

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: P366777

Luminaire Tested: **MSA-SA1B-740-U-5WQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366777  
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-SA1B-740-U-5WQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5433 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

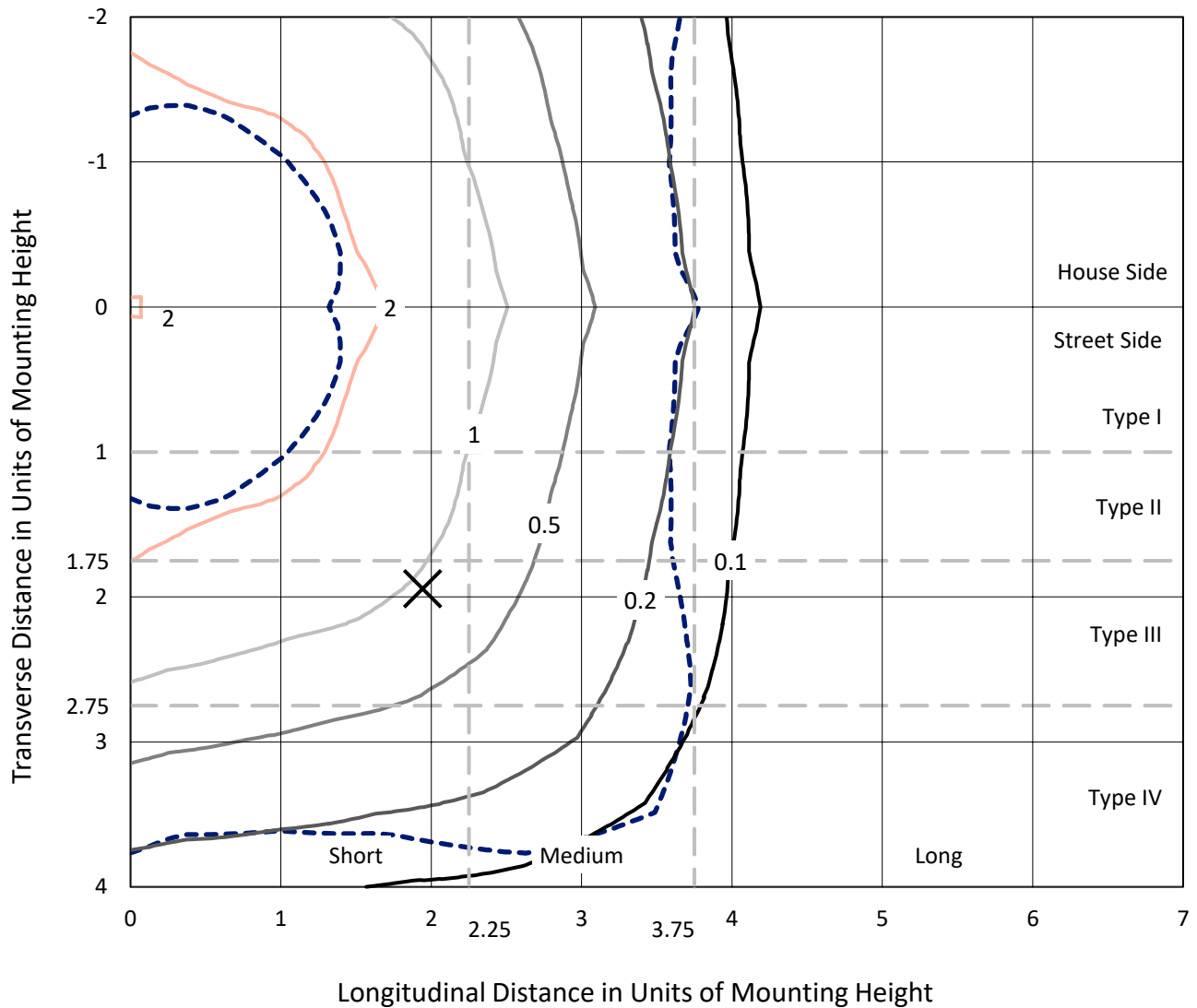
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

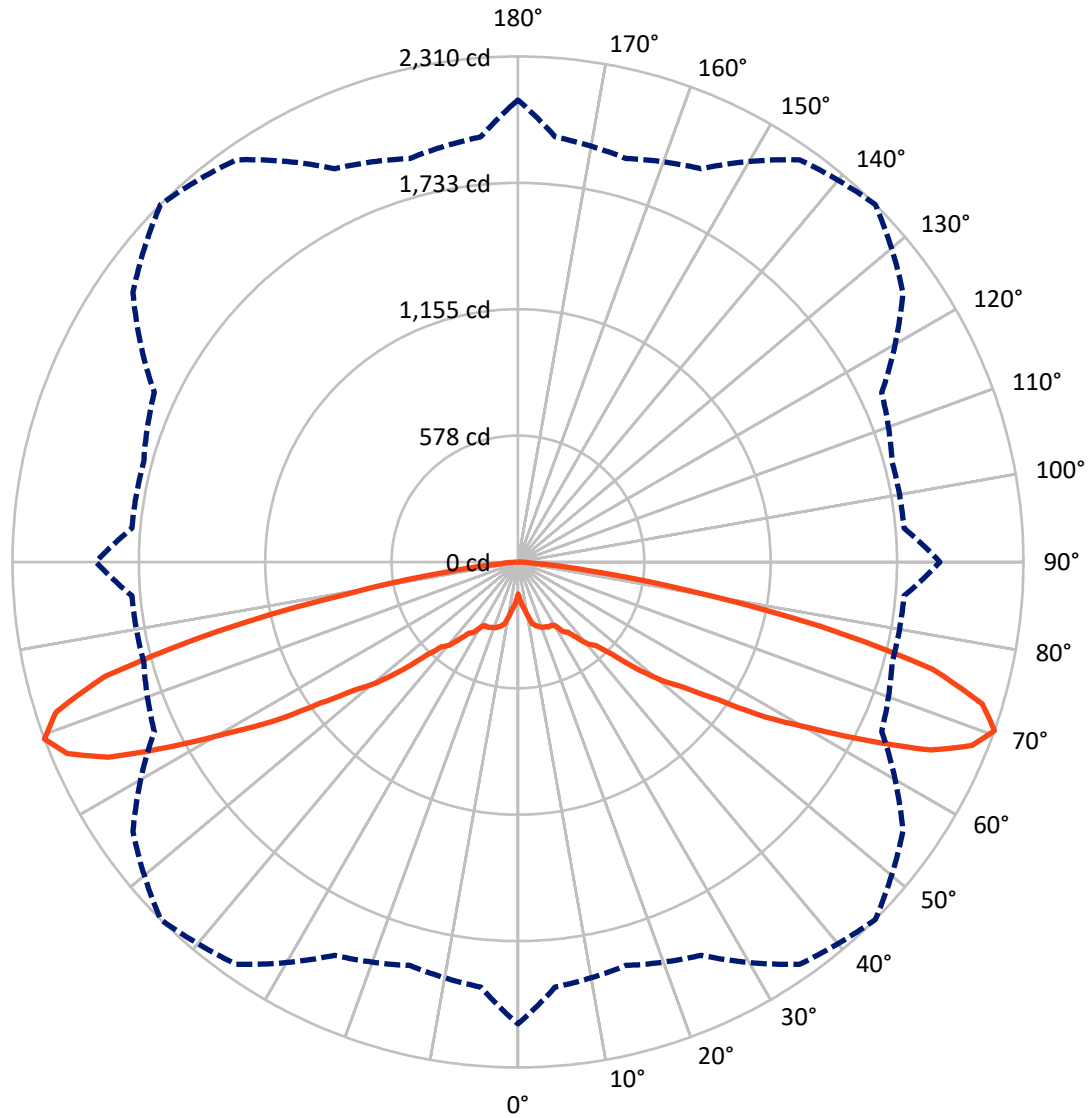
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 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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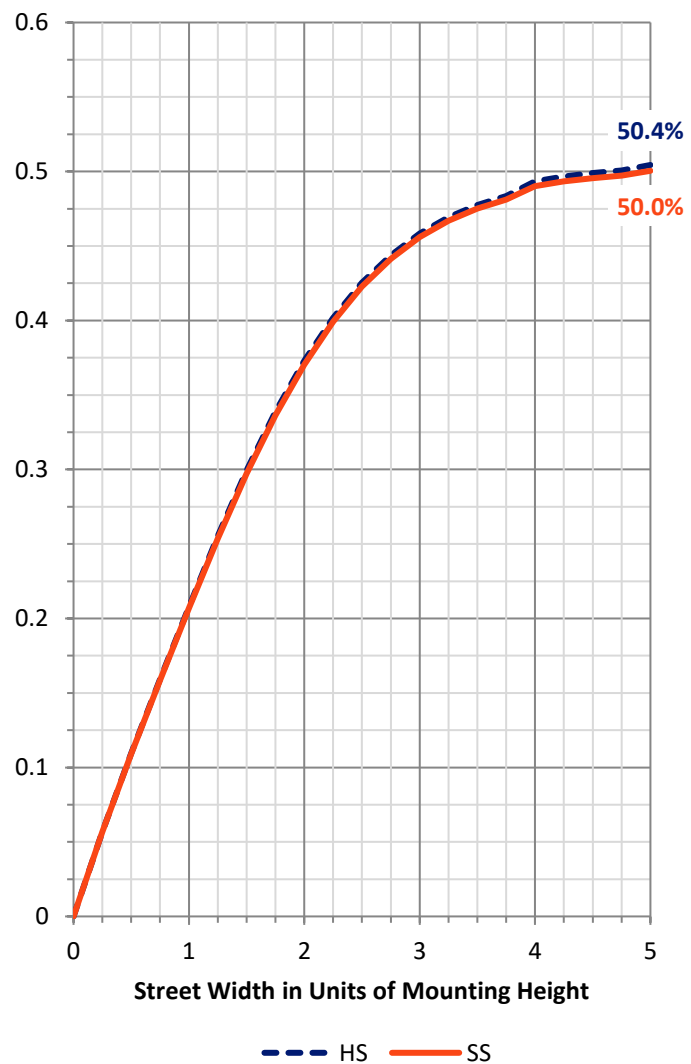
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2716.5	0.0	2716.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2716.5	0.0	2716.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5433.0	0.0	5433.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.4	0.4
10°-20°	85.5	1.6
20°-30°	161.7	3.0
30°-40°	281.6	5.2
40°-50°	538.4	9.9
50°-60°	1044.0	19.2
60°-70°	1828.1	33.6
70°-80°	1373.9	25.3
80°-90°	98.3	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°	5433.0	100.0
0°-180°	5433.0	100.0

**Coefficient of Utilization**



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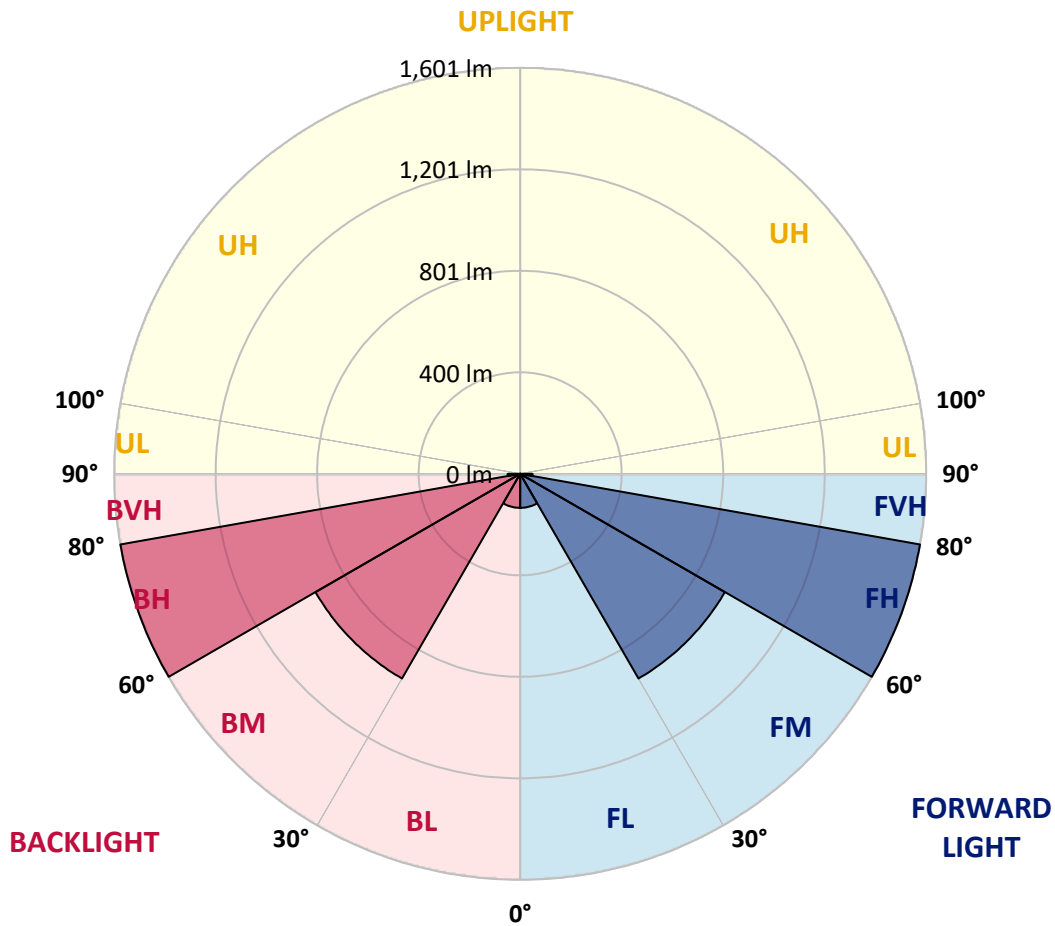
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	134.3	2.5			
FM (30°-60°)	932.0	17.2			
FH (60°-80°)	1601.0	29.5			G1/1800
FVH (80°-90°)	49.2	0.9			G1/100
BL (0°-30°)	134.3	2.5	B1/500		
BM (30°-60°)	932.0	17.2	B1/1000		
BH (60°-80°)	1601.0	29.5	B3/2500		G1/1800
BVH (80°-90°)	49.2	0.9			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°	146.9	146.9	146.9	146.9	146.9	146.9	146.9	146.9	146.9	146.9	146.9
2.5°	178.7	176.0	167.3	167.8	171.8	172.2	172.6	167.3	166.1	176.8	177.5
5°	227.0	220.7	214.3	211.8	208.0	197.5	209.1	210.3	212.9	221.1	224.9
7.5°	259.2	251.4	242.8	237.5	227.2	218.6	228.0	235.8	240.9	250.2	255.4
10°	265.4	260.7	260.3	251.0	249.1	252.3	251.7	251.9	259.5	259.7	262.8
12.5°	284.5	287.9	281.4	278.2	280.1	287.9	281.6	278.8	280.7	289.4	285.8
15°	309.6	313.6	303.7	298.7	293.6	301.0	294.4	299.3	305.4	311.7	308.6
17.5°	337.4	337.6	324.2	305.4	309.8	310.9	308.6	304.6	322.1	337.2	335.8
20°	352.6	352.4	329.2	303.7	316.8	319.1	317.0	303.3	329.6	350.5	349.9
22.5°	368.2	363.6	335.8	315.1	319.9	321.8	317.0	315.7	335.8	364.8	364.6
25°	376.6	380.6	350.1	337.2	333.2	328.8	333.0	335.1	354.3	382.8	374.5
27.5°	403.0	396.5	354.3	353.0	344.6	327.1	341.7	352.0	353.0	399.0	407.4
30°	426.8	429.3	373.3	375.2	359.8	337.6	360.2	376.6	379.8	429.8	428.9
32.5°	452.1	453.1	407.0	387.4	380.9	380.0	371.4	385.7	410.6	450.6	452.3
35°	490.5	499.1	437.1	410.8	402.6	394.1	401.7	414.6	437.8	497.8	493.6
37.5°	578.3	564.6	502.7	448.1	442.6	439.2	445.3	454.6	502.0	566.1	585.7
40°	639.7	633.1	548.8	509.8	475.3	493.4	479.1	514.9	554.1	633.6	646.2
42.5°	734.7	705.6	619.0	570.8	534.9	522.1	530.1	576.9	626.8	715.3	740.2
45°	826.0	781.1	706.9	664.3	610.0	596.5	607.2	662.2	720.0	790.0	833.8
47.5°	919.2	872.8	791.2	729.7	685.2	725.5	690.3	742.5	800.1	881.4	920.4
50°	1015.9	964.5	884.0	816.9	813.1	848.8	806.6	833.4	886.7	971.0	1016.9
52.5°	1127.0	1071.5	991.0	945.7	954.6	952.2	943.8	939.0	991.4	1074.3	1128.9
55°	1259.1	1199.3	1135.0	1114.1	1138.6	1112.2	1124.7	1123.0	1130.6	1189.8	1253.6
57.5°	1418.9	1351.2	1286.7	1282.1	1313.5	1338.4	1316.2	1284.4	1271.1	1328.7	1401.8
60°	1620.2	1537.1	1466.3	1451.8	1541.3	1541.1	1521.1	1449.9	1444.8	1509.9	1598.0
62.5°	1842.5	1741.4	1664.0	1640.8	1781.2	1797.0	1734.6	1606.9	1633.0	1685.5	1790.0
65°	2031.4	1909.8	1837.7	1831.4	2002.9	2072.7	1934.8	1760.1	1768.5	1812.2	1925.4
67.5°	2154.5	2008.0	1950.6	1981.2	2194.5	2238.1	2110.0	1862.5	1832.6	1850.7	1986.1
70°	2111.2	1950.2	1908.9	1983.1	2244.0	2310.0	2147.7	1833.9	1770.2	1771.1	1928.3
72.5°	1783.9	1630.7	1650.3	1786.5	2126.8	2219.4	1973.2	1656.4	1526.2	1523.0	1665.7
75°	1179.7	1077.2	1154.6	1366.8	1768.1	1957.4	1634.9	1298.3	1135.0	1081.9	1192.1
77.5°	516.0	502.9	568.0	807.9	1205.4	1410.7	1171.2	848.1	617.3	513.4	560.9
80°	138.3	135.3	169.9	306.5	586.8	776.9	633.8	338.3	176.6	128.6	136.4
82.5°	50.4	51.6	63.0	85.8	193.3	327.1	210.6	98.8	66.8	54.8	54.8
85°	21.9	21.3	30.6	34.4	52.7	74.0	60.5	41.9	33.7	25.3	24.2
87.5°	5.9	7.4	10.3	10.7	13.7	11.2	16.0	14.8	12.6	8.9	7.2
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)