

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: P629081

Luminaire Tested: GWS-SA1A-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629081
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1A-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT 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: 1767.5 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

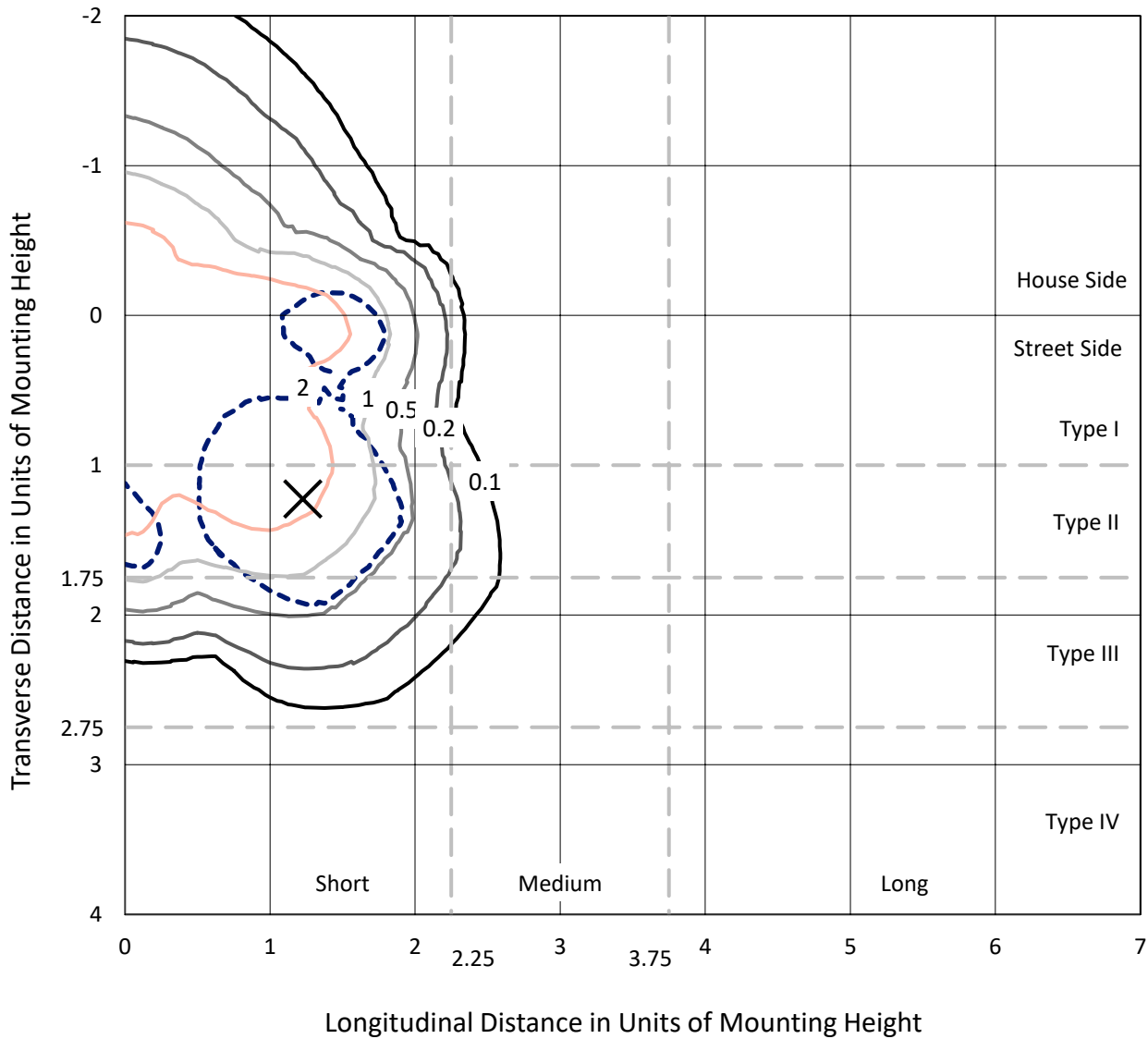
Input Watts (W): 19.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P629081
 CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

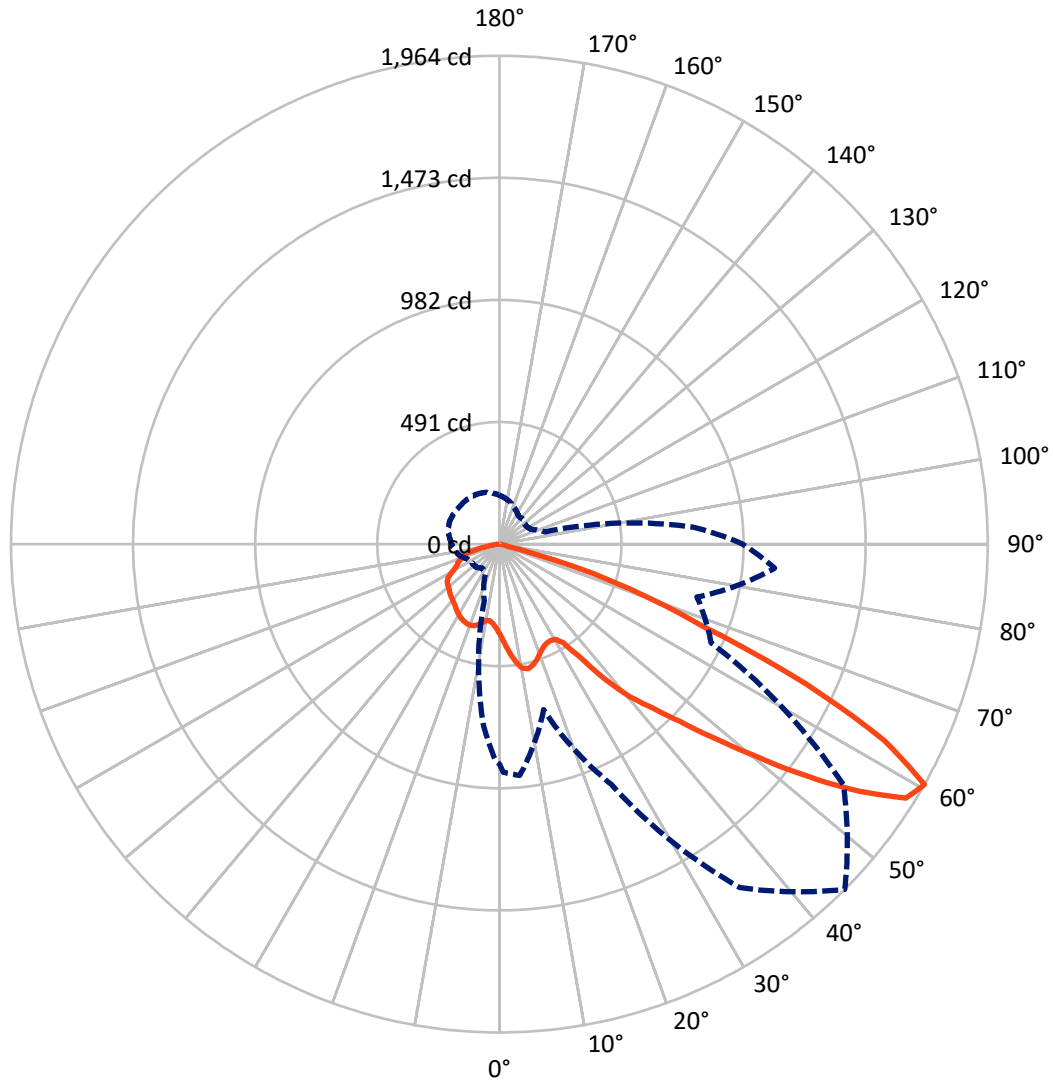
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - N/A

REPORT NUMBER: P629081
CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P629081

CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	619.6	0.0	619.6
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	1147.9	0.0	1147.9
	% Fixture	64.9	0.0	64.9
Total	Lumens	1767.5	0.0	1767.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	2.0
10°-20°	111.9	6.3
20°-30°	181.8	10.3
30°-40°	256.5	14.5
40°-50°	354.4	20.1
50°-60°	456.2	25.8
60°-70°	289.1	16.4
70°-80°	74.2	4.2
80°-90°	7.9	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°	1767.5	100.0
0°-180°	1767.5	100.0

Coefficient of Utilization



REPORT NUMBER: P629081

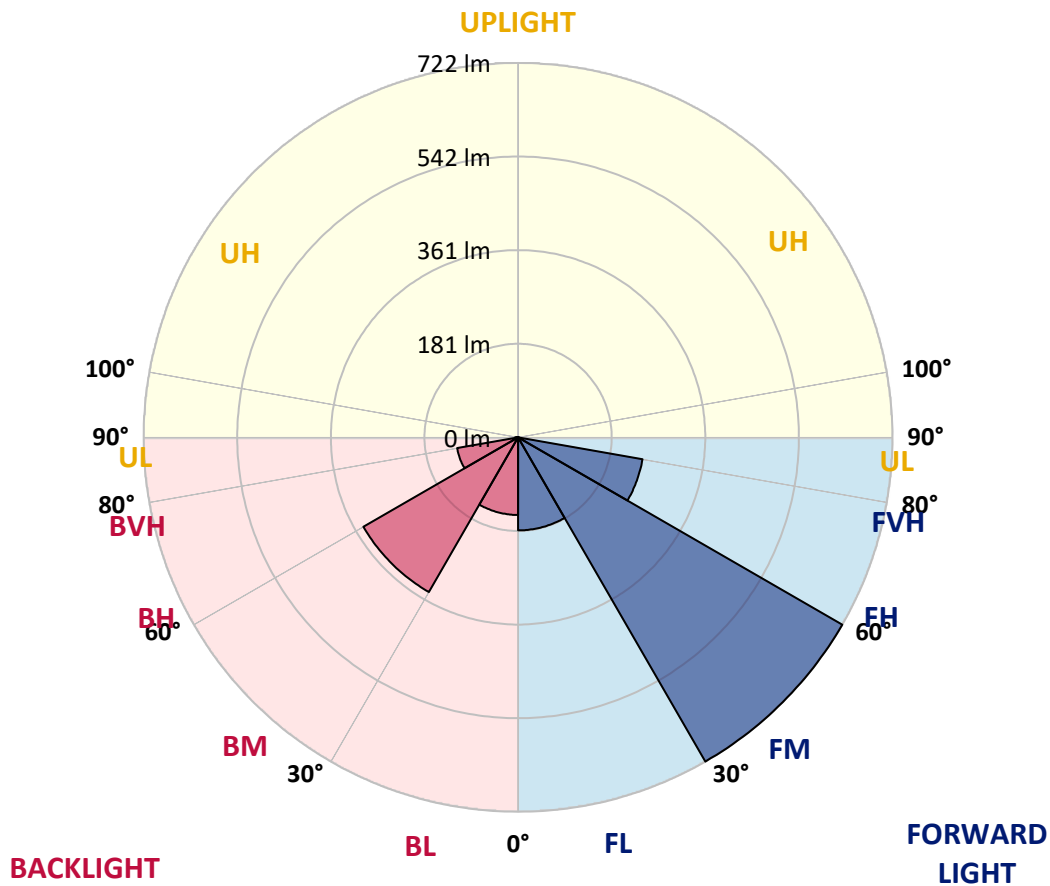
CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	179.5	10.2			
FM (30°-60°)	722.5	40.9			
FH (60°-80°)	243.9	13.8			G0/660
FVH (80°-90°)	2.2	0.1			G0/10
BL (0°-30°)	149.7	8.5	B1/500		
BM (30°-60°)	344.7	19.5	B1/1000		
BH (60°-80°)	119.4	6.8	B1/500		G1/500
BVH (80°-90°)	5.8	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P629081
 CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	379.8	382.4	384.0	387.1	392.6	395.6	399.0	395.3	396.3	395.8	389.8
5°	402.3	405.4	409.6	418.6	428.8	434.5	439.9	439.1	434.0	425.6	419.6
7.5°	423.3	426.9	434.2	448.9	464.0	472.7	479.2	475.0	470.8	457.5	442.5
10°	439.9	442.0	451.8	471.6	489.1	499.0	506.9	505.9	500.1	485.2	465.0
12.5°	455.4	456.9	467.6	487.3	503.0	507.4	513.9	516.0	514.0	502.9	482.9
15°	472.1	474.8	484.7	499.8	506.9	502.4	504.6	510.5	516.0	516.0	497.7
17.5°	487.6	490.1	500.1	506.6	499.8	487.8	488.4	495.9	509.0	522.8	511.1
20°	501.4	503.7	513.5	507.4	485.9	468.4	467.9	476.9	498.2	527.2	525.5
22.5°	516.5	519.7	528.0	508.0	472.9	450.7	450.6	459.9	488.6	531.5	542.1
25°	537.8	542.9	547.1	513.7	465.9	439.2	441.3	450.2	485.5	538.7	566.5
27.5°	569.6	573.6	573.3	525.5	465.6	434.5	438.9	449.3	491.0	551.3	592.3
30°	603.9	606.0	602.6	542.1	473.1	437.4	443.9	456.2	505.0	572.2	630.2
32.5°	642.0	644.6	638.1	566.8	490.4	459.0	473.2	479.2	524.6	602.3	670.3
35°	685.7	690.7	677.3	599.5	541.4	537.5	558.2	550.5	566.2	637.9	713.2
37.5°	731.7	731.9	712.6	648.0	641.5	648.1	689.6	665.3	654.4	677.6	757.0
40°	770.7	769.8	740.1	713.2	728.6	755.0	805.1	767.8	739.3	730.9	793.2
42.5°	809.8	806.2	776.2	754.7	788.7	843.0	899.5	853.8	793.7	779.3	829.0
45°	859.6	858.5	822.4	771.2	843.0	941.4	1016.4	942.4	826.0	807.5	888.6
47.5°	940.1	934.6	867.4	769.9	893.8	1072.6	1167.3	1054.0	848.5	808.1	984.8
50°	1018.8	1012.0	921.2	769.8	946.3	1208.6	1345.5	1189.5	871.5	812.0	1082.6
52.5°	1098.4	1098.4	1009.4	788.1	1001.3	1360.6	1551.3	1358.5	910.7	862.9	1203.0
55°	1145.6	1158.3	1108.7	819.0	1065.8	1539.4	1754.9	1540.8	971.2	954.7	1314.1
57.5°	1085.6	1109.2	1102.1	797.5	1103.9	1670.7	1927.6	1679.1	1001.2	965.6	1297.4
60°	884.6	917.5	933.8	688.6	1066.3	1685.9	1963.7	1688.2	939.3	822.2	1111.3
62.5°	588.0	615.1	640.0	492.0	923.1	1516.7	1736.8	1517.2	784.5	613.6	769.9
65°	288.4	308.5	335.4	290.9	721.2	1267.3	1354.1	1226.0	567.5	343.5	392.7
67.5°	75.5	81.1	84.9	112.9	516.6	910.5	883.1	896.7	364.6	112.2	102.7
70°	39.2	39.5	39.4	46.6	349.2	578.7	608.6	563.1	254.4	47.0	40.5
72.5°	28.0	28.2	27.7	31.4	168.6	331.5	343.5	339.8	133.3	27.9	27.7
75°	18.3	18.5	18.1	18.5	25.4	37.7	34.8	36.6	22.2	17.7	17.7
77.5°	10.9	11.0	10.9	11.2	10.9	10.9	10.0	10.0	9.6	9.6	9.7
80°	7.3	7.3	7.1	7.4	6.8	6.8	6.5	6.3	5.8	5.7	5.7
82.5°	4.4	4.5	4.4	4.4	4.0	4.0	3.7	3.6	3.1	3.1	2.9
85°	2.3	2.3	2.1	2.1	1.8	1.6	1.3	1.3	1.0	0.8	0.8
87.5°	0.3	0.3	0.2	0.2	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



REPORT NUMBER: P629081

CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	388.2	385.0	380.1	375.4	371.0	366.5	361.3	356.0	351.4	346.7	344.3
5°	411.7	405.0	392.4	381.2	371.2	362.9	354.0	346.4	339.3	333.5	330.5
7.5°	432.9	422.5	403.4	385.8	372.2	360.8	348.5	337.2	327.6	320.5	317.7
10°	452.5	440.2	415.1	392.7	376.9	364.2	349.2	333.8	321.2	311.8	309.5
12.5°	468.4	454.3	424.3	398.4	379.6	366.0	352.7	339.5	327.0	314.8	312.9
15°	482.5	465.8	431.3	402.0	378.6	361.3	350.1	348.5	348.5	334.8	330.9
17.5°	494.6	476.3	436.9	403.6	372.5	347.4	340.6	354.7	370.5	360.7	351.9
20°	508.5	486.3	441.6	403.6	361.2	329.7	329.1	353.1	376.5	376.7	367.5
22.5°	522.6	498.0	447.1	402.1	345.6	309.3	321.3	346.6	367.5	376.4	370.1
25°	545.5	514.2	455.9	401.0	327.5	295.4	314.3	338.0	355.6	365.0	361.0
27.5°	574.4	535.6	469.2	402.8	309.5	287.1	306.9	326.8	342.9	351.1	348.2
30°	606.8	560.2	483.4	405.9	296.5	282.9	298.0	314.0	328.3	336.5	335.2
32.5°	648.1	586.9	495.7	401.6	289.2	280.8	288.6	300.1	313.9	319.0	320.2
35°	697.5	616.4	505.1	385.1	282.6	278.6	278.4	285.5	295.2	303.5	304.3
37.5°	743.0	650.9	515.5	356.8	270.6	272.9	266.4	270.6	280.2	288.4	291.7
40°	788.1	685.9	529.9	320.7	254.9	260.3	252.6	255.6	263.2	274.0	279.2
42.5°	831.8	717.4	545.1	283.7	239.2	242.6	236.9	239.9	247.8	261.4	267.2
45°	879.4	760.2	557.0	248.9	225.6	224.1	219.6	223.8	235.8	250.7	257.7
47.5°	969.4	827.6	564.7	225.8	218.3	207.8	202.6	211.7	225.3	240.3	248.8
50°	1079.4	925.1	562.5	211.0	212.0	190.9	189.2	201.1	215.7	231.4	240.7
52.5°	1166.5	1020.8	536.7	196.9	199.7	180.3	175.1	192.6	206.5	222.5	232.1
55°	1233.1	1053.0	457.7	180.3	179.6	172.5	161.6	183.7	197.3	212.2	222.5
57.5°	1178.8	981.3	339.3	157.3	153.4	157.1	146.6	168.6	185.9	200.7	209.9
60°	978.4	782.4	189.0	139.3	128.3	137.3	135.7	152.7	173.6	189.2	197.1
62.5°	664.2	521.0	112.1	110.1	104.0	116.9	125.5	136.7	157.3	169.9	177.3
65°	331.0	253.1	74.5	82.4	83.2	96.2	112.4	124.7	141.9	154.8	162.3
67.5°	96.0	78.7	56.7	63.0	71.7	82.1	95.1	109.6	126.3	141.7	150.5
70°	41.5	41.9	45.0	52.5	61.1	71.7	84.7	99.0	113.0	124.9	131.5
72.5°	29.3	30.4	33.8	41.5	49.6	59.8	72.7	86.5	96.7	108.7	115.6
75°	18.8	19.6	22.3	28.2	34.2	44.1	56.4	69.0	79.5	88.1	94.7
77.5°	10.4	10.5	12.8	16.2	20.2	26.6	35.6	45.5	53.3	58.1	64.1
80°	6.0	6.0	7.1	9.2	11.7	15.5	20.6	25.4	30.1	33.2	36.1
82.5°	3.2	3.2	3.7	5.0	6.3	8.6	11.5	13.9	16.8	18.5	20.4
85°	1.0	1.0	1.3	1.8	2.3	3.2	4.5	5.8	7.1	8.3	9.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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: P629081
 CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	343.8	341.6	340.3	338.6	339.1	337.7	336.9	337.3	334.4	337.3	340.3
5°	329.4	326.2	323.6	321.5	320.5	318.6	317.4	317.4	315.6	318.6	322.1
7.5°	316.8	314.2	312.9	311.6	310.1	308.4	306.4	305.8	304.6	307.7	310.8
10°	308.4	308.7	309.5	311.3	310.9	309.8	306.9	305.3	305.3	308.8	313.5
12.5°	312.2	315.6	317.6	320.8	321.5	320.5	317.6	316.3	319.5	324.9	332.6
15°	327.3	329.6	331.2	333.8	333.6	332.8	330.5	331.5	342.2	352.6	359.5
17.5°	343.7	341.1	340.7	342.4	342.9	341.9	340.6	345.0	362.6	372.3	375.9
20°	355.5	346.6	344.6	345.3	346.6	346.1	346.1	353.2	371.5	376.1	371.5
22.5°	359.0	346.4	343.5	343.7	345.4	345.6	346.4	353.9	364.6	364.7	357.8
25°	353.4	341.2	339.1	339.5	341.6	341.4	341.7	345.9	350.6	348.7	343.5
27.5°	342.7	332.2	331.5	333.3	336.1	334.6	333.6	334.8	337.0	334.6	330.1
30°	330.5	321.6	322.0	325.4	328.3	325.8	323.4	324.1	324.2	321.6	316.5
32.5°	317.7	311.1	312.2	315.8	319.2	316.6	314.0	313.7	310.6	307.5	302.5
35°	305.0	302.4	303.8	306.7	309.7	307.5	305.9	305.0	298.3	293.8	289.6
37.5°	293.3	295.2	297.8	299.6	300.6	300.4	299.4	297.2	288.4	283.1	277.6
40°	282.9	288.9	291.7	292.5	293.9	293.6	293.5	290.2	278.7	273.1	266.7
42.5°	273.5	282.0	286.7	287.5	288.3	288.4	288.0	283.3	270.1	263.5	257.5
45°	264.5	275.5	281.5	280.7	281.8	281.8	282.3	276.1	261.7	254.9	248.6
47.5°	256.5	269.5	275.0	274.0	274.7	275.2	275.6	268.5	252.5	246.0	239.5
50°	249.2	263.0	267.7	268.0	268.0	269.2	269.0	262.0	244.7	237.7	231.3
52.5°	241.5	256.4	261.4	263.5	264.1	264.6	262.4	254.3	236.8	228.4	222.4
55°	232.4	249.6	254.1	256.9	258.2	257.8	254.8	246.5	228.7	220.3	213.5
57.5°	218.6	235.0	241.5	242.8	244.9	243.6	240.0	233.0	215.7	207.3	200.3
60°	203.6	215.4	220.6	221.7	220.1	220.6	220.1	213.5	198.4	191.8	184.6
62.5°	183.8	194.3	199.8	201.3	198.6	200.3	199.7	191.4	176.4	169.4	163.1
65°	168.9	180.4	186.9	187.7	186.9	187.7	185.4	175.4	161.1	154.0	147.5
67.5°	157.3	169.1	175.9	178.1	177.3	177.2	173.6	162.0	147.2	139.4	131.2
70°	137.2	147.5	156.3	161.8	161.8	158.7	151.9	141.1	129.2	122.6	116.1
72.5°	121.5	134.6	143.2	148.8	150.0	148.2	138.6	127.1	113.5	106.9	100.1
75°	100.1	112.9	122.1	129.6	131.0	129.1	118.1	106.7	94.1	87.6	80.8
77.5°	66.9	74.5	81.9	88.7	87.3	88.6	81.1	72.6	64.8	59.9	56.8
80°	37.7	42.8	45.0	48.7	48.7	48.7	43.9	39.8	35.5	32.7	29.6
82.5°	21.4	24.6	25.6	28.7	29.5	29.6	26.4	23.8	21.1	19.6	17.5
85°	9.9	11.7	11.8	13.6	14.3	15.5	14.1	12.3	10.7	10.0	8.7
87.5°	0.3	1.0	1.3	2.4	3.2	3.7	4.0	4.0	3.4	3.1	2.6
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: P629081

CATALOG NUMBER: GWS-SA1A-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	343.8	347.7	352.2	355.5	361.3	366.2	371.2	376.7	380.7	379.8
5°	326.5	333.0	341.2	348.8	359.7	370.7	382.9	395.3	402.6	402.3
7.5°	316.8	326.0	336.1	346.3	359.0	374.9	393.5	413.0	422.9	423.3
10°	322.0	331.8	338.6	347.2	360.7	380.6	402.9	426.3	437.6	439.9
12.5°	338.3	337.5	337.0	343.2	359.4	384.6	412.0	439.9	452.7	455.4
15°	353.9	337.2	327.1	331.4	353.5	387.2	420.9	454.8	469.2	472.1
17.5°	356.8	331.5	312.9	315.8	344.3	388.0	429.5	469.3	484.9	487.6
20°	348.7	324.2	302.5	298.5	332.6	385.9	434.8	481.5	498.5	501.4
22.5°	338.5	317.7	294.8	284.2	318.4	383.8	440.8	494.3	513.9	516.5
25°	327.8	309.5	287.5	271.4	302.2	382.5	450.9	511.1	534.8	537.8
27.5°	316.5	299.4	281.1	265.3	287.3	384.2	465.1	538.3	565.2	569.6
30°	304.3	289.4	277.1	263.2	277.1	385.6	480.8	566.2	597.8	603.9
32.5°	291.7	280.2	272.9	264.1	270.8	382.2	494.6	597.4	636.6	642.0
35°	279.0	270.8	267.5	265.9	262.4	369.7	505.8	629.0	681.0	685.7
37.5°	267.2	261.1	260.1	261.9	249.4	349.3	518.7	669.2	724.6	731.7
40°	256.2	250.5	250.4	250.1	235.2	321.5	536.2	710.0	767.5	770.7
42.5°	246.0	238.9	240.2	236.3	223.5	291.4	552.7	744.8	807.5	809.8
45°	236.9	227.5	229.0	224.1	218.0	259.8	567.3	786.0	858.2	859.6
47.5°	228.2	218.1	214.1	213.8	217.0	230.6	581.6	865.1	937.5	940.1
50°	220.1	209.2	197.7	204.9	211.0	208.8	599.4	950.0	1019.5	1018.8
52.5°	212.3	198.1	181.7	195.5	195.5	192.6	594.4	1001.5	1087.2	1098.4
55°	203.4	180.1	165.0	179.8	172.6	178.0	505.5	1018.4	1129.8	1145.6
57.5°	185.8	157.9	144.8	152.7	142.0	165.0	363.1	934.8	1057.4	1085.6
60°	168.8	141.5	133.0	131.5	117.6	134.6	235.3	731.9	870.3	884.6
62.5°	148.8	127.5	120.2	109.0	94.6	98.0	142.5	481.6	584.8	588.0
65°	133.8	115.5	101.5	88.3	77.4	71.1	84.2	232.2	292.3	288.4
67.5°	114.8	99.0	85.7	76.1	67.2	59.3	56.0	69.0	78.1	75.5
70°	102.2	87.0	74.2	65.1	56.8	48.9	43.2	40.6	39.8	39.2
72.5°	88.1	74.8	61.5	52.8	45.0	37.7	32.6	29.5	28.7	28.0
75°	70.3	57.8	45.7	37.4	30.6	25.4	22.0	19.4	18.9	18.3
77.5°	46.5	37.1	27.2	22.2	18.1	15.4	13.1	11.5	11.2	10.9
80°	25.6	21.4	16.7	13.4	10.9	9.4	8.6	7.6	7.4	7.3
82.5°	15.2	12.8	9.6	7.6	6.3	5.7	5.2	4.7	4.5	4.4
85°	7.6	6.0	4.2	3.6	3.2	2.9	2.9	2.4	2.3	2.3
87.5°	1.9	1.6	1.0	0.8	0.8	0.8	0.6	0.5	0.5	0.3
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

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

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

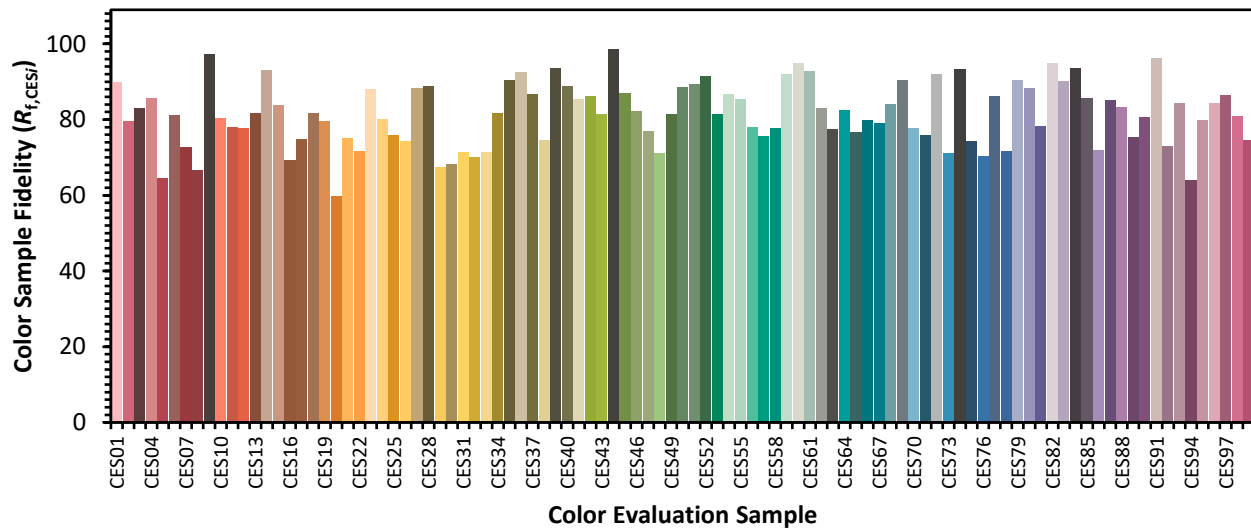


Color Vector Graphics



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)