

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: P234776

Luminaire Tested: **ARCH-M-AF48-140-D-U-5WQ-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234776
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-M-AF48-140-D-U-5WQ-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13549 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

Input Watts (W): 141
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: 28.75 FT

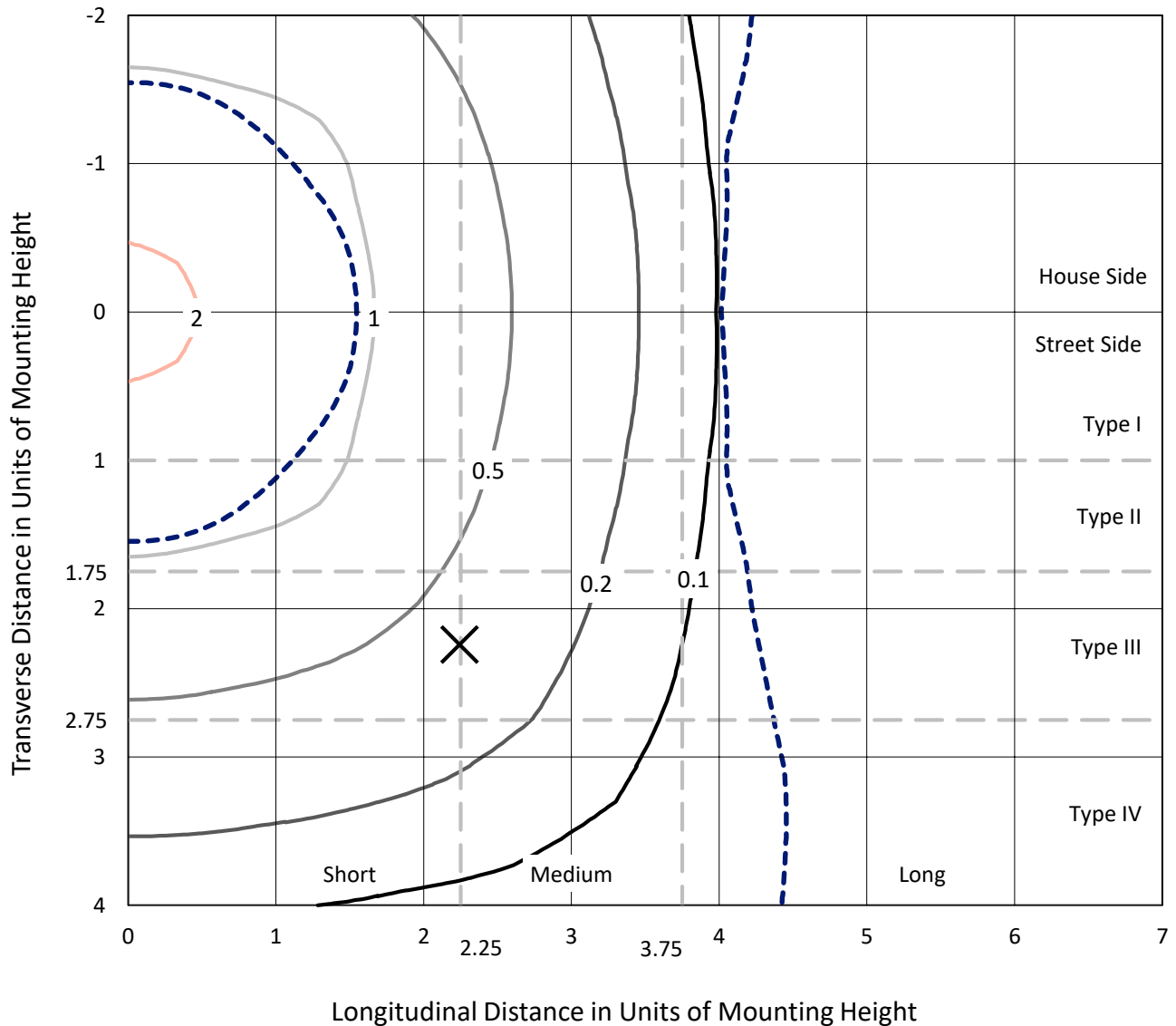


REPORT NUMBER: P234776

CATALOG NUMBER: ARCH-M-AF48-140-D-U-5WQ-8027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

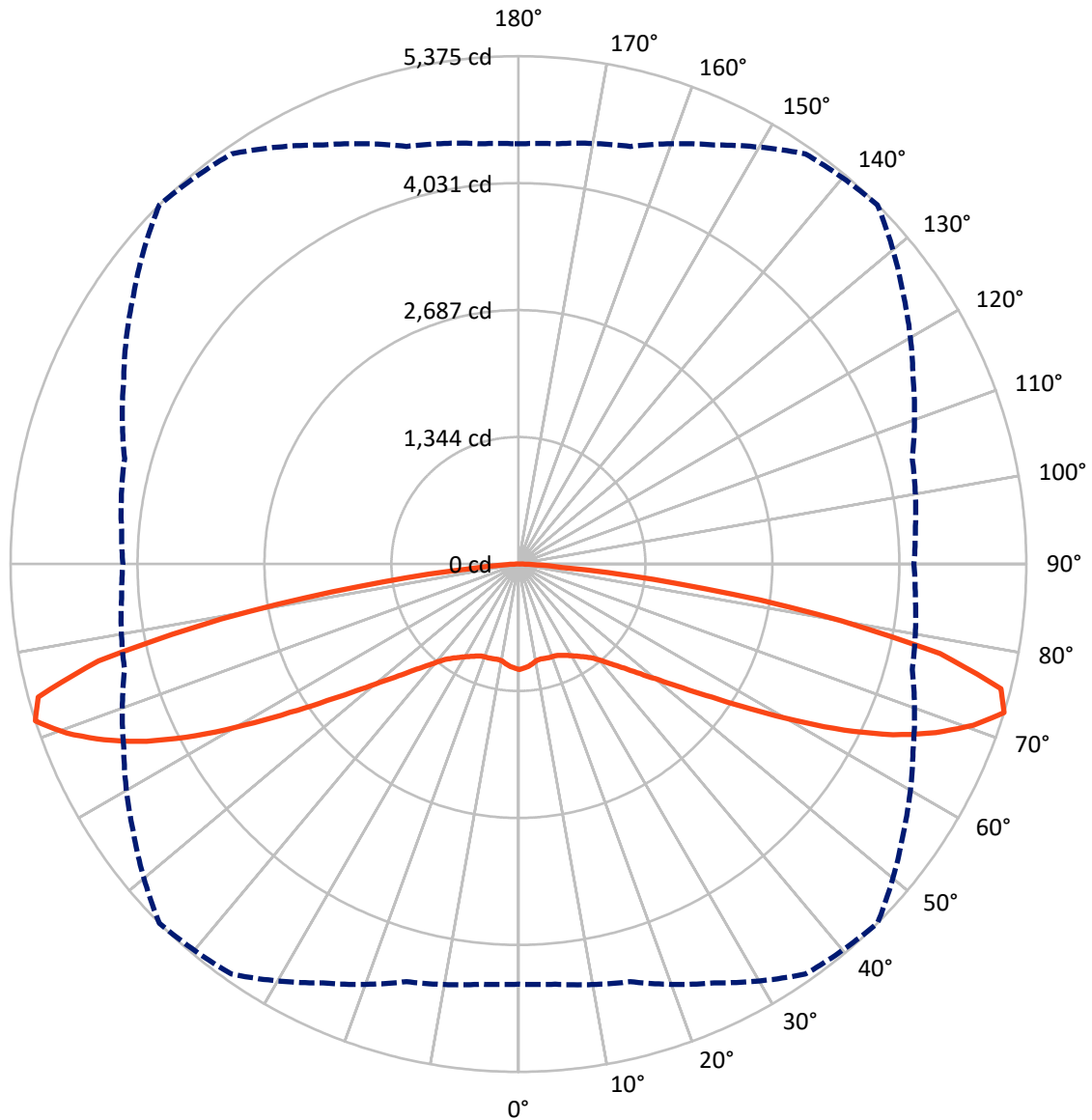


Based on 20 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Non-Cutoff

REPORT NUMBER: P234776

CATALOG NUMBER: ARCH-M-AF48-140-D-U-5WQ-8027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical



REPORT NUMBER: P234776

CATALOG NUMBER: ARCH-M-AF48-140-D-U-5WQ-8027

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6774.5 | 0.0 | 6774.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6774.5 | 0.0 | 6774.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 13549.0 | 0.0 | 13549.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 102.8 | 0.8 |
| 10°-20° | 296.5 | 2.2 |
| 20°-30° | 496.1 | 3.7 |
| 30°-40° | 762.3 | 5.6 |
| 40°-50° | 1262.2 | 9.3 |
| 50°-60° | 2244.0 | 16.6 |
| 60°-70° | 3925.8 | 29.0 |
| 70°-80° | 3994.2 | 29.5 |
| 80°-90° | 465.1 | 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° | 13549.0 | 100.0 |
| 0°-180° | 13549.0 | 100.0 |



REPORT NUMBER: P234776

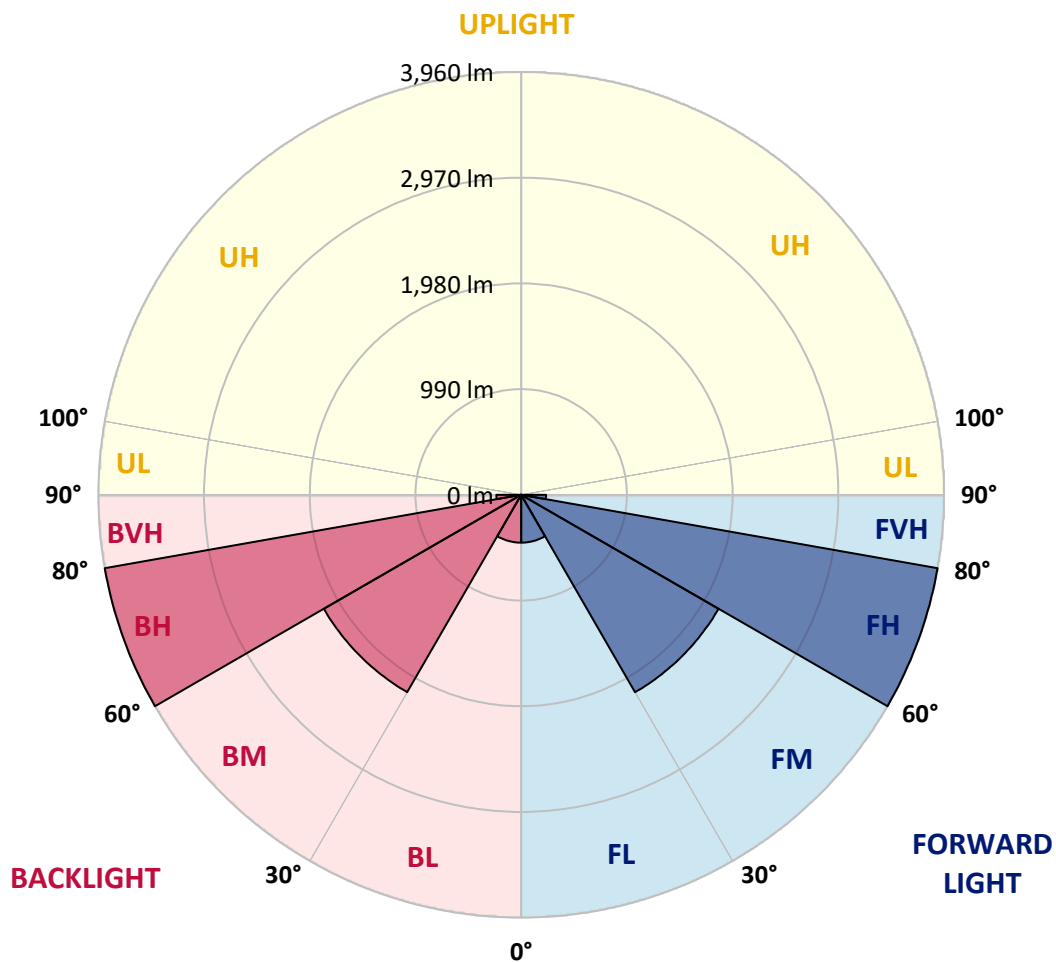
CATALOG NUMBER: ARCH-M-AF48-140-D-U-5WQ-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 447.7 | 3.3 | | | |
| FM (30°-60°) | 2134.3 | 15.8 | | | |
| FH (60°-80°) | 3960.0 | 29.2 | | | G2/5000 |
| FVH (80°-90°) | 232.5 | 1.7 | | | G3/500 |
| BL (0°-30°) | 447.7 | 3.3 | B1/500 | | |
| BM (30°-60°) | 2134.3 | 15.8 | B2/2500 | | |
| BH (60°-80°) | 3960.0 | 29.2 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 232.5 | 1.7 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G3

Type V Short





REPORT NUMBER: P234776

CATALOG NUMBER: ARCH-M-AF48-140-D-U-5WQ-8027

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 | 1116.8 |
| 2.5° | 1106.4 | 1109.0 | 1103.9 | 1103.9 | 1103.9 | 1101.3 | 1103.9 | 1101.3 | 1103.9 | 1106.4 | 1106.4 |
| 5° | 1096.1 | 1096.1 | 1091.0 | 1091.0 | 1091.0 | 1088.4 | 1091.0 | 1091.0 | 1093.5 | 1096.1 | 1096.1 |
| 7.5° | 1072.9 | 1072.9 | 1070.3 | 1067.7 | 1065.2 | 1065.2 | 1067.7 | 1067.7 | 1070.3 | 1072.9 | 1072.9 |
| 10° | 1060.0 | 1057.4 | 1052.3 | 1044.5 | 1042.0 | 1039.4 | 1044.5 | 1049.7 | 1057.4 | 1065.2 | 1062.6 |
| 12.5° | 1054.9 | 1052.3 | 1042.0 | 1034.2 | 1029.1 | 1031.6 | 1036.8 | 1042.0 | 1054.9 | 1062.6 | 1060.0 |
| 15° | 1060.0 | 1054.9 | 1042.0 | 1029.1 | 1031.6 | 1036.8 | 1042.0 | 1042.0 | 1057.4 | 1065.2 | 1065.2 |
| 17.5° | 1060.0 | 1057.4 | 1042.0 | 1031.6 | 1034.2 | 1042.0 | 1044.5 | 1042.0 | 1054.9 | 1067.7 | 1067.7 |
| 20° | 1062.6 | 1062.6 | 1042.0 | 1034.2 | 1036.8 | 1044.5 | 1047.1 | 1044.5 | 1054.9 | 1070.3 | 1070.3 |
| 22.5° | 1067.7 | 1065.2 | 1044.5 | 1039.4 | 1044.5 | 1049.7 | 1052.3 | 1049.7 | 1060.0 | 1072.9 | 1075.5 |
| 25° | 1078.1 | 1072.9 | 1054.9 | 1052.3 | 1062.6 | 1070.3 | 1070.3 | 1065.2 | 1070.3 | 1083.2 | 1083.2 |
| 27.5° | 1091.0 | 1088.4 | 1067.7 | 1067.7 | 1080.6 | 1096.1 | 1088.4 | 1078.1 | 1083.2 | 1096.1 | 1096.1 |
| 30° | 1114.2 | 1111.6 | 1091.0 | 1091.0 | 1109.0 | 1127.1 | 1109.0 | 1096.1 | 1103.9 | 1116.8 | 1119.3 |
| 32.5° | 1147.7 | 1147.7 | 1129.6 | 1124.5 | 1155.4 | 1163.2 | 1155.4 | 1129.6 | 1134.8 | 1152.9 | 1152.9 |
| 35° | 1204.4 | 1199.3 | 1181.2 | 1178.7 | 1209.6 | 1207.0 | 1204.4 | 1181.2 | 1186.4 | 1207.0 | 1207.0 |
| 37.5° | 1279.2 | 1276.7 | 1261.2 | 1253.4 | 1268.9 | 1258.6 | 1263.8 | 1253.4 | 1266.3 | 1281.8 | 1284.4 |
| 40° | 1374.7 | 1372.1 | 1359.2 | 1348.9 | 1354.0 | 1338.6 | 1343.7 | 1348.9 | 1361.8 | 1372.1 | 1374.7 |
| 42.5° | 1493.3 | 1493.3 | 1480.4 | 1462.4 | 1454.6 | 1446.9 | 1446.9 | 1457.2 | 1470.1 | 1483.0 | 1483.0 |
| 45° | 1640.3 | 1640.3 | 1624.8 | 1606.8 | 1583.6 | 1570.7 | 1575.8 | 1586.1 | 1601.6 | 1617.1 | 1622.3 |
| 47.5° | 1813.1 | 1813.1 | 1792.5 | 1774.4 | 1751.2 | 1735.7 | 1735.7 | 1740.9 | 1764.1 | 1777.0 | 1784.7 |
| 50° | 2006.5 | 1998.8 | 1978.2 | 1960.1 | 1947.2 | 1926.6 | 1929.2 | 1926.6 | 1947.2 | 1965.3 | 1970.4 |
| 52.5° | 2207.7 | 2205.1 | 2184.5 | 2179.3 | 2187.1 | 2176.8 | 2176.8 | 2151.0 | 2158.7 | 2169.0 | 2166.4 |
| 55° | 2457.9 | 2450.1 | 2432.1 | 2442.4 | 2473.4 | 2488.8 | 2483.7 | 2442.4 | 2419.2 | 2424.4 | 2421.8 |
| 57.5° | 2731.3 | 2723.5 | 2718.4 | 2749.3 | 2819.0 | 2883.4 | 2870.5 | 2775.1 | 2731.3 | 2733.9 | 2736.4 |
| 60° | 3009.8 | 3009.8 | 3025.3 | 3102.7 | 3252.3 | 3358.0 | 3319.3 | 3159.4 | 3082.0 | 3066.6 | 3061.4 |
| 62.5° | 3296.1 | 3303.8 | 3337.4 | 3466.3 | 3695.9 | 3871.2 | 3773.2 | 3546.3 | 3430.2 | 3399.3 | 3388.9 |
| 65° | 3628.8 | 3636.5 | 3685.5 | 3845.4 | 4149.8 | 4358.7 | 4191.0 | 3977.0 | 3814.5 | 3750.0 | 3739.7 |
| 67.5° | 4111.1 | 4116.3 | 4154.9 | 4309.7 | 4596.0 | 4763.6 | 4590.8 | 4400.0 | 4224.6 | 4149.8 | 4144.6 |
| 70° | 4544.4 | 4549.5 | 4583.1 | 4786.8 | 5049.9 | 5109.2 | 4918.4 | 4675.9 | 4492.8 | 4433.5 | 4423.2 |
| 72.5° | 4446.4 | 4464.4 | 4575.3 | 4892.6 | 5297.5 | 5374.9 | 4972.5 | 4608.9 | 4314.8 | 4216.8 | 4185.9 |
| 75° | 3729.4 | 3757.8 | 3933.1 | 4410.3 | 5055.0 | 5274.3 | 4652.7 | 3984.7 | 3546.3 | 3358.0 | 3309.0 |
| 77.5° | 2176.8 | 2282.5 | 2584.3 | 3195.5 | 4116.3 | 4562.4 | 3832.5 | 2917.0 | 2179.3 | 1869.9 | 1766.7 |
| 80° | 595.8 | 652.5 | 871.7 | 1470.1 | 2581.7 | 3195.5 | 2445.0 | 1338.6 | 722.1 | 541.6 | 502.9 |
| 82.5° | 188.3 | 250.2 | 317.2 | 423.0 | 1013.6 | 1684.2 | 907.8 | 394.6 | 309.5 | 255.3 | 227.0 |
| 85° | 100.6 | 108.3 | 178.0 | 206.3 | 304.3 | 472.0 | 281.1 | 206.3 | 185.7 | 136.7 | 129.0 |
| 87.5° | 51.6 | 54.2 | 100.6 | 100.6 | 134.1 | 110.9 | 121.2 | 110.9 | 105.7 | 67.1 | 59.3 |
| 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)