

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: P437081

Luminaire Tested: **ISC-SA1A-830-U-SL4-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437081  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-SA1A-830-U-SL4-HSS  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 350mA 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: 1805 lumens  
Efficiency: N/A  
Efficacy: 89.8 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

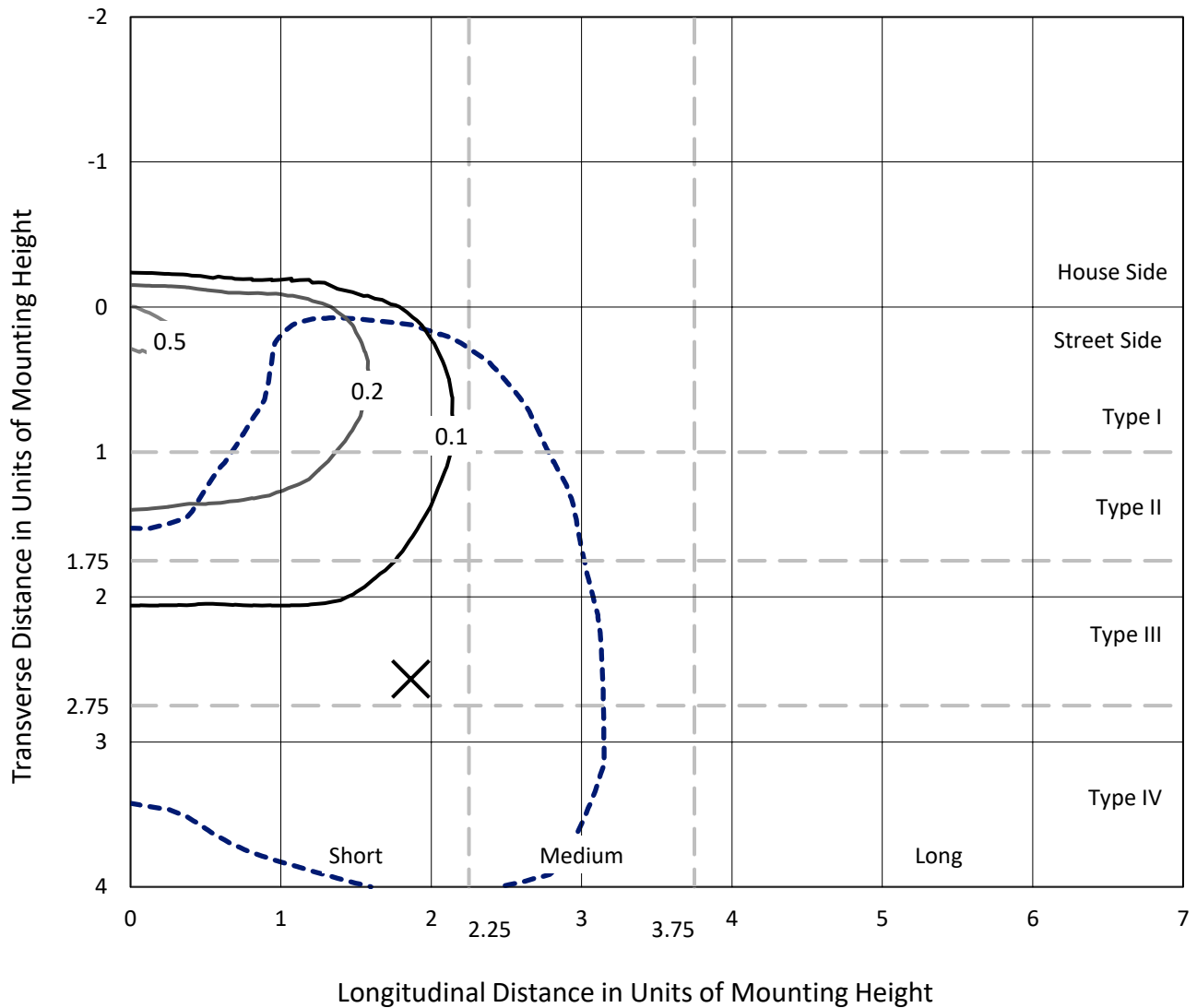
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

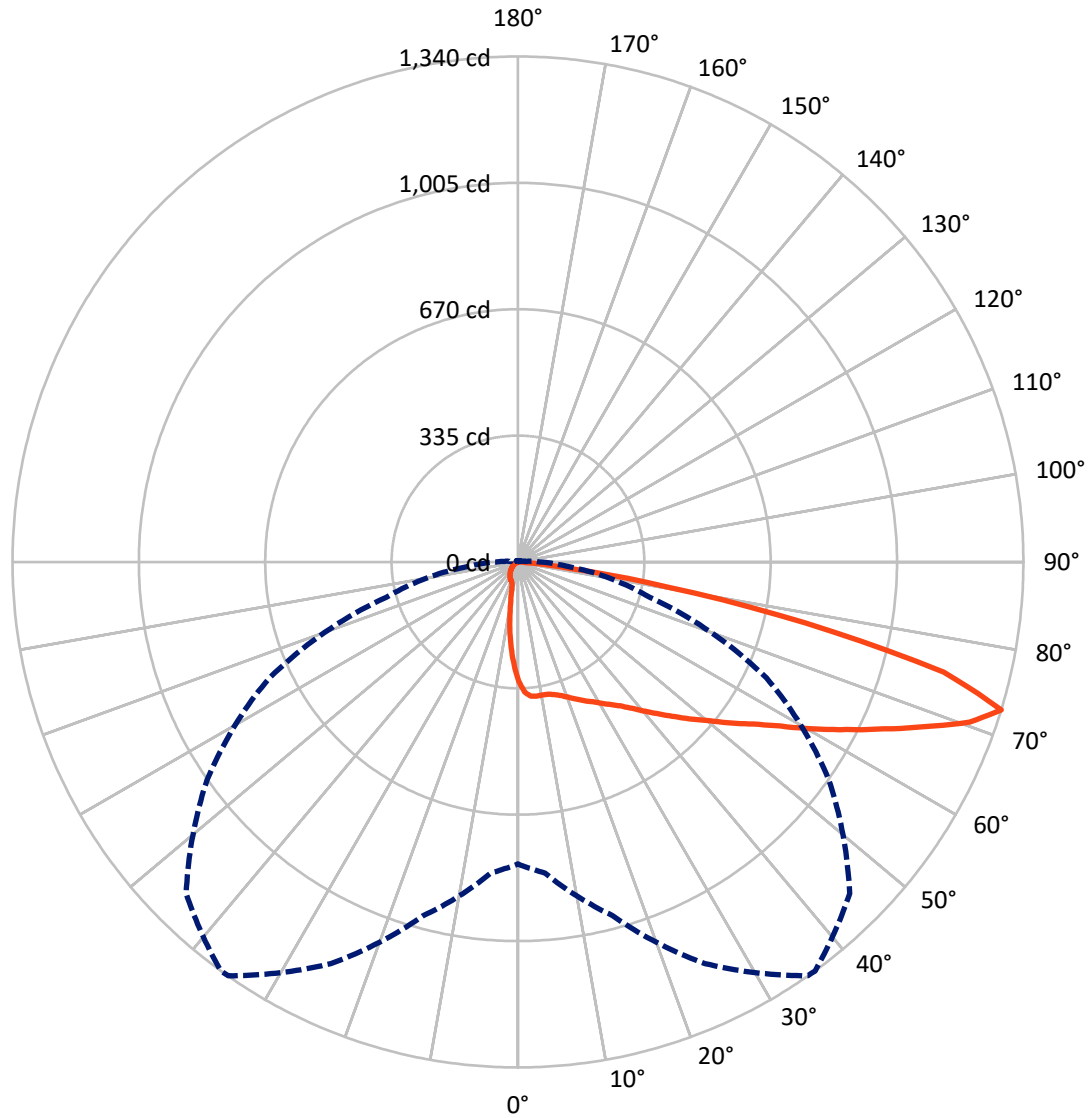
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 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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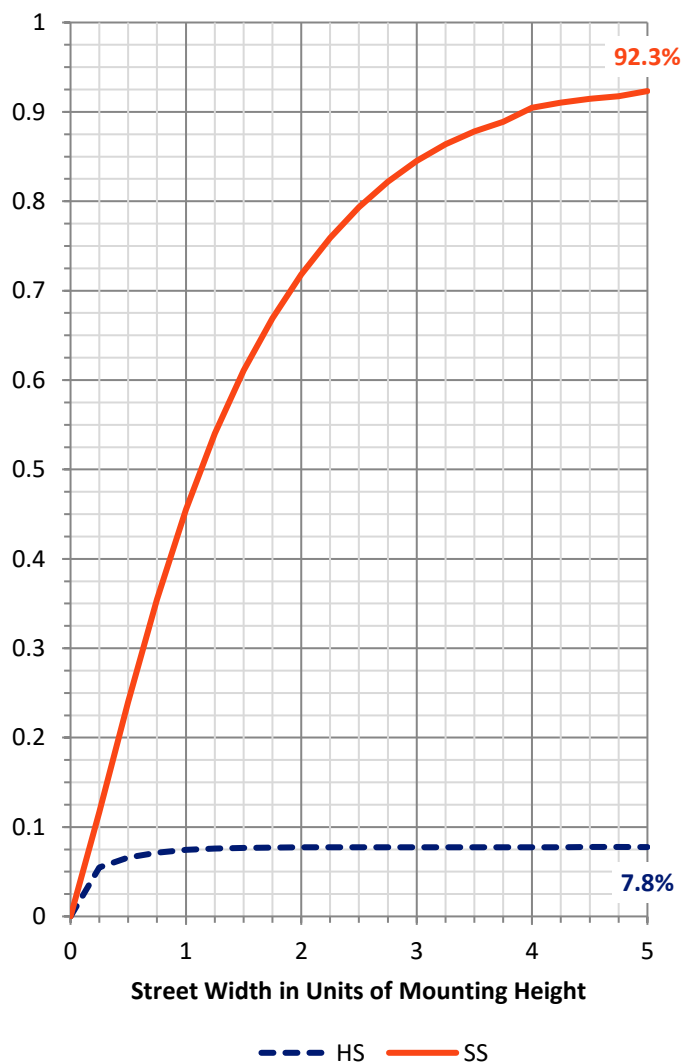
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	140.8	0.0	140.8
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	1664.2	0.0	1664.2
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	1805.0	0.0	1805.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.1	1.5
10°-20°	68.0	3.8
20°-30°	111.0	6.1
30°-40°	168.7	9.3
40°-50°	258.1	14.3
50°-60°	366.9	20.3
60°-70°	465.3	25.8
70°-80°	318.6	17.7
80°-90°	21.3	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°	1805.0	100.0
0°-180°	1805.0	100.0

**Coefficient of Utilization**



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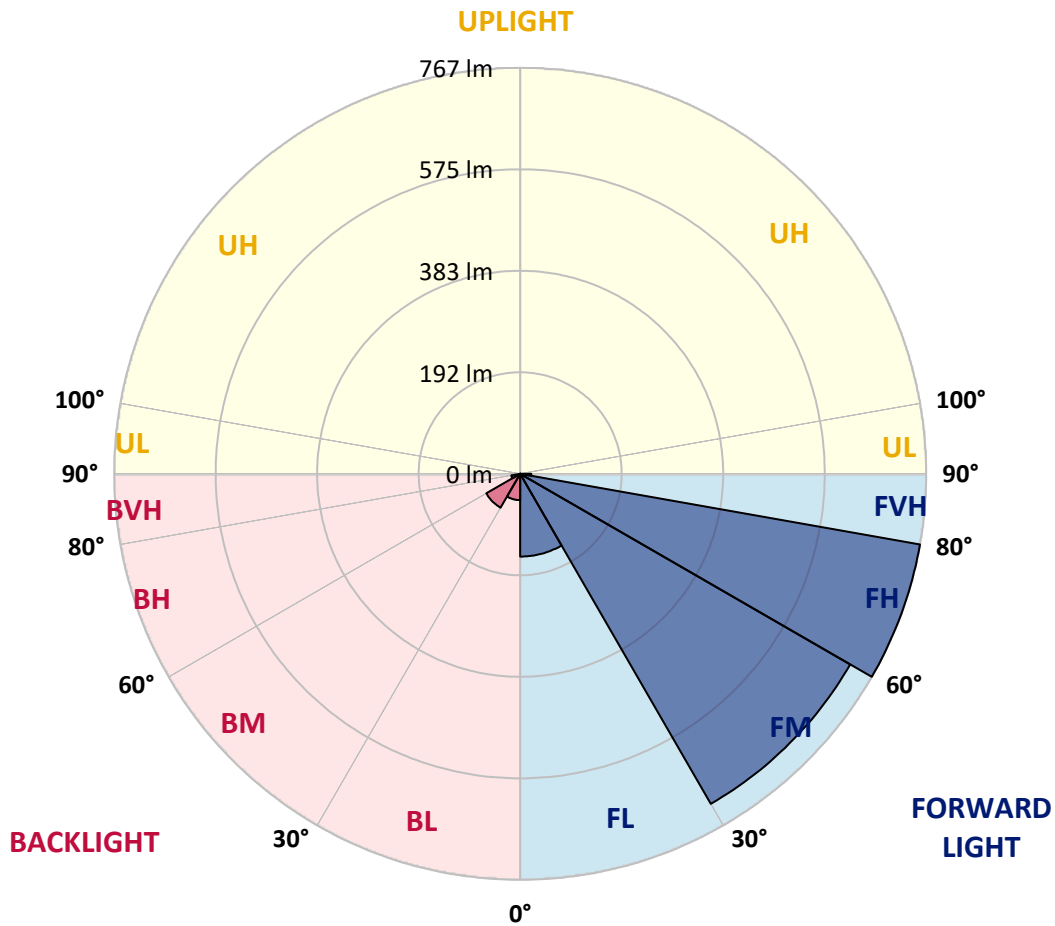
CATALOG NUMBER: ISC-SA1A-830-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	156.3	8.7			
FM (30°-60°)	719.9	39.9			
FH (60°-80°)	766.9	42.5			G1/1800
FVH (80°-90°)	21.0	1.2			G1/100
BL (0°-30°)	49.7	2.8	B0/110		
BM (30°-60°)	73.9	4.1	B0/220		
BH (60°-80°)	17.0	0.9	B0/110		G0/110
BVH (80°-90°)	0.3	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°	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0
2.5°	355.1	352.7	351.1	349.6	344.8	345.6	340.8	336.1	328.9	325.7	321.0
5°	363.9	363.1	362.3	359.9	355.9	357.5	352.7	348.0	337.6	328.1	317.8
7.5°	362.3	363.9	363.1	361.5	358.3	359.1	355.1	350.4	341.6	328.9	314.6
10°	359.1	359.9	359.9	359.1	358.3	358.3	355.1	351.1	343.2	332.1	313.8
12.5°	352.7	354.3	356.7	358.3	359.1	359.9	357.5	354.3	347.2	335.3	316.2
15°	350.4	351.9	356.7	361.5	363.9	364.7	362.3	358.3	351.9	341.6	320.2
17.5°	350.4	351.9	359.9	367.0	371.8	372.6	369.4	365.4	357.5	347.2	324.9
20°	355.1	356.7	366.2	379.0	381.3	382.9	378.2	372.6	363.9	353.5	330.5
22.5°	363.1	365.4	377.4	389.3	394.0	394.8	389.3	379.0	371.0	360.7	335.3
25°	376.6	382.1	393.3	406.0	406.8	407.6	398.8	388.5	379.0	368.6	340.8
27.5°	395.6	400.4	409.9	424.2	419.5	419.5	412.3	398.8	389.3	379.7	350.4
30°	420.3	423.4	434.6	440.1	433.8	434.6	425.8	413.1	405.2	395.6	364.7
32.5°	443.3	445.7	457.6	458.4	451.2	450.5	444.1	429.0	422.6	419.5	384.5
35°	464.8	467.9	477.5	476.7	469.5	468.7	465.5	452.0	452.0	455.2	413.9
37.5°	480.6	488.6	500.5	497.3	492.6	492.6	490.2	479.8	487.8	499.7	452.8
40°	501.3	506.1	522.0	519.6	520.4	520.4	521.2	514.8	529.1	549.0	498.1
42.5°	512.4	522.0	541.0	544.2	551.3	551.3	557.7	556.1	583.1	608.5	550.6
45°	529.9	540.2	560.9	572.8	581.5	585.5	596.6	605.4	643.5	675.3	606.2
47.5°	552.1	560.9	578.4	600.6	616.5	622.8	645.1	659.4	710.2	742.8	658.6
50°	582.3	583.9	596.6	630.0	657.8	661.8	696.7	720.6	777.8	808.0	695.9
52.5°	614.9	611.7	618.9	664.2	703.1	710.2	750.0	786.5	843.7	850.1	711.0
55°	640.3	640.3	645.9	701.5	753.9	757.9	813.5	852.4	904.1	874.7	720.6
57.5°	672.9	669.7	678.5	739.6	817.5	820.7	885.0	915.2	937.4	890.6	719.0
60°	696.7	700.7	714.2	788.9	883.4	897.7	951.7	961.3	972.4	896.1	714.2
62.5°	730.1	729.3	755.5	843.7	969.2	978.8	1016.1	1000.2	999.4	905.7	707.9
65°	757.9	764.3	804.0	909.6	1060.6	1066.9	1079.7	1059.0	1036.8	916.0	652.2
67.5°	800.8	813.5	863.6	996.2	1158.3	1165.5	1176.6	1131.3	1047.1	842.9	543.4
70°	849.3	865.9	947.0	1111.4	1263.2	1271.1	1273.5	1138.4	948.6	661.8	368.6
72.5°	800.8	827.8	970.8	1175.0	1339.4	1340.2	1244.1	1005.8	726.9	361.5	130.3
75°	515.6	549.8	804.0	1042.3	1153.5	1166.3	975.6	703.1	339.2	81.0	36.5
77.5°	174.8	186.7	394.8	657.8	773.8	778.6	641.9	355.9	107.3	32.6	19.9
80°	100.9	100.1	138.2	287.6	386.1	401.2	323.3	142.2	50.1	16.7	13.5
82.5°	23.8	24.6	72.3	104.9	153.3	138.2	68.3	85.8	23.0	9.5	11.9
85°	0.0	0.0	11.9	25.4	18.3	21.5	6.4	26.2	4.0	4.0	7.9
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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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 CATALOG NUMBER: ISC-SA1A-830-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0	317.0
2.5°	316.2	312.2	304.3	297.9	289.2	282.0	274.9	271.7	266.1	264.6	265.3
5°	311.4	305.1	290.0	274.9	258.2	242.3	225.6	216.1	212.1	205.0	203.4
7.5°	305.9	296.3	274.9	250.3	221.7	198.6	175.6	159.7	145.4	139.8	137.4
10°	303.5	291.6	261.4	224.0	185.1	147.8	119.2	98.5	85.8	81.0	79.4
12.5°	303.5	289.2	248.7	198.6	147.0	104.1	77.9	65.9	62.0	61.2	60.4
15°	306.7	288.4	236.7	171.6	111.2	72.3	59.6	58.0	57.2	57.2	58.0
17.5°	308.2	286.8	224.0	145.4	81.8	58.0	55.6	55.6	55.6	55.6	55.6
20°	312.2	286.0	209.7	117.6	62.0	54.0	53.2	53.2	53.2	53.2	54.0
22.5°	313.0	286.0	192.3	90.6	54.8	51.6	50.8	50.8	50.8	51.6	51.6
25°	317.8	284.4	175.6	69.1	51.6	48.5	48.5	47.7	48.5	48.5	48.5
27.5°	324.1	285.2	154.9	57.2	48.5	46.1	45.3	45.3	45.3	45.3	45.3
30°	331.3	286.8	133.5	50.8	45.3	43.7	42.9	42.1	42.1	42.1	42.1
32.5°	344.8	288.4	110.4	46.1	42.1	40.5	39.7	38.9	38.9	38.9	38.9
35°	365.4	297.1	90.6	42.9	38.9	37.3	36.5	35.8	35.8	35.8	35.0
37.5°	393.3	310.6	71.5	39.7	35.8	34.2	33.4	32.6	31.8	31.8	31.8
40°	426.6	324.9	59.6	35.8	32.6	31.0	30.2	29.4	28.6	27.8	27.8
42.5°	466.3	342.4	47.7	32.6	29.4	27.8	27.0	26.2	24.6	23.8	24.6
45°	510.8	359.1	40.5	30.2	27.0	25.4	24.6	23.0	21.5	20.7	20.7
47.5°	549.8	363.1	35.8	27.0	24.6	23.0	22.2	19.9	18.3	16.7	16.7
50°	576.0	355.9	31.8	24.6	22.2	21.5	19.9	16.7	14.3	13.5	12.7
52.5°	579.2	336.8	27.8	22.2	20.7	19.1	16.7	14.3	11.9	10.3	10.3
55°	576.0	305.1	24.6	20.7	18.3	16.7	14.3	11.1	8.7	7.9	7.2
57.5°	565.6	271.7	22.2	18.3	16.7	14.3	11.1	8.7	6.4	5.6	4.8
60°	546.6	231.2	19.9	16.7	14.3	11.9	8.7	6.4	4.0	3.2	3.2
62.5°	510.8	186.7	17.5	14.3	11.9	9.5	7.2	4.0	2.4	1.6	1.6
65°	440.1	139.8	15.1	11.9	9.5	7.9	4.8	2.4	0.8	0.0	0.0
67.5°	342.4	94.5	11.9	9.5	7.9	6.4	4.0	0.8	0.0	0.0	0.0
70°	201.8	50.1	9.5	7.2	6.4	4.8	2.4	0.8	0.0	0.0	0.0
72.5°	58.0	19.9	7.2	5.6	4.8	3.2	1.6	0.8	0.0	0.0	0.0
75°	23.8	11.9	4.8	4.0	4.0	2.4	0.8	0.8	0.0	0.0	0.0
77.5°	15.9	8.7	3.2	2.4	2.4	1.6	0.8	0.0	0.0	0.0	0.0
80°	12.7	4.8	1.6	1.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0
82.5°	11.1	3.2	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
85°	5.6	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	0.8	0.8	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



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)