

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: INVUE

Report Number: P367239

Luminaire Tested: **MSA-SA2A-830-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367239  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2A-830-U-5WQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6776 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G2

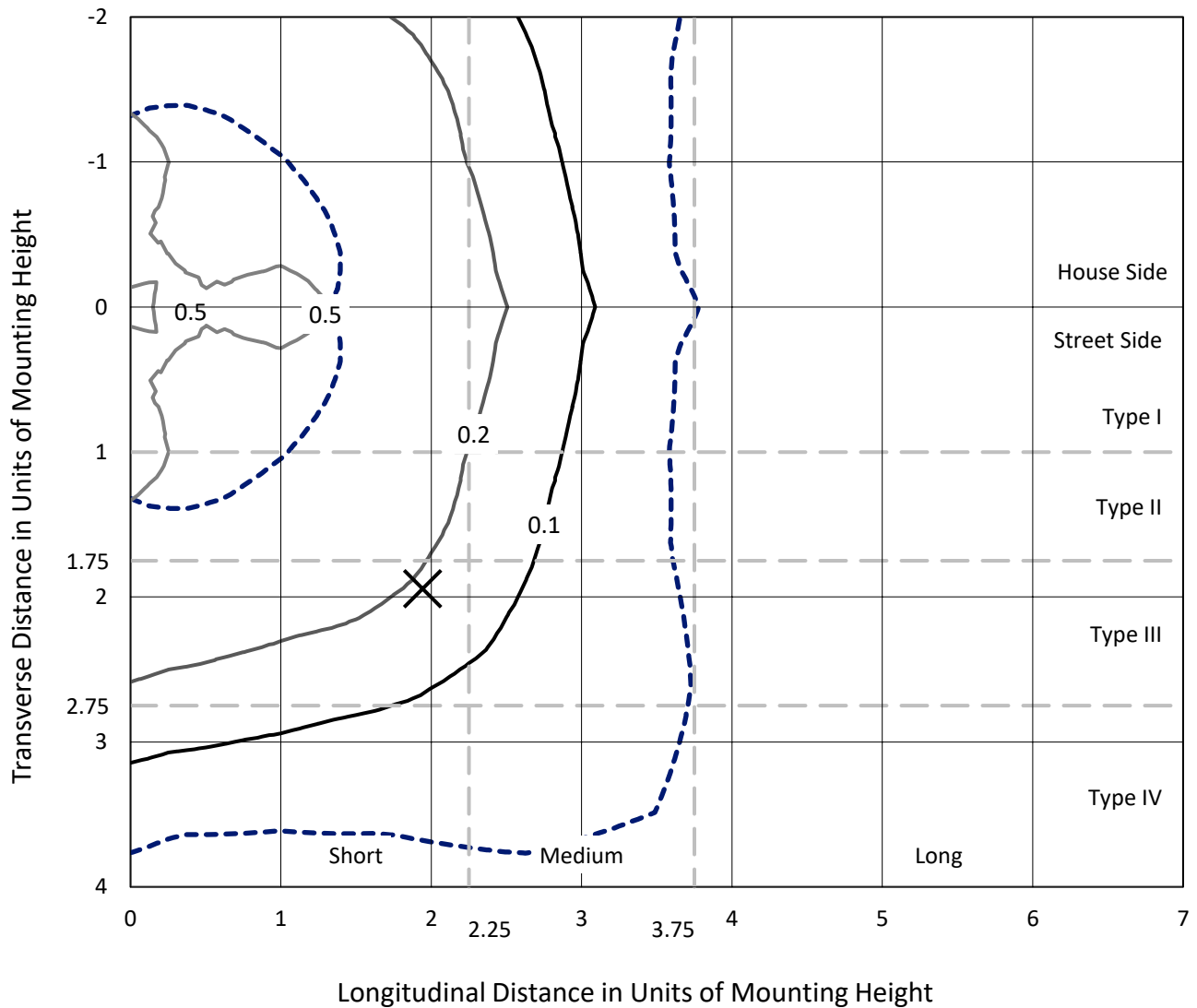
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

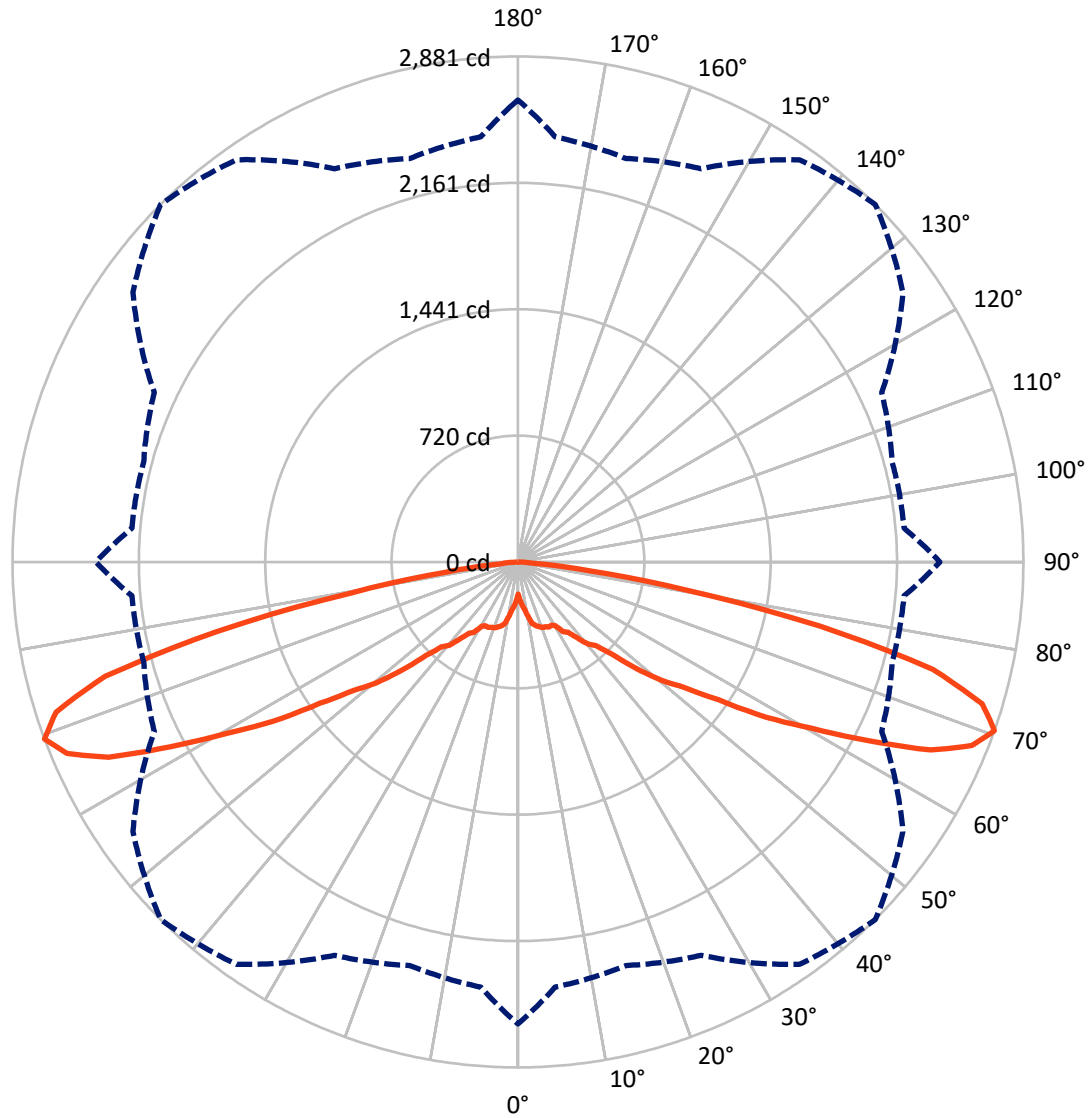
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc  
 Type V - Short - N/A

REPORT NUMBER: P367239  
CATALOG NUMBER: MSA-SA2A-830-U-5WQ

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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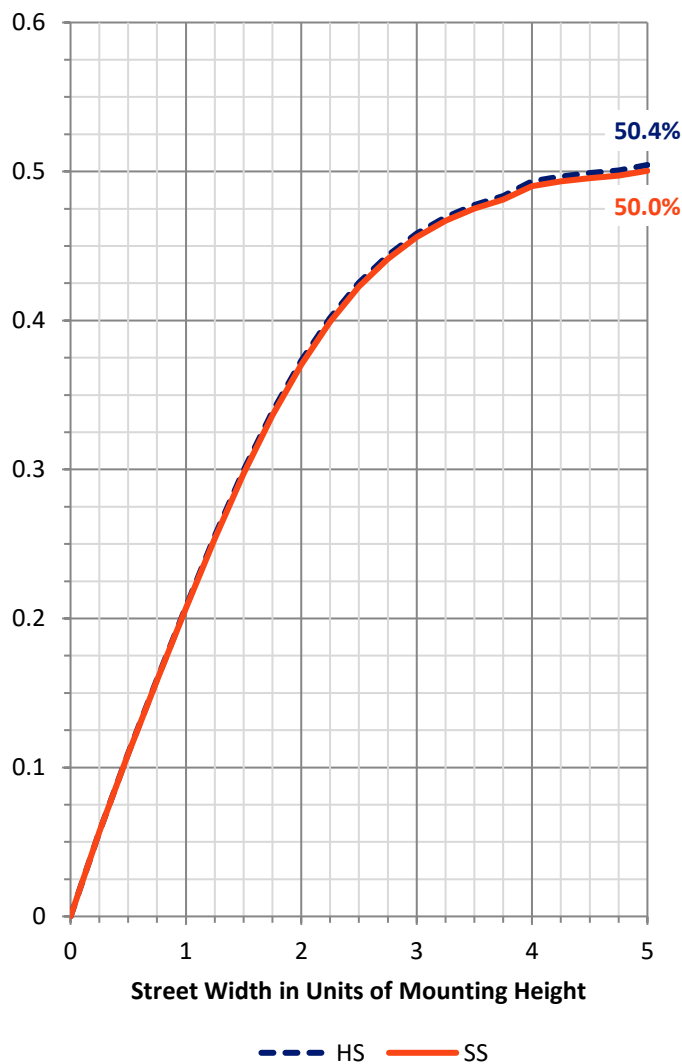
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3388.0	0.0	3388.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3388.0	0.0	3388.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6776.0	0.0	6776.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.6	0.4
10°-20°	106.7	1.6
20°-30°	201.7	3.0
30°-40°	351.3	5.2
40°-50°	671.5	9.9
50°-60°	1302.1	19.2
60°-70°	2280.0	33.6
70°-80°	1713.6	25.3
80°-90°	122.6	1.8
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°	6776.0	100.0
0°-180°	6776.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P367239

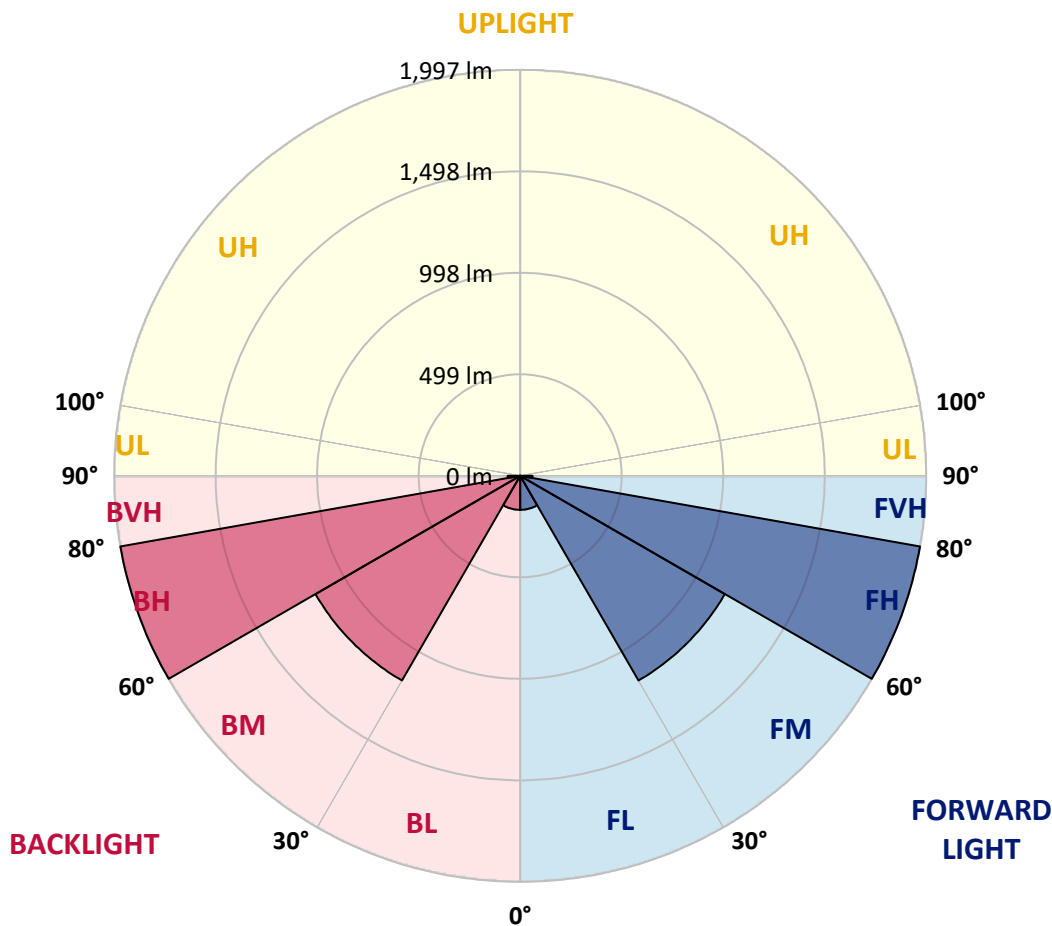
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.5	2.5			
FM (30°-60°)	1162.4	17.2			
FH (60°-80°)	1996.8	29.5			G2/5000
FVH (80°-90°)	61.3	0.9			G1/100
BL (0°-30°)	167.5	2.5	B1/500		
BM (30°-60°)	1162.4	17.2	B2/2500		
BH (60°-80°)	1996.8	29.5	B3/2500		G2/5000
BVH (80°-90°)	61.3	0.9			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
2.5°	222.9	219.5	208.7	209.2	214.2	214.8	215.3	208.7	207.1	220.5	221.3
5°	283.1	275.2	267.3	264.2	259.4	246.3	260.8	262.3	265.5	275.7	280.5
7.5°	323.3	313.6	302.8	296.3	283.4	272.6	284.4	294.1	300.5	312.0	318.6
10°	330.9	325.2	324.6	313.1	310.7	314.7	313.9	314.1	323.6	323.9	327.8
12.5°	354.9	359.1	350.9	347.0	349.3	359.1	351.2	347.8	350.1	360.9	356.4
15°	386.2	391.1	378.8	372.5	366.2	375.4	367.2	373.3	380.9	388.8	384.8
17.5°	420.8	421.1	404.3	380.9	386.4	387.7	384.8	379.8	401.7	420.6	418.7
20°	439.8	439.5	410.6	378.8	395.1	398.0	395.4	378.3	411.1	437.1	436.4
22.5°	459.2	453.4	418.7	393.0	399.0	401.4	395.4	393.8	418.7	455.0	454.8
25°	469.7	474.7	436.6	420.6	415.6	410.1	415.3	418.0	441.9	477.4	467.1
27.5°	502.6	494.5	441.9	440.3	429.8	408.0	426.1	439.0	440.3	497.6	508.1
30°	532.3	535.5	465.5	467.9	448.7	421.1	449.2	469.7	473.7	536.0	534.9
32.5°	563.8	565.2	507.6	483.1	475.0	473.9	463.2	481.0	512.1	562.0	564.1
35°	611.7	622.5	545.2	512.3	502.1	491.6	501.0	517.1	546.0	620.9	615.6
37.5°	721.3	704.2	626.9	558.9	552.0	547.8	555.4	567.0	626.1	706.1	730.5
40°	797.8	789.7	684.5	635.9	592.8	615.4	597.5	642.2	691.1	790.2	805.9
42.5°	916.4	880.1	772.0	711.8	667.2	651.1	661.1	719.5	781.8	892.2	923.2
45°	1030.2	974.2	881.7	828.6	760.7	743.9	757.3	825.9	898.0	985.2	1039.9
47.5°	1146.4	1088.5	986.8	910.0	854.6	904.8	860.9	926.1	997.8	1099.3	1147.9
50°	1267.0	1202.9	1102.5	1018.9	1014.1	1058.6	1006.0	1039.4	1105.9	1211.0	1268.3
52.5°	1405.5	1336.4	1236.0	1179.5	1190.5	1187.6	1177.1	1171.1	1236.5	1339.8	1407.9
55°	1570.4	1495.7	1415.5	1389.5	1420.0	1387.1	1402.7	1400.6	1410.0	1483.9	1563.5
57.5°	1769.6	1685.2	1604.8	1599.0	1638.2	1669.2	1641.6	1601.9	1585.3	1657.1	1748.3
60°	2020.7	1917.1	1828.8	1810.6	1922.3	1922.1	1897.1	1808.3	1802.0	1883.2	1993.1
62.5°	2298.0	2171.8	2075.3	2046.4	2221.5	2241.2	2163.4	2004.1	2036.7	2102.1	2232.5
65°	2533.5	2381.8	2291.9	2284.0	2498.0	2585.0	2413.1	2195.2	2205.7	2260.1	2401.3
67.5°	2687.0	2504.3	2432.8	2470.9	2737.0	2791.4	2631.6	2323.0	2285.6	2308.2	2477.0
70°	2633.1	2432.3	2380.8	2473.3	2798.7	2881.0	2678.6	2287.2	2207.8	2208.9	2405.0
72.5°	2224.9	2033.8	2058.2	2228.1	2652.6	2768.0	2461.0	2065.9	1903.4	1899.5	2077.4
75°	1471.3	1343.5	1440.0	1704.7	2205.2	2441.2	2039.1	1619.3	1415.5	1349.3	1486.8
77.5°	643.5	627.2	708.4	1007.6	1503.3	1759.4	1460.8	1057.8	769.9	640.3	699.5
80°	172.4	168.8	211.9	382.2	731.8	968.9	790.4	421.9	220.3	160.3	170.1
82.5°	62.8	64.4	78.6	107.0	241.0	408.0	262.6	123.3	83.3	68.3	68.3
85°	27.3	26.5	38.1	42.8	65.7	92.3	75.4	52.3	42.1	31.5	30.2
87.5°	7.4	9.2	12.9	13.4	17.1	13.9	20.0	18.4	15.8	11.0	8.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)