

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: P366952

Luminaire Tested: **MSA-SA1C-760-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366952  
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-SA1C-760-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6418 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B2 - U0 - G1

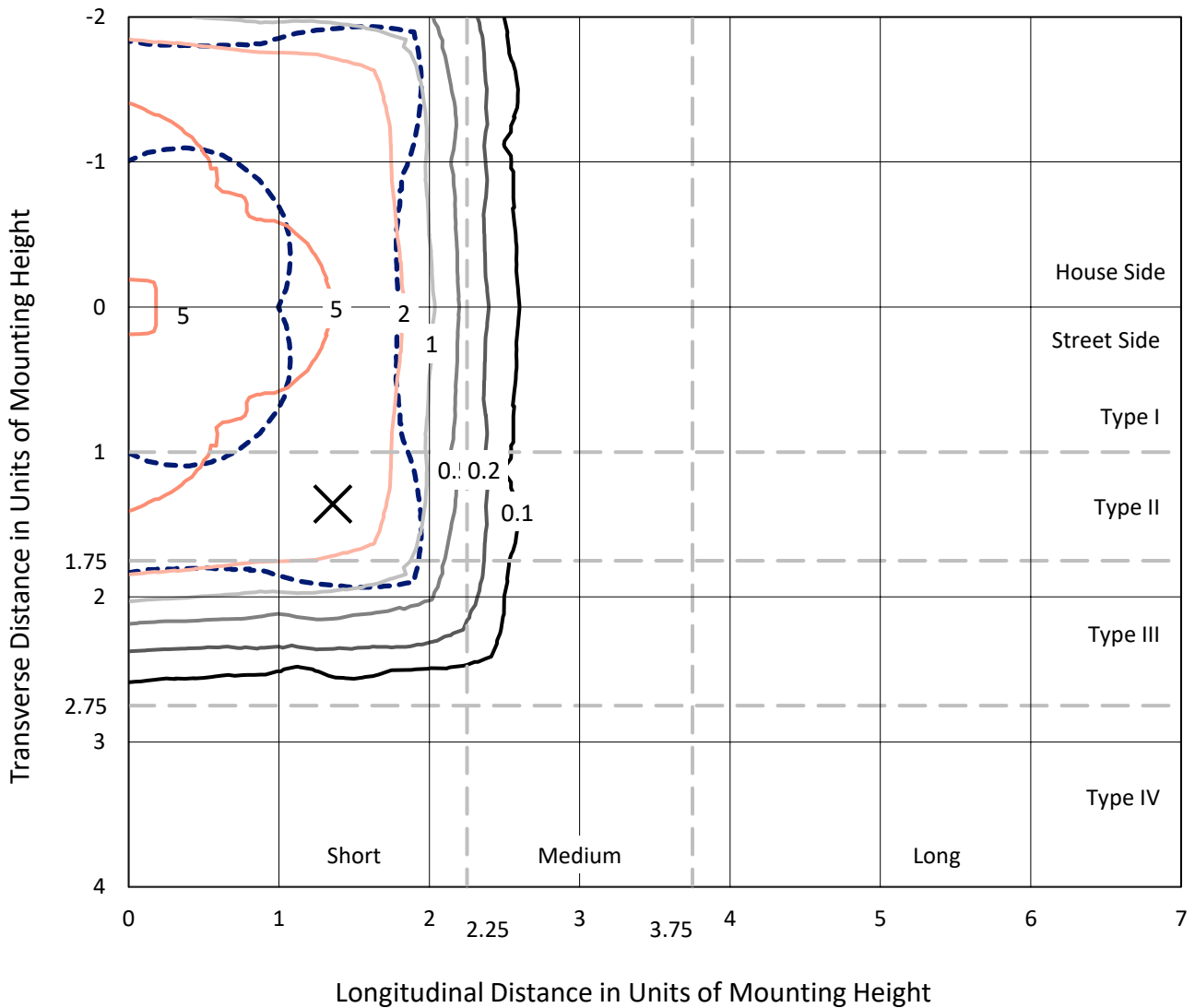
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

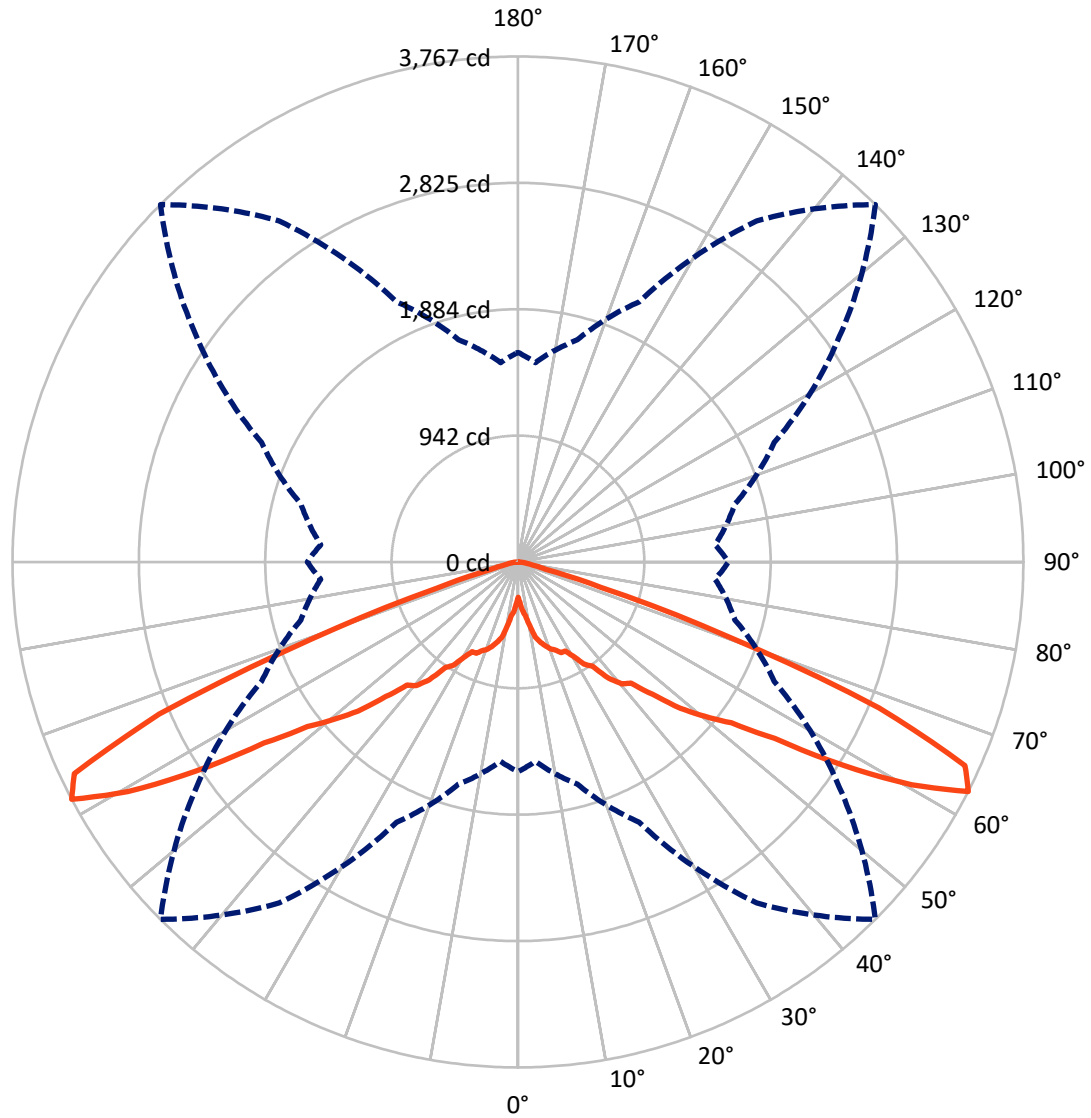
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 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	3209.0	0.0	3209.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3209.0	0.0	3209.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6418.0	0.0	6418.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.6	0.6
10°-20°	174.4	2.7
20°-30°	365.5	5.7
30°-40°	688.6	10.7
40°-50°	1249.9	19.5
50°-60°	2111.9	32.9
60°-70°	1578.7	24.6
70°-80°	176.6	2.8
80°-90°	32.9	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°	6418.0	100.0
0°-180°	6418.0	100.0

**Coefficient of Utilization**



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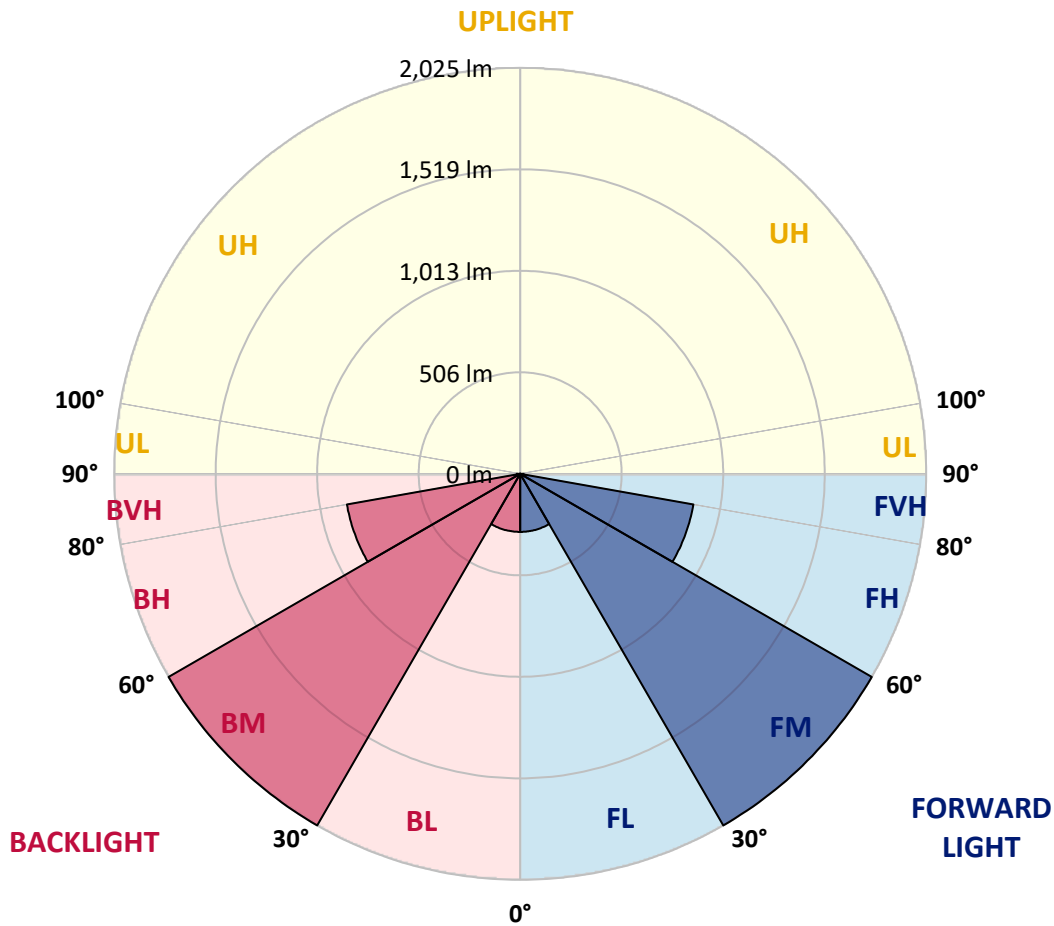
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	289.7	4.5			
FM (30°-60°)	2025.2	31.6			
FH (60°-80°)	877.7	13.7			G1/1800
FVH (80°-90°)	16.4	0.3			G1/100
BL (0°-30°)	289.7	4.5	B1/500		
BM (30°-60°)	2025.2	31.6	B2/2500		
BH (60°-80°)	877.7	13.7	B2/1000		G1/1800
BVH (80°-90°)	16.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4	262.4
2.5°	319.1	313.3	293.2	300.3	307.6	306.5	304.7	299.2	294.3	314.9	319.1
5°	406.8	393.8	386.7	381.0	379.7	365.6	384.9	382.8	389.3	400.3	411.0
7.5°	476.8	464.5	446.0	442.1	420.9	405.2	422.0	442.6	449.1	469.2	481.2
10°	502.4	491.7	495.1	477.6	476.5	481.0	477.3	482.0	499.2	496.9	505.8
12.5°	559.8	561.6	550.7	546.2	555.1	574.4	558.0	552.2	548.1	565.8	571.3
15°	613.6	624.3	606.3	603.4	599.8	617.8	600.0	608.6	616.2	619.9	617.8
17.5°	689.9	690.4	670.3	638.2	650.2	655.9	648.1	633.2	669.0	687.0	688.0
20°	740.0	741.8	702.1	652.0	685.9	691.2	687.2	656.2	703.7	733.7	732.4
22.5°	794.0	787.8	734.0	697.4	709.4	712.6	704.2	700.3	733.7	788.3	780.2
25°	830.3	841.8	788.3	764.8	754.6	747.3	758.0	760.1	794.3	843.9	816.5
27.5°	917.0	897.2	813.4	822.2	800.6	751.2	798.2	824.1	816.8	901.3	922.0
30°	994.0	994.6	877.1	894.0	853.8	813.9	864.8	902.1	893.0	1001.4	981.8
32.5°	1092.5	1096.1	987.0	941.6	914.4	906.8	900.6	941.8	998.7	1086.5	1088.3
35°	1198.8	1230.1	1081.8	1034.0	987.8	954.4	990.4	1047.6	1084.6	1224.9	1200.1
37.5°	1405.8	1353.1	1231.7	1141.8	1112.3	1099.0	1118.1	1151.2	1231.4	1352.3	1394.8
40°	1528.3	1513.7	1348.4	1273.2	1159.3	1194.8	1184.4	1275.3	1341.6	1522.0	1525.9
42.5°	1715.5	1641.9	1493.3	1397.7	1295.4	1233.7	1299.0	1421.0	1501.1	1653.6	1725.7
45°	1863.5	1769.0	1654.4	1581.8	1452.6	1406.9	1430.4	1586.5	1687.0	1791.7	1886.5
47.5°	2027.3	1924.9	1810.3	1681.3	1555.2	1629.6	1588.1	1725.4	1823.6	1973.7	2062.5
50°	2233.0	2119.7	1972.9	1866.4	1782.9	1809.0	1802.4	1900.4	2021.5	2158.3	2259.1
52.5°	2459.7	2331.4	2189.9	2091.0	2055.7	1991.0	2075.6	2115.8	2205.1	2330.4	2448.7
55°	2618.1	2489.9	2404.3	2436.2	2426.8	2322.8	2397.0	2401.2	2358.1	2403.3	2522.3
57.5°	2593.6	2471.1	2459.4	2579.8	2759.7	2860.2	2745.6	2499.1	2337.7	2316.6	2442.7
60°	2267.7	2163.0	2270.6	2542.2	3066.2	3372.2	2931.0	2425.2	2159.4	2049.4	2171.1
62.5°	1562.7	1492.0	1715.0	2139.5	3103.0	3767.3	2924.2	2107.4	1674.8	1475.3	1569.8
65°	740.8	715.2	903.4	1356.5	2584.7	3661.8	2554.7	1425.9	964.0	770.0	791.4
67.5°	278.6	265.8	331.6	599.2	1628.0	2904.3	1717.3	703.4	372.9	289.8	299.8
70°	158.2	149.1	157.7	218.5	655.4	1645.0	740.8	241.3	158.5	144.4	153.8
72.5°	124.5	117.5	118.8	132.1	226.1	645.7	239.7	137.6	115.1	109.4	117.8
75°	102.9	96.6	96.3	103.7	131.9	209.7	135.5	105.2	93.2	89.0	95.8
77.5°	81.7	78.1	79.1	84.9	94.5	117.2	98.2	85.1	76.5	71.5	76.2
80°	59.8	59.3	63.4	68.7	70.5	78.9	73.6	68.7	61.1	54.0	55.9
82.5°	39.2	39.4	47.3	51.4	50.7	50.4	52.7	52.5	45.7	35.8	35.8
85°	22.5	23.0	29.0	32.4	31.9	25.3	33.4	33.7	29.2	21.7	20.9
87.5°	7.3	9.1	12.5	13.3	12.8	7.0	12.8	14.1	12.8	9.1	8.1
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)