

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: P630068

Luminaire Tested: GWS-SA1C-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1C-830-U-SLR-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2037 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G0

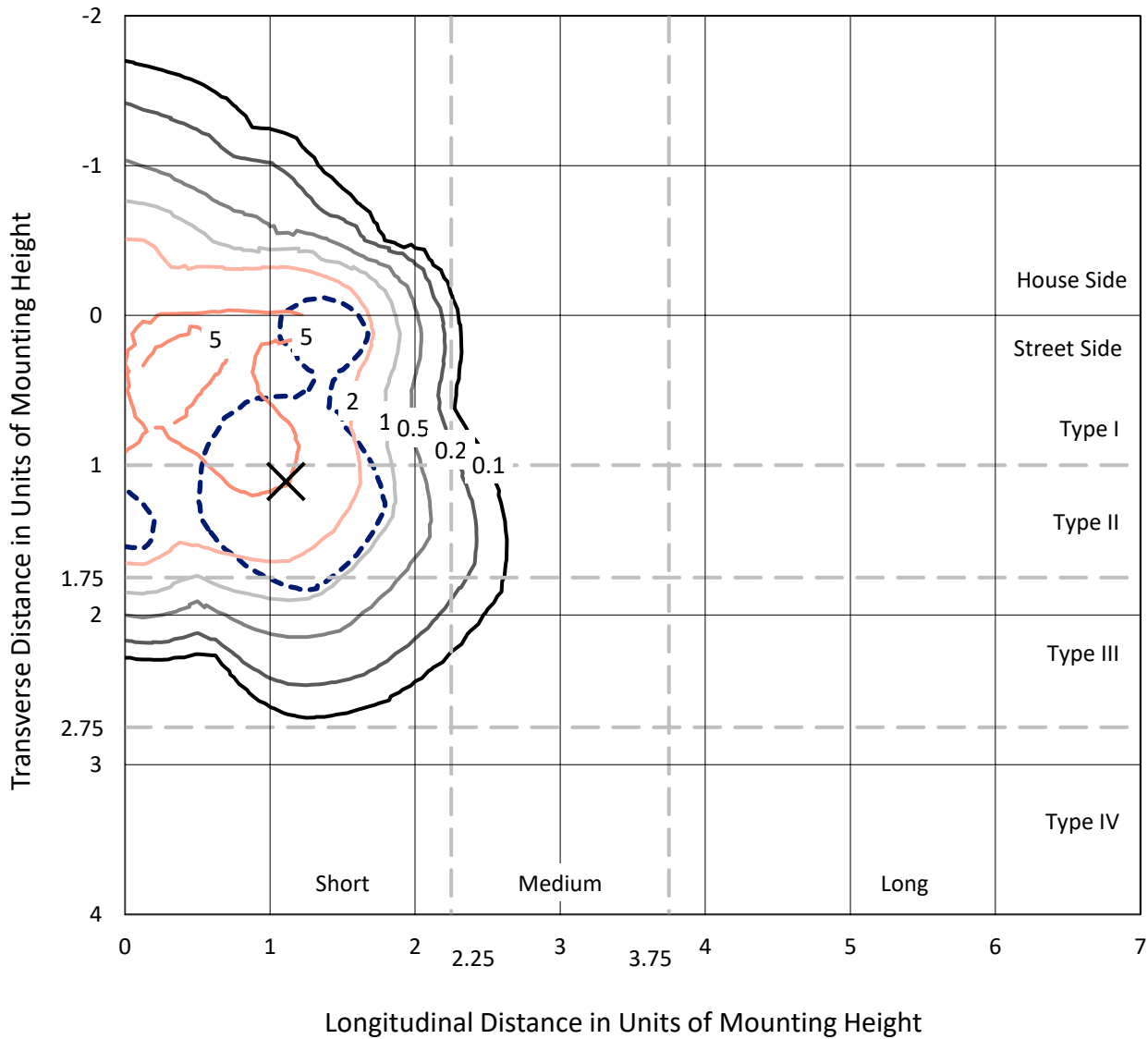
Input Watts (W): 34.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

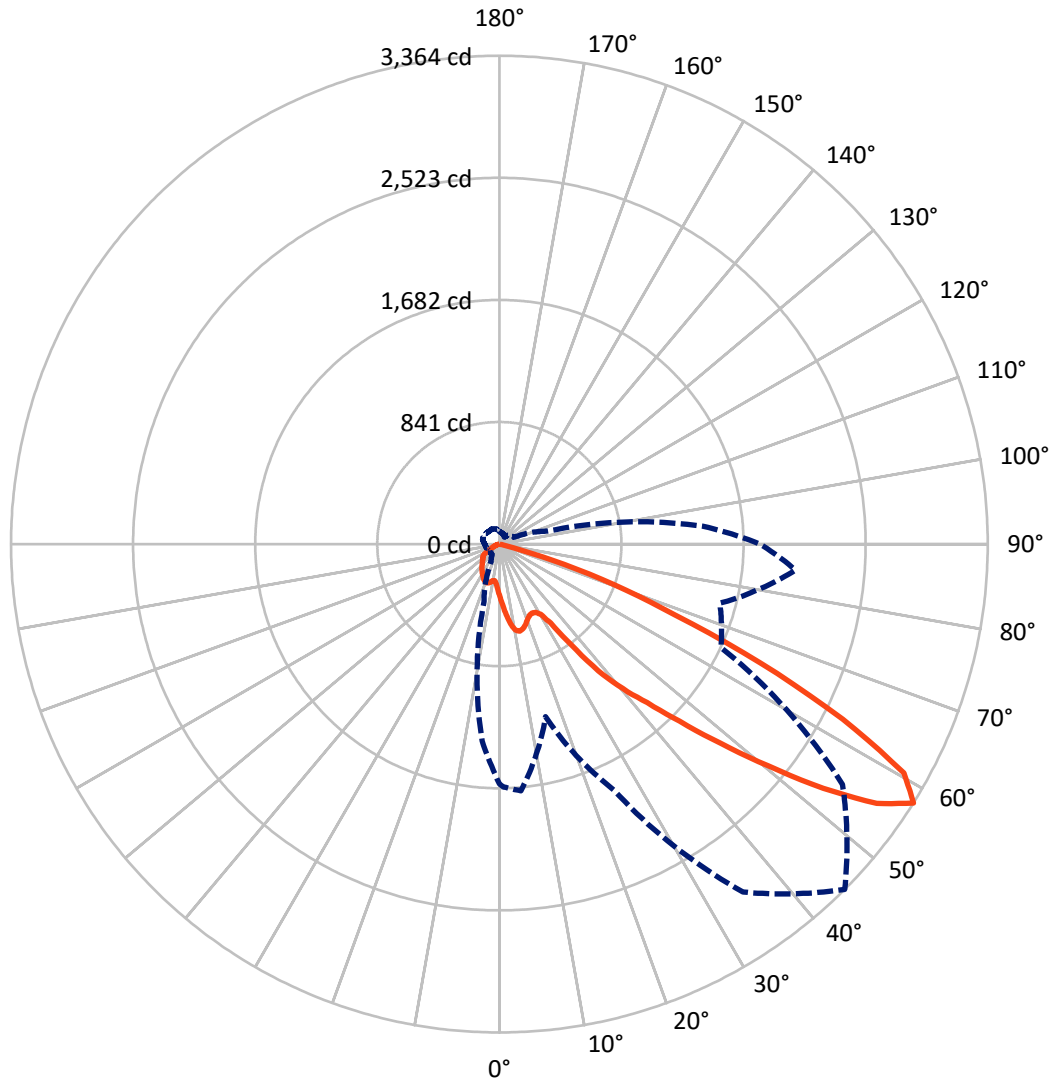
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	456.1	0.0	456.1
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	1580.9	0.0	1580.9
	% Fixture	77.6	0.0	77.6
Total	Lumens	2037.0	0.0	2037.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.2	1.7
10°-20°	113.9	5.6
20°-30°	185.1	9.1
30°-40°	286.0	14.0
40°-50°	458.6	22.5
50°-60°	626.8	30.8
60°-70°	303.5	14.9
70°-80°	27.8	1.4
80°-90°	0.1	0.0
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°	2037.0	100.0
0°-180°	2037.0	100.0

Coefficient of Utilization



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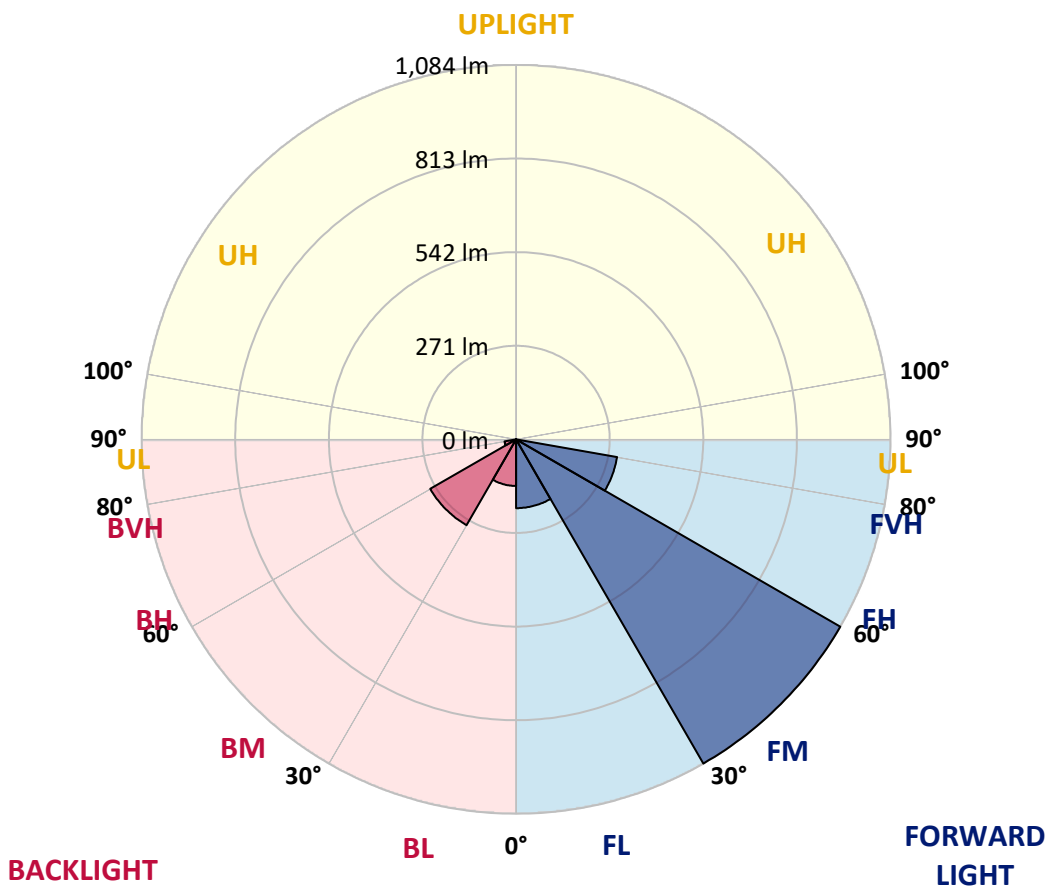
CATALOG NUMBER: GWS-SA1C-830-U-SLR-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	199.3	9.8			
FM (30°-60°)	1084.3	53.2			
FH (60°-80°)	297.2	14.6			G0/660
FVH (80°-90°)	0.1	0.0			G0/10
BL (0°-30°)	135.0	6.6	B1/500		
BM (30°-60°)	287.0	14.1	B1/1000		
BH (60°-80°)	34.2	1.7	B0/110		G0/110
BVH (80°-90°)	0.0	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-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
2.5°	387.9	390.3	394.4	403.2	410.6	415.5	417.7	417.1	414.1	411.9	407.6
5°	429.5	429.5	437.4	457.4	472.7	482.3	487.2	484.2	478.2	468.6	453.8
7.5°	465.9	467.2	480.7	509.1	532.4	546.1	554.0	552.4	541.7	523.4	493.8
10°	494.3	496.0	513.8	548.5	575.9	589.9	601.6	602.7	591.0	566.6	532.7
12.5°	522.0	523.6	542.2	575.6	599.7	605.5	615.9	620.0	617.0	599.7	564.4
15°	551.8	555.6	571.5	596.4	606.6	599.7	606.6	614.0	624.1	622.4	590.7
17.5°	581.1	583.8	600.0	608.8	597.5	579.7	583.0	591.8	614.8	637.2	616.7
20°	608.2	612.0	625.4	614.0	580.0	552.4	552.6	564.1	599.2	646.3	643.2
22.5°	636.7	642.4	652.0	619.7	563.9	530.7	532.1	542.5	586.9	654.7	673.3
25°	673.9	679.4	685.7	633.9	558.7	520.1	525.3	534.8	586.9	669.2	710.6
27.5°	724.3	728.1	728.4	660.5	567.7	521.7	532.7	543.6	604.4	698.3	760.4
30°	787.5	793.5	785.6	701.8	595.9	543.6	559.8	573.4	642.1	747.3	833.7
32.5°	864.4	872.9	862.2	763.1	654.7	619.2	648.4	656.4	702.4	818.1	917.0
35°	954.7	961.8	950.4	848.0	792.1	798.7	851.8	841.7	823.3	905.5	1014.1
37.5°	1053.8	1060.4	1038.2	976.6	995.2	1023.7	1108.6	1073.8	1014.7	1018.0	1119.5
40°	1144.7	1151.8	1117.0	1116.5	1154.8	1206.8	1309.2	1261.3	1180.8	1165.2	1218.3
42.5°	1238.9	1243.8	1212.3	1191.0	1278.0	1385.0	1493.4	1428.8	1290.9	1273.9	1342.0
45°	1373.2	1383.7	1327.5	1227.6	1388.9	1590.0	1741.1	1614.9	1365.9	1352.2	1531.5
47.5°	1570.9	1578.5	1464.1	1250.6	1492.0	1845.4	2050.7	1856.4	1431.8	1400.6	1790.4
50°	1734.3	1739.5	1589.8	1275.8	1601.8	2120.8	2403.5	2142.7	1506.0	1480.8	2032.1
52.5°	1854.7	1874.4	1754.8	1327.5	1746.1	2444.6	2794.1	2481.8	1621.8	1635.7	2232.5
55°	1879.6	1906.5	1867.6	1359.3	1873.1	2774.4	3154.9	2785.4	1737.3	1753.2	2299.8
57.5°	1651.9	1673.2	1705.5	1231.2	1870.0	2925.5	3364.3	2886.1	1684.7	1572.2	2047.7
60°	1237.5	1252.3	1310.8	941.0	1719.8	2791.9	3201.1	2714.7	1473.2	1199.7	1560.2
62.5°	733.8	740.4	814.6	609.6	1427.4	2404.3	2654.8	2342.5	1164.1	806.9	955.6
65°	281.7	278.9	335.6	300.8	1049.7	1915.2	1974.6	1785.7	798.7	369.8	364.3
67.5°	43.5	41.6	56.1	89.0	757.1	1327.3	1302.9	1287.0	500.4	86.2	75.3
70°	9.9	9.9	12.0	26.3	462.6	779.8	834.6	795.7	320.3	18.3	9.9
72.5°	4.7	4.7	5.7	11.2	167.5	321.3	374.4	368.7	104.0	6.0	3.6
75°	1.6	1.9	1.9	2.5	10.1	16.7	38.3	27.4	6.6	0.0	0.0
77.5°	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
2.5°	398.0	396.1	389.0	379.4	370.1	361.9	353.4	343.2	335.9	327.4	324.6
5°	442.3	430.3	410.9	390.6	372.0	356.1	340.8	324.4	312.3	300.3	296.2
7.5°	479.8	462.0	430.6	400.2	374.7	352.3	330.1	307.7	290.1	275.9	271.5
10°	513.5	493.0	450.8	413.3	381.3	355.3	328.5	300.3	277.6	260.6	256.5
12.5°	542.5	518.7	468.1	423.2	384.0	354.2	328.2	305.7	285.2	265.8	260.6
15°	566.9	540.6	482.6	429.7	379.9	340.5	317.8	314.2	312.6	291.2	281.1
17.5°	590.7	561.1	494.3	432.7	368.4	316.4	300.0	316.1	333.4	319.4	306.6
20°	615.6	581.9	506.4	433.3	349.3	289.3	286.6	312.0	333.9	329.6	317.5
22.5°	644.9	607.9	521.4	433.0	325.2	266.3	276.7	304.1	321.9	321.6	312.0
25°	687.3	640.8	541.7	434.7	298.9	248.5	265.8	290.7	305.2	304.6	296.7
27.5°	732.7	679.9	568.0	438.8	276.5	238.1	252.9	272.4	284.9	284.4	277.6
30°	796.5	725.1	593.1	439.0	260.3	232.7	238.7	252.1	264.1	262.8	257.6
32.5°	874.0	776.0	614.2	423.4	250.2	227.5	223.9	230.7	240.1	238.1	236.8
35°	967.6	836.5	632.3	389.2	234.6	217.1	207.5	208.8	215.4	216.5	216.0
37.5°	1074.3	908.5	654.7	344.1	213.5	202.0	189.1	188.0	191.9	195.4	198.2
40°	1179.7	989.5	685.1	298.4	194.3	182.8	170.5	167.8	169.4	175.7	181.5
42.5°	1298.2	1083.4	718.0	259.2	181.2	161.8	150.0	144.8	149.5	159.6	166.4
45°	1469.1	1215.0	750.0	228.0	175.7	143.2	127.3	126.7	131.9	145.1	152.7
47.5°	1708.8	1385.3	771.1	203.6	175.5	128.6	109.8	113.0	119.1	131.9	140.7
50°	1942.6	1598.5	747.8	185.0	169.7	119.1	96.6	103.2	109.2	120.4	129.5
52.5°	2083.5	1713.2	657.2	167.5	151.9	114.7	83.8	95.3	96.3	106.5	116.1
55°	2068.8	1639.0	503.4	140.4	125.6	108.4	70.3	85.9	86.5	94.2	102.4
57.5°	1795.6	1407.2	345.7	113.9	94.4	89.5	58.0	72.5	77.7	82.4	88.4
60°	1338.2	1026.7	154.1	92.5	59.9	60.5	49.5	54.7	62.7	68.2	73.4
62.5°	788.6	590.7	62.7	55.6	33.1	38.0	40.0	40.0	44.9	49.0	52.3
65°	298.1	206.7	25.5	27.9	17.2	17.8	23.5	29.0	32.8	36.4	40.8
67.5°	52.3	36.1	13.1	10.4	10.1	9.0	12.0	18.9	21.1	23.8	25.7
70°	8.8	7.4	5.5	5.2	4.7	4.9	7.9	13.4	14.8	15.6	16.4
72.5°	2.5	2.2	1.6	1.4	1.1	1.4	4.9	10.4	10.9	11.5	12.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	7.4	7.9	8.2	9.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.2	2.7	2.2
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
2.5°	323.0	317.5	314.5	312.9	312.9	310.7	308.2	307.4	310.9	310.9	317.0
5°	291.0	286.6	281.7	278.6	274.0	274.8	272.1	271.8	275.4	277.0	283.3
7.5°	268.8	263.3	260.3	258.4	255.9	254.8	252.4	251.5	253.5	256.2	262.2
10°	254.0	253.2	252.9	254.3	254.3	252.9	250.7	249.4	249.9	255.1	261.9
12.5°	257.8	259.5	260.0	262.2	263.3	262.2	260.6	261.1	264.7	274.3	284.4
15°	274.5	273.2	272.6	273.7	274.5	273.4	272.9	277.0	289.3	303.0	314.5
17.5°	292.3	283.6	279.7	279.7	280.3	279.7	280.3	288.2	308.2	321.9	330.4
20°	301.4	285.2	279.2	277.8	278.9	279.2	281.1	290.1	312.0	321.6	323.5
22.5°	298.6	278.4	271.5	270.4	271.5	272.6	274.5	282.2	302.7	307.7	306.8
25°	284.9	265.0	259.5	259.5	261.9	261.7	262.5	268.0	284.9	288.0	286.6
27.5°	267.7	248.8	244.2	246.9	249.1	248.5	248.8	253.5	266.1	266.9	265.5
30°	250.2	233.8	229.4	232.7	235.7	235.1	235.4	240.1	248.0	247.2	245.3
32.5°	232.4	220.3	217.1	219.0	223.6	223.1	224.2	229.1	232.1	228.6	226.4
35°	216.0	209.7	207.2	208.3	211.9	212.7	214.6	217.9	217.9	213.5	209.7
37.5°	200.6	199.8	198.2	196.8	200.1	202.6	205.3	209.1	203.6	197.4	193.8
40°	186.4	190.0	187.8	184.2	186.1	189.7	195.2	198.2	191.6	185.3	179.3
42.5°	173.3	179.3	178.5	174.1	175.7	179.0	185.3	187.8	180.1	173.0	167.2
45°	160.7	169.2	169.7	164.2	165.9	169.2	176.5	177.4	167.5	159.9	155.7
47.5°	149.7	159.0	159.3	155.2	155.7	160.4	167.2	167.5	156.3	149.2	144.0
50°	139.3	150.0	150.8	147.3	147.8	153.3	159.0	157.9	145.9	138.5	133.8
52.5°	126.7	141.2	143.2	141.5	143.7	148.1	151.6	147.8	133.8	126.5	122.4
55°	113.0	131.9	136.0	134.9	137.4	141.0	141.8	139.3	121.8	114.4	110.6
57.5°	97.2	108.7	115.8	113.6	115.5	119.1	121.5	119.6	106.5	100.7	97.4
60°	80.5	88.1	89.8	86.2	84.6	90.9	96.6	94.2	82.9	79.4	75.5
62.5°	58.8	67.6	68.7	64.1	62.1	69.0	73.9	71.4	59.1	55.3	52.3
65°	47.1	55.3	57.5	53.1	52.0	57.2	60.2	54.2	45.4	41.3	38.0
67.5°	30.9	37.5	43.2	43.0	40.8	42.4	40.2	35.3	29.0	26.8	24.6
70°	19.2	23.0	26.6	27.9	27.6	27.1	24.1	20.5	18.6	17.8	16.7
72.5°	14.8	18.6	21.4	22.2	22.4	21.6	19.2	15.9	14.0	12.9	12.0
75°	10.9	14.0	16.1	17.2	17.8	17.2	14.8	12.6	10.7	9.9	9.0
77.5°	3.8	4.7	5.7	6.3	6.0	5.7	5.2	5.2	4.1	3.8	3.3
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
2.5°	323.8	328.7	337.8	346.0	354.7	363.8	373.6	383.8	388.4	387.9
5°	292.9	303.6	318.3	334.5	352.6	372.0	393.6	415.8	425.4	429.5
7.5°	273.4	288.5	307.9	328.5	352.3	379.9	412.5	447.3	461.2	465.9
10°	275.9	293.4	309.6	329.6	355.0	390.9	431.4	472.7	489.1	494.3
12.5°	295.9	299.7	304.1	320.5	352.6	399.1	448.6	497.9	516.8	522.0
15°	314.0	296.2	288.0	303.0	343.8	404.8	466.1	525.0	545.8	551.8
17.5°	314.8	288.0	269.6	281.4	329.6	407.3	483.4	552.6	575.4	581.1
20°	304.6	278.9	255.4	255.7	310.1	406.7	497.6	577.5	603.0	608.2
22.5°	289.9	268.2	243.9	235.4	289.3	405.7	513.2	604.1	631.7	636.7
25°	273.4	254.6	232.9	220.1	268.5	406.7	535.1	638.9	669.2	673.9
27.5°	255.7	239.5	224.4	214.0	251.0	410.9	561.4	683.2	719.3	724.3
30°	237.0	225.0	219.0	212.7	240.1	411.9	589.9	734.9	780.6	787.5
32.5°	218.7	212.1	212.4	213.5	229.7	404.3	615.9	792.4	853.5	864.4
35°	201.7	199.8	205.3	210.8	214.6	384.6	638.6	860.3	943.5	954.7
37.5°	187.2	188.9	195.7	201.2	198.2	356.7	668.7	945.2	1044.2	1053.8
40°	173.3	177.4	185.3	187.8	185.6	324.1	704.8	1027.0	1131.6	1144.7
42.5°	160.4	163.4	174.6	175.2	182.0	291.0	739.6	1115.1	1232.0	1238.9
45°	150.0	149.5	160.9	164.5	186.7	254.3	773.5	1232.6	1363.4	1373.2
47.5°	139.9	139.3	142.1	158.2	188.6	220.3	807.2	1404.5	1553.9	1570.9
50°	130.3	131.1	122.6	155.2	178.2	194.3	822.5	1563.5	1727.2	1734.3
52.5°	121.8	118.8	104.0	145.3	156.0	169.7	779.0	1635.7	1834.5	1854.7
55°	109.8	93.1	85.7	118.0	123.2	148.1	638.0	1593.9	1843.8	1879.6
57.5°	93.9	73.1	72.8	87.0	87.0	137.4	408.7	1361.8	1588.9	1651.9
60°	72.3	56.7	60.2	60.5	55.8	100.2	229.4	986.5	1174.8	1237.5
62.5°	51.5	43.2	45.4	36.1	32.0	50.1	110.0	568.0	725.1	733.8
65°	34.5	29.3	23.8	20.0	19.7	21.4	45.4	205.3	249.6	281.7
67.5°	22.7	17.8	12.6	12.6	14.2	14.2	17.2	33.9	47.6	43.5
70°	14.8	12.3	7.9	7.7	9.3	9.3	8.8	9.3	9.9	9.9
72.5°	10.9	9.3	4.7	4.1	5.2	5.5	4.9	4.7	4.7	4.7
75°	8.2	6.6	2.7	1.9	2.5	3.3	2.7	1.9	1.9	1.6
77.5°	3.3	2.5	1.1	0.8	1.4	1.9	1.6	0.8	0.5	0.5
80°	0.3	0.5	0.5	0.5	0.8	1.1	1.4	0.5	0.3	0.3
82.5°	0.0	0.3	0.3	0.3	0.5	0.8	1.1	0.5	0.3	0.3
85°	0.0	0.0	0.0	0.0	0.5	0.8	0.5	0.3	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.3	0.8	0.5	0.3	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

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

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			

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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

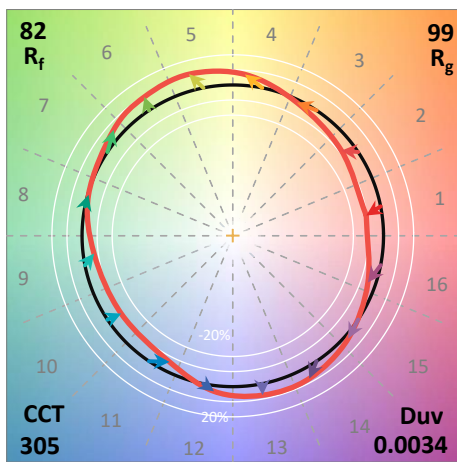
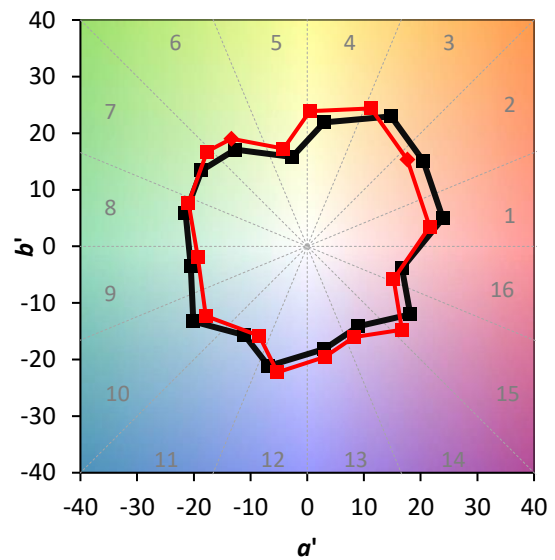
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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