

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: P368228

Luminaire Tested: **MSA-SA4A-740-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368228  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4A-740-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15864 lumens  
Efficiency: N/A  
Efficacy: 123.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

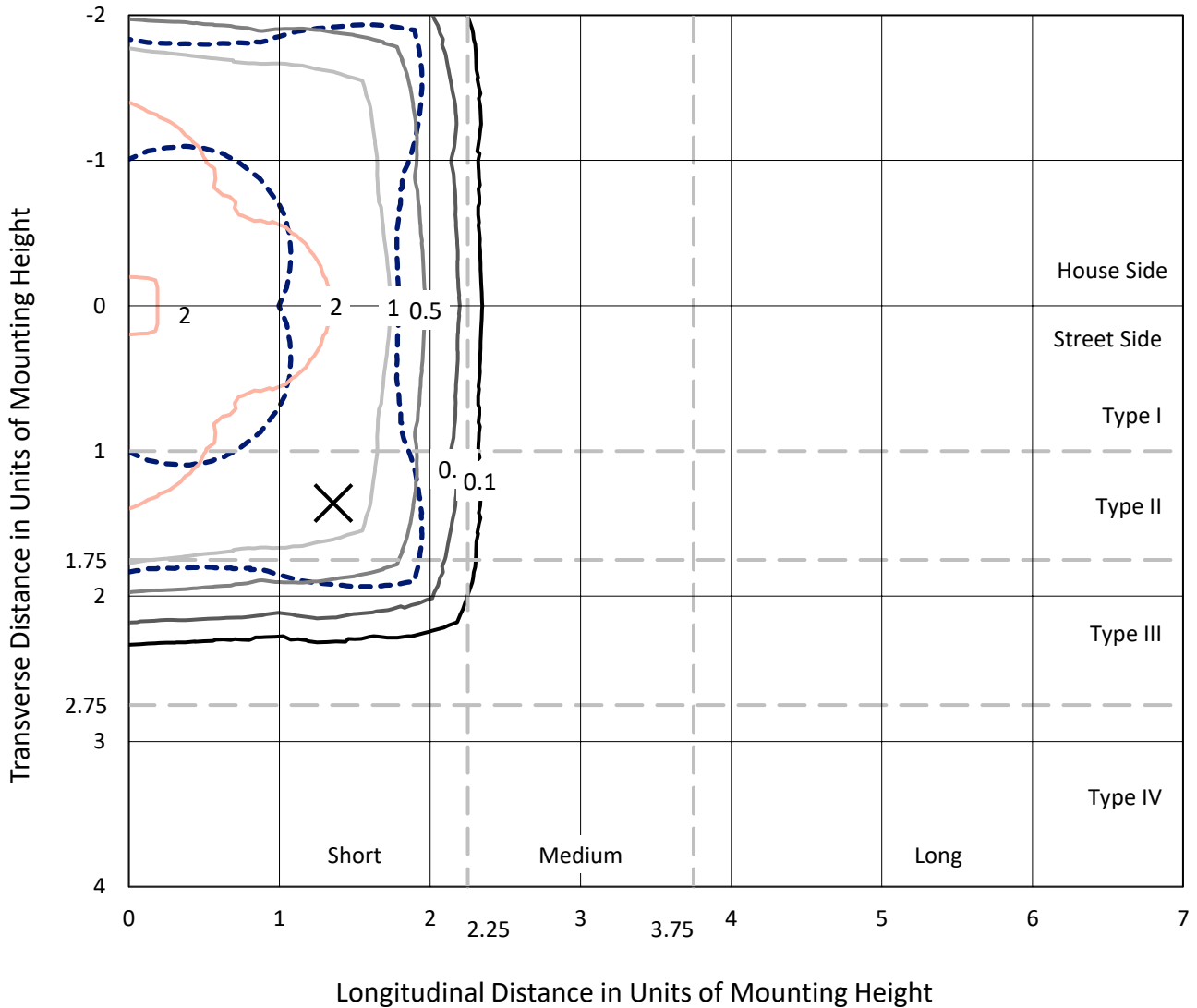
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

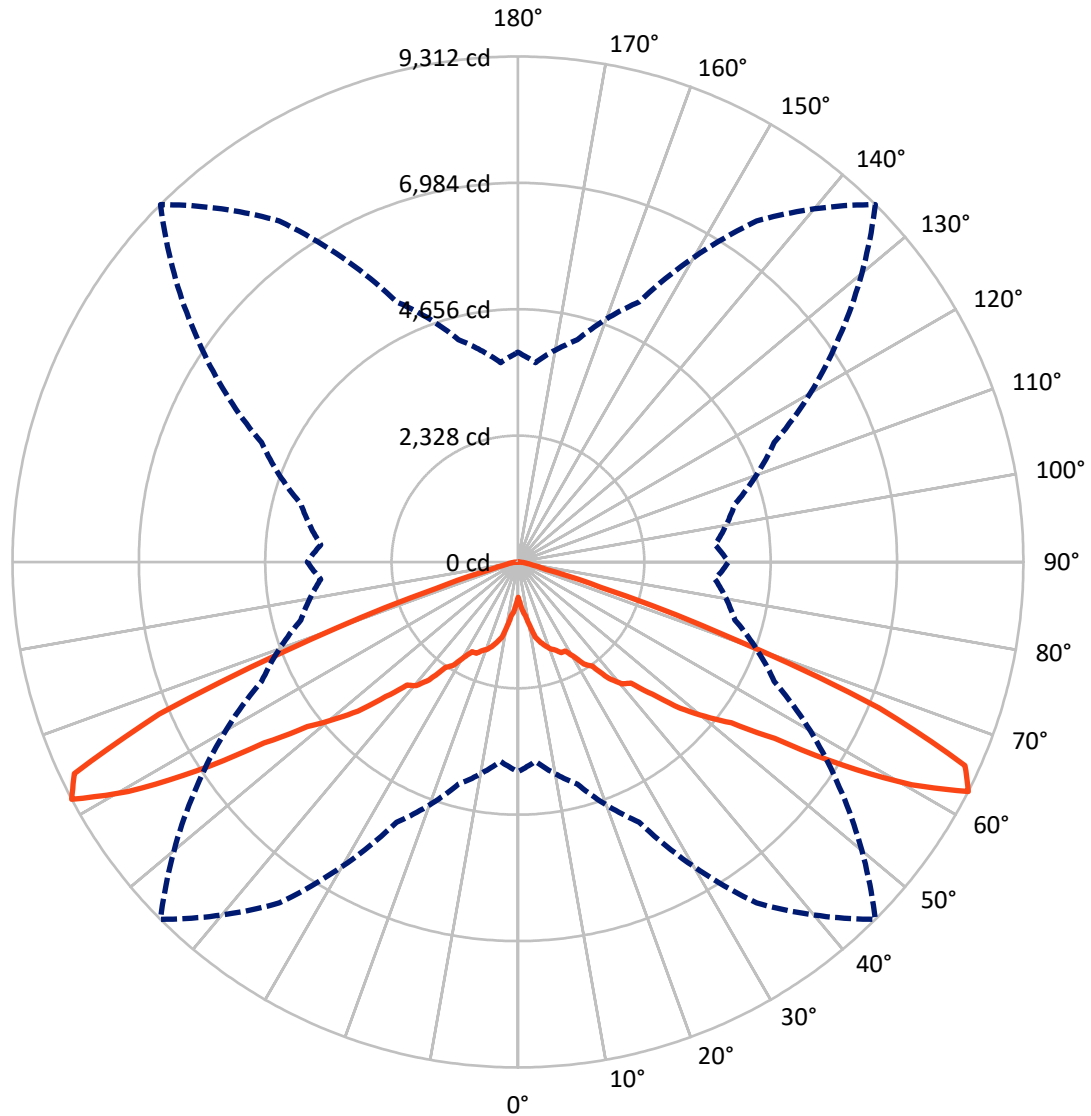
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7932.0	0.0	7932.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7932.0	0.0	7932.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15864.0	0.0	15864.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.8	0.6
10°-20°	431.0	2.7
20°-30°	903.4	5.7
30°-40°	1702.2	10.7
40°-50°	3089.4	19.5
50°-60°	5220.1	32.9
60°-70°	3902.3	24.6
70°-80°	436.6	2.8
80°-90°	81.2	0.5
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°	15864.0	100.0
0°-180°	15864.0	100.0

**Coefficient of Utilization**



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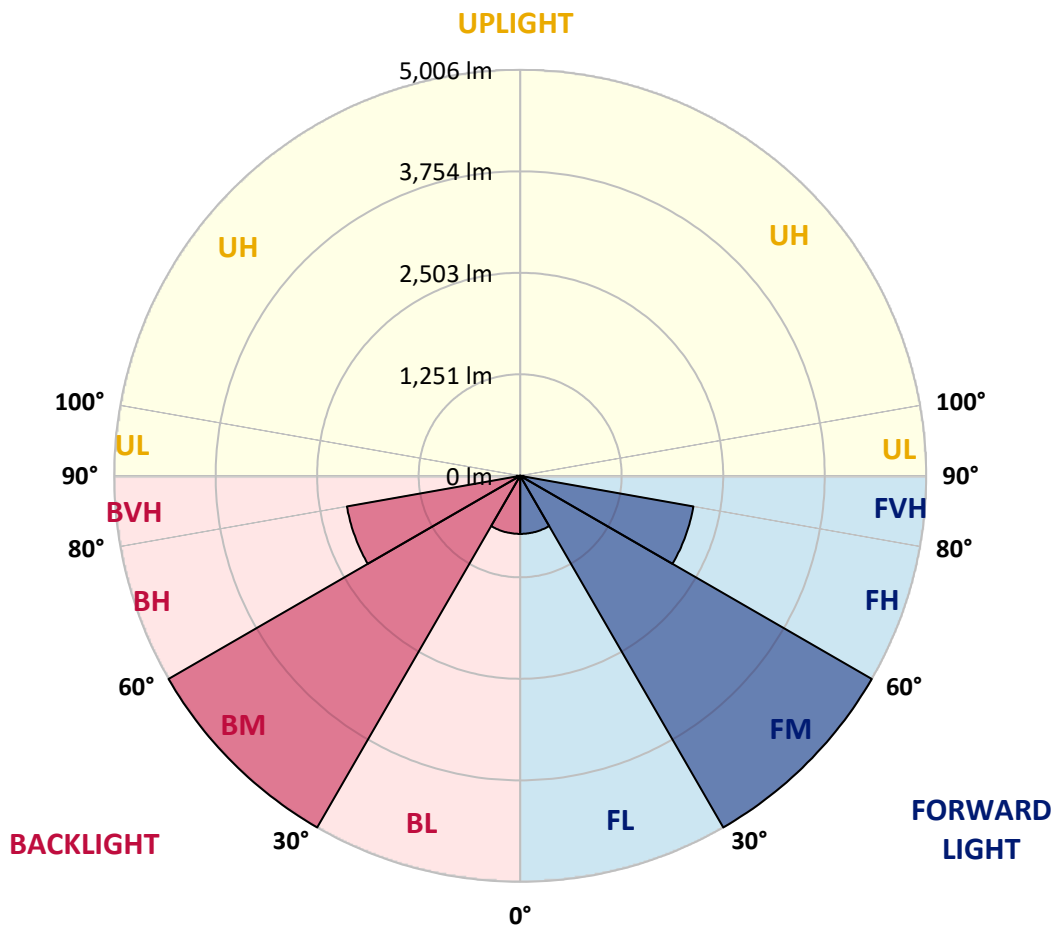
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	716.1	4.5			
FM (30°-60°)	5005.8	31.6			
FH (60°-80°)	2169.4	13.7			G2/5000
FVH (80°-90°)	40.6	0.3			G1/100
BL (0°-30°)	716.1	4.5	B2/1000		
BM (30°-60°)	5005.8	31.6	B4/8500		
BH (60°-80°)	2169.4	13.7	B3/2500		G2/5000
BVH (80°-90°)	40.6	0.3			G1/100
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°	648.6	648.6	648.6	648.6	648.6	648.6	648.6	648.6	648.6	648.6	648.6
2.5°	788.7	774.5	724.8	742.2	760.3	757.7	753.2	739.6	727.4	778.4	788.7
5°	1005.5	973.3	955.9	941.7	938.4	903.6	951.3	946.2	962.3	989.4	1015.9
7.5°	1178.5	1148.2	1102.4	1092.7	1040.4	1001.7	1043.0	1094.0	1110.1	1159.8	1189.5
10°	1241.8	1215.3	1223.7	1180.5	1177.9	1188.8	1179.8	1191.4	1234.0	1228.2	1250.2
12.5°	1383.8	1388.3	1361.2	1350.2	1372.1	1419.9	1379.2	1365.0	1354.7	1398.6	1412.2
15°	1516.7	1543.2	1498.6	1491.5	1482.5	1527.0	1483.2	1504.4	1523.2	1532.2	1527.0
17.5°	1705.2	1706.5	1656.8	1577.4	1607.1	1621.3	1601.9	1565.1	1653.5	1698.1	1700.7
20°	1829.1	1833.6	1735.5	1611.6	1695.5	1708.4	1698.7	1621.9	1739.4	1813.6	1810.4
22.5°	1962.7	1947.2	1814.2	1723.9	1753.6	1761.3	1740.7	1731.0	1813.6	1948.5	1928.5
25°	2052.4	2080.8	1948.5	1890.4	1865.2	1847.2	1873.6	1878.8	1963.3	2086.0	2018.2
27.5°	2266.7	2217.6	2010.5	2032.4	1978.8	1856.8	1973.0	2036.9	2018.8	2228.0	2278.9
30°	2457.1	2458.4	2167.9	2209.9	2110.5	2011.7	2137.6	2229.9	2207.3	2475.1	2426.7
32.5°	2700.4	2709.4	2439.6	2327.3	2260.2	2241.5	2226.0	2328.0	2468.7	2685.5	2690.1
35°	2963.1	3040.5	2673.9	2555.8	2441.6	2359.0	2448.0	2589.4	2681.0	3027.6	2966.3
37.5°	3474.9	3344.5	3044.4	2822.4	2749.4	2716.5	2763.6	2845.6	3043.8	3342.6	3447.8
40°	3777.6	3741.4	3332.9	3147.0	2865.6	2953.4	2927.6	3152.2	3316.1	3762.1	3771.8
42.5°	4240.3	4058.3	3691.1	3454.9	3201.9	3049.6	3210.9	3512.3	3710.5	4087.4	4265.5
45°	4606.3	4372.7	4089.3	3909.9	3590.4	3477.5	3535.6	3921.5	4170.0	4428.8	4663.1
47.5°	5011.0	4758.0	4474.6	4155.8	3844.1	4028.0	3925.4	4264.9	4507.5	4878.7	5098.1
50°	5519.5	5239.4	4876.7	4613.4	4406.9	4471.4	4455.3	4697.3	4996.8	5335.0	5584.1
52.5°	6079.8	5762.9	5413.1	5168.4	5081.3	4921.2	5130.4	5229.8	5450.5	5760.3	6052.7
55°	6471.5	6154.6	5942.9	6021.7	5998.4	5741.6	5924.9	5935.2	5828.7	5940.4	6234.7
57.5°	6410.9	6108.2	6079.1	6376.6	6821.3	7069.8	6786.5	6177.2	5778.4	5726.1	6037.8
60°	5605.4	5346.6	5612.5	6283.7	7579.0	8335.5	7244.7	5994.6	5337.5	5065.8	5366.6
62.5°	3862.8	3687.9	4239.1	5288.5	7670.0	9312.0	7227.9	5209.1	4139.7	3646.6	3880.2
65°	1831.0	1767.8	2233.1	3352.9	6388.9	9051.2	6314.7	3524.6	2382.9	1903.3	1956.2
67.5°	688.7	657.0	819.7	1481.2	4024.1	7178.9	4244.9	1738.7	921.6	716.4	740.9
70°	391.1	368.5	389.8	540.2	1620.0	4066.1	1831.0	596.4	391.8	356.9	380.1
72.5°	307.9	290.4	293.7	326.6	558.9	1596.1	592.5	340.1	284.6	270.4	291.1
75°	254.3	238.8	238.2	256.2	325.9	518.3	335.0	260.1	230.4	220.1	236.9
77.5°	202.0	193.0	195.6	209.8	233.6	289.8	242.7	210.4	189.1	176.8	188.5
80°	147.8	146.5	156.8	169.7	174.3	194.9	182.0	169.7	151.0	133.6	138.1
82.5°	96.8	97.5	116.8	127.1	125.2	124.6	130.4	129.7	112.9	88.4	88.4
85°	55.5	56.8	71.6	80.0	78.7	62.6	82.6	83.3	72.3	53.6	51.6
87.5°	18.1	22.6	31.0	32.9	31.6	17.4	31.6	34.9	31.6	22.6	20.0
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)