

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: P629575

Luminaire Tested: GWS-SA1B-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629575
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-SA1B-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: 1518.9 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G0

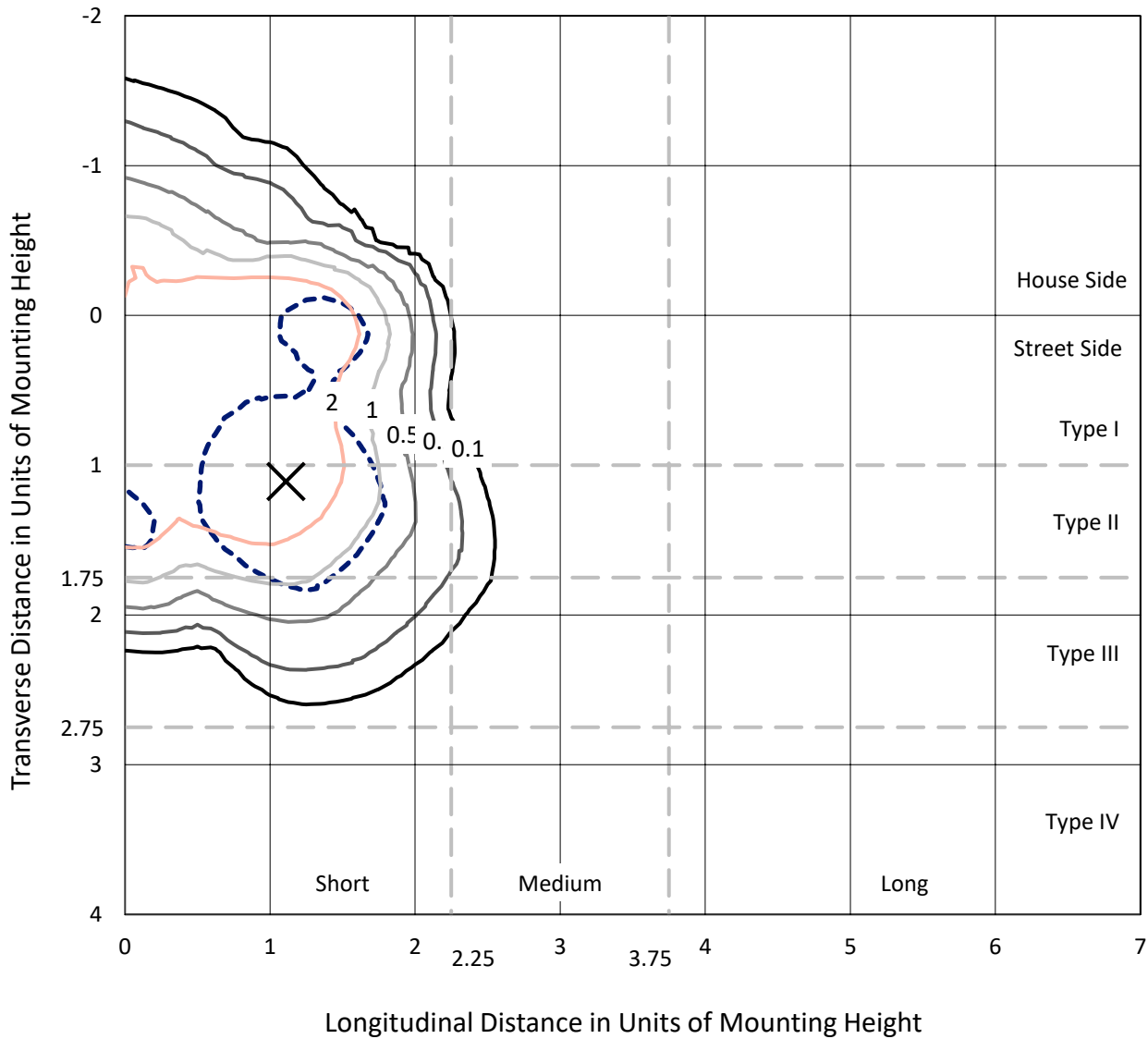
Input Watts (W): 25
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

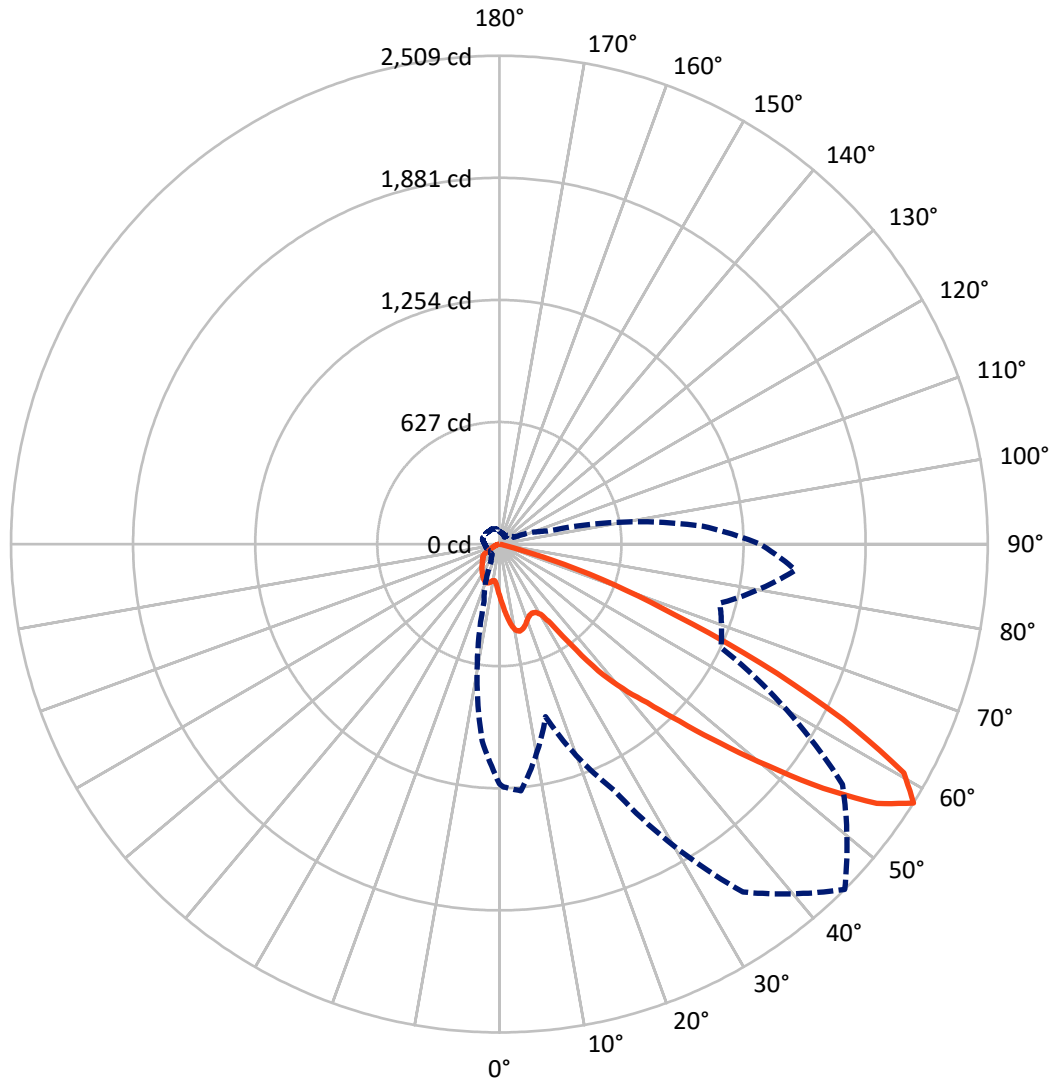
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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	340.1	0.0	340.1
	% Fixture	22.4	0.0	22.4
Street Side	Lumens	1178.8	0.0	1178.8
	% Fixture	77.6	0.0	77.6
Total	Lumens	1518.9	0.0	1518.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.3	1.7
10°-20°	85.0	5.6
20°-30°	138.0	9.1
30°-40°	213.2	14.0
40°-50°	341.9	22.5
50°-60°	467.3	30.8
60°-70°	226.3	14.9
70°-80°	20.7	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°	1518.9	100.0
0°-180°	1518.9	100.0

Coefficient of Utilization



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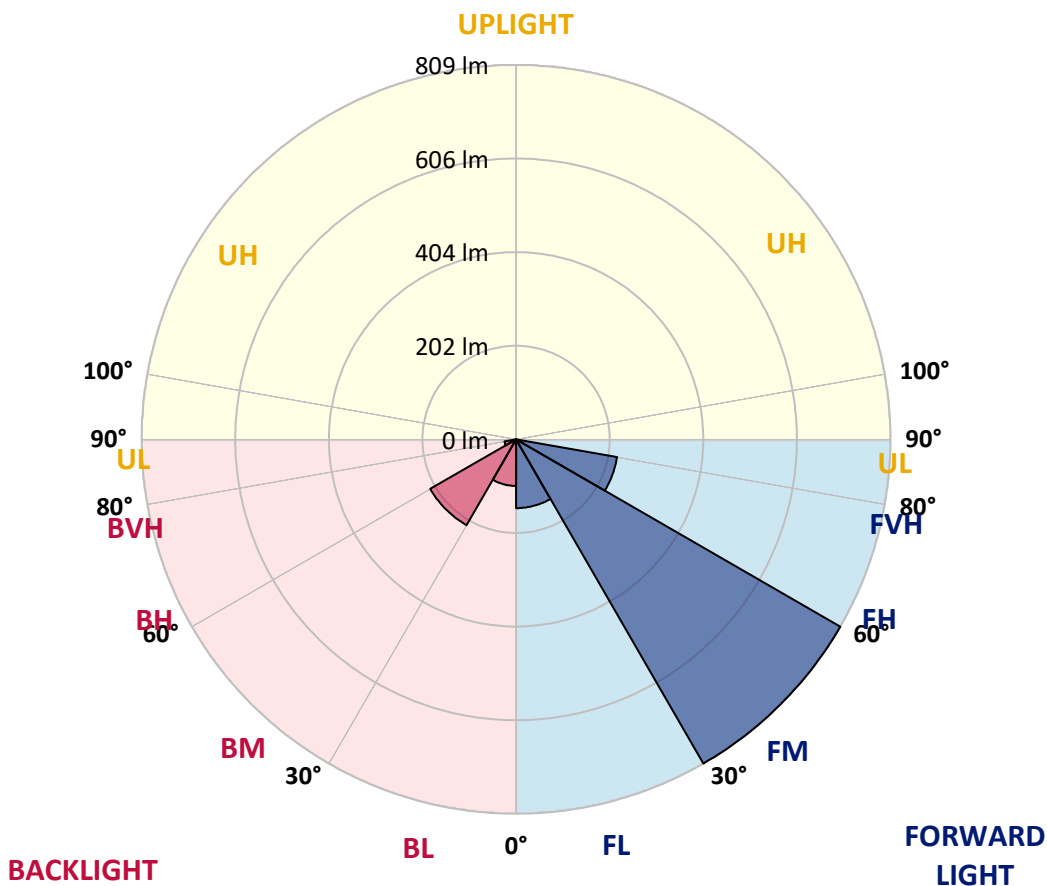
CATALOG NUMBER: GWS-SA1B-830-U-SLR-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.6	9.8			
FM (30°-60°)	808.5	53.2			
FH (60°-80°)	221.6	14.6			G0/660
FVH (80°-90°)	0.1	0.0			G0/10
BL (0°-30°)	100.6	6.6	B0/110		
BM (30°-60°)	214.0	14.1	B0/220		
BH (60°-80°)	25.5	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: B0-U0-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
2.5°	289.2	291.0	294.1	300.6	306.2	309.8	311.5	311.0	308.8	307.2	303.9
5°	320.2	320.2	326.2	341.1	352.5	359.6	363.3	361.1	356.6	349.4	338.4
7.5°	347.4	348.4	358.4	379.6	397.0	407.2	413.1	411.9	403.9	390.2	368.2
10°	368.6	369.8	383.1	409.0	429.4	439.8	448.6	449.4	440.7	422.5	397.2
12.5°	389.2	390.4	404.3	429.2	447.2	451.5	459.2	462.3	460.0	447.2	420.9
15°	411.5	414.3	426.2	444.7	452.3	447.2	452.3	457.8	465.3	464.1	440.4
17.5°	433.3	435.3	447.4	453.9	445.6	432.3	434.7	441.3	458.4	475.1	459.8
20°	453.5	456.4	466.4	457.8	432.5	411.9	412.1	420.7	446.8	481.9	479.6
22.5°	474.7	479.0	486.2	462.1	420.4	395.8	396.8	404.5	437.6	488.2	502.1
25°	502.5	506.6	511.3	472.7	416.6	387.8	391.7	398.8	437.6	499.0	529.8
27.5°	540.0	542.9	543.1	492.5	423.3	389.0	397.2	405.3	450.7	520.7	567.0
30°	587.2	591.7	585.8	523.3	444.3	405.3	417.4	427.6	478.8	557.2	621.7
32.5°	644.5	650.9	642.9	569.0	488.2	461.7	483.5	489.4	523.7	610.1	683.7
35°	711.9	717.2	708.6	632.3	590.7	595.6	635.2	627.6	613.9	675.2	756.2
37.5°	785.8	790.7	774.2	728.2	742.1	763.3	826.6	800.7	756.6	759.0	834.8
40°	853.5	858.9	832.9	832.5	861.1	899.9	976.2	940.5	880.5	868.9	908.4
42.5°	923.8	927.4	904.0	888.0	952.9	1032.7	1113.6	1065.4	962.5	949.9	1000.7
45°	1024.0	1031.7	989.9	915.4	1035.6	1185.6	1298.3	1204.2	1018.5	1008.3	1141.9
47.5°	1171.3	1177.0	1091.7	932.5	1112.5	1376.0	1529.1	1384.2	1067.6	1044.4	1335.0
50°	1293.2	1297.1	1185.4	951.3	1194.4	1581.4	1792.2	1597.7	1123.0	1104.2	1515.2
52.5°	1383.0	1397.7	1308.5	989.9	1302.0	1822.8	2083.5	1850.6	1209.3	1219.7	1664.6
55°	1401.6	1421.6	1392.6	1013.6	1396.7	2068.8	2352.5	2076.9	1295.4	1307.3	1714.8
57.5°	1231.7	1247.7	1271.7	918.0	1394.4	2181.4	2508.6	2152.0	1256.2	1172.4	1526.9
60°	922.7	933.8	977.4	701.7	1282.4	2081.8	2387.0	2024.3	1098.5	894.6	1163.4
62.5°	547.2	552.1	607.4	454.5	1064.4	1792.8	1979.6	1746.7	868.0	601.7	712.5
65°	210.0	208.0	250.2	224.3	782.7	1428.1	1472.4	1331.5	595.6	275.7	271.7
67.5°	32.5	31.0	41.8	66.3	564.5	989.7	971.5	959.7	373.1	64.3	56.1
70°	7.3	7.3	9.0	19.6	344.9	581.5	622.3	593.3	238.8	13.7	7.3
72.5°	3.5	3.5	4.3	8.4	124.9	239.6	279.2	274.9	77.6	4.5	2.7
75°	1.2	1.4	1.4	1.8	7.6	12.5	28.6	20.4	4.9	0.0	0.0
77.5°	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.2	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°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
2.5°	296.8	295.3	290.0	282.9	275.9	269.8	263.5	255.9	250.4	244.1	242.1
5°	329.8	320.8	306.4	291.3	277.4	265.5	254.1	241.9	232.9	223.9	220.8
7.5°	357.8	344.5	321.0	298.4	279.4	262.7	246.1	229.4	216.3	205.7	202.5
10°	382.9	367.6	336.2	308.2	284.3	264.9	244.9	223.9	207.0	194.3	191.2
12.5°	404.5	386.8	349.0	315.5	286.4	264.1	244.7	228.0	212.7	198.2	194.3
15°	422.7	403.1	359.8	320.4	283.3	253.9	237.0	234.3	233.1	217.2	209.6
17.5°	440.4	418.4	368.6	322.7	274.7	235.9	223.7	235.7	248.6	238.2	228.6
20°	459.0	433.9	377.6	323.1	260.4	215.7	213.7	232.7	249.0	245.7	236.8
22.5°	480.9	453.3	388.8	322.9	242.5	198.6	206.3	226.8	240.0	239.8	232.7
25°	512.5	477.8	403.9	324.1	222.9	185.3	198.2	216.8	227.6	227.2	221.2
27.5°	546.4	507.0	423.5	327.2	206.1	177.6	188.6	203.1	212.5	212.1	207.0
30°	593.9	540.7	442.3	327.4	194.1	173.5	178.0	188.0	197.0	195.9	192.1
32.5°	651.7	578.6	458.0	315.7	186.5	169.6	167.0	172.1	179.0	177.6	176.5
35°	721.5	623.7	471.5	290.2	174.9	161.9	154.7	155.7	160.6	161.4	161.0
37.5°	801.1	677.4	488.2	256.6	159.2	150.6	141.0	140.2	143.1	145.7	147.8
40°	879.7	737.8	510.9	222.5	144.9	136.3	127.2	125.1	126.3	131.0	135.3
42.5°	968.0	807.8	535.4	193.3	135.1	120.6	111.8	108.0	111.4	119.0	124.1
45°	1095.4	906.0	559.2	170.0	131.0	106.7	94.9	94.5	98.4	108.2	113.9
47.5°	1274.2	1033.0	575.0	151.9	130.8	95.9	81.8	84.3	88.8	98.4	104.9
50°	1448.5	1191.9	557.6	138.0	126.5	88.8	72.0	76.9	81.4	89.8	96.5
52.5°	1553.6	1277.5	490.0	124.9	113.3	85.5	62.5	71.0	71.8	79.4	86.5
55°	1542.6	1222.2	375.3	104.7	93.7	80.8	52.5	64.1	64.5	70.2	76.3
57.5°	1338.9	1049.3	257.8	84.9	70.4	66.7	43.3	54.1	58.0	61.4	65.9
60°	997.8	765.6	114.9	69.0	44.7	45.1	36.9	40.8	46.7	50.8	54.7
62.5°	588.0	440.4	46.7	41.4	24.7	28.4	29.8	29.8	33.5	36.5	39.0
65°	222.3	154.1	19.0	20.8	12.9	13.3	17.6	21.6	24.5	27.1	30.4
67.5°	39.0	26.9	9.8	7.8	7.6	6.7	9.0	14.1	15.7	17.8	19.2
70°	6.5	5.5	4.1	3.9	3.5	3.7	5.9	10.0	11.0	11.6	12.2
72.5°	1.8	1.6	1.2	1.0	0.8	1.0	3.7	7.8	8.2	8.6	9.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.5	5.9	6.1	6.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.6	2.0	1.6
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°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
2.5°	240.8	236.8	234.5	233.3	233.3	231.7	229.8	229.2	231.9	231.9	236.3
5°	217.0	213.7	210.0	207.8	204.3	204.9	202.9	202.7	205.3	206.5	211.2
7.5°	200.4	196.3	194.1	192.7	190.8	190.0	188.2	187.6	189.0	191.0	195.5
10°	189.4	188.8	188.6	189.6	189.6	188.6	187.0	185.9	186.3	190.2	195.3
12.5°	192.3	193.5	193.9	195.5	196.3	195.5	194.3	194.7	197.4	204.5	212.1
15°	204.7	203.7	203.3	204.1	204.7	203.9	203.5	206.5	215.7	225.9	234.5
17.5°	218.0	211.4	208.6	208.6	209.0	208.6	209.0	214.9	229.8	240.0	246.3
20°	224.7	212.7	208.2	207.2	208.0	208.2	209.6	216.3	232.7	239.8	241.2
22.5°	222.7	207.6	202.5	201.7	202.5	203.3	204.7	210.4	225.7	229.4	228.8
25°	212.5	197.6	193.5	193.5	195.3	195.1	195.7	199.8	212.5	214.7	213.7
27.5°	199.6	185.5	182.1	184.1	185.7	185.3	185.5	189.0	198.4	199.0	198.0
30°	186.5	174.3	171.0	173.5	175.7	175.3	175.5	179.0	184.9	184.3	182.9
32.5°	173.3	164.3	161.9	163.3	166.7	166.3	167.2	170.8	173.1	170.4	168.8
35°	161.0	156.3	154.5	155.3	158.0	158.6	160.0	162.5	162.5	159.2	156.3
37.5°	149.6	149.0	147.8	146.7	149.2	151.0	153.1	155.9	151.9	147.2	144.5
40°	139.0	141.6	140.0	137.4	138.8	141.4	145.5	147.8	142.9	138.2	133.7
42.5°	129.2	133.7	133.1	129.8	131.0	133.5	138.2	140.0	134.3	129.0	124.7
45°	119.8	126.1	126.5	122.5	123.7	126.1	131.6	132.3	124.9	119.2	116.1
47.5°	111.6	118.6	118.8	115.7	116.1	119.6	124.7	124.9	116.5	111.2	107.4
50°	103.9	111.8	112.5	109.8	110.2	114.3	118.6	117.8	108.8	103.3	99.8
52.5°	94.5	105.3	106.7	105.5	107.2	110.4	113.1	110.2	99.8	94.3	91.2
55°	84.3	98.4	101.4	100.6	102.5	105.1	105.7	103.9	90.8	85.3	82.5
57.5°	72.5	81.0	86.3	84.7	86.1	88.8	90.6	89.2	79.4	75.1	72.7
60°	60.0	65.7	66.9	64.3	63.1	67.8	72.0	70.2	61.8	59.2	56.3
62.5°	43.9	50.4	51.2	47.8	46.3	51.4	55.1	53.3	44.1	41.2	39.0
65°	35.1	41.2	42.9	39.6	38.8	42.7	44.9	40.4	33.9	30.8	28.4
67.5°	23.1	28.0	32.2	32.0	30.4	31.6	30.0	26.3	21.6	20.0	18.4
70°	14.3	17.1	19.8	20.8	20.6	20.2	18.0	15.3	13.9	13.3	12.5
72.5°	11.0	13.9	15.9	16.5	16.7	16.1	14.3	11.8	10.4	9.6	9.0
75°	8.2	10.4	12.0	12.9	13.3	12.9	11.0	9.4	8.0	7.3	6.7
77.5°	2.9	3.5	4.3	4.7	4.5	4.3	3.9	3.9	3.1	2.9	2.4
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°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
2.5°	241.5	245.1	251.9	258.0	264.5	271.2	278.6	286.1	289.6	289.2
5°	218.4	226.3	237.4	249.4	262.9	277.4	293.5	310.0	317.2	320.2
7.5°	203.9	215.1	229.6	244.9	262.7	283.3	307.6	333.5	343.9	347.4
10°	205.7	218.8	230.8	245.7	264.7	291.5	321.7	352.5	364.7	368.6
12.5°	220.6	223.5	226.8	239.0	262.9	297.6	334.5	371.3	385.3	389.2
15°	234.1	220.8	214.7	225.9	256.3	301.9	347.6	391.5	407.0	411.5
17.5°	234.7	214.7	201.0	209.8	245.7	303.7	360.4	412.1	429.0	433.3
20°	227.2	208.0	190.4	190.6	231.2	303.3	371.1	430.7	449.6	453.5
22.5°	216.1	200.0	181.9	175.5	215.7	302.5	382.7	450.4	471.1	474.7
25°	203.9	189.8	173.7	164.1	200.2	303.3	399.0	476.4	499.0	502.5
27.5°	190.6	178.6	167.4	159.6	187.2	306.4	418.6	509.4	536.4	540.0
30°	176.8	167.8	163.3	158.6	179.0	307.2	439.8	548.0	582.1	587.2
32.5°	163.1	158.2	158.4	159.2	171.2	301.5	459.2	590.9	636.4	644.5
35°	150.4	149.0	153.1	157.2	160.0	286.8	476.2	641.5	703.5	711.9
37.5°	139.6	140.8	145.9	150.0	147.8	265.9	498.6	704.8	778.6	785.8
40°	129.2	132.3	138.2	140.0	138.4	241.7	525.6	765.8	843.7	853.5
42.5°	119.6	121.8	130.2	130.6	135.7	217.0	551.5	831.5	918.7	923.8
45°	111.8	111.4	120.0	122.7	139.2	189.6	576.8	919.1	1016.6	1024.0
47.5°	104.3	103.9	105.9	118.0	140.6	164.3	601.9	1047.2	1158.7	1171.3
50°	97.2	97.8	91.4	115.7	132.9	144.9	613.3	1165.8	1287.9	1293.2
52.5°	90.8	88.6	77.6	108.4	116.3	126.5	580.9	1219.7	1367.9	1383.0
55°	81.8	69.4	63.9	88.0	91.8	110.4	475.8	1188.5	1374.8	1401.6
57.5°	70.0	54.5	54.3	64.9	64.9	102.5	304.7	1015.4	1184.8	1231.7
60°	53.9	42.2	44.9	45.1	41.6	74.7	171.0	735.6	876.0	922.7
62.5°	38.4	32.2	33.9	26.9	23.9	37.4	82.0	423.5	540.7	547.2
65°	25.7	21.8	17.8	14.9	14.7	15.9	33.9	153.1	186.1	210.0
67.5°	16.9	13.3	9.4	9.4	10.6	10.6	12.9	25.3	35.5	32.5
70°	11.0	9.2	5.9	5.7	6.9	6.9	6.5	6.9	7.3	7.3
72.5°	8.2	6.9	3.5	3.1	3.9	4.1	3.7	3.5	3.5	3.5
75°	6.1	4.9	2.0	1.4	1.8	2.4	2.0	1.4	1.4	1.2
77.5°	2.4	1.8	0.8	0.6	1.0	1.4	1.2	0.6	0.4	0.4
80°	0.2	0.4	0.4	0.4	0.6	0.8	1.0	0.4	0.2	0.2
82.5°	0.0	0.2	0.2	0.2	0.4	0.6	0.8	0.4	0.2	0.2
85°	0.0	0.0	0.0	0.0	0.4	0.6	0.4	0.2	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.2	0.6	0.4	0.2	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			

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

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

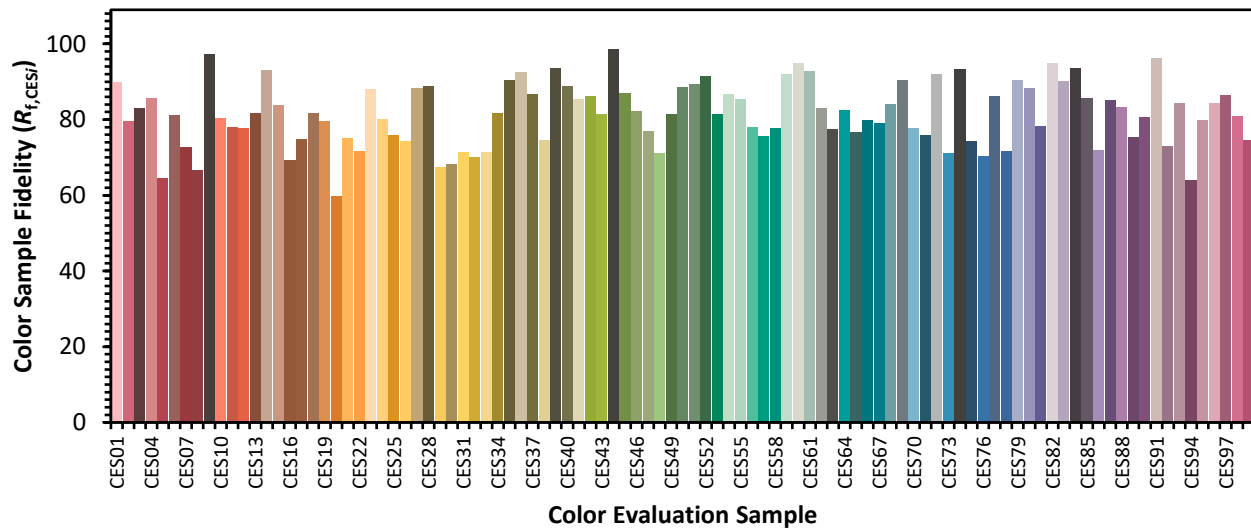


Color Vector Graphics



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)