

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: P638475

Luminaire Tested: GWS-SA4E-830-U-SL3-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-34)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4E-830-U-SL3-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

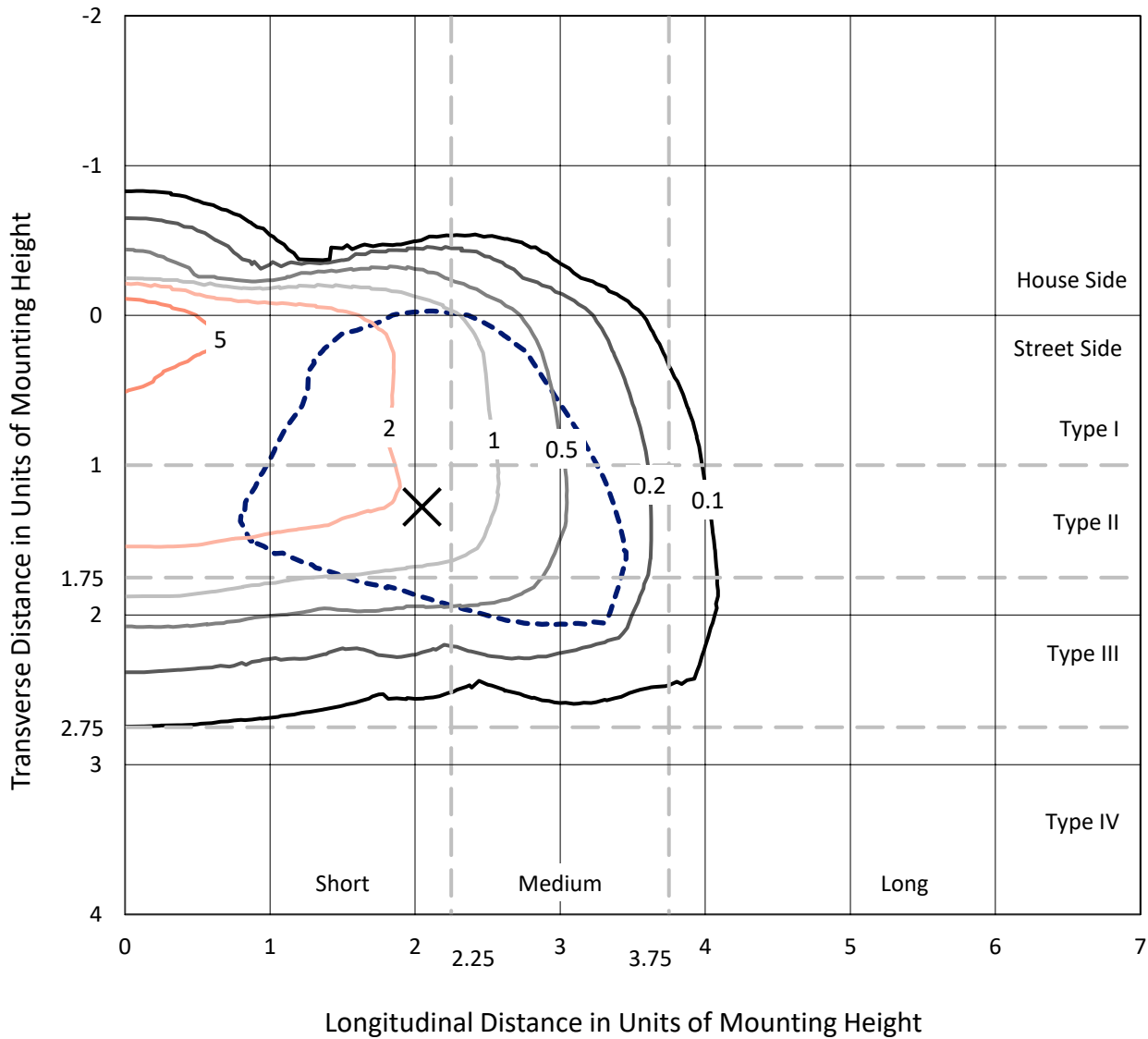
Lumens per Lamp: N/A  
Luminaire Lumens: 19689.5 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 202.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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: P638475  
 CATALOG NUMBER: GWS-SA4E-830-U-SL3-W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

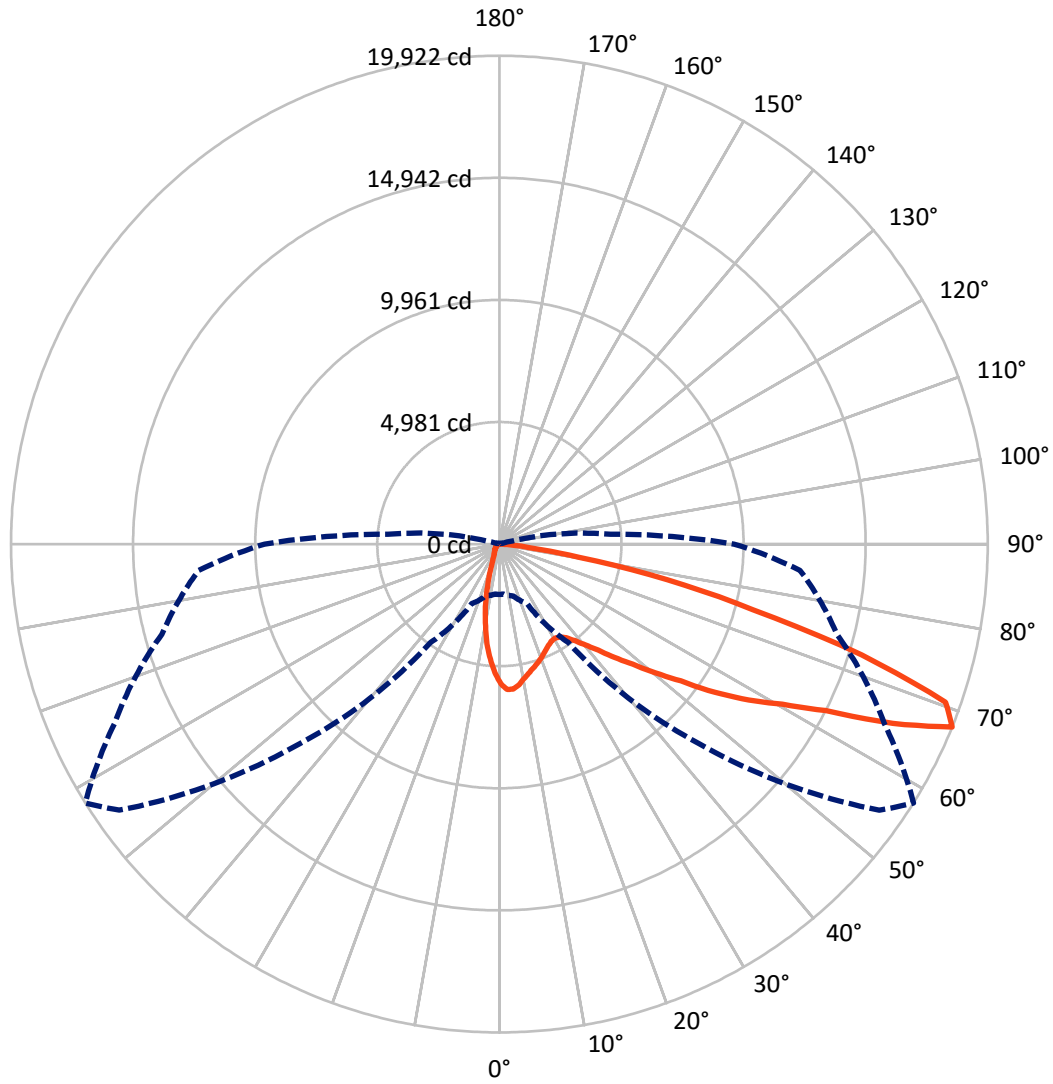
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1923.5	0.0	1923.5
	% Fixture	9.8	0.0	9.8
<b>Street Side</b>	Lumens	17766.0	0.0	17766.0
	% Fixture	90.2	0.0	90.2
<b>Total</b>	Lumens	19689.5	0.0	19689.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	461.5	2.3
10°-20°	960.7	4.9
20°-30°	1295.6	6.6
30°-40°	1820.5	9.2
40°-50°	2811.6	14.3
50°-60°	4496.1	22.8
60°-70°	5323.8	27.0
70°-80°	2355.1	12.0
80°-90°	164.6	0.8
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°	19689.5	100.0
0°-180°	19689.5	100.0

**Coefficient of Utilization**

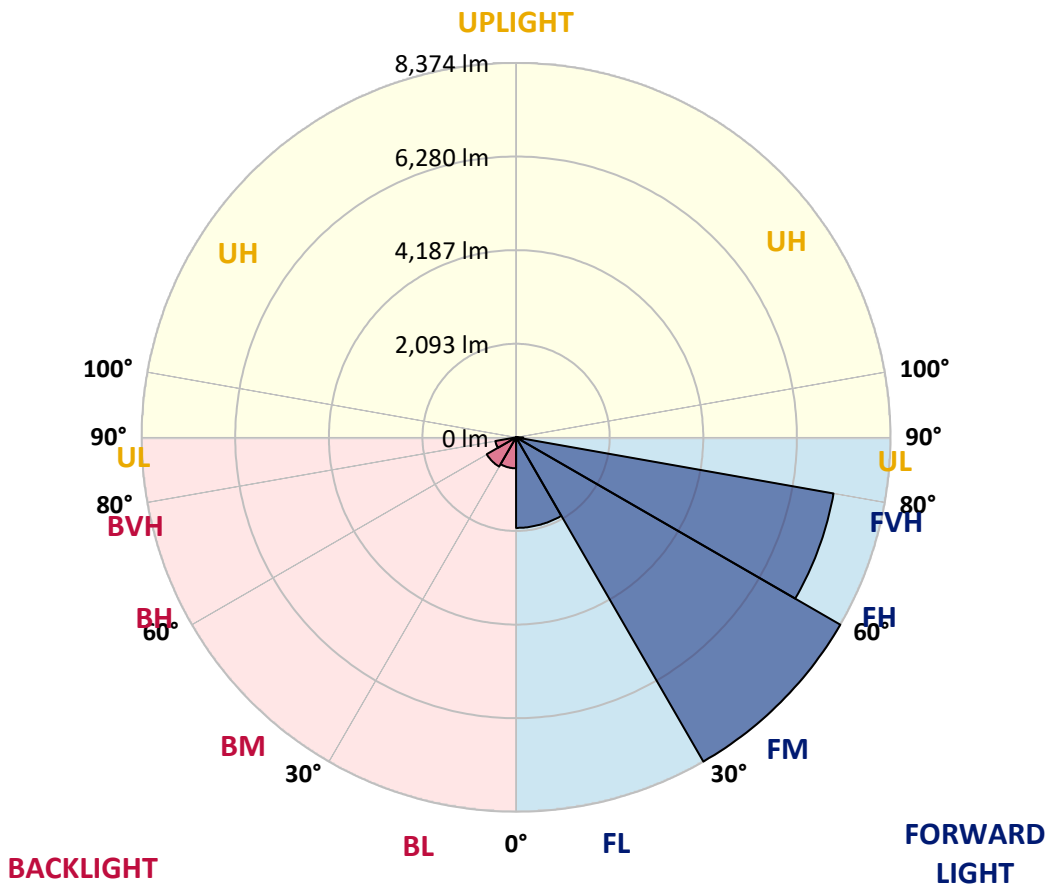


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2025.6	10.3			
FM (30°-60°)	8373.5	42.5			
FH (60°-80°)	7209.3	36.6			G3/7500
FVH (80°-90°)	157.6	0.8			G2/225
BL (0°-30°)	692.2	3.5	B2/1000		
BM (30°-60°)	754.7	3.8	B1/1000		
BH (60°-80°)	469.6	2.4	B1/500		G1/500
BVH (80°-90°)	7.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**  
 Type III Short





REPORT NUMBER: P638475

CATALOG NUMBER: GWS-SA4E-830-U-SL3-W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4
2.5°	5973.9	5984.3	5998.3	6015.7	6012.2	5996.5	5977.4	5933.8	5905.9	5818.8	5712.5
5°	5782.2	5780.5	5815.3	5848.4	5907.7	5939.0	5982.6	5942.5	5928.6	5824.0	5651.5
7.5°	5407.5	5426.7	5466.8	5519.0	5604.4	5696.8	5801.4	5789.2	5831.0	5761.3	5546.9
10°	5039.8	5029.4	5092.1	5170.5	5301.2	5419.7	5571.3	5569.6	5679.4	5672.4	5428.4
12.5°	4717.4	4715.7	4764.5	4853.3	5006.7	5172.3	5377.9	5383.1	5519.0	5574.8	5327.4
15°	4445.6	4449.0	4496.1	4588.5	4747.0	4949.2	5187.9	5231.5	5384.9	5498.1	5228.0
17.5°	4252.1	4253.9	4281.8	4361.9	4517.0	4733.1	5020.6	5079.9	5276.8	5440.6	5147.9
20°	4163.2	4156.3	4161.5	4201.6	4321.8	4518.8	4849.9	4926.5	5177.5	5400.5	5074.7
22.5°	4175.4	4165.0	4140.6	4135.4	4189.4	4339.3	4668.6	4762.7	5069.4	5376.2	5008.4
25°	4283.5	4260.8	4226.0	4173.7	4152.8	4227.7	4510.0	4607.6	4968.4	5377.9	4957.9
27.5°	4449.0	4424.7	4381.1	4311.4	4229.5	4198.1	4402.0	4494.4	4896.9	5418.0	4933.5
30°	4659.9	4640.7	4598.9	4515.3	4405.5	4276.5	4379.3	4456.0	4862.1	5499.9	4944.0
32.5°	4909.1	4895.2	4860.3	4783.6	4658.2	4461.2	4456.0	4515.3	4889.9	5618.4	4984.0
35°	5149.6	5154.8	5156.6	5114.7	4980.6	4741.8	4666.9	4687.8	5005.0	5796.1	5074.7
37.5°	5409.3	5397.1	5459.8	5489.4	5360.5	5106.0	4992.8	4994.5	5224.5	6059.3	5245.4
40°	5606.2	5609.7	5745.6	5867.6	5813.6	5567.8	5405.8	5404.0	5562.6	6420.0	5520.8
42.5°	5790.9	5813.6	6014.0	6223.1	6298.0	6080.2	5963.4	5919.9	6036.6	6908.0	5933.8
45°	5987.8	6020.9	6301.5	6599.5	6796.4	6667.5	6575.1	6592.5	6606.5	7476.1	6489.7
47.5°	6217.9	6238.8	6585.6	7005.6	7373.3	7340.1	7345.4	7324.5	7317.5	8192.3	7225.1
50°	6496.7	6545.5	6944.6	7446.4	7948.3	8167.9	8241.1	8249.8	8136.5	8973.0	7986.7
52.5°	7089.2	7148.5	7490.0	7929.2	8575.7	9037.5	9335.5	9276.3	9102.0	9729.4	8821.4
55°	7788.0	7833.3	8162.7	8617.5	9342.5	9990.8	10698.3	10673.9	10246.9	10525.8	9508.0
57.5°	7854.2	7904.8	8415.4	9112.4	10327.1	11168.8	11912.9	11991.3	11365.7	11090.4	10121.5
60°	7110.1	7212.9	7910.0	8847.6	10703.5	12752.9	13244.3	13260.0	12186.5	11663.7	10870.8
62.5°	5698.5	5747.3	6449.6	7673.0	10123.2	13676.5	15278.0	14946.9	13240.8	12550.7	12057.6
65°	2986.9	3185.6	3797.3	5151.3	8209.7	13354.1	17724.7	17634.1	15136.9	13821.2	12981.2
67.5°	2049.4	2047.6	2192.3	2685.5	4895.2	11498.2	18925.4	19922.3	17329.2	14256.8	12312.0
70°	1559.7	1564.9	1693.9	2014.5	2535.6	7653.8	17608.0	19312.3	17736.9	12944.6	9957.6
72.5°	1035.1	1045.6	1260.0	1627.7	2025.0	3752.0	13683.5	15452.3	14924.3	10396.8	7009.0
75°	618.6	627.4	780.7	1183.3	1800.2	2099.9	8694.2	10682.6	10273.1	7165.9	3757.2
77.5°	254.4	261.4	400.8	737.2	1317.5	1631.1	4808.0	6989.9	6153.4	2849.3	1026.4
80°	106.3	109.8	193.4	515.8	949.8	1022.9	2227.1	3284.9	2521.6	613.4	313.7
82.5°	38.3	40.1	71.4	284.1	590.8	770.3	1124.0	1298.3	711.0	200.4	169.0
85°	1.7	1.7	17.4	95.8	224.8	217.8	643.0	622.1	235.3	83.6	101.1
87.5°	0.0	0.0	1.7	1.7	3.5	8.7	61.0	108.0	50.5	20.9	43.6
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: P638475

CATALOG NUMBER: GWS-SA4E-830-U-SL3-W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4	5679.4
2.5°	5642.8	5550.4	5449.3	5355.2	5205.4	5116.5	5006.7	4957.9	4888.2	4870.8	4881.2
5°	5527.8	5369.2	5126.9	4907.4	4623.3	4395.0	4165.0	4067.4	3941.9	3858.3	3823.4
7.5°	5365.7	5158.3	4780.2	4381.1	3990.7	3574.2	3257.1	3047.9	2858.0	2753.4	2732.5
10°	5201.9	4931.8	4389.8	3818.2	3213.5	2715.1	2286.4	1969.2	1711.3	1594.5	1503.9
12.5°	5032.8	4696.5	3992.5	3246.6	2544.3	1864.7	1334.9	1026.4	841.7	768.5	780.7
15°	4877.7	4470.0	3598.6	2675.0	1791.5	1125.8	737.2	622.1	578.6	564.6	562.9
17.5°	4729.6	4255.6	3206.5	2119.1	1181.5	690.1	564.6	536.7	524.5	517.6	517.6
20°	4595.4	4050.0	2823.1	1596.3	763.3	547.2	510.6	496.7	486.2	481.0	481.0
22.5°	4470.0	3851.3	2448.5	1129.3	562.9	491.4	468.8	454.8	442.6	435.7	435.7
25°	4356.7	3671.8	2091.2	777.2	484.5	449.6	425.2	409.5	388.6	376.4	376.4
27.5°	4274.8	3511.5	1747.9	566.4	437.4	404.3	376.4	355.5	332.9	318.9	315.4
30°	4226.0	3375.6	1401.1	465.3	393.8	360.7	329.4	303.2	277.1	263.1	261.4
32.5°	4198.1	3250.1	1083.9	406.0	357.2	318.9	284.1	256.2	230.0	214.3	212.6
35°	4208.6	3152.5	812.1	366.0	322.4	282.3	244.0	216.1	193.4	179.5	176.0
37.5°	4299.2	3108.9	609.9	334.6	292.8	250.9	210.9	184.7	163.8	153.4	151.6
40°	4475.2	3117.6	479.2	310.2	268.4	219.6	181.2	156.8	141.2	132.4	130.7
42.5°	4748.8	3190.8	395.6	289.3	242.2	191.7	156.8	137.7	122.0	113.3	111.5
45°	5156.6	3342.4	345.0	264.9	214.3	165.6	135.9	118.5	104.6	94.1	92.4
47.5°	5747.3	3605.6	311.9	242.2	190.0	142.9	116.8	99.3	87.1	78.4	76.7
50°	6376.4	3921.0	284.1	219.6	169.0	123.7	99.3	81.9	71.4	62.7	61.0
52.5°	7047.4	4260.8	263.1	198.7	149.9	106.3	83.6	68.0	57.5	48.8	47.1
55°	7692.2	4602.4	238.7	184.7	127.2	90.6	69.7	55.8	45.3	38.3	38.3
57.5°	8319.5	4916.1	212.6	162.1	104.6	76.7	57.5	45.3	36.6	31.4	29.6
60°	9068.9	5350.0	183.0	137.7	87.1	64.5	47.1	36.6	29.6	24.4	24.4
62.5°	10182.4	5801.4	156.8	115.0	73.2	54.0	38.3	29.6	24.4	20.9	19.2
65°	10546.7	5557.4	132.4	94.1	59.3	43.6	31.4	26.1	20.9	19.2	17.4
67.5°	9574.3	4555.4	109.8	76.7	48.8	36.6	27.9	22.7	19.2	17.4	15.7
70°	7470.8	3232.7	85.4	57.5	40.1	29.6	24.4	20.9	17.4	15.7	15.7
72.5°	5081.6	1911.7	68.0	43.6	33.1	26.1	20.9	19.2	17.4	15.7	13.9
75°	2502.5	679.6	52.3	33.1	26.1	22.7	19.2	17.4	15.7	13.9	13.9
77.5°	674.4	188.2	40.1	26.1	20.9	17.4	17.4	17.4	15.7	12.2	12.2
80°	228.3	78.4	29.6	19.2	17.4	13.9	12.2	15.7	13.9	12.2	10.5
82.5°	125.5	38.3	20.9	15.7	12.2	10.5	10.5	10.5	10.5	8.7	8.7
85°	80.2	20.9	13.9	12.2	12.2	8.7	7.0	7.0	5.2	5.2	5.2
87.5°	36.6	12.2	12.2	10.5	10.5	8.7	5.2	3.5	1.7	1.7	1.7
90°	0.0	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

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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			





**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)