

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: P883612

Luminaire Tested: **NAV-SB4A-750-U-5WQ**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883612  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-750-U-5WQ  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

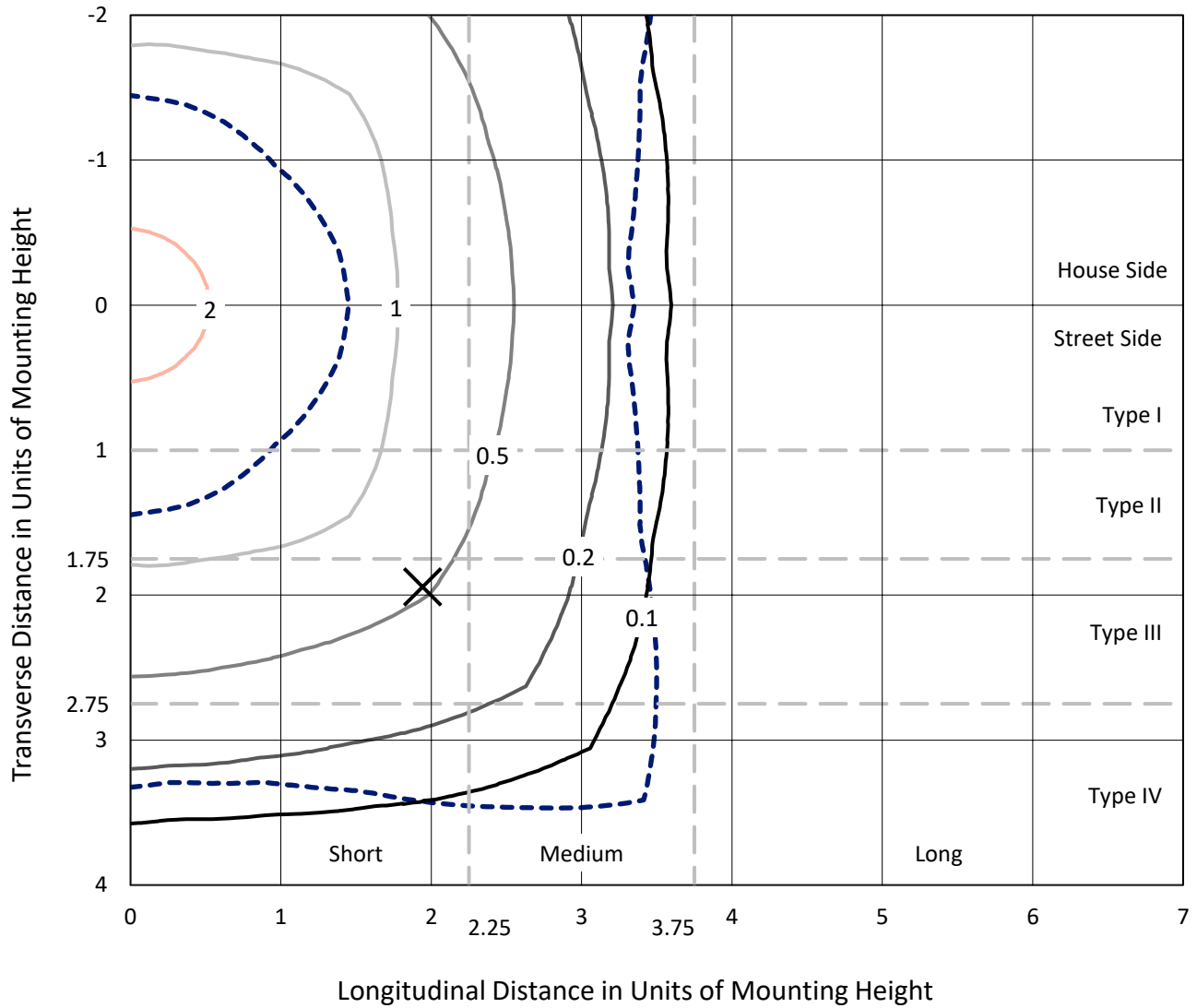
Lumens per Lamp: N/A  
Luminaire Lumens: 19825 lumens  
Efficiency: N/A  
Efficacy: 173.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3  
  
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
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

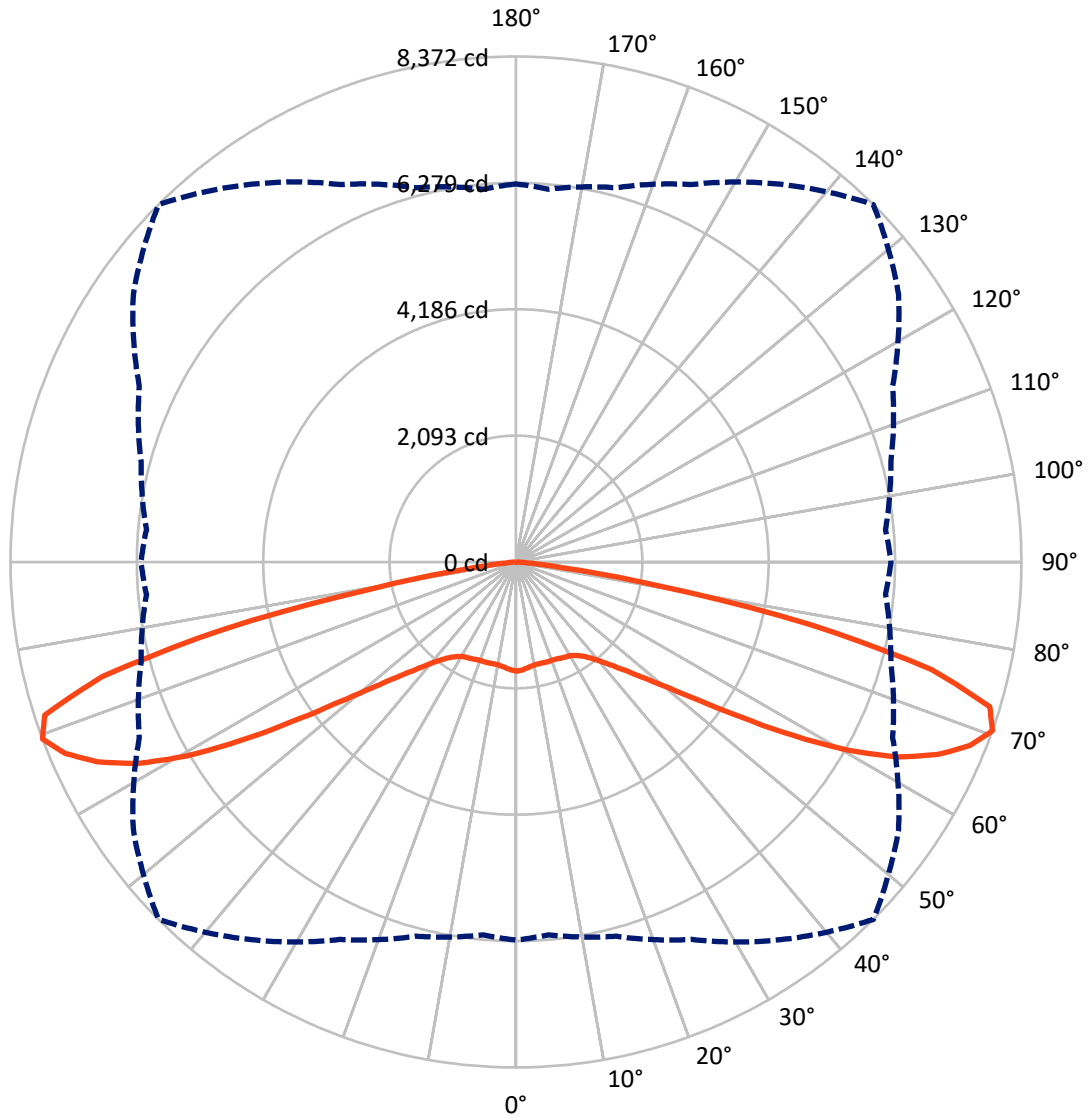
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9912.5   | 0.0    | 9912.5  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 9912.5   | 0.0    | 9912.5  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 19825.0  | 0.0    | 19825.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 168.2   | 0.8       |
| 10°-20°   | 494.0   | 2.5       |
| 20°-30°   | 822.0   | 4.1       |
| 30°-40°   | 1243.1  | 6.3       |
| 40°-50°   | 2065.8  | 10.4      |
| 50°-60°   | 3898.1  | 19.7      |
| 60°-70°   | 6582.1  | 33.2      |
| 70°-80°   | 4325.1  | 21.8      |
| 80°-90°   | 226.6   | 1.1       |
| 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°    | 19825.0 | 100.0     |
| 0°-180°   | 19825.0 | 100.0     |



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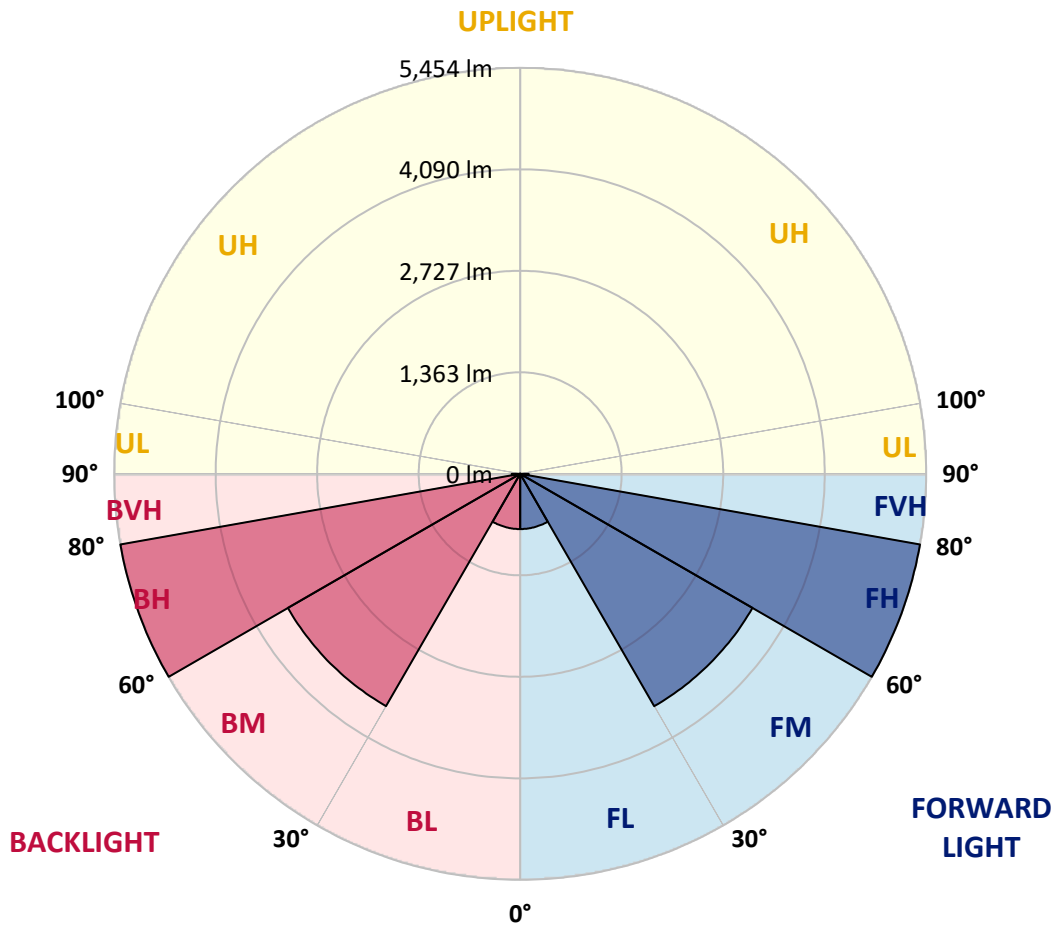
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 742.1  | 3.7       |                         |      |         |
| FM (30°-60°)   | 3603.5 | 18.2      |                         |      |         |
| FH (60°-80°)   | 5453.6 | 27.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 113.3  | 0.6       |                         |      | G2/225  |
| BL (0°-30°)    | 742.1  | 3.7       | B2/1000                 |      |         |
| BM (30°-60°)   | 3603.5 | 18.2      | B3/5000                 |      |         |
| BH (60°-80°)   | 5453.6 | 27.5      | B5                      |      | G3/7500 |
| BVH (80°-90°)  | 113.3  | 0.6       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G3**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 | 1808.4 |
| 2.5°  | 1797.1 | 1802.3 | 1800.2 | 1796.1 | 1796.1 | 1793.0 | 1796.1 | 1798.1 | 1801.2 | 1803.3 | 1802.3 |
| 5°    | 1773.4 | 1777.5 | 1776.5 | 1773.4 | 1774.4 | 1771.3 | 1773.4 | 1776.5 | 1778.6 | 1779.6 | 1779.6 |
| 7.5°  | 1752.8 | 1756.9 | 1754.9 | 1749.7 | 1749.7 | 1746.6 | 1747.6 | 1750.7 | 1753.8 | 1754.9 | 1754.9 |
| 10°   | 1747.6 | 1751.8 | 1745.6 | 1737.3 | 1734.2 | 1730.1 | 1731.2 | 1734.2 | 1740.4 | 1743.5 | 1743.5 |
| 12.5° | 1749.7 | 1752.8 | 1746.6 | 1734.2 | 1731.2 | 1727.0 | 1727.0 | 1730.1 | 1738.4 | 1742.5 | 1743.5 |
| 15°   | 1755.9 | 1759.0 | 1749.7 | 1736.3 | 1733.2 | 1730.1 | 1729.1 | 1733.2 | 1742.5 | 1749.7 | 1750.7 |
| 17.5° | 1767.2 | 1770.3 | 1755.9 | 1737.3 | 1733.2 | 1734.2 | 1733.2 | 1736.3 | 1750.7 | 1764.1 | 1764.1 |
| 20°   | 1777.5 | 1779.6 | 1760.0 | 1737.3 | 1733.2 | 1734.2 | 1733.2 | 1739.4 | 1757.9 | 1776.5 | 1777.5 |
| 22.5° | 1780.6 | 1782.7 | 1764.1 | 1744.6 | 1741.5 | 1742.5 | 1741.5 | 1747.6 | 1765.2 | 1783.7 | 1783.7 |
| 25°   | 1781.6 | 1784.7 | 1770.3 | 1754.9 | 1760.0 | 1762.1 | 1760.0 | 1761.0 | 1774.4 | 1790.9 | 1789.9 |
| 27.5° | 1797.1 | 1801.2 | 1787.8 | 1774.4 | 1777.5 | 1776.5 | 1779.6 | 1782.7 | 1793.0 | 1809.5 | 1805.3 |
| 30°   | 1829.0 | 1832.1 | 1820.8 | 1807.4 | 1805.3 | 1798.1 | 1807.4 | 1817.7 | 1829.0 | 1843.5 | 1840.4 |
| 32.5° | 1881.6 | 1887.8 | 1873.4 | 1858.9 | 1849.7 | 1845.5 | 1852.7 | 1870.3 | 1885.7 | 1901.2 | 1895.0 |
| 35°   | 1969.2 | 1973.3 | 1959.9 | 1933.1 | 1916.6 | 1916.6 | 1922.8 | 1945.5 | 1970.2 | 1989.8 | 1982.6 |
| 37.5° | 2092.8 | 2098.0 | 2074.3 | 2042.4 | 2017.6 | 2017.6 | 2025.9 | 2049.6 | 2086.7 | 2114.5 | 2104.2 |
| 40°   | 2243.3 | 2250.5 | 2220.6 | 2187.6 | 2163.9 | 2159.8 | 2170.1 | 2196.9 | 2232.0 | 2267.0 | 2255.7 |
| 42.5° | 2424.6 | 2432.9 | 2393.7 | 2364.9 | 2346.3 | 2346.3 | 2351.5 | 2376.2 | 2408.2 | 2451.4 | 2448.3 |
| 45°   | 2656.5 | 2670.9 | 2617.3 | 2588.5 | 2571.0 | 2575.1 | 2578.2 | 2599.8 | 2628.7 | 2678.1 | 2676.1 |
| 47.5° | 2932.7 | 2947.1 | 2890.4 | 2860.5 | 2857.4 | 2877.0 | 2864.7 | 2880.1 | 2895.6 | 2952.2 | 2935.8 |
| 50°   | 3245.9 | 3270.6 | 3231.5 | 3229.4 | 3235.6 | 3271.7 | 3242.8 | 3251.1 | 3233.6 | 3269.6 | 3248.0 |
| 52.5° | 3629.2 | 3665.3 | 3658.1 | 3670.5 | 3739.5 | 3813.7 | 3747.7 | 3718.9 | 3652.9 | 3664.3 | 3626.2 |
| 55°   | 4094.0 | 4148.6 | 4158.9 | 4233.1 | 4389.7 | 4541.2 | 4401.1 | 4284.6 | 4144.5 | 4118.7 | 4078.5 |
| 57.5° | 4622.6 | 4665.9 | 4715.3 | 4866.8 | 5159.5 | 5428.4 | 5159.5 | 4901.8 | 4681.3 | 4628.8 | 4591.7 |
| 60°   | 5191.4 | 5245.0 | 5292.4 | 5516.0 | 5950.8 | 6329.0 | 5942.6 | 5533.5 | 5241.9 | 5170.8 | 5109.0 |
| 62.5° | 5802.5 | 5871.5 | 5904.5 | 6152.8 | 6659.8 | 7111.1 | 6667.0 | 6171.4 | 5847.8 | 5771.5 | 5709.7 |
| 65°   | 6388.8 | 6445.5 | 6482.6 | 6747.4 | 7231.7 | 7684.1 | 7264.7 | 6776.2 | 6443.4 | 6343.4 | 6294.0 |
| 67.5° | 6661.9 | 6692.8 | 6783.5 | 7083.3 | 7594.4 | 8110.7 | 7681.0 | 7115.3 | 6743.3 | 6568.1 | 6570.1 |
| 70°   | 6262.0 | 6199.2 | 6417.6 | 6897.8 | 7637.7 | 8372.4 | 7736.6 | 6883.4 | 6427.9 | 6143.5 | 6211.6 |
| 72.5° | 4839.0 | 4730.8 | 5110.0 | 5931.3 | 7143.1 | 8205.5 | 7192.5 | 5977.6 | 5346.0 | 4768.9 | 4912.2 |
| 75°   | 2632.8 | 2510.2 | 3033.6 | 4072.3 | 5696.3 | 7112.2 | 5827.2 | 4188.8 | 3377.8 | 2613.2 | 2783.2 |
| 77.5° | 743.0  | 696.6  | 1119.1 | 1970.2 | 3426.2 | 4993.6 | 3558.1 | 2013.5 | 1327.2 | 787.3  | 874.9  |
| 80°   | 227.7  | 220.5  | 298.8  | 593.5  | 1455.0 | 2391.7 | 1398.3 | 600.8  | 380.2  | 240.1  | 253.5  |
| 82.5° | 135.0  | 123.7  | 148.4  | 216.4  | 371.0  | 751.2  | 360.7  | 225.7  | 181.4  | 121.6  | 131.9  |
| 85°   | 77.3   | 72.1   | 87.6   | 105.1  | 124.7  | 159.7  | 104.1  | 107.2  | 96.9   | 64.9   | 68.0   |
| 87.5° | 31.9   | 28.9   | 34.0   | 33.0   | 28.9   | 37.1   | 27.8   | 33.0   | 39.2   | 25.8   | 23.7   |
| 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)