

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: P630066

Luminaire Tested: GWS-SA1C-830-U-SLL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1C-830-U-SLL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2311.9 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

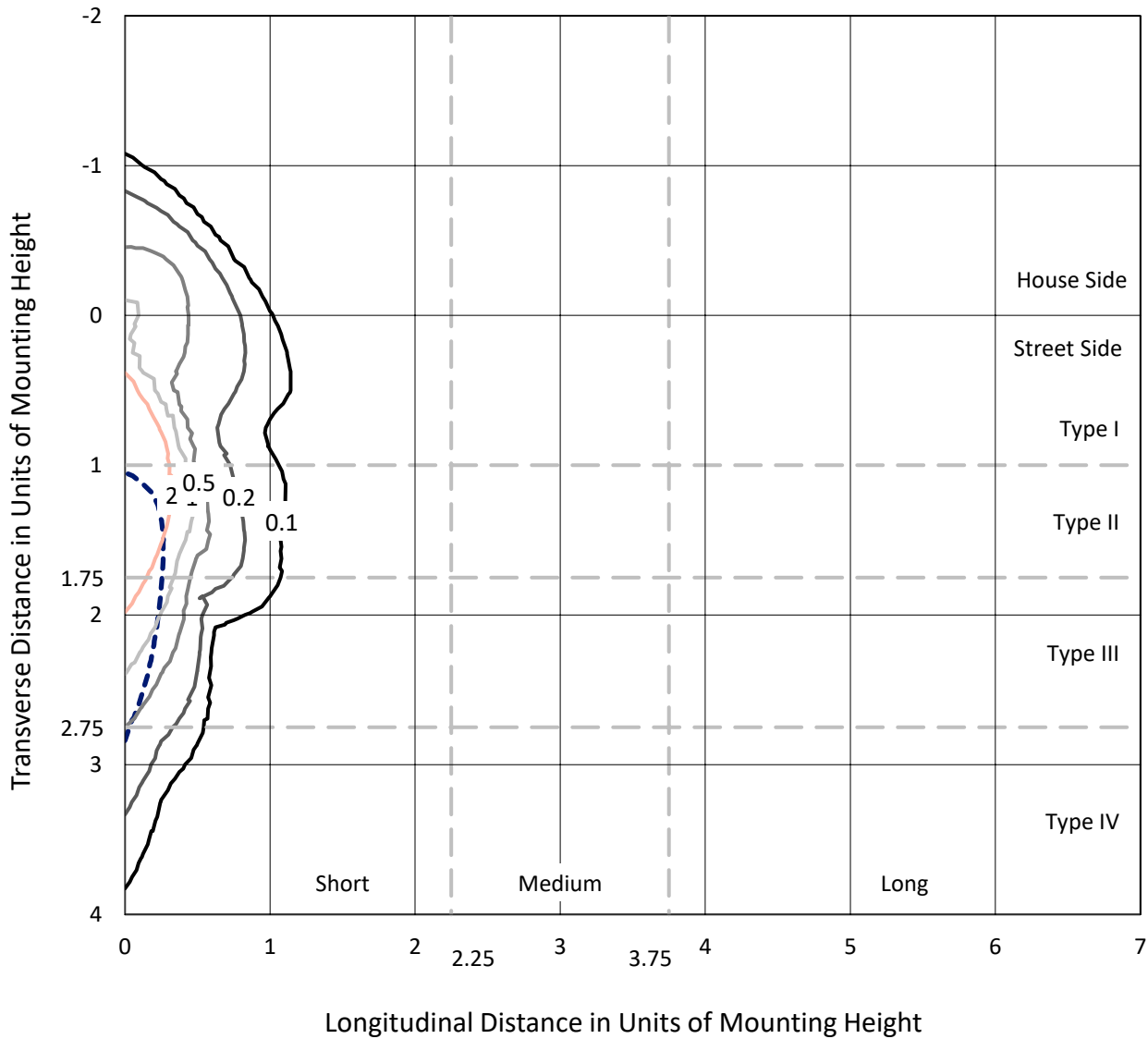
Input Watts (W): 34.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

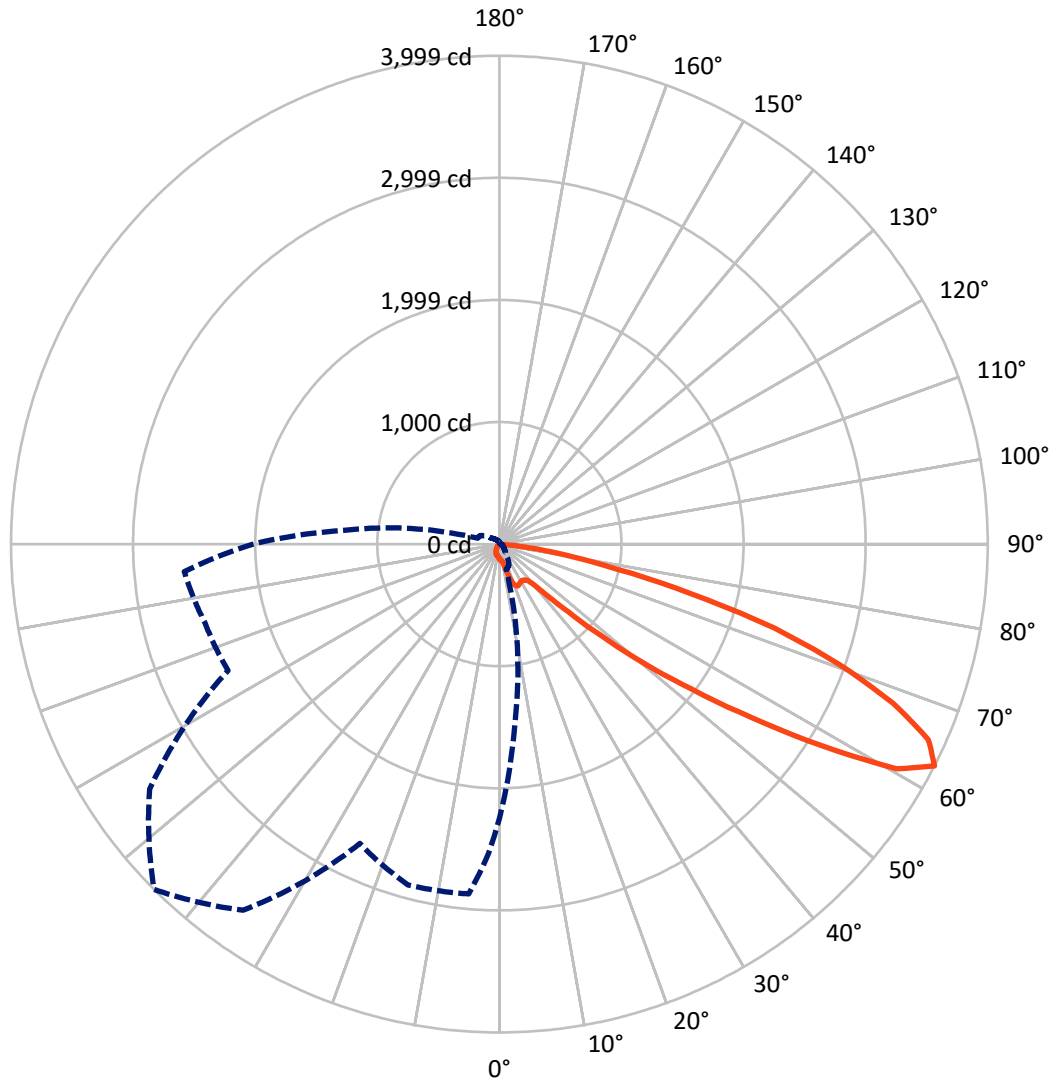
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	268.6	0.0	268.6
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	2043.3	0.0	2043.3
	% Fixture	88.4	0.0	88.4
Total	Lumens	2311.9	0.0	2311.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.4	0.4
10°-20°	35.5	1.5
20°-30°	80.2	3.5
30°-40°	138.1	6.0
40°-50°	260.5	11.3
50°-60°	581.7	25.2
60°-70°	778.0	33.7
70°-80°	390.2	16.9
80°-90°	37.4	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°	2311.9	100.0
0°-180°	2311.9	100.0

Coefficient of Utilization



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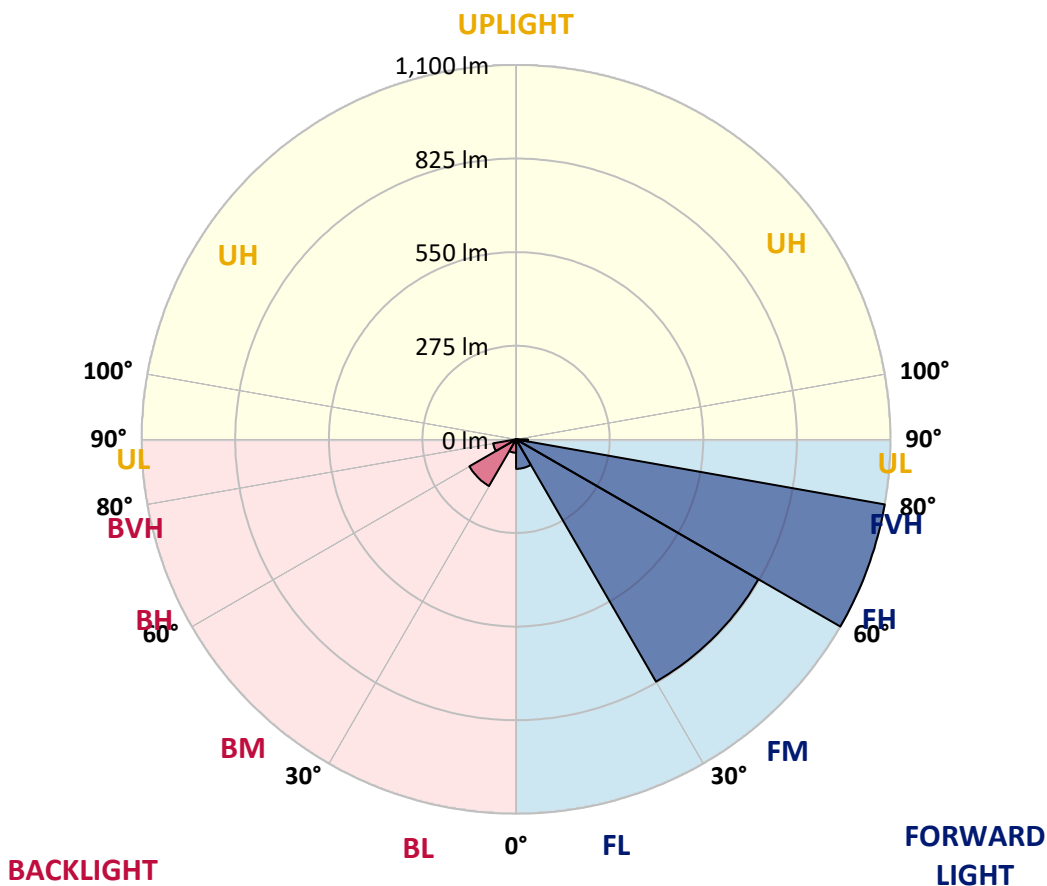
CATALOG NUMBER: GWS-SA1C-830-U-SLL-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	86.6	3.7			
FM (30°-60°)	821.9	35.6			
FH (60°-80°)	1099.8	47.6			G1/1800
FVH (80°-90°)	34.9	1.5			G1/100
BL (0°-30°)	39.4	1.7	B0/110		
BM (30°-60°)	158.4	6.9	B0/220		
BH (60°-80°)	68.3	3.0	B0/110		G0/110
BVH (80°-90°)	2.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9
2.5°	118.5	118.3	117.7	116.1	114.7	113.9	112.2	112.2	112.0	111.4	110.3
5°	114.7	113.6	112.5	109.5	106.2	104.3	102.1	101.8	101.8	101.3	101.0
7.5°	108.7	107.6	106.2	101.3	98.3	96.4	94.4	94.2	93.3	93.3	93.3
10°	105.4	103.7	101.6	96.1	93.1	91.4	90.1	89.2	88.7	87.9	87.6
12.5°	112.5	109.5	104.8	95.0	90.9	88.7	87.0	86.5	84.9	83.8	82.9
15°	134.7	127.3	118.0	97.5	90.1	86.8	84.6	83.5	82.1	80.2	78.8
17.5°	171.1	160.4	144.8	105.4	89.2	85.1	82.4	80.5	78.6	76.4	74.7
20°	221.5	205.6	187.0	119.9	89.2	83.2	79.9	77.5	74.7	72.3	70.4
22.5°	285.5	269.6	237.9	144.5	90.3	80.8	76.9	73.6	70.4	68.2	66.0
25°	357.2	334.8	305.2	174.4	93.3	77.5	73.4	70.1	67.1	64.3	61.9
27.5°	437.2	412.8	373.4	216.8	99.9	74.2	69.5	66.5	63.8	61.0	57.8
30°	510.8	496.3	456.1	267.7	110.6	72.0	66.5	63.8	61.0	57.5	54.5
32.5°	599.2	573.5	540.4	325.8	124.8	69.8	64.1	60.2	58.0	54.7	51.5
35°	688.2	666.3	622.8	397.2	140.7	67.6	61.0	57.5	55.6	51.7	48.2
37.5°	779.9	775.0	732.0	476.3	156.3	65.2	57.5	55.3	53.4	49.0	44.9
40°	870.2	861.2	821.5	566.6	165.9	62.4	54.5	53.1	50.9	46.0	41.3
42.5°	956.7	949.9	911.3	653.1	164.5	59.9	51.5	49.8	48.2	43.3	37.5
45°	1062.9	1051.7	1003.0	717.2	150.6	62.7	48.5	45.7	45.4	40.8	33.7
47.5°	1261.7	1224.7	1142.0	766.5	136.6	69.8	45.2	41.9	43.8	38.3	29.8
50°	1540.1	1496.5	1376.9	804.8	136.3	79.1	44.6	38.3	42.4	36.4	26.6
52.5°	1819.8	1743.2	1597.8	825.3	146.5	86.0	49.5	34.8	40.8	34.5	24.1
55°	2087.8	1928.8	1690.3	757.4	154.4	93.3	58.6	32.8	37.8	32.3	22.7
57.5°	2343.2	2078.0	1730.6	599.2	180.9	96.4	64.1	33.7	33.4	29.6	21.6
60°	2378.3	2070.8	1649.3	348.5	199.6	91.2	61.9	37.5	29.3	26.3	19.7
62.5°	2245.8	1933.2	1464.0	217.4	185.3	89.2	55.0	42.7	26.6	23.3	17.2
65°	2044.6	1717.2	1220.6	140.2	140.4	99.1	48.2	41.9	24.9	20.5	14.8
67.5°	1730.0	1437.1	961.7	93.9	79.4	84.6	42.2	28.7	24.4	17.5	11.5
70°	1262.8	1023.0	626.0	62.7	47.4	67.6	35.3	20.5	23.0	14.5	8.2
72.5°	923.1	687.4	349.6	41.1	26.8	39.4	26.0	14.8	17.8	10.7	5.7
75°	664.4	473.0	199.6	26.3	17.8	21.6	17.0	10.1	11.5	8.5	5.2
77.5°	319.7	230.5	90.6	14.5	12.0	10.9	9.0	6.3	7.1	7.7	4.7
80°	12.0	9.0	6.8	7.1	7.7	4.9	4.1	3.3	4.1	5.2	2.5
82.5°	0.0	0.0	0.0	0.8	1.1	1.4	1.6	1.4	1.6	1.9	0.3
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°	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9
2.5°	111.1	110.6	111.1	111.7	112.2	112.8	112.0	112.5	113.1	111.7	112.2
5°	102.4	102.1	103.7	104.6	105.7	106.2	105.7	105.7	105.4	103.7	103.7
7.5°	94.7	95.0	96.4	98.3	99.6	100.5	99.9	99.6	98.8	96.4	96.4
10°	89.0	89.0	91.2	92.8	94.7	95.5	95.0	94.2	93.3	90.9	90.6
12.5°	84.3	84.3	86.0	88.7	90.9	92.0	91.7	90.6	89.2	86.8	86.5
15°	79.9	79.7	82.1	84.6	87.6	89.0	88.4	87.6	85.1	82.9	82.4
17.5°	75.6	75.3	77.5	80.8	84.0	86.0	85.7	83.8	81.6	78.8	78.3
20°	71.2	70.6	73.4	76.6	79.9	81.8	81.3	79.7	76.9	74.2	73.6
22.5°	66.8	66.5	68.4	71.2	74.2	75.8	75.6	74.2	71.4	69.0	69.0
25°	61.9	61.9	63.2	65.2	67.3	68.2	68.4	67.9	66.2	64.9	64.9
27.5°	57.8	56.9	57.5	58.0	59.1	60.5	60.5	61.0	61.3	60.8	61.0
30°	54.5	53.1	52.3	51.2	50.6	51.2	51.7	53.7	55.6	56.7	57.2
32.5°	50.6	49.0	46.8	43.8	41.9	41.3	43.0	46.5	50.1	52.6	53.9
35°	46.8	44.6	40.5	36.1	33.7	32.8	34.8	38.9	44.1	48.5	50.4
37.5°	43.0	40.0	34.2	29.0	26.3	25.7	27.6	32.0	38.0	44.1	46.5
40°	38.6	35.0	28.2	22.7	20.5	20.0	21.6	26.0	32.3	39.1	43.0
42.5°	34.2	29.8	22.7	18.1	15.9	15.9	18.1	21.4	27.1	34.5	39.1
45°	29.8	25.2	18.6	14.5	13.1	13.4	14.8	18.1	22.7	30.4	34.8
47.5°	25.7	21.6	15.3	12.0	10.9	11.2	12.9	15.6	19.4	26.3	30.9
50°	22.2	18.3	13.4	10.1	9.3	9.9	11.5	14.0	17.2	23.3	27.1
52.5°	20.0	16.4	12.3	8.8	8.2	8.8	10.4	12.6	15.6	20.5	24.4
55°	18.9	16.2	12.3	7.9	7.1	7.7	9.3	11.5	14.0	18.6	21.9
57.5°	18.6	16.7	13.1	7.1	6.0	6.6	8.2	10.4	12.9	17.0	19.7
60°	17.5	15.9	12.9	5.7	4.7	5.5	6.8	9.0	11.8	15.9	18.3
62.5°	15.3	14.0	11.2	4.7	3.6	4.1	5.7	7.9	10.7	14.5	17.2
65°	12.6	11.2	8.8	3.0	2.2	2.7	4.4	6.8	9.3	13.1	15.6
67.5°	9.3	7.9	6.0	1.9	1.1	1.9	3.6	5.7	8.5	11.8	14.2
70°	5.7	4.7	3.3	1.1	0.8	1.6	3.3	5.5	7.7	10.9	13.4
72.5°	3.3	2.2	1.4	0.5	0.8	1.6	3.3	5.5	7.4	10.4	12.6
75°	2.5	1.4	0.5	0.3	0.5	1.4	3.0	4.9	7.1	9.9	12.0
77.5°	1.6	0.8	0.3	0.0	0.3	1.1	2.7	4.7	6.6	9.3	11.5
80°	0.3	0.0	0.0	0.0	0.0	0.8	2.5	4.1	6.0	8.2	10.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.3	1.9	3.6	5.2	6.8	8.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.7	4.1	5.2	5.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.7	3.3	3.8
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°	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9
2.5°	112.0	113.6	113.6	114.7	116.1	118.5	119.9	121.8	123.2	124.6	125.1
5°	103.5	103.7	104.0	104.6	106.2	108.9	111.4	114.4	118.0	120.7	122.4
7.5°	96.4	96.4	96.4	97.2	98.8	100.7	103.2	107.3	111.4	114.7	117.4
10°	90.3	91.2	91.4	92.8	94.7	97.2	99.9	103.5	108.1	112.5	117.4
12.5°	86.5	87.3	88.7	90.1	92.0	94.7	97.7	102.4	112.0	121.0	131.4
15°	82.9	84.0	85.7	87.6	89.8	92.8	96.1	105.7	128.1	145.1	161.5
17.5°	79.1	80.8	82.9	84.9	87.6	90.9	95.0	113.6	157.7	185.9	213.8
20°	74.2	76.4	78.8	81.8	85.1	89.0	95.0	130.0	200.4	240.9	277.8
22.5°	69.5	71.7	74.7	78.6	82.4	86.2	96.4	154.9	255.4	306.6	353.4
25°	65.7	68.4	71.4	74.7	79.1	83.5	99.6	190.0	321.6	387.6	420.7
27.5°	62.1	65.4	68.4	71.2	75.0	79.9	107.0	236.8	399.9	467.0	493.0
30°	58.6	62.4	65.4	68.2	72.0	77.2	118.3	296.5	487.0	552.1	554.9
32.5°	55.6	59.1	62.7	65.4	69.0	75.0	133.9	366.3	576.2	639.2	613.5
35°	52.3	56.4	59.7	62.7	66.5	73.1	151.9	441.5	666.3	719.1	671.8
37.5°	49.0	53.7	57.8	59.9	63.8	71.2	165.1	520.1	758.3	797.1	722.9
40°	46.0	51.2	55.8	58.0	59.9	68.7	167.0	600.6	851.6	874.1	771.1
42.5°	42.7	48.5	52.6	55.6	57.2	67.1	155.5	668.5	929.9	950.7	834.1
45°	39.1	46.0	49.3	51.5	54.7	68.2	140.7	721.0	1019.4	1055.3	937.8
47.5°	35.6	43.3	46.0	47.6	52.0	74.7	135.2	756.1	1167.0	1241.4	1112.8
50°	32.3	40.8	43.8	43.5	51.5	83.2	141.3	782.6	1388.7	1476.3	1352.6
52.5°	28.7	38.0	41.6	40.5	55.6	89.8	153.3	803.7	1559.2	1751.7	1674.7
55°	25.7	35.0	38.3	38.0	63.2	94.7	162.6	692.6	1629.9	2007.6	2037.7
57.5°	23.5	31.8	34.5	39.1	68.2	94.7	188.1	491.6	1631.2	2195.9	2519.5
60°	21.6	28.7	30.7	43.0	66.2	89.8	186.1	301.1	1503.4	2183.1	2775.7
62.5°	20.0	26.0	28.5	44.1	58.6	89.0	168.1	186.7	1282.2	2016.9	2589.9
65°	18.6	23.8	27.4	40.5	53.1	95.3	113.3	134.1	1039.9	1827.5	2376.6
67.5°	17.2	21.9	29.0	33.1	48.2	85.1	81.8	95.3	816.3	1619.7	2180.9
70°	16.2	20.8	30.7	27.1	42.2	66.5	58.0	72.3	625.0	1351.5	1905.2
72.5°	15.3	19.4	25.7	21.4	34.2	51.5	40.5	52.6	408.4	1055.0	1553.2
75°	14.5	17.8	18.9	17.2	25.5	33.7	30.7	35.3	243.4	771.1	1178.5
77.5°	14.2	16.7	15.3	14.0	17.2	20.0	23.3	23.8	118.8	385.7	617.6
80°	12.6	15.1	13.1	11.5	11.8	13.1	17.2	15.9	27.1	98.0	164.8
82.5°	9.9	11.8	10.9	9.6	9.6	9.6	11.5	10.7	8.8	44.1	74.5
85°	6.8	8.2	8.2	7.7	7.4	7.4	7.1	6.8	2.5	2.7	4.1
87.5°	4.7	5.7	6.0	5.7	4.9	4.4	3.8	3.3	1.1	0.0	0.5
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°	358°	360°
0°	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9	119.9
2.5°	127.0	127.8	127.8	126.7	125.9	123.7	121.5	119.4	118.8	118.5
5°	127.0	130.3	131.9	131.7	129.8	126.2	121.5	116.6	115.2	114.7
7.5°	125.1	131.4	136.3	137.1	133.6	127.3	118.8	111.4	109.5	108.7
10°	129.5	141.8	151.7	153.0	148.9	136.6	122.9	110.3	107.3	105.4
12.5°	153.0	173.3	185.3	191.1	183.1	167.5	144.8	122.4	115.5	112.5
15°	200.7	229.4	252.4	252.4	245.0	217.4	188.6	152.2	142.9	134.7
17.5°	261.7	297.8	318.1	315.9	304.7	285.2	250.7	198.5	179.6	171.1
20°	331.2	352.9	357.5	356.1	351.2	340.0	316.2	260.1	234.6	221.5
22.5°	391.4	385.7	378.9	373.4	372.0	375.3	372.0	328.8	308.8	285.5
25°	432.2	399.7	379.1	369.3	373.9	392.8	413.3	397.2	381.3	357.2
27.5°	454.4	398.0	368.5	358.3	366.3	393.1	437.7	465.1	448.7	437.2
30°	466.5	396.7	361.6	351.8	363.8	397.5	454.7	528.6	529.1	510.8
32.5°	483.7	405.4	363.0	353.9	370.1	410.6	476.0	593.2	609.1	599.2
35°	503.1	418.8	369.3	361.1	381.0	428.1	499.9	658.3	691.5	688.2
37.5°	521.5	433.9	384.1	376.1	397.7	443.2	522.8	722.4	768.4	779.9
40°	540.6	455.0	429.5	437.2	449.2	467.0	543.4	778.0	853.0	870.2
42.5°	585.8	528.0	566.9	581.4	583.1	546.4	588.3	849.1	936.2	956.7
45°	686.5	658.1	769.5	790.0	779.3	668.2	696.4	951.8	1052.5	1062.9
47.5°	813.8	827.0	1046.8	1117.7	1053.6	811.9	827.5	1167.8	1265.5	1261.7
50°	962.2	1024.3	1361.6	1528.8	1375.5	998.6	978.6	1433.3	1551.8	1540.1
52.5°	1137.7	1253.7	1739.9	1977.5	1832.4	1208.6	1200.4	1785.1	1857.3	1819.8
55°	1358.6	1475.2	2175.1	2507.2	2300.8	1464.8	1493.0	2192.9	2206.9	2087.8
57.5°	1688.2	1764.0	2688.1	3114.6	2789.7	1813.0	2017.5	2735.8	2568.8	2343.2
60°	2286.6	2135.5	3183.9	3736.0	3309.8	2302.7	2709.2	3057.4	2689.2	2378.3
62.5°	2494.9	2450.8	3494.3	3998.8	3659.6	2704.8	2889.1	2875.1	2533.2	2245.8
65°	2179.3	2372.2	3438.7	3860.0	3614.7	2638.6	2592.6	2673.9	2357.5	2044.6
67.5°	2013.1	2187.7	3228.2	3477.1	3365.9	2413.8	2310.9	2288.7	1979.1	1730.0
70°	1845.6	2018.6	2923.0	2953.9	2902.2	2047.6	1912.4	1763.7	1479.3	1262.8
72.5°	1644.1	1739.3	2499.5	2352.8	2294.2	1608.2	1579.8	1328.2	1108.9	923.1
75°	1433.9	1406.2	1948.8	1614.8	1658.6	1251.3	1334.2	975.3	812.5	664.4
77.5°	1043.0	1022.4	1305.2	980.8	1086.2	819.6	736.4	389.3	370.6	319.7
80°	582.0	701.6	704.9	549.7	685.7	534.3	184.2	12.9	8.2	12.0
82.5°	270.5	301.7	382.1	254.9	391.2	264.7	38.0	0.0	0.0	0.0
85°	87.6	128.1	107.3	37.5	94.7	89.5	6.3	0.0	0.0	0.0
87.5°	5.2	10.7	2.7	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

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

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CIE 1931 Chromaticity Diagram



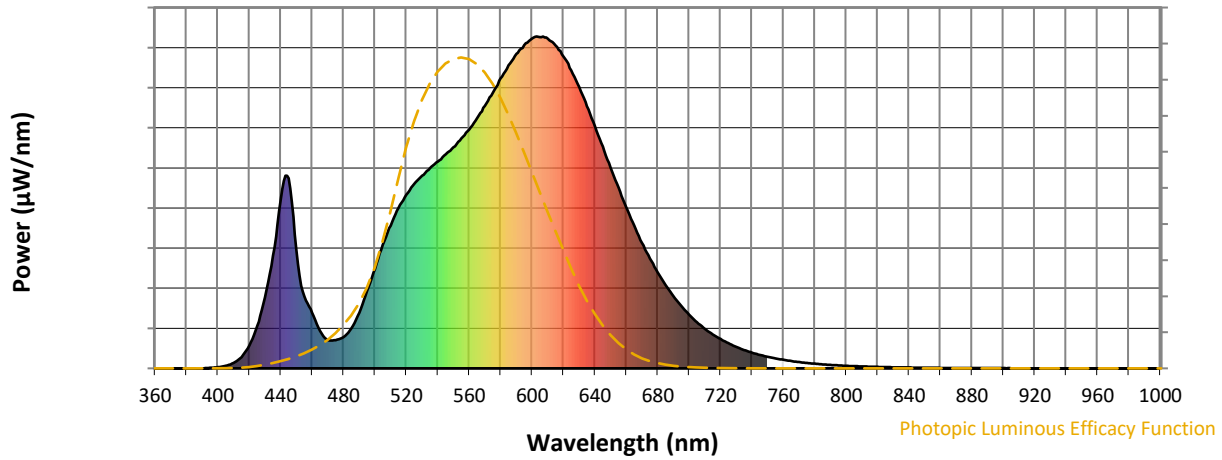
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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)