

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: P962969

Luminaire Tested: **NAV-SB2D-735-U-5MQ**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P962969  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-735-U-5MQ  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 21844.8 lumens  
Efficiency: N/A  
Efficacy: 148.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3

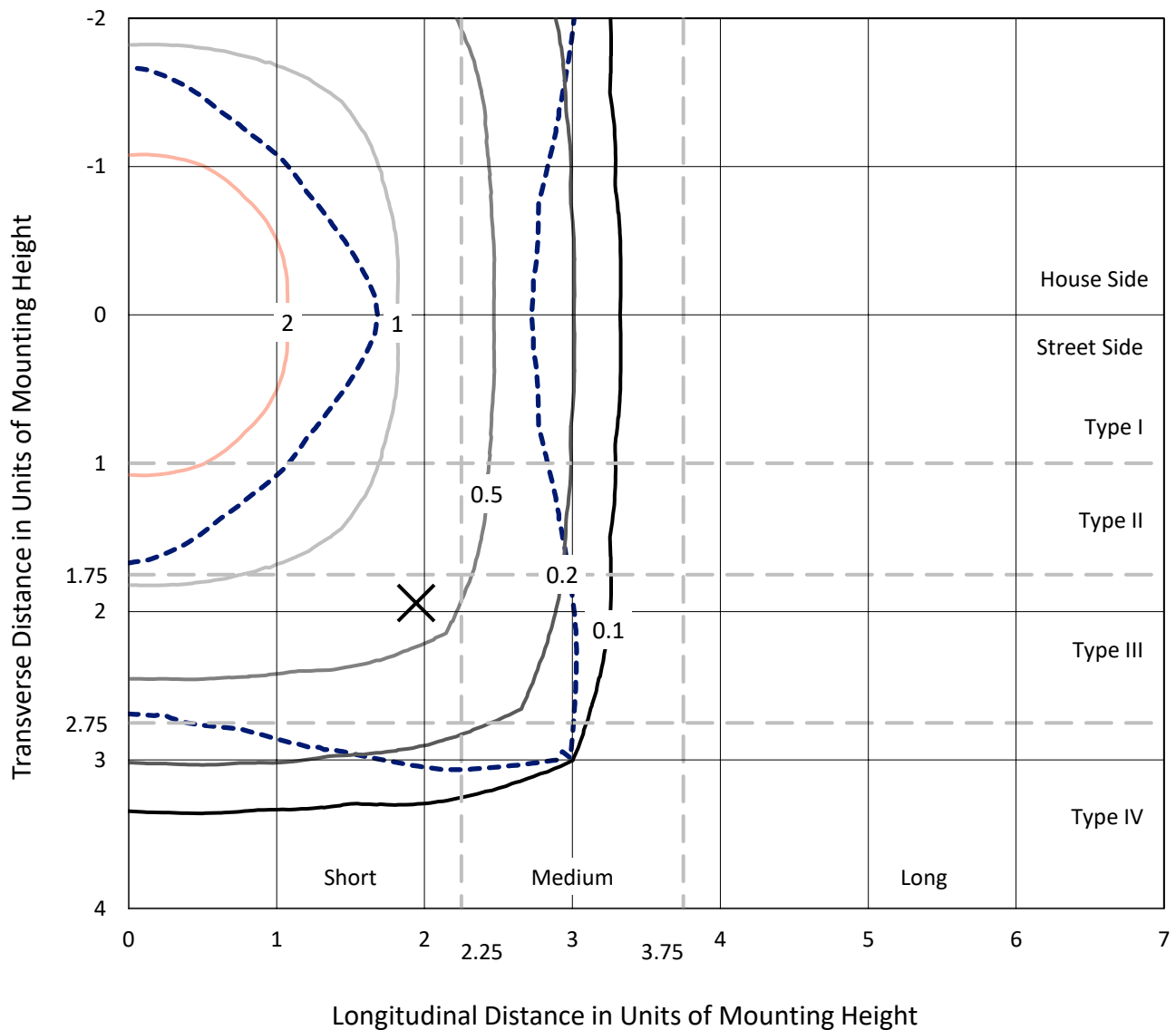
Input Watts (W): 147.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

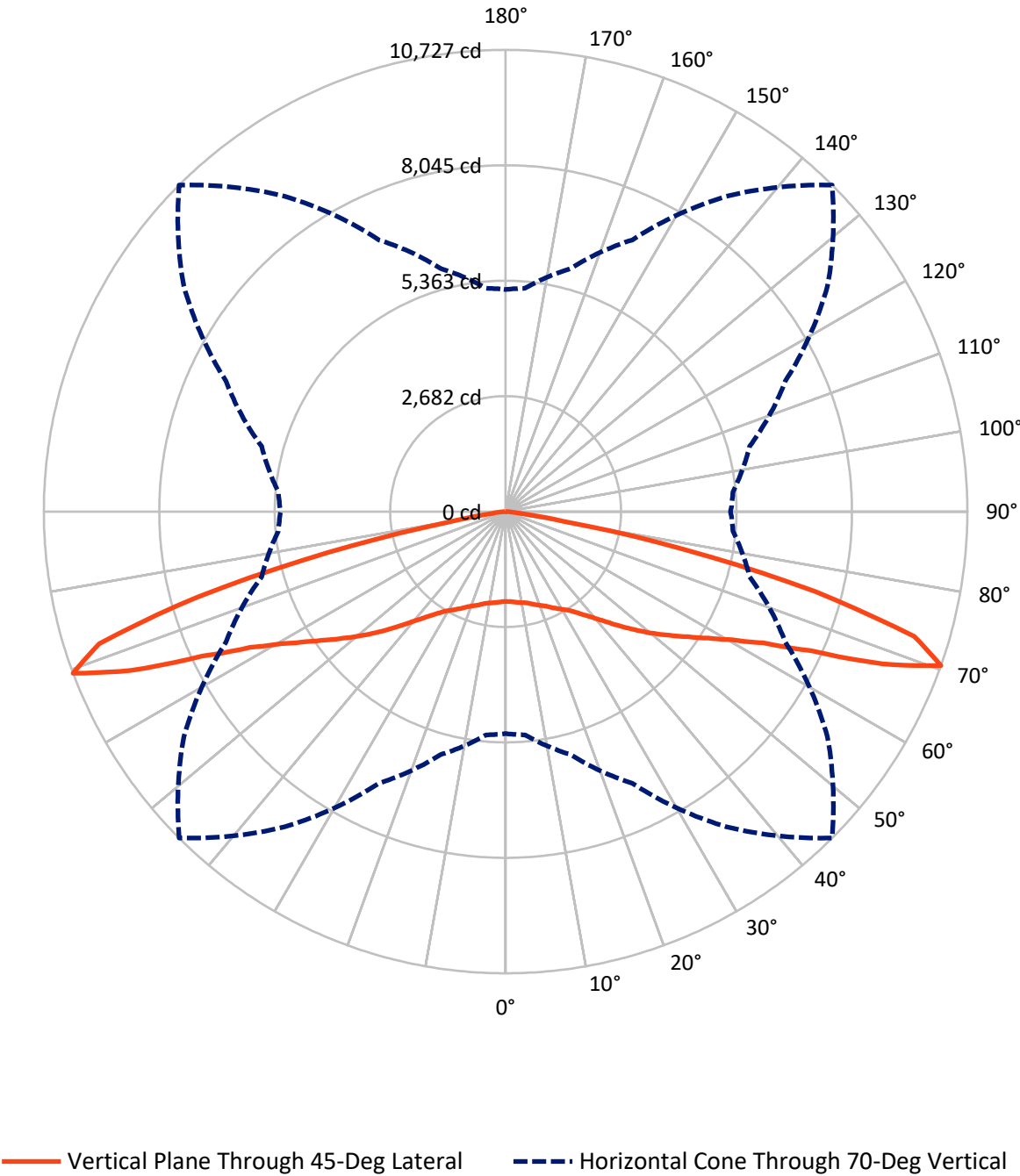
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc  
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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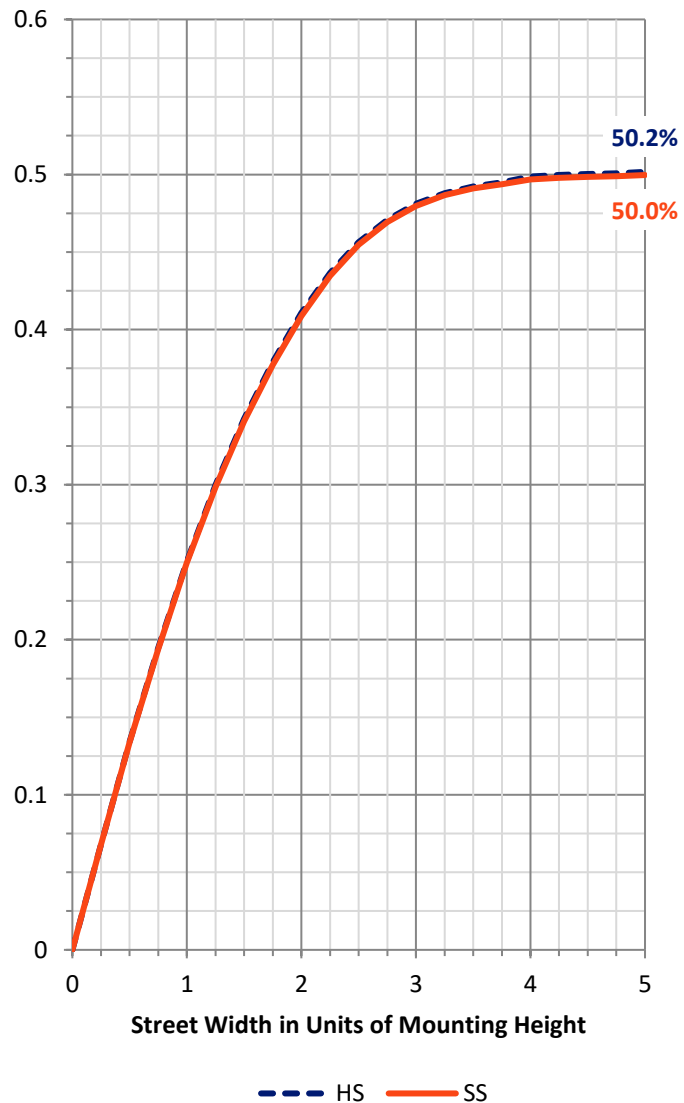
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10922.4  | 0.0    | 10922.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10922.4  | 0.0    | 10922.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 21844.8  | 0.0    | 21844.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 203.3   | 0.9       |
| 10°-20°   | 630.4   | 2.9       |
| 20°-30°   | 1126.5  | 5.2       |
| 30°-40°   | 1826.1  | 8.4       |
| 40°-50°   | 2974.4  | 13.6      |
| 50°-60°   | 4535.0  | 20.8      |
| 60°-70°   | 6746.7  | 30.9      |
| 70°-80°   | 3677.1  | 16.8      |
| 80°-90°   | 125.2   | 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°    | 21844.8 | 100.0     |
| 0°-180°   | 21844.8 | 100.0     |

**Coefficient of Utilization**



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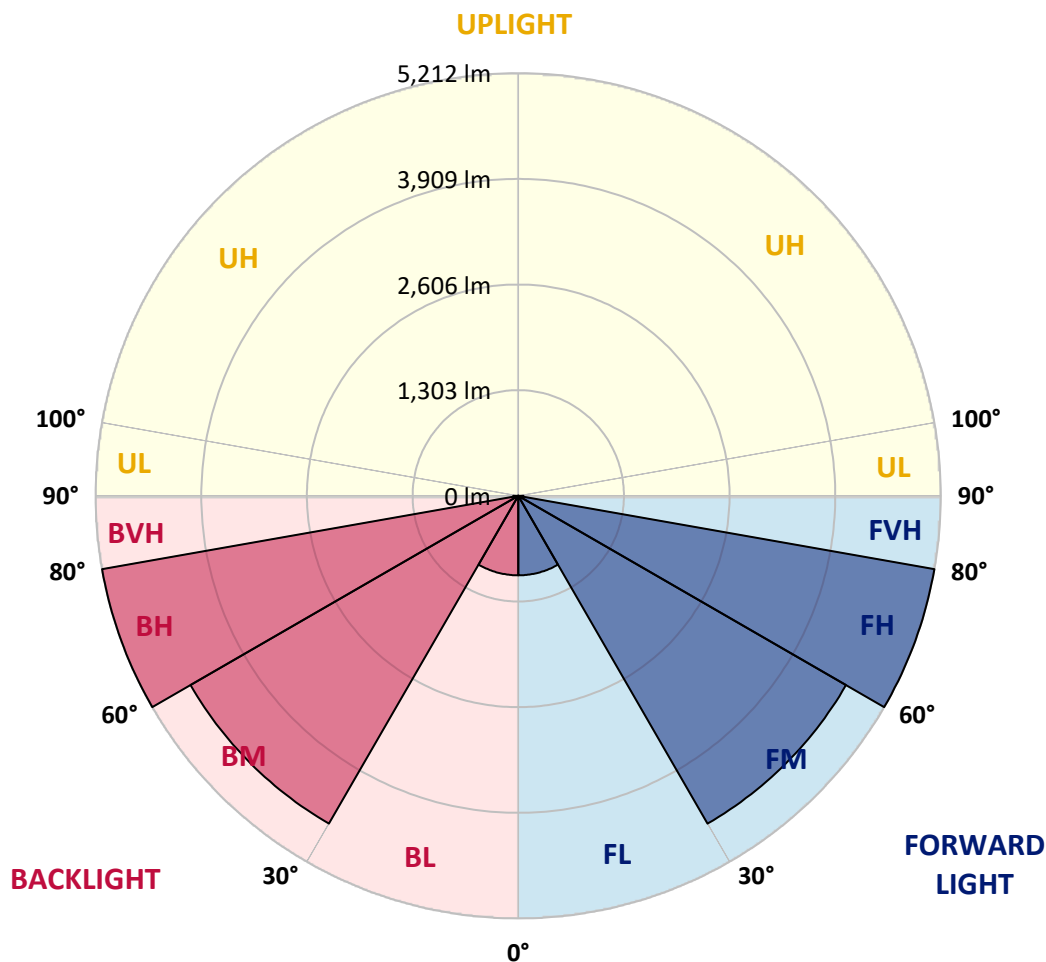
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 980.1  | 4.5       |                         |      |         |
| FM   | (30°-60°)   | 4667.8 | 21.4      |                         |      |         |
| FH   | (60°-80°)   | 5211.9 | 23.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 62.6   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 980.1  | 4.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 4667.8 | 21.4      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 5211.9 | 23.9      | B5                      |      | G3/7500 |
| BVH  | (80°-90°)   | 62.6   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G3**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| 0°    | 2092.5 | 2092.5 | 2092.5 | 2092.5 | 2092.5 | 2092.5  | 2092.5 | 2092.5 | 2092.5 | 2092.5 | 2092.5 |
| 2.5°  | 2102.4 | 2104.5 | 2100.2 | 2098.0 | 2095.8 | 2092.5  | 2093.6 | 2099.1 | 2103.5 | 2102.4 | 2103.5 |
| 5°    | 2119.9 | 2122.2 | 2118.8 | 2117.8 | 2113.3 | 2112.2  | 2112.2 | 2117.8 | 2121.0 | 2118.8 | 2119.9 |
| 7.5°  | 2139.7 | 2143.0 | 2137.4 | 2136.4 | 2134.2 | 2132.0  | 2130.9 | 2136.4 | 2139.7 | 2139.7 | 2139.7 |
| 10°   | 2158.3 | 2161.6 | 2157.2 | 2153.9 | 2151.7 | 2151.7  | 2149.5 | 2153.9 | 2159.4 | 2158.3 | 2158.3 |
| 12.5° | 2178.0 | 2180.3 | 2175.9 | 2173.6 | 2173.6 | 2177.0  | 2173.6 | 2175.9 | 2180.3 | 2178.0 | 2177.0 |
| 15°   | 2202.2 | 2203.2 | 2202.2 | 2205.5 | 2210.9 | 2221.9  | 2212.1 | 2209.9 | 2212.1 | 2206.5 | 2206.5 |
| 17.5° | 2235.1 | 2237.3 | 2241.7 | 2249.4 | 2257.0 | 2276.7  | 2259.2 | 2253.8 | 2253.8 | 2242.8 | 2242.8 |
| 20°   | 2275.7 | 2279.0 | 2285.5 | 2298.7 | 2308.5 | 2327.2  | 2309.6 | 2301.9 | 2298.7 | 2284.4 | 2284.4 |
| 22.5° | 2318.4 | 2323.9 | 2333.8 | 2351.4 | 2368.9 | 2386.4  | 2368.9 | 2355.8 | 2345.8 | 2327.2 | 2326.1 |
| 25°   | 2367.8 | 2374.3 | 2389.7 | 2418.2 | 2442.4 | 2467.6  | 2446.8 | 2420.4 | 2400.7 | 2374.3 | 2373.3 |
| 27.5° | 2438.0 | 2445.6 | 2464.3 | 2499.4 | 2530.1 | 2552.0  | 2532.3 | 2498.3 | 2470.9 | 2439.1 | 2438.0 |
| 30°   | 2536.7 | 2544.4 | 2566.3 | 2603.6 | 2624.4 | 2638.7  | 2625.5 | 2599.2 | 2566.3 | 2530.1 | 2530.1 |
| 32.5° | 2663.9 | 2673.7 | 2697.9 | 2733.0 | 2737.4 | 2739.5  | 2735.2 | 2722.0 | 2697.9 | 2654.0 | 2655.2 |
| 35°   | 2825.1 | 2836.1 | 2863.4 | 2892.0 | 2887.6 | 2892.0  | 2885.4 | 2881.1 | 2863.4 | 2813.0 | 2813.0 |
| 37.5° | 3022.5 | 3035.6 | 3064.1 | 3086.1 | 3075.1 | 3069.7  | 3070.8 | 3071.8 | 3062.0 | 3006.0 | 3006.0 |
| 40°   | 3251.7 | 3269.2 | 3290.1 | 3313.1 | 3294.5 | 3278.1  | 3289.0 | 3297.7 | 3289.0 | 3231.9 | 3231.9 |
| 42.5° | 3487.5 | 3512.8 | 3534.7 | 3567.6 | 3552.2 | 3531.3  | 3546.7 | 3556.6 | 3538.0 | 3476.5 | 3480.9 |
| 45°   | 3749.7 | 3773.7 | 3802.2 | 3851.6 | 3840.7 | 3818.7  | 3840.7 | 3842.8 | 3811.1 | 3738.7 | 3746.4 |
| 47.5° | 4020.5 | 4045.8 | 4088.5 | 4154.3 | 4149.9 | 4125.8  | 4154.3 | 4139.0 | 4098.4 | 4011.7 | 4006.2 |
| 50°   | 4277.1 | 4312.3 | 4378.0 | 4470.1 | 4478.9 | 4449.3  | 4487.7 | 4458.1 | 4390.1 | 4281.5 | 4279.4 |
| 52.5° | 4518.4 | 4555.7 | 4659.9 | 4784.9 | 4816.7 | 4778.3  | 4829.9 | 4778.3 | 4676.4 | 4537.1 | 4523.9 |
| 55°   | 4771.8 | 4813.4 | 4937.3 | 5100.7 | 5164.4 | 5135.9  | 5184.1 | 5106.2 | 4961.5 | 4792.6 | 4769.5 |
| 57.5° | 5070.1 | 5095.3 | 5243.3 | 5437.4 | 5544.9 | 5551.5  | 5573.4 | 5441.8 | 5266.3 | 5074.5 | 5048.1 |
| 60°   | 5393.5 | 5428.7 | 5589.8 | 5822.4 | 5992.4 | 6047.2  | 6024.1 | 5829.0 | 5625.0 | 5404.5 | 5369.5 |
| 62.5° | 5808.2 | 5846.5 | 6039.5 | 6318.1 | 6586.8 | 6722.8  | 6632.9 | 6349.9 | 6097.6 | 5833.4 | 5787.3 |
| 65°   | 6151.4 | 6194.2 | 6542.9 | 7039.7 | 7528.8 | 7801.9  | 7576.0 | 7055.1 | 6601.0 | 6228.2 | 6166.7 |
| 67.5° | 5902.5 | 5955.0 | 6502.3 | 7414.7 | 8631.0 | 9445.9  | 8672.7 | 7526.7 | 6637.3 | 6131.7 | 6056.0 |
| 70°   | 5158.9 | 5208.2 | 5846.5 | 6961.9 | 8941.4 | 10726.8 | 9127.8 | 7166.9 | 5867.3 | 5301.4 | 5225.8 |
| 72.5° | 3425.0 | 3584.0 | 4230.0 | 5567.9 | 7984.0 | 9926.2  | 8063.0 | 5454.9 | 3924.0 | 3417.4 | 3306.5 |
| 75°   | 1136.2 | 1263.4 | 1704.3 | 2886.5 | 5347.5 | 7423.6  | 5090.9 | 2554.2 | 1350.0 | 971.7  | 919.0  |
| 77.5° | 286.3  | 330.2  | 455.1  | 825.8  | 2133.1 | 4226.7  | 1920.3 | 674.4  | 367.4  | 256.7  | 229.2  |
| 80°   | 139.3  | 153.5  | 219.4  | 275.3  | 534.1  | 1343.5  | 501.2  | 258.8  | 173.3  | 133.8  | 122.8  |
| 82.5° | 76.8   | 77.9   | 123.9  | 155.7  | 198.5  | 347.7   | 206.2  | 151.4  | 99.8   | 81.2   | 81.2   |
| 85°   | 47.2   | 46.0   | 65.8   | 83.3   | 83.3   | 123.9   | 98.7   | 83.3   | 57.0   | 50.4   | 52.7   |
| 87.5° | 18.7   | 18.7   | 24.1   | 26.3   | 23.1   | 31.8    | 25.2   | 27.4   | 21.9   | 20.8   | 21.9   |
| 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)