

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: P368295

Luminaire Tested: **MSA-SA4A-830-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368295  
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-SA4A-830-U-5WQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13216 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

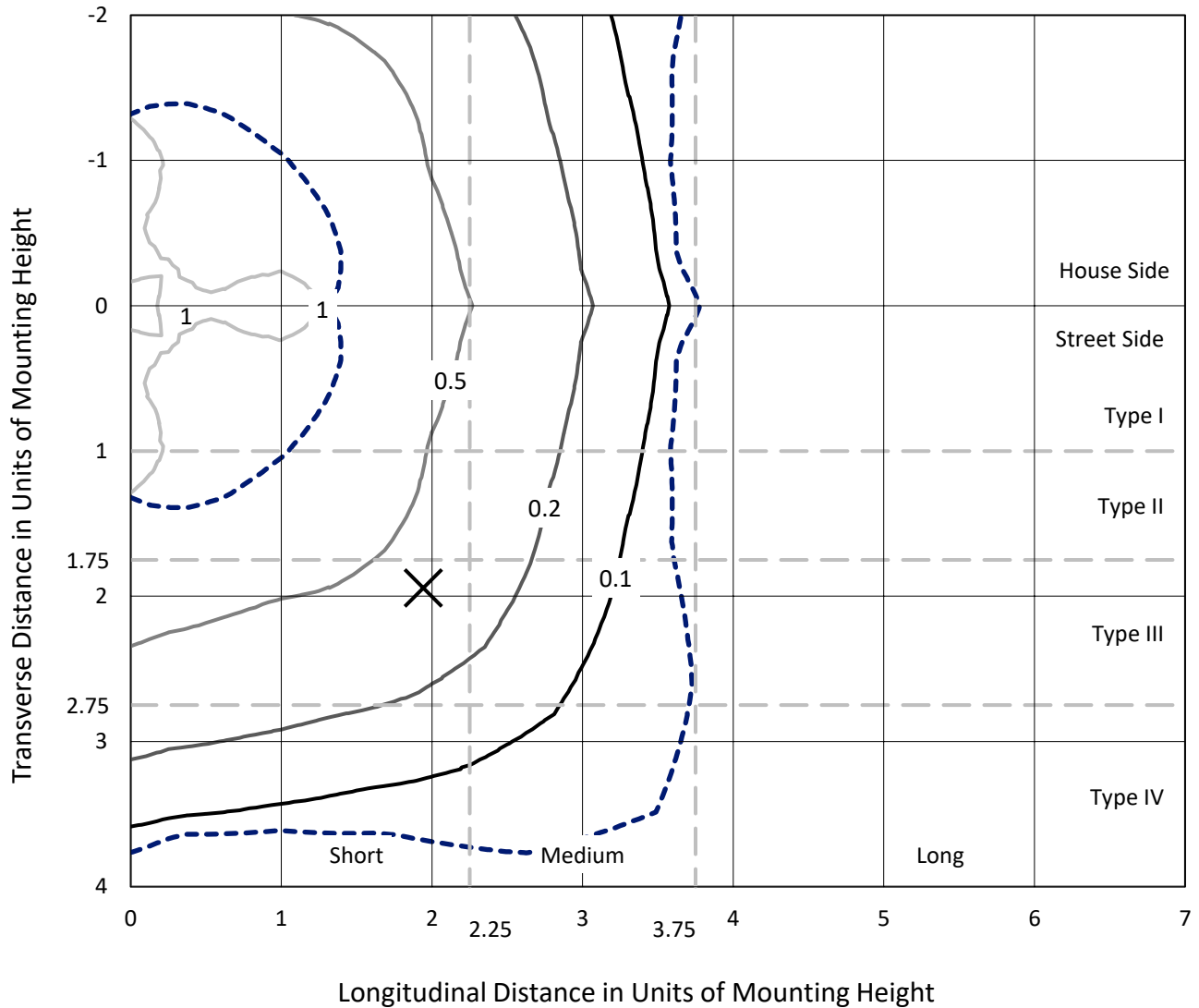
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

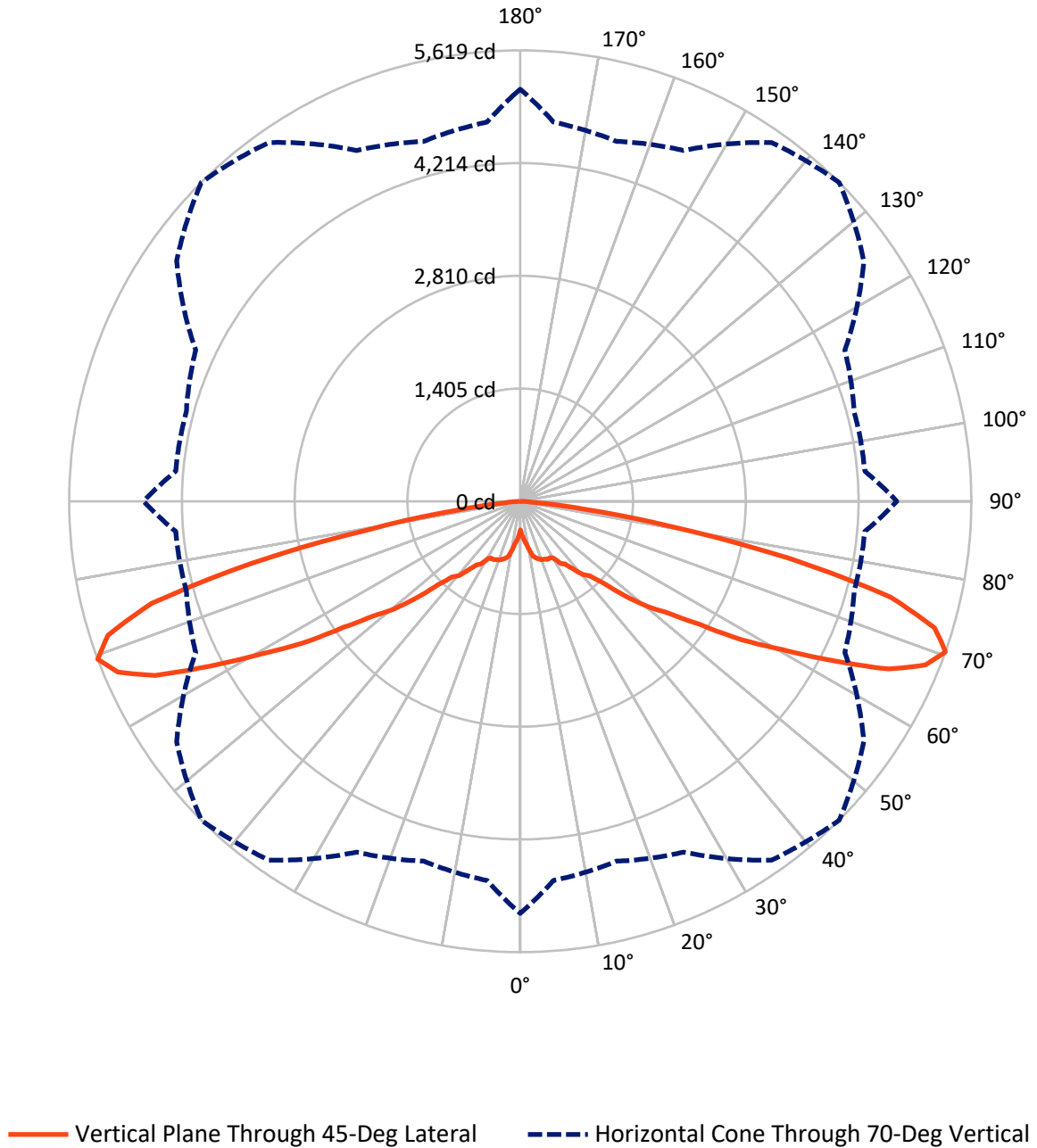
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



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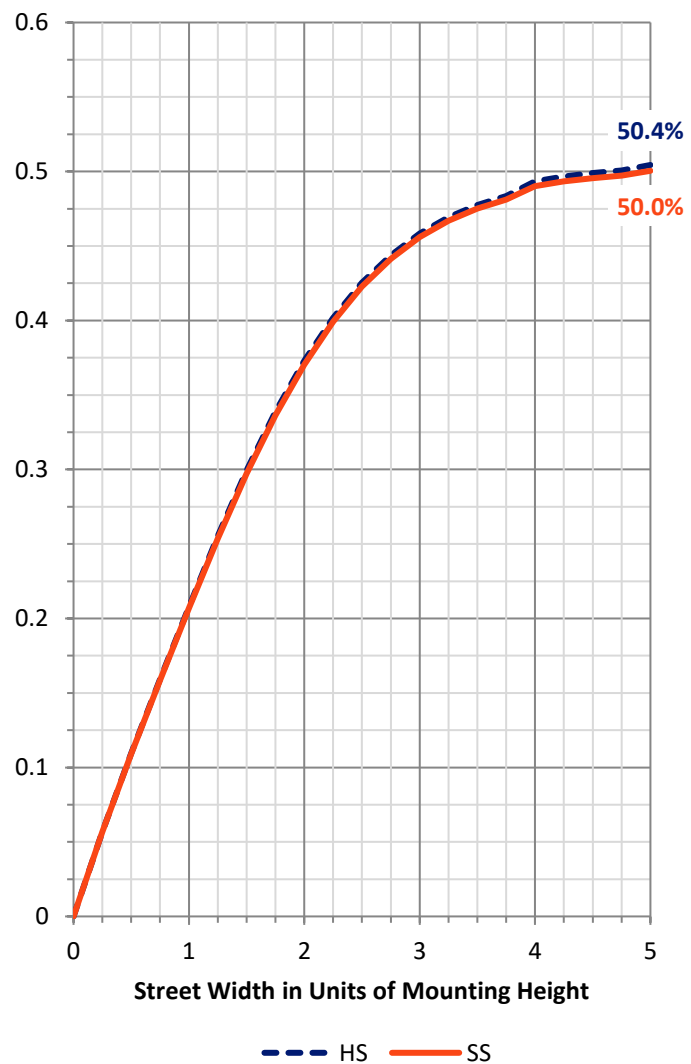
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6608.0	0.0	6608.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6608.0	0.0	6608.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	13216.0	0.0	13216.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.0	0.4
10°-20°	208.0	1.6
20°-30°	393.3	3.0
30°-40°	685.1	5.2
40°-50°	1309.7	9.9
50°-60°	2539.6	19.2
60°-70°	4447.0	33.6
70°-80°	3342.1	25.3
80°-90°	239.1	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°	13216.0	100.0
0°-180°	13216.0	100.0



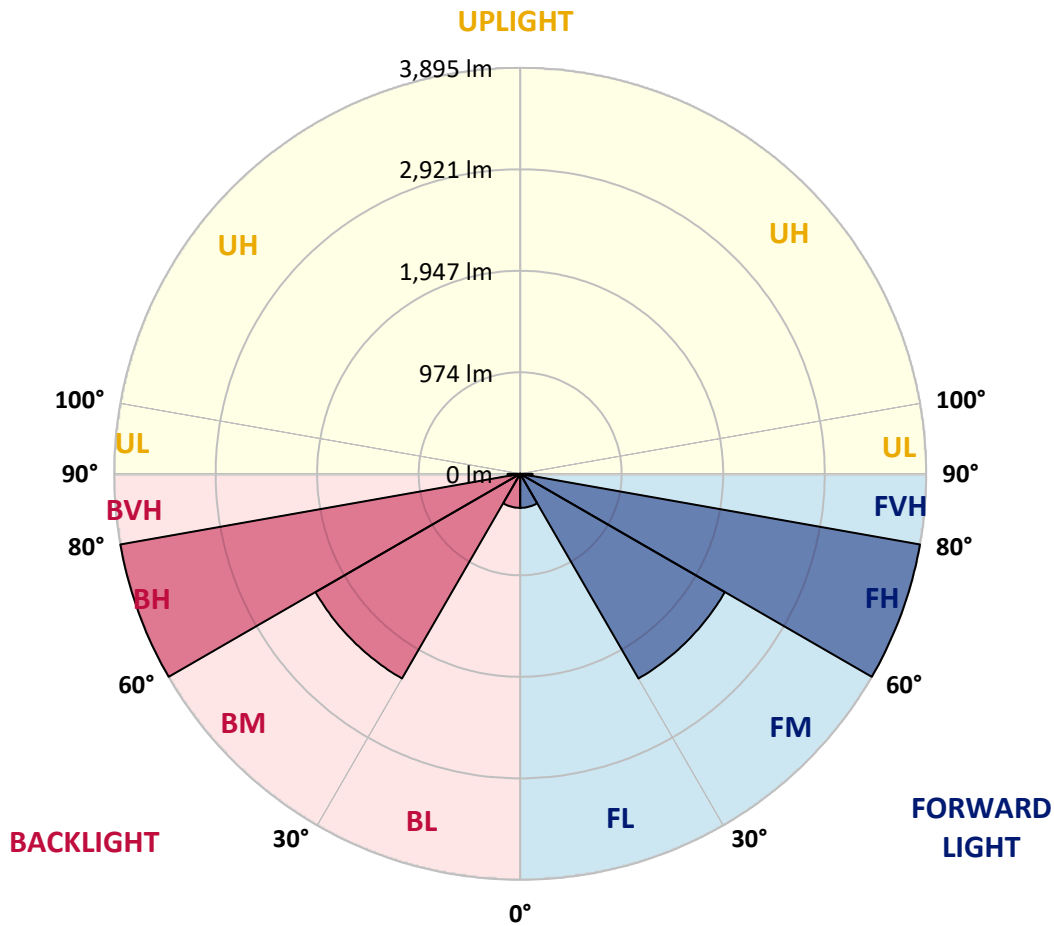
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	326.7	2.5			
FM (30°-60°)	2267.2	17.2			
FH (60°-80°)	3894.6	29.5			G2/5000
FVH (80°-90°)	119.6	0.9			G2/225
BL (0°-30°)	326.7	2.5	B1/500		
BM (30°-60°)	2267.2	17.2	B2/2500		
BH (60°-80°)	3894.6	29.5	B4/5000		G2/5000
BVH (80°-90°)	119.6	0.9			G2/225
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°	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4
2.5°	434.8	428.1	407.1	408.1	417.8	418.9	419.9	407.1	404.0	430.2	431.7
5°	552.2	536.8	521.4	515.3	506.0	480.4	508.6	511.7	517.8	537.8	547.0
7.5°	630.6	611.6	590.6	577.8	552.7	531.7	554.7	573.7	586.0	608.6	621.4
10°	645.5	634.2	633.2	610.6	606.0	613.7	612.2	612.7	631.1	631.6	639.3
12.5°	692.1	700.3	684.5	676.8	681.4	700.3	685.0	678.3	682.9	703.9	695.2
15°	753.2	762.9	738.8	726.5	714.2	732.1	716.2	728.0	742.9	758.3	750.6
17.5°	820.8	821.3	788.5	742.9	753.7	756.2	750.6	740.8	783.4	820.3	816.7
20°	857.7	857.2	800.8	738.8	770.6	776.2	771.1	737.8	801.9	852.6	851.1
22.5°	895.7	884.4	816.7	766.5	778.3	782.9	771.1	768.0	816.7	887.5	887.0
25°	916.2	925.9	851.6	820.3	810.6	799.8	810.1	815.2	861.8	931.1	911.1
27.5°	980.3	964.4	861.8	858.8	838.3	795.7	831.1	856.2	858.8	970.5	991.0
30°	1038.2	1044.4	908.0	912.6	875.2	821.3	876.2	916.2	923.9	1045.4	1043.3
32.5°	1099.7	1102.3	990.0	942.3	926.4	924.4	903.4	938.2	998.7	1096.1	1100.3
35°	1193.1	1214.1	1063.3	999.2	979.3	958.7	977.2	1008.5	1064.9	1211.0	1200.7
37.5°	1406.8	1373.5	1222.8	1090.0	1076.7	1068.5	1083.3	1105.9	1221.2	1377.1	1424.8
40°	1556.0	1540.1	1335.1	1240.2	1156.1	1200.2	1165.4	1252.5	1347.9	1541.2	1571.9
42.5°	1787.3	1716.5	1505.8	1388.4	1301.2	1270.0	1289.4	1403.3	1524.8	1740.1	1800.6
45°	2009.3	1900.1	1719.6	1616.0	1483.8	1450.9	1477.1	1610.9	1751.4	1921.6	2028.2
47.5°	2235.9	2123.1	1924.7	1775.0	1666.8	1764.7	1679.1	1806.2	1946.2	2144.1	2239.0
50°	2471.2	2346.1	2150.3	1987.2	1978.0	2064.6	1962.1	2027.2	2156.9	2362.0	2473.8
52.5°	2741.4	2606.6	2410.7	2300.5	2322.0	2316.4	2295.9	2284.1	2411.7	2613.2	2746.0
55°	3062.9	2917.3	2760.9	2710.1	2769.6	2705.5	2735.8	2731.7	2750.1	2894.2	3049.5
57.5°	3451.5	3286.9	3130.0	3118.7	3195.1	3255.6	3201.8	3124.4	3092.1	3232.1	3410.0
60°	3941.1	3739.1	3566.8	3531.5	3749.4	3748.9	3700.1	3526.9	3514.6	3673.0	3887.3
62.5°	4482.0	4235.9	4047.8	3991.4	4332.8	4371.3	4219.5	3908.8	3972.4	4100.1	4354.4
65°	4941.4	4645.6	4470.2	4454.8	4872.2	5041.9	4706.6	4281.5	4302.1	4408.2	4683.5
67.5°	5240.8	4884.5	4745.0	4819.4	5338.2	5444.3	5132.6	4530.7	4457.9	4502.0	4831.2
70°	5135.7	4744.0	4643.5	4824.0	5458.7	5619.2	5224.4	4461.0	4306.2	4308.2	4690.7
72.5°	4339.5	3966.8	4014.4	4345.6	5173.6	5398.7	4799.9	4029.3	3712.5	3704.8	4051.9
75°	2869.6	2620.4	2808.6	3324.9	4301.0	4761.4	3977.0	3158.2	2760.9	2631.7	2899.8
77.5°	1255.1	1223.3	1381.7	1965.2	2932.1	3431.5	2849.1	2063.1	1501.7	1248.9	1364.3
80°	336.3	329.2	413.2	745.5	1427.4	1889.8	1541.7	822.9	429.6	312.7	331.7
82.5°	122.5	125.6	153.3	208.7	470.1	795.7	512.2	240.5	162.5	133.3	133.3
85°	53.3	51.8	74.3	83.6	128.2	180.0	147.1	102.0	82.0	61.5	59.0
87.5°	14.4	17.9	25.1	26.1	33.3	27.2	39.0	35.9	30.8	21.5	17.4
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)