

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: P366731

Luminaire Tested: **MSA-SA1B-727-U-5MQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366731
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-SA1B-727-U-5MQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4562 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G1

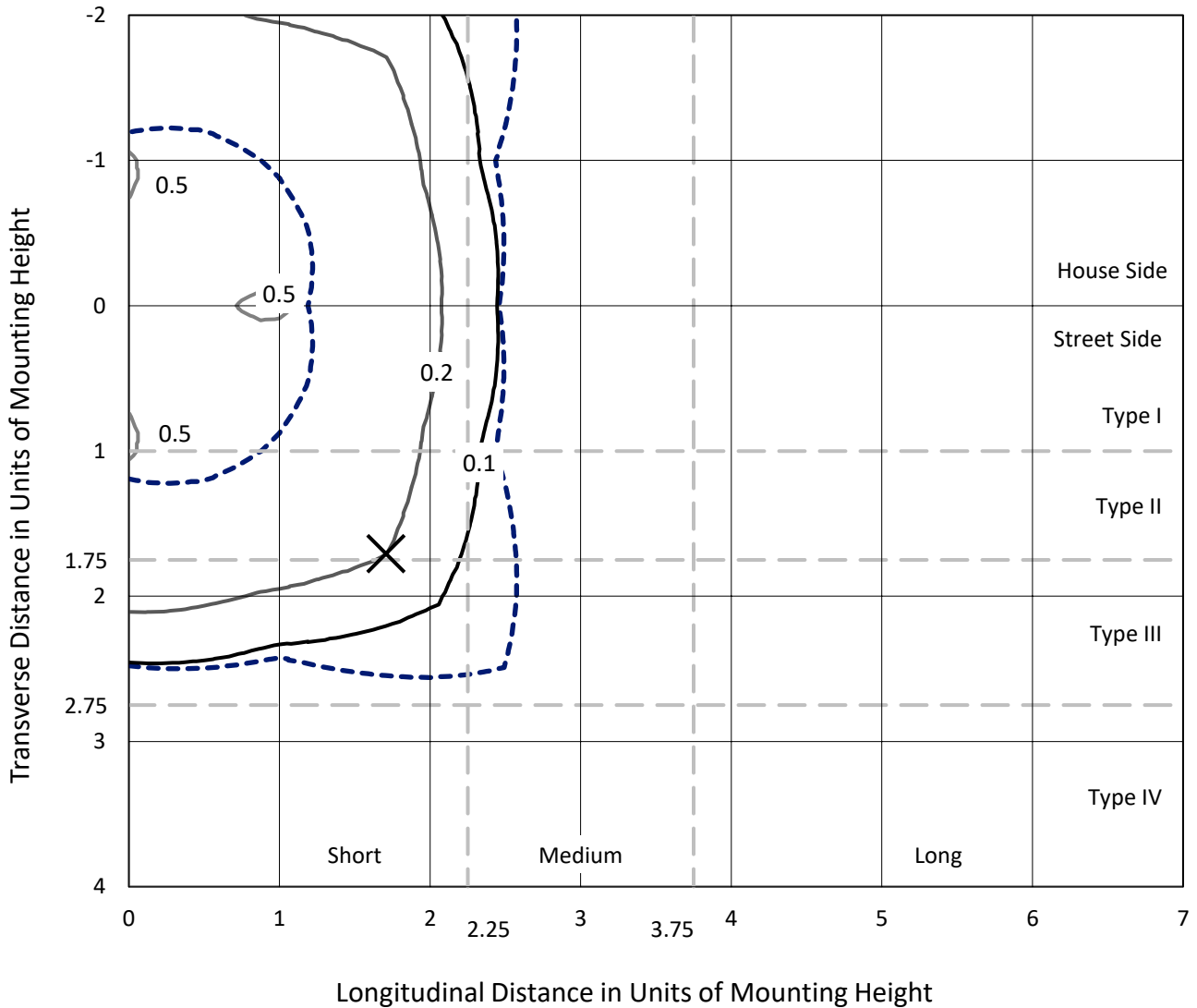
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

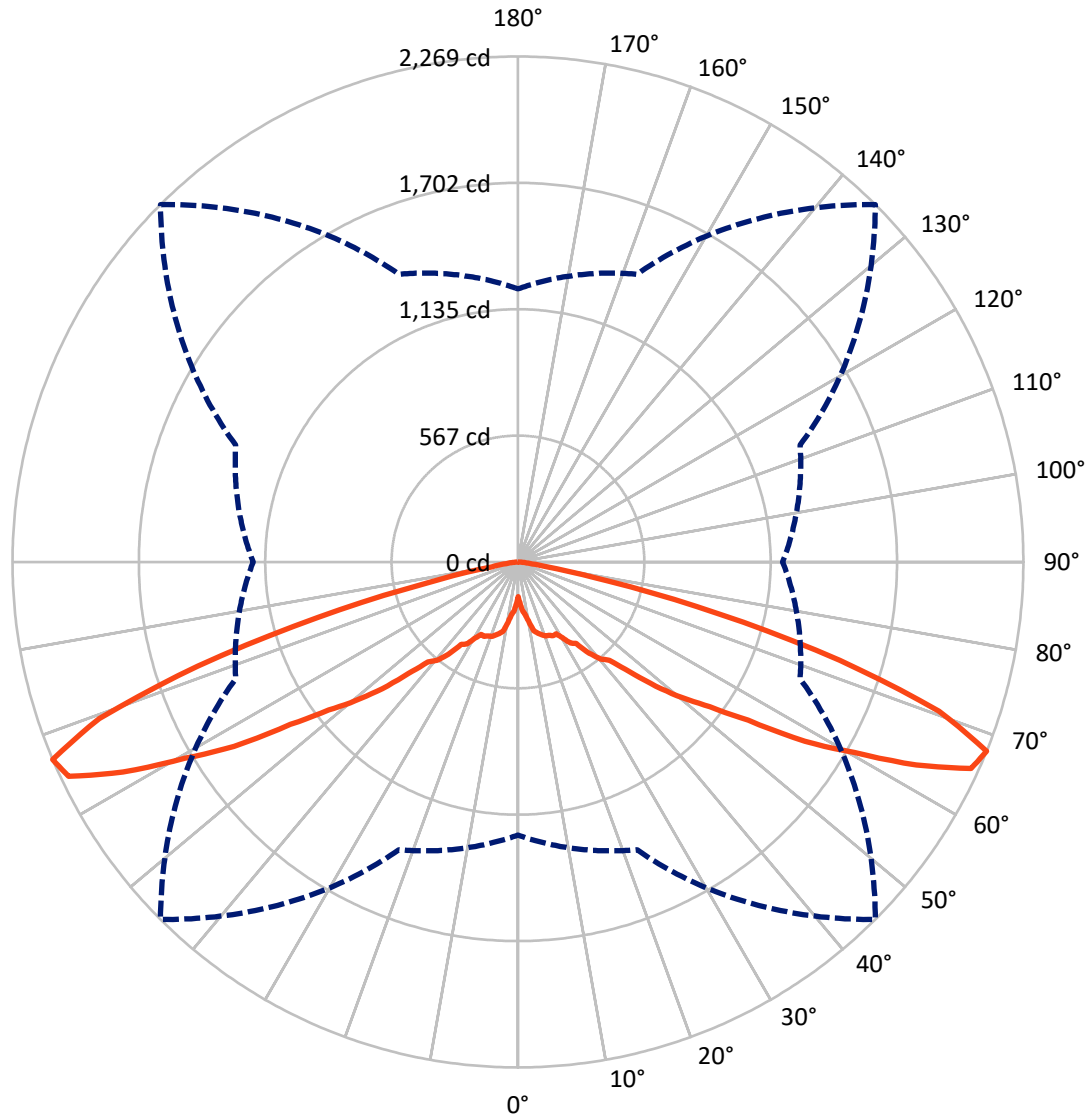
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.5 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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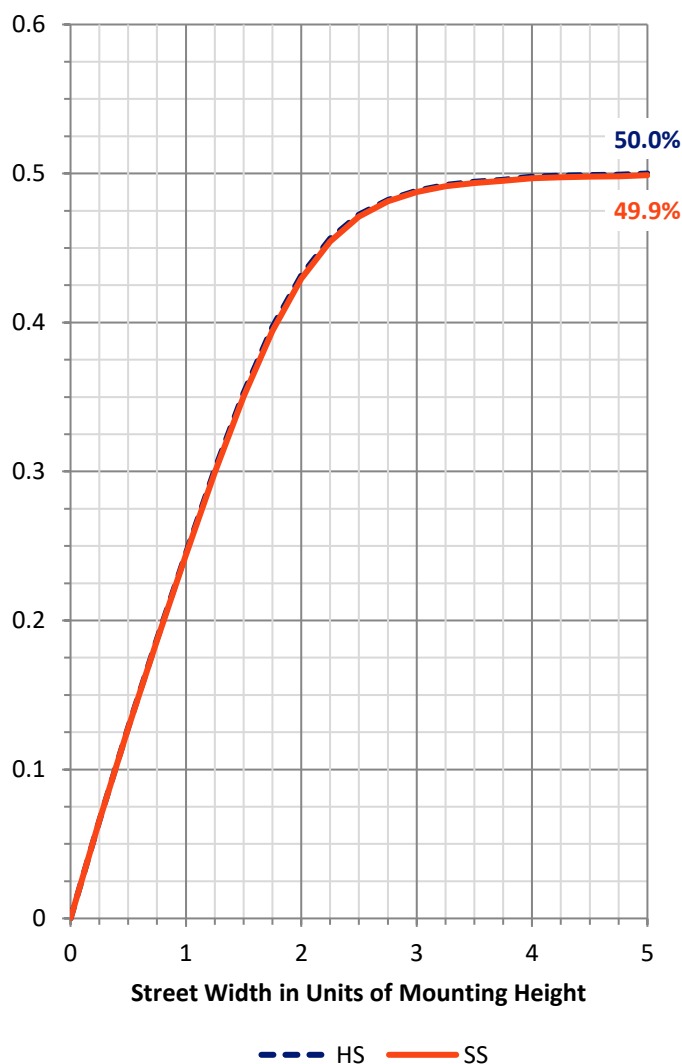
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2281.0 | 0.0 | 2281.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 2281.0 | 0.0 | 2281.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 4562.0 | 0.0 | 4562.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 23.3 | 0.5 |
| 10°-20° | 92.2 | 2.0 |
| 20°-30° | 175.9 | 3.9 |
| 30°-40° | 321.5 | 7.0 |
| 40°-50° | 623.5 | 13.7 |
| 50°-60° | 1190.6 | 26.1 |
| 60°-70° | 1608.6 | 35.3 |
| 70°-80° | 499.6 | 11.0 |
| 80°-90° | 26.9 | 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° | 4562.0 | 100.0 |
| 0°-180° | 4562.0 | 100.0 |

Coefficient of Utilization



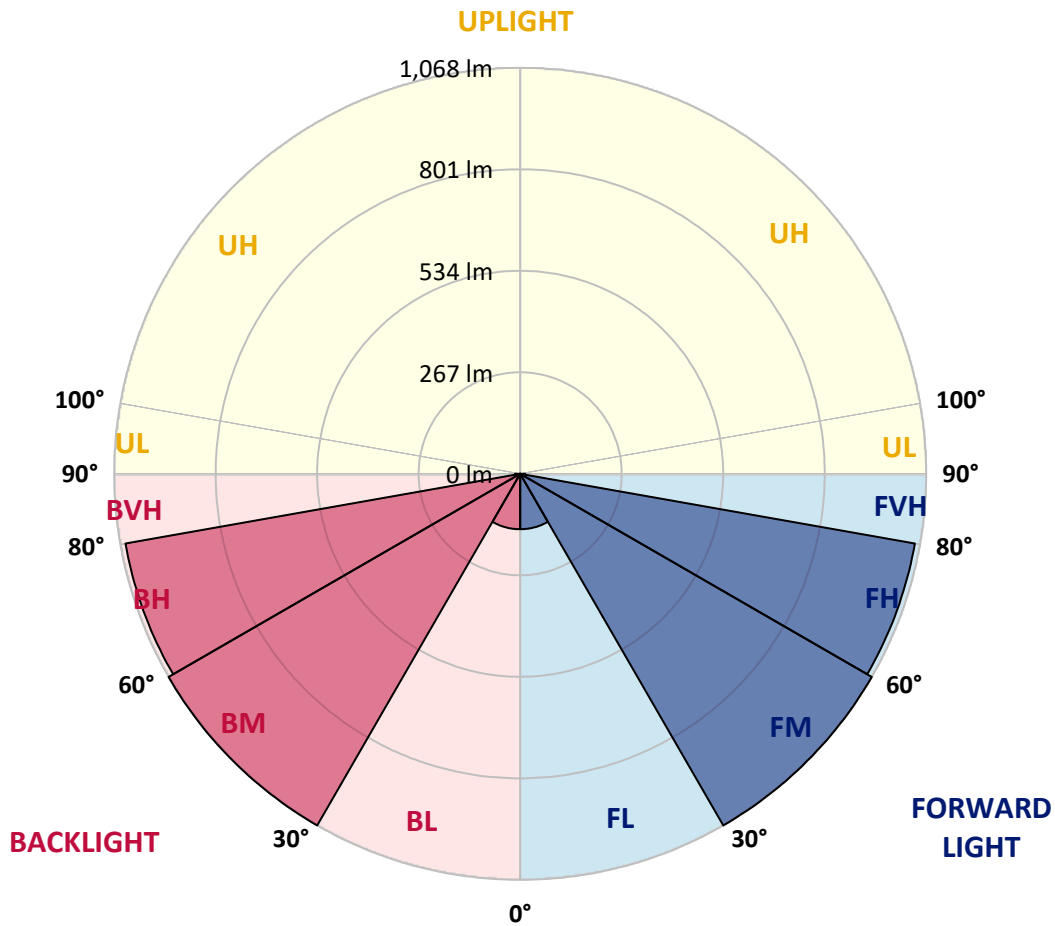
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 145.7 | 3.2 | | | |
| FM (30°-60°) | 1067.8 | 23.4 | | | |
| FH (60°-80°) | 1054.1 | 23.1 | | | G1/1800 |
| FVH (80°-90°) | 13.5 | 0.3 | | | G1/100 |
| BL (0°-30°) | 145.7 | 3.2 | B1/500 | | |
| BM (30°-60°) | 1067.8 | 23.4 | B2/2500 | | |
| BH (60°-80°) | 1054.1 | 23.1 | B3/2500 | | G1/1800 |
| BVH (80°-90°) | 13.5 | 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-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 156.3 | 156.3 | 156.3 | 156.3 | 156.3 |
| 2.5° | 192.5 | 180.1 | 185.8 | 180.1 | 192.5 |
| 5° | 244.6 | 231.8 | 220.5 | 228.6 | 245.3 |
| 7.5° | 281.1 | 261.9 | 238.1 | 259.8 | 279.5 |
| 10° | 287.3 | 276.5 | 275.5 | 275.3 | 286.6 |
| 12.5° | 310.4 | 303.1 | 317.6 | 303.8 | 311.1 |
| 15° | 328.3 | 324.3 | 330.8 | 329.4 | 329.0 |
| 17.5° | 356.2 | 328.7 | 343.5 | 327.1 | 355.3 |
| 20° | 368.5 | 329.6 | 354.4 | 327.6 | 368.4 |
| 22.5° | 383.7 | 350.4 | 357.8 | 351.3 | 382.3 |
| 25° | 392.3 | 363.8 | 366.4 | 364.1 | 392.5 |
| 27.5° | 427.7 | 393.4 | 365.2 | 398.1 | 434.3 |
| 30° | 454.7 | 412.6 | 394.1 | 413.1 | 458.1 |
| 32.5° | 493.7 | 441.3 | 434.1 | 448.4 | 499.8 |
| 35° | 542.0 | 489.6 | 449.1 | 489.8 | 552.2 |
| 37.5° | 636.6 | 533.5 | 519.2 | 549.0 | 643.6 |
| 40° | 703.4 | 602.8 | 572.3 | 613.9 | 714.8 |
| 42.5° | 806.0 | 680.5 | 603.1 | 686.1 | 823.6 |
| 45° | 901.5 | 774.8 | 701.5 | 781.3 | 914.4 |
| 47.5° | 1002.5 | 861.3 | 833.8 | 869.4 | 1012.0 |
| 50° | 1121.8 | 978.5 | 959.3 | 987.7 | 1125.8 |
| 52.5° | 1262.6 | 1135.4 | 1078.6 | 1140.7 | 1264.0 |
| 55° | 1429.9 | 1267.0 | 1254.3 | 1281.5 | 1432.0 |
| 57.5° | 1593.4 | 1437.6 | 1519.0 | 1439.2 | 1565.0 |
| 60° | 1710.1 | 1594.8 | 1736.7 | 1554.3 | 1647.2 |
| 62.5° | 1717.5 | 1711.3 | 2007.8 | 1642.6 | 1629.6 |
| 65° | 1557.5 | 1664.3 | 2234.8 | 1610.5 | 1479.2 |
| 67.5° | 1226.0 | 1398.1 | 2269.1 | 1371.0 | 1188.4 |
| 70° | 770.4 | 968.1 | 2006.0 | 1005.3 | 792.2 |
| 72.5° | 355.3 | 521.7 | 1510.6 | 587.2 | 375.6 |
| 75° | 127.2 | 199.7 | 932.0 | 214.5 | 133.1 |
| 77.5° | 72.3 | 80.9 | 411.9 | 81.2 | 74.7 |
| 80° | 46.5 | 50.4 | 119.0 | 53.2 | 45.3 |
| 82.5° | 26.4 | 35.2 | 52.2 | 37.4 | 24.3 |
| 85° | 14.3 | 22.4 | 23.1 | 22.9 | 14.3 |
| 87.5° | 5.1 | 8.8 | 5.1 | 10.0 | 4.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)