

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P147880

Luminaire Tested: **TLM-E05-LED-E1-5WQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P147880  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33675)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-E05-LED-E1-5WQ  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (105) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

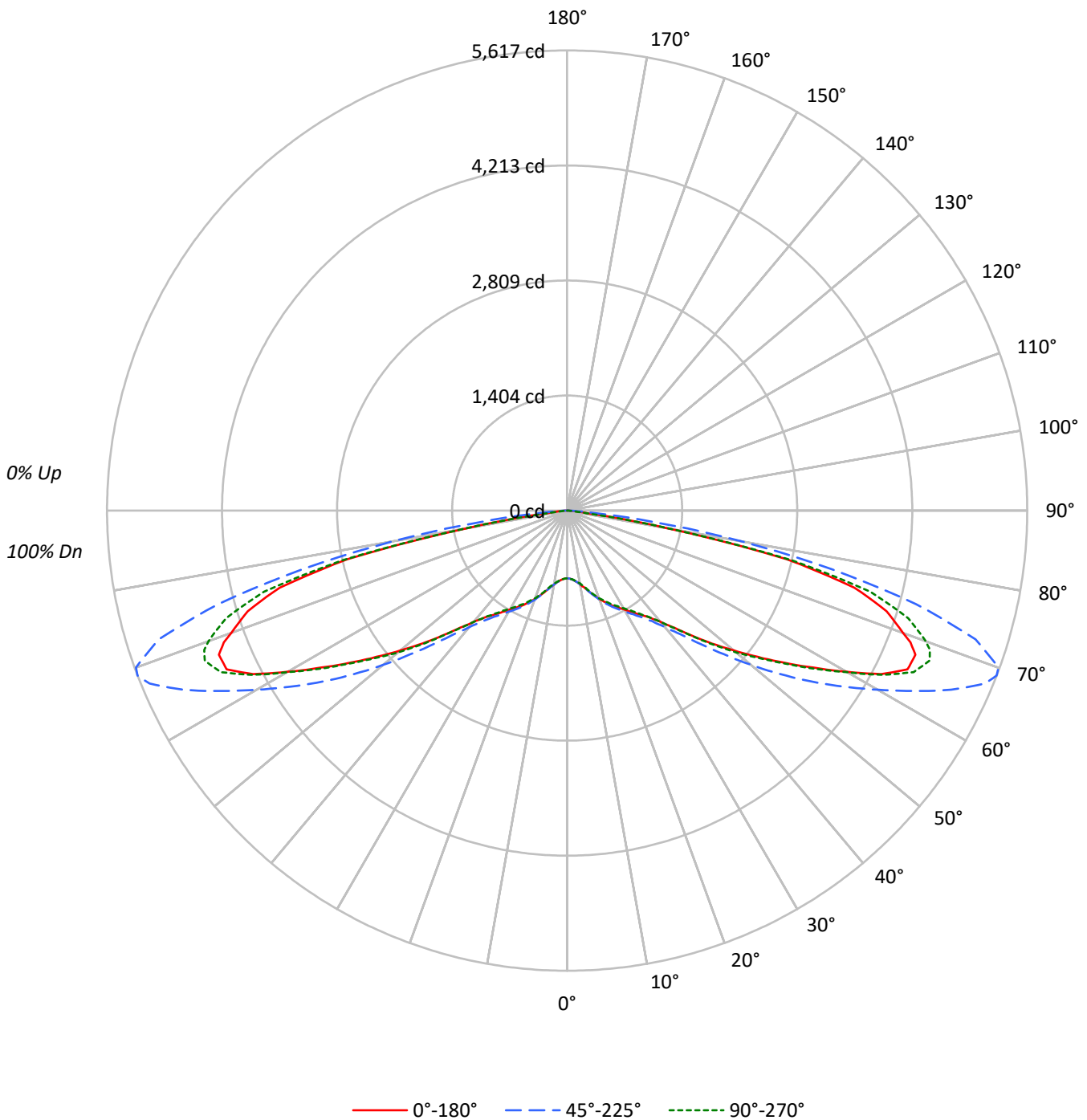
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15919.0 lumens  
Efficiency: N/A  
Efficacy: 125.1 lumens/watt  
Spacing Criteria (0/90/45): 3.9 / 3.92 / 3.98  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 127.3  
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: 25 FT



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CATALOG NUMBER: TLM-E05-LED-E1-5WQ

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 103 | 96  | 90  | 84  | 100 | 94  | 88  | 82  | 89  | 84  | 80  | 85  | 81  | 77  | 81  | 78  | 75  | 72  |
| 2   | 89  | 77  | 67  | 58  | 86  | 75  | 65  | 58  | 71  | 63  | 56  | 67  | 60  | 55  | 64  | 58  | 53  | 51  |
| 3   | 78  | 63  | 51  | 42  | 75  | 61  | 50  | 42  | 58  | 48  | 41  | 54  | 46  | 40  | 52  | 45  | 39  | 36  |
| 4   | 69  | 52  | 41  | 31  | 66  | 51  | 40  | 31  | 48  | 38  | 31  | 45  | 37  | 30  | 43  | 36  | 29  | 27  |
| 5   | 62  | 45  | 33  | 24  | 59  | 44  | 32  | 24  | 41  | 31  | 24  | 39  | 30  | 23  | 37  | 29  | 23  | 20  |
| 6   | 56  | 39  | 28  | 19  | 54  | 38  | 27  | 19  | 36  | 26  | 19  | 34  | 25  | 19  | 32  | 24  | 18  | 16  |
| 7   | 51  | 34  | 24  | 16  | 49  | 34  | 23  | 16  | 32  | 22  | 16  | 30  | 22  | 15  | 29  | 21  | 15  | 13  |
| 8   | 47  | 31  | 20  | 13  | 45  | 30  | 20  | 13  | 29  | 20  | 13  | 27  | 19  | 13  | 26  | 18  | 13  | 10  |
| 9   | 44  | 28  | 18  | 11  | 42  | 27  | 18  | 11  | 26  | 17  | 11  | 25  | 17  | 11  | 23  | 16  | 11  | 9   |
| 10  | 41  | 25  | 16  | 10  | 39  | 25  | 16  | 10  | 24  | 15  | 10  | 23  | 15  | 10  | 22  | 15  | 10  | 7   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 10721  | 10721  | 10721  |
| 5°  | 11065  | 11065  | 11022  |
| 10° | 12049  | 12027  | 11918  |
| 15° | 13672  | 13739  | 13537  |
| 20° | 15825  | 15963  | 15687  |
| 25° | 18220  | 18506  | 17958  |
| 30° | 20864  | 21339  | 20616  |
| 35° | 24539  | 25199  | 24329  |
| 40° | 29994  | 31375  | 29994  |
| 45° | 39615  | 42183  | 39767  |
| 50° | 53566  | 59114  | 54306  |
| 55° | 73218  | 82262  | 73634  |
| 60° | 102019 | 113431 | 102408 |
| 65° | 140696 | 158801 | 143151 |
| 70° | 165321 | 212403 | 176571 |
| 75° | 181887 | 220805 | 191994 |
| 80° | 91987  | 160942 | 94720  |
| 85° | 11904  | 43642  | 9181   |



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CATALOG NUMBER: TLM-E05-LED-E1-5WQ

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 83.0    | 0.5       |
| 10°-20°   | 293.1   | 1.8       |
| 20°-30°   | 593.5   | 3.7       |
| 30°-40°   | 995.1   | 6.3       |
| 40°-50°   | 1755.3  | 11.0      |
| 50°-60°   | 3095.4  | 19.4      |
| 60°-70°   | 4725.7  | 29.7      |
| 70°-80°   | 3948.8  | 24.8      |
| 80°-90°   | 429.1   | 2.7       |
| 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°-30°    | 969.7   | 6.1       |
| 0°-40°    | 1964.8  | 12.3      |
| 0°-60°    | 6815.4  | 42.8      |
| 0°-90°    | 15919.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 15919.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 827  | 827   | 827  | 827   | 827  |      |
| 5°  | 850  | 852   | 850  | 848   | 847  | 83   |
| 15° | 1018 | 1023  | 1023 | 1014  | 1008 | 293  |
| 25° | 1273 | 1280  | 1293 | 1271  | 1255 | 592  |
| 35° | 1550 | 1560  | 1592 | 1558  | 1537 | 985  |
| 45° | 2160 | 2209  | 2300 | 2229  | 2168 | 1697 |
| 55° | 3238 | 3392  | 3638 | 3419  | 3257 | 2934 |
| 65° | 4585 | 4832  | 5175 | 4871  | 4665 | 4389 |
| 75° | 3630 | 3834  | 4407 | 4079  | 3832 | 3496 |
| 85° | 80   | 133   | 293  | 116   | 62   | 263  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P147880

CATALOG NUMBER: TLM-E05-LED-E1-5WQ

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  |
| 2.5°  | 833.3  | 835.0  | 833.3  | 833.3  | 833.3  | 833.3  | 833.3  | 831.7  | 831.7  | 831.7  | 833.3  |
| 5°    | 850.0  | 851.7  | 850.0  | 851.7  | 851.7  | 851.7  | 851.7  | 850.0  | 850.0  | 850.0  | 850.0  |
| 7.5°  | 876.7  | 876.7  | 876.7  | 878.3  | 876.7  | 876.7  | 878.3  | 876.7  | 876.7  | 876.7  | 876.7  |
| 10°   | 915.0  | 913.3  | 913.3  | 913.3  | 913.3  | 913.3  | 915.0  | 915.0  | 915.0  | 913.3  | 913.3  |
| 12.5° | 961.7  | 960.0  | 961.7  | 961.7  | 963.3  | 963.3  | 963.3  | 963.3  | 963.3  | 963.3  | 961.7  |
| 15°   | 1018.3 | 1018.3 | 1018.3 | 1020.0 | 1023.3 | 1023.3 | 1021.7 | 1023.3 | 1023.3 | 1023.3 | 1023.3 |
| 17.5° | 1081.7 | 1085.0 | 1081.7 | 1083.3 | 1085.0 | 1083.3 | 1086.7 | 1088.3 | 1090.0 | 1088.3 | 1083.3 |
| 20°   | 1146.7 | 1148.3 | 1148.3 | 1148.3 | 1148.3 | 1151.7 | 1153.3 | 1153.3 | 1158.3 | 1156.7 | 1155.0 |
| 22.5° | 1208.3 | 1211.7 | 1211.7 | 1213.3 | 1213.3 | 1218.3 | 1218.3 | 1218.3 | 1221.7 | 1225.0 | 1221.7 |
| 25°   | 1273.3 | 1271.7 | 1271.7 | 1275.0 | 1276.7 | 1283.3 | 1283.3 | 1286.7 | 1291.7 | 1293.3 | 1290.0 |
| 27.5° | 1331.7 | 1330.0 | 1330.0 | 1335.0 | 1336.7 | 1345.0 | 1345.0 | 1351.7 | 1355.0 | 1356.7 | 1353.3 |
| 30°   | 1393.3 | 1393.3 | 1391.7 | 1396.7 | 1401.7 | 1408.3 | 1411.7 | 1418.3 | 1423.3 | 1425.0 | 1421.7 |
| 32.5° | 1466.7 | 1463.3 | 1465.0 | 1468.3 | 1471.7 | 1478.3 | 1483.3 | 1491.7 | 1498.3 | 1500.0 | 1496.7 |
| 35°   | 1550.0 | 1545.0 | 1546.7 | 1550.0 | 1555.0 | 1565.0 | 1573.3 | 1578.3 | 1588.3 | 1591.7 | 1585.0 |
| 37.5° | 1641.7 | 1643.3 | 1641.7 | 1650.0 | 1658.3 | 1670.0 | 1680.0 | 1686.7 | 1696.7 | 1701.7 | 1696.7 |
| 40°   | 1771.7 | 1766.7 | 1771.7 | 1780.0 | 1793.3 | 1808.3 | 1828.3 | 1833.3 | 1843.3 | 1853.3 | 1841.7 |
| 42.5° | 1940.0 | 1936.7 | 1948.3 | 1955.0 | 1970.0 | 1986.7 | 2011.7 | 2025.0 | 2040.0 | 2046.7 | 2036.7 |
| 45°   | 2160.0 | 2160.0 | 2173.3 | 2175.0 | 2198.3 | 2220.0 | 2255.0 | 2271.7 | 2300.0 | 2300.0 | 2300.0 |
| 47.5° | 2403.3 | 2413.3 | 2421.7 | 2438.3 | 2455.0 | 2495.0 | 2530.0 | 2566.7 | 2593.3 | 2596.7 | 2591.7 |
| 50°   | 2655.0 | 2665.0 | 2690.0 | 2713.3 | 2750.0 | 2800.0 | 2838.3 | 2886.7 | 2910.0 | 2930.0 | 2923.3 |
| 52.5° | 2933.3 | 2935.0 | 2965.0 | 2995.0 | 3048.3 | 3103.3 | 3165.0 | 3215.0 | 3256.7 | 3275.0 | 3260.0 |
| 55°   | 3238.3 | 3241.7 | 3268.3 | 3300.0 | 3360.0 | 3423.3 | 3500.0 | 3551.7 | 3605.0 | 3638.3 | 3613.3 |
| 57.5° | 3568.3 | 3570.0 | 3596.7 | 3635.0 | 3706.7 | 3770.0 | 3843.3 | 3916.7 | 3966.7 | 3996.7 | 3980.0 |
| 60°   | 3933.3 | 3941.7 | 3961.7 | 4010.0 | 4078.3 | 4145.0 | 4218.3 | 4283.3 | 4341.7 | 4373.3 | 4356.7 |
| 62.5° | 4323.3 | 4331.7 | 4360.0 | 4398.3 | 4458.3 | 4531.7 | 4601.7 | 4685.0 | 4733.3 | 4768.3 | 4743.3 |
| 65°   | 4585.0 | 4600.0 | 4645.0 | 4696.7 | 4785.0 | 4880.0 | 4961.7 | 5075.0 | 5133.3 | 5175.0 | 5151.7 |
| 67.5° | 4601.7 | 4610.0 | 4665.0 | 4743.3 | 4861.7 | 5005.0 | 5171.7 | 5348.3 | 5463.3 | 5518.3 | 5478.3 |
| 69°   | 4488.3 | 4500.0 | 4553.3 | 4641.7 | 4773.3 | 4940.0 | 5138.3 | 5358.3 | 5535.0 | 5616.7 | 5578.3 |
| 70°   | 4360.0 | 4385.0 | 4443.3 | 4540.0 | 4668.3 | 4843.3 | 5048.3 | 5283.3 | 5490.0 | 5601.7 | 5573.3 |
| 72.5° | 4090.0 | 4096.7 | 4135.0 | 4211.7 | 4310.0 | 4455.0 | 4648.3 | 4870.0 | 5066.7 | 5226.7 | 5250.0 |
| 75°   | 3630.0 | 3651.7 | 3680.0 | 3731.7 | 3781.7 | 3886.7 | 4016.7 | 4168.3 | 4283.3 | 4406.7 | 4411.7 |
| 77.5° | 2743.3 | 2808.3 | 2830.0 | 2841.7 | 2863.3 | 2946.7 | 3060.0 | 3191.7 | 3286.7 | 3306.7 | 3303.3 |
| 80°   | 1231.7 | 1318.3 | 1338.3 | 1433.3 | 1491.7 | 1630.0 | 1803.3 | 2005.0 | 2140.0 | 2155.0 | 2118.3 |
| 82.5° | 241.7  | 258.3  | 301.7  | 376.7  | 513.3  | 595.0  | 708.3  | 850.0  | 980.0  | 1055.0 | 1010.0 |
| 85°   | 80.0   | 85.0   | 98.3   | 108.3  | 125.0  | 141.7  | 171.7  | 213.3  | 265.0  | 293.3  | 261.7  |
| 87.5° | 31.7   | 31.7   | 36.7   | 40.0   | 43.3   | 43.3   | 43.3   | 40.0   | 38.3   | 31.7   | 28.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  | 826.7  |
| 2.5°  | 831.7  | 831.7  | 831.7  | 831.7  | 831.7  | 831.7  | 831.7  | 831.7  |
| 5°    | 850.0  | 848.3  | 848.3  | 846.7  | 846.7  | 846.7  | 846.7  | 846.7  |
| 7.5°  | 875.0  | 873.3  | 871.7  | 873.3  | 871.7  | 871.7  | 871.7  | 871.7  |
| 10°   | 913.3  | 910.0  | 908.3  | 906.7  | 906.7  | 906.7  | 905.0  | 905.0  |
| 12.5° | 958.3  | 958.3  | 956.7  | 955.0  | 951.7  | 953.3  | 951.7  | 948.3  |
| 15°   | 1020.0 | 1016.7 | 1015.0 | 1013.3 | 1010.0 | 1010.0 | 1010.0 | 1008.3 |
| 17.5° | 1081.7 | 1078.3 | 1078.3 | 1073.3 | 1071.7 | 1071.7 | 1071.7 | 1073.3 |
| 20°   | 1150.0 | 1145.0 | 1141.7 | 1138.3 | 1135.0 | 1136.7 | 1133.3 | 1136.7 |
| 22.5° | 1218.3 | 1211.7 | 1208.3 | 1203.3 | 1198.3 | 1198.3 | 1196.7 | 1193.3 |
| 25°   | 1285.0 | 1276.7 | 1273.3 | 1268.3 | 1261.7 | 1261.7 | 1258.3 | 1255.0 |
| 27.5° | 1348.3 | 1340.0 | 1336.7 | 1326.7 | 1320.0 | 1318.3 | 1315.0 | 1313.3 |
| 30°   | 1418.3 | 1408.3 | 1403.3 | 1393.3 | 1383.3 | 1381.7 | 1376.7 | 1376.7 |
| 32.5° | 1491.7 | 1481.7 | 1478.3 | 1463.3 | 1455.0 | 1455.0 | 1451.7 | 1448.3 |
| 35°   | 1583.3 | 1568.3 | 1565.0 | 1550.0 | 1538.3 | 1538.3 | 1535.0 | 1536.7 |
| 37.5° | 1691.7 | 1680.0 | 1668.3 | 1656.7 | 1643.3 | 1641.7 | 1638.3 | 1635.0 |
| 40°   | 1836.7 | 1823.3 | 1810.0 | 1793.3 | 1781.7 | 1778.3 | 1773.3 | 1771.7 |
| 42.5° | 2030.0 | 2016.7 | 1990.0 | 1976.7 | 1965.0 | 1955.0 | 1953.3 | 1951.7 |
| 45°   | 2276.7 | 2260.0 | 2241.7 | 2216.7 | 2201.7 | 2180.0 | 2176.7 | 2168.3 |
| 47.5° | 2573.3 | 2541.7 | 2510.0 | 2488.3 | 2465.0 | 2440.0 | 2435.0 | 2421.7 |
| 50°   | 2888.3 | 2863.3 | 2810.0 | 2775.0 | 2738.3 | 2713.3 | 2696.7 | 2691.7 |
| 52.5° | 3226.7 | 3180.0 | 3126.7 | 3080.0 | 3026.7 | 2993.3 | 2963.3 | 2955.0 |
| 55°   | 3580.0 | 3513.3 | 3446.7 | 3391.7 | 3338.3 | 3298.3 | 3270.0 | 3256.7 |
| 57.5° | 3933.3 | 3860.0 | 3786.7 | 3726.7 | 3681.7 | 3630.0 | 3601.7 | 3595.0 |
| 60°   | 4301.7 | 4231.7 | 4156.7 | 4096.7 | 4041.7 | 3996.7 | 3980.0 | 3948.3 |
| 62.5° | 4691.7 | 4618.3 | 4548.3 | 4490.0 | 4420.0 | 4388.3 | 4360.0 | 4341.7 |
| 65°   | 5075.0 | 4990.0 | 4901.7 | 4840.0 | 4770.0 | 4725.0 | 4690.0 | 4665.0 |
| 67.5° | 5371.7 | 5243.3 | 5125.0 | 5021.7 | 4926.7 | 4856.7 | 4811.7 | 4788.3 |
| 69°   | 5455.0 | 5295.0 | 5143.3 | 5008.3 | 4896.7 | 4818.3 | 4768.3 | 4745.0 |
| 70°   | 5445.0 | 5268.3 | 5101.7 | 4953.3 | 4831.7 | 4748.3 | 4700.0 | 4656.7 |
| 72.5° | 5136.7 | 4975.0 | 4790.0 | 4628.3 | 4518.3 | 4438.3 | 4390.0 | 4366.7 |
| 75°   | 4383.3 | 4275.0 | 4141.7 | 4016.7 | 3936.7 | 3890.0 | 3830.0 | 3831.7 |
| 77.5° | 3191.7 | 3195.0 | 3105.0 | 2976.7 | 2886.7 | 2870.0 | 2843.3 | 2816.7 |
| 80°   | 1980.0 | 1821.7 | 1718.3 | 1580.0 | 1478.3 | 1390.0 | 1351.7 | 1268.3 |
| 82.5° | 913.3  | 713.3  | 553.3  | 418.3  | 321.7  | 251.7  | 220.0  | 180.0  |
| 85°   | 203.3  | 155.0  | 128.3  | 103.3  | 88.3   | 81.7   | 66.7   | 61.7   |
| 87.5° | 28.3   | 25.0   | 23.3   | 21.7   | 18.3   | 13.3   | 10.0   | 8.3    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)