

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: P967841

Luminaire Tested: **NAV-SB5A-827-U-RW**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967841  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-827-U-RW  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND RECTANGULAR  
WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20797.2 lumens  
Efficiency: N/A  
Efficacy: 146.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G4

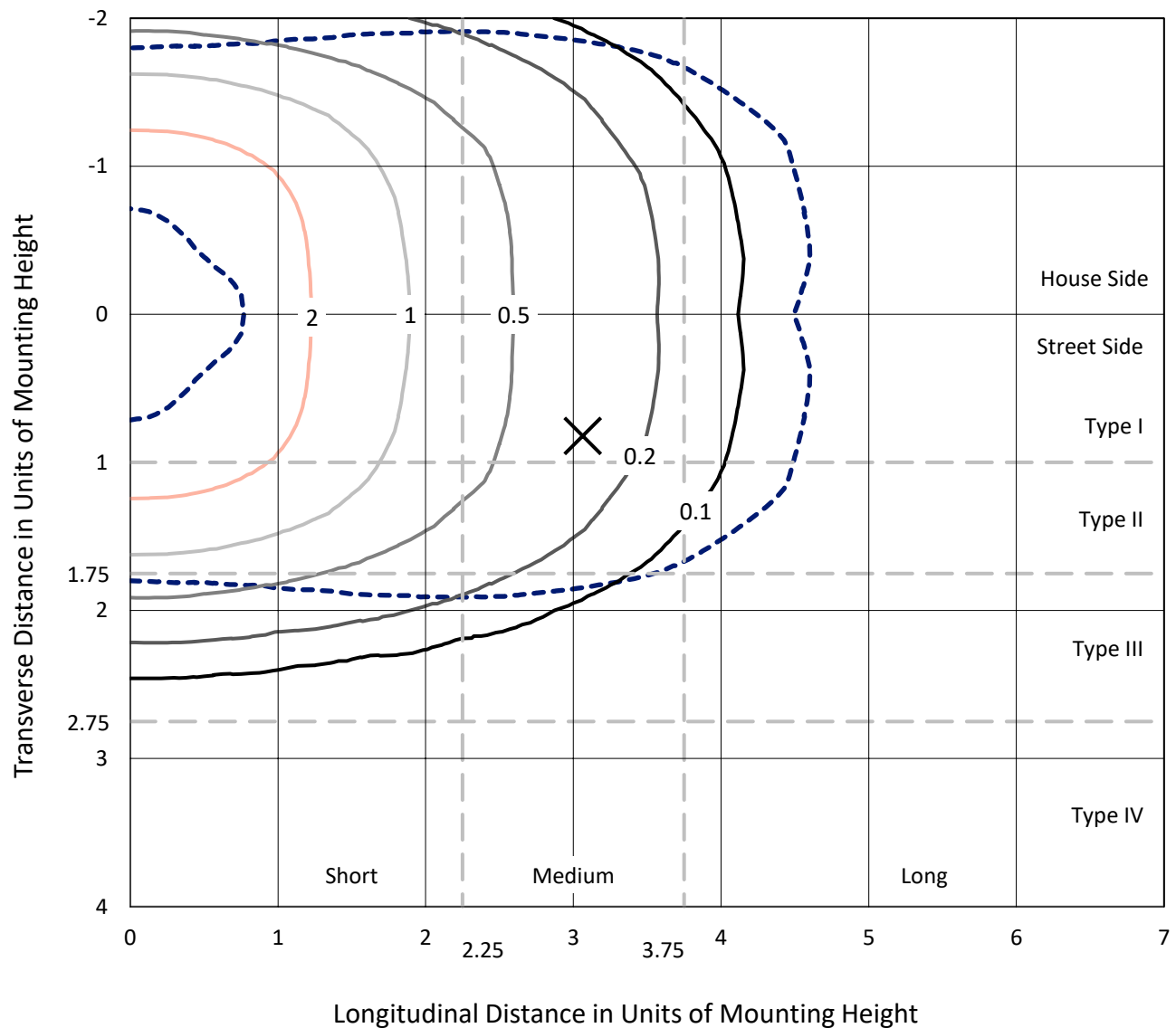
Input Watts (W): 141.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

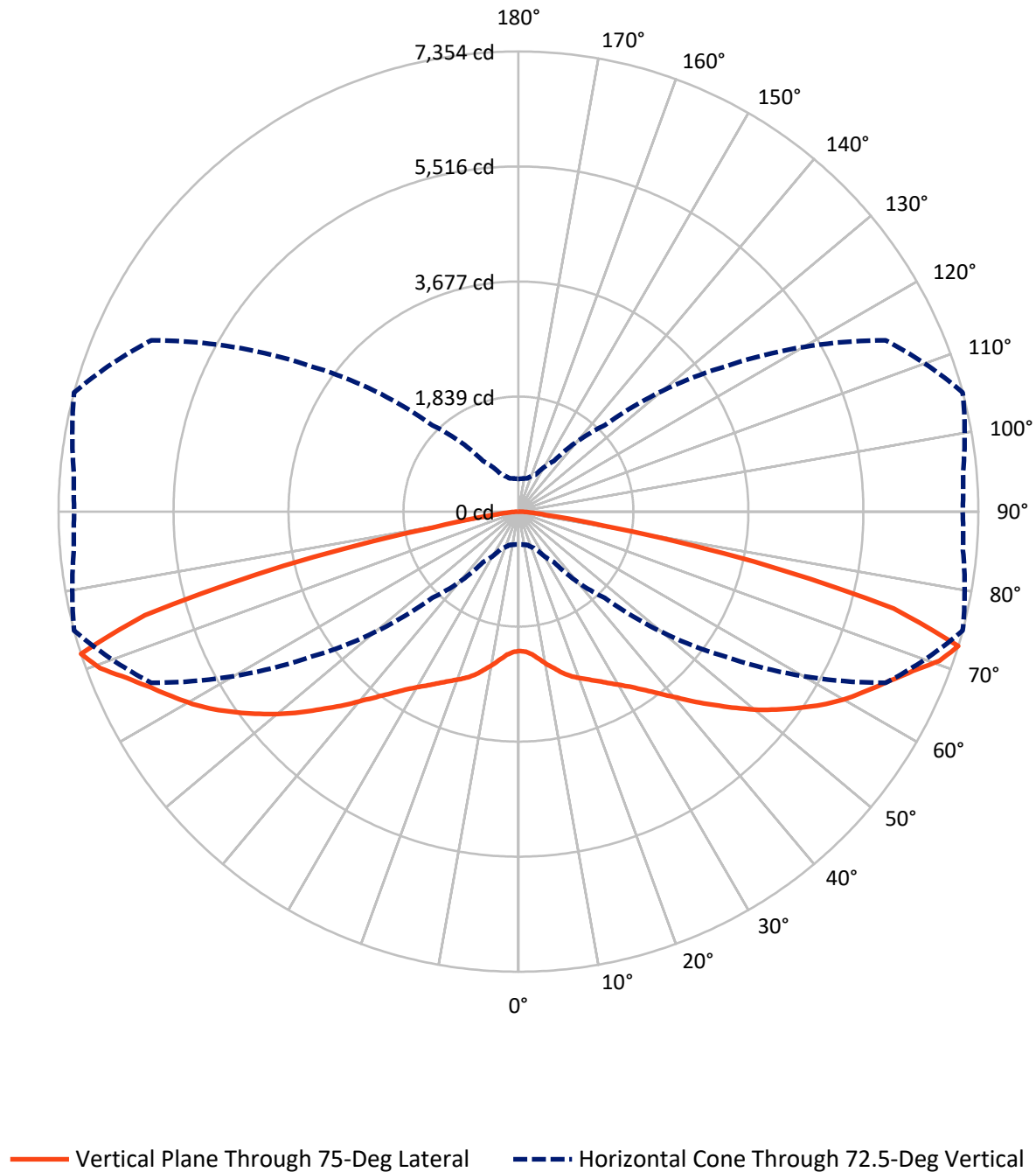
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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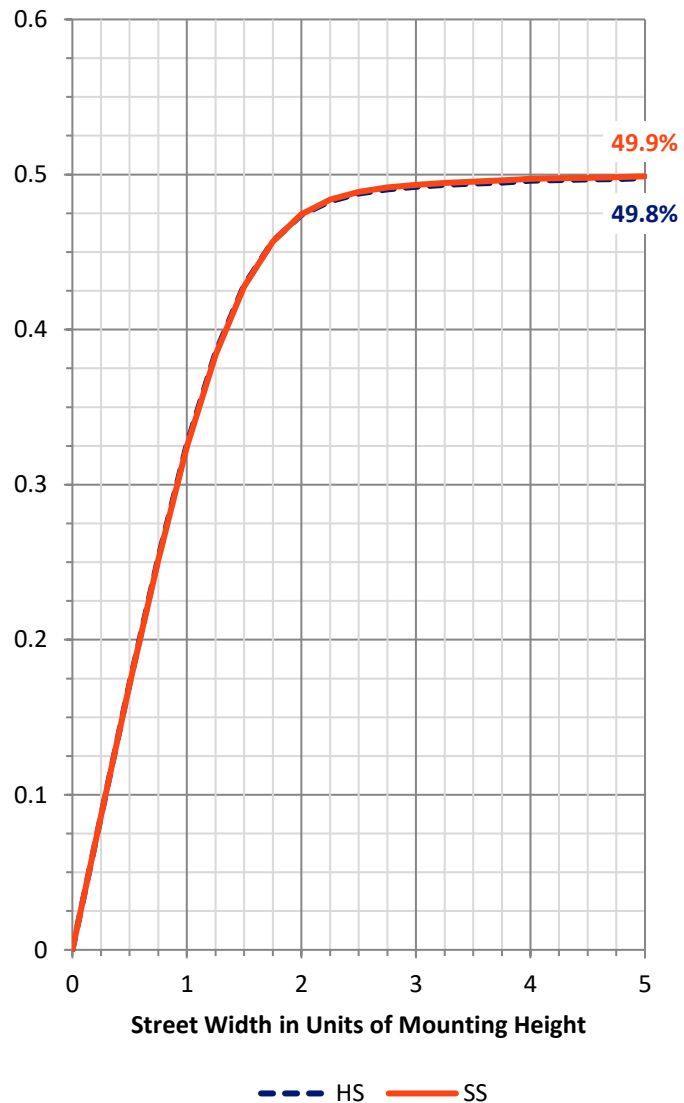
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10398.6  | 0.0    | 10398.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10398.6  | 0.0    | 10398.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 20797.2  | 0.0    | 20797.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 218.2   | 1.0       |
| 10°-20°   | 719.8   | 3.5       |
| 20°-30°   | 1390.8  | 6.7       |
| 30°-40°   | 2348.4  | 11.3      |
| 40°-50°   | 3724.3  | 17.9      |
| 50°-60°   | 4986.5  | 24.0      |
| 60°-70°   | 4745.5  | 22.8      |
| 70°-80°   | 2476.3  | 11.9      |
| 80°-90°   | 187.4   | 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°    | 20797.2 | 100.0     |
| 0°-180°   | 20797.2 | 100.0     |

**Coefficient of Utilization**



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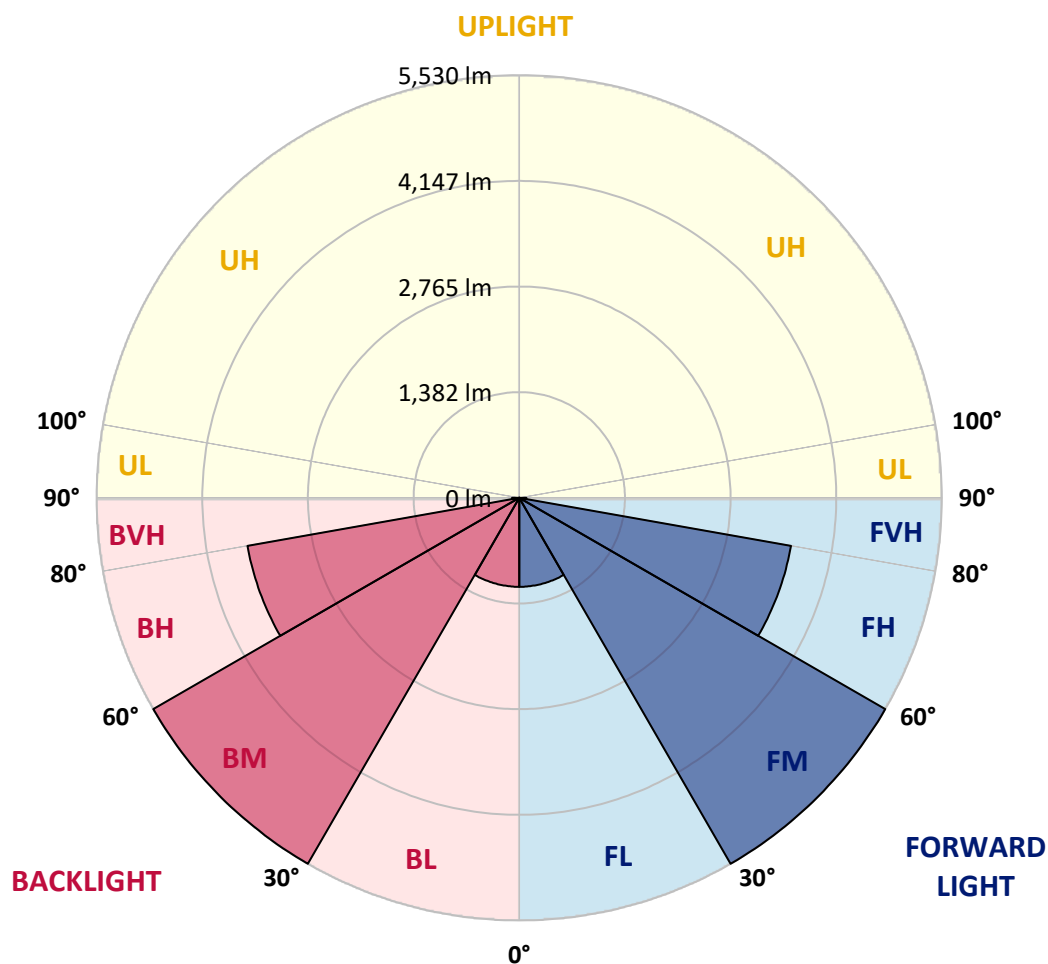
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1164.4 | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 5529.6 | 26.6      |                         |      |         |
| FH   | (60°-80°)   | 3610.9 | 17.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 93.7   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1164.4 | 5.6       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 5529.6 | 26.6      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 3610.9 | 17.4      | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 93.7   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 | 2227.7 |
| 2.5°  | 2227.7 | 2225.7 | 2227.7 | 2229.9 | 2228.9 | 2228.9 | 2234.1 | 2237.3 | 2243.7 | 2242.6 | 2241.6 |
| 5°    | 2212.9 | 2211.8 | 2220.4 | 2229.9 | 2237.3 | 2250.1 | 2266.0 | 2277.7 | 2292.5 | 2295.7 | 2295.7 |
| 7.5°  | 2205.5 | 2202.3 | 2217.2 | 2234.1 | 2257.5 | 2289.3 | 2320.1 | 2352.0 | 2377.5 | 2386.0 | 2388.1 |
| 10°   | 2210.7 | 2211.8 | 2232.0 | 2263.8 | 2301.0 | 2345.6 | 2389.2 | 2443.3 | 2479.4 | 2487.9 | 2496.4 |
| 12.5° | 2235.2 | 2233.1 | 2267.1 | 2318.0 | 2369.0 | 2425.3 | 2476.2 | 2535.6 | 2575.0 | 2595.2 | 2603.6 |
| 15°   | 2279.8 | 2275.5 | 2323.4 | 2398.7 | 2473.0 | 2538.9 | 2580.3 | 2636.6 | 2682.2 | 2707.7 | 2717.3 |
| 17.5° | 2332.9 | 2335.1 | 2397.7 | 2495.4 | 2593.0 | 2667.4 | 2706.6 | 2735.3 | 2770.4 | 2792.6 | 2803.3 |
| 20°   | 2426.3 | 2430.6 | 2500.7 | 2616.4 | 2727.9 | 2812.8 | 2844.7 | 2834.0 | 2843.7 | 2860.6 | 2873.4 |
| 22.5° | 2551.6 | 2553.8 | 2632.3 | 2757.7 | 2874.4 | 2967.9 | 2989.1 | 2945.5 | 2919.0 | 2930.7 | 2939.2 |
| 25°   | 2697.1 | 2710.9 | 2789.4 | 2918.0 | 3038.0 | 3127.2 | 3136.7 | 3070.9 | 3005.0 | 3008.2 | 3013.5 |
| 27.5° | 2874.4 | 2887.1 | 2966.8 | 3094.3 | 3216.3 | 3293.8 | 3292.8 | 3204.7 | 3108.0 | 3083.6 | 3091.0 |
| 30°   | 3066.6 | 3080.4 | 3162.2 | 3293.8 | 3407.5 | 3475.5 | 3460.6 | 3355.4 | 3217.4 | 3171.8 | 3177.1 |
| 32.5° | 3295.0 | 3303.4 | 3386.2 | 3517.9 | 3623.1 | 3677.2 | 3646.4 | 3516.9 | 3344.8 | 3292.8 | 3305.5 |
| 35°   | 3571.0 | 3583.7 | 3645.3 | 3769.5 | 3861.9 | 3906.6 | 3854.5 | 3701.6 | 3508.4 | 3449.9 | 3458.5 |
| 37.5° | 3886.4 | 3877.9 | 3948.0 | 4058.4 | 4134.8 | 4162.4 | 4091.3 | 3909.8 | 3695.2 | 3626.2 | 3639.0 |
| 40°   | 4215.5 | 4211.3 | 4287.8 | 4394.0 | 4435.4 | 4452.3 | 4347.2 | 4148.7 | 3910.8 | 3836.5 | 3860.9 |
| 42.5° | 4513.9 | 4510.7 | 4613.7 | 4731.6 | 4781.5 | 4762.4 | 4629.6 | 4402.4 | 4160.4 | 4075.4 | 4096.6 |
| 45°   | 4752.8 | 4748.6 | 4874.9 | 5040.6 | 5138.3 | 5106.4 | 4928.0 | 4682.7 | 4413.0 | 4324.9 | 4345.1 |
| 47.5° | 4936.5 | 4938.7 | 5074.6 | 5279.5 | 5450.4 | 5462.1 | 5232.8 | 4968.4 | 4691.2 | 4591.4 | 4621.2 |
| 50°   | 5069.2 | 5075.6 | 5221.1 | 5448.4 | 5682.0 | 5785.0 | 5543.9 | 5261.4 | 4979.0 | 4866.5 | 4900.4 |
| 52.5° | 5102.1 | 5113.8 | 5289.1 | 5555.6 | 5830.6 | 6027.0 | 5860.3 | 5542.9 | 5251.9 | 5144.7 | 5172.3 |
| 55°   | 4927.0 | 4950.3 | 5172.3 | 5547.1 | 5921.9 | 6186.3 | 6138.5 | 5828.5 | 5526.9 | 5416.5 | 5447.3 |
| 57.5° | 4524.6 | 4557.5 | 4816.6 | 5306.0 | 5901.7 | 6295.7 | 6354.1 | 6102.4 | 5801.9 | 5695.7 | 5720.2 |
| 60°   | 3960.7 | 4000.0 | 4248.4 | 4782.5 | 5617.2 | 6336.0 | 6506.0 | 6368.9 | 6054.7 | 5951.7 | 5974.0 |
| 62.5° | 3110.2 | 3161.1 | 3458.5 | 4084.9 | 5016.1 | 6148.1 | 6635.4 | 6610.0 | 6281.9 | 6153.4 | 6168.2 |
| 65°   | 1995.2 | 2049.4 | 2362.6 | 3102.7 | 4214.5 | 5572.6 | 6675.8 | 6844.6 | 6521.9 | 6342.4 | 6364.7 |
| 67.5° | 1203.0 | 1227.5 | 1382.5 | 1880.6 | 3080.4 | 4705.1 | 6333.9 | 7104.8 | 6802.2 | 6579.2 | 6596.2 |
| 70°   | 769.9  | 783.6  | 876.1  | 1104.3 | 1741.5 | 3432.9 | 5486.6 | 7153.7 | 7142.0 | 6822.4 | 6820.2 |
| 72.5° | 522.4  | 526.6  | 551.1  | 654.1  | 985.4  | 1950.6 | 4046.7 | 6476.3 | 7354.4 | 7135.6 | 7101.6 |
| 75°   | 382.2  | 405.6  | 445.0  | 463.0  | 559.5  | 974.8  | 2319.1 | 4550.0 | 6198.0 | 6293.6 | 6062.1 |
| 77.5° | 284.5  | 285.7  | 339.8  | 361.0  | 399.2  | 519.3  | 981.1  | 2540.0 | 3848.2 | 4040.3 | 3603.9 |
| 80°   | 241.1  | 228.3  | 227.2  | 291.0  | 300.5  | 323.9  | 438.5  | 877.1  | 1378.3 | 835.7  | 631.8  |
| 82.5° | 200.7  | 186.9  | 168.8  | 227.2  | 204.9  | 198.5  | 190.0  | 356.8  | 438.5  | 215.6  | 183.7  |
| 85°   | 140.1  | 133.8  | 127.4  | 148.6  | 116.8  | 99.8   | 91.3   | 166.7  | 184.8  | 91.3   | 80.7   |
| 87.5° | 60.5   | 62.6   | 63.8   | 65.8   | 48.9   | 35.1   | 35.1   | 46.7   | 46.7   | 36.1   | 26.5   |
| 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)