

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: P438629

Luminaire Tested: **ISW-SA1D-830-U-T3**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438629  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISW-SA1D-830-U-T3  
Description: IMPACT ELITE LED WEDGE LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4488 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G1

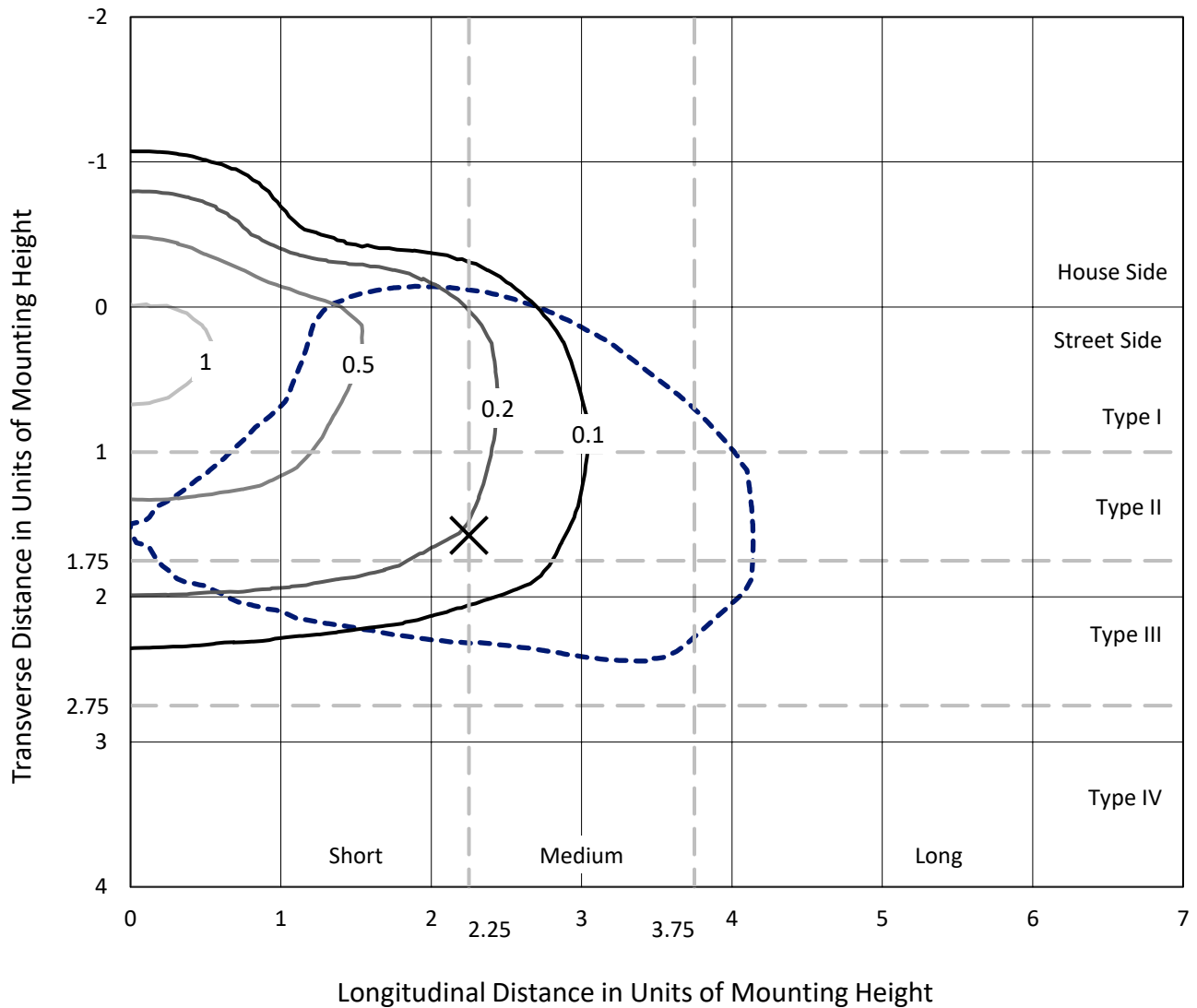
Input Watts (W): 45.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

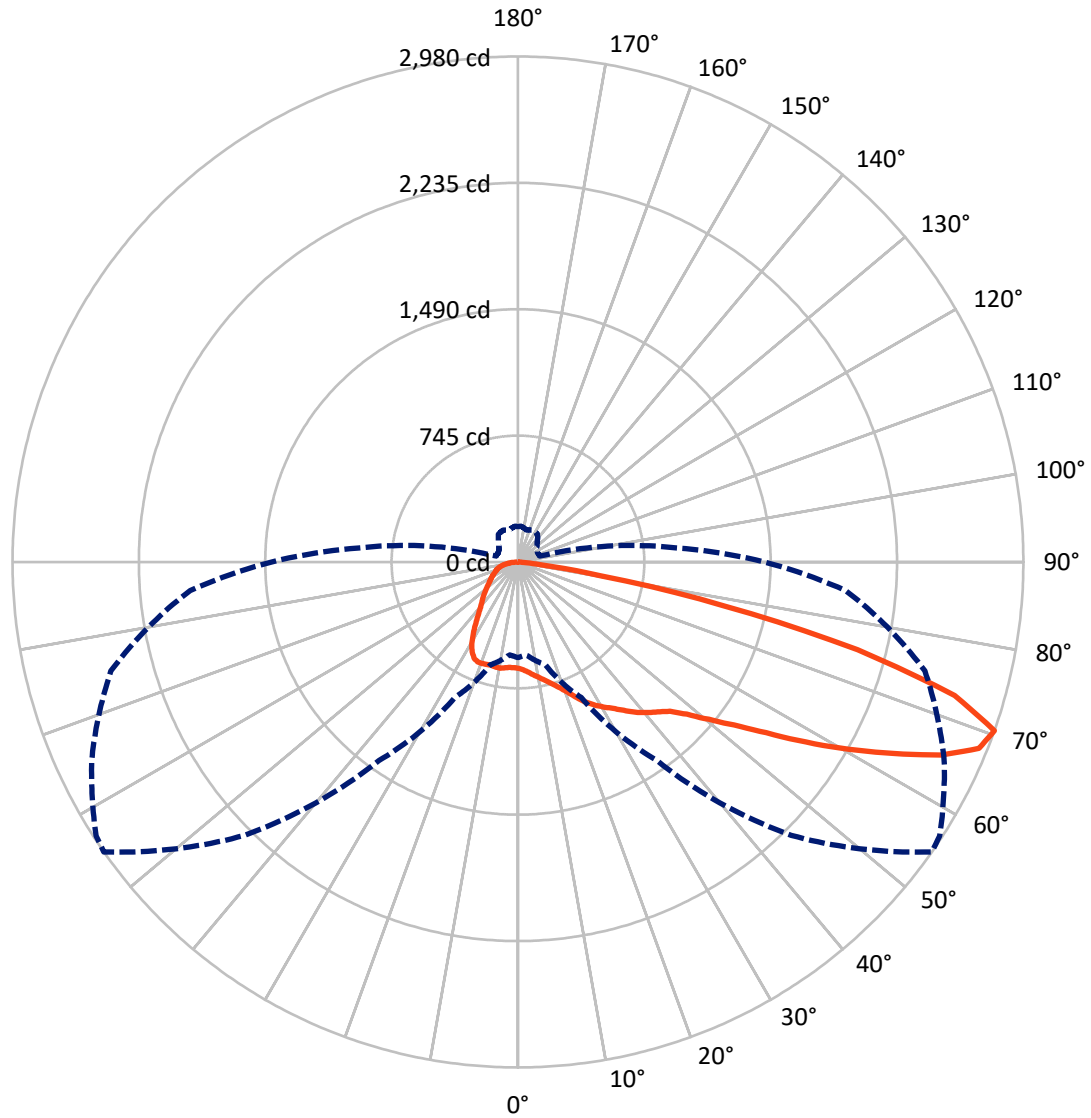
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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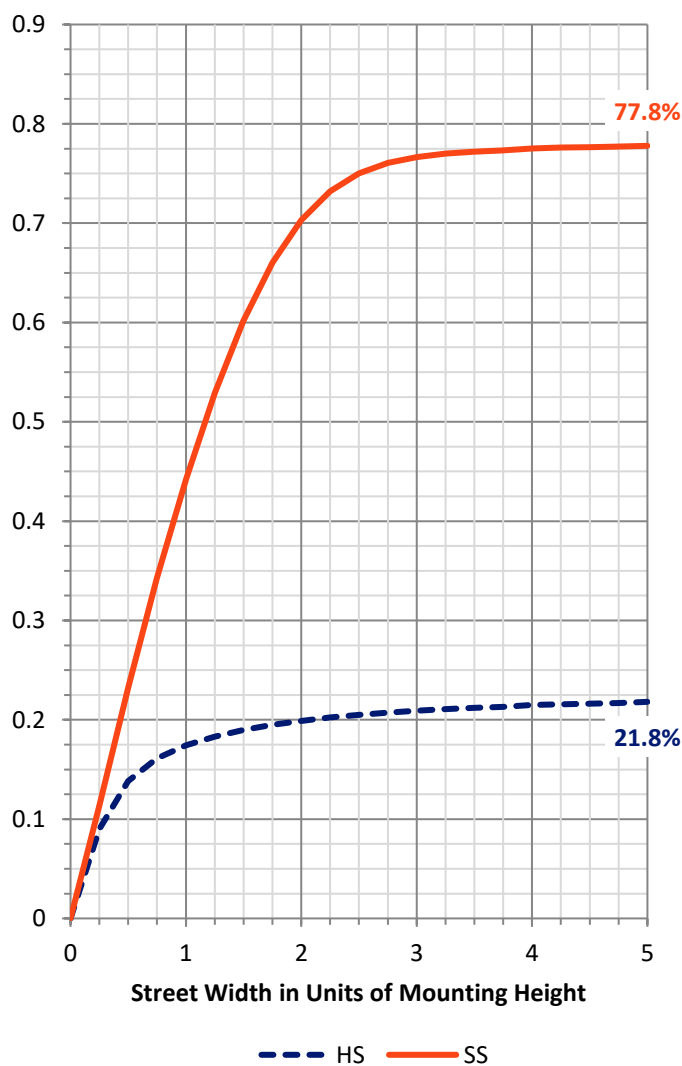
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	992.7	0.0	992.7
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	3495.3	0.0	3495.3
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	4488.0	0.0	4488.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.7	1.4
10°-20°	196.5	4.4
20°-30°	341.7	7.6
30°-40°	481.6	10.7
40°-50°	638.3	14.2
50°-60°	930.0	20.7
60°-70°	1160.5	25.9
70°-80°	618.1	13.8
80°-90°	59.6	1.3
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°	4488.0	100.0
0°-180°	4488.0	100.0

**Coefficient of Utilization**

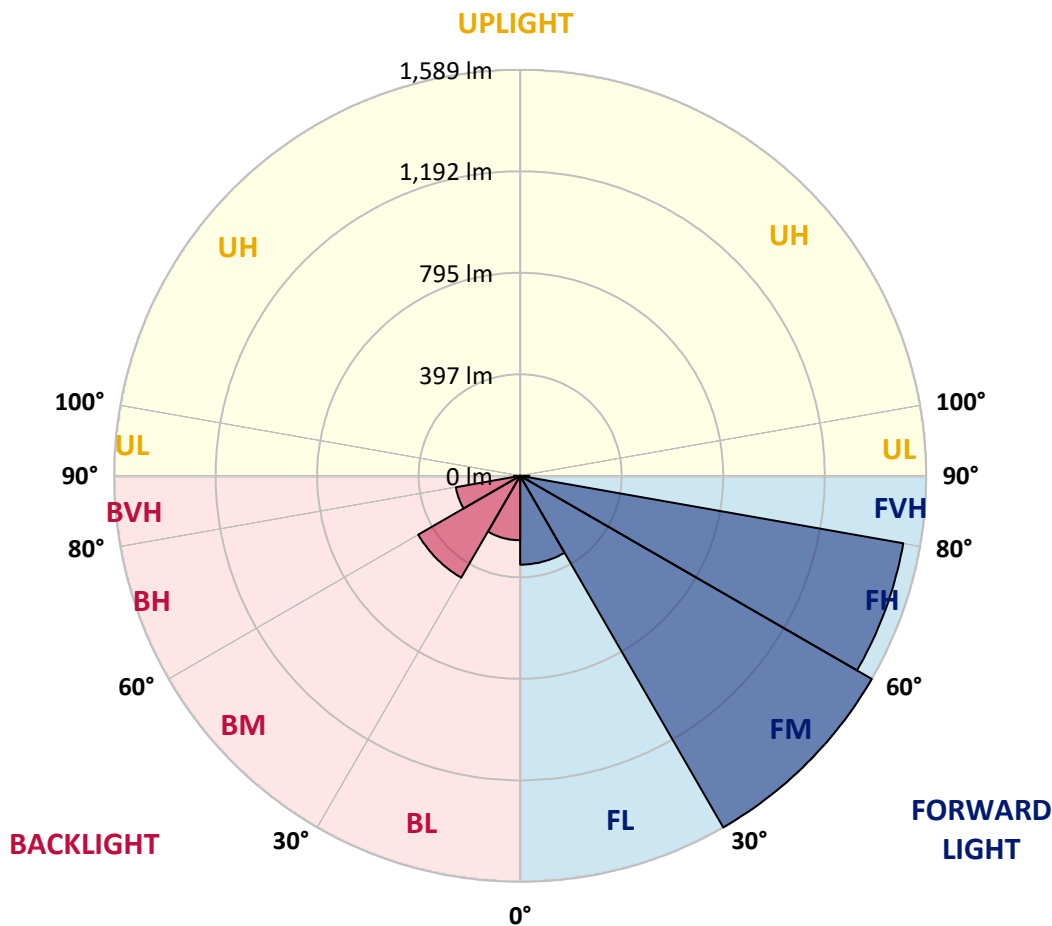


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	347.6	7.7			
FM (30°-60°)	1589.3	35.4			
FH (60°-80°)	1522.8	33.9			G1/1800
FVH (80°-90°)	35.6	0.8			G1/100
BL (0°-30°)	252.3	5.6	B1/500		
BM (30°-60°)	460.6	10.3	B1/1000		
BH (60°-80°)	255.8	5.7	B1/500		G1/500
BVH (80°-90°)	24.0	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
2.5°	647.8	646.2	646.2	644.5	642.9	641.3	638.1	634.8	634.8	631.6	631.6
5°	663.9	660.7	662.3	660.7	660.7	657.5	652.6	652.6	651.0	642.9	636.5
7.5°	680.1	678.5	678.5	680.1	678.5	675.2	673.6	672.0	665.5	655.8	646.2
10°	702.7	702.7	702.7	701.1	701.1	697.8	693.0	693.0	684.9	673.6	662.3
12.5°	736.6	735.0	733.4	733.4	728.5	722.1	717.2	717.2	712.4	694.6	680.1
15°	775.4	770.5	767.3	767.3	760.8	749.5	744.7	746.3	741.5	720.5	699.5
17.5°	814.2	814.2	810.9	802.8	794.8	786.7	775.4	778.6	773.8	752.8	725.3
20°	849.7	846.5	846.5	841.6	830.3	820.6	814.2	812.5	809.3	786.7	754.4
22.5°	888.5	886.8	882.0	878.8	870.7	865.8	862.6	862.6	849.7	819.0	777.0
25°	935.3	933.7	933.7	920.8	914.3	906.2	911.1	906.2	899.8	854.5	801.2
27.5°	982.2	982.2	980.5	974.1	956.3	951.5	954.7	951.5	949.8	888.5	823.8
30°	1032.2	1030.6	1025.8	1024.2	1006.4	993.5	991.8	985.4	985.4	919.2	840.0
32.5°	1074.2	1072.6	1075.8	1069.4	1058.1	1040.3	1029.0	1029.0	1017.7	949.8	859.4
35°	1113.0	1116.2	1116.2	1113.0	1103.3	1085.5	1074.2	1077.5	1061.3	977.3	883.6
37.5°	1156.6	1153.4	1148.5	1145.3	1132.4	1124.3	1124.3	1127.5	1103.3	1006.4	915.9
40°	1166.3	1174.4	1185.7	1172.8	1166.3	1164.7	1167.9	1159.8	1135.6	1051.6	970.8
42.5°	1185.7	1192.1	1213.1	1208.3	1203.5	1208.3	1208.3	1197.0	1185.7	1113.0	1045.2
45°	1234.1	1245.5	1261.6	1263.2	1261.6	1269.7	1255.1	1253.5	1251.9	1201.8	1145.3
47.5°	1287.5	1300.4	1337.5	1332.7	1350.5	1366.6	1340.8	1339.1	1344.0	1319.8	1272.9
50°	1350.5	1363.4	1410.2	1428.0	1476.5	1505.5	1458.7	1437.7	1471.6	1470.0	1434.5
52.5°	1423.1	1439.3	1471.6	1533.0	1615.4	1646.1	1596.0	1578.2	1618.6	1638.0	1605.7
55°	1473.2	1486.1	1536.2	1631.5	1765.6	1806.0	1776.9	1760.8	1804.4	1820.5	1786.6
57.5°	1491.0	1494.2	1568.5	1718.8	1904.5	2007.9	2003.1	1991.8	1974.0	2014.4	2004.7
60°	1460.3	1478.1	1573.4	1757.5	2028.9	2224.4	2242.1	2216.3	2193.7	2203.4	2171.1
62.5°	1419.9	1434.5	1534.6	1762.4	2112.9	2419.8	2486.1	2457.0	2400.5	2374.6	2298.7
65°	1277.8	1277.8	1376.3	1663.8	2098.4	2579.8	2742.9	2692.8	2589.5	2497.4	2293.8
67.5°	977.3	972.5	1067.8	1366.6	1893.2	2595.9	2931.9	2906.1	2739.7	2544.2	2203.4
70°	563.8	549.2	628.4	882.0	1429.6	2279.3	2980.4	2965.8	2773.6	2484.5	1940.1
72.5°	195.5	208.4	260.1	374.8	786.7	1641.2	2692.8	2723.5	2612.1	2256.7	1558.8
75°	101.8	101.8	119.5	163.2	332.8	846.5	2069.3	2164.6	2188.8	1888.4	1113.0
77.5°	74.3	75.9	85.6	105.0	158.3	324.7	1242.2	1332.7	1515.2	1300.4	642.9
80°	50.1	51.7	61.4	69.5	96.9	126.0	495.9	544.4	751.2	581.5	248.8
82.5°	37.2	38.8	38.8	40.4	53.3	58.2	130.8	161.5	258.5	172.8	88.8
85°	8.1	8.1	16.2	16.2	16.2	16.2	29.1	32.3	48.5	51.7	29.1
87.5°	0.0	0.0	0.0	0.0	1.6	1.6	3.2	3.2	3.2	4.8	4.8
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
2.5°	630.0	628.4	626.8	625.2	623.5	621.9	620.3	621.9	621.9	625.2	626.8
5°	634.8	630.0	628.4	625.2	623.5	623.5	623.5	625.2	626.8	628.4	630.0
7.5°	642.9	641.3	636.5	630.0	628.4	628.4	625.2	625.2	625.2	628.4	628.4
10°	657.5	652.6	646.2	639.7	634.8	625.2	617.1	610.6	613.8	618.7	618.7
12.5°	673.6	665.5	657.5	646.2	633.2	617.1	609.0	610.6	610.6	615.5	617.1
15°	694.6	688.2	670.4	651.0	628.4	615.5	612.2	609.0	609.0	612.2	615.5
17.5°	717.2	705.9	683.3	654.2	631.6	617.1	610.6	597.7	591.2	589.6	592.8
20°	738.2	725.3	694.6	657.5	634.8	615.5	592.8	571.8	555.7	552.5	549.2
22.5°	756.0	739.8	702.7	663.9	634.8	599.3	560.5	529.8	507.2	500.8	504.0
25°	775.4	751.2	712.4	670.4	623.5	567.0	513.7	476.5	453.9	444.2	444.2
27.5°	791.5	767.3	722.1	665.5	594.5	523.4	462.0	424.8	407.1	397.4	395.8
30°	806.1	780.2	741.5	651.0	552.5	463.6	410.3	384.5	373.2	361.8	363.5
32.5°	825.5	802.8	756.0	620.3	495.9	408.7	368.3	355.4	344.1	336.0	339.2
35°	852.9	840.0	760.8	581.5	437.8	369.9	342.5	327.9	318.2	306.9	306.9
37.5°	891.7	880.4	744.7	523.4	386.1	340.8	321.5	302.1	285.9	273.0	269.8
40°	938.5	922.4	717.2	458.8	345.7	321.5	303.7	279.5	256.8	239.1	235.8
42.5°	1012.8	966.0	676.8	392.5	316.6	305.3	281.1	250.4	227.8	214.8	211.6
45°	1092.0	1016.1	618.7	336.0	294.0	285.9	258.5	227.8	211.6	201.9	200.3
47.5°	1192.1	1071.0	563.8	294.0	268.2	266.5	234.2	214.8	201.9	195.5	193.8
50°	1324.6	1140.5	508.8	261.7	245.5	240.7	222.9	206.8	197.1	192.2	190.6
52.5°	1478.1	1221.2	465.2	237.5	224.5	221.3	216.5	203.5	197.1	192.2	190.6
55°	1623.5	1305.2	418.4	214.8	206.8	210.0	213.2	203.5	198.7	195.5	192.2
57.5°	1783.4	1376.3	365.1	197.1	192.2	200.3	210.0	205.2	201.9	197.1	195.5
60°	1881.9	1426.4	294.0	180.9	180.9	192.2	205.2	201.9	195.5	195.5	195.5
62.5°	1925.5	1418.3	232.6	164.8	168.0	182.5	197.1	193.8	189.0	197.1	197.1
65°	1869.0	1326.2	189.0	150.2	155.1	169.6	189.0	189.0	189.0	201.9	201.9
67.5°	1722.0	1187.3	155.1	137.3	142.2	159.9	189.0	200.3	198.7	213.2	213.2
70°	1453.8	941.8	134.1	127.6	134.1	159.9	200.3	206.8	195.5	211.6	208.4
72.5°	1108.1	657.5	119.5	117.9	126.0	155.1	201.9	198.7	184.2	189.0	184.2
75°	728.5	399.0	105.0	108.2	111.5	137.3	192.2	185.8	168.0	164.8	161.5
77.5°	400.6	200.3	92.1	96.9	96.9	116.3	174.5	159.9	145.4	137.3	134.1
80°	159.9	101.8	80.8	85.6	79.2	93.7	130.8	124.4	111.5	105.0	101.8
82.5°	72.7	56.5	67.8	71.1	59.8	69.5	96.9	93.7	84.0	72.7	69.5
85°	27.5	32.3	51.7	48.5	42.0	40.4	54.9	50.1	40.4	32.3	32.3
87.5°	3.2	6.5	12.9	17.8	9.7	6.5	3.2	1.6	1.6	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**

$\lambda$ (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**

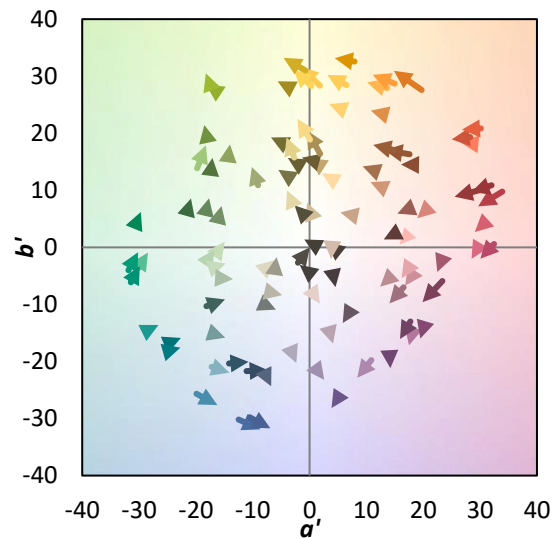
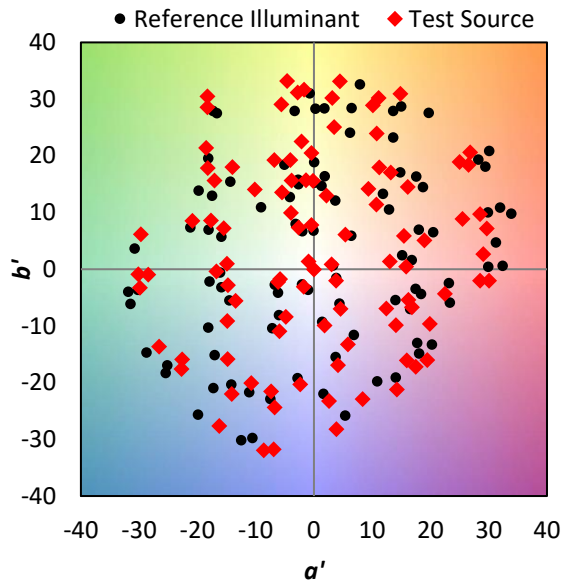
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)