

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: P438286

Luminaire Tested: **ISW-SA1B-830-U-T3-HSS**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438286  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-9)  
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-T3-HSS  
Description: IMPACT ELITE LED WEDGE LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

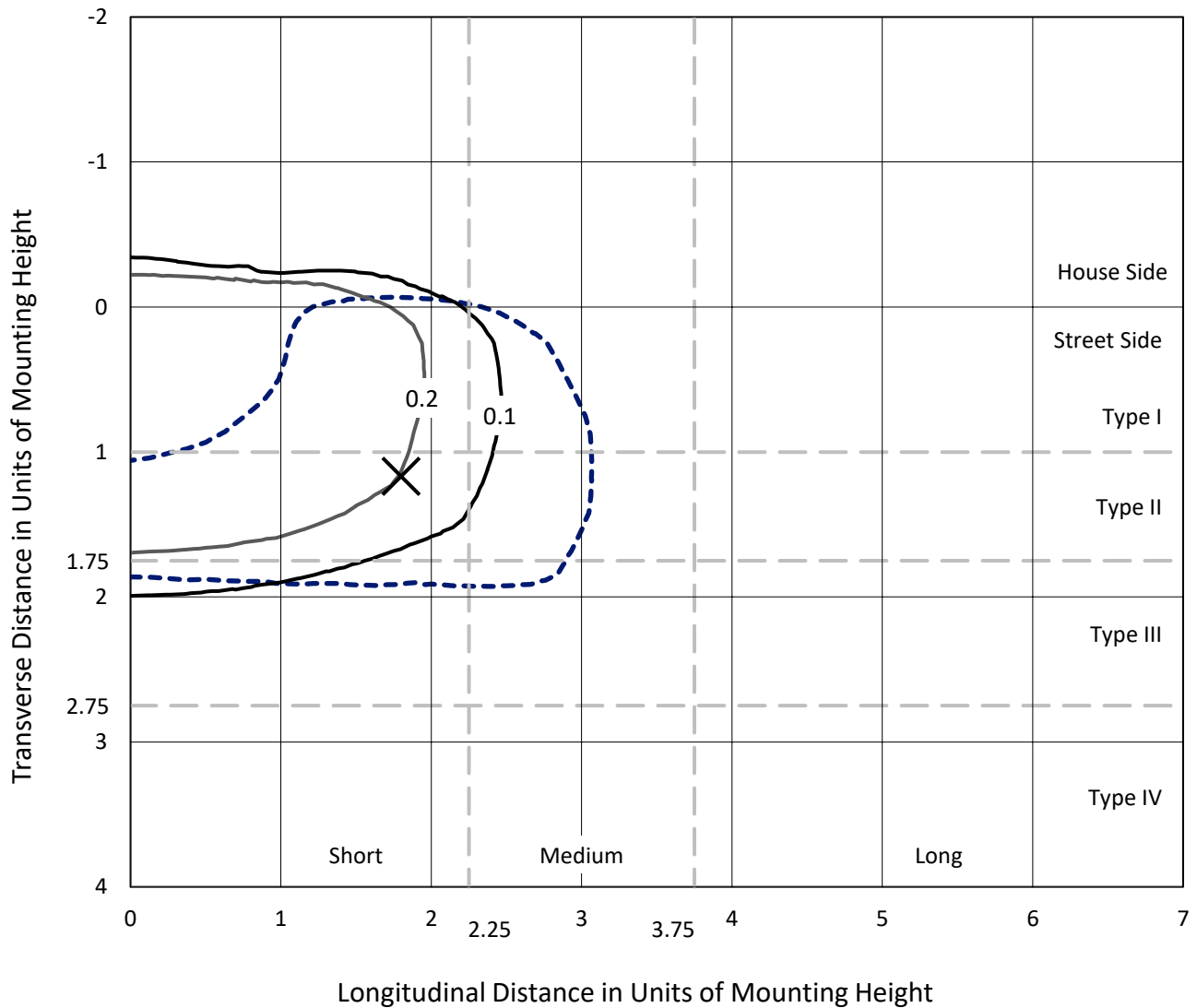
Lumens per Lamp: N/A  
Luminaire Lumens: 1943 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



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### Iso-Footcandle Lines of Horizontal Illumination

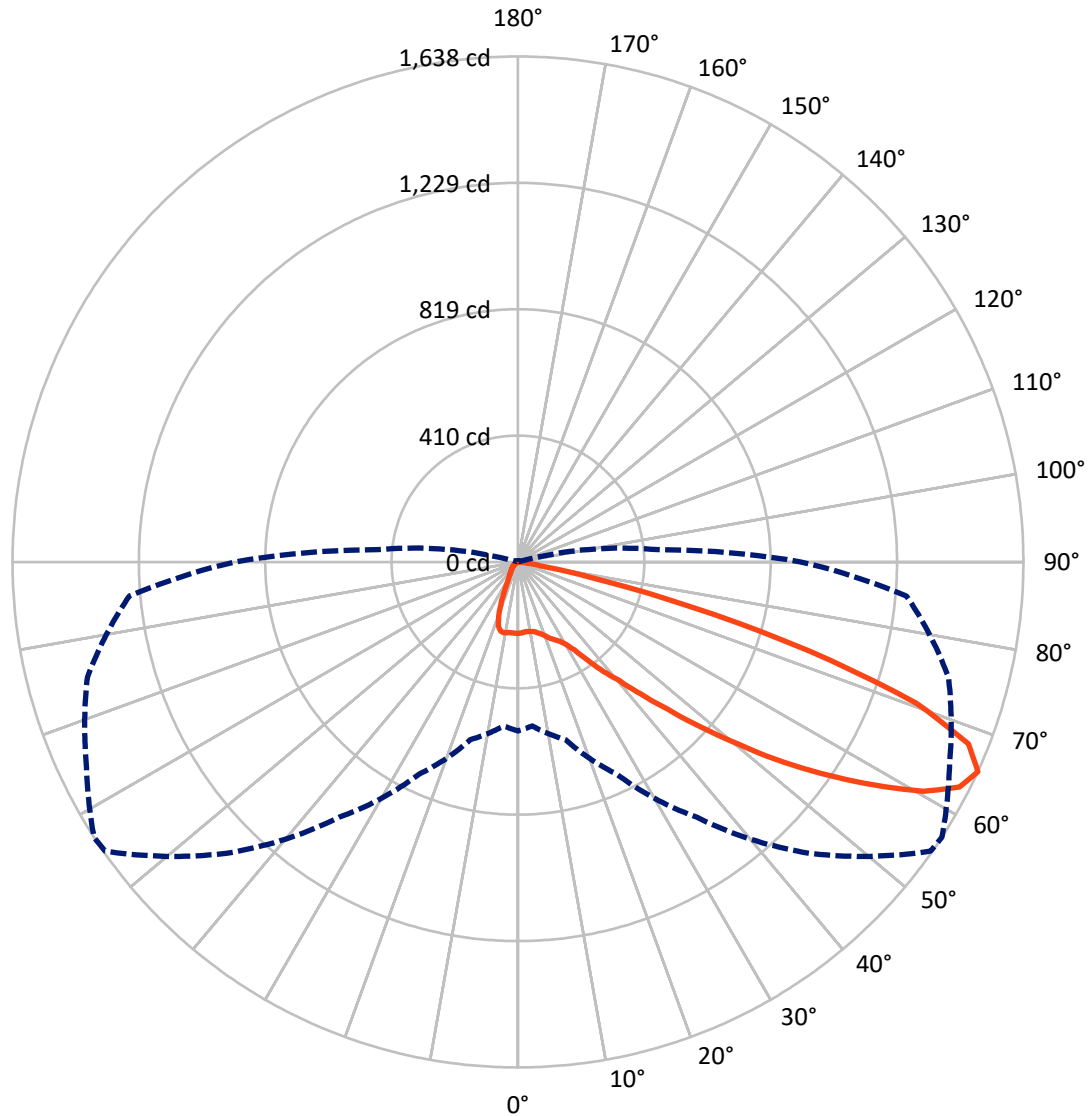
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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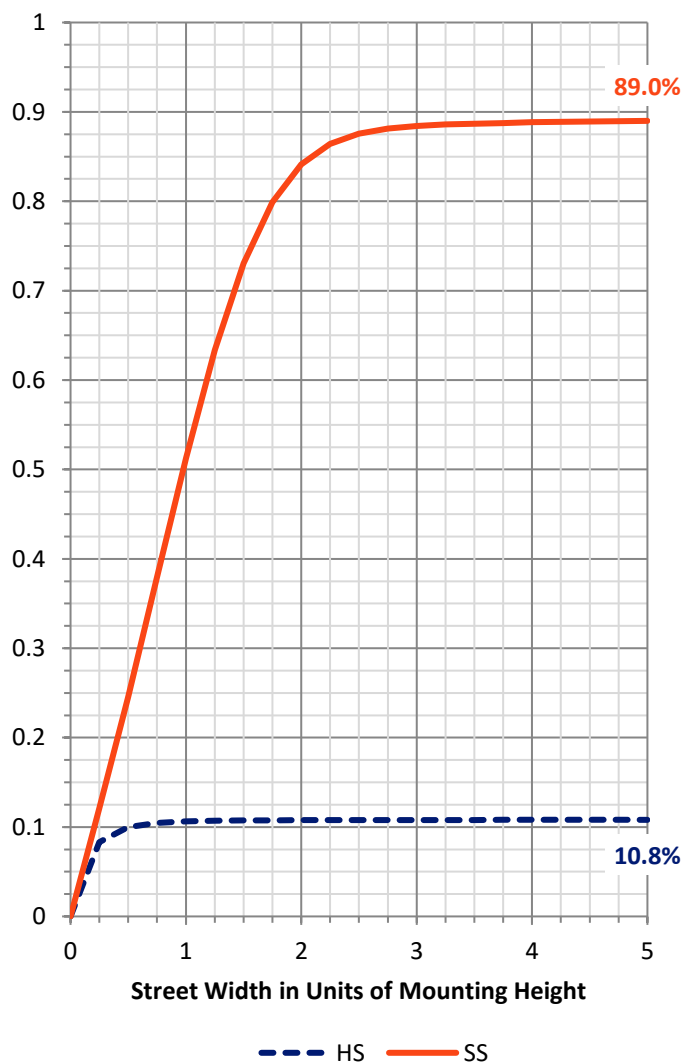
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	211.9	0.0	211.9
	% Fixture	10.9	0.0	10.9
<b>Street Side</b>	Lumens	1731.1	0.0	1731.1
	% Fixture	89.1	0.0	89.1
<b>Total</b>	Lumens	1943.0	0.0	1943.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.5	1.1
10°-20°	58.1	3.0
20°-30°	100.4	5.2
30°-40°	177.9	9.2
40°-50°	322.6	16.6
50°-60°	543.4	28.0
60°-70°	558.7	28.8
70°-80°	154.8	8.0
80°-90°	5.5	0.3
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°	1943.0	100.0
0°-180°	1943.0	100.0

**Coefficient of Utilization**



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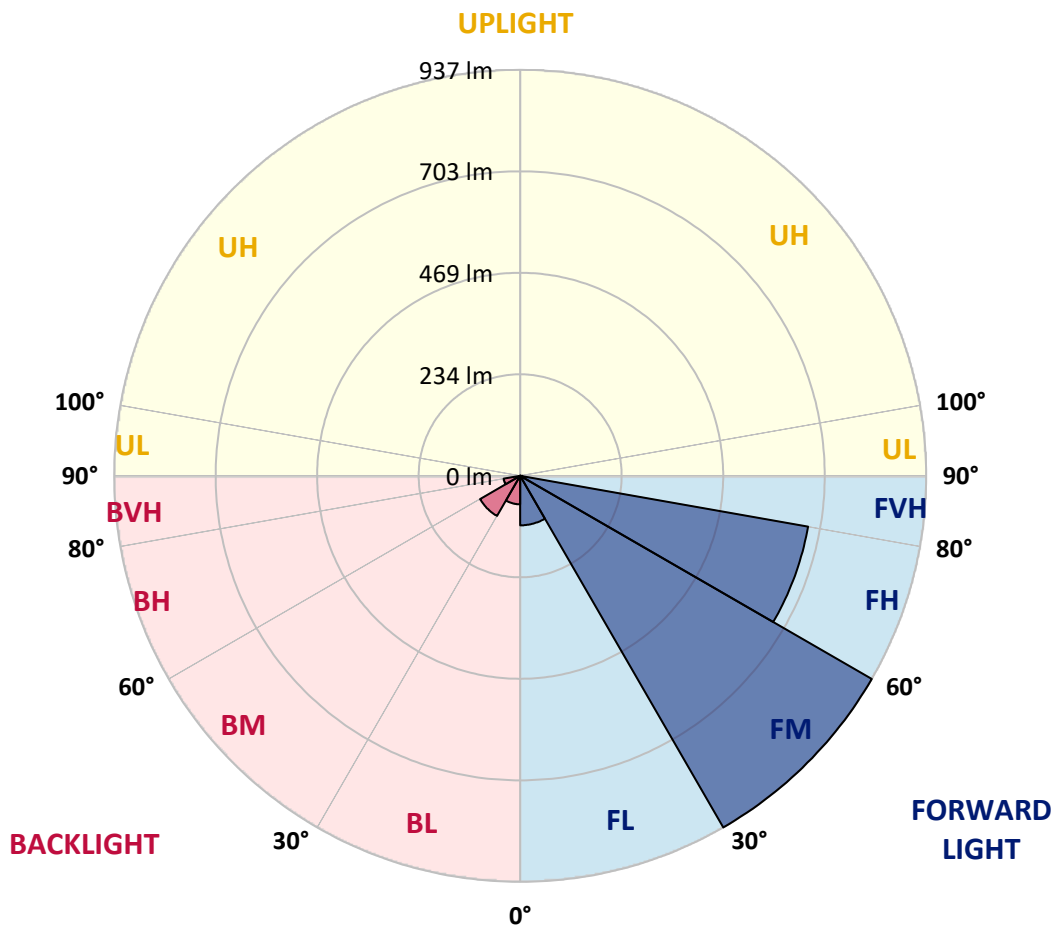
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	114.3	5.9			
FM (30°-60°)	937.0	48.2			
FH (60°-80°)	674.7	34.7			G1/1800
FVH (80°-90°)	5.1	0.3			G0/10
BL (0°-30°)	65.8	3.4	B0/110		
BM (30°-60°)	106.8	5.5	B0/220		
BH (60°-80°)	38.9	2.0	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2
2.5°	224.6	224.6	226.5	227.4	227.4	228.3	229.3	230.2	230.2	230.2	232.1
5°	213.2	212.2	214.1	216.0	218.9	222.7	225.5	227.4	230.2	233.1	234.0
7.5°	202.8	202.8	204.7	207.5	213.2	218.9	224.6	227.4	232.1	237.8	239.7
10°	199.9	199.0	201.8	204.7	210.3	217.0	225.5	229.3	235.9	243.5	246.3
12.5°	198.0	198.0	199.0	203.7	209.4	217.9	228.3	231.2	241.6	250.1	256.8
15°	197.1	197.1	199.0	202.8	209.4	218.9	233.1	237.8	250.1	262.5	268.1
17.5°	204.7	203.7	202.8	204.7	211.3	221.7	240.7	245.4	260.6	275.7	282.4
20°	227.4	226.5	223.6	217.0	217.0	229.3	250.1	255.8	275.7	290.9	294.7
22.5°	270.0	272.9	262.5	245.4	233.1	238.8	262.5	269.1	291.8	307.9	307.9
25°	331.6	327.8	318.4	289.9	265.3	253.9	272.9	279.5	307.0	325.9	322.1
27.5°	396.1	397.0	383.7	351.5	311.7	281.4	284.2	291.8	323.1	344.9	336.4
30°	447.2	443.4	436.8	410.3	366.7	325.0	306.0	310.8	341.1	365.7	358.2
32.5°	492.7	490.8	482.3	459.5	420.7	376.2	342.0	343.0	366.7	397.0	387.5
35°	533.4	535.3	531.5	506.0	470.9	429.2	390.4	393.2	411.2	442.5	423.5
37.5°	584.6	584.6	578.0	554.3	527.8	486.1	449.1	450.1	459.5	485.1	461.4
40°	629.1	631.0	630.1	612.1	586.5	548.6	504.1	504.1	506.9	537.2	524.9
42.5°	689.8	692.6	691.7	674.6	654.7	627.2	589.3	586.5	584.6	622.5	609.2
45°	767.5	774.1	776.9	756.1	738.1	722.0	692.6	681.3	686.0	721.0	710.6
47.5°	841.4	849.0	862.2	851.8	843.3	843.3	803.5	801.6	794.0	834.7	806.3
50°	911.5	912.4	931.4	947.5	973.1	968.3	941.8	930.4	919.1	946.6	895.4
52.5°	951.3	962.7	987.3	1033.7	1089.6	1112.4	1084.9	1078.3	1055.5	1051.7	981.6
55°	988.2	988.2	1027.1	1107.6	1202.4	1250.7	1228.0	1220.4	1174.9	1161.6	1070.7
57.5°	1000.6	996.8	1048.9	1151.2	1293.3	1377.7	1382.4	1365.3	1301.9	1261.1	1161.6
60°	939.0	932.3	987.3	1122.8	1318.0	1469.6	1520.7	1509.4	1411.8	1357.8	1257.3
62.5°	761.8	770.3	840.4	987.3	1230.8	1460.1	1612.6	1606.0	1493.3	1423.1	1295.2
65°	547.7	533.4	596.0	758.9	1010.0	1335.0	1633.5	1638.2	1543.5	1444.9	1264.0
67.5°	307.0	293.7	345.8	470.0	718.2	1095.3	1548.2	1574.7	1507.5	1390.9	1129.4
70°	117.5	125.1	161.1	232.1	423.5	756.1	1332.2	1370.1	1321.8	1160.7	841.4
72.5°	41.7	47.4	66.3	103.3	196.1	407.4	931.4	988.2	974.0	806.3	481.3
75°	24.6	25.6	34.1	50.2	86.2	159.2	525.9	573.2	550.5	398.9	199.0
77.5°	17.1	17.1	21.8	30.3	49.3	63.5	205.6	233.1	239.7	144.0	58.7
80°	10.4	11.4	15.2	19.9	28.4	29.4	63.5	74.9	70.1	51.2	20.8
82.5°	4.7	4.7	8.5	13.3	14.2	12.3	19.9	21.8	25.6	22.7	9.5
85°	0.0	0.0	2.8	4.7	3.8	2.8	6.6	6.6	8.5	10.4	4.7
87.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	1.9	0.9
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-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2
2.5°	232.1	233.1	232.1	231.2	231.2	230.2	230.2	230.2	230.2	230.2	230.2
5°	234.0	235.0	234.0	232.1	230.2	228.3	226.5	226.5	226.5	226.5	228.3
7.5°	239.7	239.7	237.8	234.0	229.3	227.4	223.6	222.7	220.8	219.8	220.8
10°	248.2	248.2	244.5	238.8	231.2	223.6	217.0	207.5	201.8	198.0	197.1
12.5°	256.8	255.8	251.1	243.5	231.2	214.1	192.3	168.7	154.4	144.0	142.1
15°	268.1	267.2	259.6	246.3	225.5	189.5	146.9	114.6	97.6	90.0	89.1
17.5°	280.5	278.6	268.1	248.2	207.5	143.1	96.6	74.9	68.2	66.3	66.3
20°	293.7	290.9	274.8	245.4	171.5	97.6	67.3	62.5	61.6	60.6	60.6
22.5°	304.1	299.4	279.5	231.2	127.9	67.3	59.7	58.7	57.8	56.8	56.8
25°	315.5	307.9	283.3	199.9	84.3	57.8	55.9	55.0	53.1	52.1	52.1
27.5°	328.8	317.4	289.0	157.3	58.7	52.1	50.2	49.3	46.4	44.5	44.5
30°	345.8	331.6	291.8	114.6	49.3	45.5	43.6	41.7	37.9	36.0	36.0
32.5°	373.3	361.0	286.1	76.7	44.5	40.7	37.9	34.1	30.3	28.4	27.5
35°	408.4	391.3	266.2	54.0	39.8	36.0	31.3	26.5	23.7	22.7	22.7
37.5°	447.2	424.5	235.9	43.6	36.0	31.3	26.5	21.8	18.9	18.0	18.0
40°	502.2	467.1	194.2	37.9	31.3	26.5	21.8	18.0	16.1	15.2	15.2
42.5°	574.2	521.1	146.9	35.1	28.4	22.7	18.0	15.2	13.3	12.3	12.3
45°	654.7	578.0	107.1	31.3	24.6	18.9	14.2	12.3	10.4	9.5	9.5
47.5°	735.3	618.7	73.9	28.4	20.8	16.1	12.3	9.5	7.6	7.6	6.6
50°	805.4	640.5	53.1	24.6	18.9	13.3	9.5	7.6	6.6	5.7	5.7
52.5°	867.0	650.0	40.7	21.8	16.1	11.4	7.6	6.6	5.7	5.7	5.7
55°	919.1	642.4	32.2	18.9	14.2	9.5	6.6	5.7	4.7	4.7	4.7
57.5°	970.2	619.7	25.6	16.1	11.4	6.6	5.7	4.7	3.8	3.8	3.8
60°	996.8	590.3	20.8	13.3	9.5	5.7	4.7	3.8	3.8	2.8	2.8
62.5°	978.8	530.6	17.1	11.4	6.6	4.7	3.8	2.8	2.8	1.9	1.9
65°	918.1	454.8	13.3	8.5	4.7	3.8	2.8	2.8	1.9	0.9	0.9
67.5°	774.1	356.3	10.4	6.6	3.8	2.8	1.9	1.9	0.9	0.0	0.0
70°	553.3	235.0	8.5	4.7	2.8	2.8	1.9	0.9	0.0	0.0	0.0
72.5°	319.3	113.7	6.6	2.8	1.9	1.9	0.9	0.9	0.0	0.0	0.0
75°	119.4	39.8	5.7	2.8	1.9	0.9	0.9	0.9	0.0	0.0	0.0
77.5°	39.8	16.1	4.7	3.8	2.8	0.9	0.9	0.0	0.0	0.0	0.0
80°	12.3	7.6	1.9	1.9	1.9	1.9	0.9	0.0	0.0	0.0	0.0
82.5°	6.6	3.8	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
85°	2.8	1.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.9	0.9	0.9	0.9	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



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**



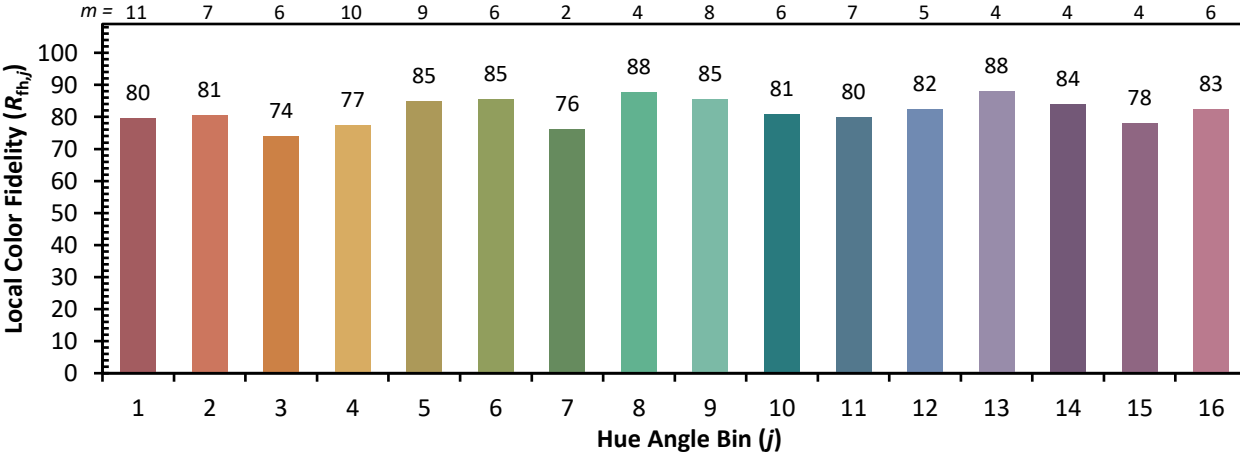


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)