

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: LUMARK

Report Number: P964149

Luminaire Tested: **NAV-SB3B-827-U-5WQ**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P964149  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-827-U-5WQ  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15232.5 lumens  
Efficiency: N/A  
Efficacy: 139.5 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): 109.2  
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



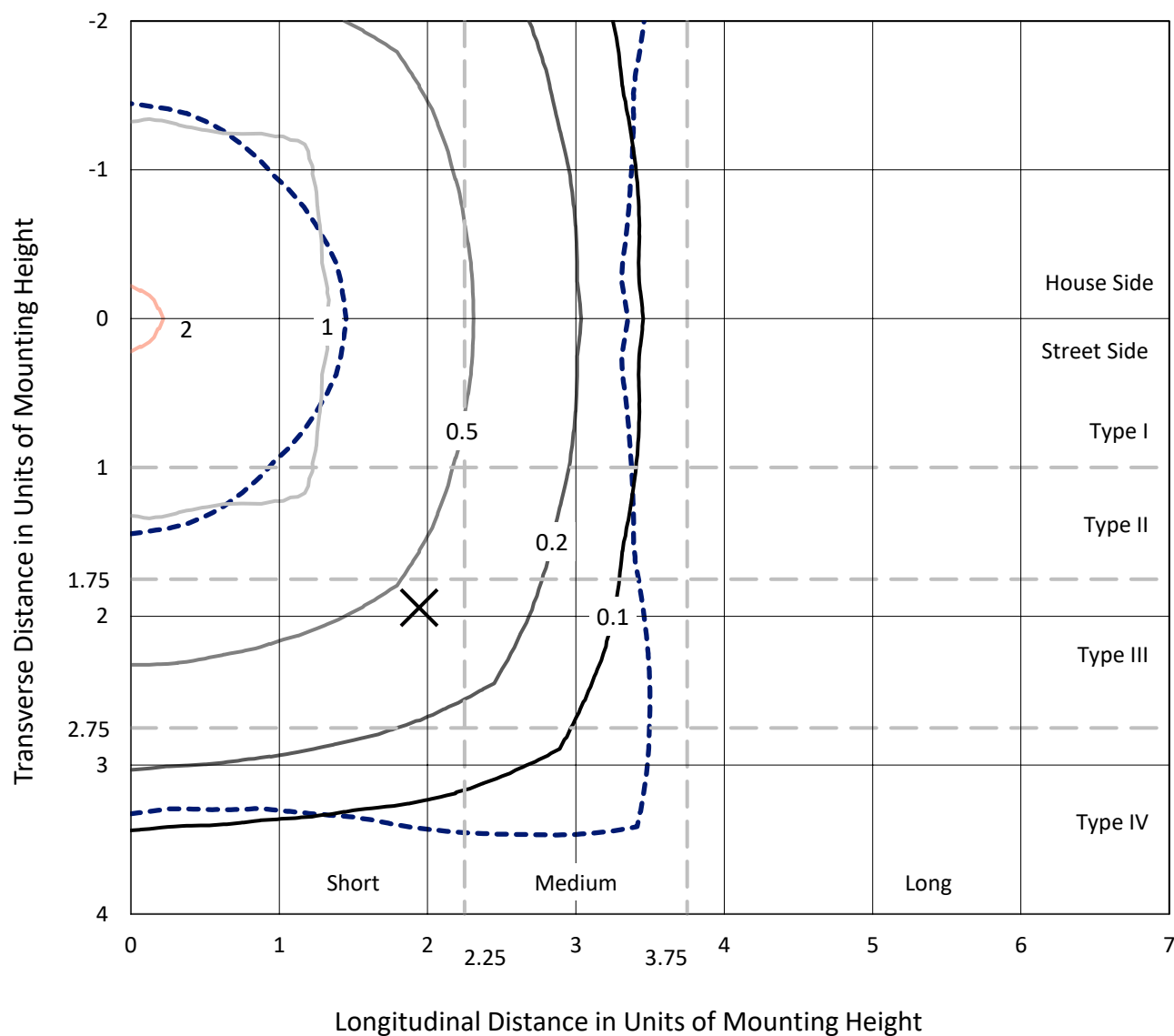
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



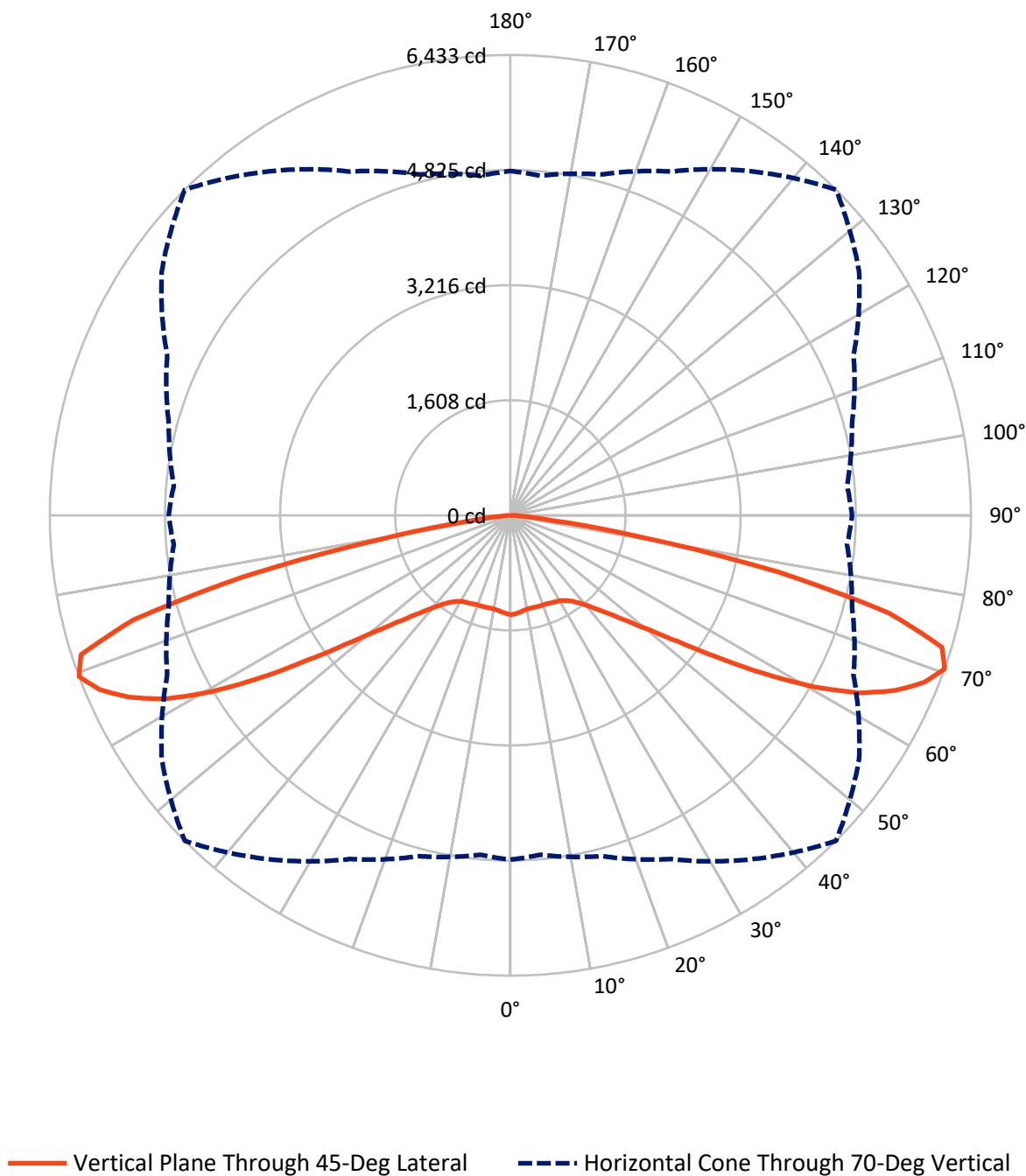
Based on 25 foot mounting height. Maximum calculated value = 2.2 fc

Type V - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7616.3   | 0.0    | 7616.3  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 7616.3   | 0.0    | 7616.3  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 15232.5  | 0.0    | 15232.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 129.3   | 0.8       |
| 10°-20°   | 379.5   | 2.5       |
| 20°-30°   | 631.6   | 4.1       |
| 30°-40°   | 955.2   | 6.3       |
| 40°-50°   | 1587.3  | 10.4      |
| 50°-60°   | 2995.1  | 19.7      |
| 60°-70°   | 5057.3  | 33.2      |
| 70°-80°   | 3323.2  | 21.8      |
| 80°-90°   | 174.1   | 1.1       |
| 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°    | 15232.5 | 100.0     |
| 0°-180°   | 15232.5 | 100.0     |

**Coefficient of Utilization**



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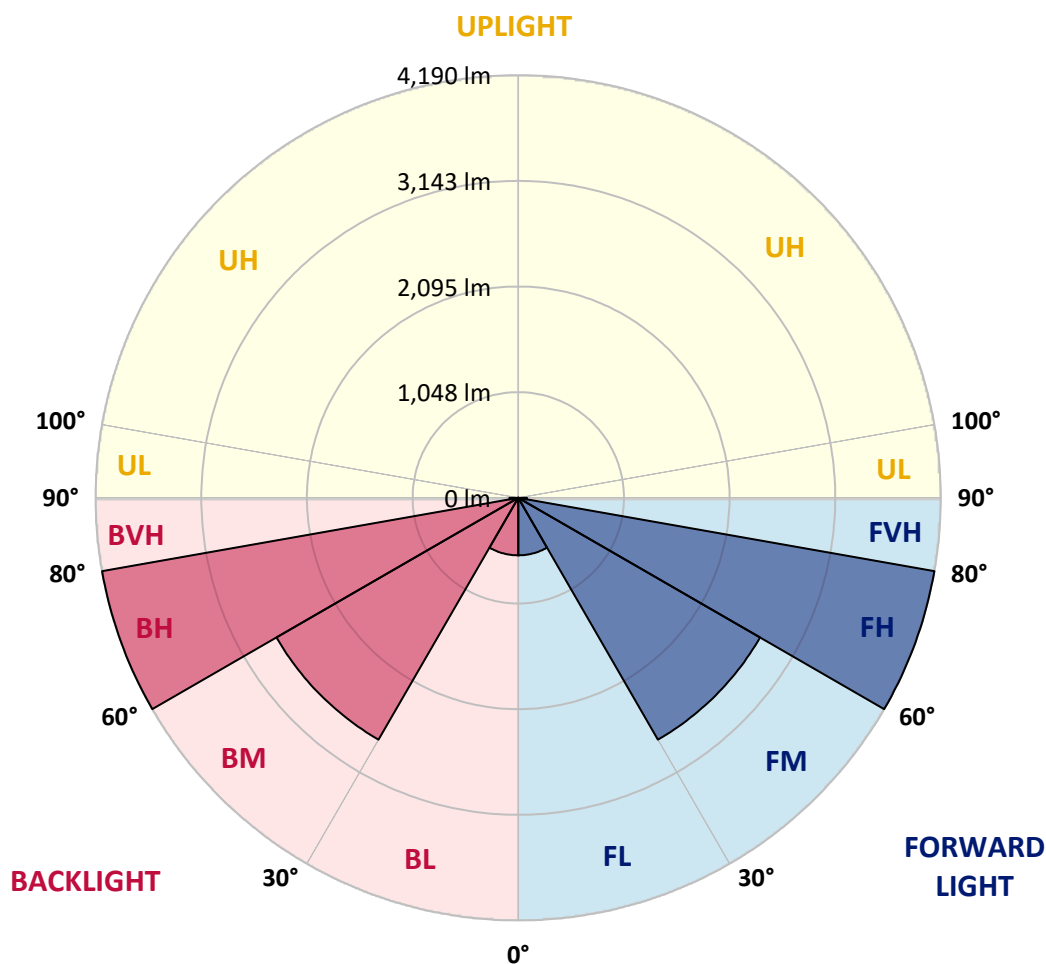
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 570.2  | 3.7       |                         |      |         |
| FM   | (30°-60°)   | 2768.8 | 18.2      |                         |      |         |
| FH   | (60°-80°)   | 4190.3 | 27.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 87.0   | 0.6       |                         |      | G1/100  |
| BL   | (0°-30°)    | 570.2  | 3.7       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2768.8 | 18.2      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 4190.3 | 27.5      | B4/5000                 |      | G2/5000 |
| BVH  | (80°-90°)   | 87.0   | 0.6       |                         |      | 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°    | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 | 1389.5 |
| 2.5°  | 1380.8 | 1384.8 | 1383.1 | 1380.1 | 1380.1 | 1377.6 | 1380.1 | 1381.6 | 1384.0 | 1385.6 | 1384.8 |
| 5°    | 1362.6 | 1365.7 | 1365.0 | 1362.6 | 1363.4 | 1361.0 | 1362.6 | 1365.0 | 1366.5 | 1367.4 | 1367.4 |
| 7.5°  | 1346.7 | 1349.9 | 1348.4 | 1344.4 | 1344.4 | 1342.0 | 1342.7 | 1345.2 | 1347.6 | 1348.4 | 1348.4 |
| 10°   | 1342.7 | 1345.9 | 1341.2 | 1334.9 | 1332.5 | 1329.3 | 1330.1 | 1332.5 | 1337.2 | 1339.7 | 1339.7 |
| 12.5° | 1344.4 | 1346.7 | 1342.0 | 1332.5 | 1330.1 | 1327.0 | 1327.0 | 1329.3 | 1335.7 | 1338.9 | 1339.7 |
| 15°   | 1349.1 | 1351.5 | 1344.4 | 1334.1 | 1331.7 | 1329.3 | 1328.5 | 1331.7 | 1338.9 | 1344.4 | 1345.2 |
| 17.5° | 1357.8 | 1360.2 | 1349.1 | 1334.9 | 1331.7 | 1332.5 | 1331.7 | 1334.1 | 1345.2 | 1355.5 | 1355.5 |
| 20°   | 1365.7 | 1367.4 | 1352.3 | 1334.9 | 1331.7 | 1332.5 | 1331.7 | 1336.5 | 1350.7 | 1365.0 | 1365.7 |
| 22.5° | 1368.2 | 1369.7 | 1355.5 | 1340.4 | 1338.0 | 1338.9 | 1338.0 | 1342.7 | 1356.3 | 1370.5 | 1370.5 |
| 25°   | 1368.9 | 1371.3 | 1360.2 | 1348.4 | 1352.3 | 1353.9 | 1352.3 | 1353.1 | 1363.4 | 1376.1 | 1375.2 |
| 27.5° | 1380.8 | 1384.0 | 1373.7 | 1363.4 | 1365.7 | 1365.0 | 1367.4 | 1369.7 | 1377.6 | 1390.3 | 1387.1 |
| 30°   | 1405.4 | 1407.7 | 1399.0 | 1388.7 | 1387.1 | 1381.6 | 1388.7 | 1396.7 | 1405.4 | 1416.4 | 1414.1 |
| 32.5° | 1445.8 | 1450.5 | 1439.4 | 1428.3 | 1421.2 | 1418.0 | 1423.5 | 1437.0 | 1448.9 | 1460.7 | 1456.0 |
| 35°   | 1513.0 | 1516.2 | 1505.9 | 1485.3 | 1472.6 | 1472.6 | 1477.4 | 1494.9 | 1513.8 | 1528.9 | 1523.4 |
| 37.5° | 1608.0 | 1612.0 | 1593.8 | 1569.3 | 1550.2 | 1550.2 | 1556.6 | 1574.8 | 1603.3 | 1624.6 | 1616.7 |
| 40°   | 1723.6 | 1729.2 | 1706.2 | 1680.9 | 1662.7 | 1659.5 | 1667.4 | 1688.0 | 1714.9 | 1741.9 | 1733.2 |
| 42.5° | 1862.9 | 1869.3 | 1839.3 | 1817.0 | 1802.8 | 1802.8 | 1806.8 | 1825.7 | 1850.3 | 1883.5 | 1881.2 |
| 45°   | 2041.1 | 2052.3 | 2011.0 | 1988.9 | 1975.4 | 1978.6 | 1980.9 | 1997.6 | 2019.8 | 2057.8 | 2056.1 |
| 47.5° | 2253.3 | 2264.4 | 2220.9 | 2197.9 | 2195.5 | 2210.5 | 2201.1 | 2213.0 | 2224.8 | 2268.3 | 2255.7 |
| 50°   | 2494.0 | 2513.0 | 2483.0 | 2481.3 | 2486.0 | 2513.8 | 2491.7 | 2497.9 | 2484.5 | 2512.2 | 2495.6 |
| 52.5° | 2788.5 | 2816.2 | 2810.7 | 2820.2 | 2873.3 | 2930.3 | 2879.5 | 2857.4 | 2806.8 | 2815.5 | 2786.2 |
| 55°   | 3145.6 | 3187.5 | 3195.4 | 3252.5 | 3372.9 | 3489.2 | 3381.6 | 3292.1 | 3184.4 | 3164.6 | 3133.7 |
| 57.5° | 3551.7 | 3585.0 | 3623.1 | 3739.4 | 3964.3 | 4170.9 | 3964.3 | 3766.4 | 3596.9 | 3556.5 | 3528.0 |
| 60°   | 3988.8 | 4030.0 | 4066.4 | 4238.2 | 4572.3 | 4862.9 | 4566.0 | 4251.7 | 4027.6 | 3973.0 | 3925.4 |
| 62.5° | 4458.3 | 4511.3 | 4536.6 | 4727.5 | 5117.0 | 5463.9 | 5122.6 | 4741.8 | 4493.2 | 4434.6 | 4387.1 |
| 65°   | 4908.8 | 4952.4 | 4980.9 | 5184.3 | 5556.4 | 5904.0 | 5581.8 | 5206.5 | 4950.8 | 4874.0 | 4836.0 |
| 67.5° | 5118.6 | 5142.4 | 5212.0 | 5442.4 | 5835.1 | 6231.8 | 5901.6 | 5467.0 | 5181.2 | 5046.6 | 5048.1 |
| 70°   | 4811.5 | 4763.2 | 4931.0 | 5300.0 | 5868.4 | 6432.9 | 5944.4 | 5288.9 | 4938.9 | 4720.4 | 4772.6 |
| 72.5° | 3718.1 | 3634.9 | 3926.3 | 4557.3 | 5488.4 | 6304.7 | 5526.4 | 4592.9 | 4107.6 | 3664.2 | 3774.3 |
| 75°   | 2022.9 | 1928.7 | 2330.8 | 3129.0 | 4376.8 | 5464.6 | 4477.3 | 3218.4 | 2595.3 | 2007.9 | 2138.5 |
| 77.5° | 570.8  | 535.3  | 859.9  | 1513.8 | 2632.5 | 3836.8 | 2733.9 | 1547.0 | 1019.8 | 604.9  | 672.2  |
| 80°   | 175.0  | 169.4  | 229.6  | 456.0  | 1118.0 | 1837.6 | 1074.4 | 461.6  | 292.1  | 184.5  | 194.7  |
| 82.5° | 103.7  | 95.0   | 114.0  | 166.3  | 285.1  | 577.2  | 277.2  | 173.4  | 139.3  | 93.4   | 101.4  |
| 85°   | 59.3   | 55.5   | 67.3   | 80.8   | 95.8   | 122.7  | 79.9   | 82.3   | 74.4   | 49.9   | 52.3   |
| 87.5° | 24.5   | 22.1   | 26.1   | 25.3   | 22.1   | 28.5   | 21.4   | 25.3   | 30.1   | 19.8   | 18.2   |
| 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)