

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: FAIL-SAFE

Report Number: P

Luminaire Tested: **4APN-X-34L950-UNV-ASY**

Issue Date: 06/06/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 06/06/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-X-34L950-UNV-ASY  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/  
ASYMMETRIC Lens  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

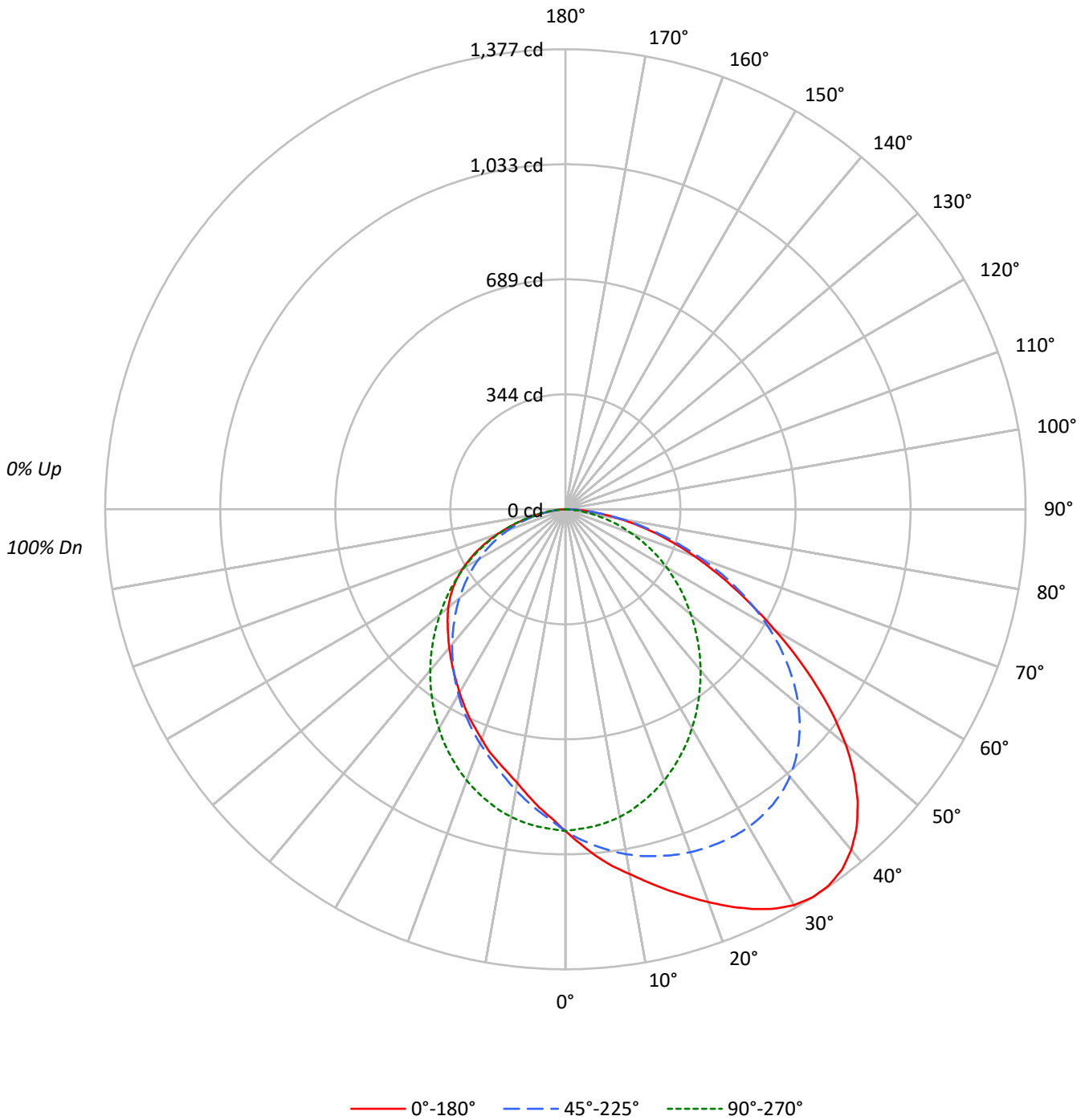
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2982.5 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.53 / 1.18 / 1.46  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 36.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P  
CATALOG NUMBER: 4APN-X-34L950-UNV-ASY

### Luminous Intensity Polar Plot





TEST NUMBER: P  
 CATALOG NUMBER: 4APN-X-34L950-UNV-ASY

**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  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 86  | 86  | 86  | 84  |
| 2   | 99  | 90  | 83  | 78  | 96  | 88  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 72  | 72  | 72  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 61  | 69  | 64  | 60  | 60  | 60  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 69  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 62  | 56  | 52  | 52  | 52  | 52  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 45  | 45  | 45  | 43  |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 39  | 39  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 35  | 35  | 35  | 33  |
| 8   | 60  | 46  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 31  | 31  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 28  | 28  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 36  | 30  | 25  | 25  | 25  | 25  | 23  |

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

|     | 0°    | 90°  | 180° |
|-----|-------|------|------|
| 0°  | 9270  | 9270 | 9270 |
| 5°  | 10059 | 9214 | 8659 |
| 10° | 10837 | 9142 | 8125 |
| 15° | 11755 | 9009 | 7790 |
| 20° | 12817 | 8851 | 7502 |
| 25° | 14021 | 8644 | 7269 |
| 30° | 15209 | 8416 | 7035 |
| 35° | 16154 | 8168 | 6884 |
| 40° | 16726 | 7909 | 6794 |
| 45° | 16843 | 7635 | 6779 |
| 50° | 16402 | 7343 | 6852 |
| 55° | 15358 | 7081 | 6895 |
| 60° | 13960 | 6758 | 6828 |
| 65° | 12657 | 6392 | 6563 |
| 70° | 11586 | 5925 | 6027 |
| 75° | 10512 | 5330 | 5182 |
| 80° | 9192  | 4452 | 3992 |
| 85° | 7732  | 3237 | 2971 |



TEST NUMBER: P  
 CATALOG NUMBER: 4APN-X-34L950-UNV-ASY

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.4   | 3.1       |
| 10°-20°   | 266.0  | 8.9       |
| 20°-30°   | 416.7  | 14.0      |
| 30°-40°   | 522.4  | 17.5      |
| 40°-50°   | 556.1  | 18.6      |
| 50°-60°   | 502.0  | 16.8      |
| 60°-70°   | 371.6  | 12.5      |
| 70°-80°   | 203.9  | 6.8       |
| 80°-90°   | 52.3   | 1.8       |
| 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°    | 774.1  | 26.0      |
| 0°-40°    | 1296.4 | 43.5      |
| 0°-60°    | 2354.6 | 78.9      |
| 0°-90°    | 2982.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2982.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 963  | 963  | 963 | 963  | 963  |      |
| 5°  | 1041 | 1010 | 953 | 908  | 896  | 101  |
| 15° | 1179 | 1074 | 904 | 798  | 782  | 336  |
| 25° | 1320 | 1100 | 814 | 694  | 684  | 611  |
| 35° | 1374 | 1080 | 695 | 584  | 586  | 857  |
| 45° | 1237 | 987  | 561 | 470  | 498  | 948  |
| 55° | 915  | 812  | 422 | 357  | 411  | 816  |
| 65° | 556  | 572  | 281 | 242  | 288  | 554  |
| 75° | 283  | 300  | 143 | 124  | 139  | 300  |
| 85° | 70   | 69   | 29  | 27   | 27   | 83   |
| 90° | 0    | 0    | 0   | 0    | 0    |      |



TEST NUMBER: P

CATALOG NUMBER: 4APN-X-34L950-UNV-ASY

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°   | 85°   | 90°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 0°    | 962.9  | 962.9  | 962.9  | 962.9  | 962.9  | 962.9  | 962.9  | 962.9  | 962.9 | 962.9 | 962.9 |
| 2.5°  | 1001.7 | 999.7  | 997.3  | 996.5  | 993.0  | 988.2  | 983.9  | 983.9  | 978.7 | 966.4 | 957.7 |
| 5°    | 1040.9 | 1037.7 | 1031.7 | 1027.0 | 1019.5 | 1010.4 | 1001.3 | 995.7  | 983.5 | 964.9 | 953.4 |
| 7.5°  | 1076.9 | 1072.9 | 1065.4 | 1056.3 | 1044.0 | 1030.6 | 1015.5 | 1003.7 | 985.0 | 960.1 | 945.5 |
| 10°   | 1108.5 | 1105.0 | 1095.9 | 1084.8 | 1067.4 | 1048.4 | 1026.2 | 1008.4 | 983.1 | 952.2 | 935.2 |
| 12.5° | 1143.4 | 1139.8 | 1127.1 | 1112.1 | 1088.3 | 1063.0 | 1033.7 | 1009.2 | 977.9 | 940.7 | 921.3 |
| 15°   | 1179.4 | 1174.6 | 1160.4 | 1140.2 | 1108.5 | 1074.5 | 1038.5 | 1006.8 | 969.6 | 926.9 | 903.9 |
| 17.5° | 1215.0 | 1210.2 | 1192.4 | 1166.7 | 1127.1 | 1084.8 | 1040.5 | 1001.3 | 957.7 | 909.9 | 884.9 |
| 20°   | 1251.0 | 1246.3 | 1223.7 | 1191.2 | 1143.4 | 1092.3 | 1040.1 | 993.0  | 943.5 | 890.5 | 863.9 |
| 22.5° | 1287.0 | 1281.5 | 1254.2 | 1214.6 | 1156.8 | 1097.4 | 1035.7 | 981.5  | 925.7 | 868.3 | 839.8 |
| 25°   | 1319.9 | 1314.3 | 1284.2 | 1237.5 | 1171.1 | 1099.8 | 1028.2 | 965.7  | 905.9 | 843.8 | 813.7 |
| 27.5° | 1348.4 | 1341.6 | 1310.4 | 1258.9 | 1183.3 | 1100.6 | 1018.3 | 947.8  | 882.9 | 817.2 | 786.8 |
| 30°   | 1368.1 | 1362.2 | 1329.0 | 1274.0 | 1190.4 | 1097.8 | 1005.6 | 926.9  | 856.4 | 788.8 | 757.1 |
| 32.5° | 1376.9 | 1371.7 | 1338.9 | 1281.1 | 1191.6 | 1090.7 | 990.2  | 903.5  | 828.7 | 758.7 | 726.6 |
| 35°   | 1374.5 | 1369.3 | 1338.1 | 1279.9 | 1188.1 | 1080.4 | 970.8  | 877.0  | 799.0 | 727.4 | 695.0 |
| 37.5° | 1359.4 | 1353.5 | 1325.0 | 1269.2 | 1177.8 | 1065.4 | 948.6  | 848.1  | 767.0 | 695.4 | 662.5 |
| 40°   | 1330.9 | 1325.0 | 1300.5 | 1249.0 | 1160.4 | 1045.2 | 923.3  | 817.2  | 734.1 | 661.7 | 629.3 |
| 42.5° | 1290.2 | 1283.8 | 1264.5 | 1217.4 | 1135.4 | 1018.7 | 894.4  | 784.4  | 699.3 | 629.3 | 595.2 |
| 45°   | 1237.1 | 1230.8 | 1217.8 | 1177.8 | 1103.0 | 987.4  | 861.6  | 748.8  | 662.9 | 592.5 | 560.8 |
| 47.5° | 1171.5 | 1165.9 | 1159.6 | 1128.7 | 1063.0 | 951.4  | 824.8  | 710.8  | 624.9 | 558.0 | 525.6 |
| 50°   | 1095.1 | 1089.5 | 1091.5 | 1070.5 | 1016.7 | 909.9  | 784.4  | 670.8  | 585.7 | 519.6 | 490.3 |
| 52.5° | 1008.4 | 1004.0 | 1013.5 | 1004.4 | 962.9  | 863.6  | 741.3  | 629.7  | 545.8 | 483.2 | 455.1 |
| 55°   | 915.0  | 910.3  | 928.5  | 931.2  | 902.7  | 812.5  | 692.2  | 586.9  | 505.4 | 447.6 | 421.9 |
| 57.5° | 818.8  | 814.9  | 838.2  | 851.3  | 837.0  | 757.5  | 642.7  | 543.0  | 463.8 | 410.4 | 384.7 |
| 60°   | 725.0  | 721.9  | 746.4  | 767.8  | 766.2  | 699.3  | 591.3  | 495.5  | 422.3 | 372.8 | 351.0 |
| 62.5° | 636.8  | 633.2  | 657.8  | 683.1  | 692.2  | 637.2  | 540.2  | 448.8  | 380.7 | 335.2 | 315.8 |
| 65°   | 555.6  | 552.1  | 573.1  | 599.2  | 615.8  | 572.3  | 485.2  | 400.5  | 338.8 | 297.2 | 280.6 |
| 67.5° | 481.2  | 481.2  | 494.3  | 518.4  | 538.6  | 505.8  | 429.0  | 354.6  | 295.6 | 262.0 | 245.4 |
| 70°   | 411.6  | 411.2  | 420.7  | 437.7  | 461.1  | 434.5  | 372.0  | 306.3  | 254.9 | 225.2 | 210.5 |
| 72.5° | 345.5  | 348.3  | 351.8  | 364.9  | 389.4  | 366.5  | 315.4  | 258.8  | 214.9 | 188.8 | 176.5 |
| 75°   | 282.6  | 282.2  | 287.3  | 298.8  | 316.6  | 299.6  | 258.8  | 212.5  | 175.3 | 154.0 | 143.3 |
| 77.5° | 222.4  | 222.0  | 226.4  | 233.1  | 248.1  | 234.7  | 204.2  | 169.8  | 136.5 | 118.7 | 111.2 |
| 80°   | 165.8  | 165.8  | 169.8  | 173.3  | 184.4  | 173.7  | 152.4  | 127.0  | 100.1 | 86.3  | 80.3  |
| 82.5° | 115.2  | 117.5  | 116.0  | 120.7  | 127.0  | 117.9  | 104.5  | 87.1   | 66.5  | 57.0  | 53.0  |
| 85°   | 70.0   | 72.0   | 70.0   | 74.0   | 76.8   | 68.9   | 62.1   | 51.8   | 38.4  | 32.1  | 29.3  |
| 87.5° | 36.0   | 35.6   | 35.2   | 37.2   | 38.0   | 33.2   | 29.3   | 24.9   | 17.0  | 13.1  | 11.1  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0   |



TEST NUMBER: P  
 CATALOG NUMBER: 4APN-X-34L950-UNV-ASY

**CANDELA DISTRIBUTION (continued):**

|       | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 | 962.9 |
| 2.5°  | 952.6 | 955.0 | 951.4 | 938.3 | 933.2 | 927.7 | 925.3 | 922.9 | 927.3 | 926.1 |
| 5°    | 944.7 | 941.9 | 932.8 | 916.2 | 907.5 | 898.4 | 894.0 | 891.3 | 897.2 | 896.0 |
| 7.5°  | 934.0 | 926.1 | 912.6 | 892.4 | 881.4 | 869.1 | 863.2 | 859.6 | 863.6 | 862.8 |
| 10°   | 920.5 | 907.5 | 890.9 | 866.7 | 853.7 | 840.2 | 833.5 | 828.3 | 831.5 | 831.1 |
| 12.5° | 903.5 | 886.5 | 866.3 | 839.0 | 825.6 | 811.7 | 805.8 | 802.2 | 806.2 | 805.0 |
| 15°   | 884.5 | 863.9 | 840.6 | 812.9 | 798.3 | 785.6 | 781.2 | 778.5 | 781.6 | 781.6 |
| 17.5° | 863.6 | 839.4 | 813.7 | 785.6 | 771.7 | 761.8 | 757.5 | 755.5 | 757.1 | 759.5 |
| 20°   | 840.2 | 813.3 | 785.6 | 758.3 | 746.4 | 736.1 | 732.2 | 730.2 | 733.7 | 732.2 |
| 22.5° | 814.5 | 786.0 | 757.1 | 731.4 | 720.7 | 710.4 | 706.4 | 705.2 | 709.2 | 707.6 |
| 25°   | 787.2 | 756.3 | 727.8 | 704.5 | 693.8 | 685.1 | 681.5 | 680.3 | 682.3 | 684.3 |
| 27.5° | 761.4 | 726.6 | 698.5 | 677.5 | 668.0 | 659.7 | 656.6 | 654.6 | 656.2 | 658.5 |
| 30°   | 730.2 | 696.5 | 668.8 | 649.4 | 640.3 | 632.4 | 630.1 | 628.5 | 630.8 | 632.8 |
| 32.5° | 700.9 | 666.9 | 639.2 | 620.2 | 612.2 | 604.7 | 604.3 | 603.5 | 606.3 | 608.7 |
| 35°   | 669.2 | 636.0 | 609.1 | 591.3 | 583.7 | 577.4 | 578.6 | 579.8 | 583.0 | 585.7 |
| 37.5° | 637.2 | 604.7 | 579.0 | 562.8 | 555.6 | 550.5 | 554.1 | 555.6 | 560.0 | 562.8 |
| 40°   | 604.7 | 572.3 | 548.5 | 533.9 | 526.8 | 524.4 | 529.5 | 533.1 | 538.2 | 540.6 |
| 42.5° | 571.5 | 541.4 | 517.7 | 504.2 | 498.3 | 498.3 | 505.0 | 510.5 | 516.5 | 518.8 |
| 45°   | 538.2 | 508.9 | 486.4 | 474.1 | 469.8 | 472.9 | 480.8 | 488.0 | 495.5 | 497.9 |
| 47.5° | 504.6 | 476.1 | 455.5 | 444.4 | 442.1 | 446.8 | 456.7 | 466.2 | 474.9 | 478.1 |
| 50°   | 471.0 | 445.2 | 424.7 | 414.4 | 414.4 | 420.3 | 433.0 | 444.8 | 454.3 | 457.5 |
| 52.5° | 437.3 | 412.8 | 391.8 | 384.3 | 385.9 | 394.2 | 408.8 | 421.1 | 431.8 | 434.9 |
| 55°   | 403.3 | 379.1 | 360.9 | 354.6 | 357.4 | 367.7 | 382.7 | 396.9 | 407.2 | 410.8 |
| 57.5° | 369.6 | 346.7 | 330.1 | 324.9 | 328.9 | 340.4 | 357.8 | 370.0 | 380.7 | 383.9 |
| 60°   | 335.6 | 312.3 | 299.2 | 295.2 | 300.4 | 312.3 | 330.1 | 341.5 | 351.4 | 354.6 |
| 62.5° | 302.0 | 280.2 | 268.7 | 265.2 | 271.1 | 283.8 | 301.2 | 311.5 | 319.0 | 322.1 |
| 65°   | 267.9 | 248.5 | 237.9 | 235.5 | 241.8 | 254.1 | 270.7 | 279.4 | 284.9 | 288.1 |
| 67.5° | 234.3 | 217.7 | 207.8 | 205.8 | 212.5 | 223.6 | 239.0 | 243.8 | 248.9 | 252.1 |
| 70°   | 201.0 | 186.0 | 177.7 | 176.5 | 182.4 | 193.1 | 206.2 | 208.6 | 211.3 | 214.1 |
| 72.5° | 168.2 | 156.3 | 148.0 | 147.6 | 153.2 | 161.9 | 172.6 | 172.9 | 173.7 | 176.5 |
| 75°   | 136.5 | 125.9 | 119.5 | 120.7 | 123.9 | 131.0 | 139.3 | 136.9 | 137.3 | 139.3 |
| 77.5° | 106.1 | 97.4  | 93.0  | 93.8  | 96.2  | 101.3 | 106.9 | 104.1 | 102.5 | 104.5 |
| 80°   | 76.4  | 68.9  | 67.3  | 67.7  | 69.3  | 72.8  | 76.0  | 73.6  | 70.4  | 72.0  |
| 82.5° | 50.3  | 45.5  | 44.7  | 45.1  | 46.3  | 48.3  | 49.1  | 45.5  | 44.7  | 45.9  |
| 85°   | 27.7  | 25.7  | 25.7  | 26.9  | 27.3  | 27.7  | 27.7  | 25.7  | 26.1  | 26.9  |
| 87.5° | 11.1  | 11.1  | 12.3  | 13.5  | 12.7  | 11.1  | 9.5   | 6.3   | 6.3   | 7.5   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)