

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: P368448

Luminaire Tested: **MSA-SA4C-727-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368448  
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-SA4C-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: 20591 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

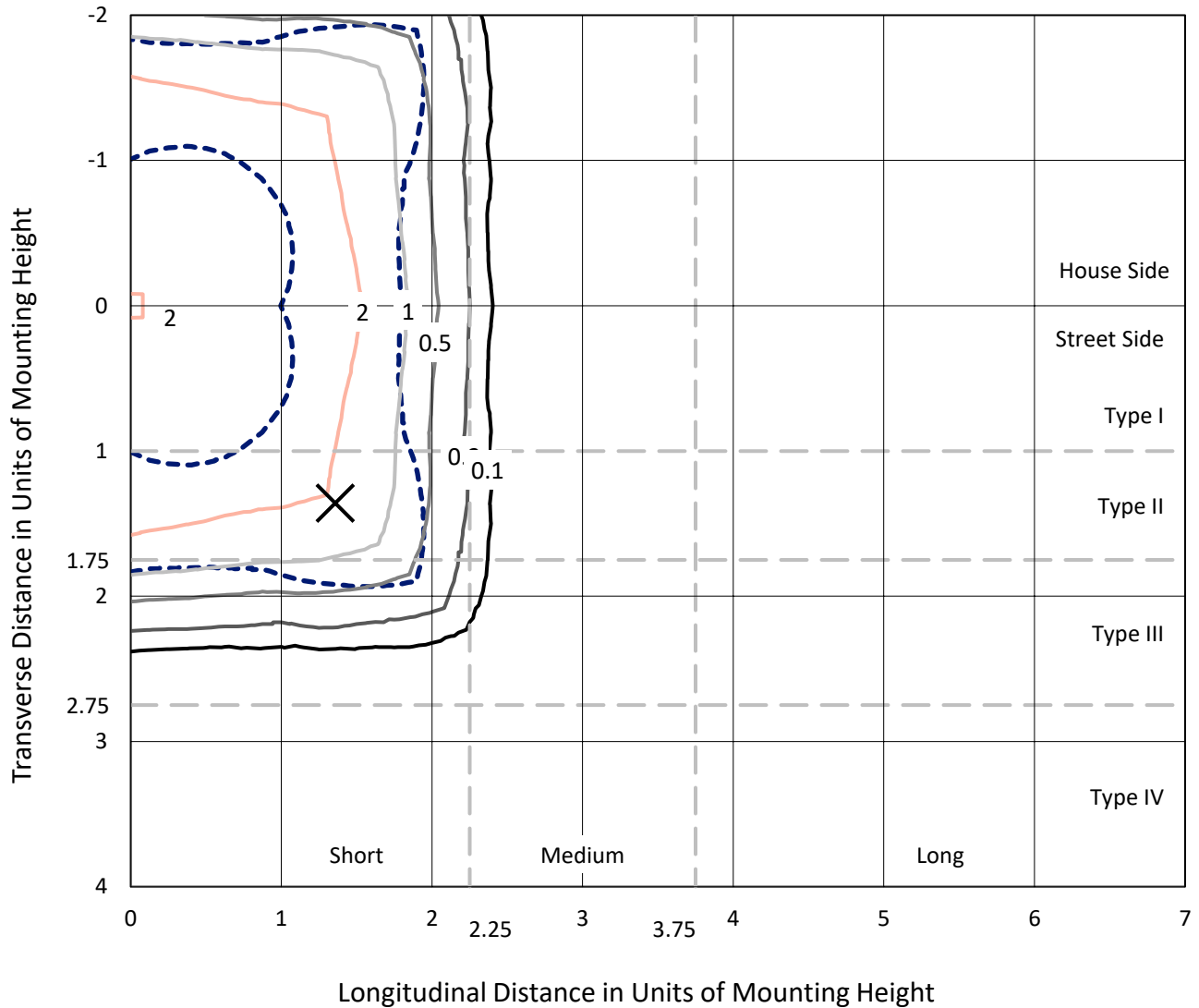
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

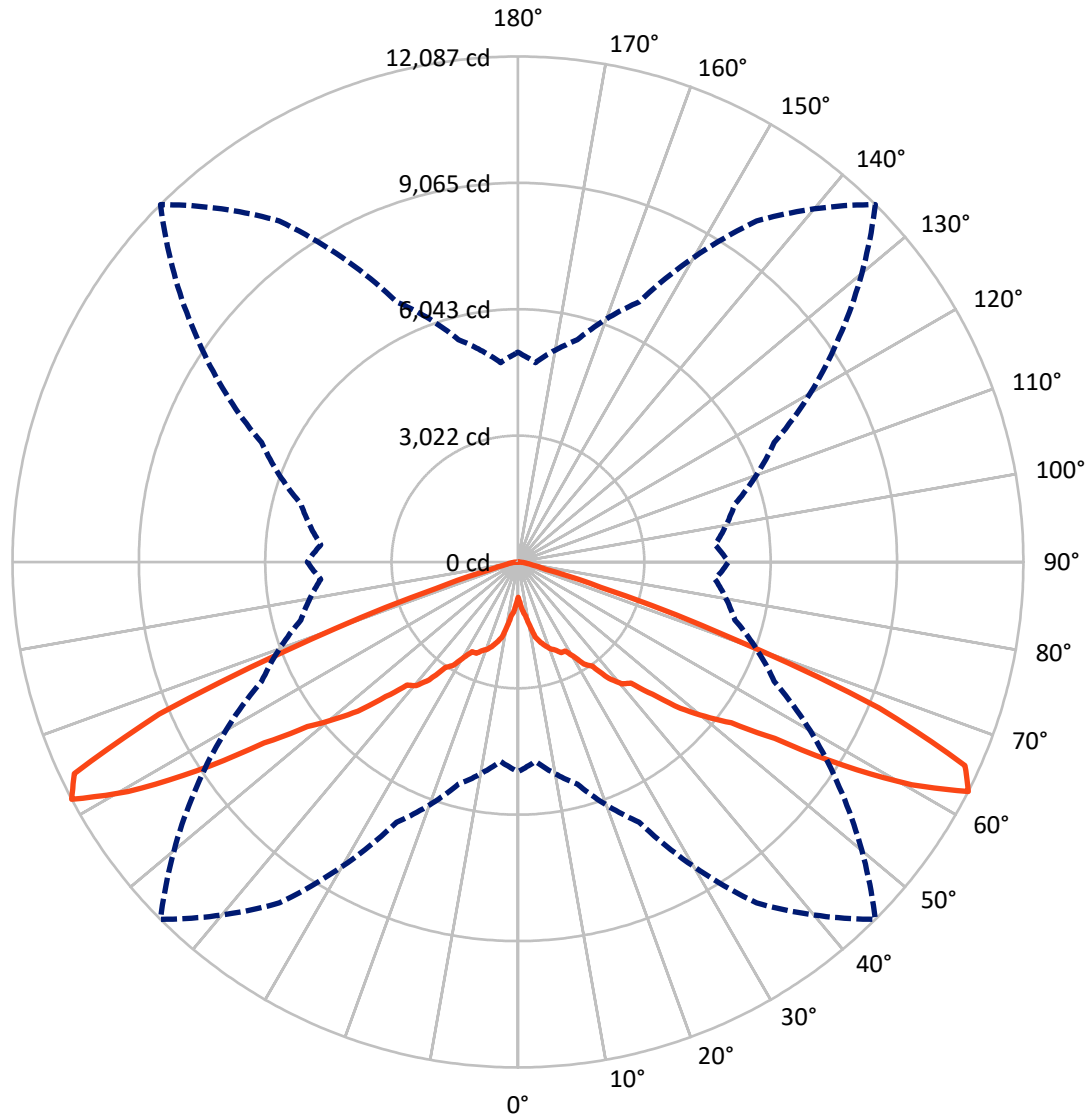
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 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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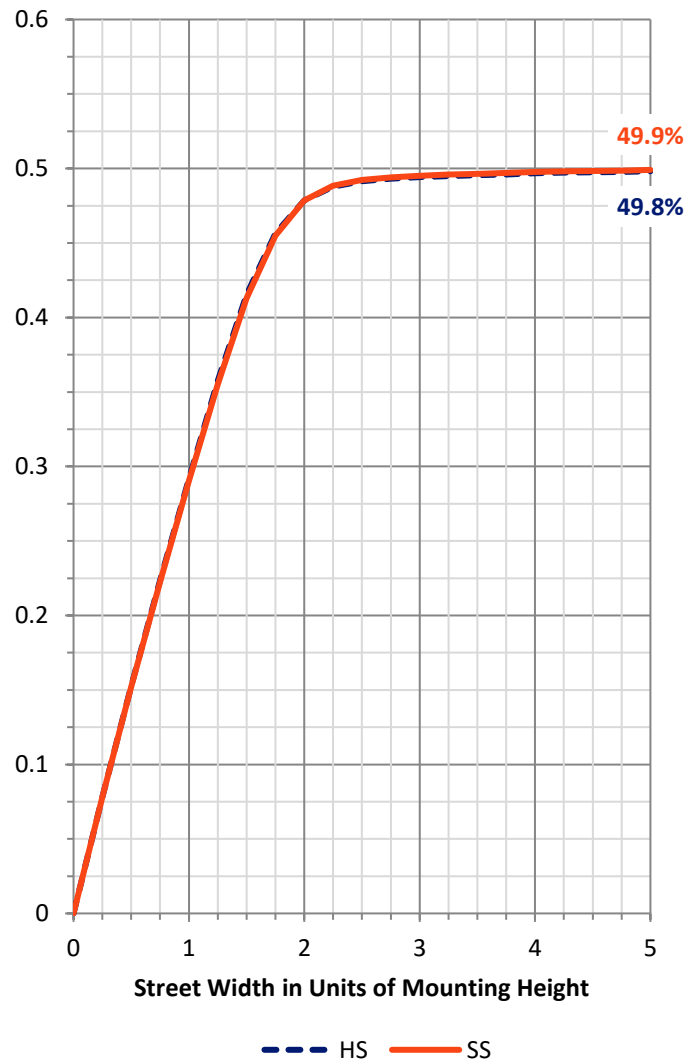
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10295.5	0.0	10295.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10295.5	0.0	10295.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20591.0	0.0	20591.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.9	0.6
10°-20°	559.5	2.7
20°-30°	1172.6	5.7
30°-40°	2209.4	10.7
40°-50°	4009.9	19.5
50°-60°	6775.5	32.9
60°-70°	5065.1	24.6
70°-80°	566.7	2.8
80°-90°	105.4	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°	20591.0	100.0
0°-180°	20591.0	100.0



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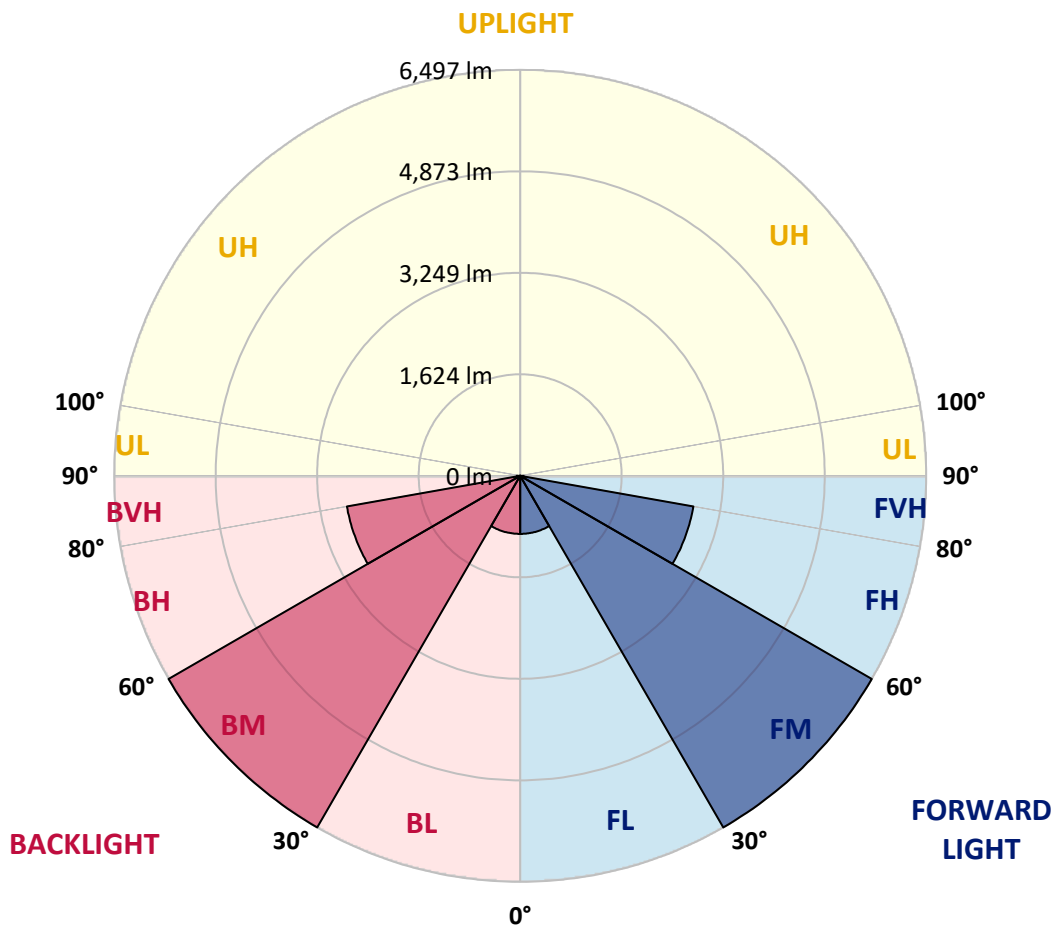
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	929.5	4.5			
FM (30°-60°)	6497.4	31.6			
FH (60°-80°)	2815.9	13.7			G2/5000
FVH (80°-90°)	52.7	0.3			G1/100
BL (0°-30°)	929.5	4.5	B2/1000		
BM (30°-60°)	6497.4	31.6	B4/8500		
BH (60°-80°)	2815.9	13.7	B4/5000		G2/5000
BVH (80°-90°)	52.7	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°	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	1023.7	1005.3	940.8	963.4	986.8	983.5	977.6	960.0	944.1	1010.3	1023.7
5°	1305.2	1263.3	1240.7	1222.2	1218.0	1172.8	1234.8	1228.1	1249.0	1284.2	1318.6
7.5°	1529.7	1490.3	1430.8	1418.3	1350.4	1300.1	1353.8	1419.9	1440.9	1505.4	1543.9
10°	1611.8	1577.4	1588.3	1532.2	1528.8	1543.1	1531.4	1546.4	1601.7	1594.2	1622.7
12.5°	1796.1	1801.9	1766.8	1752.5	1781.0	1843.0	1790.2	1771.8	1758.4	1815.3	1832.9
15°	1968.6	2003.0	1945.2	1936.0	1924.2	1982.1	1925.1	1952.7	1977.0	1988.8	1982.1
17.5°	2213.3	2214.9	2150.4	2047.4	2085.9	2104.4	2079.2	2031.5	2146.2	2204.0	2207.4
20°	2374.1	2380.0	2252.6	2091.8	2200.7	2217.5	2204.9	2105.2	2257.7	2354.0	2349.8
22.5°	2547.5	2527.4	2354.8	2237.6	2276.1	2286.1	2259.3	2246.8	2354.0	2529.1	2503.1
25°	2664.0	2700.8	2529.1	2453.7	2421.0	2397.6	2431.9	2438.6	2548.4	2707.5	2619.6
27.5°	2942.1	2878.4	2609.5	2638.0	2568.5	2410.1	2560.9	2643.9	2620.4	2891.8	2958.0
30°	3189.2	3190.9	2813.9	2868.4	2739.4	2611.2	2774.5	2894.3	2865.0	3212.7	3149.8
32.5°	3505.0	3516.8	3166.6	3020.8	2933.7	2909.4	2889.3	3021.7	3204.3	3485.8	3491.6
35°	3846.0	3946.5	3470.7	3317.4	3169.1	3061.9	3177.5	3360.9	3479.9	3929.8	3850.2
37.5°	4510.3	4341.1	3951.5	3663.4	3568.7	3526.0	3587.1	3693.5	3950.7	4338.6	4475.1
40°	4903.2	4856.3	4326.0	4084.7	3719.5	3833.4	3799.9	4091.4	4304.2	4883.1	4895.7
42.5°	5503.8	5267.6	4790.9	4484.3	4155.9	3958.2	4167.7	4558.9	4816.1	5305.3	5536.5
45°	5978.8	5675.6	5307.8	5074.9	4660.3	4513.6	4589.0	5090.0	5412.5	5748.5	6052.5
47.5°	6504.1	6175.7	5807.9	5394.1	4989.5	5228.2	5095.0	5535.7	5850.7	6332.3	6617.2
50°	7164.2	6800.6	6329.8	5988.0	5720.0	5803.7	5782.8	6096.9	6485.6	6924.6	7248.0
52.5°	7891.3	7480.0	7026.0	6708.5	6595.4	6387.6	6659.1	6788.1	7074.6	7476.7	7856.2
55°	8399.8	7988.5	7713.7	7816.0	7785.8	7452.4	7690.3	7703.7	7565.5	7710.4	8092.4
57.5°	8321.1	7928.2	7890.5	8276.7	8853.9	9176.4	8808.7	8017.8	7500.1	7432.3	7836.9
60°	7275.6	6939.7	7284.8	8156.1	9837.4	10819.2	9403.4	7780.8	6928.0	6575.3	6965.7
62.5°	5013.8	4786.7	5502.2	6864.3	9955.5	12086.7	9381.7	6761.3	5373.2	4733.1	5036.4
65°	2376.6	2294.5	2898.5	4352.0	8292.6	11748.2	8196.3	4574.8	3092.9	2470.4	2539.1
67.5°	893.8	852.8	1063.9	1922.6	5223.2	9318.0	5509.7	2256.8	1196.3	929.9	961.7
70°	507.7	478.3	506.0	701.2	2102.7	5277.7	2376.6	774.1	508.5	463.3	493.4
72.5°	399.6	377.0	381.2	423.9	725.5	2071.7	769.0	441.5	369.4	351.0	377.8
75°	330.1	310.0	309.1	332.6	423.0	672.7	434.8	337.6	299.1	285.7	307.4
77.5°	262.2	250.5	253.8	272.3	303.3	376.1	315.0	273.1	245.5	229.5	244.6
80°	191.8	190.2	203.6	220.3	226.2	253.0	236.2	220.3	196.0	173.4	179.3
82.5°	125.7	126.5	151.6	165.0	162.5	161.7	169.2	168.4	146.6	114.8	114.8
85°	72.0	73.7	93.0	103.9	102.2	81.3	107.2	108.1	93.8	69.5	67.0
87.5°	23.5	29.3	40.2	42.7	41.0	22.6	41.0	45.2	41.0	29.3	26.0
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)