

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: P367657

Luminaire Tested: **MSA-SA3A-727-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367657  
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-SA3A-727-U-5WQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10524 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

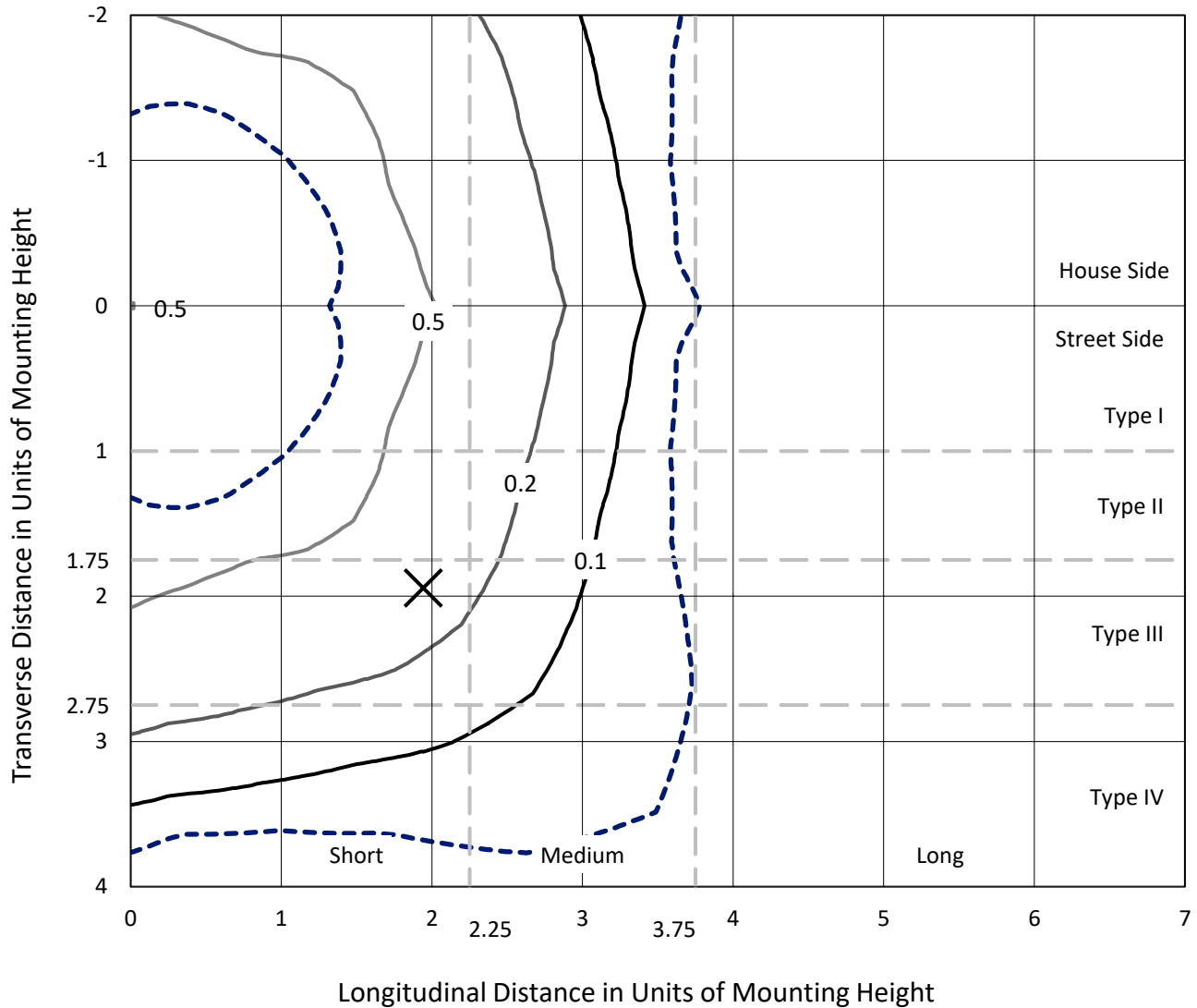
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

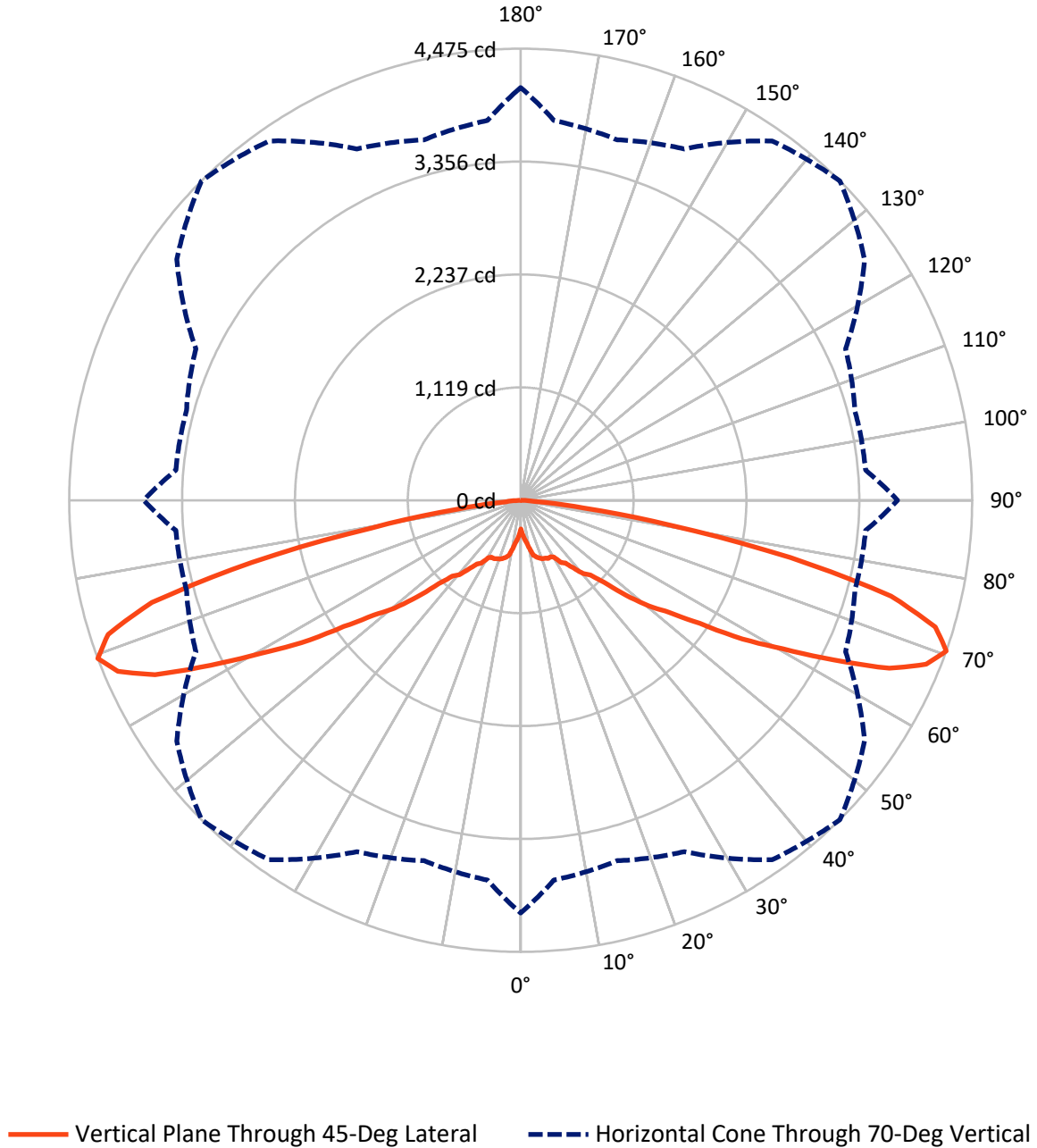
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



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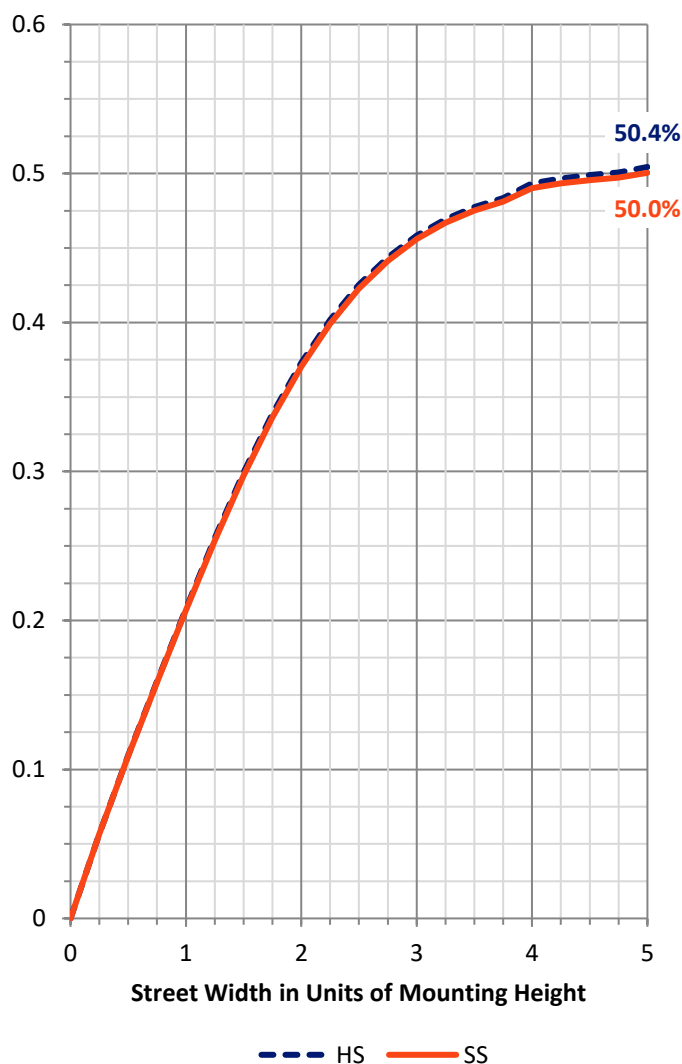
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5262.0	0.0	5262.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5262.0	0.0	5262.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10524.0	0.0	10524.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	0.4
10°-20°	165.7	1.6
20°-30°	313.2	3.0
30°-40°	545.6	5.2
40°-50°	1042.9	9.9
50°-60°	2022.3	19.2
60°-70°	3541.2	33.6
70°-80°	2661.4	25.3
80°-90°	190.4	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°	10524.0	100.0
0°-180°	10524.0	100.0

**Coefficient of Utilization**



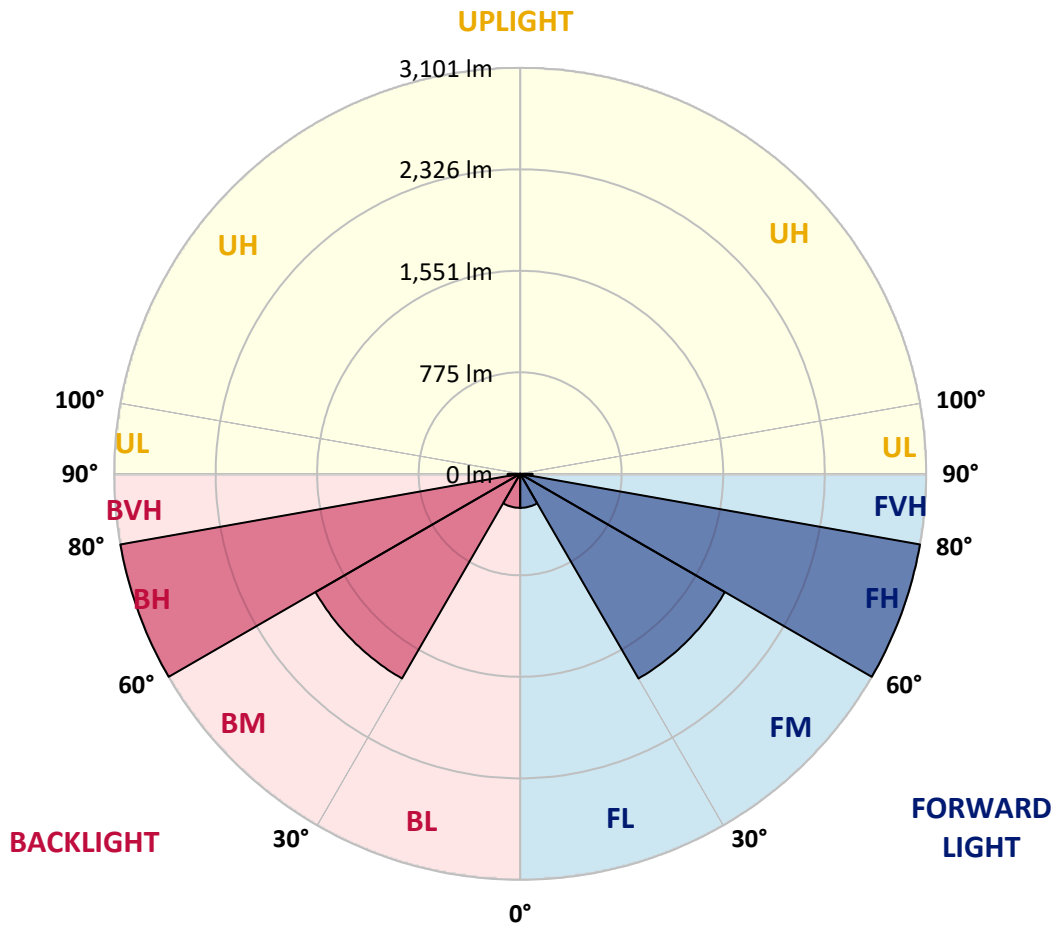
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	260.1	2.5			
FM (30°-60°)	1805.4	17.2			
FH (60°-80°)	3101.3	29.5			G2/5000
FVH (80°-90°)	95.2	0.9			G1/100
BL (0°-30°)	260.1	2.5	B1/500		
BM (30°-60°)	1805.4	17.2	B2/2500		
BH (60°-80°)	3101.3	29.5	B4/5000		G2/5000
BVH (80°-90°)	95.2	0.9			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°	284.6	284.6	284.6	284.6	284.6	284.6	284.6	284.6	284.6	284.6	284.6
2.5°	346.2	340.9	324.2	325.0	332.7	333.6	334.4	324.2	321.7	342.5	343.8
5°	439.7	427.5	415.2	410.3	403.0	382.5	405.0	407.4	412.3	428.3	435.6
7.5°	502.2	487.1	470.3	460.1	440.1	423.4	441.7	456.8	466.6	484.6	494.8
10°	514.0	505.0	504.2	486.2	482.6	488.7	487.5	487.9	502.6	503.0	509.1
12.5°	551.2	557.7	545.0	538.9	542.6	557.7	545.4	540.1	543.8	560.5	553.6
15°	599.7	607.5	588.3	578.5	568.7	583.0	570.3	579.7	591.6	603.8	597.7
17.5°	653.6	654.0	627.9	591.6	600.2	602.2	597.7	589.9	623.8	653.2	650.4
20°	683.0	682.6	637.7	588.3	613.6	618.1	614.0	587.5	638.5	678.9	677.7
22.5°	713.2	704.3	650.4	610.4	619.7	623.4	614.0	611.6	650.4	706.7	706.3
25°	729.6	737.3	678.1	653.2	645.5	636.9	645.1	649.1	686.3	741.4	725.5
27.5°	780.6	767.9	686.3	683.8	667.5	633.6	661.8	681.8	683.8	772.8	789.2
30°	826.7	831.6	723.0	726.7	696.9	654.0	697.7	729.6	735.7	832.5	830.8
32.5°	875.7	877.8	788.4	750.4	737.7	736.1	719.4	747.1	795.3	872.9	876.1
35°	950.0	966.8	846.7	795.7	779.8	763.5	778.2	803.1	848.0	964.3	956.2
37.5°	1120.3	1093.7	973.7	868.0	857.4	850.8	862.7	880.6	972.5	1096.6	1134.6
40°	1239.1	1226.4	1063.1	987.6	920.6	955.8	928.0	997.4	1073.3	1227.2	1251.7
42.5°	1423.2	1366.9	1199.1	1105.6	1036.2	1011.3	1026.8	1117.4	1214.2	1385.7	1433.8
45°	1600.0	1513.0	1369.3	1286.9	1181.5	1155.4	1176.2	1282.8	1394.6	1530.2	1615.1
47.5°	1780.4	1690.6	1532.6	1413.4	1327.3	1405.3	1337.1	1438.3	1549.8	1707.4	1782.9
50°	1967.8	1868.2	1712.3	1582.4	1575.1	1644.1	1562.4	1614.3	1717.6	1880.9	1969.9
52.5°	2183.0	2075.6	1919.7	1831.9	1849.0	1844.5	1828.2	1818.8	1920.5	2080.9	2186.7
55°	2439.0	2323.0	2198.5	2158.1	2205.5	2154.4	2178.5	2175.2	2189.9	2304.7	2428.4
57.5°	2748.4	2617.4	2492.5	2483.5	2544.3	2592.5	2549.6	2488.0	2462.3	2573.7	2715.4
60°	3138.3	2977.5	2840.3	2812.1	2985.6	2985.2	2946.5	2808.5	2798.7	2924.8	3095.5
62.5°	3569.1	3373.1	3223.3	3178.3	3450.3	3480.9	3360.0	3112.6	3163.2	3264.9	3467.4
65°	3934.9	3699.3	3559.7	3547.4	3879.8	4014.9	3747.9	3409.4	3425.8	3510.3	3729.5
67.5°	4173.3	3889.5	3778.5	3837.7	4250.9	4335.4	4087.1	3607.8	3549.9	3585.0	3847.1
70°	4089.6	3777.7	3697.7	3841.4	4346.8	4474.6	4160.2	3552.3	3429.0	3430.7	3735.2
72.5°	3455.6	3158.8	3196.7	3460.5	4119.8	4299.0	3822.2	3208.6	2956.3	2950.1	3226.5
75°	2285.1	2086.6	2236.5	2647.6	3424.9	3791.6	3166.9	2514.9	2198.5	2095.6	2309.2
77.5°	999.4	974.1	1100.3	1564.9	2334.9	2732.5	2268.7	1642.9	1195.8	994.5	1086.4
80°	267.8	262.1	329.1	593.6	1136.6	1504.9	1227.7	655.3	342.1	249.0	264.1
82.5°	97.6	100.0	122.1	166.2	374.4	633.6	407.9	191.5	129.4	106.1	106.1
85°	42.5	41.2	59.2	66.5	102.1	143.3	117.2	81.2	65.3	49.0	47.0
87.5°	11.4	14.3	20.0	20.8	26.5	21.6	31.0	28.6	24.5	17.1	13.9
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)