

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: P367018

Luminaire Tested: **MSA-SA1D-730-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367018  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1D-730-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6390 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B2 - U0 - G1

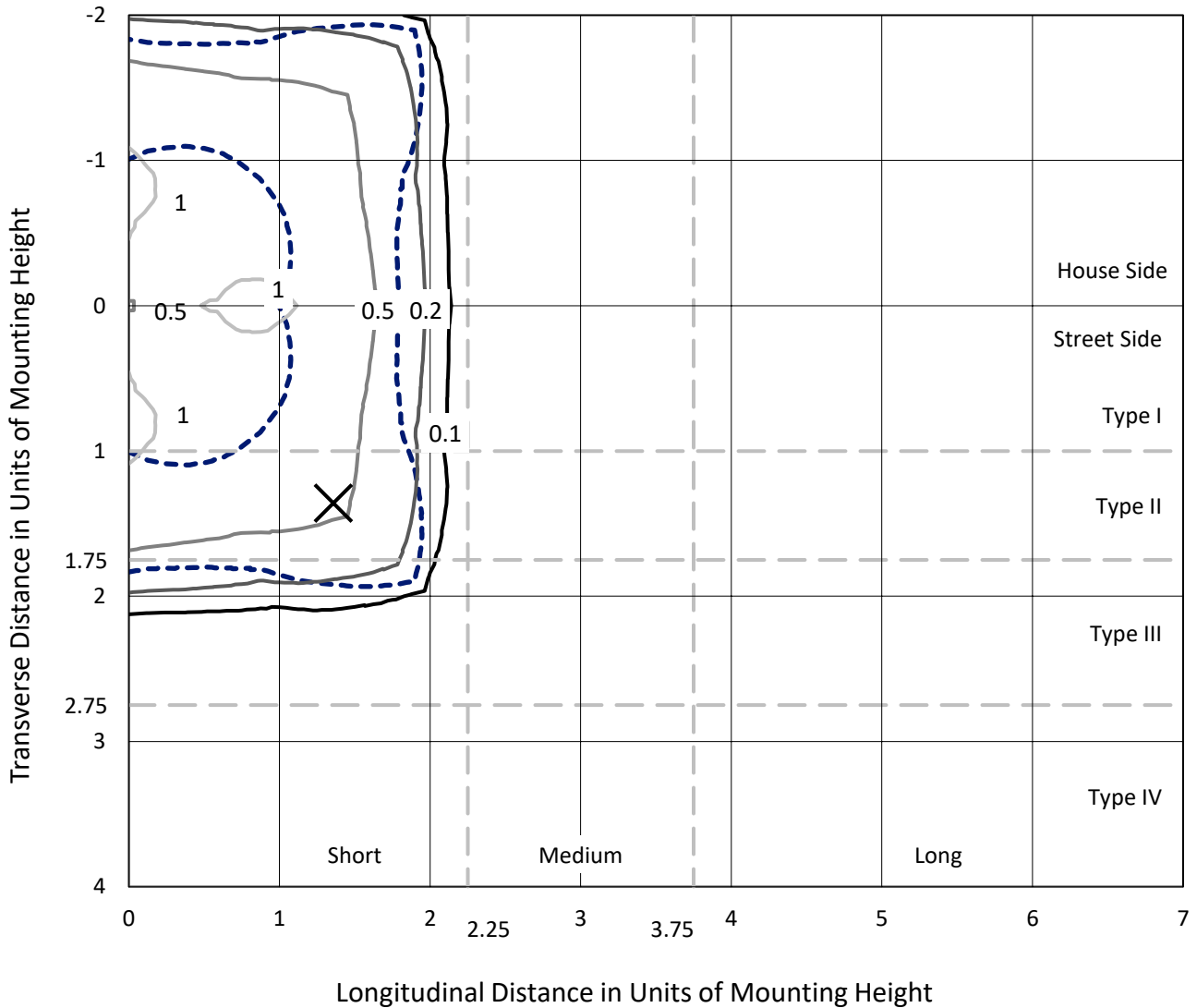
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

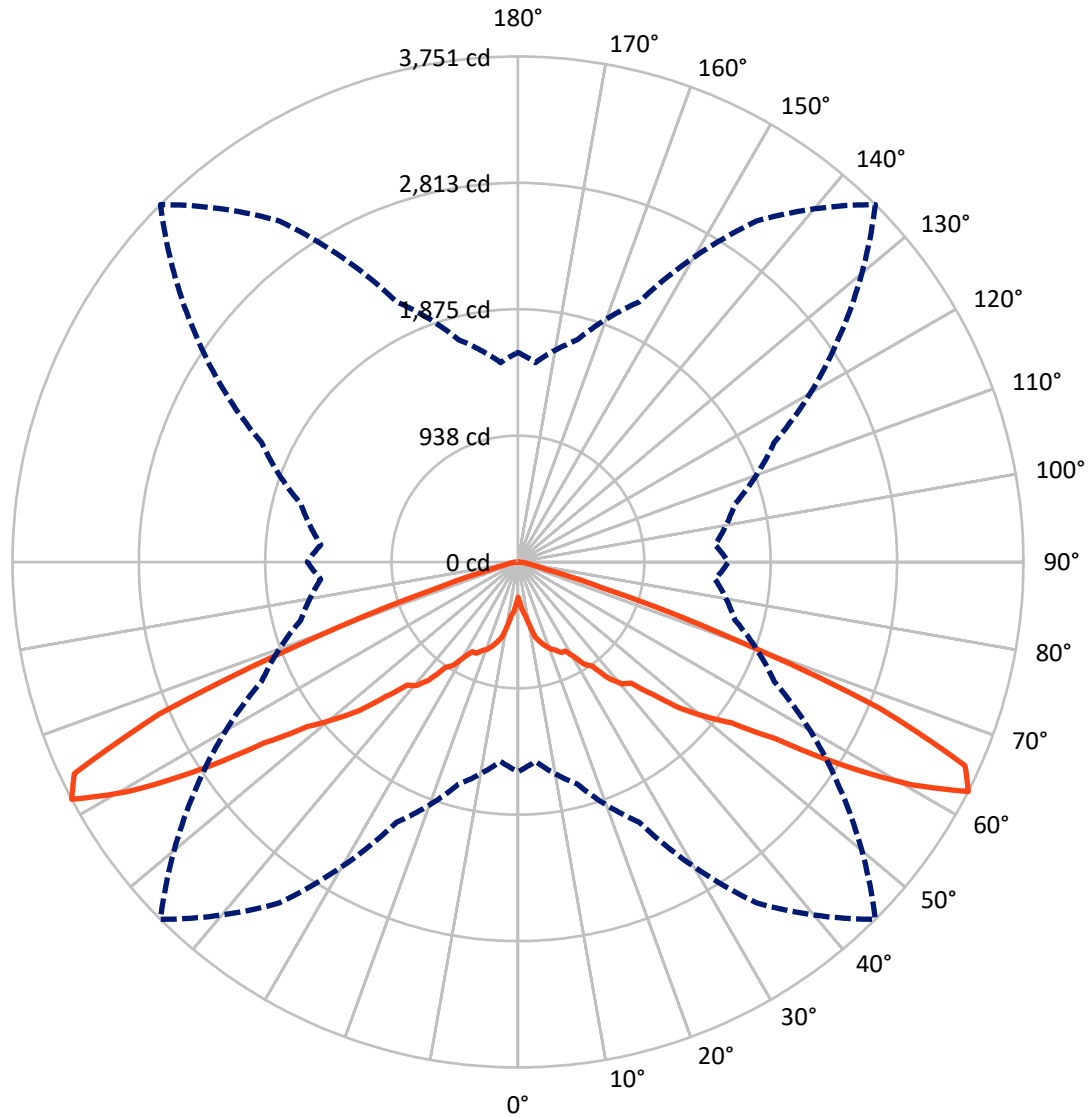
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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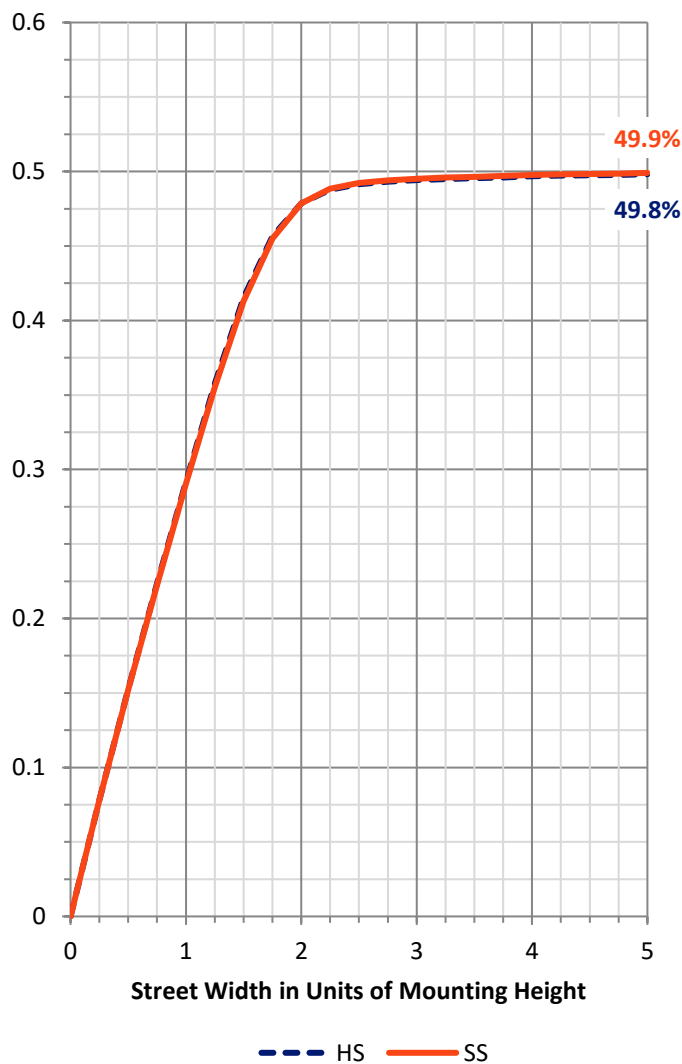
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3195.0	0.0	3195.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3195.0	0.0	3195.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6390.0	0.0	6390.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	0.6
10°-20°	173.6	2.7
20°-30°	363.9	5.7
30°-40°	685.6	10.7
40°-50°	1244.4	19.5
50°-60°	2102.6	32.9
60°-70°	1571.8	24.6
70°-80°	175.8	2.8
80°-90°	32.7	0.5
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°	6390.0	100.0
0°-180°	6390.0	100.0

**Coefficient of Utilization**



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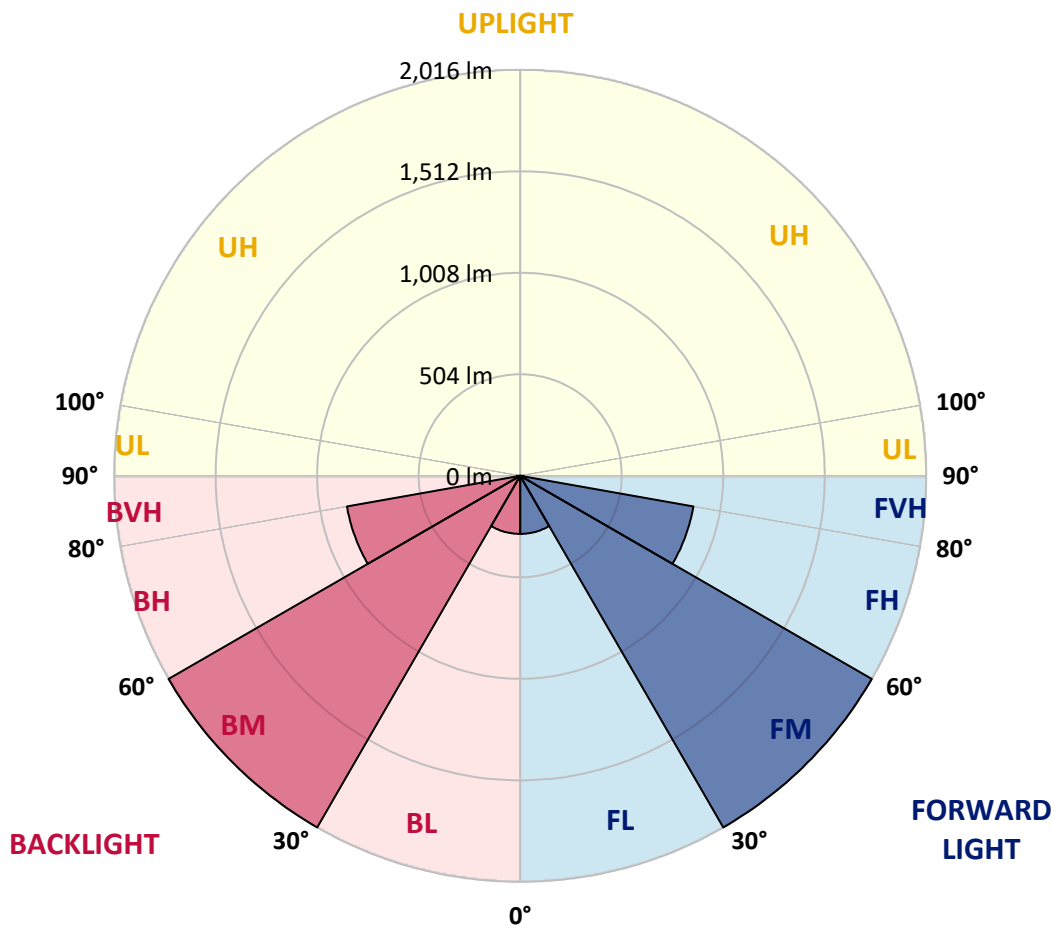
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	288.4	4.5			
FM (30°-60°)	2016.3	31.6			
FH (60°-80°)	873.8	13.7			G1/1800
FVH (80°-90°)	16.4	0.3			G1/100
BL (0°-30°)	288.4	4.5	B1/500		
BM (30°-60°)	2016.3	31.6	B2/2500		
BH (60°-80°)	873.8	13.7	B2/1000		G1/1800
BVH (80°-90°)	16.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	261.3	261.3	261.3	261.3	261.3	261.3	261.3	261.3	261.3	261.3	261.3
2.5°	317.7	312.0	291.9	299.0	306.2	305.2	303.4	297.9	293.0	313.5	317.7
5°	405.0	392.0	385.0	379.3	378.0	364.0	383.2	381.1	387.6	398.5	409.2
7.5°	474.7	462.5	444.0	440.1	419.1	403.5	420.1	440.6	447.1	467.2	479.1
10°	500.2	489.5	492.9	475.5	474.4	478.9	475.2	479.9	497.1	494.7	503.6
12.5°	557.4	559.2	548.3	543.9	552.7	571.9	555.6	549.8	545.7	563.4	568.8
15°	610.9	621.6	603.7	600.8	597.2	615.1	597.4	606.0	613.5	617.2	615.1
17.5°	686.8	687.4	667.3	635.4	647.3	653.0	645.2	630.4	666.0	684.0	685.0
20°	736.8	738.6	699.1	649.1	682.9	688.1	684.2	653.3	700.6	730.5	729.2
22.5°	790.6	784.3	730.8	694.4	706.3	709.5	701.1	697.2	730.5	784.9	776.8
25°	826.7	838.1	784.9	761.5	751.3	744.0	754.7	756.8	790.8	840.2	812.9
27.5°	913.0	893.3	809.8	818.6	797.1	747.9	794.7	820.5	813.2	897.4	918.0
30°	989.7	990.2	873.2	890.1	850.1	810.3	861.0	898.2	889.1	997.0	977.5
32.5°	1087.7	1091.4	982.7	937.5	910.4	902.9	896.6	937.7	994.4	1081.7	1083.6
35°	1193.5	1224.7	1077.1	1029.5	983.5	950.2	986.1	1043.0	1079.9	1219.5	1194.8
37.5°	1399.7	1347.2	1226.3	1136.8	1107.5	1094.2	1113.2	1146.2	1226.0	1346.4	1388.8
40°	1521.6	1507.0	1342.5	1267.6	1154.3	1189.6	1179.2	1269.7	1335.7	1515.4	1519.3
42.5°	1708.0	1634.7	1486.8	1391.6	1289.7	1228.4	1293.4	1414.8	1494.6	1646.4	1718.1
45°	1855.4	1761.3	1647.2	1574.9	1446.2	1400.7	1424.1	1579.6	1679.7	1783.9	1878.3
47.5°	2018.4	1916.5	1802.4	1673.9	1548.4	1622.5	1581.1	1717.9	1815.6	1965.1	2053.5
50°	2223.3	2110.4	1964.3	1858.3	1775.1	1801.1	1794.6	1892.1	2012.7	2148.9	2249.3
52.5°	2448.9	2321.3	2180.4	2081.8	2046.7	1982.3	2066.5	2106.5	2195.4	2320.2	2438.0
55°	2606.7	2479.1	2393.8	2425.5	2416.2	2312.7	2386.5	2390.7	2347.8	2392.8	2511.3
57.5°	2582.3	2460.4	2448.7	2568.5	2747.6	2847.7	2733.6	2488.2	2327.5	2306.5	2432.0
60°	2257.8	2153.6	2260.7	2531.1	3052.8	3357.5	2918.2	2414.6	2150.0	2040.5	2161.7
62.5°	1555.9	1485.5	1707.5	2130.2	3089.5	3750.9	2911.4	2098.2	1667.4	1468.8	1562.9
65°	737.5	712.1	899.5	1350.5	2573.4	3645.8	2543.5	1419.7	959.8	766.7	788.0
67.5°	277.4	264.6	330.2	596.6	1620.9	2891.6	1709.8	700.4	371.2	288.6	298.4
70°	157.5	148.4	157.0	217.6	652.5	1637.8	737.5	240.2	157.8	143.8	153.1
72.5°	124.0	117.0	118.3	131.5	225.1	642.9	238.7	137.0	114.6	108.9	117.2
75°	102.4	96.2	95.9	103.2	131.3	208.8	134.9	104.8	92.8	88.6	95.4
77.5°	81.4	77.7	78.8	84.5	94.1	116.7	97.7	84.8	76.2	71.2	75.9
80°	59.5	59.0	63.2	68.4	70.2	78.5	73.3	68.4	60.8	53.8	55.6
82.5°	39.0	39.3	47.1	51.2	50.4	50.2	52.5	52.3	45.5	35.6	35.6
85°	22.4	22.9	28.9	32.2	31.7	25.2	33.3	33.5	29.1	21.6	20.8
87.5°	7.3	9.1	12.5	13.3	12.7	7.0	12.7	14.0	12.7	9.1	8.1
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)