

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: P368206

Luminaire Tested: **MSA-SA4A-730-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368206  
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-SA4A-730-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14448 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G2

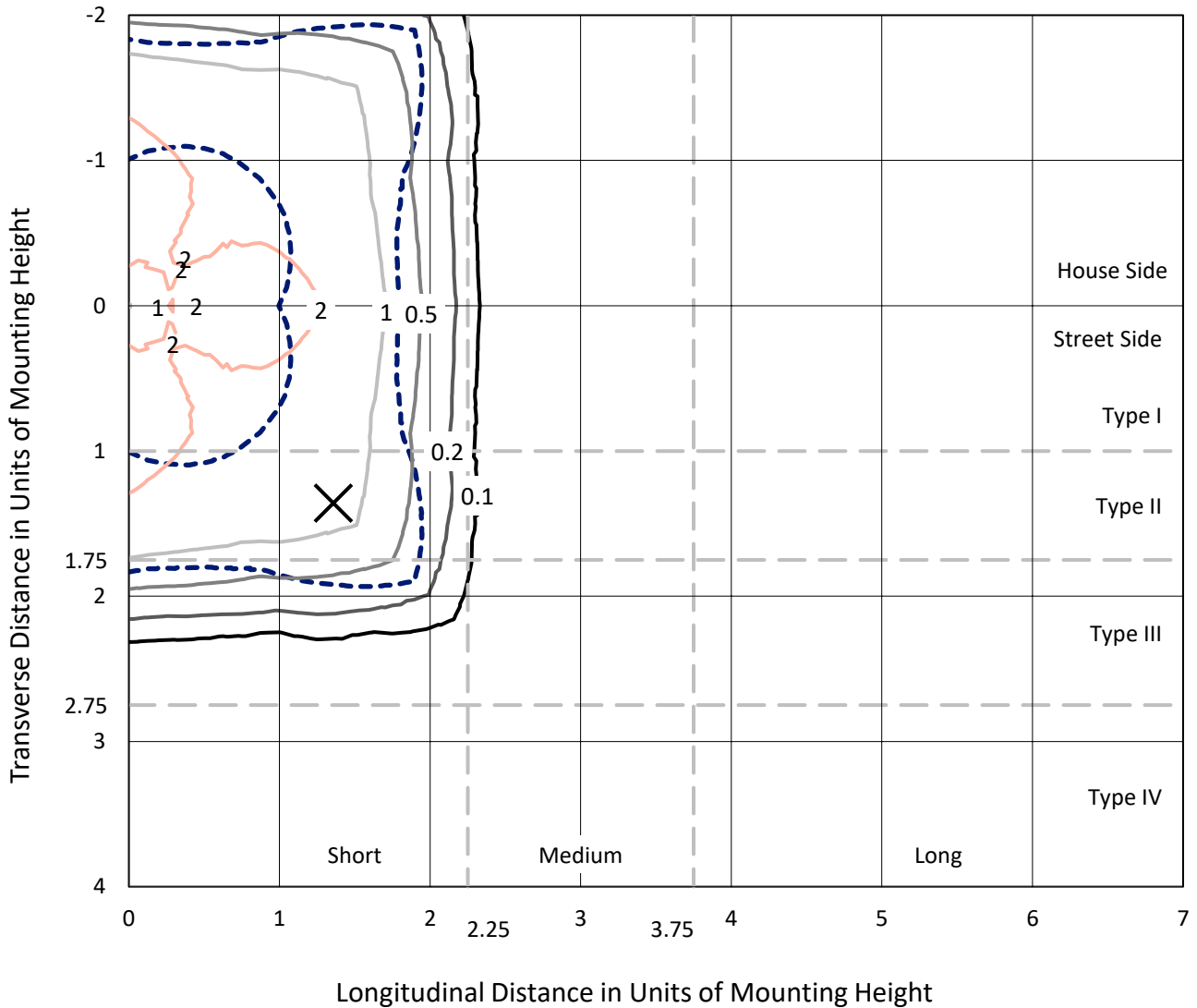
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

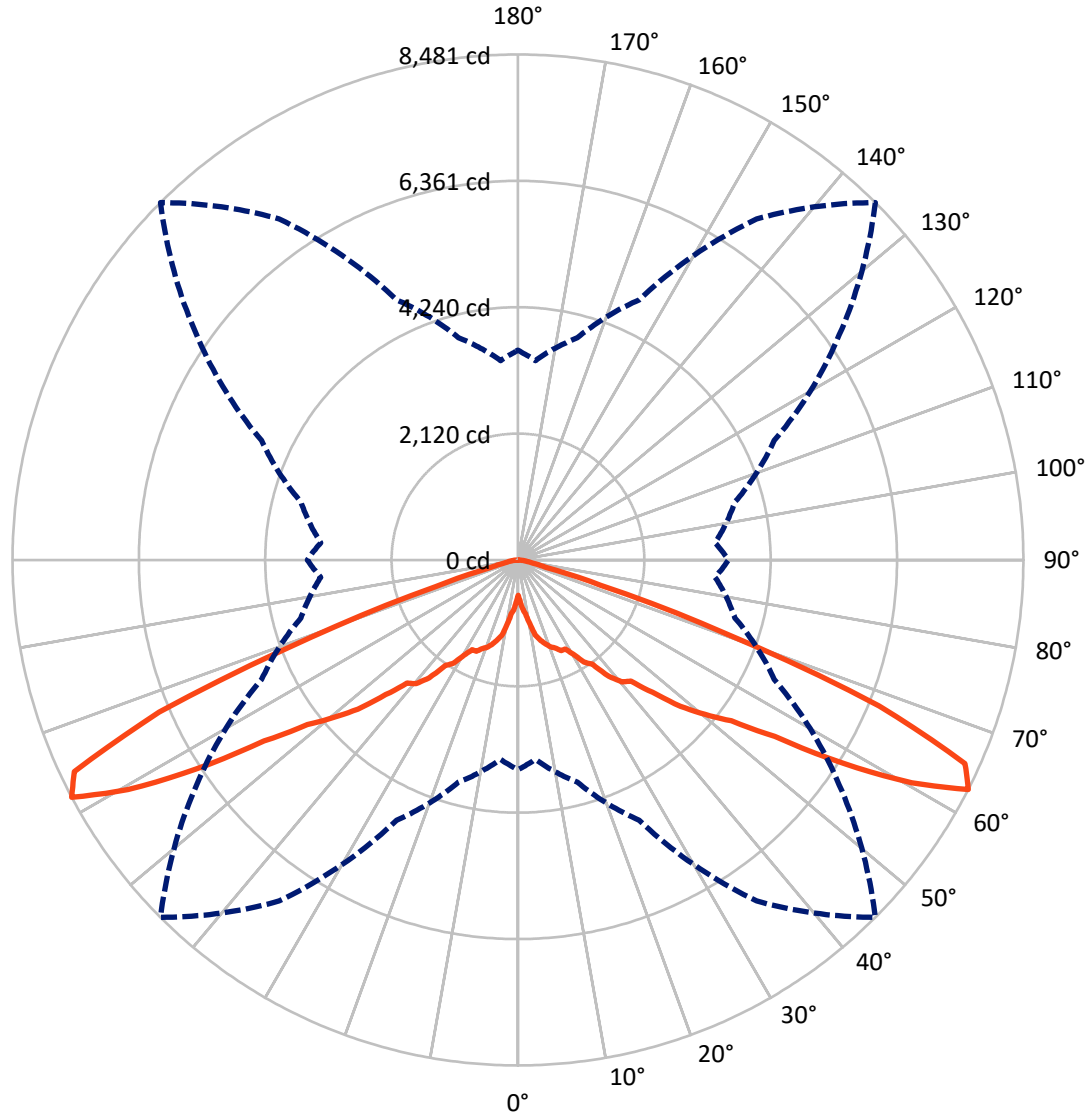
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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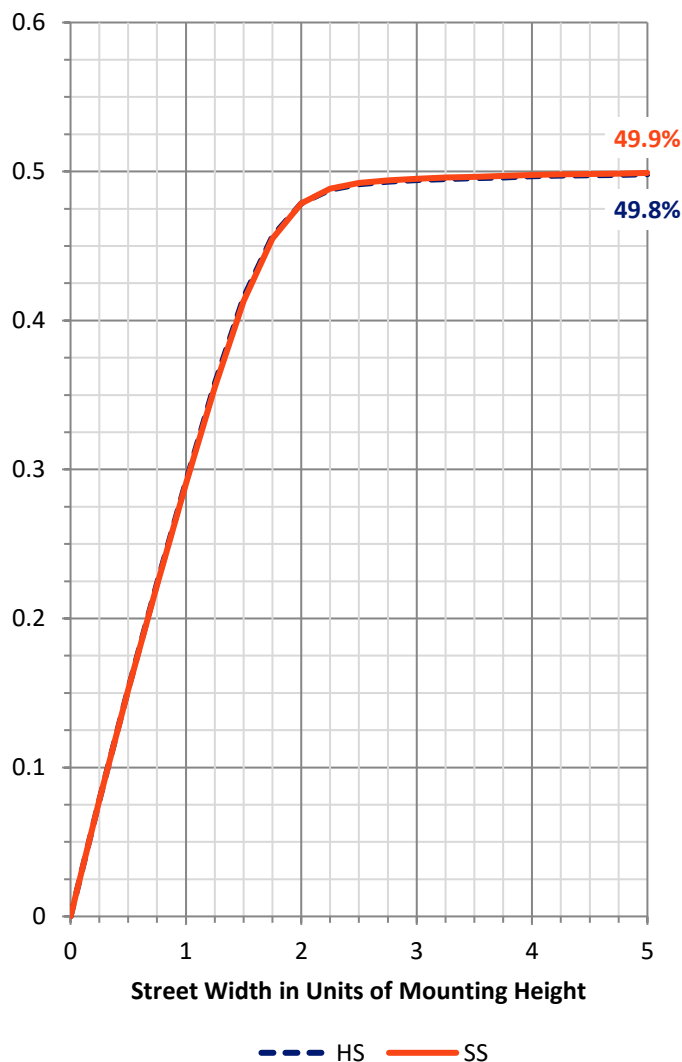
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7224.0	0.0	7224.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7224.0	0.0	7224.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	14448.0	0.0	14448.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.0	0.6
10°-20°	392.6	2.7
20°-30°	822.8	5.7
30°-40°	1550.3	10.7
40°-50°	2813.7	19.5
50°-60°	4754.1	32.9
60°-70°	3554.0	24.6
70°-80°	397.6	2.8
80°-90°	74.0	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°	14448.0	100.0
0°-180°	14448.0	100.0

**Coefficient of Utilization**



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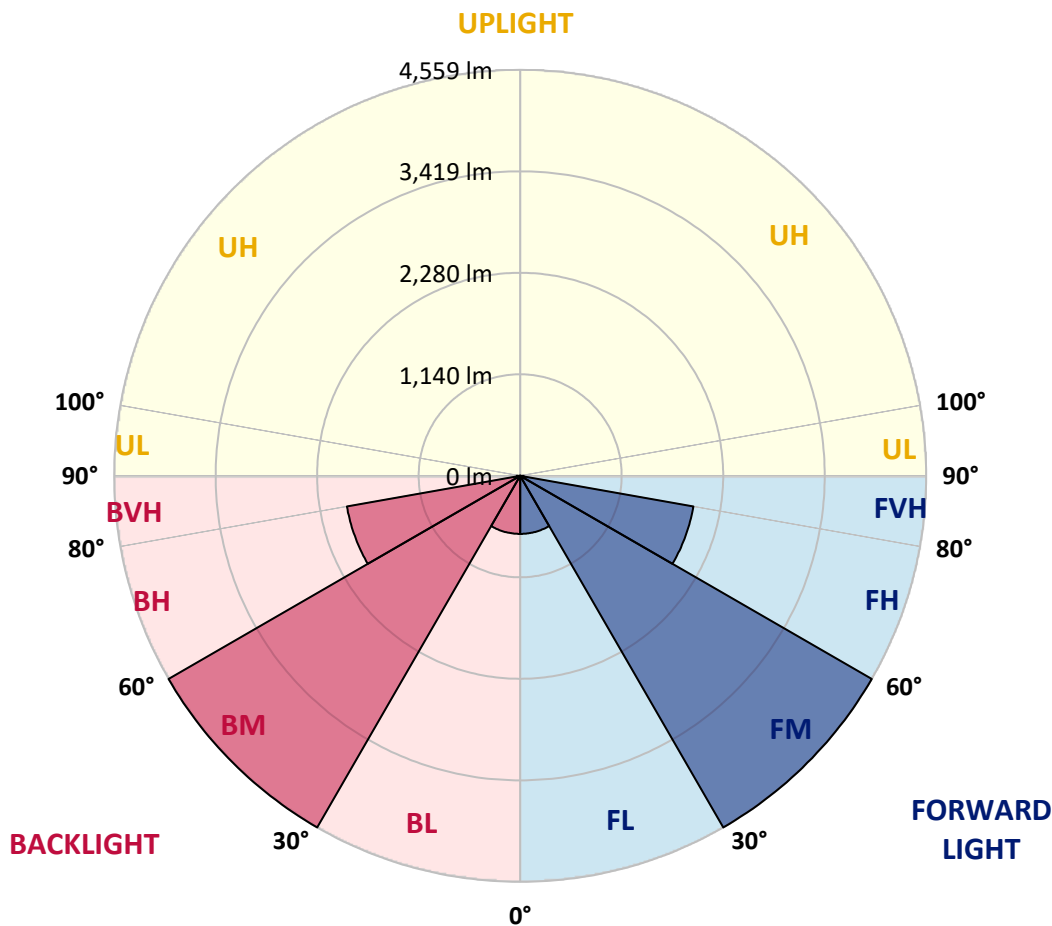
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	652.2	4.5			
FM (30°-60°)	4559.0	31.6			
FH (60°-80°)	1975.8	13.7			G2/5000
FVH (80°-90°)	37.0	0.3			G1/100
BL (0°-30°)	652.2	4.5	B2/1000		
BM (30°-60°)	4559.0	31.6	B3/5000		
BH (60°-80°)	1975.8	13.7	B3/2500		G2/5000
BVH (80°-90°)	37.0	0.3			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°	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7	590.7
2.5°	718.3	705.4	660.1	676.0	692.4	690.1	686.0	673.6	662.5	708.9	718.3
5°	915.8	886.4	870.5	857.6	854.7	822.9	866.4	861.7	876.4	901.1	925.2
7.5°	1073.3	1045.7	1004.0	995.1	947.5	912.3	949.9	996.3	1011.0	1056.3	1083.3
10°	1130.9	1106.8	1114.5	1075.1	1072.7	1082.7	1074.5	1085.1	1123.9	1118.6	1138.6
12.5°	1260.2	1264.4	1239.7	1229.7	1249.7	1293.2	1256.1	1243.2	1233.8	1273.8	1286.1
15°	1381.3	1405.4	1364.9	1358.4	1350.2	1390.7	1350.8	1370.2	1387.2	1395.4	1390.7
17.5°	1553.0	1554.1	1508.9	1436.6	1463.6	1476.6	1458.9	1425.4	1505.9	1546.5	1548.9
20°	1665.8	1669.9	1580.6	1467.7	1544.2	1555.9	1547.1	1477.1	1584.1	1651.7	1648.8
22.5°	1787.5	1773.4	1652.3	1570.0	1597.1	1604.1	1585.3	1576.5	1651.7	1774.6	1756.3
25°	1869.2	1895.1	1774.6	1721.7	1698.7	1682.3	1706.4	1711.1	1788.1	1899.8	1838.1
27.5°	2064.4	2019.7	1831.0	1851.0	1802.2	1691.1	1796.9	1855.1	1838.6	2029.1	2075.5
30°	2237.8	2238.9	1974.4	2012.6	1922.1	1832.2	1946.8	2030.9	2010.3	2254.2	2210.1
32.5°	2459.4	2467.6	2221.9	2119.6	2058.5	2041.4	2027.3	2120.2	2248.3	2445.8	2450.0
35°	2698.6	2769.1	2435.3	2327.7	2223.7	2148.4	2229.5	2358.3	2441.7	2757.4	2701.5
37.5°	3164.7	3046.0	2772.7	2570.5	2504.0	2474.1	2517.0	2591.6	2772.1	3044.2	3140.0
40°	3440.4	3407.5	3035.4	2866.1	2609.8	2689.8	2666.3	2870.8	3020.1	3426.3	3435.1
42.5°	3861.9	3696.1	3361.6	3146.5	2916.1	2777.4	2924.3	3198.8	3379.3	3722.5	3884.8
45°	4195.1	3982.4	3724.3	3560.9	3269.9	3167.1	3220.0	3571.5	3797.8	4033.5	4246.9
47.5°	4563.7	4333.3	4075.2	3784.9	3500.9	3668.5	3575.0	3884.2	4105.2	4443.2	4643.0
50°	5026.9	4771.8	4441.4	4201.6	4013.5	4072.3	4057.6	4278.0	4550.8	4858.8	5085.7
52.5°	5537.1	5248.5	4929.9	4707.1	4627.8	4482.0	4672.4	4763.0	4964.0	5246.1	5512.4
55°	5893.9	5605.3	5412.5	5484.2	5463.0	5229.1	5396.0	5405.4	5308.4	5410.1	5678.2
57.5°	5838.6	5563.0	5536.5	5807.5	6212.5	6438.8	6180.7	5625.8	5262.6	5215.0	5498.9
60°	5105.1	4869.3	5111.5	5722.8	6902.5	7591.5	6598.1	5459.5	4861.1	4613.7	4887.6
62.5°	3518.0	3358.7	3860.7	4816.4	6985.4	8480.8	6582.8	4744.1	3770.2	3321.1	3533.9
65°	1667.6	1610.0	2033.8	3053.6	5818.6	8243.3	5751.0	3210.0	2170.2	1733.4	1781.6
67.5°	627.2	598.4	746.5	1349.0	3664.9	6538.1	3866.0	1583.5	839.4	652.5	674.8
70°	356.2	335.6	355.0	492.0	1475.4	3703.1	1667.6	543.1	356.8	325.1	346.2
72.5°	280.4	264.5	267.4	297.4	509.0	1453.6	539.6	309.8	259.2	246.3	265.1
75°	231.6	217.5	216.9	233.4	296.8	472.0	305.1	236.9	209.8	200.4	215.7
77.5°	184.0	175.8	178.1	191.0	212.8	263.9	221.0	191.6	172.2	161.1	171.6
80°	134.6	133.4	142.8	154.6	158.7	177.5	165.8	154.6	137.5	121.7	125.8
82.5°	88.2	88.8	106.4	115.8	114.0	113.4	118.7	118.1	102.9	80.5	80.5
85°	50.6	51.7	65.2	72.9	71.7	57.0	75.2	75.8	65.8	48.8	47.0
87.5°	16.5	20.6	28.2	30.0	28.8	15.9	28.8	31.7	28.8	20.6	18.2
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)