

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: P964984

Luminaire Tested: **NAV-SB3D-722-U-5MQ**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-20)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-722-U-5MQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27074.3 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

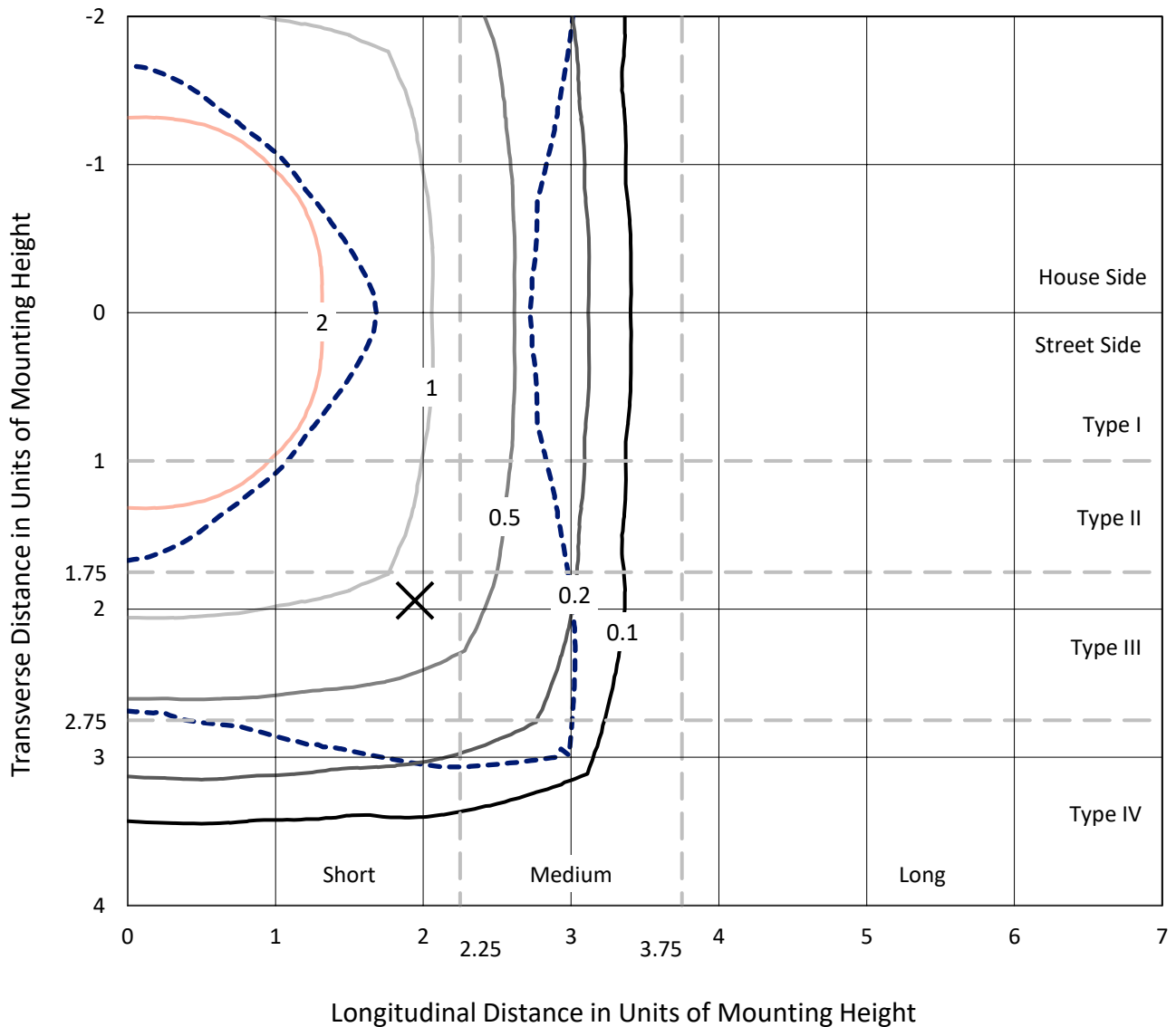
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

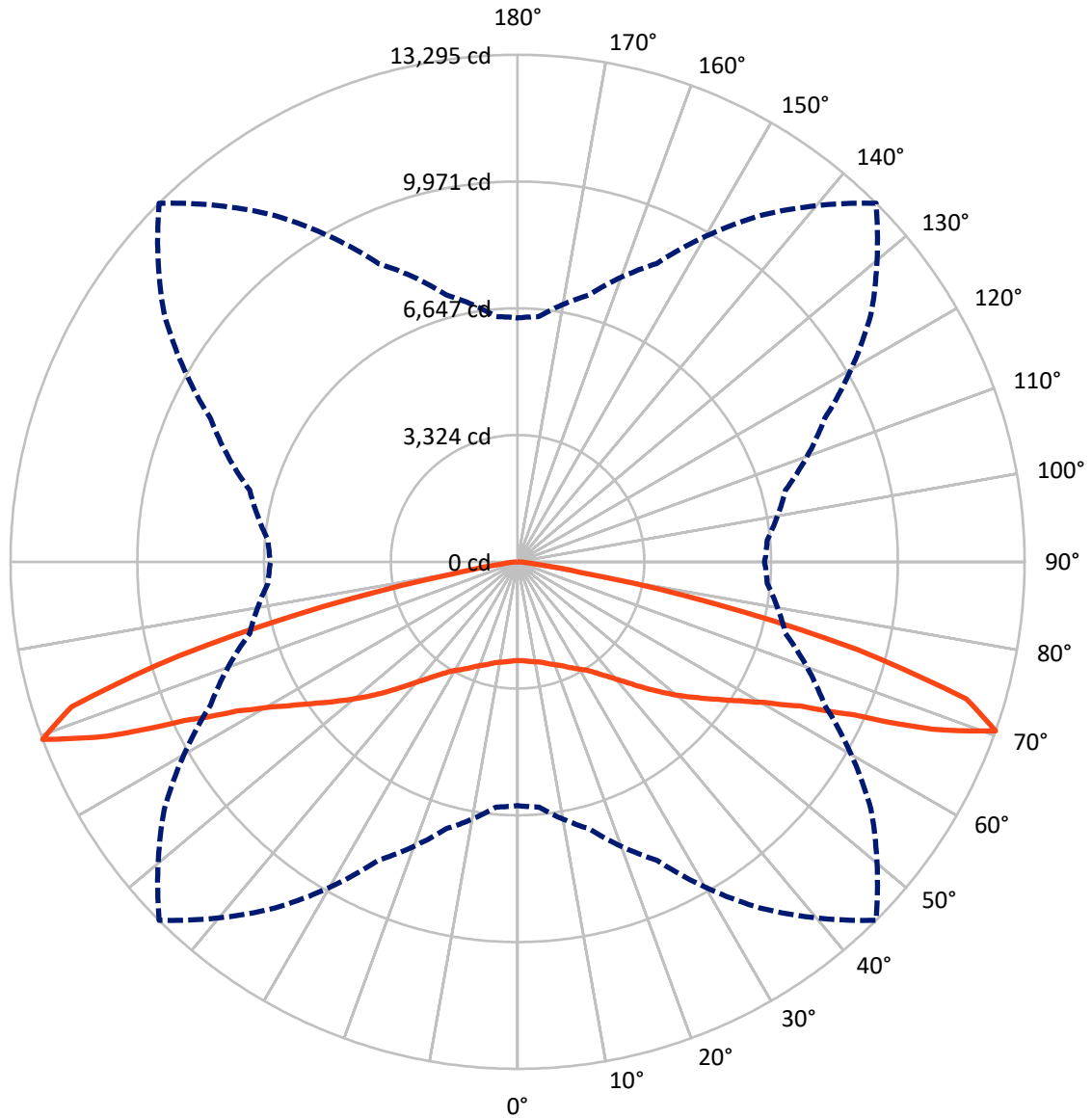
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 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 |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 13537.2 | 0.0 | 13537.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 13537.2 | 0.0 | 13537.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 27074.3 | 0.0 | 27074.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 252.0 | 0.9 |
| 10°-20° | 781.3 | 2.9 |
| 20°-30° | 1396.2 | 5.2 |
| 30°-40° | 2263.3 | 8.4 |
| 40°-50° | 3686.5 | 13.6 |
| 50°-60° | 5620.7 | 20.8 |
| 60°-70° | 8361.8 | 30.9 |
| 70°-80° | 4557.4 | 16.8 |
| 80°-90° | 155.2 | 0.6 |
| 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° | 27074.3 | 100.0 |
| 0°-180° | 27074.3 | 100.0 |

Coefficient of Utilization



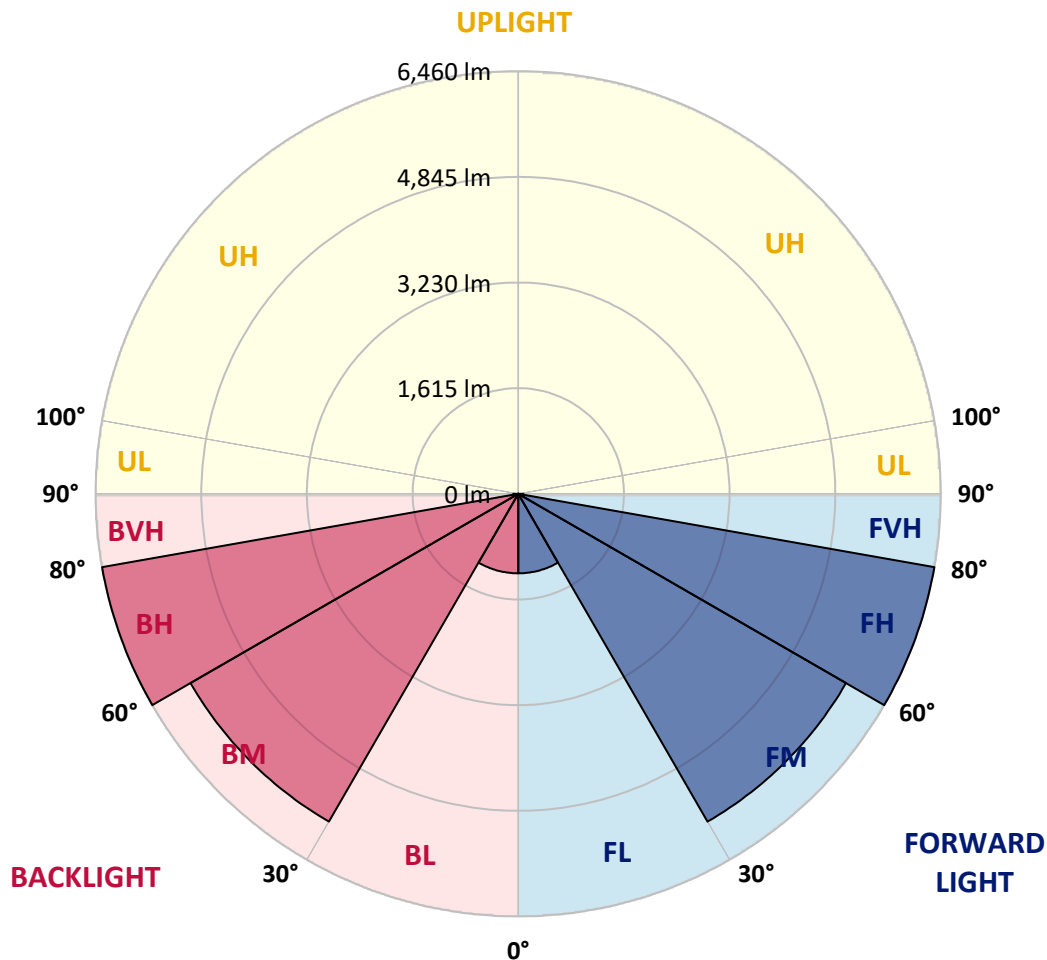
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1214.7 | 4.5 | | | |
| FM (30°-60°) | 5785.2 | 21.4 | | | |
| FH (60°-80°) | 6459.6 | 23.9 | | | G3/7500 |
| FVH (80°-90°) | 77.6 | 0.3 | | | G1/100 |
| BL (0°-30°) | 1214.7 | 4.5 | B3/2500 | | |
| BM (30°-60°) | 5785.2 | 21.4 | B4/8500 | | |
| BH (60°-80°) | 6459.6 | 23.9 | B5 | | G3/7500 |
| BVH (80°-90°) | 77.6 | 0.3 | | | G1/100 |
| 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° | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 | 2593.5 |
| 2.5° | 2605.7 | 2608.4 | 2603.0 | 2600.2 | 2597.6 | 2593.5 | 2594.8 | 2601.6 | 2607.0 | 2605.7 | 2607.0 |
| 5° | 2627.4 | 2630.1 | 2626.0 | 2624.7 | 2619.3 | 2618.0 | 2618.0 | 2624.7 | 2628.8 | 2626.0 | 2627.4 |
| 7.5° | 2651.9 | 2656.0 | 2649.2 | 2647.8 | 2645.1 | 2642.3 | 2641.0 | 2647.8 | 2651.9 | 2651.9 | 2651.9 |
| 10° | 2675.0 | 2679.0 | 2673.6 | 2669.5 | 2666.8 | 2666.8 | 2664.1 | 2669.5 | 2676.4 | 2675.0 | 2675.0 |
| 12.5° | 2699.4 | 2702.2 | 2696.8 | 2694.0 | 2694.0 | 2698.1 | 2694.0 | 2696.8 | 2702.2 | 2699.4 | 2698.1 |
| 15° | 2729.4 | 2730.7 | 2729.4 | 2733.5 | 2740.2 | 2753.9 | 2741.6 | 2738.9 | 2741.6 | 2734.8 | 2734.8 |
| 17.5° | 2770.2 | 2772.8 | 2778.3 | 2787.8 | 2797.3 | 2821.8 | 2800.1 | 2793.2 | 2793.2 | 2779.7 | 2779.7 |
| 20° | 2820.4 | 2824.5 | 2832.7 | 2849.0 | 2861.2 | 2884.4 | 2862.6 | 2853.1 | 2849.0 | 2831.4 | 2831.4 |
| 22.5° | 2873.5 | 2880.2 | 2892.4 | 2914.2 | 2936.0 | 2957.7 | 2936.0 | 2919.7 | 2907.4 | 2884.4 | 2882.9 |
| 25° | 2934.6 | 2942.8 | 2961.8 | 2997.1 | 3027.0 | 3058.3 | 3032.5 | 2999.9 | 2975.4 | 2942.8 | 2941.4 |
| 27.5° | 3021.6 | 3031.1 | 3054.2 | 3097.8 | 3135.8 | 3162.9 | 3138.5 | 3096.3 | 3062.4 | 3022.9 | 3021.6 |
| 30° | 3144.0 | 3153.4 | 3180.7 | 3226.8 | 3252.6 | 3270.4 | 3254.1 | 3221.4 | 3180.7 | 3135.8 | 3135.8 |
| 32.5° | 3301.6 | 3313.8 | 3343.8 | 3387.2 | 3392.6 | 3395.4 | 3390.0 | 3373.7 | 3343.8 | 3289.3 | 3290.8 |
| 35° | 3501.4 | 3515.0 | 3549.0 | 3584.3 | 3578.9 | 3584.3 | 3576.2 | 3570.7 | 3549.0 | 3486.4 | 3486.4 |
| 37.5° | 3746.1 | 3762.4 | 3797.7 | 3824.9 | 3811.4 | 3804.5 | 3805.9 | 3807.3 | 3795.1 | 3725.7 | 3725.7 |
| 40° | 4030.2 | 4051.9 | 4077.8 | 4106.3 | 4083.2 | 4062.8 | 4076.4 | 4087.3 | 4076.4 | 4005.7 | 4005.7 |
| 42.5° | 4322.4 | 4353.7 | 4380.8 | 4421.6 | 4402.6 | 4376.8 | 4395.8 | 4408.0 | 4385.0 | 4308.8 | 4314.2 |
| 45° | 4647.2 | 4677.2 | 4712.5 | 4773.6 | 4760.1 | 4732.9 | 4760.1 | 4762.8 | 4723.4 | 4633.7 | 4643.1 |
| 47.5° | 4983.0 | 5014.3 | 5067.3 | 5148.8 | 5143.3 | 5113.5 | 5148.8 | 5129.8 | 5079.5 | 4972.2 | 4965.3 |
| 50° | 5301.1 | 5344.6 | 5426.1 | 5540.3 | 5551.2 | 5514.5 | 5562.1 | 5525.4 | 5441.1 | 5306.5 | 5303.8 |
| 52.5° | 5600.1 | 5646.3 | 5775.5 | 5930.3 | 5969.8 | 5922.2 | 5986.1 | 5922.2 | 5795.9 | 5623.3 | 5606.9 |
| 55° | 5914.0 | 5965.7 | 6119.4 | 6321.9 | 6400.7 | 6365.4 | 6425.1 | 6328.7 | 6149.3 | 5939.9 | 5911.4 |
| 57.5° | 6283.8 | 6315.0 | 6498.6 | 6739.2 | 6872.3 | 6880.5 | 6907.7 | 6744.6 | 6527.1 | 6289.2 | 6256.6 |
| 60° | 6684.7 | 6728.3 | 6928.1 | 7216.2 | 7426.9 | 7494.9 | 7466.3 | 7224.4 | 6971.5 | 6698.4 | 6654.9 |
| 62.5° | 7198.6 | 7246.1 | 7485.4 | 7830.6 | 8163.6 | 8332.2 | 8220.7 | 7870.1 | 7557.4 | 7229.8 | 7172.7 |
| 65° | 7624.1 | 7677.0 | 8109.3 | 8725.0 | 9331.2 | 9669.6 | 9389.7 | 8744.1 | 8181.3 | 7719.2 | 7643.0 |
| 67.5° | 7315.4 | 7380.7 | 8059.0 | 9189.8 | 10697.3 | 11707.1 | 10749.0 | 9328.5 | 8226.1 | 7599.6 | 7505.8 |
| 70° | 6393.8 | 6455.0 | 7246.1 | 8628.4 | 11081.9 | 13294.8 | 11313.0 | 8882.6 | 7272.0 | 6570.6 | 6476.8 |
| 72.5° | 4244.9 | 4442.0 | 5242.6 | 6900.9 | 9895.3 | 12302.6 | 9993.1 | 6760.9 | 4863.4 | 4235.4 | 4098.2 |
| 75° | 1408.1 | 1565.9 | 2112.3 | 3577.6 | 6627.6 | 9200.7 | 6309.6 | 3165.7 | 1673.2 | 1204.3 | 1139.1 |
| 77.5° | 354.8 | 409.2 | 564.1 | 1023.5 | 2643.8 | 5238.6 | 2380.0 | 835.9 | 455.3 | 318.1 | 284.1 |
| 80° | 172.6 | 190.3 | 271.8 | 341.1 | 661.9 | 1665.1 | 621.2 | 320.8 | 214.7 | 165.8 | 152.2 |
| 82.5° | 95.1 | 96.6 | 153.5 | 193.0 | 246.0 | 430.9 | 255.5 | 187.6 | 123.7 | 100.6 | 100.6 |
| 85° | 58.4 | 57.1 | 81.6 | 103.3 | 103.3 | 153.5 | 122.3 | 103.3 | 70.7 | 62.5 | 65.3 |
| 87.5° | 23.1 | 23.1 | 29.9 | 32.6 | 28.5 | 39.5 | 31.3 | 34.0 | 27.2 | 25.8 | 27.2 |
| 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)