

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: P453207

Luminaire Tested: **GALN-SA4B-727-U-5NQ**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453207
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-SA4B-727-U-5NQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19646 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

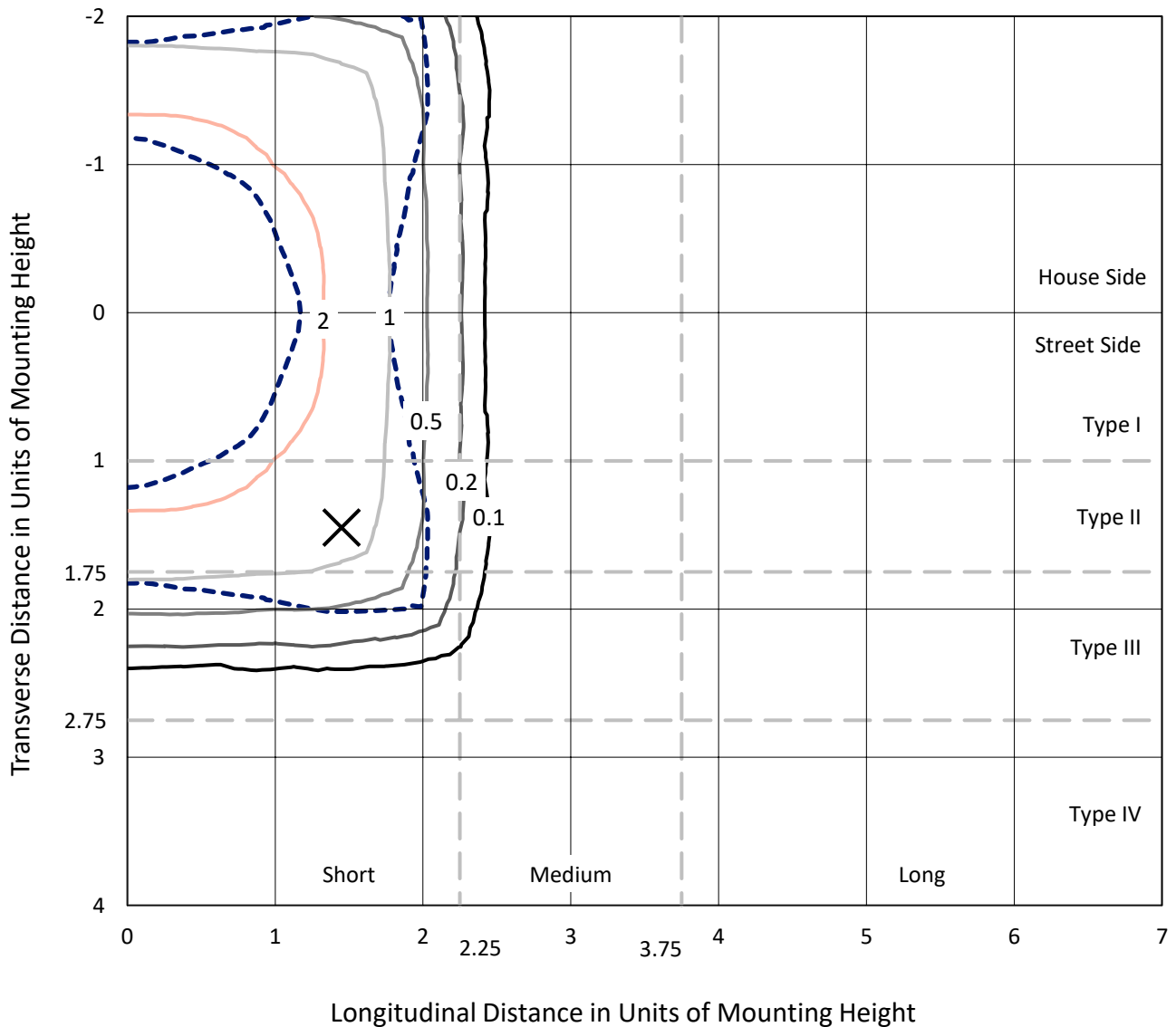
Input Watts (W): 164
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

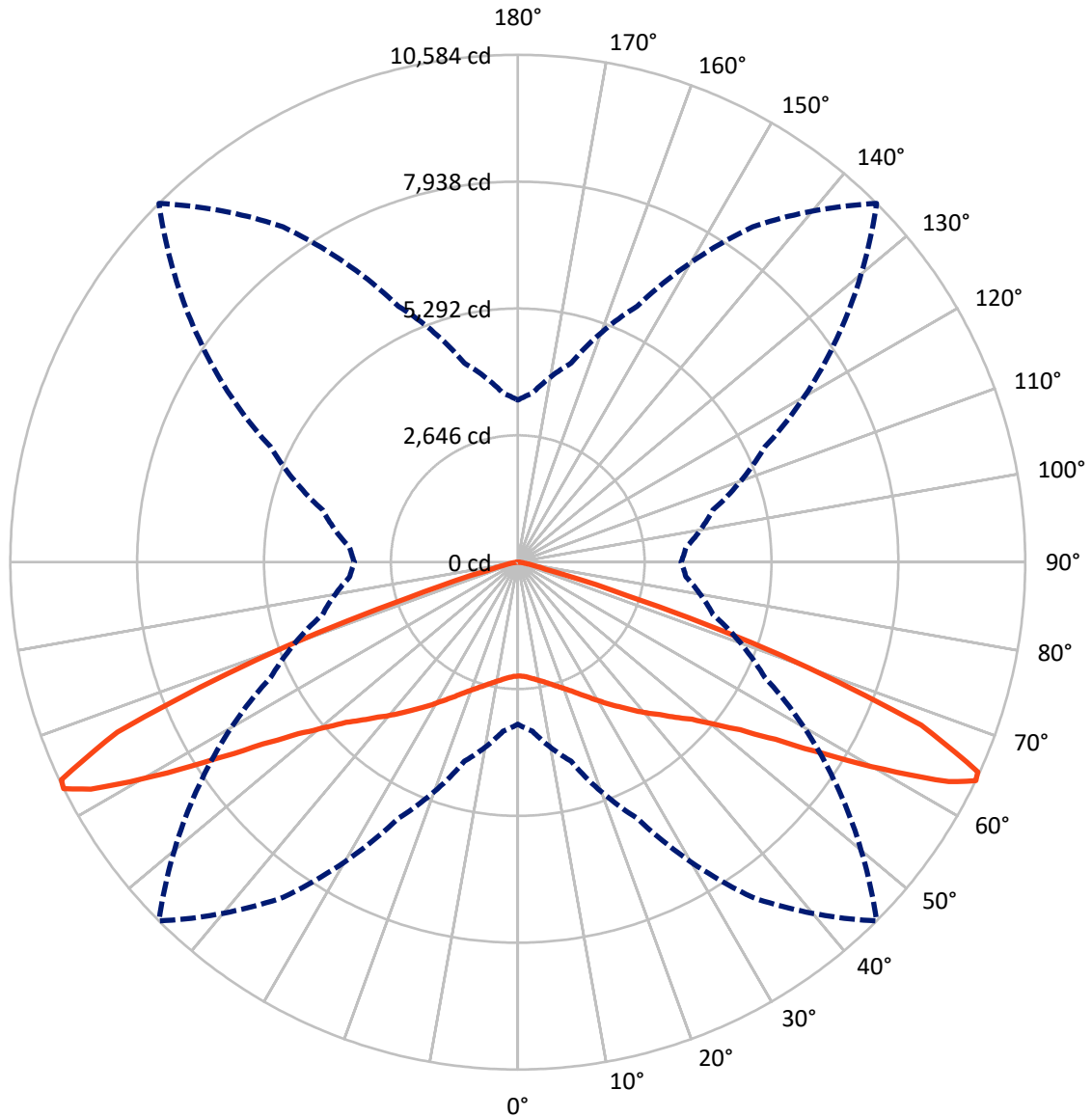
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 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 | 9823.0 | 0.0 | 9823.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9823.0 | 0.0 | 9823.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 19646.0 | 0.0 | 19646.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 233.3 | 1.2 |
| 10°-20° | 752.5 | 3.8 |
| 20°-30° | 1422.0 | 7.2 |
| 30°-40° | 2355.0 | 12.0 |
| 40°-50° | 3676.5 | 18.7 |
| 50°-60° | 5683.8 | 28.9 |
| 60°-70° | 4901.0 | 24.9 |
| 70°-80° | 555.4 | 2.8 |
| 80°-90° | 66.5 | 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° | 19646.0 | 100.0 |
| 0°-180° | 19646.0 | 100.0 |



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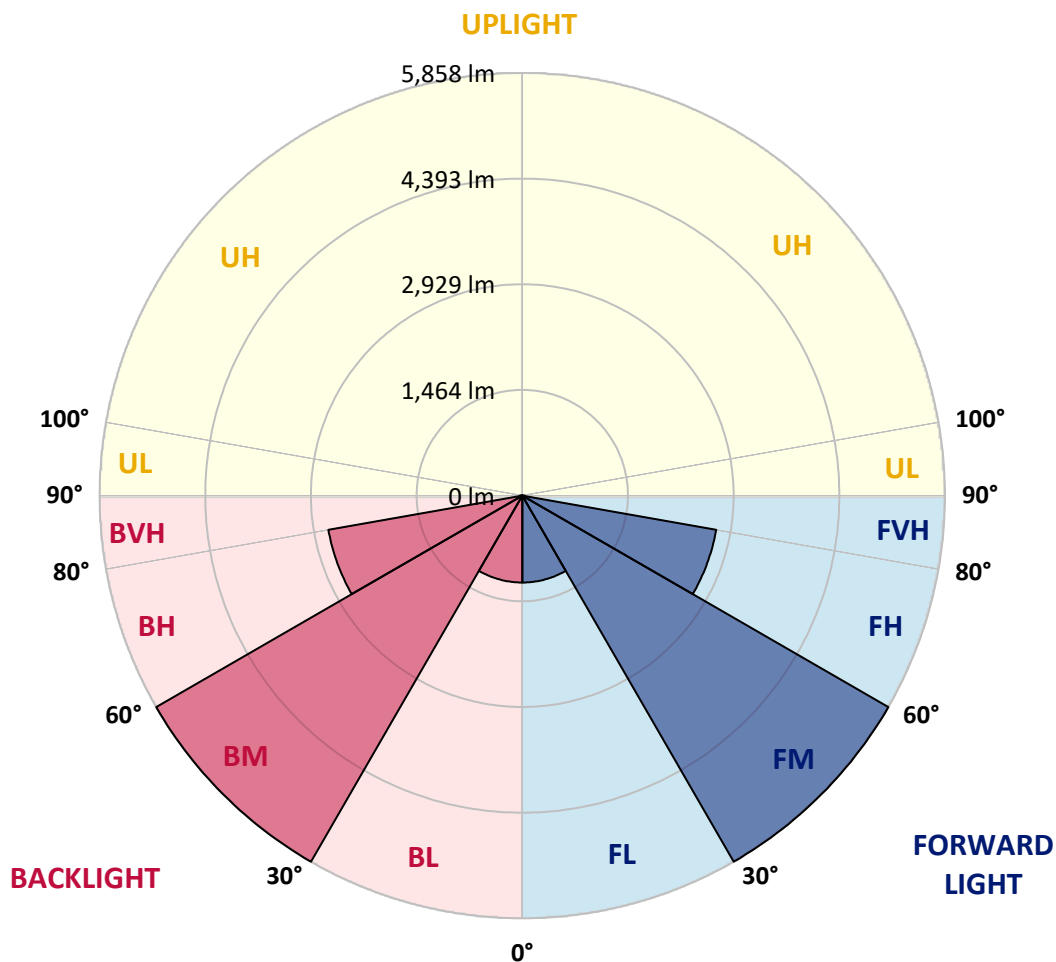
CATALOG NUMBER: GALN-SA4B-727-U-5NQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1203.9 | 6.1 | | | |
| FM | (30°-60°) | 5857.6 | 29.8 | | | |
| FH | (60°-80°) | 2728.2 | 13.9 | | | G2/5000 |
| FVH | (80°-90°) | 33.3 | 0.2 | | | G1/100 |
| BL | (0°-30°) | 1203.9 | 6.1 | B3/2500 | | |
| BM | (30°-60°) | 5857.6 | 29.8 | B4/8500 | | |
| BH | (60°-80°) | 2728.2 | 13.9 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 33.3 | 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° | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 | 2374.5 |
| 2.5° | 2383.9 | 2389.1 | 2385.0 | 2383.9 | 2382.9 | 2382.9 | 2382.9 | 2383.9 | 2388.1 | 2391.2 | 2389.1 |
| 5° | 2414.1 | 2418.3 | 2416.2 | 2415.1 | 2414.1 | 2415.1 | 2413.1 | 2412.0 | 2415.1 | 2415.1 | 2414.1 |
| 7.5° | 2451.6 | 2456.8 | 2454.7 | 2456.8 | 2457.8 | 2458.8 | 2453.6 | 2449.5 | 2448.4 | 2451.6 | 2449.5 |
| 10° | 2502.5 | 2506.7 | 2507.7 | 2508.8 | 2510.9 | 2509.8 | 2503.6 | 2496.3 | 2495.3 | 2494.2 | 2493.2 |
| 12.5° | 2559.8 | 2562.9 | 2563.9 | 2568.1 | 2571.2 | 2572.3 | 2565.0 | 2558.7 | 2548.3 | 2550.4 | 2546.2 |
| 15° | 2624.3 | 2630.5 | 2629.5 | 2635.7 | 2644.1 | 2646.1 | 2638.9 | 2628.4 | 2619.1 | 2613.9 | 2610.8 |
| 17.5° | 2703.4 | 2707.5 | 2705.4 | 2711.7 | 2722.1 | 2727.3 | 2721.1 | 2707.5 | 2698.2 | 2686.7 | 2680.5 |
| 20° | 2797.0 | 2804.3 | 2806.4 | 2806.4 | 2815.7 | 2820.9 | 2811.6 | 2807.4 | 2792.9 | 2784.5 | 2779.3 |
| 22.5° | 2903.2 | 2906.3 | 2912.5 | 2918.8 | 2928.1 | 2926.0 | 2922.9 | 2916.7 | 2903.2 | 2895.9 | 2887.5 |
| 25° | 3022.8 | 3025.9 | 3041.5 | 3055.1 | 3058.2 | 3056.1 | 3052.0 | 3048.8 | 3036.3 | 3019.7 | 3013.5 |
| 27.5° | 3162.3 | 3168.5 | 3189.3 | 3201.8 | 3201.8 | 3202.8 | 3194.5 | 3204.9 | 3177.9 | 3158.1 | 3156.0 |
| 30° | 3337.1 | 3341.2 | 3358.9 | 3371.4 | 3365.2 | 3360.0 | 3357.9 | 3368.3 | 3339.1 | 3303.8 | 3295.4 |
| 32.5° | 3509.8 | 3524.4 | 3540.0 | 3567.0 | 3545.2 | 3535.8 | 3533.7 | 3541.0 | 3507.7 | 3468.2 | 3456.7 |
| 35° | 3695.0 | 3705.4 | 3734.6 | 3757.4 | 3737.7 | 3715.8 | 3725.2 | 3748.1 | 3708.5 | 3655.5 | 3653.4 |
| 37.5° | 3900.0 | 3909.4 | 3946.8 | 3970.8 | 3956.2 | 3918.7 | 3934.3 | 3961.4 | 3921.9 | 3856.3 | 3842.8 |
| 40° | 4113.3 | 4133.1 | 4179.9 | 4204.9 | 4181.0 | 4131.0 | 4160.1 | 4189.3 | 4153.9 | 4077.9 | 4047.8 |
| 42.5° | 4352.6 | 4383.9 | 4451.5 | 4464.0 | 4418.2 | 4350.6 | 4401.6 | 4448.4 | 4423.4 | 4336.0 | 4324.6 |
| 45° | 4632.6 | 4651.3 | 4734.5 | 4761.6 | 4698.1 | 4613.8 | 4677.3 | 4762.6 | 4743.9 | 4643.0 | 4621.1 |
| 47.5° | 4945.8 | 4963.5 | 5049.8 | 5090.4 | 5010.3 | 4896.9 | 5011.3 | 5122.7 | 5111.2 | 5003.0 | 4992.6 |
| 50° | 5316.2 | 5320.4 | 5440.0 | 5485.8 | 5405.7 | 5307.9 | 5409.9 | 5548.2 | 5502.5 | 5364.1 | 5362.0 |
| 52.5° | 5722.0 | 5727.2 | 5878.1 | 5966.5 | 5921.8 | 5811.5 | 5932.2 | 6016.5 | 5900.0 | 5718.9 | 5705.4 |
| 55° | 6073.7 | 6099.7 | 6305.8 | 6540.9 | 6602.3 | 6522.2 | 6558.6 | 6519.1 | 6231.9 | 5978.0 | 5938.5 |
| 57.5° | 6217.3 | 6268.3 | 6581.5 | 7020.6 | 7420.2 | 7538.8 | 7257.9 | 6881.2 | 6364.0 | 6005.1 | 5966.5 |
| 60° | 5866.7 | 5921.8 | 6407.7 | 7241.2 | 8261.0 | 8776.1 | 7986.3 | 6942.6 | 6063.3 | 5558.7 | 5498.3 |
| 62.5° | 4698.1 | 4713.7 | 5428.6 | 6722.0 | 8751.1 | 10085.1 | 8293.2 | 6419.2 | 5188.2 | 4502.5 | 4478.6 |
| 64° | 3380.8 | 3541.0 | 4298.5 | 5893.7 | 8536.7 | 10583.5 | 8116.3 | 5685.6 | 4214.3 | 3520.2 | 3407.8 |
| 65° | 2528.6 | 2572.3 | 3465.1 | 5033.2 | 8159.0 | 10546.0 | 7773.0 | 4984.3 | 3490.0 | 2694.0 | 2569.1 |
| 67.5° | 955.2 | 960.4 | 1278.8 | 2508.8 | 5808.4 | 9073.7 | 5932.2 | 2711.7 | 1470.3 | 1063.4 | 1024.9 |
| 70° | 396.5 | 403.7 | 469.3 | 843.9 | 2496.3 | 5826.1 | 2860.5 | 978.1 | 538.0 | 436.0 | 429.7 |
| 72.5° | 290.3 | 294.5 | 314.2 | 374.6 | 767.9 | 2392.2 | 940.7 | 415.2 | 315.3 | 282.0 | 278.9 |
| 75° | 227.9 | 230.0 | 244.5 | 275.7 | 358.0 | 662.8 | 391.2 | 285.1 | 240.4 | 216.4 | 214.4 |
| 77.5° | 173.8 | 179.0 | 189.4 | 210.2 | 240.4 | 314.2 | 259.1 | 213.3 | 185.2 | 165.4 | 162.3 |
| 80° | 119.7 | 125.9 | 145.7 | 154.0 | 161.3 | 203.9 | 176.9 | 161.3 | 144.6 | 120.7 | 113.4 |
| 82.5° | 73.9 | 78.0 | 97.8 | 105.1 | 102.0 | 114.5 | 113.4 | 115.5 | 103.0 | 74.9 | 69.7 |
| 85° | 38.5 | 40.6 | 53.1 | 55.1 | 51.0 | 46.8 | 58.3 | 67.6 | 63.5 | 42.7 | 41.6 |
| 87.5° | 8.3 | 9.4 | 11.4 | 10.4 | 11.4 | 11.4 | 14.6 | 21.9 | 22.9 | 14.6 | 13.5 |
| 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)