

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: P631076

Luminaire Tested: GWS-SA1E-830-U-T3R-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P631076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1E-830-U-T3R-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5277.5 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

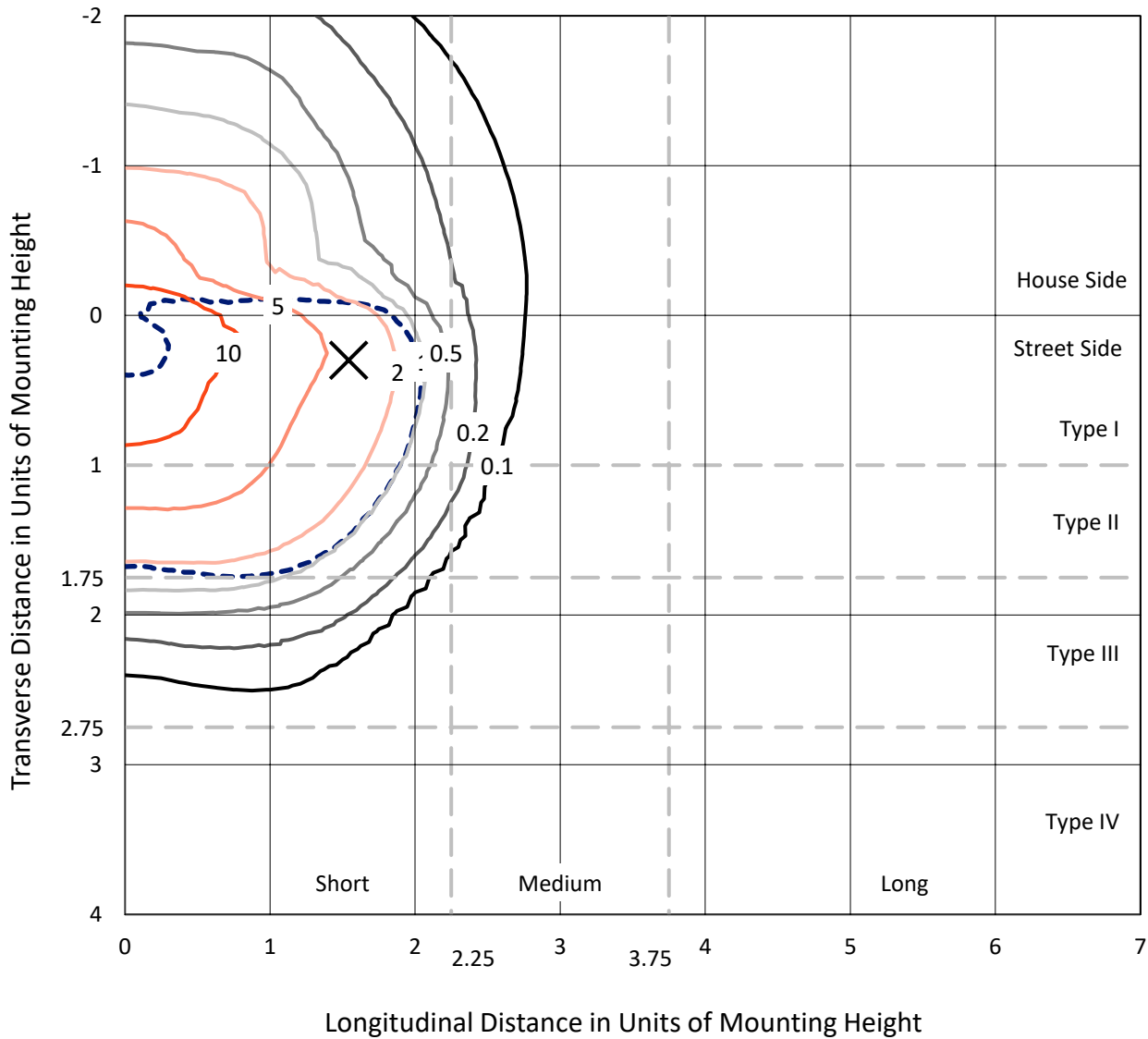
Input Watts (W): 58.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P631076
 CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

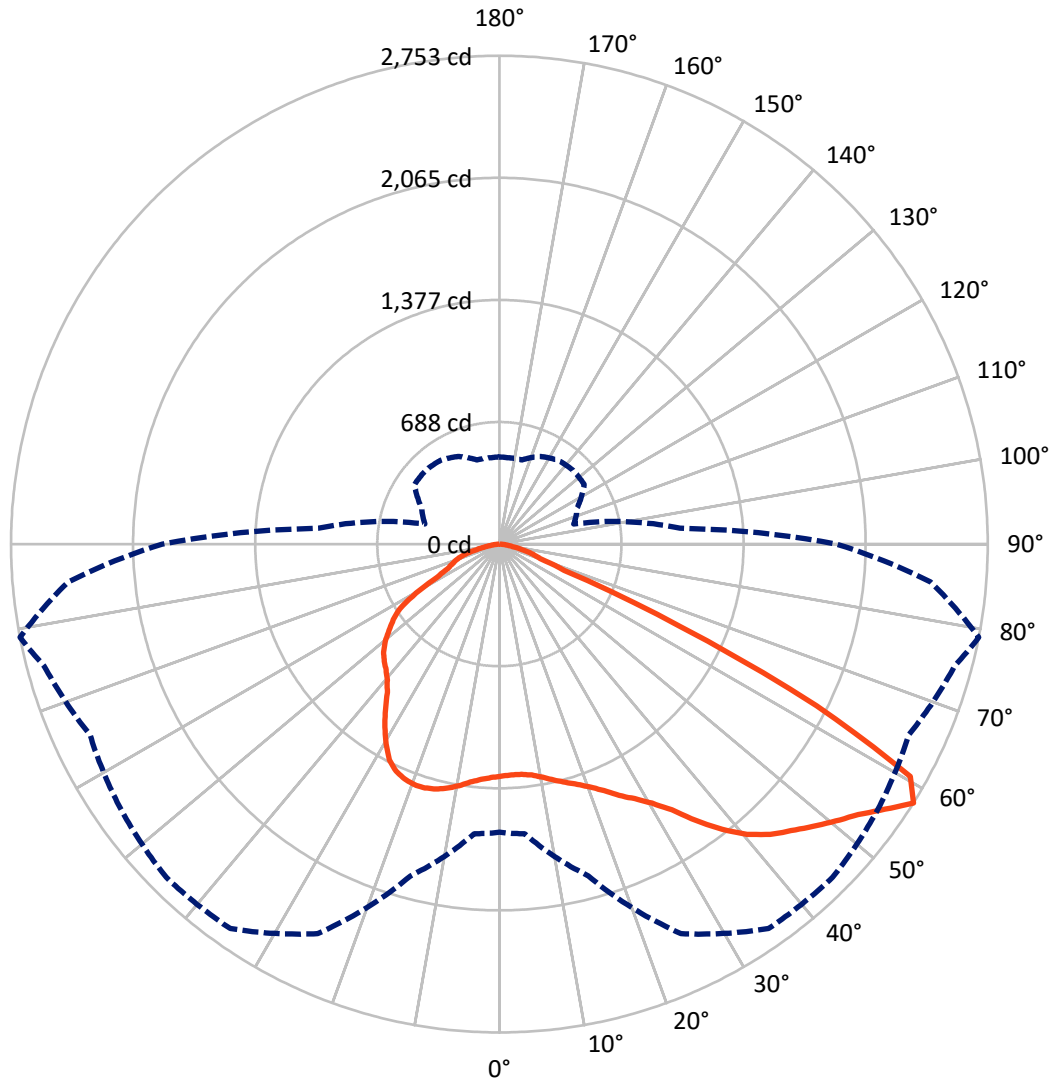
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Short - N/A

REPORT NUMBER: P631076
CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P631076

CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

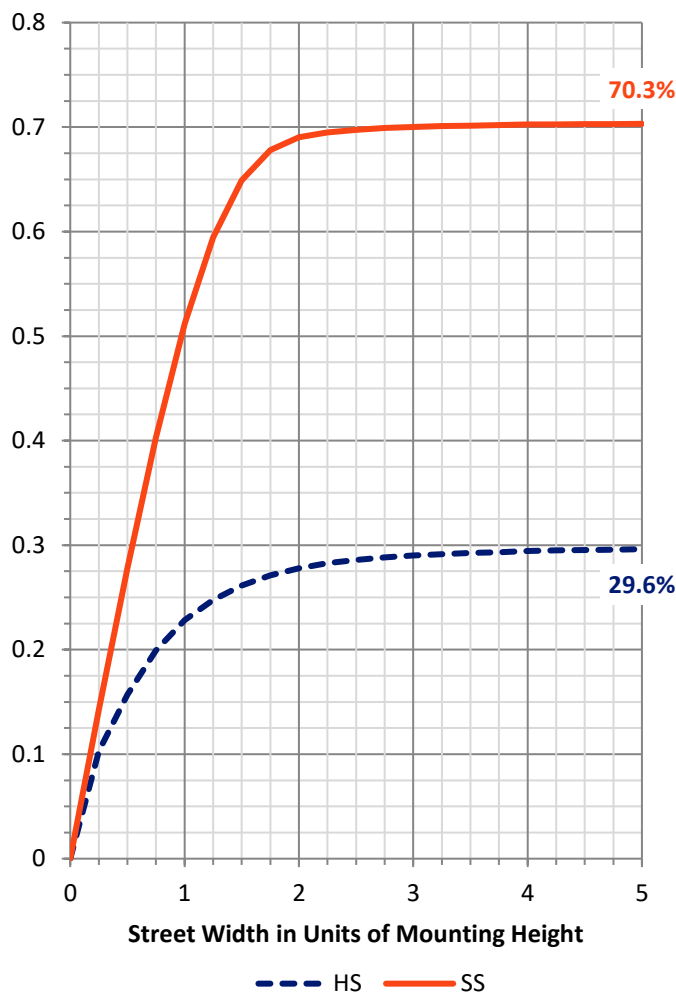
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1568.8	0.0	1568.8
	% Fixture	29.7	0.0	29.7
Street Side	Lumens	3708.7	0.0	3708.7
	% Fixture	70.3	0.0	70.3
Total	Lumens	5277.5	0.0	5277.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.1	2.3
10°-20°	336.6	6.4
20°-30°	570.5	10.8
30°-40°	873.3	16.5
40°-50°	1164.5	22.1
50°-60°	1344.9	25.5
60°-70°	698.8	13.2
70°-80°	148.6	2.8
80°-90°	19.2	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°	5277.5	100.0
0°-180°	5277.5	100.0

Coefficient of Utilization



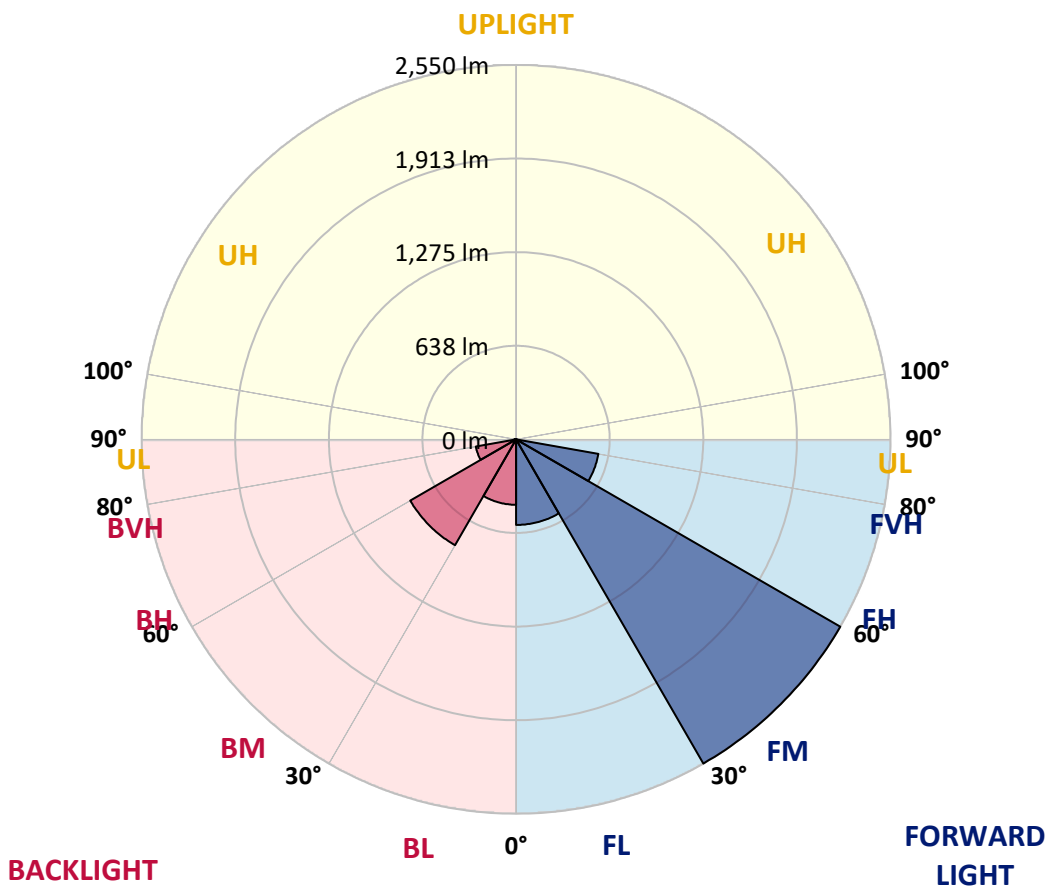
REPORT NUMBER: P631076

CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	582.8	11.0			
FM (30°-60°)	2550.2	48.3			
FH (60°-80°)	569.0	10.8			G0/660
FVH (80°-90°)	6.7	0.1			G0/10
BL (0°-30°)	445.5	8.4	B1/500		
BM (30°-60°)	832.4	15.8	B1/1000		
BH (60°-80°)	278.3	5.3	B1/500		G1/500
BVH (80°-90°)	12.5	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type II Short





REPORT NUMBER: P631076

CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9
2.5°	1248.3	1245.8	1246.6	1250.1	1263.0	1272.5	1282.4	1291.5	1300.1	1302.7	1304.9
5°	1203.9	1199.1	1200.4	1206.1	1221.2	1237.1	1254.8	1276.4	1297.1	1304.0	1313.1
7.5°	1172.4	1171.5	1173.7	1182.3	1198.3	1213.4	1236.3	1266.9	1302.7	1314.4	1330.3
10°	1130.5	1128.8	1137.4	1155.1	1181.5	1205.6	1232.8	1269.1	1319.1	1336.4	1361.0
12.5°	1097.3	1096.4	1105.5	1130.1	1163.8	1202.2	1239.7	1280.3	1341.1	1364.8	1395.1
15°	1116.7	1112.8	1113.3	1130.5	1160.7	1206.1	1257.0	1300.6	1363.1	1393.3	1432.2
17.5°	1173.3	1166.4	1161.2	1164.2	1181.5	1228.5	1283.3	1327.7	1388.6	1424.0	1471.4
20°	1251.4	1247.5	1233.2	1223.7	1227.6	1269.1	1324.7	1366.1	1421.8	1461.5	1512.4
22.5°	1356.2	1346.7	1327.3	1312.2	1300.6	1332.9	1384.3	1420.1	1468.0	1509.4	1562.5
25°	1486.1	1472.3	1441.7	1417.9	1392.9	1426.1	1471.9	1499.0	1531.4	1569.8	1620.3
27.5°	1618.6	1606.9	1572.8	1540.9	1509.8	1530.5	1584.9	1600.4	1597.0	1625.0	1668.2
30°	1759.7	1745.0	1712.6	1678.1	1638.0	1651.4	1700.1	1707.9	1671.2	1694.5	1723.9
32.5°	1908.5	1894.3	1866.3	1826.1	1780.8	1786.0	1799.4	1806.7	1771.8	1785.1	1807.6
35°	2060.0	2046.6	2018.1	1978.4	1945.2	1913.7	1880.1	1909.4	1889.1	1915.0	1913.3
37.5°	2198.5	2185.1	2167.4	2136.8	2079.8	2017.7	1940.0	1976.3	2007.8	2040.6	2035.0
40°	2292.1	2283.1	2287.4	2282.7	2209.3	2086.3	1969.4	2009.1	2094.9	2151.0	2148.0
42.5°	2372.8	2363.8	2388.8	2406.9	2320.6	2149.7	1983.6	2021.6	2150.6	2238.2	2233.9
45°	2408.7	2406.1	2447.5	2504.9	2422.5	2217.1	2020.3	2047.5	2192.9	2305.1	2288.7
47.5°	2365.9	2375.0	2456.5	2553.6	2507.0	2296.9	2095.4	2102.3	2248.1	2377.6	2331.4
50°	2280.9	2300.8	2410.8	2554.9	2568.7	2387.1	2199.4	2182.1	2322.4	2454.8	2353.9
52.5°	2157.1	2177.8	2357.3	2545.0	2604.1	2491.5	2337.9	2313.3	2416.0	2532.1	2357.7
55°	1872.7	1900.8	2234.8	2522.6	2638.6	2586.4	2494.1	2444.0	2536.8	2638.2	2396.1
57.5°	1624.6	1639.3	1936.2	2422.9	2645.5	2656.3	2605.4	2545.9	2656.8	2753.0	2439.3
60°	1192.2	1195.7	1462.8	2004.8	2433.7	2615.8	2596.4	2507.9	2599.8	2661.1	2241.7
62.5°	673.6	674.0	887.2	1338.1	1817.9	2132.1	2144.1	2066.0	1988.8	2006.9	1560.3
65°	252.9	276.6	405.2	657.6	1048.1	1258.7	1308.7	1326.9	1198.3	1118.5	836.7
67.5°	169.1	174.8	236.5	338.3	466.5	538.5	602.4	604.1	441.9	394.0	329.7
70°	129.0	134.6	186.0	242.1	236.5	218.3	236.0	229.6	237.3	243.8	250.7
72.5°	96.2	101.8	144.1	170.9	142.0	139.8	158.4	176.1	192.5	199.4	210.1
75°	63.9	68.2	97.1	91.5	78.5	92.8	115.6	133.3	142.8	151.0	159.2
77.5°	40.6	43.6	51.8	41.9	43.6	54.4	67.3	83.3	92.3	100.5	104.9
80°	18.6	18.1	17.7	19.8	24.6	31.9	40.6	50.1	57.0	60.4	63.0
82.5°	7.3	8.2	9.1	10.8	13.4	17.3	22.9	29.3	35.0	35.8	38.0
85°	3.0	3.5	3.9	4.7	6.0	7.8	9.5	13.4	16.8	18.1	19.4
87.5°	0.0	0.0	0.0	0.0	0.4	0.9	1.3	2.2	3.9	4.3	4.7
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: P631076

CATALOG NUMBER: GWS-SA1E-830-U-T3R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9	1307.9
2.5°	1316.5	1310.9	1320.4	1326.9	1332.9	1326.4	1324.3	1318.7	1317.8	1317.8	1320.8
5°	1328.6	1324.7	1334.6	1338.5	1338.1	1323.9	1315.2	1304.0	1298.4	1298.4	1299.3
7.5°	1350.2	1348.0	1353.6	1347.6	1333.8	1304.9	1276.4	1252.7	1236.7	1228.5	1231.1
10°	1386.0	1383.4	1378.7	1356.2	1316.5	1256.5	1198.3	1155.1	1129.2	1114.6	1115.4
12.5°	1420.9	1416.6	1399.8	1350.2	1268.6	1173.3	1096.9	1048.6	1020.1	1002.8	998.9
15°	1459.3	1448.1	1411.9	1319.1	1190.5	1071.4	991.6	939.4	908.7	898.4	898.0
17.5°	1496.0	1476.2	1410.6	1263.9	1096.9	964.8	884.6	852.2	847.0	851.8	853.1
20°	1533.1	1501.2	1396.3	1187.5	985.6	858.7	817.3	830.6	850.1	863.0	866.0
22.5°	1571.5	1521.9	1364.0	1089.1	868.2	787.1	804.3	833.7	857.8	875.1	876.8
25°	1614.7	1541.3	1315.7	968.7	774.1	767.2	801.3	832.4	858.3	878.1	881.6
27.5°	1639.3	1541.8	1247.9	844.9	731.0	759.4	794.0	823.3	849.2	870.8	874.7
30°	1663.4	1530.1	1140.5	744.3	718.5	750.4	781.5	808.6	833.2	854.4	859.1
32.5°	1697.5	1519.3	1016.6	686.5	711.1	741.8	767.2	791.4	810.4	819.9	822.4
35°	1739.8	1505.5	885.0	661.5	706.4	734.9	757.3	770.2	745.6	740.5	746.1
37.5°	1798.9	1492.6	753.8	650.7	703.4	732.3	752.1	718.9	688.7	676.6	680.9
40°	1862.8	1485.2	664.9	642.1	704.6	734.9	730.5	681.3	637.8	612.3	611.4
42.5°	1917.2	1474.0	608.0	636.5	708.1	744.8	701.2	648.1	583.4	568.3	568.7
45°	1953.8	1445.5	577.8	630.4	711.1	746.9	687.4	602.4	556.2	546.7	546.3
47.5°	1968.9	1393.8	558.4	620.9	710.7	729.2	659.3	583.4	537.2	534.6	536.4
50°	1959.0	1308.7	538.5	602.4	700.3	710.7	627.0	566.6	524.3	538.5	548.9
52.5°	1922.3	1198.7	514.8	576.9	681.8	689.5	610.6	556.2	514.8	533.8	542.0
55°	1912.9	1109.4	484.6	543.7	654.2	652.0	593.3	551.0	508.3	501.0	502.3
57.5°	1900.3	1022.2	434.5	484.1	584.3	587.7	576.9	545.0	491.5	489.3	491.5
60°	1650.9	783.6	387.5	417.7	479.8	498.4	558.4	533.8	464.3	455.2	454.8
62.5°	1078.3	474.7	344.8	364.2	390.9	412.5	509.2	501.4	434.5	428.9	432.8
65°	579.9	338.3	313.7	325.4	340.0	356.4	422.0	446.6	392.7	372.8	373.3
67.5°	296.4	287.8	290.4	298.6	309.8	318.0	340.5	362.0	334.8	318.0	317.6
70°	253.7	260.6	264.5	269.3	276.6	275.3	277.5	281.3	279.2	271.0	270.6
72.5°	216.2	227.0	227.8	228.7	231.3	225.2	221.4	214.9	215.3	216.6	217.0
75°	164.4	174.8	177.3	176.1	178.6	170.9	165.7	159.2	151.5	150.2	151.0
77.5°	107.0	115.2	119.1	118.2	119.5	113.5	110.9	104.0	94.9	91.5	91.5
80°	64.7	69.5	72.5	73.4	74.7	70.3	66.0	60.0	56.1	52.2	52.2
82.5°	39.3	42.3	44.4	44.4	45.7	41.0	37.5	33.2	31.5	28.0	28.0
85°	19.8	22.0	22.9	22.4	21.6	17.7	16.4	14.2	13.4	11.7	11.7
87.5°	4.7	6.0	6.0	4.3	4.3	2.2	1.3	0.4	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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

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)