

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: P965764

Luminaire Tested: **NAV-SB4A-830-U-RW**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P965764  
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-SB4A-830-U-RW  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND RECTANGULAR  
WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 17050.8 lumens  
Efficiency: N/A  
Efficacy: 149.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G4

Input Watts (W): 114  
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

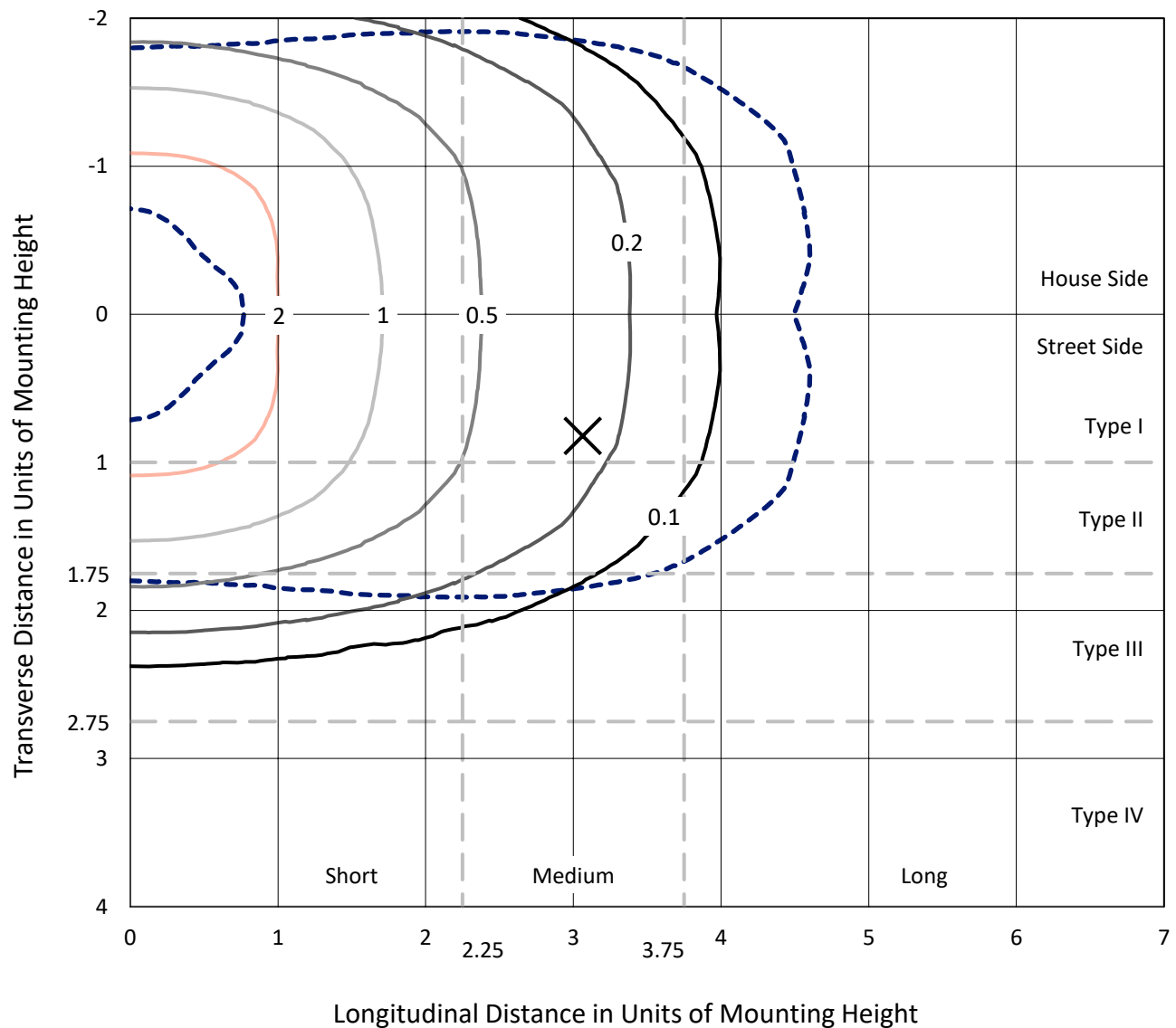


REPORT NUMBER: P965764

CATALOG NUMBER: NAV-SB4A-830-U-RW

## Iso-Footcandle Lines of Horizontal Illumination

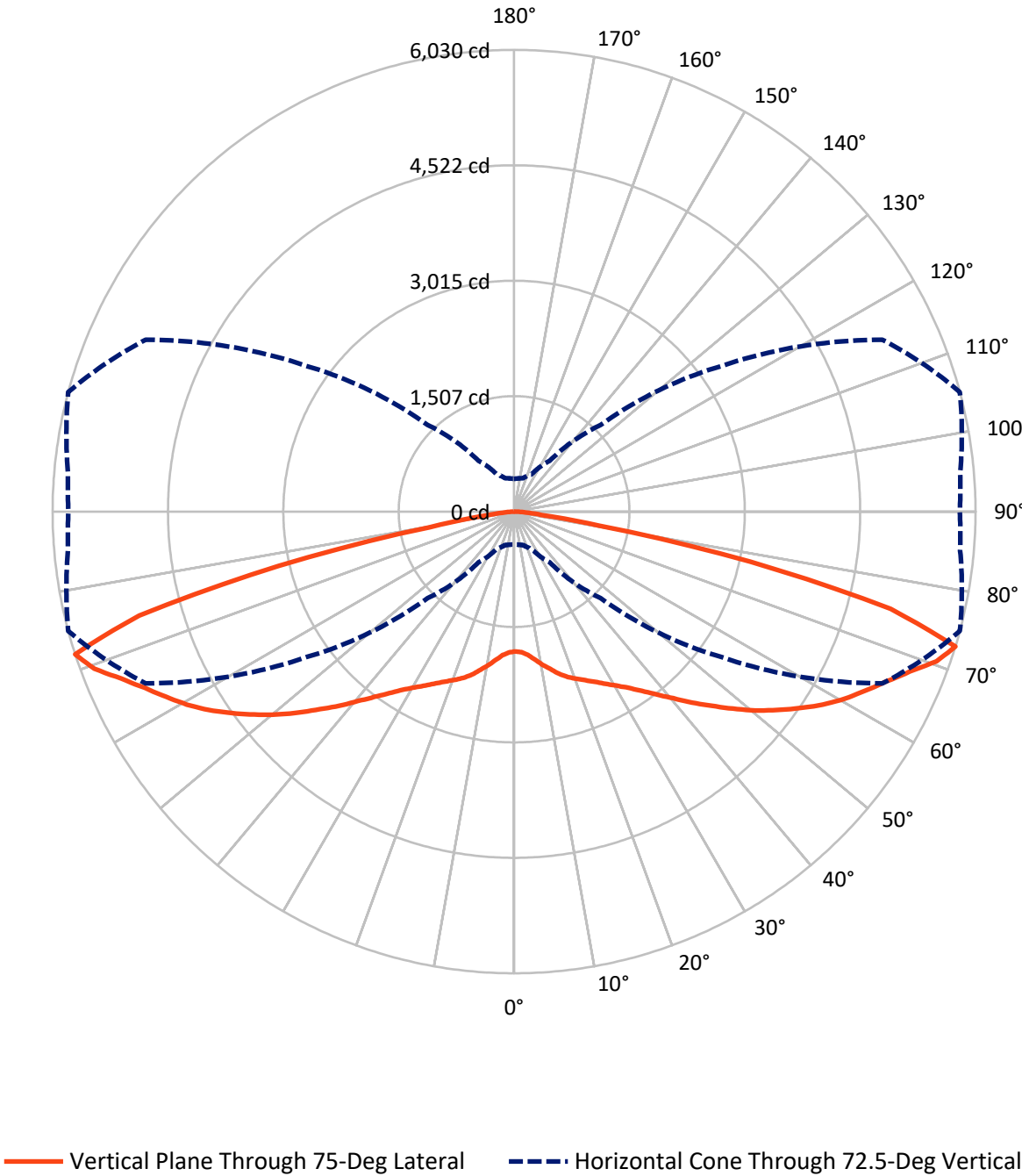
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
Type III - Medium - N/A

REPORT NUMBER: P965764  
CATALOG NUMBER: NAV-SB4A-830-U-RW

Luminous Intensity Polar Plot



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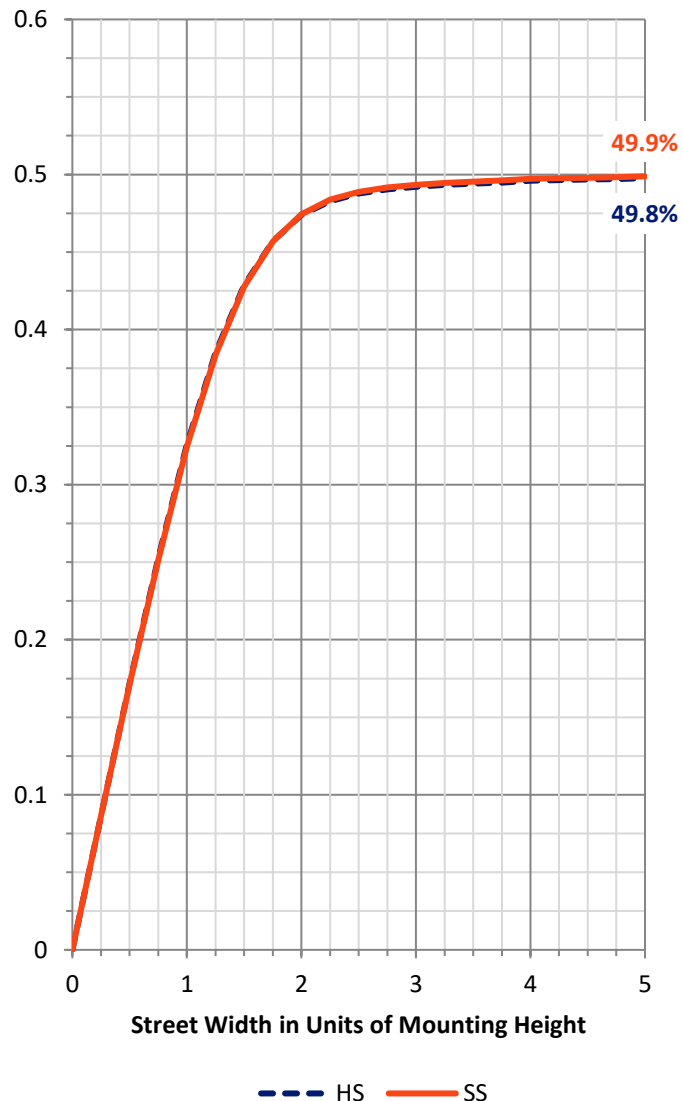
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8525.4   | 0.0    | 8525.4  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 8525.4   | 0.0    | 8525.4  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 17050.8  | 0.0    | 17050.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 178.9   | 1.0       |
| 10°-20°   | 590.1   | 3.5       |
| 20°-30°   | 1140.3  | 6.7       |
| 30°-40°   | 1925.4  | 11.3      |
| 40°-50°   | 3053.4  | 17.9      |
| 50°-60°   | 4088.2  | 24.0      |
| 60°-70°   | 3890.7  | 22.8      |
| 70°-80°   | 2030.2  | 11.9      |
| 80°-90°   | 153.7   | 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°    | 17050.8 | 100.0     |
| 0°-180°   | 17050.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P965764

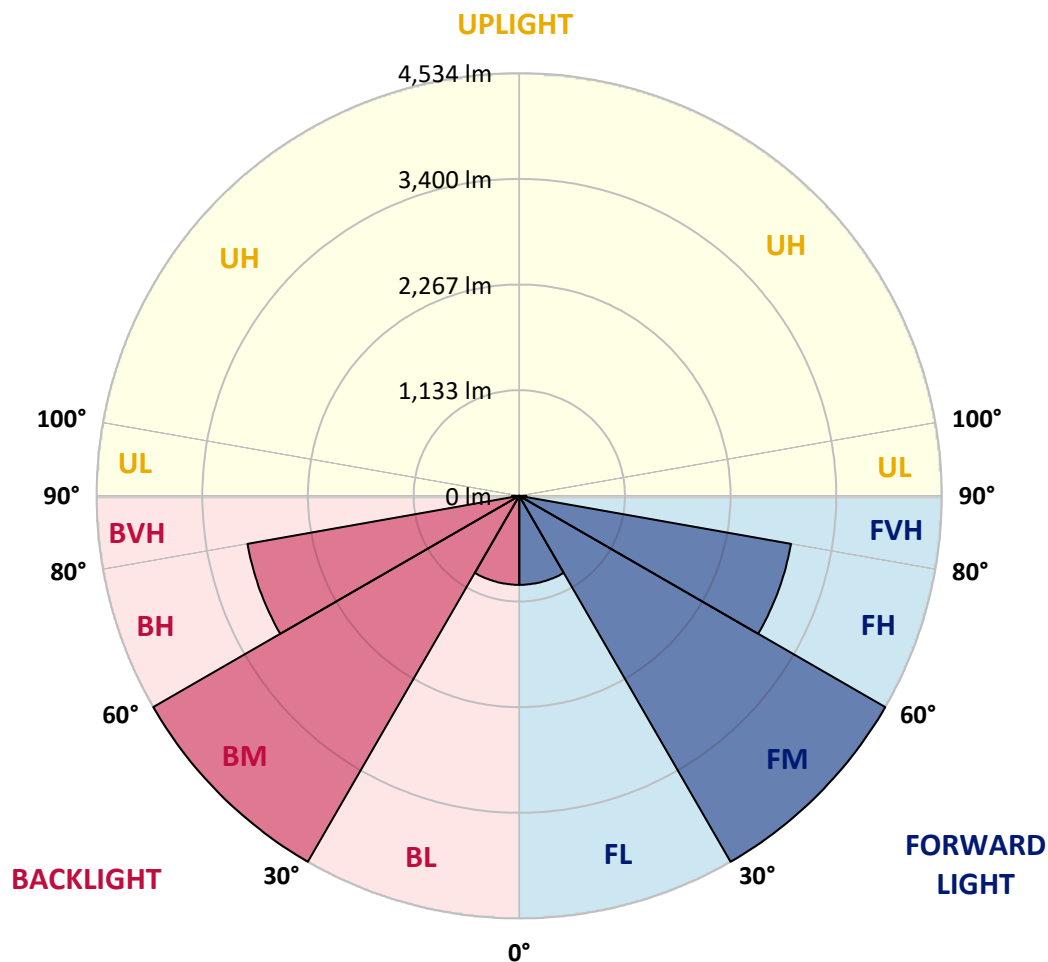
CATALOG NUMBER: NAV-SB4A-830-U-RW

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 954.6  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 4533.5 | 26.6      |                         |      |         |
| FH   | (60°-80°)   | 2960.4 | 17.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 76.8   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 954.6  | 5.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 4533.5 | 26.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2960.4 | 17.4      | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 76.8   | 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



REPORT NUMBER: P965764

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 | 1826.4 |
| 2.5°  | 1826.4 | 1824.7 | 1826.4 | 1828.2 | 1827.4 | 1827.4 | 1831.7 | 1834.3 | 1839.5 | 1838.6 | 1837.7 |
| 5°    | 1814.2 | 1813.4 | 1820.4 | 1828.2 | 1834.3 | 1844.7 | 1857.8 | 1867.3 | 1879.5 | 1882.2 | 1882.2 |
| 7.5°  | 1808.2 | 1805.5 | 1817.7 | 1831.7 | 1850.8 | 1877.0 | 1902.2 | 1928.3 | 1949.2 | 1956.2 | 1958.0 |
| 10°   | 1812.5 | 1813.4 | 1829.9 | 1856.1 | 1886.5 | 1923.1 | 1958.8 | 2003.2 | 2032.8 | 2039.7 | 2046.7 |
| 12.5° | 1832.6 | 1830.9 | 1858.6 | 1900.5 | 1942.3 | 1988.4 | 2030.2 | 2078.9 | 2111.1 | 2127.7 | 2134.7 |
| 15°   | 1869.1 | 1865.6 | 1904.8 | 1966.6 | 2027.6 | 2081.6 | 2115.5 | 2161.6 | 2199.0 | 2219.9 | 2227.8 |
| 17.5° | 1912.6 | 1914.4 | 1965.7 | 2045.8 | 2126.0 | 2186.8 | 2219.1 | 2242.6 | 2271.3 | 2289.6 | 2298.3 |
| 20°   | 1989.2 | 1992.7 | 2050.2 | 2145.1 | 2236.4 | 2306.1 | 2332.3 | 2323.6 | 2331.4 | 2345.3 | 2355.8 |
| 22.5° | 2092.0 | 2093.8 | 2158.1 | 2260.8 | 2356.7 | 2433.2 | 2450.7 | 2415.0 | 2393.2 | 2402.8 | 2409.8 |
| 25°   | 2211.2 | 2222.6 | 2287.0 | 2392.4 | 2490.6 | 2563.8 | 2571.6 | 2517.7 | 2463.7 | 2466.4 | 2470.7 |
| 27.5° | 2356.7 | 2367.0 | 2432.3 | 2536.9 | 2636.9 | 2700.5 | 2699.6 | 2627.4 | 2548.1 | 2528.2 | 2534.2 |
| 30°   | 2514.2 | 2525.5 | 2592.5 | 2700.5 | 2793.6 | 2849.4 | 2837.2 | 2751.0 | 2637.8 | 2600.4 | 2604.7 |
| 32.5° | 2701.4 | 2708.4 | 2776.2 | 2884.1 | 2970.3 | 3014.7 | 2989.5 | 2883.3 | 2742.3 | 2699.6 | 2710.1 |
| 35°   | 2927.7 | 2938.2 | 2988.7 | 3090.5 | 3166.2 | 3202.8 | 3160.2 | 3034.8 | 2876.4 | 2828.5 | 2835.5 |
| 37.5° | 3186.3 | 3179.3 | 3236.7 | 3327.4 | 3390.0 | 3412.6 | 3354.3 | 3205.5 | 3029.6 | 2973.0 | 2983.5 |
| 40°   | 3456.2 | 3452.7 | 3515.3 | 3602.5 | 3636.4 | 3650.3 | 3564.1 | 3401.4 | 3206.3 | 3145.3 | 3165.4 |
| 42.5° | 3700.8 | 3698.2 | 3782.7 | 3879.2 | 3920.2 | 3904.5 | 3795.7 | 3609.3 | 3410.9 | 3341.3 | 3358.6 |
| 45°   | 3896.6 | 3893.2 | 3996.8 | 4132.6 | 4212.6 | 4186.6 | 4040.3 | 3839.2 | 3618.0 | 3545.8 | 3562.4 |
| 47.5° | 4047.3 | 4049.1 | 4160.5 | 4328.5 | 4468.6 | 4478.2 | 4290.1 | 4073.3 | 3846.2 | 3764.3 | 3788.7 |
| 50°   | 4156.1 | 4161.3 | 4280.6 | 4466.8 | 4658.4 | 4742.9 | 4545.3 | 4313.7 | 4082.1 | 3989.8 | 4017.7 |
| 52.5° | 4183.1 | 4192.7 | 4336.3 | 4554.8 | 4780.3 | 4941.3 | 4804.7 | 4544.3 | 4305.8 | 4217.9 | 4240.5 |
| 55°   | 4039.4 | 4058.6 | 4240.5 | 4547.8 | 4855.1 | 5071.9 | 5032.8 | 4778.5 | 4531.3 | 4440.8 | 4466.0 |
| 57.5° | 3709.5 | 3736.4 | 3948.9 | 4350.2 | 4838.6 | 5161.6 | 5209.5 | 5003.1 | 4756.8 | 4669.7 | 4689.8 |
| 60°   | 3247.2 | 3279.4 | 3483.2 | 3921.0 | 4605.3 | 5194.7 | 5334.0 | 5221.7 | 4964.0 | 4879.5 | 4897.9 |
| 62.5° | 2549.9 | 2591.7 | 2835.5 | 3349.1 | 4112.6 | 5040.6 | 5440.2 | 5419.3 | 5150.3 | 5044.9 | 5057.1 |
| 65°   | 1635.8 | 1680.2 | 1937.0 | 2543.8 | 3455.3 | 4568.7 | 5473.3 | 5611.7 | 5347.0 | 5199.9 | 5218.2 |
| 67.5° | 986.4  | 1006.3 | 1133.4 | 1541.8 | 2525.5 | 3857.5 | 5193.0 | 5825.0 | 5576.8 | 5394.1 | 5408.0 |
| 70°   | 631.2  | 642.5  | 718.2  | 905.4  | 1427.7 | 2814.5 | 4498.2 | 5865.0 | 5855.4 | 5593.4 | 5591.7 |
| 72.5° | 428.3  | 431.8  | 451.8  | 536.3  | 807.9  | 1599.2 | 3317.7 | 5309.6 | 6029.6 | 5850.2 | 5822.4 |
| 75°   | 313.4  | 332.5  | 364.8  | 379.6  | 458.8  | 799.2  | 1901.3 | 3730.4 | 5081.5 | 5159.8 | 4970.1 |
| 77.5° | 233.3  | 234.2  | 278.6  | 296.0  | 327.4  | 425.7  | 804.4  | 2082.4 | 3155.0 | 3312.5 | 2954.7 |
| 80°   | 197.6  | 187.2  | 186.3  | 238.5  | 246.4  | 265.5  | 359.6  | 719.1  | 1130.0 | 685.1  | 518.0  |
| 82.5° | 164.5  | 153.2  | 138.4  | 186.3  | 168.0  | 162.8  | 155.8  | 292.5  | 359.6  | 176.7  | 150.6  |
| 85°   | 114.9  | 109.7  | 104.4  | 121.9  | 95.7   | 81.8   | 74.8   | 136.6  | 151.5  | 74.8   | 66.1   |
| 87.5° | 49.6   | 51.4   | 52.3   | 54.0   | 40.1   | 28.7   | 28.7   | 38.3   | 38.3   | 29.6   | 21.7   |
| 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)