

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: P214518

Luminaire Tested: **ARCH-AF24-30-D-U-5WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214518  
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-AF24-30-D-U-5WQ  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4160.3 lumens  
Efficiency: N/A  
Efficacy: 134.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G1

Input Watts (W): 31  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

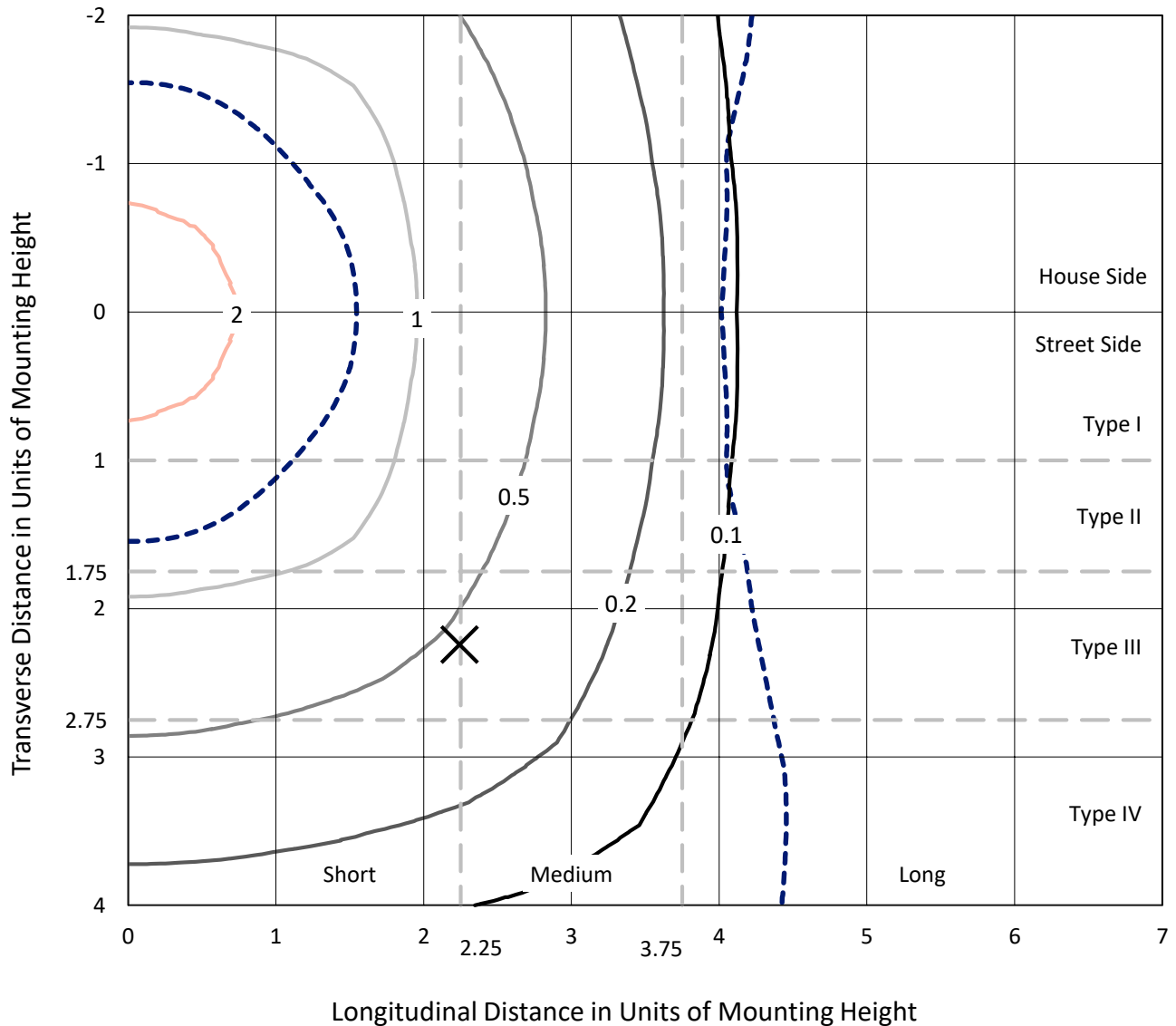


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

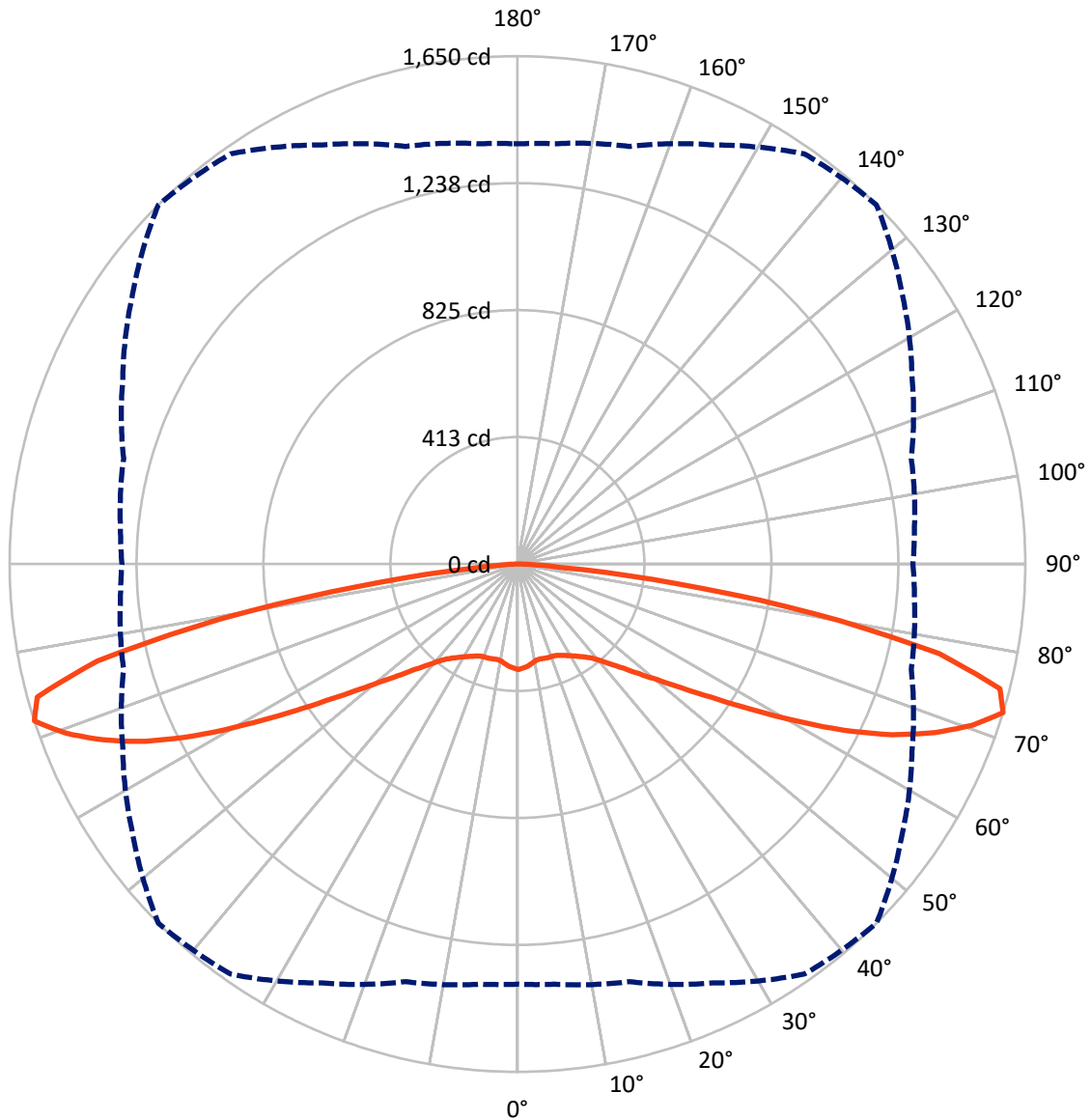


Based on 10 foot mounting height. Maximum calculated value = 3.4 fc  
 Type V - Short - Non-Cutoff

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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  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2080.2   | 0.0    | 2080.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2080.2   | 0.0    | 2080.2 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 4160.3   | 0.0    | 4160.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 31.6   | 0.8       |
| 10°-20°   | 91.0   | 2.2       |
| 20°-30°   | 152.4  | 3.7       |
| 30°-40°   | 234.1  | 5.6       |
| 40°-50°   | 387.6  | 9.3       |
| 50°-60°   | 689.0  | 16.6      |
| 60°-70°   | 1205.5 | 29.0      |
| 70°-80°   | 1226.5 | 29.5      |
| 80°-90°   | 142.8  | 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°    | 4160.3 | 100.0     |
| 0°-180°   | 4160.3 | 100.0     |



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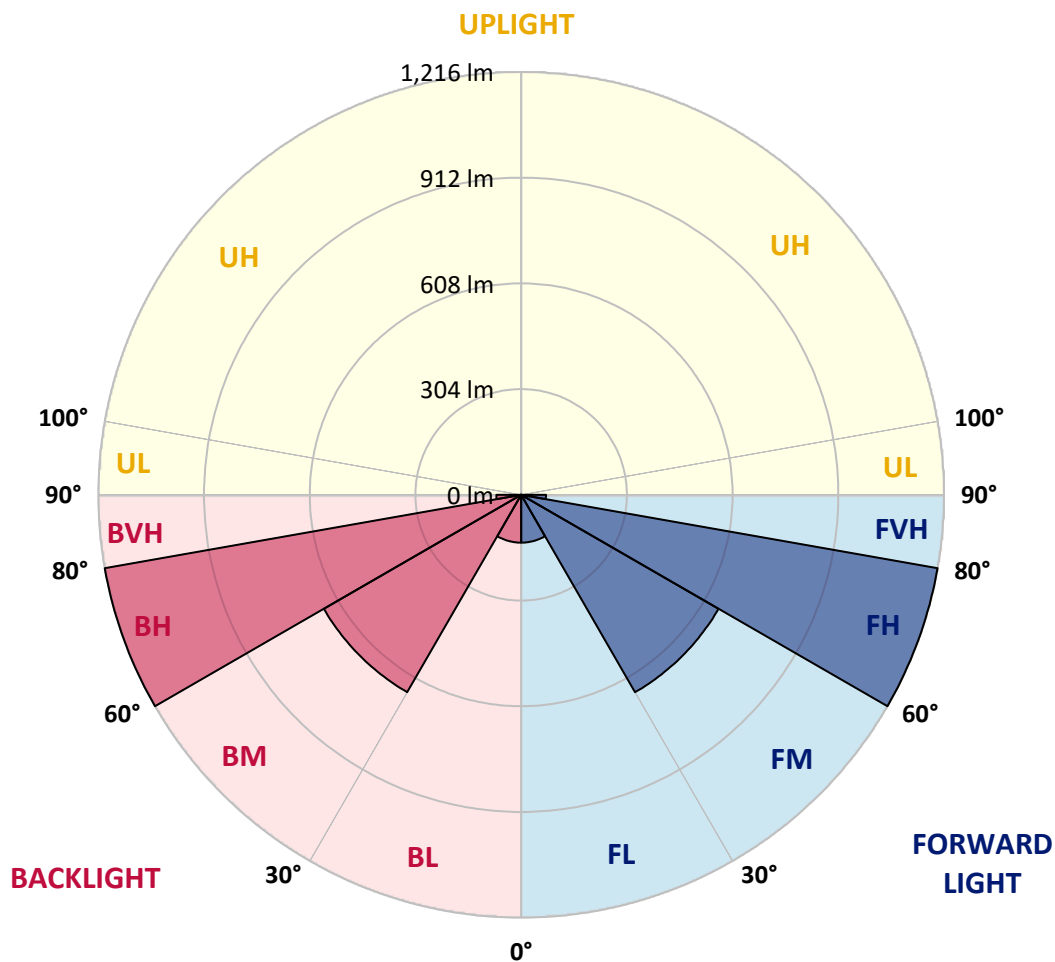
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 137.5  | 3.3       |                         |      |         |
| FM   | (30°-60°)   | 655.3  | 15.8      |                         |      |         |
| FH   | (60°-80°)   | 1216.0 | 29.2      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 71.4   | 1.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 137.5  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 655.3  | 15.8      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 1216.0 | 29.2      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 71.4   | 1.7       |                         |      | 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°    | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  | 342.9  |
| 2.5°  | 339.7  | 340.5  | 338.9  | 338.9  | 338.9  | 338.2  | 338.9  | 338.2  | 338.9  | 339.7  | 339.7  |
| 5°    | 336.6  | 336.6  | 335.0  | 335.0  | 335.0  | 334.2  | 335.0  | 335.0  | 335.7  | 336.6  | 336.6  |
| 7.5°  | 329.5  | 329.5  | 328.7  | 327.9  | 327.0  | 327.0  | 327.9  | 327.9  | 328.7  | 329.5  | 329.5  |
| 10°   | 325.5  | 324.7  | 323.2  | 320.7  | 320.0  | 319.2  | 320.7  | 322.3  | 324.7  | 327.0  | 326.3  |
| 12.5° | 323.9  | 323.2  | 320.0  | 317.5  | 316.0  | 316.8  | 318.3  | 320.0  | 323.9  | 326.3  | 325.5  |
| 15°   | 325.5  | 323.9  | 320.0  | 316.0  | 316.8  | 318.3  | 320.0  | 320.0  | 324.7  | 327.0  | 327.0  |
| 17.5° | 325.5  | 324.7  | 320.0  | 316.8  | 317.5  | 320.0  | 320.7  | 320.0  | 323.9  | 327.9  | 327.9  |
| 20°   | 326.3  | 326.3  | 320.0  | 317.5  | 318.3  | 320.7  | 321.5  | 320.7  | 323.9  | 328.7  | 328.7  |
| 22.5° | 327.9  | 327.0  | 320.7  | 319.2  | 320.7  | 322.3  | 323.2  | 322.3  | 325.5  | 329.5  | 330.2  |
| 25°   | 331.0  | 329.5  | 323.9  | 323.2  | 326.3  | 328.7  | 328.7  | 327.0  | 328.7  | 332.7  | 332.7  |
| 27.5° | 335.0  | 334.2  | 327.9  | 327.9  | 331.8  | 336.6  | 334.2  | 331.0  | 332.7  | 336.6  | 336.6  |
| 30°   | 342.1  | 341.4  | 335.0  | 335.0  | 340.5  | 346.1  | 340.5  | 336.6  | 338.9  | 342.9  | 343.7  |
| 32.5° | 352.4  | 352.4  | 346.9  | 345.2  | 354.8  | 357.2  | 354.8  | 346.9  | 348.4  | 354.0  | 354.0  |
| 35°   | 369.8  | 368.3  | 362.7  | 361.9  | 371.4  | 370.6  | 369.8  | 362.7  | 364.3  | 370.6  | 370.6  |
| 37.5° | 392.8  | 392.0  | 387.3  | 384.8  | 389.6  | 386.5  | 388.0  | 384.8  | 388.8  | 393.6  | 394.3  |
| 40°   | 422.1  | 421.4  | 417.4  | 414.2  | 415.7  | 411.0  | 412.6  | 414.2  | 418.2  | 421.4  | 422.1  |
| 42.5° | 458.5  | 458.5  | 454.6  | 449.1  | 446.6  | 444.3  | 444.3  | 447.4  | 451.4  | 455.3  | 455.3  |
| 45°   | 503.7  | 503.7  | 498.9  | 493.4  | 486.2  | 482.3  | 483.9  | 487.0  | 491.8  | 496.5  | 498.2  |
| 47.5° | 556.7  | 556.7  | 550.3  | 544.8  | 537.8  | 533.0  | 533.0  | 534.6  | 541.7  | 545.6  | 548.0  |
| 50°   | 616.1  | 613.8  | 607.4  | 601.9  | 597.9  | 591.6  | 592.4  | 591.6  | 597.9  | 603.4  | 605.1  |
| 52.5° | 677.9  | 677.1  | 670.7  | 669.2  | 671.6  | 668.4  | 668.4  | 660.5  | 662.9  | 666.0  | 665.2  |
| 55°   | 754.7  | 752.4  | 746.8  | 749.9  | 759.4  | 764.2  | 762.6  | 749.9  | 742.9  | 744.4  | 743.6  |
| 57.5° | 838.6  | 836.3  | 834.7  | 844.2  | 865.6  | 885.4  | 881.5  | 852.1  | 838.6  | 839.4  | 840.3  |
| 60°   | 924.2  | 924.2  | 928.9  | 952.7  | 998.6  | 1031.1 | 1019.3 | 970.2  | 946.3  | 941.6  | 940.0  |
| 62.5° | 1012.1 | 1014.5 | 1024.8 | 1064.4 | 1134.9 | 1188.7 | 1158.6 | 1088.9 | 1053.2 | 1043.8 | 1040.6 |
| 65°   | 1114.3 | 1116.7 | 1131.7 | 1180.8 | 1274.2 | 1338.3 | 1286.9 | 1221.2 | 1171.3 | 1151.4 | 1148.3 |
| 67.5° | 1262.3 | 1264.0 | 1275.8 | 1323.3 | 1411.3 | 1462.7 | 1409.6 | 1351.0 | 1297.2 | 1274.2 | 1272.7 |
| 70°   | 1395.4 | 1396.9 | 1407.3 | 1469.9 | 1550.6 | 1568.8 | 1510.2 | 1435.8 | 1379.6 | 1361.3 | 1358.2 |
| 72.5° | 1365.3 | 1370.9 | 1404.9 | 1502.3 | 1626.6 | 1650.4 | 1526.9 | 1415.2 | 1324.9 | 1294.9 | 1285.3 |
| 75°   | 1145.1 | 1153.9 | 1207.7 | 1354.2 | 1552.2 | 1619.5 | 1428.7 | 1223.6 | 1088.9 | 1031.1 | 1016.1 |
| 77.5° | 668.4  | 700.8  | 793.5  | 981.2  | 1264.0 | 1400.9 | 1176.8 | 895.7  | 669.2  | 574.2  | 542.5  |
| 80°   | 182.9  | 200.4  | 267.7  | 451.4  | 792.7  | 981.2  | 750.7  | 411.0  | 221.8  | 166.3  | 154.5  |
| 82.5° | 57.8   | 76.8   | 97.4   | 129.9  | 311.2  | 517.1  | 278.8  | 121.1  | 95.0   | 78.4   | 69.7   |
| 85°   | 30.9   | 33.2   | 54.6   | 63.3   | 93.5   | 145.0  | 86.3   | 63.3   | 57.0   | 41.9   | 39.6   |
| 87.5° | 15.9   | 16.7   | 30.9   | 30.9   | 41.2   | 34.1   | 37.2   | 34.1   | 32.4   | 20.6   | 18.2   |
| 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)