

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: P368580

Luminaire Tested: **MSA-SA4D-727-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368580  
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-SA4D-727-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: 22513 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

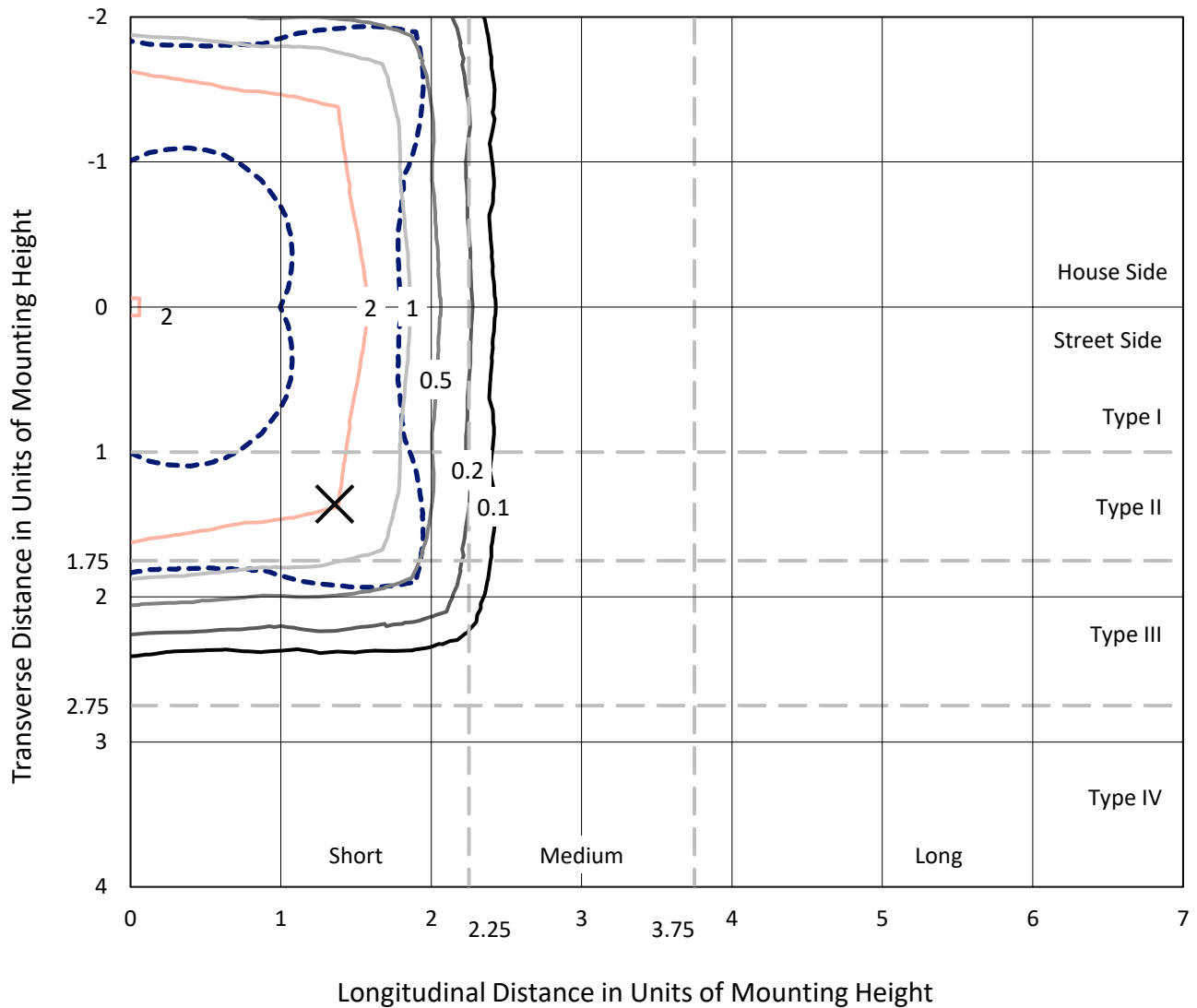
Input Watts (W): 259  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

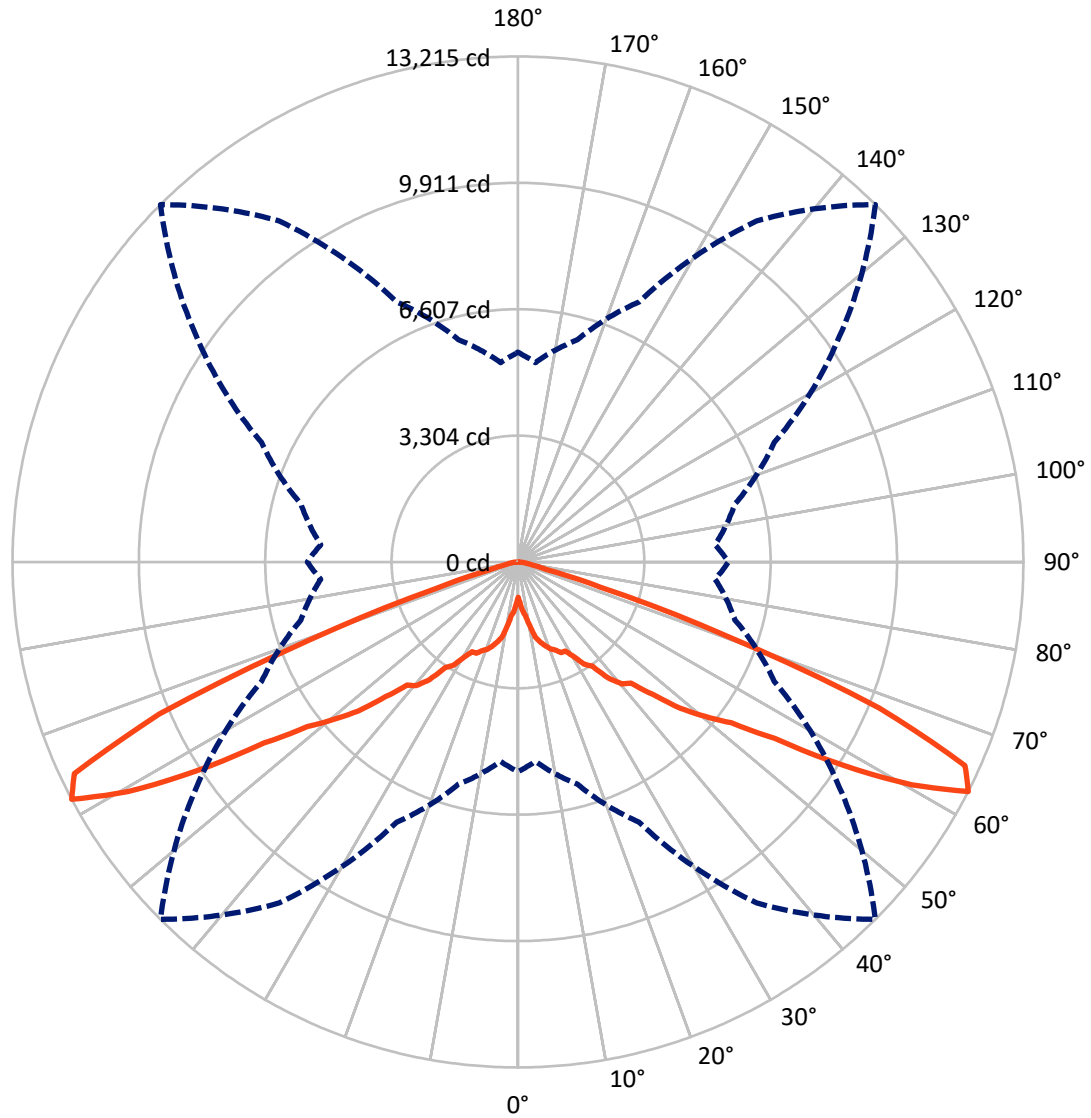
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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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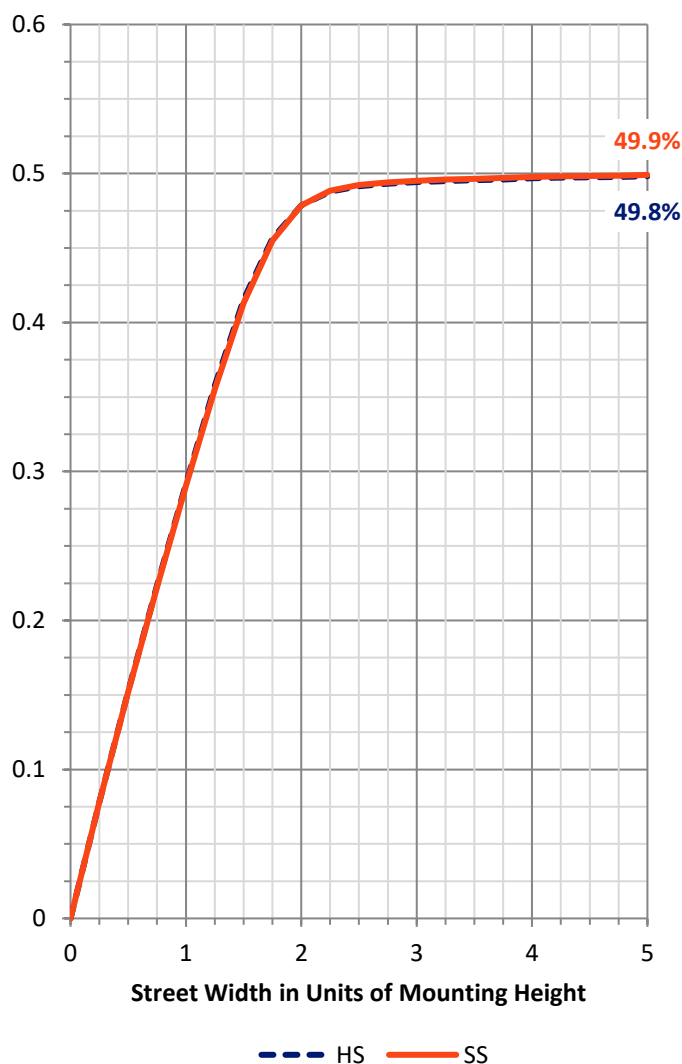
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11256.5	0.0	11256.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	11256.5	0.0	11256.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	22513.0	0.0	22513.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.7	0.6
10°-20°	611.7	2.7
20°-30°	1282.1	5.7
30°-40°	2415.6	10.7
40°-50°	4384.2	19.5
50°-60°	7407.9	32.9
60°-70°	5537.9	24.6
70°-80°	619.5	2.8
80°-90°	115.3	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°	22513.0	100.0
0°-180°	22513.0	100.0

**Coefficient of Utilization**



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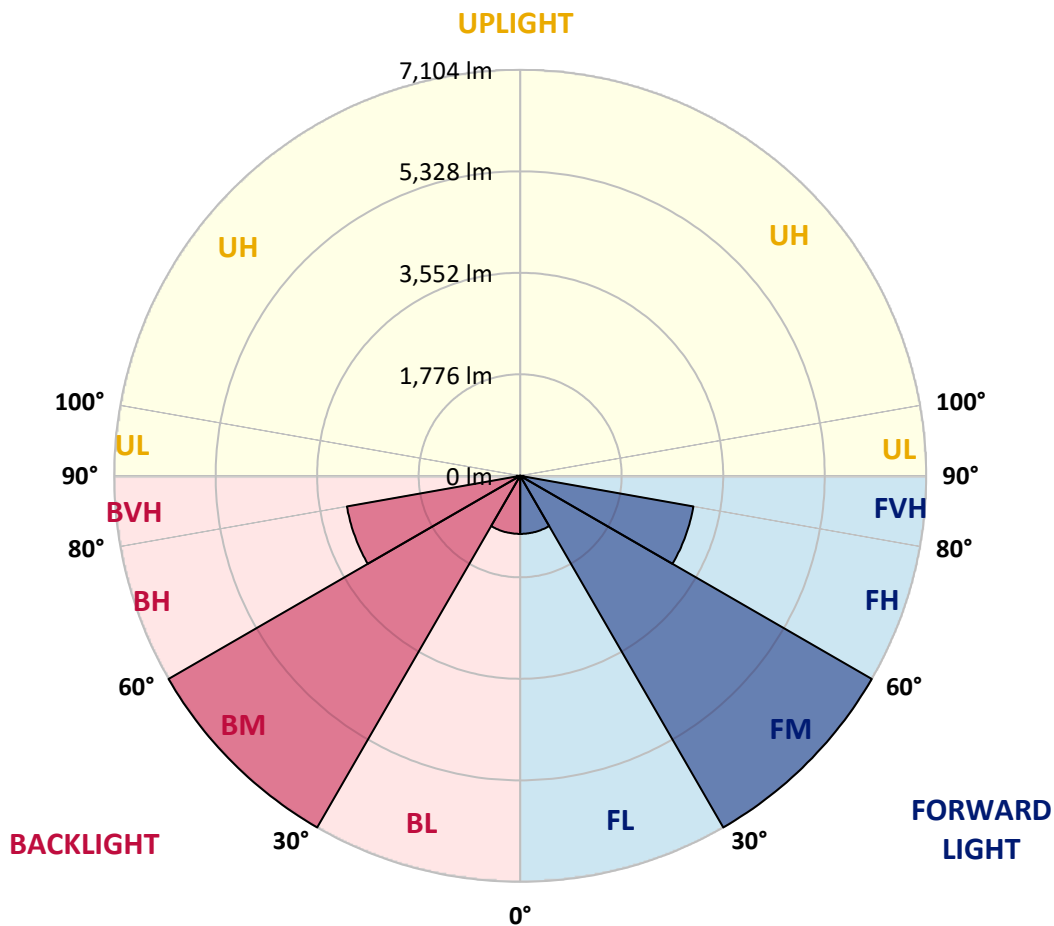
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1016.3	4.5			
FM (30°-60°)	7103.9	31.6			
FH (60°-80°)	3078.7	13.7			G2/5000
FVH (80°-90°)	57.6	0.3			G1/100
BL (0°-30°)	1016.3	4.5	B3/2500		
BM (30°-60°)	7103.9	31.6	B4/8500		
BH (60°-80°)	3078.7	13.7	B4/5000		G2/5000
BVH (80°-90°)	57.6	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	920.5	920.5	920.5	920.5	920.5	920.5	920.5	920.5	920.5	920.5	920.5
2.5°	1119.3	1099.1	1028.6	1053.3	1079.0	1075.3	1068.9	1049.6	1032.2	1104.6	1119.3
5°	1427.0	1381.2	1356.5	1336.3	1331.7	1282.3	1350.1	1342.7	1365.6	1404.1	1441.7
7.5°	1672.5	1629.4	1564.4	1550.6	1476.5	1421.5	1480.1	1552.5	1575.4	1645.9	1688.0
10°	1762.2	1724.7	1736.6	1675.2	1671.5	1687.1	1674.3	1690.8	1751.2	1743.0	1774.1
12.5°	1963.7	1970.1	1931.7	1916.1	1947.2	2015.0	1957.3	1937.2	1922.5	1984.8	2004.0
15°	2152.4	2190.0	2126.8	2116.7	2103.9	2167.1	2104.8	2135.0	2161.6	2174.4	2167.1
17.5°	2419.9	2421.7	2351.2	2238.5	2280.6	2300.8	2273.3	2221.1	2346.6	2409.8	2413.4
20°	2595.7	2602.1	2462.9	2287.0	2406.1	2424.4	2410.7	2301.7	2468.4	2573.7	2569.1
22.5°	2785.3	2763.3	2574.6	2446.4	2488.5	2499.5	2470.2	2456.5	2573.7	2765.2	2736.8
25°	2912.6	2952.9	2765.2	2682.7	2647.0	2621.4	2658.9	2666.2	2786.2	2960.2	2864.1
27.5°	3216.7	3147.1	2853.1	2884.2	2808.2	2635.1	2800.0	2890.6	2865.0	3161.7	3234.1
30°	3486.9	3488.7	3076.6	3136.1	2995.0	2854.9	3033.5	3164.5	3132.4	3512.5	3443.8
32.5°	3832.2	3845.0	3462.2	3302.8	3207.5	3181.0	3159.0	3303.7	3503.4	3811.1	3817.5
35°	4205.0	4314.9	3794.6	3627.0	3464.9	3347.7	3474.1	3674.7	3804.7	4296.6	4209.6
37.5°	4931.3	4746.3	4320.4	4005.3	3901.8	3855.1	3922.0	4038.3	4319.5	4743.5	4892.8
40°	5360.9	5309.6	4729.8	4466.0	4066.7	4191.2	4154.6	4473.3	4706.0	5338.9	5352.6
42.5°	6017.6	5759.3	5238.1	4902.9	4543.9	4327.7	4556.7	4984.4	5265.6	5800.5	6053.3
45°	6536.9	6205.3	5803.2	5548.6	5095.2	4935.0	5017.4	5565.1	5917.7	6285.0	6617.5
47.5°	7111.2	6752.1	6350.1	5897.6	5455.2	5716.2	5570.6	6052.4	6396.8	6923.4	7234.8
50°	7832.9	7435.4	6920.7	6547.0	6253.9	6345.5	6322.6	6666.0	7091.0	7571.0	7924.5
52.5°	8627.9	8178.2	7681.8	7334.7	7211.0	6983.9	7280.6	7421.7	7734.9	8174.6	8589.5
55°	9183.9	8734.2	8433.8	8545.5	8512.5	8148.0	8408.1	8422.8	8271.6	8430.1	8847.8
57.5°	9097.8	8668.2	8627.0	9049.3	9680.3	10033.0	9630.9	8766.2	8200.2	8126.0	8568.4
60°	7954.7	7587.5	7964.8	8917.4	10755.6	11829.1	10281.2	8507.0	7574.6	7189.0	7615.8
62.5°	5481.8	5233.5	6015.7	7505.0	10884.8	13214.8	10257.4	7392.4	5874.7	5174.9	5506.5
65°	2598.5	2508.7	3169.1	4758.2	9066.7	12844.8	8961.3	5001.8	3381.6	2701.0	2776.1
67.5°	977.3	932.4	1163.2	2102.0	5710.7	10187.7	6024.0	2467.5	1307.9	1016.7	1051.5
70°	555.0	523.0	553.2	766.6	2299.0	5770.3	2598.5	846.3	556.0	506.5	539.5
72.5°	436.9	412.2	416.7	463.5	793.2	2265.1	840.8	482.7	403.9	383.8	413.1
75°	360.9	338.9	338.0	363.6	462.5	735.5	475.4	369.1	327.0	312.3	336.1
77.5°	286.7	273.9	277.5	297.7	331.6	411.2	344.4	298.6	268.4	251.0	267.4
80°	209.7	207.9	222.6	240.9	247.3	276.6	258.3	240.9	214.3	189.6	196.0
82.5°	137.4	138.3	165.8	180.4	177.7	176.8	185.0	184.1	160.3	125.5	125.5
85°	78.8	80.6	101.7	113.6	111.7	88.8	117.2	118.2	102.6	76.0	73.3
87.5°	25.6	32.1	44.0	46.7	44.9	24.7	44.9	49.5	44.9	32.1	28.4
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)