

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: P367656

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

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367656  
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-SA3A-727-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10038 lumens  
Efficiency: N/A  
Efficacy: 104.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

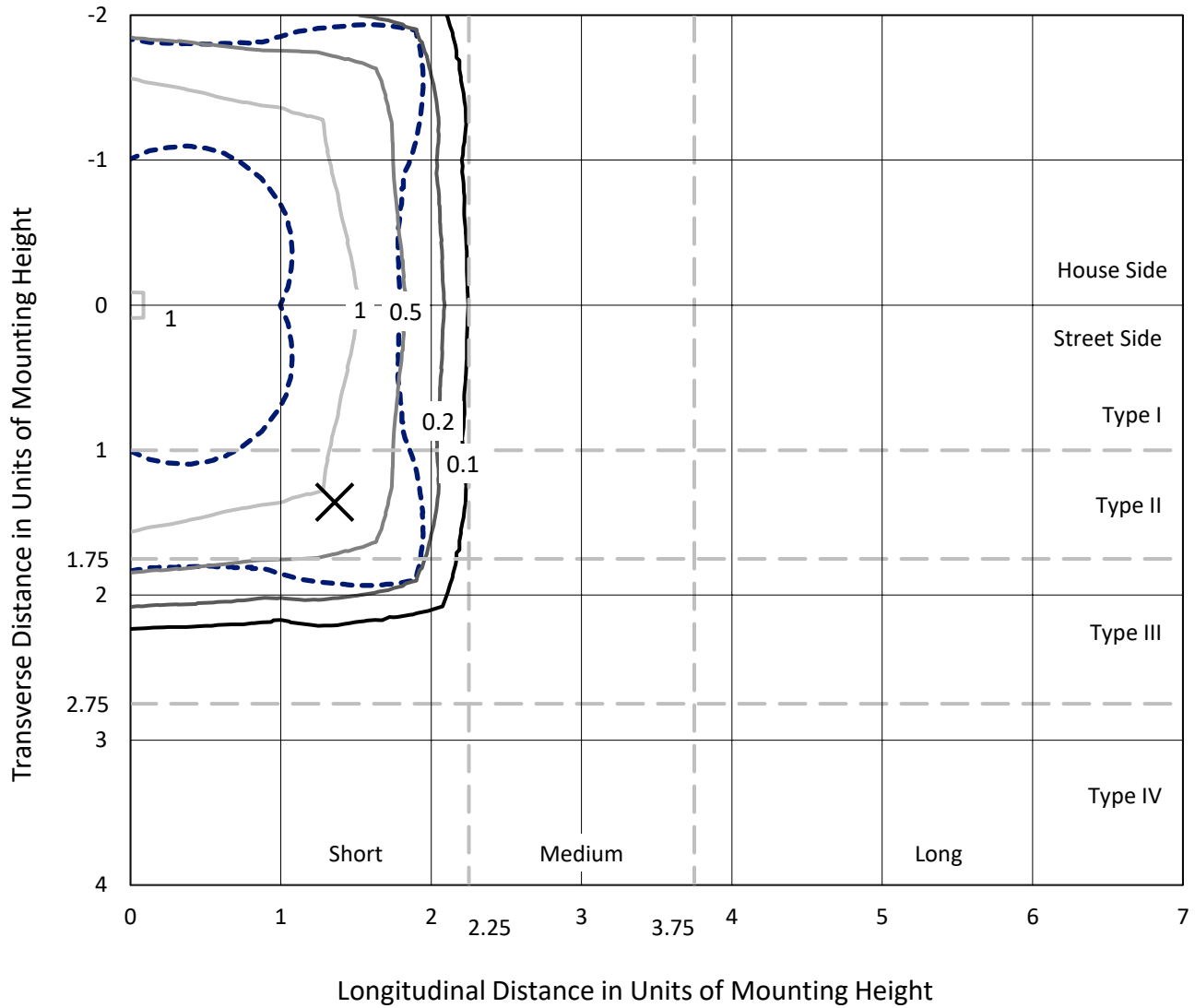
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

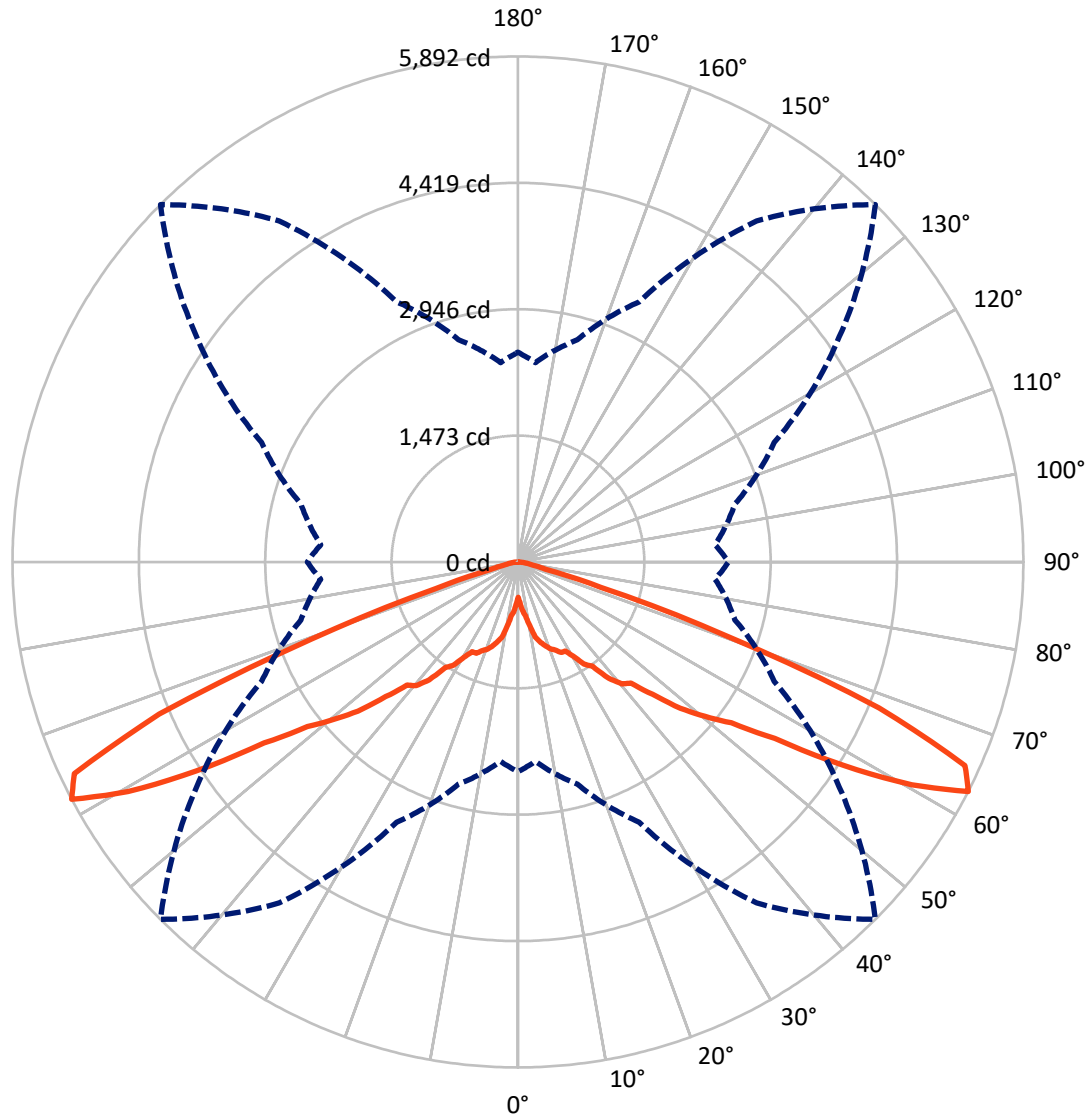
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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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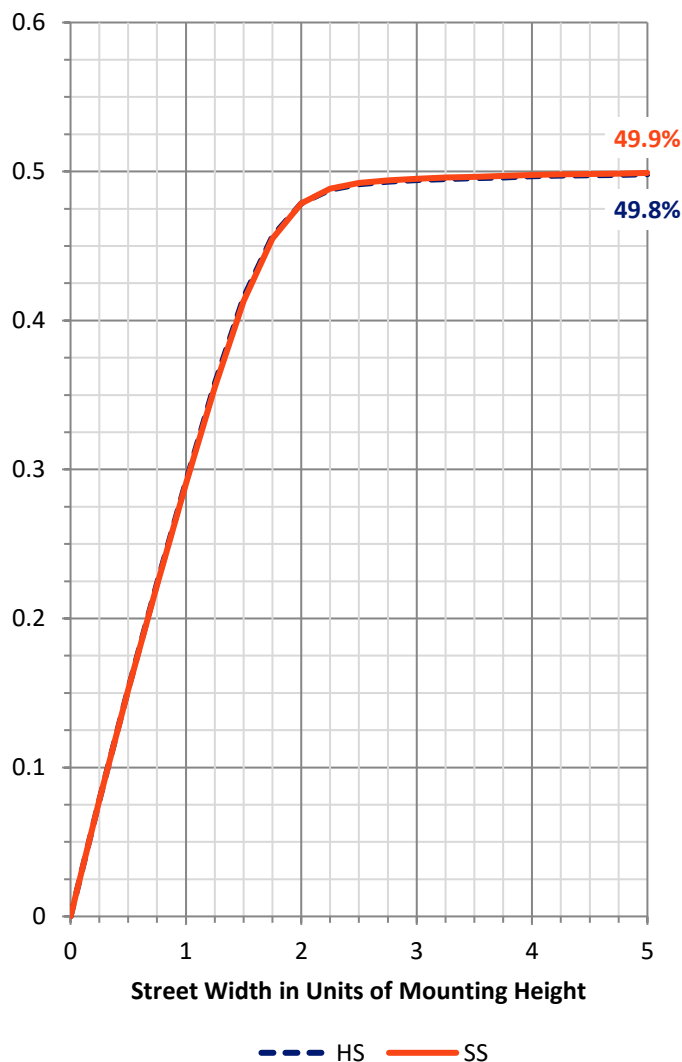
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5019.0	0.0	5019.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5019.0	0.0	5019.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10038.0	0.0	10038.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.9	0.6
10°-20°	272.7	2.7
20°-30°	571.6	5.7
30°-40°	1077.1	10.7
40°-50°	1954.8	19.5
50°-60°	3303.0	32.9
60°-70°	2469.2	24.6
70°-80°	276.2	2.8
80°-90°	51.4	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°	10038.0	100.0
0°-180°	10038.0	100.0

**Coefficient of Utilization**



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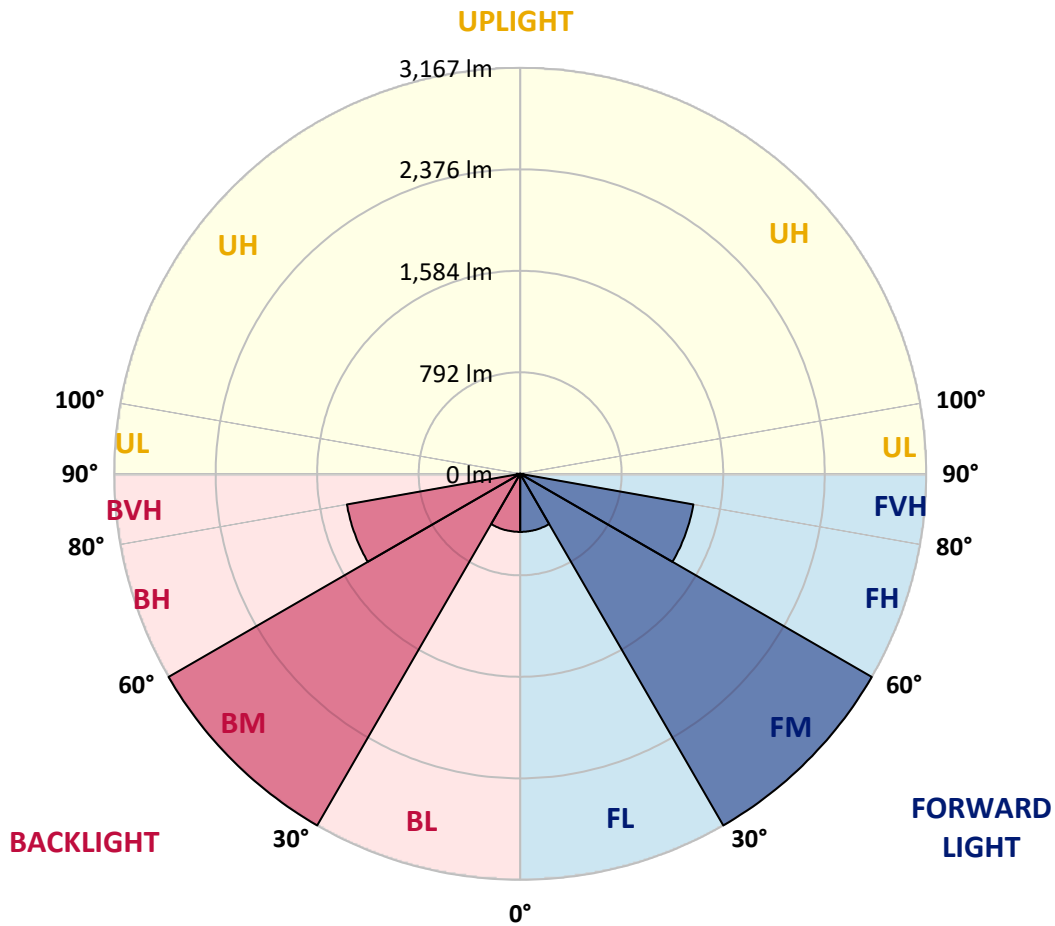
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	453.1	4.5			
FM (30°-60°)	3167.5	31.6			
FH (60°-80°)	1372.7	13.7			G1/1800
FVH (80°-90°)	25.7	0.3			G1/100
BL (0°-30°)	453.1	4.5	B1/500		
BM (30°-60°)	3167.5	31.6	B3/5000		
BH (60°-80°)	1372.7	13.7	B3/2500		G1/1800
BVH (80°-90°)	25.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4
2.5°	499.0	490.1	458.6	469.6	481.1	479.4	476.6	468.0	460.3	492.5	499.0
5°	636.3	615.8	604.8	595.8	593.8	571.7	602.0	598.7	608.9	626.1	642.8
7.5°	745.7	726.5	697.5	691.4	658.3	633.8	660.0	692.2	702.4	733.9	752.7
10°	785.7	769.0	774.3	746.9	745.3	752.2	746.5	753.9	780.8	777.2	791.0
12.5°	875.6	878.4	861.3	854.3	868.2	898.4	872.7	863.7	857.2	885.0	893.5
15°	959.7	976.4	948.3	943.8	938.1	966.2	938.5	951.9	963.8	969.5	966.2
17.5°	1079.0	1079.8	1048.3	998.1	1016.9	1025.9	1013.6	990.3	1046.3	1074.5	1076.1
20°	1157.4	1160.2	1098.1	1019.7	1072.8	1081.0	1074.9	1026.3	1100.6	1147.6	1145.5
22.5°	1241.9	1232.1	1148.0	1090.8	1109.6	1114.5	1101.4	1095.3	1147.6	1232.9	1220.3
25°	1298.7	1316.6	1232.9	1196.2	1180.2	1168.8	1185.5	1188.8	1242.3	1319.9	1277.0
27.5°	1434.2	1403.2	1272.1	1286.0	1252.1	1174.9	1248.4	1288.9	1277.4	1409.7	1442.0
30°	1554.7	1555.5	1371.8	1398.3	1335.4	1272.9	1352.6	1411.0	1396.7	1566.2	1535.5
32.5°	1708.7	1714.4	1543.7	1472.6	1430.2	1418.3	1408.5	1473.0	1562.1	1699.3	1702.1
35°	1874.9	1923.9	1691.9	1617.2	1544.9	1492.6	1549.0	1638.4	1696.4	1915.7	1876.9
37.5°	2198.7	2116.3	1926.4	1785.9	1739.7	1718.9	1748.7	1800.6	1925.9	2115.0	2181.6
40°	2390.3	2367.4	2108.9	1991.3	1813.2	1868.8	1852.4	1994.6	2098.3	2380.5	2386.6
42.5°	2683.1	2567.9	2335.6	2186.1	2026.0	1929.6	2031.7	2222.4	2347.8	2586.3	2699.0
45°	2914.6	2766.8	2587.5	2474.0	2271.8	2200.4	2237.1	2481.3	2638.6	2802.3	2950.6
47.5°	3170.7	3010.6	2831.3	2629.6	2432.3	2548.7	2483.8	2698.6	2852.2	3087.0	3225.8
50°	3492.5	3315.3	3085.8	2919.1	2788.5	2829.3	2819.1	2972.2	3161.7	3375.7	3533.3
52.5°	3847.0	3646.5	3425.1	3270.3	3215.2	3113.9	3246.3	3309.1	3448.8	3644.8	3829.8
55°	4094.9	3894.4	3760.4	3810.2	3795.5	3633.0	3749.0	3755.5	3688.1	3758.8	3945.0
57.5°	4056.5	3865.0	3846.6	4034.8	4316.2	4473.5	4294.2	3908.7	3656.3	3623.2	3820.4
60°	3546.8	3383.1	3551.3	3976.0	4795.7	5274.3	4584.1	3793.1	3377.3	3205.4	3395.7
62.5°	2444.2	2333.5	2682.3	3346.3	4853.2	5892.2	4573.5	3296.1	2619.4	2307.4	2455.2
65°	1158.6	1118.6	1413.0	2121.6	4042.6	5727.2	3995.6	2230.2	1507.8	1204.3	1237.8
67.5°	435.7	415.7	518.6	937.2	2546.3	4542.5	2685.9	1100.2	583.2	453.3	468.8
70°	247.5	233.2	246.7	341.8	1025.0	2572.8	1158.6	377.3	247.9	225.8	240.5
72.5°	194.8	183.8	185.8	206.6	353.7	1009.9	374.9	215.2	180.1	171.1	184.2
75°	160.9	151.1	150.7	162.1	206.2	327.9	212.0	164.6	145.8	139.3	149.9
77.5°	127.8	122.1	123.7	132.7	147.8	183.4	153.6	133.1	119.7	111.9	119.2
80°	93.5	92.7	99.2	107.4	110.3	123.3	115.2	107.4	95.6	84.5	87.4
82.5°	61.3	61.7	73.9	80.5	79.2	78.8	82.5	82.1	71.5	55.9	55.9
85°	35.1	35.9	45.3	50.6	49.8	39.6	52.3	52.7	45.7	33.9	32.7
87.5°	11.4	14.3	19.6	20.8	20.0	11.0	20.0	22.1	20.0	14.3	12.7
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)