

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: P629088

Luminaire Tested: GWS-SA1A-830-U-T2-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-19)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1A-830-U-T2-W
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2241.3 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

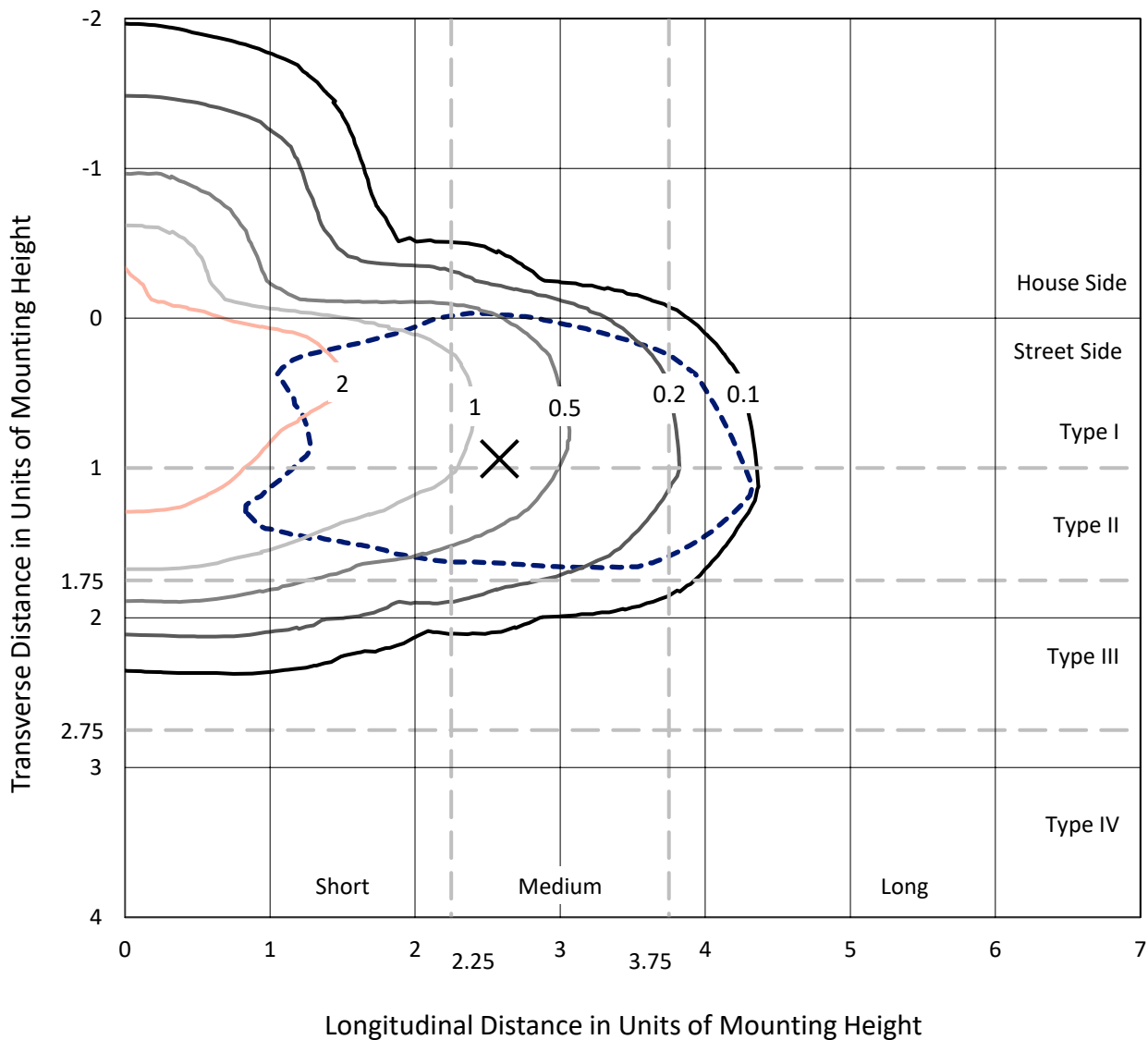
Input Watts (W): 19.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

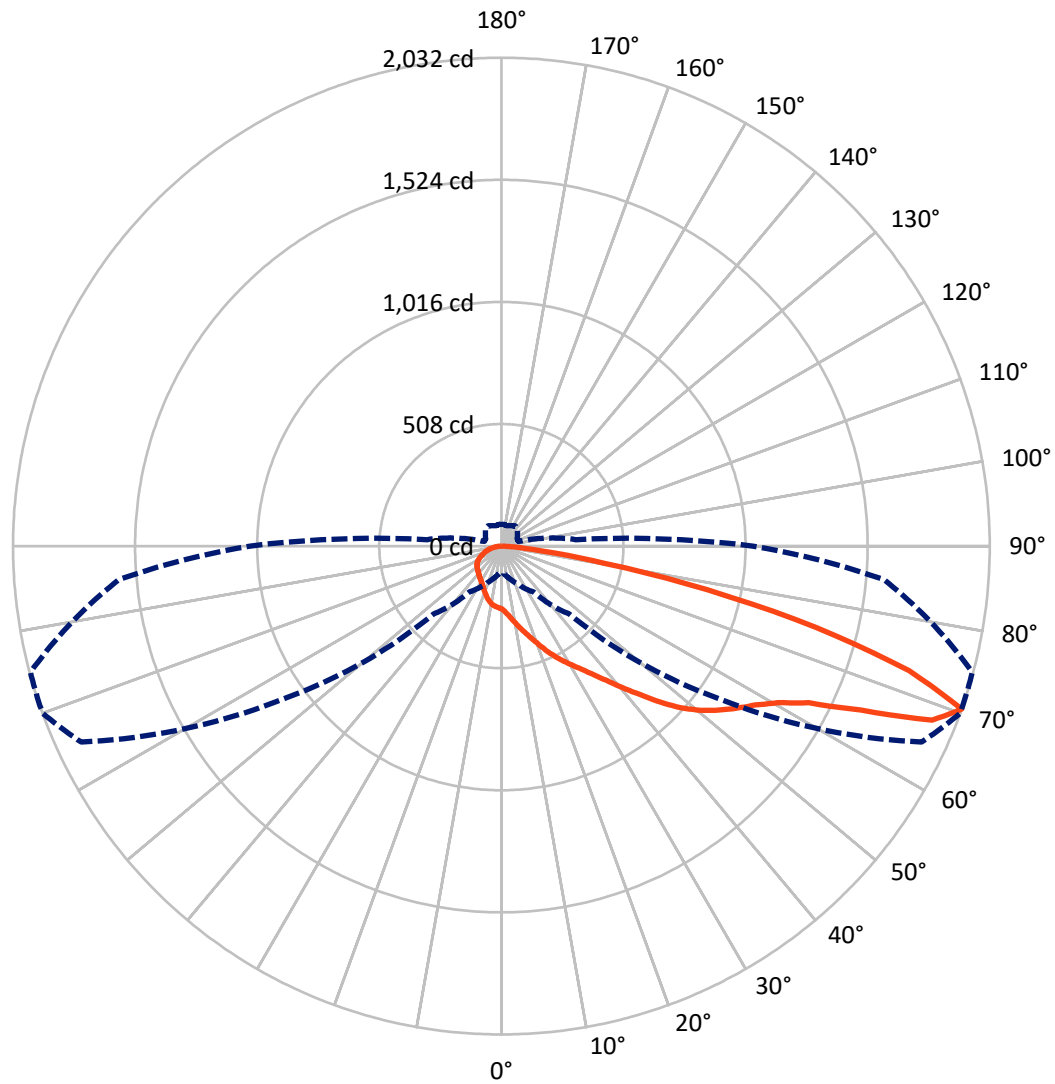
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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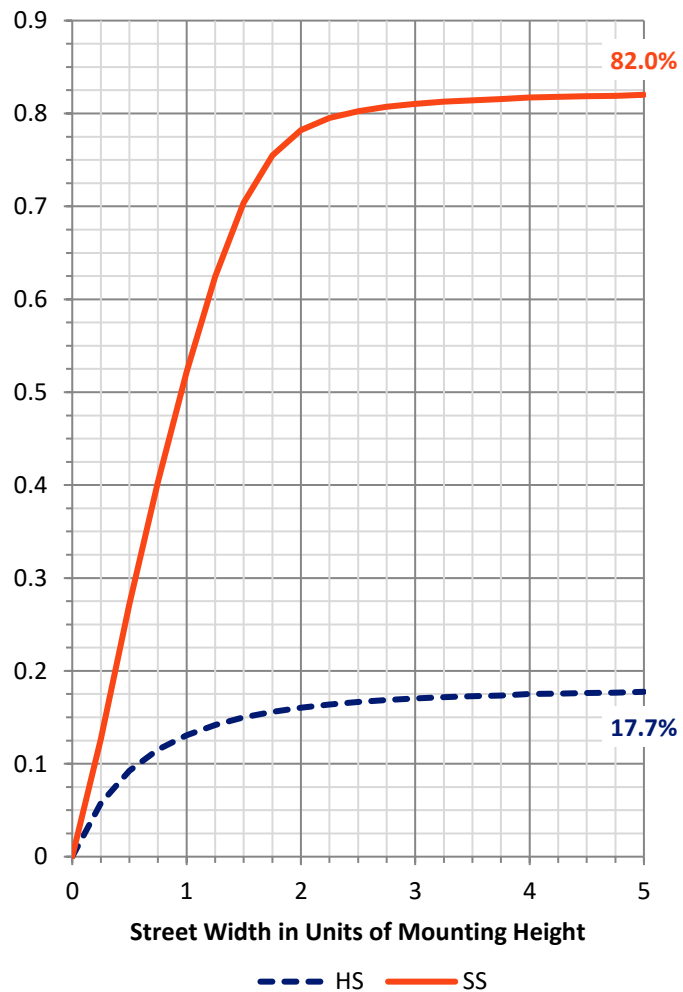
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	401.7	0.0	401.7
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	1839.7	0.0	1839.7
	% Fixture	82.1	0.0	82.1
Total	Lumens	2241.3	0.0	2241.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	1.2
10°-20°	86.4	3.9
20°-30°	153.1	6.8
30°-40°	230.4	10.3
40°-50°	348.6	15.6
50°-60°	499.4	22.3
60°-70°	552.0	24.6
70°-80°	311.5	13.9
80°-90°	33.3	1.5
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°	2241.3	100.0
0°-180°	2241.3	100.0

Coefficient of Utilization



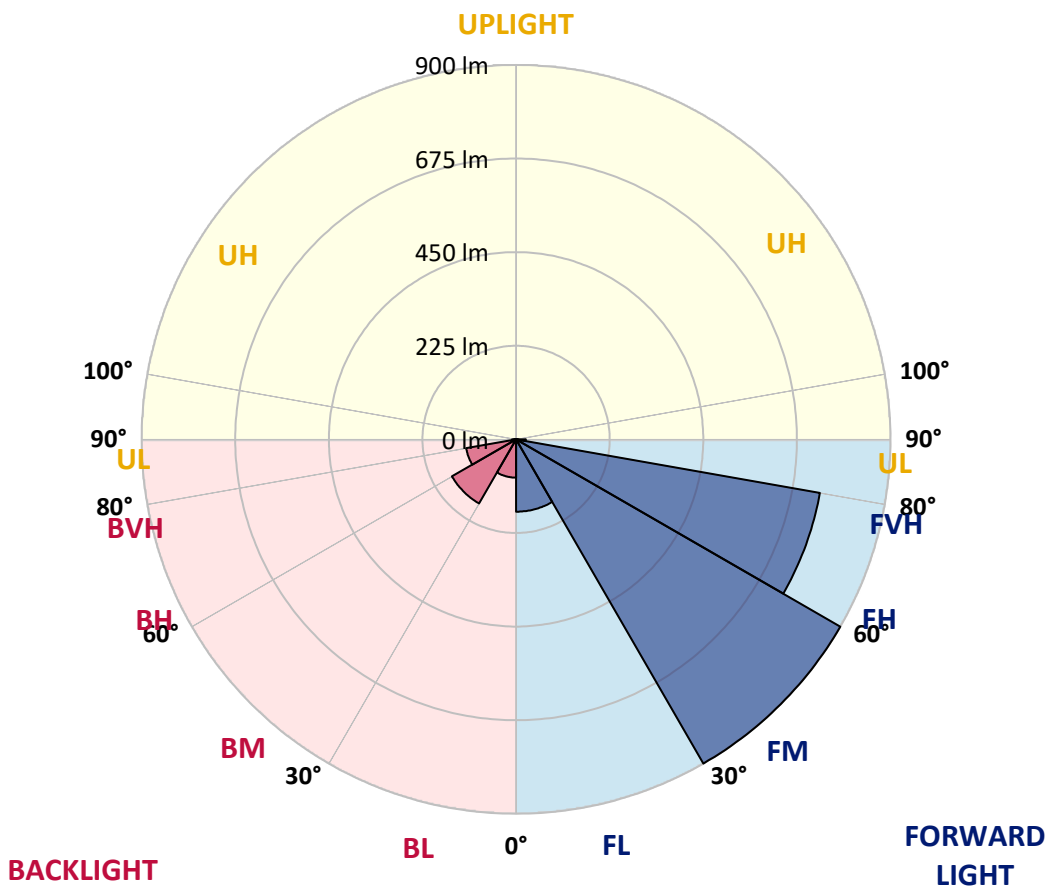
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	174.0	7.8			
FM (30°-60°)	900.3	40.2			
FH (60°-80°)	741.8	33.1			G1/1800
FVH (80°-90°)	23.6	1.1			G1/100
BL (0°-30°)	92.1	4.1	B0/110		
BM (30°-60°)	178.1	7.9	B0/220		
BH (60°-80°)	121.7	5.4	B1/500		G1/500
BVH (80°-90°)	9.8	0.4			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4
2.5°	289.6	289.1	289.4	289.1	287.3	282.9	279.4	274.8	271.7	270.0	265.8
5°	323.6	323.1	322.0	320.3	317.1	311.1	302.2	292.3	286.3	281.8	272.9
7.5°	348.0	348.0	347.9	345.9	343.7	337.3	326.8	313.9	305.1	297.3	282.8
10°	360.5	361.3	362.4	365.2	364.7	361.3	351.4	337.5	326.5	317.4	295.7
12.5°	367.3	367.8	369.7	375.4	381.2	382.0	376.2	361.6	349.6	337.5	310.1
15°	376.0	376.2	378.8	385.6	394.2	402.8	401.3	386.7	374.4	361.0	326.2
17.5°	382.8	384.0	388.7	396.6	407.3	419.1	426.2	417.2	402.0	386.6	343.7
20°	385.3	386.1	392.2	404.4	419.0	435.6	451.5	449.1	433.7	415.6	363.4
22.5°	394.0	394.0	398.6	408.8	425.9	450.2	476.0	482.3	468.7	447.5	384.6
25°	413.3	412.6	414.7	419.0	431.9	461.9	500.1	519.0	503.8	480.0	405.8
27.5°	439.7	439.4	439.2	439.8	444.2	472.1	520.5	553.4	538.1	511.3	424.8
30°	468.3	467.4	469.5	467.5	466.6	484.2	537.8	584.1	572.3	542.2	440.5
32.5°	507.4	505.6	505.1	498.8	494.9	503.2	551.8	619.1	609.7	575.6	458.1
35°	558.9	557.3	549.0	539.0	527.5	531.3	569.1	653.3	653.9	617.3	481.3
37.5°	610.9	611.2	604.7	581.1	569.2	567.0	595.5	694.9	708.8	667.2	511.3
40°	654.1	656.0	656.0	631.1	613.5	611.3	632.6	744.3	772.0	728.4	549.2
42.5°	687.0	688.8	694.4	676.5	657.8	665.1	677.6	793.9	843.6	804.1	597.1
45°	723.1	724.5	727.6	717.3	706.4	725.8	728.6	853.1	925.5	888.9	652.8
47.5°	771.0	769.7	770.1	762.4	754.0	785.4	784.8	903.0	1004.7	981.9	713.2
50°	830.6	833.1	830.8	815.7	805.8	834.5	838.2	958.2	1074.4	1073.9	774.1
52.5°	888.0	888.9	900.9	901.6	881.3	875.3	885.0	1013.9	1133.1	1158.1	832.6
55°	890.9	894.6	930.5	956.5	989.2	941.1	932.3	1067.1	1190.0	1240.5	893.3
57.5°	828.8	834.8	895.9	951.8	1042.8	1053.9	1013.3	1135.7	1246.8	1321.6	963.6
60°	696.4	708.8	791.8	877.3	1018.6	1135.1	1179.0	1229.0	1321.5	1404.6	1048.9
62.5°	444.7	449.6	565.8	709.0	910.0	1127.1	1359.4	1393.4	1435.2	1512.6	1180.4
65°	222.7	238.2	306.4	423.2	656.2	993.2	1450.6	1694.4	1643.3	1697.5	1393.6
67.5°	151.1	156.1	190.6	254.3	384.8	703.7	1394.0	1948.1	1933.0	1941.9	1620.8
70°	111.4	114.7	141.9	180.1	232.7	399.5	1109.8	1928.9	2031.8	2028.5	1597.0
72.5°	81.3	82.9	103.5	137.5	172.5	206.6	677.7	1558.3	1773.6	1867.1	1396.6
75°	59.1	61.1	71.9	102.8	134.1	128.9	334.6	1125.5	1352.6	1532.3	1137.8
77.5°	44.0	46.5	51.5	64.5	93.9	92.3	144.6	730.9	874.8	1000.8	691.2
80°	31.7	32.2	35.1	41.3	59.6	54.1	68.8	381.1	436.9	478.7	270.9
82.5°	19.3	19.8	23.5	25.4	36.9	34.0	35.8	123.4	176.8	187.7	101.2
85°	5.7	6.0	10.7	11.7	15.4	14.6	14.4	50.2	59.9	76.6	39.8
87.5°	0.0	0.0	0.0	0.0	0.2	1.0	1.8	8.9	13.4	18.6	9.7
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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 CATALOG NUMBER: GWS-SA1A-830-U-T2-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4	261.4
2.5°	264.1	260.4	258.5	255.1	252.6	250.2	247.8	245.5	244.5	243.1	243.4
5°	268.8	263.0	257.2	250.5	244.9	240.2	236.0	232.2	230.6	229.2	229.8
7.5°	276.0	267.2	256.0	243.9	235.0	228.5	224.1	221.5	220.7	219.6	219.6
10°	285.0	271.9	252.3	235.0	224.3	219.1	217.2	217.0	217.8	218.0	217.7
12.5°	295.1	276.4	246.8	224.5	215.4	213.8	215.2	218.0	220.7	222.2	221.9
15°	305.4	279.4	237.4	214.4	208.9	211.0	215.7	221.2	226.6	229.3	229.2
17.5°	315.1	280.0	225.3	204.7	203.2	208.6	216.7	225.3	232.6	236.4	236.6
20°	326.0	278.9	212.8	196.0	197.6	206.3	217.0	227.4	236.0	239.8	240.8
22.5°	335.9	275.0	200.7	187.7	192.7	203.6	214.4	224.1	231.7	235.5	236.8
25°	344.8	267.5	187.4	180.7	189.0	199.7	207.9	214.7	220.1	222.4	224.1
27.5°	349.6	256.4	177.3	175.2	185.4	194.2	198.7	200.8	202.6	201.9	203.2
30°	350.6	242.4	168.6	170.9	180.1	186.6	187.5	185.4	182.4	177.3	178.5
32.5°	349.6	226.4	161.3	166.2	174.1	178.0	176.7	171.2	163.7	156.0	156.4
35°	350.0	210.2	155.3	161.0	167.1	169.2	166.0	158.4	150.4	143.3	143.0
37.5°	353.5	196.6	150.3	156.0	160.3	160.7	157.1	149.2	145.1	139.8	139.1
40°	363.4	186.6	145.8	150.9	153.7	153.5	149.5	143.8	146.6	144.8	144.3
42.5°	379.6	180.4	142.0	145.6	147.5	147.9	144.6	141.1	147.0	144.8	144.0
45°	405.7	180.1	139.4	140.2	143.3	145.6	143.3	139.3	141.5	130.5	128.4
47.5°	436.6	185.6	137.5	135.5	140.9	144.9	141.4	134.9	130.2	120.2	118.7
50°	473.9	196.8	135.7	130.5	137.3	142.5	139.0	130.0	122.9	117.6	116.8
52.5°	518.1	211.5	133.4	124.9	132.0	141.2	139.0	129.6	120.2	115.3	114.5
55°	564.4	228.5	130.9	118.1	126.0	141.5	140.1	126.2	118.1	115.5	114.8
57.5°	621.9	248.9	126.2	110.1	120.7	138.6	135.5	124.2	116.6	114.5	113.8
60°	696.5	279.2	117.2	102.0	114.5	133.4	131.5	121.0	112.7	110.9	110.4
62.5°	814.8	330.5	106.4	94.3	107.2	122.6	125.5	114.8	107.9	107.7	107.5
65°	1007.5	392.2	93.6	87.3	99.6	113.7	117.6	108.5	102.8	104.6	104.5
67.5°	1142.5	397.6	83.1	80.0	90.7	104.0	109.6	102.0	95.9	99.3	99.1
70°	1046.5	310.1	74.0	72.4	81.1	93.4	101.1	93.9	87.8	91.0	90.4
72.5°	882.6	237.7	65.4	64.5	71.4	82.4	90.0	85.8	79.4	79.4	77.9
75°	709.3	196.1	56.4	55.9	60.6	71.3	79.8	72.7	66.7	66.4	65.4
77.5°	406.8	128.6	47.3	47.0	48.4	59.6	62.0	60.6	56.0	53.9	53.3
80°	162.1	66.9	37.2	35.1	36.6	43.7	48.9	46.5	42.6	40.0	38.5
82.5°	62.8	33.5	26.2	23.0	25.1	31.6	35.5	34.7	32.1	26.2	24.6
85°	25.6	16.4	15.7	13.3	14.6	17.0	20.4	17.7	14.6	10.4	9.9
87.5°	6.8	6.0	5.8	3.6	2.8	0.8	0.2	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

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

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			

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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)