

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: P437773

Luminaire Tested: **ISC-SA1E-830-U-T3-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437773  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-SA1E-830-U-T3-HSS  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA 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: 4206 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1

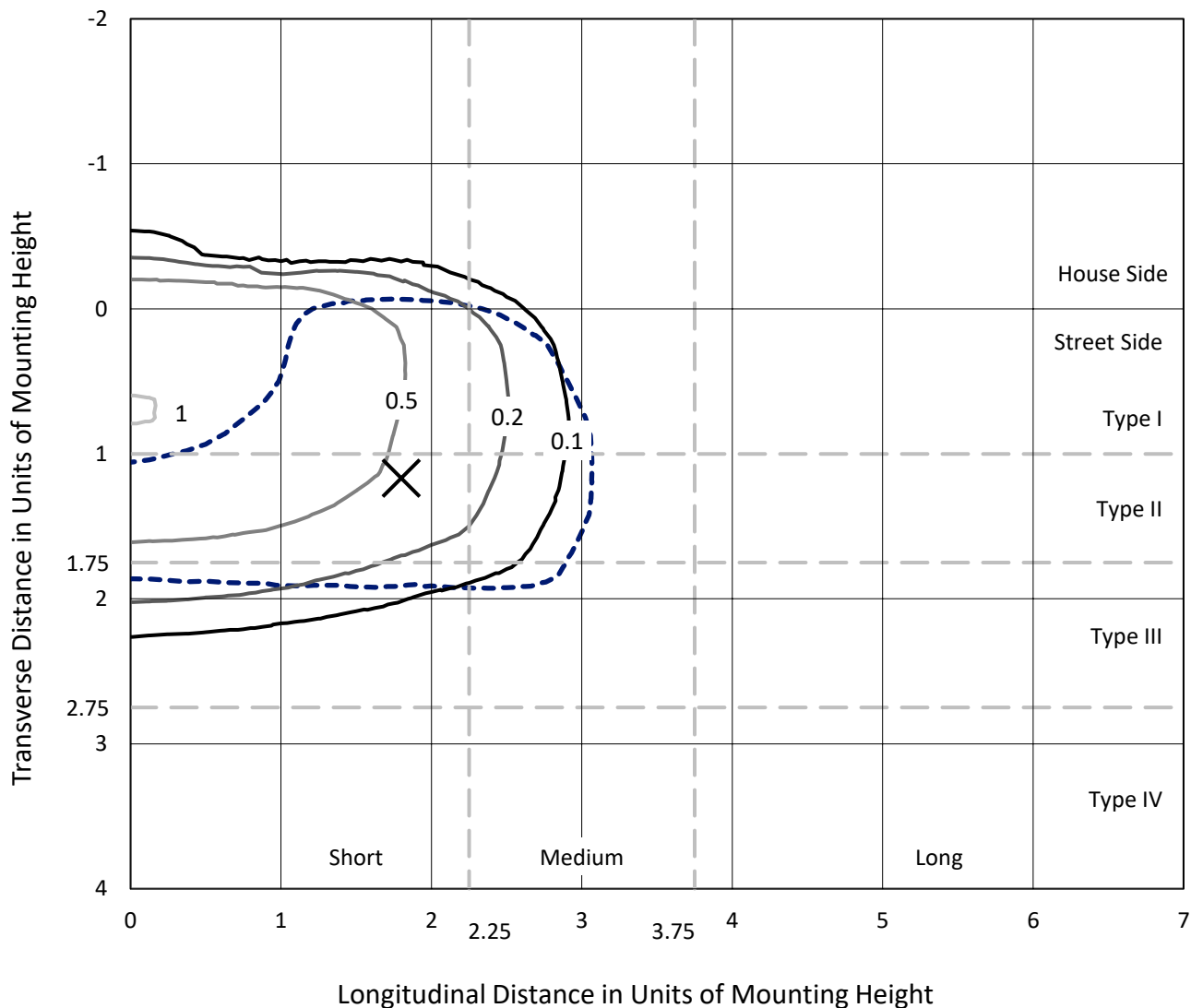
Input Watts (W): 58.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

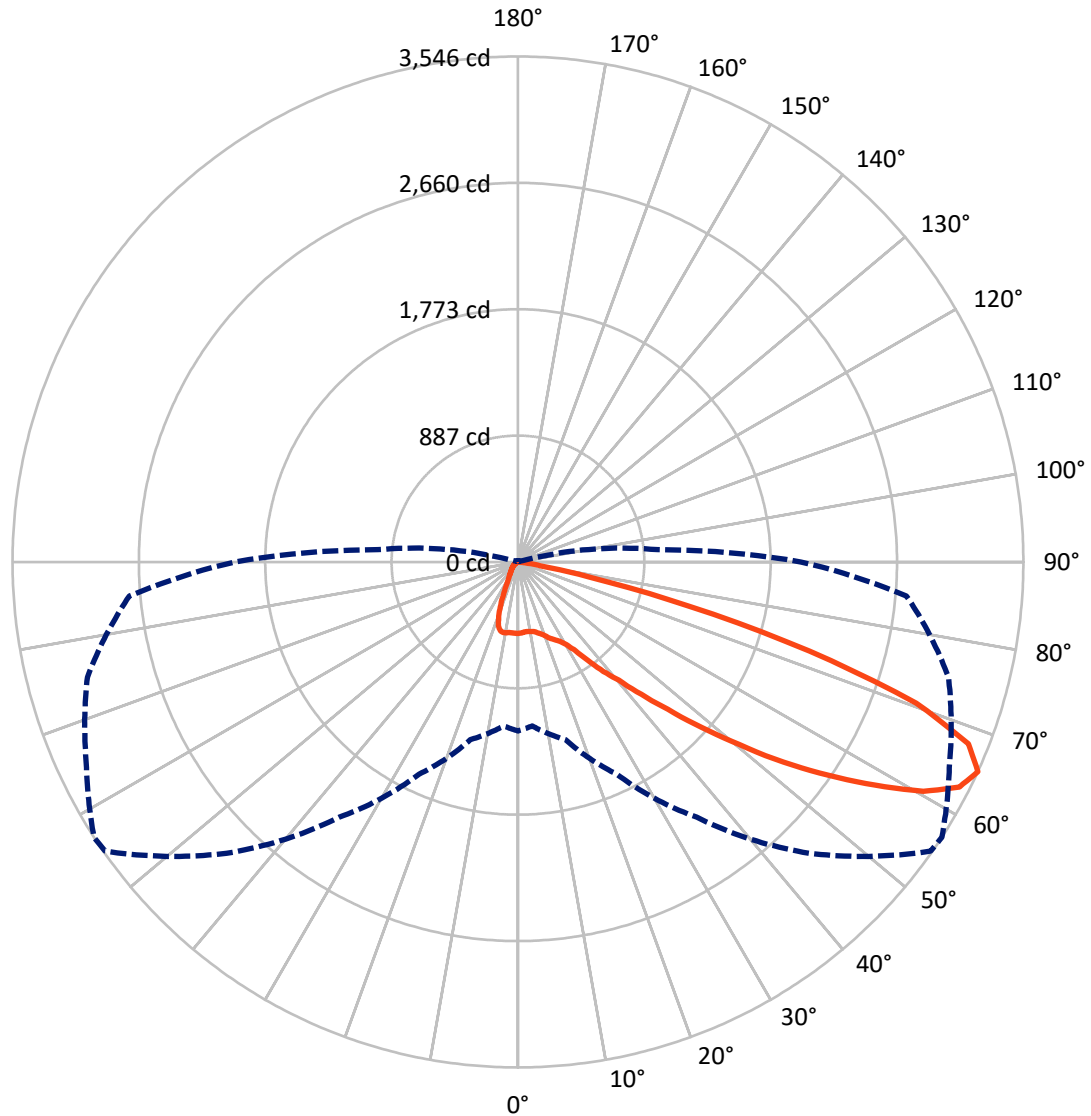
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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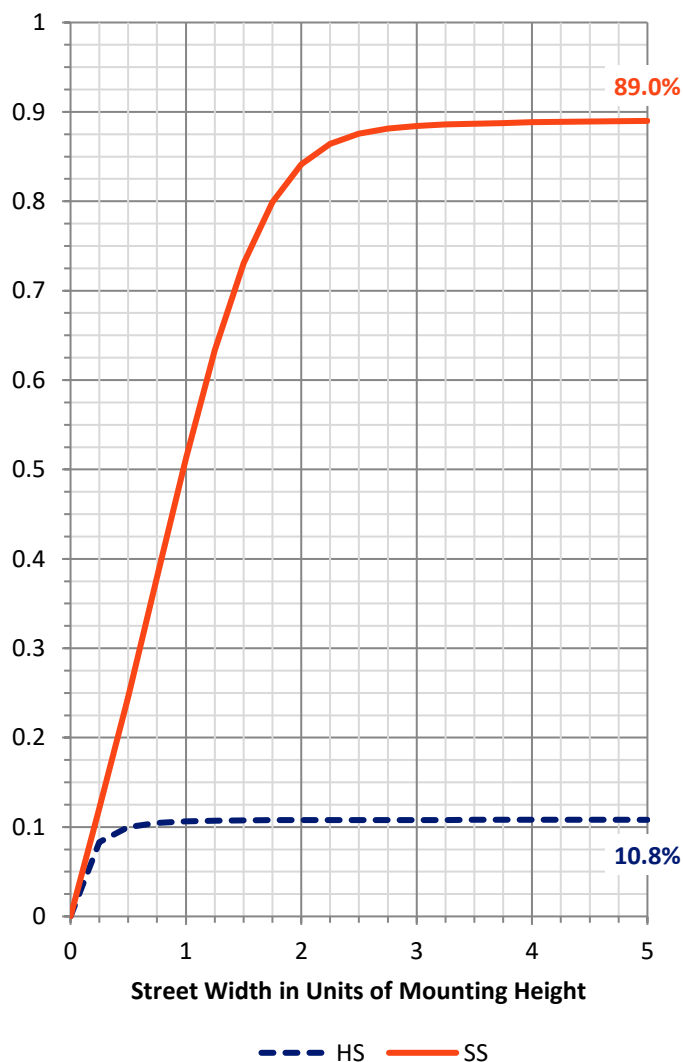
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	458.8	0.0	458.8
	% Fixture	10.9	0.0	10.9
<b>Street Side</b>	Lumens	3747.3	0.0	3747.3
	% Fixture	89.1	0.0	89.1
<b>Total</b>	Lumens	4206.0	0.0	4206.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.5	1.1
10°-20°	125.9	3.0
20°-30°	217.4	5.2
30°-40°	385.0	9.2
40°-50°	698.3	16.6
50°-60°	1176.3	28.0
60°-70°	1209.5	28.8
70°-80°	335.2	8.0
80°-90°	11.9	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°	4206.0	100.0
0°-180°	4206.0	100.0

**Coefficient of Utilization**



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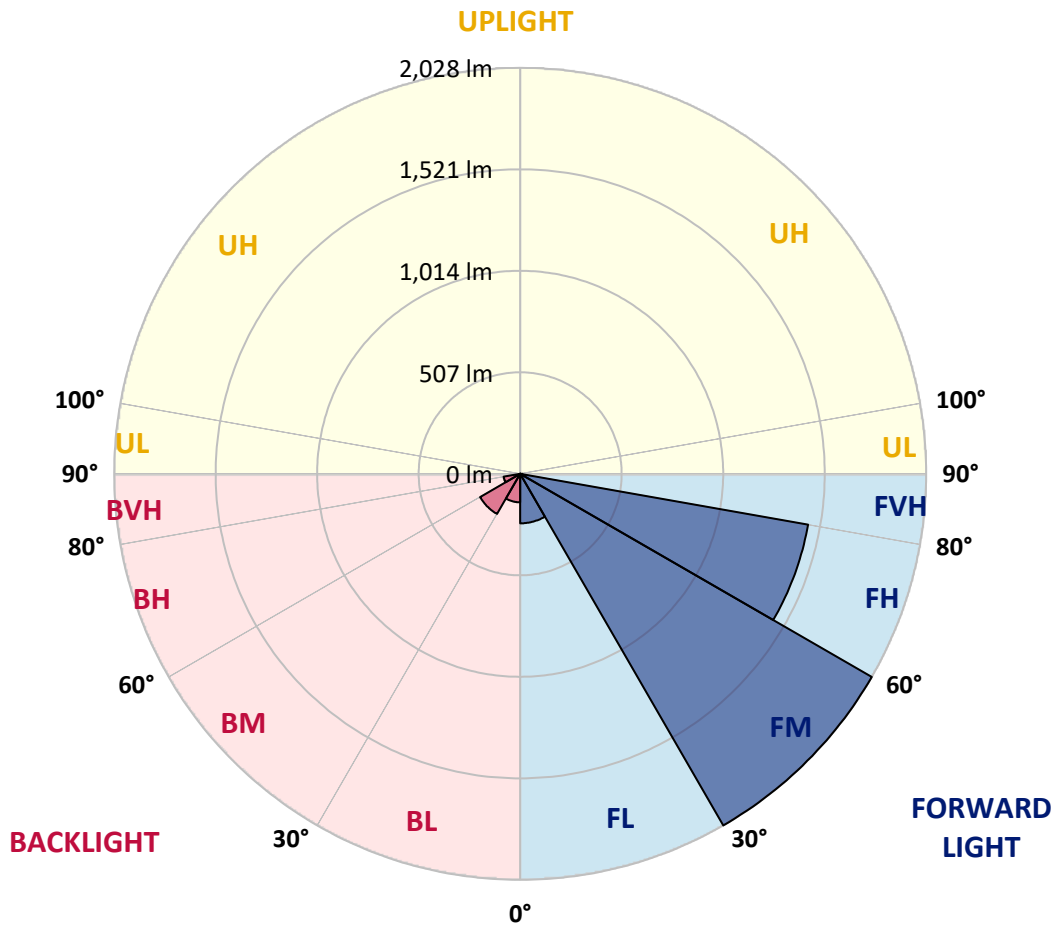
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	247.3	5.9			
FM (30°-60°)	2028.4	48.2			
FH (60°-80°)	1460.5	34.7			G1/1800
FVH (80°-90°)	11.0	0.3			G1/100
BL (0°-30°)	142.5	3.4	B1/500		
BM (30°-60°)	231.3	5.5	B1/1000		
BH (60°-80°)	84.2	2.0	B0/110		G0/110
BVH (80°-90°)	0.9	0.0			G0/10
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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5
2.5°	486.1	486.1	490.2	492.3	492.3	494.3	496.4	498.4	498.4	498.4	502.5
5°	461.5	459.4	463.5	467.6	473.8	482.0	488.1	492.3	498.4	504.6	506.6
7.5°	438.9	438.9	443.0	449.2	461.5	473.8	486.1	492.3	502.5	514.8	518.9
10°	432.8	430.7	436.9	443.0	455.3	469.7	488.1	496.4	510.7	527.1	533.3
12.5°	428.7	428.7	430.7	441.0	453.3	471.7	494.3	500.5	523.0	541.5	555.8
15°	426.6	426.6	430.7	438.9	453.3	473.8	504.6	514.8	541.5	568.1	580.4
17.5°	443.0	441.0	438.9	443.0	457.4	479.9	521.0	531.2	564.0	596.9	611.2
20°	492.3	490.2	484.0	469.7	469.7	496.4	541.5	553.8	596.9	629.7	637.9
22.5°	584.5	590.7	568.1	531.2	504.6	516.9	568.1	582.5	631.7	666.6	666.6
25°	717.9	709.7	689.2	627.6	574.3	549.7	590.7	605.1	664.5	705.6	697.4
27.5°	857.3	859.4	830.7	760.9	674.8	609.2	615.3	631.7	699.4	746.6	728.1
30°	968.1	959.9	945.5	888.1	793.8	703.5	662.5	672.7	738.4	791.7	775.3
32.5°	1066.5	1062.4	1044.0	994.8	910.7	814.3	740.4	742.5	793.8	859.4	838.9
35°	1154.7	1158.8	1150.6	1095.3	1019.4	929.1	845.0	851.2	890.2	957.8	916.8
37.5°	1265.5	1265.5	1251.1	1199.9	1142.4	1052.2	972.2	974.2	994.8	1050.1	998.9
40°	1361.9	1366.0	1363.9	1325.0	1269.6	1187.6	1091.2	1091.2	1097.3	1162.9	1136.3
42.5°	1493.2	1499.3	1497.3	1460.3	1417.3	1357.8	1275.7	1269.6	1265.5	1347.5	1318.8
45°	1661.3	1675.7	1681.9	1636.7	1597.8	1562.9	1499.3	1474.7	1485.0	1560.8	1538.3
47.5°	1821.3	1837.7	1866.4	1843.9	1825.4	1825.4	1739.3	1735.2	1718.8	1807.0	1745.4
50°	1973.1	1975.2	2016.2	2051.0	2106.4	2096.2	2038.7	2014.1	1989.5	2049.0	1938.2
52.5°	2059.2	2083.9	2137.2	2237.7	2358.7	2407.9	2348.4	2334.1	2284.9	2276.7	2124.9
55°	2139.2	2139.2	2223.3	2397.7	2602.8	2707.4	2658.2	2641.7	2543.3	2514.6	2317.7
57.5°	2165.9	2157.7	2270.5	2492.0	2799.7	2982.2	2992.5	2955.6	2818.1	2729.9	2514.6
60°	2032.6	2018.2	2137.2	2430.5	2853.0	3181.2	3291.9	3267.3	3056.1	2939.1	2721.7
62.5°	1649.0	1667.5	1819.3	2137.2	2664.3	3160.7	3490.9	3476.5	3232.4	3080.7	2803.8
65°	1185.5	1154.7	1290.1	1642.9	2186.4	2889.9	3536.0	3546.3	3341.1	3127.8	2736.1
67.5°	664.5	635.8	748.6	1017.3	1554.7	2371.0	3351.4	3408.8	3263.2	3010.9	2444.8
70°	254.3	270.7	348.7	502.5	916.8	1636.7	2883.8	2965.8	2861.2	2512.5	1821.3
72.5°	90.2	102.6	143.6	223.6	424.6	881.9	2016.2	2139.2	2108.5	1745.4	1041.9
75°	53.3	55.4	73.8	108.7	186.6	344.6	1138.3	1240.9	1191.7	863.5	430.7
77.5°	36.9	36.9	47.2	65.6	106.7	137.4	445.1	504.6	518.9	311.8	127.2
80°	22.6	24.6	32.8	43.1	61.5	63.6	137.4	162.0	151.8	110.8	45.1
82.5°	10.3	10.3	18.5	28.7	30.8	26.7	43.1	47.2	55.4	49.2	20.5
85°	0.0	0.0	6.2	10.3	8.2	6.2	14.4	14.4	18.5	22.6	10.3
87.5°	0.0	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1	4.1	2.1
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°	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5	500.5
2.5°	502.5	504.6	502.5	500.5	500.5	498.4	498.4	498.4	498.4	498.4	498.4
5°	506.6	508.7	506.6	502.5	498.4	494.3	490.2	490.2	490.2	490.2	494.3
7.5°	518.9	518.9	514.8	506.6	496.4	492.3	484.0	482.0	477.9	475.8	477.9
10°	537.4	537.4	529.2	516.9	500.5	484.0	469.7	449.2	436.9	428.7	426.6
12.5°	555.8	553.8	543.5	527.1	500.5	463.5	416.4	365.1	334.3	311.8	307.7
15°	580.4	578.4	562.0	533.3	488.1	410.2	317.9	248.2	211.3	194.8	192.8
17.5°	607.1	603.0	580.4	537.4	449.2	309.7	209.2	162.0	147.7	143.6	143.6
20°	635.8	629.7	594.8	531.2	371.2	211.3	145.6	135.4	133.3	131.3	131.3
22.5°	658.4	648.1	605.1	500.5	276.9	145.6	129.2	127.2	125.1	123.1	123.1
25°	683.0	666.6	613.3	432.8	182.5	125.1	121.0	119.0	114.9	112.8	112.8
27.5°	711.7	687.1	625.6	340.5	127.2	112.8	108.7	106.7	100.5	96.4	96.4
30°	748.6	717.9	631.7	248.2	106.7	98.5	94.3	90.2	82.0	77.9	77.9
32.5°	808.1	781.4	619.4	166.1	96.4	88.2	82.0	73.8	65.6	61.5	59.5
35°	884.0	847.1	576.3	116.9	86.1	77.9	67.7	57.4	51.3	49.2	49.2
37.5°	968.1	918.9	510.7	94.3	77.9	67.7	57.4	47.2	41.0	39.0	39.0
40°	1087.1	1011.2	420.5	82.0	67.7	57.4	47.2	39.0	34.9	32.8	32.8
42.5°	1242.9	1128.1	317.9	75.9	61.5	49.2	39.0	32.8	28.7	26.7	26.7
45°	1417.3	1251.1	231.8	67.7	53.3	41.0	30.8	26.7	22.6	20.5	20.5
47.5°	1591.6	1339.3	160.0	61.5	45.1	34.9	26.7	20.5	16.4	16.4	14.4
50°	1743.4	1386.5	114.9	53.3	41.0	28.7	20.5	16.4	14.4	12.3	12.3
52.5°	1876.7	1407.0	88.2	47.2	34.9	24.6	16.4	14.4	12.3	12.3	12.3
55°	1989.5	1390.6	69.7	41.0	30.8	20.5	14.4	12.3	10.3	10.3	10.3
57.5°	2100.3	1341.4	55.4	34.9	24.6	14.4	12.3	10.3	8.2	8.2	8.2
60°	2157.7	1277.8	45.1	28.7	20.5	12.3	10.3	8.2	8.2	6.2	6.2
62.5°	2118.7	1148.6	36.9	24.6	14.4	10.3	8.2	6.2	6.2	4.1	4.1
65°	1987.5	984.5	28.7	18.5	10.3	8.2	6.2	6.2	4.1	2.1	2.1
67.5°	1675.7	771.2	22.6	14.4	8.2	6.2	4.1	4.1	2.1	0.0	0.0
70°	1197.8	508.7	18.5	10.3	6.2	6.2	4.1	2.1	0.0	0.0	0.0
72.5°	691.2	246.1	14.4	6.2	4.1	4.1	2.1	2.1	0.0	0.0	0.0
75°	258.4	86.1	12.3	6.2	4.1	2.1	2.1	2.1	0.0	0.0	0.0
77.5°	86.1	34.9	10.3	8.2	6.2	2.1	2.1	0.0	0.0	0.0	0.0
80°	26.7	16.4	4.1	4.1	4.1	4.1	2.1	0.0	0.0	0.0	0.0
82.5°	14.4	8.2	2.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
85°	6.2	4.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	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**



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**

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			

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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)