

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: P368602

Luminaire Tested: **MSA-SA4D-730-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368602  
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-730-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: 24516 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

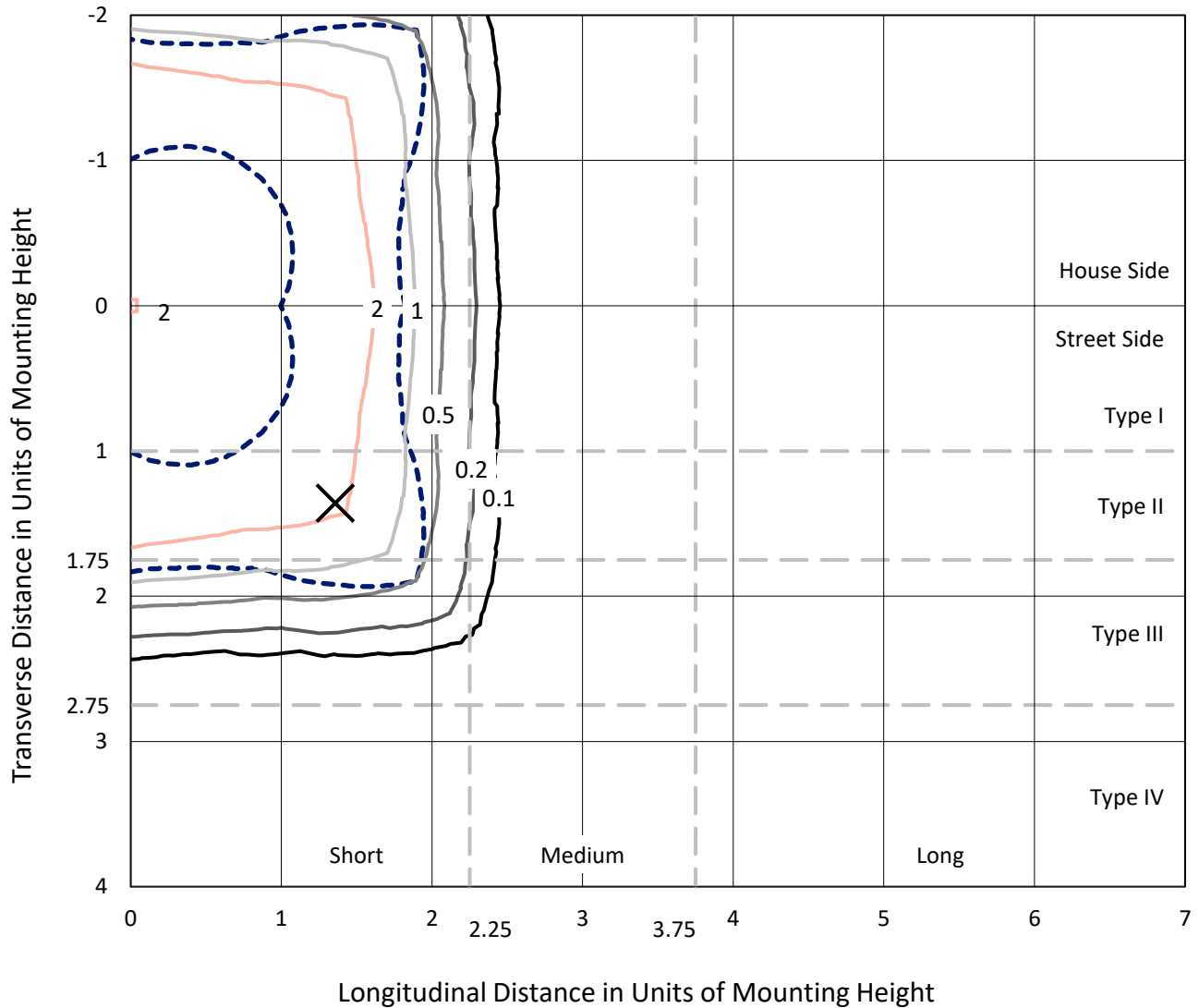
Input Watts (W): 259  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

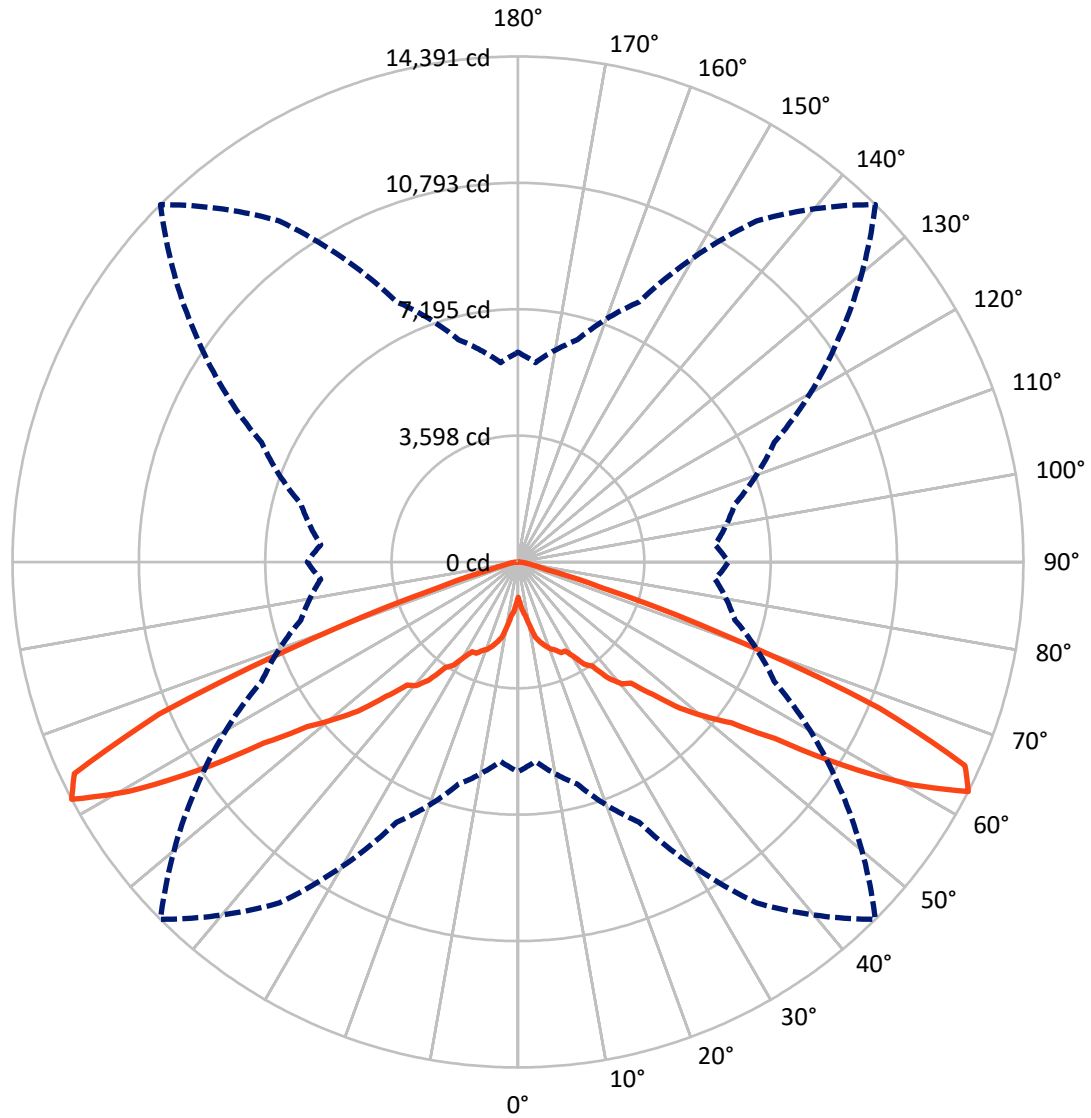
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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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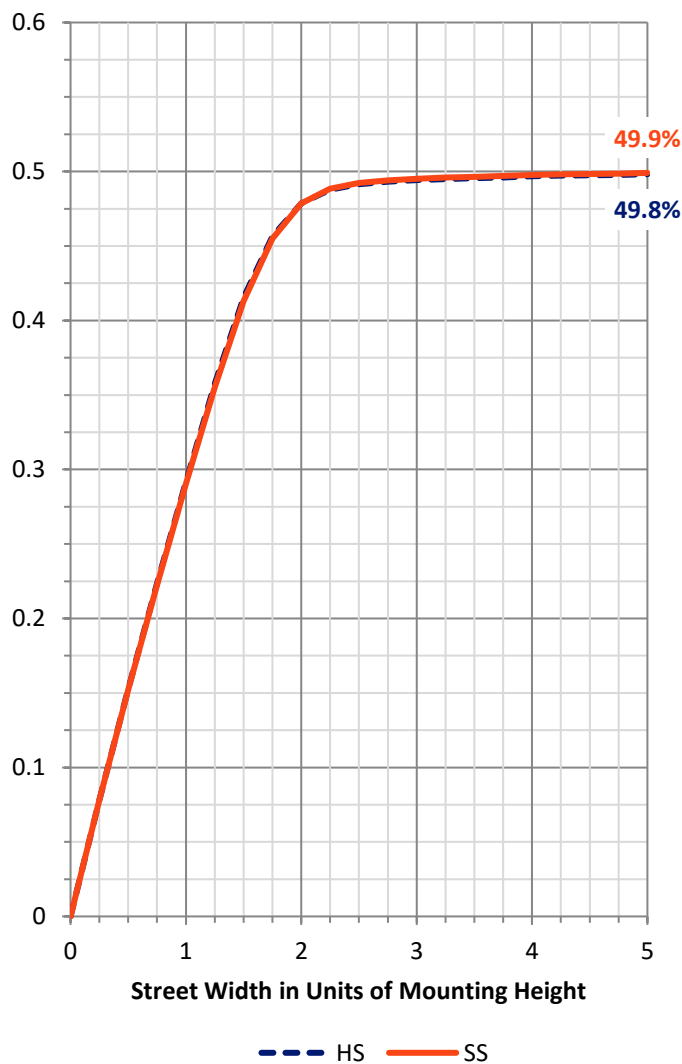
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12258.0	0.0	12258.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12258.0	0.0	12258.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24516.0	0.0	24516.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.1	0.6
10°-20°	666.1	2.7
20°-30°	1396.2	5.7
30°-40°	2630.5	10.7
40°-50°	4774.3	19.5
50°-60°	8067.0	32.9
60°-70°	6030.6	24.6
70°-80°	674.7	2.8
80°-90°	125.5	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°	24516.0	100.0
0°-180°	24516.0	100.0

**Coefficient of Utilization**



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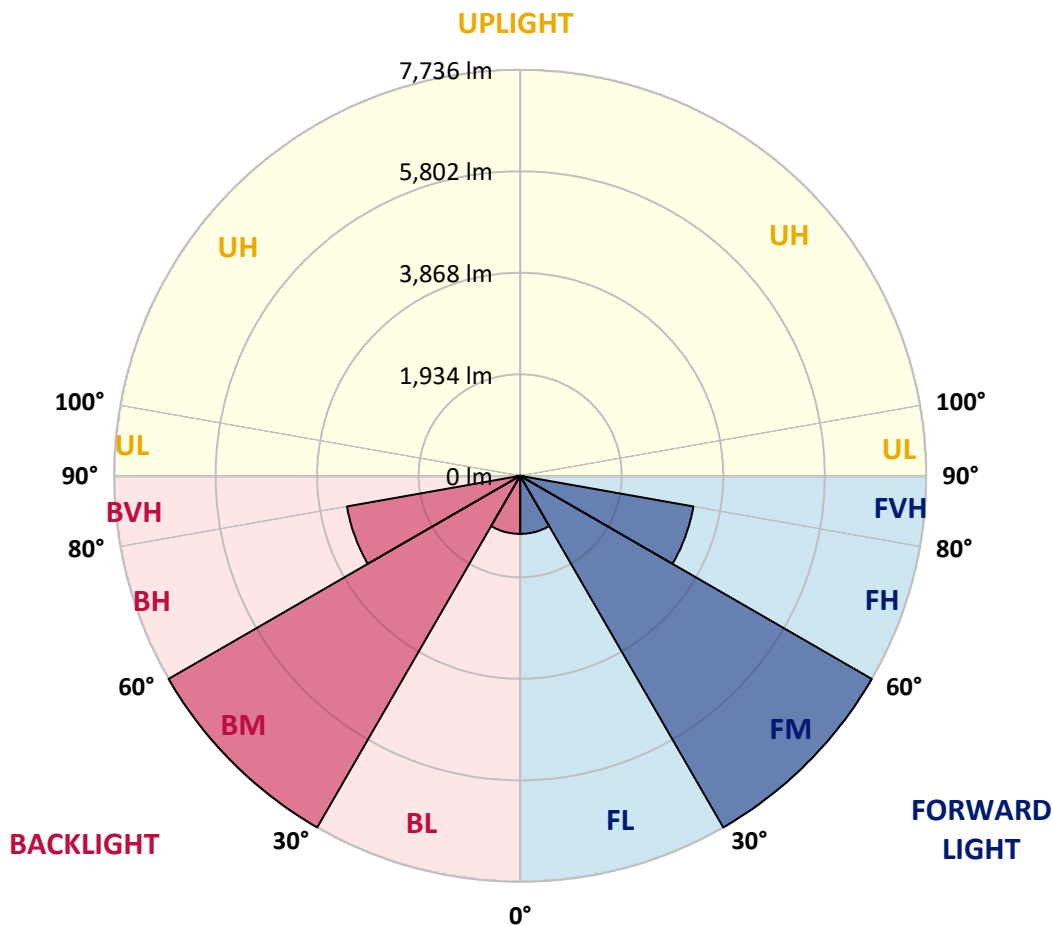
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1106.7	4.5			
FM (30°-60°)	7735.9	31.6			
FH (60°-80°)	3352.6	13.7			G2/5000
FVH (80°-90°)	62.8	0.3			G1/100
BL (0°-30°)	1106.7	4.5	B3/2500		
BM (30°-60°)	7735.9	31.6	B4/8500		
BH (60°-80°)	3352.6	13.7	B4/5000		G2/5000
BVH (80°-90°)	62.8	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°	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4	1002.4
2.5°	1218.8	1196.9	1120.1	1147.0	1174.9	1171.0	1164.0	1143.0	1124.1	1202.9	1218.8
5°	1554.0	1504.1	1477.2	1455.2	1450.2	1396.4	1470.2	1462.2	1487.1	1529.0	1569.9
7.5°	1821.3	1774.4	1703.6	1688.6	1607.8	1548.0	1611.8	1690.6	1715.5	1792.3	1838.2
10°	1919.0	1878.1	1891.1	1824.3	1820.3	1837.2	1823.3	1841.2	1907.0	1898.1	1932.0
12.5°	2138.4	2145.4	2103.5	2086.6	2120.5	2194.3	2131.5	2109.5	2093.6	2161.4	2182.3
15°	2343.9	2384.8	2316.0	2305.0	2291.0	2359.9	2292.0	2325.0	2353.9	2367.8	2359.9
17.5°	2635.1	2637.1	2560.3	2437.7	2483.5	2505.5	2475.6	2418.7	2555.4	2624.2	2628.2
20°	2826.7	2833.6	2682.0	2490.5	2620.2	2640.1	2625.2	2506.5	2688.0	2802.7	2797.7
22.5°	3033.1	3009.2	2803.7	2664.1	2710.0	2721.9	2690.0	2675.0	2802.7	3011.2	2980.3
25°	3171.8	3215.6	3011.2	2921.4	2882.5	2854.6	2895.5	2903.5	3034.1	3223.6	3118.9
27.5°	3502.9	3427.1	3106.9	3140.8	3058.0	2869.5	3049.1	3147.8	3119.9	3443.0	3521.8
30°	3797.1	3799.1	3350.3	3415.1	3261.5	3108.9	3303.4	3446.0	3411.1	3825.1	3750.2
32.5°	4173.2	4187.1	3770.2	3596.6	3492.9	3464.0	3440.1	3597.6	3815.1	4150.2	4157.2
35°	4579.1	4698.8	4132.3	3949.7	3773.2	3645.5	3783.2	4001.6	4143.2	4678.8	4584.1
37.5°	5370.0	5168.6	4704.8	4361.7	4249.0	4198.1	4270.9	4397.6	4703.8	5165.6	5328.1
40°	5837.8	5782.0	5150.6	4863.4	4428.5	4564.1	4524.2	4871.3	5124.7	5813.9	5828.8
42.5°	6553.0	6271.7	5704.2	5339.1	4948.1	4712.7	4962.1	5427.9	5734.1	6316.6	6591.9
45°	7118.5	6757.4	6319.6	6042.3	5548.6	5374.0	5463.8	6060.2	6444.2	6844.2	7206.3
47.5°	7743.9	7352.9	6915.0	6422.3	5940.6	6224.8	6066.2	6590.9	6965.9	7539.4	7878.5
50°	8529.8	8096.9	7536.4	7129.5	6810.3	6910.0	6885.1	7259.1	7721.9	8244.6	8629.6
52.5°	9395.6	8905.8	8365.3	7987.2	7852.6	7605.2	7928.4	8082.0	8423.1	8901.9	9353.7
55°	10001.0	9511.3	9184.1	9305.8	9269.9	8872.9	9156.2	9172.2	9007.6	9180.1	9634.9
57.5°	9907.2	9439.5	9394.6	9854.4	10541.6	10925.6	10487.7	9546.2	8929.8	8849.0	9330.7
60°	8662.5	8262.5	8673.4	9710.8	11712.5	12881.5	11195.9	9263.9	8248.6	7828.6	8293.4
62.5°	5969.5	5699.2	6551.0	8172.8	11853.2	14390.6	11170.0	8050.1	6397.4	5635.3	5996.4
65°	2829.6	2731.9	3451.0	5181.5	9873.3	13987.6	9758.6	5446.8	3682.4	2941.4	3023.1
67.5°	1064.2	1015.4	1266.7	2289.0	6218.8	11094.2	6559.9	2687.0	1424.3	1107.1	1145.0
70°	604.4	569.5	602.4	834.8	2503.5	6283.7	2829.6	921.6	605.4	551.6	587.5
72.5°	475.8	448.8	453.8	504.7	863.8	2466.6	915.6	525.6	439.9	417.9	449.8
75°	393.0	369.0	368.0	396.0	503.7	800.9	517.7	402.0	356.1	340.1	366.0
77.5°	312.2	298.2	302.2	324.2	361.1	447.8	375.0	325.2	292.2	273.3	291.2
80°	228.4	226.4	242.4	262.3	269.3	301.2	281.3	262.3	233.4	206.5	213.4
82.5°	149.6	150.6	180.5	196.5	193.5	192.5	201.5	200.5	174.5	136.6	136.6
85°	85.8	87.8	110.7	123.7	121.7	96.7	127.7	128.7	111.7	82.8	79.8
87.5°	27.9	34.9	47.9	50.9	48.9	26.9	48.9	53.9	48.9	34.9	30.9
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)