

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: P368117

Luminaire Tested: **MSA-SA3D-750-U-5MQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368117  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3D-750-U-5MQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS  
EACH AND TYPE V MEDIUM OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21439 lumens  
Efficiency: N/A  
Efficacy: 111.7 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): 192  
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

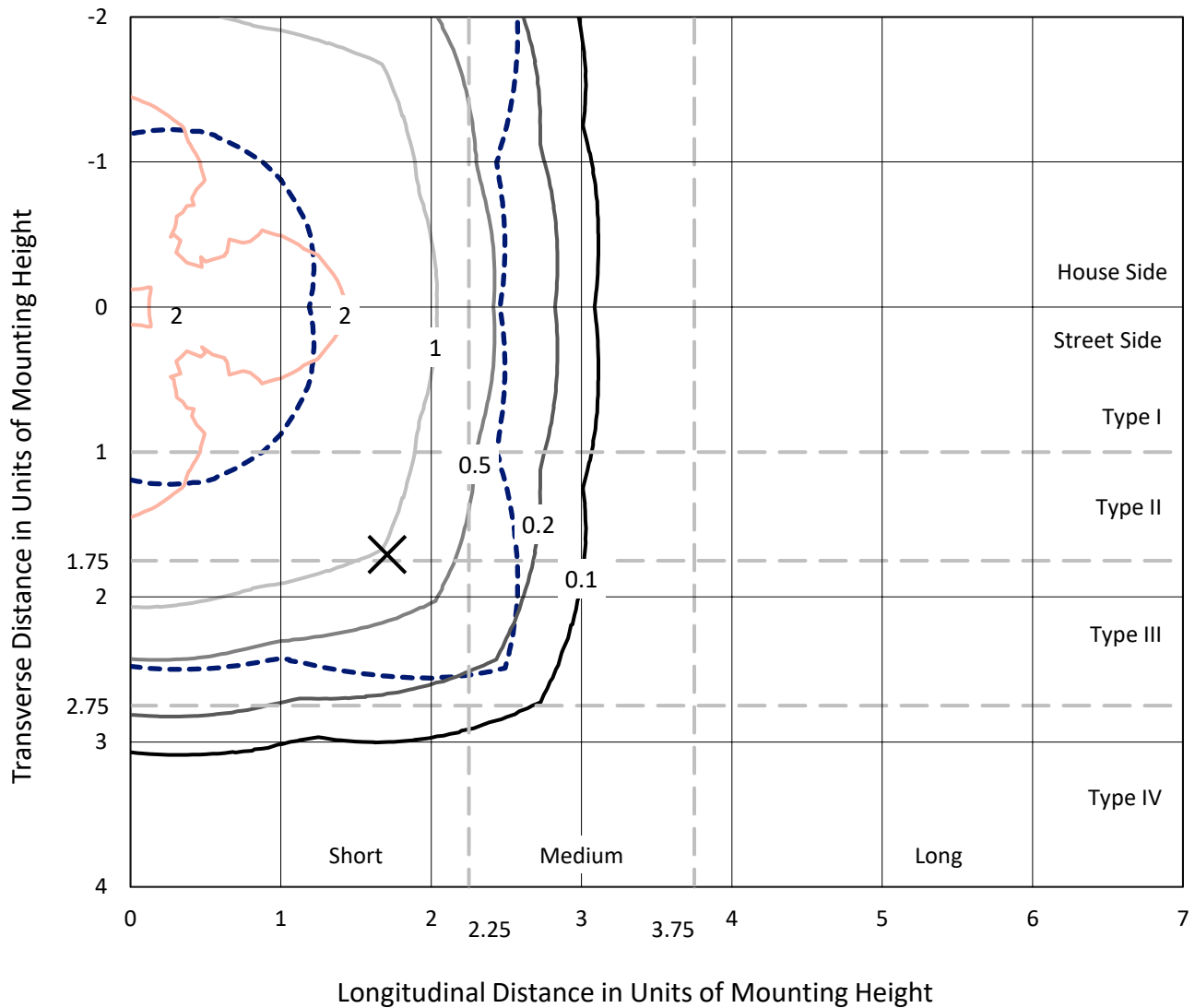


REPORT NUMBER: P368117

CATALOG NUMBER: MSA-SA3D-750-U-5MQ

## Iso-Footcandle Lines of Horizontal Illumination

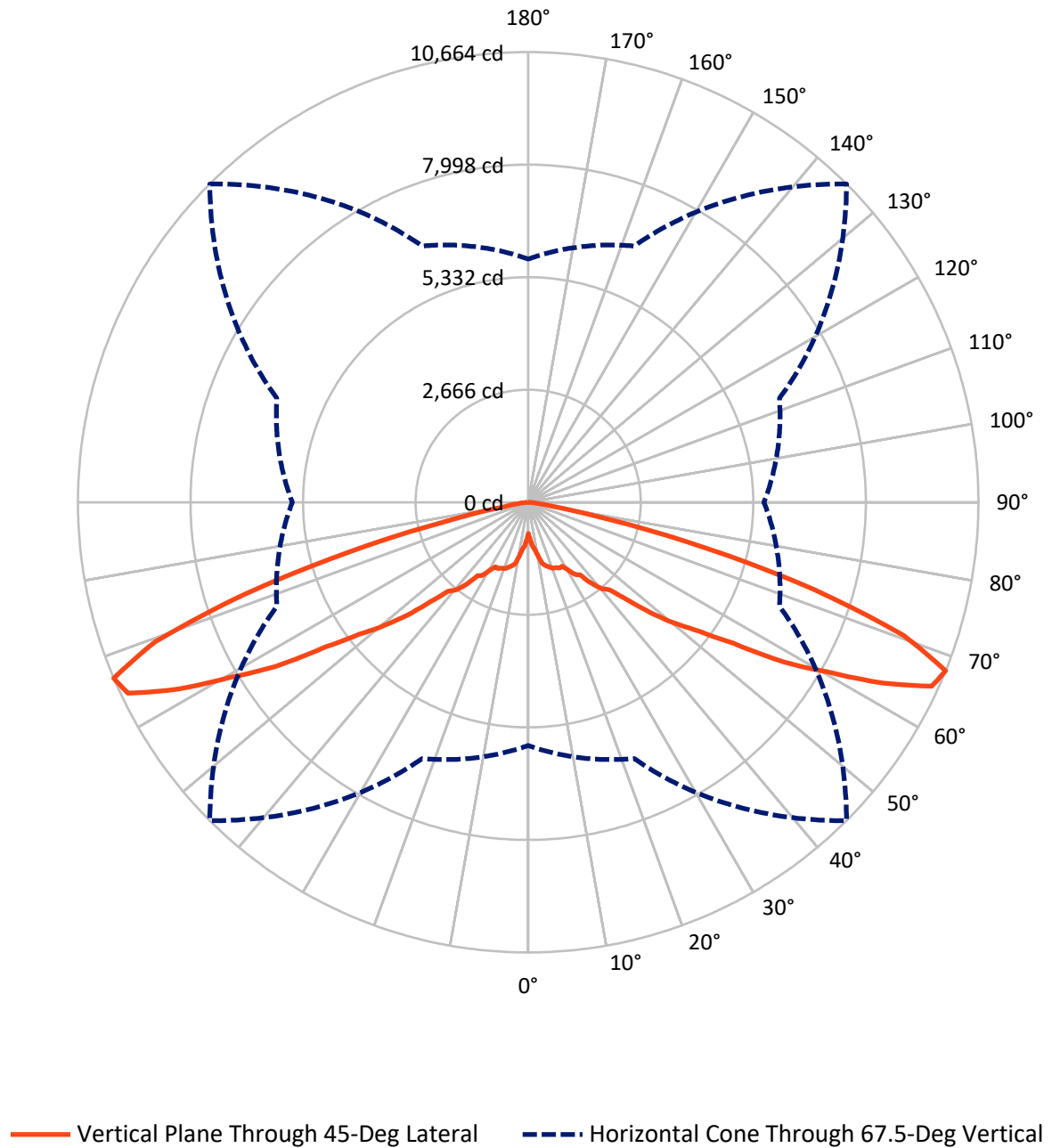
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type V - Short - N/A

REPORT NUMBER: P368117  
CATALOG NUMBER: MSA-SA3D-750-U-5MQ

## Luminous Intensity Polar Plot



REPORT NUMBER: P368117

CATALOG NUMBER: MSA-SA3D-750-U-5MQ

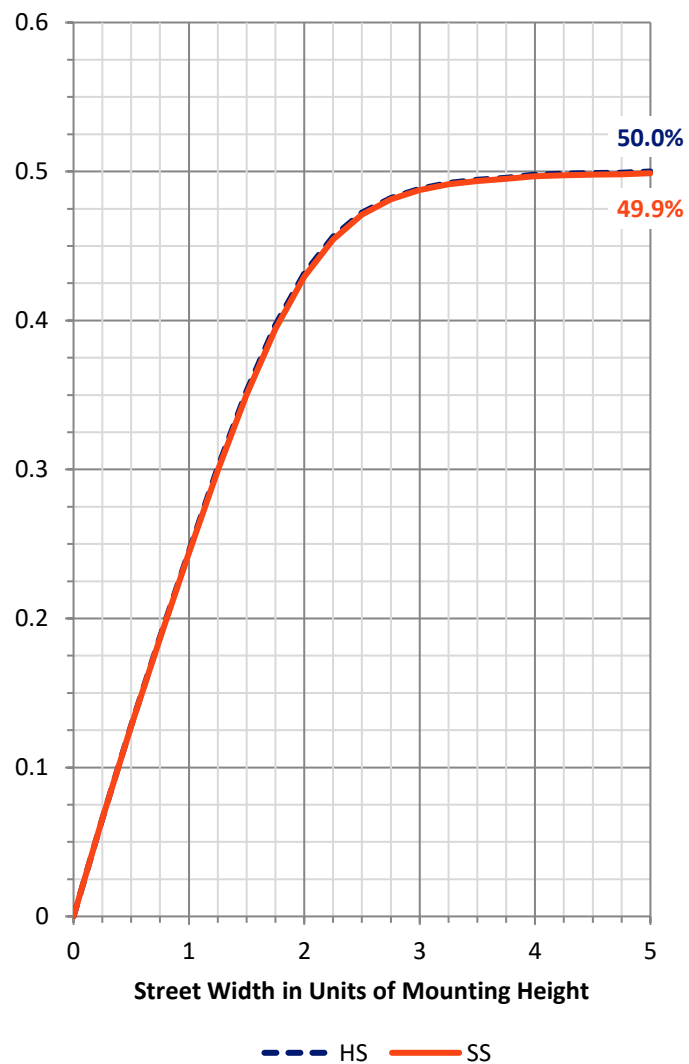
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10719.5  | 0.0    | 10719.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10719.5  | 0.0    | 10719.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 21439.0  | 0.0    | 21439.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 109.6   | 0.5       |
| 10°-20°   | 433.2   | 2.0       |
| 20°-30°   | 826.5   | 3.9       |
| 30°-40°   | 1511.1  | 7.0       |
| 40°-50°   | 2929.9  | 13.7      |
| 50°-60°   | 5595.1  | 26.1      |
| 60°-70°   | 7559.5  | 35.3      |
| 70°-80°   | 2347.7  | 11.0      |
| 80°-90°   | 126.5   | 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°    | 21439.0 | 100.0     |
| 0°-180°   | 21439.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P368117

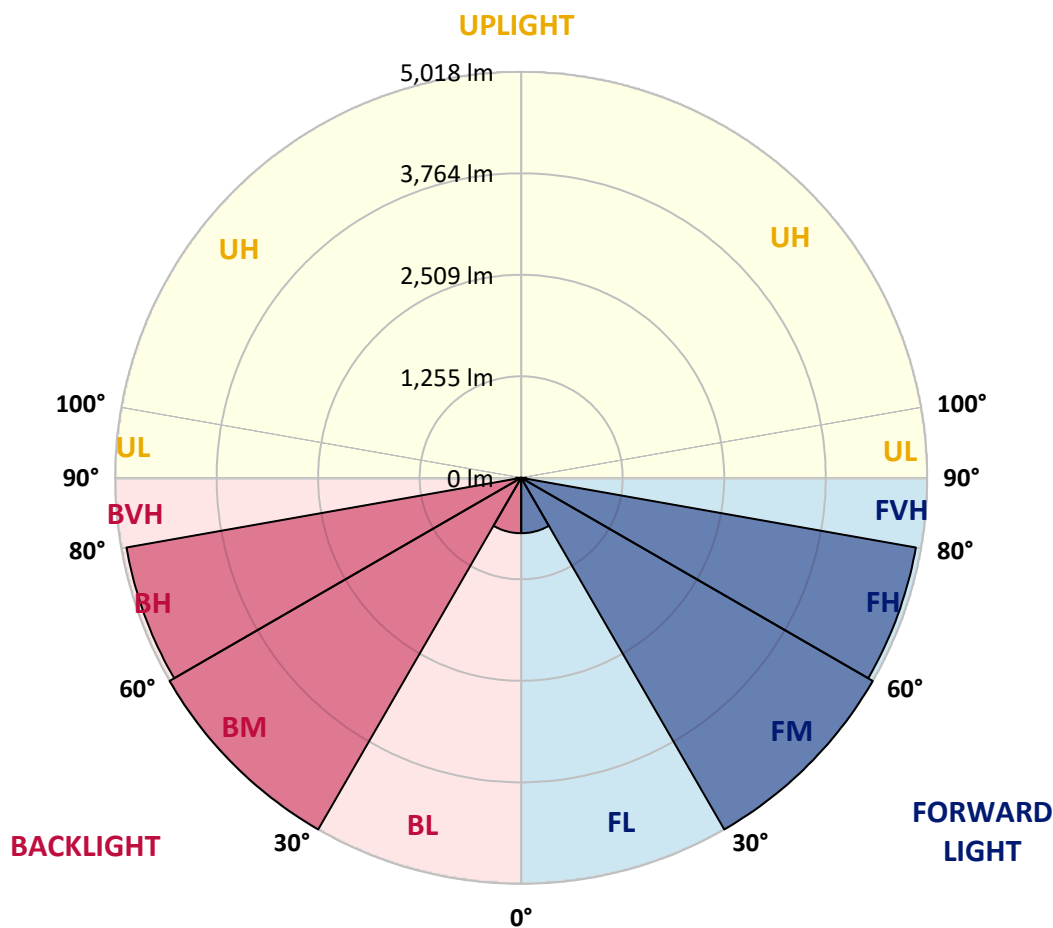
CATALOG NUMBER: MSA-SA3D-750-U-5MQ

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 684.6  | 3.2       |                         |      |         |
| FM   | (30°-60°)   | 5018.0 | 23.4      |                         |      |         |
| FH   | (60°-80°)   | 4953.6 | 23.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 63.2   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 684.6  | 3.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 5018.0 | 23.4      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 4953.6 | 23.1      | B4/5000                 |      | G2/5000 |
| BVH  | (80°-90°)   | 63.2   | 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



REPORT NUMBER: P368117

CATALOG NUMBER: MSA-SA3D-750-U-5MQ

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°     | 67.5°  | 90°    |
|-------|--------|--------|---------|--------|--------|
| 0°    | 734.7  | 734.7  | 734.7   | 734.7  | 734.7  |
| 2.5°  | 904.5  | 846.5  | 873.0   | 846.5  | 904.5  |
| 5°    | 1149.6 | 1089.2 | 1036.1  | 1074.2 | 1152.9 |
| 7.5°  | 1321.1 | 1230.8 | 1119.0  | 1220.8 | 1313.6 |
| 10°   | 1350.1 | 1299.5 | 1294.6  | 1293.7 | 1346.7 |
| 12.5° | 1458.6 | 1424.6 | 1492.5  | 1427.9 | 1461.9 |
| 15°   | 1543.0 | 1524.0 | 1554.6  | 1548.0 | 1546.4 |
| 17.5° | 1673.9 | 1544.7 | 1614.3  | 1537.2 | 1669.8 |
| 20°   | 1731.9 | 1548.8 | 1665.6  | 1539.7 | 1731.1 |
| 22.5° | 1803.1 | 1646.6 | 1681.4  | 1650.7 | 1796.5 |
| 25°   | 1843.7 | 1709.5 | 1721.9  | 1711.2 | 1844.5 |
| 27.5° | 2010.2 | 1848.7 | 1716.1  | 1871.0 | 2040.8 |
| 30°   | 2136.9 | 1938.9 | 1852.0  | 1941.4 | 2152.6 |
| 32.5° | 2319.9 | 2073.9 | 2040.0  | 2107.1 | 2348.9 |
| 35°   | 2546.9 | 2300.9 | 2110.4  | 2301.7 | 2594.9 |
| 37.5° | 2991.7 | 2507.1 | 2440.0  | 2580.0 | 3024.8 |
| 40°   | 3305.6 | 2832.6 | 2689.3  | 2884.8 | 3359.4 |
| 42.5° | 3787.6 | 3197.9 | 2834.3  | 3224.4 | 3870.4 |
| 45°   | 4236.5 | 3641.0 | 3296.5  | 3671.7 | 4297.0 |
| 47.5° | 4711.1 | 4047.7 | 3918.5  | 4085.8 | 4755.8 |
| 50°   | 5271.8 | 4598.5 | 4508.2  | 4641.5 | 5290.9 |
| 52.5° | 5933.6 | 5335.6 | 5068.9  | 5360.5 | 5940.2 |
| 55°   | 6719.6 | 5954.3 | 5894.7  | 6022.2 | 6729.6 |
| 57.5° | 7488.2 | 6756.1 | 7138.7  | 6763.5 | 7354.9 |
| 60°   | 8036.6 | 7494.9 | 8161.6  | 7304.4 | 7740.9 |
| 62.5° | 8071.3 | 8042.3 | 9435.5  | 7719.3 | 7658.0 |
| 65°   | 7319.3 | 7821.2 | 10502.3 | 7568.6 | 6951.5 |
| 67.5° | 5761.3 | 6570.5 | 10663.8 | 6443.0 | 5584.9 |
| 70°   | 3620.3 | 4549.6 | 9427.2  | 4724.4 | 3723.0 |
| 72.5° | 1669.8 | 2451.6 | 7099.0  | 2759.7 | 1765.0 |
| 75°   | 598.0  | 938.4  | 4379.8  | 1008.0 | 625.3  |
| 77.5° | 339.6  | 380.2  | 1935.6  | 381.8  | 351.2  |
| 80°   | 218.7  | 236.9  | 559.1   | 250.1  | 212.9  |
| 82.5° | 124.2  | 165.7  | 245.2   | 175.6  | 114.3  |
| 85°   | 67.1   | 105.2  | 108.5   | 107.7  | 67.1   |
| 87.5° | 24.0   | 41.4   | 24.0    | 47.2   | 22.4   |
| 90°   | 0.0    | 0.0    | 0.0     | 0.0    | 0.0    |

(END OF REPORT)