

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1341542

Luminaire Tested: P3A09R309835DE010 E3A451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1341542  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A09R309835DE010 E3A451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 98CRI , E3A451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

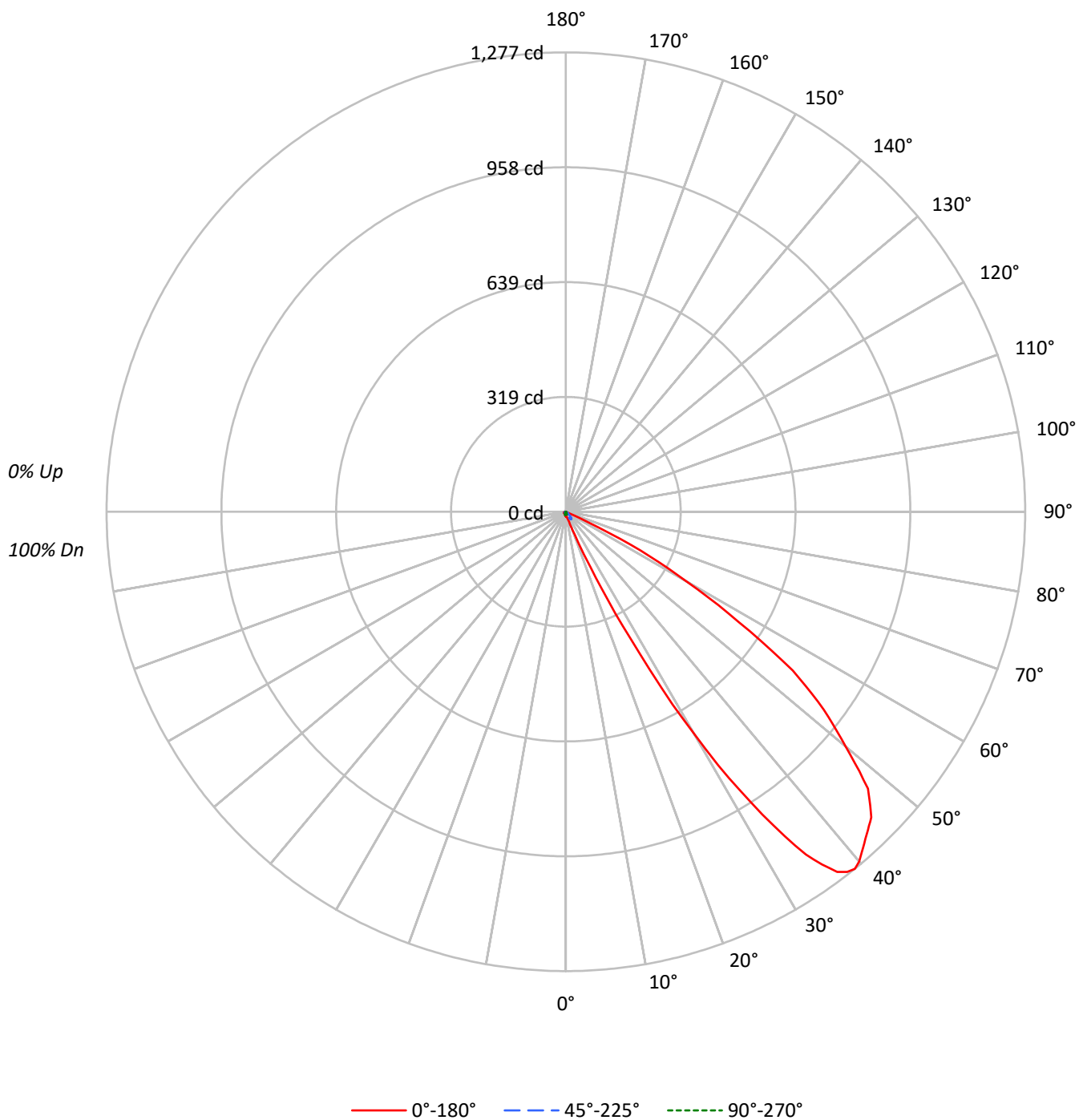
Lumens per Lamp: N/A  
Luminaire Lumens: 332.0 lumens  
Efficiency: N/A  
Efficacy: 30.2 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11  
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

TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 2829   | 2829 | 2829 | 2829 | 2829 |
| 5°  | 3016   | 2950 | 2773 | 2531 | 2465 |
| 10° | 3295   | 2917 | 2427 | 2182 | 2115 |
| 15° | 4835   | 2929 | 2020 | 1839 | 1907 |
| 20° | 12134  | 3197 | 1563 | 1563 | 1773 |
| 25° | 56374  | 3992 | 1210 | 1428 | 1621 |
| 30° | 179445 | 5520 | 912  | 1342 | 1621 |
| 35° | 311353 | 6746 | 750  | 1285 | 1660 |
| 40° | 363138 | 6727 | 573  | 1288 | 1689 |
| 45° | 372411 | 4776 | 620  | 1395 | 1830 |
| 50° | 346326 | 2661 | 478  | 1433 | 2115 |
| 55° | 294336 | 1376 | 535  | 1606 | 2370 |
| 60° | 169986 | 351  | 614  | 1710 | 2588 |
| 65° | 34660  | 0    | 726  | 2024 | 2906 |
| 70° | 513    | 192  | 898  | 2308 | 3398 |
| 75° | 508    | 254  | 932  | 2372 | 4067 |
| 80° | 379    | 379  | 1389 | 2778 | 4546 |
| 85° | 0      | 755  | 2768 | 2768 | 5535 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 372411 cd/sqm

TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.2    | 0.3       |
| 10°-20°   | 3.3    | 1.0       |
| 20°-30°   | 19.1   | 5.8       |
| 30°-40°   | 89.4   | 26.9      |
| 40°-50°   | 126.5  | 38.1      |
| 50°-60°   | 77.8   | 23.4      |
| 60°-70°   | 11.8   | 3.6       |
| 70°-80°   | 1.9    | 0.6       |
| 80°-90°   | 0.9    | 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°-30°    | 23.7   | 7.1       |
| 0°-40°    | 113.1  | 34.1      |
| 0°-60°    | 317.4  | 95.6      |
| 0°-90°    | 332.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 332.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 13   | 13  | 13  | 13   | 13   |      |
| 5°  | 14   | 13  | 13  | 12   | 11   | 1    |
| 15° | 21   | 13  | 9   | 8    | 8    | 8    |
| 25° | 233  | 16  | 5   | 6    | 7    | 143  |
| 35° | 1163 | 25  | 3   | 5    | 6    | 698  |
| 45° | 1201 | 15  | 2   | 4    | 6    | 910  |
| 55° | 770  | 4   | 1   | 4    | 6    | 655  |
| 65° | 67   | 0   | 1   | 4    | 6    | 121  |
| 75° | 1    | 0   | 1   | 3    | 5    | 1    |
| 85° | 0    | 0   | 1   | 1    | 2    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°   | 22.5° | 45°  | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|-------|-------|------|-------|------|--------|------|
| 0°    | 12.9   | 12.9   | 12.9   | 12.9   | 12.9  | 12.9  | 12.9 | 12.9  | 12.9 | 12.9   | 12.9 |
| 2.5°  | 13.1   | 13.1   | 13.4   | 13.4   | 13.1  | 13.4  | 13.4 | 13.4  | 12.9 | 12.6   | 12.0 |
| 5°    | 13.7   | 13.7   | 13.7   | 14.0   | 13.7  | 13.7  | 13.4 | 13.1  | 12.6 | 11.7   | 11.5 |
| 7.5°  | 14.3   | 14.3   | 14.0   | 14.3   | 14.0  | 14.0  | 13.4 | 12.9  | 12.0 | 11.2   | 10.6 |
| 10°   | 14.8   | 14.8   | 14.5   | 14.5   | 14.3  | 14.3  | 13.1 | 12.3  | 10.9 | 10.1   | 9.8  |
| 12.5° | 16.5   | 16.5   | 16.2   | 15.9   | 15.4  | 15.1  | 12.9 | 11.5  | 9.8  | 8.9    | 8.7  |
| 15°   | 21.3   | 21.0   | 20.4   | 19.6   | 18.2  | 17.9  | 12.9 | 10.6  | 8.9  | 8.1    | 8.1  |
| 17.5° | 29.1   | 28.8   | 28.0   | 25.7   | 23.2  | 22.4  | 12.9 | 9.5   | 7.8  | 7.3    | 7.3  |
| 20°   | 52.0   | 49.8   | 45.6   | 40.0   | 34.1  | 31.0  | 13.7 | 8.4   | 6.7  | 6.4    | 6.7  |
| 21°   | 68.0   | 65.7   | 60.4   | 51.2   | 40.8  | 37.5  | 14.3 | 8.1   | 6.4  | 6.2    | 6.7  |
| 22°   | 92.6   | 90.1   | 79.1   | 66.6   | 51.7  | 45.9  | 14.5 | 7.6   | 5.9  | 5.9    | 6.4  |
| 23°   | 129.2  | 125.0  | 106.6  | 86.4   | 64.6  | 56.2  | 15.1 | 7.3   | 5.6  | 5.9    | 6.2  |
| 24°   | 169.2  | 165.6  | 144.6  | 114.4  | 82.5  | 70.5  | 15.7 | 7.0   | 5.3  | 5.3    | 5.9  |
| 25°   | 233.0  | 228.8  | 191.6  | 144.3  | 104.6 | 84.7  | 16.5 | 6.4   | 5.0  | 5.0    | 5.9  |
| 26°   | 315.5  | 296.2  | 246.7  | 186.0  | 128.9 | 106.3 | 17.3 | 6.2   | 4.8  | 5.0    | 5.6  |
| 27°   | 393.8  | 377.8  | 322.2  | 238.6  | 159.4 | 130.6 | 18.5 | 5.9   | 4.5  | 4.8    | 5.6  |
| 28°   | 496.7  | 474.3  | 404.1  | 301.8  | 200.8 | 158.0 | 19.6 | 5.6   | 4.2  | 4.8    | 5.3  |
| 29°   | 611.9  | 580.6  | 495.8  | 372.8  | 247.5 | 188.8 | 20.7 | 5.3   | 3.9  | 4.5    | 5.3  |
| 30°   | 708.7  | 679.3  | 594.6  | 457.0  | 301.2 | 229.3 | 21.8 | 5.0   | 3.6  | 4.5    | 5.3  |
| 31°   | 822.2  | 777.7  | 675.1  | 528.3  | 347.3 | 269.9 | 22.9 | 4.5   | 3.4  | 4.2    | 5.0  |
| 32°   | 914.2  | 883.2  | 774.1  | 608.8  | 408.0 | 314.6 | 23.8 | 4.2   | 3.4  | 4.2    | 5.0  |
| 33°   | 1003.2 | 961.5  | 856.0  | 686.0  | 462.8 | 360.5 | 24.6 | 3.9   | 3.1  | 3.9    | 5.0  |
| 34°   | 1088.2 | 1049.9 | 933.5  | 748.4  | 514.6 | 404.1 | 25.2 | 3.4   | 3.1  | 3.9    | 4.8  |
| 35°   | 1163.1 | 1118.7 | 1001.8 | 809.3  | 567.7 | 443.8 | 25.2 | 3.1   | 2.8  | 3.6    | 4.8  |
| 36°   | 1211.8 | 1179.9 | 1061.0 | 869.5  | 615.8 | 481.6 | 25.2 | 2.8   | 2.5  | 3.6    | 4.5  |
| 37°   | 1253.4 | 1216.3 | 1108.6 | 915.6  | 651.3 | 511.8 | 25.2 | 2.5   | 2.5  | 3.6    | 4.5  |
| 38°   | 1270.5 | 1238.6 | 1141.3 | 956.4  | 684.6 | 542.5 | 24.9 | 2.2   | 2.2  | 3.4    | 4.5  |
| 39°   | 1277.2 | 1248.7 | 1165.9 | 985.8  | 709.2 | 563.2 | 24.3 | 2.0   | 2.2  | 3.4    | 4.5  |
| 40°   | 1268.6 | 1247.0 | 1178.5 | 1004.8 | 728.8 | 578.3 | 23.5 | 1.7   | 2.0  | 3.4    | 4.5  |
| 42.5° | 1232.8 | 1218.5 | 1175.7 | 1023.8 | 745.6 | 589.5 | 20.4 | 1.1   | 2.0  | 3.1    | 4.5  |
| 45°   | 1200.9 | 1185.2 | 1147.5 | 1004.0 | 723.8 | 567.4 | 15.4 | 0.6   | 2.0  | 3.1    | 4.5  |
| 47.5° | 1139.1 | 1129.3 | 1099.6 | 953.4  | 675.9 | 517.7 | 10.9 | 0.3   | 1.7  | 2.8    | 4.2  |
| 50°   | 1015.2 | 1005.9 | 966.8  | 827.8  | 581.4 | 437.7 | 7.8  | 0.3   | 1.4  | 2.8    | 4.2  |
| 52.5° | 904.1  | 894.4  | 838.1  | 688.3  | 446.6 | 320.8 | 5.0  | 0.3   | 1.4  | 2.8    | 4.2  |
| 55°   | 769.9  | 752.9  | 679.0  | 522.4  | 316.6 | 215.1 | 3.6  | 0.3   | 1.4  | 2.5    | 4.2  |
| 57.5° | 570.0  | 545.1  | 479.1  | 356.3  | 182.3 | 116.6 | 2.0  | 0.3   | 1.4  | 2.5    | 4.2  |
| 60°   | 387.6  | 372.8  | 299.8  | 187.9  | 77.7  | 49.2  | 0.8  | 0.3   | 1.4  | 2.5    | 3.9  |
| 62.5° | 234.9  | 216.2  | 150.7  | 80.0   | 33.6  | 22.4  | 0.0  | 0.6   | 1.4  | 2.5    | 3.9  |
| 65°   | 66.8   | 59.3   | 39.4   | 18.2   | 9.5   | 7.3   | 0.0  | 0.6   | 1.4  | 2.5    | 3.9  |
| 67.5° | 2.2    | 2.2    | 2.2    | 2.0    | 1.4   | 1.4   | 0.3  | 0.6   | 1.4  | 2.5    | 3.6  |
| 70°   | 0.8    | 0.8    | 0.8    | 0.6    | 0.6   | 0.3   | 0.3  | 0.6   | 1.4  | 2.2    | 3.6  |
| 72.5° | 0.6    | 0.6    | 0.6    | 0.6    | 0.3   | 0.3   | 0.3  | 0.6   | 1.1  | 2.0    | 3.4  |
| 75°   | 0.6    | 0.6    | 0.6    | 0.3    | 0.3   | 0.3   | 0.3  | 0.8   | 1.1  | 2.0    | 2.8  |
| 77.5° | 0.6    | 0.6    | 0.6    | 0.3    | 0.3   | 0.3   | 0.3  | 0.8   | 1.1  | 1.7    | 2.8  |
| 80°   | 0.3    | 0.3    | 0.3    | 0.3    | 0.3   | 0.3   | 0.3  | 0.8   | 1.1  | 1.7    | 2.2  |



TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0   | 0.3 | 0.8   | 1.1 | 1.1    | 1.7  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.3 | 0.8   | 1.1 | 0.8    | 1.1  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.3 | 0.8   | 0.8 | 0.8    | 0.6  |
| 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: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 12.9   | 12.9 |
| 2.5°  | 12.0   | 12.0 |
| 5°    | 11.2   | 11.2 |
| 7.5°  | 10.3   | 10.3 |
| 10°   | 9.5    | 9.5  |
| 12.5° | 8.9    | 8.9  |
| 15°   | 8.1    | 8.4  |
| 17.5° | 7.6    | 7.8  |
| 20°   | 7.3    | 7.6  |
| 21°   | 7.3    | 7.6  |
| 22°   | 7.0    | 7.3  |
| 23°   | 7.0    | 7.3  |
| 24°   | 6.7    | 7.0  |
| 25°   | 6.4    | 6.7  |
| 26°   | 6.4    | 6.7  |
| 27°   | 6.4    | 6.7  |
| 28°   | 6.2    | 6.7  |
| 29°   | 6.2    | 6.4  |
| 30°   | 6.2    | 6.4  |
| 31°   | 5.9    | 6.4  |
| 32°   | 5.9    | 6.4  |
| 33°   | 5.9    | 6.2  |
| 34°   | 5.6    | 6.2  |
| 35°   | 5.6    | 6.2  |
| 36°   | 5.6    | 6.2  |
| 37°   | 5.6    | 5.9  |
| 38°   | 5.6    | 6.2  |
| 39°   | 5.6    | 5.9  |
| 40°   | 5.6    | 5.9  |
| 42.5° | 5.6    | 5.9  |
| 45°   | 5.6    | 5.9  |
| 47.5° | 5.6    | 6.2  |
| 50°   | 5.6    | 6.2  |
| 52.5° | 5.6    | 6.2  |
| 55°   | 5.6    | 6.2  |
| 57.5° | 5.6    | 5.9  |
| 60°   | 5.6    | 5.9  |
| 62.5° | 5.3    | 5.9  |
| 65°   | 5.3    | 5.6  |
| 67.5° | 5.3    | 5.6  |
| 70°   | 5.0    | 5.3  |
| 72.5° | 4.8    | 5.0  |
| 75°   | 4.2    | 4.8  |
| 77.5° | 3.9    | 4.2  |
| 80°   | 3.4    | 3.6  |

TEST NUMBER: P1341542

CATALOG NUMBER: P3A09R309835DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 2.8    | 2.8  |
| 85°   | 2.0    | 2.2  |
| 87.5° | 1.1    | 1.1  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)