

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: P368669

Luminaire Tested: **MSA-SA4D-760-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368669  
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-SA4D-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: 28221 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G4

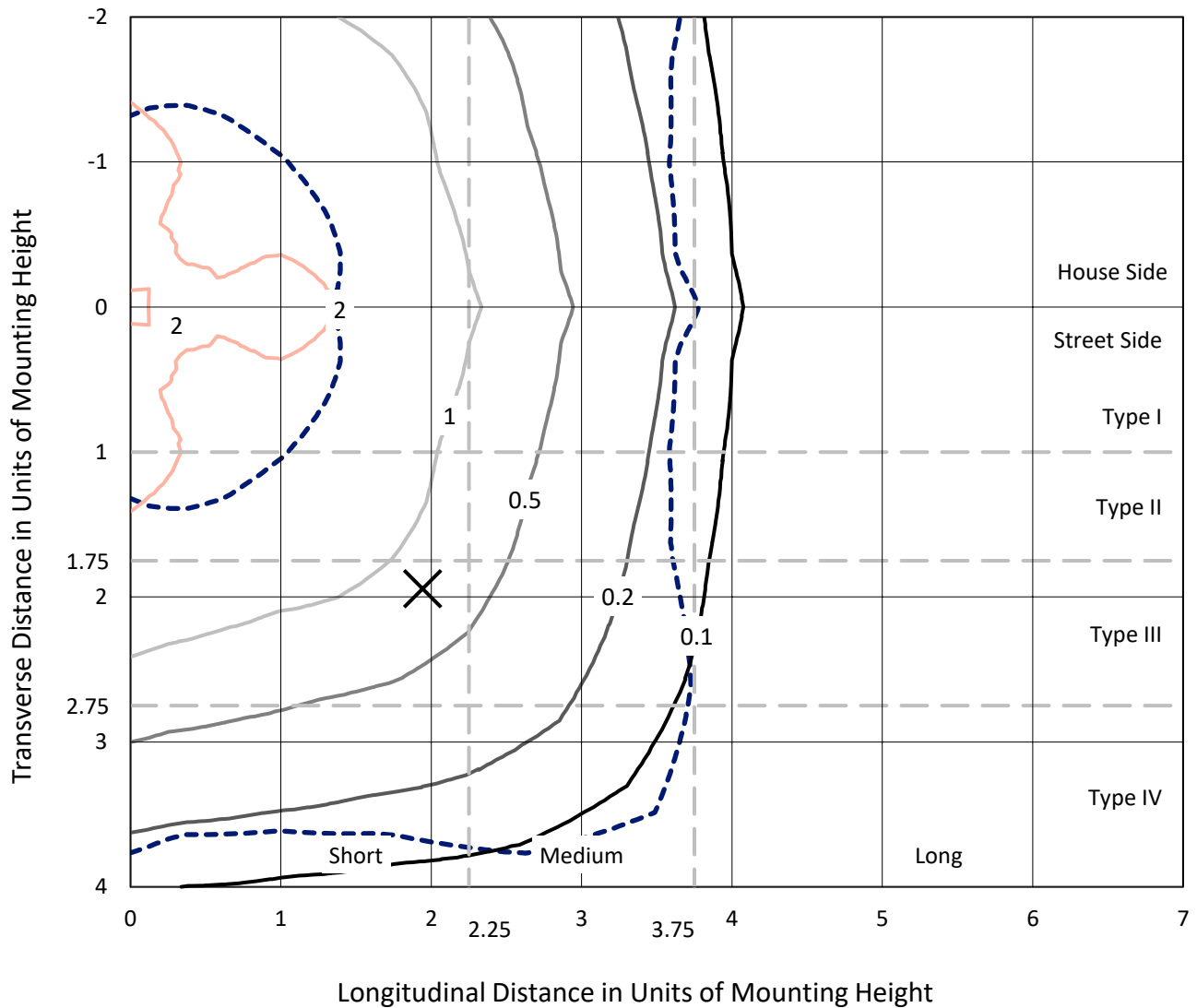
Input Watts (W): 259  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

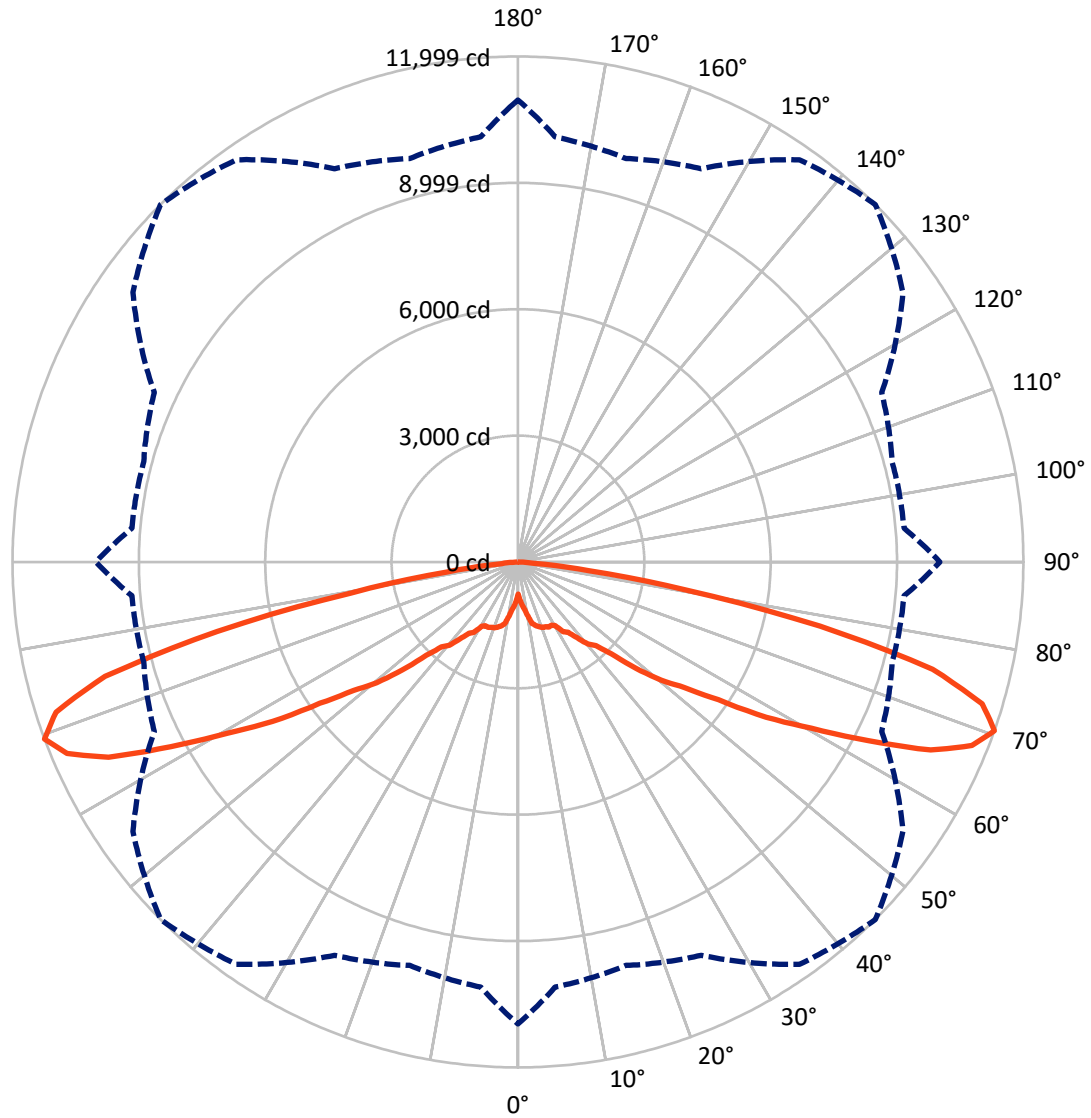
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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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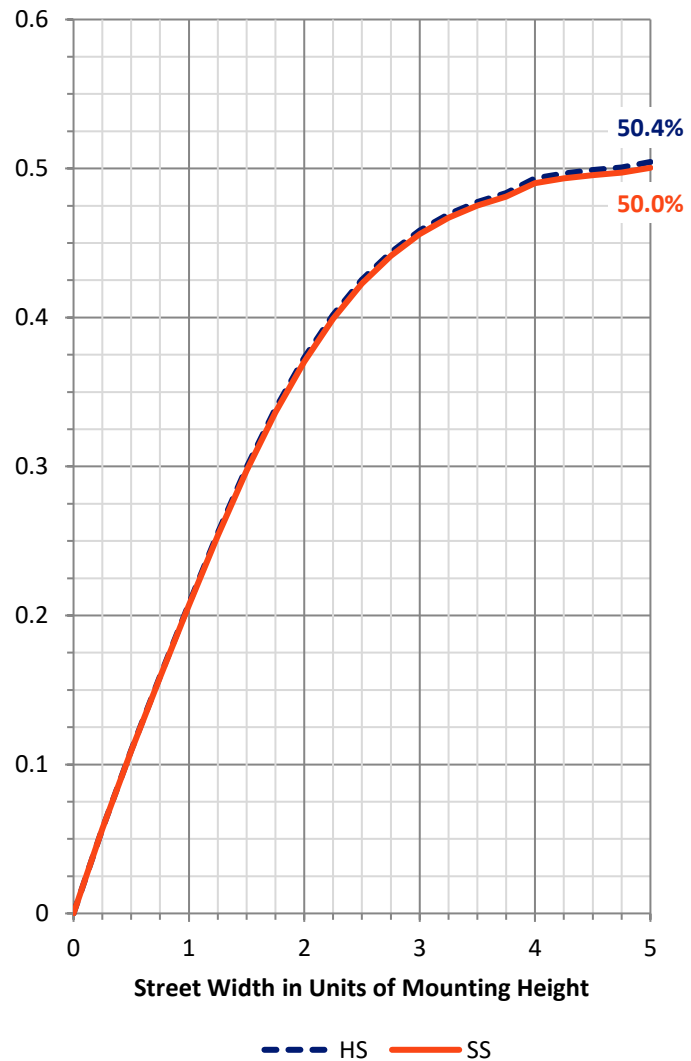
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14110.5	0.0	14110.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	14110.5	0.0	14110.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	28221.0	0.0	28221.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.0	0.4
10°-20°	444.2	1.6
20°-30°	839.9	3.0
30°-40°	1462.9	5.2
40°-50°	2796.7	9.9
50°-60°	5423.0	19.2
60°-70°	9495.9	33.6
70°-80°	7136.7	25.3
80°-90°	510.6	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°	28221.0	100.0
0°-180°	28221.0	100.0



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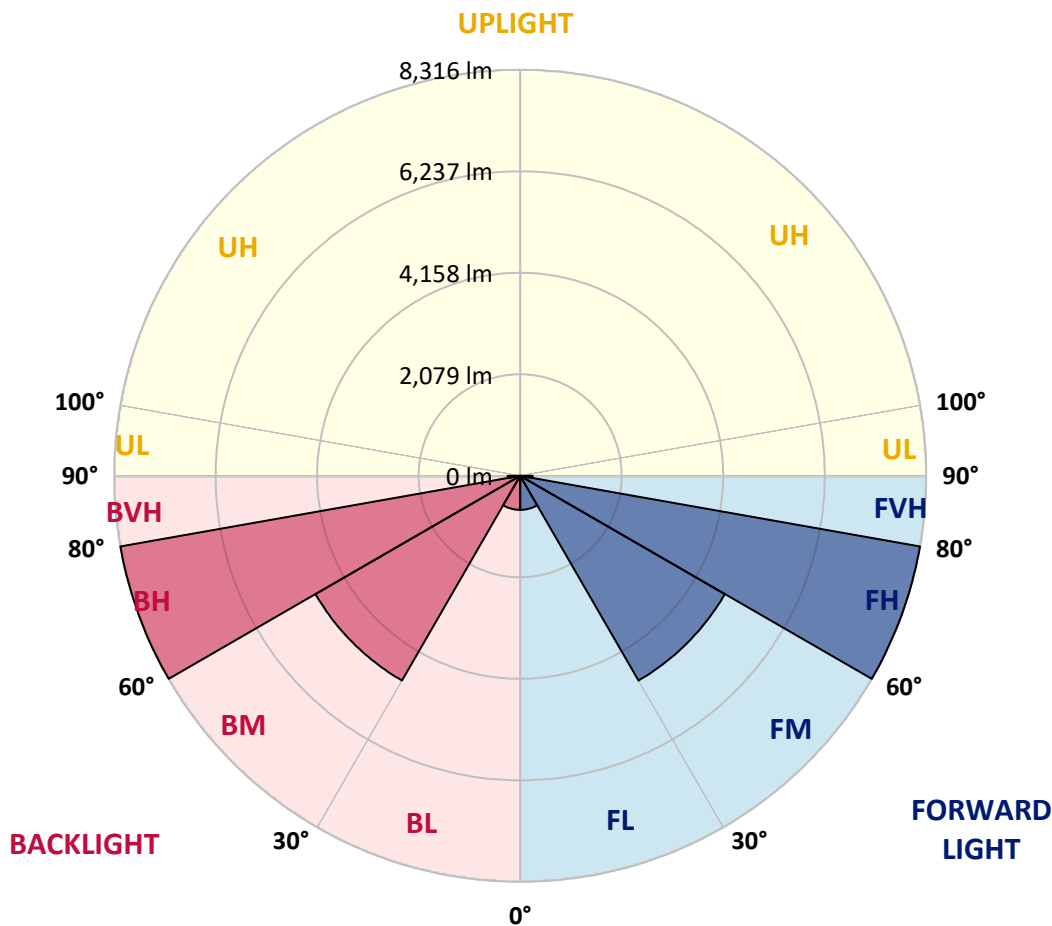
CATALOG NUMBER: MSA-SA4D-760-U-5WQ

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	697.5	2.5			
FM (30°-60°)	4841.3	17.2			
FH (60°-80°)	8316.3	29.5			G4/12000
FVH (80°-90°)	255.3	0.9			G3/500
BL (0°-30°)	697.5	2.5	B2/1000		
BM (30°-60°)	4841.3	17.2	B3/5000		
BH (60°-80°)	8316.3	29.5	B5		G4/12000
BVH (80°-90°)	255.3	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1	763.1
2.5°	928.4	914.2	869.3	871.5	892.3	894.5	896.6	869.3	862.7	918.5	921.8
5°	1179.1	1146.3	1113.4	1100.3	1080.6	1025.8	1086.0	1092.6	1105.7	1148.4	1168.2
7.5°	1346.6	1306.1	1261.2	1233.8	1180.2	1135.3	1184.6	1225.1	1251.4	1299.5	1326.9
10°	1378.4	1354.3	1352.1	1303.9	1294.1	1310.5	1307.2	1308.3	1347.7	1348.8	1365.2
12.5°	1478.0	1495.5	1461.6	1445.1	1455.0	1495.5	1462.7	1448.4	1458.3	1503.2	1484.5
15°	1608.3	1629.1	1577.6	1551.3	1525.1	1563.4	1529.4	1554.6	1586.4	1619.2	1602.8
17.5°	1752.8	1753.9	1683.8	1586.4	1609.4	1614.8	1602.8	1582.0	1672.9	1751.7	1744.0
20°	1831.6	1830.5	1710.1	1577.6	1645.5	1657.5	1646.6	1575.4	1712.3	1820.7	1817.4
22.5°	1912.6	1888.5	1744.0	1636.7	1661.9	1671.8	1646.6	1640.0	1744.0	1895.1	1894.0
25°	1956.4	1977.2	1818.5	1751.7	1730.9	1707.9	1729.8	1740.7	1840.4	1988.2	1945.5
27.5°	2093.3	2059.3	1840.4	1833.8	1790.0	1699.1	1774.7	1828.3	1833.8	2072.5	2116.2
30°	2217.0	2230.1	1938.9	1948.7	1868.8	1753.9	1871.0	1956.4	1972.8	2232.3	2227.9
32.5°	2348.3	2353.8	2114.1	2012.2	1978.3	1973.9	1929.0	2003.5	2132.7	2340.7	2349.4
35°	2547.6	2592.5	2270.6	2133.8	2091.1	2047.3	2086.7	2153.5	2273.9	2585.9	2564.0
37.5°	3004.1	2933.0	2611.1	2327.5	2299.1	2281.6	2313.3	2361.5	2607.8	2940.6	3042.4
40°	3322.7	3288.8	2850.9	2648.3	2468.8	2562.9	2488.5	2674.6	2878.2	3291.0	3356.7
42.5°	3816.5	3665.4	3215.4	2964.7	2778.6	2711.8	2753.4	2996.5	3255.9	3715.7	3844.9
45°	4290.5	4057.3	3672.0	3450.8	3168.4	3098.3	3154.1	3439.9	3739.8	4103.3	4331.0
47.5°	4774.4	4533.6	4109.9	3790.2	3559.2	3768.3	3585.5	3857.0	4155.9	4578.5	4781.0
50°	5276.9	5009.8	4591.6	4243.4	4223.7	4408.8	4189.8	4328.8	4605.8	5043.7	5282.4
52.5°	5853.9	5566.0	5147.7	4912.4	4958.3	4946.3	4902.5	4877.3	5149.9	5580.2	5863.7
55°	6540.3	6229.4	5895.5	5787.1	5914.1	5777.3	5841.9	5833.1	5872.5	6180.1	6511.9
57.5°	7370.2	7018.8	6683.8	6659.7	6822.8	6952.0	6837.0	6671.7	6602.7	6901.6	7281.5
60°	8415.7	7984.4	7616.5	7541.0	8006.3	8005.2	7901.2	7531.1	7504.9	7843.1	8300.8
62.5°	9570.7	9045.2	8643.4	8523.0	9252.2	9334.3	9010.2	8346.8	8482.5	8755.1	9298.1
65°	10551.7	9920.0	9545.6	9512.7	10403.9	10766.3	10050.3	9142.7	9186.5	9413.1	10001.0
67.5°	11191.0	10430.2	10132.4	10291.1	11399.1	11625.7	10960.0	9674.7	9519.3	9613.4	10316.3
70°	10966.6	10130.2	9915.6	10301.0	11656.3	11999.0	11156.0	9525.9	9195.2	9199.6	10016.3
72.5°	9266.4	8470.5	8572.3	9279.5	11047.6	11528.2	10249.5	8604.0	7927.4	7911.0	8652.2
75°	6127.6	5595.5	5997.3	7099.8	9184.3	10167.4	8492.4	6744.0	5895.5	5619.6	6192.2
77.5°	2680.1	2612.2	2950.5	4196.4	6261.2	7327.5	6083.8	4405.5	3206.7	2666.9	2913.3
80°	718.2	702.9	882.4	1591.8	3047.9	4035.4	3292.1	1757.2	917.4	667.8	708.3
82.5°	261.7	268.2	327.3	445.6	1003.9	1699.1	1093.7	513.5	347.1	284.6	284.6
85°	113.9	110.6	158.7	178.5	273.7	384.3	314.2	217.9	175.2	131.4	125.9
87.5°	30.7	38.3	53.6	55.8	71.2	58.0	83.2	76.6	65.7	46.0	37.2
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)