

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: P633040

Luminaire Tested: GWS-SA2D-830-U-SLR-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P633040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-44)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2D-830-U-SLR-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5756.2 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

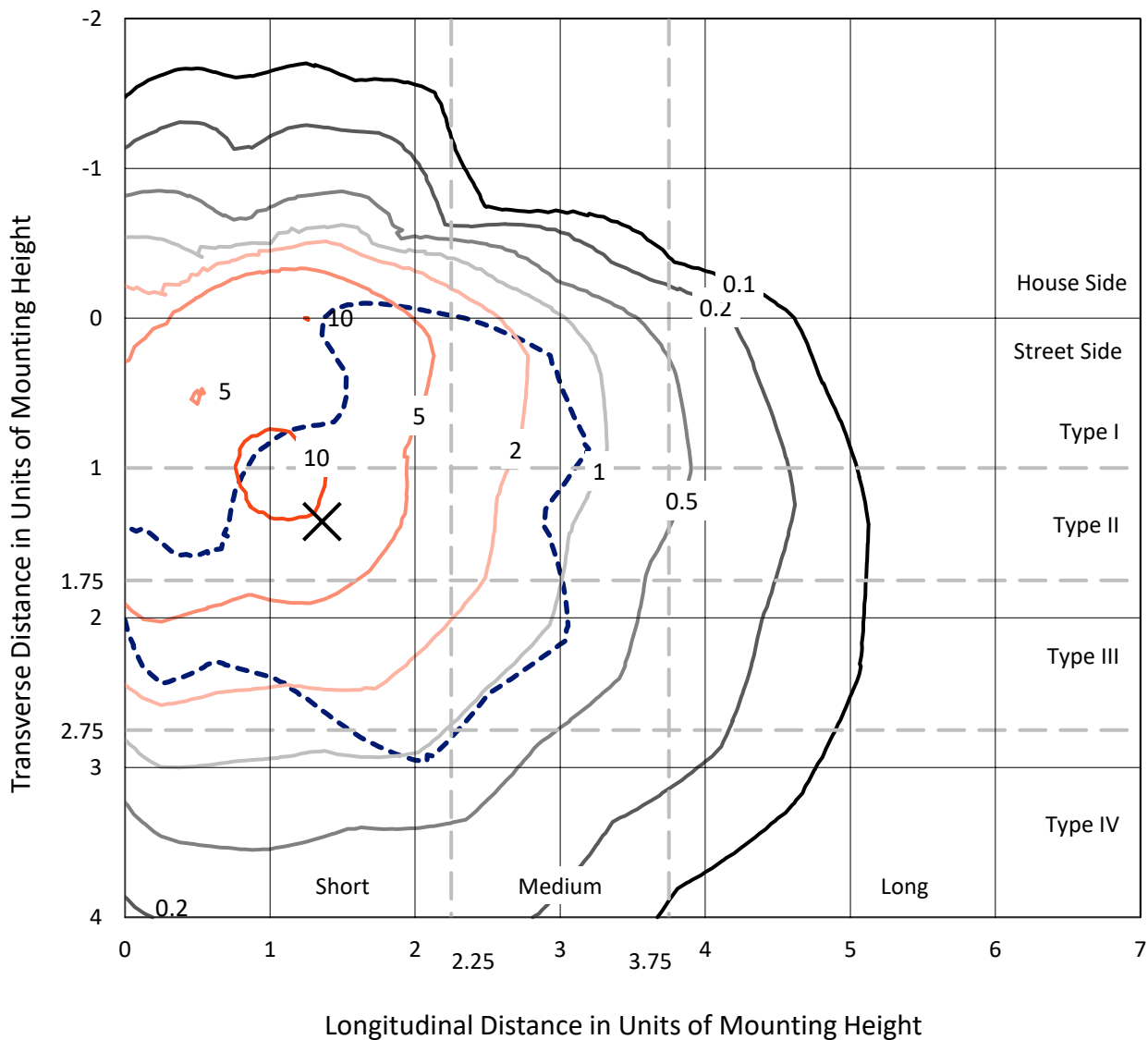
Input Watts (W): 82.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

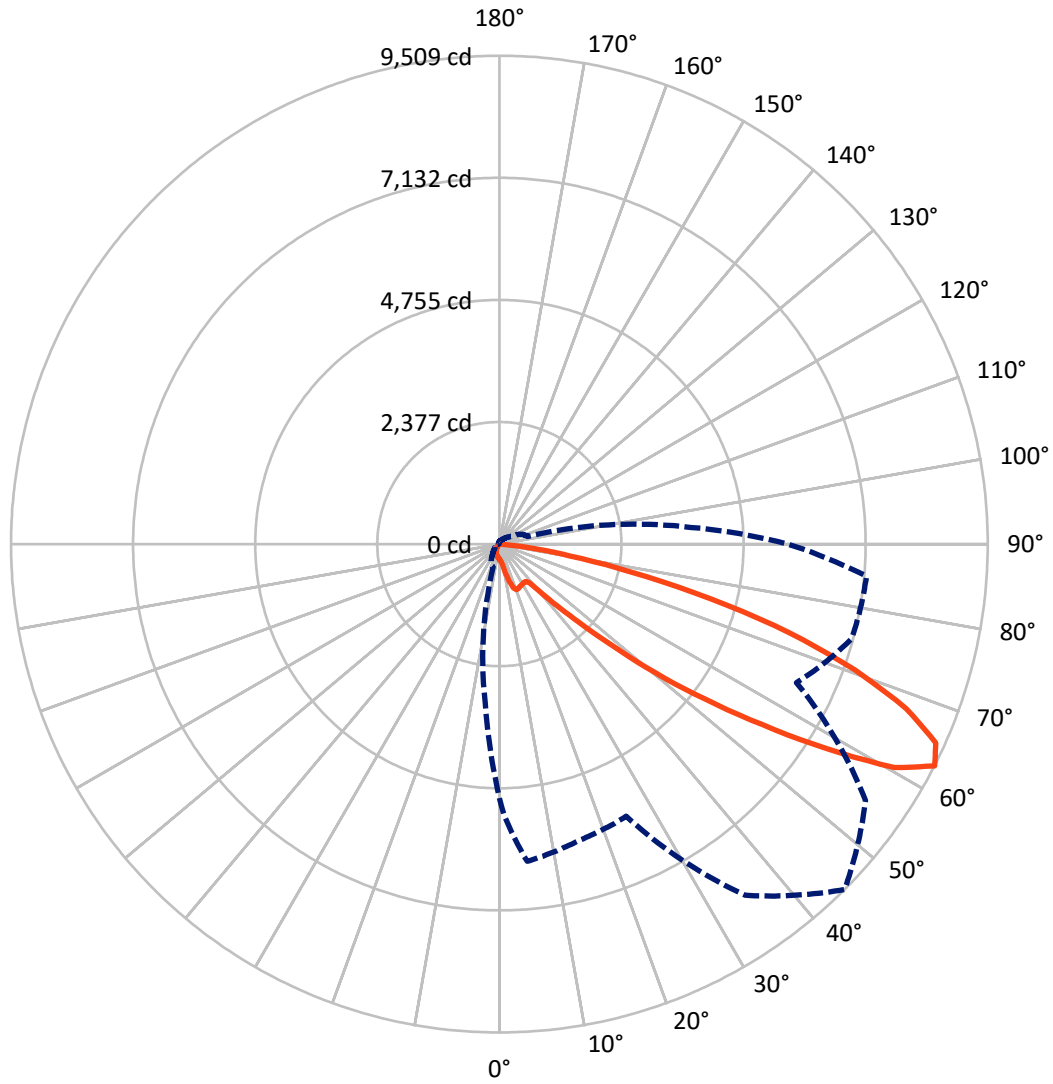
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	710.3	0.0	710.3
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	5045.9	0.0	5045.9
	% Fixture	87.7	0.0	87.7
Total	Lumens	5756.2	0.0	5756.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	0.5
10°-20°	100.4	1.7
20°-30°	218.2	3.8
30°-40°	358.1	6.2
40°-50°	658.3	11.4
50°-60°	1413.6	24.6
60°-70°	1898.7	33.0
70°-80°	988.7	17.2
80°-90°	93.7	1.6
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°	5756.2	100.0
0°-180°	5756.2	100.0

Coefficient of Utilization

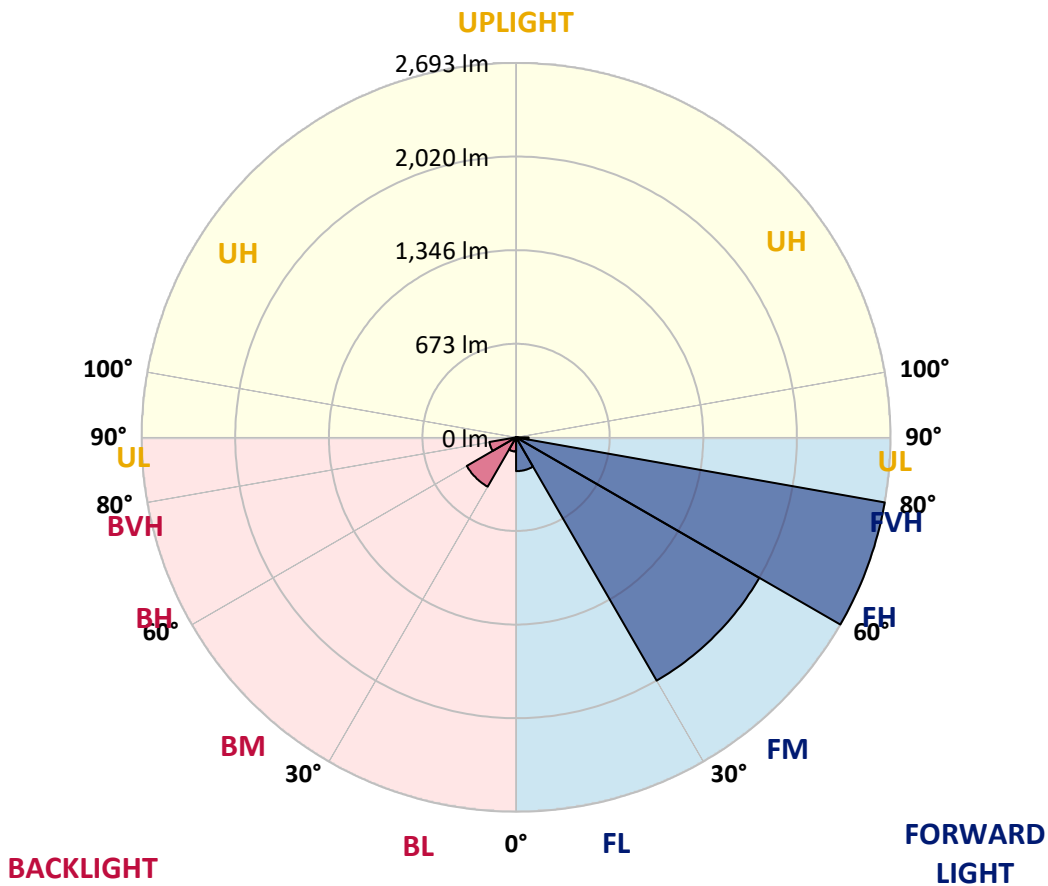


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	243.2	4.2			
FM (30°-60°)	2020.4	35.1			
FH (60°-80°)	2692.8	46.8			G2/5000
FVH (80°-90°)	89.6	1.6			G1/100
BL (0°-30°)	101.9	1.8	B0/110		
BM (30°-60°)	409.6	7.1	B1/1000		
BH (60°-80°)	194.6	3.4	B1/500		G1/500
BVH (80°-90°)	4.2	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2
2.5°	305.2	306.5	307.8	312.5	315.8	318.5	319.1	317.2	312.5	307.8	301.2
5°	295.9	297.2	301.9	314.5	327.1	337.1	340.4	338.4	327.1	312.5	297.2
7.5°	295.2	297.9	309.2	335.8	363.0	383.6	389.0	384.3	363.0	333.8	302.5
10°	319.1	323.8	340.4	388.3	438.2	474.7	489.4	469.4	435.5	382.3	331.1
12.5°	381.6	389.6	421.5	491.4	568.5	617.0	637.0	612.4	559.2	482.0	400.9
15°	480.1	492.0	539.9	644.3	735.4	778.6	785.2	771.3	709.4	624.3	515.3
17.5°	619.0	636.3	710.8	817.2	883.0	898.3	896.3	881.6	836.4	777.9	674.9
20°	785.2	805.9	879.0	966.8	973.4	955.5	945.5	936.8	921.5	911.6	831.1
22.5°	952.8	978.1	1054.5	1076.5	1016.6	964.8	940.2	946.8	969.4	1018.6	986.0
25°	1119.7	1143.6	1215.4	1156.2	1036.6	950.1	918.9	934.8	988.7	1095.1	1137.0
27.5°	1314.5	1332.4	1375.0	1210.8	1039.9	938.2	907.6	932.2	998.0	1143.0	1302.5
30°	1517.3	1527.9	1507.3	1225.4	1028.6	920.2	896.3	932.2	1014.0	1174.9	1426.9
32.5°	1666.2	1668.2	1601.1	1226.7	1022.6	905.6	885.6	928.2	1029.3	1201.5	1547.2
35°	1819.8	1809.8	1690.8	1246.7	1038.6	910.9	893.6	939.5	1053.2	1232.7	1652.9
37.5°	1975.4	1957.4	1791.2	1279.3	1079.8	968.7	958.1	997.3	1091.8	1275.9	1769.3
40°	2135.0	2110.4	1895.6	1328.5	1171.5	1165.6	1202.1	1197.5	1197.5	1331.1	1889.0
42.5°	2329.8	2301.2	2049.9	1467.4	1385.6	1519.3	1619.0	1557.2	1442.8	1458.1	2044.5
45°	2587.1	2562.5	2317.2	1733.4	1721.4	2028.6	2162.9	2040.6	1756.0	1751.3	2304.5
47.5°	2998.7	2994.0	2743.3	2041.9	2132.3	2676.9	2936.2	2700.8	2113.0	2061.8	2796.5
50°	3577.1	3563.2	3274.6	2403.6	2621.0	3480.1	3942.8	3550.5	2544.5	2424.2	3455.4
52.5°	4228.7	4243.3	4018.6	2798.5	3140.3	4373.7	5017.9	4523.9	3013.3	2885.0	4284.6
55°	4842.4	4926.2	4867.0	3260.6	3647.6	5360.4	6198.8	5591.8	3593.7	3488.0	5214.1
57.5°	5322.5	5558.5	5973.4	3932.2	4244.0	6514.6	7517.3	6749.3	4271.3	4467.4	6479.4
60°	5349.1	5661.6	6625.0	5337.1	5011.3	7504.6	8833.8	7880.3	5336.4	6130.3	7470.7
62.5°	4948.1	5283.2	6200.8	5975.4	5847.1	8347.1	9509.3	8704.8	6384.3	7104.4	7176.9
65°	4489.4	4827.8	5727.4	5251.3	5750.0	8311.2	9337.8	8724.1	6479.4	6442.1	6650.9
67.5°	3795.9	4099.7	4914.2	4648.3	5299.9	7910.2	8545.2	8174.2	5969.4	6025.3	6118.3
70°	2770.6	3063.2	3819.1	3832.4	4628.3	7187.5	7342.4	7291.2	5497.3	5556.5	5290.6
72.5°	2001.3	2248.0	2900.3	3142.9	3694.8	6027.3	5920.2	6117.7	4716.8	4948.8	4249.3
75°	1438.8	1623.7	2127.7	2734.0	2928.9	4476.1	4238.0	4738.0	3784.6	4261.3	3194.8
77.5°	583.8	648.9	837.1	1841.8	1924.9	3011.3	2594.4	3441.5	2698.1	2799.9	1548.5
80°	23.9	26.6	34.6	950.8	1319.8	1694.1	1388.3	1839.8	1781.9	1127.7	365.7
82.5°	2.7	2.7	6.0	273.9	577.8	934.8	654.3	1059.8	902.3	478.1	166.2
85°	0.7	0.7	1.3	31.2	135.6	149.6	88.4	325.1	419.5	195.5	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	6.0	6.6	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°	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2
2.5°	301.2	297.9	293.9	289.9	287.9	282.6	280.6	279.3	277.9	278.6	278.6
5°	291.2	283.9	275.3	266.6	262.0	256.6	254.0	252.7	253.3	256.0	256.0
7.5°	289.9	275.9	257.3	246.0	240.7	236.7	234.0	232.7	233.4	236.7	238.0
10°	311.8	287.2	254.0	234.7	228.7	224.7	222.1	220.1	218.7	221.4	222.1
12.5°	359.0	325.1	269.9	233.4	222.7	217.4	215.4	211.4	209.4	210.8	211.4
15°	456.8	398.3	301.9	238.7	217.4	211.4	208.1	204.8	201.5	200.8	201.5
17.5°	584.4	500.7	350.4	251.3	213.4	206.1	201.5	196.8	192.2	191.5	190.8
20°	742.7	626.3	418.2	271.3	210.1	201.5	194.8	188.2	182.2	180.2	180.2
22.5°	887.0	777.9	505.3	295.9	205.5	194.8	186.8	178.9	172.2	168.9	168.2
25°	1063.2	938.8	609.7	324.5	198.8	186.2	177.5	169.5	162.9	158.9	157.6
27.5°	1240.7	1108.4	728.1	361.7	190.8	177.5	169.5	162.2	154.9	150.3	148.9
30°	1412.9	1291.2	861.0	408.2	184.8	168.9	162.2	154.9	148.3	141.0	139.0
32.5°	1597.7	1478.1	1010.0	460.1	180.2	162.9	155.6	148.9	140.3	133.6	130.3
35°	1775.9	1670.9	1174.2	510.6	175.5	157.6	149.6	143.0	133.6	126.3	121.7
37.5°	1955.5	1867.0	1345.7	541.2	168.9	150.3	143.0	137.6	127.0	118.4	113.0
40°	2145.6	2069.8	1531.2	528.6	162.9	142.3	138.3	132.3	120.3	110.4	103.7
42.5°	2354.4	2263.3	1720.1	480.1	157.6	135.6	131.6	125.7	114.4	102.4	93.7
45°	2617.0	2475.4	1875.0	406.9	160.2	129.0	121.0	119.7	109.0	93.7	83.1
47.5°	3068.5	2801.2	1995.3	359.7	178.2	121.7	112.4	115.7	104.4	85.1	73.1
50°	3759.3	3341.1	2107.7	356.4	205.5	118.4	104.4	113.0	99.7	76.5	64.5
52.5°	4417.6	3889.6	2179.5	385.6	229.4	127.0	96.4	109.7	96.4	70.5	58.5
55°	5047.2	4206.1	2051.2	406.9	252.0	152.9	90.4	104.4	92.4	67.2	56.5
57.5°	5726.1	4347.1	1615.0	450.1	268.0	174.9	91.8	96.4	87.1	65.2	55.9
60°	5928.9	4166.9	974.7	506.6	259.3	181.5	101.7	85.8	79.8	61.2	53.9
62.5°	5613.7	3739.4	575.1	461.4	252.0	171.5	116.4	79.1	72.5	55.9	49.9
65°	5142.3	3158.9	375.0	389.6	267.3	152.9	123.7	75.8	65.8	50.5	43.9
67.5°	4603.7	2544.5	262.6	230.1	246.7	137.6	104.4	75.1	59.2	42.6	35.9
70°	3877.7	1905.6	184.8	152.3	205.5	122.3	81.1	73.1	51.9	34.6	27.9
72.5°	2996.0	1192.8	137.6	98.4	146.3	99.7	64.5	61.8	41.9	28.6	21.3
75°	2209.4	680.2	97.1	71.1	96.4	75.8	47.9	43.9	35.9	27.3	19.3
77.5°	1153.6	340.4	60.5	54.5	55.2	47.2	34.6	31.9	33.2	27.3	18.0
80°	221.4	67.8	36.6	39.9	29.9	29.9	25.3	26.6	29.3	21.9	15.3
82.5°	92.4	14.6	19.9	22.6	18.6	20.6	20.6	21.3	20.6	16.0	11.3
85°	0.0	0.0	8.6	9.3	12.6	12.6	10.6	10.6	10.6	9.3	6.6
87.5°	0.0	0.0	0.0	0.0	0.7	2.0	4.0	4.7	5.3	4.0	2.7
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°	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2
2.5°	277.9	276.6	278.6	279.9	281.2	281.2	279.9	278.6	276.6	278.6	276.6
5°	256.6	258.6	262.0	263.3	264.6	262.0	260.6	256.6	253.3	254.0	252.7
7.5°	240.0	242.0	246.0	248.7	248.7	247.3	243.4	239.4	234.0	234.0	233.4
10°	224.7	227.4	232.0	235.4	236.7	235.4	231.4	226.1	221.4	221.4	219.4
12.5°	212.1	215.4	220.7	225.4	226.7	225.4	221.4	216.1	210.8	210.8	209.4
15°	201.5	205.5	211.4	216.8	218.7	216.8	212.1	205.5	200.1	200.8	198.8
17.5°	191.5	194.8	202.8	208.8	210.8	208.8	202.8	194.1	188.8	190.2	188.8
20°	180.2	184.2	192.2	198.8	200.8	198.8	192.2	182.8	177.5	177.5	178.2
22.5°	168.2	172.2	180.2	184.8	187.5	185.5	178.9	170.2	164.9	164.9	165.6
25°	157.6	159.6	165.6	170.2	170.9	168.9	163.6	156.9	152.9	154.9	155.6
27.5°	147.6	147.6	150.3	152.9	152.3	150.3	148.3	143.0	142.3	144.3	146.3
30°	137.0	133.6	132.3	130.3	129.7	129.0	131.0	131.0	132.3	135.0	137.0
32.5°	127.7	121.0	115.0	109.0	105.7	108.4	113.7	118.4	123.0	127.0	129.0
35°	117.0	106.4	96.4	88.4	83.1	87.1	95.7	104.4	112.4	117.7	121.0
37.5°	106.4	91.1	79.1	69.1	65.2	68.5	77.8	89.8	101.7	108.4	113.0
40°	95.1	75.8	61.8	53.9	49.9	53.2	62.5	74.5	90.4	99.1	105.1
42.5°	83.8	62.5	49.9	41.9	39.9	41.9	49.2	61.2	78.5	89.1	97.1
45°	72.5	51.9	39.9	33.9	31.9	33.9	39.9	49.9	67.2	79.1	88.4
47.5°	62.5	43.9	33.2	27.9	26.6	28.6	33.2	41.9	56.5	68.5	79.1
50°	54.5	38.6	28.6	23.9	22.6	24.6	28.6	35.2	47.9	58.5	69.8
52.5°	49.2	35.9	25.3	20.6	19.9	21.3	24.6	29.9	40.6	49.9	60.5
55°	47.9	35.9	23.3	18.6	18.0	19.3	21.9	25.9	35.2	43.2	52.5
57.5°	49.2	38.6	21.9	16.0	15.3	16.6	19.3	22.6	30.6	37.2	45.9
60°	49.2	39.2	19.3	12.6	12.0	13.3	16.0	19.9	27.3	32.6	39.9
62.5°	44.5	35.9	16.0	10.0	8.6	10.0	13.3	16.6	23.9	29.3	35.2
65°	38.6	30.6	13.3	7.3	6.0	7.3	10.6	14.0	20.6	25.3	31.9
67.5°	31.2	23.3	10.0	5.3	4.0	5.3	8.0	11.3	17.3	21.9	28.6
70°	23.3	16.6	8.0	4.7	4.0	4.7	7.3	10.6	15.3	19.9	26.6
72.5°	17.3	11.3	6.6	4.7	3.3	4.7	6.6	10.0	14.6	19.3	25.3
75°	14.6	9.3	6.0	4.0	3.3	4.0	6.0	9.3	13.3	18.0	23.9
77.5°	14.0	8.6	5.3	3.3	2.7	3.3	5.3	8.0	12.0	16.6	23.3
80°	12.0	7.3	4.7	2.7	2.0	2.7	4.7	6.6	9.3	12.6	18.0
82.5°	9.3	6.0	3.3	1.3	0.7	1.3	3.3	4.0	6.0	7.3	10.6
85°	6.0	3.3	1.3	0.0	0.0	0.0	1.3	2.7	2.7	3.3	5.3
87.5°	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3	2.0
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°	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2	299.2
2.5°	280.6	281.2	282.6	284.6	289.2	293.2	297.2	302.5	305.2	305.2
5°	254.0	254.7	255.3	258.0	264.6	269.9	278.6	289.2	294.5	295.9
7.5°	233.4	234.7	236.0	238.0	244.7	252.0	263.3	283.2	293.2	295.2
10°	221.4	223.4	226.1	230.1	236.0	244.0	263.3	299.2	315.8	319.1
12.5°	212.1	215.4	218.1	222.7	230.1	242.7	281.2	344.4	373.7	381.6
15°	202.8	206.8	210.8	215.4	223.4	247.3	315.8	425.5	474.1	480.1
17.5°	193.5	198.1	203.5	208.8	218.7	258.6	370.3	537.9	605.7	619.0
20°	182.8	188.8	196.1	202.8	214.1	276.6	446.1	671.5	756.6	785.2
22.5°	171.5	178.9	187.5	196.1	208.8	298.5	537.9	815.2	934.2	952.8
25°	162.2	169.5	177.5	186.2	200.1	325.1	648.9	993.4	1101.7	1119.7
27.5°	153.6	160.9	168.2	176.2	191.5	359.7	782.6	1182.8	1295.9	1314.5
30°	144.3	152.9	160.2	168.2	183.5	402.3	936.8	1393.0	1500.0	1517.3
32.5°	136.3	144.9	152.3	160.2	177.5	448.8	1099.1	1579.1	1666.2	1666.2
35°	129.7	139.0	144.3	154.9	172.9	478.7	1252.7	1756.6	1822.5	1819.8
37.5°	122.3	133.6	137.6	144.9	166.9	482.0	1396.9	1944.1	1992.7	1975.4
40°	115.0	127.0	133.0	137.0	160.2	454.8	1555.2	2116.4	2157.6	2135.0
42.5°	108.4	117.7	126.3	131.0	156.2	406.9	1682.2	2300.5	2349.7	2329.8
45°	101.7	109.7	115.0	123.7	158.9	373.7	1791.2	2515.3	2601.7	2587.1
47.5°	95.1	101.7	105.1	118.4	176.9	358.4	1857.7	2847.7	3010.6	2998.7
50°	87.8	95.7	95.7	117.0	203.5	363.7	1915.6	3329.1	3581.1	3577.1
52.5°	80.5	89.1	87.8	127.0	224.1	388.3	1981.4	3754.0	4192.2	4228.7
55°	73.1	81.1	82.4	146.9	236.0	409.6	1726.7	3932.8	4714.1	4842.4
57.5°	65.2	69.8	85.8	162.2	232.0	471.4	1182.8	3965.4	5047.2	5322.5
60°	56.5	60.5	97.1	158.9	219.4	435.5	744.7	3672.9	5000.0	5349.1
62.5°	49.2	55.9	102.4	140.3	223.4	377.7	474.7	3130.3	4549.9	4948.1
65°	43.2	53.9	93.1	127.0	226.1	256.0	320.5	2546.5	4110.4	4489.4
67.5°	38.6	59.8	76.5	113.0	194.1	180.2	220.1	1978.7	3456.1	3795.9
70°	35.2	61.2	62.5	97.1	150.3	115.7	144.9	1331.8	2382.3	2770.6
72.5°	31.9	45.2	47.2	77.8	97.1	70.5	93.7	762.0	1736.7	2001.3
75°	30.6	30.6	32.6	50.5	53.9	51.2	60.5	454.8	1245.3	1438.8
77.5°	28.6	23.3	20.6	32.6	29.3	36.6	35.9	202.1	539.9	583.8
80°	22.6	16.6	14.0	20.6	19.9	24.6	21.3	16.6	24.6	23.9
82.5°	14.0	10.6	10.0	12.6	11.3	12.6	10.0	2.7	2.7	2.7
85°	6.6	6.0	5.3	5.3	6.0	5.3	4.0	1.3	0.7	0.7
87.5°	3.3	3.3	2.7	2.0	2.7	2.7	2.0	0.7	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

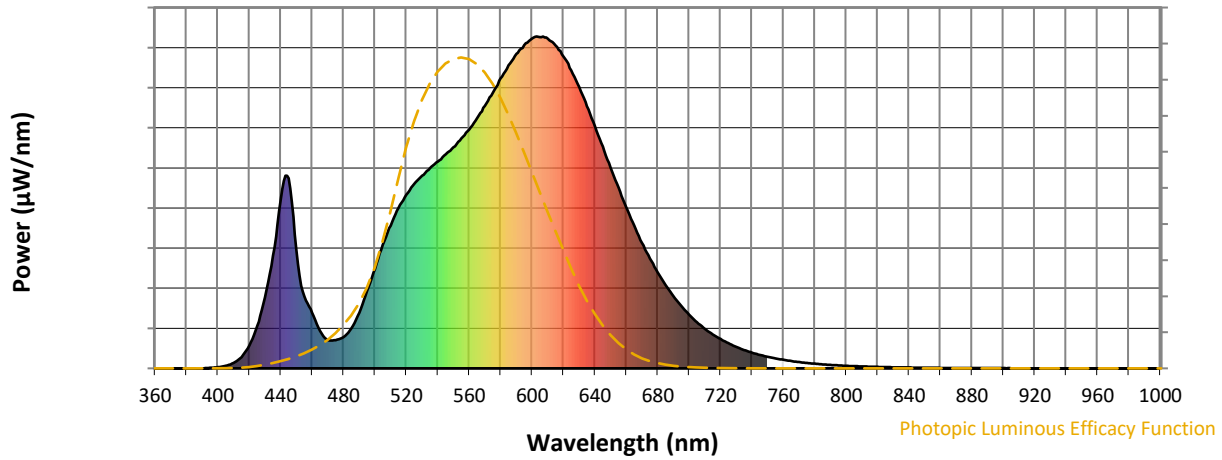


CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

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)