

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: P597005

Luminaire Tested: **MSA-SA3A-835-U-5WQ**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-4)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-835-U-5WQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10374 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

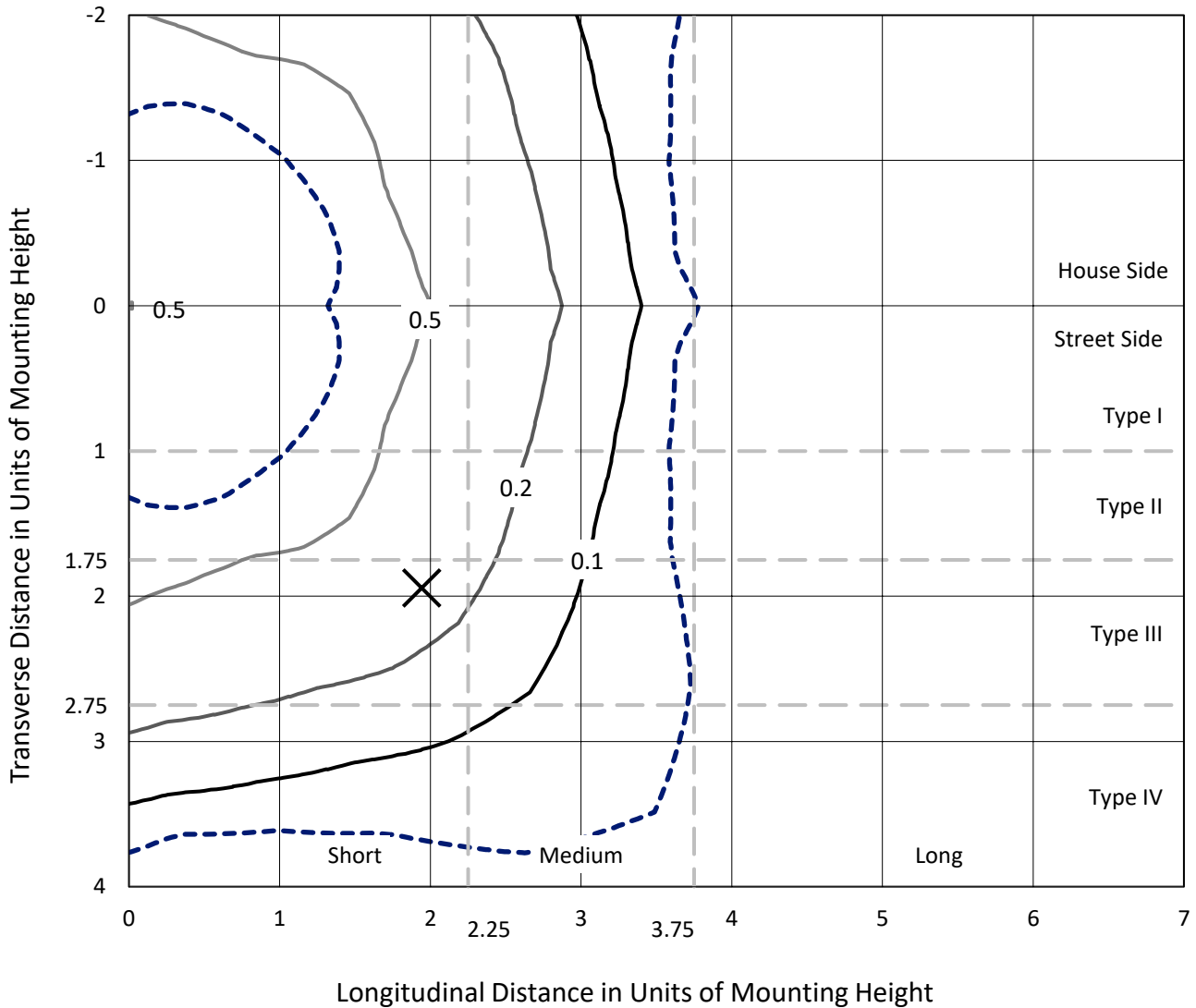
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

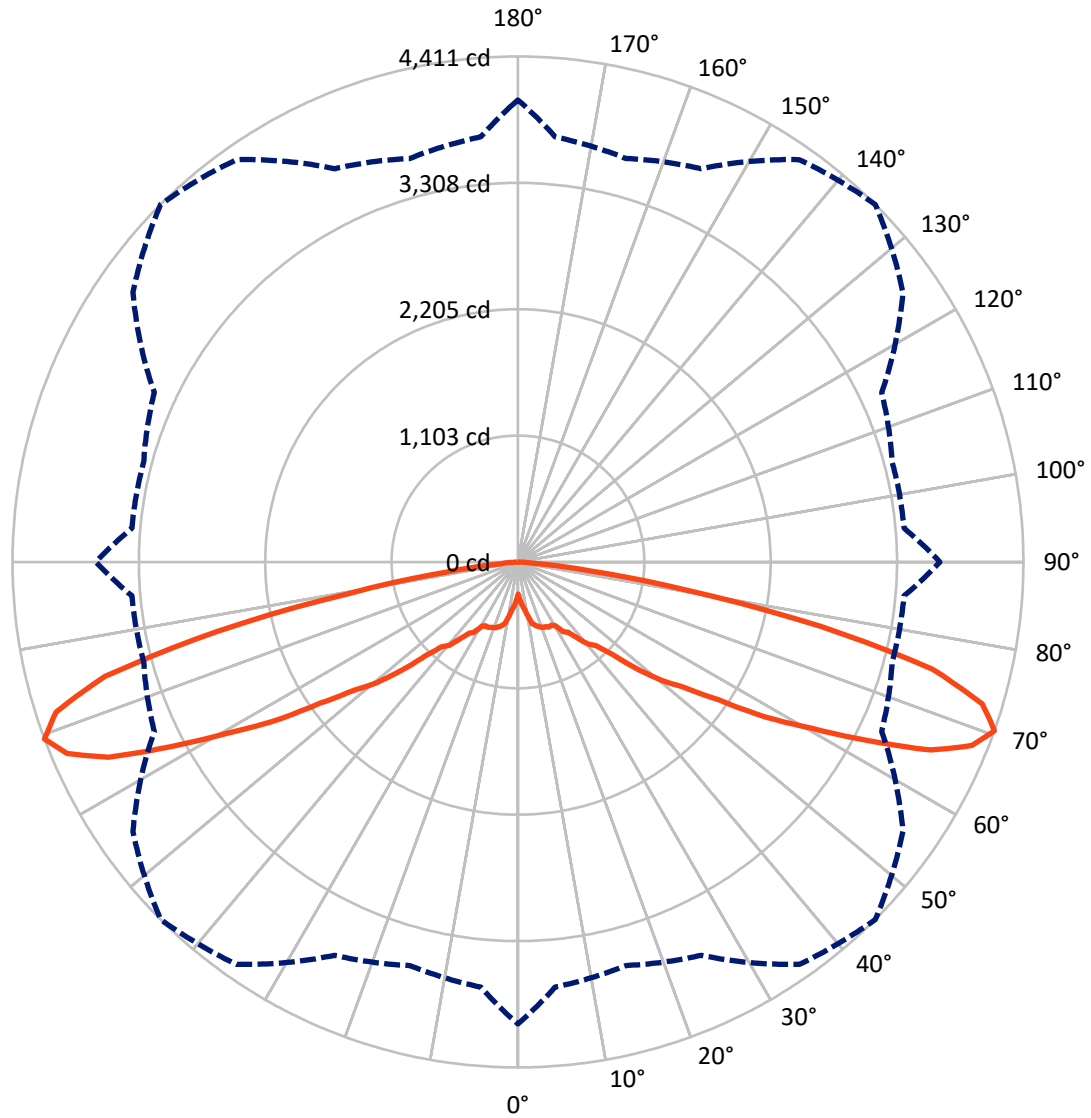
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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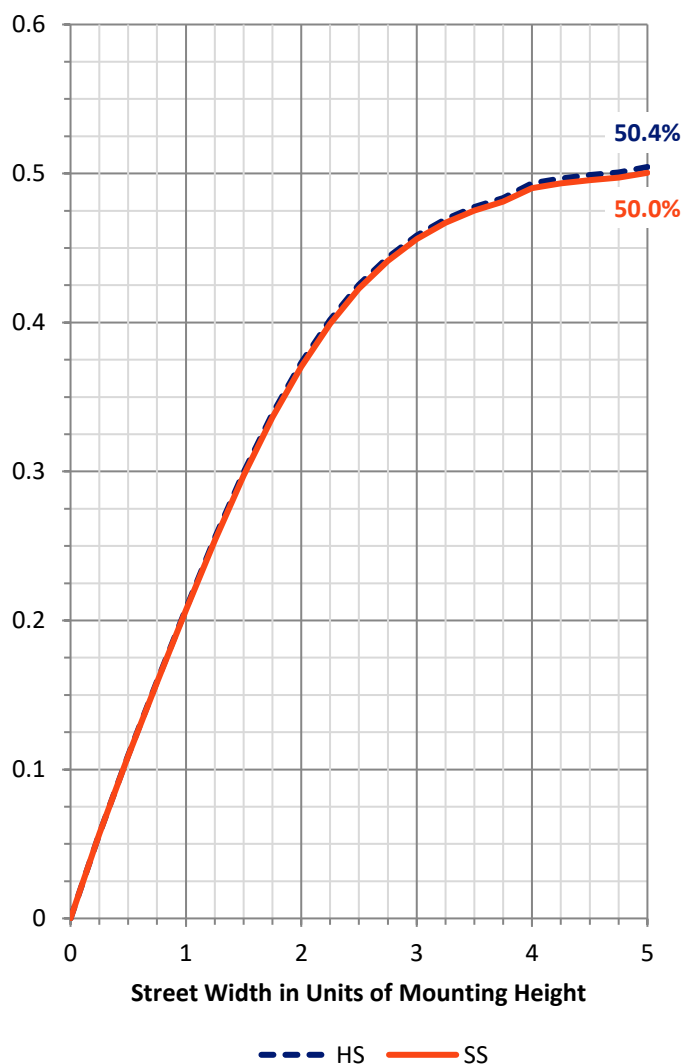
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5187.0 | 0.0 | 5187.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5187.0 | 0.0 | 5187.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10374.0 | 0.0 | 10374.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 40.8 | 0.4 |
| 10°-20° | 163.3 | 1.6 |
| 20°-30° | 308.7 | 3.0 |
| 30°-40° | 537.8 | 5.2 |
| 40°-50° | 1028.1 | 9.9 |
| 50°-60° | 1993.5 | 19.2 |
| 60°-70° | 3490.7 | 33.6 |
| 70°-80° | 2623.4 | 25.3 |
| 80°-90° | 187.7 | 1.8 |
| 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° | 10374.0 | 100.0 |
| 0°-180° | 10374.0 | 100.0 |

Coefficient of Utilization



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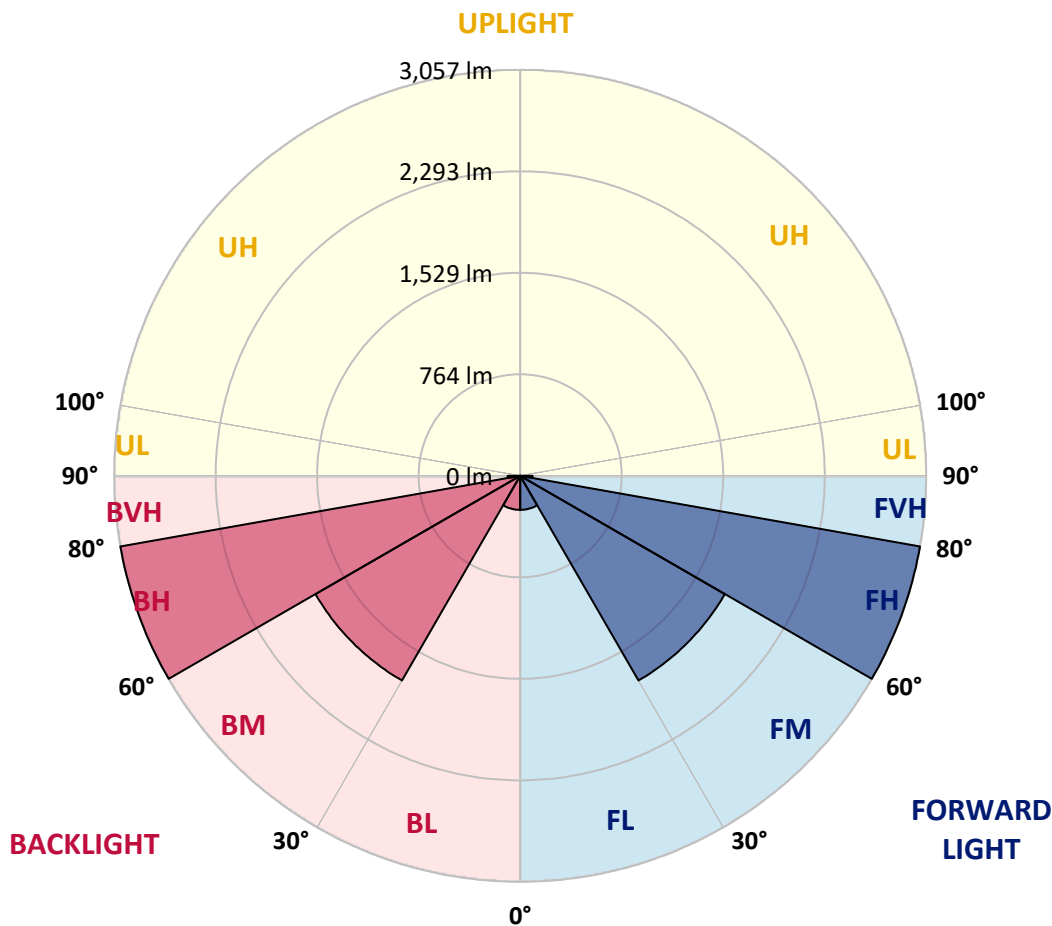
CATALOG NUMBER: MSA-SA3A-835-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 256.4 | 2.5 | | | |
| FM (30°-60°) | 1779.7 | 17.2 | | | |
| FH (60°-80°) | 3057.1 | 29.5 | | | G2/5000 |
| FVH (80°-90°) | 93.9 | 0.9 | | | G1/100 |
| BL (0°-30°) | 256.4 | 2.5 | B1/500 | | |
| BM (30°-60°) | 1779.7 | 17.2 | B2/2500 | | |
| BH (60°-80°) | 3057.1 | 29.5 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 93.9 | 0.9 | | | 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° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 | 280.5 |
| 2.5° | 341.3 | 336.0 | 319.5 | 320.3 | 328.0 | 328.8 | 329.6 | 319.5 | 317.1 | 337.7 | 338.9 |
| 5° | 433.4 | 421.4 | 409.3 | 404.5 | 397.2 | 377.1 | 399.2 | 401.6 | 406.5 | 422.2 | 429.4 |
| 7.5° | 495.0 | 480.1 | 463.6 | 453.6 | 433.8 | 417.3 | 435.4 | 450.3 | 460.0 | 477.7 | 487.8 |
| 10° | 506.7 | 497.8 | 497.0 | 479.3 | 475.7 | 481.7 | 480.5 | 480.9 | 495.4 | 495.8 | 501.9 |
| 12.5° | 543.3 | 549.7 | 537.3 | 531.2 | 534.9 | 549.7 | 537.7 | 532.4 | 536.1 | 552.6 | 545.7 |
| 15° | 591.2 | 598.8 | 579.9 | 570.3 | 560.6 | 574.7 | 562.2 | 571.5 | 583.1 | 595.2 | 589.2 |
| 17.5° | 644.3 | 644.7 | 619.0 | 583.1 | 591.6 | 593.6 | 589.2 | 581.5 | 614.9 | 643.9 | 641.1 |
| 20° | 673.3 | 672.9 | 628.6 | 579.9 | 604.9 | 609.3 | 605.3 | 579.1 | 629.4 | 669.3 | 668.1 |
| 22.5° | 703.1 | 694.2 | 641.1 | 601.7 | 610.9 | 614.5 | 605.3 | 602.9 | 641.1 | 696.6 | 696.2 |
| 25° | 719.2 | 726.8 | 668.5 | 643.9 | 636.3 | 627.8 | 635.9 | 639.9 | 676.5 | 730.8 | 715.1 |
| 27.5° | 769.5 | 757.0 | 676.5 | 674.1 | 658.0 | 624.6 | 652.4 | 672.1 | 674.1 | 761.8 | 777.9 |
| 30° | 815.0 | 819.8 | 712.7 | 716.4 | 687.0 | 644.7 | 687.8 | 719.2 | 725.2 | 820.6 | 819.0 |
| 32.5° | 863.2 | 865.3 | 777.1 | 739.7 | 727.2 | 725.6 | 709.1 | 736.5 | 784.0 | 860.4 | 863.7 |
| 35° | 936.5 | 953.0 | 834.7 | 784.4 | 768.7 | 752.6 | 767.1 | 791.6 | 835.9 | 950.6 | 942.5 |
| 37.5° | 1104.3 | 1078.2 | 959.8 | 855.6 | 845.1 | 838.7 | 850.4 | 868.1 | 958.6 | 1081.0 | 1118.4 |
| 40° | 1221.4 | 1209.0 | 1048.0 | 973.5 | 907.5 | 942.1 | 914.8 | 983.2 | 1058.0 | 1209.8 | 1233.9 |
| 42.5° | 1402.9 | 1347.4 | 1182.0 | 1089.8 | 1021.4 | 996.9 | 1012.2 | 1101.5 | 1196.9 | 1365.9 | 1413.4 |
| 45° | 1577.2 | 1491.5 | 1349.8 | 1268.5 | 1164.7 | 1138.9 | 1159.4 | 1264.5 | 1374.8 | 1508.4 | 1592.1 |
| 47.5° | 1755.1 | 1666.5 | 1510.8 | 1393.3 | 1308.4 | 1385.2 | 1318.0 | 1417.8 | 1527.7 | 1683.0 | 1757.5 |
| 50° | 1939.8 | 1841.6 | 1687.9 | 1559.9 | 1552.6 | 1620.7 | 1540.2 | 1591.3 | 1693.1 | 1854.1 | 1941.8 |
| 52.5° | 2151.9 | 2046.0 | 1892.3 | 1805.8 | 1822.7 | 1818.3 | 1802.2 | 1792.9 | 1893.1 | 2051.3 | 2155.5 |
| 55° | 2404.2 | 2289.9 | 2167.2 | 2127.3 | 2174.0 | 2123.7 | 2147.5 | 2144.2 | 2158.7 | 2271.8 | 2393.8 |
| 57.5° | 2709.3 | 2580.1 | 2456.9 | 2448.1 | 2508.0 | 2555.5 | 2513.3 | 2452.5 | 2427.2 | 2537.0 | 2676.7 |
| 60° | 3093.6 | 2935.0 | 2799.8 | 2772.1 | 2943.1 | 2942.7 | 2904.5 | 2768.4 | 2758.8 | 2883.1 | 3051.4 |
| 62.5° | 3518.2 | 3325.0 | 3177.3 | 3133.0 | 3401.1 | 3431.3 | 3312.1 | 3068.3 | 3118.2 | 3218.4 | 3418.0 |
| 65° | 3878.8 | 3646.6 | 3508.9 | 3496.9 | 3824.5 | 3957.7 | 3694.5 | 3360.8 | 3376.9 | 3460.2 | 3676.4 |
| 67.5° | 4113.8 | 3834.1 | 3724.6 | 3783.0 | 4190.3 | 4273.6 | 4028.9 | 3556.4 | 3499.3 | 3533.9 | 3792.3 |
| 70° | 4031.3 | 3723.8 | 3645.0 | 3786.6 | 4284.9 | 4410.8 | 4100.9 | 3501.7 | 3380.2 | 3381.8 | 3682.0 |
| 72.5° | 3406.3 | 3113.7 | 3151.2 | 3411.1 | 4061.1 | 4237.8 | 3767.7 | 3162.8 | 2914.1 | 2908.1 | 3180.5 |
| 75° | 2252.5 | 2056.9 | 2204.6 | 2609.9 | 3376.1 | 3737.5 | 3121.8 | 2479.1 | 2167.2 | 2065.8 | 2276.2 |
| 77.5° | 985.2 | 960.2 | 1084.6 | 1542.6 | 2301.6 | 2693.6 | 2236.4 | 1619.4 | 1178.8 | 980.4 | 1070.9 |
| 80° | 264.0 | 258.4 | 324.4 | 585.2 | 1120.4 | 1483.4 | 1210.2 | 645.9 | 337.3 | 245.5 | 260.4 |
| 82.5° | 96.2 | 98.6 | 120.3 | 163.8 | 369.0 | 624.6 | 402.0 | 188.7 | 127.6 | 104.6 | 104.6 |
| 85° | 41.9 | 40.6 | 58.4 | 65.6 | 100.6 | 141.3 | 115.5 | 80.1 | 64.4 | 48.3 | 46.3 |
| 87.5° | 11.3 | 14.1 | 19.7 | 20.5 | 26.2 | 21.3 | 30.6 | 28.2 | 24.1 | 16.9 | 13.7 |
| 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)