1	3558.9	2862.6
65°	364.0	373.1	410.5	467.0	580.8	742.0	906.6	911.5	1004.6	1450.0	1061.1
67.5°	305.0	313.3	346.5	394.7	469.5	526.8	486.9	487.8	486.1	526.0	508.5
70°	237.6	244.3	277.5	329.1	368.1	338.2	380.6	421.3	403.8	419.6	443.7
72.5°	173.7	181.1	210.2	249.3	239.3	241.0	308.3	349.8	339.9	357.3	379.7
75°	125.5	130.5	145.4	124.6	131.3	158.7	216.9	239.3	249.3	264.2	284.2
77.5°	40.7	40.7	45.7	57.3	71.5	88.1	110.5	119.7	134.6	151.2	165.4
80°	20.8	21.6	25.8	31.6	39.9	50.7	64.8	69.0	76.4	85.6	91.4
82.5°	10.0	10.8	12.5	15.8	20.8	26.6	35.7	39.9	44.9	50.7	54.8
85°	2.5	2.5	3.3	5.0	6.6	10.0	13.3	15.8	19.9	24.1	26.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	2.5	3.3	4.2	5.0	6.6
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-SA2E-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6	1545.6
2.5°	1574.6	1528.1	1468.3	1417.6	1371.1	1335.3	1304.6	1289.6	1275.5	1265.5	1268.8
5°	1617.8	1538.1	1426.7	1349.5	1302.1	1278.0	1261.4	1253.1	1251.4	1244.8	1242.3
7.5°	1681.0	1567.2	1418.4	1340.3	1308.7	1296.3	1287.1	1282.1	1284.6	1278.0	1275.5
10°	1759.1	1615.4	1439.2	1370.2	1342.8	1333.7	1323.7	1317.0	1313.7	1303.7	1302.1
12.5°	1856.3	1675.2	1476.6	1408.4	1381.0	1365.2	1351.9	1340.3	1332.8	1320.4	1317.0
15°	1961.0	1741.7	1520.6	1445.8	1413.4	1390.2	1368.6	1351.1	1337.8	1321.2	1318.7
17.5°	2074.9	1811.5	1557.2	1471.6	1430.1	1399.3	1367.7	1342.0	1323.7	1302.1	1299.6
20°	2193.7	1882.1	1584.6	1484.1	1430.9	1389.3	1347.0	1312.9	1289.6	1268.0	1266.4
22.5°	2316.7	1946.9	1601.2	1480.7	1417.6	1366.1	1315.4	1277.2	1249.7	1224.0	1222.3
25°	2440.5	2009.2	1605.4	1467.4	1391.0	1331.2	1280.5	1235.6	1204.9	1175.8	1172.5
27.5°	2566.0	2061.6	1595.4	1440.9	1355.3	1290.5	1239.8	1195.7	1164.2	1135.1	1130.1
30°	2699.7	2106.4	1573.8	1406.0	1313.7	1247.2	1197.4	1164.2	1134.2	1105.2	1100.2
32.5°	2842.7	2145.5	1543.1	1363.6	1265.5	1204.0	1167.5	1137.6	1107.6	1081.9	1076.9
35°	3013.0	2171.3	1497.4	1308.7	1220.7	1172.5	1147.5	1112.6	1076.1	1047.8	1045.3
37.5°	3189.2	2191.2	1442.5	1256.4	1181.6	1154.2	1133.4	1086.0	1040.3	1006.3	1002.1
40°	3359.5	2207.8	1374.4	1207.4	1145.9	1140.9	1112.6	1053.6	974.7	936.5	933.1
42.5°	3518.2	2212.8	1302.9	1155.0	1113.5	1111.0	1079.4	988.0	927.3	903.2	899.9
45°	3627.1	2208.6	1229.0	1106.0	1081.1	1067.8	1034.5	940.6	903.2	881.6	877.5
47.5°	3707.7	2187.0	1145.9	1054.5	1044.5	1026.2	954.8	910.7	875.8	854.2	850.1
50°	3693.5	2097.3	1061.9	1004.6	1000.5	984.7	896.6	873.3	842.6	819.3	816.0
52.5°	3620.4	1927.0	976.4	949.8	958.1	927.3	855.0	828.5	801.9	775.3	769.5
55°	3638.7	1804.0	911.5	896.6	911.5	841.7	808.5	780.3	755.3	729.6	724.6
57.5°	3718.5	1682.7	842.6	839.3	855.0	776.1	748.7	712.9	677.2	656.4	656.4
60°	3122.7	1226.5	721.3	729.6	765.3	722.9	698.8	662.3	623.2	604.9	604.9
62.5°	1846.4	769.5	598.3	589.1	611.6	638.2	651.5	621.5	575.0	550.9	551.7
65°	813.5	560.1	527.6	520.2	513.5	531.8	568.4	570.9	521.8	493.6	494.4
67.5°	501.1	506.9	493.6	487.8	481.9	478.6	475.3	477.0	463.7	437.9	437.1
70°	452.0	467.8	458.7	453.7	446.2	440.4	420.5	388.1	365.6	359.0	366.4
72.5°	388.9	410.5	405.5	403.0	393.9	379.7	353.2	321.6	295.0	278.4	281.7
75°	293.3	310.8	313.3	314.1	304.1	290.8	263.4	236.8	213.6	196.1	200.3
77.5°	168.7	178.7	181.1	183.6	176.2	171.2	152.9	133.8	121.3	103.0	108.0
80°	93.9	98.1	98.1	98.9	94.7	88.9	76.4	65.6	59.8	51.5	52.3
82.5°	56.5	58.2	59.0	59.8	57.3	51.5	42.4	34.9	31.6	27.4	26.6
85°	27.4	29.1	29.1	29.9	25.8	22.4	17.4	13.3	11.6	8.3	9.1
87.5°	6.6	7.5	7.5	6.6	5.8	4.2	2.5	0.8	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



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

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)