

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: P631566

Luminaire Tested: GWS-SA1F-830-U-T3-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P631566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-24)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1F-830-U-T3-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4132.8 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G0

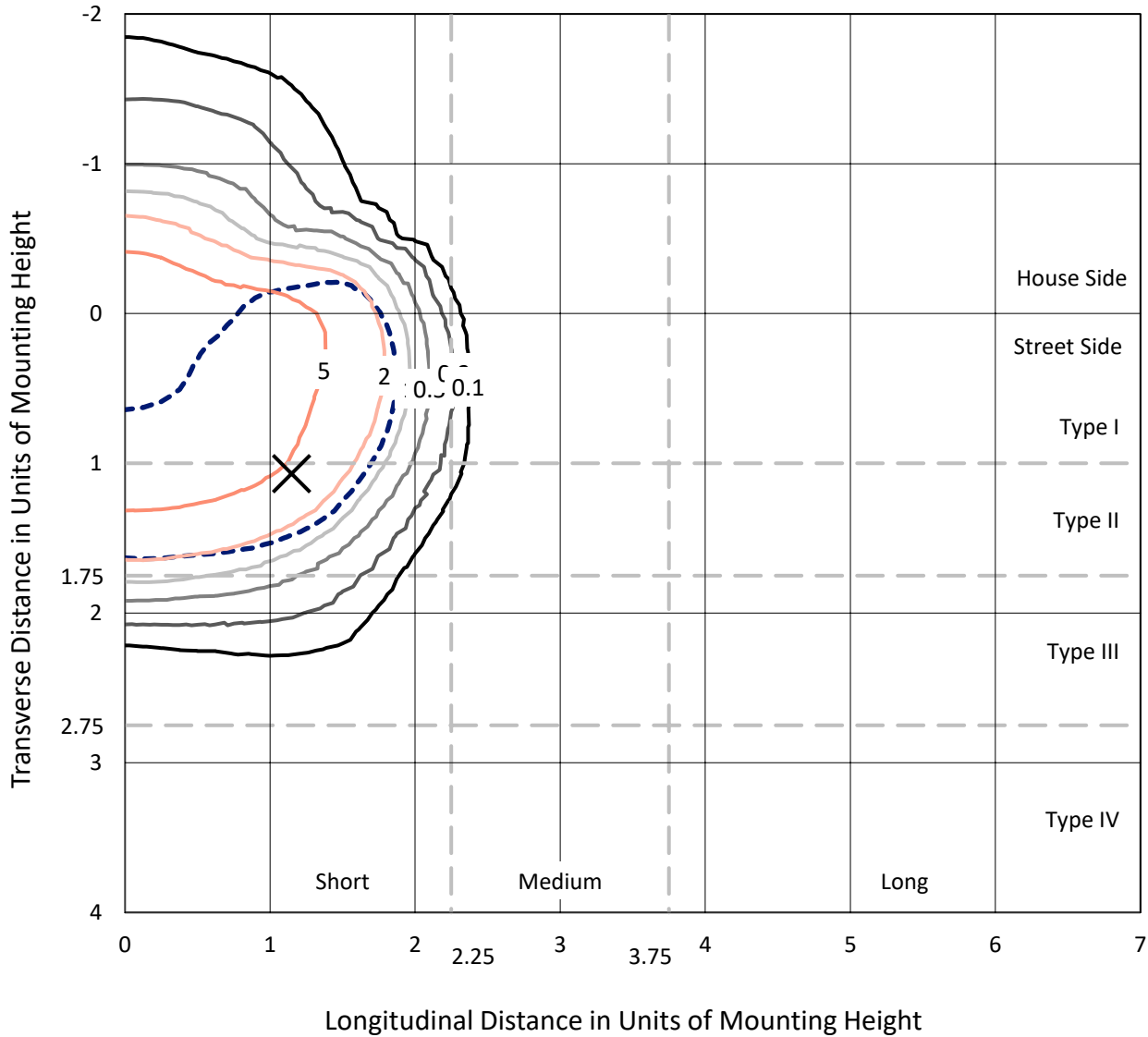
Input Watts (W): 67.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

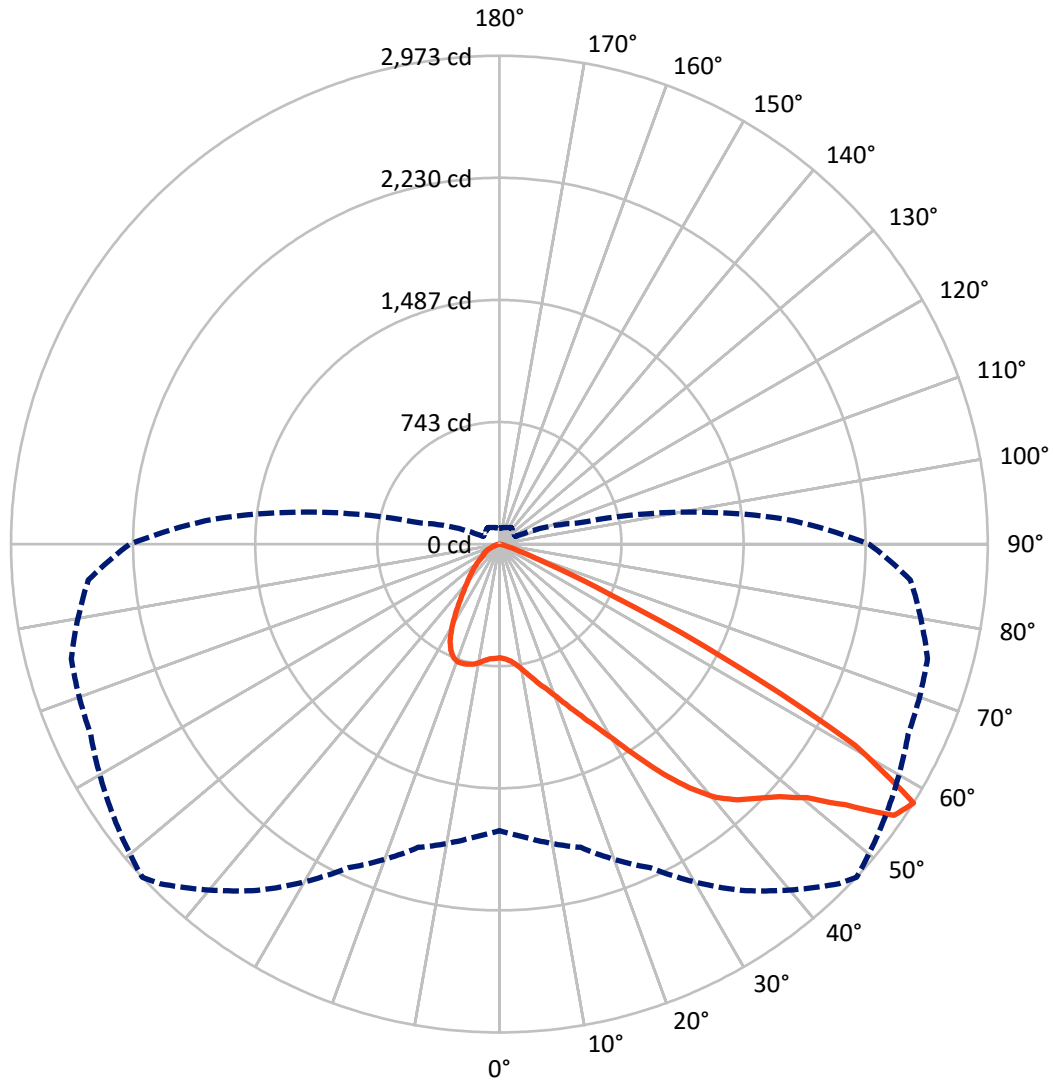
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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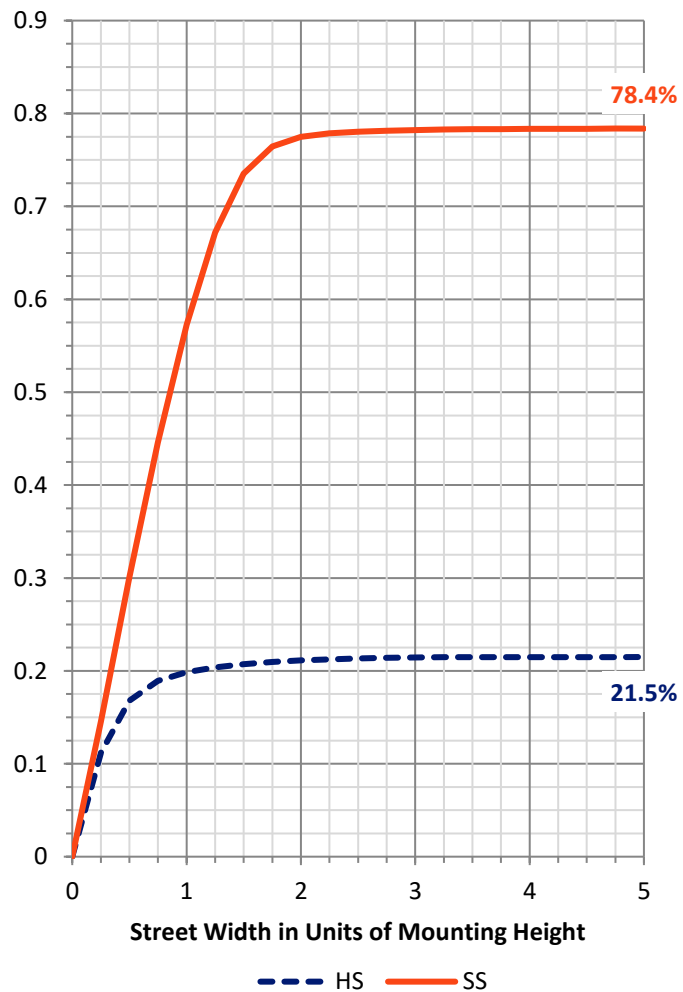
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	896.6	0.0	896.6
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	3236.2	0.0	3236.2
	% Fixture	78.3	0.0	78.3
Total	Lumens	4132.8	0.0	4132.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	1.7
10°-20°	232.2	5.6
20°-30°	431.2	10.4
30°-40°	690.3	16.7
40°-50°	1009.1	24.4
50°-60°	1245.4	30.1
60°-70°	416.1	10.1
70°-80°	38.8	0.9
80°-90°	0.8	0.0
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°	4132.8	100.0
0°-180°	4132.8	100.0

Coefficient of Utilization



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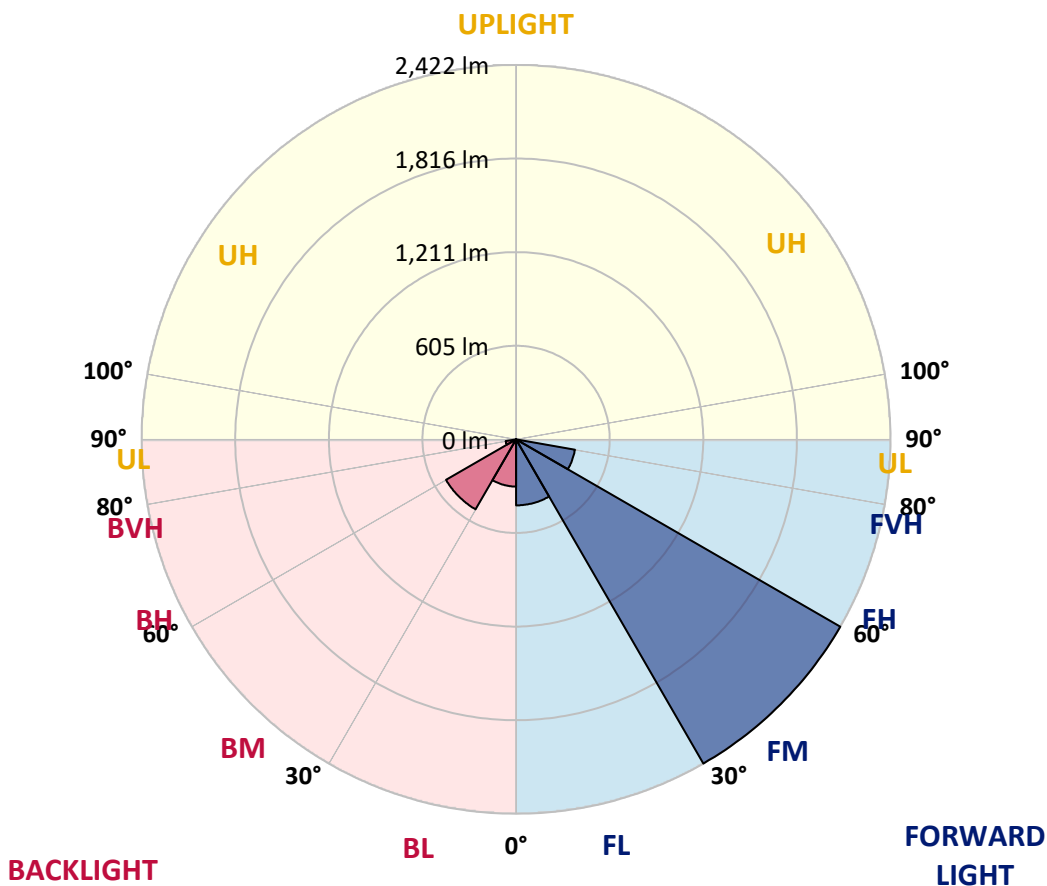
CATALOG NUMBER: GWS-SA1F-830-U-T3-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.1	10.3			
FM (30°-60°)	2421.8	58.6			
FH (60°-80°)	386.7	9.4			G0/660
FVH (80°-90°)	0.6	0.0			G0/10
BL (0°-30°)	305.2	7.4	B1/500		
BM (30°-60°)	523.0	12.7	B1/1000		
BH (60°-80°)	68.2	1.6	B0/110		G0/110
BVH (80°-90°)	0.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G0

Type II Short





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CATALOG NUMBER: GWS-SA1F-830-U-T3-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8
2.5°	699.0	698.6	698.1	701.0	700.0	699.5	700.5	700.5	700.5	697.6	691.8
5°	715.8	715.8	715.3	718.2	715.8	714.4	714.9	714.9	712.9	707.7	700.5
7.5°	742.2	741.3	740.3	743.2	740.8	740.3	741.3	738.4	735.0	726.4	716.3
10°	780.1	780.1	778.7	781.6	779.6	778.7	778.7	776.8	770.5	757.1	742.2
12.5°	832.4	830.0	826.7	824.3	823.3	822.8	823.3	820.4	813.7	796.4	775.8
15°	889.5	887.6	882.3	878.5	873.2	872.2	875.1	872.7	866.0	842.5	813.2
17.5°	961.5	963.9	950.4	942.3	926.9	926.0	926.9	930.8	926.0	895.7	853.0
20°	1022.9	1024.8	1014.7	1009.0	995.1	988.8	990.7	997.0	991.7	956.2	896.7
22.5°	1088.6	1091.0	1080.5	1068.5	1062.2	1062.2	1069.4	1078.1	1070.9	1024.3	946.6
25°	1167.3	1169.2	1160.6	1144.7	1133.7	1147.6	1158.2	1181.2	1169.2	1105.9	1005.6
27.5°	1257.5	1258.0	1245.5	1229.2	1223.4	1249.3	1259.9	1295.4	1290.6	1197.5	1068.0
30°	1353.9	1354.4	1351.5	1340.5	1335.2	1369.3	1383.7	1435.0	1431.6	1311.2	1152.9
32.5°	1454.2	1454.2	1459.5	1458.5	1464.8	1520.4	1543.4	1602.0	1598.6	1450.4	1258.4
35°	1554.9	1555.4	1564.5	1587.6	1613.5	1687.4	1717.6	1788.6	1780.9	1616.8	1393.3
37.5°	1669.6	1664.8	1677.3	1711.8	1769.4	1854.8	1883.6	1951.2	1942.6	1787.2	1569.3
40°	1807.8	1799.2	1799.2	1839.5	1904.7	2003.1	2027.5	2061.1	2031.8	1924.9	1742.1
42.5°	1960.4	1952.2	1941.6	1977.2	2031.8	2108.6	2128.8	2119.6	2095.7	2054.9	1938.8
45°	2114.8	2102.4	2109.6	2131.2	2162.8	2199.3	2207.0	2164.7	2153.7	2165.2	2101.4
47.5°	2232.4	2223.8	2241.5	2271.7	2297.6	2302.9	2297.6	2239.1	2238.1	2278.9	2214.2
50°	2271.7	2272.7	2321.6	2387.8	2429.6	2433.9	2426.7	2359.5	2350.4	2362.4	2275.1
52.5°	2275.6	2279.4	2350.9	2477.1	2590.8	2642.6	2636.8	2564.4	2475.2	2462.2	2367.2
55°	2183.0	2205.5	2305.3	2489.6	2731.4	2896.9	2916.1	2777.4	2645.0	2634.0	2565.4
57.5°	1744.9	1791.0	1911.4	2173.9	2574.5	2923.3	2973.2	2873.4	2745.3	2698.3	2512.1
60°	1043.0	1100.1	1215.7	1537.7	1959.4	2402.7	2488.6	2502.5	2443.5	2307.7	1927.3
62.5°	447.6	442.8	585.3	831.9	1165.4	1527.1	1566.0	1626.4	1677.8	1535.8	1169.7
65°	153.5	167.0	232.2	375.2	583.4	709.1	743.7	797.9	870.8	718.7	428.4
67.5°	95.0	100.8	133.9	221.7	314.7	309.9	294.6	285.9	278.3	190.5	117.5
70°	69.1	73.9	94.0	152.6	211.6	148.7	129.1	104.6	116.1	107.0	83.5
72.5°	46.5	50.4	64.8	92.6	108.4	72.4	67.2	76.3	92.1	87.8	68.1
75°	27.8	30.2	36.9	45.1	44.1	37.4	37.9	53.7	70.5	65.7	48.5
77.5°	19.2	20.2	24.5	29.3	21.6	11.5	10.6	14.9	24.0	24.0	16.3
80°	4.8	6.2	6.2	3.8	3.4	2.9	2.9	4.3	6.7	4.8	2.4
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.0	1.0
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.0
87.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0
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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CATALOG NUMBER: GWS-SA1F-830-U-T3-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8	691.8
2.5°	695.2	689.4	693.3	692.3	695.2	696.2	691.8	690.9	691.4	685.6	683.7
5°	701.9	695.2	697.1	695.2	698.6	701.4	700.0	701.9	704.3	700.0	698.1
7.5°	716.3	709.6	709.1	706.2	711.0	712.9	712.5	717.7	722.5	719.7	716.8
10°	741.3	732.1	731.2	728.8	730.2	731.7	726.4	727.3	731.7	728.3	726.9
12.5°	772.0	760.9	758.5	752.8	752.8	745.6	734.1	731.7	735.0	732.6	730.2
15°	805.1	790.2	786.4	776.3	766.7	753.2	741.3	738.4	740.8	737.9	736.0
17.5°	842.0	825.2	812.7	795.0	773.9	758.0	744.6	738.4	734.5	728.8	728.3
20°	878.5	856.4	835.3	807.0	779.2	755.2	733.1	716.8	702.9	694.2	690.9
22.5°	920.7	888.1	854.0	814.2	774.4	737.9	699.0	671.2	647.2	639.1	635.2
25°	965.8	923.6	872.7	820.9	758.0	699.5	646.7	605.5	573.8	563.3	558.9
27.5°	1015.7	957.6	891.9	819.5	724.5	644.8	574.8	523.4	492.2	482.7	486.0
30°	1079.0	1001.8	915.9	804.6	674.1	568.1	486.0	442.8	419.3	410.2	410.7
32.5°	1163.5	1065.1	950.9	772.9	609.3	480.7	408.8	377.1	361.3	349.3	348.3
35°	1284.4	1161.5	983.5	722.1	530.6	403.0	350.7	325.8	303.7	289.8	292.2
37.5°	1429.2	1282.9	1001.3	653.5	442.4	342.6	307.1	281.6	256.7	236.0	238.4
40°	1601.0	1441.7	999.9	563.3	361.8	301.3	270.6	240.8	209.7	191.0	192.9
42.5°	1792.4	1591.9	968.7	467.8	299.9	267.7	235.6	198.1	167.9	156.4	156.9
45°	1958.4	1713.8	914.0	368.9	252.4	235.1	199.1	160.7	147.3	139.1	138.7
47.5°	2081.3	1803.0	835.8	290.3	214.0	205.3	163.6	143.9	133.4	126.7	125.7
50°	2149.9	1834.2	749.4	227.4	180.9	174.2	146.3	130.5	123.3	119.0	118.0
52.5°	2242.0	1871.6	687.5	179.4	151.6	142.5	134.8	121.4	116.6	113.2	111.8
55°	2387.8	1944.0	633.8	142.5	126.2	124.3	127.1	116.1	113.2	107.9	106.0
57.5°	2250.6	1746.4	492.2	110.3	106.5	113.7	122.8	110.8	103.6	98.8	96.9
60°	1583.7	1161.1	247.6	88.8	95.0	106.5	115.6	100.3	93.1	94.0	93.1
62.5°	873.2	581.0	111.3	74.4	82.5	94.0	98.8	86.8	82.0	90.2	91.6
65°	285.5	197.7	64.3	57.6	65.2	76.8	85.4	82.5	81.6	91.2	94.0
67.5°	87.8	65.2	43.7	41.3	45.1	56.6	72.0	89.2	96.0	98.8	100.3
70°	65.7	51.3	37.4	35.0	36.9	43.2	60.9	74.4	70.0	70.5	69.6
72.5°	52.8	40.8	32.1	30.7	30.7	29.7	32.1	40.3	45.6	48.0	48.0
75°	36.9	28.8	24.5	22.5	17.8	14.4	13.0	13.0	11.5	11.0	10.6
77.5°	12.5	10.6	9.6	7.7	5.3	4.3	3.8	3.4	2.4	1.4	1.0
80°	1.9	1.4	1.0	1.0	1.0	0.5	0.5	0.5	0.0	0.0	0.0
82.5°	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
85°	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	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)