

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: P1344882

Luminaire Tested: P3A13R309024DE010 E3A451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1344882  
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: P3A13R309024DE010 E3A451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 2400K CCT AND, 90CRI , E3A451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

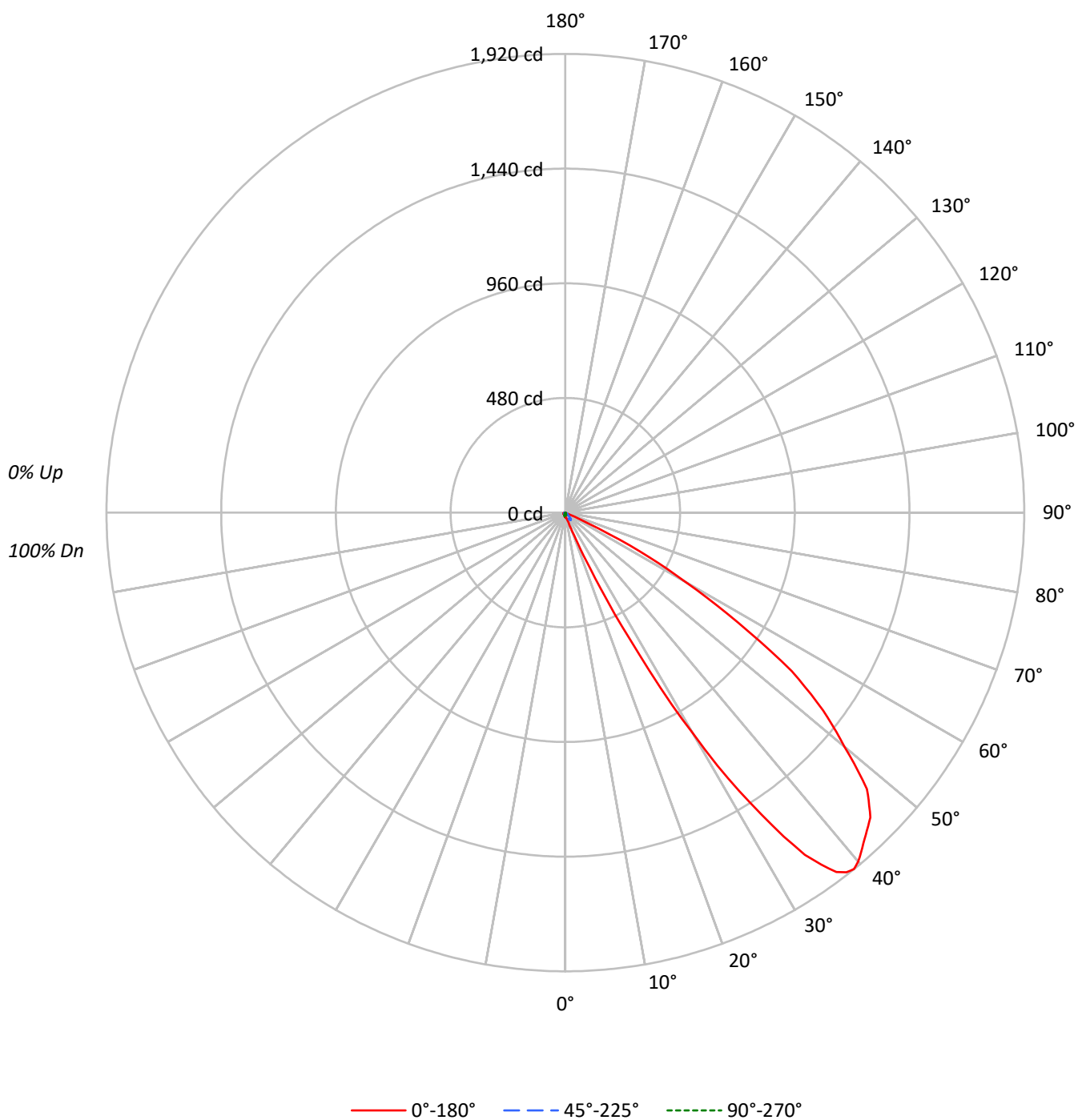
Lumens per Lamp: N/A  
Luminaire Lumens: 499.0 lumens  
Efficiency: N/A  
Efficacy: 34.2 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.6  
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: P1344882

CATALOG NUMBER: P3A13R309024DE010 E3A451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1344882

CATALOG NUMBER: P3A13R309024DE010 E3A451MW

**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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  | 87  | 87  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  | 73  | 73  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  | 61  | 61  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  | 50  | 50  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 42  | 42  | 42  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 35  | 35  | 35  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 29  | 29  | 29  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  | 24  | 24  | 24  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  | 20  | 20  | 20  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  | 17  | 17  | 17  |

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

|     | 0°     | 45°   | 90°  | 135° | 180° |
|-----|--------|-------|------|------|------|
| 0°  | 4232   | 4232  | 4232 | 4232 | 4232 |
| 5°  | 4534   | 4446  | 4160 | 3786 | 3698 |
| 10° | 4965   | 4409  | 3652 | 3273 | 3184 |
| 15° | 7242   | 4381  | 3065 | 2770 | 2860 |
| 20° | 18248  | 4807  | 2357 | 2357 | 2637 |
| 25° | 84707  | 6000  | 1839 | 2129 | 2444 |
| 30° | 269687 | 8305  | 1393 | 2026 | 2456 |
| 35° | 467980 | 10119 | 1124 | 1901 | 2463 |
| 40° | 545765 | 10105 | 830  | 1918 | 2519 |
| 45° | 559717 | 7164  | 899  | 2078 | 2729 |
| 50° | 520512 | 4025  | 716  | 2149 | 3138 |
| 55° | 442402 | 2103  | 803  | 2409 | 3517 |
| 60° | 255506 | 570   | 921  | 2588 | 3859 |
| 65° | 52146  | 0     | 1090 | 3061 | 4358 |
| 70° | 833    | 256   | 1346 | 3526 | 5129 |
| 75° | 678    | 339   | 1440 | 3558 | 6015 |
| 80° | 505    | 505   | 2147 | 4293 | 6945 |
| 85° | 0      | 1006  | 4277 | 4277 | 8554 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 559717 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.7    | 0.4       |
| 10°-20°   | 5.0    | 1.0       |
| 20°-30°   | 28.8   | 5.8       |
| 30°-40°   | 134.4  | 26.9      |
| 40°-50°   | 190.1  | 38.1      |
| 50°-60°   | 116.9  | 23.4      |
| 60°-70°   | 17.8   | 3.6       |
| 70°-80°   | 2.8    | 0.6       |
| 80°-90°   | 1.4    | 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°    | 35.6   | 7.1       |
| 0°-40°    | 170.0  | 34.1      |
| 0°-60°    | 476.9  | 95.6      |
| 0°-90°    | 499.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 499.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 19   | 19  | 19  | 19   | 19   |      |
| 5°  | 21   | 20  | 19  | 17   | 17   | 2    |
| 15° | 32   | 19  | 14  | 12   | 13   | 11   |
| 25° | 350  | 25  | 8   | 9    | 10   | 215  |
| 35° | 1748 | 38  | 4   | 7    | 9    | 1049 |
| 45° | 1805 | 23  | 3   | 7    | 9    | 1368 |
| 55° | 1157 | 6   | 2   | 6    | 9    | 985  |
| 65° | 100  | 0   | 2   | 6    | 8    | 182  |
| 75° | 1    | 0   | 2   | 4    | 7    | 1    |
| 85° | 0    | 0   | 2   | 2    | 3    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5° | 45°  | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|-------|------|-------|------|--------|------|
| 0°    | 19.3   | 19.3   | 19.3   | 19.3   | 19.3   | 19.3  | 19.3 | 19.3  | 19.3 | 19.3   | 19.3 |
| 2.5°  | 19.8   | 19.8   | 20.2   | 20.2   | 19.8   | 20.2  | 20.2 | 20.2  | 19.3 | 18.9   | 18.1 |
| 5°    | 20.6   | 20.6   | 20.6   | 21.0   | 20.6   | 20.6  | 20.2 | 19.8  | 18.9 | 17.7   | 17.2 |
| 7.5°  | 21.4   | 21.4   | 21.0   | 21.4   | 21.0   | 21.0  | 20.2 | 19.3  | 18.1 | 16.8   | 16.0 |
| 10°   | 22.3   | 22.3   | 21.9   | 21.9   | 21.4   | 21.4  | 19.8 | 18.5  | 16.4 | 15.1   | 14.7 |
| 12.5° | 24.8   | 24.8   | 24.4   | 24.0   | 23.1   | 22.7  | 19.3 | 17.2  | 14.7 | 13.5   | 13.0 |
| 15°   | 31.9   | 31.5   | 30.7   | 29.4   | 27.3   | 26.9  | 19.3 | 16.0  | 13.5 | 12.2   | 12.2 |
| 17.5° | 43.7   | 43.3   | 42.0   | 38.7   | 34.9   | 33.6  | 19.3 | 14.3  | 11.8 | 10.9   | 10.9 |
| 20°   | 78.2   | 74.8   | 68.5   | 60.1   | 51.3   | 46.7  | 20.6 | 12.6  | 10.1 | 9.7    | 10.1 |
| 21°   | 102.1  | 98.8   | 90.8   | 76.9   | 61.4   | 56.3  | 21.4 | 12.2  | 9.7  | 9.2    | 10.1 |
| 22°   | 139.1  | 135.3  | 119.0  | 100.0  | 77.8   | 68.9  | 21.9 | 11.3  | 8.8  | 8.8    | 9.7  |
| 23°   | 194.2  | 187.9  | 160.1  | 129.9  | 97.1   | 84.5  | 22.7 | 10.9  | 8.4  | 8.8    | 9.2  |
| 24°   | 254.3  | 248.8  | 217.3  | 171.9  | 124.0  | 105.9 | 23.5 | 10.5  | 8.0  | 8.0    | 8.8  |
| 25°   | 350.1  | 343.8  | 287.9  | 216.9  | 157.2  | 127.4 | 24.8 | 9.7   | 7.6  | 7.6    | 8.8  |
| 26°   | 474.1  | 445.1  | 370.7  | 279.5  | 193.8  | 159.7 | 26.1 | 9.2   | 7.1  | 7.6    | 8.4  |
| 27°   | 591.8  | 567.9  | 484.2  | 358.5  | 239.6  | 196.3 | 27.7 | 8.8   | 6.7  | 7.1    | 8.4  |
| 28°   | 746.5  | 712.9  | 607.4  | 453.5  | 301.8  | 237.5 | 29.4 | 8.4   | 6.3  | 7.1    | 8.0  |
| 29°   | 919.7  | 872.6  | 745.3  | 560.3  | 372.0  | 283.7 | 31.1 | 8.0   | 5.9  | 6.7    | 8.0  |
| 30°   | 1065.1 | 1021.0 | 893.6  | 686.8  | 452.7  | 344.7 | 32.8 | 7.6   | 5.5  | 6.7    | 8.0  |
| 31°   | 1235.8 | 1169.0 | 1014.7 | 794.0  | 522.1  | 405.6 | 34.5 | 6.7   | 5.0  | 6.3    | 7.6  |
| 32°   | 1374.1 | 1327.4 | 1163.5 | 915.1  | 613.3  | 472.9 | 35.7 | 6.3   | 5.0  | 6.3    | 7.6  |
| 33°   | 1507.7 | 1445.1 | 1286.7 | 1031.1 | 695.7  | 541.8 | 37.0 | 5.9   | 4.6  | 5.9    | 7.6  |
| 34°   | 1635.5 | 1577.9 | 1403.1 | 1124.8 | 773.4  | 607.4 | 37.8 | 5.0   | 4.6  | 5.9    | 7.1  |
| 35°   | 1748.2 | 1681.3 | 1505.6 | 1216.5 | 853.3  | 667.1 | 37.8 | 4.6   | 4.2  | 5.5    | 7.1  |
| 36°   | 1821.3 | 1773.4 | 1594.8 | 1306.8 | 925.6  | 723.8 | 37.8 | 4.2   | 3.8  | 5.5    | 6.7  |
| 37°   | 1883.9 | 1828.0 | 1666.2 | 1376.2 | 979.0  | 769.2 | 37.8 | 3.8   | 3.8  | 5.5    | 6.7  |
| 38°   | 1909.6 | 1861.7 | 1715.4 | 1437.6 | 1029.0 | 815.5 | 37.4 | 3.4   | 3.4  | 5.0    | 6.7  |
| 39°   | 1919.7 | 1876.8 | 1752.4 | 1481.7 | 1066.0 | 846.6 | 36.6 | 2.9   | 3.4  | 5.0    | 6.7  |
| 40°   | 1906.6 | 1874.3 | 1771.3 | 1510.3 | 1095.4 | 869.3 | 35.3 | 2.5   | 2.9  | 5.0    | 6.7  |
| 42.5° | 1852.8 | 1831.4 | 1767.1 | 1538.9 | 1120.6 | 886.1 | 30.7 | 1.7   | 2.9  | 4.6    | 6.7  |
| 45°   | 1804.9 | 1781.4 | 1724.6 | 1509.0 | 1087.8 | 852.9 | 23.1 | 0.8   | 2.9  | 4.6    | 6.7  |
| 47.5° | 1712.0 | 1697.3 | 1652.8 | 1432.9 | 1016.0 | 778.0 | 16.4 | 0.4   | 2.5  | 4.2    | 6.3  |
| 50°   | 1525.8 | 1512.0 | 1453.1 | 1244.2 | 873.9  | 657.8 | 11.8 | 0.4   | 2.1  | 4.2    | 6.3  |
| 52.5° | 1358.9 | 1344.2 | 1259.7 | 1034.4 | 671.3  | 482.1 | 7.6  | 0.4   | 2.1  | 4.2    | 6.3  |
| 55°   | 1157.2 | 1131.5 | 1020.6 | 785.2  | 475.8  | 323.2 | 5.5  | 0.4   | 2.1  | 3.8    | 6.3  |
| 57.5° | 856.6  | 819.2  | 720.0  | 535.5  | 274.1  | 175.3 | 2.9  | 0.4   | 2.1  | 3.8    | 6.3  |
| 60°   | 582.6  | 560.3  | 450.6  | 282.5  | 116.9  | 74.0  | 1.3  | 0.4   | 2.1  | 3.8    | 5.9  |
| 62.5° | 353.1  | 324.9  | 226.6  | 120.2  | 50.4   | 33.6  | 0.0  | 0.8   | 2.1  | 3.8    | 5.9  |
| 65°   | 100.5  | 89.1   | 59.3   | 27.3   | 14.3   | 10.9  | 0.0  | 0.8   | 2.1  | 3.8    | 5.9  |
| 67.5° | 3.4    | 3.4    | 3.4    | 2.9    | 2.1    | 2.1   | 0.4  | 0.8   | 2.1  | 3.8    | 5.5  |
| 70°   | 1.3    | 1.3    | 1.3    | 0.8    | 0.8    | 0.4   | 0.4  | 0.8   | 2.1  | 3.4    | 5.5  |
| 72.5° | 0.8    | 0.8    | 0.8    | 0.8    | 0.4    | 0.4   | 0.4  | 0.8   | 1.7  | 2.9    | 5.0  |
| 75°   | 0.8    | 0.8    | 0.8    | 0.4    | 0.4    | 0.4   | 0.4  | 1.3   | 1.7  | 2.9    | 4.2  |
| 77.5° | 0.8    | 0.8    | 0.8    | 0.4    | 0.4    | 0.4   | 0.4  | 1.3   | 1.7  | 2.5    | 4.2  |
| 80°   | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    | 0.4   | 0.4  | 1.3   | 1.7  | 2.5    | 3.4  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0   | 0.4 | 1.3   | 1.7 | 1.7    | 2.5  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.4 | 1.3   | 1.7 | 1.3    | 1.7  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.4 | 1.3   | 1.3 | 1.3    | 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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CATALOG NUMBER: P3A13R309024DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 19.3   | 19.3 |
| 2.5°  | 18.1   | 18.1 |
| 5°    | 16.8   | 16.8 |
| 7.5°  | 15.6   | 15.6 |
| 10°   | 14.3   | 14.3 |
| 12.5° | 13.5   | 13.5 |
| 15°   | 12.2   | 12.6 |
| 17.5° | 11.3   | 11.8 |
| 20°   | 10.9   | 11.3 |
| 21°   | 10.9   | 11.3 |
| 22°   | 10.5   | 10.9 |
| 23°   | 10.5   | 10.9 |
| 24°   | 10.1   | 10.5 |
| 25°   | 9.7    | 10.1 |
| 26°   | 9.7    | 10.1 |
| 27°   | 9.7    | 10.1 |
| 28°   | 9.2    | 10.1 |
| 29°   | 9.2    | 9.7  |
| 30°   | 9.2    | 9.7  |
| 31°   | 8.8    | 9.7  |
| 32°   | 8.8    | 9.7  |
| 33°   | 8.8    | 9.2  |
| 34°   | 8.4    | 9.2  |
| 35°   | 8.4    | 9.2  |
| 36°   | 8.4    | 9.2  |
| 37°   | 8.4    | 8.8  |
| 38°   | 8.4    | 9.2  |
| 39°   | 8.4    | 8.8  |
| 40°   | 8.4    | 8.8  |
| 42.5° | 8.4    | 8.8  |
| 45°   | 8.4    | 8.8  |
| 47.5° | 8.4    | 9.2  |
| 50°   | 8.4    | 9.2  |
| 52.5° | 8.4    | 9.2  |
| 55°   | 8.4    | 9.2  |
| 57.5° | 8.4    | 8.8  |
| 60°   | 8.4    | 8.8  |
| 62.5° | 8.0    | 8.8  |
| 65°   | 8.0    | 8.4  |
| 67.5° | 8.0    | 8.4  |
| 70°   | 7.6    | 8.0  |
| 72.5° | 7.1    | 7.6  |
| 75°   | 6.3    | 7.1  |
| 77.5° | 5.9    | 6.3  |
| 80°   | 5.0    | 5.5  |

TEST NUMBER: P1344882

CATALOG NUMBER: P3A13R309024DE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 4.2    | 4.2  |
| 85°   | 2.9    | 3.4  |
| 87.5° | 1.7    | 1.7  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)