

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: P1334177

Luminaire Tested: P3A02R159835DE010 E3CA301MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1334177  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A02R159835DE010 E3CA301MW  
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3CA301MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

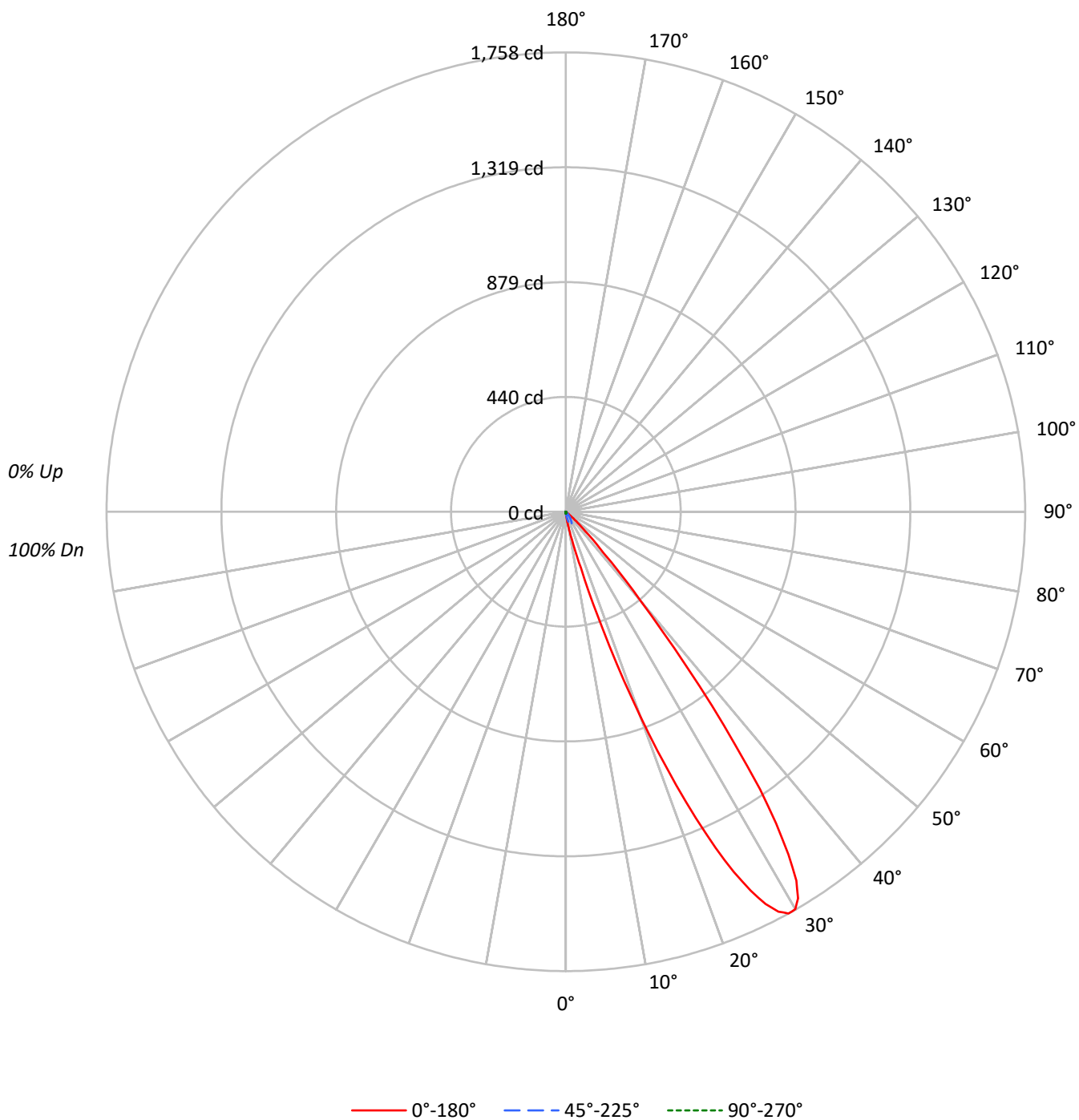
Lumens per Lamp: N/A  
Luminaire Lumens: 192.0 lumens  
Efficiency: N/A  
Efficacy: 53.3 lumens/watt  
Spacing Criteria (0/90/45): 2.35 / 0.48 / 1.26  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
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: P1334177

CATALOG NUMBER: P3A02R159835DE010 E3CA301MW

### 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  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 113 | 109 | 107 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  | 99  | 98  | 96  | 96  | 95  | 93  | 93  | 93  | 92  |
| 2   | 106 | 100 | 96  | 92  | 104 | 98  | 94  | 91  | 95  | 92  | 89  | 92  | 89  | 87  | 89  | 87  | 85  | 85  | 85  | 83  |
| 3   | 99  | 92  | 86  | 81  | 97  | 90  | 85  | 81  | 88  | 83  | 79  | 85  | 81  | 78  | 83  | 80  | 77  | 77  | 77  | 75  |
| 4   | 93  | 84  | 78  | 73  | 91  | 83  | 77  | 72  | 81  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 70  | 70  | 70  | 68  |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 70  | 65  | 74  | 69  | 64  | 72  | 67  | 64  | 71  | 66  | 63  | 63  | 63  | 61  |
| 6   | 81  | 71  | 64  | 59  | 80  | 70  | 63  | 58  | 68  | 62  | 58  | 67  | 61  | 57  | 65  | 61  | 57  | 57  | 57  | 55  |
| 7   | 76  | 65  | 58  | 53  | 74  | 64  | 57  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 52  | 52  | 50  |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 52  | 47  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 47  | 47  | 45  |
| 9   | 66  | 55  | 48  | 43  | 65  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 51  | 46  | 42  | 42  | 42  | 41  |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 43  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 47  | 42  | 39  | 39  | 39  | 37  |

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

|     | 0°     | 45°   | 90°  | 135° | 180° |
|-----|--------|-------|------|------|------|
| 0°  | 1403   | 1403  | 1403 | 1403 | 1403 |
| 5°  | 2994   | 2223  | 1321 | 704  | 572  |
| 10° | 13315  | 4208  | 1047 | 289  | 200  |
| 15° | 50329  | 9716  | 726  | 136  | 91   |
| 20° | 193543 | 13675 | 443  | 47   | 47   |
| 25° | 368054 | 12823 | 218  | 0    | 0    |
| 30° | 444625 | 10356 | 101  | 0    | 0    |
| 35° | 346769 | 7040  | 54   | 0    | 0    |
| 40° | 126551 | 3464  | 57   | 0    | 57   |
| 45° | 32499  | 1054  | 62   | 0    | 124  |
| 50° | 5492   | 136   | 68   | 68   | 205  |
| 55° | 726    | 0     | 153  | 229  | 344  |
| 60° | 88     | 88    | 263  | 307  | 482  |
| 65° | 104    | 104   | 363  | 467  | 571  |
| 70° | 128    | 128   | 449  | 449  | 577  |
| 75° | 169    | 169   | 593  | 508  | 593  |
| 80° | 0      | 253   | 758  | 505  | 758  |
| 85° | 0      | 503   | 1510 | 503  | 503  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 32499 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.9    | 0.5       |
| 10°-20°   | 14.7   | 7.7       |
| 20°-30°   | 81.6   | 42.5      |
| 30°-40°   | 78.8   | 41.1      |
| 40°-50°   | 13.7   | 7.1       |
| 50°-60°   | 1.0    | 0.5       |
| 60°-70°   | 0.6    | 0.3       |
| 70°-80°   | 0.5    | 0.3       |
| 80°-90°   | 0.3    | 0.1       |
| 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°    | 97.2   | 50.6      |
| 0°-40°    | 176.0  | 91.7      |
| 0°-60°    | 190.7  | 99.3      |
| 0°-90°    | 192.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 192.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 6    | 6   | 6   | 6    | 6    |      |
| 5°  | 14   | 10  | 6   | 3    | 3    | 3    |
| 15° | 222  | 43  | 3   | 1    | 0    | 99   |
| 25° | 1521 | 53  | 1   | 0    | 0    | 680  |
| 35° | 1295 | 26  | 0   | 0    | 0    | 745  |
| 45° | 105  | 3   | 0   | 0    | 0    | 113  |
| 55° | 2    | 0   | 0   | 1    | 1    | 4    |
| 65° | 0    | 0   | 1   | 1    | 1    | 0    |
| 75° | 0    | 0   | 1   | 1    | 1    | 0    |
| 85° | 0    | 0   | 1   | 0    | 0    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5° | 20°   | 22.5° | 45°  |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|------|
| 0°    | 6.4    | 6.4    | 6.4    | 6.4    | 6.4    | 6.4    | 6.4    | 6.4   | 6.4   | 6.4   | 6.4  |
| 2.5°  | 9.3    | 9.0    | 9.2    | 9.2    | 9.2    | 9.2    | 9.2    | 8.8   | 8.8   | 9.0   | 8.0  |
| 5°    | 13.6   | 13.6   | 13.4   | 13.6   | 13.6   | 13.4   | 13.1   | 12.9  | 12.9  | 12.5  | 10.1 |
| 7.5°  | 27.3   | 26.9   | 26.9   | 26.5   | 24.7   | 24.1   | 23.7   | 22.8  | 21.1  | 20.7  | 13.1 |
| 10°   | 59.8   | 60.0   | 58.6   | 57.0   | 56.8   | 54.0   | 53.0   | 51.4  | 48.2  | 45.0  | 18.9 |
| 12.5° | 108.5  | 106.1  | 102.9  | 103.1  | 97.7   | 95.8   | 91.5   | 86.8  | 82.0  | 76.9  | 31.0 |
| 15°   | 221.7  | 214.8  | 218.9  | 208.8  | 197.4  | 184.5  | 171.5  | 155.0 | 141.0 | 126.1 | 42.8 |
| 17.5° | 466.9  | 473.6  | 462.3  | 419.1  | 392.6  | 361.4  | 317.5  | 275.1 | 238.9 | 209.7 | 52.3 |
| 20°   | 829.4  | 839.3  | 800.7  | 763.1  | 698.7  | 628.5  | 555.3  | 472.3 | 393.0 | 324.2 | 58.6 |
| 21°   | 980.9  | 974.9  | 959.1  | 898.9  | 824.6  | 743.1  | 653.5  | 562.0 | 465.8 | 376.5 | 59.2 |
| 22°   | 1127.3 | 1130.1 | 1093.2 | 1030.2 | 952.9  | 862.7  | 753.2  | 640.2 | 536.6 | 419.1 | 58.3 |
| 23°   | 1273.2 | 1282.2 | 1233.2 | 1174.2 | 1076.9 | 975.1  | 848.5  | 726.5 | 598.4 | 467.9 | 56.4 |
| 24°   | 1408.2 | 1402.1 | 1369.0 | 1294.7 | 1190.6 | 1071.5 | 940.0  | 792.1 | 649.2 | 509.5 | 54.9 |
| 25°   | 1521.2 | 1520.5 | 1468.6 | 1396.3 | 1277.3 | 1145.3 | 1000.3 | 845.7 | 692.7 | 537.7 | 53.0 |
| 26°   | 1613.7 | 1598.5 | 1557.6 | 1469.5 | 1352.0 | 1212.7 | 1049.8 | 884.7 | 717.2 | 551.9 | 51.2 |
| 27°   | 1685.0 | 1674.2 | 1619.3 | 1527.6 | 1404.9 | 1250.8 | 1081.6 | 904.1 | 728.4 | 556.6 | 48.7 |
| 28°   | 1733.0 | 1721.3 | 1662.8 | 1568.3 | 1434.0 | 1274.7 | 1098.4 | 912.4 | 728.4 | 552.1 | 46.5 |
| 29°   | 1757.9 | 1741.8 | 1683.5 | 1582.3 | 1440.7 | 1277.5 | 1094.3 | 904.3 | 717.0 | 538.3 | 43.9 |
| 30°   | 1756.0 | 1736.0 | 1674.9 | 1569.6 | 1420.7 | 1254.5 | 1071.3 | 875.4 | 691.2 | 517.7 | 40.9 |
| 31°   | 1725.7 | 1703.3 | 1635.2 | 1526.6 | 1379.5 | 1211.2 | 1028.0 | 836.5 | 655.9 | 491.0 | 37.9 |
| 32°   | 1664.3 | 1635.9 | 1569.4 | 1461.3 | 1316.0 | 1146.4 | 965.0  | 776.6 | 603.1 | 452.0 | 34.7 |
| 33°   | 1564.2 | 1535.6 | 1464.3 | 1362.8 | 1230.1 | 1064.2 | 881.5  | 712.1 | 542.9 | 405.5 | 32.1 |
| 34°   | 1438.9 | 1412.7 | 1351.3 | 1249.1 | 1121.7 | 960.2  | 785.5  | 623.1 | 480.6 | 359.3 | 29.3 |
| 35°   | 1295.4 | 1253.8 | 1198.1 | 1117.2 | 993.0  | 830.6  | 681.9  | 540.1 | 416.3 | 311.0 | 26.3 |
| 36°   | 1101.4 | 1108.8 | 1049.8 | 950.8  | 847.9  | 720.5  | 577.9  | 450.3 | 348.1 | 265.0 | 23.7 |
| 37°   | 929.4  | 917.6  | 880.0  | 803.5  | 713.8  | 587.4  | 484.3  | 381.8 | 292.9 | 224.1 | 20.9 |
| 38°   | 749.7  | 752.3  | 715.5  | 656.7  | 567.8  | 483.0  | 389.8  | 313.6 | 245.0 | 190.7 | 18.3 |
| 39°   | 586.8  | 584.8  | 574.9  | 520.3  | 439.8  | 384.2  | 315.8  | 260.0 | 204.1 | 160.8 | 15.5 |
| 40°   | 442.1  | 445.4  | 422.3  | 389.4  | 342.5  | 296.8  | 251.6  | 207.3 | 168.8 | 135.6 | 12.1 |
| 42.5° | 215.0  | 220.2  | 204.9  | 196.5  | 175.7  | 157.8  | 133.2  | 108.7 | 92.5  | 79.9  | 5.4  |
| 45°   | 104.8  | 101.8  | 100.5  | 96.4   | 91.5   | 81.8   | 72.5   | 62.2  | 54.3  | 46.9  | 3.4  |
| 47.5° | 53.6   | 52.1   | 52.1   | 50.4   | 48.7   | 45.6   | 40.9   | 37.5  | 33.8  | 29.1  | 1.3  |
| 50°   | 16.1   | 15.9   | 15.7   | 15.9   | 15.3   | 15.9   | 16.2   | 16.4  | 14.9  | 14.8  | 0.4  |
| 52.5° | 6.4    | 6.5    | 6.4    | 6.9    | 6.9    | 6.7    | 6.9    | 6.7   | 6.5   | 5.8   | 0.0  |
| 55°   | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 2.1    | 2.2   | 2.1   | 2.2   | 0.0  |
| 57.5° | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    | 0.4   | 0.4   | 0.4   | 0.0  |
| 60°   | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.0   | 0.2  |
| 62.5° | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 65°   | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 67.5° | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 70°   | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 72.5° | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 75°   | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2    | 0.2   | 0.2   | 0.2   | 0.2  |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.2   | 0.2   | 0.2  |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0   | 0.2  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 45° |
|-------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 82.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.2 |
| 85°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.2 |
| 87.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.2 |
| 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: P3A02R159835DE010 E3CA301MW

**CANDELA DISTRIBUTION (continued):**

|       | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-----|--------|------|--------|------|
| 0°    | 6.4   | 6.4 | 6.4    | 6.4  | 6.4    | 6.4  |
| 2.5°  | 7.5   | 6.5 | 5.4    | 4.5  | 4.1    | 3.9  |
| 5°    | 8.0   | 6.0 | 4.1    | 3.2  | 2.8    | 2.6  |
| 7.5°  | 8.6   | 5.4 | 3.2    | 2.2  | 1.7    | 1.5  |
| 10°   | 9.0   | 4.7 | 2.4    | 1.3  | 0.9    | 0.9  |
| 12.5° | 9.0   | 3.7 | 1.7    | 0.7  | 0.6    | 0.6  |
| 15°   | 8.8   | 3.2 | 1.1    | 0.6  | 0.4    | 0.4  |
| 17.5° | 8.6   | 2.4 | 0.7    | 0.4  | 0.2    | 0.4  |
| 20°   | 8.0   | 1.9 | 0.4    | 0.2  | 0.2    | 0.2  |
| 21°   | 7.8   | 1.7 | 0.4    | 0.2  | 0.2    | 0.2  |
| 22°   | 7.5   | 1.5 | 0.2    | 0.0  | 0.2    | 0.2  |
| 23°   | 7.1   | 1.1 | 0.2    | 0.0  | 0.0    | 0.0  |
| 24°   | 6.5   | 0.9 | 0.2    | 0.0  | 0.0    | 0.0  |
| 25°   | 6.2   | 0.9 | 0.2    | 0.0  | 0.0    | 0.0  |
| 26°   | 5.8   | 0.6 | 0.0    | 0.0  | 0.0    | 0.0  |
| 27°   | 5.2   | 0.4 | 0.0    | 0.0  | 0.0    | 0.0  |
| 28°   | 4.9   | 0.4 | 0.0    | 0.0  | 0.0    | 0.0  |
| 29°   | 4.3   | 0.4 | 0.0    | 0.0  | 0.0    | 0.0  |
| 30°   | 3.7   | 0.4 | 0.0    | 0.0  | 0.0    | 0.0  |
| 31°   | 3.0   | 0.2 | 0.0    | 0.0  | 0.0    | 0.0  |
| 32°   | 2.4   | 0.2 | 0.0    | 0.0  | 0.0    | 0.0  |
| 33°   | 1.7   | 0.2 | 0.0    | 0.0  | 0.0    | 0.0  |
| 34°   | 1.1   | 0.2 | 0.0    | 0.0  | 0.0    | 0.0  |
| 35°   | 0.9   | 0.2 | 0.0    | 0.0  | 0.0    | 0.0  |
| 36°   | 0.6   | 0.2 | 0.0    | 0.0  | 0.0    | 0.2  |
| 37°   | 0.6   | 0.2 | 0.0    | 0.0  | 0.0    | 0.2  |
| 38°   | 0.4   | 0.2 | 0.0    | 0.0  | 0.0    | 0.2  |
| 39°   | 0.2   | 0.2 | 0.0    | 0.0  | 0.0    | 0.2  |
| 40°   | 0.2   | 0.2 | 0.0    | 0.0  | 0.0    | 0.2  |
| 42.5° | 0.0   | 0.2 | 0.0    | 0.0  | 0.2    | 0.4  |
| 45°   | 0.0   | 0.2 | 0.0    | 0.0  | 0.2    | 0.4  |
| 47.5° | 0.0   | 0.2 | 0.0    | 0.0  | 0.4    | 0.4  |
| 50°   | 0.0   | 0.2 | 0.2    | 0.2  | 0.4    | 0.6  |
| 52.5° | 0.0   | 0.4 | 0.2    | 0.4  | 0.6    | 0.7  |
| 55°   | 0.2   | 0.4 | 0.4    | 0.6  | 0.7    | 0.9  |
| 57.5° | 0.2   | 0.6 | 0.6    | 0.7  | 0.9    | 0.9  |
| 60°   | 0.4   | 0.6 | 0.7    | 0.7  | 1.1    | 1.1  |
| 62.5° | 0.4   | 0.7 | 0.7    | 0.7  | 1.1    | 1.1  |
| 65°   | 0.4   | 0.7 | 0.7    | 0.9  | 1.1    | 1.1  |
| 67.5° | 0.4   | 0.7 | 0.7    | 0.7  | 0.9    | 1.1  |
| 70°   | 0.4   | 0.7 | 0.6    | 0.7  | 0.9    | 0.9  |
| 72.5° | 0.4   | 0.7 | 0.6    | 0.6  | 0.7    | 0.9  |
| 75°   | 0.4   | 0.7 | 0.6    | 0.6  | 0.7    | 0.7  |
| 77.5° | 0.4   | 0.6 | 0.6    | 0.4  | 0.6    | 0.6  |
| 80°   | 0.4   | 0.6 | 0.4    | 0.4  | 0.6    | 0.6  |





TEST NUMBER: P1334177

CATALOG NUMBER: P3A02R159835DE010 E3CA301MW

**CANDELA DISTRIBUTION (continued):**

|       | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-----|--------|------|--------|------|
| 82.5° | 0.4   | 0.6 | 0.4    | 0.2  | 0.4    | 0.4  |
| 85°   | 0.4   | 0.6 | 0.4    | 0.2  | 0.2    | 0.2  |
| 87.5° | 0.4   | 0.6 | 0.2    | 0.0  | 0.0    | 0.2  |
| 90°   | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)