

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: P963512

Luminaire Tested: **NAV-SB3A-735-U-T1**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-735-U-T1
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13646.9 lumens
Efficiency: N/A
Efficacy: 161.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short
BUG Rating: B3 - U0 - G3

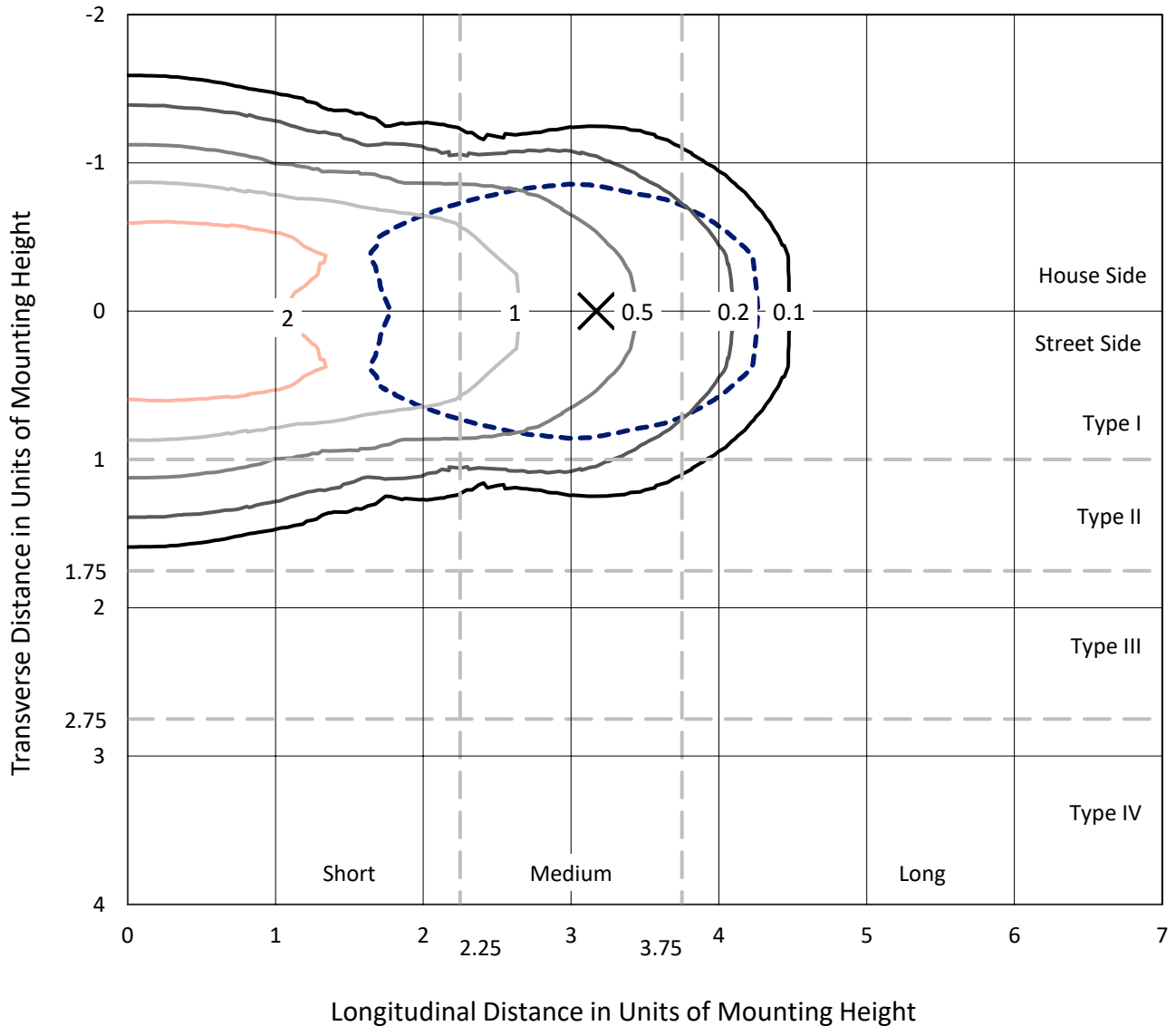
Input Watts (W): 84.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P963512
 CATALOG NUMBER: NAV-SB3A-735-U-T1

Iso-Footcandle Lines of Horizontal Illumination

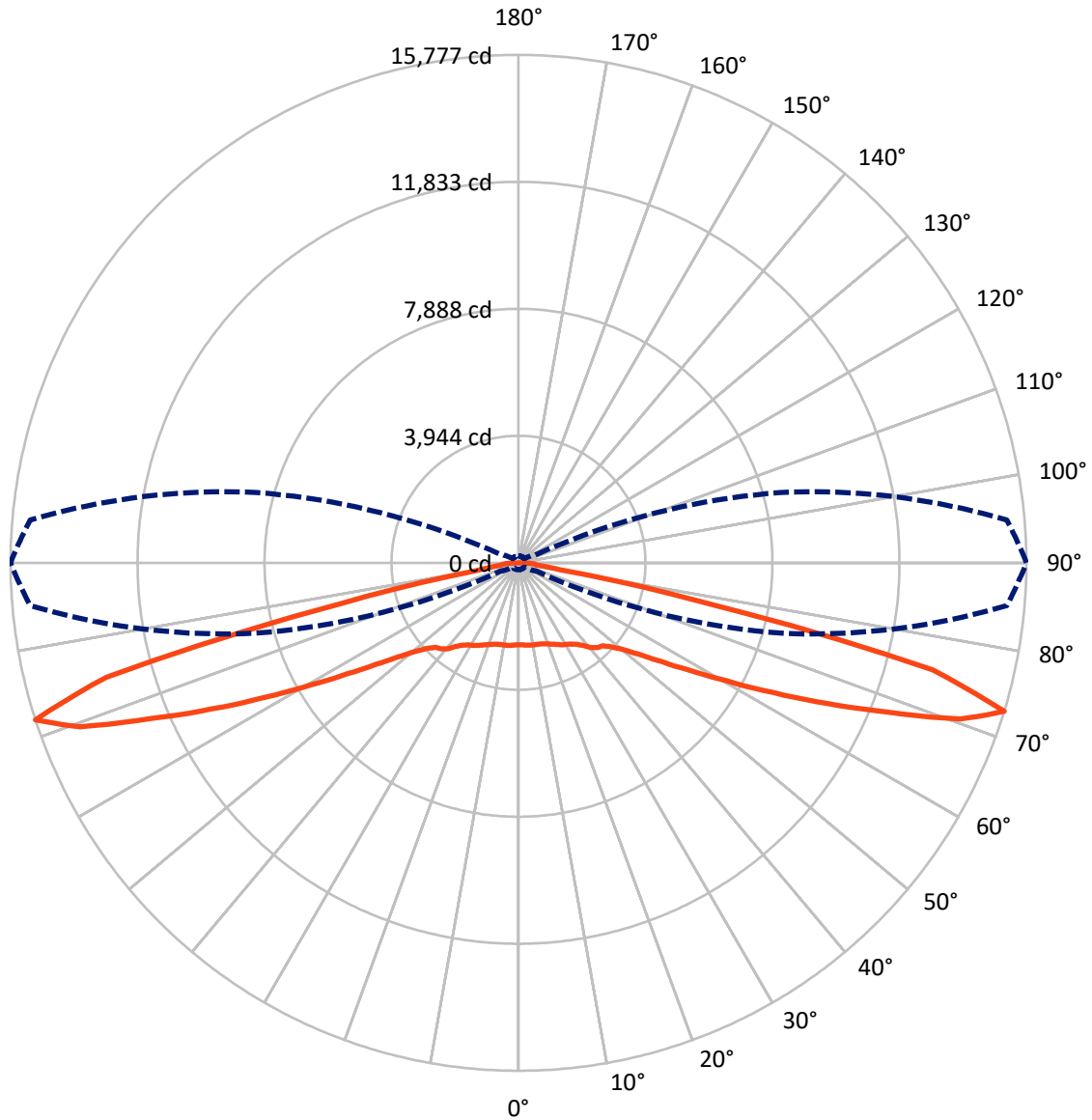
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type I - Short - N/A

REPORT NUMBER: P963512
CATALOG NUMBER: NAV-SB3A-735-U-T1

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P963512
 CATALOG NUMBER: NAV-SB3A-735-U-T1

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6823.4 | 0.0 | 6823.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6823.4 | 0.0 | 6823.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 13646.9 | 0.0 | 13646.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 247.3 | 1.8 |
| 10°-20° | 756.0 | 5.5 |
| 20°-30° | 1260.6 | 9.2 |
| 30°-40° | 1733.7 | 12.7 |
| 40°-50° | 2117.3 | 15.5 |
| 50°-60° | 2448.9 | 17.9 |
| 60°-70° | 2919.9 | 21.4 |
| 70°-80° | 2037.9 | 14.9 |
| 80°-90° | 125.2 | 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° | 13646.9 | 100.0 |
| 0°-180° | 13646.9 | 100.0 |

Coefficient of Utilization



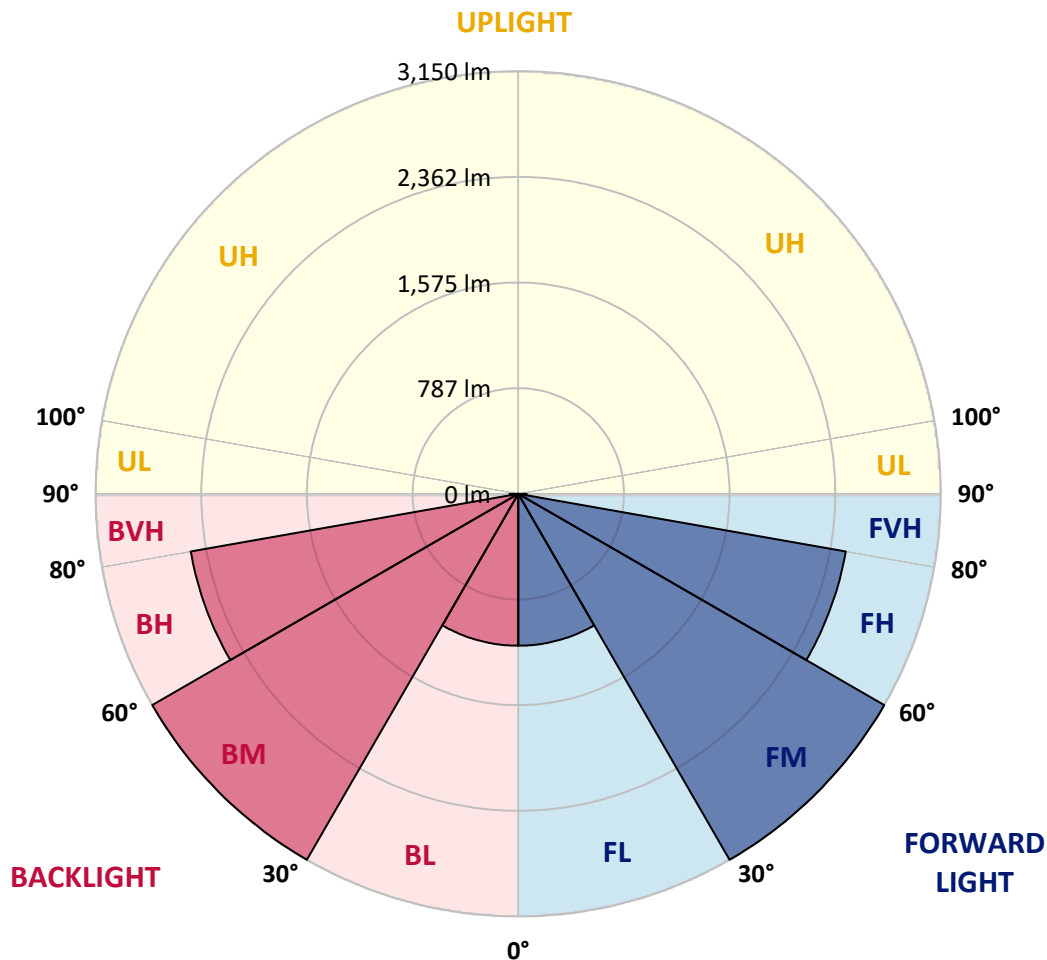
REPORT NUMBER: P963512
 CATALOG NUMBER: NAV-SB3A-735-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1131.9 | 8.3 | | | |
| FM (30°-60°) | 3150.0 | 23.1 | | | |
| FH (60°-80°) | 2478.9 | 18.2 | | | G2/5000 |
| FVH (80°-90°) | 62.6 | 0.5 | | | G1/100 |
| BL (0°-30°) | 1131.9 | 8.3 | B3/2500 | | |
| BM (30°-60°) | 3150.0 | 23.1 | B3/5000 | | |
| BH (60°-80°) | 2478.9 | 18.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 62.6 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type I Short



REPORT NUMBER: P963512
 CATALOG NUMBER: NAV-SB3A-735-U-T1

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0° | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 | 2550.1 |
| 2.5° | 2552.2 | 2555.1 | 2555.1 | 2553.0 | 2558.0 | 2553.7 | 2553.7 | 2551.5 | 2553.7 | 2551.5 | 2551.5 |
| 5° | 2565.3 | 2569.0 | 2570.4 | 2569.7 | 2576.1 | 2572.5 | 2572.5 | 2569.7 | 2570.4 | 2568.2 | 2568.2 |
| 7.5° | 2590.0 | 2595.0 | 2598.0 | 2601.6 | 2611.0 | 2606.7 | 2603.7 | 2595.0 | 2591.4 | 2585.6 | 2585.6 |
| 10° | 2598.0 | 2603.7 | 2613.1 | 2632.0 | 2653.7 | 2654.5 | 2645.8 | 2624.0 | 2607.4 | 2594.3 | 2592.1 |
| 12.5° | 2573.3 | 2581.3 | 2600.8 | 2639.3 | 2687.9 | 2707.4 | 2693.7 | 2657.4 | 2624.7 | 2601.6 | 2598.0 |
| 15° | 2542.1 | 2550.8 | 2580.5 | 2638.6 | 2710.3 | 2756.0 | 2754.6 | 2706.7 | 2654.5 | 2618.3 | 2612.4 |
| 17.5° | 2493.5 | 2502.2 | 2545.0 | 2626.3 | 2727.7 | 2803.2 | 2823.5 | 2774.2 | 2700.9 | 2652.3 | 2644.3 |
| 20° | 2405.8 | 2413.7 | 2473.2 | 2587.0 | 2733.6 | 2853.2 | 2906.2 | 2862.6 | 2771.3 | 2705.3 | 2693.0 |
| 22.5° | 2291.9 | 2304.2 | 2373.8 | 2519.6 | 2719.7 | 2905.5 | 3000.5 | 2970.8 | 2853.2 | 2761.9 | 2745.2 |
| 25° | 2170.0 | 2183.0 | 2264.3 | 2436.9 | 2684.3 | 2943.2 | 3112.1 | 3093.2 | 2946.1 | 2832.2 | 2809.0 |
| 27.5° | 2064.9 | 2078.6 | 2167.2 | 2354.9 | 2629.1 | 2957.6 | 3222.4 | 3231.8 | 3058.5 | 2909.8 | 2885.2 |
| 30° | 1982.1 | 1995.3 | 2089.5 | 2288.9 | 2558.0 | 2943.2 | 3318.8 | 3384.1 | 3173.1 | 2977.2 | 2941.7 |
| 32.5° | 1891.5 | 1908.2 | 2007.6 | 2208.5 | 2473.9 | 2908.3 | 3403.0 | 3548.8 | 3305.8 | 3049.8 | 3004.8 |
| 35° | 1776.9 | 1792.1 | 1896.6 | 2098.2 | 2363.6 | 2852.5 | 3473.3 | 3731.5 | 3495.8 | 3160.0 | 3110.0 |
| 37.5° | 1637.6 | 1652.2 | 1755.9 | 1960.4 | 2254.2 | 2774.2 | 3527.0 | 3937.5 | 3722.1 | 3318.8 | 3252.1 |
| 40° | 1497.7 | 1511.5 | 1608.6 | 1806.7 | 2122.9 | 2674.1 | 3545.9 | 4139.2 | 3981.7 | 3537.2 | 3466.0 |
| 42.5° | 1369.3 | 1381.6 | 1470.9 | 1655.1 | 1975.7 | 2546.4 | 3521.2 | 4314.6 | 4214.6 | 3689.5 | 3598.1 |
| 45° | 1251.1 | 1262.0 | 1341.0 | 1512.9 | 1822.7 | 2391.2 | 3447.2 | 4503.2 | 4491.7 | 3798.2 | 3674.9 |
| 47.5° | 1116.2 | 1127.1 | 1209.0 | 1375.1 | 1669.6 | 2209.2 | 3321.7 | 4688.9 | 4876.7 | 4044.9 | 3902.7 |
| 50° | 951.5 | 960.9 | 1045.1 | 1216.3 | 1510.7 | 2015.6 | 3147.7 | 4834.6 | 5362.7 | 4418.4 | 4239.9 |
| 52.5° | 756.4 | 766.6 | 848.6 | 1019.8 | 1322.1 | 1807.4 | 2918.5 | 4929.6 | 5924.0 | 4963.8 | 4744.0 |
| 55° | 562.8 | 570.1 | 641.1 | 794.9 | 1088.7 | 1570.2 | 2631.3 | 4956.5 | 6560.8 | 5709.4 | 5434.4 |
| 57.5° | 408.4 | 412.7 | 458.4 | 573.0 | 825.3 | 1273.6 | 2282.5 | 4886.9 | 7318.7 | 6665.3 | 6319.3 |
| 60° | 330.8 | 332.2 | 345.9 | 396.7 | 573.7 | 938.5 | 1861.1 | 4647.6 | 8141.2 | 7897.5 | 7461.6 |
| 62.5° | 300.2 | 300.2 | 303.9 | 317.6 | 388.1 | 619.4 | 1351.2 | 4151.5 | 9023.1 | 9454.7 | 8870.8 |
| 65° | 279.2 | 279.2 | 280.6 | 287.2 | 306.1 | 394.5 | 852.9 | 3343.6 | 9766.5 | 11278.7 | 10540.4 |
| 67.5° | 260.3 | 261.1 | 260.3 | 262.5 | 273.5 | 291.5 | 494.7 | 2309.2 | 10166.9 | 13168.8 | 12371.6 |
| 70° | 240.8 | 242.2 | 238.6 | 238.6 | 247.3 | 248.0 | 309.7 | 1266.3 | 9834.7 | 14752.7 | 14543.2 |
| 72.5° | 217.6 | 219.8 | 213.9 | 212.5 | 219.0 | 216.2 | 232.8 | 607.8 | 8443.6 | 15225.7 | 15776.9 |
| 75° | 197.3 | 200.2 | 187.2 | 183.5 | 183.5 | 181.3 | 189.3 | 311.9 | 5480.2 | 12420.3 | 13284.8 |
| 77.5° | 179.2 | 184.9 | 163.9 | 152.3 | 149.4 | 142.9 | 154.5 | 190.8 | 2397.1 | 5831.2 | 5710.1 |
| 80° | 147.9 | 155.9 | 134.9 | 121.2 | 116.0 | 108.8 | 121.9 | 133.5 | 713.0 | 1354.1 | 1296.8 |
| 82.5° | 110.3 | 113.9 | 95.7 | 86.3 | 82.0 | 76.9 | 91.4 | 92.9 | 232.1 | 479.4 | 541.8 |
| 85° | 70.3 | 71.9 | 58.7 | 50.7 | 48.6 | 46.4 | 58.0 | 50.7 | 88.5 | 352.5 | 512.1 |
| 87.5° | 24.7 | 28.3 | 22.4 | 20.3 | 21.7 | 18.1 | 26.9 | 15.3 | 24.7 | 248.8 | 308.2 |
| 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)