

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: P969422

Luminaire Tested: **NAV-SB5D-827-U-RW**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969422  
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-SB5D-827-U-RW  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND RECTANGULAR  
WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47179.7 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B5 - U0 - G5

Input Watts (W): 364.9  
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

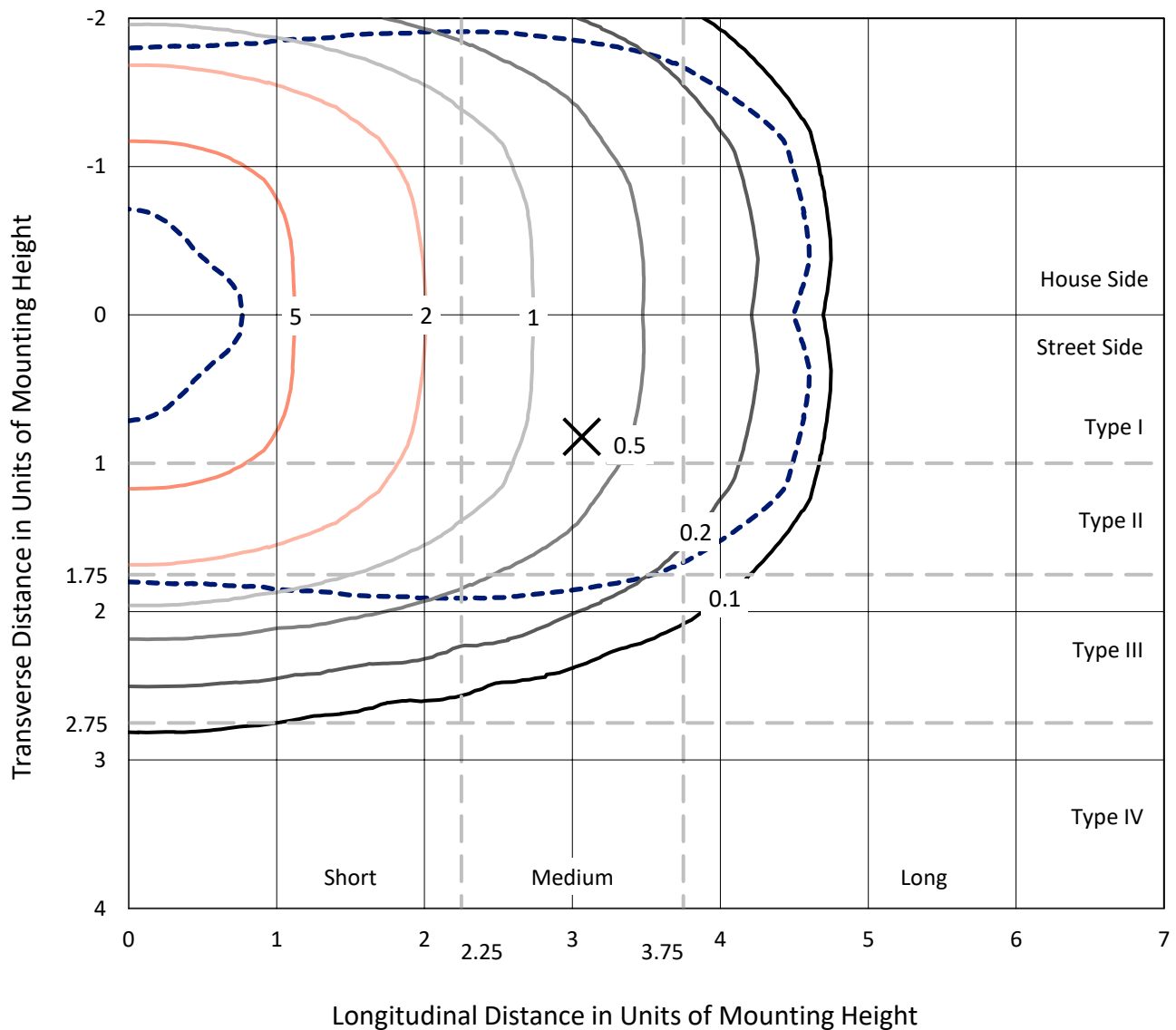


REPORT NUMBER: P969422

CATALOG NUMBER: NAV-SB5D-827-U-RW

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

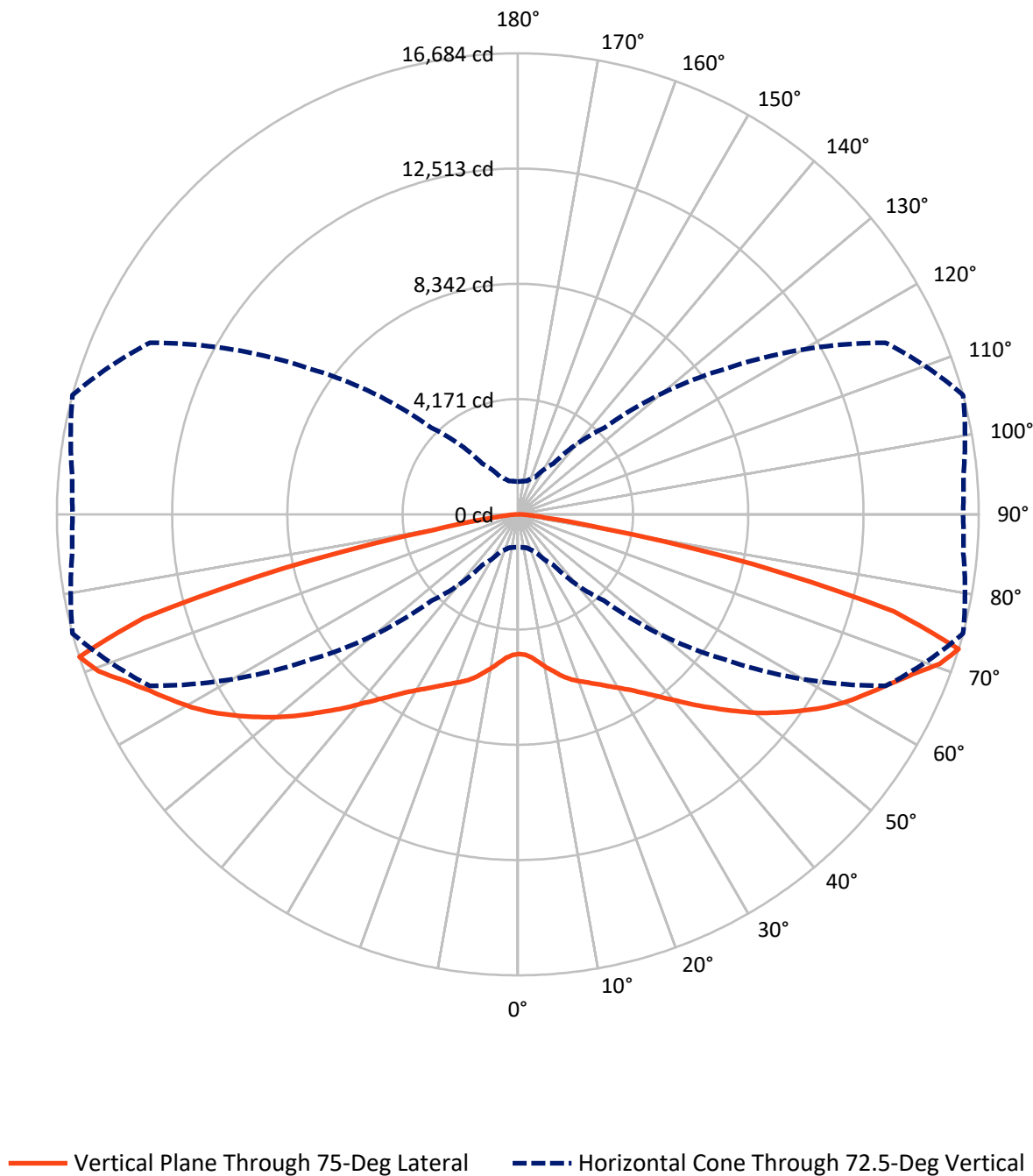


Based on 25 foot mounting height. Maximum calculated value = 8.9 fc  
Type III - Medium - N/A

REPORT NUMBER: P969422

CATALOG NUMBER: NAV-SB5D-827-U-RW

## Luminous Intensity Polar Plot



REPORT NUMBER: P969422

CATALOG NUMBER: NAV-SB5D-827-U-RW

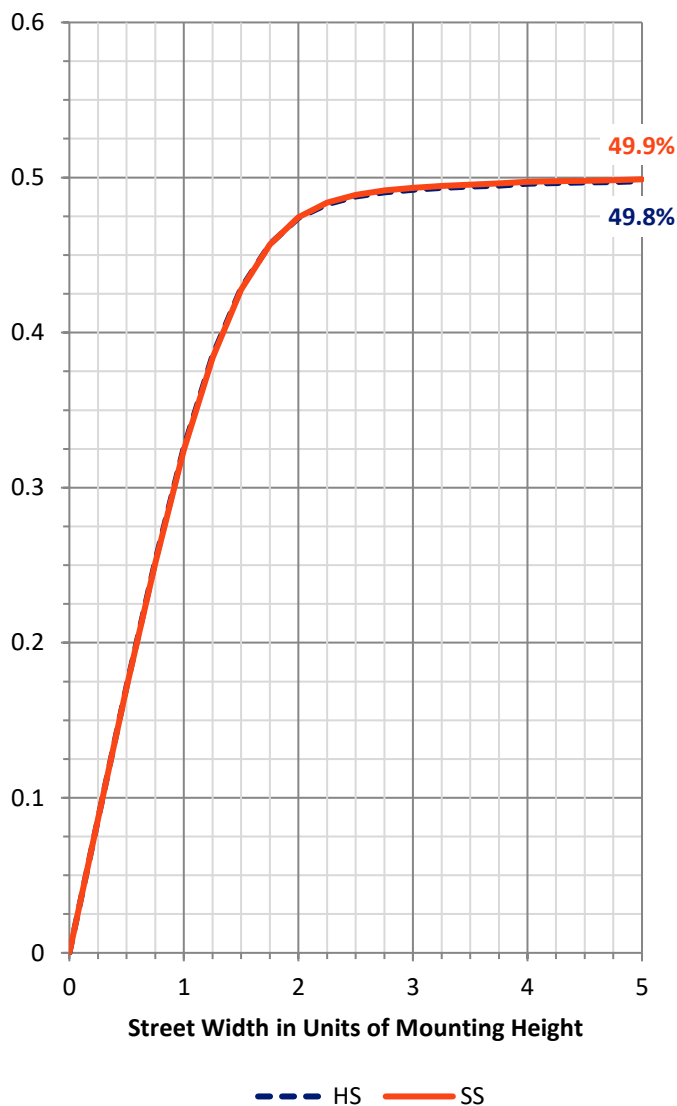
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 23589.9  | 0.0    | 23589.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 23589.9  | 0.0    | 23589.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 47179.7  | 0.0    | 47179.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 495.1   | 1.0       |
| 10°-20°   | 1632.8  | 3.5       |
| 20°-30°   | 3155.1  | 6.7       |
| 30°-40°   | 5327.5  | 11.3      |
| 40°-50°   | 8448.9  | 17.9      |
| 50°-60°   | 11312.1 | 24.0      |
| 60°-70°   | 10765.5 | 22.8      |
| 70°-80°   | 5617.6  | 11.9      |
| 80°-90°   | 425.2   | 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°    | 47179.7 | 100.0     |
| 0°-180°   | 47179.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P969422

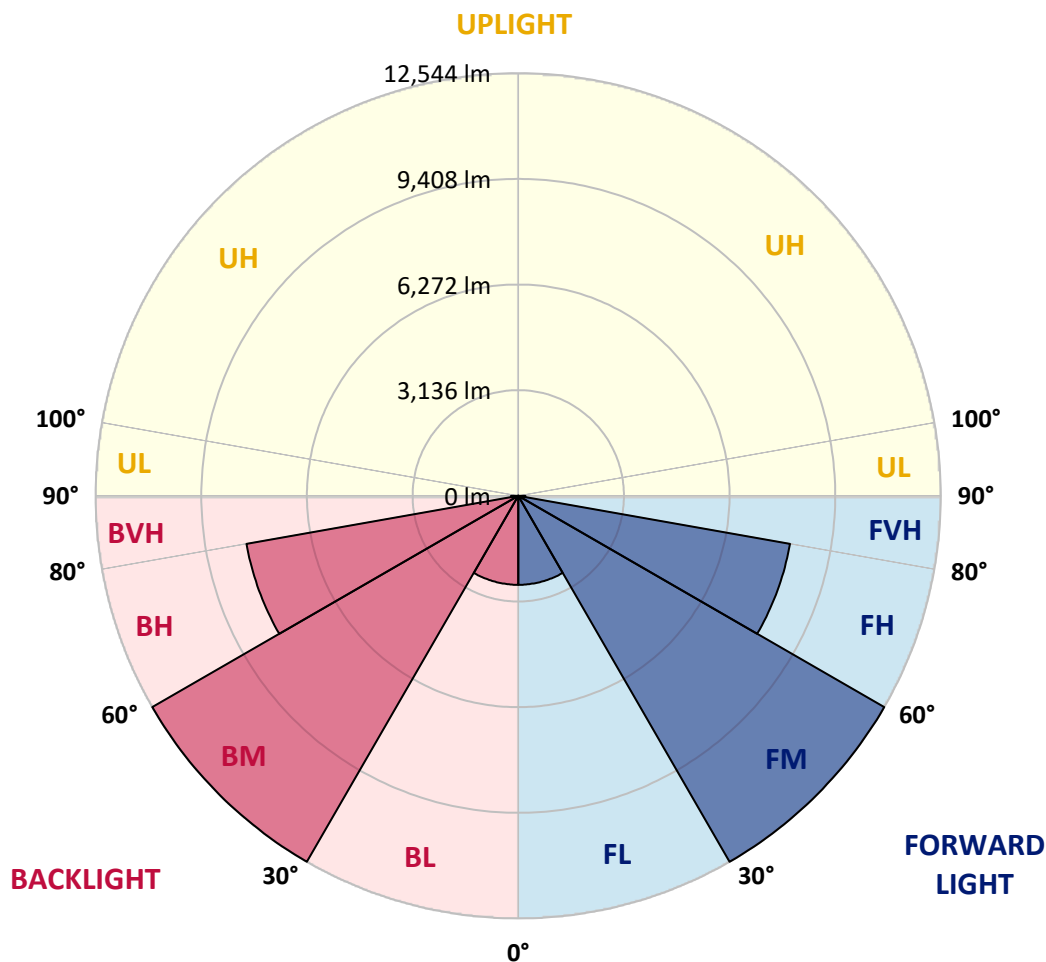
CATALOG NUMBER: NAV-SB5D-827-U-RW

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2641.5  | 5.6       |                         |      |          |
| FM   | (30°-60°)   | 12544.2 | 26.6      |                         |      |          |
| FH   | (60°-80°)   | 8191.5  | 17.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 212.6   | 0.5       |                         |      | G2/225   |
| BL   | (0°-30°)    | 2641.5  | 5.6       | B4/5000                 |      |          |
| BM   | (30°-60°)   | 12544.2 | 26.6      | B5                      |      |          |
| BH   | (60°-80°)   | 8191.5  | 17.4      | B5                      |      | G5       |
| BVH  | (80°-90°)   | 212.6   | 0.5       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B5-U0-G5**

Type III Medium



REPORT NUMBER: P969422

CATALOG NUMBER: NAV-SB5D-827-U-RW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  | 5053.8  |
| 2.5°  | 5053.8  | 5048.9  | 5053.8  | 5058.6  | 5056.2  | 5056.2  | 5068.2  | 5075.5  | 5089.9  | 5087.5  | 5085.1  |
| 5°    | 5020.0  | 5017.7  | 5037.0  | 5058.6  | 5075.5  | 5104.4  | 5140.5  | 5167.0  | 5200.7  | 5207.9  | 5207.9  |
| 7.5°  | 5003.2  | 4996.0  | 5029.7  | 5068.2  | 5121.2  | 5193.5  | 5263.4  | 5335.6  | 5393.4  | 5412.7  | 5417.5  |
| 10°   | 5015.2  | 5017.7  | 5063.4  | 5135.7  | 5220.0  | 5321.2  | 5419.9  | 5542.8  | 5624.7  | 5644.0  | 5663.2  |
| 12.5° | 5070.7  | 5065.9  | 5142.9  | 5258.6  | 5374.2  | 5501.9  | 5617.5  | 5752.4  | 5841.5  | 5887.3  | 5906.6  |
| 15°   | 5171.8  | 5162.2  | 5270.5  | 5441.6  | 5610.2  | 5759.6  | 5853.6  | 5981.2  | 6084.8  | 6142.6  | 6164.2  |
| 17.5° | 5292.3  | 5297.1  | 5439.2  | 5660.9  | 5882.5  | 6051.1  | 6140.2  | 6205.2  | 6284.7  | 6335.3  | 6359.4  |
| 20°   | 5504.2  | 5513.9  | 5672.9  | 5935.5  | 6188.3  | 6381.0  | 6453.3  | 6429.2  | 6450.9  | 6489.5  | 6518.4  |
| 22.5° | 5788.5  | 5793.3  | 5971.5  | 6255.8  | 6520.7  | 6732.8  | 6781.0  | 6682.2  | 6622.0  | 6648.5  | 6667.7  |
| 25°   | 6118.5  | 6149.8  | 6328.0  | 6619.6  | 6891.8  | 7094.1  | 7115.8  | 6966.4  | 6817.1  | 6824.3  | 6836.3  |
| 27.5° | 6520.7  | 6549.6  | 6730.4  | 7019.4  | 7296.5  | 7472.2  | 7469.9  | 7269.9  | 7050.8  | 6995.3  | 7012.2  |
| 30°   | 6956.8  | 6988.1  | 7173.6  | 7472.2  | 7730.0  | 7884.2  | 7850.5  | 7612.0  | 7298.8  | 7195.3  | 7207.3  |
| 32.5° | 7474.7  | 7494.0  | 7681.9  | 7980.5  | 8219.1  | 8341.9  | 8272.1  | 7978.2  | 7587.9  | 7469.9  | 7498.8  |
| 35°   | 8101.0  | 8129.9  | 8269.6  | 8551.5  | 8761.0  | 8862.3  | 8744.2  | 8397.3  | 7958.9  | 7826.4  | 7845.7  |
| 37.5° | 8816.4  | 8797.2  | 8956.1  | 9206.7  | 9380.1  | 9442.7  | 9281.4  | 8869.4  | 8382.9  | 8226.2  | 8255.1  |
| 40°   | 9563.1  | 9553.5  | 9726.9  | 9967.9  | 10061.8 | 10100.3 | 9861.8  | 9411.4  | 8871.9  | 8703.2  | 8758.6  |
| 42.5° | 10240.1 | 10232.9 | 10466.5 | 10733.9 | 10847.1 | 10803.7 | 10502.7 | 9987.2  | 9437.9  | 9245.2  | 9293.4  |
| 45°   | 10782.1 | 10772.4 | 11059.1 | 11434.9 | 11656.5 | 11584.2 | 11179.6 | 10623.1 | 10011.3 | 9811.3  | 9857.0  |
| 47.5° | 11198.8 | 11203.7 | 11512.0 | 11976.8 | 12364.7 | 12391.2 | 11870.8 | 11271.1 | 10642.4 | 10415.9 | 10483.4 |
| 50°   | 11499.9 | 11514.3 | 11844.4 | 12359.9 | 12889.8 | 13123.5 | 12576.6 | 11935.9 | 11295.2 | 11039.9 | 11116.9 |
| 52.5° | 11574.6 | 11601.1 | 11998.5 | 12603.2 | 13227.1 | 13672.7 | 13294.6 | 12574.3 | 11914.2 | 11671.0 | 11733.6 |
| 55°   | 11177.1 | 11230.1 | 11733.6 | 12583.9 | 13434.3 | 14034.0 | 13925.6 | 13222.3 | 12538.1 | 12287.6 | 12357.5 |
| 57.5° | 10264.1 | 10338.9 | 10926.6 | 12037.1 | 13388.4 | 14282.1 | 14414.7 | 13843.8 | 13162.0 | 12921.2 | 12976.5 |
| 60°   | 8985.0  | 9074.2  | 9637.9  | 10849.5 | 12742.9 | 14373.7 | 14759.1 | 14448.4 | 13735.3 | 13501.7 | 13552.2 |
| 62.5° | 7055.6  | 7171.2  | 7845.7  | 9266.9  | 11379.4 | 13947.3 | 15052.9 | 14995.1 | 14250.8 | 13959.4 | 13993.1 |
| 65°   | 4526.3  | 4649.1  | 5359.7  | 7038.7  | 9560.8  | 12641.7 | 15144.5 | 15527.5 | 14795.3 | 14388.1 | 14438.8 |
| 67.5° | 2729.3  | 2784.6  | 3136.3  | 4266.0  | 6988.1  | 10673.6 | 14368.9 | 16117.7 | 15431.2 | 14925.3 | 14963.9 |
| 70°   | 1746.4  | 1777.8  | 1987.3  | 2505.2  | 3950.6  | 7787.8  | 12446.6 | 16228.5 | 16202.0 | 15477.0 | 15472.2 |
| 72.5° | 1185.2  | 1194.8  | 1250.2  | 1483.9  | 2235.4  | 4425.1  | 9180.2  | 14691.6 | 16683.8 | 16187.5 | 16110.4 |
| 75°   | 867.2   | 920.1   | 1009.3  | 1050.2  | 1269.5  | 2211.3  | 5260.9  | 10322.0 | 14060.5 | 14277.3 | 13752.2 |
| 77.5° | 645.5   | 648.0   | 770.8   | 819.0   | 905.7   | 1177.9  | 2225.8  | 5762.0  | 8729.7  | 9165.8  | 8175.7  |
| 80°   | 546.8   | 517.9   | 515.5   | 660.0   | 681.7   | 734.7   | 994.9   | 1989.7  | 3126.7  | 1895.7  | 1433.3  |
| 82.5° | 455.3   | 423.9   | 383.0   | 515.5   | 464.9   | 450.5   | 431.2   | 809.3   | 994.9   | 489.0   | 416.8   |
| 85°   | 318.0   | 303.5   | 289.0   | 337.2   | 265.0   | 226.4   | 207.2   | 378.2   | 419.1   | 207.2   | 183.1   |
| 87.5° | 137.4   | 142.2   | 144.5   | 149.3   | 110.8   | 79.5    | 79.5    | 106.0   | 106.0   | 81.9    | 60.3    |
| 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)