

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: P368405

Luminaire Tested: **MSA-SA4B-760-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368405  
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-SA4B-760-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: 20842 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3

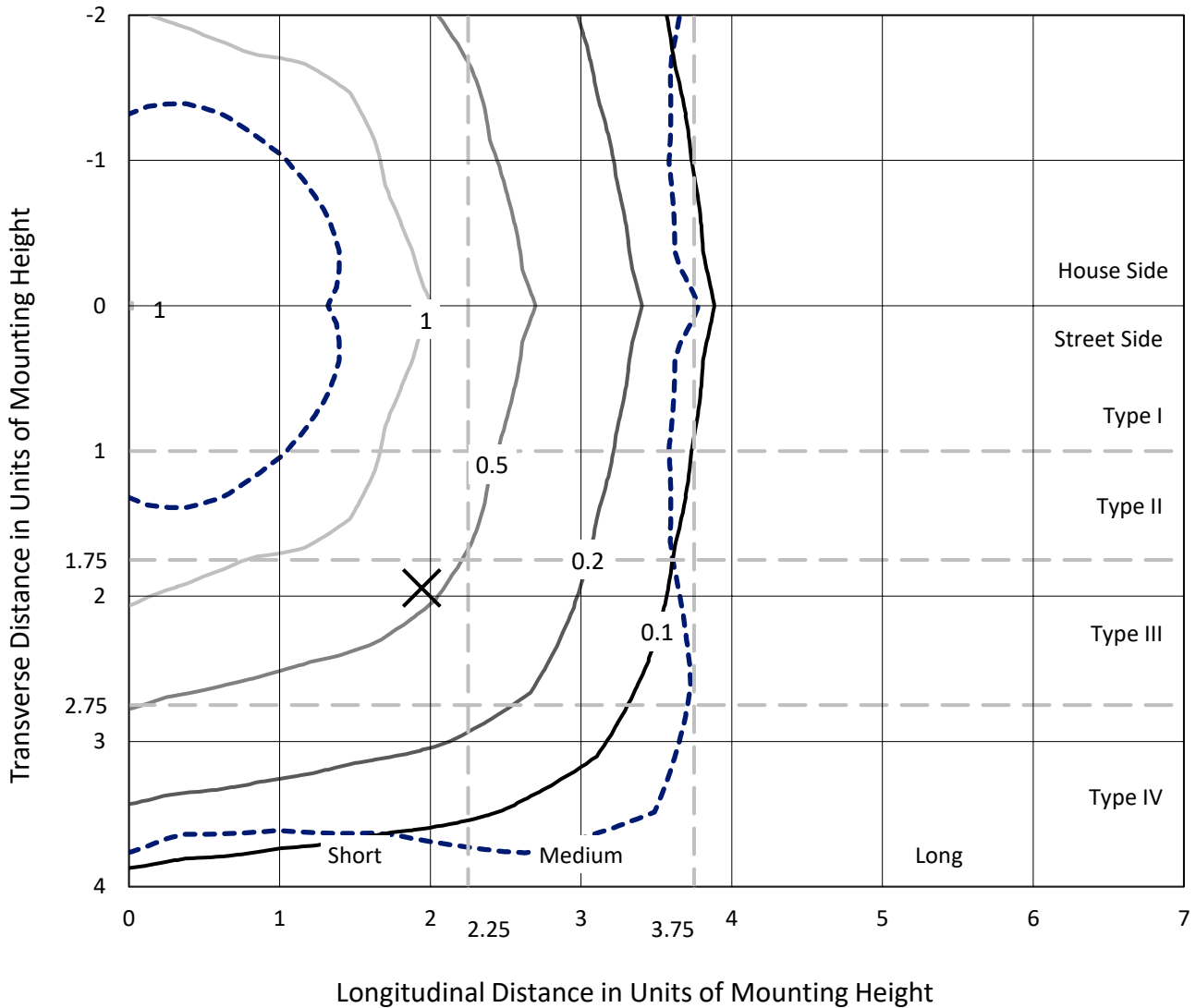
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

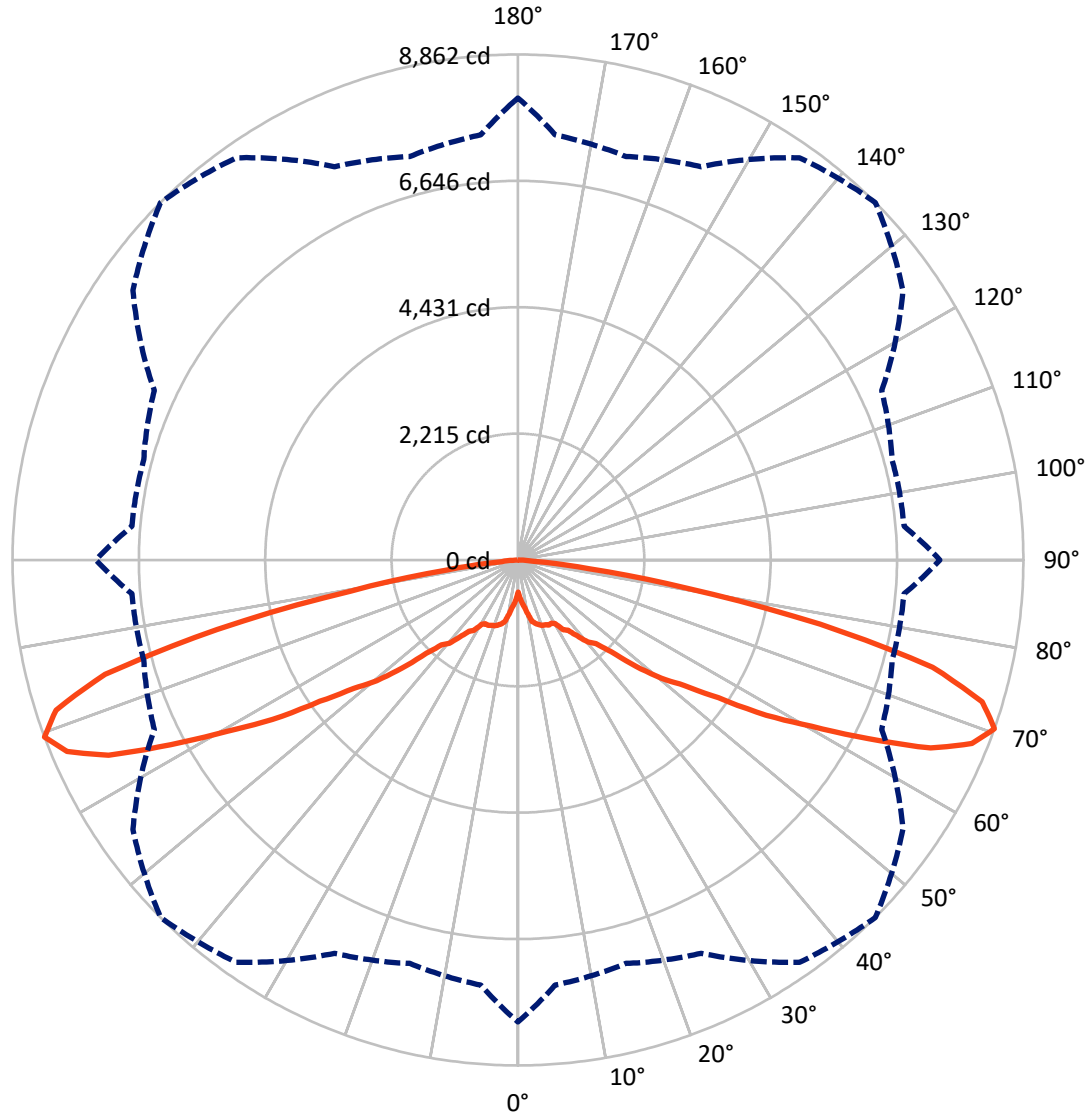
✕ Max cd  
 - - - 1/2 Max cd



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



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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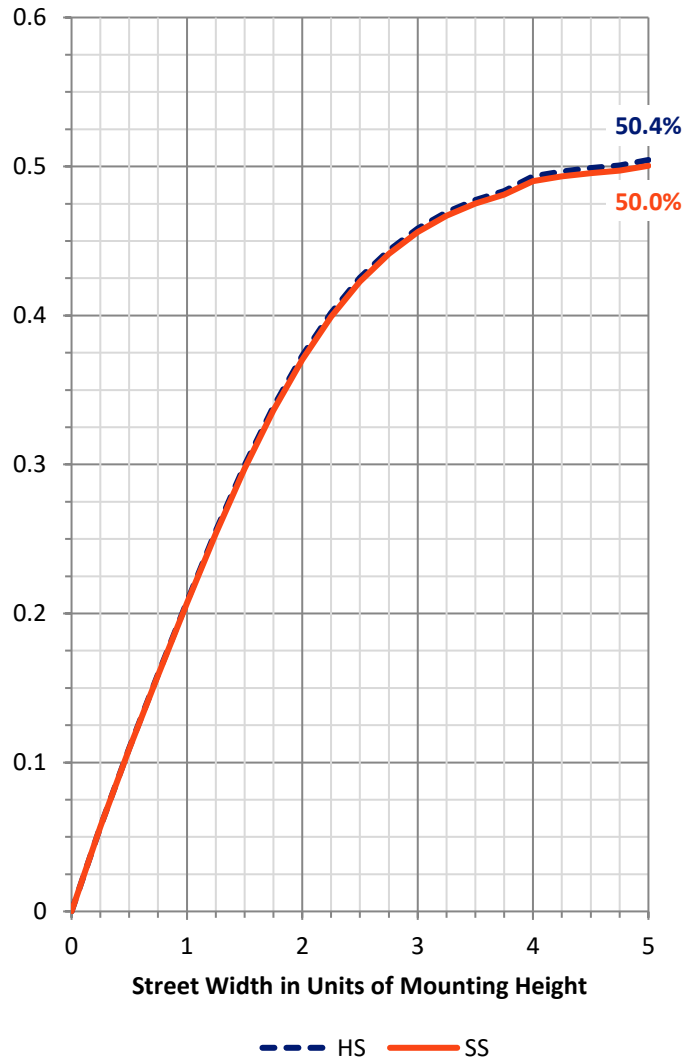
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10421.0	0.0	10421.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10421.0	0.0	10421.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20842.0	0.0	20842.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.9	0.4
10°-20°	328.1	1.6
20°-30°	620.3	3.0
30°-40°	1080.4	5.2
40°-50°	2065.5	9.9
50°-60°	4005.0	19.2
60°-70°	7013.0	33.6
70°-80°	5270.6	25.3
80°-90°	377.1	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°	20842.0	100.0
0°-180°	20842.0	100.0

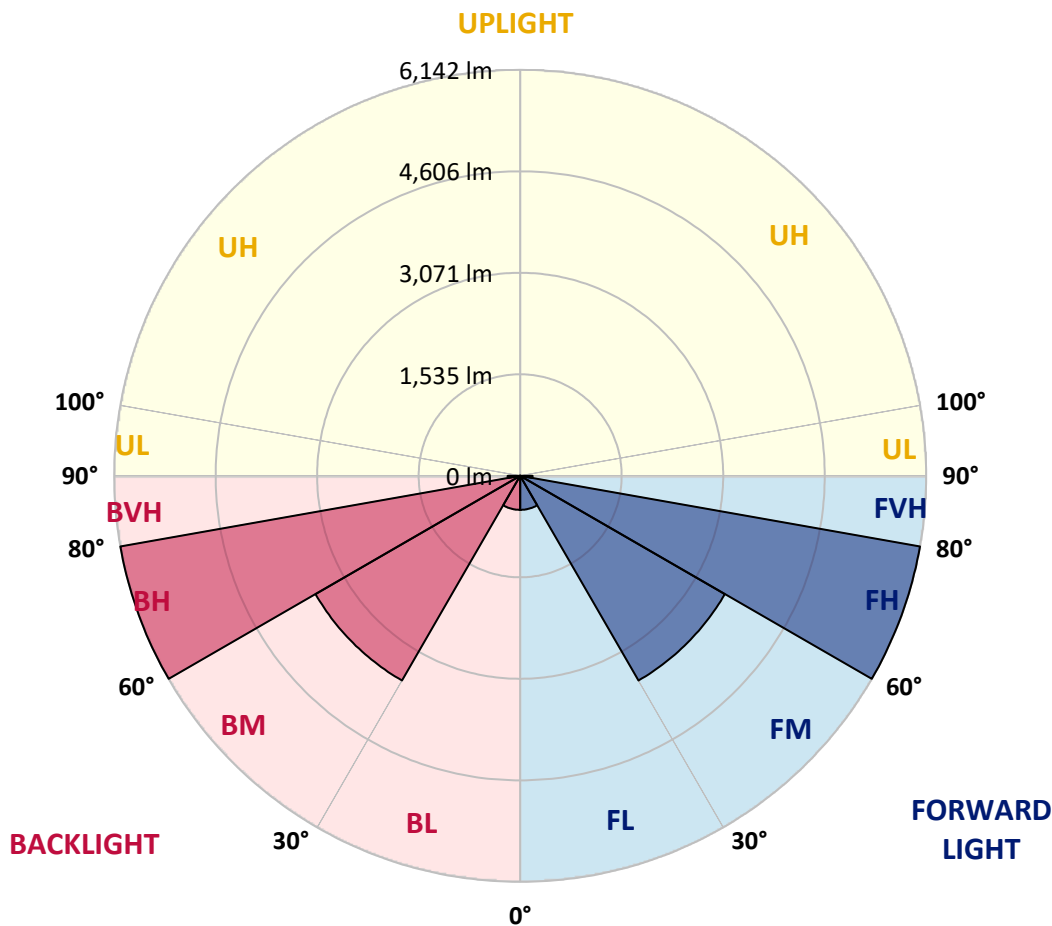


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.2	2.5			
FM (30°-60°)	3575.5	17.2			
FH (60°-80°)	6141.8	29.5			G3/7500
FVH (80°-90°)	188.6	0.9			G2/225
BL (0°-30°)	515.2	2.5	B2/1000		
BM (30°-60°)	3575.5	17.2	B3/5000		
BH (60°-80°)	6141.8	29.5	B5		G3/7500
BVH (80°-90°)	188.6	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°	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6
2.5°	685.6	675.1	642.0	643.6	659.0	660.6	662.2	642.0	637.1	678.4	680.8
5°	870.8	846.5	822.3	812.6	798.0	757.6	802.1	806.9	816.6	848.2	862.7
7.5°	994.5	964.6	931.4	911.2	871.6	838.5	874.8	904.8	924.2	959.7	980.0
10°	1018.0	1000.2	998.5	963.0	955.7	967.8	965.4	966.2	995.3	996.1	1008.2
12.5°	1091.5	1104.5	1079.4	1067.3	1074.5	1104.5	1080.2	1069.7	1077.0	1110.1	1096.4
15°	1187.7	1203.1	1165.1	1145.7	1126.3	1154.6	1129.5	1148.1	1171.6	1195.8	1183.7
17.5°	1294.5	1295.3	1243.5	1171.6	1188.6	1192.6	1183.7	1168.3	1235.4	1293.7	1288.0
20°	1352.7	1351.9	1262.9	1165.1	1215.2	1224.1	1216.0	1163.5	1264.6	1344.6	1342.2
22.5°	1412.5	1394.7	1288.0	1208.8	1227.4	1234.6	1216.0	1211.2	1288.0	1399.6	1398.8
25°	1444.9	1460.2	1343.0	1293.7	1278.3	1261.3	1277.5	1285.6	1359.2	1468.3	1436.8
27.5°	1545.9	1520.9	1359.2	1354.3	1322.0	1254.9	1310.6	1350.3	1354.3	1530.6	1562.9
30°	1637.3	1647.0	1431.9	1439.2	1380.2	1295.3	1381.8	1444.9	1457.0	1648.6	1645.4
32.5°	1734.3	1738.4	1561.3	1486.1	1461.0	1457.8	1424.6	1479.6	1575.0	1728.7	1735.1
35°	1881.5	1914.6	1676.9	1575.8	1544.3	1512.0	1541.1	1590.4	1679.3	1909.8	1893.6
37.5°	2218.6	2166.1	1928.4	1719.0	1697.9	1685.0	1708.4	1744.0	1925.9	2171.7	2246.9
40°	2453.9	2428.9	2105.4	1955.9	1823.3	1892.8	1837.8	1975.3	2125.7	2430.5	2479.0
42.5°	2818.6	2707.0	2374.7	2189.5	2052.1	2002.8	2033.5	2213.0	2404.6	2744.2	2839.6
45°	3168.7	2996.5	2711.8	2548.5	2339.9	2288.2	2329.4	2540.4	2762.0	3030.4	3198.6
47.5°	3526.0	3348.2	3035.3	2799.2	2628.6	2783.0	2648.0	2848.5	3069.2	3381.3	3530.9
50°	3897.2	3699.9	3391.0	3133.9	3119.3	3256.0	3094.3	3197.0	3401.5	3724.9	3901.2
52.5°	4323.3	4110.6	3801.8	3627.9	3661.9	3653.0	3620.6	3602.0	3803.4	4121.1	4330.5
55°	4830.2	4600.6	4354.0	4273.9	4367.7	4266.7	4314.4	4307.9	4337.0	4564.2	4809.2
57.5°	5443.1	5183.6	4936.1	4918.4	5038.8	5134.2	5049.3	4927.2	4876.3	5097.0	5377.6
60°	6215.2	5896.7	5625.0	5569.2	5912.9	5912.0	5835.2	5561.9	5542.5	5792.4	6130.4
62.5°	7068.3	6680.2	6383.4	6294.5	6833.0	6893.6	6654.3	6164.3	6264.6	6465.9	6866.9
65°	7792.7	7326.2	7049.7	7025.4	7683.6	7951.2	7422.4	6752.1	6784.5	6951.8	7386.0
67.5°	8264.9	7703.0	7483.0	7600.3	8418.5	8585.9	8094.3	7145.1	7030.3	7099.8	7618.9
70°	8099.1	7481.4	7322.9	7607.6	8608.5	8861.6	8239.0	7035.1	6790.9	6794.2	7397.3
72.5°	6843.5	6255.7	6330.9	6853.2	8159.0	8513.9	7569.6	6354.3	5854.6	5842.5	6389.9
75°	4525.4	4132.4	4429.2	5243.4	6782.8	7508.9	6271.8	4980.6	4354.0	4150.2	4573.1
77.5°	1979.3	1929.2	2179.0	3099.1	4624.0	5411.6	4493.1	3253.6	2368.2	1969.6	2151.5
80°	530.4	519.1	651.7	1175.6	2251.0	2980.3	2431.3	1297.7	677.6	493.2	523.1
82.5°	193.2	198.1	241.8	329.1	741.4	1254.9	807.7	379.2	256.3	210.2	210.2
85°	84.1	81.7	117.2	131.8	202.1	283.8	232.1	160.9	129.4	97.0	93.0
87.5°	22.6	28.3	39.6	41.2	52.6	42.9	61.4	56.6	48.5	34.0	27.5
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)