

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: P367744

Luminaire Tested: **MSA-SA3A-760-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367744  
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-SA3A-760-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12003 lumens  
Efficiency: N/A  
Efficacy: 125.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

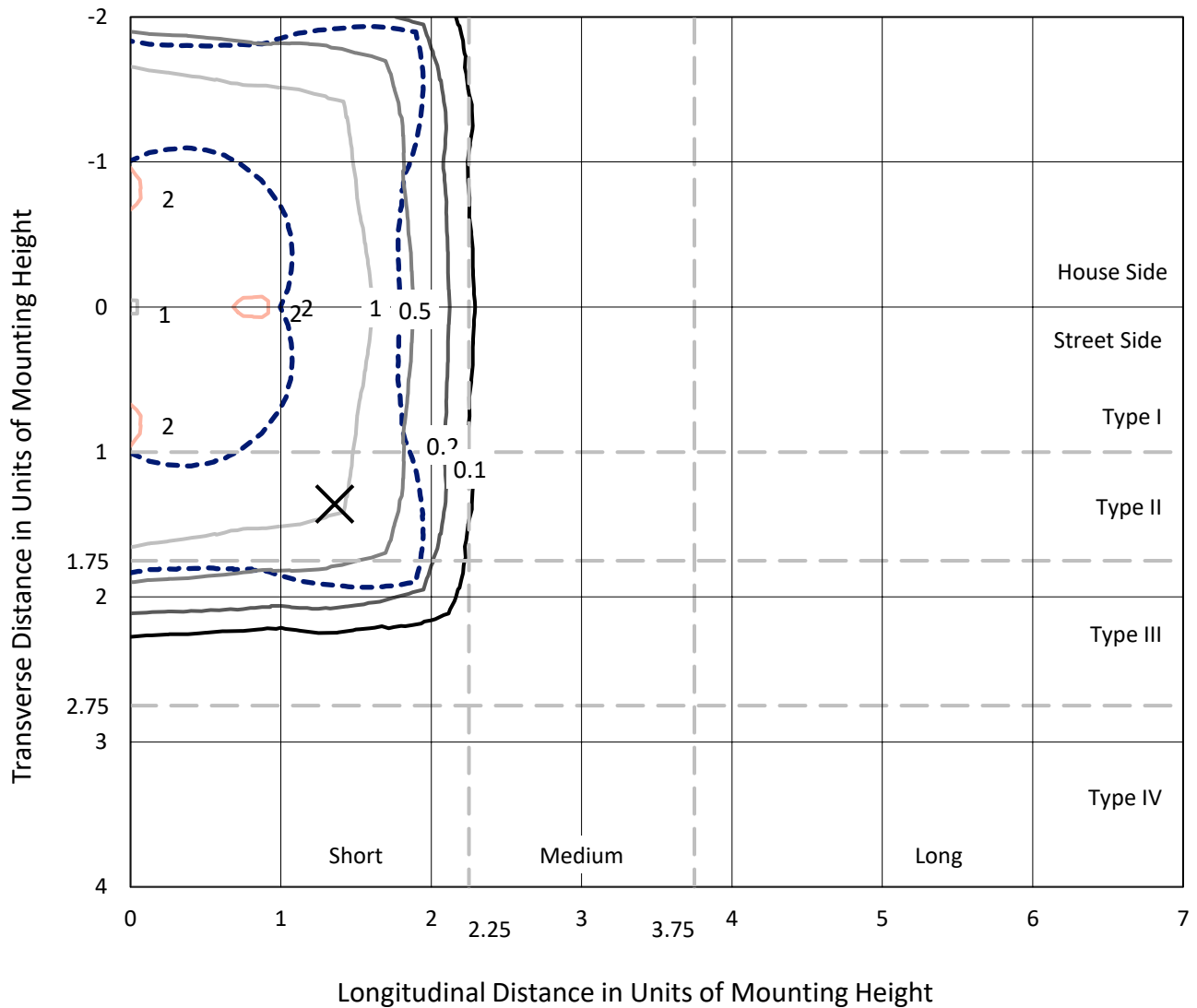
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

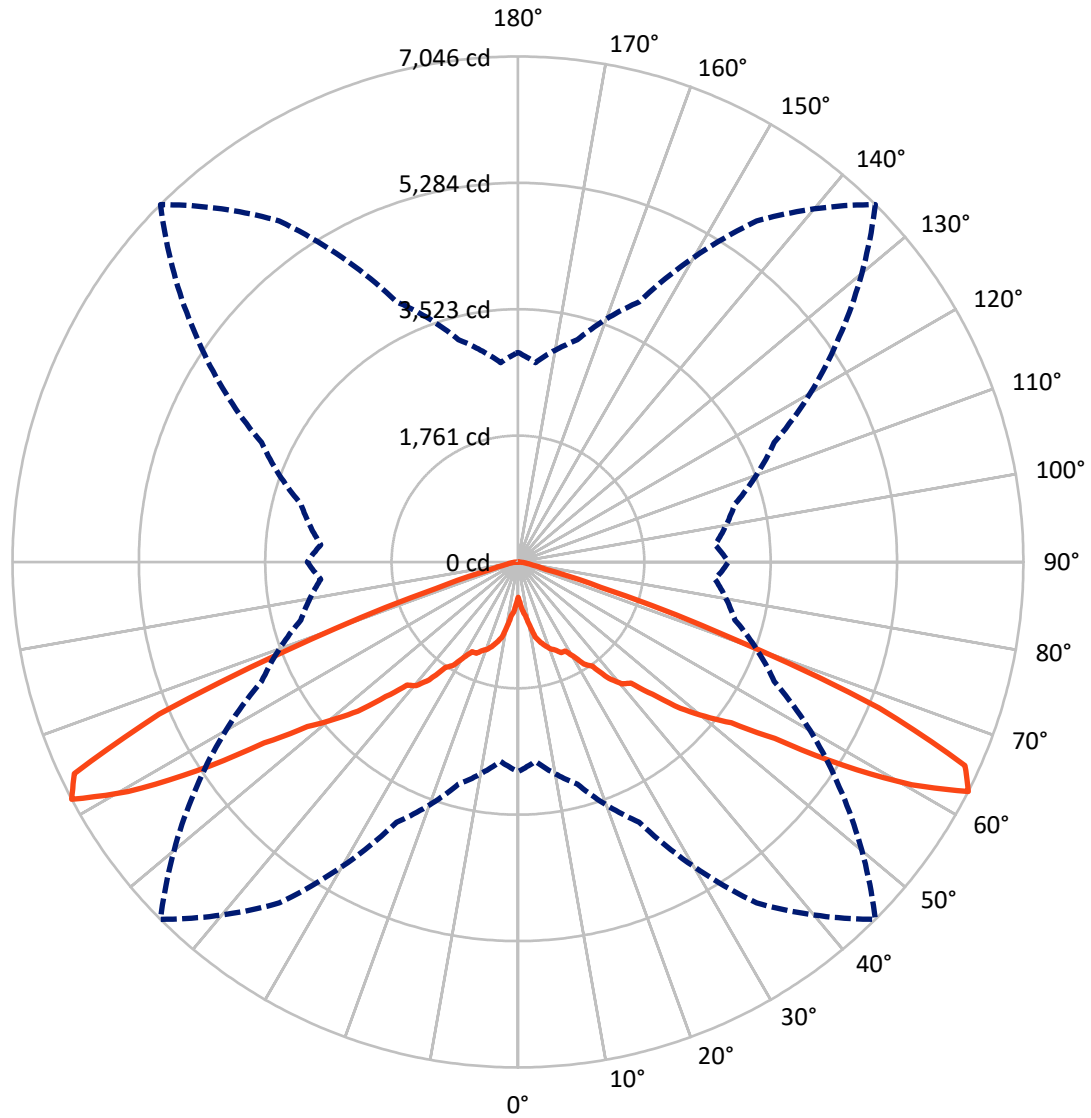
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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	6001.5	0.0	6001.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6001.5	0.0	6001.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12003.0	0.0	12003.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	0.6
10°-20°	326.1	2.7
20°-30°	683.6	5.7
30°-40°	1287.9	10.7
40°-50°	2337.5	19.5
50°-60°	3949.6	32.9
60°-70°	2952.6	24.6
70°-80°	330.3	2.8
80°-90°	61.5	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°	12003.0	100.0
0°-180°	12003.0	100.0

**Coefficient of Utilization**



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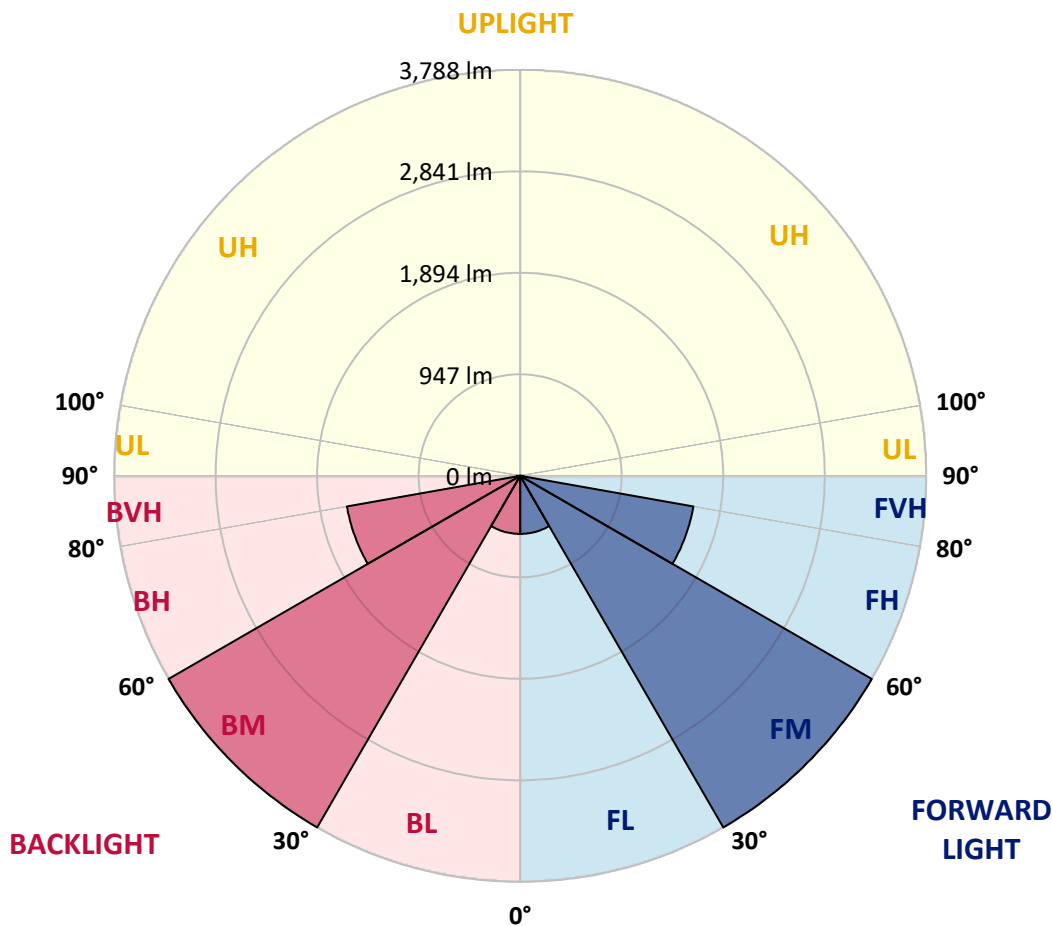
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	541.8	4.5			
FM (30°-60°)	3787.5	31.6			
FH (60°-80°)	1641.4	13.7			G1/1800
FVH (80°-90°)	30.7	0.3			G1/100
BL (0°-30°)	541.8	4.5	B2/1000		
BM (30°-60°)	3787.5	31.6	B3/5000		
BH (60°-80°)	1641.4	13.7	B3/2500		G1/1800
BVH (80°-90°)	30.7	0.3			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°	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8
2.5°	596.7	586.0	548.4	561.6	575.3	573.3	569.9	559.6	550.3	588.9	596.7
5°	760.8	736.4	723.2	712.5	710.0	683.7	719.8	715.9	728.1	748.6	768.6
7.5°	891.7	868.7	834.1	826.7	787.2	757.9	789.1	827.7	839.9	877.5	900.0
10°	939.5	919.5	925.9	893.2	891.2	899.5	892.7	901.5	933.7	929.3	945.9
12.5°	1047.0	1050.4	1029.9	1021.6	1038.2	1074.3	1043.6	1032.8	1025.0	1058.2	1068.5
15°	1147.6	1167.6	1133.9	1128.5	1121.7	1155.4	1122.2	1138.3	1152.5	1159.3	1155.4
17.5°	1290.2	1291.1	1253.5	1193.5	1215.9	1226.7	1212.0	1184.2	1251.1	1284.8	1286.7
20°	1383.9	1387.3	1313.1	1219.4	1282.8	1292.6	1285.3	1227.2	1316.0	1372.2	1369.8
22.5°	1485.0	1473.3	1372.7	1304.3	1326.8	1332.6	1317.0	1309.7	1372.2	1474.3	1459.1
25°	1552.9	1574.4	1474.3	1430.3	1411.3	1397.6	1417.6	1421.5	1485.5	1578.3	1527.0
27.5°	1715.0	1677.9	1521.1	1537.7	1497.2	1404.9	1492.8	1541.2	1527.5	1685.7	1724.3
30°	1859.1	1860.0	1640.3	1672.0	1596.8	1522.1	1617.3	1687.2	1670.1	1872.7	1836.1
32.5°	2043.2	2050.0	1845.9	1760.9	1710.1	1696.0	1684.2	1761.4	1867.9	2031.9	2035.4
35°	2241.9	2300.5	2023.1	1933.8	1847.3	1784.8	1852.2	1959.2	2028.5	2290.8	2244.4
37.5°	2629.2	2530.5	2303.4	2135.5	2080.3	2055.4	2091.0	2153.0	2303.0	2529.1	2608.7
40°	2858.2	2830.8	2521.7	2381.1	2168.2	2234.6	2215.1	2385.0	2509.0	2846.5	2853.8
42.5°	3208.3	3070.6	2792.8	2614.0	2422.6	2307.4	2429.4	2657.5	2807.4	3092.6	3227.4
45°	3485.2	3308.4	3094.1	2958.3	2716.6	2631.1	2675.1	2967.1	3155.1	3350.9	3528.2
47.5°	3791.4	3600.0	3385.6	3144.4	2908.5	3047.7	2970.0	3226.9	3410.5	3691.3	3857.3
50°	4176.2	3964.3	3689.8	3490.6	3334.3	3383.1	3370.9	3554.1	3780.6	4036.5	4225.0
52.5°	4600.1	4360.3	4095.6	3910.5	3844.6	3723.5	3881.7	3956.9	4123.9	4358.3	4579.5
55°	4896.5	4656.7	4496.5	4556.1	4538.5	4344.2	4482.9	4490.7	4410.1	4494.6	4717.3
57.5°	4850.6	4621.5	4599.6	4824.7	5161.1	5349.2	5134.8	4673.8	4372.0	4332.5	4568.3
60°	4241.1	4045.3	4246.5	4754.4	5734.4	6306.8	5481.5	4535.6	4038.5	3832.9	4060.5
62.5°	2922.6	2790.3	3207.3	4001.4	5803.3	7045.6	5468.8	3941.3	3132.1	2759.1	2935.8
65°	1385.4	1337.5	1689.6	2536.9	4834.0	6848.3	4777.8	2666.8	1802.9	1440.1	1480.1
67.5°	521.0	497.1	620.2	1120.7	3044.7	5431.7	3211.7	1315.6	697.3	542.0	560.6
70°	295.9	278.8	295.0	408.7	1225.7	3076.5	1385.4	451.2	296.4	270.0	287.6
72.5°	232.9	219.7	222.2	247.1	422.9	1207.6	448.3	257.3	215.4	204.6	220.2
75°	192.4	180.7	180.2	193.9	246.6	392.1	253.4	196.8	174.3	166.5	179.2
77.5°	152.8	146.0	148.0	158.7	176.8	219.3	183.6	159.2	143.1	133.8	142.6
80°	111.8	110.9	118.7	128.4	131.8	147.5	137.7	128.4	114.3	101.1	104.5
82.5°	73.2	73.7	88.4	96.2	94.7	94.2	98.6	98.2	85.5	66.9	66.9
85°	42.0	43.0	54.2	60.6	59.6	47.4	62.5	63.0	54.7	40.5	39.1
87.5°	13.7	17.1	23.4	24.9	23.9	13.2	23.9	26.4	23.9	17.1	15.1
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)