

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P438278

Luminaire Tested: **ISW-SA1B-830-U-SL4-HSS**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438278  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISW-SA1B-830-U-SL4-HSS  
Description: IMPACT ELITE LED WEDGE LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

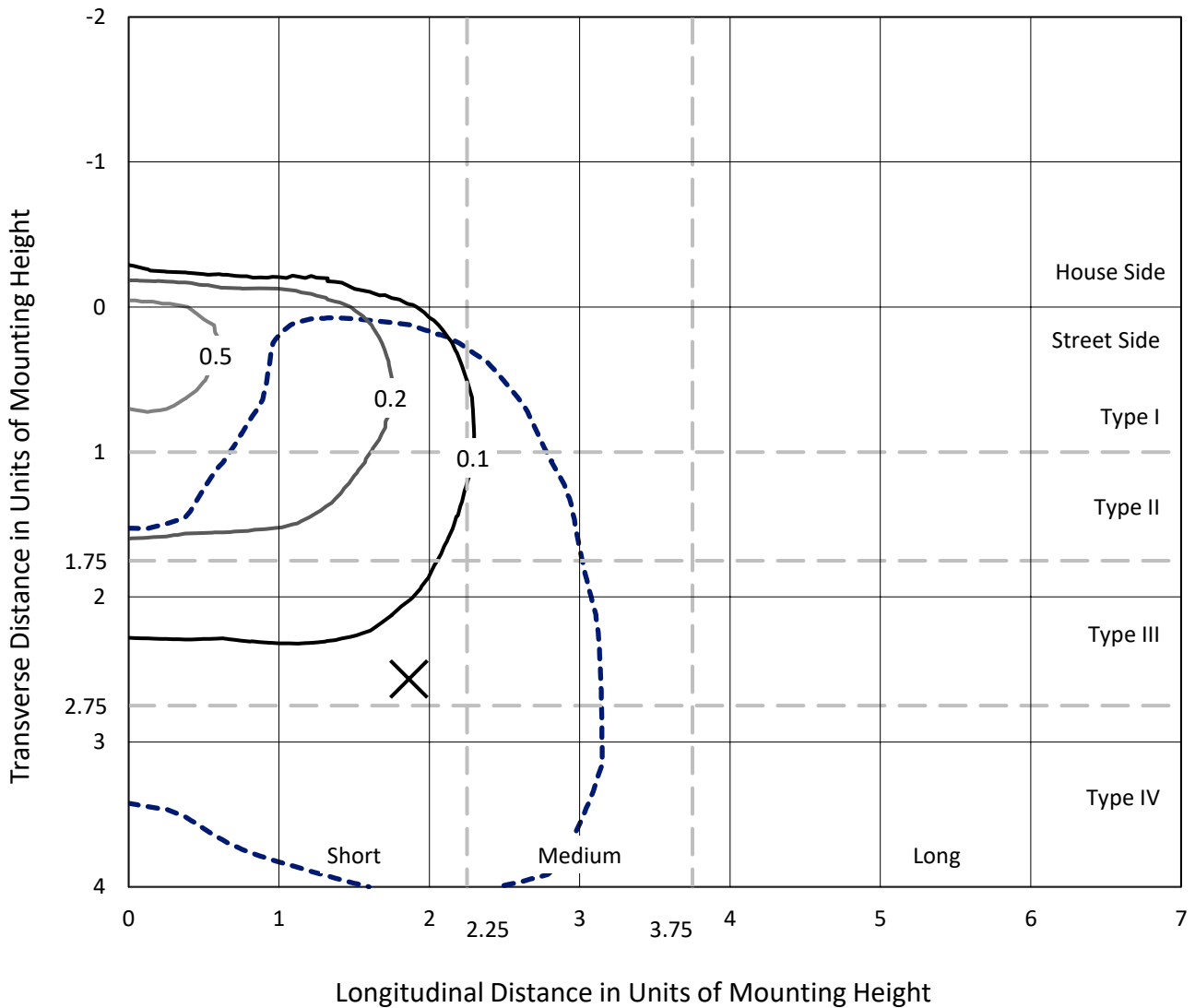
Lumens per Lamp: N/A  
Luminaire Lumens: 2229 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P438278  
 CATALOG NUMBER: ISW-SA1B-830-U-SL4-HSS

### Iso-Footcandle Lines of Horizontal Illumination

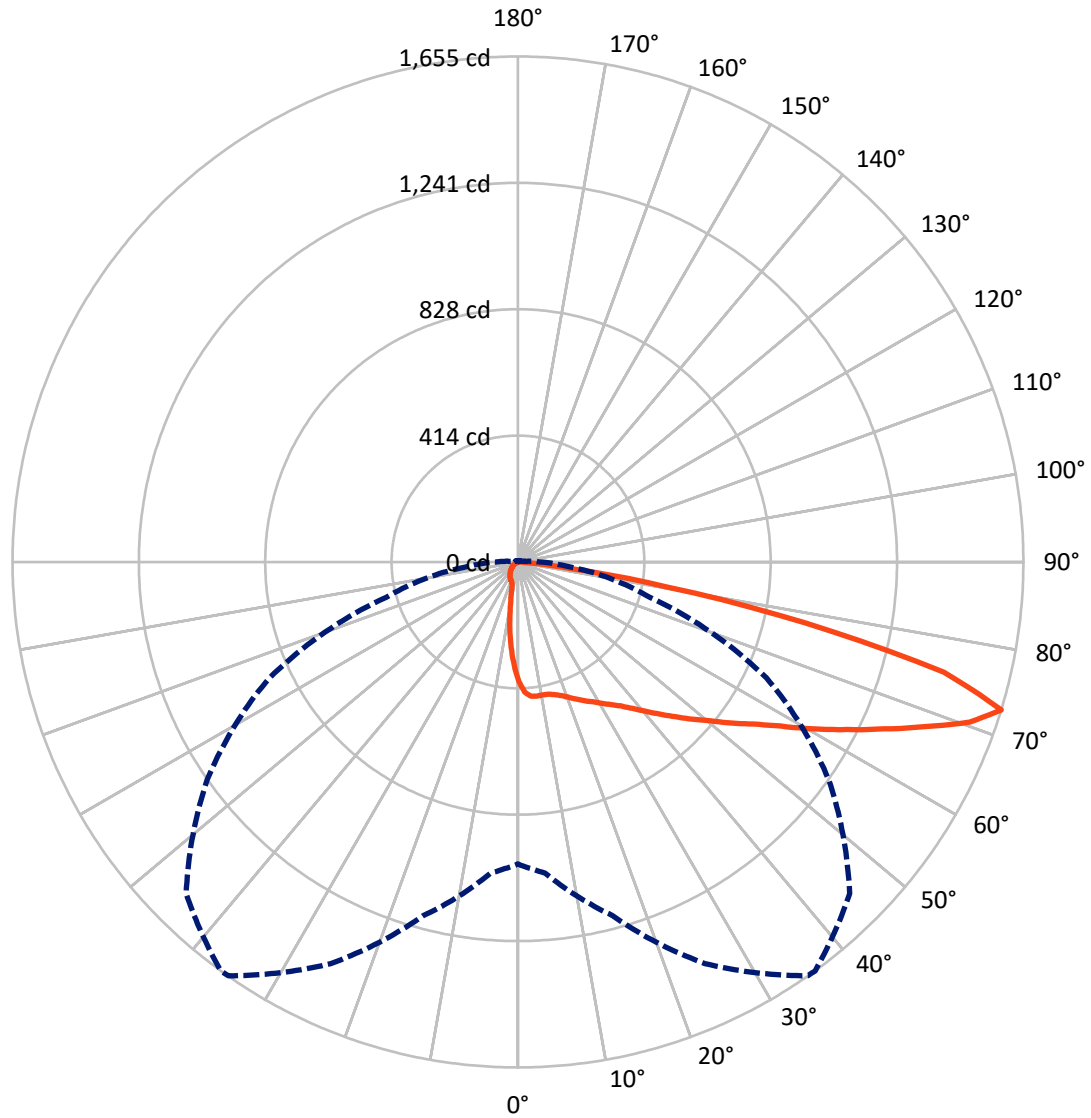
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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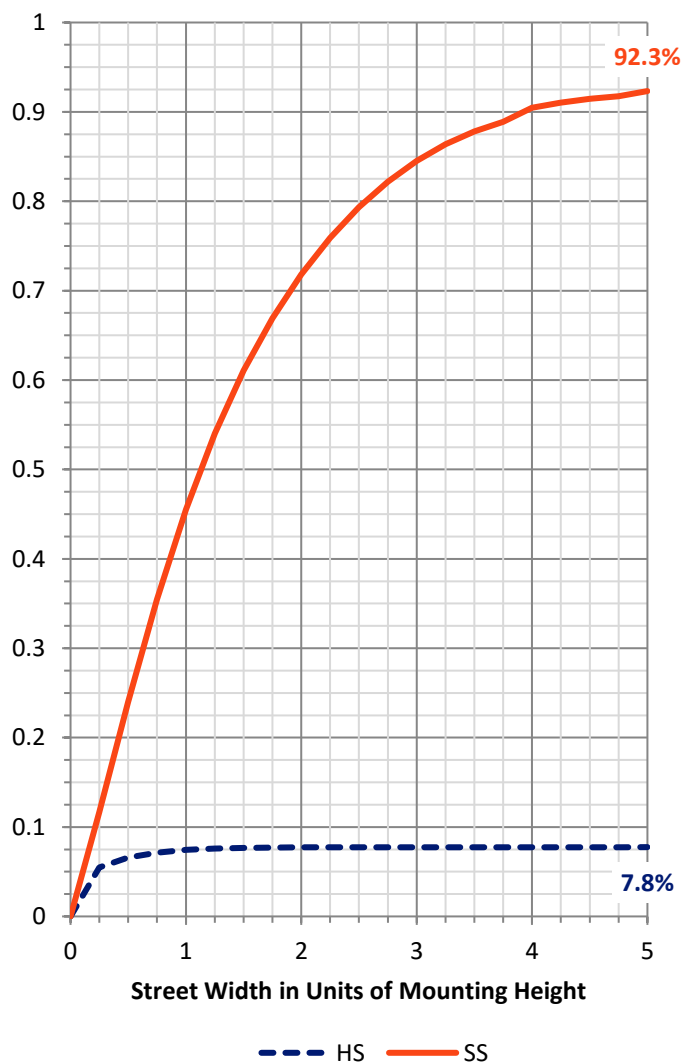
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	173.9	0.0	173.9
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	2055.1	0.0	2055.1
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	2229.0	0.0	2229.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.4	1.5
10°-20°	83.9	3.8
20°-30°	137.1	6.1
30°-40°	208.4	9.3
40°-50°	318.7	14.3
50°-60°	453.1	20.3
60°-70°	574.6	25.8
70°-80°	393.4	17.7
80°-90°	26.4	1.2
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°	2229.0	100.0
0°-180°	2229.0	100.0

**Coefficient of Utilization**



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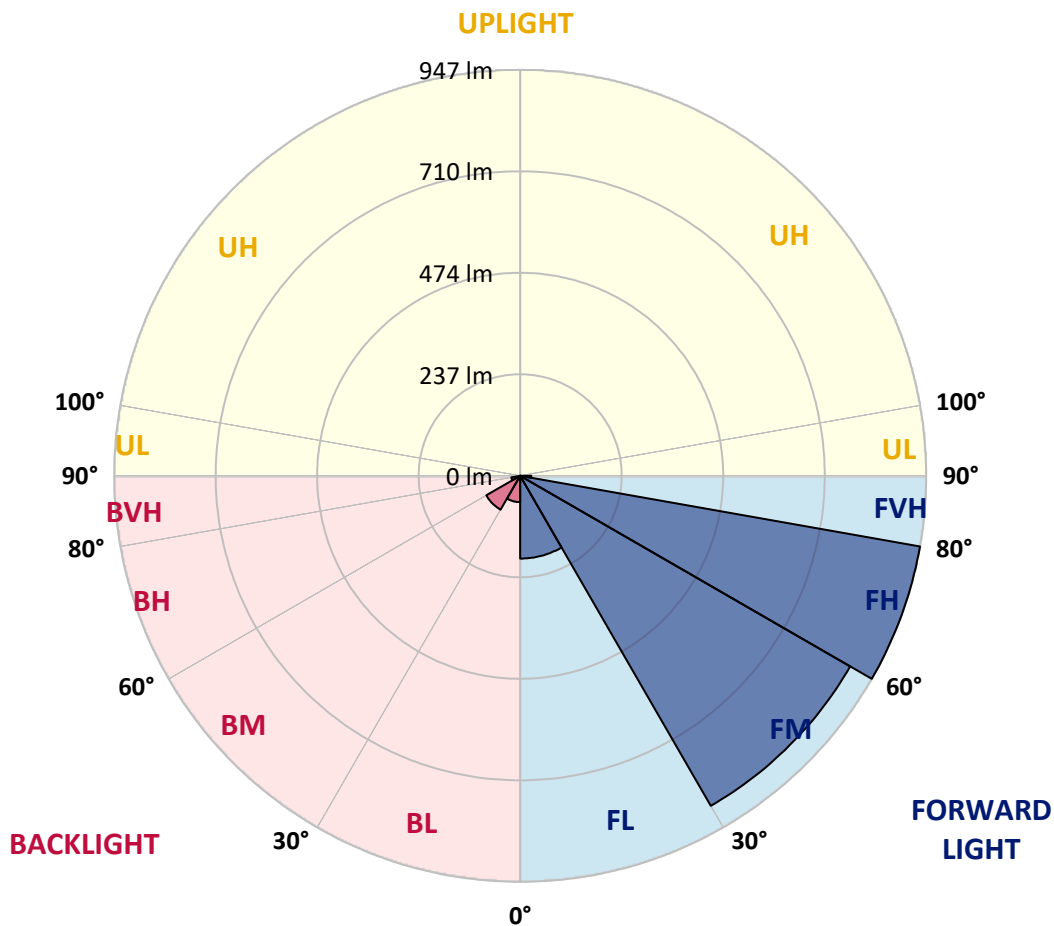
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	193.1	8.7			
FM (30°-60°)	889.0	39.9			
FH (60°-80°)	947.1	42.5			G1/1800
FVH (80°-90°)	26.0	1.2			G1/100
BL (0°-30°)	61.4	2.8	B0/110		
BM (30°-60°)	91.2	4.1	B0/220		
BH (60°-80°)	21.0	0.9	B0/110		G0/110
BVH (80°-90°)	0.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4
2.5°	438.5	435.6	433.6	431.7	425.8	426.8	420.9	415.0	406.2	402.2	396.4
5°	449.3	448.3	447.4	444.4	439.5	441.5	435.6	429.7	417.0	405.2	392.4
7.5°	447.4	449.3	448.3	446.4	442.5	443.4	438.5	432.7	421.9	406.2	388.5
10°	443.4	444.4	444.4	443.4	442.5	442.5	438.5	433.6	423.8	410.1	387.5
12.5°	435.6	437.6	440.5	442.5	443.4	444.4	441.5	437.6	428.7	414.0	390.5
15°	432.7	434.6	440.5	446.4	449.3	450.3	447.4	442.5	434.6	421.9	395.4
17.5°	432.7	434.6	444.4	453.3	459.1	460.1	456.2	451.3	441.5	428.7	401.3
20°	438.5	440.5	452.3	468.0	470.9	472.9	467.0	460.1	449.3	436.6	408.1
22.5°	448.3	451.3	466.0	480.7	486.6	487.6	480.7	468.0	458.2	445.4	414.0
25°	465.0	471.9	485.6	501.3	502.3	503.3	492.5	479.7	468.0	455.2	420.9
27.5°	488.6	494.5	506.2	523.9	518.0	518.0	509.2	492.5	480.7	468.9	432.7
30°	519.0	522.9	536.6	543.5	535.7	536.6	525.9	510.2	500.3	488.6	450.3
32.5°	547.4	550.4	565.1	566.1	557.2	556.3	548.4	529.8	521.9	518.0	474.8
35°	573.9	577.8	589.6	588.6	579.8	578.8	574.9	558.2	558.2	562.2	511.1
37.5°	593.5	603.4	618.1	614.1	608.3	608.3	605.3	592.6	602.4	617.1	559.2
40°	619.1	624.9	644.6	641.6	642.6	642.6	643.6	635.7	653.4	677.9	615.1
42.5°	632.8	644.6	668.1	672.0	680.9	680.9	688.7	686.7	720.1	751.5	679.9
45°	654.4	667.1	692.6	707.3	718.1	723.0	736.8	747.6	794.7	833.9	748.6
47.5°	681.8	692.6	714.2	741.7	761.3	769.2	796.6	814.3	877.1	917.3	813.3
50°	719.1	721.1	736.8	778.0	812.3	817.2	860.4	889.8	960.5	997.7	859.4
52.5°	759.3	755.4	764.3	820.2	868.2	877.1	926.1	971.3	1041.9	1049.7	878.1
55°	790.7	790.7	797.6	866.3	931.0	935.9	1004.6	1052.7	1116.5	1080.2	889.8
57.5°	831.0	827.0	837.8	913.4	1009.5	1013.4	1092.9	1130.2	1157.7	1099.8	887.9
60°	860.4	865.3	882.0	974.2	1090.9	1108.6	1175.3	1187.1	1200.8	1106.6	882.0
62.5°	901.6	900.6	933.0	1041.9	1196.9	1208.7	1254.8	1235.2	1234.2	1118.4	874.1
65°	935.9	943.8	992.8	1123.3	1309.7	1317.6	1333.3	1307.8	1280.3	1131.2	805.5
67.5°	988.9	1004.6	1066.4	1230.3	1430.4	1439.2	1453.0	1397.0	1293.0	1040.9	671.0
70°	1048.8	1069.4	1169.4	1372.5	1559.9	1569.7	1572.6	1405.9	1171.4	817.2	455.2
72.5°	988.9	1022.3	1198.9	1451.0	1654.1	1655.1	1536.4	1242.0	897.7	446.4	160.9
75°	636.7	678.9	992.8	1287.2	1424.5	1440.2	1204.7	868.2	418.9	100.1	45.1
77.5°	215.8	230.6	487.6	812.3	955.6	961.4	792.7	439.5	132.4	40.2	24.5
80°	124.6	123.6	170.7	355.1	476.8	495.4	399.3	175.6	61.8	20.6	16.7
82.5°	29.4	30.4	89.3	129.5	189.3	170.7	84.4	106.0	28.5	11.8	14.7
85°	0.0	0.0	14.7	31.4	22.6	26.5	7.8	32.4	4.9	4.9	9.8
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	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: ISW-SA1B-830-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4
2.5°	390.5	385.6	375.7	367.9	357.1	348.3	339.4	335.5	328.7	326.7	327.7
5°	384.6	376.7	358.1	339.4	318.8	299.2	278.6	266.9	261.9	253.1	251.2
7.5°	377.7	365.9	339.4	309.0	273.7	245.3	216.8	197.2	179.5	172.7	169.7
10°	374.8	360.1	322.8	276.7	228.6	182.5	147.2	121.7	106.0	100.1	98.1
12.5°	374.8	357.1	307.1	245.3	181.5	128.5	96.1	81.4	76.5	75.5	74.6
15°	378.7	356.1	292.4	211.9	137.3	89.3	73.6	71.6	70.6	70.6	71.6
17.5°	380.7	354.2	276.7	179.5	101.0	71.6	68.7	68.7	68.7	68.7	68.7
20°	385.6	353.2	259.0	145.2	76.5	66.7	65.7	65.7	65.7	65.7	66.7
22.5°	386.5	353.2	237.4	111.8	67.7	63.8	62.8	62.8	62.8	63.8	63.8
25°	392.4	351.2	216.8	85.4	63.8	59.8	59.8	58.9	59.8	59.8	59.8
27.5°	400.3	352.2	191.3	70.6	59.8	56.9	55.9	55.9	55.9	55.9	55.9
30°	409.1	354.2	164.8	62.8	55.9	54.0	53.0	52.0	52.0	52.0	52.0
32.5°	425.8	356.1	136.4	56.9	52.0	50.0	49.1	48.1	48.1	48.1	48.1
35°	451.3	366.9	111.8	53.0	48.1	46.1	45.1	44.1	44.1	44.1	43.2
37.5°	485.6	383.6	88.3	49.1	44.1	42.2	41.2	40.2	39.2	39.2	39.2
40°	526.8	401.3	73.6	44.1	40.2	38.3	37.3	36.3	35.3	34.3	34.3
42.5°	575.9	422.8	58.9	40.2	36.3	34.3	33.4	32.4	30.4	29.4	30.4
45°	630.8	443.4	50.0	37.3	33.4	31.4	30.4	28.5	26.5	25.5	25.5
47.5°	678.9	448.3	44.1	33.4	30.4	28.5	27.5	24.5	22.6	20.6	20.6
50°	711.3	439.5	39.2	30.4	27.5	26.5	24.5	20.6	17.7	16.7	15.7
52.5°	715.2	416.0	34.3	27.5	25.5	23.5	20.6	17.7	14.7	12.8	12.8
55°	711.3	376.7	30.4	25.5	22.6	20.6	17.7	13.7	10.8	9.8	8.8
57.5°	698.5	335.5	27.5	22.6	20.6	17.7	13.7	10.8	7.8	6.9	5.9
60°	675.0	285.5	24.5	20.6	17.7	14.7	10.8	7.8	4.9	3.9	3.9
62.5°	630.8	230.6	21.6	17.7	14.7	11.8	8.8	4.9	2.9	2.0	2.0
65°	543.5	172.7	18.6	14.7	11.8	9.8	5.9	2.9	1.0	0.0	0.0
67.5°	422.8	116.7	14.7	11.8	9.8	7.8	4.9	1.0	0.0	0.0	0.0
70°	249.2	61.8	11.8	8.8	7.8	5.9	2.9	1.0	0.0	0.0	0.0
72.5°	71.6	24.5	8.8	6.9	5.9	3.9	2.0	1.0	0.0	0.0	0.0
75°	29.4	14.7	5.9	4.9	4.9	2.9	1.0	1.0	0.0	0.0	0.0
77.5°	19.6	10.8	3.9	2.9	2.9	2.0	1.0	0.0	0.0	0.0	0.0
80°	15.7	5.9	2.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0
82.5°	13.7	3.9	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
85°	6.9	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	1.0	0.0	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	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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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)