

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: P367963

Luminaire Tested: **MSA-SA3C-740-U-5MQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367963
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-SA3C-740-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: 19609 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

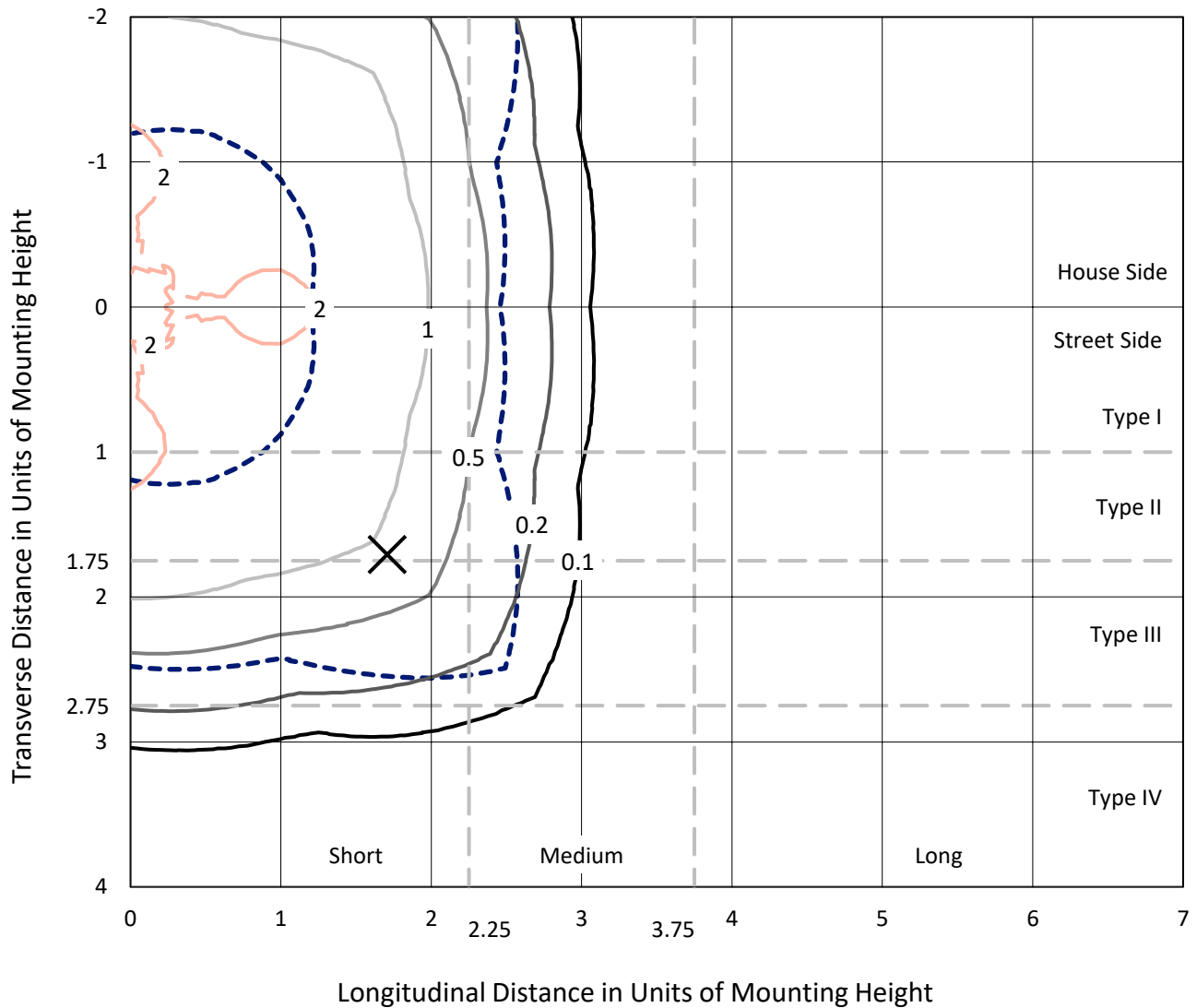
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

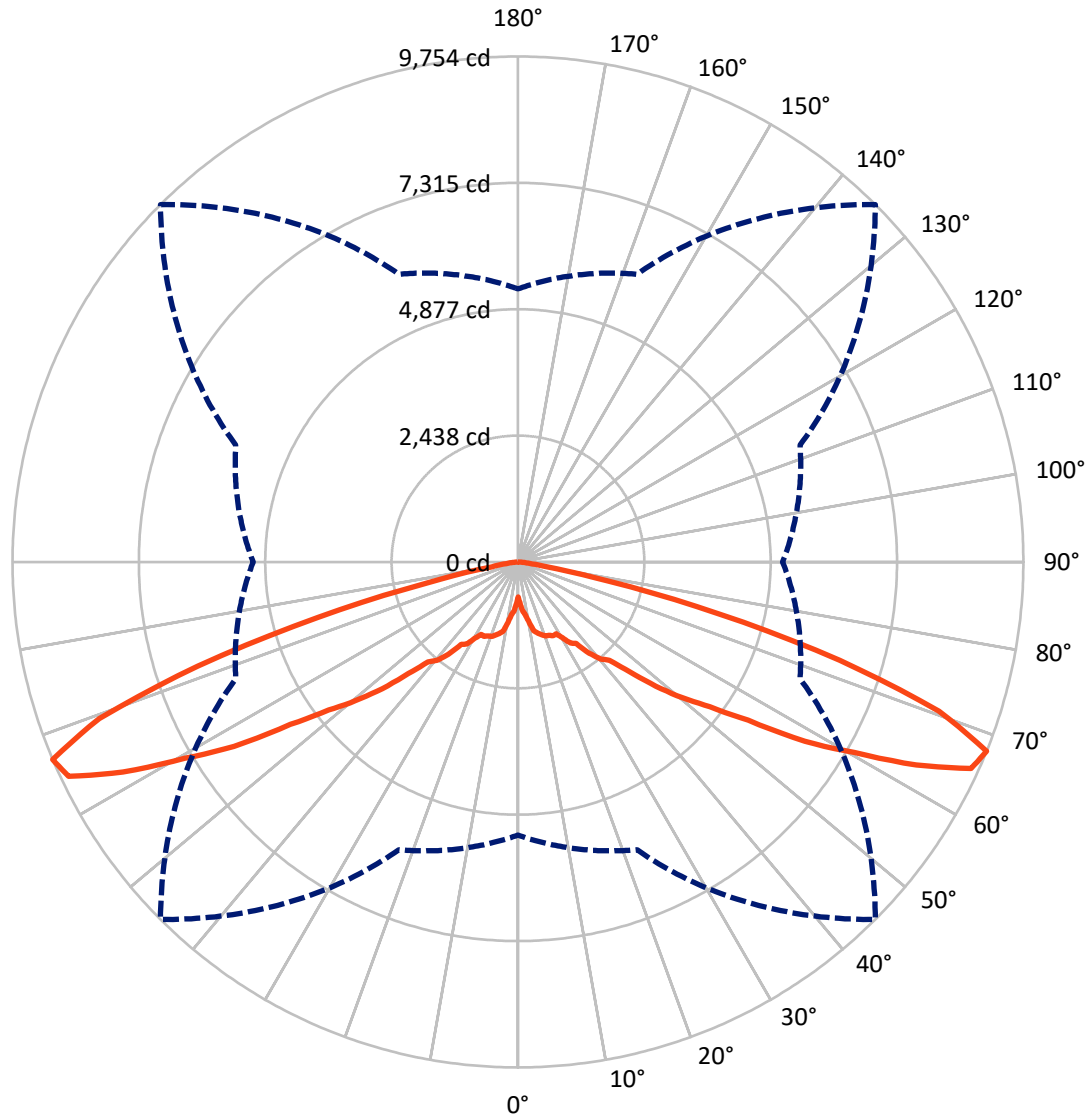
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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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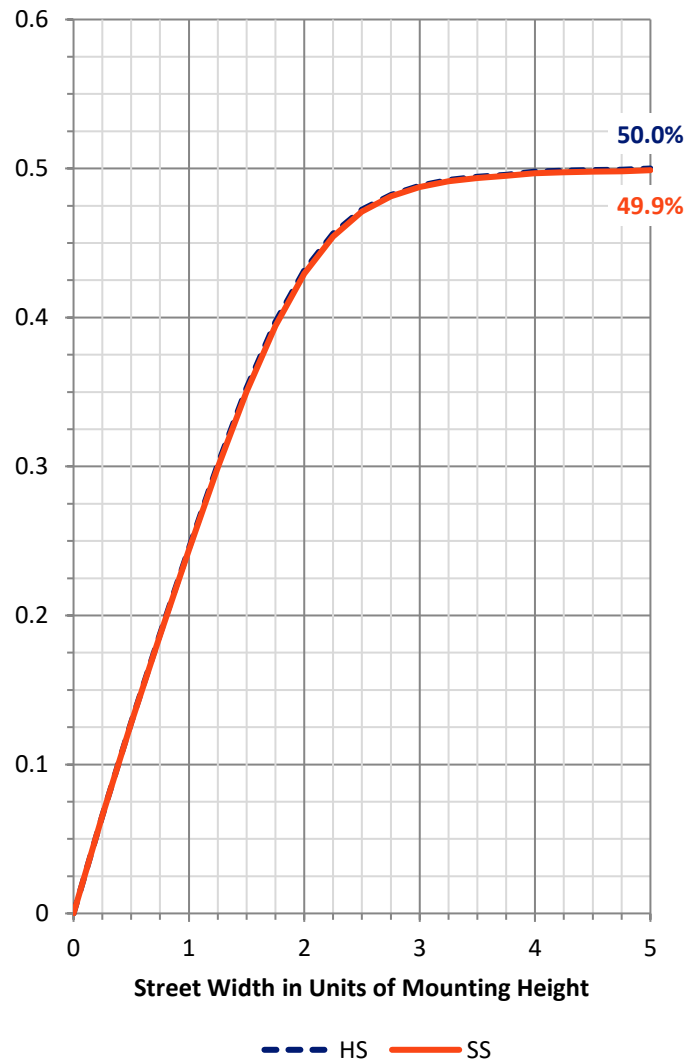
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9804.5 | 0.0 | 9804.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9804.5 | 0.0 | 9804.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 19609.0 | 0.0 | 19609.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 100.2 | 0.5 |
| 10°-20° | 396.2 | 2.0 |
| 20°-30° | 755.9 | 3.9 |
| 30°-40° | 1382.1 | 7.0 |
| 40°-50° | 2679.8 | 13.7 |
| 50°-60° | 5117.5 | 26.1 |
| 60°-70° | 6914.3 | 35.3 |
| 70°-80° | 2147.4 | 11.0 |
| 80°-90° | 115.7 | 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° | 19609.0 | 100.0 |
| 0°-180° | 19609.0 | 100.0 |



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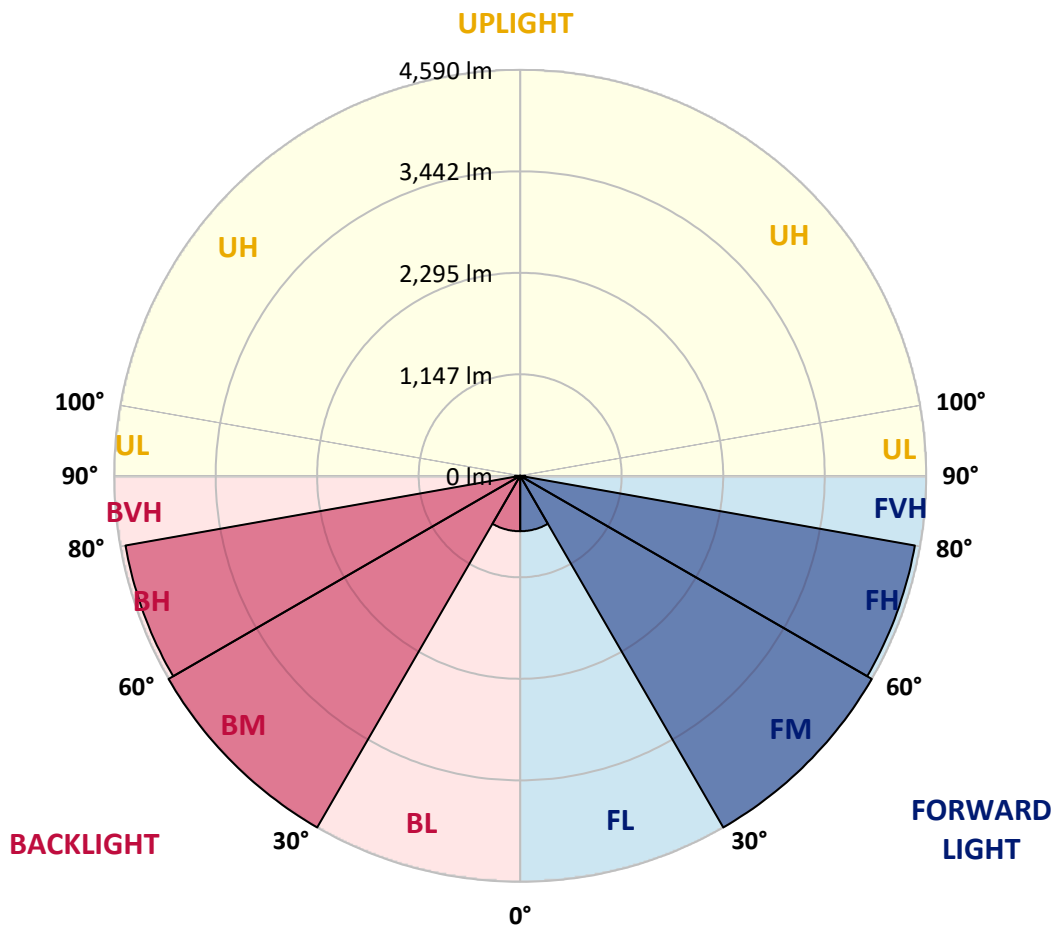
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 626.2 | 3.2 | | | |
| FM (30°-60°) | 4589.7 | 23.4 | | | |
| FH (60°-80°) | 4530.8 | 23.1 | | | G2/5000 |
| FVH (80°-90°) | 57.8 | 0.3 | | | G1/100 |
| BL (0°-30°) | 626.2 | 3.2 | B2/1000 | | |
| BM (30°-60°) | 4589.7 | 23.4 | B3/5000 | | |
| BH (60°-80°) | 4530.8 | 23.1 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 57.8 | 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° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 672.0 | 672.0 | 672.0 | 672.0 | 672.0 |
| 2.5° | 827.3 | 774.2 | 798.5 | 774.2 | 827.3 |
| 5° | 1051.5 | 996.2 | 947.7 | 982.5 | 1054.5 |
| 7.5° | 1208.3 | 1125.7 | 1023.5 | 1116.6 | 1201.5 |
| 10° | 1234.8 | 1188.6 | 1184.1 | 1183.3 | 1231.8 |
| 12.5° | 1334.1 | 1303.0 | 1365.1 | 1306.0 | 1337.1 |
| 15° | 1411.3 | 1393.9 | 1421.9 | 1415.9 | 1414.4 |
| 17.5° | 1531.0 | 1412.8 | 1476.5 | 1406.0 | 1527.2 |
| 20° | 1584.0 | 1416.6 | 1523.4 | 1408.3 | 1583.3 |
| 22.5° | 1649.2 | 1506.0 | 1537.8 | 1509.8 | 1643.1 |
| 25° | 1686.3 | 1563.6 | 1575.0 | 1565.1 | 1687.1 |
| 27.5° | 1838.6 | 1690.9 | 1569.7 | 1711.3 | 1866.6 |
| 30° | 1954.5 | 1773.4 | 1693.9 | 1775.7 | 1968.9 |
| 32.5° | 2121.9 | 1896.9 | 1865.9 | 1927.2 | 2148.4 |
| 35° | 2329.5 | 2104.5 | 1930.3 | 2105.2 | 2373.4 |
| 37.5° | 2736.3 | 2293.1 | 2231.8 | 2359.8 | 2766.6 |
| 40° | 3023.4 | 2590.8 | 2459.8 | 2638.6 | 3072.6 |
| 42.5° | 3464.3 | 2924.9 | 2592.4 | 2949.2 | 3540.1 |
| 45° | 3874.9 | 3330.2 | 3015.1 | 3358.2 | 3930.2 |
| 47.5° | 4309.0 | 3702.2 | 3584.0 | 3737.0 | 4349.9 |
| 50° | 4821.8 | 4205.9 | 4123.4 | 4245.3 | 4839.3 |
| 52.5° | 5427.1 | 4880.2 | 4636.2 | 4902.9 | 5433.2 |
| 55° | 6146.1 | 5446.1 | 5391.5 | 5508.2 | 6155.1 |
| 57.5° | 6849.1 | 6179.4 | 6529.4 | 6186.2 | 6727.1 |
| 60° | 7350.6 | 6855.1 | 7465.0 | 6680.9 | 7080.1 |
| 62.5° | 7382.4 | 7355.9 | 8630.1 | 7060.4 | 7004.4 |
| 65° | 6694.5 | 7153.6 | 9605.8 | 6922.5 | 6358.2 |
| 67.5° | 5269.6 | 6009.7 | 9753.5 | 5893.0 | 5108.2 |
| 70° | 3311.3 | 4161.3 | 8622.5 | 4321.1 | 3405.2 |
| 72.5° | 1527.2 | 2242.4 | 6493.0 | 2524.2 | 1614.4 |
| 75° | 547.0 | 858.3 | 4006.0 | 921.9 | 572.0 |
| 77.5° | 310.6 | 347.7 | 1770.4 | 349.2 | 321.2 |
| 80° | 200.0 | 216.7 | 511.4 | 228.8 | 194.7 |
| 82.5° | 113.6 | 151.5 | 224.2 | 160.6 | 104.5 |
| 85° | 61.4 | 96.2 | 99.2 | 98.5 | 61.4 |
| 87.5° | 22.0 | 37.9 | 22.0 | 43.2 | 20.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)