

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: P437601

Luminaire Tested: **ISC-SA1D-830-U-T2**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437601  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISC-SA1D-830-U-T2  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4591 lumens  
Efficiency: N/A  
Efficacy: 101.6 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

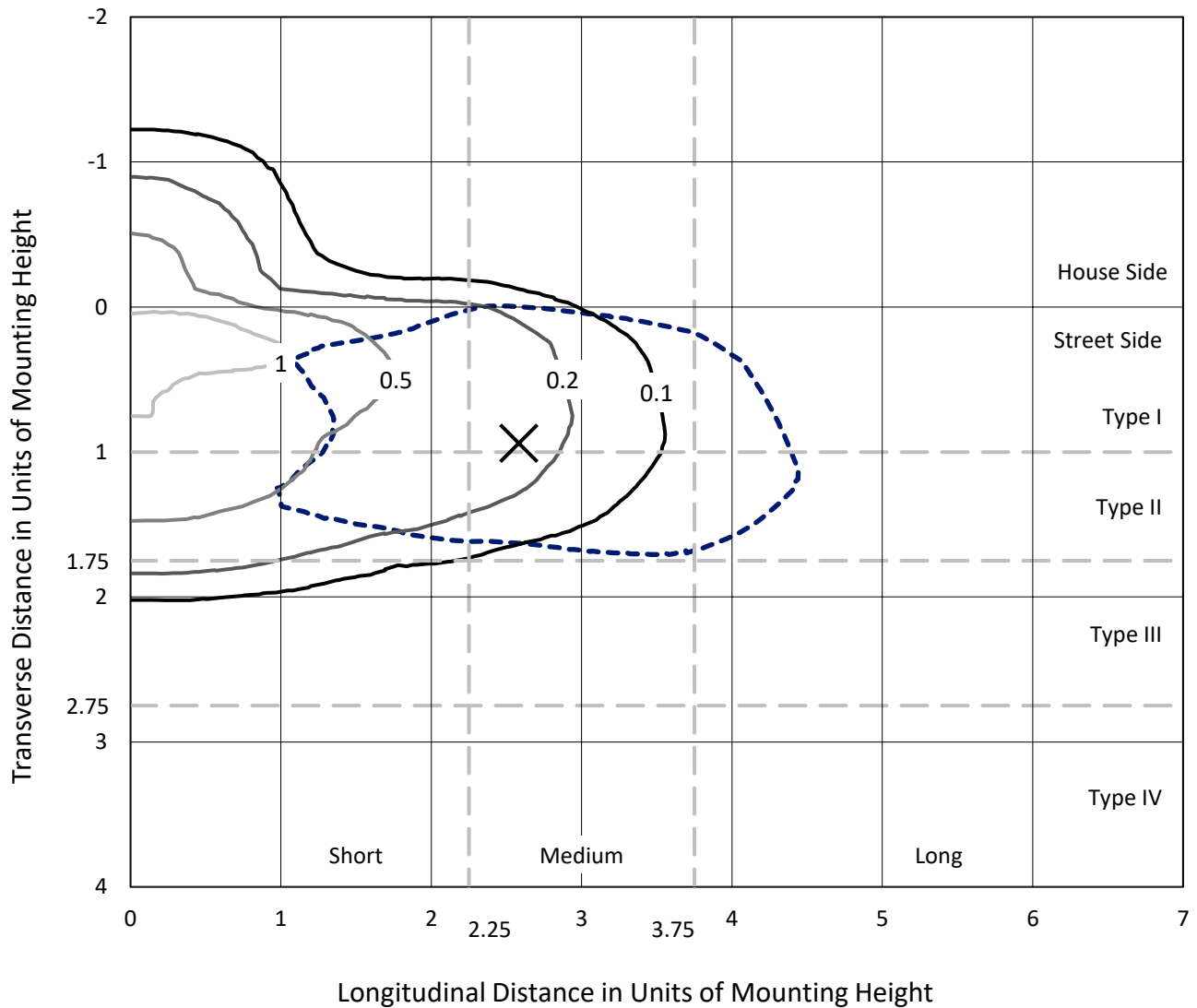
Input Watts (W): 45.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

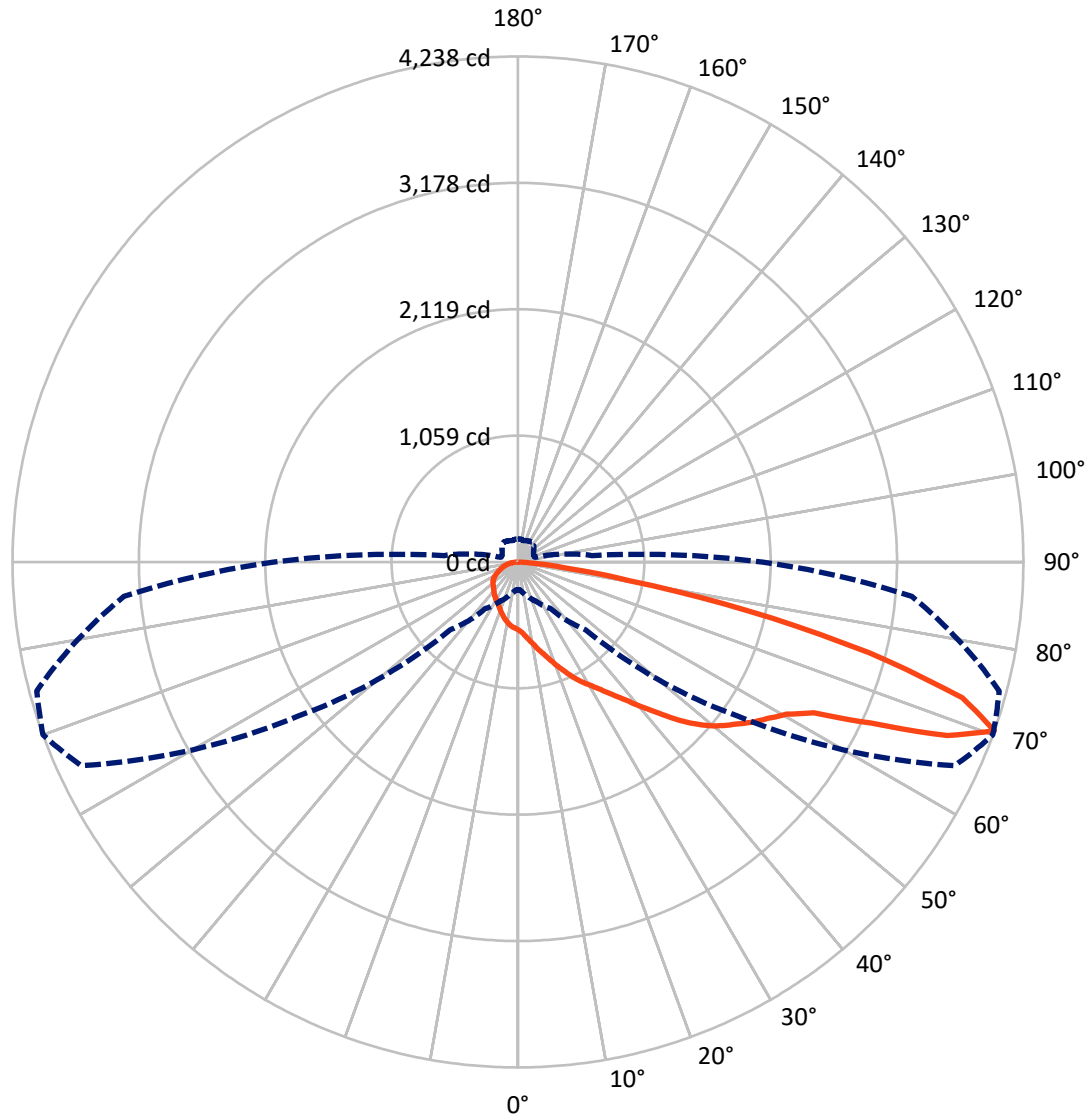
✕ Max cd  
 - - - 1/2 Max cd



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 70-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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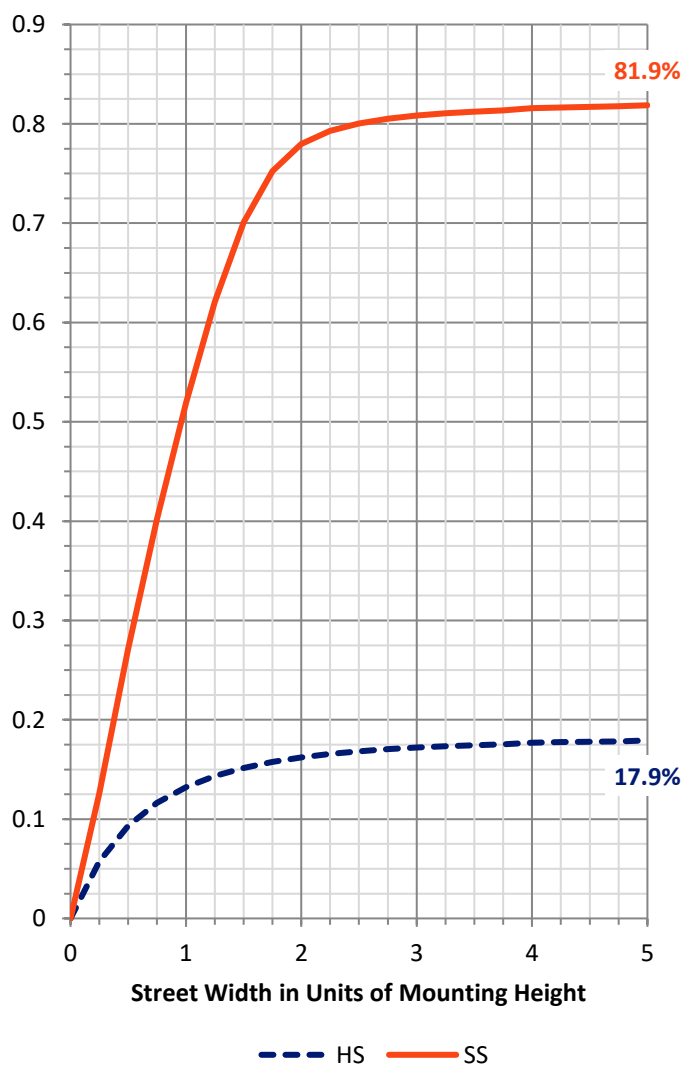
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	830.4	0.0	830.4
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	3760.6	0.0	3760.6
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	4591.0	0.0	4591.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.1	1.2
10°-20°	183.6	4.0
20°-30°	321.3	7.0
30°-40°	477.9	10.4
40°-50°	706.8	15.4
50°-60°	995.9	21.7
60°-70°	1108.4	24.1
70°-80°	670.4	14.6
80°-90°	69.6	1.5
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°	4591.0	100.0
0°-180°	4591.0	100.0

**Coefficient of Utilization**

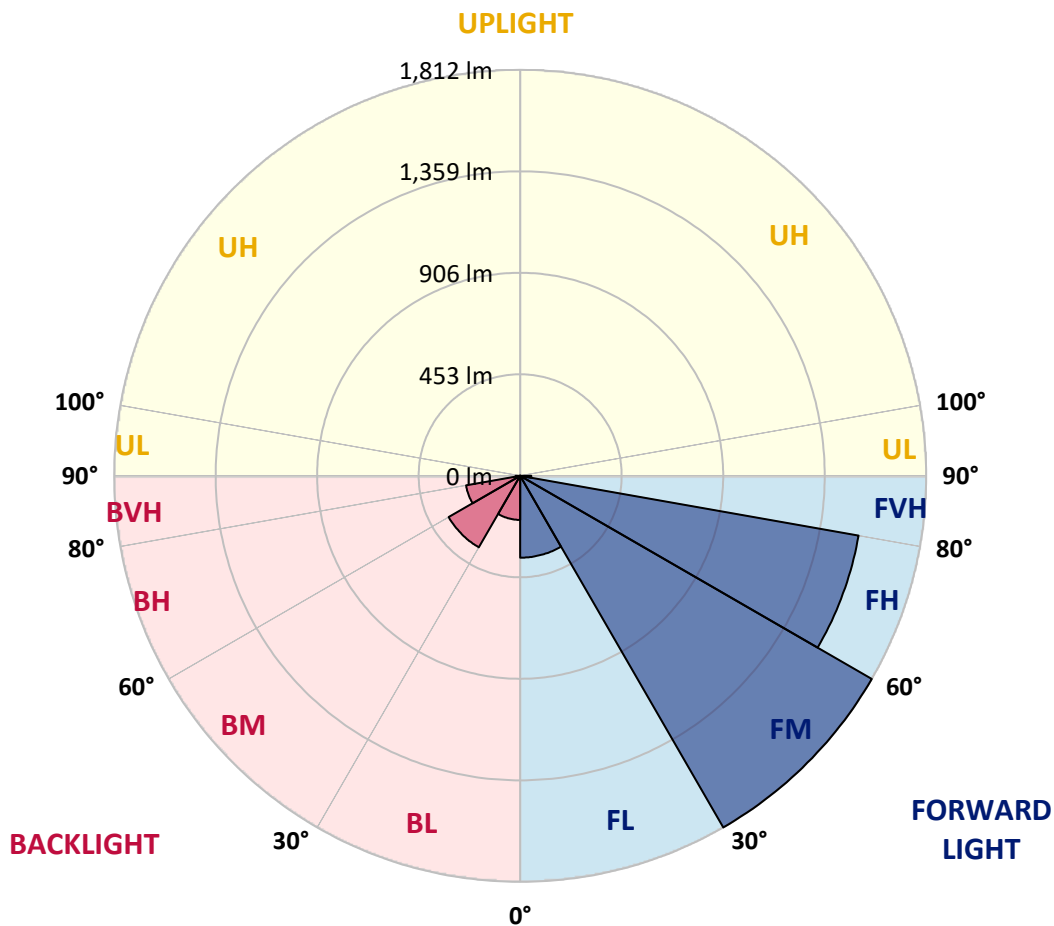


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	365.3	8.0			
FM (30°-60°)	1812.0	39.5			
FH (60°-80°)	1533.7	33.4			G1/1800
FVH (80°-90°)	49.6	1.1			G1/100
BL (0°-30°)	196.7	4.3	B1/500		
BM (30°-60°)	368.5	8.0	B1/1000		
BH (60°-80°)	245.1	5.3	B1/500		G1/500
BVH (80°-90°)	20.0	0.4			G1/100
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°	70°	75°	85°
0°	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6
2.5°	635.8	634.2	626.0	629.3	624.4	614.5	604.7	598.1	590.0	588.3	580.1
5°	701.4	699.7	694.8	688.3	678.4	667.0	648.9	632.6	619.4	608.0	593.2
7.5°	747.3	744.0	744.0	740.7	735.8	722.7	698.1	676.8	657.1	642.4	609.6
10°	773.5	773.5	773.5	780.0	780.0	770.2	750.5	721.1	698.1	680.1	632.6
12.5°	785.0	785.0	788.2	798.1	812.8	812.8	796.4	773.5	750.5	719.4	657.1
15°	793.2	794.8	799.7	814.5	835.8	850.5	850.5	829.2	798.1	768.6	688.3
17.5°	801.3	803.0	812.8	830.8	855.4	883.3	899.7	884.9	857.1	824.3	717.8
20°	803.0	801.3	817.7	842.3	878.4	911.1	952.1	955.4	925.9	878.4	752.2
22.5°	819.4	819.4	825.9	850.5	889.8	937.4	999.6	1017.7	991.4	950.5	794.8
25°	852.2	858.7	863.6	871.8	901.3	958.7	1040.6	1091.4	1066.8	1020.9	839.0
27.5°	912.8	912.8	917.7	916.1	925.9	976.7	1083.2	1161.9	1137.3	1076.7	866.9
30°	971.8	968.5	973.4	973.4	970.1	998.0	1114.4	1227.4	1201.2	1142.2	899.7
32.5°	1048.8	1050.4	1047.2	1032.4	1027.5	1037.3	1138.9	1289.7	1274.9	1206.1	929.2
35°	1153.7	1155.3	1137.3	1106.2	1089.8	1091.4	1171.7	1363.4	1365.1	1293.0	965.2
37.5°	1245.5	1253.6	1252.0	1194.6	1166.8	1160.2	1220.9	1438.8	1468.3	1392.9	1020.9
40°	1330.7	1342.1	1338.9	1291.3	1255.3	1238.9	1297.9	1525.7	1594.5	1517.5	1088.1
42.5°	1392.9	1399.5	1402.8	1370.0	1337.2	1345.4	1378.2	1624.0	1732.2	1655.1	1178.3
45°	1460.1	1463.4	1468.3	1450.3	1427.4	1466.7	1478.2	1730.5	1892.8	1832.1	1284.8
47.5°	1529.0	1542.1	1547.0	1527.3	1512.6	1576.5	1586.3	1833.8	2035.3	2005.8	1391.3
50°	1640.4	1653.5	1648.6	1625.6	1612.5	1661.7	1683.0	1927.2	2161.5	2181.2	1494.5
52.5°	1784.6	1792.8	1814.1	1774.8	1745.3	1727.2	1763.3	2030.4	2263.1	2335.2	1604.3
55°	1812.5	1823.9	1901.0	1937.0	1961.6	1825.6	1848.5	2122.2	2372.9	2481.1	1727.2
57.5°	1697.7	1704.3	1828.8	1938.6	2115.6	2068.1	1969.8	2240.2	2474.5	2631.8	1851.8
60°	1412.6	1437.2	1599.4	1792.8	2073.0	2315.6	2284.4	2392.6	2589.2	2782.6	2032.1
62.5°	921.0	943.9	1116.0	1443.7	1838.7	2318.8	2735.1	2703.9	2784.2	2966.1	2258.2
65°	470.3	478.5	627.6	875.1	1325.7	2073.0	3005.5	3346.3	3254.6	3333.2	2748.2
67.5°	313.0	319.6	386.7	504.7	788.2	1435.5	2917.0	3995.3	3883.8	3926.4	3269.3
70°	231.1	237.6	293.3	365.4	476.9	804.6	2256.6	4041.2	4237.8	4177.2	3315.2
72.5°	172.1	173.7	208.1	281.9	352.3	432.6	1333.9	3334.9	3895.3	4114.9	3080.9
75°	131.1	131.1	149.1	208.1	275.3	278.6	744.0	2463.0	3038.2	3441.4	2569.6
77.5°	98.3	101.6	109.8	144.2	204.8	199.9	350.7	1630.6	1976.3	2243.4	1581.4
80°	70.5	72.1	77.0	88.5	136.0	129.5	177.0	786.6	942.3	1002.9	645.7
82.5°	44.2	44.2	54.1	54.1	77.0	80.3	80.3	317.9	380.2	426.1	216.3
85°	8.2	8.2	16.4	21.3	24.6	27.9	24.6	80.3	109.8	129.5	73.7
87.5°	0.0	0.0	0.0	1.6	1.6	3.3	3.3	3.3	3.3	3.3	3.3
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-SA1D-830-U-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6	568.6
2.5°	573.6	570.3	562.1	552.3	545.7	539.1	534.2	531.0	529.3	529.3	527.7
5°	581.8	571.9	555.5	539.1	524.4	512.9	504.7	499.8	496.5	498.2	494.9
7.5°	594.9	576.8	547.3	521.1	501.5	486.7	480.2	476.9	478.5	480.2	480.2
10°	604.7	580.1	532.6	496.5	478.5	470.3	468.7	472.0	476.9	478.5	476.9
12.5°	616.2	581.8	516.2	475.2	463.8	458.9	467.0	475.2	483.4	490.0	486.7
15°	634.2	581.8	496.5	457.2	449.0	453.9	468.7	480.2	494.9	501.5	503.1
17.5°	647.3	576.8	472.0	437.5	435.9	449.0	470.3	490.0	504.7	516.2	516.2
20°	660.4	568.6	447.4	419.5	426.1	444.1	468.7	491.6	509.7	521.1	524.4
22.5°	676.8	557.2	422.8	403.1	414.6	437.5	463.8	483.4	499.8	509.7	511.3
25°	688.3	537.5	398.2	390.0	408.0	429.4	449.0	462.1	470.3	476.9	476.9
27.5°	694.8	514.6	378.6	380.2	399.9	417.9	427.7	427.7	431.0	431.0	429.4
30°	686.6	490.0	363.8	370.4	388.4	401.5	404.8	398.2	388.4	378.6	375.3
32.5°	683.4	457.2	349.1	360.5	373.6	380.2	378.6	368.7	350.7	335.9	335.9
35°	676.8	426.1	335.9	349.1	357.2	358.9	355.6	340.9	324.5	311.4	309.7
37.5°	671.9	401.5	324.5	335.9	340.9	342.5	335.9	322.8	313.0	303.2	301.5
40°	686.6	380.2	313.0	321.2	324.5	324.5	317.9	308.1	313.0	311.4	311.4
42.5°	714.5	372.0	301.5	306.4	309.7	313.0	308.1	299.9	311.4	301.5	304.8
45°	755.5	372.0	293.3	295.0	298.3	306.4	304.8	293.3	295.0	272.0	267.1
47.5°	816.1	381.8	286.8	281.9	290.1	301.5	296.6	283.5	270.4	252.4	250.7
50°	884.9	401.5	280.2	268.8	281.9	295.0	290.1	273.7	258.9	249.1	247.5
52.5°	953.8	426.1	275.3	255.6	267.1	291.7	290.1	272.0	250.7	244.2	242.5
55°	1039.0	449.0	267.1	240.9	255.6	288.4	288.4	262.2	245.8	244.2	242.5
57.5°	1135.7	478.5	254.0	221.2	240.9	278.6	276.9	255.6	242.5	239.3	240.9
60°	1260.2	514.6	234.3	203.2	227.8	263.8	267.1	249.1	236.0	234.3	234.3
62.5°	1471.6	581.8	211.4	186.8	211.4	244.2	252.4	237.6	227.8	229.4	231.1
65°	1878.0	707.9	185.2	172.1	195.0	222.9	239.3	226.1	216.3	222.9	222.9
67.5°	2179.5	763.7	163.9	157.3	178.6	206.5	224.5	213.0	203.2	211.4	211.4
70°	2048.4	621.1	147.5	144.2	160.6	188.5	204.8	195.0	185.2	193.4	191.7
72.5°	1819.0	493.3	129.5	129.5	142.6	167.2	185.2	175.3	162.2	165.5	163.9
75°	1592.9	457.2	113.1	113.1	124.5	144.2	159.0	154.0	140.9	139.3	136.0
77.5°	919.3	304.8	95.0	96.7	101.6	119.6	134.4	119.6	109.8	108.2	106.5
80°	362.2	149.1	77.0	75.4	75.4	90.1	96.7	90.1	81.9	80.3	77.0
82.5°	131.1	75.4	59.0	52.4	54.1	65.6	75.4	70.5	63.9	50.8	47.5
85°	50.8	37.7	39.3	31.1	34.4	34.4	39.3	32.8	22.9	16.4	16.4
87.5°	3.3	3.3	3.3	3.3	1.6	1.6	0.0	0.0	1.6	1.6	1.6
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**

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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**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**

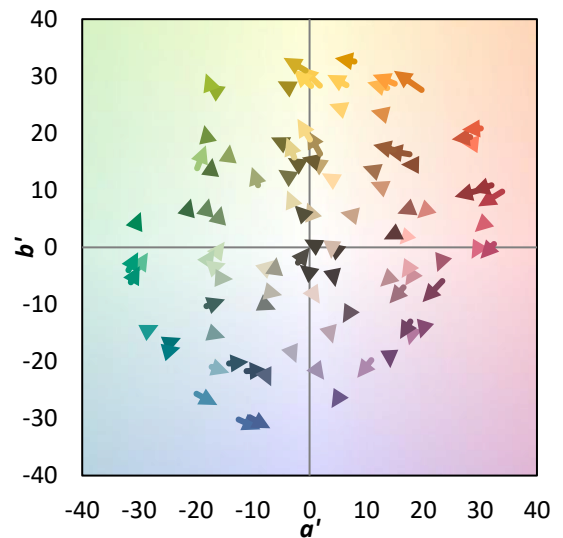
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)