

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: P367501

Luminaire Tested: **MSA-SA2C-830-U-5MQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367501
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-SA2C-830-U-5MQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10558 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G2

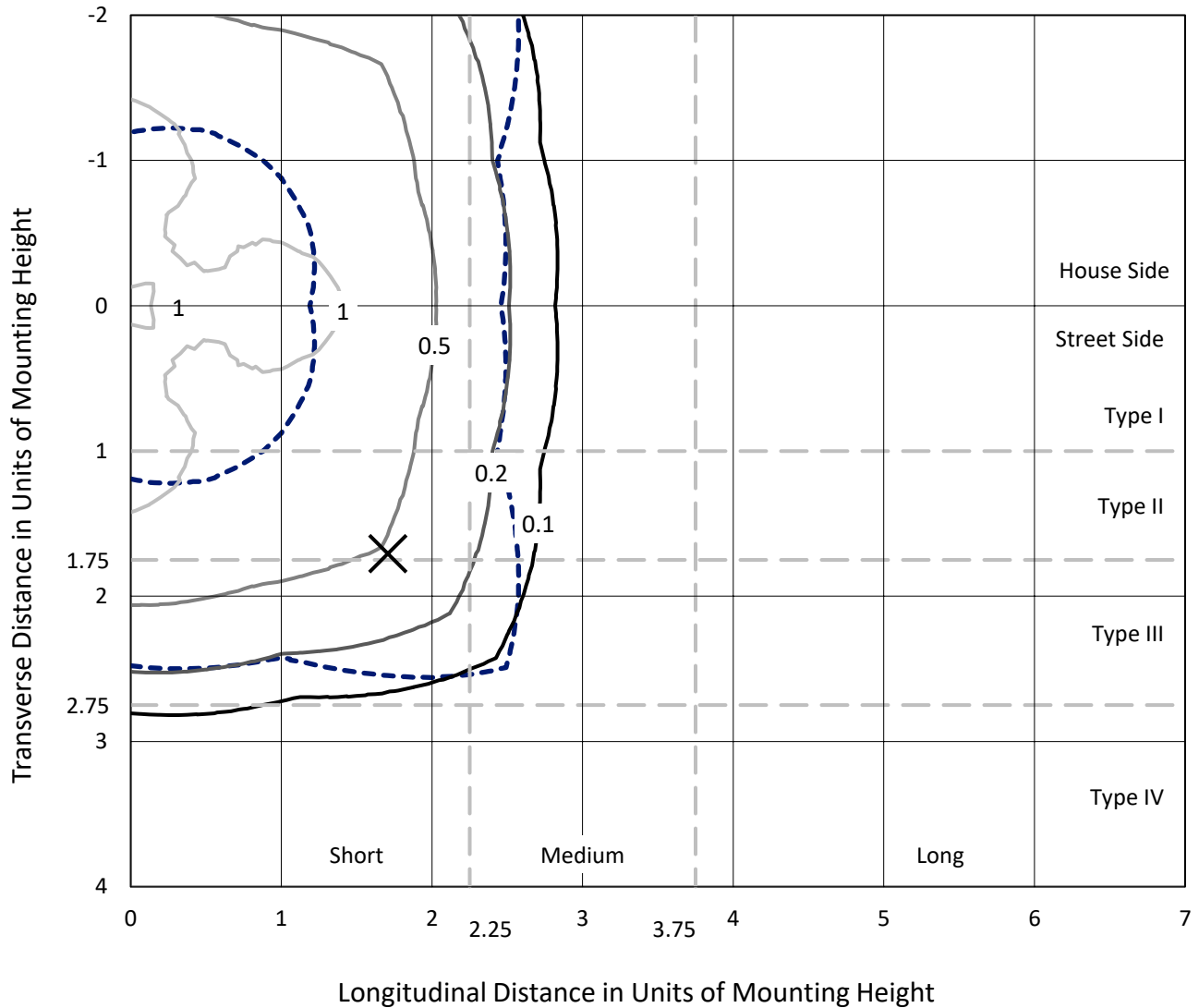
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

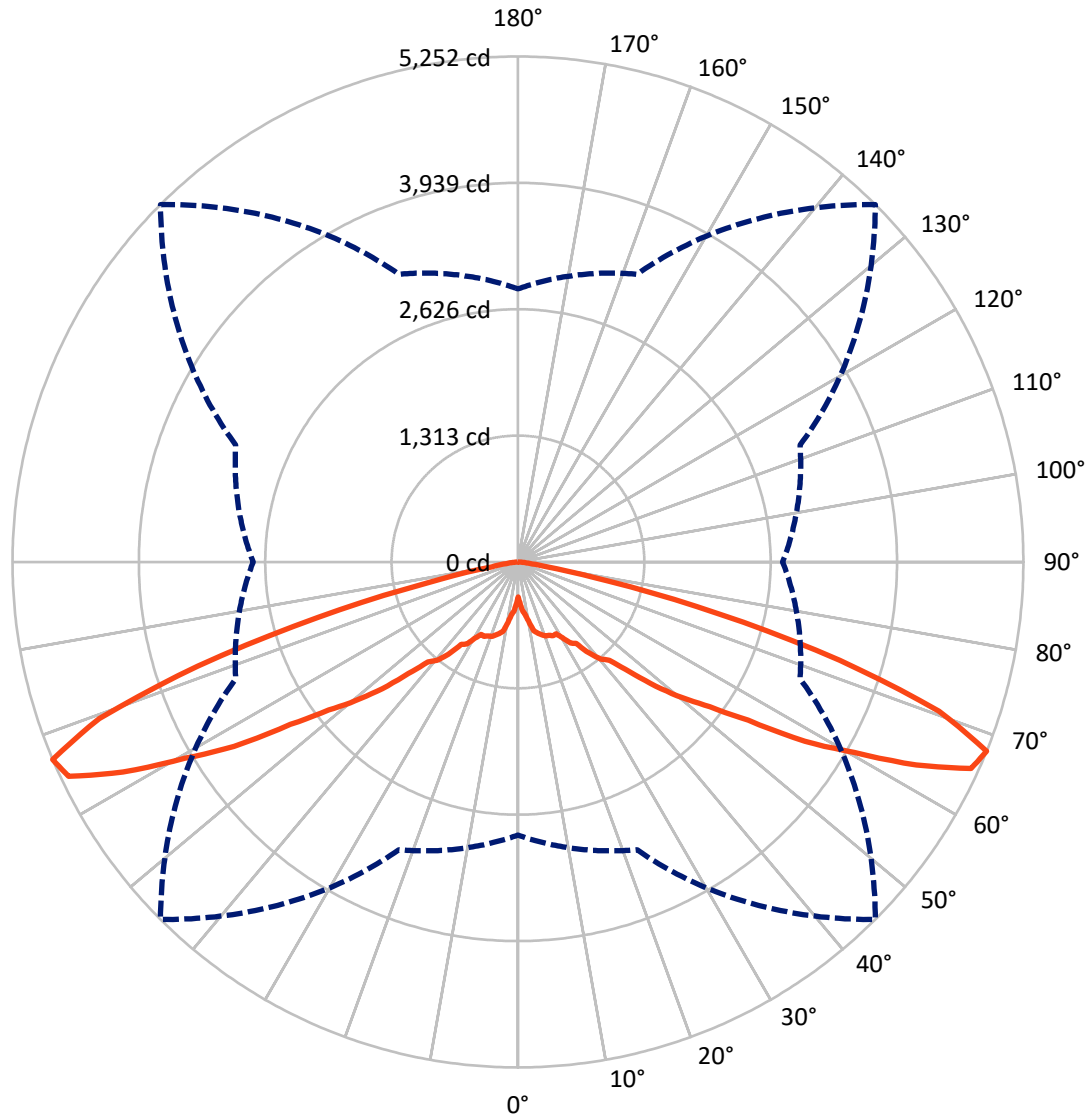
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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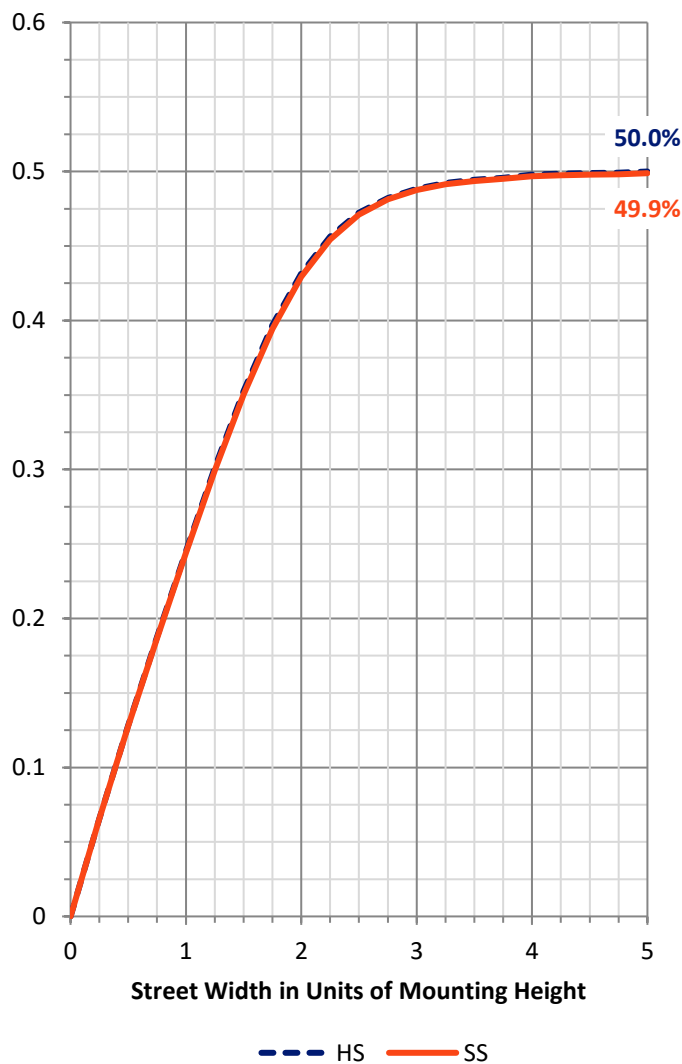
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5279.0 | 0.0 | 5279.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5279.0 | 0.0 | 5279.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10558.0 | 0.0 | 10558.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 54.0 | 0.5 |
| 10°-20° | 213.3 | 2.0 |
| 20°-30° | 407.0 | 3.9 |
| 30°-40° | 744.2 | 7.0 |
| 40°-50° | 1442.9 | 13.7 |
| 50°-60° | 2755.4 | 26.1 |
| 60°-70° | 3722.8 | 35.3 |
| 70°-80° | 1156.2 | 11.0 |
| 80°-90° | 62.3 | 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° | 10558.0 | 100.0 |
| 0°-180° | 10558.0 | 100.0 |

Coefficient of Utilization



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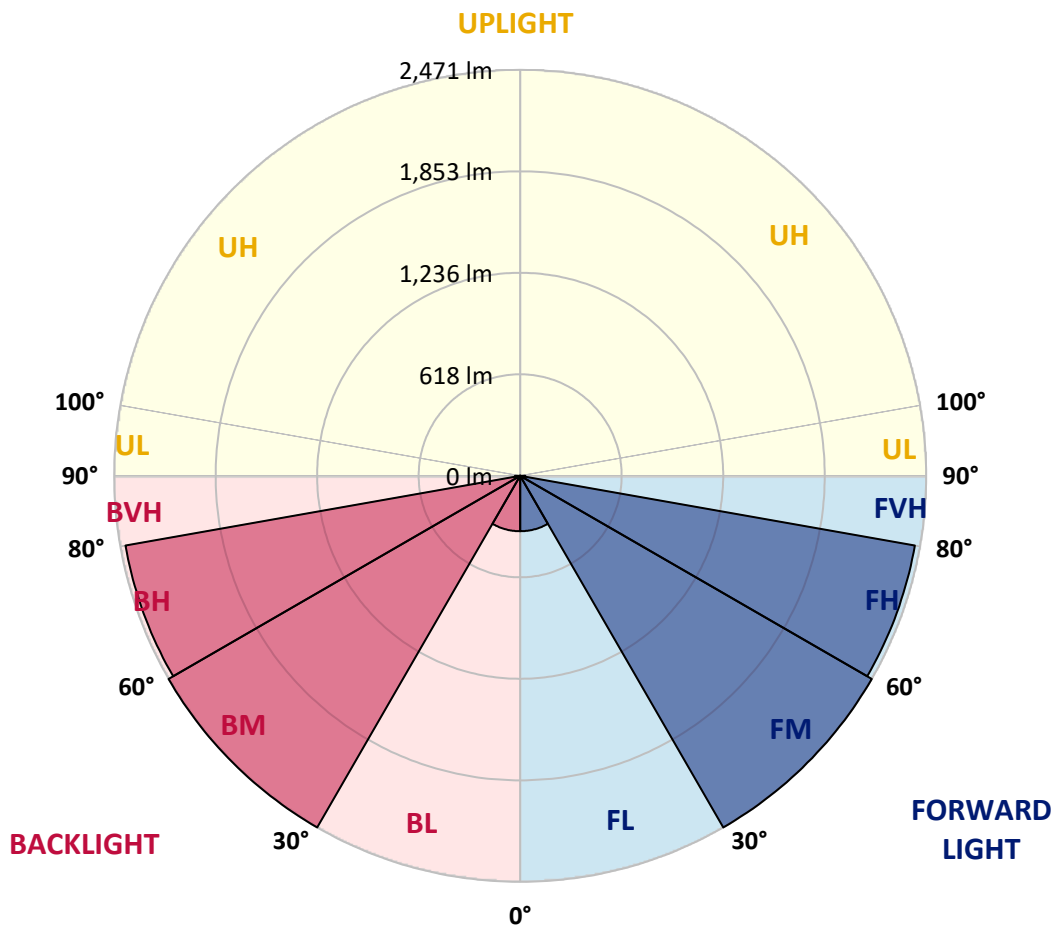
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 337.1 | 3.2 | | | |
| FM (30°-60°) | 2471.2 | 23.4 | | | |
| FH (60°-80°) | 2439.5 | 23.1 | | | G2/5000 |
| FVH (80°-90°) | 31.1 | 0.3 | | | G1/100 |
| BL (0°-30°) | 337.1 | 3.2 | B1/500 | | |
| BM (30°-60°) | 2471.2 | 23.4 | B2/2500 | | |
| BH (60°-80°) | 2439.5 | 23.1 | B3/2500 | | G2/5000 |
| BVH (80°-90°) | 31.1 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 361.8 | 361.8 | 361.8 | 361.8 | 361.8 |
| 2.5° | 445.4 | 416.9 | 429.9 | 416.9 | 445.4 |
| 5° | 566.1 | 536.4 | 510.3 | 529.0 | 567.8 |
| 7.5° | 650.6 | 606.1 | 551.1 | 601.2 | 646.9 |
| 10° | 664.9 | 640.0 | 637.5 | 637.1 | 663.2 |
| 12.5° | 718.3 | 701.6 | 735.0 | 703.2 | 719.9 |
| 15° | 759.9 | 750.5 | 765.6 | 762.3 | 761.5 |
| 17.5° | 824.3 | 760.7 | 795.0 | 757.0 | 822.3 |
| 20° | 852.9 | 762.8 | 820.3 | 758.3 | 852.5 |
| 22.5° | 888.0 | 810.9 | 828.0 | 812.9 | 884.7 |
| 25° | 908.0 | 841.9 | 848.0 | 842.7 | 908.4 |
| 27.5° | 989.9 | 910.4 | 845.1 | 921.4 | 1005.0 |
| 30° | 1052.4 | 954.9 | 912.0 | 956.1 | 1060.1 |
| 32.5° | 1142.5 | 1021.4 | 1004.6 | 1037.7 | 1156.8 |
| 35° | 1254.3 | 1133.1 | 1039.3 | 1133.5 | 1277.9 |
| 37.5° | 1473.3 | 1234.7 | 1201.6 | 1270.6 | 1489.6 |
| 40° | 1627.9 | 1395.0 | 1324.4 | 1420.7 | 1654.4 |
| 42.5° | 1865.3 | 1574.9 | 1395.8 | 1587.9 | 1906.1 |
| 45° | 2086.3 | 1793.1 | 1623.4 | 1808.2 | 2116.1 |
| 47.5° | 2320.1 | 1993.3 | 1929.7 | 2012.1 | 2342.1 |
| 50° | 2596.2 | 2264.6 | 2220.1 | 2285.8 | 2605.6 |
| 52.5° | 2922.1 | 2627.6 | 2496.3 | 2639.9 | 2925.4 |
| 55° | 3309.2 | 2932.3 | 2902.9 | 2965.8 | 3314.1 |
| 57.5° | 3687.7 | 3327.1 | 3515.6 | 3330.8 | 3622.0 |
| 60° | 3957.7 | 3691.0 | 4019.3 | 3597.2 | 3812.1 |
| 62.5° | 3974.9 | 3960.6 | 4646.7 | 3801.5 | 3771.3 |
| 65° | 3604.5 | 3851.7 | 5172.0 | 3727.3 | 3423.4 |
| 67.5° | 2837.3 | 3235.8 | 5251.6 | 3173.0 | 2750.4 |
| 70° | 1782.9 | 2240.5 | 4642.6 | 2326.6 | 1833.5 |
| 72.5° | 822.3 | 1207.3 | 3496.0 | 1359.1 | 869.2 |
| 75° | 294.5 | 462.1 | 2156.9 | 496.4 | 308.0 |
| 77.5° | 167.2 | 187.2 | 953.2 | 188.0 | 172.9 |
| 80° | 107.7 | 116.7 | 275.3 | 123.2 | 104.8 |
| 82.5° | 61.2 | 81.6 | 120.7 | 86.5 | 56.3 |
| 85° | 33.0 | 51.8 | 53.4 | 53.0 | 33.0 |
| 87.5° | 11.8 | 20.4 | 11.8 | 23.2 | 11.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)