

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: P230949

Luminaire Tested: **ARCH-M-AF48-80-D-U-5WQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230949
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-M-AF48-80-D-U-5WQ-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10104 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 83
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

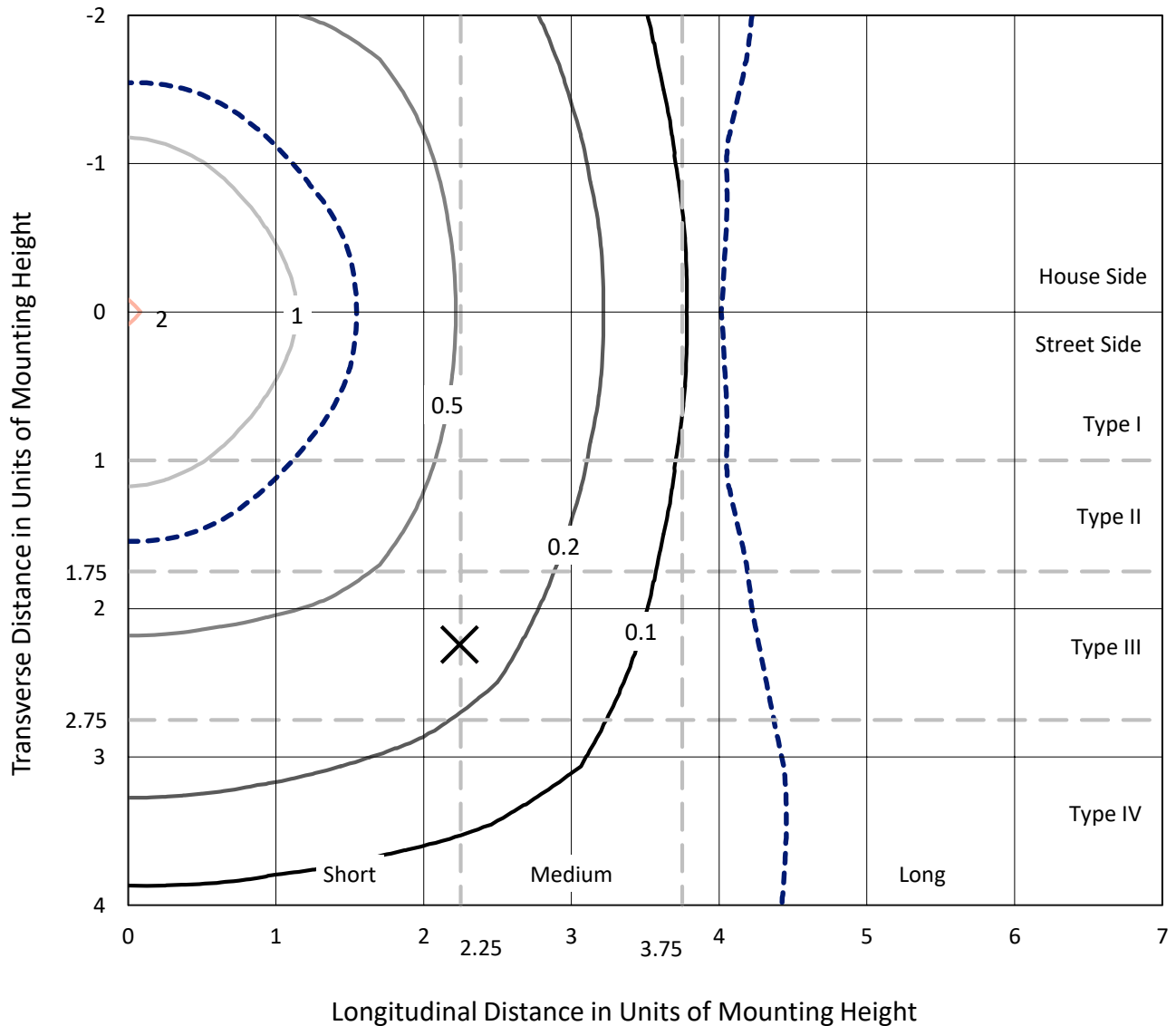


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

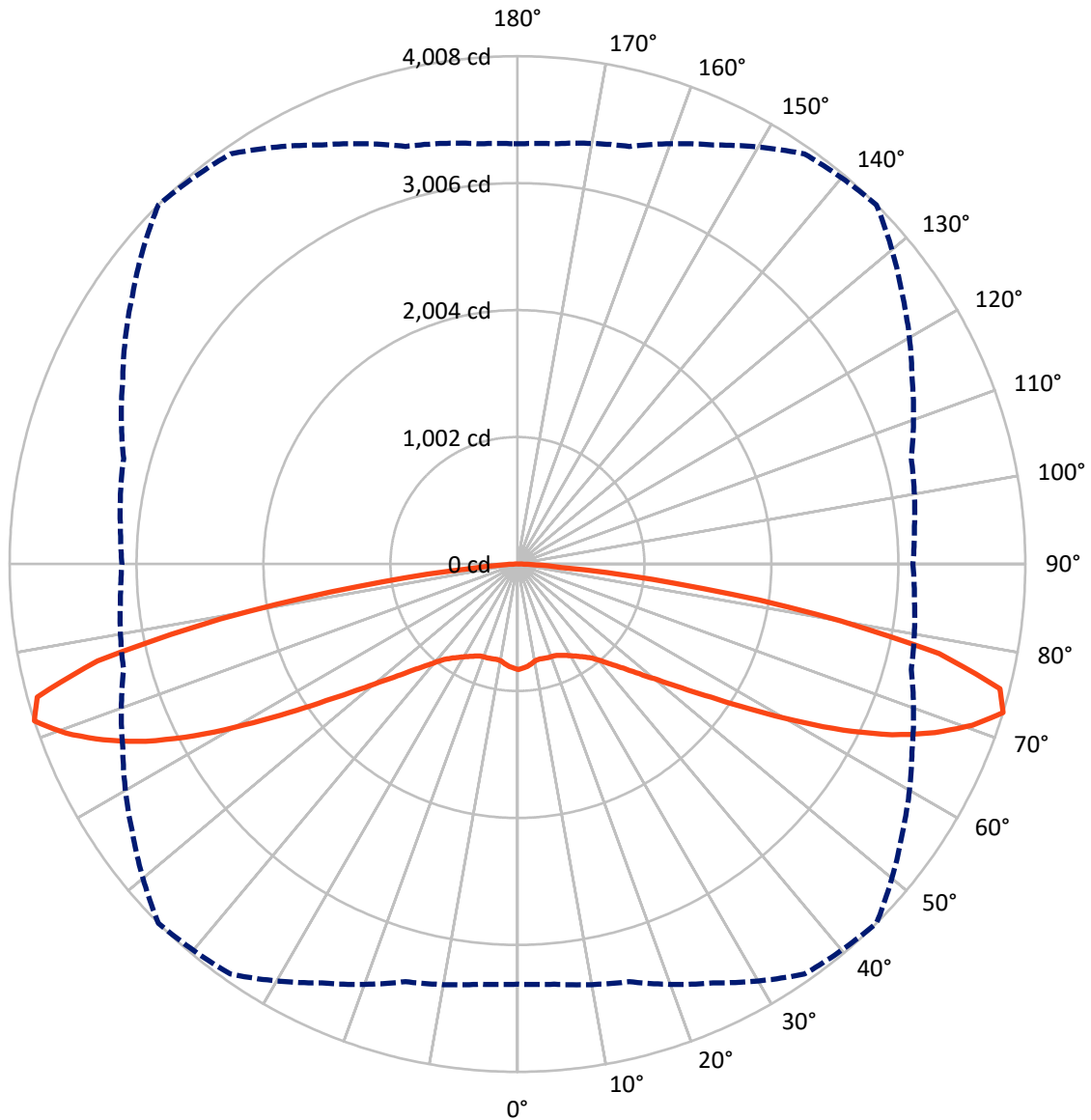


Based on 20 foot mounting height. Maximum calculated value = 2.1 fc
 Type V - Short - Non-Cutoff

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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 |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5052.0 | 0.0 | 5052.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5052.0 | 0.0 | 5052.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10104.0 | 0.0 | 10104.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 76.6 | 0.8 |
| 10°-20° | 221.1 | 2.2 |
| 20°-30° | 370.0 | 3.7 |
| 30°-40° | 568.5 | 5.6 |
| 40°-50° | 941.3 | 9.3 |
| 50°-60° | 1673.4 | 16.6 |
| 60°-70° | 2927.6 | 29.0 |
| 70°-80° | 2978.6 | 29.5 |
| 80°-90° | 346.8 | 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° | 10104.0 | 100.0 |
| 0°-180° | 10104.0 | 100.0 |



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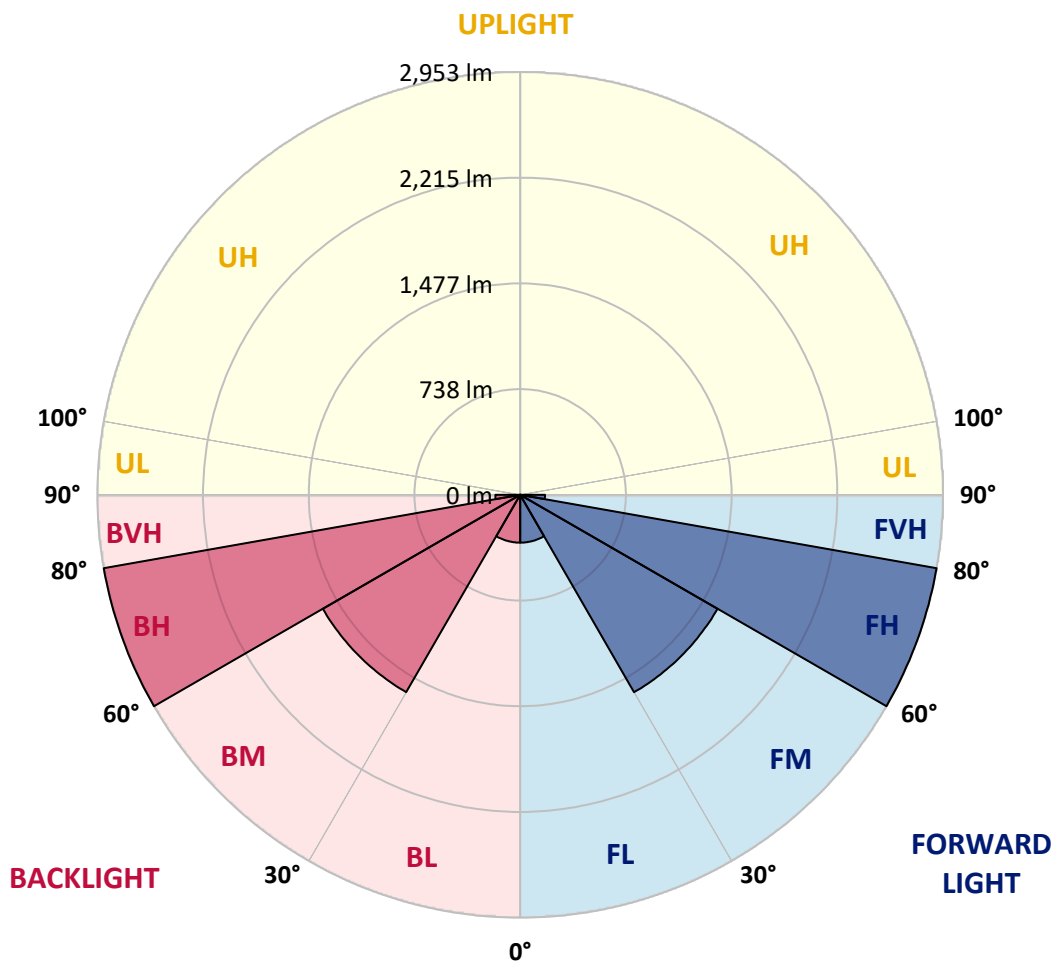
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 333.9 | 3.3 | | | |
| FM | (30°-60°) | 1591.6 | 15.8 | | | |
| FH | (60°-80°) | 2953.1 | 29.2 | | | G2/5000 |
| FVH | (80°-90°) | 173.4 | 1.7 | | | G2/225 |
| BL | (0°-30°) | 333.9 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 1591.6 | 15.8 | B2/2500 | | |
| BH | (60°-80°) | 2953.1 | 29.2 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 173.4 | 1.7 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 | 832.8 |
| 2.5° | 825.1 | 827.0 | 823.2 | 823.2 | 823.2 | 821.3 | 823.2 | 821.3 | 823.2 | 825.1 | 825.1 |
| 5° | 817.4 | 817.4 | 813.6 | 813.6 | 813.6 | 811.6 | 813.6 | 813.6 | 815.5 | 817.4 | 817.4 |
| 7.5° | 800.1 | 800.1 | 798.2 | 796.3 | 794.3 | 794.3 | 796.3 | 796.3 | 798.2 | 800.1 | 800.1 |
| 10° | 790.5 | 788.6 | 784.7 | 779.0 | 777.0 | 775.1 | 779.0 | 782.8 | 788.6 | 794.3 | 792.4 |
| 12.5° | 786.6 | 784.7 | 777.0 | 771.3 | 767.4 | 769.3 | 773.2 | 777.0 | 786.6 | 792.4 | 790.5 |
| 15° | 790.5 | 786.6 | 777.0 | 767.4 | 769.3 | 773.2 | 777.0 | 777.0 | 788.6 | 794.3 | 794.3 |
| 17.5° | 790.5 | 788.6 | 777.0 | 769.3 | 771.3 | 777.0 | 779.0 | 777.0 | 786.6 | 796.3 | 796.3 |
| 20° | 792.4 | 792.4 | 777.0 | 771.3 | 773.2 | 779.0 | 780.9 | 779.0 | 786.6 | 798.2 | 798.2 |
| 22.5° | 796.3 | 794.3 | 779.0 | 775.1 | 779.0 | 782.8 | 784.7 | 782.8 | 790.5 | 800.1 | 802.0 |
| 25° | 804.0 | 800.1 | 786.6 | 784.7 | 792.4 | 798.2 | 798.2 | 794.3 | 798.2 | 807.8 | 807.8 |
| 27.5° | 813.6 | 811.6 | 796.3 | 796.3 | 805.9 | 817.4 | 811.6 | 804.0 | 807.8 | 817.4 | 817.4 |
| 30° | 830.9 | 829.0 | 813.6 | 813.6 | 827.0 | 840.5 | 827.0 | 817.4 | 823.2 | 832.8 | 834.7 |
| 32.5° | 855.9 | 855.9 | 842.4 | 838.6 | 861.7 | 867.4 | 861.7 | 842.4 | 846.3 | 859.7 | 859.7 |
| 35° | 898.2 | 894.4 | 880.9 | 879.0 | 902.0 | 900.1 | 898.2 | 880.9 | 884.7 | 900.1 | 900.1 |
| 37.5° | 954.0 | 952.1 | 940.5 | 934.7 | 946.3 | 938.6 | 942.4 | 934.7 | 944.4 | 955.9 | 957.8 |
| 40° | 1025.1 | 1023.2 | 1013.6 | 1005.9 | 1009.8 | 998.2 | 1002.1 | 1005.9 | 1015.5 | 1023.2 | 1025.1 |
| 42.5° | 1113.6 | 1113.6 | 1104.0 | 1090.5 | 1084.8 | 1079.0 | 1079.0 | 1086.7 | 1096.3 | 1105.9 | 1105.9 |
| 45° | 1223.2 | 1223.2 | 1211.7 | 1198.2 | 1180.9 | 1171.3 | 1175.2 | 1182.9 | 1194.4 | 1205.9 | 1209.8 |
| 47.5° | 1352.1 | 1352.1 | 1336.7 | 1323.3 | 1305.9 | 1294.4 | 1294.4 | 1298.3 | 1315.6 | 1325.2 | 1330.9 |
| 50° | 1496.4 | 1490.6 | 1475.2 | 1461.7 | 1452.1 | 1436.7 | 1438.7 | 1436.7 | 1452.1 | 1465.6 | 1469.4 |
| 52.5° | 1646.4 | 1644.5 | 1629.1 | 1625.2 | 1631.0 | 1623.3 | 1623.3 | 1604.1 | 1609.8 | 1617.5 | 1615.6 |
| 55° | 1832.9 | 1827.2 | 1813.7 | 1821.4 | 1844.5 | 1856.0 | 1852.2 | 1821.4 | 1804.1 | 1807.9 | 1806.0 |
| 57.5° | 2036.8 | 2031.0 | 2027.2 | 2050.3 | 2102.2 | 2150.3 | 2140.7 | 2069.5 | 2036.8 | 2038.7 | 2040.7 |
| 60° | 2244.5 | 2244.5 | 2256.1 | 2313.8 | 2425.3 | 2504.2 | 2475.3 | 2356.1 | 2298.4 | 2286.8 | 2283.0 |
| 62.5° | 2458.0 | 2463.8 | 2488.8 | 2585.0 | 2756.1 | 2886.9 | 2813.8 | 2644.6 | 2558.0 | 2535.0 | 2527.3 |
| 65° | 2706.1 | 2711.9 | 2748.4 | 2867.7 | 3094.6 | 3250.4 | 3125.4 | 2965.8 | 2844.6 | 2796.5 | 2788.8 |
| 67.5° | 3065.8 | 3069.6 | 3098.5 | 3213.9 | 3427.4 | 3552.4 | 3423.5 | 3281.2 | 3150.4 | 3094.6 | 3090.8 |
| 70° | 3388.9 | 3392.8 | 3417.8 | 3569.7 | 3765.9 | 3810.1 | 3667.8 | 3487.0 | 3350.5 | 3306.2 | 3298.5 |
| 72.5° | 3315.8 | 3329.3 | 3412.0 | 3648.6 | 3950.5 | 4008.2 | 3708.2 | 3437.0 | 3217.7 | 3144.7 | 3121.6 |
| 75° | 2781.1 | 2802.3 | 2933.1 | 3288.9 | 3769.7 | 3933.2 | 3469.7 | 2971.6 | 2644.6 | 2504.2 | 2467.6 |
| 77.5° | 1623.3 | 1702.2 | 1927.2 | 2383.0 | 3069.6 | 3402.4 | 2858.1 | 2175.3 | 1625.2 | 1394.4 | 1317.5 |
| 80° | 444.3 | 486.6 | 650.1 | 1096.3 | 1925.3 | 2383.0 | 1823.3 | 998.2 | 538.5 | 403.9 | 375.1 |
| 82.5° | 140.4 | 186.6 | 236.6 | 315.4 | 755.9 | 1255.9 | 677.0 | 294.3 | 230.8 | 190.4 | 169.3 |
| 85° | 75.0 | 80.8 | 132.7 | 153.9 | 227.0 | 352.0 | 209.6 | 153.9 | 138.5 | 101.9 | 96.2 |
| 87.5° | 38.5 | 40.4 | 75.0 | 75.0 | 100.0 | 82.7 | 90.4 | 82.7 | 78.9 | 50.0 | 44.2 |
| 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)