

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: P368559

Luminaire Tested: **MSA-SA4C-830-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368559  
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-SA4C-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: 20511 lumens  
Efficiency: N/A  
Efficacy: 91.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3

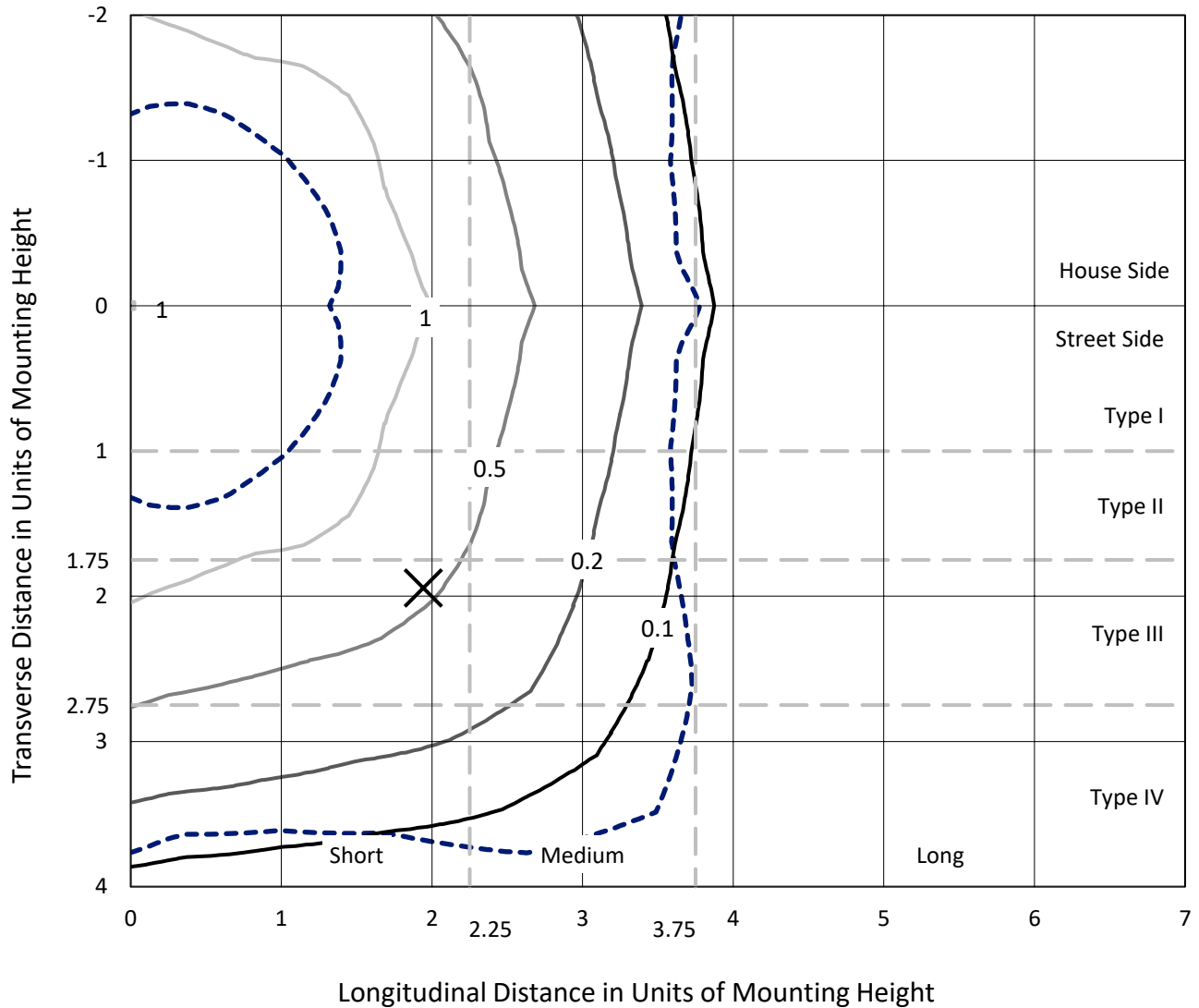
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

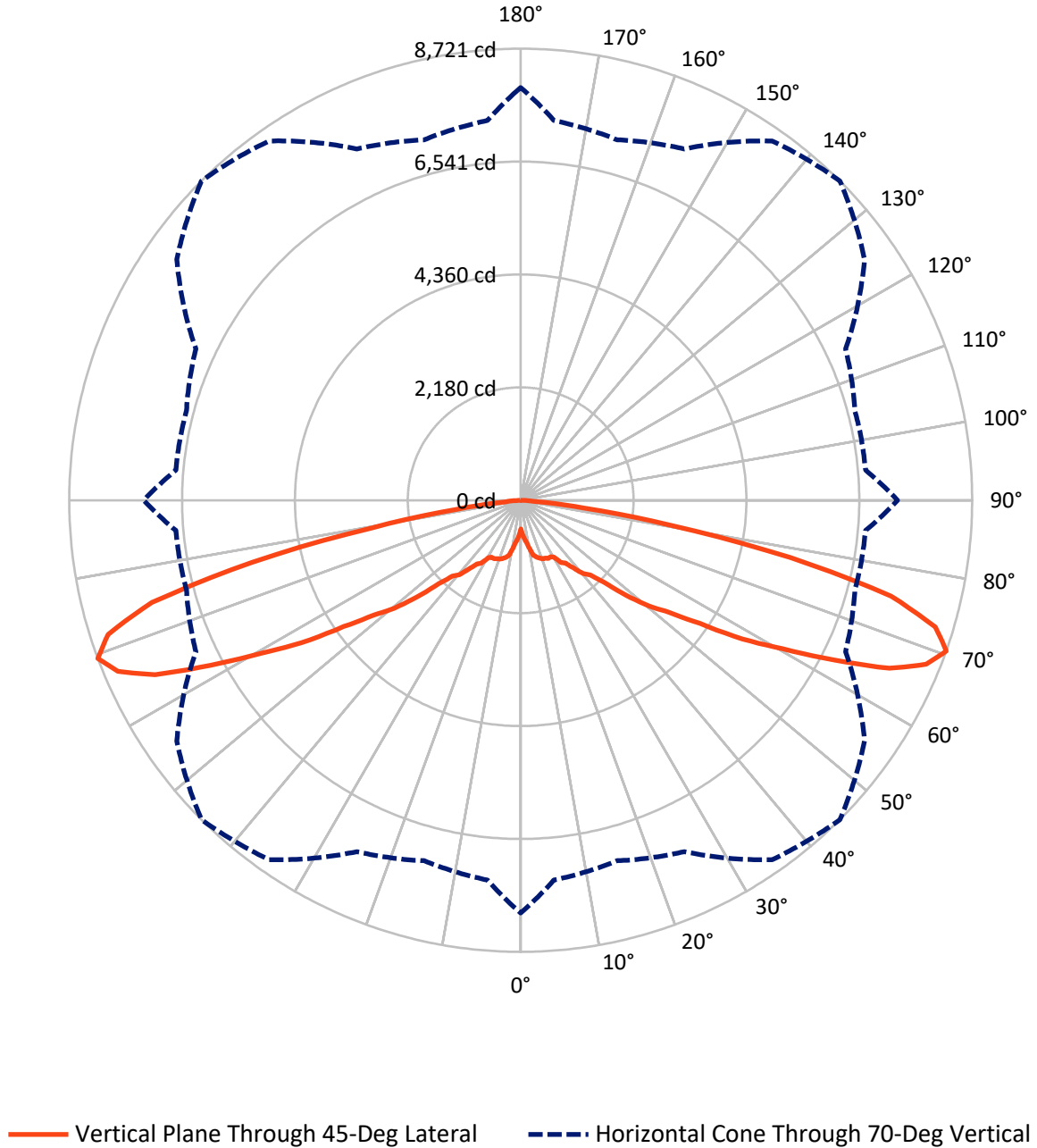
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



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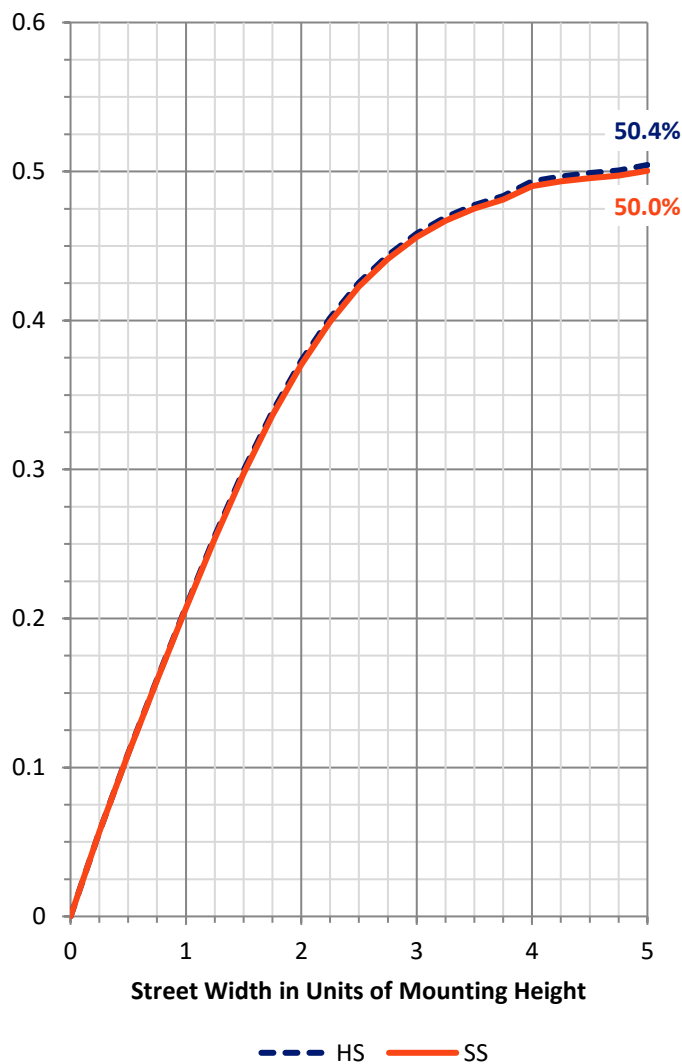
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10255.5	0.0	10255.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10255.5	0.0	10255.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20511.0	0.0	20511.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	0.4
10°-20°	322.9	1.6
20°-30°	610.4	3.0
30°-40°	1063.3	5.2
40°-50°	2032.7	9.9
50°-60°	3941.4	19.2
60°-70°	6901.6	33.6
70°-80°	5186.9	25.3
80°-90°	371.1	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°	20511.0	100.0
0°-180°	20511.0	100.0

**Coefficient of Utilization**

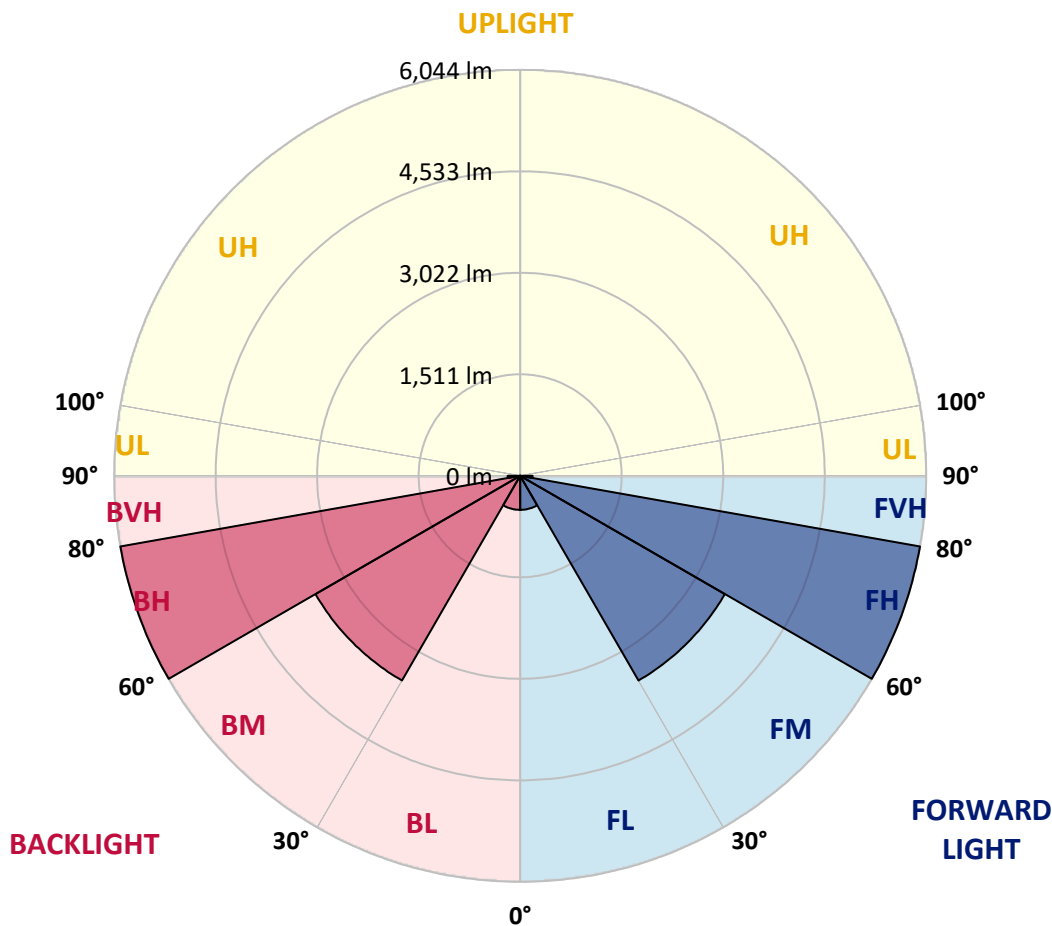


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	507.0	2.5			
FM (30°-60°)	3518.7	17.2			
FH (60°-80°)	6044.3	29.5			G3/7500
FVH (80°-90°)	185.6	0.9			G2/225
BL (0°-30°)	507.0	2.5	B2/1000		
BM (30°-60°)	3518.7	17.2	B3/5000		
BH (60°-80°)	6044.3	29.5	B5		G3/7500
BVH (80°-90°)	185.6	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	554.6	554.6	554.6	554.6	554.6	554.6	554.6	554.6	554.6	554.6	554.6
2.5°	674.8	664.4	631.8	633.4	648.5	650.1	651.7	631.8	627.0	667.6	670.0
5°	857.0	833.1	809.2	799.7	785.4	745.6	789.3	794.1	803.7	834.7	849.0
7.5°	978.7	949.3	916.6	896.8	857.8	825.1	860.9	890.4	909.5	944.5	964.4
10°	1001.8	984.3	982.7	947.7	940.5	952.5	950.1	950.9	979.5	980.3	992.2
12.5°	1074.2	1086.9	1062.3	1050.3	1057.5	1086.9	1063.1	1052.7	1059.9	1092.5	1079.0
15°	1168.9	1184.0	1146.6	1127.5	1108.4	1136.3	1111.6	1129.9	1153.0	1176.8	1164.9
17.5°	1273.9	1274.7	1223.8	1153.0	1169.7	1173.7	1164.9	1149.8	1215.8	1273.1	1267.5
20°	1331.2	1330.4	1242.9	1146.6	1195.9	1204.7	1196.7	1145.0	1244.5	1323.2	1320.9
22.5°	1390.1	1372.6	1267.5	1189.6	1207.9	1215.0	1196.7	1192.0	1267.5	1377.4	1376.6
25°	1421.9	1437.0	1321.7	1273.1	1258.0	1241.3	1257.2	1265.2	1337.6	1445.0	1414.0
27.5°	1521.4	1496.7	1337.6	1332.8	1301.0	1234.9	1289.8	1328.8	1332.8	1506.3	1538.1
30°	1611.3	1620.8	1409.2	1416.3	1358.3	1274.7	1359.9	1421.9	1433.9	1622.4	1619.2
32.5°	1706.8	1710.8	1536.5	1462.5	1437.8	1434.6	1402.0	1456.1	1550.0	1701.2	1707.6
35°	1851.6	1884.2	1650.3	1550.8	1519.8	1488.0	1516.6	1565.1	1652.7	1879.4	1863.5
37.5°	2183.4	2131.7	1897.7	1691.7	1671.0	1658.2	1681.3	1716.3	1895.4	2137.2	2211.2
40°	2414.9	2390.3	2072.0	1924.8	1794.3	1862.7	1808.6	1943.9	2091.9	2391.9	2439.6
42.5°	2773.8	2664.0	2337.0	2154.8	2019.5	1970.9	2001.2	2177.8	2366.4	2700.6	2794.5
45°	3118.3	2948.9	2668.8	2508.0	2302.8	2251.8	2292.4	2500.1	2718.1	2982.3	3147.8
47.5°	3470.0	3295.0	2987.1	2754.7	2586.8	2738.8	2605.9	2803.2	3020.5	3327.6	3474.8
50°	3835.3	3641.1	3337.2	3084.1	3069.8	3204.3	3045.1	3146.2	3347.5	3665.8	3839.3
52.5°	4254.6	4045.3	3741.4	3570.3	3603.7	3595.0	3563.1	3544.8	3743.0	4055.7	4261.8
55°	4753.5	4527.5	4284.8	4206.1	4298.4	4198.9	4245.9	4239.5	4268.1	4491.7	4732.8
57.5°	5356.6	5101.2	4857.7	4840.2	4958.8	5052.7	4969.1	4849.0	4798.9	5016.1	5292.2
60°	6116.5	5803.0	5535.7	5480.8	5819.0	5818.2	5742.6	5473.6	5454.5	5700.4	6033.0
62.5°	6956.0	6574.1	6282.0	6194.5	6724.5	6784.1	6548.6	6066.4	6165.1	6363.2	6757.9
65°	7669.0	7209.8	6937.7	6913.8	7561.5	7824.9	7304.5	6644.9	6676.7	6841.4	7268.7
67.5°	8133.6	7580.6	7364.2	7479.6	8284.8	8449.5	7965.7	7031.6	6918.6	6987.0	7497.9
70°	7970.5	7362.6	7206.7	7486.7	8471.8	8720.9	8108.2	6923.4	6683.1	6686.3	7279.9
72.5°	6734.8	6156.3	6230.3	6744.3	8029.4	8378.7	7449.3	6253.4	5761.7	5749.7	6288.4
75°	4453.5	4066.8	4358.8	5160.1	6675.1	7389.7	6172.2	4901.5	4284.8	4084.3	4500.5
77.5°	1947.9	1898.5	2144.4	3049.9	4550.6	5325.6	4421.7	3201.9	2330.6	1938.3	2117.4
80°	522.0	510.8	641.3	1156.9	2215.2	2932.9	2392.7	1277.1	666.8	485.4	514.8
82.5°	190.2	194.9	237.9	323.8	729.7	1234.9	794.9	373.2	252.2	206.9	206.9
85°	82.8	80.4	115.4	129.7	198.9	279.3	228.4	158.3	127.3	95.5	91.5
87.5°	22.3	27.8	39.0	40.6	51.7	42.2	60.5	55.7	47.7	33.4	27.1
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)