

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: P597091

Luminaire Tested: **MSA-SA4A-835-U-5MQ**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597091  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-6)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4A-835-U-5MQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13766 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

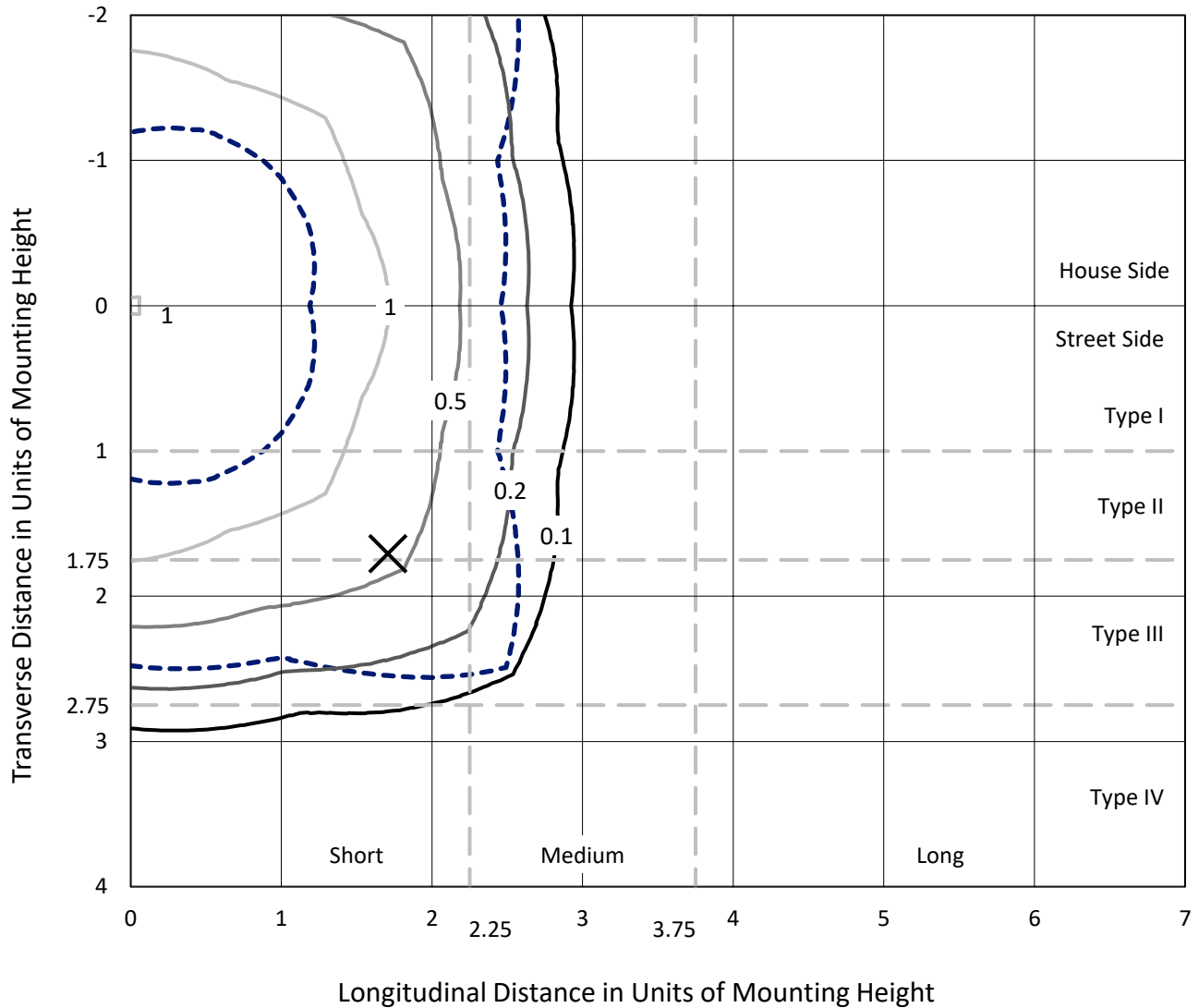
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

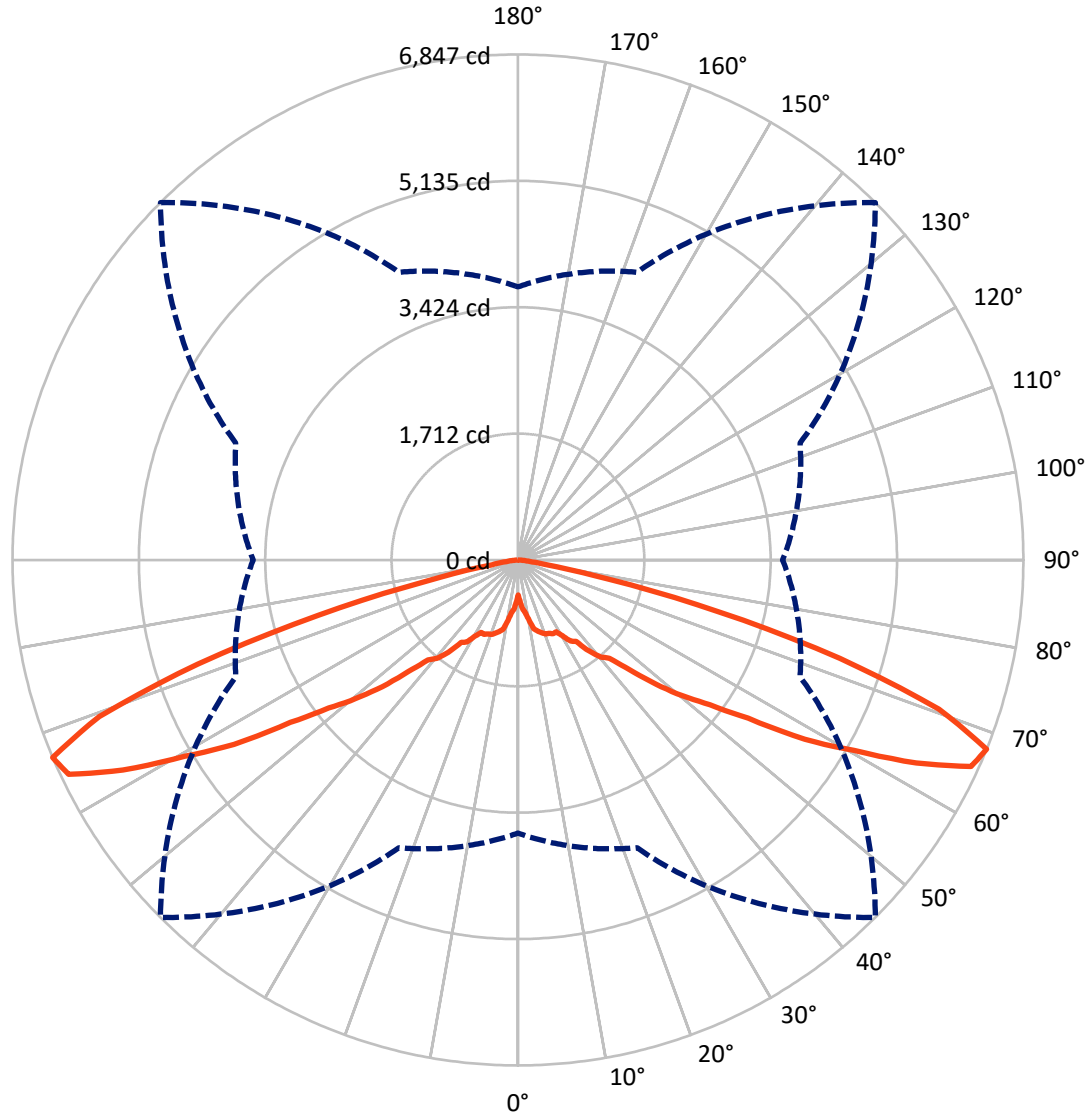
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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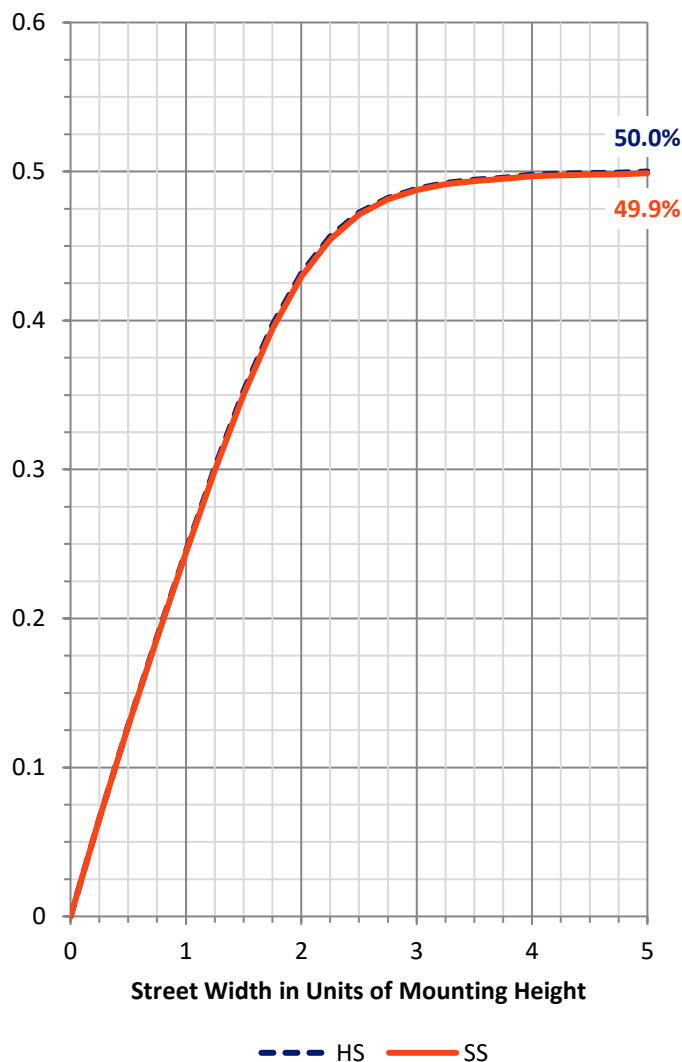
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6883.0   | 0.0    | 6883.0  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 6883.0   | 0.0    | 6883.0  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 13766.0  | 0.0    | 13766.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 70.3    | 0.5       |
| 10°-20°   | 278.1   | 2.0       |
| 20°-30°   | 530.7   | 3.9       |
| 30°-40°   | 970.3   | 7.0       |
| 40°-50°   | 1881.3  | 13.7      |
| 50°-60°   | 3592.6  | 26.1      |
| 60°-70°   | 4854.0  | 35.3      |
| 70°-80°   | 1507.5  | 11.0      |
| 80°-90°   | 81.2    | 0.6       |
| 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°    | 13766.0 | 100.0     |
| 0°-180°   | 13766.0 | 100.0     |

**Coefficient of Utilization**



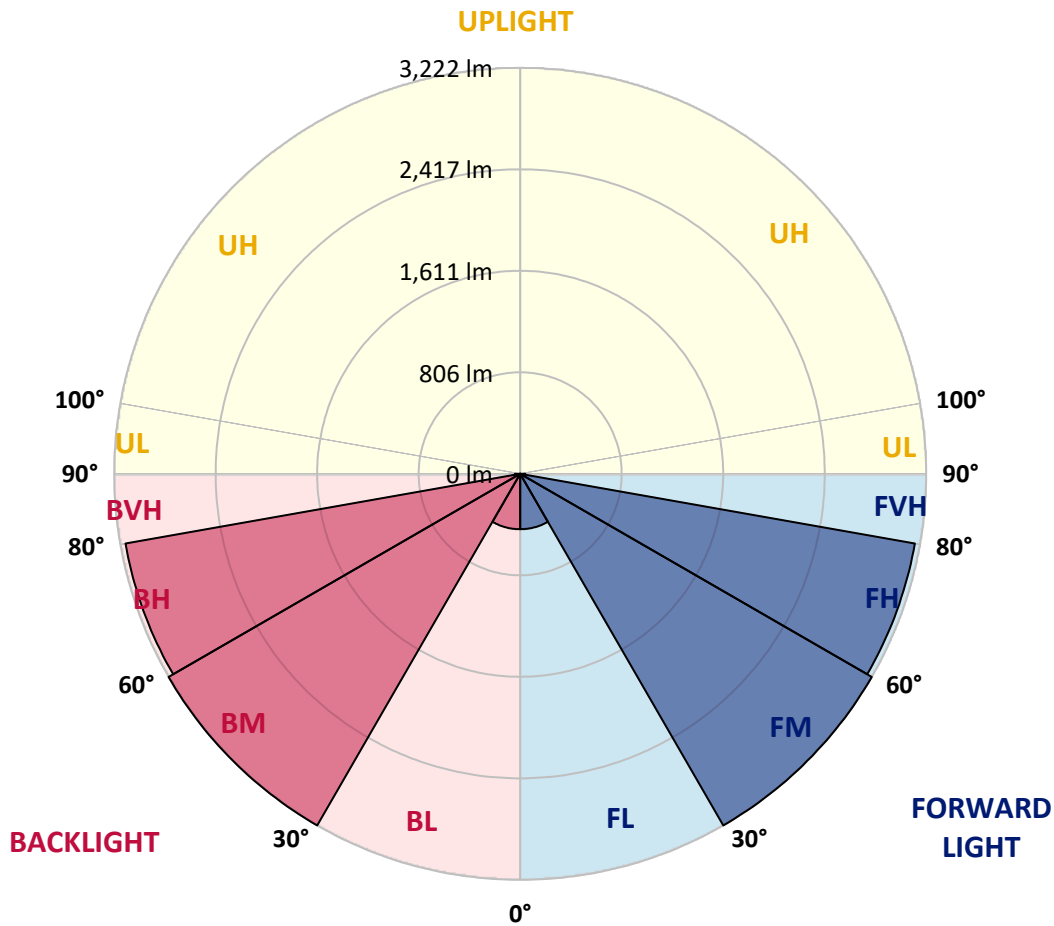
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 439.6  | 3.2       |                         |      |         |
| FM (30°-60°)   | 3222.1 | 23.4      |                         |      |         |
| FH (60°-80°)   | 3180.7 | 23.1      |                         |      | G2/5000 |
| FVH (80°-90°)  | 40.6   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 439.6  | 3.2       | B1/500                  |      |         |
| BM (30°-60°)   | 3222.1 | 23.4      | B3/5000                 |      |         |
| BH (60°-80°)   | 3180.7 | 23.1      | B4/5000                 |      | 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°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 471.7  | 471.7  | 471.7  | 471.7  | 471.7  |
| 2.5°  | 580.8  | 543.5  | 560.5  | 543.5  | 580.8  |
| 5°    | 738.2  | 699.3  | 665.3  | 689.8  | 740.3  |
| 7.5°  | 848.3  | 790.3  | 718.5  | 783.9  | 843.5  |
| 10°   | 866.9  | 834.4  | 831.2  | 830.7  | 864.7  |
| 12.5° | 936.5  | 914.7  | 958.3  | 916.9  | 938.7  |
| 15°   | 990.8  | 978.6  | 998.2  | 994.0  | 992.9  |
| 17.5° | 1074.8 | 991.8  | 1036.5 | 987.1  | 1072.2 |
| 20°   | 1112.0 | 994.5  | 1069.5 | 988.7  | 1111.5 |
| 22.5° | 1157.8 | 1057.3 | 1079.6 | 1059.9 | 1153.5 |
| 25°   | 1183.8 | 1097.7 | 1105.7 | 1098.7 | 1184.4 |
| 27.5° | 1290.7 | 1187.0 | 1101.9 | 1201.4 | 1310.4 |
| 30°   | 1372.1 | 1245.0 | 1189.2 | 1246.6 | 1382.2 |
| 32.5° | 1489.6 | 1331.7 | 1309.9 | 1353.0 | 1508.2 |
| 35°   | 1635.4 | 1477.4 | 1355.1 | 1477.9 | 1666.2 |
| 37.5° | 1920.9 | 1609.8 | 1566.7 | 1656.6 | 1942.2 |
| 40°   | 2122.5 | 1818.8 | 1726.8 | 1852.3 | 2157.1 |
| 42.5° | 2432.0 | 2053.4 | 1819.9 | 2070.4 | 2485.2 |
| 45°   | 2720.3 | 2337.9 | 2116.7 | 2357.6 | 2759.1 |
| 47.5° | 3025.0 | 2599.0 | 2516.1 | 2623.5 | 3053.7 |
| 50°   | 3385.1 | 2952.7 | 2894.7 | 2980.3 | 3397.3 |
| 52.5° | 3810.0 | 3426.0 | 3254.8 | 3442.0 | 3814.2 |
| 55°   | 4314.7 | 3823.3 | 3785.0 | 3866.9 | 4321.1 |
| 57.5° | 4808.2 | 4338.1 | 4583.8 | 4342.9 | 4722.6 |
| 60°   | 5160.3 | 4812.5 | 5240.6 | 4690.1 | 4970.4 |
| 62.5° | 5182.6 | 5164.0 | 6058.5 | 4956.6 | 4917.2 |
| 65°   | 4699.7 | 5022.0 | 6743.5 | 4859.8 | 4463.6 |
| 67.5° | 3699.4 | 4219.0 | 6847.2 | 4137.0 | 3586.1 |
| 70°   | 2324.6 | 2921.3 | 6053.2 | 3033.5 | 2390.5 |
| 72.5° | 1072.2 | 1574.2 | 4558.3 | 1772.0 | 1133.3 |
| 75°   | 384.0  | 602.6  | 2812.3 | 647.2  | 401.5  |
| 77.5° | 218.0  | 244.1  | 1242.9 | 245.2  | 225.5  |
| 80°   | 140.4  | 152.1  | 359.0  | 160.6  | 136.7  |
| 82.5° | 79.8   | 106.4  | 157.4  | 112.7  | 73.4   |
| 85°   | 43.1   | 67.5   | 69.7   | 69.1   | 43.1   |
| 87.5° | 15.4   | 26.6   | 15.4   | 30.3   | 14.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)