

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: P437771

Luminaire Tested: **ISC-SA1E-830-U-T2-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437771  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-7)  
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-T2-HSS  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4384.1 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

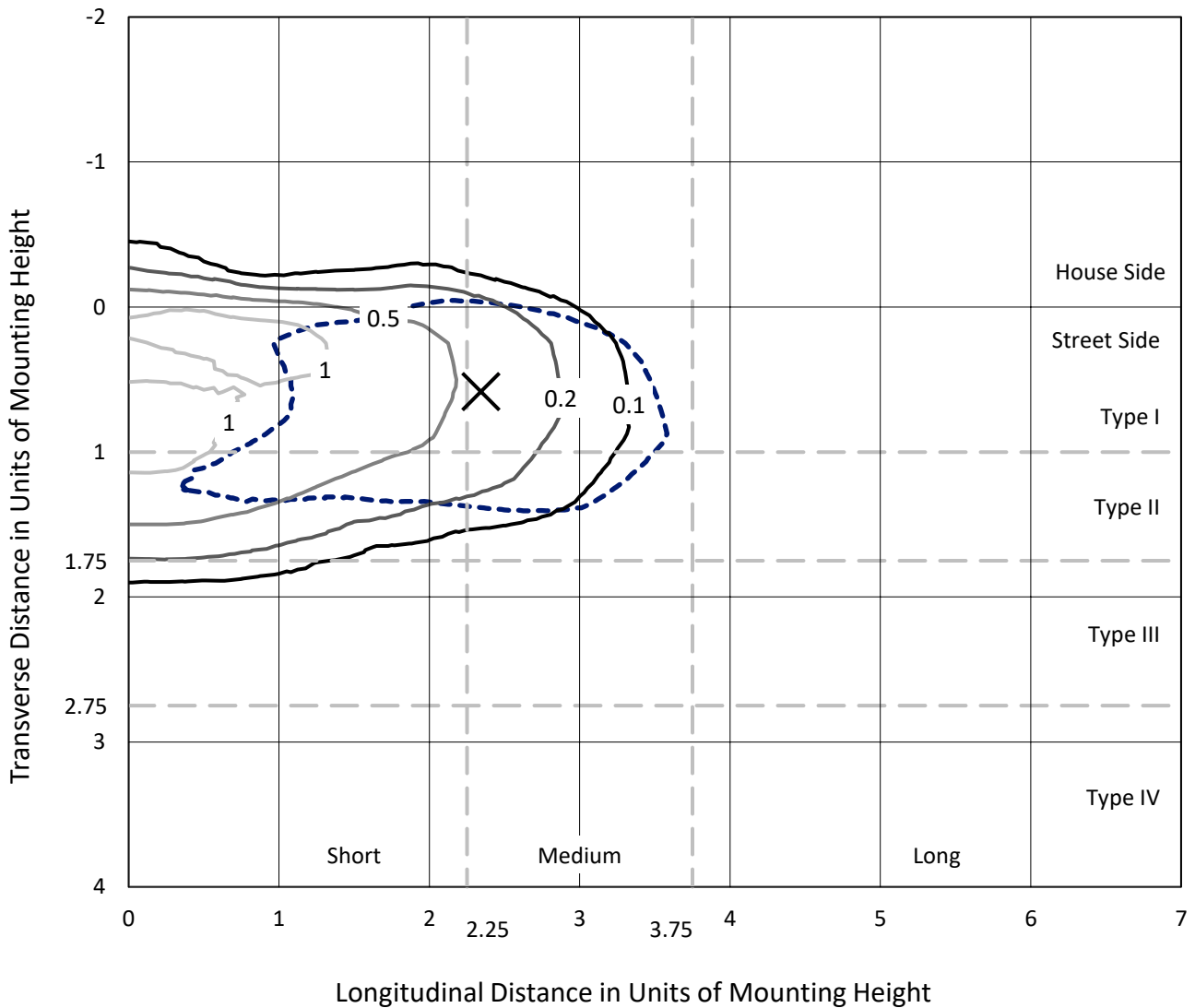
Input Watts (W): 58.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

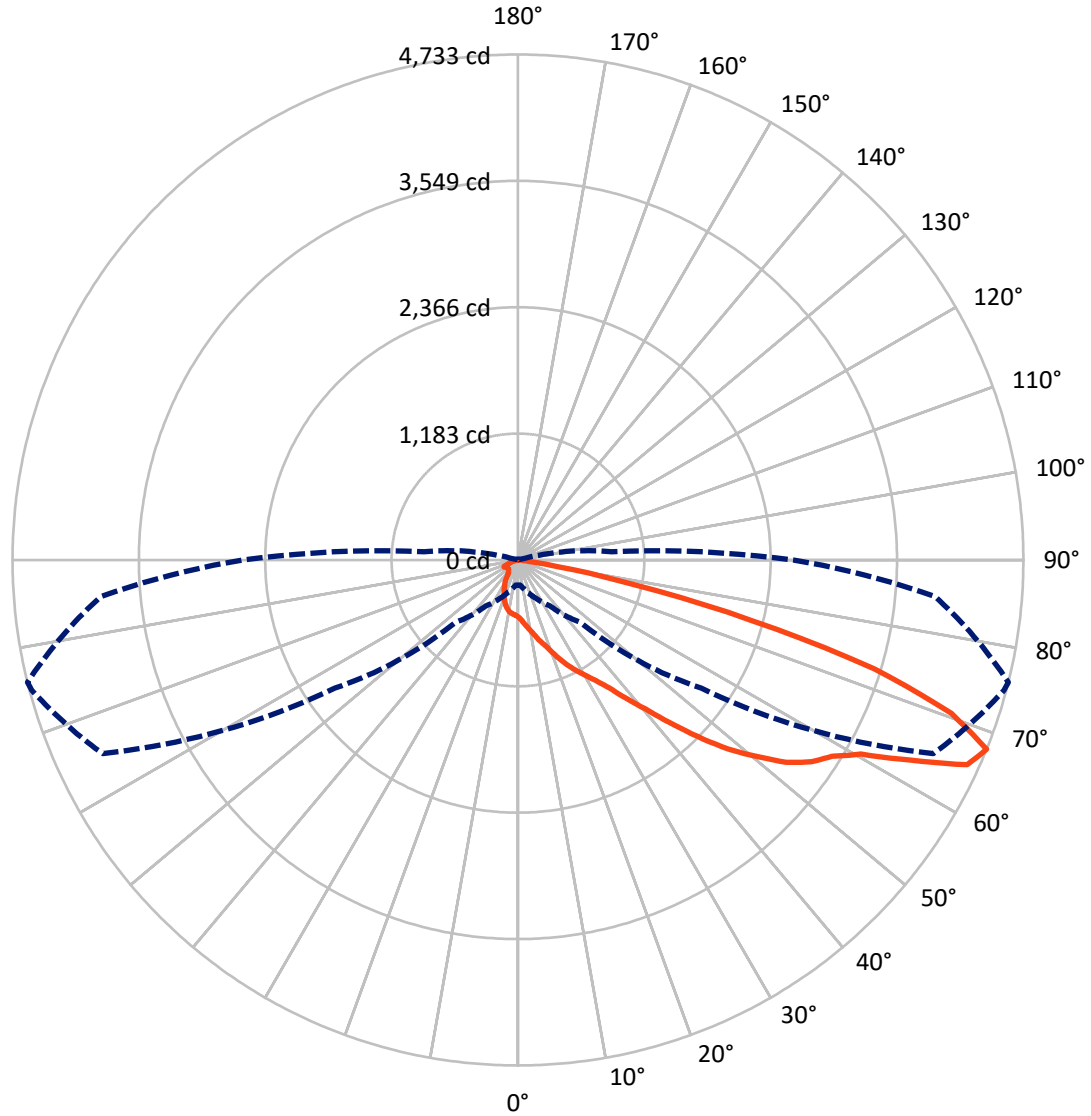
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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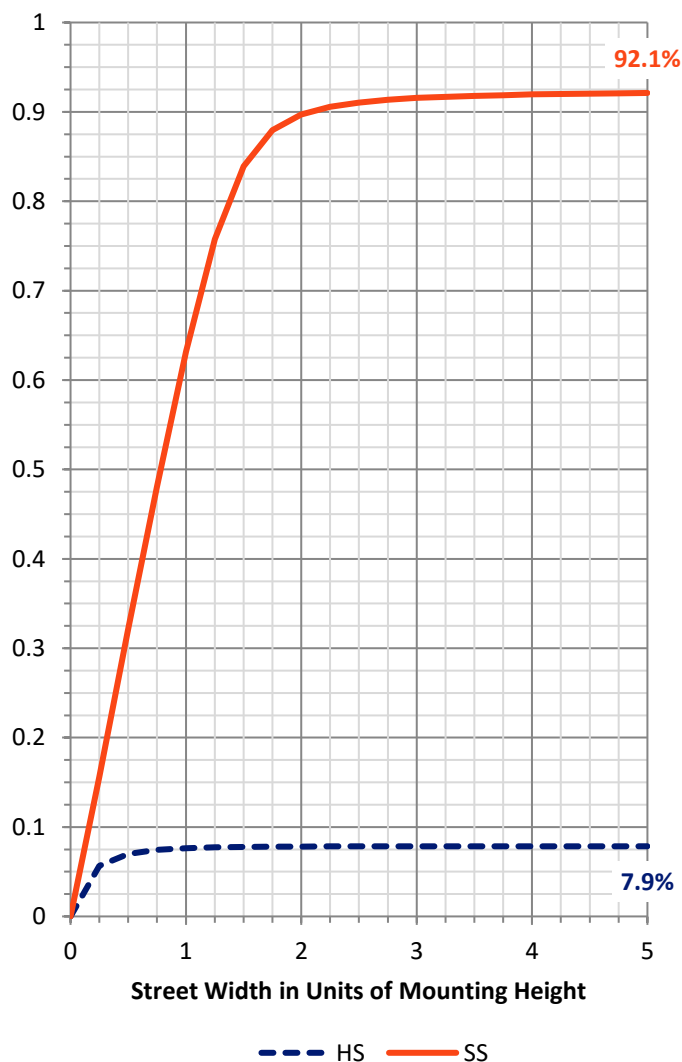
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	346.9	0.0	346.9
	% Fixture	7.9	0.0	7.9
<b>Street Side</b>	Lumens	4037.2	0.0	4037.2
	% Fixture	92.1	0.0	92.1
<b>Total</b>	Lumens	4384.1	0.0	4384.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	1.2
10°-20°	142.5	3.2
20°-30°	245.8	5.6
30°-40°	437.9	10.0
40°-50°	779.9	17.8
50°-60°	1169.5	26.7
60°-70°	1107.7	25.3
70°-80°	431.7	9.8
80°-90°	17.9	0.4
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°	4384.1	100.0
0°-180°	4384.1	100.0

**Coefficient of Utilization**



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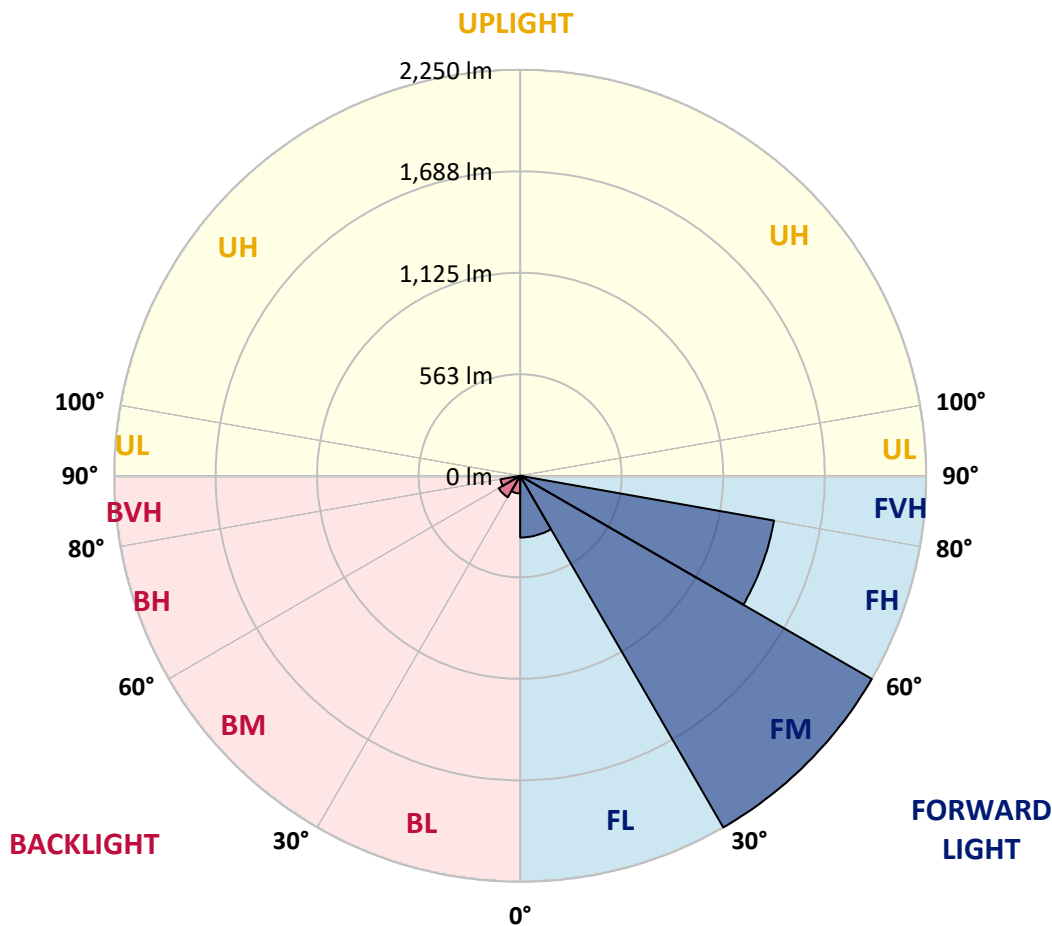
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	341.8	7.8			
FM (30°-60°)	2250.4	51.3			
FH (60°-80°)	1428.7	32.6			G1/1800
FVH (80°-90°)	16.3	0.4			G1/100
BL (0°-30°)	97.6	2.2	B0/110		
BM (30°-60°)	136.9	3.1	B0/220		
BH (60°-80°)	110.7	2.5	B1/500		G1/500
BVH (80°-90°)	1.6	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	631.6	625.4	621.3	619.3	615.2	602.9	592.6	574.1	557.7	557.7	547.5
5°	689.0	686.9	678.7	674.6	672.6	664.4	645.9	623.4	596.7	594.7	570.0
7.5°	705.4	707.4	707.4	711.5	713.6	709.5	693.1	672.6	637.7	633.6	596.7
10°	699.2	699.2	705.4	717.7	734.1	742.3	740.2	723.8	682.8	678.7	627.5
12.5°	676.7	680.8	691.0	711.5	742.3	766.9	781.2	775.1	734.1	730.0	668.5
15°	645.9	650.0	668.5	697.2	738.2	785.4	818.2	836.6	795.6	791.5	711.5
17.5°	602.9	607.0	627.5	670.5	727.9	793.6	857.1	894.0	859.2	846.9	756.6
20°	586.4	590.6	607.0	641.8	709.5	793.6	892.0	961.7	935.0	924.8	814.1
22.5°	652.1	650.0	635.7	639.8	691.0	787.4	918.6	1045.8	1025.3	1010.9	875.6
25°	771.0	779.2	758.7	711.5	703.3	781.2	937.1	1111.4	1109.3	1095.0	939.1
27.5°	908.4	912.5	889.9	840.7	773.0	793.6	957.6	1177.0	1187.3	1175.0	988.4
30°	1021.2	1035.5	1019.1	974.0	902.2	846.9	971.9	1236.5	1271.3	1254.9	1035.5
32.5°	1183.2	1189.3	1172.9	1107.3	1033.5	949.4	998.6	1287.7	1363.6	1349.2	1090.9
35°	1353.3	1361.5	1330.8	1259.0	1168.8	1074.5	1062.2	1357.4	1496.9	1468.2	1175.0
37.5°	1505.1	1513.3	1498.9	1410.8	1322.6	1222.1	1175.0	1451.8	1658.9	1640.4	1279.5
40°	1626.1	1646.6	1642.5	1566.6	1484.6	1394.4	1336.9	1562.5	1845.5	1829.1	1412.8
42.5°	1749.1	1763.5	1755.2	1699.9	1642.5	1587.1	1515.3	1716.3	2085.4	2077.2	1578.9
45°	1902.9	1925.4	1915.2	1870.1	1800.4	1788.1	1720.4	1900.8	2370.4	2358.1	1779.9
47.5°	2130.5	2151.0	2134.6	2073.1	1993.1	1970.6	1913.1	2110.0	2649.3	2643.1	1978.8
50°	2253.5	2274.0	2317.1	2327.3	2274.0	2153.0	2085.4	2308.9	2899.4	2889.2	2169.5
52.5°	2210.5	2228.9	2333.5	2431.9	2548.8	2446.3	2294.5	2524.2	3129.1	3147.6	2356.1
55°	2025.9	2050.5	2200.2	2358.1	2641.1	2778.5	2604.2	2768.2	3309.5	3336.2	2479.1
57.5°	1652.7	1681.4	1874.2	2118.2	2499.6	2862.5	2987.6	3104.5	3432.6	3467.4	2637.0
60°	990.4	1035.5	1234.4	1558.4	2087.4	2663.6	3260.3	3588.4	3672.5	3688.9	2973.3
62.5°	549.5	539.3	699.2	965.8	1439.5	2163.3	3219.3	4176.9	4125.7	4125.7	3547.4
65°	330.1	340.4	422.4	574.1	836.6	1427.2	2870.7	4539.9	4607.5	4621.9	4012.9
67.5°	233.8	235.8	295.3	393.7	522.9	822.3	2093.6	4289.7	4712.1	4732.6	3920.6
70°	151.7	153.8	211.2	280.9	373.2	453.2	1279.5	3535.1	4316.4	4306.1	3467.4
72.5°	92.3	96.4	133.3	207.1	287.1	256.3	689.0	2555.0	3420.3	3490.0	2721.0
75°	57.4	61.5	80.0	143.5	201.0	174.3	303.5	1706.0	2206.4	2259.7	1757.3
77.5°	32.8	36.9	51.3	82.0	143.5	121.0	143.5	896.1	1068.3	1103.2	705.4
80°	12.3	14.4	26.7	41.0	88.2	73.8	65.6	303.5	340.4	381.4	215.3
82.5°	2.1	4.1	12.3	24.6	34.9	34.9	28.7	92.3	94.3	100.5	57.4
85°	0.0	0.0	4.1	6.2	6.2	6.2	10.3	18.5	28.7	28.7	16.4
87.5°	0.0	0.0	0.0	0.0	2.1	2.1	2.1	4.1	4.1	4.1	4.1
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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 CATALOG NUMBER: ISC-SA1E-830-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	537.2	533.1	516.7	500.3	488.0	477.8	461.4	461.4	455.2	449.1	451.1
5°	551.6	539.3	508.5	477.8	449.1	422.4	399.9	389.6	375.2	371.1	369.1
7.5°	570.0	547.5	496.2	447.0	399.9	365.0	336.3	317.8	301.4	297.3	299.4
10°	592.6	559.8	481.9	406.0	348.6	305.5	272.7	258.4	239.9	233.8	227.6
12.5°	625.4	574.1	459.3	360.9	297.3	254.3	207.1	172.2	159.9	155.8	155.8
15°	652.1	582.3	430.6	317.8	254.3	186.6	147.6	141.5	139.4	139.4	139.4
17.5°	682.8	588.5	395.8	276.8	196.9	137.4	129.2	129.2	127.1	127.1	125.1
20°	715.6	590.6	358.8	239.9	139.4	123.0	116.9	114.8	110.7	108.7	108.7
22.5°	752.5	588.5	317.8	196.9	123.0	112.8	102.5	98.4	94.3	90.2	90.2
25°	783.3	584.4	280.9	141.5	112.8	98.4	88.2	82.0	77.9	75.9	73.8
27.5°	810.0	561.8	244.0	121.0	102.5	88.2	75.9	69.7	65.6	63.6	63.6
30°	812.0	524.9	213.3	112.8	94.3	77.9	65.6	61.5	59.5	57.4	57.4
32.5°	824.3	488.0	180.4	106.6	84.1	69.7	59.5	55.4	51.3	51.3	51.3
35°	848.9	455.2	139.4	96.4	75.9	61.5	53.3	49.2	47.2	45.1	45.1
37.5°	887.9	432.7	114.8	88.2	69.7	55.4	49.2	45.1	43.1	41.0	41.0
40°	939.1	420.4	104.6	80.0	61.5	51.3	45.1	41.0	36.9	34.9	34.9
42.5°	1027.3	420.4	96.4	71.8	55.4	47.2	41.0	36.9	32.8	30.8	30.8
45°	1129.8	436.8	90.2	63.6	49.2	43.1	36.9	30.8	26.7	24.6	24.6
47.5°	1242.6	467.5	84.1	57.4	45.1	39.0	32.8	24.6	20.5	18.5	18.5
50°	1373.9	512.6	80.0	51.3	41.0	34.9	26.7	18.5	16.4	14.4	14.4
52.5°	1484.6	557.7	73.8	47.2	36.9	30.8	20.5	16.4	12.3	12.3	12.3
55°	1589.2	607.0	69.7	43.1	34.9	24.6	16.4	12.3	10.3	10.3	10.3
57.5°	1728.6	668.5	63.6	39.0	28.7	18.5	14.4	10.3	8.2	8.2	8.2
60°	2013.6	805.9	55.4	34.9	24.6	16.4	12.3	10.3	8.2	6.2	6.2
62.5°	2477.0	1029.4	47.2	30.8	18.5	14.4	10.3	8.2	6.2	4.1	4.1
65°	2770.3	1084.7	39.0	24.6	14.4	10.3	8.2	6.2	4.1	2.1	2.1
67.5°	2581.6	881.7	30.8	18.5	12.3	8.2	6.2	4.1	2.1	0.0	0.0
70°	2179.7	666.4	22.6	12.3	10.3	6.2	4.1	2.1	0.0	0.0	0.0
72.5°	1722.4	506.5	20.5	10.3	8.2	4.1	4.1	2.1	0.0	0.0	0.0
75°	1129.8	260.4	16.4	10.3	6.2	4.1	2.1	2.1	0.0	0.0	0.0
77.5°	445.0	98.4	12.3	8.2	6.2	4.1	2.1	2.1	0.0	0.0	0.0
80°	121.0	32.8	6.2	4.1	4.1	2.1	2.1	2.1	0.0	0.0	0.0
82.5°	30.8	14.4	4.1	4.1	2.1	2.1	2.1	2.1	2.1	0.0	0.0
85°	10.3	4.1	4.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
87.5°	4.1	4.1	4.1	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**



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)