

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: P884655

Luminaire Tested: **NAV-SB5C-827-U-T1**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884655
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-SB5C-827-U-T1
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30545 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

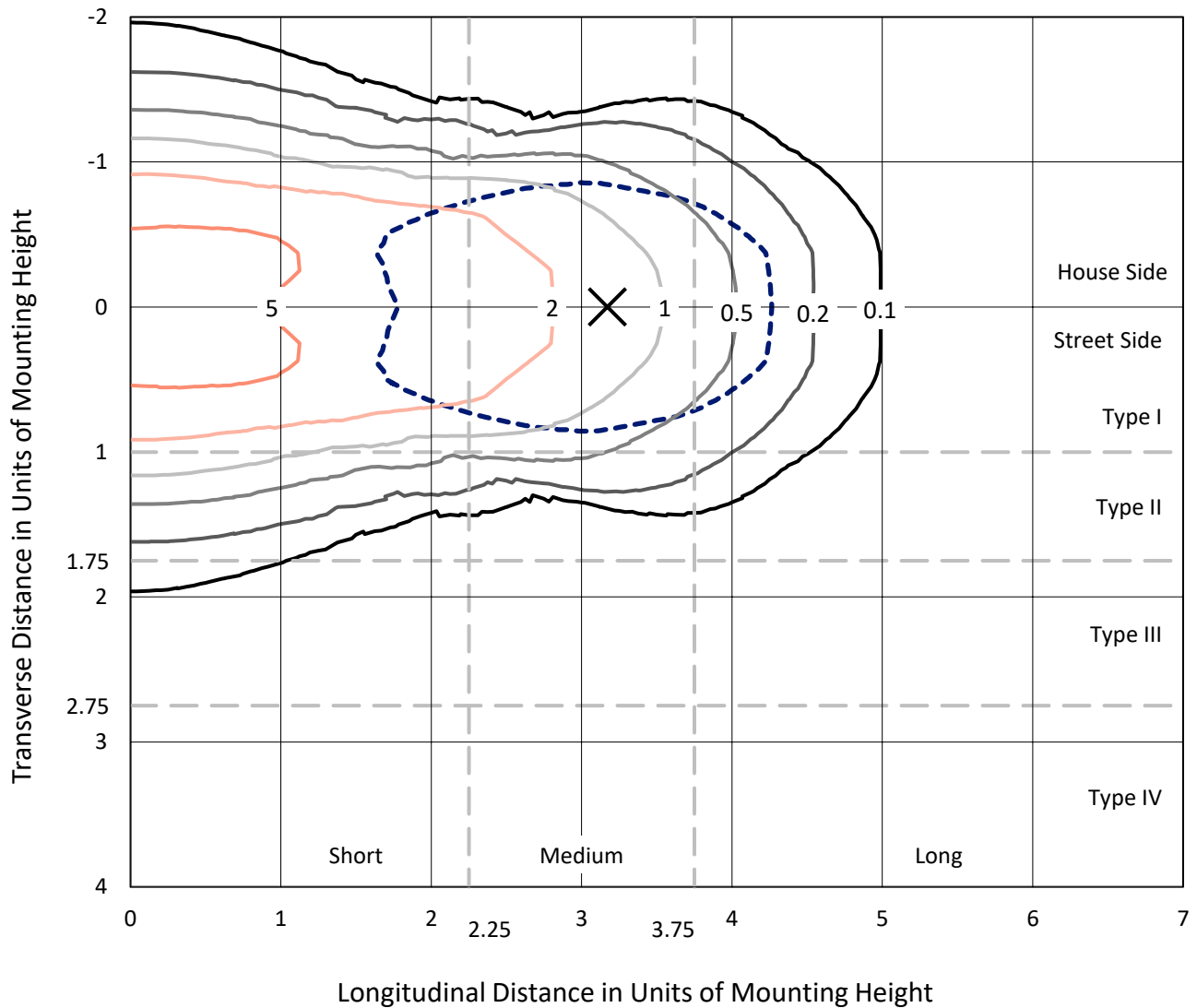
Input Watts (W): 249.5
Input Voltage (V): 120.0
Input Current (Ain): 2.116
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 7.885
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

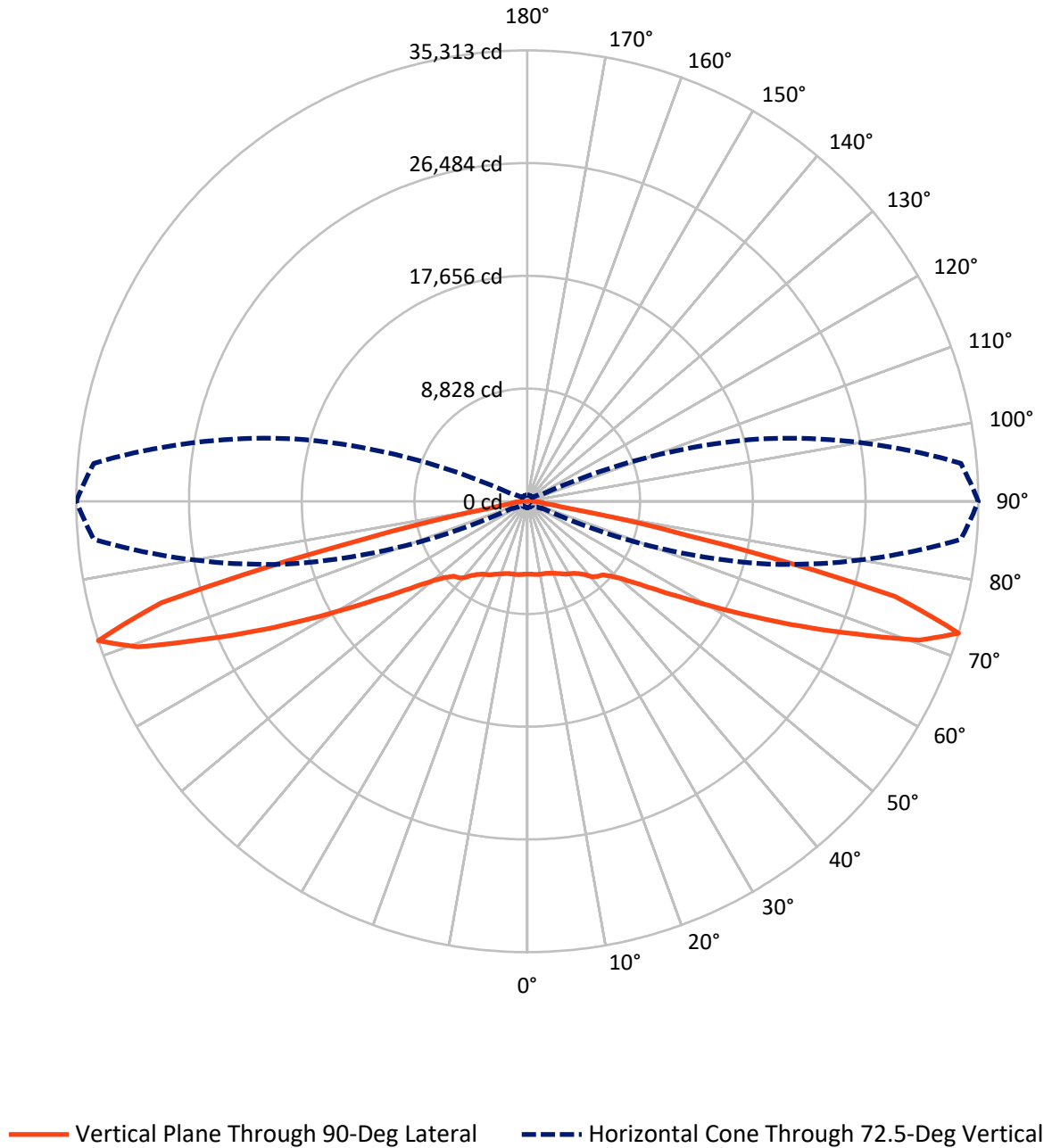
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 15272.5 | 0.0 | 15272.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 15272.5 | 0.0 | 15272.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 30545.0 | 0.0 | 30545.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 553.4 | 1.8 |
| 10°-20° | 1692.2 | 5.5 |
| 20°-30° | 2821.5 | 9.2 |
| 30°-40° | 3880.5 | 12.7 |
| 40°-50° | 4739.1 | 15.5 |
| 50°-60° | 5481.3 | 17.9 |
| 60°-70° | 6535.5 | 21.4 |
| 70°-80° | 4561.4 | 14.9 |
| 80°-90° | 280.2 | 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° | 30545.0 | 100.0 |
| 0°-180° | 30545.0 | 100.0 |

Coefficient of Utilization



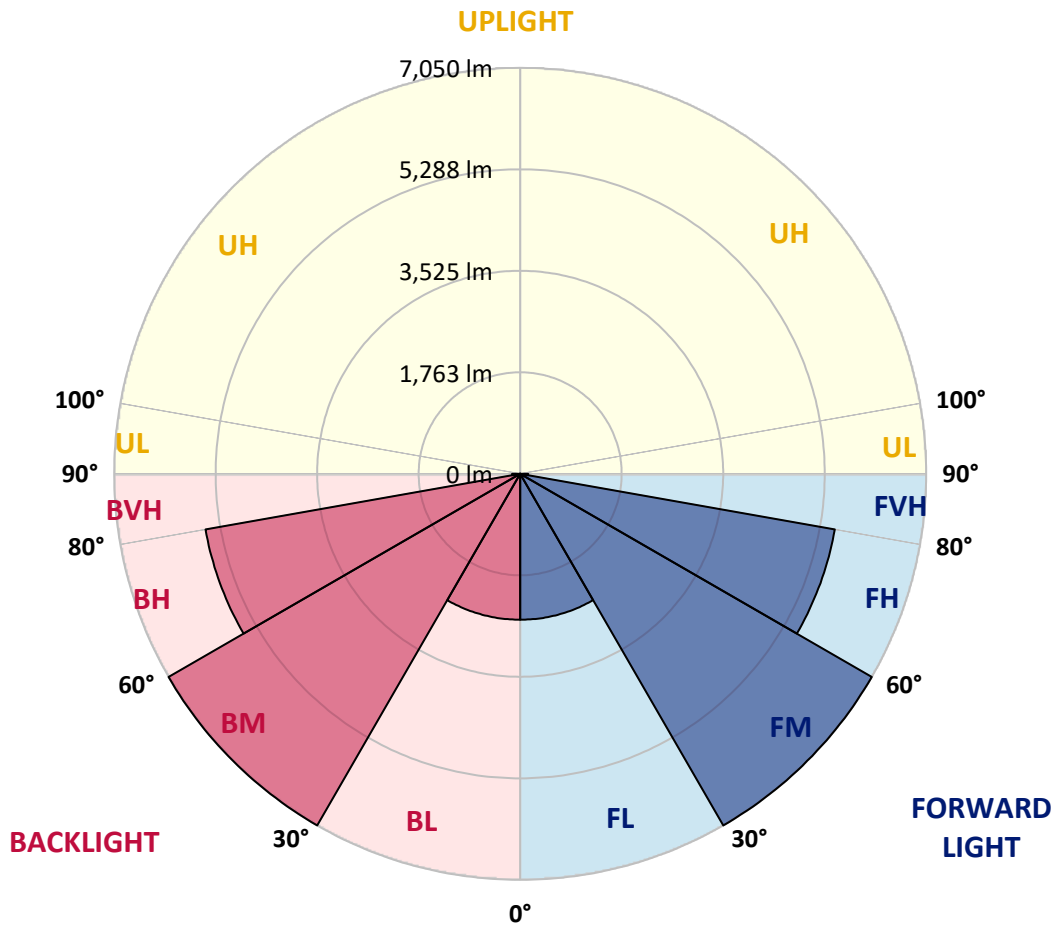
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2533.5 | 8.3 | | | |
| FM (30°-60°) | 7050.4 | 23.1 | | | |
| FH (60°-80°) | 5548.4 | 18.2 | | | G3/7500 |
| FVH (80°-90°) | 140.1 | 0.5 | | | G2/225 |
| BL (0°-30°) | 2533.5 | 8.3 | B4/5000 | | |
| BM (30°-60°) | 7050.4 | 23.1 | B4/8500 | | |
| BH (60°-80°) | 5548.4 | 18.2 | B5 | | G5 |
| BVH (80°-90°) | 140.1 | 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 I Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 | 5707.7 |
| 2.5° | 5712.5 | 5719.0 | 5719.0 | 5714.1 | 5725.5 | 5715.8 | 5715.8 | 5710.9 | 5715.8 | 5710.9 | 5710.9 |
| 5° | 5741.7 | 5749.9 | 5753.1 | 5751.5 | 5766.1 | 5758.0 | 5758.0 | 5751.5 | 5753.1 | 5748.2 | 5748.2 |
| 7.5° | 5796.9 | 5808.3 | 5814.8 | 5822.9 | 5844.0 | 5834.3 | 5827.8 | 5808.3 | 5800.2 | 5787.2 | 5787.2 |
| 10° | 5814.8 | 5827.8 | 5848.9 | 5891.1 | 5939.8 | 5941.4 | 5921.9 | 5873.2 | 5835.9 | 5806.7 | 5801.8 |
| 12.5° | 5759.6 | 5777.5 | 5821.3 | 5907.3 | 6016.1 | 6059.9 | 6029.1 | 5947.9 | 5874.9 | 5822.9 | 5814.8 |
| 15° | 5689.8 | 5709.3 | 5775.8 | 5905.7 | 6066.4 | 6168.7 | 6165.4 | 6058.3 | 5941.4 | 5860.2 | 5847.3 |
| 17.5° | 5581.0 | 5600.5 | 5696.3 | 5878.1 | 6105.4 | 6274.2 | 6319.7 | 6209.3 | 6045.3 | 5936.5 | 5918.7 |
| 20° | 5384.6 | 5402.5 | 5535.6 | 5790.4 | 6118.4 | 6386.2 | 6504.7 | 6407.3 | 6202.8 | 6055.0 | 6027.5 |
| 22.5° | 5129.7 | 5157.3 | 5313.2 | 5639.5 | 6087.5 | 6503.1 | 6715.7 | 6649.2 | 6386.2 | 6181.7 | 6144.3 |
| 25° | 4857.0 | 4886.2 | 5068.1 | 5454.4 | 6008.0 | 6587.5 | 6965.7 | 6923.5 | 6594.0 | 6339.1 | 6287.2 |
| 27.5° | 4621.6 | 4652.5 | 4850.5 | 5271.0 | 5884.6 | 6620.0 | 7212.5 | 7233.6 | 6845.6 | 6512.8 | 6457.6 |
| 30° | 4436.6 | 4465.8 | 4676.8 | 5123.3 | 5725.5 | 6587.5 | 7428.4 | 7574.5 | 7102.1 | 6663.8 | 6584.3 |
| 32.5° | 4233.7 | 4271.0 | 4493.4 | 4943.1 | 5537.2 | 6509.6 | 7616.7 | 7943.0 | 7399.2 | 6826.1 | 6725.5 |
| 35° | 3977.2 | 4011.3 | 4245.0 | 4696.3 | 5290.5 | 6384.6 | 7774.2 | 8352.1 | 7824.5 | 7072.9 | 6960.9 |
| 37.5° | 3665.5 | 3698.0 | 3930.1 | 4387.9 | 5045.3 | 6209.3 | 7894.3 | 8813.1 | 8331.0 | 7428.4 | 7279.0 |
| 40° | 3352.2 | 3383.0 | 3600.6 | 4043.7 | 4751.5 | 5985.2 | 7936.5 | 9264.4 | 8912.1 | 7917.0 | 7757.9 |
| 42.5° | 3064.9 | 3092.5 | 3292.1 | 3704.5 | 4422.0 | 5699.5 | 7881.3 | 9657.2 | 9433.2 | 8257.9 | 8053.4 |
| 45° | 2800.3 | 2824.6 | 3001.6 | 3386.3 | 4079.4 | 5352.1 | 7715.7 | 10079.3 | 10053.3 | 8501.4 | 8225.5 |
| 47.5° | 2498.3 | 2522.7 | 2706.1 | 3077.8 | 3736.9 | 4944.7 | 7434.9 | 10494.9 | 10915.3 | 9053.4 | 8735.2 |
| 50° | 2129.8 | 2150.9 | 2339.2 | 2722.3 | 3381.4 | 4511.3 | 7045.3 | 10821.2 | 12003.0 | 9889.4 | 9490.0 |
| 52.5° | 1693.1 | 1715.9 | 1899.3 | 2282.4 | 2959.3 | 4045.4 | 6532.3 | 11033.8 | 13259.4 | 11110.1 | 10618.3 |
| 55° | 1259.7 | 1275.9 | 1435.0 | 1779.2 | 2436.6 | 3514.5 | 5889.5 | 11093.9 | 14684.7 | 12778.9 | 12163.7 |
| 57.5° | 913.9 | 923.7 | 1025.9 | 1282.4 | 1847.4 | 2850.6 | 5108.6 | 10938.1 | 16381.1 | 14918.5 | 14144.1 |
| 60° | 740.2 | 743.5 | 774.3 | 888.0 | 1284.1 | 2100.6 | 4165.5 | 10402.3 | 18222.0 | 17676.5 | 16700.9 |
| 62.5° | 672.1 | 672.1 | 680.2 | 711.0 | 868.5 | 1386.3 | 3024.3 | 9292.0 | 20195.9 | 21161.8 | 19855.0 |
| 65° | 625.0 | 625.0 | 628.2 | 642.8 | 685.0 | 883.1 | 1909.0 | 7483.6 | 21859.9 | 25244.5 | 23592.0 |
| 67.5° | 582.8 | 584.4 | 582.8 | 587.6 | 612.0 | 652.6 | 1107.1 | 5168.7 | 22755.9 | 29474.9 | 27690.9 |
| 70° | 538.9 | 542.2 | 534.1 | 534.1 | 553.6 | 555.2 | 693.2 | 2834.3 | 22012.5 | 33020.3 | 32551.2 |
| 72.5° | 487.0 | 491.9 | 478.9 | 475.6 | 490.2 | 483.8 | 521.1 | 1360.4 | 18898.9 | 34078.7 | 35312.5 |
| 75° | 441.5 | 448.0 | 418.8 | 410.7 | 410.7 | 405.8 | 423.7 | 698.0 | 12265.9 | 27799.7 | 29734.7 |
| 77.5° | 401.0 | 414.0 | 366.9 | 340.9 | 334.4 | 319.8 | 345.8 | 426.9 | 5365.1 | 13051.6 | 12780.5 |
| 80° | 331.2 | 349.0 | 301.9 | 271.1 | 259.7 | 243.5 | 272.7 | 298.7 | 1595.7 | 3030.8 | 2902.5 |
| 82.5° | 246.7 | 254.9 | 214.3 | 193.2 | 183.4 | 172.1 | 204.5 | 207.8 | 519.5 | 1073.0 | 1212.6 |
| 85° | 157.5 | 160.7 | 131.5 | 113.6 | 108.8 | 103.9 | 129.9 | 113.6 | 198.0 | 788.9 | 1146.1 |
| 87.5° | 55.2 | 63.3 | 50.3 | 45.5 | 48.7 | 40.6 | 60.1 | 34.1 | 55.2 | 556.8 | 689.9 |
| 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)