

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: P883755

Luminaire Tested: **NAV-SB4B-730-U-T1**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883755  
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-SB4B-730-U-T1  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

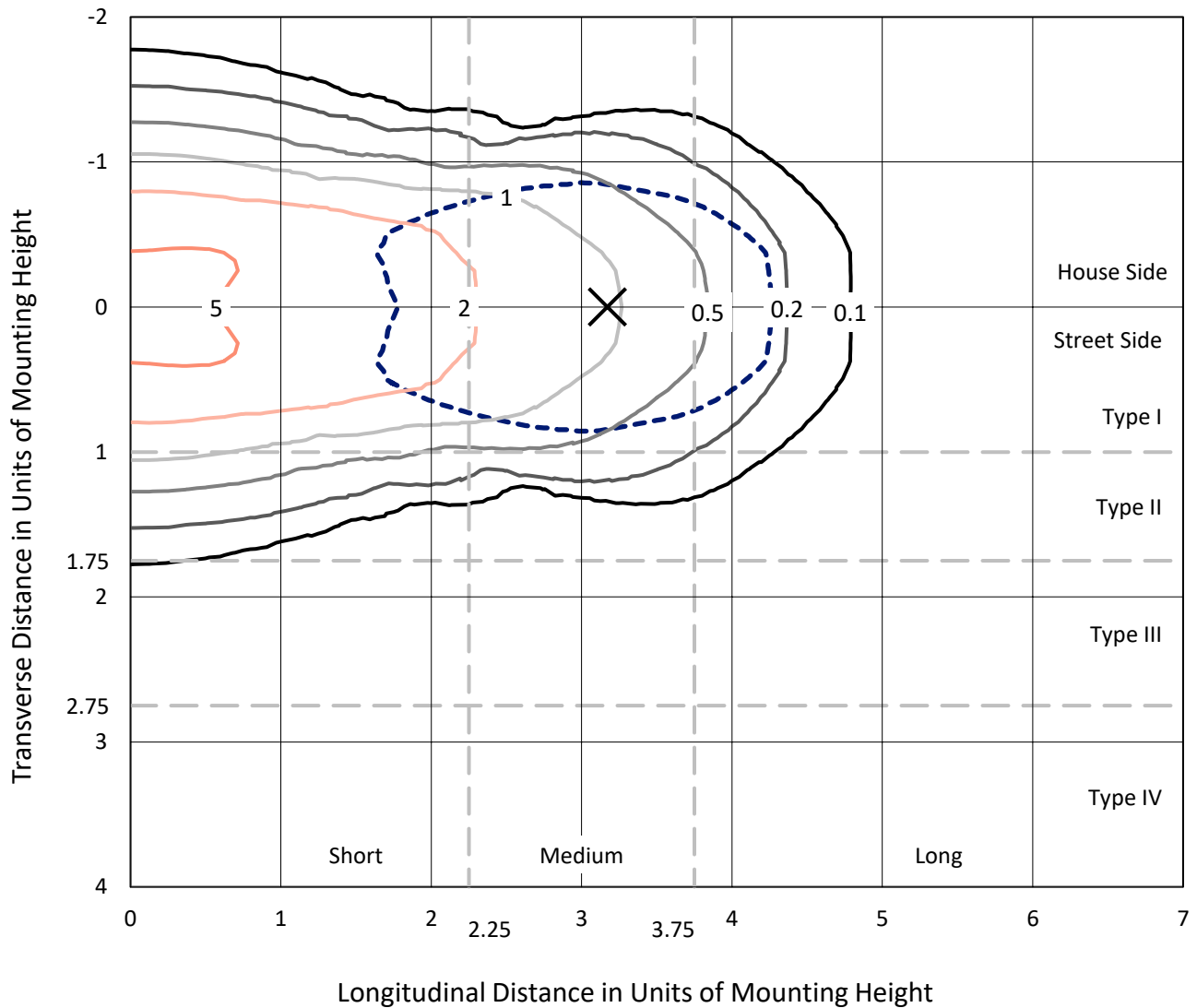
Lumens per Lamp: N/A  
Luminaire Lumens: 22223 lumens  
Efficiency: N/A  
Efficacy: 151.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

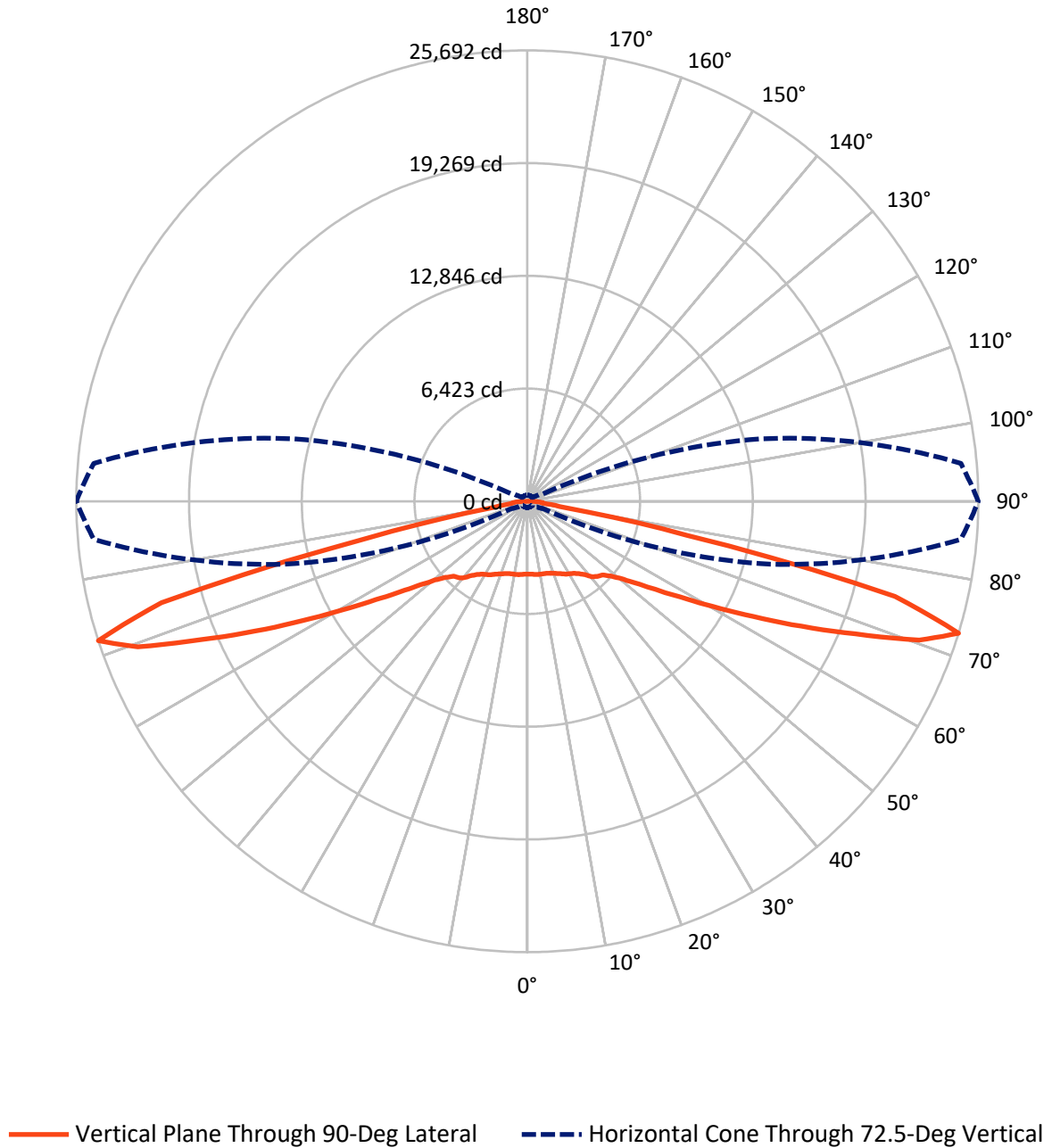
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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    | 11111.5  | 0.0    | 11111.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 11111.5  | 0.0    | 11111.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 22223.0  | 0.0    | 22223.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 402.6   | 1.8       |
| 10°-20°   | 1231.1  | 5.5       |
| 20°-30°   | 2052.8  | 9.2       |
| 30°-40°   | 2823.2  | 12.7      |
| 40°-50°   | 3447.9  | 15.5      |
| 50°-60°   | 3987.9  | 17.9      |
| 60°-70°   | 4754.9  | 21.4      |
| 70°-80°   | 3318.6  | 14.9      |
| 80°-90°   | 203.8   | 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°    | 22223.0 | 100.0     |
| 0°-180°   | 22223.0 | 100.0     |

**Coefficient of Utilization**



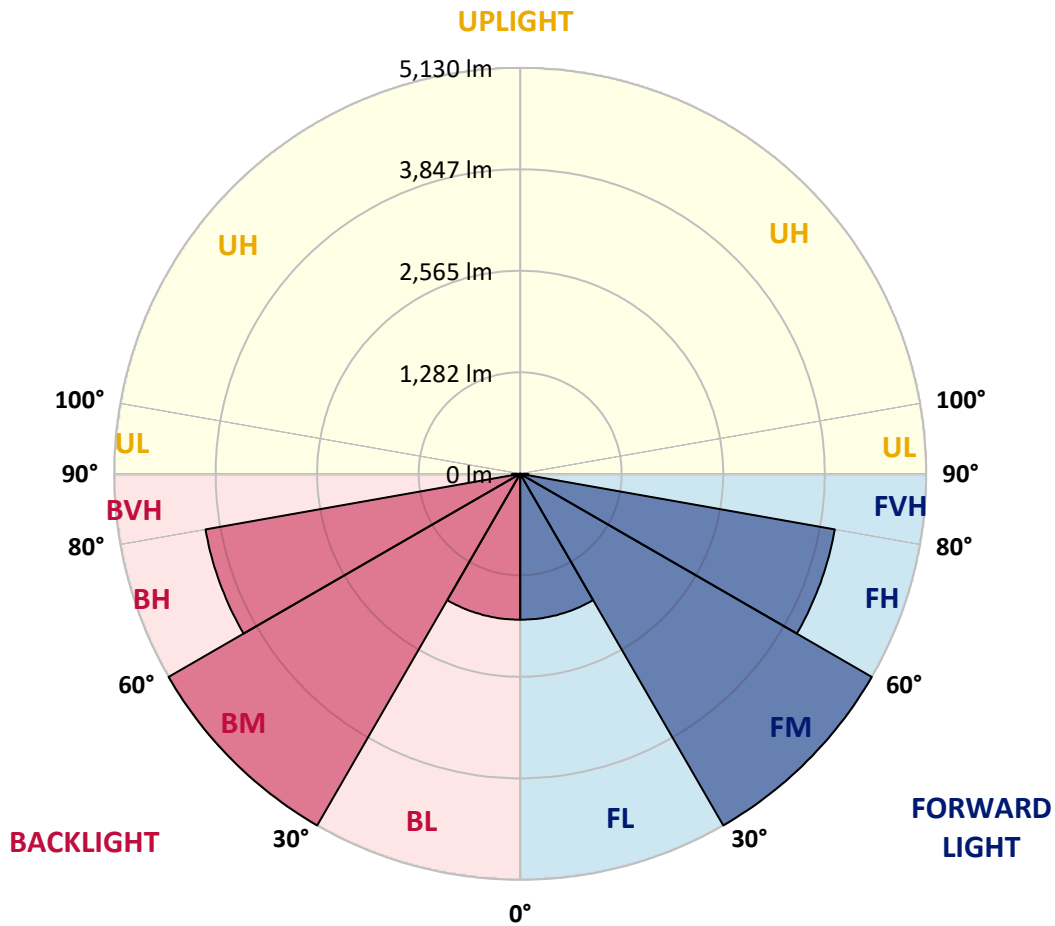
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1843.3 | 8.3       |                         |      |         |
| FM (30°-60°)   | 5129.5 | 23.1      |                         |      |         |
| FH (60°-80°)   | 4036.8 | 18.2      |                         |      | G2/5000 |
| FVH (80°-90°)  | 101.9  | 0.5       |                         |      | G2/225  |
| BL (0°-30°)    | 1843.3 | 8.3       | B3/2500                 |      |         |
| BM (30°-60°)   | 5129.5 | 23.1      | B4/8500                 |      |         |
| BH (60°-80°)   | 4036.8 | 18.2      | B4/5000                 |      | G4/5000 |
| BVH (80°-90°)  | 101.9  | 0.5       |                         |      | G2/225  |
| 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°    | 4152.6 | 4152.6 | 4152.6 | 4152.6 | 4152.6 | 4152.6 | 4152.6 | 4152.6 | 4152.6  | 4152.6  | 4152.6  |
| 2.5°  | 4156.1 | 4160.9 | 4160.9 | 4157.3 | 4165.6 | 4158.5 | 4158.5 | 4155.0 | 4158.5  | 4155.0  | 4155.0  |
| 5°    | 4177.4 | 4183.3 | 4185.7 | 4184.5 | 4195.1 | 4189.2 | 4189.2 | 4184.5 | 4185.7  | 4182.1  | 4182.1  |
| 7.5°  | 4217.6 | 4225.8 | 4230.6 | 4236.5 | 4251.8 | 4244.7 | 4240.0 | 4225.8 | 4219.9  | 4210.5  | 4210.5  |
| 10°   | 4230.6 | 4240.0 | 4255.4 | 4286.1 | 4321.5 | 4322.7 | 4308.5 | 4273.1 | 4245.9  | 4224.6  | 4221.1  |
| 12.5° | 4190.4 | 4203.4 | 4235.3 | 4297.9 | 4377.0 | 4408.9 | 4386.5 | 4327.4 | 4274.3  | 4236.5  | 4230.6  |
| 15°   | 4139.6 | 4153.8 | 4202.2 | 4296.7 | 4413.6 | 4488.0 | 4485.7 | 4407.7 | 4322.7  | 4263.6  | 4254.2  |
| 17.5° | 4060.5 | 4074.7 | 4144.3 | 4276.6 | 4442.0 | 4564.8 | 4597.9 | 4517.5 | 4398.3  | 4319.1  | 4306.1  |
| 20°   | 3917.6 | 3930.6 | 4027.4 | 4212.8 | 4451.4 | 4646.3 | 4732.5 | 4661.6 | 4512.8  | 4405.3  | 4385.3  |
| 22.5° | 3732.1 | 3752.2 | 3865.6 | 4103.0 | 4429.0 | 4731.3 | 4886.0 | 4837.6 | 4646.3  | 4497.5  | 4470.3  |
| 25°   | 3533.7 | 3555.0 | 3687.3 | 3968.4 | 4371.1 | 4792.7 | 5067.9 | 5037.2 | 4797.5  | 4612.0  | 4574.2  |
| 27.5° | 3362.5 | 3384.9 | 3529.0 | 3834.9 | 4281.3 | 4816.4 | 5247.4 | 5262.8 | 4980.5  | 4738.4  | 4698.3  |
| 30°   | 3227.8 | 3249.1 | 3402.6 | 3727.4 | 4165.6 | 4792.7 | 5404.5 | 5510.8 | 5167.1  | 4848.2  | 4790.4  |
| 32.5° | 3080.2 | 3107.4 | 3269.2 | 3596.3 | 4028.6 | 4736.0 | 5541.5 | 5778.9 | 5383.3  | 4966.4  | 4893.1  |
| 35°   | 2893.6 | 2918.4 | 3088.5 | 3416.8 | 3849.1 | 4645.1 | 5656.1 | 6076.5 | 5692.7  | 5145.9  | 5064.4  |
| 37.5° | 2666.8 | 2690.5 | 2859.3 | 3192.4 | 3670.7 | 4517.5 | 5743.5 | 6412.0 | 6061.2  | 5404.5  | 5295.9  |
| 40°   | 2438.9 | 2461.3 | 2619.6 | 2942.0 | 3457.0 | 4354.6 | 5774.2 | 6740.3 | 6484.0  | 5760.0  | 5644.3  |
| 42.5° | 2229.8 | 2249.9 | 2395.2 | 2695.2 | 3217.2 | 4146.7 | 5734.0 | 7026.1 | 6863.1  | 6008.0  | 5859.2  |
| 45°   | 2037.3 | 2055.0 | 2183.8 | 2463.7 | 2968.0 | 3894.0 | 5613.6 | 7333.2 | 7314.3  | 6185.2  | 5984.4  |
| 47.5° | 1817.6 | 1835.4 | 1968.8 | 2239.3 | 2718.8 | 3597.5 | 5409.2 | 7635.5 | 7941.4  | 6586.8  | 6355.3  |
| 50°   | 1549.5 | 1564.9 | 1701.9 | 1980.6 | 2460.1 | 3282.2 | 5125.8 | 7872.9 | 8732.7  | 7195.0  | 6904.5  |
| 52.5° | 1231.8 | 1248.4 | 1381.8 | 1660.6 | 2153.1 | 2943.2 | 4752.6 | 8027.7 | 9646.9  | 8083.2  | 7725.3  |
| 55°   | 916.5  | 928.3  | 1044.1 | 1294.4 | 1772.8 | 2557.0 | 4284.9 | 8071.4 | 10683.9 | 9297.3  | 8849.7  |
| 57.5° | 664.9  | 672.0  | 746.4  | 933.0  | 1344.0 | 2073.9 | 3716.8 | 7958.0 | 11918.1 | 10853.9 | 10290.6 |
| 60°   | 538.6  | 540.9  | 563.4  | 646.0  | 934.2  | 1528.3 | 3030.6 | 7568.2 | 13257.4 | 12860.5 | 12150.7 |
| 62.5° | 489.0  | 489.0  | 494.9  | 517.3  | 631.9  | 1008.6 | 2200.3 | 6760.4 | 14693.6 | 15396.3 | 14445.5 |
| 65°   | 454.7  | 454.7  | 457.1  | 467.7  | 498.4  | 642.5  | 1388.9 | 5444.7 | 15904.1 | 18366.6 | 17164.3 |
| 67.5° | 424.0  | 425.2  | 424.0  | 427.5  | 445.3  | 474.8  | 805.5  | 3760.5 | 16556.1 | 21444.5 | 20146.5 |
| 70°   | 392.1  | 394.5  | 388.6  | 388.6  | 402.7  | 403.9  | 504.3  | 2062.1 | 16015.2 | 24023.9 | 23682.6 |
| 72.5° | 354.3  | 357.9  | 348.4  | 346.1  | 356.7  | 352.0  | 379.1  | 989.7  | 13749.9 | 24794.0 | 25691.6 |
| 75°   | 321.2  | 326.0  | 304.7  | 298.8  | 298.8  | 295.3  | 308.3  | 507.9  | 8924.1  | 20225.6 | 21633.5 |
| 77.5° | 291.7  | 301.2  | 266.9  | 248.0  | 243.3  | 232.7  | 251.6  | 310.6  | 3903.4  | 9495.7  | 9298.5  |
| 80°   | 240.9  | 253.9  | 219.7  | 197.2  | 189.0  | 177.2  | 198.4  | 217.3  | 1161.0  | 2205.0  | 2111.7  |
| 82.5° | 179.5  | 185.4  | 155.9  | 140.5  | 133.5  | 125.2  | 148.8  | 151.2  | 377.9   | 780.7   | 882.3   |
| 85°   | 114.6  | 116.9  | 95.7   | 82.7   | 79.1   | 75.6   | 94.5   | 82.7   | 144.1   | 574.0   | 833.8   |
| 87.5° | 40.2   | 46.1   | 36.6   | 33.1   | 35.4   | 29.5   | 43.7   | 24.8   | 40.2    | 405.1   | 501.9   |
| 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)