

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: P637020

Luminaire Tested: GWS-SA4B-830-U-T4FT-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P637020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-54)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4B-830-U-T4FT-W
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11106.3 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

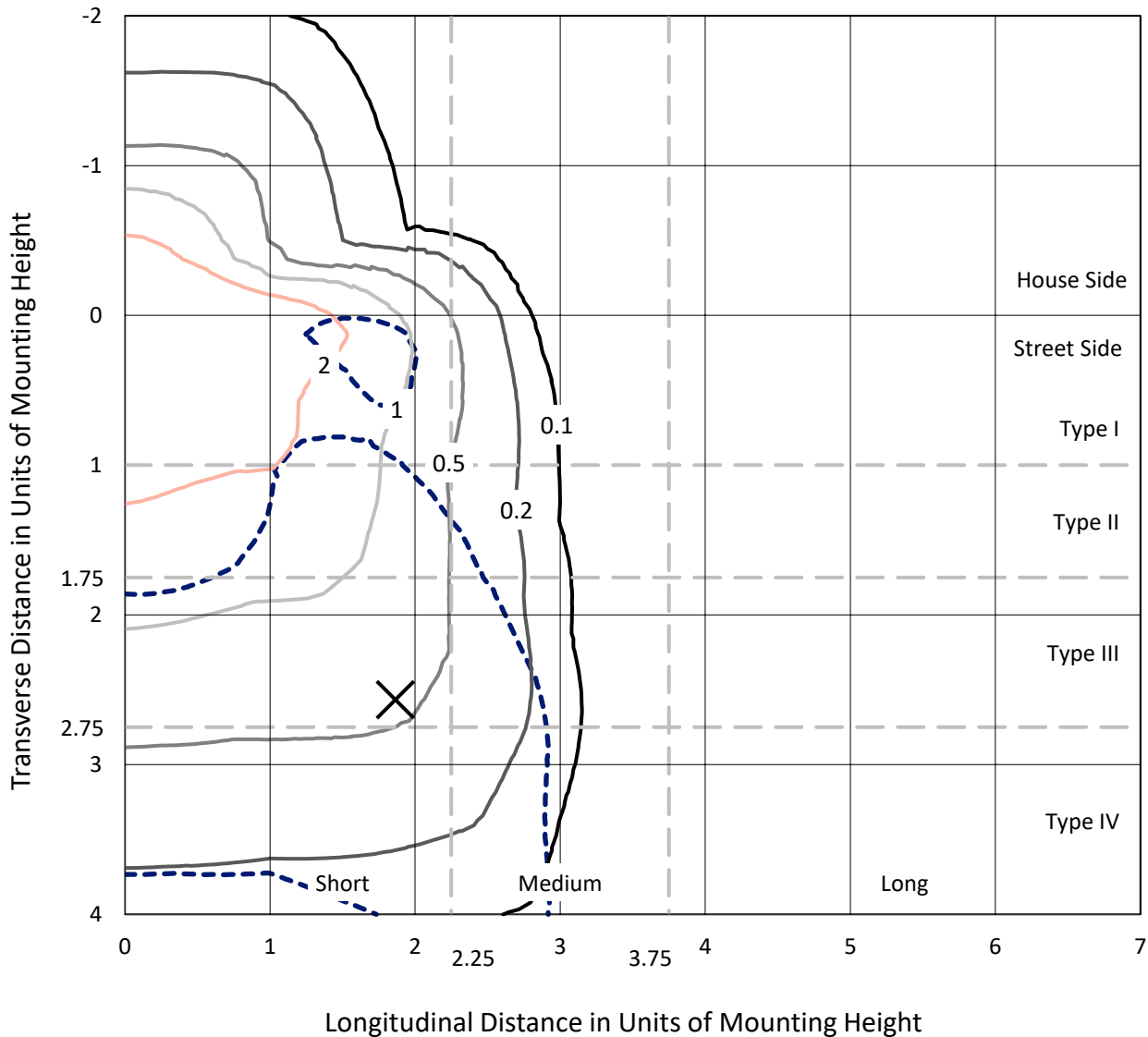
Input Watts (W): 94.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

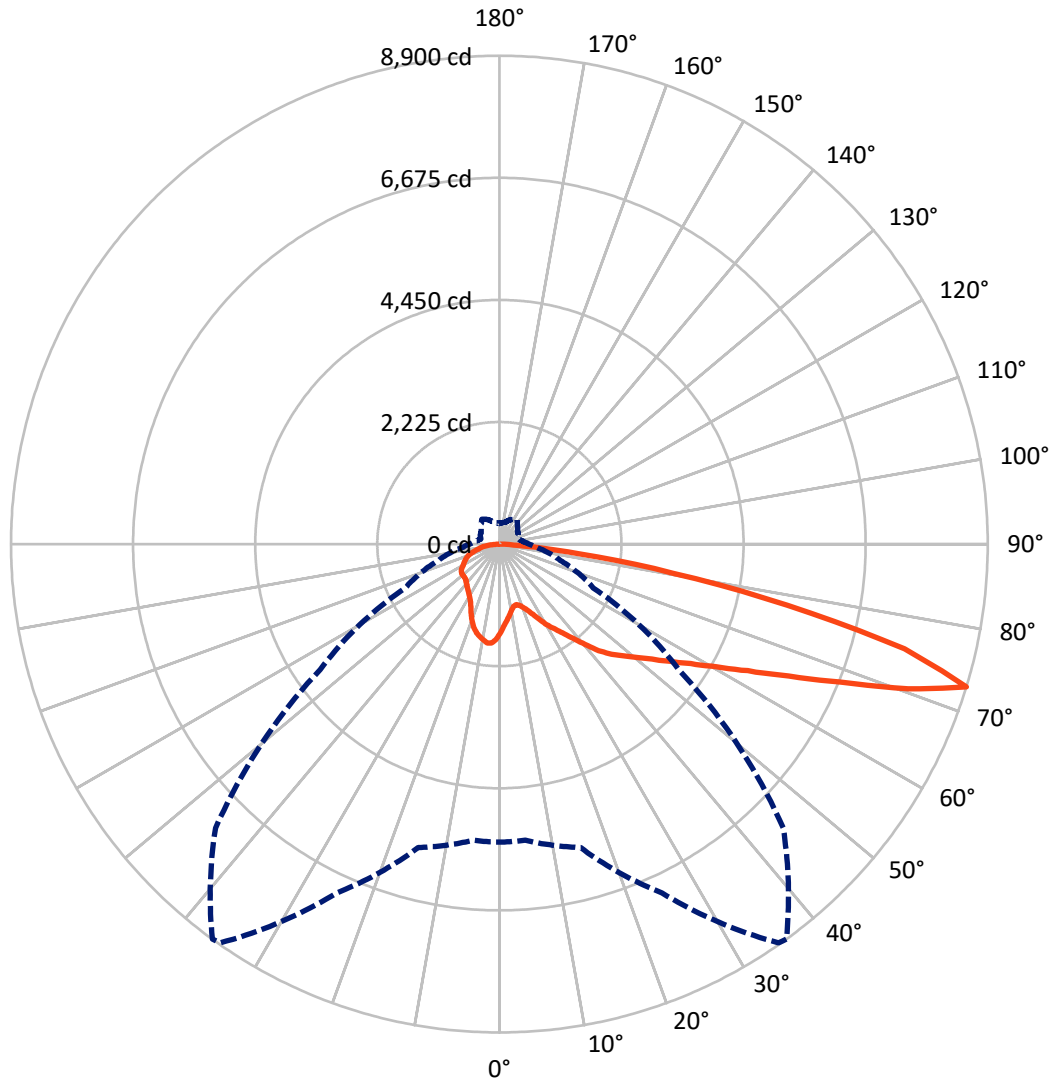
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2560.5	0.0	2560.5
	% Fixture	23.1	0.0	23.1
Street Side	Lumens	8545.8	0.0	8545.8
	% Fixture	76.9	0.0	76.9
Total	Lumens	11106.3	0.0	11106.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.9	1.4
10°-20°	428.7	3.9
20°-30°	709.9	6.4
30°-40°	1063.2	9.6
40°-50°	1551.1	14.0
50°-60°	2207.7	19.9
60°-70°	2789.2	25.1
70°-80°	1987.6	17.9
80°-90°	217.0	2.0
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°	11106.3	100.0
0°-180°	11106.3	100.0

Coefficient of Utilization



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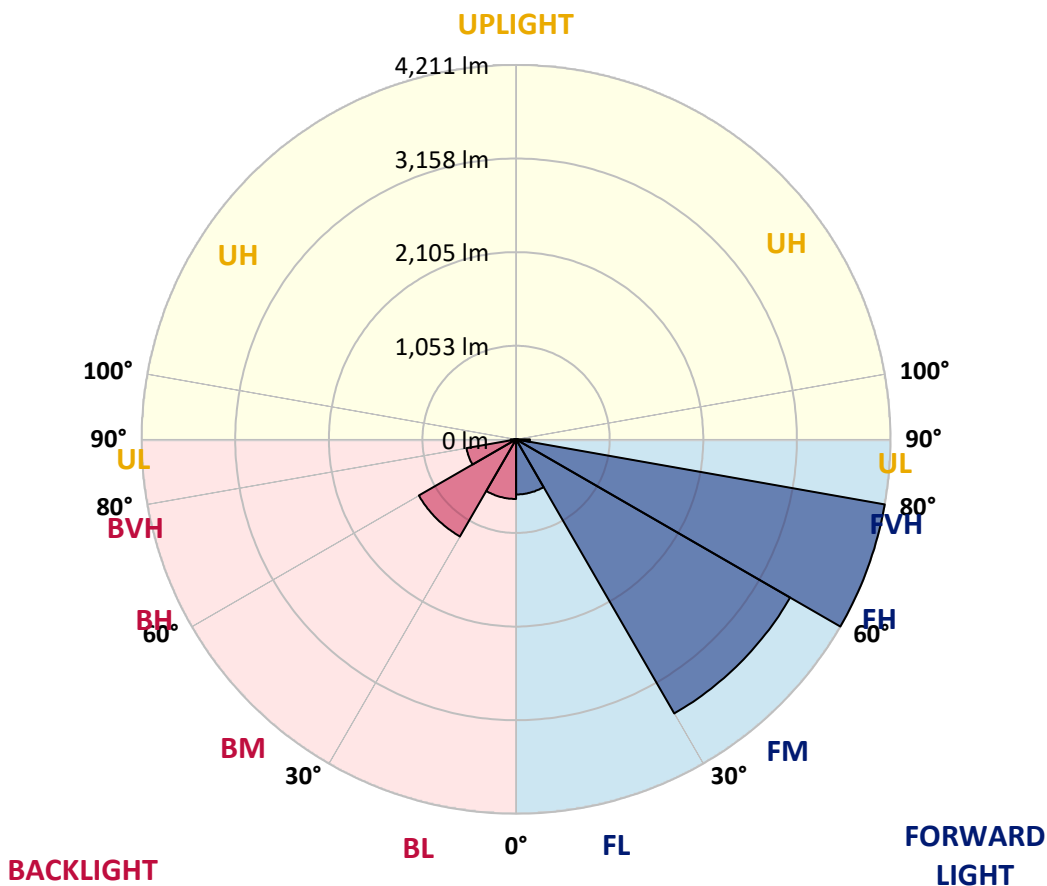
CATALOG NUMBER: GWS-SA4B-830-U-T4FT-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	620.0	5.6			
FM (30°-60°)	3559.3	32.0			
FH (60°-80°)	4210.8	37.9			G2/5000
FVH (80°-90°)	155.7	1.4			G2/225
BL (0°-30°)	670.5	6.0	B2/1000		
BM (30°-60°)	1262.7	11.4	B2/2500		
BH (60°-80°)	566.1	5.1	B2/1000		G2/1000
BVH (80°-90°)	61.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5
2.5°	1482.9	1480.4	1475.4	1490.3	1505.1	1503.5	1524.1	1543.9	1565.3	1587.5	1617.2
5°	1364.2	1362.5	1358.4	1380.6	1402.9	1402.1	1435.9	1468.0	1511.7	1559.5	1618.9
7.5°	1245.5	1241.3	1247.1	1275.1	1306.5	1309.8	1355.9	1408.7	1472.1	1543.9	1627.9
10°	1140.8	1140.0	1142.4	1173.8	1220.7	1224.0	1283.4	1356.7	1440.8	1536.4	1648.5
12.5°	1113.6	1111.9	1105.3	1121.0	1156.4	1161.4	1226.5	1316.4	1419.4	1540.6	1676.6
15°	1158.1	1154.0	1130.9	1123.5	1140.8	1144.9	1200.1	1292.5	1407.0	1548.0	1712.0
17.5°	1234.8	1232.3	1188.6	1158.1	1169.6	1172.9	1214.1	1288.3	1403.7	1562.8	1755.7
20°	1346.9	1336.1	1267.7	1221.6	1221.6	1226.5	1251.2	1306.5	1407.8	1580.9	1805.1
22.5°	1495.2	1473.8	1377.4	1314.7	1298.2	1304.8	1315.5	1351.8	1425.2	1611.4	1867.0
25°	1661.7	1641.9	1527.4	1439.2	1416.1	1418.6	1409.5	1416.1	1463.1	1653.5	1943.6
27.5°	1838.9	1825.8	1703.8	1591.7	1555.4	1555.4	1523.2	1507.6	1515.8	1701.3	2029.3
30°	1997.2	1979.1	1876.0	1753.2	1705.4	1705.4	1644.4	1610.6	1590.8	1759.8	2143.9
32.5°	2080.5	2069.7	2001.3	1907.4	1848.8	1839.8	1787.0	1747.4	1701.3	1846.4	2298.9
35°	2189.3	2186.8	2145.6	2072.2	1998.0	1984.8	1948.6	1917.2	1837.3	1954.3	2505.0
37.5°	2326.1	2322.0	2315.4	2271.7	2182.7	2180.2	2148.0	2110.1	2006.3	2110.1	2754.7
40°	2479.4	2472.0	2463.7	2462.9	2409.3	2400.3	2397.8	2354.9	2209.9	2298.1	3015.2
42.5°	2690.4	2664.9	2587.4	2622.0	2661.6	2653.3	2684.6	2620.3	2463.7	2521.4	3261.6
45°	2950.1	2887.4	2734.1	2744.0	2843.7	2860.2	2969.0	2953.4	2743.2	2779.4	3521.3
47.5°	3105.8	3051.4	2908.8	2900.6	3025.1	3045.7	3282.2	3311.9	3044.0	3090.2	3841.9
50°	3233.6	3195.7	3078.6	3090.2	3222.1	3242.7	3593.0	3656.5	3327.6	3408.3	4214.5
52.5°	3387.7	3333.3	3242.7	3297.1	3458.6	3483.4	3938.4	4006.8	3583.1	3757.8	4600.2
55°	3474.3	3452.0	3453.7	3536.9	3739.7	3773.5	4300.2	4288.7	3817.2	4057.0	4890.4
57.5°	3673.8	3665.5	3741.4	3772.7	4067.8	4111.4	4662.1	4563.1	4029.8	4288.7	5029.7
60°	4025.7	4005.1	4071.1	4118.9	4473.3	4535.1	5066.0	4831.9	4174.1	4460.9	4982.7
62.5°	4520.3	4494.7	4497.2	4573.0	5016.5	5081.6	5515.2	5056.1	4218.6	4487.3	4685.1
65°	5135.2	5098.1	5056.1	5159.1	5737.7	5792.1	6004.0	5219.3	4112.3	4233.4	4063.6
67.5°	5783.9	5753.4	5703.9	5919.9	6671.6	6704.6	6552.1	5205.3	3775.1	3554.2	2850.3
70°	5821.8	5829.2	6063.3	6844.7	7890.7	7899.0	7070.6	4923.4	3057.2	2303.8	1420.2
72.5°	5431.1	5418.7	5723.7	7013.7	8871.6	8899.6	7315.4	3988.6	1889.2	1149.0	666.0
75°	4411.5	4432.9	4753.6	6136.7	7603.9	7628.6	5963.6	2351.6	897.6	562.2	426.1
77.5°	1899.1	2018.6	2650.8	4323.3	5445.9	5369.3	3073.7	952.9	478.9	400.6	326.4
80°	548.1	595.1	944.6	2055.7	3263.3	3205.6	1216.6	356.9	333.8	300.9	234.1
82.5°	177.2	196.2	346.2	818.5	1462.3	1460.6	461.6	211.0	218.4	204.4	150.8
85°	49.5	56.9	106.3	248.1	452.5	443.5	133.5	99.7	116.2	117.9	75.0
87.5°	0.0	0.0	0.8	1.6	1.6	1.6	3.3	14.8	33.8	42.9	30.5
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5	1625.5
2.5°	1635.3	1632.9	1666.7	1693.0	1717.8	1734.3	1739.2	1742.5	1749.1	1752.4	1749.1
5°	1646.9	1659.3	1715.3	1756.5	1789.5	1809.3	1810.1	1808.4	1813.4	1809.3	1806.8
7.5°	1671.6	1695.5	1766.4	1810.1	1831.5	1832.3	1812.6	1789.5	1777.9	1768.1	1764.8
10°	1704.6	1740.0	1817.5	1846.4	1839.8	1809.3	1765.6	1729.3	1708.7	1693.9	1690.6
12.5°	1749.9	1789.5	1862.8	1862.0	1820.8	1766.4	1715.3	1671.6	1641.9	1624.6	1618.9
15°	1792.8	1843.1	1895.8	1857.1	1792.0	1726.0	1660.1	1601.6	1562.0	1534.8	1529.8
17.5°	1845.5	1899.1	1919.7	1841.4	1755.7	1670.8	1582.6	1505.9	1452.4	1420.2	1417.7
20°	1906.5	1954.3	1931.3	1814.2	1708.7	1597.4	1477.9	1392.2	1334.5	1303.2	1305.6
22.5°	1977.4	2012.0	1934.6	1777.1	1643.6	1493.6	1360.0	1277.6	1238.9	1222.4	1223.2
25°	2053.3	2075.5	1928.8	1726.8	1543.9	1366.6	1238.9	1201.0	1197.7	1193.5	1195.2
27.5°	2143.1	2138.2	1911.5	1656.0	1409.5	1219.1	1154.0	1163.9	1177.1	1175.4	1177.1
30°	2263.4	2216.5	1889.2	1557.9	1249.6	1095.5	1103.7	1131.7	1149.0	1150.7	1155.6
32.5°	2401.1	2303.0	1853.8	1424.3	1097.1	1026.2	1056.7	1090.5	1111.1	1115.2	1121.8
35°	2565.1	2401.9	1791.1	1257.8	987.5	985.0	1013.0	1036.1	1058.4	1060.0	1060.0
37.5°	2753.9	2500.8	1691.4	1074.0	919.9	949.6	975.9	980.9	986.6	981.7	984.2
40°	2927.0	2596.4	1549.6	906.7	864.7	918.2	940.5	924.0	905.9	893.5	896.0
42.5°	3072.0	2661.6	1361.7	789.6	808.6	890.2	907.5	873.7	838.3	815.2	818.5
45°	3235.3	2721.7	1140.8	710.5	760.8	870.4	882.0	838.3	792.9	758.3	753.4
47.5°	3460.3	2844.5	944.6	655.3	727.0	859.7	878.7	819.3	760.0	708.0	702.3
50°	3738.1	3018.5	780.6	619.0	711.3	853.9	877.8	798.7	727.8	666.8	662.7
52.5°	4041.4	3188.3	659.4	591.0	695.7	836.6	873.7	775.6	694.0	628.1	623.1
55°	4243.3	3255.0	577.8	564.6	670.1	809.4	857.2	753.4	642.9	582.8	575.3
57.5°	4302.7	3169.3	520.9	540.7	637.2	771.5	825.9	706.4	611.6	563.8	558.0
60°	4200.5	2953.4	485.5	520.9	600.9	722.9	771.5	679.2	586.9	544.0	539.9
62.5°	3912.0	2620.3	458.3	500.3	563.8	671.8	736.9	646.2	559.7	525.9	520.1
65°	3331.7	2148.9	436.0	478.9	528.4	623.1	699.0	613.3	530.0	504.5	497.9
67.5°	2330.2	1509.2	412.1	453.3	492.9	576.2	659.4	582.8	499.5	480.5	474.0
70°	1139.1	800.4	383.3	423.7	455.0	528.4	619.8	545.7	459.1	448.4	439.3
72.5°	542.4	447.6	349.5	383.3	403.1	464.9	553.9	492.1	411.3	388.2	372.6
75°	363.5	318.2	305.0	335.5	340.4	389.9	474.8	424.5	362.7	336.3	323.1
77.5°	275.3	243.2	256.3	283.5	273.7	320.6	390.7	378.3	327.2	303.3	296.7
80°	193.7	177.2	203.6	220.1	212.7	272.8	352.0	323.9	269.5	243.2	238.2
82.5°	122.0	118.7	150.0	152.5	155.0	216.0	289.3	254.7	209.4	172.3	159.9
85°	61.0	67.6	89.8	89.8	89.0	111.3	164.9	143.4	112.9	89.8	87.4
87.5°	20.6	28.8	38.7	31.3	23.9	19.0	21.4	26.4	28.0	27.2	27.2
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)