

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: P1336501

Luminaire Tested: P3A05R159840DE010 E3A451GPH

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1336501  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A05R159840DE010 E3A451GPH  
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 98CRI , E3A451GPH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

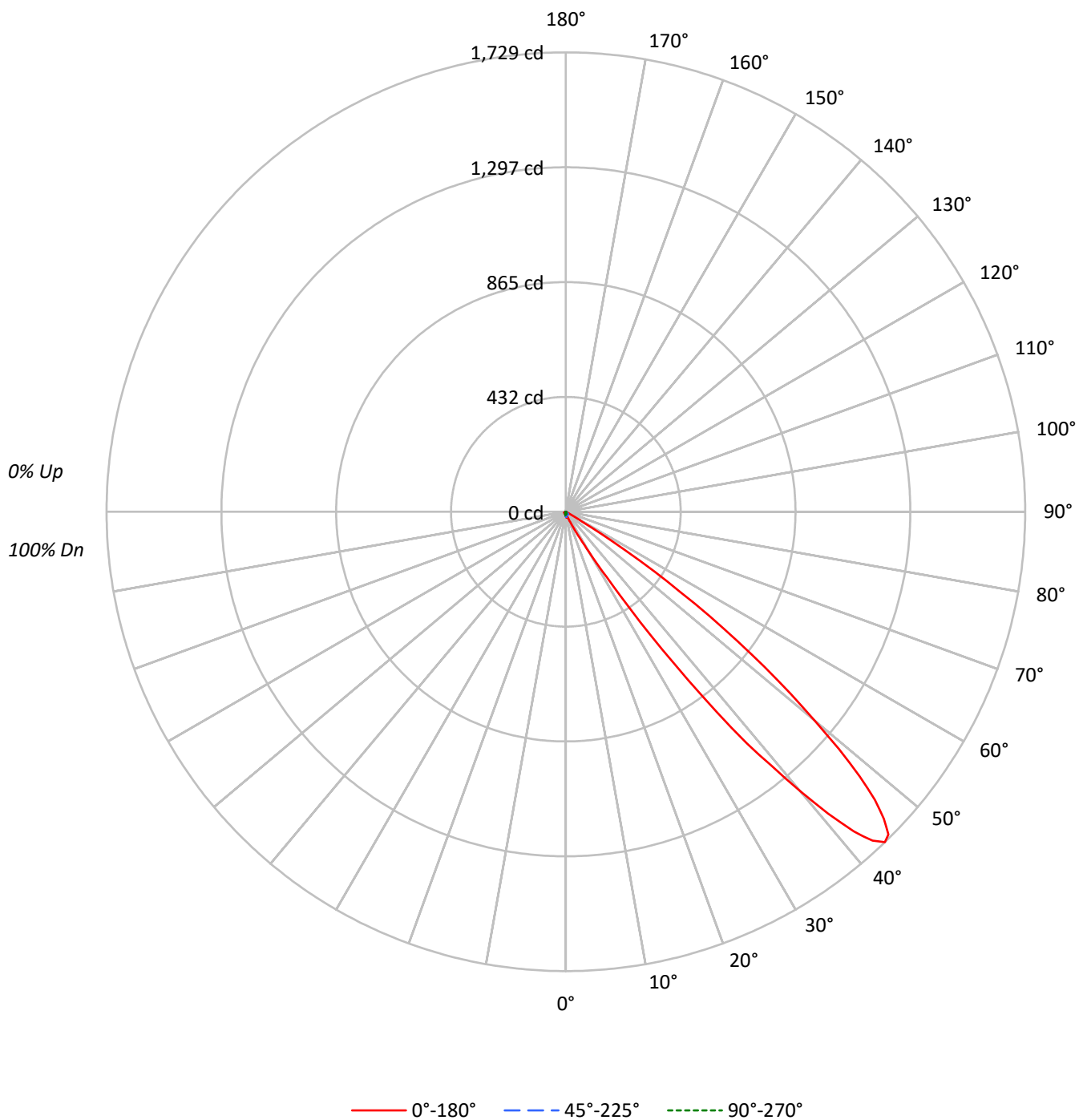
Lumens per Lamp: N/A  
Luminaire Lumens: 193.0 lumens  
Efficiency: N/A  
Efficacy: 26.8 lumens/watt  
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

### Luminous Intensity Polar Plot



TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**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   | 101 | 93  | 87  | 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  |  | 54  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  |  | 49  | 42  | 37  |  | 48  |
| 7   | 62  | 47  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  |  | 44  | 36  | 31  |  | 42  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  |  | 39  | 31  | 26  |  | 37  |
| 9   | 52  | 37  | 28  | 22  | 50  | 37  | 28  | 22  | 35  | 28  | 22  |  | 34  | 27  | 22  |  | 33  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  |  | 31  | 24  | 19  |  | 30  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 3750   | 3750 | 3750 | 3750 | 3750 |
| 5°  | 4667   | 4160 | 3390 | 2972 | 2928 |
| 10° | 4587   | 3563 | 2605 | 2316 | 2360 |
| 15° | 3791   | 2543 | 1884 | 1930 | 2043 |
| 20° | 6604   | 2030 | 1447 | 1657 | 1890 |
| 25° | 14711  | 2419 | 1161 | 1548 | 1766 |
| 30° | 44007  | 2962 | 1013 | 1519 | 1848 |
| 35° | 169369 | 3346 | 937  | 1553 | 1954 |
| 40° | 393137 | 2920 | 887  | 1603 | 2090 |
| 45° | 532489 | 2202 | 775  | 1737 | 2264 |
| 50° | 417521 | 1296 | 785  | 1842 | 2490 |
| 55° | 200404 | 573  | 726  | 1988 | 2714 |
| 60° | 18332  | 88   | 658  | 2105 | 3026 |
| 65° | 1972   | 0    | 623  | 2179 | 3321 |
| 70° | 513    | 0    | 769  | 2372 | 3590 |
| 75° | 508    | 169  | 1017 | 2626 | 4067 |
| 80° | 505    | 505  | 1263 | 2652 | 4420 |
| 85° | 503    | 503  | 2013 | 2516 | 4780 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 532489 cd/sqm

TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.5    | 0.8       |
| 10°-20°   | 3.0    | 1.6       |
| 20°-30°   | 7.3    | 3.8       |
| 30°-40°   | 39.9   | 20.7      |
| 40°-50°   | 96.7   | 50.1      |
| 50°-60°   | 38.6   | 20.0      |
| 60°-70°   | 3.3    | 1.7       |
| 70°-80°   | 1.9    | 1.0       |
| 80°-90°   | 0.8    | 0.4       |
| 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°    | 11.8   | 6.1       |
| 0°-40°    | 51.7   | 26.8      |
| 0°-60°    | 187.0  | 96.9      |
| 0°-90°    | 193.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 193.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 17   | 17  | 17  | 17   | 17   |      |
| 5°  | 21   | 19  | 15  | 14   | 13   | 2    |
| 15° | 17   | 11  | 8   | 8    | 9    | 6    |
| 25° | 61   | 10  | 5   | 6    | 7    | 37   |
| 35° | 633  | 12  | 4   | 6    | 7    | 447  |
| 45° | 1717 | 7   | 2   | 6    | 7    | 1211 |
| 55° | 524  | 2   | 2   | 5    | 7    | 488  |
| 65° | 4    | 0   | 1   | 4    | 6    | 10   |
| 75° | 1    | 0   | 1   | 3    | 5    | 1    |
| 85° | 0    | 0   | 1   | 1    | 2    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5° | 15°   | 17.5° | 20°   | 22.5° | 45°  |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|------|
| 0°    | 17.1   | 17.1   | 17.1   | 17.1   | 17.1   | 17.1  | 17.1  | 17.1  | 17.1  | 17.1  | 17.1 |
| 2.5°  | 19.2   | 19.2   | 19.4   | 19.2   | 19.2   | 19.2  | 19.2  | 19.1  | 19.1  | 19.1  | 18.5 |
| 5°    | 21.2   | 21.2   | 21.2   | 21.2   | 21.0   | 21.0  | 21.0  | 20.8  | 20.8  | 20.6  | 18.9 |
| 7.5°  | 21.9   | 21.9   | 21.7   | 21.7   | 21.6   | 21.6  | 21.4  | 21.2  | 21.0  | 20.8  | 18.1 |
| 10°   | 20.6   | 20.6   | 20.6   | 20.4   | 20.4   | 20.2  | 20.0  | 19.8  | 19.6  | 19.2  | 16.0 |
| 12.5° | 18.3   | 18.3   | 18.5   | 18.3   | 18.1   | 17.9  | 17.5  | 17.3  | 17.1  | 16.7  | 13.3 |
| 15°   | 16.7   | 16.7   | 16.7   | 16.5   | 16.4   | 16.0  | 15.8  | 15.4  | 15.2  | 14.6  | 11.2 |
| 17.5° | 21.4   | 21.4   | 21.2   | 20.8   | 20.0   | 19.4  | 18.5  | 17.7  | 16.7  | 15.6  | 9.6  |
| 20°   | 28.3   | 28.3   | 27.9   | 27.5   | 26.6   | 25.6  | 24.1  | 22.7  | 21.2  | 19.8  | 8.7  |
| 22.5° | 41.0   | 41.6   | 40.4   | 39.1   | 37.7   | 35.4  | 33.3  | 31.2  | 28.5  | 26.2  | 8.9  |
| 25°   | 60.8   | 61.4   | 60.8   | 57.7   | 55.2   | 52.2  | 48.1  | 43.9  | 39.3  | 35.0  | 10.0 |
| 27.5° | 98.5   | 98.9   | 98.0   | 90.4   | 86.4   | 78.3  | 71.2  | 64.3  | 56.6  | 48.9  | 11.0 |
| 30°   | 173.8  | 174.0  | 167.8  | 152.8  | 139.5  | 121.8 | 106.8 | 92.4  | 80.2  | 67.9  | 11.7 |
| 31°   | 228.8  | 223.4  | 210.3  | 192.2  | 171.1  | 147.2 | 126.6 | 108.0 | 89.9  | 76.6  | 11.9 |
| 32°   | 290.6  | 289.8  | 268.1  | 236.7  | 208.4  | 178.6 | 147.6 | 123.7 | 103.0 | 84.9  | 12.1 |
| 33°   | 372.4  | 372.8  | 338.5  | 301.6  | 255.2  | 215.1 | 174.5 | 141.8 | 116.8 | 94.7  | 12.5 |
| 34°   | 500.1  | 470.1  | 429.9  | 379.9  | 316.8  | 256.5 | 203.8 | 162.8 | 129.3 | 104.1 | 12.5 |
| 35°   | 632.7  | 602.5  | 558.3  | 482.4  | 395.8  | 311.6 | 238.6 | 185.3 | 144.3 | 114.3 | 12.5 |
| 36°   | 781.3  | 755.7  | 688.7  | 591.9  | 481.5  | 363.5 | 275.6 | 211.3 | 159.1 | 123.5 | 12.3 |
| 37°   | 941.8  | 904.3  | 830.0  | 724.3  | 576.5  | 436.6 | 320.6 | 237.1 | 174.0 | 133.6 | 11.9 |
| 38°   | 1104.8 | 1070.9 | 977.2  | 849.2  | 690.1  | 513.8 | 365.6 | 261.9 | 187.6 | 141.1 | 11.4 |
| 39°   | 1228.3 | 1209.9 | 1116.9 | 973.9  | 780.7  | 586.9 | 412.0 | 288.5 | 202.1 | 148.6 | 10.8 |
| 40°   | 1373.4 | 1343.6 | 1255.5 | 1078.6 | 887.9  | 661.4 | 457.4 | 311.9 | 214.0 | 154.5 | 10.2 |
| 41°   | 1505.8 | 1468.1 | 1356.9 | 1186.0 | 973.7  | 728.4 | 500.5 | 336.2 | 223.6 | 158.0 | 9.8  |
| 42°   | 1619.4 | 1575.5 | 1459.3 | 1278.0 | 1045.5 | 781.9 | 535.0 | 353.5 | 232.7 | 160.9 | 9.2  |
| 43°   | 1692.9 | 1655.0 | 1540.7 | 1347.1 | 1106.9 | 831.0 | 567.1 | 371.6 | 238.2 | 162.8 | 8.5  |
| 44°   | 1728.7 | 1690.4 | 1579.7 | 1390.4 | 1144.6 | 860.4 | 587.9 | 384.1 | 244.4 | 165.3 | 7.9  |
| 45°   | 1717.1 | 1678.3 | 1571.3 | 1391.1 | 1156.4 | 871.0 | 596.8 | 389.7 | 247.7 | 167.6 | 7.1  |
| 46°   | 1664.2 | 1636.9 | 1529.1 | 1355.0 | 1134.0 | 859.6 | 591.8 | 385.5 | 246.5 | 167.6 | 6.4  |
| 47°   | 1589.9 | 1558.8 | 1456.2 | 1292.8 | 1080.0 | 830.4 | 571.5 | 372.6 | 239.4 | 163.8 | 5.6  |
| 48°   | 1488.7 | 1462.2 | 1354.4 | 1194.1 | 997.0  | 766.7 | 525.9 | 351.6 | 228.2 | 156.3 | 4.8  |
| 49°   | 1361.7 | 1324.8 | 1224.5 | 1067.8 | 888.9  | 676.2 | 466.1 | 316.2 | 210.3 | 145.7 | 4.2  |
| 50°   | 1223.9 | 1178.3 | 1100.9 | 941.4  | 777.1  | 579.8 | 387.4 | 267.3 | 185.1 | 131.8 | 3.8  |
| 51°   | 1089.0 | 1042.6 | 968.9  | 833.3  | 657.8  | 481.1 | 312.5 | 213.4 | 152.4 | 112.8 | 3.3  |
| 52°   | 949.1  | 910.2  | 827.7  | 721.1  | 563.1  | 389.9 | 260.4 | 180.5 | 126.6 | 94.7  | 2.7  |
| 53°   | 809.8  | 783.2  | 704.7  | 596.8  | 452.4  | 318.5 | 212.6 | 154.5 | 110.5 | 81.0  | 2.1  |
| 54°   | 670.3  | 641.2  | 581.6  | 485.3  | 364.7  | 251.3 | 180.3 | 129.3 | 95.8  | 70.6  | 1.9  |
| 55°   | 524.2  | 509.2  | 454.2  | 370.1  | 276.3  | 200.5 | 146.3 | 111.2 | 80.2  | 59.1  | 1.5  |
| 56°   | 403.7  | 386.8  | 336.6  | 268.5  | 205.3  | 157.0 | 118.4 | 90.8  | 67.9  | 49.5  | 1.2  |
| 57°   | 264.4  | 247.1  | 213.8  | 187.4  | 149.5  | 114.5 | 90.4  | 71.6  | 55.2  | 41.0  | 1.0  |
| 58°   | 156.3  | 140.5  | 135.3  | 115.5  | 99.7   | 77.7  | 66.8  | 53.3  | 40.8  | 32.3  | 0.6  |
| 59°   | 71.8   | 72.9   | 64.9   | 60.8   | 55.2   | 49.5  | 40.6  | 35.6  | 27.9  | 23.3  | 0.4  |
| 60°   | 41.8   | 39.5   | 38.5   | 34.4   | 30.6   | 27.1  | 24.4  | 21.6  | 17.5  | 15.0  | 0.2  |
| 62.5° | 14.2   | 13.7   | 14.0   | 12.7   | 11.9   | 11.5  | 10.6  | 9.0   | 7.5   | 6.2   | 0.0  |
| 65°   | 3.8    | 3.8    | 3.7    | 3.5    | 3.3    | 3.1   | 2.9   | 2.5   | 2.3   | 1.9   | 0.0  |



TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 45° |
|-------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 67.5° | 1.3 | 1.3  | 1.2 | 1.2  | 1.0 | 1.0   | 0.8 | 0.8   | 0.6 | 0.6   | 0.0 |
| 70°   | 0.8 | 0.8  | 0.8 | 0.6  | 0.6 | 0.6   | 0.4 | 0.4   | 0.4 | 0.2   | 0.0 |
| 72.5° | 0.6 | 0.6  | 0.6 | 0.6  | 0.6 | 0.6   | 0.4 | 0.4   | 0.4 | 0.2   | 0.2 |
| 75°   | 0.6 | 0.6  | 0.6 | 0.4  | 0.4 | 0.4   | 0.4 | 0.4   | 0.4 | 0.4   | 0.2 |
| 77.5° | 0.4 | 0.4  | 0.4 | 0.4  | 0.4 | 0.4   | 0.4 | 0.4   | 0.4 | 0.4   | 0.4 |
| 80°   | 0.4 | 0.4  | 0.4 | 0.4  | 0.4 | 0.4   | 0.4 | 0.4   | 0.4 | 0.2   | 0.4 |
| 82.5° | 0.2 | 0.2  | 0.2 | 0.2  | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2   | 0.4 |
| 85°   | 0.2 | 0.2  | 0.2 | 0.2  | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2   | 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 |

TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**CANDELA DISTRIBUTION (continued):**

|       | 67.5° | 90°  | 112.5° | 135° | 157.5° | 180° |
|-------|-------|------|--------|------|--------|------|
| 0°    | 17.1  | 17.1 | 17.1   | 17.1 | 17.1   | 17.1 |
| 2.5°  | 17.7  | 16.9 | 16.0   | 15.4 | 15.2   | 15.0 |
| 5°    | 16.9  | 15.4 | 14.2   | 13.5 | 13.3   | 13.3 |
| 7.5°  | 15.2  | 13.5 | 12.3   | 11.9 | 11.7   | 11.7 |
| 10°   | 13.3  | 11.7 | 10.8   | 10.4 | 10.6   | 10.6 |
| 12.5° | 11.2  | 9.8  | 9.4    | 9.4  | 9.6    | 9.8  |
| 15°   | 9.0   | 8.3  | 8.3    | 8.5  | 8.9    | 9.0  |
| 17.5° | 7.5   | 7.1  | 7.3    | 7.7  | 8.1    | 8.5  |
| 20°   | 6.2   | 6.2  | 6.5    | 7.1  | 7.7    | 8.1  |
| 22.5° | 5.2   | 5.4  | 6.0    | 6.5  | 7.3    | 7.7  |
| 25°   | 4.4   | 4.8  | 5.4    | 6.4  | 7.1    | 7.3  |
| 27.5° | 3.8   | 4.4  | 5.2    | 6.2  | 6.9    | 7.3  |
| 30°   | 3.3   | 4.0  | 5.0    | 6.0  | 6.9    | 7.3  |
| 31°   | 3.1   | 3.8  | 4.8    | 6.0  | 6.9    | 7.3  |
| 32°   | 2.9   | 3.8  | 4.8    | 6.0  | 6.9    | 7.3  |
| 33°   | 2.7   | 3.7  | 4.8    | 5.8  | 6.9    | 7.3  |
| 34°   | 2.5   | 3.7  | 4.8    | 6.0  | 6.9    | 7.3  |
| 35°   | 2.3   | 3.5  | 4.6    | 5.8  | 6.7    | 7.3  |
| 36°   | 2.1   | 3.5  | 4.6    | 5.8  | 6.9    | 7.3  |
| 37°   | 1.9   | 3.5  | 4.6    | 5.8  | 6.7    | 7.3  |
| 38°   | 1.9   | 3.3  | 4.4    | 5.8  | 6.7    | 7.3  |
| 39°   | 1.7   | 3.1  | 4.4    | 5.8  | 6.7    | 7.3  |
| 40°   | 1.5   | 3.1  | 4.2    | 5.6  | 6.7    | 7.3  |
| 41°   | 1.3   | 2.9  | 4.2    | 5.6  | 6.7    | 7.3  |
| 42°   | 1.2   | 2.9  | 4.2    | 5.6  | 6.7    | 7.3  |
| 43°   | 1.0   | 2.7  | 4.0    | 5.6  | 6.7    | 7.3  |
| 44°   | 1.0   | 2.7  | 4.0    | 5.6  | 6.7    | 7.3  |
| 45°   | 0.8   | 2.5  | 3.8    | 5.6  | 6.7    | 7.3  |
| 46°   | 0.8   | 2.5  | 3.8    | 5.4  | 6.7    | 7.3  |
| 47°   | 0.6   | 2.5  | 3.8    | 5.4  | 6.7    | 7.3  |
| 48°   | 0.6   | 2.3  | 3.8    | 5.4  | 6.7    | 7.3  |
| 49°   | 0.4   | 2.3  | 3.8    | 5.4  | 6.7    | 7.3  |
| 50°   | 0.4   | 2.3  | 3.7    | 5.4  | 6.7    | 7.3  |
| 51°   | 0.4   | 2.3  | 3.7    | 5.4  | 6.7    | 7.3  |
| 52°   | 0.4   | 2.1  | 3.7    | 5.4  | 6.7    | 7.3  |
| 53°   | 0.4   | 2.1  | 3.7    | 5.4  | 6.7    | 7.3  |
| 54°   | 0.4   | 2.1  | 3.5    | 5.4  | 6.7    | 7.3  |
| 55°   | 0.4   | 1.9  | 3.5    | 5.2  | 6.7    | 7.1  |
| 56°   | 0.4   | 1.9  | 3.5    | 5.2  | 6.7    | 7.1  |
| 57°   | 0.4   | 1.9  | 3.3    | 5.2  | 6.7    | 7.1  |
| 58°   | 0.4   | 1.7  | 3.3    | 5.0  | 6.5    | 7.1  |
| 59°   | 0.4   | 1.7  | 3.1    | 5.0  | 6.5    | 6.9  |
| 60°   | 0.4   | 1.5  | 3.1    | 4.8  | 6.4    | 6.9  |
| 62.5° | 0.4   | 1.3  | 2.7    | 4.6  | 6.2    | 6.5  |
| 65°   | 0.4   | 1.2  | 2.5    | 4.2  | 6.0    | 6.4  |



TEST NUMBER: P1336501

CATALOG NUMBER: P3A05R159840DE010 E3A451GPH

**CANDELA DISTRIBUTION (continued):**

|       | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-----|--------|------|--------|------|
| 67.5° | 0.4   | 1.2 | 2.3    | 4.0  | 5.6    | 6.2  |
| 70°   | 0.4   | 1.2 | 2.1    | 3.7  | 5.4    | 5.6  |
| 72.5° | 0.6   | 1.2 | 1.9    | 3.5  | 5.0    | 5.2  |
| 75°   | 0.8   | 1.2 | 1.7    | 3.1  | 4.6    | 4.8  |
| 77.5° | 0.8   | 1.2 | 1.5    | 2.7  | 4.0    | 4.2  |
| 80°   | 0.8   | 1.0 | 1.3    | 2.1  | 3.3    | 3.5  |
| 82.5° | 0.8   | 1.0 | 1.0    | 1.7  | 2.5    | 2.7  |
| 85°   | 0.6   | 0.8 | 0.8    | 1.0  | 1.7    | 1.9  |
| 87.5° | 0.6   | 0.8 | 0.4    | 0.6  | 0.8    | 0.8  |
| 90°   | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)