

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: P367766

Luminaire Tested: **MSA-SA3A-830-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367766  
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-830-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: 9538 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

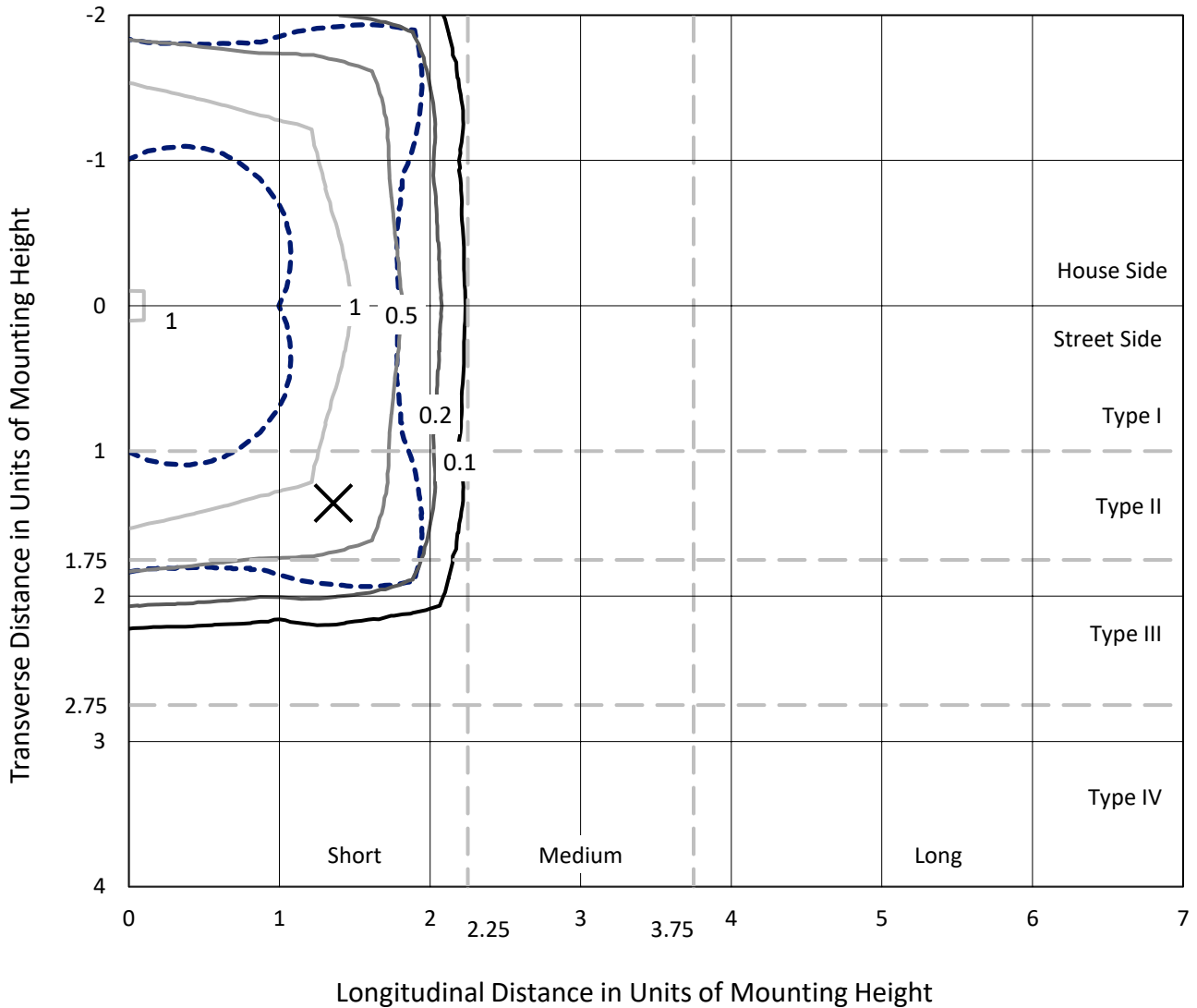
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

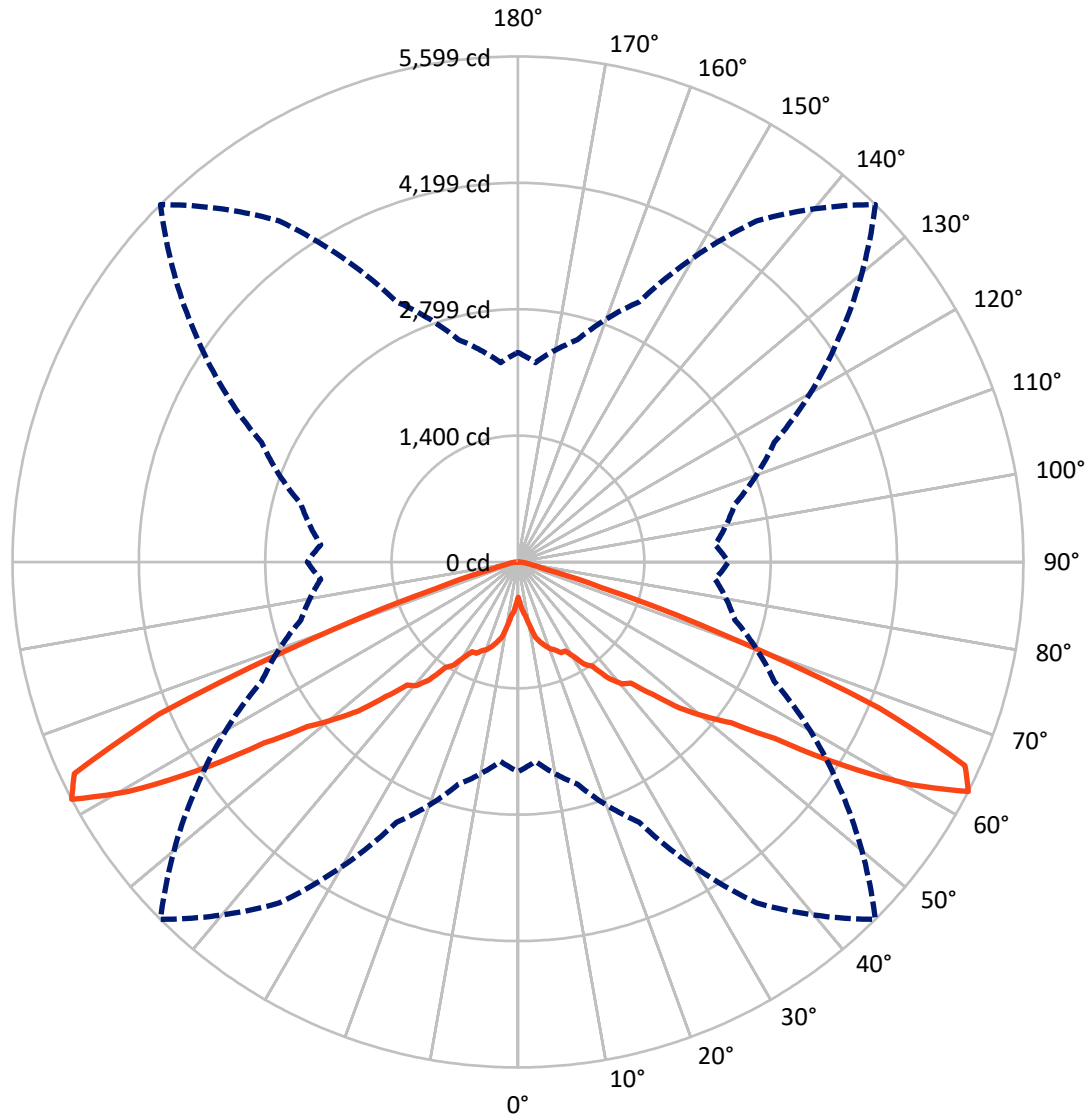
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 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	4769.0	0.0	4769.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4769.0	0.0	4769.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9538.0	0.0	9538.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	0.6
10°-20°	259.2	2.7
20°-30°	543.2	5.7
30°-40°	1023.4	10.7
40°-50°	1857.5	19.5
50°-60°	3138.5	32.9
60°-70°	2346.2	24.6
70°-80°	262.5	2.8
80°-90°	48.8	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°	9538.0	100.0
0°-180°	9538.0	100.0

**Coefficient of Utilization**



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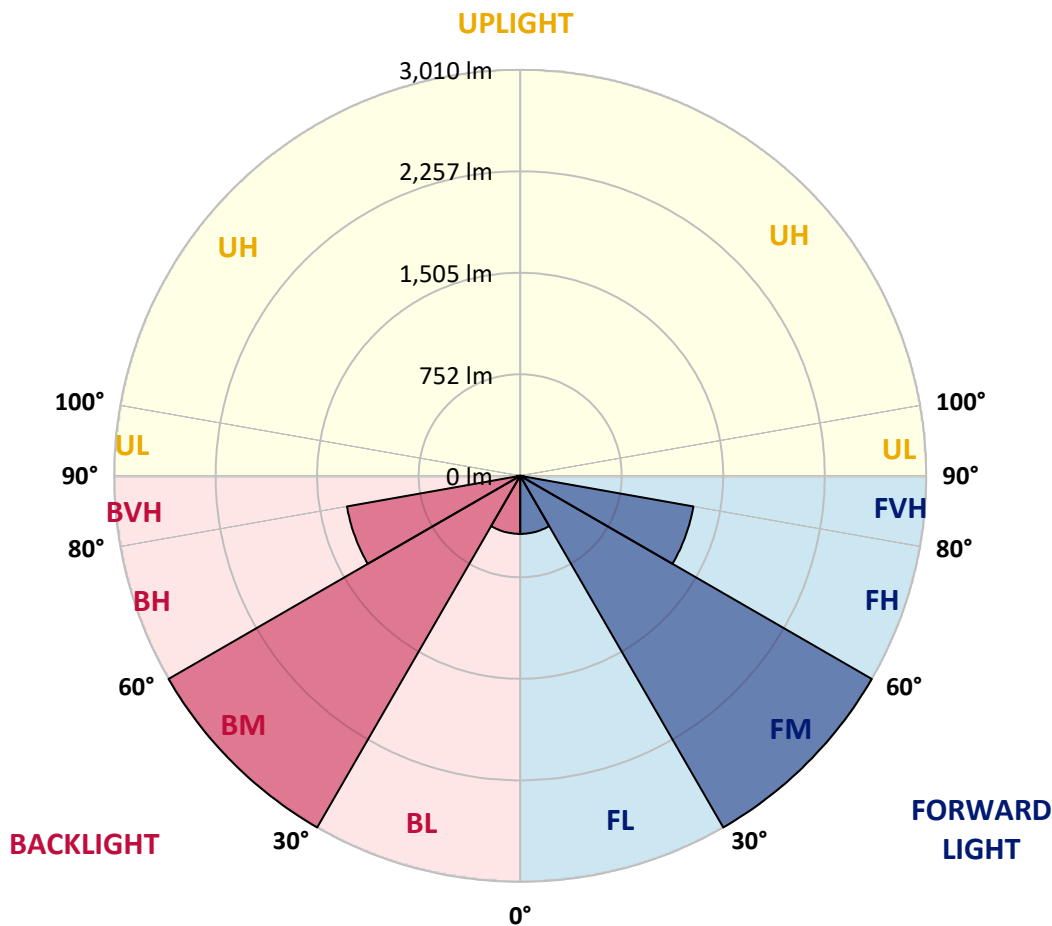
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	430.6	4.5			
FM (30°-60°)	3009.7	31.6			
FH (60°-80°)	1304.3	13.7			G1/1800
FVH (80°-90°)	24.4	0.3			G1/100
BL (0°-30°)	430.6	4.5	B1/500		
BM (30°-60°)	3009.7	31.6	B3/5000		
BH (60°-80°)	1304.3	13.7	B3/2500		G1/1800
BVH (80°-90°)	24.4	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°	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0
2.5°	474.2	465.7	435.8	446.2	457.1	455.6	452.8	444.7	437.3	468.0	474.2
5°	604.6	585.2	574.7	566.2	564.2	543.3	572.0	568.9	578.6	594.9	610.8
7.5°	708.6	690.3	662.8	657.0	625.5	602.2	627.1	657.7	667.4	697.3	715.2
10°	746.6	730.7	735.7	709.7	708.2	714.8	709.3	716.3	741.9	738.4	751.6
12.5°	832.0	834.7	818.4	811.8	825.0	853.7	829.2	820.7	814.5	840.9	849.0
15°	911.9	927.8	901.0	896.8	891.3	918.1	891.7	904.5	915.8	921.2	918.1
17.5°	1025.2	1026.0	996.1	948.4	966.2	974.8	963.1	941.0	994.2	1020.9	1022.5
20°	1099.7	1102.4	1043.4	968.9	1019.4	1027.2	1021.3	975.2	1045.8	1090.4	1088.5
22.5°	1180.0	1170.7	1090.8	1036.5	1054.3	1059.0	1046.6	1040.7	1090.4	1171.5	1159.5
25°	1234.0	1251.1	1171.5	1136.6	1121.4	1110.6	1126.5	1129.6	1180.4	1254.2	1213.4
27.5°	1362.8	1333.3	1208.8	1221.9	1189.7	1116.4	1186.2	1224.7	1213.8	1339.5	1370.2
30°	1477.3	1478.1	1303.4	1328.7	1268.9	1209.5	1285.2	1340.7	1327.1	1488.1	1459.0
32.5°	1623.6	1629.0	1466.8	1399.3	1358.9	1347.7	1338.4	1399.7	1484.3	1614.6	1617.4
35°	1781.5	1828.1	1607.7	1536.7	1468.0	1418.3	1471.8	1556.8	1611.9	1820.3	1783.4
37.5°	2089.2	2010.8	1830.4	1696.9	1653.1	1633.3	1661.6	1710.9	1830.0	2009.7	2072.9
40°	2271.2	2249.5	2003.9	1892.1	1722.9	1775.7	1760.2	1895.2	1993.8	2261.9	2267.7
42.5°	2549.4	2440.0	2219.2	2077.2	1925.1	1833.5	1930.5	2111.7	2230.9	2457.5	2564.6
45°	2769.5	2629.0	2458.6	2350.8	2158.7	2090.8	2125.7	2357.8	2507.1	2662.8	2803.6
47.5°	3012.8	2860.7	2690.3	2498.6	2311.2	2421.8	2360.1	2564.2	2710.1	2933.2	3065.2
50°	3318.5	3150.1	2932.1	2773.7	2649.6	2688.4	2678.7	2824.2	3004.2	3207.6	3357.3
52.5°	3655.4	3464.8	3254.5	3107.4	3055.1	2958.8	3084.6	3144.3	3277.0	3463.3	3639.1
55°	3890.9	3700.4	3573.1	3620.4	3606.5	3452.0	3562.2	3568.4	3504.4	3571.5	3748.5
57.5°	3854.4	3672.4	3655.0	3833.9	4101.2	4250.6	4080.3	3714.0	3474.2	3442.7	3630.1
60°	3370.2	3214.5	3374.4	3778.0	4556.8	5011.6	4355.8	3604.1	3209.1	3045.8	3226.6
62.5°	2322.4	2217.3	2548.7	3179.6	4611.5	5598.7	4345.7	3131.9	2488.9	2192.4	2332.9
65°	1100.9	1062.9	1342.6	2015.9	3841.2	5441.9	3796.6	2119.1	1432.7	1144.3	1176.2
67.5°	414.0	395.0	492.8	890.6	2419.4	4316.2	2552.2	1045.4	554.1	430.7	445.5
70°	235.2	221.6	234.4	324.8	974.0	2444.7	1100.9	358.6	235.5	214.6	228.6
72.5°	185.1	174.6	176.6	196.3	336.0	959.6	356.2	204.5	171.1	162.6	175.0
75°	152.9	143.6	143.2	154.1	196.0	311.6	201.4	156.4	138.5	132.3	142.4
77.5°	121.5	116.0	117.6	126.1	140.5	174.2	145.9	126.5	113.7	106.3	113.3
80°	88.9	88.1	94.3	102.1	104.8	117.2	109.4	102.1	90.8	80.3	83.0
82.5°	58.2	58.6	70.2	76.4	75.3	74.9	78.4	78.0	67.9	53.2	53.2
85°	33.4	34.1	43.1	48.1	47.3	37.6	49.7	50.1	43.5	32.2	31.0
87.5°	10.9	13.6	18.6	19.8	19.0	10.5	19.0	21.0	19.0	13.6	12.0
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)