

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: P965217

Luminaire Tested: **NAV-SB3D-827-U-T1**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-827-U-T1  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26920.6 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

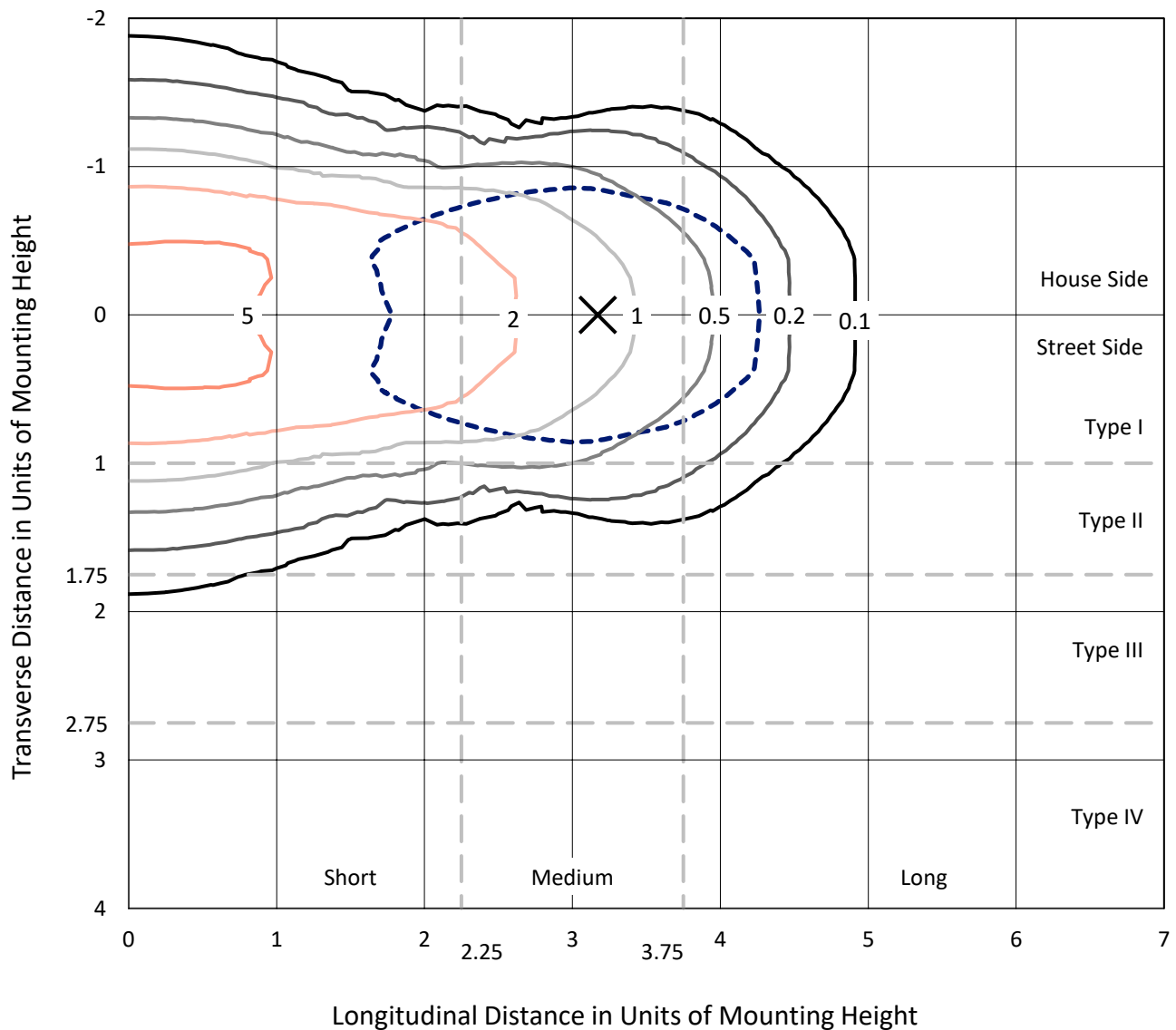
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

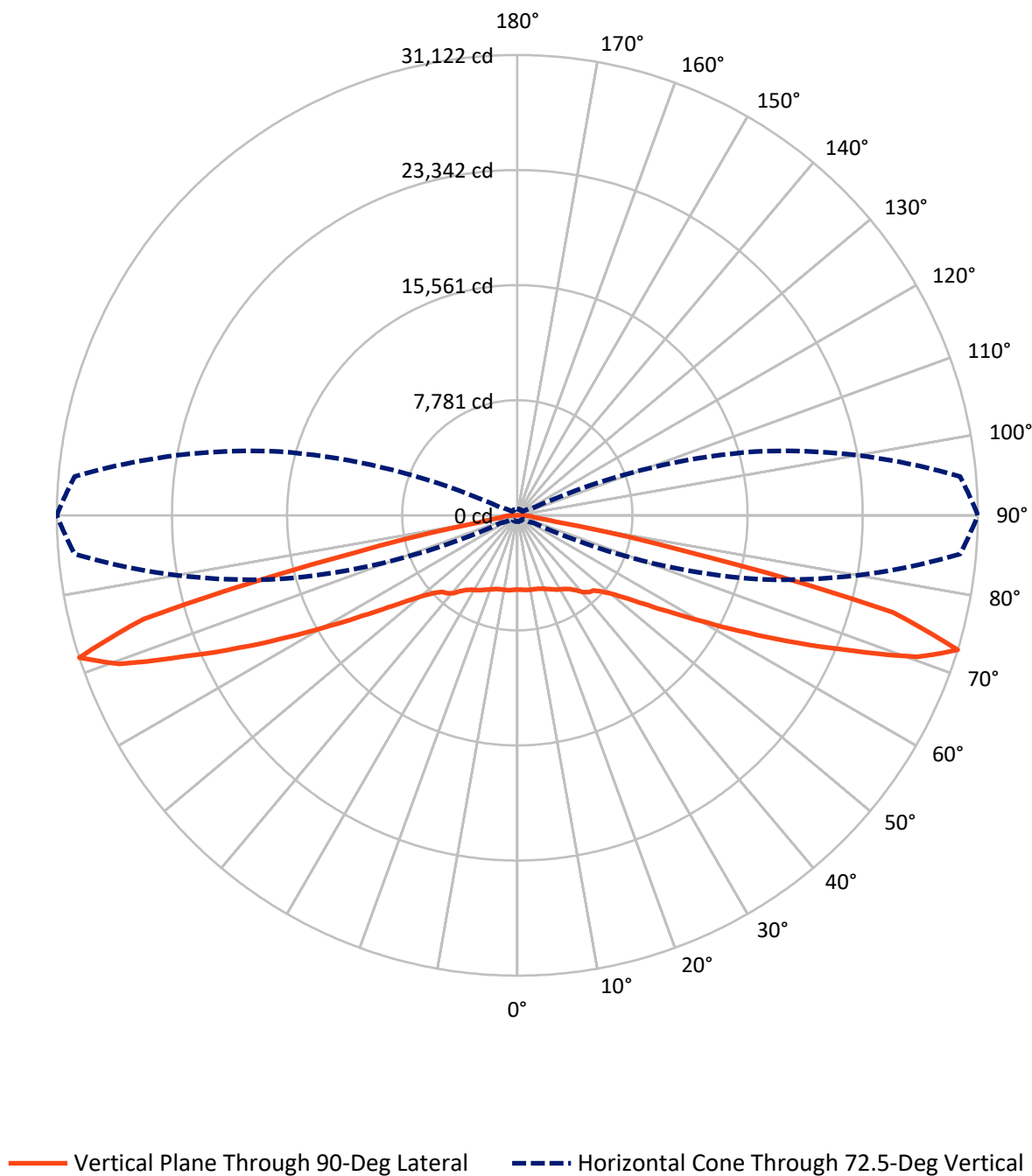
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc  
Type I - Short - N/A

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## Luminous Intensity Polar Plot



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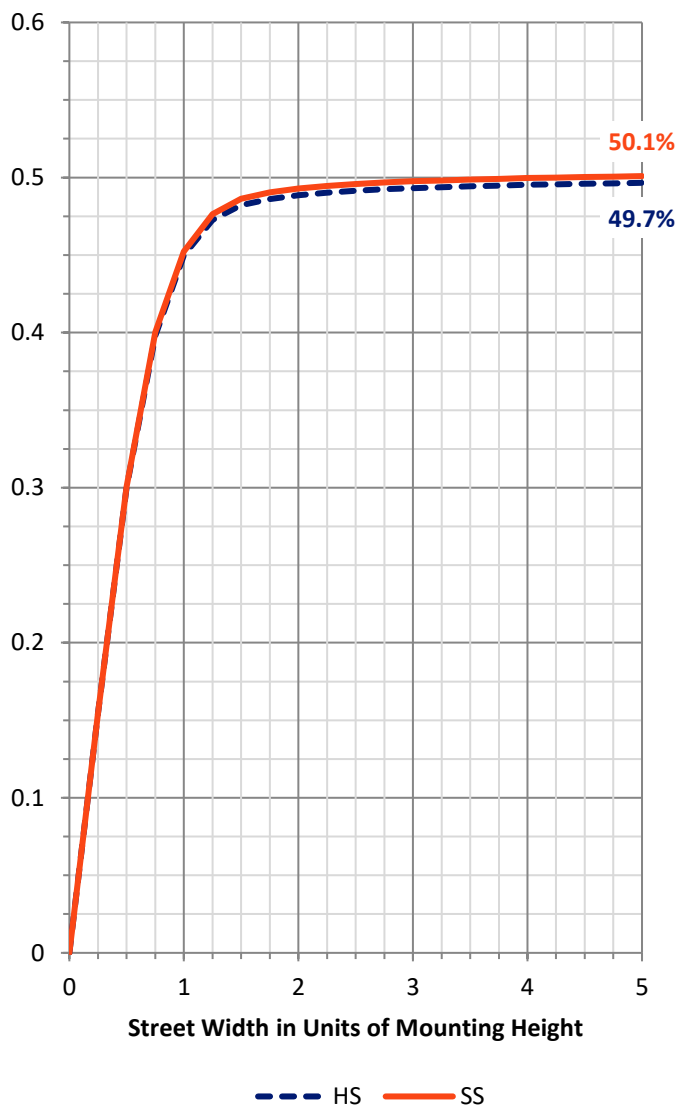
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 13460.3  | 0.0    | 13460.3 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 13460.3  | 0.0    | 13460.3 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 26920.6  | 0.0    | 26920.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 487.8   | 1.8       |
| 10°-20°   | 1491.4  | 5.5       |
| 20°-30°   | 2486.7  | 9.2       |
| 30°-40°   | 3420.0  | 12.7      |
| 40°-50°   | 4176.8  | 15.5      |
| 50°-60°   | 4830.9  | 17.9      |
| 60°-70°   | 5760.0  | 21.4      |
| 70°-80°   | 4020.1  | 14.9      |
| 80°-90°   | 246.9   | 0.9       |
| 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°    | 26920.6 | 100.0     |
| 0°-180°   | 26920.6 | 100.0     |

**Coefficient of Utilization**



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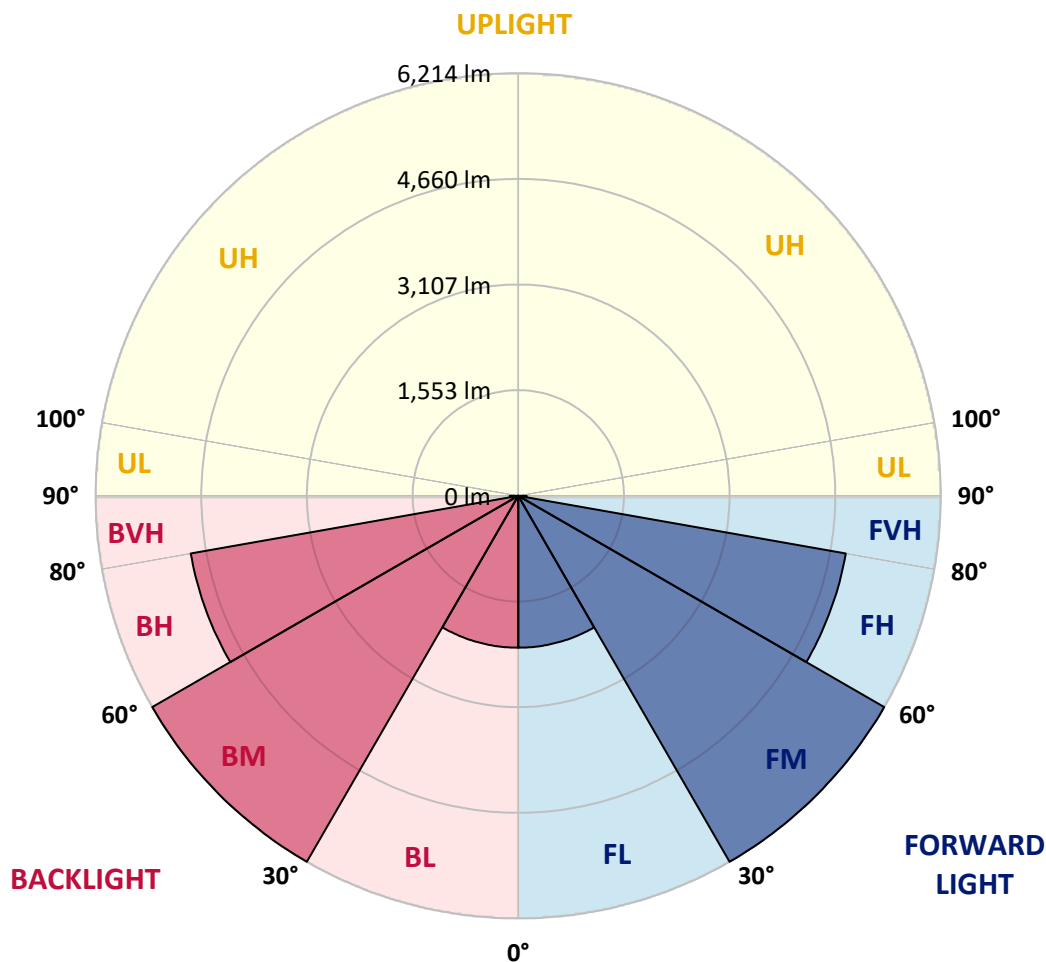
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2232.9 | 8.3       |                         |      |         |
| FM   | (30°-60°)   | 6213.8 | 23.1      |                         |      |         |
| FH   | (60°-80°)   | 4890.1 | 18.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 123.5  | 0.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 2232.9 | 8.3       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 6213.8 | 23.1      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 4890.1 | 18.2      | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 123.5  | 0.5       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G4**

Type I Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 85°     | 90°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 5030.4 | 5030.4 | 5030.4 | 5030.4 | 5030.4 | 5030.4 | 5030.4 | 5030.4 | 5030.4  | 5030.4  | 5030.4  |
| 2.5°  | 5034.7 | 5040.4 | 5040.4 | 5036.1 | 5046.2 | 5037.6 | 5037.6 | 5033.3 | 5037.6  | 5033.3  | 5033.3  |
| 5°    | 5060.4 | 5067.6 | 5070.5 | 5069.0 | 5082.0 | 5074.8 | 5074.8 | 5069.0 | 5070.5  | 5066.2  | 5066.2  |
| 7.5°  | 5109.1 | 5119.1 | 5124.8 | 5132.0 | 5150.6 | 5142.0 | 5136.3 | 5119.1 | 5112.0  | 5100.5  | 5100.5  |
| 10°   | 5124.8 | 5136.3 | 5154.8 | 5192.0 | 5235.0 | 5236.4 | 5219.3 | 5176.4 | 5143.4  | 5117.7  | 5113.4  |
| 12.5° | 5076.2 | 5091.9 | 5130.5 | 5206.4 | 5302.2 | 5340.9 | 5313.7 | 5242.2 | 5177.8  | 5132.0  | 5124.8  |
| 15°   | 5014.7 | 5031.8 | 5090.5 | 5205.0 | 5346.6 | 5436.7 | 5433.8 | 5339.4 | 5236.4  | 5164.9  | 5153.4  |
| 17.5° | 4918.8 | 4936.0 | 5020.3 | 5180.7 | 5380.9 | 5529.7 | 5569.7 | 5472.5 | 5328.0  | 5232.1  | 5216.4  |
| 20°   | 4745.6 | 4761.4 | 4878.7 | 5103.4 | 5392.3 | 5628.5 | 5732.9 | 5647.0 | 5466.7  | 5336.6  | 5312.3  |
| 22.5° | 4521.1 | 4545.4 | 4682.7 | 4970.3 | 5365.2 | 5731.5 | 5918.9 | 5860.2 | 5628.5  | 5448.2  | 5415.3  |
| 25°   | 4280.7 | 4306.4 | 4466.7 | 4807.2 | 5295.0 | 5805.8 | 6139.2 | 6102.0 | 5811.5  | 5587.0  | 5541.2  |
| 27.5° | 4073.2 | 4100.4 | 4275.0 | 4645.5 | 5186.4 | 5834.5 | 6356.6 | 6375.3 | 6033.4  | 5740.0  | 5691.4  |
| 30°   | 3910.2 | 3935.9 | 4121.9 | 4515.3 | 5046.2 | 5805.8 | 6547.0 | 6675.7 | 6259.4  | 5873.0  | 5802.9  |
| 32.5° | 3731.3 | 3764.2 | 3960.2 | 4356.6 | 4880.1 | 5737.1 | 6712.9 | 7000.5 | 6521.3  | 6016.1  | 5927.5  |
| 35°   | 3505.3 | 3535.3 | 3741.4 | 4139.1 | 4662.7 | 5627.0 | 6851.7 | 7361.0 | 6896.1  | 6233.6  | 6134.9  |
| 37.5° | 3230.6 | 3259.2 | 3463.8 | 3867.2 | 4446.7 | 5472.5 | 6957.6 | 7767.3 | 7342.5  | 6547.0  | 6415.4  |
| 40°   | 2954.5 | 2981.6 | 3173.3 | 3563.9 | 4187.7 | 5275.1 | 6994.8 | 8165.0 | 7854.7  | 6977.6  | 6837.4  |
| 42.5° | 2701.2 | 2725.5 | 2901.5 | 3264.9 | 3897.3 | 5023.2 | 6946.1 | 8511.3 | 8313.9  | 7278.0  | 7097.8  |
| 45°   | 2468.0 | 2489.4 | 2645.4 | 2984.5 | 3595.4 | 4717.0 | 6800.2 | 8883.4 | 8860.4  | 7492.6  | 7249.4  |
| 47.5° | 2201.9 | 2223.3 | 2385.0 | 2712.7 | 3293.5 | 4358.0 | 6552.7 | 9249.6 | 9620.1  | 7979.1  | 7698.7  |
| 50°   | 1877.1 | 1895.7 | 2061.7 | 2399.3 | 2980.2 | 3976.0 | 6209.3 | 9537.1 | 10578.7 | 8715.9  | 8364.0  |
| 52.5° | 1492.2 | 1512.3 | 1673.9 | 2011.6 | 2608.2 | 3565.4 | 5757.2 | 9724.6 | 11686.1 | 9791.8  | 9358.4  |
| 55°   | 1110.3 | 1124.5 | 1264.7 | 1568.0 | 2147.5 | 3097.5 | 5190.6 | 9777.5 | 12942.3 | 11262.6 | 10720.4 |
| 57.5° | 805.4  | 814.1  | 904.3  | 1130.3 | 1628.1 | 2512.4 | 4502.4 | 9640.1 | 14437.3 | 13148.3 | 12465.8 |
| 60°   | 652.4  | 655.3  | 682.4  | 782.6  | 1131.7 | 1851.4 | 3671.2 | 9168.0 | 16059.8 | 15579.1 | 14719.2 |
| 62.5° | 592.3  | 592.3  | 599.4  | 626.7  | 765.5  | 1221.8 | 2665.4 | 8189.4 | 17799.5 | 18650.8 | 17499.1 |
| 65°   | 550.8  | 550.8  | 553.7  | 566.5  | 603.7  | 778.3  | 1682.5 | 6595.6 | 19266.0 | 22249.1 | 20792.6 |
| 67.5° | 513.6  | 515.1  | 513.6  | 517.9  | 539.4  | 575.1  | 975.7  | 4555.4 | 20055.8 | 25977.5 | 24405.1 |
| 70°   | 475.0  | 477.9  | 470.7  | 470.7  | 487.9  | 489.3  | 610.9  | 2498.0 | 19400.5 | 29102.2 | 28688.7 |
| 72.5° | 429.2  | 433.5  | 422.1  | 419.2  | 432.0  | 426.4  | 459.3  | 1198.9 | 16656.4 | 30035.1 | 31122.4 |
| 75°   | 389.2  | 394.8  | 369.1  | 361.9  | 361.9  | 357.7  | 373.4  | 615.2  | 10810.5 | 24501.0 | 26206.4 |
| 77.5° | 353.4  | 364.8  | 323.4  | 300.4  | 294.7  | 281.9  | 304.7  | 376.3  | 4728.5  | 11503.0 | 11264.0 |
| 80°   | 291.8  | 307.6  | 266.1  | 238.9  | 228.9  | 214.6  | 240.4  | 263.2  | 1406.4  | 2671.1  | 2558.1  |
| 82.5° | 217.5  | 224.6  | 188.8  | 170.3  | 161.6  | 151.7  | 180.3  | 183.2  | 457.9   | 945.7   | 1068.8  |
| 85°   | 138.8  | 141.7  | 115.9  | 100.1  | 95.8   | 91.5   | 114.5  | 100.1  | 174.6   | 695.4   | 1010.0  |
| 87.5° | 48.7   | 55.8   | 44.4   | 40.1   | 42.9   | 35.8   | 52.9   | 30.0   | 48.7    | 490.8   | 608.0   |
| 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)