

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: STREETWORKS

Report Number: P236737

Luminaire Tested: **ARCH-L-AF72-240-D-U-5WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P236737  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29597)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-240-D-U-5WQ  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29115.2 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B5 - U0 - G4

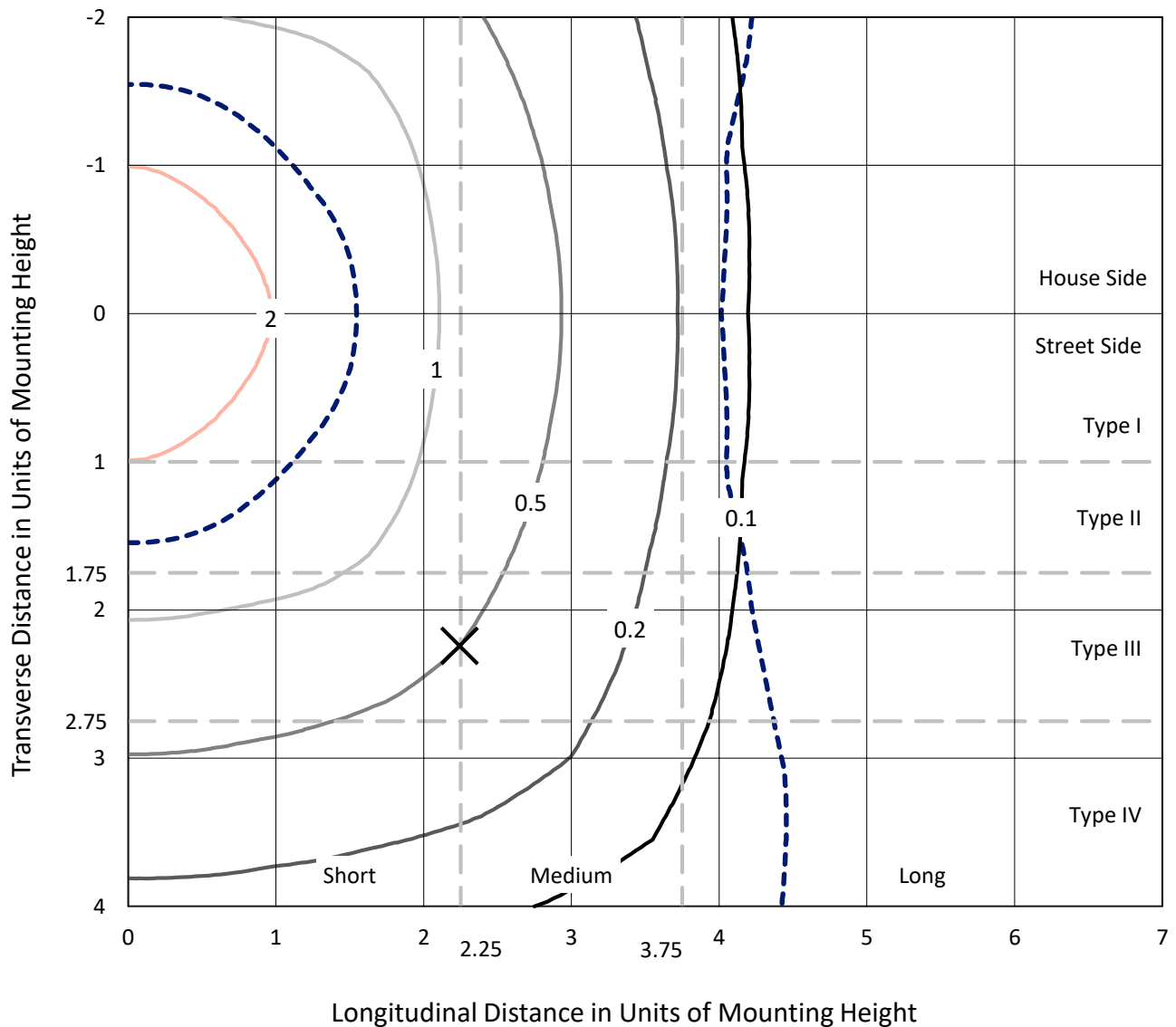
Input Watts (W): 242  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

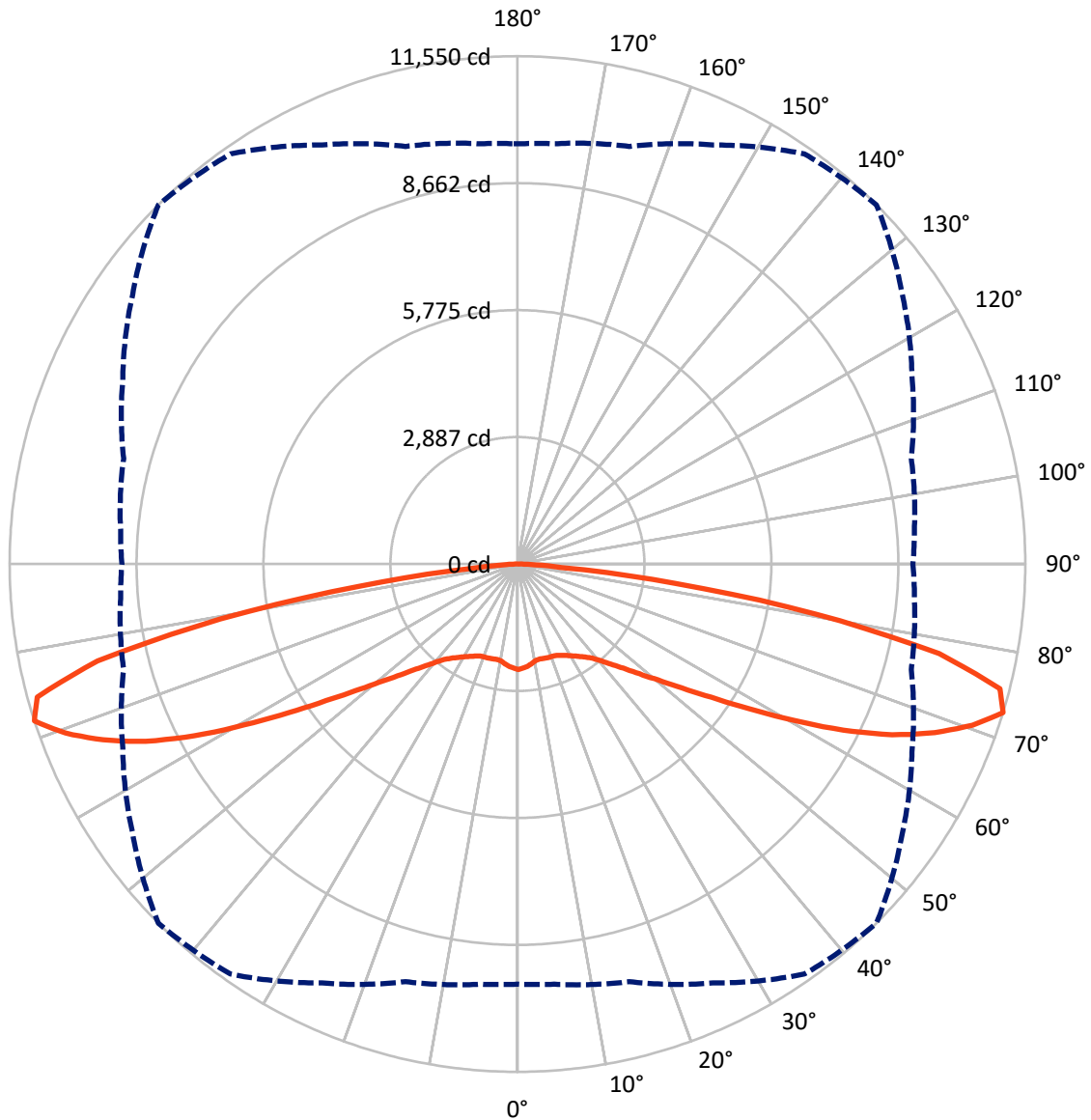


Based on 25 foot mounting height. Maximum calculated value = 3.8 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 14557.6  | 0.0    | 14557.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 14557.6  | 0.0    | 14557.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 29115.2  | 0.0    | 29115.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 220.8   | 0.8       |
| 10°-20°   | 637.1   | 2.2       |
| 20°-30°   | 1066.2  | 3.7       |
| 30°-40°   | 1638.1  | 5.6       |
| 40°-50°   | 2712.4  | 9.3       |
| 50°-60°   | 4822.1  | 16.6      |
| 60°-70°   | 8436.1  | 29.0      |
| 70°-80°   | 8583.0  | 29.5      |
| 80°-90°   | 999.4   | 3.4       |
| 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°    | 29115.2 | 100.0     |
| 0°-180°   | 29115.2 | 100.0     |



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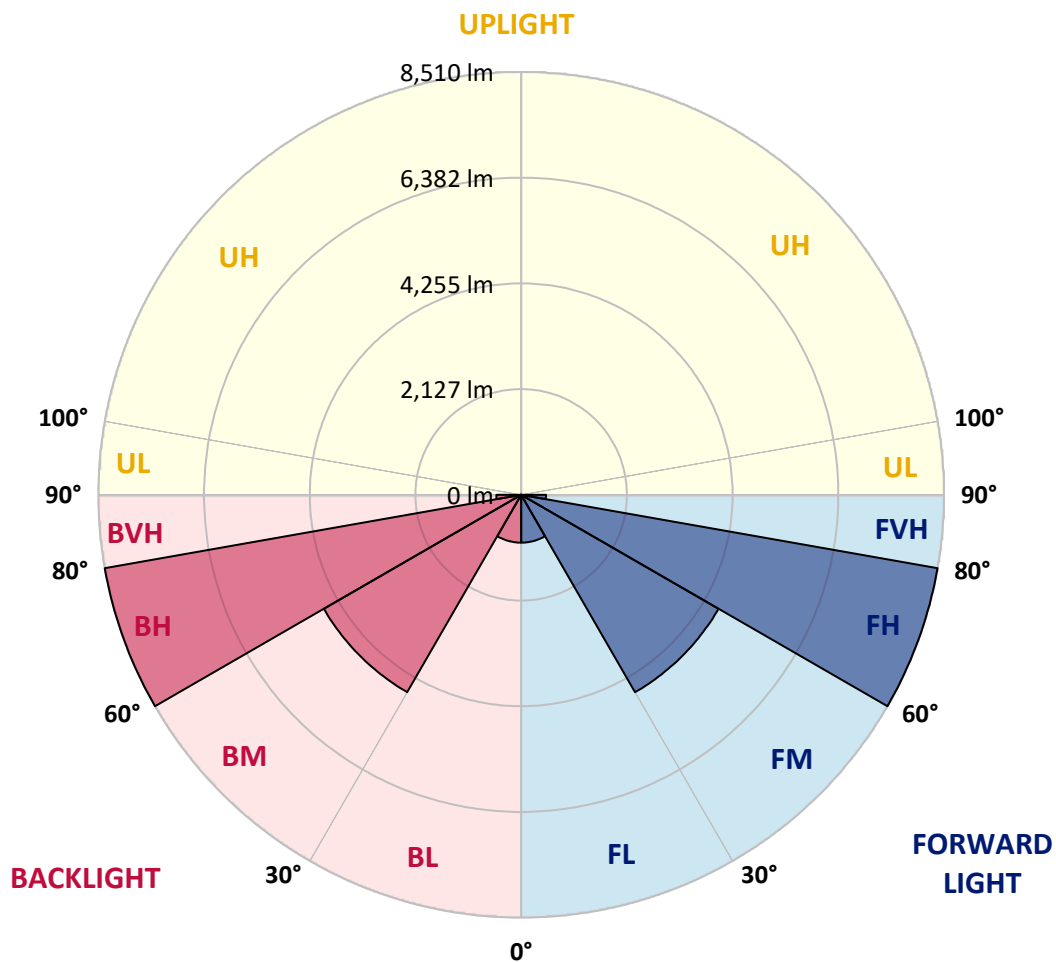
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 962.0  | 3.3       |                         |      |          |
| FM   | (30°-60°)   | 4586.3 | 15.8      |                         |      |          |
| FH   | (60°-80°)   | 8509.6 | 29.2      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 499.7  | 1.7       |                         |      | G3/500   |
| BL   | (0°-30°)    | 962.0  | 3.3       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 4586.3 | 15.8      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 8509.6 | 29.2      | B5                      |      | G4/12000 |
| BVH  | (80°-90°)   | 499.7  | 1.7       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 45°     | 55°     | 65°     | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0°    | 2399.7 | 2399.7 | 2399.7 | 2399.7  | 2399.7  | 2399.7  | 2399.7  | 2399.7  | 2399.7 | 2399.7 | 2399.7 |
| 2.5°  | 2377.6 | 2383.2 | 2372.0 | 2372.0  | 2372.0  | 2366.5  | 2372.0  | 2366.5  | 2372.0 | 2377.6 | 2377.6 |
| 5°    | 2355.4 | 2355.4 | 2344.4 | 2344.4  | 2344.4  | 2338.8  | 2344.4  | 2344.4  | 2349.9 | 2355.4 | 2355.4 |
| 7.5°  | 2305.5 | 2305.5 | 2300.0 | 2294.5  | 2289.0  | 2289.0  | 2294.5  | 2294.5  | 2300.0 | 2305.5 | 2305.5 |
| 10°   | 2277.8 | 2272.3 | 2261.2 | 2244.6  | 2239.0  | 2233.5  | 2244.6  | 2255.7  | 2272.3 | 2289.0 | 2283.4 |
| 12.5° | 2266.8 | 2261.2 | 2239.0 | 2222.5  | 2211.3  | 2216.8  | 2228.0  | 2239.0  | 2266.8 | 2283.4 | 2277.8 |
| 15°   | 2277.8 | 2266.8 | 2239.0 | 2211.3  | 2216.8  | 2228.0  | 2239.0  | 2239.0  | 2272.3 | 2289.0 | 2289.0 |
| 17.5° | 2277.8 | 2272.3 | 2239.0 | 2216.8  | 2222.5  | 2239.0  | 2244.6  | 2239.0  | 2266.8 | 2294.5 | 2294.5 |
| 20°   | 2283.4 | 2283.4 | 2239.0 | 2222.5  | 2228.0  | 2244.6  | 2250.1  | 2244.6  | 2266.8 | 2300.0 | 2300.0 |
| 22.5° | 2294.5 | 2289.0 | 2244.6 | 2233.5  | 2244.6  | 2255.7  | 2261.2  | 2255.7  | 2277.8 | 2305.5 | 2311.1 |
| 25°   | 2316.7 | 2305.5 | 2266.8 | 2261.2  | 2283.4  | 2300.0  | 2300.0  | 2289.0  | 2300.0 | 2327.7 | 2327.7 |
| 27.5° | 2344.4 | 2338.8 | 2294.5 | 2294.5  | 2322.2  | 2355.4  | 2338.8  | 2316.7  | 2327.7 | 2355.4 | 2355.4 |
| 30°   | 2394.2 | 2388.7 | 2344.4 | 2344.4  | 2383.2  | 2421.9  | 2383.2  | 2355.4  | 2372.0 | 2399.7 | 2405.3 |
| 32.5° | 2466.2 | 2466.2 | 2427.5 | 2416.4  | 2482.9  | 2499.6  | 2482.9  | 2427.5  | 2438.6 | 2477.4 | 2477.4 |
| 35°   | 2588.2 | 2577.1 | 2538.4 | 2532.8  | 2599.3  | 2593.8  | 2588.2  | 2538.4  | 2549.4 | 2593.8 | 2593.8 |
| 37.5° | 2749.0 | 2743.3 | 2710.1 | 2693.5  | 2726.8  | 2704.6  | 2715.6  | 2693.5  | 2721.3 | 2754.5 | 2760.0 |
| 40°   | 2954.0 | 2948.5 | 2920.7 | 2898.5  | 2909.7  | 2876.4  | 2887.5  | 2898.5  | 2926.3 | 2948.5 | 2954.0 |
| 42.5° | 3208.9 | 3208.9 | 3181.2 | 3142.4  | 3125.8  | 3109.2  | 3109.2  | 3131.4  | 3159.1 | 3186.8 | 3186.8 |
| 45°   | 3524.9 | 3524.9 | 3491.5 | 3452.8  | 3402.9  | 3375.2  | 3386.3  | 3408.5  | 3441.7 | 3475.0 | 3486.0 |
| 47.5° | 3896.2 | 3896.2 | 3851.8 | 3813.0  | 3763.1  | 3729.9  | 3729.9  | 3741.0  | 3790.9 | 3818.6 | 3835.2 |
| 50°   | 4311.8 | 4295.2 | 4250.9 | 4212.1  | 4184.4  | 4140.0  | 4145.6  | 4140.0  | 4184.4 | 4223.2 | 4234.2 |
| 52.5° | 4744.1 | 4738.6 | 4694.2 | 4683.2  | 4699.7  | 4677.6  | 4677.6  | 4622.2  | 4638.8 | 4661.0 | 4655.4 |
| 55°   | 5281.7 | 5265.1 | 5226.3 | 5248.5  | 5314.9  | 5348.2  | 5337.1  | 5248.5  | 5198.5 | 5209.7 | 5204.2 |
| 57.5° | 5869.2 | 5852.6 | 5841.5 | 5908.0  | 6057.6  | 6196.2  | 6168.5  | 5963.4  | 5869.2 | 5874.7 | 5880.2 |
| 60°   | 6467.7 | 6467.7 | 6501.0 | 6667.3  | 6988.7  | 7215.9  | 7132.8  | 6789.2  | 6622.9 | 6589.6 | 6578.6 |
| 62.5° | 7082.9 | 7099.6 | 7171.6 | 7448.7  | 7942.0  | 8318.8  | 8108.2  | 7620.5  | 7371.1 | 7304.6 | 7282.5 |
| 65°   | 7797.9 | 7814.5 | 7919.8 | 8263.4  | 8917.4  | 9366.3  | 9006.1  | 8546.0  | 8196.9 | 8058.4 | 8036.2 |
| 67.5° | 8834.3 | 8845.4 | 8928.5 | 9261.0  | 9876.2  | 10236.5 | 9865.1  | 9455.0  | 9078.1 | 8917.4 | 8906.3 |
| 70°   | 9765.4 | 9776.4 | 9848.5 | 10286.3 | 10851.7 | 10979.1 | 10568.9 | 10048.0 | 9654.5 | 9527.0 | 9504.8 |
| 72.5° | 9554.8 | 9593.5 | 9831.9 | 10513.6 | 11383.7 | 11549.9 | 10685.3 | 9903.9  | 9272.1 | 9061.5 | 8995.0 |
| 75°   | 8014.0 | 8075.0 | 8451.8 | 9477.1  | 10862.7 | 11333.8 | 9998.1  | 8562.7  | 7620.5 | 7215.9 | 7110.6 |
| 77.5° | 4677.6 | 4904.8 | 5553.3 | 6866.8  | 8845.4  | 9804.2  | 8235.7  | 6268.2  | 4683.2 | 4018.0 | 3796.4 |
| 80°   | 1280.2 | 1402.2 | 1873.2 | 3159.1  | 5547.8  | 6866.8  | 5254.0  | 2876.4  | 1551.8 | 1163.8 | 1080.7 |
| 82.5° | 404.6  | 537.6  | 681.7  | 908.9   | 2178.1  | 3619.1  | 1950.9  | 847.9   | 665.0  | 548.7  | 487.7  |
| 85°   | 216.1  | 232.7  | 382.4  | 443.3   | 654.0   | 1014.3  | 604.1   | 443.3   | 399.1  | 293.7  | 277.1  |
| 87.5° | 110.9  | 116.4  | 216.1  | 216.1   | 288.2   | 238.3   | 260.4   | 238.3   | 227.2  | 144.1  | 127.5  |
| 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)