

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: P596057

Luminaire Tested: **MSA-SA2A-AMB-U-RW**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-RW
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND RECTANGULAR WIDE OPTICS.
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1816 lumens
Efficiency: N/A
Efficacy: 44.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

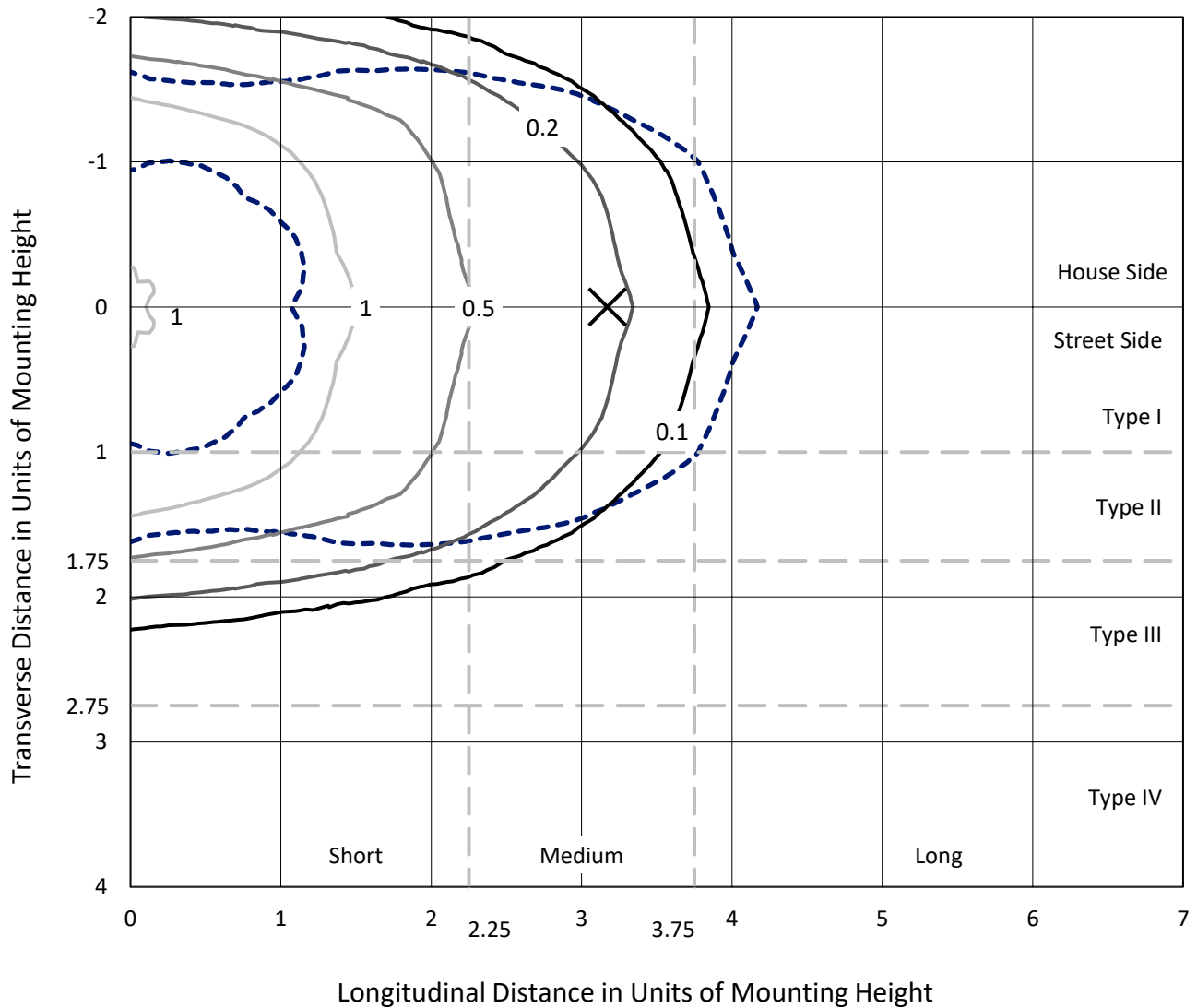
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

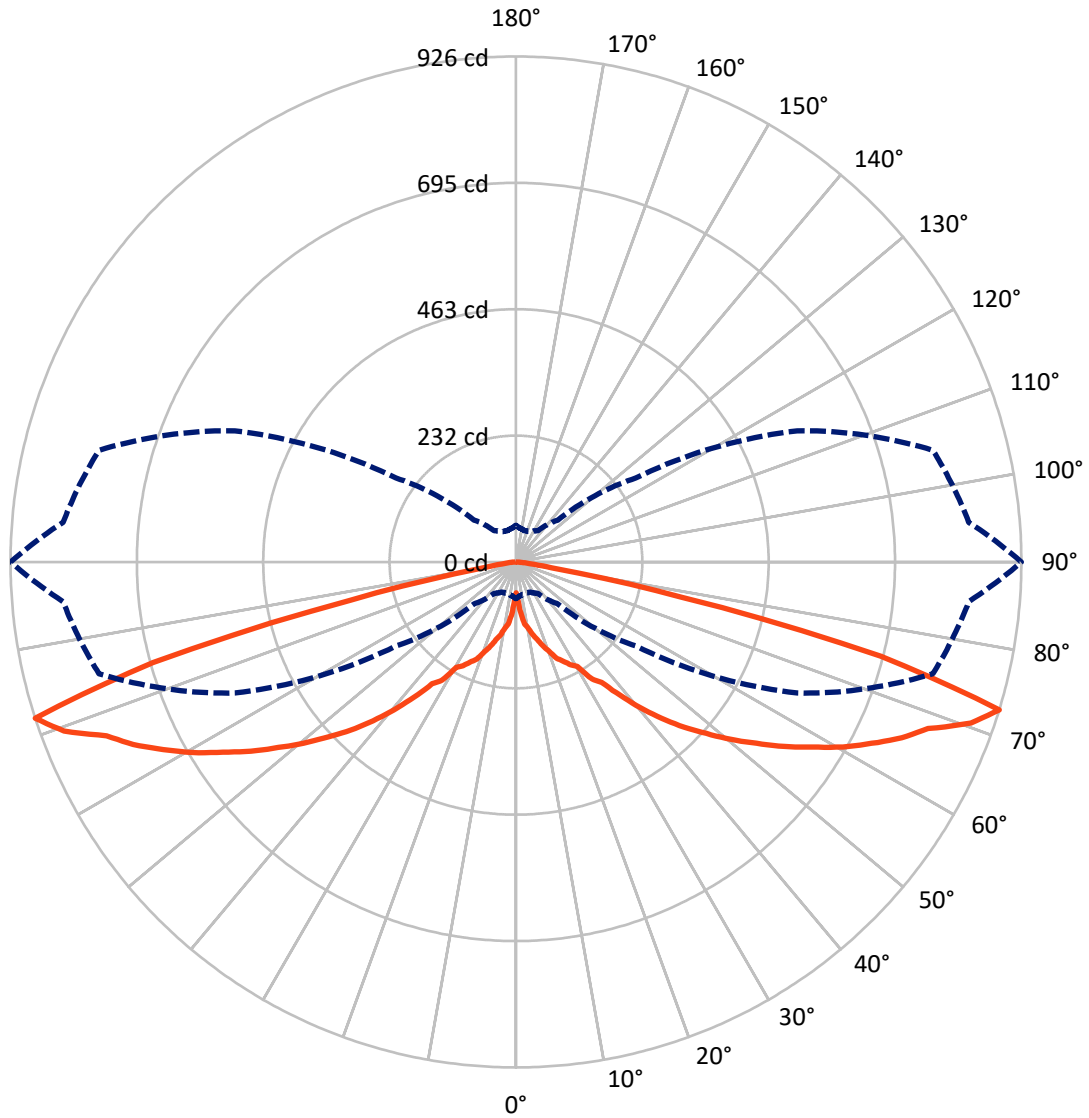
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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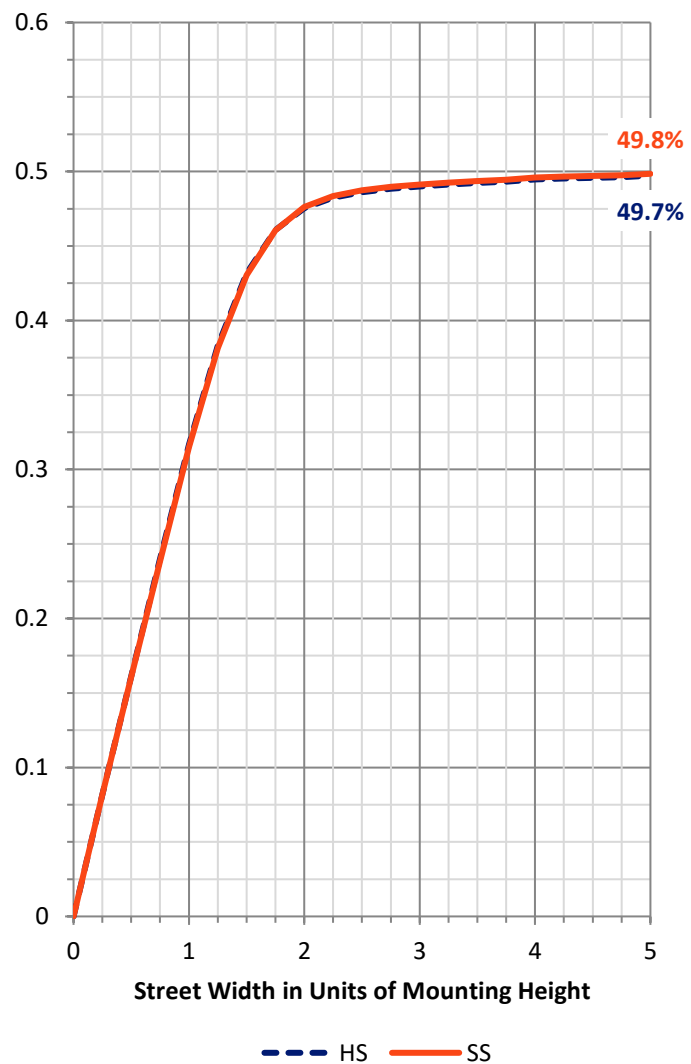
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 908.0 | 0.0 | 908.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 908.0 | 0.0 | 908.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 1816.0 | 0.0 | 1816.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 7.8 | 0.4 |
| 10°-20° | 38.4 | 2.1 |
| 20°-30° | 86.6 | 4.8 |
| 30°-40° | 169.5 | 9.3 |
| 40°-50° | 323.8 | 17.8 |
| 50°-60° | 482.0 | 26.5 |
| 60°-70° | 469.4 | 25.9 |
| 70°-80° | 219.5 | 12.1 |
| 80°-90° | 19.0 | 1.0 |
| 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° | 1816.0 | 100.0 |
| 0°-180° | 1816.0 | 100.0 |

Coefficient of Utilization



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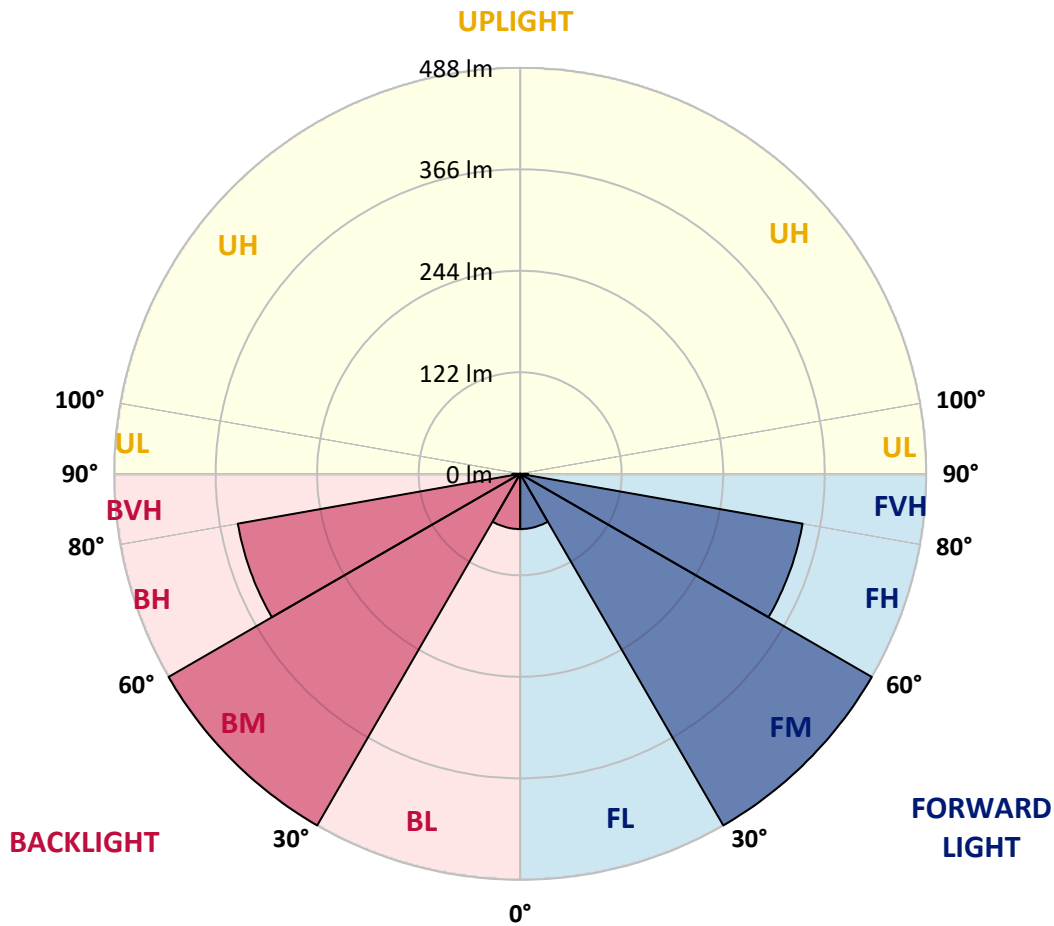
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 66.4 | 3.7 | | | |
| FM (30°-60°) | 487.7 | 26.9 | | | |
| FH (60°-80°) | 344.5 | 19.0 | | | G0/660 |
| FVH (80°-90°) | 9.5 | 0.5 | | | G0/10 |
| BL (0°-30°) | 66.4 | 3.7 | B0/110 | | |
| BM (30°-60°) | 487.7 | 26.9 | B1/1000 | | |
| BH (60°-80°) | 344.5 | 19.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 9.5 | 0.5 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 | 56.7 |
| 2.5° | 68.5 | 62.0 | 61.4 | 57.8 | 56.7 | 58.4 | 57.8 | 57.8 | 63.2 | 63.2 | 69.1 |
| 5° | 84.4 | 76.7 | 75.6 | 68.5 | 61.4 | 59.0 | 62.6 | 72.0 | 83.8 | 86.2 | 94.4 |
| 7.5° | 95.6 | 89.1 | 87.9 | 79.7 | 70.8 | 69.1 | 75.6 | 89.7 | 102.7 | 108.0 | 114.5 |
| 10° | 95.0 | 92.7 | 91.5 | 87.4 | 90.9 | 94.4 | 97.4 | 100.3 | 114.5 | 118.6 | 122.8 |
| 12.5° | 99.2 | 99.2 | 102.7 | 105.7 | 114.5 | 122.8 | 124.0 | 124.5 | 131.0 | 132.2 | 136.9 |
| 15° | 108.6 | 108.6 | 113.9 | 121.0 | 131.6 | 143.4 | 144.0 | 141.7 | 147.0 | 146.4 | 147.6 |
| 17.5° | 123.4 | 124.5 | 128.1 | 135.8 | 148.7 | 159.4 | 161.1 | 157.6 | 158.2 | 165.9 | 162.3 |
| 20° | 139.3 | 141.7 | 140.5 | 145.8 | 161.1 | 170.6 | 172.9 | 165.9 | 170.6 | 176.5 | 175.3 |
| 22.5° | 159.4 | 158.2 | 154.1 | 158.2 | 171.2 | 180.6 | 178.3 | 172.4 | 175.9 | 188.9 | 191.8 |
| 25° | 170.6 | 174.1 | 171.2 | 177.7 | 187.1 | 195.4 | 195.4 | 187.7 | 187.1 | 197.1 | 201.3 |
| 27.5° | 191.8 | 190.1 | 181.2 | 194.8 | 201.9 | 198.3 | 206.6 | 204.8 | 190.1 | 206.6 | 213.1 |
| 30° | 216.0 | 218.4 | 199.5 | 211.3 | 217.2 | 213.7 | 223.7 | 218.4 | 206.0 | 229.0 | 221.9 |
| 32.5° | 254.4 | 249.1 | 234.9 | 233.2 | 236.1 | 241.4 | 234.9 | 233.2 | 232.0 | 250.9 | 255.6 |
| 35° | 285.7 | 289.2 | 265.0 | 259.7 | 262.1 | 252.6 | 257.4 | 250.9 | 249.7 | 270.3 | 270.9 |
| 37.5° | 344.7 | 334.1 | 306.3 | 295.7 | 289.2 | 291.6 | 285.1 | 277.4 | 279.2 | 300.4 | 309.9 |
| 40° | 399.0 | 389.6 | 353.0 | 339.4 | 318.1 | 325.8 | 305.8 | 309.3 | 310.5 | 338.8 | 351.2 |
| 42.5° | 446.2 | 431.5 | 400.2 | 387.8 | 368.9 | 349.4 | 348.8 | 345.9 | 348.3 | 378.9 | 391.3 |
| 45° | 494.6 | 465.1 | 443.9 | 436.8 | 420.3 | 411.4 | 387.8 | 387.8 | 379.5 | 409.6 | 432.1 |
| 47.5° | 528.3 | 505.3 | 478.1 | 467.5 | 458.6 | 475.7 | 434.4 | 423.8 | 424.4 | 441.5 | 469.3 |
| 50° | 559.0 | 533.6 | 508.2 | 497.6 | 501.1 | 514.1 | 486.4 | 461.0 | 458.6 | 483.4 | 511.2 |
| 52.5° | 567.2 | 537.7 | 517.7 | 525.9 | 545.4 | 537.7 | 536.5 | 497.6 | 491.1 | 518.2 | 551.9 |
| 55° | 550.7 | 524.7 | 514.7 | 534.8 | 572.0 | 574.9 | 569.0 | 546.0 | 525.9 | 556.0 | 596.8 |
| 57.5° | 493.5 | 471.6 | 481.1 | 514.7 | 566.6 | 606.2 | 601.5 | 581.4 | 566.6 | 595.0 | 639.8 |
| 60° | 397.2 | 376.0 | 391.3 | 445.1 | 533.0 | 612.7 | 653.4 | 604.4 | 605.0 | 632.2 | 688.2 |
| 62.5° | 273.3 | 259.7 | 281.6 | 334.7 | 459.8 | 613.9 | 703.0 | 646.3 | 642.2 | 677.0 | 731.9 |
| 65° | 164.7 | 153.5 | 174.1 | 229.6 | 348.3 | 554.3 | 737.8 | 729.6 | 697.1 | 717.8 | 776.8 |
| 67.5° | 100.3 | 94.4 | 102.7 | 128.1 | 212.5 | 402.0 | 678.2 | 775.0 | 753.8 | 748.4 | 814.6 |
| 70° | 76.7 | 71.4 | 70.8 | 78.5 | 116.9 | 224.9 | 491.7 | 737.8 | 815.7 | 806.9 | 884.2 |
| 72.5° | 67.3 | 63.2 | 59.6 | 60.8 | 70.2 | 108.6 | 268.6 | 568.4 | 790.9 | 832.9 | 926.1 |
| 75° | 59.0 | 54.9 | 51.9 | 51.9 | 53.7 | 59.0 | 107.4 | 310.5 | 541.3 | 609.1 | 690.0 |
| 77.5° | 49.6 | 46.6 | 44.3 | 44.3 | 44.9 | 43.1 | 54.9 | 113.9 | 221.9 | 260.3 | 310.5 |
| 80° | 37.8 | 36.0 | 35.4 | 36.6 | 36.6 | 34.2 | 39.0 | 51.9 | 69.7 | 69.7 | 66.7 |
| 82.5° | 24.8 | 23.0 | 26.0 | 26.0 | 26.0 | 23.0 | 27.7 | 32.5 | 36.0 | 28.3 | 25.4 |
| 85° | 13.6 | 13.0 | 14.8 | 15.3 | 15.3 | 10.6 | 15.3 | 17.7 | 20.1 | 13.6 | 10.6 |
| 87.5° | 2.4 | 3.5 | 4.1 | 4.1 | 4.1 | 3.0 | 5.3 | 5.9 | 6.5 | 5.3 | 3.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)