

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: P636490

Luminaire Tested: GWS-SA3F-830-U-SL2-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-29)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3F-830-U-SL2-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16543.1 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

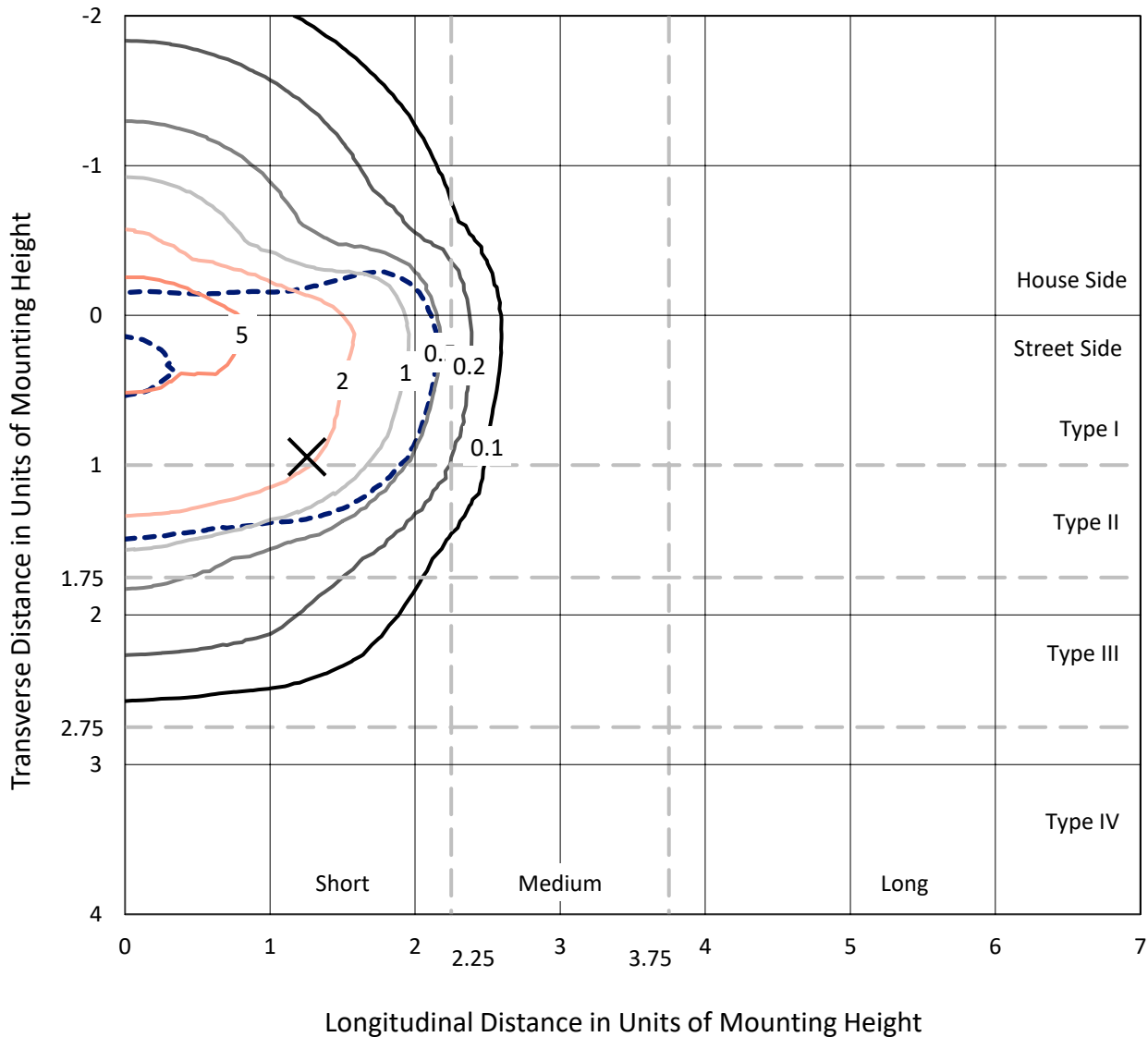
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636490
 CATALOG NUMBER: GWS-SA3F-830-U-SL2-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

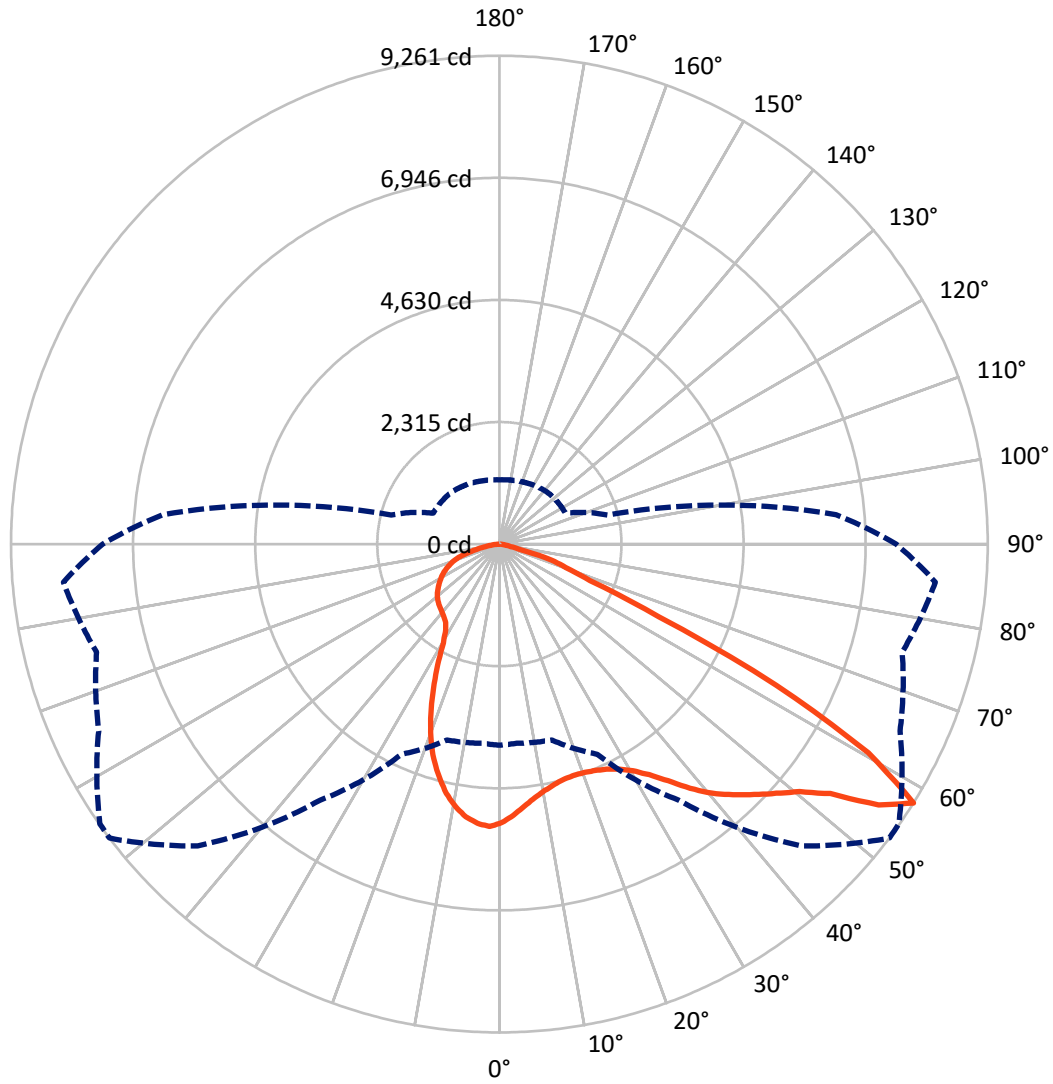
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 53-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5172.4	0.0	5172.4
	% Fixture	31.3	0.0	31.3
Street Side	Lumens	11370.7	0.0	11370.7
	% Fixture	68.7	0.0	68.7
Total	Lumens	16543.1	0.0	16543.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.7	2.9
10°-20°	1253.3	7.6
20°-30°	1846.5	11.2
30°-40°	2584.7	15.6
40°-50°	3397.8	20.5
50°-60°	3983.9	24.1
60°-70°	2346.9	14.2
70°-80°	583.8	3.5
80°-90°	68.5	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°	16543.1	100.0
0°-180°	16543.1	100.0

Coefficient of Utilization



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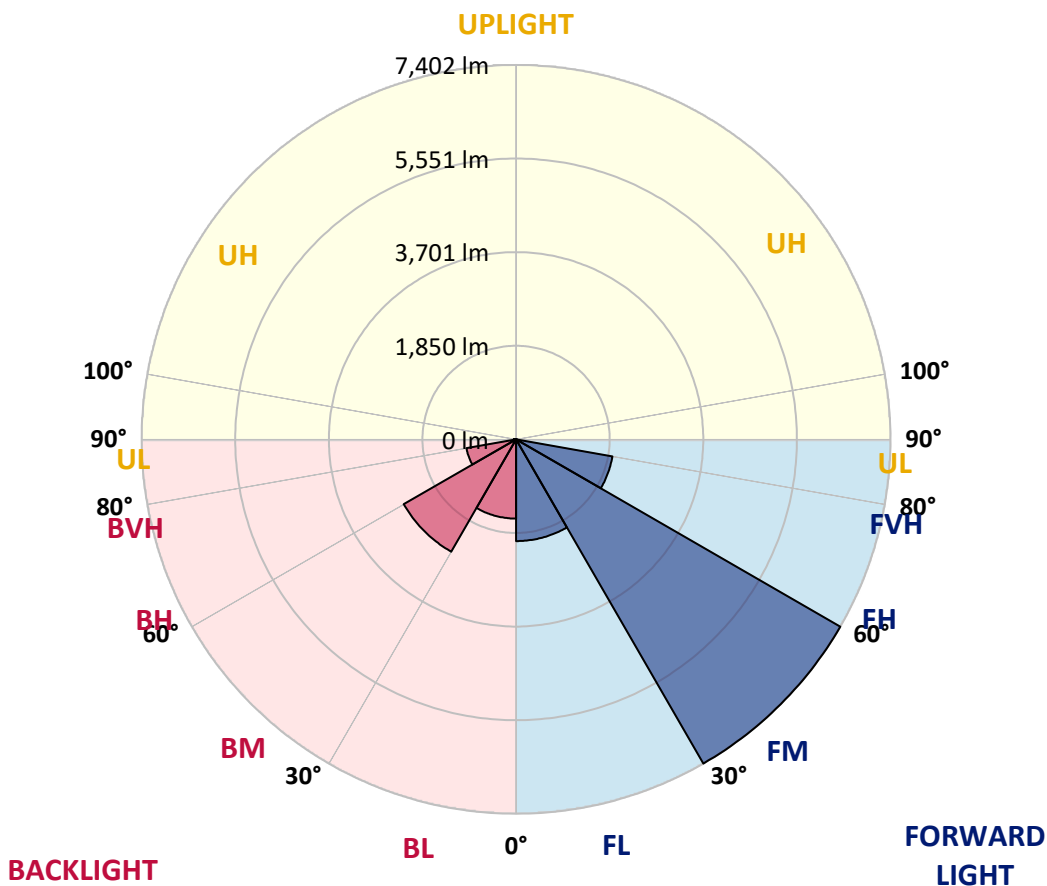
CATALOG NUMBER: GWS-SA3F-830-U-SL2-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2011.3	12.2			
FM (30°-60°)	7401.5	44.7			
FH (60°-80°)	1934.9	11.7			G2/5000
FVH (80°-90°)	22.9	0.1			G1/100
BL (0°-30°)	1566.2	9.5	B3/2500		
BM (30°-60°)	2564.8	15.5	B3/5000		
BH (60°-80°)	995.9	6.0	B2/1000		G2/1000
BVH (80°-90°)	45.6	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7
2.5°	4979.1	4993.0	4995.8	5039.0	5041.8	5104.4	5146.2	5137.9	5181.0	5233.9	5275.7
5°	4741.0	4742.4	4756.3	4807.9	4835.7	4917.9	4987.5	4987.5	5071.0	5179.6	5272.9
7.5°	4544.7	4543.3	4555.8	4612.9	4658.9	4757.7	4852.4	4863.6	4980.5	5139.2	5291.0
10°	4362.3	4372.0	4386.0	4455.6	4514.1	4636.6	4749.4	4767.5	4915.1	5111.4	5316.1
12.5°	4245.3	4246.7	4267.6	4345.6	4420.8	4551.7	4670.0	4692.3	4862.2	5084.9	5334.2
15°	4170.2	4171.5	4193.8	4280.2	4367.9	4500.1	4621.3	4646.3	4831.5	5080.8	5369.0
17.5°	4136.7	4135.3	4156.2	4242.6	4338.6	4476.5	4606.0	4636.6	4845.5	5112.8	5430.3
20°	4136.7	4138.1	4149.3	4227.2	4324.7	4470.9	4621.3	4658.9	4899.8	5185.2	5524.9
22.5°	4195.2	4200.8	4206.4	4259.3	4335.8	4479.3	4661.7	4711.8	5016.7	5306.3	5648.9
25°	4309.4	4310.8	4316.4	4359.5	4394.3	4502.9	4728.5	4803.7	5199.1	5483.2	5804.8
27.5°	4462.6	4482.0	4487.6	4515.5	4515.5	4561.4	4832.9	4941.5	5445.6	5738.0	6003.9
30°	4677.0	4683.9	4693.7	4724.3	4690.9	4671.4	4986.1	5125.3	5731.0	6045.7	6243.4
32.5°	4864.9	4880.3	4933.2	4983.3	4923.4	4862.2	5211.6	5375.9	6005.3	6365.9	6498.2
35°	5025.1	5062.7	5164.3	5275.7	5233.9	5172.7	5511.0	5682.3	6230.9	6595.7	6723.8
37.5°	5218.6	5247.8	5387.1	5568.1	5605.7	5576.4	5875.8	5998.3	6381.2	6654.1	6846.3
40°	5414.9	5459.5	5639.1	5889.7	6033.1	6054.0	6212.8	6294.9	6432.8	6540.0	6822.6
42.5°	5615.4	5692.0	5938.5	6230.9	6485.7	6533.0	6496.8	6531.6	6416.0	6382.6	6712.6
45°	5860.5	5951.0	6229.5	6602.6	6938.2	7012.0	6775.3	6743.3	6413.3	6322.8	6644.4
47.5°	6150.1	6240.6	6506.6	6941.0	7369.8	7424.1	7060.7	7002.2	6510.7	6414.7	6736.3
50°	6406.3	6469.0	6707.1	7193.0	7772.2	7804.2	7375.4	7304.4	6753.0	6669.5	7023.1
52.5°	6145.9	6139.0	6389.6	6988.3	7981.1	8366.8	7859.9	7791.7	7220.8	7092.7	7467.3
55°	5214.4	5135.1	5359.2	5948.2	7397.7	8866.6	8728.8	8592.3	7844.6	7518.8	7883.6
57.5°	3812.3	3790.0	3844.3	4397.1	5925.9	8092.5	9260.7	9248.1	8383.5	7908.7	8298.5
60°	2981.1	2947.7	2802.8	2818.2	4039.3	6321.4	8036.8	8405.7	8717.6	8142.6	8588.1
62.5°	2646.9	2621.8	2546.6	2339.2	2406.0	4238.4	5891.1	6229.5	7617.7	7191.6	7376.8
65°	2191.6	2184.6	2247.3	2238.9	2016.2	2340.6	3325.0	3666.1	4789.8	4849.6	4789.8
67.5°	1592.9	1580.3	1739.1	2052.4	1941.0	1766.9	1853.2	1971.6	2456.1	2205.5	1985.5
70°	1035.9	1017.8	1109.7	1482.9	1737.7	1540.0	1335.3	1315.8	1350.6	839.6	907.8
72.5°	694.8	673.9	672.5	815.9	1049.8	1037.3	1034.5	1024.8	914.8	662.8	735.2
75°	387.1	370.4	366.2	352.3	375.9	382.9	408.0	421.9	456.7	502.6	556.9
77.5°	65.4	64.0	80.8	103.0	142.0	182.4	225.6	238.1	293.8	348.1	382.9
80°	36.2	37.6	48.7	59.9	79.4	108.6	139.2	147.6	181.0	210.2	238.1
82.5°	19.5	19.5	25.1	32.0	43.2	57.1	75.2	82.1	104.4	122.5	142.0
85°	7.0	7.0	9.7	12.5	18.1	23.7	29.2	33.4	45.9	62.7	71.0
87.5°	0.0	0.0	0.0	0.0	1.4	2.8	5.6	5.6	7.0	12.5	18.1
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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CATALOG NUMBER: GWS-SA3F-830-U-SL2-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7	5282.7
2.5°	5310.5	5272.9	5324.4	5348.1	5356.5	5362.0	5325.8	5300.8	5292.4	5266.0	5250.6
5°	5330.0	5304.9	5353.7	5353.7	5318.9	5282.7	5208.9	5157.3	5121.1	5078.0	5071.0
7.5°	5363.4	5345.3	5371.8	5317.5	5229.7	5132.3	5004.2	4903.9	4823.2	4770.3	4771.7
10°	5408.0	5385.7	5364.8	5243.7	5083.5	4903.9	4707.6	4561.4	4427.7	4366.5	4333.1
12.5°	5437.2	5405.2	5317.5	5117.0	4881.7	4640.8	4363.7	4146.5	3952.9	3865.2	3858.3
15°	5473.4	5414.9	5239.5	4952.7	4625.5	4296.9	3940.4	3638.3	3376.5	3240.0	3233.1
17.5°	5520.8	5424.7	5146.2	4764.7	4355.3	3870.8	3422.4	3042.3	2763.9	2658.0	2676.1
20°	5587.6	5435.8	5040.4	4555.8	4019.8	3386.2	2827.9	2478.4	2371.2	2364.2	2350.3
22.5°	5662.8	5442.8	4923.4	4321.9	3613.2	2869.7	2336.4	2187.4	2186.0	2220.8	2229.2
25°	5747.7	5448.4	4791.2	4049.0	3173.2	2354.5	2066.3	2021.7	2056.5	2122.0	2130.3
27.5°	5856.3	5459.5	4631.0	3749.7	2705.4	2034.3	1917.3	1906.2	1947.9	2009.2	2006.4
30°	6016.4	5499.9	4461.2	3405.7	2225.0	1882.5	1826.8	1828.2	1844.9	1874.1	1878.3
32.5°	6179.3	5562.5	4295.5	3018.7	1949.3	1796.2	1771.1	1768.3	1768.3	1780.8	1783.6
35°	6333.9	5633.5	4115.9	2614.9	1815.7	1746.0	1729.3	1721.0	1716.8	1714.0	1709.8
37.5°	6420.2	5668.3	3940.4	2216.7	1744.6	1712.6	1695.9	1684.8	1669.5	1658.3	1655.5
40°	6382.6	5628.0	3737.1	1918.7	1701.5	1680.6	1661.1	1645.8	1624.9	1615.2	1609.6
42.5°	6257.3	5502.7	3515.7	1778.1	1666.7	1645.8	1622.1	1597.1	1583.1	1574.8	1573.4
45°	6125.0	5350.9	3248.4	1695.9	1633.3	1608.2	1580.3	1552.5	1537.2	1533.0	1531.6
47.5°	6120.9	5275.7	2964.4	1630.5	1592.9	1567.8	1533.0	1505.2	1488.4	1482.9	1477.3
50°	6304.7	5352.3	2644.1	1573.4	1551.1	1524.6	1485.7	1455.0	1434.1	1427.2	1425.8
52.5°	6686.2	5640.5	2357.3	1516.3	1495.4	1464.8	1432.8	1402.1	1377.1	1364.5	1363.1
55°	7098.3	6006.7	2179.1	1457.8	1430.0	1403.5	1374.3	1340.9	1313.0	1293.5	1290.7
57.5°	7524.4	6406.3	2124.8	1384.0	1363.1	1345.0	1310.2	1274.0	1242.0	1223.9	1219.7
60°	7875.3	6750.2	2226.4	1306.0	1294.9	1271.2	1239.2	1204.4	1182.1	1168.2	1165.4
62.5°	6592.9	5495.7	1797.6	1221.1	1221.1	1196.0	1159.8	1134.8	1119.5	1109.7	1106.9
65°	4184.1	3403.0	1226.7	1136.2	1134.8	1101.4	1070.7	1054.0	1047.1	1031.7	1029.0
67.5°	1822.6	1555.3	1048.5	1049.8	1044.3	1008.1	977.4	964.9	951.0	934.3	932.9
70°	945.4	963.5	938.5	953.8	944.0	900.9	871.6	852.1	822.9	806.2	807.6
72.5°	763.0	782.5	810.4	834.0	813.1	778.3	732.4	708.7	671.1	653.0	654.4
75°	582.0	602.9	629.4	654.4	637.7	594.5	565.3	541.6	498.5	477.6	481.8
77.5°	401.0	412.1	444.2	442.8	437.2	424.7	381.5	353.7	309.1	284.0	286.8
80°	249.2	256.2	271.5	278.5	275.7	259.0	224.2	203.3	176.8	161.5	162.9
82.5°	150.4	154.6	168.5	169.9	168.5	155.9	129.5	114.2	97.5	89.1	89.1
85°	76.6	79.4	87.7	87.7	79.4	66.8	59.9	52.9	43.2	39.0	39.0
87.5°	20.9	20.9	26.5	22.3	18.1	16.7	8.4	7.0	2.8	1.4	1.4
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



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

Point lies inside the ANSI 3000K 4-step quadrangle

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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			

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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)