

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: P368668

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

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368668  
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-SA4D-760-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: 26920 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

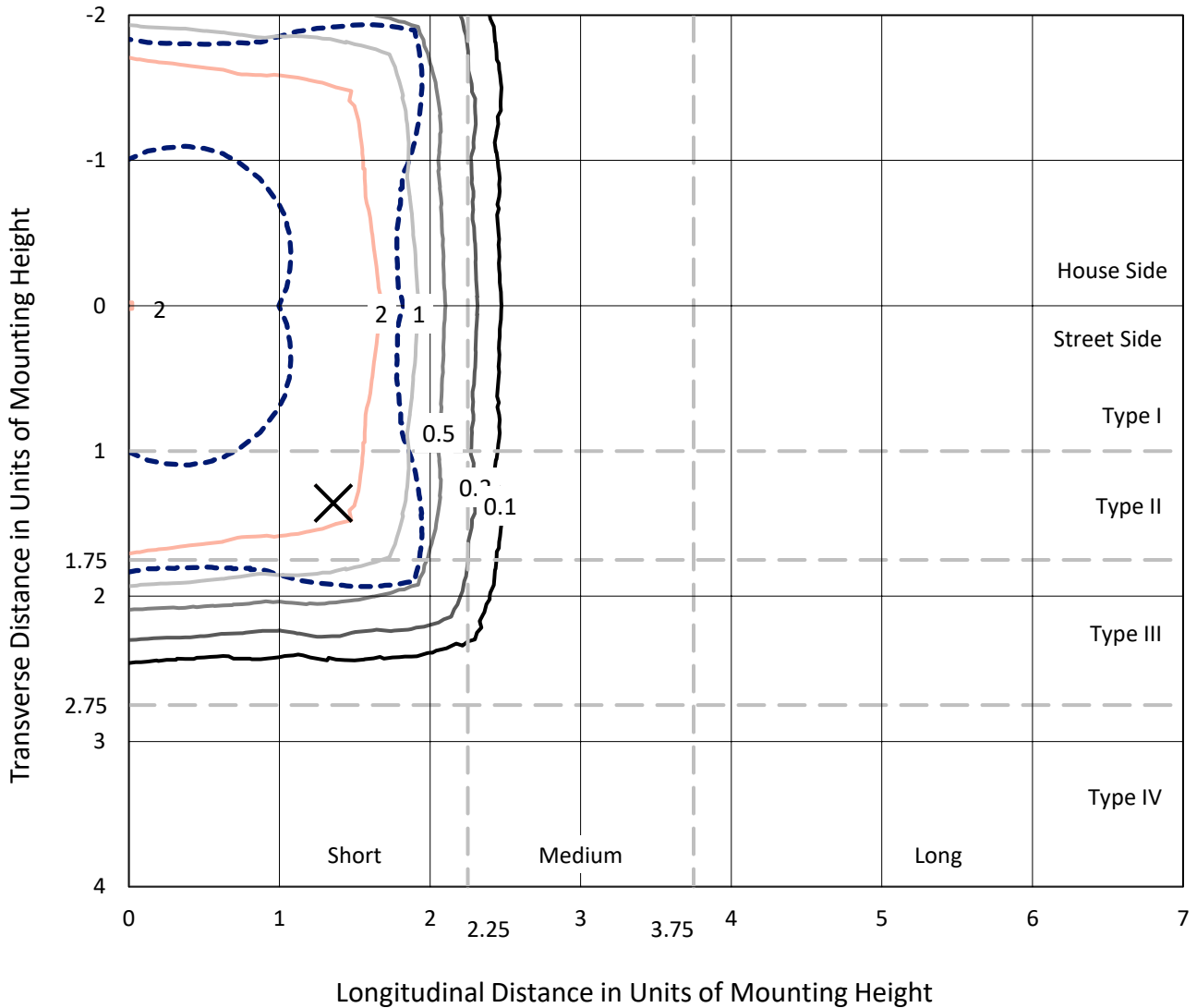
Input Watts (W): 259  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

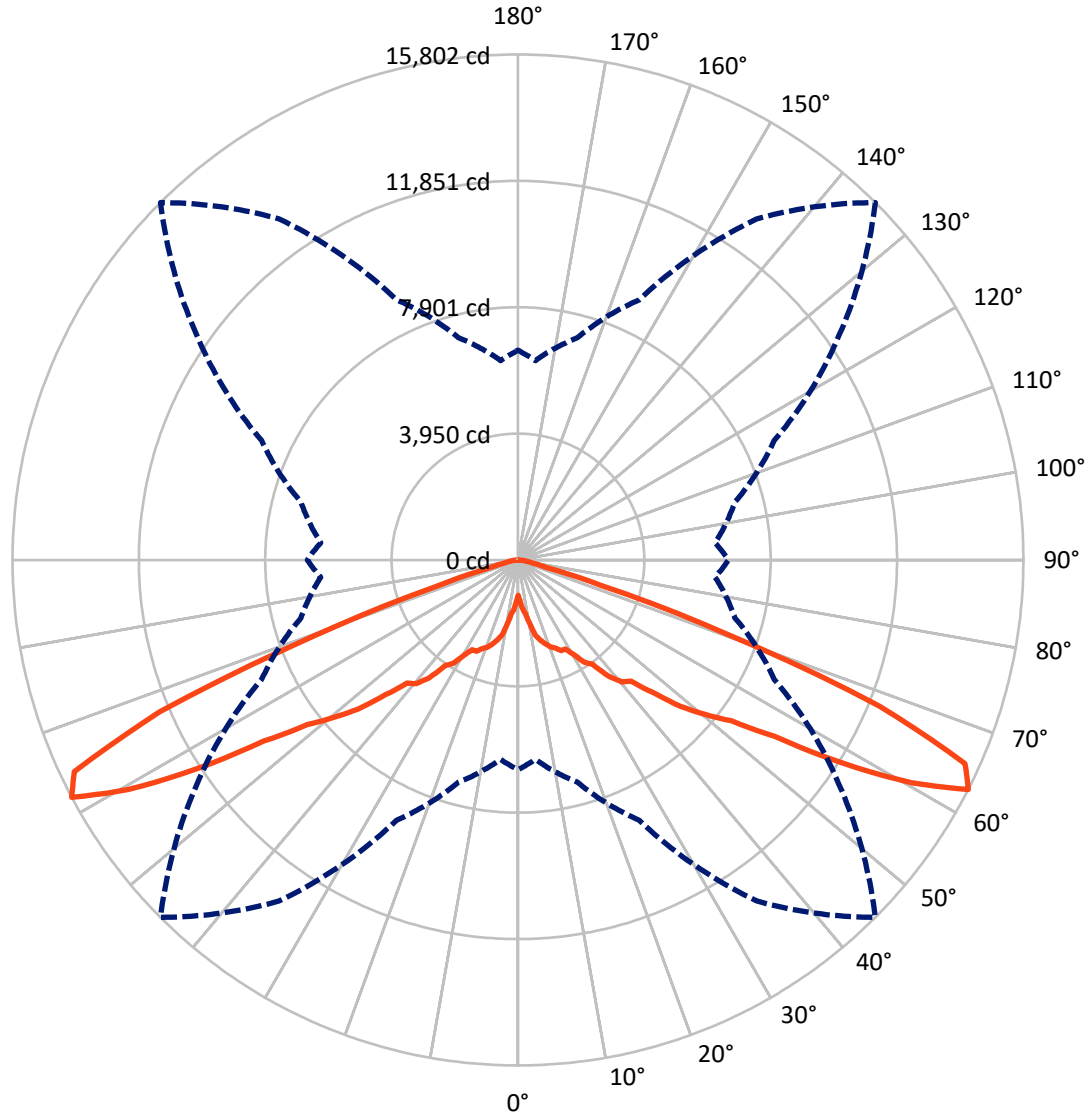
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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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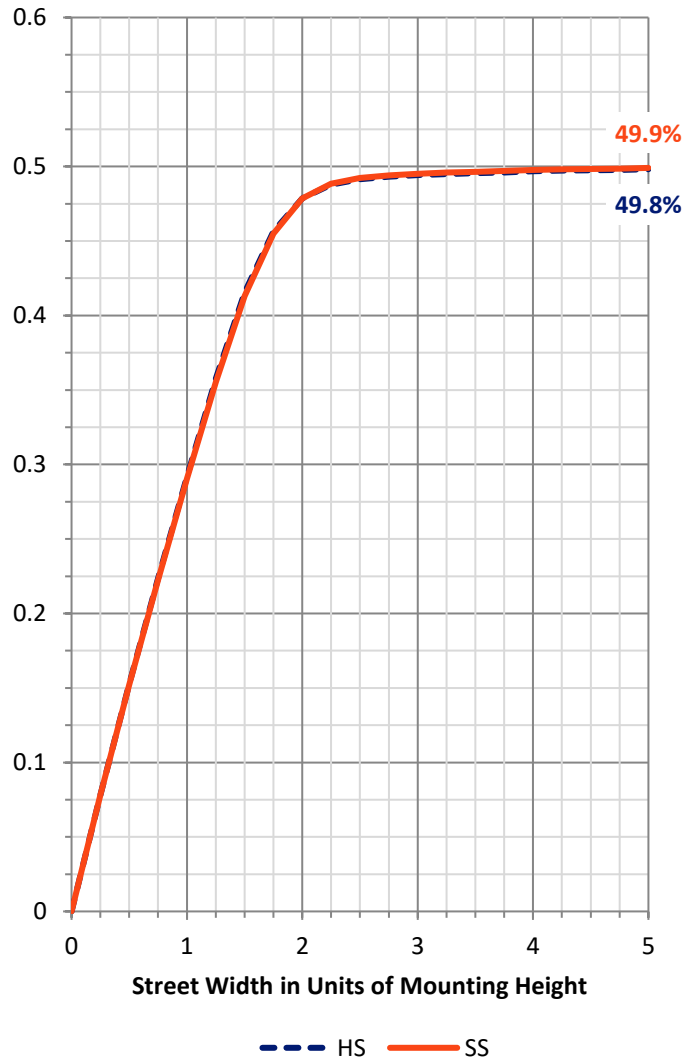
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13460.0	0.0	13460.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	13460.0	0.0	13460.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	26920.0	0.0	26920.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.9	0.6
10°-20°	731.4	2.7
20°-30°	1533.1	5.7
30°-40°	2888.5	10.7
40°-50°	5242.5	19.5
50°-60°	8858.0	32.9
60°-70°	6621.9	24.6
70°-80°	740.8	2.8
80°-90°	137.9	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°	26920.0	100.0
0°-180°	26920.0	100.0



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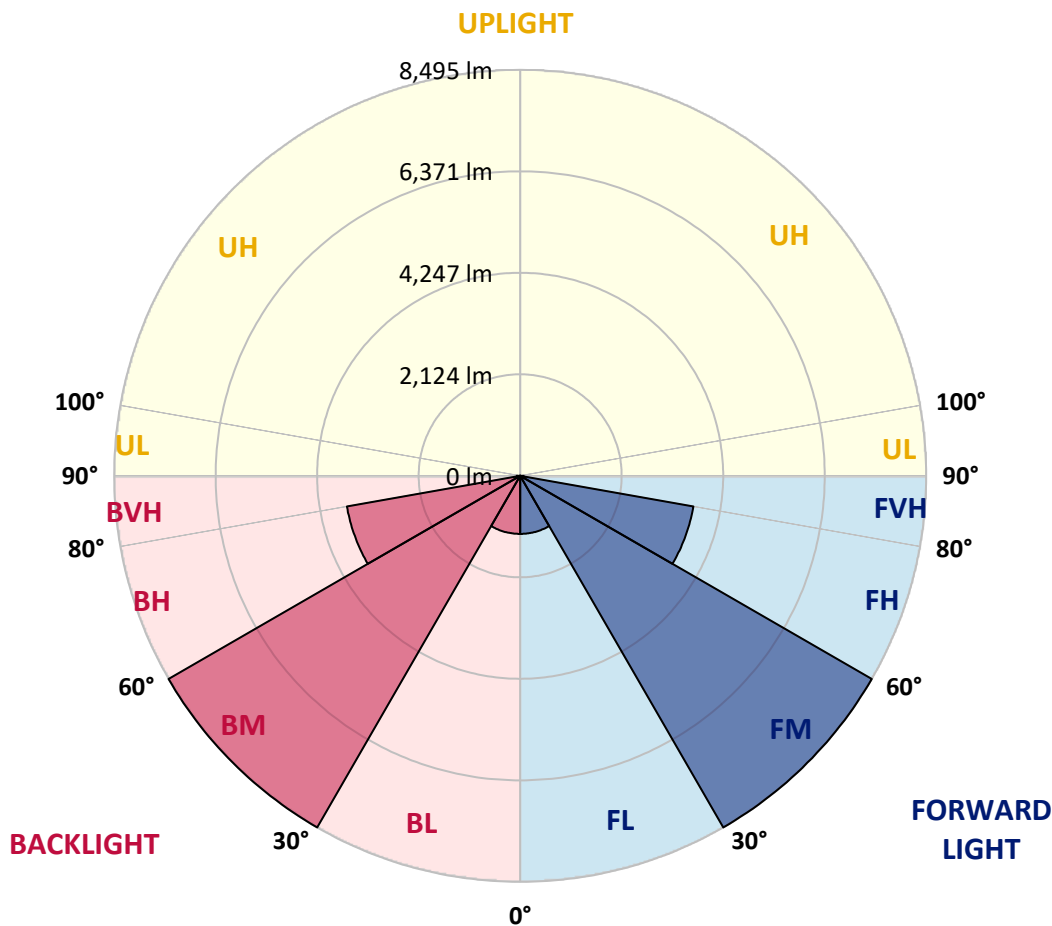
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1215.2	4.5			
FM (30°-60°)	8494.5	31.6			
FH (60°-80°)	3681.4	13.7			G2/5000
FVH (80°-90°)	68.9	0.3			G1/100
BL (0°-30°)	1215.2	4.5	B3/2500		
BM (30°-60°)	8494.5	31.6	B4/8500		
BH (60°-80°)	3681.4	13.7	B4/5000		G2/5000
BVH (80°-90°)	68.9	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°	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7
2.5°	1338.3	1314.3	1229.9	1259.5	1290.2	1285.8	1278.1	1255.1	1234.3	1320.8	1338.3
5°	1706.3	1651.6	1622.0	1597.9	1592.4	1533.3	1614.3	1605.6	1633.0	1679.0	1723.9
7.5°	1999.9	1948.4	1870.6	1854.2	1765.5	1699.8	1769.9	1856.4	1883.8	1968.1	2018.5
10°	2107.2	2062.3	2076.5	2003.1	1998.8	2017.4	2002.0	2021.8	2094.0	2084.2	2121.4
12.5°	2348.1	2355.8	2309.8	2291.2	2328.4	2409.5	2340.5	2316.4	2298.8	2373.3	2396.3
15°	2573.7	2618.6	2543.1	2531.0	2515.7	2591.3	2516.8	2552.9	2584.7	2600.0	2591.3
17.5°	2893.5	2895.7	2811.4	2676.7	2727.1	2751.2	2718.3	2655.9	2805.9	2881.5	2885.9
20°	3103.8	3111.5	2945.0	2734.7	2877.1	2899.0	2882.6	2752.3	2951.6	3077.5	3072.1
22.5°	3330.5	3304.3	3078.6	2925.3	2975.7	2988.8	2953.8	2937.4	3077.5	3306.4	3272.5
25°	3482.8	3531.0	3306.4	3207.9	3165.2	3134.5	3179.4	3188.2	3331.6	3539.7	3424.7
27.5°	3846.4	3763.1	3411.6	3448.8	3357.9	3150.9	3348.1	3456.5	3425.8	3780.7	3867.2
30°	4169.5	4171.7	3678.8	3750.0	3581.3	3413.8	3627.3	3784.0	3745.6	4200.1	4118.0
32.5°	4582.4	4597.7	4139.9	3949.3	3835.4	3803.7	3777.4	3950.4	4189.2	4557.2	4564.8
35°	5028.1	5159.5	4537.5	4337.0	4143.2	4003.0	4154.1	4394.0	4549.5	5137.6	5033.6
37.5°	5896.6	5675.4	5166.1	4789.4	4665.6	4609.7	4689.7	4828.8	5165.0	5672.1	5850.6
40°	6410.3	6348.9	5655.7	5340.2	4862.7	5011.7	4967.9	5349.0	5627.2	6384.0	6400.4
42.5°	7195.5	6886.7	6263.5	5862.7	5433.3	5174.9	5448.7	5960.1	6296.4	6936.0	7238.2
45°	7816.5	7420.1	6939.3	6634.8	6092.7	5901.0	5999.6	6654.5	7076.2	7515.3	7912.9
47.5°	8503.2	8073.9	7593.1	7052.1	6523.1	6835.2	6661.1	7237.2	7649.0	8278.7	8651.1
50°	9366.2	8890.9	8275.4	7828.6	7478.1	7587.6	7560.2	7970.9	8479.1	9053.0	9475.8
52.5°	10316.9	9779.1	9185.5	8770.4	8622.6	8351.0	8705.8	8874.5	9249.1	9774.8	10270.9
55°	10981.7	10443.9	10084.7	10218.3	10178.9	9743.0	10054.0	10071.6	9890.9	10080.3	10579.7
57.5°	10878.7	10365.1	10315.8	10820.7	11575.3	11996.9	11516.1	10482.3	9805.4	9716.7	10245.7
60°	9511.9	9072.7	9524.0	10663.0	12861.1	14144.6	12293.7	10172.3	9057.4	8596.3	9106.7
62.5°	6554.8	6258.0	7193.3	8974.2	13015.5	15801.7	12265.3	8839.4	7024.7	6187.9	6584.4
65°	3107.1	2999.8	3789.4	5689.6	10841.5	15359.2	10715.5	5980.9	4043.5	3229.8	3319.6
67.5°	1168.6	1114.9	1390.9	2513.5	6828.6	12182.0	7203.2	2950.5	1564.0	1215.7	1257.3
70°	663.7	625.4	661.5	916.7	2749.0	6899.8	3107.1	1012.0	664.8	605.7	645.1
72.5°	522.4	492.8	498.3	554.2	948.5	2708.5	1005.4	577.2	483.0	458.9	493.9
75°	431.5	405.2	404.1	434.8	553.1	879.5	568.4	441.4	391.0	373.5	401.9
77.5°	342.8	327.5	331.8	355.9	396.5	491.7	411.8	357.0	320.9	300.1	319.8
80°	250.8	248.6	266.1	288.0	295.7	330.8	308.8	288.0	256.3	226.7	234.4
82.5°	164.3	165.4	198.2	215.8	212.5	211.4	221.2	220.1	191.7	150.0	150.0
85°	94.2	96.4	121.6	135.8	133.6	106.2	140.2	141.3	122.7	90.9	87.6
87.5°	30.7	38.3	52.6	55.9	53.7	29.6	53.7	59.1	53.7	38.3	34.0
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)