

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: P884295

Luminaire Tested: **NAV-SB5A-750-U-T1**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884295
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-SB5A-750-U-T1
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24277 lumens
Efficiency: N/A
Efficacy: 171.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

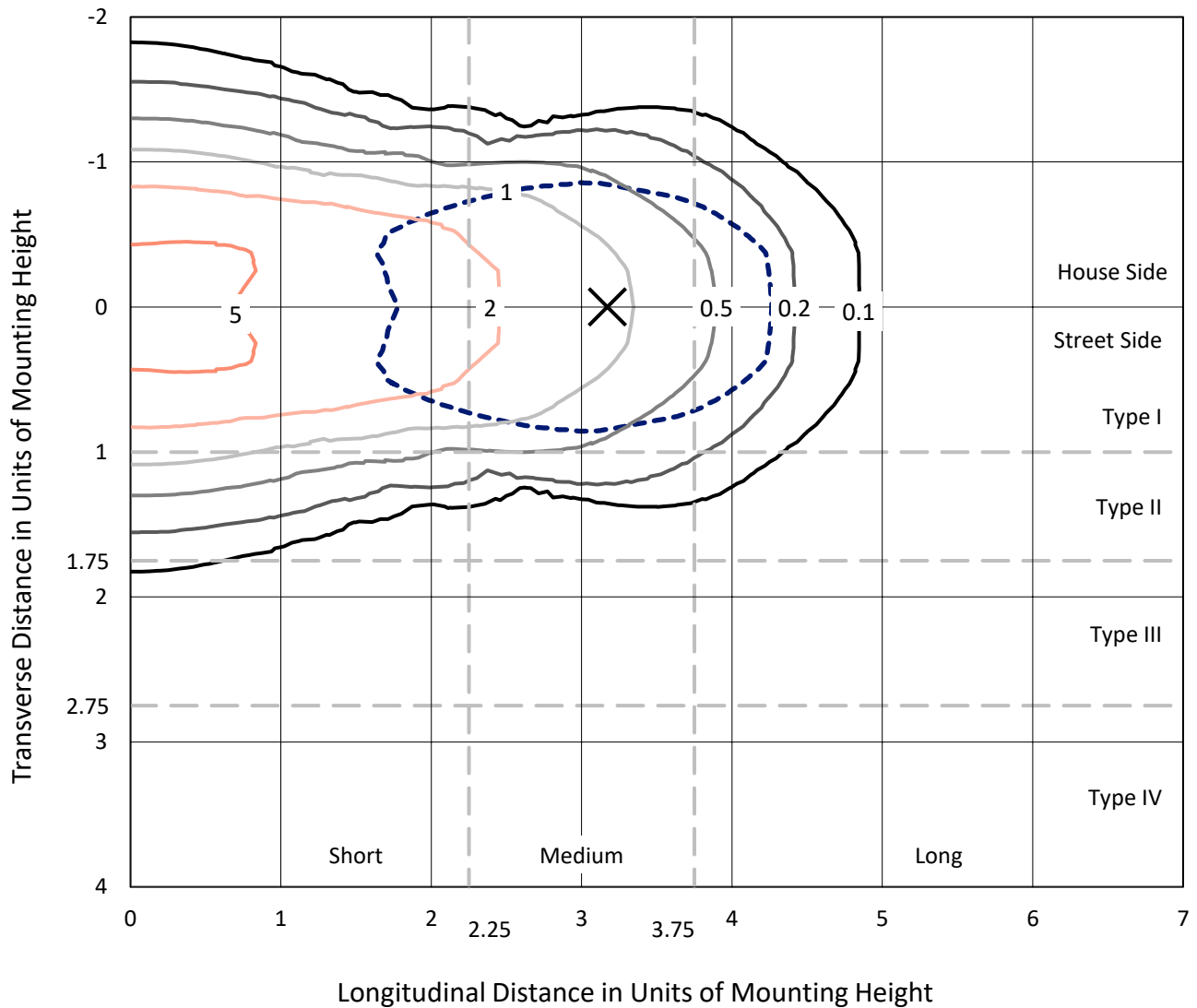
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

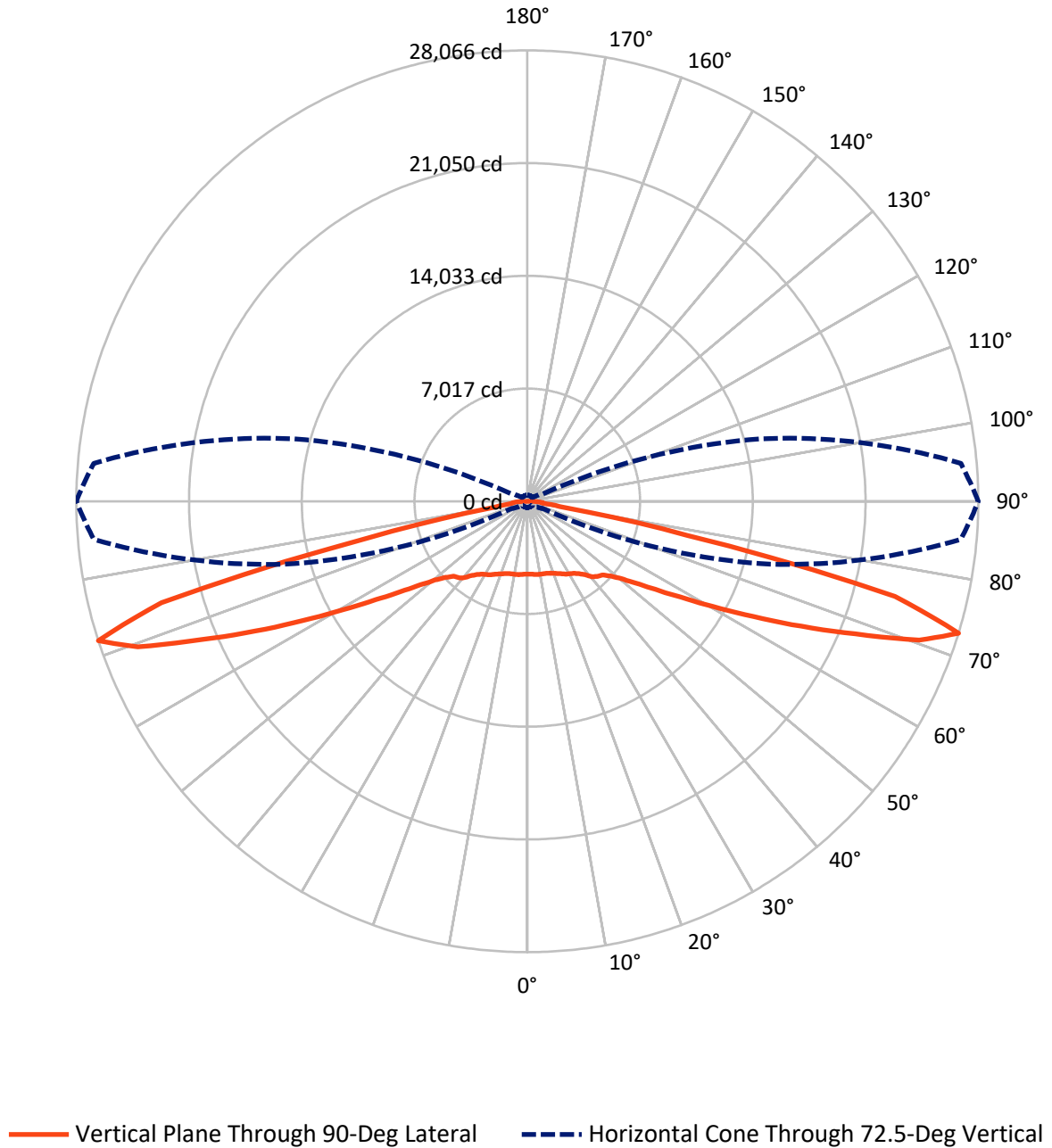
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 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 | 12138.5 | 0.0 | 12138.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 12138.5 | 0.0 | 12138.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 24277.0 | 0.0 | 24277.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 439.9 | 1.8 |
| 10°-20° | 1344.9 | 5.5 |
| 20°-30° | 2242.5 | 9.2 |
| 30°-40° | 3084.2 | 12.7 |
| 40°-50° | 3766.6 | 15.5 |
| 50°-60° | 4356.5 | 17.9 |
| 60°-70° | 5194.4 | 21.4 |
| 70°-80° | 3625.3 | 14.9 |
| 80°-90° | 222.7 | 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° | 24277.0 | 100.0 |
| 0°-180° | 24277.0 | 100.0 |

Coefficient of Utilization



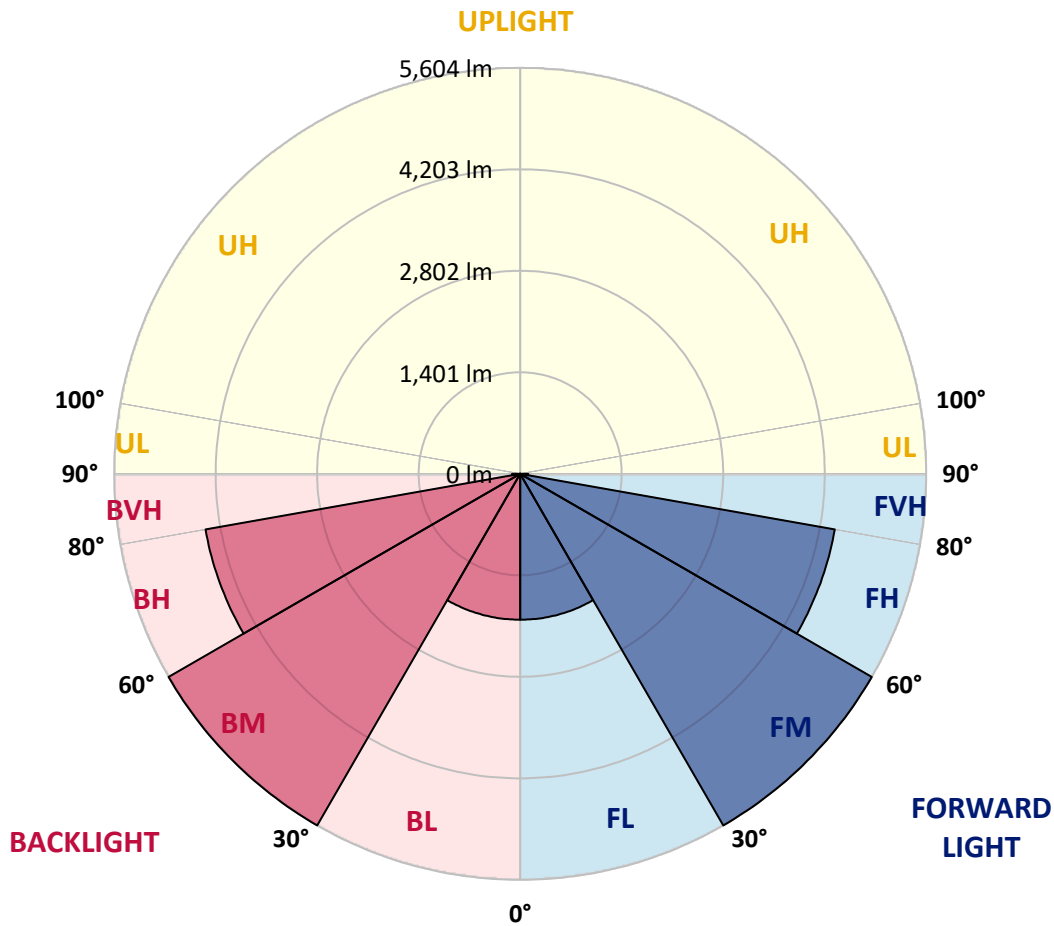
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2013.7 | 8.3 | | | |
| FM (30°-60°) | 5603.6 | 23.1 | | | |
| FH (60°-80°) | 4409.9 | 18.2 | | | G2/5000 |
| FVH (80°-90°) | 111.3 | 0.5 | | | G2/225 |
| BL (0°-30°) | 2013.7 | 8.3 | B3/2500 | | |
| BM (30°-60°) | 5603.6 | 23.1 | B4/8500 | | |
| BH (60°-80°) | 4409.9 | 18.2 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 111.3 | 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° | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 | 4536.4 |
| 2.5° | 4540.3 | 4545.4 | 4545.4 | 4541.6 | 4550.6 | 4542.9 | 4542.9 | 4539.0 | 4542.9 | 4539.0 | 4539.0 |
| 5° | 4563.5 | 4570.0 | 4572.5 | 4571.2 | 4582.9 | 4576.4 | 4576.4 | 4571.2 | 4572.5 | 4568.7 | 4568.7 |
| 7.5° | 4607.4 | 4616.4 | 4621.6 | 4628.0 | 4644.8 | 4637.1 | 4631.9 | 4616.4 | 4610.0 | 4599.6 | 4599.6 |
| 10° | 4621.6 | 4631.9 | 4648.7 | 4682.2 | 4720.9 | 4722.2 | 4706.7 | 4668.0 | 4638.3 | 4615.1 | 4611.2 |
| 12.5° | 4577.7 | 4591.9 | 4626.7 | 4695.1 | 4781.6 | 4816.4 | 4791.9 | 4727.4 | 4669.3 | 4628.0 | 4621.6 |
| 15° | 4522.2 | 4537.7 | 4590.6 | 4693.8 | 4821.6 | 4902.8 | 4900.3 | 4815.1 | 4722.2 | 4657.7 | 4647.4 |
| 17.5° | 4435.8 | 4451.3 | 4527.4 | 4671.9 | 4852.5 | 4986.7 | 5022.8 | 4935.1 | 4804.8 | 4718.3 | 4704.1 |
| 20° | 4279.7 | 4293.9 | 4399.7 | 4602.2 | 4862.8 | 5075.7 | 5169.9 | 5092.5 | 4929.9 | 4812.5 | 4790.6 |
| 22.5° | 4077.1 | 4099.0 | 4222.9 | 4482.2 | 4838.3 | 5168.6 | 5337.6 | 5284.7 | 5075.7 | 4913.2 | 4883.5 |
| 25° | 3860.3 | 3883.6 | 4028.1 | 4335.1 | 4775.1 | 5235.7 | 5536.3 | 5502.8 | 5240.9 | 5038.3 | 4997.0 |
| 27.5° | 3673.3 | 3697.8 | 3855.2 | 4189.3 | 4677.0 | 5261.5 | 5732.4 | 5749.2 | 5440.9 | 5176.4 | 5132.5 |
| 30° | 3526.2 | 3549.4 | 3717.1 | 4071.9 | 4550.6 | 5235.7 | 5904.0 | 6020.2 | 5644.7 | 5296.4 | 5233.1 |
| 32.5° | 3364.9 | 3394.6 | 3571.3 | 3928.7 | 4400.9 | 5173.8 | 6053.7 | 6313.0 | 5880.8 | 5425.4 | 5345.4 |
| 35° | 3161.0 | 3188.1 | 3373.9 | 3732.6 | 4204.8 | 5074.4 | 6178.9 | 6638.2 | 6218.9 | 5621.5 | 5532.5 |
| 37.5° | 2913.3 | 2939.1 | 3123.6 | 3487.5 | 4010.0 | 4935.1 | 6274.3 | 7004.6 | 6621.4 | 5904.0 | 5785.3 |
| 40° | 2664.3 | 2688.8 | 2861.7 | 3213.9 | 3776.5 | 4757.0 | 6307.9 | 7363.3 | 7083.3 | 6292.4 | 6166.0 |
| 42.5° | 2435.9 | 2457.9 | 2616.6 | 2944.3 | 3514.6 | 4530.0 | 6264.0 | 7675.5 | 7497.5 | 6563.3 | 6400.8 |
| 45° | 2225.6 | 2245.0 | 2385.6 | 2691.4 | 3242.3 | 4253.9 | 6132.4 | 8011.0 | 7990.3 | 6756.9 | 6537.5 |
| 47.5° | 1985.6 | 2005.0 | 2150.8 | 2446.3 | 2970.1 | 3930.0 | 5909.2 | 8341.3 | 8675.4 | 7195.6 | 6942.7 |
| 50° | 1692.8 | 1709.5 | 1859.2 | 2163.7 | 2687.5 | 3585.5 | 5599.6 | 8600.6 | 9539.9 | 7860.0 | 7542.6 |
| 52.5° | 1345.7 | 1363.8 | 1509.6 | 1814.0 | 2352.1 | 3215.2 | 5191.8 | 8769.6 | 10538.5 | 8830.3 | 8439.3 |
| 55° | 1001.2 | 1014.1 | 1140.6 | 1414.1 | 1936.6 | 2793.3 | 4680.9 | 8817.4 | 11671.3 | 10156.6 | 9667.6 |
| 57.5° | 726.4 | 734.1 | 815.4 | 1019.3 | 1468.3 | 2265.6 | 4060.3 | 8693.5 | 13019.6 | 11857.1 | 11241.7 |
| 60° | 588.3 | 590.9 | 615.4 | 705.8 | 1020.6 | 1669.5 | 3310.7 | 8267.7 | 14482.7 | 14049.2 | 13273.8 |
| 62.5° | 534.2 | 534.2 | 540.6 | 565.1 | 690.3 | 1101.8 | 2403.7 | 7385.2 | 16051.6 | 16819.3 | 15780.7 |
| 65° | 496.7 | 496.7 | 499.3 | 510.9 | 544.5 | 701.9 | 1517.3 | 5947.9 | 17374.1 | 20064.2 | 18750.8 |
| 67.5° | 463.2 | 464.5 | 463.2 | 467.1 | 486.4 | 518.7 | 879.9 | 4108.1 | 18086.3 | 23426.5 | 22008.6 |
| 70° | 428.4 | 430.9 | 424.5 | 424.5 | 440.0 | 441.3 | 550.9 | 2252.7 | 17495.4 | 26244.4 | 25871.5 |
| 72.5° | 387.1 | 390.9 | 380.6 | 378.0 | 389.6 | 384.5 | 414.2 | 1081.2 | 15020.7 | 27085.6 | 28066.2 |
| 75° | 350.9 | 356.1 | 332.9 | 326.4 | 326.4 | 322.6 | 336.7 | 554.8 | 9748.9 | 22095.0 | 23633.0 |
| 77.5° | 318.7 | 329.0 | 291.6 | 270.9 | 265.8 | 254.2 | 274.8 | 339.3 | 4264.2 | 10373.4 | 10157.9 |
| 80° | 263.2 | 277.4 | 240.0 | 215.5 | 206.4 | 193.5 | 216.8 | 237.4 | 1268.3 | 2408.8 | 2306.9 |
| 82.5° | 196.1 | 202.6 | 170.3 | 153.5 | 145.8 | 136.8 | 162.6 | 165.1 | 412.9 | 852.8 | 963.8 |
| 85° | 125.2 | 127.7 | 104.5 | 90.3 | 86.4 | 82.6 | 103.2 | 90.3 | 157.4 | 627.0 | 910.9 |
| 87.5° | 43.9 | 50.3 | 40.0 | 36.1 | 38.7 | 32.3 | 47.7 | 27.1 | 43.9 | 442.5 | 548.3 |
| 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)