

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: P437764

Luminaire Tested: **ISC-SA1E-830-U-SL3**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437764  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-16)  
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-SL3  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5629 lumens  
Efficiency: N/A  
Efficacy: 96.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G2

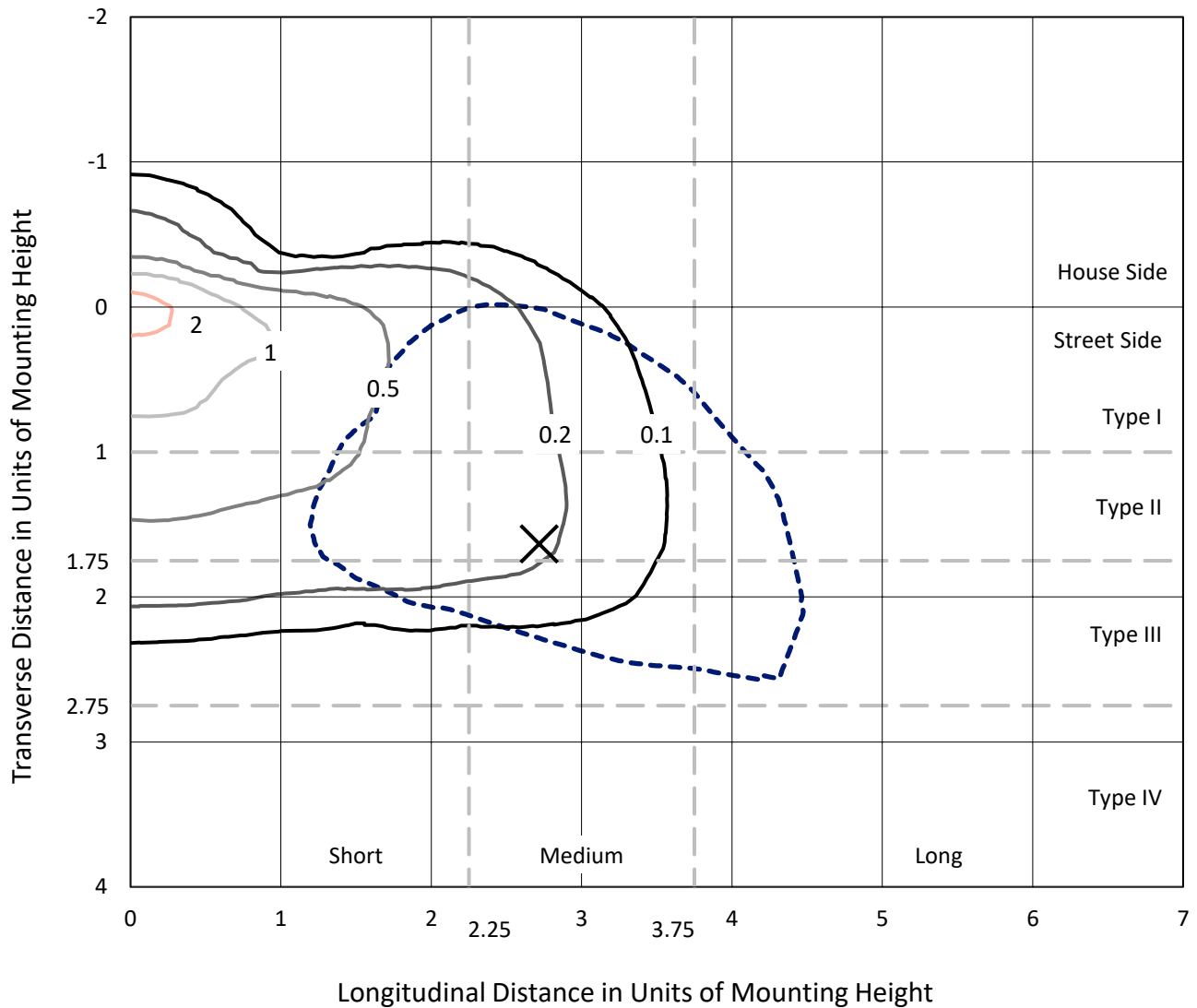
Input Watts (W): 58.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

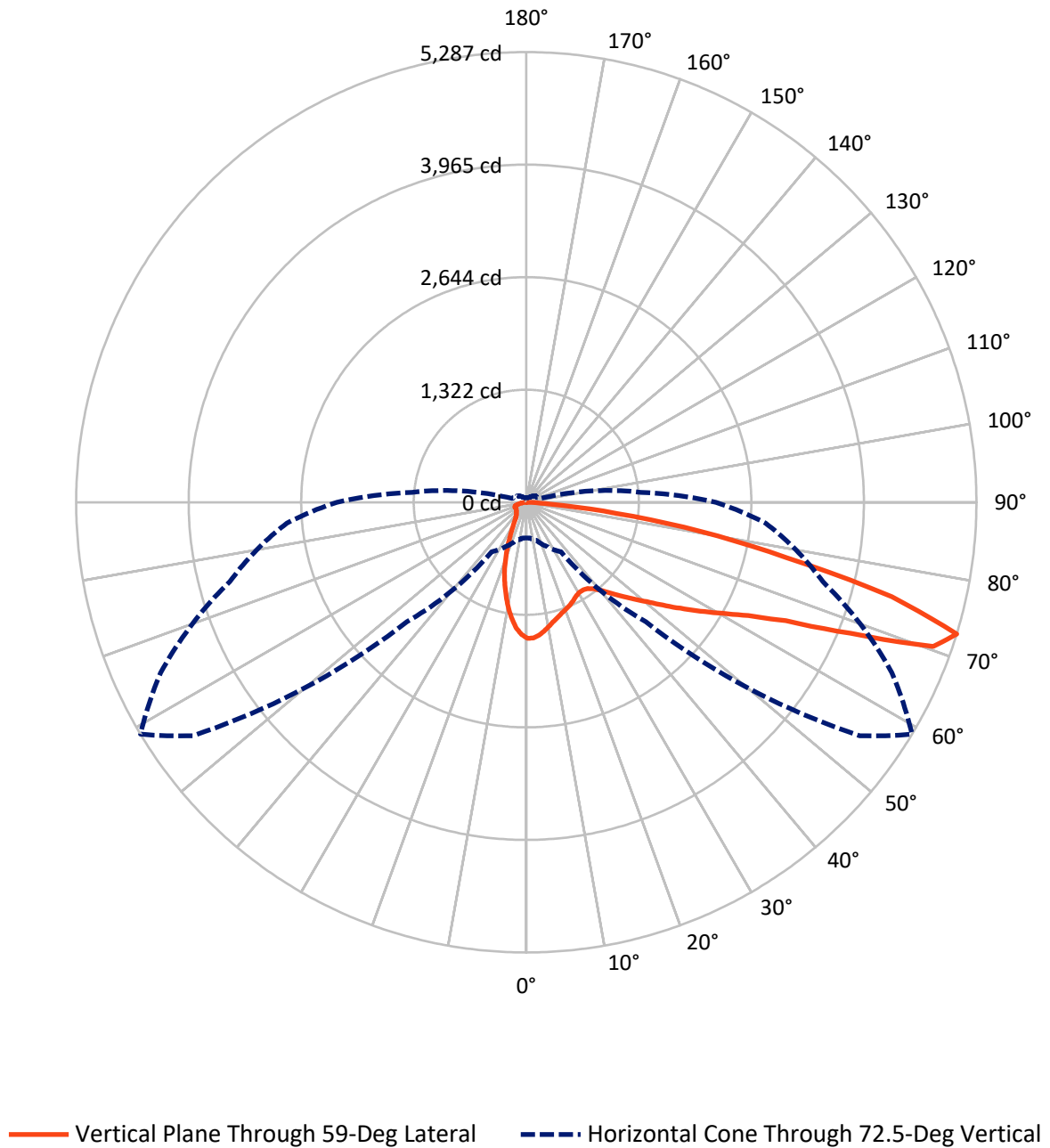
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



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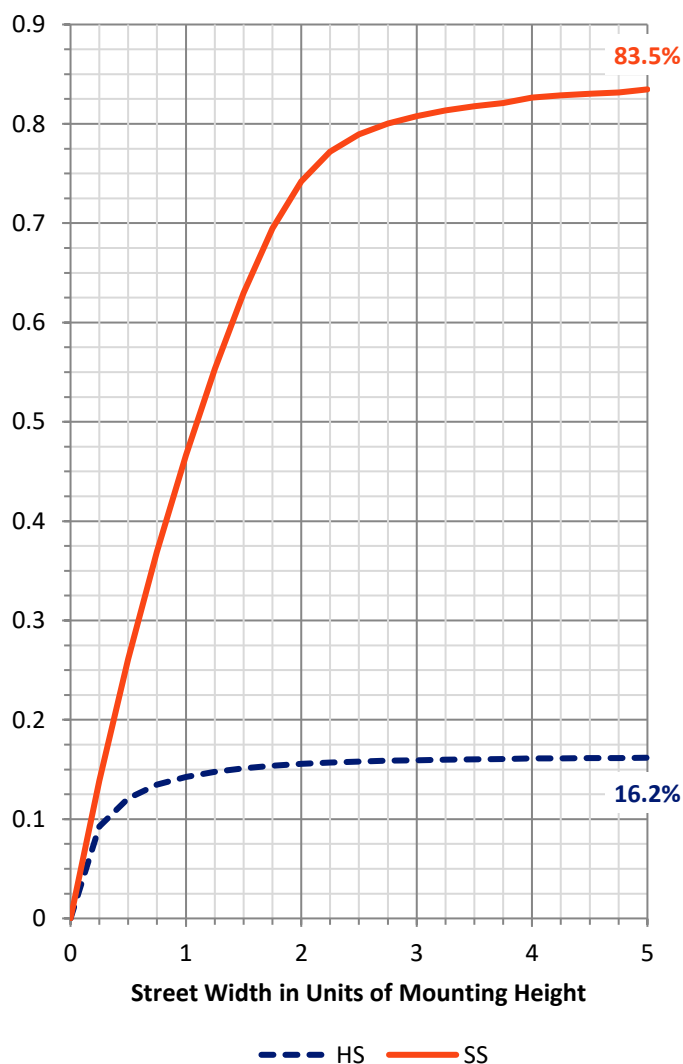
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	918.8	0.0	918.8
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	4710.2	0.0	4710.2
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	5629.0	0.0	5629.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.1	2.4
10°-20°	308.1	5.5
20°-30°	397.0	7.1
30°-40°	507.9	9.0
40°-50°	704.8	12.5
50°-60°	1038.8	18.5
60°-70°	1397.7	24.8
70°-80°	1016.8	18.1
80°-90°	120.9	2.1
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°	5629.0	100.0
0°-180°	5629.0	100.0

**Coefficient of Utilization**



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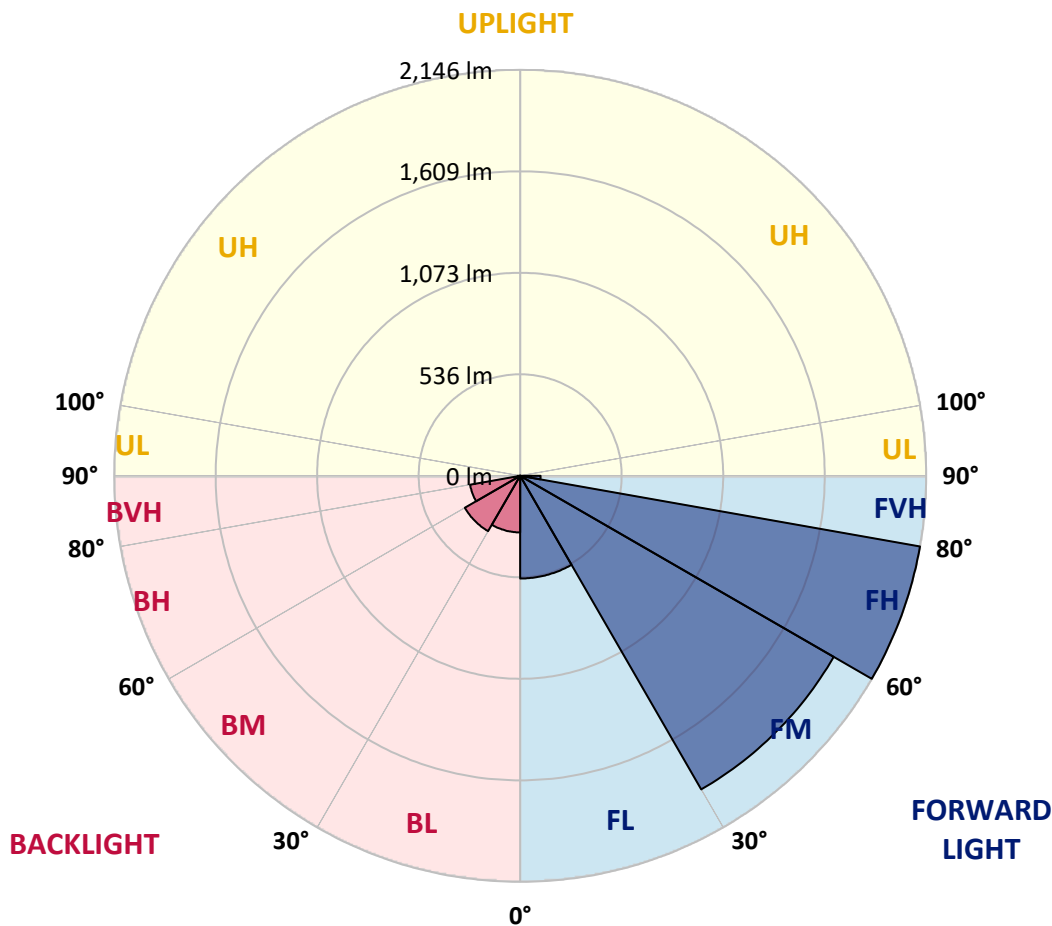
CATALOG NUMBER: ISC-SA1E-830-U-SL3

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	542.9	9.6			
FM (30°-60°)	1913.6	34.0			
FH (60°-80°)	2145.8	38.1			G2/5000
FVH (80°-90°)	107.9	1.9			G2/225
BL (0°-30°)	299.3	5.3	B1/500		
BM (30°-60°)	337.8	6.0	B1/1000		
BH (60°-80°)	268.7	4.8	B1/500		G1/500
BVH (80°-90°)	13.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6
2.5°	1589.4	1589.4	1595.6	1599.7	1593.5	1599.7	1597.6	1595.6	1597.6	1597.6	1593.5
5°	1523.8	1532.0	1532.0	1534.0	1548.4	1558.6	1562.7	1566.8	1568.9	1570.9	1566.8
7.5°	1443.8	1447.9	1452.0	1470.5	1478.7	1501.2	1515.6	1523.8	1532.0	1536.1	1523.8
10°	1355.6	1361.8	1374.1	1388.4	1408.9	1439.7	1464.3	1478.7	1491.0	1497.1	1482.8
12.5°	1281.8	1283.8	1296.1	1318.7	1343.3	1386.4	1417.1	1433.5	1449.9	1462.3	1445.8
15°	1214.1	1216.1	1226.4	1253.1	1281.8	1328.9	1374.1	1398.7	1421.2	1441.7	1419.2
17.5°	1160.8	1166.9	1171.0	1193.6	1228.5	1279.7	1339.2	1363.8	1398.7	1429.4	1400.7
20°	1130.0	1128.0	1130.0	1144.4	1181.3	1232.6	1302.3	1337.1	1378.2	1421.2	1382.3
22.5°	1111.6	1115.7	1113.6	1119.8	1142.3	1193.6	1263.3	1312.5	1359.7	1415.1	1365.9
25°	1111.6	1117.7	1115.7	1113.6	1121.8	1156.7	1230.5	1279.7	1339.2	1415.1	1347.4
27.5°	1132.1	1134.1	1130.0	1123.9	1123.9	1136.2	1201.8	1246.9	1328.9	1413.0	1337.1
30°	1150.5	1154.6	1154.6	1150.5	1144.4	1138.2	1181.3	1228.5	1318.7	1425.3	1328.9
32.5°	1175.1	1179.2	1187.4	1191.5	1183.3	1164.9	1187.4	1226.4	1320.7	1452.0	1331.0
35°	1205.9	1210.0	1222.3	1242.8	1236.7	1205.9	1210.0	1244.9	1337.1	1480.7	1339.2
37.5°	1230.5	1236.7	1263.3	1298.2	1300.2	1267.4	1265.4	1290.0	1367.9	1525.8	1367.9
40°	1255.1	1263.3	1302.3	1359.7	1372.0	1353.6	1341.3	1359.7	1423.3	1591.5	1415.1
42.5°	1287.9	1296.1	1347.4	1419.2	1449.9	1441.7	1433.5	1460.2	1507.4	1679.6	1488.9
45°	1322.8	1339.2	1404.8	1484.8	1540.2	1546.3	1554.5	1570.9	1607.9	1802.7	1593.5
47.5°	1386.4	1400.7	1476.6	1558.6	1630.4	1663.2	1677.6	1698.1	1720.7	1915.5	1720.7
50°	1472.5	1501.2	1568.9	1648.9	1733.0	1796.5	1833.5	1833.5	1858.1	2050.8	1860.1
52.5°	1601.7	1628.4	1669.4	1745.3	1845.8	1946.2	1997.5	2005.7	1997.5	2180.0	2001.6
55°	1710.4	1737.1	1776.0	1831.4	1958.6	2114.4	2202.6	2196.5	2167.7	2317.5	2141.1
57.5°	1831.4	1851.9	1886.8	1931.9	2073.4	2288.7	2417.9	2411.8	2358.5	2456.9	2292.8
60°	1882.7	1911.4	1975.0	2067.2	2251.8	2512.3	2664.0	2645.6	2526.6	2606.6	2428.2
62.5°	1728.9	1782.2	1911.4	2098.0	2459.0	2885.5	2986.0	2926.6	2764.5	2770.7	2610.7
65°	1382.3	1353.6	1550.4	1860.1	2475.4	3347.0	3478.2	3349.0	3061.9	2979.9	2817.9
67.5°	789.6	801.9	896.2	1230.5	2038.5	3535.7	4331.4	4103.7	3527.4	3306.0	3068.1
70°	535.3	547.6	588.6	730.1	1171.0	3160.3	5026.6	5071.7	4247.3	3595.1	3076.3
72.5°	418.4	420.4	463.5	574.2	709.6	1985.2	4778.5	5287.1	4739.5	3605.4	2822.0
75°	319.9	322.0	360.9	490.2	637.8	961.8	3638.2	4433.9	4446.2	3316.2	2305.1
77.5°	203.0	213.3	258.4	391.7	598.8	637.8	2317.5	3123.4	3205.5	2456.9	1205.9
80°	98.4	102.5	129.2	250.2	527.1	564.0	1380.2	2077.5	1800.6	957.7	367.1
82.5°	41.0	43.1	61.5	108.7	336.3	477.8	691.1	1068.5	695.2	260.5	118.9
85°	8.2	10.3	14.4	26.7	108.7	233.8	283.0	276.9	168.2	80.0	45.1
87.5°	0.0	0.0	0.0	2.1	2.1	4.1	4.1	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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6	1597.6
2.5°	1591.5	1591.5	1575.0	1562.7	1548.4	1538.1	1527.9	1515.6	1513.5	1519.7	1525.8
5°	1558.6	1550.4	1523.8	1499.2	1470.5	1437.6	1417.1	1390.5	1376.1	1382.3	1378.2
7.5°	1515.6	1503.3	1454.0	1413.0	1355.6	1304.3	1269.5	1230.5	1203.8	1193.6	1187.4
10°	1470.5	1445.8	1380.2	1306.4	1230.5	1154.6	1091.0	1029.5	998.8	996.7	963.9
12.5°	1427.4	1394.6	1302.3	1195.6	1091.0	988.5	894.2	826.5	742.4	717.8	726.0
15°	1392.5	1347.4	1218.2	1082.8	947.5	818.3	695.2	594.7	520.9	494.3	484.0
17.5°	1359.7	1296.1	1140.3	978.3	808.0	646.0	496.3	420.4	375.3	358.9	358.9
20°	1322.8	1249.0	1056.2	861.4	654.2	479.9	367.1	330.2	315.8	313.8	311.7
22.5°	1294.1	1201.8	970.0	738.3	510.7	365.1	303.5	287.1	287.1	289.2	289.2
25°	1259.2	1148.5	877.8	607.0	393.8	293.3	268.7	262.5	268.7	274.8	274.8
27.5°	1234.6	1101.3	793.7	484.0	305.6	254.3	242.0	244.1	252.3	260.5	260.5
30°	1214.1	1056.2	705.5	381.5	254.3	225.6	223.5	227.6	235.8	244.1	242.0
32.5°	1193.6	1021.3	609.1	301.5	219.4	207.1	205.1	211.2	217.4	219.4	223.5
35°	1185.4	992.6	512.7	248.2	198.9	192.8	192.8	194.8	196.9	198.9	198.9
37.5°	1191.5	970.0	426.6	211.2	186.6	184.6	182.5	180.5	180.5	180.5	182.5
40°	1216.1	961.8	352.7	190.7	176.4	176.4	172.3	166.1	164.1	166.1	164.1
42.5°	1265.4	978.3	291.2	178.4	168.2	166.1	160.0	155.9	153.8	153.8	151.8
45°	1343.3	1007.0	250.2	170.2	162.0	155.9	149.7	145.6	143.6	145.6	145.6
47.5°	1445.8	1060.3	221.5	162.0	155.9	145.6	137.4	135.4	135.4	139.5	139.5
50°	1568.9	1132.1	205.1	157.9	149.7	137.4	129.2	127.2	129.2	133.3	135.4
52.5°	1700.1	1222.3	201.0	155.9	143.6	129.2	123.1	121.0	123.1	127.2	129.2
55°	1831.4	1320.7	211.2	155.9	137.4	123.1	118.9	112.8	114.8	118.9	121.0
57.5°	1970.9	1427.4	242.0	151.8	133.3	118.9	112.8	106.6	106.6	110.7	110.7
60°	2120.6	1548.4	299.4	151.8	129.2	114.8	104.6	98.4	98.4	98.4	100.5
62.5°	2286.7	1694.0	367.1	153.8	131.3	110.7	96.4	88.2	88.2	90.2	88.2
65°	2532.8	1911.4	385.6	155.9	135.4	106.6	90.2	82.0	80.0	80.0	80.0
67.5°	2684.6	1936.0	299.4	151.8	141.5	106.6	84.1	73.8	71.8	69.7	69.7
70°	2573.8	1700.1	213.3	145.6	141.5	106.6	80.0	67.7	63.6	59.5	59.5
72.5°	2227.2	1349.5	174.3	137.4	131.3	100.5	73.8	61.5	55.4	51.3	51.3
75°	1784.2	957.7	147.7	127.2	110.7	80.0	61.5	51.3	47.2	45.1	45.1
77.5°	869.6	471.7	114.8	110.7	88.2	59.5	49.2	43.1	41.0	36.9	36.9
80°	254.3	174.3	86.1	88.2	55.4	41.0	36.9	34.9	32.8	28.7	30.8
82.5°	116.9	98.4	61.5	55.4	34.9	24.6	24.6	22.6	20.5	18.5	18.5
85°	47.2	49.2	32.8	26.7	16.4	12.3	10.3	10.3	8.2	8.2	8.2
87.5°	4.1	6.2	6.2	4.1	4.1	2.1	0.0	0.0	0.0	2.1	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



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**

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)