

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: McGRAW-EDISON

Report Number: P453584

Luminaire Tested: **GALN-SA4C-827-U-5NQ**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-827-U-5NQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21337 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

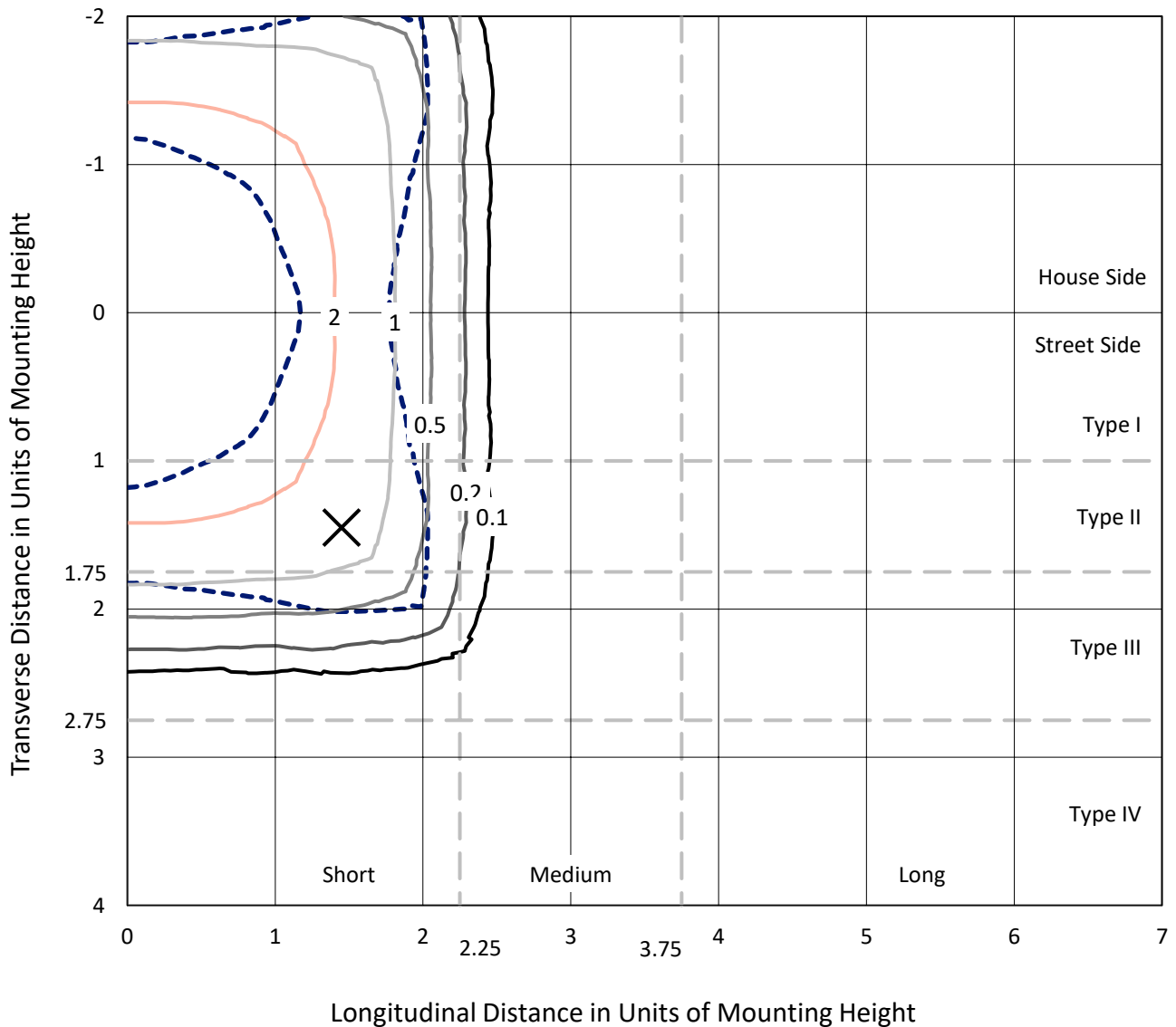
Input Watts (W): 213
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

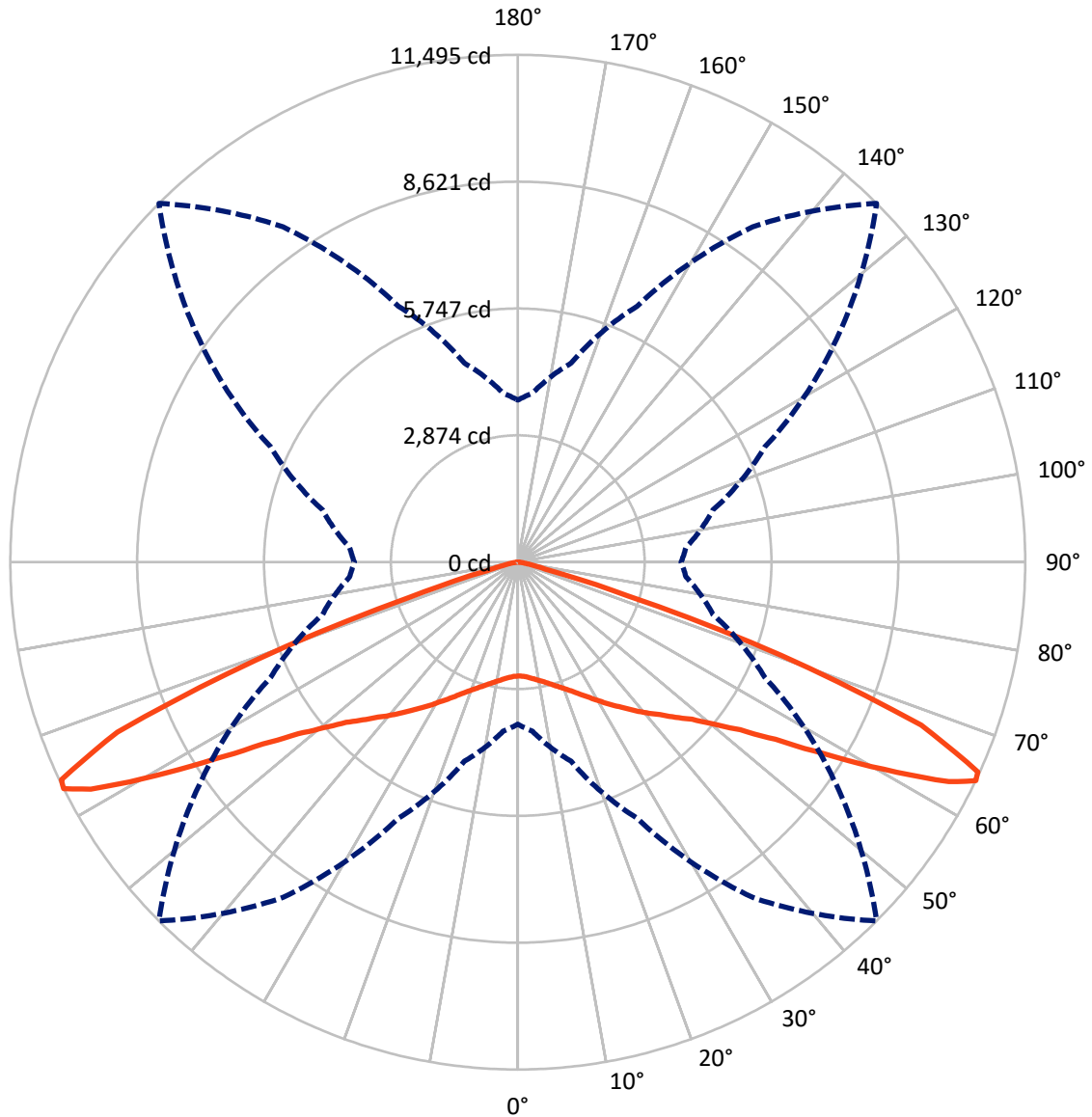
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 10668.5 | 0.0 | 10668.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 10668.5 | 0.0 | 10668.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 21337.0 | 0.0 | 21337.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 253.4 | 1.2 |
| 10°-20° | 817.3 | 3.8 |
| 20°-30° | 1544.4 | 7.2 |
| 30°-40° | 2557.7 | 12.0 |
| 40°-50° | 3992.9 | 18.7 |
| 50°-60° | 6173.0 | 28.9 |
| 60°-70° | 5322.9 | 24.9 |
| 70°-80° | 603.2 | 2.8 |
| 80°-90° | 72.3 | 0.3 |
| 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° | 21337.0 | 100.0 |
| 0°-180° | 21337.0 | 100.0 |

Coefficient of Utilization



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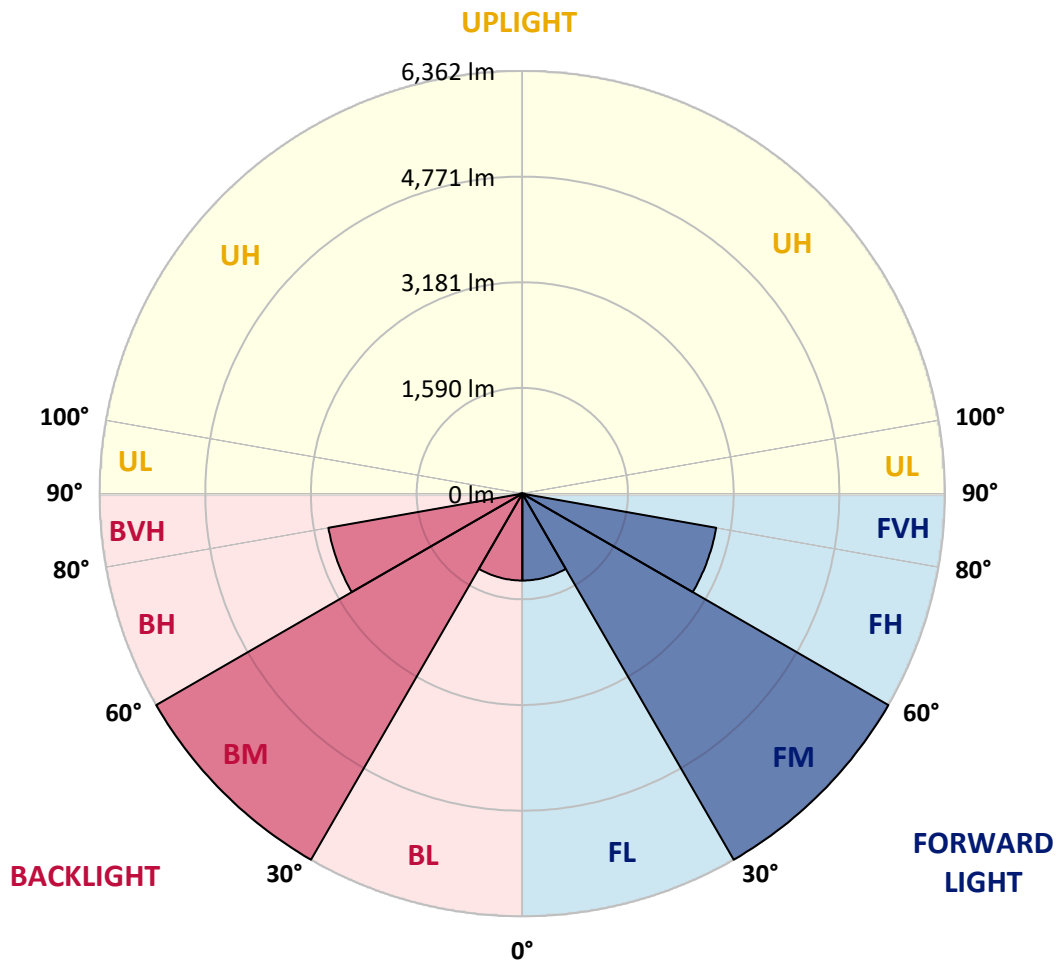
CATALOG NUMBER: GALN-SA4C-827-U-5NQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1307.5 | 6.1 | | | |
| FM (30°-60°) | 6361.8 | 29.8 | | | |
| FH (60°-80°) | 2963.1 | 13.9 | | | G2/5000 |
| FVH (80°-90°) | 36.1 | 0.2 | | | G1/100 |
| BL (0°-30°) | 1307.5 | 6.1 | B3/2500 | | |
| BM (30°-60°) | 6361.8 | 29.8 | B4/8500 | | |
| BH (60°-80°) | 2963.1 | 13.9 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 36.1 | 0.2 | | | G1/100 |
| 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° | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 | 2578.9 |
| 2.5° | 2589.1 | 2594.8 | 2590.2 | 2589.1 | 2588.0 | 2588.0 | 2588.0 | 2589.1 | 2593.6 | 2597.0 | 2594.8 |
| 5° | 2621.9 | 2626.4 | 2624.1 | 2623.0 | 2621.9 | 2623.0 | 2620.7 | 2619.6 | 2623.0 | 2623.0 | 2621.9 |
| 7.5° | 2662.6 | 2668.2 | 2666.0 | 2668.2 | 2669.3 | 2670.5 | 2664.8 | 2660.3 | 2659.2 | 2662.6 | 2660.3 |
| 10° | 2717.9 | 2722.5 | 2723.6 | 2724.7 | 2727.0 | 2725.9 | 2719.1 | 2711.2 | 2710.0 | 2708.9 | 2707.8 |
| 12.5° | 2780.1 | 2783.5 | 2784.6 | 2789.1 | 2792.5 | 2793.7 | 2785.7 | 2779.0 | 2767.7 | 2769.9 | 2765.4 |
| 15° | 2850.2 | 2856.9 | 2855.8 | 2862.6 | 2871.6 | 2873.9 | 2866.0 | 2854.7 | 2844.5 | 2838.9 | 2835.5 |
| 17.5° | 2936.1 | 2940.6 | 2938.3 | 2945.1 | 2956.4 | 2962.0 | 2955.3 | 2940.6 | 2930.4 | 2918.0 | 2911.2 |
| 20° | 3037.8 | 3045.7 | 3047.9 | 3047.9 | 3058.1 | 3063.8 | 3053.6 | 3049.1 | 3033.2 | 3024.2 | 3018.6 |
| 22.5° | 3153.0 | 3156.4 | 3163.2 | 3170.0 | 3180.2 | 3177.9 | 3174.5 | 3167.7 | 3153.0 | 3145.1 | 3136.1 |
| 25° | 3283.0 | 3286.4 | 3303.3 | 3318.0 | 3321.4 | 3319.2 | 3314.6 | 3311.3 | 3297.7 | 3279.6 | 3272.8 |
| 27.5° | 3434.4 | 3441.2 | 3463.8 | 3477.4 | 3477.4 | 3478.5 | 3469.5 | 3480.8 | 3451.4 | 3429.9 | 3427.7 |
| 30° | 3624.3 | 3628.8 | 3648.0 | 3661.6 | 3654.8 | 3649.2 | 3646.9 | 3658.2 | 3626.6 | 3588.1 | 3579.1 |
| 32.5° | 3811.9 | 3827.7 | 3844.7 | 3874.1 | 3850.3 | 3840.1 | 3837.9 | 3845.8 | 3809.6 | 3766.7 | 3754.3 |
| 35° | 4013.1 | 4024.4 | 4056.0 | 4080.9 | 4059.4 | 4035.7 | 4045.8 | 4070.7 | 4027.7 | 3970.1 | 3967.9 |
| 37.5° | 4235.7 | 4245.9 | 4286.5 | 4312.5 | 4296.7 | 4256.0 | 4273.0 | 4302.4 | 4259.4 | 4188.2 | 4173.5 |
| 40° | 4467.4 | 4488.8 | 4539.7 | 4566.8 | 4540.8 | 4486.6 | 4518.2 | 4549.9 | 4511.4 | 4428.9 | 4396.2 |
| 42.5° | 4727.3 | 4761.2 | 4834.7 | 4848.2 | 4798.5 | 4725.0 | 4780.4 | 4831.3 | 4804.1 | 4709.2 | 4696.8 |
| 45° | 5031.3 | 5051.6 | 5142.0 | 5171.4 | 5102.5 | 5011.0 | 5079.9 | 5172.6 | 5152.2 | 5042.6 | 5018.9 |
| 47.5° | 5371.5 | 5390.7 | 5484.5 | 5528.6 | 5441.5 | 5318.3 | 5442.7 | 5563.6 | 5551.2 | 5433.6 | 5422.3 |
| 50° | 5773.8 | 5778.3 | 5908.3 | 5958.0 | 5871.0 | 5764.7 | 5875.5 | 6025.8 | 5976.1 | 5825.8 | 5823.5 |
| 52.5° | 6214.5 | 6220.2 | 6384.1 | 6480.1 | 6431.5 | 6311.7 | 6442.8 | 6534.4 | 6407.8 | 6211.1 | 6196.5 |
| 55° | 6596.5 | 6624.8 | 6848.5 | 7103.9 | 7170.6 | 7083.6 | 7123.2 | 7080.2 | 6768.3 | 6492.5 | 6449.6 |
| 57.5° | 6752.5 | 6807.8 | 7148.0 | 7624.9 | 8058.9 | 8187.7 | 7882.6 | 7473.5 | 6911.8 | 6521.9 | 6480.1 |
| 60° | 6371.6 | 6431.5 | 6959.3 | 7864.5 | 8972.0 | 9531.4 | 8673.7 | 7540.2 | 6585.2 | 6037.1 | 5971.6 |
| 62.5° | 5102.5 | 5119.4 | 5895.8 | 7300.6 | 9504.3 | 10953.1 | 9007.1 | 6971.7 | 5634.8 | 4890.0 | 4864.0 |
| 64° | 3671.8 | 3845.8 | 4668.5 | 6401.0 | 9271.5 | 11494.5 | 8814.9 | 6175.0 | 4577.0 | 3823.2 | 3701.1 |
| 65° | 2746.2 | 2793.7 | 3763.3 | 5466.4 | 8861.3 | 11453.8 | 8442.0 | 5413.3 | 3790.4 | 2925.9 | 2790.3 |
| 67.5° | 1037.5 | 1043.1 | 1388.9 | 2724.7 | 6308.3 | 9854.7 | 6442.8 | 2945.1 | 1596.9 | 1155.0 | 1113.2 |
| 70° | 430.6 | 438.5 | 509.7 | 916.5 | 2711.2 | 6327.5 | 3106.7 | 1062.3 | 584.3 | 473.5 | 466.7 |
| 72.5° | 315.3 | 319.8 | 341.3 | 406.8 | 834.0 | 2598.1 | 1021.6 | 450.9 | 342.4 | 306.3 | 302.9 |
| 75° | 247.5 | 249.8 | 265.6 | 299.5 | 388.8 | 719.9 | 424.9 | 309.7 | 261.1 | 235.1 | 232.8 |
| 77.5° | 188.7 | 194.4 | 205.7 | 228.3 | 261.1 | 341.3 | 281.4 | 231.7 | 201.2 | 179.7 | 176.3 |
| 80° | 130.0 | 136.7 | 158.2 | 167.3 | 175.2 | 221.5 | 192.1 | 175.2 | 157.1 | 131.1 | 123.2 |
| 82.5° | 80.2 | 84.8 | 106.2 | 114.1 | 110.8 | 124.3 | 123.2 | 125.4 | 111.9 | 81.4 | 75.7 |
| 85° | 41.8 | 44.1 | 57.6 | 59.9 | 55.4 | 50.9 | 63.3 | 73.5 | 68.9 | 46.3 | 45.2 |
| 87.5° | 9.0 | 10.2 | 12.4 | 11.3 | 12.4 | 12.4 | 15.8 | 23.7 | 24.9 | 15.8 | 14.7 |
| 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)