

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: P640950

Luminaire Tested: GWS-SA5E-830-U-SL3-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-34)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5E-830-U-SL3-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24153.3 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

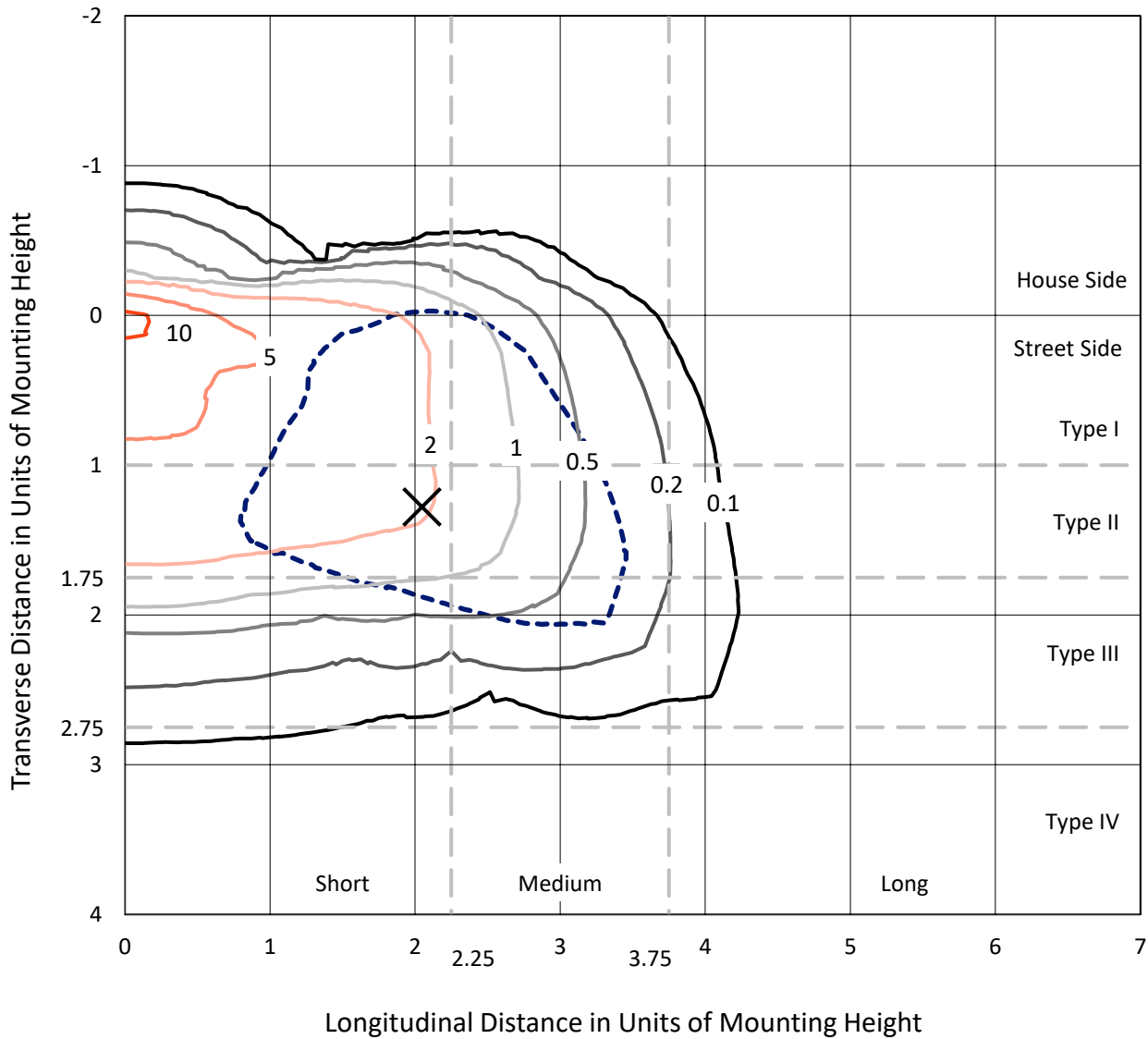
Input Watts (W): 269.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P640950
 CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

Iso-Footcandle Lines of Horizontal Illumination

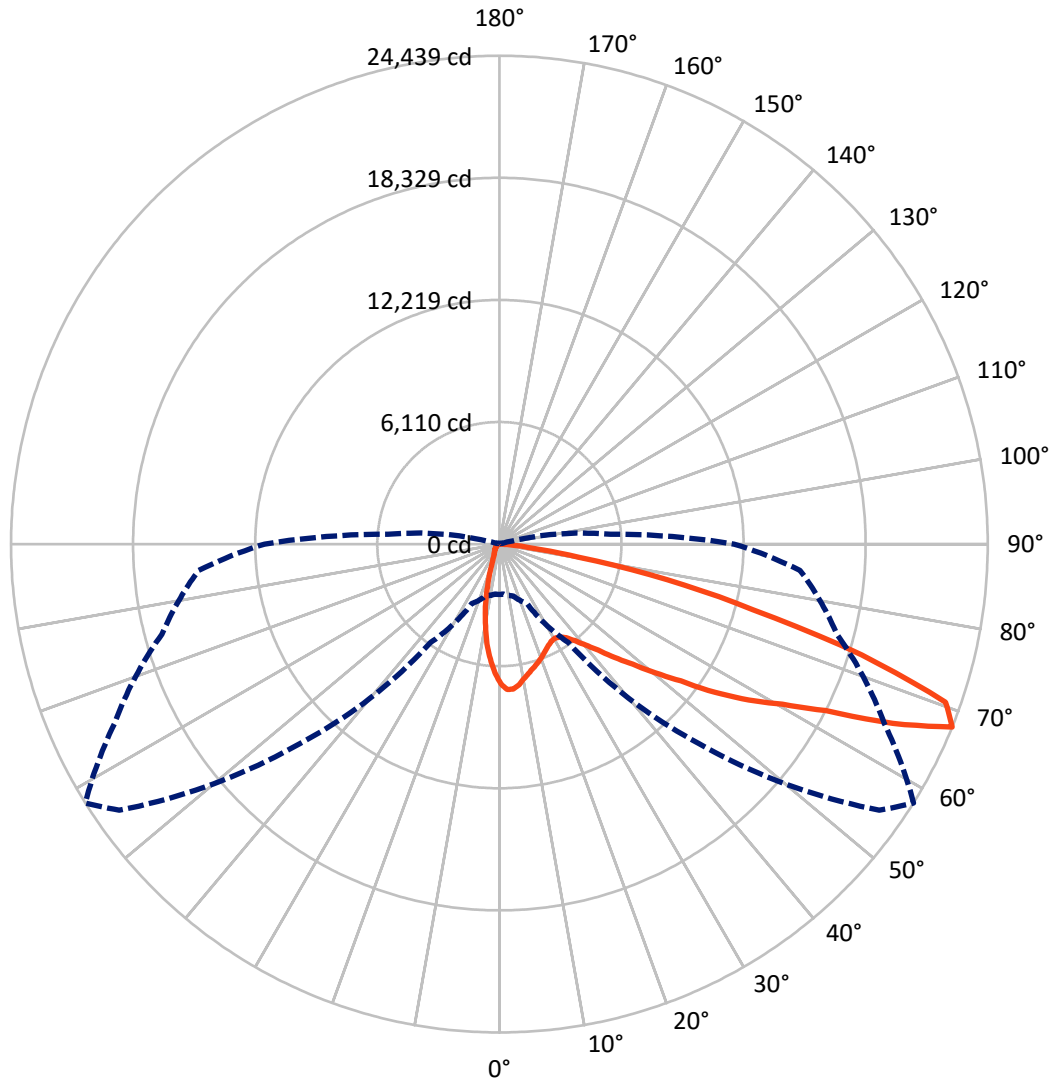
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
 Type III - Short - N/A

REPORT NUMBER: P640950
CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P640950
 CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

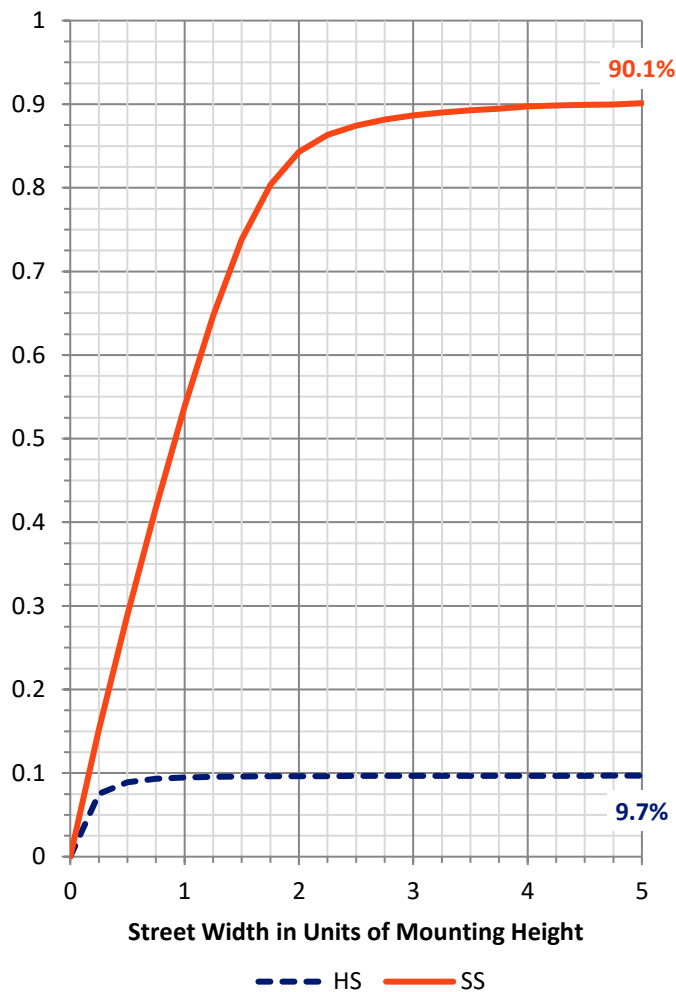
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2359.6	0.0	2359.6
	% Fixture	9.8	0.0	9.8
Street Side	Lumens	21793.7	0.0	21793.7
	% Fixture	90.2	0.0	90.2
Total	Lumens	24153.3	0.0	24153.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	566.1	2.3
10°-20°	1178.5	4.9
20°-30°	1589.3	6.6
30°-40°	2233.2	9.2
40°-50°	3449.0	14.3
50°-60°	5515.5	22.8
60°-70°	6530.7	27.0
70°-80°	2889.0	12.0
80°-90°	202.0	0.8
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°	24153.3	100.0
0°-180°	24153.3	100.0

Coefficient of Utilization



REPORT NUMBER: P640950

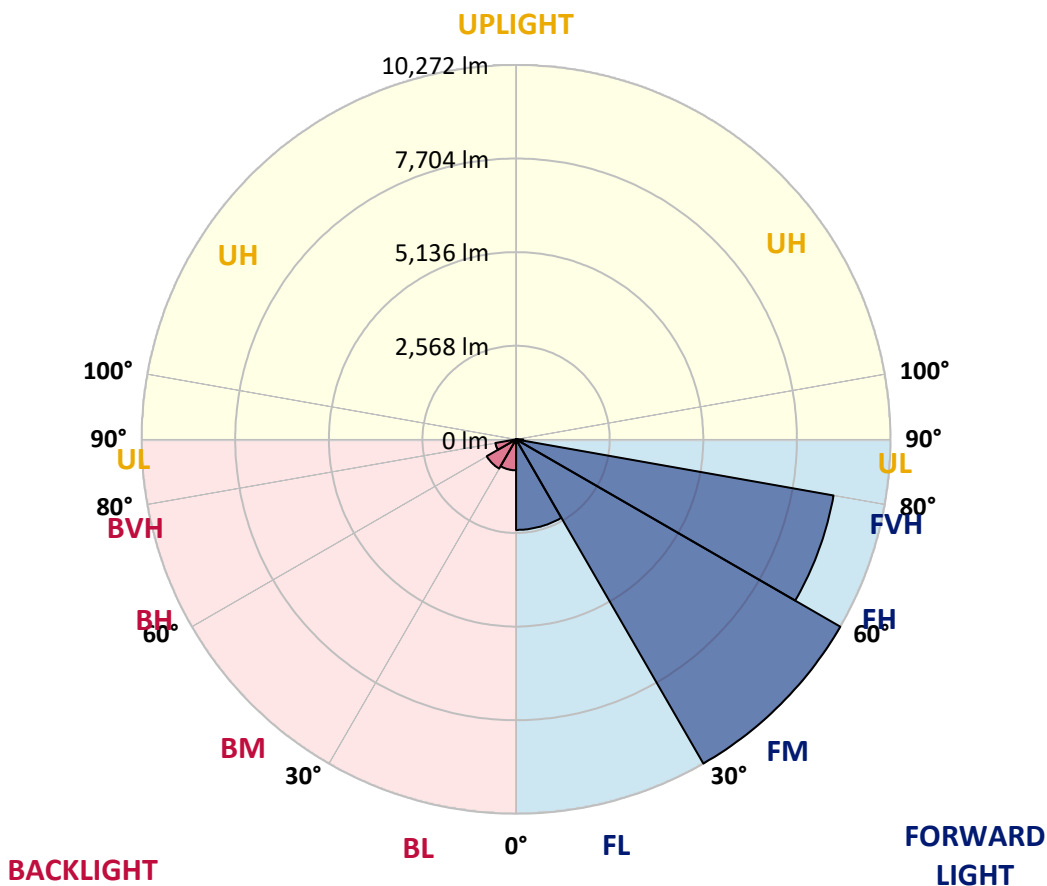
CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2484.8	10.3			
FM (30°-60°)	10271.9	42.5			
FH (60°-80°)	8843.7	36.6			G4/12000
FVH (80°-90°)	193.4	0.8			G2/225
BL (0°-30°)	849.1	3.5	B2/1000		
BM (30°-60°)	925.8	3.8	B1/1000		
BH (60°-80°)	576.1	2.4	B2/1000		G2/1000
BVH (80°-90°)	8.6	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-G4

Type III Short





REPORT NUMBER: P640950

CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9
2.5°	7328.2	7341.1	7358.2	7379.5	7375.3	7356.0	7332.5	7279.1	7244.9	7138.0	7007.6
5°	7093.1	7090.9	7133.7	7174.3	7247.0	7285.5	7338.9	7289.7	7272.6	7144.4	6932.7
7.5°	6633.5	6657.0	6706.1	6770.3	6875.0	6988.3	7116.6	7101.6	7152.9	7067.4	6804.5
10°	6182.4	6169.6	6246.5	6342.7	6503.1	6648.4	6834.4	6832.3	6966.9	6958.4	6659.1
12.5°	5786.9	5784.8	5844.6	5953.6	6141.8	6344.9	6597.1	6603.5	6770.3	6838.7	6535.1
15°	5453.4	5457.7	5515.4	5628.7	5823.2	6071.2	6364.1	6417.5	6605.7	6744.6	6413.3
17.5°	5216.1	5218.3	5252.5	5350.8	5541.1	5806.1	6158.9	6231.6	6473.1	6674.1	6314.9
20°	5107.1	5098.5	5105.0	5154.1	5301.6	5543.2	5949.4	6043.4	6351.3	6624.9	6225.1
22.5°	5122.1	5109.2	5079.3	5072.9	5139.2	5323.0	5727.0	5842.5	6218.7	6595.0	6143.9
25°	5254.6	5226.8	5184.1	5119.9	5094.3	5186.2	5532.5	5652.2	6094.7	6597.1	6081.9
27.5°	5457.7	5427.8	5374.3	5288.8	5188.3	5149.9	5400.0	5513.3	6007.1	6646.3	6052.0
30°	5716.4	5692.8	5641.5	5538.9	5404.2	5246.1	5372.2	5466.2	5964.3	6746.8	6064.8
32.5°	6022.1	6005.0	5962.2	5868.1	5714.2	5472.7	5466.2	5538.9	5998.5	6892.1	6114.0
35°	6317.1	6323.5	6325.6	6274.3	6109.7	5816.8	5724.9	5750.6	6139.6	7110.2	6225.1
37.5°	6635.6	6620.6	6697.6	6733.9	6575.7	6263.6	6124.7	6126.8	6409.0	7433.0	6434.6
40°	6877.2	6881.4	7048.2	7197.8	7131.6	6830.1	6631.3	6629.2	6823.7	7875.5	6772.4
42.5°	7103.8	7131.6	7377.4	7633.9	7725.8	7458.6	7315.4	7262.0	7405.2	8474.1	7279.1
45°	7345.3	7385.9	7730.1	8095.7	8337.2	8179.1	8065.8	8087.1	8104.2	9171.0	7961.0
47.5°	7627.5	7653.2	8078.6	8593.8	9044.8	9004.2	9010.6	8985.0	8976.4	10049.6	8863.1
50°	7969.6	8029.4	8519.0	9134.6	9750.3	10019.7	10109.4	10120.1	9981.2	11007.3	9797.3
52.5°	8696.4	8769.1	9188.1	9726.8	10519.9	11086.4	11452.0	11379.3	11165.5	11935.1	10821.3
55°	9553.6	9609.2	10013.2	10571.2	11460.5	12255.8	13123.7	13093.8	12570.0	12912.0	11663.6
57.5°	9634.9	9696.9	10323.2	11178.3	12668.3	13700.9	14613.7	14709.9	13942.4	13604.7	12416.1
60°	8722.0	8848.2	9703.3	10853.4	13130.1	15644.1	16246.9	16266.2	14949.3	14308.0	13335.3
62.5°	6990.5	7050.3	7911.8	9412.5	12418.2	16777.1	18741.7	18335.5	16242.7	15396.1	14791.1
65°	3664.1	3907.8	4658.2	6319.2	10071.0	16381.6	21743.1	21631.9	18568.5	16954.5	15924.1
67.5°	2514.0	2511.9	2689.3	3294.3	6005.0	14104.9	23216.0	24438.8	21257.8	17489.0	15103.2
70°	1913.3	1919.7	2077.9	2471.2	3110.4	9389.0	21599.9	23690.6	21758.1	15879.2	12215.1
72.5°	1269.8	1282.7	1545.6	1996.7	2484.1	4602.6	16785.7	18955.5	18307.7	12753.8	8598.1
75°	758.9	769.6	957.7	1451.5	2208.3	2576.0	10665.3	13104.4	12602.1	8790.5	4609.0
77.5°	312.1	320.7	491.7	904.3	1616.1	2000.9	5898.1	8574.5	7548.4	3495.2	1259.1
80°	130.4	134.7	237.3	632.8	1165.1	1254.9	2732.1	4029.7	3093.3	752.5	384.8
82.5°	47.0	49.2	87.6	348.5	724.7	944.9	1378.9	1592.6	872.2	245.8	207.4
85°	2.1	2.1	21.4	117.6	275.8	267.2	788.8	763.2	288.6	102.6	124.0
87.5°	0.0	0.0	2.1	2.1	4.3	10.7	74.8	132.5	62.0	25.7	53.4
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: P640950
 CATALOG NUMBER: GWS-SA5E-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9	6966.9
2.5°	6922.1	6808.8	6684.8	6569.3	6385.5	6276.5	6141.8	6081.9	5996.4	5975.0	5987.9
5°	6781.0	6586.4	6289.3	6019.9	5671.5	5391.4	5109.2	4989.5	4835.6	4733.0	4690.2
7.5°	6582.1	6327.8	5863.9	5374.3	4895.5	4384.5	3995.5	3738.9	3505.9	3377.7	3352.0
10°	6381.2	6049.8	5385.0	4683.8	3942.0	3330.6	2804.7	2415.7	2099.3	1956.0	1844.9
12.5°	6173.8	5761.3	4897.6	3982.6	3121.1	2287.4	1637.5	1259.1	1032.5	942.8	957.7
15°	5983.6	5483.3	4414.5	3281.5	2197.6	1381.0	904.3	763.2	709.7	692.6	690.5
17.5°	5801.9	5220.4	3933.5	2599.5	1449.4	846.6	692.6	658.4	643.5	634.9	634.9
20°	5637.3	4968.1	3463.2	1958.2	936.3	671.3	626.4	609.3	596.4	590.0	590.0
22.5°	5483.3	4724.4	3003.5	1385.3	690.5	602.8	575.1	558.0	543.0	534.4	534.4
25°	5344.4	4504.3	2565.3	953.4	594.3	551.5	521.6	502.4	476.7	461.8	461.8
27.5°	5243.9	4307.6	2144.2	694.8	536.6	496.0	461.8	436.1	408.3	391.2	386.9
30°	5184.1	4140.8	1718.8	570.8	483.1	442.5	404.0	372.0	339.9	322.8	320.7
32.5°	5149.9	3986.9	1329.7	498.1	438.2	391.2	348.5	314.3	282.2	262.9	260.8
35°	5162.7	3867.2	996.2	448.9	395.5	346.3	299.3	265.1	237.3	220.2	215.9
37.5°	5273.8	3813.8	748.2	410.4	359.1	307.8	258.7	226.6	200.9	188.1	186.0
40°	5489.8	3824.4	587.9	380.5	329.2	269.4	222.3	192.4	173.2	162.5	160.3
42.5°	5825.4	3914.2	485.3	354.9	297.1	235.2	192.4	168.9	149.6	139.0	136.8
45°	6325.6	4100.2	423.3	324.9	262.9	203.1	166.7	145.4	128.3	115.4	113.3
47.5°	7050.3	4423.0	382.7	297.1	233.0	175.3	143.2	121.9	106.9	96.2	94.1
50°	7822.0	4809.9	348.5	269.4	207.4	151.8	121.9	100.5	87.6	77.0	74.8
52.5°	8645.1	5226.8	322.8	243.7	183.8	130.4	102.6	83.4	70.5	59.9	57.7
55°	9436.1	5645.8	292.9	226.6	156.1	111.2	85.5	68.4	55.6	47.0	47.0
57.5°	10205.6	6030.6	260.8	198.8	128.3	94.1	70.5	55.6	44.9	38.5	36.3
60°	11124.9	6562.9	224.5	168.9	106.9	79.1	57.7	44.9	36.3	29.9	29.9
62.5°	12490.9	7116.6	192.4	141.1	89.8	66.3	47.0	36.3	29.9	25.7	23.5
65°	12937.7	6817.3	162.5	115.4	72.7	53.4	38.5	32.1	25.7	23.5	21.4
67.5°	11744.8	5588.1	134.7	94.1	59.9	44.9	34.2	27.8	23.5	21.4	19.2
70°	9164.6	3965.5	104.8	70.5	49.2	36.3	29.9	25.7	21.4	19.2	19.2
72.5°	6233.7	2345.1	83.4	53.4	40.6	32.1	25.7	23.5	21.4	19.2	17.1
75°	3069.8	833.7	64.1	40.6	32.1	27.8	23.5	21.4	19.2	17.1	17.1
77.5°	827.3	230.9	49.2	32.1	25.7	21.4	21.4	21.4	19.2	15.0	15.0
80°	280.0	96.2	36.3	23.5	21.4	17.1	15.0	19.2	17.1	15.0	12.8
82.5°	153.9	47.0	25.7	19.2	15.0	12.8	12.8	12.8	12.8	10.7	10.7
85°	98.3	25.7	17.1	15.0	15.0	10.7	8.6	8.6	6.4	6.4	6.4
87.5°	44.9	15.0	15.0	12.8	12.8	10.7	6.4	4.3	2.1	2.1	2.1
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

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 [^] /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

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

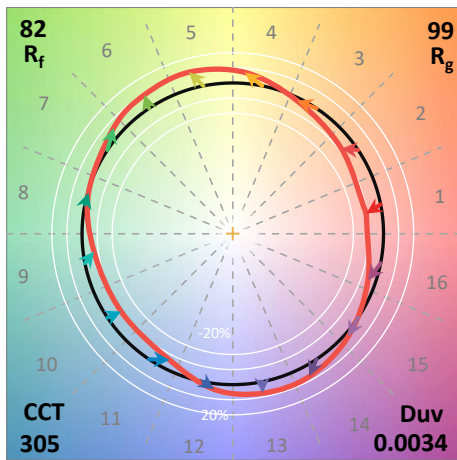
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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