

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: P882735

Luminaire Tested: **NAV-SB2D-730-U-T1**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882735  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-730-U-T1  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

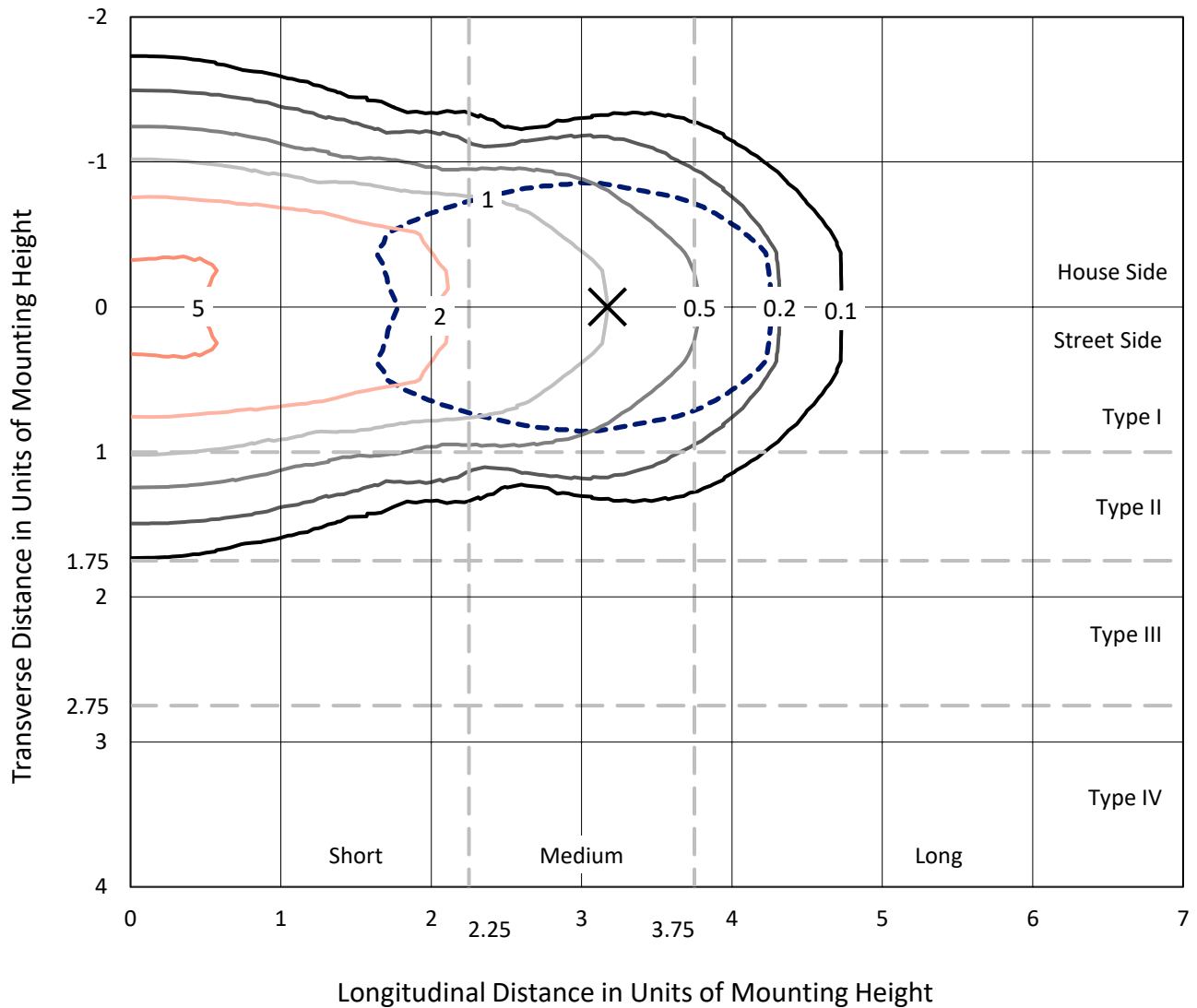
Lumens per Lamp: N/A  
Luminaire Lumens: 20196 lumens  
Efficiency: N/A  
Efficacy: 136.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

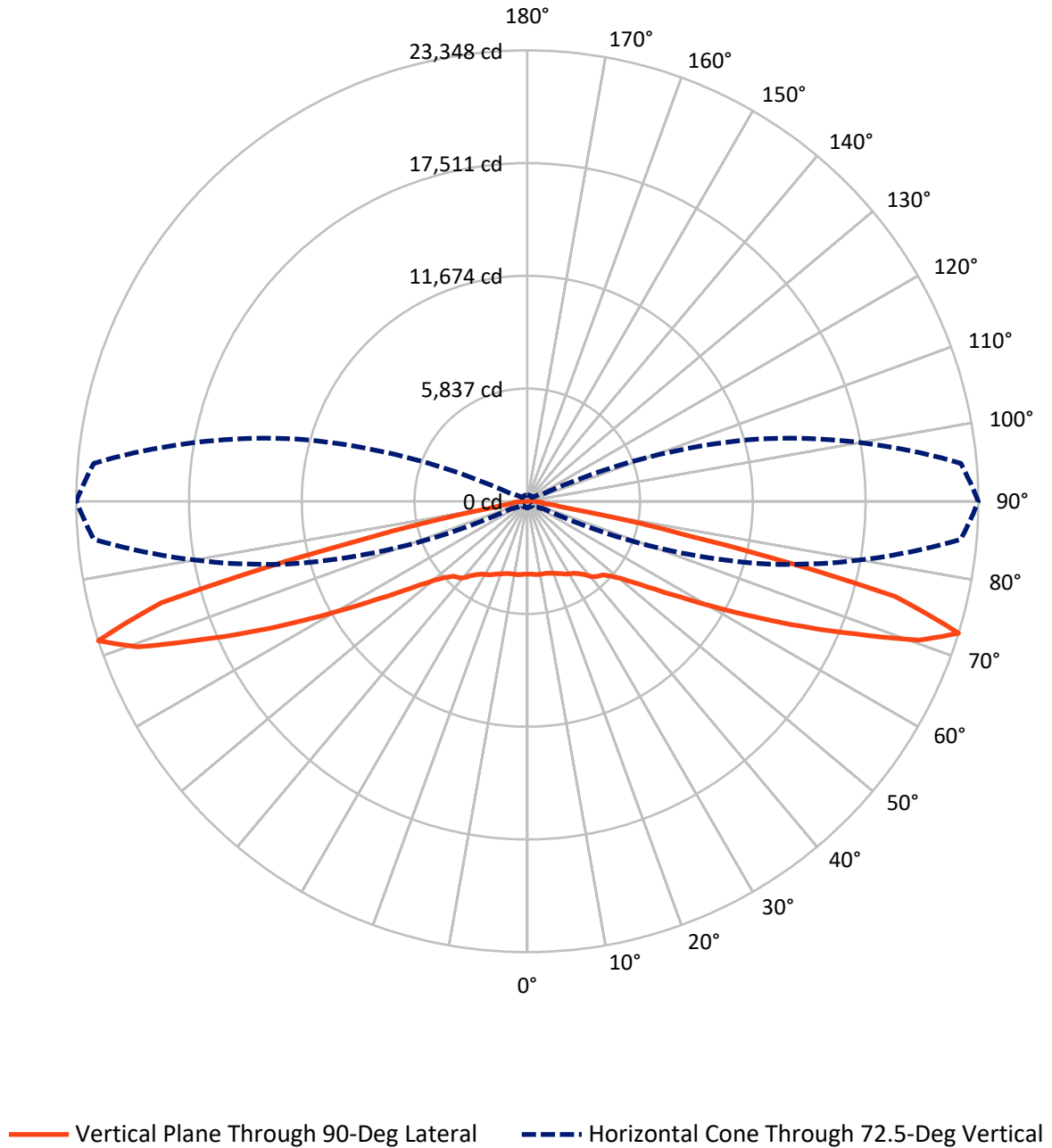
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 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    | 10098.0  | 0.0    | 10098.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10098.0  | 0.0    | 10098.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 20196.0  | 0.0    | 20196.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 365.9   | 1.8       |
| 10°-20°   | 1118.8  | 5.5       |
| 20°-30°   | 1865.6  | 9.2       |
| 30°-40°   | 2565.7  | 12.7      |
| 40°-50°   | 3133.4  | 15.5      |
| 50°-60°   | 3624.2  | 17.9      |
| 60°-70°   | 4321.2  | 21.4      |
| 70°-80°   | 3015.9  | 14.9      |
| 80°-90°   | 185.2   | 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°    | 20196.0 | 100.0     |
| 0°-180°   | 20196.0 | 100.0     |



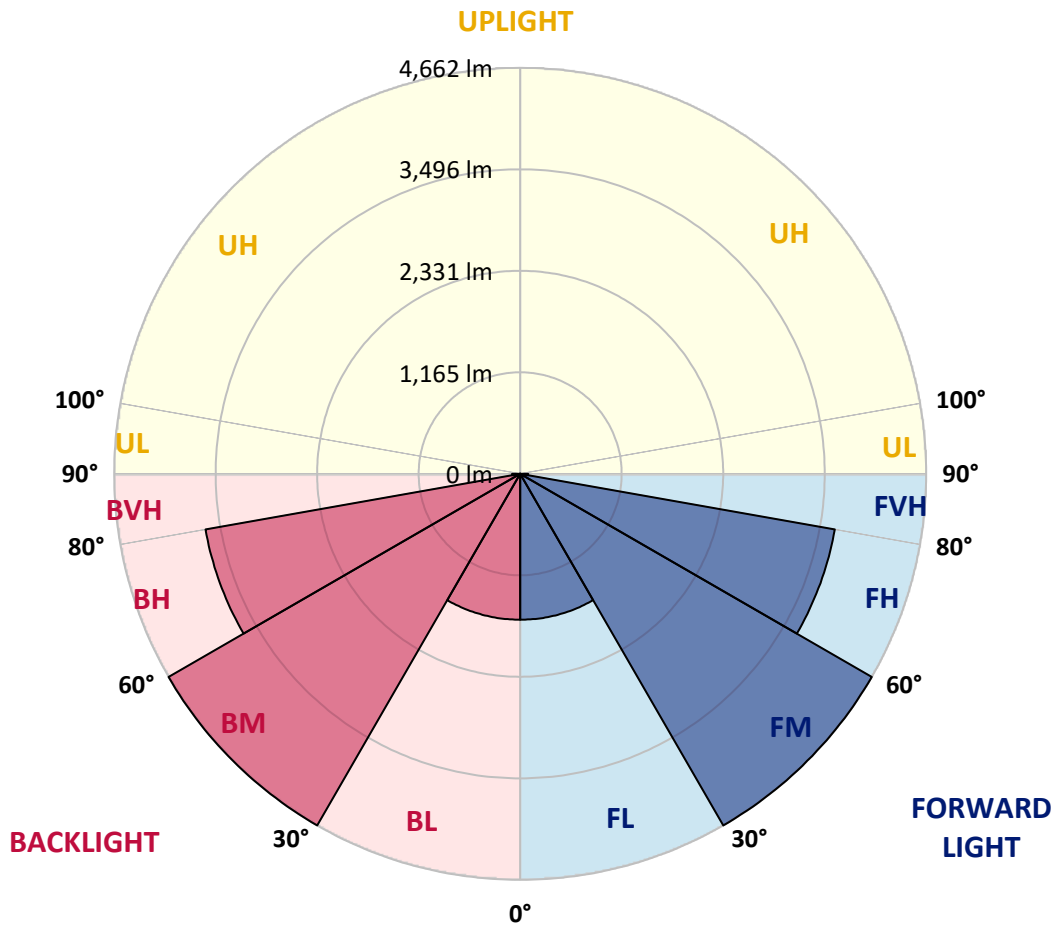
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1675.2 | 8.3       |                         |      |         |
| FM (30°-60°)   | 4661.7 | 23.1      |                         |      |         |
| FH (60°-80°)   | 3668.6 | 18.2      |                         |      | G2/5000 |
| FVH (80°-90°)  | 92.6   | 0.5       |                         |      | G1/100  |
| BL (0°-30°)    | 1675.2 | 8.3       | B3/2500                 |      |         |
| BM (30°-60°)   | 4661.7 | 23.1      | B3/5000                 |      |         |
| BH (60°-80°)   | 3668.6 | 18.2      | B4/5000                 |      | G4/5000 |
| BVH (80°-90°)  | 92.6   | 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 I Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 85°     | 90°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 3773.8 | 3773.8 | 3773.8 | 3773.8 | 3773.8 | 3773.8 | 3773.8 | 3773.8 | 3773.8  | 3773.8  | 3773.8  |
| 2.5°  | 3777.1 | 3781.3 | 3781.3 | 3778.1 | 3785.6 | 3779.2 | 3779.2 | 3776.0 | 3779.2  | 3776.0  | 3776.0  |
| 5°    | 3796.4 | 3801.7 | 3803.9 | 3802.8 | 3812.5 | 3807.1 | 3807.1 | 3802.8 | 3803.9  | 3800.7  | 3800.7  |
| 7.5°  | 3832.9 | 3840.4 | 3844.7 | 3850.0 | 3864.0 | 3857.6 | 3853.3 | 3840.4 | 3835.0  | 3826.4  | 3826.4  |
| 10°   | 3844.7 | 3853.3 | 3867.2 | 3895.1 | 3927.3 | 3928.4 | 3915.5 | 3883.3 | 3858.6  | 3839.3  | 3836.1  |
| 12.5° | 3808.2 | 3820.0 | 3849.0 | 3905.9 | 3977.8 | 4006.7 | 3986.4 | 3932.7 | 3884.4  | 3850.0  | 3844.7  |
| 15°   | 3762.0 | 3774.9 | 3818.9 | 3904.8 | 4011.0 | 4078.7 | 4076.5 | 4005.7 | 3928.4  | 3874.7  | 3866.1  |
| 17.5° | 3690.1 | 3703.0 | 3766.3 | 3886.5 | 4036.8 | 4148.4 | 4178.5 | 4105.5 | 3997.1  | 3925.2  | 3913.4  |
| 20°   | 3560.2 | 3572.0 | 3660.1 | 3828.6 | 4045.4 | 4222.5 | 4300.8 | 4236.4 | 4101.2  | 4003.5  | 3985.3  |
| 22.5° | 3391.7 | 3410.0 | 3513.0 | 3728.8 | 4025.0 | 4299.8 | 4440.4 | 4396.4 | 4222.5  | 4087.2  | 4062.6  |
| 25°   | 3211.4 | 3230.7 | 3350.9 | 3606.4 | 3972.4 | 4355.6 | 4605.7 | 4577.8 | 4359.9  | 4191.4  | 4157.0  |
| 27.5° | 3055.8 | 3076.2 | 3207.1 | 3485.1 | 3890.8 | 4377.0 | 4768.8 | 4782.8 | 4526.2  | 4306.2  | 4269.7  |
| 30°   | 2933.4 | 2952.7 | 3092.3 | 3387.4 | 3785.6 | 4355.6 | 4911.6 | 5008.2 | 4695.8  | 4406.0  | 4353.4  |
| 32.5° | 2799.3 | 2823.9 | 2971.0 | 3268.3 | 3661.1 | 4304.1 | 5036.1 | 5251.8 | 4892.2  | 4513.4  | 4446.8  |
| 35°   | 2629.7 | 2652.2 | 2806.8 | 3105.1 | 3498.0 | 4221.4 | 5140.2 | 5522.3 | 5173.5  | 4676.5  | 4602.4  |
| 37.5° | 2423.6 | 2445.1 | 2598.5 | 2901.2 | 3335.9 | 4105.5 | 5219.6 | 5827.1 | 5508.3  | 4911.6  | 4812.8  |
| 40°   | 2216.4 | 2236.8 | 2380.7 | 2673.7 | 3141.6 | 3957.4 | 5247.5 | 6125.5 | 5892.6  | 5234.6  | 5129.5  |
| 42.5° | 2026.5 | 2044.7 | 2176.7 | 2449.3 | 2923.8 | 3768.5 | 5211.0 | 6385.3 | 6237.1  | 5460.0  | 5324.8  |
| 45°   | 1851.5 | 1867.6 | 1984.6 | 2239.0 | 2697.3 | 3538.8 | 5101.5 | 6664.3 | 6647.1  | 5621.0  | 5438.6  |
| 47.5° | 1651.9 | 1668.0 | 1789.2 | 2035.0 | 2470.8 | 3269.4 | 4915.9 | 6939.1 | 7217.1  | 5986.0  | 5775.6  |
| 50°   | 1408.2 | 1422.2 | 1546.7 | 1800.0 | 2235.8 | 2982.8 | 4658.3 | 7154.8 | 7936.2  | 6538.7  | 6274.7  |
| 52.5° | 1119.5 | 1134.5 | 1255.8 | 1509.1 | 1956.7 | 2674.7 | 4319.1 | 7295.4 | 8767.0  | 7345.9  | 7020.7  |
| 55°   | 832.9  | 843.6  | 948.8  | 1176.4 | 1611.1 | 2323.8 | 3894.0 | 7335.2 | 9709.4  | 8449.3  | 8042.5  |
| 57.5° | 604.3  | 610.7  | 678.3  | 847.9  | 1221.5 | 1884.8 | 3377.8 | 7232.1 | 10831.0 | 9863.9  | 9351.9  |
| 60°   | 489.4  | 491.6  | 512.0  | 587.1  | 849.0  | 1388.9 | 2754.2 | 6877.9 | 12048.2 | 11687.5 | 11042.4 |
| 62.5° | 444.4  | 444.4  | 449.7  | 470.1  | 574.2  | 916.6  | 1999.6 | 6143.8 | 13353.3 | 13992.0 | 13127.9 |
| 65°   | 413.2  | 413.2  | 415.4  | 425.0  | 452.9  | 583.9  | 1262.2 | 4948.1 | 14453.5 | 16691.4 | 15598.7 |
| 67.5° | 385.3  | 386.4  | 385.3  | 388.5  | 404.6  | 431.5  | 732.0  | 3417.5 | 15046.0 | 19488.5 | 18308.9 |
| 70°   | 356.3  | 358.5  | 353.1  | 353.1  | 366.0  | 367.1  | 458.3  | 1874.0 | 14554.4 | 21832.6 | 21522.5 |
| 72.5° | 322.0  | 325.2  | 316.6  | 314.5  | 324.1  | 319.9  | 344.5  | 899.5  | 12495.7 | 22532.5 | 23348.2 |
| 75°   | 291.9  | 296.2  | 276.9  | 271.6  | 271.6  | 268.3  | 280.1  | 461.5  | 8110.1  | 18380.8 | 19660.2 |
| 77.5° | 265.1  | 273.7  | 242.6  | 225.4  | 221.1  | 211.4  | 228.6  | 282.3  | 3547.4  | 8629.6  | 8450.3  |
| 80°   | 219.0  | 230.8  | 199.6  | 179.2  | 171.7  | 161.0  | 180.3  | 197.5  | 1055.1  | 2003.9  | 1919.1  |
| 82.5° | 163.1  | 168.5  | 141.7  | 127.7  | 121.3  | 113.8  | 135.2  | 137.4  | 343.5   | 709.5   | 801.8   |
| 85°   | 104.1  | 106.3  | 86.9   | 75.1   | 71.9   | 68.7   | 85.9   | 75.1   | 130.9   | 521.6   | 757.8   |
| 87.5° | 36.5   | 41.9   | 33.3   | 30.1   | 32.2   | 26.8   | 39.7   | 22.5   | 36.5    | 368.2   | 456.2   |
| 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)