

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: P961389

Luminaire Tested: **NAV-SB2A-735-U-5NQ**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961389
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-735-U-5NQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9635 lumens
Efficiency: N/A
Efficacy: 168.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G1

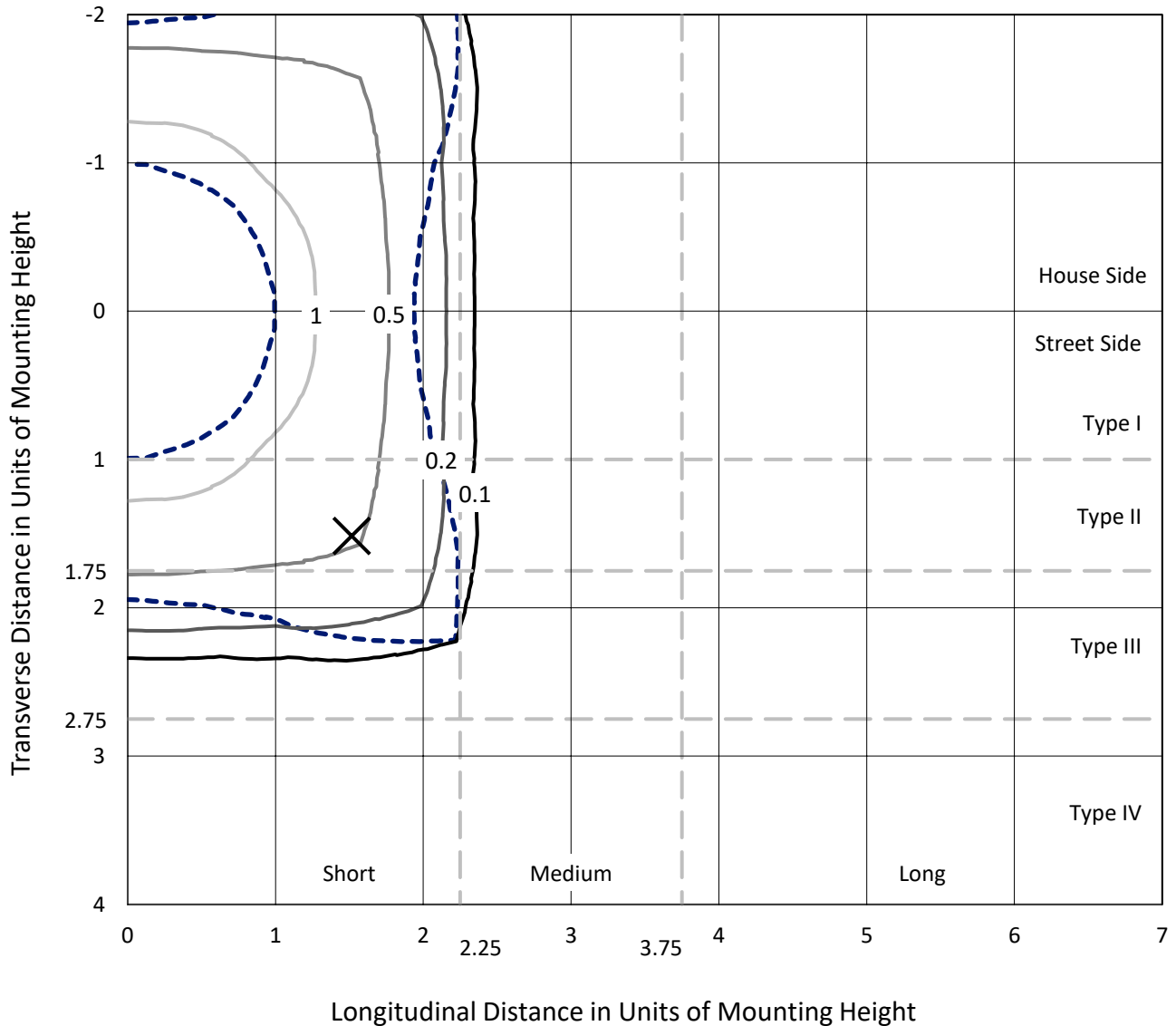
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

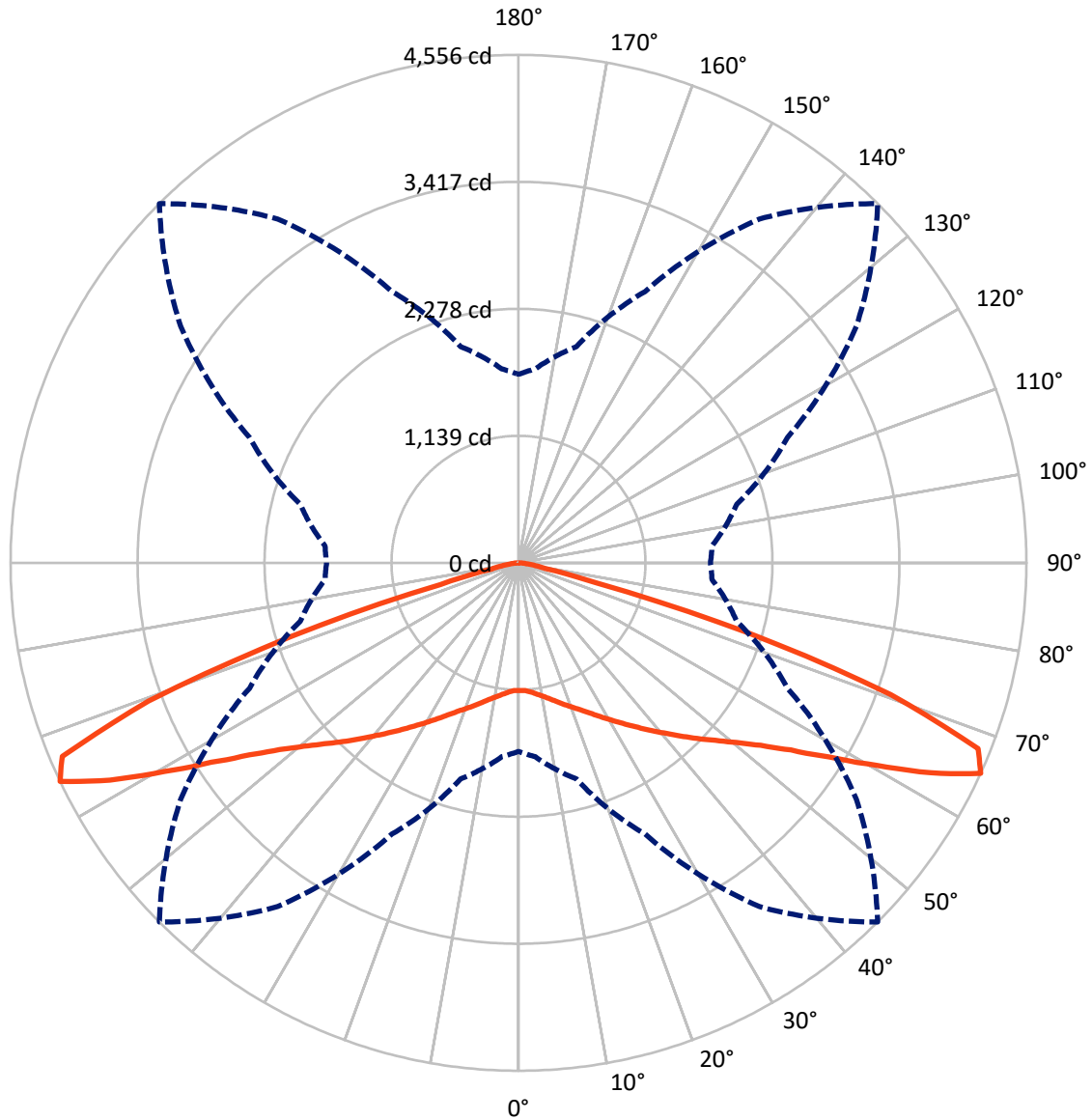
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 4817.5 | 0.0 | 4817.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 4817.5 | 0.0 | 4817.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 9635.0 | 0.0 | 9635.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 113.2 | 1.2 |
| 10°-20° | 369.3 | 3.8 |
| 20°-30° | 697.2 | 7.2 |
| 30°-40° | 1141.7 | 11.8 |
| 40°-50° | 1770.2 | 18.4 |
| 50°-60° | 2614.9 | 27.1 |
| 60°-70° | 2489.1 | 25.8 |
| 70°-80° | 401.7 | 4.2 |
| 80°-90° | 37.9 | 0.4 |
| 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° | 9635.0 | 100.0 |
| 0°-180° | 9635.0 | 100.0 |

Coefficient of Utilization



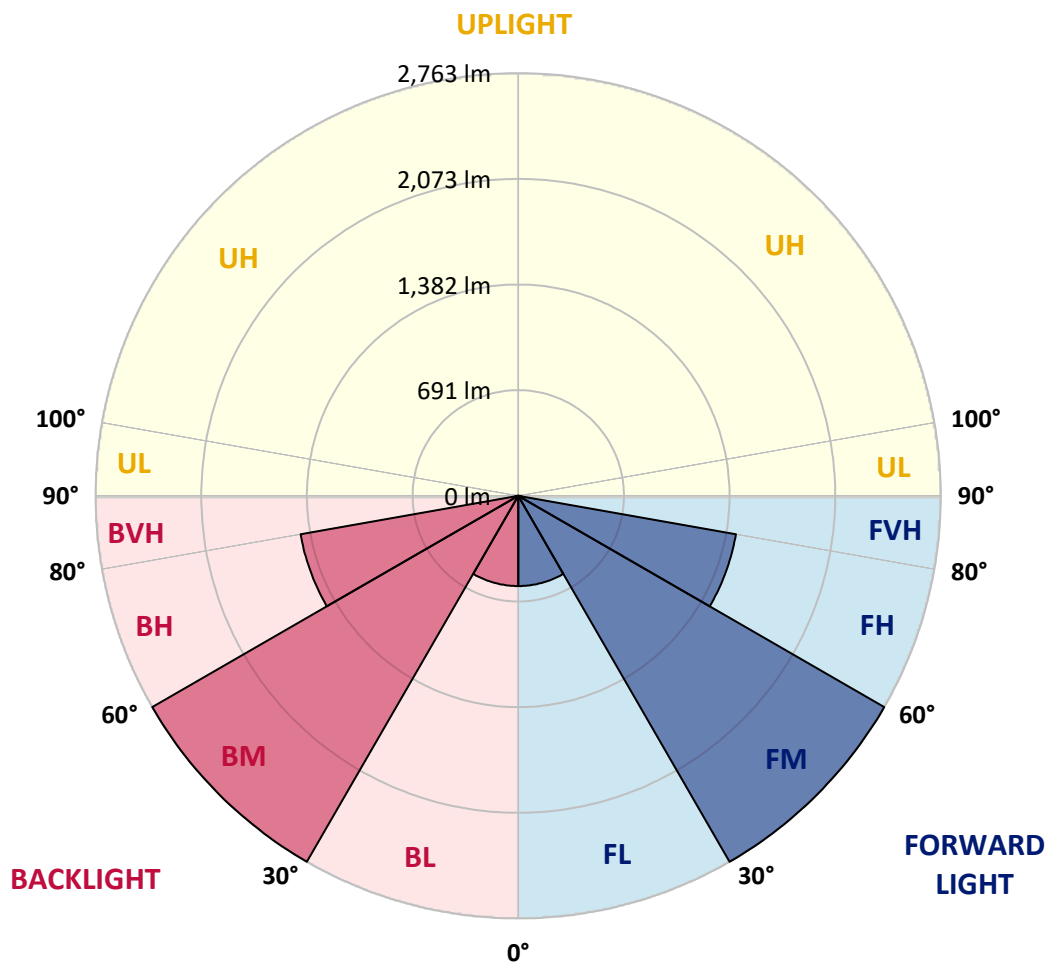
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 589.8 | 6.1 | | | |
| FM (30°-60°) | 2763.4 | 28.7 | | | |
| FH (60°-80°) | 1445.4 | 15.0 | | | G1/1800 |
| FVH (80°-90°) | 18.9 | 0.2 | | | G1/100 |
| BL (0°-30°) | 589.8 | 6.1 | B2/1000 | | |
| BM (30°-60°) | 2763.4 | 28.7 | B3/5000 | | |
| BH (60°-80°) | 1445.4 | 15.0 | B3/2500 | | G1/1800 |
| BVH (80°-90°) | 18.9 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 | 1146.7 |
| 2.5° | 1154.4 | 1150.6 | 1153.4 | 1151.0 | 1149.1 | 1147.2 | 1148.1 | 1151.5 | 1152.9 | 1153.4 | 1153.4 |
| 5° | 1169.8 | 1166.4 | 1167.9 | 1167.9 | 1164.5 | 1163.6 | 1164.1 | 1166.4 | 1169.4 | 1169.4 | 1169.4 |
| 7.5° | 1195.0 | 1191.7 | 1195.0 | 1193.1 | 1190.1 | 1189.2 | 1188.7 | 1190.6 | 1195.0 | 1195.0 | 1193.5 |
| 10° | 1225.5 | 1221.6 | 1223.5 | 1222.5 | 1219.1 | 1217.7 | 1217.3 | 1220.2 | 1224.1 | 1223.5 | 1222.5 |
| 12.5° | 1258.8 | 1254.5 | 1256.9 | 1254.0 | 1253.1 | 1251.5 | 1251.5 | 1251.1 | 1253.5 | 1251.5 | 1252.6 |
| 15° | 1296.0 | 1293.1 | 1294.1 | 1292.2 | 1293.7 | 1292.6 | 1288.8 | 1286.9 | 1287.8 | 1284.9 | 1285.5 |
| 17.5° | 1340.0 | 1333.2 | 1336.6 | 1335.7 | 1335.7 | 1337.6 | 1331.4 | 1328.9 | 1330.9 | 1328.0 | 1330.3 |
| 20° | 1390.8 | 1384.1 | 1385.5 | 1383.5 | 1381.1 | 1383.0 | 1375.3 | 1377.3 | 1378.7 | 1376.8 | 1381.1 |
| 22.5° | 1446.4 | 1437.7 | 1437.2 | 1438.2 | 1432.8 | 1433.4 | 1428.0 | 1432.8 | 1435.7 | 1430.4 | 1435.7 |
| 25° | 1503.5 | 1494.2 | 1500.5 | 1498.1 | 1491.4 | 1492.8 | 1488.9 | 1493.7 | 1496.2 | 1489.4 | 1497.1 |
| 27.5° | 1563.8 | 1557.6 | 1563.3 | 1564.8 | 1556.6 | 1562.4 | 1556.6 | 1561.0 | 1563.3 | 1553.2 | 1561.0 |
| 30° | 1634.5 | 1628.1 | 1633.4 | 1637.3 | 1627.7 | 1636.8 | 1632.0 | 1634.9 | 1635.4 | 1623.3 | 1630.6 |
| 32.5° | 1711.3 | 1701.6 | 1715.1 | 1717.1 | 1706.4 | 1717.6 | 1711.3 | 1715.1 | 1717.6 | 1701.1 | 1712.3 |
| 35° | 1805.0 | 1793.0 | 1808.4 | 1806.0 | 1796.8 | 1806.0 | 1800.2 | 1806.0 | 1811.8 | 1792.0 | 1804.1 |
| 37.5° | 1906.1 | 1893.6 | 1910.0 | 1905.6 | 1897.0 | 1903.2 | 1899.8 | 1903.7 | 1912.9 | 1891.6 | 1904.7 |
| 40° | 2017.3 | 2001.8 | 2024.1 | 2016.3 | 2008.1 | 2007.2 | 2009.1 | 2011.5 | 2023.6 | 1999.9 | 2007.7 |
| 42.5° | 2136.2 | 2119.8 | 2153.1 | 2141.0 | 2129.4 | 2121.8 | 2128.0 | 2132.8 | 2144.4 | 2117.9 | 2131.9 |
| 45° | 2272.0 | 2253.2 | 2296.7 | 2282.2 | 2263.8 | 2247.9 | 2258.1 | 2265.2 | 2282.2 | 2250.3 | 2266.7 |
| 47.5° | 2421.9 | 2400.7 | 2447.1 | 2442.7 | 2412.7 | 2377.9 | 2401.2 | 2421.9 | 2434.5 | 2395.8 | 2408.9 |
| 50° | 2568.3 | 2551.9 | 2612.8 | 2618.2 | 2581.5 | 2532.6 | 2565.0 | 2596.4 | 2599.8 | 2549.1 | 2555.3 |
| 52.5° | 2705.7 | 2689.2 | 2777.7 | 2811.1 | 2778.2 | 2720.1 | 2754.5 | 2786.4 | 2760.7 | 2695.0 | 2697.0 |
| 55° | 2815.4 | 2801.8 | 2914.5 | 3000.6 | 3011.7 | 2963.8 | 2984.1 | 2983.2 | 2899.0 | 2798.0 | 2801.4 |
| 57.5° | 2842.0 | 2840.1 | 2982.2 | 3164.5 | 3280.4 | 3286.3 | 3246.2 | 3143.7 | 2962.4 | 2826.5 | 2817.8 |
| 60° | 2721.2 | 2733.3 | 2928.5 | 3250.0 | 3559.4 | 3688.0 | 3514.4 | 3222.0 | 2890.3 | 2701.8 | 2679.6 |
| 62.5° | 2359.5 | 2391.4 | 2626.9 | 3145.6 | 3784.7 | 4150.1 | 3729.6 | 3103.1 | 2594.5 | 2348.5 | 2333.9 |
| 65° | 1690.9 | 1746.6 | 2006.6 | 2684.4 | 3764.3 | 4556.2 | 3698.6 | 2662.6 | 2026.0 | 1742.2 | 1721.5 |
| 67.5° | 767.2 | 823.7 | 1044.7 | 1837.9 | 3272.2 | 4445.9 | 3264.5 | 1857.3 | 1096.9 | 826.7 | 814.6 |
| 70° | 278.0 | 287.6 | 358.6 | 735.7 | 2091.2 | 3542.5 | 2180.7 | 741.1 | 381.4 | 306.5 | 302.6 |
| 72.5° | 168.2 | 169.6 | 184.7 | 263.4 | 726.6 | 2150.8 | 757.5 | 272.1 | 188.5 | 167.3 | 170.1 |
| 75° | 106.8 | 105.9 | 131.5 | 161.0 | 257.7 | 725.6 | 270.2 | 161.0 | 131.0 | 119.4 | 120.3 |
| 77.5° | 76.9 | 79.2 | 94.3 | 120.3 | 162.5 | 246.1 | 159.5 | 115.0 | 94.3 | 77.4 | 78.8 |
| 80° | 57.5 | 58.9 | 68.7 | 93.8 | 114.1 | 153.2 | 101.5 | 85.1 | 71.0 | 48.4 | 49.8 |
| 82.5° | 41.6 | 41.6 | 45.0 | 68.2 | 69.6 | 82.6 | 55.1 | 60.0 | 46.8 | 34.3 | 34.3 |
| 85° | 24.7 | 24.2 | 28.1 | 40.6 | 36.3 | 30.4 | 25.1 | 36.7 | 29.5 | 21.3 | 20.8 |
| 87.5° | 8.7 | 9.2 | 8.7 | 11.6 | 9.6 | 8.2 | 7.7 | 10.1 | 8.2 | 7.3 | 6.8 |
| 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)