

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: P437421

Luminaire Tested: **ISS-SA1C-830-U-SL3-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-SA1C-830-U-SL3-HSS  
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3042 lumens  
Efficiency: N/A  
Efficacy: 88.9 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

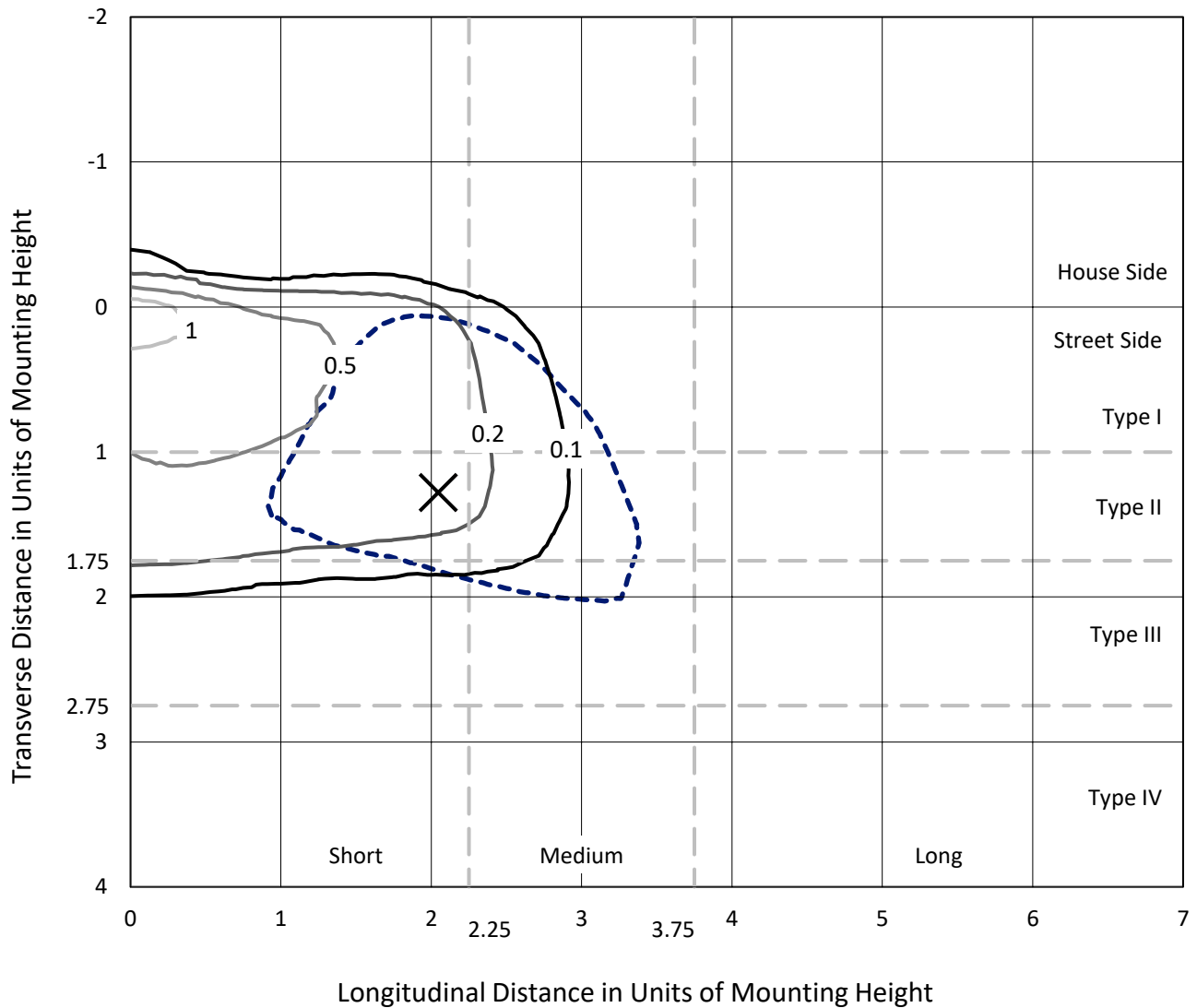
Input Watts (W): 34.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P437421  
 CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

### Iso-Footcandle Lines of Horizontal Illumination

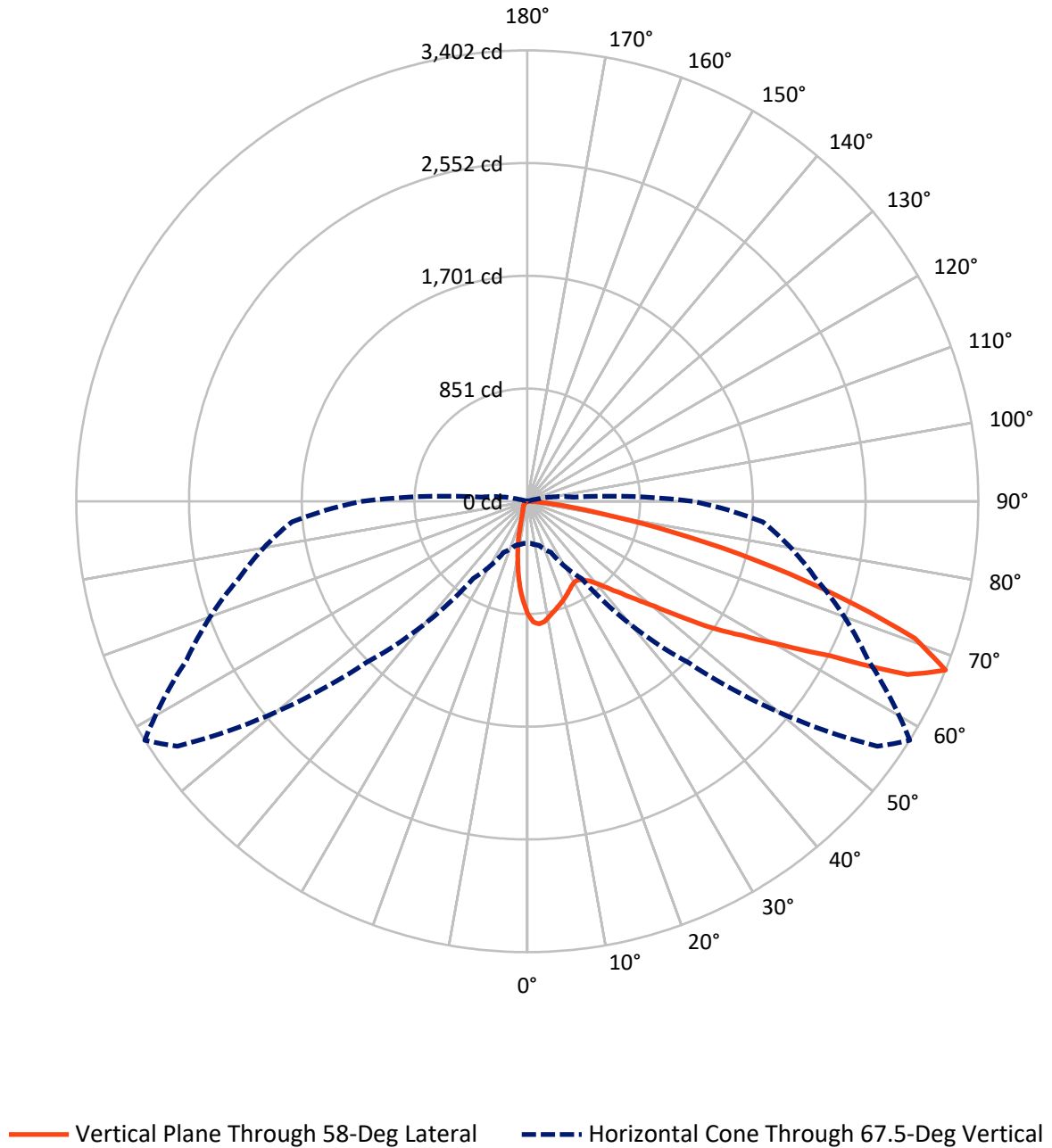
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
 Type III - Short - N/A

REPORT NUMBER: P437421  
CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P437421  
 CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

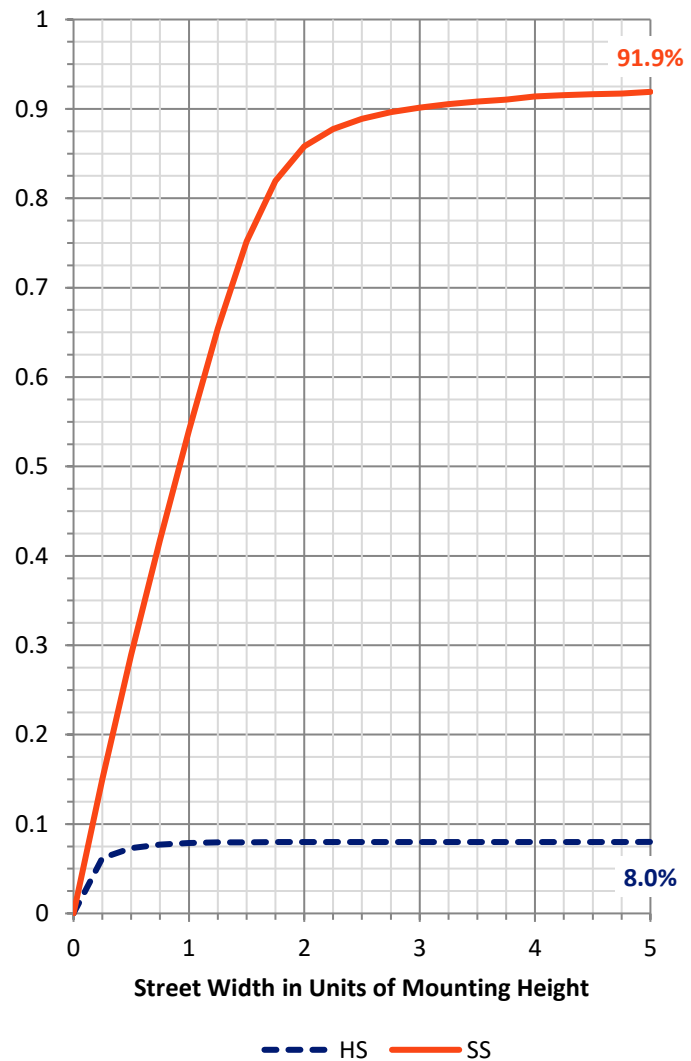
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	245.2	0.0	245.2
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	2796.7	0.0	2796.7
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	3042.0	0.0	3042.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	2.3
10°-20°	144.5	4.8
20°-30°	195.6	6.4
30°-40°	268.9	8.8
40°-50°	421.0	13.8
50°-60°	709.3	23.3
60°-70°	841.7	27.7
70°-80°	365.5	12.0
80°-90°	26.9	0.9
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°	3042.0	100.0
0°-180°	3042.0	100.0

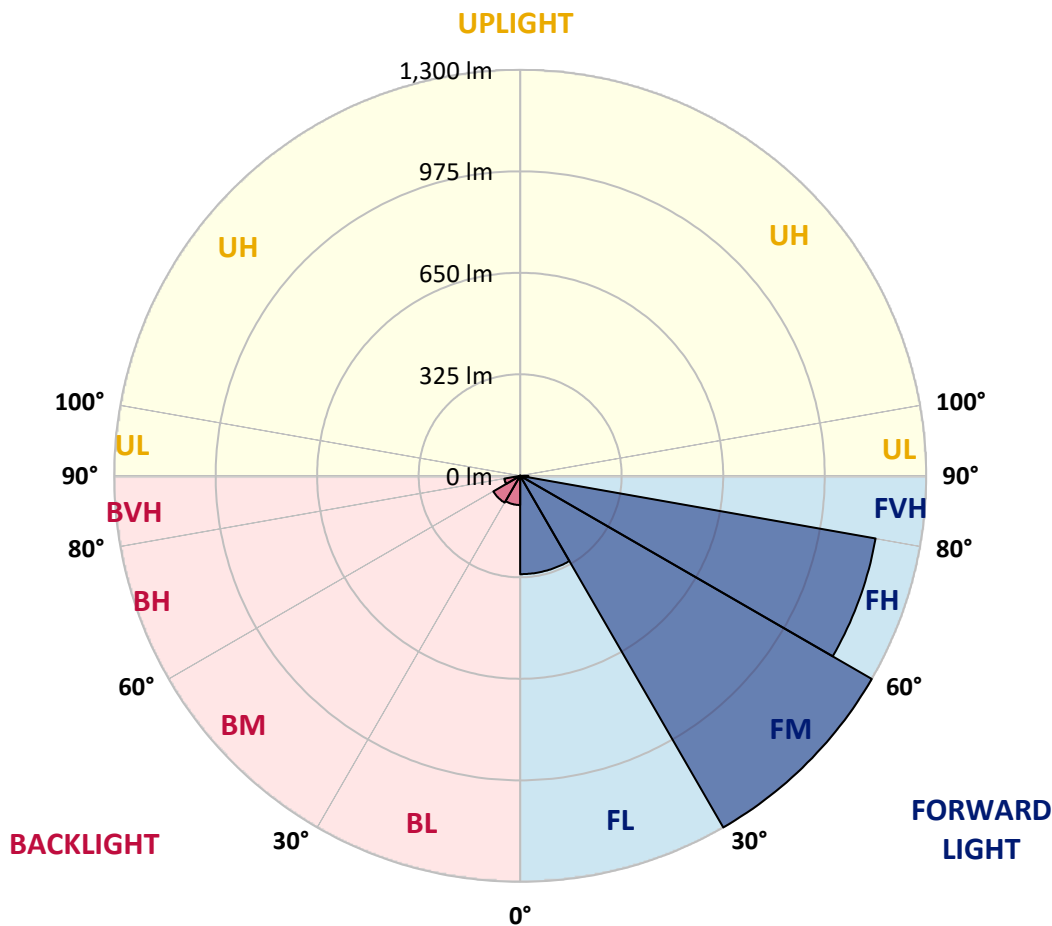


REPORT NUMBER: P437421  
 CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	315.0	10.4			
FM (30°-60°)	1300.0	42.7			
FH (60°-80°)	1155.6	38.0			G1/1800
FVH (80°-90°)	26.0	0.9			G1/100
BL (0°-30°)	93.6	3.1	B0/110		
BM (30°-60°)	99.2	3.3	B0/220		
BH (60°-80°)	51.6	1.7	B0/110		G0/110
BVH (80°-90°)	0.8	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





REPORT NUMBER: P437421  
 CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5
2.5°	956.0	950.8	948.1	946.8	937.7	929.8	914.1	912.8	902.3	882.7	863.0
5°	935.0	939.0	940.3	944.2	942.9	942.9	932.4	929.8	915.4	887.9	849.9
7.5°	889.2	887.9	890.5	901.0	906.2	916.7	915.4	918.0	911.5	881.4	827.7
10°	822.4	825.0	832.9	842.1	856.5	874.8	886.6	889.2	894.5	869.6	806.7
12.5°	760.9	764.8	770.0	788.4	804.1	832.9	855.2	860.4	870.9	857.8	788.4
15°	709.8	711.1	715.0	732.1	758.3	794.9	827.7	835.5	852.5	847.3	774.0
17.5°	669.2	670.5	675.7	690.2	711.1	754.3	798.9	811.9	836.8	840.8	758.3
20°	646.9	646.9	646.9	656.1	677.1	717.7	770.0	788.4	823.7	830.3	745.2
22.5°	640.4	640.4	637.8	640.4	653.5	687.5	741.2	763.5	808.0	826.4	729.4
25°	649.6	645.6	645.6	639.1	640.4	662.7	715.0	739.9	798.9	823.7	721.6
27.5°	666.6	665.3	660.0	654.8	646.9	652.2	692.8	717.7	789.7	827.7	715.0
30°	686.2	686.2	683.6	681.0	667.9	657.4	682.3	704.6	785.8	834.2	711.1
32.5°	708.5	707.2	713.7	716.3	700.6	681.0	684.9	705.9	788.4	853.9	713.7
35°	734.7	734.7	746.5	762.2	749.1	719.0	709.8	728.1	801.5	874.8	724.2
37.5°	763.5	764.8	785.8	808.0	798.9	772.7	756.9	763.5	829.0	914.1	747.8
40°	797.5	797.5	829.0	865.6	865.6	835.5	814.6	819.8	868.3	970.4	789.7
42.5°	834.2	838.1	882.7	927.2	940.3	912.8	890.5	897.1	931.1	1043.7	851.2
45°	886.6	898.4	956.0	999.2	1025.4	1012.3	983.5	988.7	1013.6	1149.8	944.2
47.5°	979.6	990.1	1039.8	1083.0	1115.8	1122.3	1109.2	1106.6	1117.1	1274.2	1062.1
50°	1090.9	1100.1	1134.1	1170.8	1216.6	1255.9	1248.0	1244.1	1248.0	1410.4	1206.1
52.5°	1200.9	1197.0	1237.6	1257.2	1321.4	1407.8	1441.9	1441.9	1420.9	1553.2	1347.6
55°	1299.1	1316.1	1359.4	1394.7	1448.4	1551.9	1667.1	1681.5	1609.5	1694.6	1465.4
57.5°	1287.3	1304.4	1384.2	1495.6	1654.0	1794.1	1906.8	1909.4	1804.6	1803.3	1610.8
60°	1149.8	1151.1	1258.5	1427.5	1744.4	2143.8	2209.3	2196.2	1974.9	1955.2	1811.2
62.5°	809.3	804.1	942.9	1157.7	1609.5	2335.0	2667.6	2568.1	2257.7	2193.6	1998.4
65°	471.5	468.8	522.5	691.5	1219.2	2200.1	3136.5	3152.2	2629.7	2315.4	1959.1
67.5°	316.9	319.5	344.4	426.9	711.1	1726.0	3222.9	3402.3	2836.6	2252.5	1782.4
70°	233.1	233.1	252.8	314.3	421.7	1081.7	2815.6	3102.4	2877.2	2095.3	1491.6
72.5°	166.3	166.3	193.8	254.1	344.4	557.9	2092.7	2459.4	2429.3	1739.1	1032.0
75°	106.1	108.7	138.8	208.2	314.3	357.5	1419.6	1782.4	1694.6	973.0	440.0
77.5°	40.6	45.8	74.6	153.2	275.0	297.3	809.3	1123.6	894.5	340.5	117.9
80°	14.4	14.4	24.9	78.6	193.8	244.9	423.0	557.9	290.7	82.5	44.5
82.5°	2.6	2.6	9.2	32.7	95.6	170.2	246.2	275.0	113.9	27.5	26.2
85°	0.0	0.0	1.3	6.5	22.3	17.0	98.2	93.0	35.4	11.8	17.0
87.5°	0.0	0.0	0.0	0.0	1.3	1.3	2.6	2.6	2.6	2.6	2.6
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: P437421  
 CATALOG NUMBER: ISS-SA1C-830-U-SL3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5	856.5
2.5°	847.3	836.8	806.7	785.8	756.9	728.1	709.8	695.4	688.8	679.7	683.6
5°	826.4	802.8	747.8	698.0	650.9	601.1	564.4	531.7	521.2	502.9	500.3
7.5°	794.9	762.2	681.0	602.4	526.5	463.6	407.3	364.1	324.8	307.8	318.2
10°	764.8	720.3	614.2	509.4	408.6	320.8	254.1	201.7	171.6	158.5	161.1
12.5°	736.0	679.7	544.8	420.4	297.3	197.7	144.1	116.6	107.4	106.1	103.5
15°	711.1	641.7	483.2	326.1	197.7	124.4	102.1	95.6	94.3	94.3	94.3
17.5°	683.6	602.4	416.4	239.7	129.6	96.9	90.4	89.1	87.7	87.7	87.7
20°	662.7	568.4	354.9	167.6	99.5	86.4	83.8	83.8	82.5	82.5	82.5
22.5°	640.4	533.0	294.7	123.1	85.1	79.9	77.3	76.0	76.0	74.6	74.6
25°	619.4	500.3	237.0	94.3	76.0	72.0	69.4	68.1	68.1	66.8	65.5
27.5°	606.3	474.1	186.0	79.9	68.1	65.5	62.9	60.2	57.6	56.3	56.3
30°	597.2	442.6	141.4	69.4	62.9	58.9	55.0	51.1	47.1	45.8	45.8
32.5°	584.1	417.8	108.7	62.9	56.3	52.4	47.1	43.2	39.3	36.7	36.7
35°	584.1	396.8	83.8	56.3	51.1	45.8	41.9	35.4	31.4	30.1	28.8
37.5°	593.2	373.2	69.4	52.4	47.1	41.9	36.7	30.1	26.2	24.9	24.9
40°	614.2	365.4	58.9	47.1	41.9	36.7	31.4	24.9	22.3	19.6	19.6
42.5°	657.4	368.0	52.4	44.5	38.0	32.7	26.2	21.0	18.3	17.0	17.0
45°	720.3	375.9	48.5	40.6	34.0	27.5	22.3	18.3	14.4	13.1	13.1
47.5°	808.0	400.7	43.2	36.7	30.1	23.6	18.3	14.4	11.8	10.5	10.5
50°	912.8	444.0	40.6	32.7	27.5	19.6	14.4	10.5	7.9	7.9	7.9
52.5°	1035.9	487.2	36.7	30.1	23.6	17.0	11.8	7.9	6.5	5.2	5.2
55°	1139.3	525.1	32.7	27.5	19.6	13.1	9.2	6.5	5.2	3.9	3.9
57.5°	1274.2	580.1	27.5	23.6	15.7	10.5	6.5	5.2	2.6	2.6	2.6
60°	1455.0	645.6	23.6	19.6	11.8	7.9	5.2	2.6	2.6	1.3	1.3
62.5°	1532.2	593.2	21.0	15.7	9.2	5.2	3.9	2.6	1.3	1.3	1.3
65°	1447.1	484.5	17.0	11.8	6.5	3.9	2.6	1.3	1.3	0.0	0.0
67.5°	1248.0	357.5	14.4	7.9	5.2	2.6	1.3	0.0	0.0	0.0	0.0
70°	1017.6	264.5	10.5	5.2	2.6	2.6	1.3	0.0	0.0	0.0	0.0
72.5°	704.6	159.8	7.9	3.9	2.6	1.3	1.3	0.0	0.0	0.0	0.0
75°	273.7	62.9	6.5	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	77.3	22.3	5.2	2.6	2.6	1.3	1.3	1.3	0.0	0.0	0.0
80°	31.4	11.8	3.9	2.6	2.6	2.6	1.3	1.3	0.0	0.0	0.0
82.5°	19.6	6.5	2.6	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0
85°	13.1	3.9	2.6	1.3	1.3	0.0	0.0	0.0	0.0	1.3	1.3
87.5°	2.6	2.6	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	1.3
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**

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

REPORT NUMBER: SP1-2408-195-9

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.27**

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			

REPORT NUMBER: SP1-2408-195-9

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)