

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: P638959

Luminaire Tested: GWS-SA4F-830-U-AFL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P638959
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-48)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA4F-830-U-AFL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND
AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22666.2 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

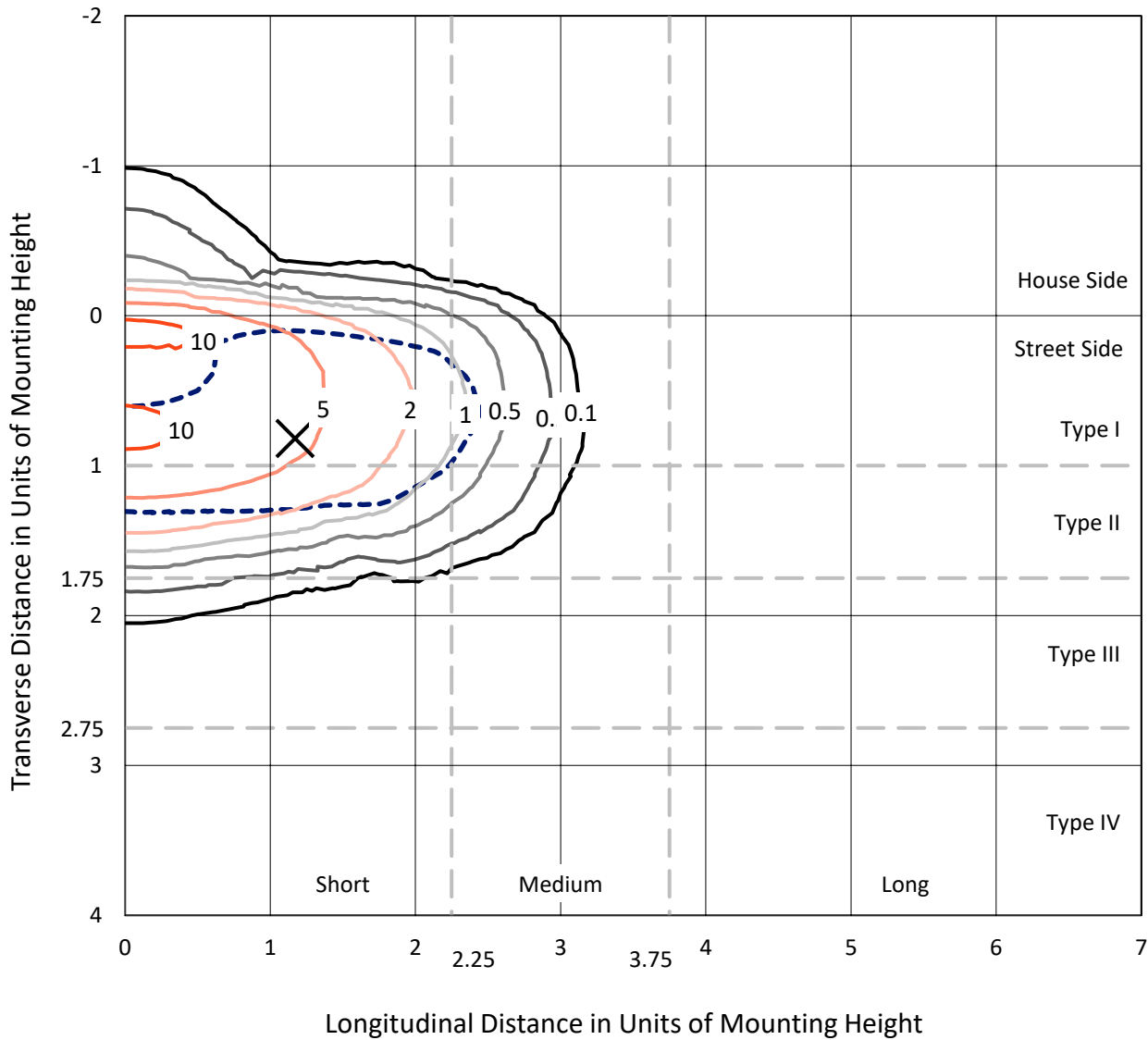
Input Watts (W): 225.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

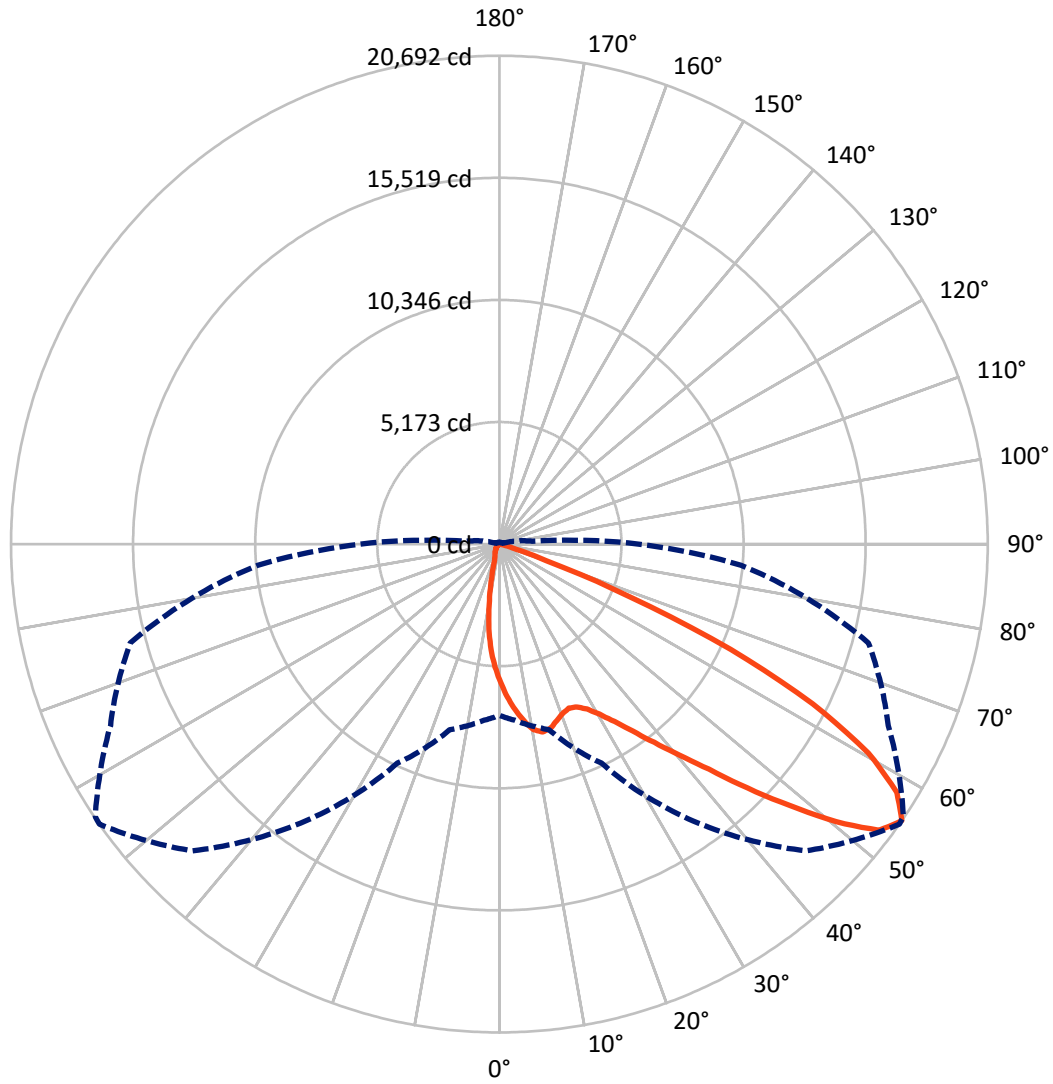
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.3 fc
 Type II - Short - N/A

REPORT NUMBER: P638959
CATALOG NUMBER: GWS-SA4F-830-U-AFL-W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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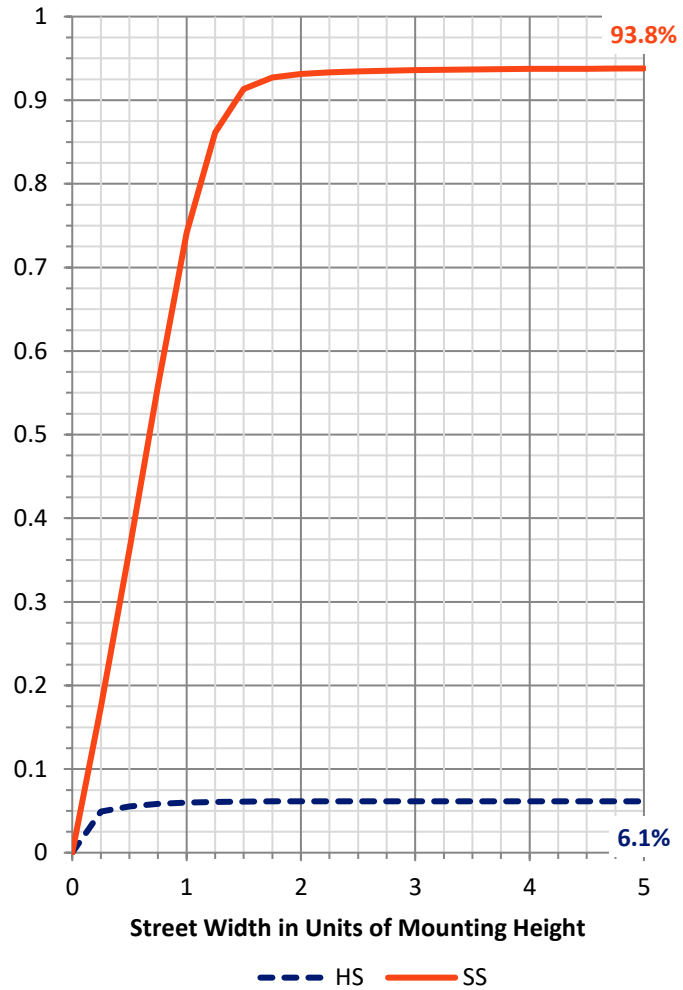
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1398.6	0.0	1398.6
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	21267.6	0.0	21267.6
	% Fixture	93.8	0.0	93.8
Total	Lumens	22666.2	0.0	22666.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.5	2.3
10°-20°	1247.6	5.5
20°-30°	2077.8	9.2
30°-40°	3540.7	15.6
40°-50°	5779.6	25.5
50°-60°	6050.9	26.7
60°-70°	3052.0	13.5
70°-80°	385.5	1.7
80°-90°	14.6	0.1
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°	22666.2	100.0
0°-180°	22666.2	100.0

Coefficient of Utilization



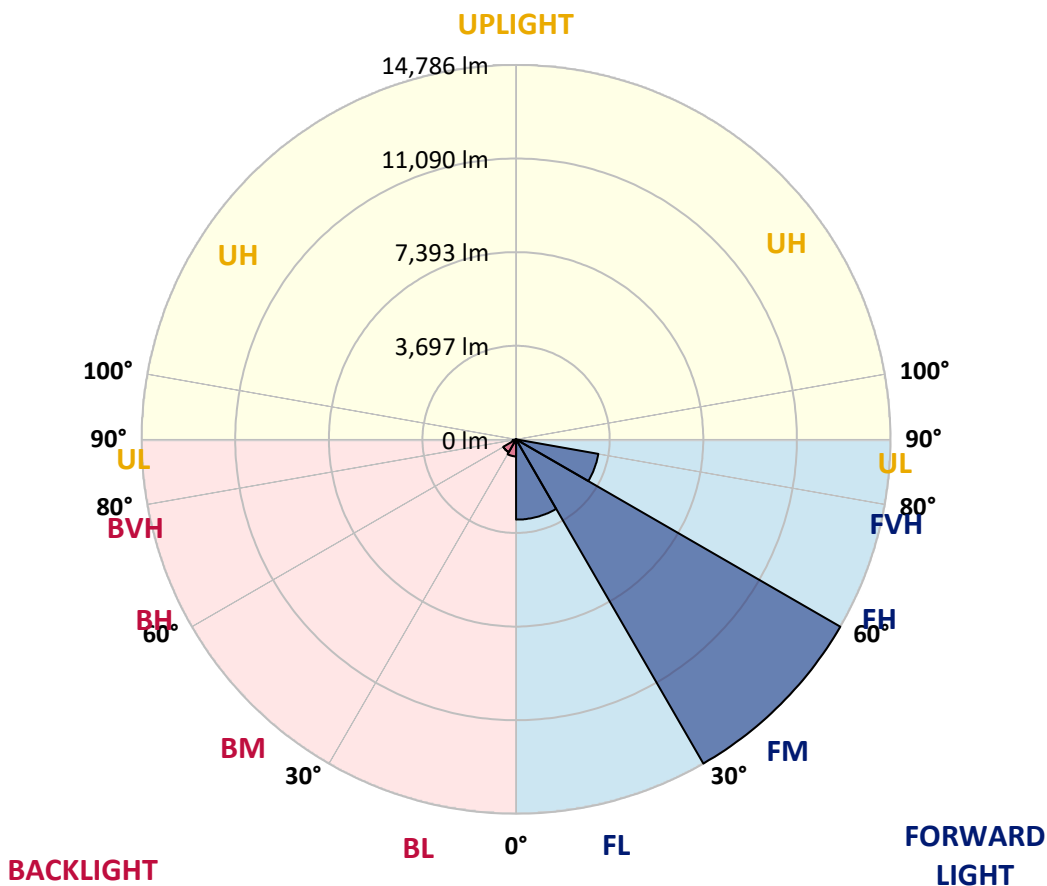
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3170.7	14.0			
FM (30°-60°)	14786.4	65.2			
FH (60°-80°)	3297.2	14.5			G2/5000
FVH (80°-90°)	13.3	0.1			G1/100
BL (0°-30°)	672.2	3.0	B2/1000		
BM (30°-60°)	584.8	2.6	B1/1000		
BH (60°-80°)	140.3	0.6	B1/500		G1/500
BVH (80°-90°)	1.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Short





REPORT NUMBER: P638959

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6
2.5°	6826.4	6793.4	6843.8	6785.7	6686.9	6603.6	6495.0	6456.3	6281.9	6117.2	5958.3
5°	7655.7	7665.4	7649.9	7568.5	7429.0	7274.0	7055.0	7006.6	6702.4	6388.5	6049.4
7.5°	7861.1	7855.3	7888.2	7919.2	7896.0	7818.5	7580.1	7531.7	7153.9	6683.0	6188.9
10°	7227.5	7231.4	7299.2	7508.4	7768.1	8037.4	8000.6	7973.5	7603.4	7016.3	6343.9
12.5°	6332.3	6367.2	6438.9	6737.3	7177.1	7789.4	8169.2	8196.3	8016.1	7382.5	6526.1
15°	5944.8	5952.5	6010.6	6190.8	6518.3	7274.0	8097.5	8173.1	8361.0	7750.7	6723.7
17.5°	5935.1	5944.8	5969.9	6049.4	6262.5	6869.0	7866.9	7998.7	8620.7	8145.9	6960.1
20°	6299.3	6293.5	6276.1	6233.5	6326.5	6735.3	7653.8	7799.1	8762.1	8531.5	7198.4
22.5°	6960.1	6952.3	6874.8	6698.5	6622.9	6857.4	7549.1	7680.9	8847.4	8874.5	7394.1
25°	7721.6	7775.8	7630.5	7363.1	7177.1	7169.4	7642.1	7735.2	8921.0	9178.7	7527.8
27.5°	8556.7	8574.2	8450.1	8149.8	7880.5	7669.3	7911.5	7981.2	9002.4	9450.0	7603.4
30°	9473.2	9467.4	9326.0	8977.2	8649.7	8345.5	8364.9	8392.0	9192.3	9760.0	7686.7
32.5°	10618.4	10643.6	10391.7	9917.0	9523.6	9103.1	8957.8	8961.7	9535.2	10159.2	7812.7
35°	12174.3	12112.3	11779.1	11102.8	10432.4	9979.0	9730.9	9709.6	10064.2	10695.9	8031.6
37.5°	13656.7	13662.5	13313.7	12569.6	11722.9	11007.9	10657.1	10599.0	10808.3	11440.0	8395.9
40°	14685.6	14704.9	14559.6	14170.1	13273.0	12261.5	11746.1	11686.0	11773.2	12381.7	8872.6
42.5°	15230.0	15284.3	15325.0	15416.0	14735.9	13827.2	13034.7	13028.8	12937.8	13455.1	9424.8
45°	15251.3	15332.7	15580.8	16202.7	16280.2	15613.7	14751.4	14621.6	14270.9	14604.2	9918.9
47.5°	14408.5	14596.4	15123.5	16355.8	17169.6	17390.5	16536.0	16456.6	15472.2	15512.9	10289.0
50°	12443.7	12639.4	13610.1	15571.1	17394.4	18801.1	18495.0	18330.3	16476.0	16113.6	10467.3
52.5°	10428.5	10606.8	11265.6	13703.2	16462.4	19244.9	20145.9	19950.2	17377.0	16322.9	10393.6
55°	7256.5	7494.9	8138.2	10242.5	14315.5	18380.7	20692.3	20651.6	18181.1	16191.1	10279.3
57.5°	3557.5	3793.9	4435.3	6314.8	10604.8	16047.7	19857.2	20072.3	18661.6	16049.7	10186.3
60°	1486.2	1583.1	1804.0	2770.9	5933.1	12127.8	17971.8	18270.2	18367.1	15857.8	10176.6
62.5°	862.3	877.8	901.0	1149.0	2307.8	6952.3	14908.4	15332.7	16818.9	15604.0	10023.5
65°	651.1	656.9	647.2	705.3	953.3	2637.2	10771.5	11348.9	14038.4	14611.9	9419.0
67.5°	534.8	534.8	509.6	521.2	598.7	988.2	5946.7	6752.8	10387.8	12009.6	7777.8
70°	426.3	436.0	424.3	408.8	428.2	546.4	2115.9	2623.6	6049.4	7091.8	4536.1
72.5°	323.6	323.6	343.0	331.3	317.8	343.0	738.2	829.3	2427.9	2956.9	1637.3
75°	250.0	257.7	271.3	259.6	240.3	203.5	354.6	375.9	732.4	687.9	366.2
77.5°	127.9	129.8	172.5	189.9	178.3	124.0	155.0	170.5	238.3	213.1	135.6
80°	77.5	81.4	96.9	149.2	118.2	65.9	63.9	67.8	112.4	96.9	56.2
82.5°	32.9	34.9	54.3	54.3	48.4	25.2	25.2	25.2	54.3	50.4	23.3
85°	0.0	0.0	9.7	7.8	7.8	9.7	9.7	9.7	13.6	19.4	11.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	5.8	5.8
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: P638959

CATALOG NUMBER: GWS-SA4F-830-U-AFL-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6	5855.6
2.5°	5855.6	5731.6	5565.0	5413.8	5210.4	5096.1	4937.2	4807.3	4696.9	4662.0	4646.5
5°	5857.6	5644.4	5287.9	4931.4	4493.4	4148.5	3793.9	3513.0	3282.4	3208.8	3189.4
7.5°	5896.3	5582.4	5005.0	4357.8	3625.4	3020.8	2480.2	1995.8	1771.0	1695.5	1680.0
10°	5948.6	5530.1	4677.5	3669.9	2617.8	1840.8	1304.0	994.0	846.8	765.4	777.0
12.5°	6016.4	5487.5	4315.2	2925.9	1732.3	1011.5	716.9	600.7	569.7	554.2	546.4
15°	6107.5	5437.1	3865.6	2187.6	1061.8	651.1	552.2	521.2	509.6	501.9	499.9
17.5°	6200.5	5379.0	3408.3	1538.5	705.3	540.6	496.0	480.5	472.8	467.0	465.0
20°	6299.3	5280.1	2871.6	1059.9	556.1	486.4	457.3	439.8	430.2	420.5	418.5
22.5°	6342.0	5121.2	2358.1	742.1	494.1	447.6	410.8	389.5	377.8	370.1	370.1
25°	6301.3	4863.5	1827.2	563.9	449.5	405.0	368.2	344.9	335.2	327.5	327.5
27.5°	6192.8	4532.2	1333.1	467.0	401.1	360.4	325.5	304.2	296.5	292.6	292.6
30°	6072.6	4113.7	939.8	401.1	346.8	313.9	284.8	271.3	269.3	265.5	265.5
32.5°	5969.9	3722.3	647.2	352.7	306.2	273.2	253.8	248.0	250.0	246.1	248.0
35°	5913.7	3338.6	480.5	313.9	273.2	242.2	232.5	232.5	232.5	230.6	230.6
37.5°	5937.0	2960.7	391.4	286.8	244.1	220.9	211.2	215.1	219.0	219.0	219.0
40°	6053.3	2625.5	346.8	261.6	219.0	201.5	193.8	199.6	205.4	209.3	209.3
42.5°	6200.5	2354.3	313.9	240.3	201.5	182.1	178.3	184.1	189.9	193.8	193.8
45°	6293.5	2081.1	281.0	213.1	184.1	160.8	160.8	168.6	166.6	168.6	168.6
47.5°	6336.2	1864.0	248.0	184.1	157.0	139.5	141.4	145.3	141.4	145.3	145.3
50°	6231.5	1645.1	219.0	153.1	129.8	122.1	125.9	124.0	124.0	131.8	131.8
52.5°	6039.7	1482.3	193.8	129.8	110.4	108.5	112.4	104.6	106.6	106.6	104.6
55°	5898.2	1389.3	172.5	112.4	94.9	96.9	94.9	81.4	73.6	65.9	63.9
57.5°	5828.5	1352.5	157.0	100.8	85.3	85.3	77.5	56.2	42.6	32.9	29.1
60°	5813.0	1307.9	141.4	87.2	75.6	71.7	56.2	32.9	21.3	15.5	13.6
62.5°	5665.7	1199.4	127.9	69.8	65.9	58.1	34.9	19.4	11.6	7.8	5.8
65°	5183.2	986.3	114.3	54.3	50.4	42.6	21.3	11.6	5.8	1.9	0.0
67.5°	4123.3	699.5	100.8	40.7	34.9	27.1	13.6	7.8	1.9	0.0	0.0
70°	2377.5	377.8	83.3	29.1	23.3	17.4	9.7	3.9	0.0	0.0	0.0
72.5°	794.4	176.3	63.9	19.4	17.4	13.6	5.8	1.9	0.0	0.0	0.0
75°	174.4	104.6	42.6	13.6	11.6	9.7	3.9	0.0	0.0	0.0	0.0
77.5°	65.9	73.6	21.3	9.7	7.8	5.8	1.9	0.0	0.0	0.0	0.0
80°	25.2	48.4	9.7	5.8	5.8	1.9	0.0	0.0	0.0	0.0	0.0
82.5°	13.6	19.4	5.8	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.8	9.7	3.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	1.9	1.9	1.9	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

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

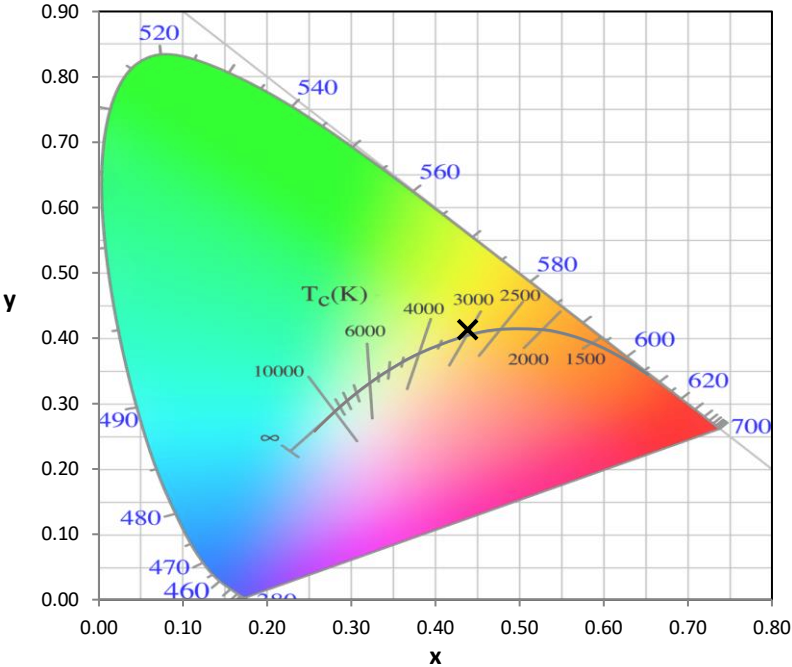
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

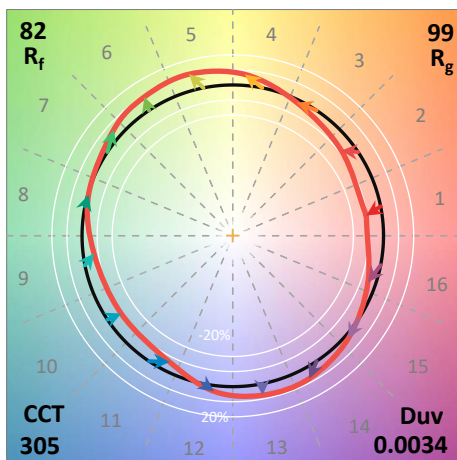
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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)