

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: P1342022

Luminaire Tested: P3A09R359827DE010 E3A451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1342022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A09R359827DE010 E3A451MW  
Description: 3in Adjustable LED luminaire with, R35 optic, 2700K CCT AND, 98CRI , E3A451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

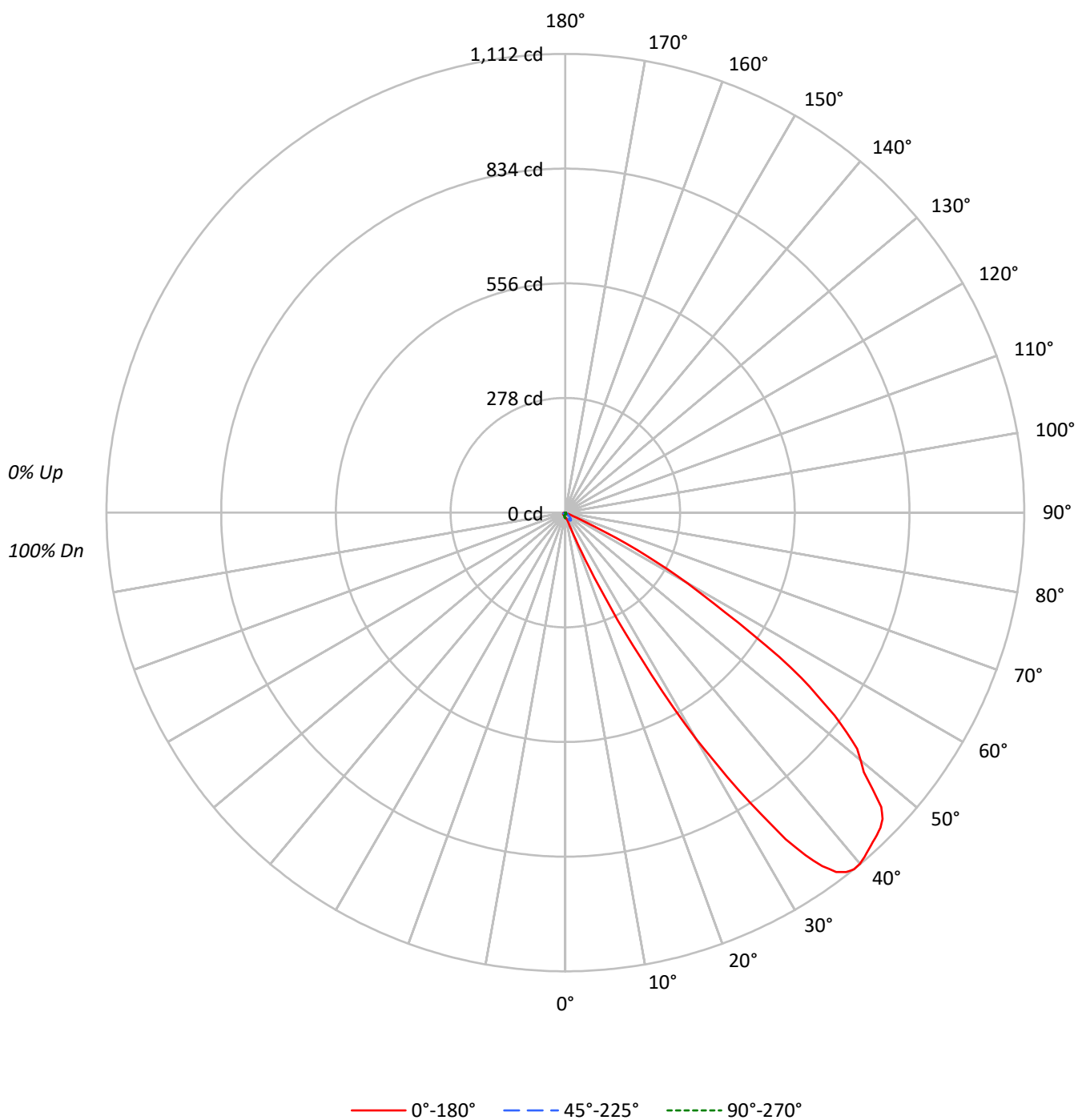
Lumens per Lamp: N/A  
Luminaire Lumens: 277.2 lumens  
Efficiency: N/A  
Efficacy: 25.2 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

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### 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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 64  | 58  | 53  |  | 62  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 55  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  |  | 50  | 43  | 37  |  | 48  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 26  |  | 38  |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  |  | 35  | 28  | 22  |  | 34  |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  |  | 31  | 24  | 19  |  | 30  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 2807   | 2807 | 2807 | 2807 | 2807 |
| 5°  | 3038   | 2972 | 2751 | 2487 | 2421 |
| 10° | 3184   | 2895 | 2449 | 2115 | 2115 |
| 15° | 4540   | 2838 | 1998 | 1816 | 1884 |
| 20° | 11388  | 3034 | 1587 | 1587 | 1750 |
| 25° | 52818  | 3871 | 1210 | 1452 | 1645 |
| 30° | 160556 | 5267 | 962  | 1342 | 1646 |
| 35° | 271360 | 6103 | 803  | 1285 | 1606 |
| 40° | 318082 | 6011 | 658  | 1288 | 1718 |
| 45° | 334981 | 4280 | 558  | 1395 | 1861 |
| 50° | 318864 | 2559 | 512  | 1467 | 2047 |
| 55° | 267192 | 1070 | 573  | 1644 | 2409 |
| 60° | 149593 | 219  | 658  | 1886 | 2631 |
| 65° | 25839  | 156  | 675  | 2075 | 3009 |
| 70° | 513    | 192  | 833  | 2244 | 3398 |
| 75° | 424    | 254  | 1101 | 2542 | 3813 |
| 80° | 379    | 379  | 1263 | 2904 | 4420 |
| 85° | 0      | 755  | 2516 | 3271 | 5032 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 337353 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.2    | 0.4       |
| 10°-20°   | 3.3    | 1.2       |
| 20°-30°   | 17.0   | 6.1       |
| 30°-40°   | 73.4   | 26.5      |
| 40°-50°   | 104.7  | 37.8      |
| 50°-60°   | 64.9   | 23.4      |
| 60°-70°   | 9.9    | 3.6       |
| 70°-80°   | 1.9    | 0.7       |
| 80°-90°   | 1.0    | 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°    | 21.4   | 7.7       |
| 0°-40°    | 94.9   | 34.2      |
| 0°-60°    | 264.4  | 95.4      |
| 0°-90°    | 277.2  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 277.2  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 13   | 13  | 13  | 13   | 13   |      |
| 5°  | 14   | 14  | 12  | 11   | 11   | 1    |
| 15° | 20   | 12  | 9   | 8    | 8    | 7    |
| 25° | 218  | 16  | 5   | 6    | 7    | 131  |
| 35° | 1014 | 23  | 3   | 5    | 6    | 609  |
| 45° | 1080 | 14  | 2   | 4    | 6    | 816  |
| 55° | 699  | 3   | 2   | 4    | 6    | 595  |
| 65° | 50   | 0   | 1   | 4    | 6    | 102  |
| 75° | 0    | 0   | 1   | 3    | 4    | 1    |
| 85° | 0    | 0   | 1   | 1    | 2    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°   | 20°   | 25°   | 30°   | 45°  | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|-------|-------|-------|-------|------|-------|------|--------|
| 0°    | 12.8   | 12.8   | 12.8   | 12.8  | 12.8  | 12.8  | 12.8  | 12.8 | 12.8  | 12.8 | 12.8   |
| 2.5°  | 13.3   | 13.3   | 13.3   | 13.3  | 13.3  | 13.3  | 13.3  | 13.3 | 13.3  | 12.8 | 12.5   |
| 5°    | 13.8   | 13.8   | 13.5   | 13.5  | 13.5  | 13.5  | 13.5  | 13.5 | 13.0  | 12.5 | 11.8   |
| 7.5°  | 14.0   | 14.0   | 13.8   | 13.8  | 13.8  | 13.8  | 13.5  | 13.3 | 12.8  | 11.8 | 11.0   |
| 10°   | 14.3   | 14.3   | 14.3   | 14.3  | 14.0  | 13.8  | 13.5  | 13.0 | 12.3  | 11.0 | 10.3   |
| 12.5° | 16.0   | 16.0   | 15.8   | 15.3  | 14.8  | 14.3  | 13.8  | 12.8 | 11.3  | 10.0 | 9.3    |
| 15°   | 20.0   | 19.8   | 19.3   | 18.5  | 17.5  | 16.3  | 15.3  | 12.5 | 10.3  | 8.8  | 8.3    |
| 17.5° | 28.0   | 27.5   | 26.8   | 24.3  | 22.0  | 19.8  | 17.8  | 12.5 | 9.3   | 7.8  | 7.3    |
| 20°   | 48.8   | 49.0   | 43.8   | 37.8  | 32.8  | 27.3  | 22.3  | 13.0 | 8.3   | 6.8  | 6.5    |
| 22.5° | 101.8  | 97.8   | 85.3   | 70.8  | 54.0  | 41.8  | 31.5  | 14.3 | 7.3   | 5.8  | 5.8    |
| 25°   | 218.3  | 203.0  | 172.8  | 130.5 | 92.0  | 65.3  | 45.8  | 16.0 | 6.5   | 5.0  | 5.3    |
| 27.5° | 398.6  | 384.8  | 324.1  | 244.1 | 162.0 | 98.5  | 62.0  | 18.3 | 5.8   | 4.3  | 4.8    |
| 30°   | 634.1  | 596.1  | 516.9  | 400.1 | 270.8 | 150.8 | 83.3  | 20.8 | 4.8   | 3.8  | 4.5    |
| 31°   | 707.6  | 690.1  | 593.6  | 462.8 | 317.3 | 179.0 | 92.3  | 21.5 | 4.5   | 3.8  | 4.3    |
| 32°   | 794.9  | 763.9  | 677.4  | 531.6 | 364.6 | 204.3 | 103.0 | 22.3 | 4.3   | 3.3  | 4.3    |
| 33°   | 872.9  | 842.9  | 737.7  | 592.1 | 412.3 | 233.0 | 114.5 | 22.5 | 3.8   | 3.3  | 4.0    |
| 34°   | 954.9  | 913.9  | 809.7  | 655.4 | 461.3 | 264.1 | 125.0 | 22.8 | 3.5   | 3.0  | 4.0    |
| 35°   | 1013.7 | 972.7  | 871.7  | 705.4 | 503.6 | 291.6 | 137.0 | 22.8 | 3.3   | 3.0  | 3.8    |
| 36°   | 1059.2 | 1023.2 | 925.2  | 756.9 | 545.6 | 316.3 | 146.5 | 22.8 | 2.8   | 2.8  | 3.8    |
| 37°   | 1090.5 | 1056.2 | 961.2  | 801.2 | 577.6 | 338.3 | 155.0 | 22.8 | 2.5   | 2.8  | 3.8    |
| 38°   | 1105.7 | 1077.2 | 996.0  | 833.4 | 608.6 | 355.6 | 161.8 | 22.3 | 2.3   | 2.5  | 3.5    |
| 39°   | 1112.2 | 1089.0 | 1017.2 | 860.7 | 631.9 | 370.6 | 166.8 | 21.8 | 2.0   | 2.5  | 3.5    |
| 40°   | 1111.2 | 1091.0 | 1029.2 | 879.4 | 650.6 | 380.8 | 169.5 | 21.0 | 1.8   | 2.3  | 3.5    |
| 41°   | 1105.5 | 1088.0 | 1035.5 | 895.4 | 661.9 | 387.8 | 170.3 | 20.3 | 1.5   | 2.3  | 3.3    |
| 42°   | 1099.0 | 1083.0 | 1037.5 | 903.9 | 669.1 | 390.1 | 168.3 | 19.3 | 1.5   | 2.0  | 3.3    |
| 43°   | 1092.2 | 1077.5 | 1037.5 | 906.7 | 670.9 | 388.6 | 165.0 | 17.5 | 1.3   | 2.0  | 3.3    |
| 44°   | 1086.7 | 1072.7 | 1034.2 | 905.9 | 667.1 | 382.8 | 159.0 | 15.5 | 1.0   | 2.0  | 3.3    |
| 45°   | 1080.2 | 1066.5 | 1030.0 | 901.2 | 659.9 | 373.1 | 151.5 | 13.8 | 0.8   | 1.8  | 3.3    |
| 46°   | 1068.7 | 1058.0 | 1022.5 | 891.4 | 648.4 | 359.6 | 142.0 | 12.5 | 0.5   | 1.8  | 3.0    |
| 47°   | 1046.5 | 1037.2 | 1008.0 | 876.9 | 633.1 | 343.6 | 132.3 | 11.3 | 0.5   | 1.8  | 3.0    |
| 48°   | 1001.7 | 1001.5 | 979.0  | 849.9 | 608.9 | 323.6 | 122.0 | 10.0 | 0.5   | 1.8  | 3.0    |
| 49°   | 958.4  | 953.9  | 925.9  | 802.4 | 574.1 | 299.6 | 111.3 | 9.0  | 0.3   | 1.8  | 3.0    |
| 50°   | 934.7  | 924.9  | 878.9  | 746.4 | 529.6 | 266.3 | 99.8  | 7.5  | 0.3   | 1.5  | 3.0    |
| 51°   | 909.9  | 895.9  | 841.7  | 695.9 | 476.6 | 234.3 | 87.3  | 6.0  | 0.3   | 1.5  | 2.8    |
| 52°   | 865.2  | 851.9  | 791.2  | 647.6 | 425.1 | 201.5 | 75.3  | 5.0  | 0.3   | 1.5  | 3.0    |
| 53°   | 816.9  | 797.9  | 731.9  | 594.6 | 379.8 | 172.5 | 63.0  | 4.3  | 0.3   | 1.5  | 2.8    |
| 54°   | 756.2  | 747.7  | 671.9  | 529.6 | 326.8 | 144.5 | 51.8  | 3.5  | 0.3   | 1.5  | 2.8    |
| 55°   | 698.9  | 686.4  | 607.6  | 463.1 | 278.8 | 118.5 | 43.3  | 2.8  | 0.3   | 1.5  | 2.8    |
| 56°   | 625.9  | 607.1  | 533.4  | 402.1 | 230.0 | 95.5  | 36.5  | 2.3  | 0.3   | 1.5  | 2.8    |
| 57°   | 538.9  | 518.9  | 460.6  | 334.3 | 180.5 | 72.8  | 30.5  | 1.8  | 0.3   | 1.5  | 2.8    |
| 58°   | 455.8  | 438.6  | 376.1  | 258.1 | 136.0 | 50.5  | 25.3  | 1.3  | 0.3   | 1.3  | 2.8    |
| 59°   | 393.8  | 374.8  | 312.8  | 198.5 | 94.5  | 37.3  | 19.0  | 1.0  | 0.3   | 1.5  | 2.8    |
| 60°   | 341.1  | 316.6  | 251.8  | 153.8 | 67.5  | 26.8  | 14.0  | 0.5  | 0.5   | 1.5  | 2.8    |
| 62.5° | 196.5  | 173.5  | 120.3  | 62.5  | 27.8  | 13.8  | 6.8   | 0.3  | 0.5   | 1.5  | 2.8    |
| 65°   | 49.8   | 44.3   | 28.8   | 13.5  | 7.8   | 4.8   | 2.5   | 0.3  | 0.5   | 1.3  | 2.5    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 1.8 | 1.8 | 1.8 | 1.5 | 1.3 | 1.0 | 0.5 | 0.3 | 0.5   | 1.3 | 2.5    |
| 70°   | 0.8 | 0.8 | 0.8 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.5   | 1.3 | 2.3    |
| 72.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8   | 1.3 | 2.0    |
| 75°   | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8   | 1.3 | 2.0    |
| 77.5° | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8   | 1.0 | 1.8    |
| 80°   | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8   | 1.0 | 1.5    |
| 82.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8   | 1.0 | 1.3    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.3 | 0.8   | 1.0 | 1.0    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.8   | 1.0 | 0.8    |
| 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):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 12.8 | 12.8   | 12.8 |
| 2.5°  | 12.0 | 12.0   | 12.0 |
| 5°    | 11.3 | 11.3   | 11.0 |
| 7.5°  | 10.5 | 10.3   | 10.3 |
| 10°   | 9.5  | 9.5    | 9.5  |
| 12.5° | 8.8  | 8.8    | 8.8  |
| 15°   | 8.0  | 8.3    | 8.3  |
| 17.5° | 7.3  | 7.8    | 7.8  |
| 20°   | 6.8  | 7.3    | 7.5  |
| 22.5° | 6.3  | 6.8    | 7.0  |
| 25°   | 6.0  | 6.5    | 6.8  |
| 27.5° | 5.5  | 6.3    | 6.8  |
| 30°   | 5.3  | 6.0    | 6.5  |
| 31°   | 5.3  | 6.0    | 6.3  |
| 32°   | 5.0  | 6.0    | 6.3  |
| 33°   | 5.0  | 6.0    | 6.3  |
| 34°   | 5.0  | 5.8    | 6.3  |
| 35°   | 4.8  | 5.8    | 6.0  |
| 36°   | 4.8  | 5.8    | 6.0  |
| 37°   | 4.8  | 5.8    | 6.3  |
| 38°   | 4.8  | 5.8    | 6.0  |
| 39°   | 4.5  | 5.8    | 6.0  |
| 40°   | 4.5  | 5.8    | 6.0  |
| 41°   | 4.5  | 5.8    | 6.0  |
| 42°   | 4.5  | 5.8    | 6.0  |
| 43°   | 4.5  | 5.8    | 6.0  |
| 44°   | 4.5  | 5.5    | 6.0  |
| 45°   | 4.5  | 5.5    | 6.0  |
| 46°   | 4.5  | 5.8    | 6.0  |
| 47°   | 4.5  | 5.8    | 6.3  |
| 48°   | 4.5  | 5.5    | 6.0  |
| 49°   | 4.3  | 5.5    | 6.0  |
| 50°   | 4.3  | 5.5    | 6.0  |
| 51°   | 4.3  | 5.8    | 6.3  |
| 52°   | 4.3  | 5.8    | 6.3  |
| 53°   | 4.3  | 5.8    | 6.3  |
| 54°   | 4.3  | 5.8    | 6.0  |
| 55°   | 4.3  | 5.8    | 6.3  |
| 56°   | 4.3  | 5.8    | 6.0  |
| 57°   | 4.3  | 5.8    | 6.0  |
| 58°   | 4.3  | 5.5    | 6.0  |
| 59°   | 4.3  | 5.5    | 6.0  |
| 60°   | 4.3  | 5.5    | 6.0  |
| 62.5° | 4.0  | 5.5    | 6.0  |
| 65°   | 4.0  | 5.3    | 5.8  |





TEST NUMBER: P1342022

CATALOG NUMBER: P3A09R359827DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 3.8  | 5.3    | 5.5  |
| 70°   | 3.5  | 5.0    | 5.3  |
| 72.5° | 3.3  | 4.8    | 5.0  |
| 75°   | 3.0  | 4.3    | 4.5  |
| 77.5° | 2.5  | 3.8    | 4.3  |
| 80°   | 2.3  | 3.3    | 3.5  |
| 82.5° | 1.8  | 2.8    | 3.0  |
| 85°   | 1.3  | 2.0    | 2.0  |
| 87.5° | 0.5  | 1.0    | 1.0  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)