

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: P437262

Luminaire Tested: **ISC-SA1B-830-U-T4FT-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437262  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-SA1B-830-U-T4FT-HSS  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1960 lumens  
Efficiency: N/A  
Efficacy: 77.2 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

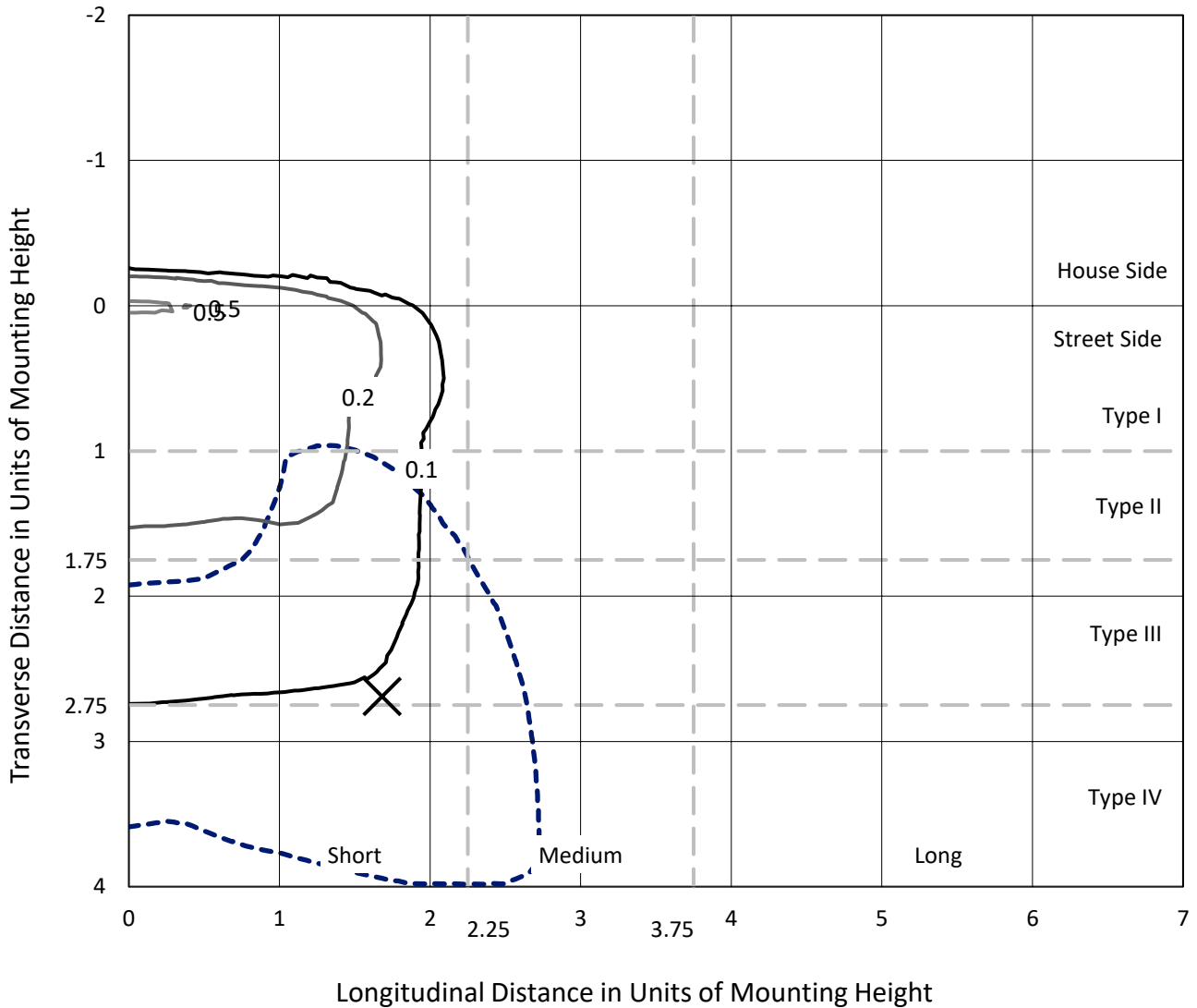
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

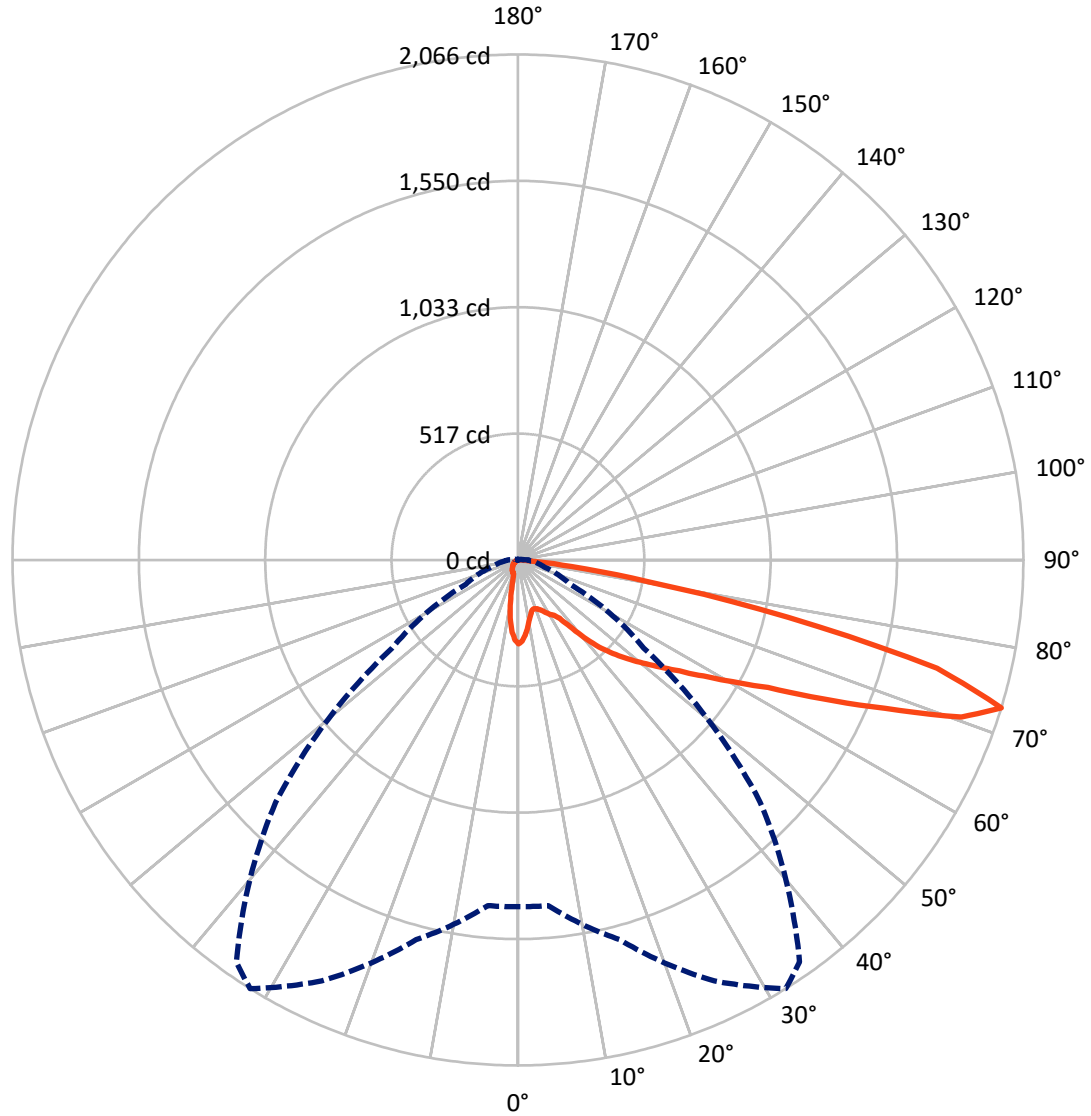
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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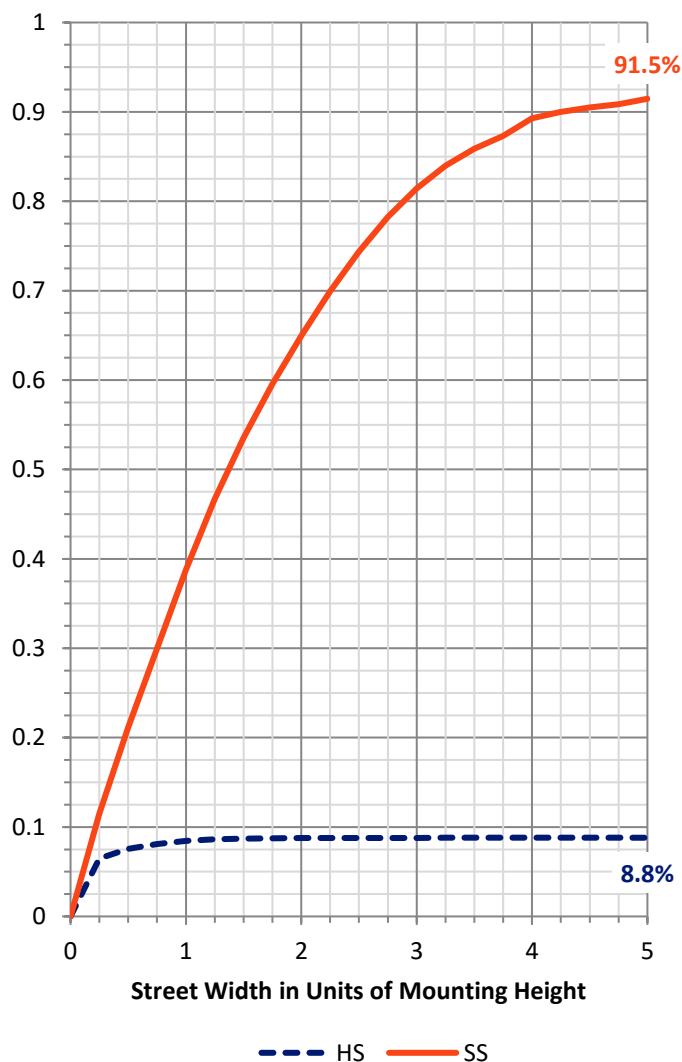
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	173.5	0.0	173.5
	% Fixture	8.9	0.0	8.9
<b>Street Side</b>	Lumens	1786.5	0.0	1786.5
	% Fixture	91.1	0.0	91.1
<b>Total</b>	Lumens	1960.0	0.0	1960.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.5	1.5
10°-20°	61.9	3.2
20°-30°	93.7	4.8
30°-40°	151.1	7.7
40°-50°	267.6	13.7
50°-60°	409.8	20.9
60°-70°	548.3	28.0
70°-80°	378.5	19.3
80°-90°	20.5	1.0
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°	1960.0	100.0
0°-180°	1960.0	100.0

**Coefficient of Utilization**



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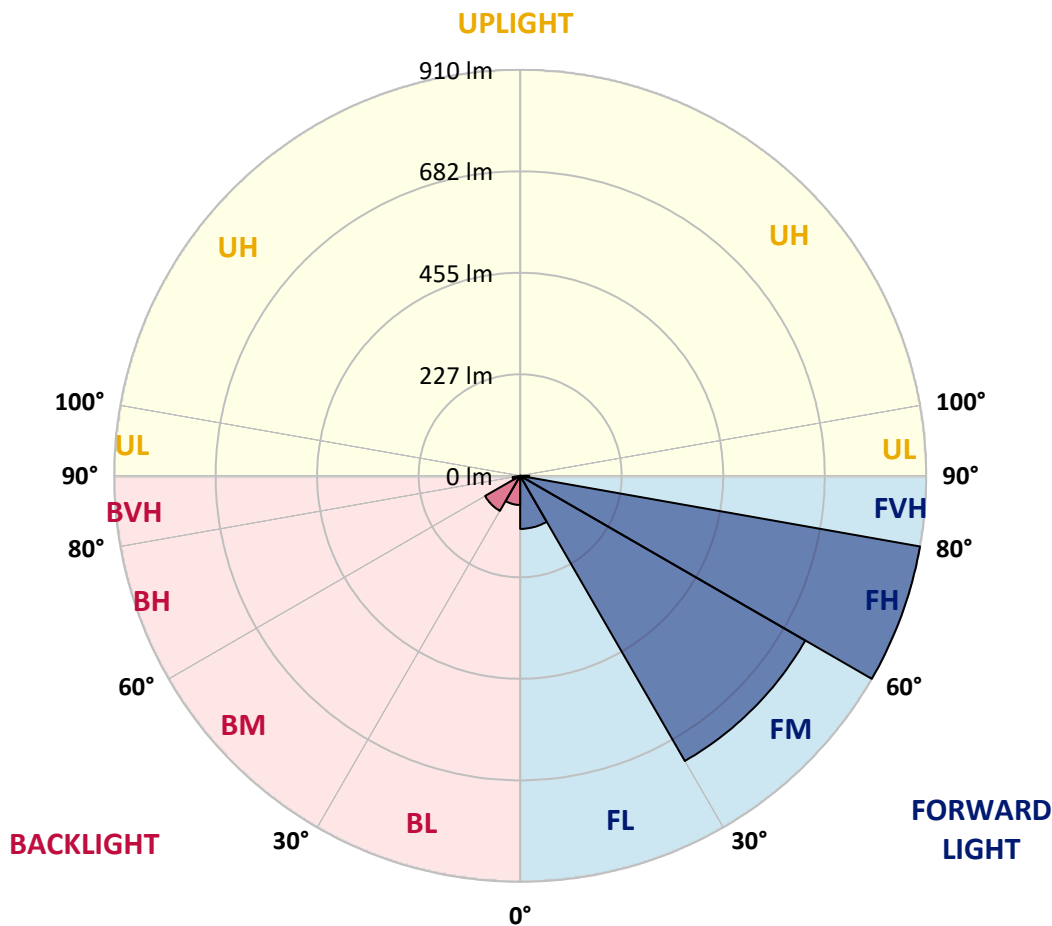
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	118.8	6.1			
FM (30°-60°)	737.8	37.6			
FH (60°-80°)	909.6	46.4			G1/1800
FVH (80°-90°)	20.2	1.0			G1/100
BL (0°-30°)	65.3	3.3	B0/110		
BM (30°-60°)	90.7	4.6	B0/220		
BH (60°-80°)	17.2	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°	32°	35°	45°	55°	65°	75°	85°
0°	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4
2.5°	330.5	330.5	331.5	332.5	332.5	335.5	339.4	340.4	343.4	345.4	346.4
5°	295.8	299.7	299.7	304.7	308.7	312.6	322.6	328.5	338.4	345.4	347.4
7.5°	264.0	265.0	268.0	273.9	281.9	284.8	297.7	314.6	333.5	345.4	350.3
10°	232.2	233.2	235.2	244.1	252.1	259.0	276.9	297.7	324.5	345.4	354.3
12.5°	209.4	209.4	211.4	221.3	230.3	237.2	257.0	283.8	315.6	346.4	360.3
15°	201.5	201.5	200.5	205.4	213.4	219.3	242.2	271.9	307.7	348.4	366.2
17.5°	205.4	205.4	201.5	202.5	209.4	213.4	233.2	263.0	303.7	352.3	376.1
20°	213.4	213.4	205.4	205.4	212.4	215.4	232.2	258.0	301.7	359.3	390.0
22.5°	222.3	223.3	212.4	212.4	219.3	222.3	238.2	261.0	304.7	368.2	403.9
25°	237.2	237.2	223.3	223.3	229.3	234.2	249.1	270.0	308.7	379.1	425.8
27.5°	258.0	257.0	239.2	234.2	243.2	247.1	264.0	280.9	312.6	392.0	445.6
30°	282.9	277.9	260.0	250.1	258.0	261.0	277.9	295.8	324.5	410.9	476.4
32.5°	309.7	311.6	282.9	265.0	269.0	272.9	294.8	318.6	344.4	435.7	518.1
35°	362.3	362.3	332.5	298.7	291.8	293.8	317.6	348.4	369.2	477.4	565.7
37.5°	427.8	429.7	402.0	366.2	344.4	335.5	352.3	384.1	404.9	530.0	618.3
40°	499.2	496.2	467.5	434.7	416.8	405.9	397.0	434.7	453.6	586.5	670.9
42.5°	558.8	552.8	514.1	497.2	486.3	472.4	454.6	498.2	516.1	658.0	731.4
45°	597.5	592.5	553.8	548.8	544.9	536.9	540.9	574.6	591.5	740.4	795.0
47.5°	627.2	620.3	587.5	594.5	602.4	610.4	645.1	669.9	665.9	815.8	846.6
50°	667.9	658.0	627.2	641.1	662.0	677.9	757.3	764.2	733.4	880.3	893.2
52.5°	692.7	680.8	672.9	695.7	726.5	746.3	880.3	853.5	787.0	927.0	929.9
55°	713.6	712.6	726.5	756.3	800.9	825.7	981.6	929.9	821.8	974.6	949.8
57.5°	777.1	773.1	797.0	820.8	895.2	936.9	1090.7	985.5	846.6	1000.4	938.9
60°	867.4	869.4	870.4	914.1	1009.3	1066.9	1177.1	1032.2	865.4	1004.4	907.1
62.5°	1008.3	1022.2	998.4	1032.2	1147.3	1219.7	1260.4	1065.9	859.5	975.6	826.7
65°	1212.8	1207.8	1174.1	1211.8	1365.6	1410.3	1346.8	1075.8	824.7	876.4	675.9
67.5°	1421.2	1423.2	1407.3	1466.9	1616.7	1608.8	1444.0	1042.1	735.4	662.0	423.8
70°	1557.2	1560.2	1599.9	1760.6	1923.4	1868.8	1523.4	923.0	518.1	315.6	160.8
72.5°	1417.2	1418.2	1606.8	1898.6	2066.3	2006.8	1400.4	627.2	236.2	112.1	56.6
75°	897.2	852.5	1193.9	1609.8	1769.6	1711.0	998.4	292.8	104.2	56.6	23.8
77.5°	312.6	317.6	486.3	927.0	1130.4	1154.2	513.1	96.3	57.6	38.7	12.9
80°	62.5	70.5	143.9	341.4	535.9	556.8	185.6	46.6	37.7	29.8	6.9
82.5°	4.0	5.0	42.7	141.9	219.3	208.4	36.7	23.8	25.8	20.8	4.0
85°	0.0	0.0	3.0	23.8	39.7	29.8	4.0	6.0	10.9	11.9	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4	343.4
2.5°	346.4	346.4	341.4	339.4	336.4	332.5	328.5	326.5	322.6	323.5	323.5
5°	347.4	345.4	339.4	330.5	320.6	310.6	298.7	290.8	281.9	283.8	282.9
7.5°	349.3	348.4	334.5	318.6	300.7	278.9	258.0	240.2	224.3	220.3	217.4
10°	353.3	350.3	330.5	304.7	269.0	233.2	197.5	166.7	153.8	139.9	137.0
12.5°	357.3	352.3	323.5	284.8	230.3	177.7	131.0	103.2	86.3	81.4	79.4
15°	363.2	355.3	314.6	257.0	184.6	120.1	82.4	67.5	64.5	63.5	63.5
17.5°	371.2	357.3	305.7	225.3	136.0	77.4	60.5	60.5	61.5	62.5	62.5
20°	383.1	362.3	292.8	186.6	91.3	58.6	57.6	58.6	59.5	60.5	60.5
22.5°	396.0	370.2	277.9	145.9	64.5	54.6	54.6	55.6	56.6	57.6	57.6
25°	410.9	376.1	258.0	104.2	53.6	51.6	51.6	52.6	53.6	54.6	54.6
27.5°	426.8	383.1	231.2	71.5	48.6	48.6	49.6	50.6	51.6	51.6	52.6
30°	450.6	394.0	203.5	52.6	44.7	44.7	46.6	48.6	49.6	49.6	50.6
32.5°	481.3	402.9	165.7	44.7	41.7	40.7	42.7	45.7	47.6	48.6	48.6
35°	515.1	415.8	124.1	40.7	38.7	37.7	38.7	41.7	45.7	47.6	47.6
37.5°	549.8	427.8	92.3	38.7	35.7	34.7	35.7	37.7	41.7	45.7	46.6
40°	584.6	429.7	66.5	35.7	33.7	32.8	32.8	34.7	38.7	42.7	43.7
42.5°	620.3	437.7	50.6	33.7	30.8	30.8	30.8	31.8	34.7	37.7	38.7
45°	661.0	442.6	40.7	30.8	28.8	28.8	28.8	28.8	30.8	31.8	31.8
47.5°	695.7	435.7	32.8	27.8	26.8	26.8	26.8	25.8	25.8	24.8	24.8
50°	720.5	419.8	26.8	24.8	24.8	25.8	23.8	21.8	21.8	19.8	19.8
52.5°	735.4	396.0	22.8	21.8	23.8	23.8	20.8	19.8	17.9	15.9	14.9
55°	734.4	356.3	19.8	18.9	20.8	20.8	17.9	15.9	13.9	11.9	11.9
57.5°	705.6	312.6	17.9	15.9	17.9	16.9	14.9	11.9	9.9	7.9	7.9
60°	661.0	266.0	15.9	12.9	13.9	12.9	11.9	8.9	6.9	5.0	5.0
62.5°	600.4	222.3	12.9	10.9	9.9	9.9	8.9	6.9	4.0	3.0	3.0
65°	485.3	164.7	9.9	7.9	6.9	7.9	6.0	4.0	2.0	1.0	1.0
67.5°	299.7	94.3	7.9	6.0	5.0	6.0	4.0	3.0	1.0	0.0	0.0
70°	118.1	40.7	6.0	4.0	4.0	4.0	3.0	2.0	0.0	0.0	0.0
72.5°	40.7	17.9	5.0	3.0	3.0	2.0	2.0	1.0	0.0	0.0	0.0
75°	17.9	10.9	4.0	3.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0
77.5°	9.9	6.9	3.0	2.0	2.0	1.0	1.0	1.0	0.0	0.0	0.0
80°	6.0	4.0	2.0	2.0	2.0	1.0	1.0	1.0	0.0	0.0	0.0
82.5°	4.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
85°	2.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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  
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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)