

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: P636484

Luminaire Tested: GWS-SA3F-830-U-AFL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636484
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-SA3F-830-U-AFL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16288.3 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - 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

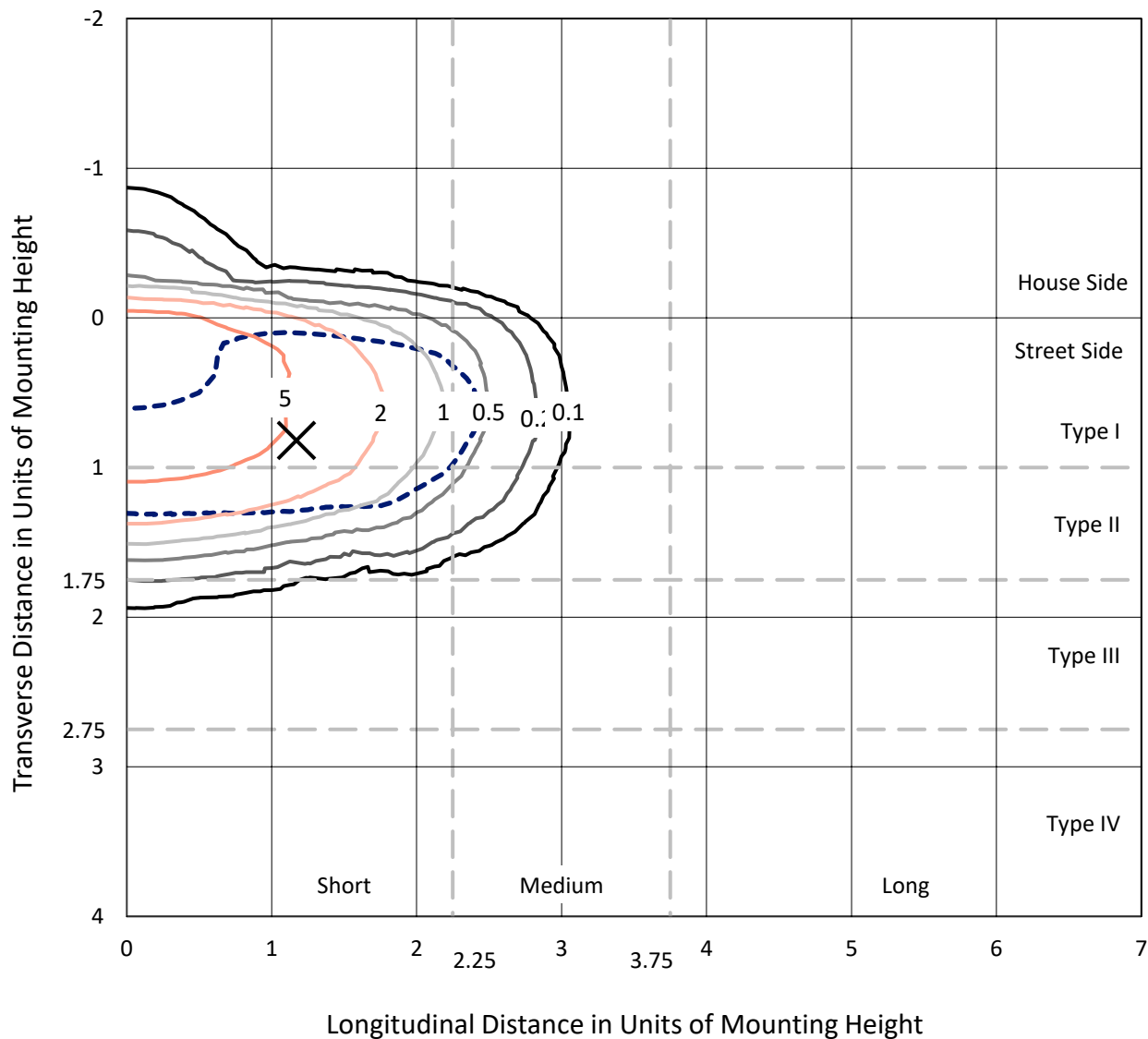


REPORT NUMBER: P636484
 CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

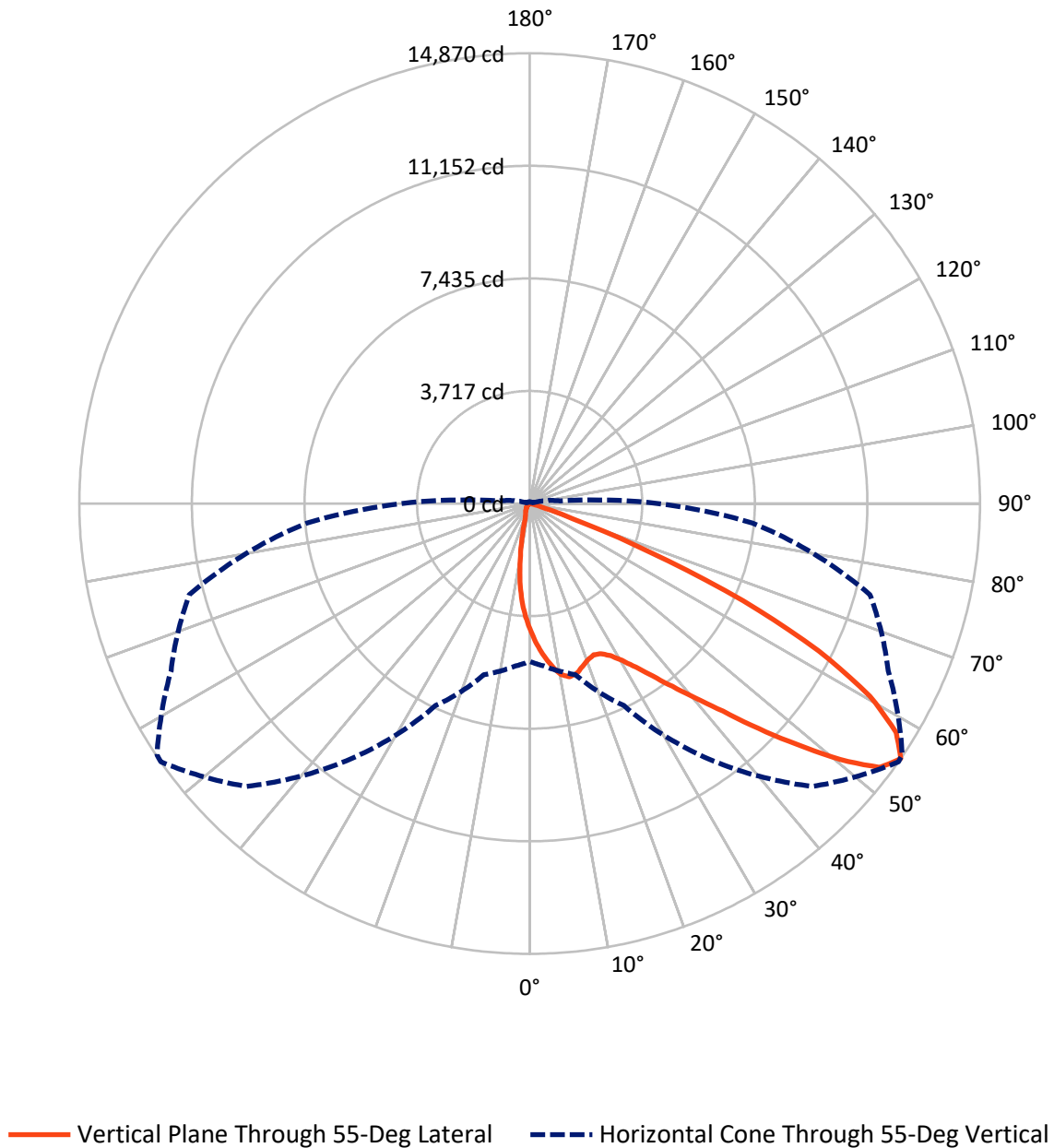
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Short - N/A

REPORT NUMBER: P636484
CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P636484

CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

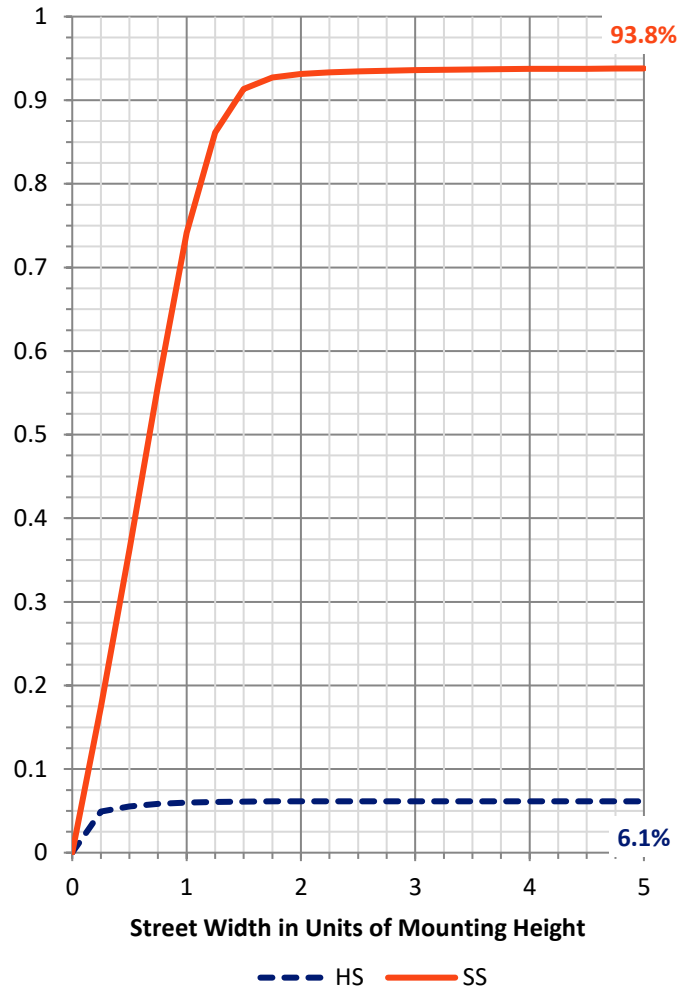
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1005.1	0.0	1005.1
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	15283.2	0.0	15283.2
	% Fixture	93.8	0.0	93.8
Total	Lumens	16288.3	0.0	16288.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.9	2.3
10°-20°	896.6	5.5
20°-30°	1493.1	9.2
30°-40°	2544.4	15.6
40°-50°	4153.3	25.5
50°-60°	4348.3	26.7
60°-70°	2193.2	13.5
70°-80°	277.0	1.7
80°-90°	10.5	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°	16288.3	100.0
0°-180°	16288.3	100.0

Coefficient of Utilization



REPORT NUMBER: P636484

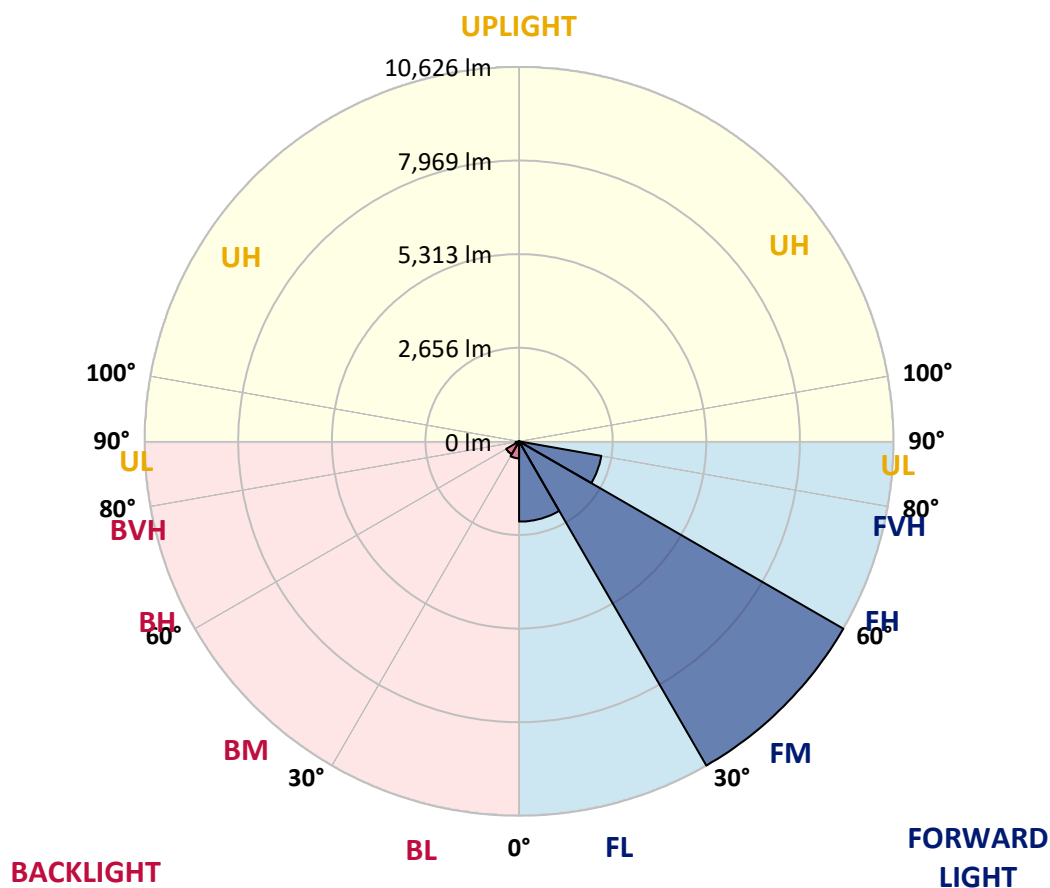
CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2278.5	14.0			
FM	(30°-60°)	10625.8	65.2			
FH	(60°-80°)	2369.4	14.5			G2/5000
FVH	(80°-90°)	9.6	0.1			G0/10
BL	(0°-30°)	483.1	3.0	B1/500		
BM	(30°-60°)	420.2	2.6	B1/1000		
BH	(60°-80°)	100.8	0.6	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



REPORT NUMBER: P636484

CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9
2.5°	4905.6	4881.9	4918.1	4876.3	4805.3	4745.4	4667.4	4639.6	4514.3	4395.9	4281.7
5°	5501.5	5508.5	5497.3	5438.9	5338.6	5227.2	5069.9	5035.0	4816.4	4590.9	4347.2
7.5°	5649.1	5644.9	5668.6	5690.9	5674.2	5618.5	5447.2	5412.4	5140.9	4802.5	4447.4
10°	5193.8	5196.6	5245.3	5395.7	5582.3	5775.8	5749.4	5729.9	5463.9	5042.0	4558.8
12.5°	4550.5	4575.5	4627.1	4841.5	5157.6	5597.6	5870.5	5890.0	5760.5	5305.2	4689.7
15°	4272.0	4277.6	4319.3	4448.8	4684.2	5227.2	5819.0	5873.3	6008.4	5569.7	4831.8
17.5°	4265.0	4272.0	4290.1	4347.2	4500.4	4936.2	5653.3	5748.0	6194.9	5853.8	5001.6
20°	4526.8	4522.6	4510.1	4479.5	4546.3	4840.1	5500.1	5604.6	6296.6	6130.9	5172.9
22.5°	5001.6	4996.1	4940.4	4813.7	4759.3	4927.8	5424.9	5519.6	6357.9	6377.4	5313.5
25°	5548.9	5587.8	5483.4	5291.3	5157.6	5152.0	5491.8	5558.6	6410.8	6596.0	5409.6
27.5°	6149.0	6161.5	6072.4	5856.6	5663.0	5511.3	5685.3	5735.4	6469.3	6790.9	5463.9
30°	6807.6	6803.4	6701.8	6451.2	6215.8	5997.2	6011.1	6030.6	6605.7	7013.7	5523.8
32.5°	7630.6	7648.7	7467.6	7126.5	6843.8	6541.7	6437.2	6440.0	6852.2	7300.5	5614.3
35°	8748.7	8704.1	8464.6	7978.7	7496.9	7171.0	6992.8	6977.5	7232.3	7686.2	5771.6
37.5°	9813.9	9818.1	9567.4	9032.7	8424.2	7910.4	7658.4	7616.6	7767.0	8220.9	6033.4
40°	10553.3	10567.2	10462.8	10182.9	9538.2	8811.3	8440.9	8397.8	8460.4	8897.7	6376.0
42.5°	10944.5	10983.5	11012.8	11078.2	10589.5	9936.4	9366.9	9362.7	9297.3	9669.1	6772.8
45°	10959.9	11018.3	11196.6	11643.6	11699.3	11220.3	10600.6	10507.3	10255.3	10494.8	7127.9
47.5°	10354.2	10489.2	10868.0	11753.6	12338.4	12497.1	11883.1	11826.0	11118.6	11147.8	7393.8
50°	8942.2	9082.9	9780.5	11189.6	12499.9	13510.8	13290.8	13172.4	11839.9	11579.5	7521.9
52.5°	7494.1	7622.2	8095.6	9847.3	11830.1	13829.7	14477.2	14336.5	12487.4	11729.9	7469.0
55°	5214.7	5385.9	5848.2	7360.4	10287.3	13208.7	14869.8	14840.6	13065.2	11635.2	7386.9
57.5°	2556.5	2726.4	3187.3	4538.0	7620.8	11532.2	14269.7	14424.2	13410.6	11533.6	7320.0
60°	1068.0	1137.6	1296.4	1991.2	4263.6	8715.3	12914.8	13129.3	13198.9	11395.7	7313.1
62.5°	619.6	630.8	647.5	825.7	1658.4	4996.1	10713.4	11018.3	12086.3	11213.3	7203.1
65°	467.9	472.0	465.1	506.8	685.1	1895.1	7740.6	8155.5	10088.2	10500.4	6768.6
67.5°	384.3	384.3	366.2	374.6	430.3	710.1	4273.4	4852.6	7464.9	8630.3	5589.2
70°	306.3	313.3	304.9	293.8	307.7	392.7	1520.5	1885.4	4347.2	5096.3	3259.7
72.5°	232.5	232.5	246.5	238.1	228.4	246.5	530.5	596.0	1744.7	2124.9	1176.6
75°	179.6	185.2	194.9	186.6	172.7	146.2	254.8	270.1	526.3	494.3	263.2
77.5°	91.9	93.3	123.9	136.5	128.1	89.1	111.4	122.5	171.3	153.2	97.5
80°	55.7	58.5	69.6	107.2	84.9	47.3	46.0	48.7	80.8	69.6	40.4
82.5°	23.7	25.1	39.0	39.0	34.8	18.1	18.1	18.1	39.0	36.2	16.7
85°	0.0	0.0	7.0	5.6	5.6	7.0	7.0	7.0	9.7	13.9	8.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.2	4.2
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: P636484

CATALOG NUMBER: GWS-SA3F-830-U-AFL-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9	4207.9
2.5°	4207.9	4118.8	3999.1	3890.5	3744.3	3662.1	3547.9	3454.6	3375.3	3350.2	3339.1
5°	4209.3	4056.2	3800.0	3543.8	3229.1	2981.2	2726.4	2524.5	2358.8	2305.9	2292.0
7.5°	4237.2	4011.6	3596.7	3131.6	2605.2	2170.8	1782.3	1434.2	1272.7	1218.4	1207.2
10°	4274.8	3974.0	3361.3	2637.3	1881.2	1322.8	937.1	714.3	608.5	550.0	558.4
12.5°	4323.5	3943.4	3101.0	2102.6	1244.8	726.9	515.2	431.7	409.4	398.2	392.7
15°	4389.0	3907.2	2777.9	1572.1	763.1	467.9	396.8	374.6	366.2	360.6	359.2
17.5°	4455.8	3865.4	2449.3	1105.6	506.8	388.5	356.5	345.3	339.8	335.6	334.2
20°	4526.8	3794.4	2063.6	761.7	399.6	349.5	328.6	316.1	309.1	302.2	300.8
22.5°	4557.4	3680.2	1694.6	533.3	355.1	321.7	295.2	279.9	271.5	266.0	266.0
25°	4528.2	3495.0	1313.1	405.2	323.0	291.0	264.6	247.9	240.9	235.3	235.3
27.5°	4450.2	3256.9	958.0	335.6	288.2	259.0	233.9	218.6	213.0	210.3	210.3
30°	4363.9	2956.1	675.3	288.2	249.2	225.6	204.7	194.9	193.5	190.8	190.8
32.5°	4290.1	2674.9	465.1	253.4	220.0	196.3	182.4	178.2	179.6	176.8	178.2
35°	4249.7	2399.2	345.3	225.6	196.3	174.1	167.1	167.1	167.1	165.7	165.7
37.5°	4266.4	2127.6	281.3	206.1	175.4	158.7	151.8	154.6	157.3	157.3	157.3
40°	4350.0	1886.8	249.2	188.0	157.3	144.8	139.2	143.4	147.6	150.4	150.4
42.5°	4455.8	1691.8	225.6	172.7	144.8	130.9	128.1	132.3	136.5	139.2	139.2
45°	4522.6	1495.5	201.9	153.2	132.3	115.6	115.6	121.1	119.7	121.1	121.1
47.5°	4553.3	1339.5	178.2	132.3	112.8	100.3	101.6	104.4	101.6	104.4	104.4
50°	4478.1	1182.2	157.3	110.0	93.3	87.7	90.5	89.1	89.1	94.7	94.7
52.5°	4340.2	1065.2	139.2	93.3	79.4	78.0	80.8	75.2	76.6	76.6	75.2
55°	4238.6	998.4	123.9	80.8	68.2	69.6	68.2	58.5	52.9	47.3	46.0
57.5°	4188.4	971.9	112.8	72.4	61.3	61.3	55.7	40.4	30.6	23.7	20.9
60°	4177.3	939.9	101.6	62.7	54.3	51.5	40.4	23.7	15.3	11.1	9.7
62.5°	4071.5	861.9	91.9	50.1	47.3	41.8	25.1	13.9	8.4	5.6	4.2
65°	3724.8	708.8	82.2	39.0	36.2	30.6	15.3	8.4	4.2	1.4	0.0
67.5°	2963.1	502.7	72.4	29.2	25.1	19.5	9.7	5.6	1.4	0.0	0.0
70°	1708.5	271.5	59.9	20.9	16.7	12.5	7.0	2.8	0.0	0.0	0.0
72.5°	570.9	126.7	46.0	13.9	12.5	9.7	4.2	1.4	0.0	0.0	0.0
75°	125.3	75.2	30.6	9.7	8.4	7.0	2.8	0.0	0.0	0.0	0.0
77.5°	47.3	52.9	15.3	7.0	5.6	4.2	1.4	0.0	0.0	0.0	0.0
80°	18.1	34.8	7.0	4.2	4.2	1.4	0.0	0.0	0.0	0.0	0.0
82.5°	9.7	13.9	4.2	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.6	7.0	2.8	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	1.4	1.4	1.4	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

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
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /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 $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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

TM-30-18

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)