

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: P1338986

Luminaire Tested: P3A05R409827DE010 E3A451H

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1338986  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A05R409827DE010 E3A451H  
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 98CRI , E3A451H TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

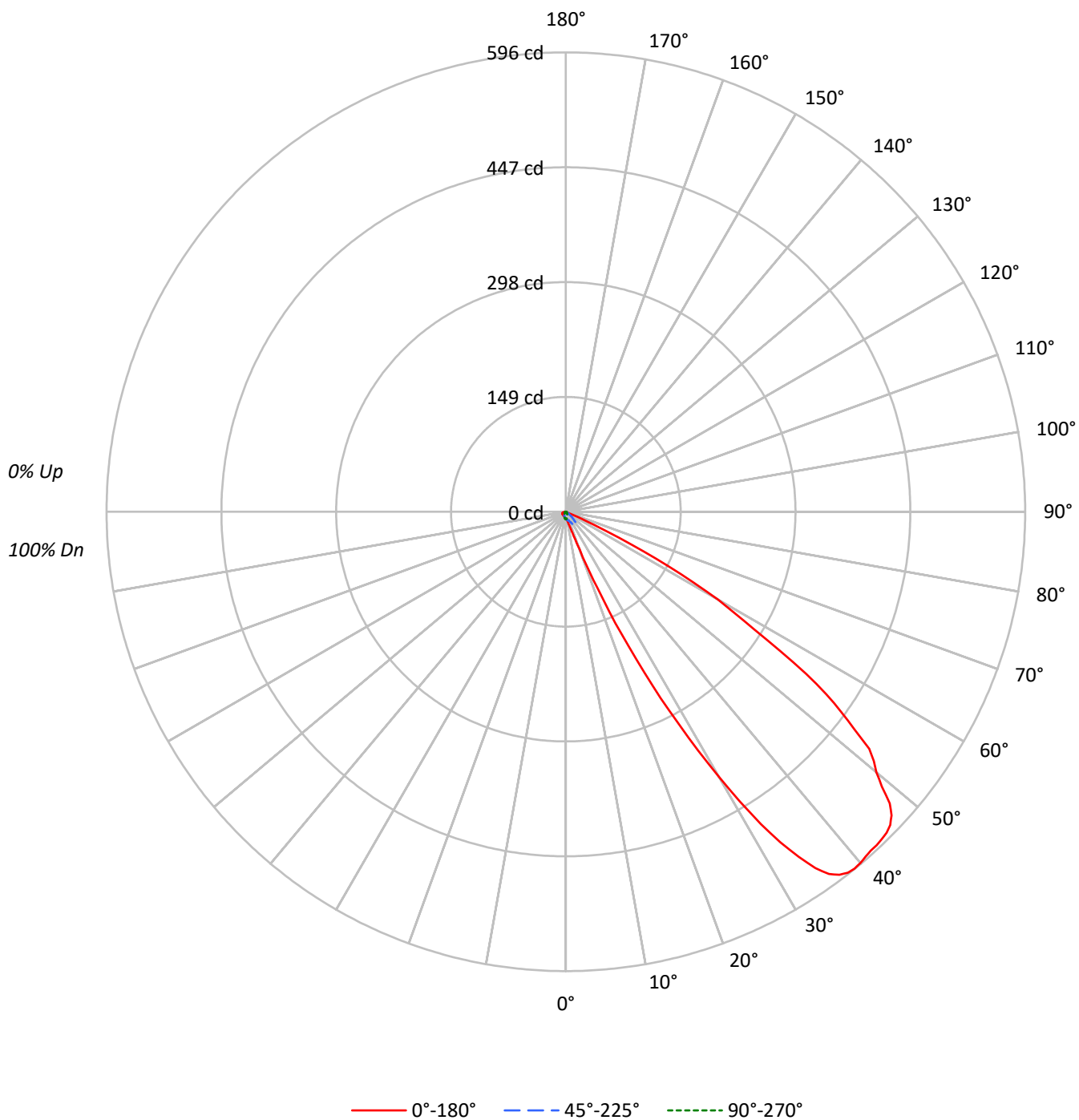
Lumens per Lamp: N/A  
Luminaire Lumens: 184.0 lumens  
Efficiency: N/A  
Efficacy: 25.6 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

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CATALOG NUMBER: P3A05R409827DE010 E3A451H

### 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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 73  | 68  | 64  | 71  | 66  | 62  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 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  | 38  | 50  | 43  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 31  | 42  | 36  | 31  |
| 8   | 57  | 42  | 33  | 27  | 55  | 42  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 26  |
| 9   | 52  | 38  | 29  | 23  | 51  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 23  | 34  | 27  | 23  |
| 10  | 48  | 34  | 25  | 20  | 47  | 33  | 25  | 20  | 32  | 25  | 20  | 31  | 24  | 20  | 30  | 24  | 19  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 2083   | 2083 | 2083 | 2083 | 2083 |
| 5°  | 2311   | 2223 | 2047 | 1849 | 1827 |
| 10° | 2783   | 2360 | 1870 | 1692 | 1648 |
| 15° | 4563   | 2565 | 1612 | 1498 | 1544 |
| 20° | 12064  | 3034 | 1330 | 1330 | 1470 |
| 25° | 46527  | 3750 | 1065 | 1234 | 1428 |
| 30° | 100370 | 5013 | 861  | 1190 | 1418 |
| 35° | 151086 | 5916 | 723  | 1178 | 1446 |
| 40° | 170205 | 5954 | 630  | 1202 | 1546 |
| 45° | 182531 | 4621 | 589  | 1271 | 1675 |
| 50° | 179406 | 2866 | 512  | 1330 | 1842 |
| 55° | 157815 | 1415 | 535  | 1491 | 2064 |
| 60° | 99904  | 307  | 614  | 1623 | 2281 |
| 65° | 20443  | 104  | 623  | 1764 | 2542 |
| 70° | 449    | 128  | 641  | 1923 | 2949 |
| 75° | 424    | 254  | 678  | 2118 | 3304 |
| 80° | 379    | 253  | 884  | 2399 | 3788 |
| 85° | 503    | 503  | 1761 | 2516 | 4277 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 185810 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.9    | 0.5       |
| 10°-20°   | 2.9    | 1.6       |
| 20°-30°   | 14.3   | 7.8       |
| 30°-40°   | 46.5   | 25.3      |
| 40°-50°   | 64.1   | 34.8      |
| 50°-60°   | 44.6   | 24.3      |
| 60°-70°   | 8.5    | 4.6       |
| 70°-80°   | 1.5    | 0.8       |
| 80°-90°   | 0.7    | 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°    | 18.1   | 9.8       |
| 0°-40°    | 64.6   | 35.1      |
| 0°-60°    | 173.3  | 94.2      |
| 0°-90°    | 184.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 184.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 10  | 10  | 10  | 10   | 10   |      |
| 5°  | 10  | 10  | 9   | 8    | 8    | 1    |
| 15° | 20  | 11  | 7   | 7    | 7    | 7    |
| 25° | 192 | 16  | 4   | 5    | 6    | 99   |
| 35° | 564 | 22  | 3   | 4    | 5    | 341  |
| 45° | 589 | 15  | 2   | 4    | 5    | 448  |
| 55° | 413 | 4   | 1   | 4    | 5    | 353  |
| 65° | 39  | 0   | 1   | 3    | 5    | 70   |
| 75° | 0   | 0   | 1   | 2    | 4    | 0    |
| 85° | 0   | 0   | 1   | 1    | 2    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1338986

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°  | 45°  | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-----|
| 0°    | 9.5   | 9.5   | 9.5   | 9.5   | 9.5   | 9.5   | 9.5   | 9.5  | 9.5  | 9.5   | 9.5 |
| 2.5°  | 9.8   | 9.8   | 9.8   | 9.8   | 9.8   | 9.8   | 9.8   | 9.8  | 9.8  | 9.6   | 9.5 |
| 5°    | 10.5  | 10.5  | 10.5  | 10.5  | 10.3  | 10.3  | 10.3  | 10.1 | 10.1 | 9.8   | 9.3 |
| 7.5°  | 11.2  | 11.2  | 11.2  | 11.2  | 11.0  | 10.8  | 10.6  | 10.6 | 10.5 | 9.6   | 9.0 |
| 10°   | 12.5  | 12.5  | 12.3  | 12.2  | 12.0  | 11.7  | 11.5  | 11.2 | 10.6 | 9.5   | 8.4 |
| 12.5° | 15.2  | 14.9  | 14.7  | 14.4  | 13.9  | 13.2  | 12.5  | 12.0 | 10.8 | 9.1   | 7.9 |
| 15°   | 20.1  | 19.8  | 19.1  | 18.1  | 17.1  | 15.7  | 14.5  | 13.3 | 11.3 | 8.6   | 7.1 |
| 17.5° | 28.7  | 27.7  | 26.7  | 25.0  | 22.5  | 20.1  | 17.6  | 15.4 | 12.0 | 8.1   | 6.4 |
| 20°   | 51.7  | 51.0  | 44.9  | 40.2  | 32.6  | 27.2  | 22.1  | 18.4 | 13.0 | 7.6   | 5.7 |
| 22.5° | 106.6 | 99.5  | 89.6  | 73.3  | 57.1  | 42.1  | 30.6  | 23.2 | 14.0 | 6.9   | 5.1 |
| 25°   | 192.3 | 181.1 | 159.7 | 128.4 | 94.8  | 67.1  | 44.3  | 30.2 | 15.5 | 6.3   | 4.4 |
| 27.5° | 291.1 | 279.8 | 246.5 | 203.5 | 148.5 | 101.2 | 63.2  | 40.0 | 17.6 | 5.6   | 3.9 |
| 30°   | 396.4 | 386.8 | 344.5 | 284.9 | 209.4 | 141.8 | 84.7  | 50.0 | 19.8 | 4.9   | 3.4 |
| 31°   | 438.8 | 426.5 | 380.9 | 317.3 | 237.9 | 158.5 | 93.3  | 54.2 | 20.6 | 4.7   | 3.2 |
| 32°   | 477.9 | 463.8 | 416.5 | 348.4 | 261.1 | 176.6 | 102.7 | 58.0 | 21.3 | 4.4   | 3.0 |
| 33°   | 511.5 | 495.1 | 449.5 | 377.8 | 286.6 | 193.5 | 112.5 | 61.5 | 21.8 | 4.1   | 2.9 |
| 34°   | 540.1 | 525.9 | 476.9 | 407.4 | 309.2 | 209.7 | 122.2 | 65.1 | 22.1 | 3.9   | 2.7 |
| 35°   | 564.4 | 551.5 | 503.0 | 429.9 | 331.4 | 225.4 | 131.0 | 68.4 | 22.1 | 3.5   | 2.7 |
| 36°   | 580.8 | 569.6 | 525.7 | 452.9 | 350.0 | 238.8 | 138.4 | 71.5 | 22.1 | 3.2   | 2.5 |
| 37°   | 589.7 | 578.9 | 540.6 | 471.8 | 368.2 | 251.9 | 145.2 | 73.8 | 22.0 | 3.0   | 2.4 |
| 38°   | 594.3 | 584.8 | 551.5 | 487.2 | 380.9 | 261.4 | 151.1 | 75.7 | 21.8 | 2.7   | 2.4 |
| 39°   | 595.5 | 587.5 | 558.5 | 498.3 | 393.2 | 270.9 | 155.3 | 76.7 | 21.3 | 2.5   | 2.2 |
| 40°   | 594.6 | 587.7 | 562.2 | 508.3 | 402.7 | 278.3 | 158.3 | 77.1 | 20.8 | 2.2   | 2.2 |
| 41°   | 592.9 | 587.5 | 564.9 | 515.2 | 410.3 | 283.0 | 159.5 | 76.4 | 20.1 | 1.9   | 2.0 |
| 42°   | 591.4 | 585.5 | 566.1 | 519.9 | 415.5 | 285.4 | 159.3 | 75.0 | 19.1 | 1.7   | 2.0 |
| 43°   | 591.4 | 584.7 | 566.2 | 523.0 | 418.1 | 285.6 | 157.3 | 72.5 | 17.7 | 1.5   | 1.9 |
| 44°   | 590.4 | 584.2 | 567.1 | 525.0 | 418.7 | 284.1 | 154.1 | 69.8 | 16.2 | 1.4   | 1.9 |
| 45°   | 588.6 | 582.0 | 566.9 | 525.2 | 417.5 | 280.3 | 148.9 | 66.2 | 14.9 | 1.0   | 1.9 |
| 46°   | 585.0 | 579.1 | 565.4 | 524.0 | 414.0 | 274.9 | 142.6 | 62.7 | 13.3 | 0.8   | 1.7 |
| 47°   | 577.9 | 573.3 | 561.3 | 519.9 | 408.6 | 267.0 | 135.2 | 58.6 | 12.2 | 0.7   | 1.7 |
| 48°   | 565.7 | 562.5 | 554.4 | 511.0 | 398.3 | 257.2 | 127.2 | 54.2 | 11.0 | 0.7   | 1.7 |
| 49°   | 543.4 | 540.9 | 536.2 | 496.6 | 385.1 | 245.2 | 118.6 | 49.3 | 9.8  | 0.5   | 1.7 |
| 50°   | 525.9 | 523.2 | 513.5 | 472.5 | 366.2 | 230.0 | 109.2 | 44.4 | 8.4  | 0.3   | 1.5 |
| 51°   | 514.2 | 509.8 | 494.6 | 444.4 | 338.6 | 209.7 | 98.9  | 39.5 | 7.1  | 0.3   | 1.5 |
| 52°   | 499.5 | 492.9 | 474.0 | 419.2 | 313.5 | 189.4 | 87.7  | 34.6 | 6.3  | 0.3   | 1.5 |
| 53°   | 468.7 | 466.4 | 447.6 | 392.2 | 288.3 | 170.0 | 76.2  | 30.6 | 5.4  | 0.3   | 1.5 |
| 54°   | 441.9 | 438.3 | 412.8 | 354.7 | 260.9 | 148.4 | 64.4  | 27.0 | 4.6  | 0.3   | 1.5 |
| 55°   | 412.8 | 405.9 | 383.2 | 323.1 | 228.8 | 128.4 | 53.1  | 23.3 | 3.7  | 0.3   | 1.4 |
| 56°   | 376.1 | 370.1 | 345.7 | 289.3 | 199.2 | 108.1 | 44.4  | 19.1 | 2.9  | 0.3   | 1.4 |
| 57°   | 331.5 | 326.0 | 307.2 | 247.7 | 168.5 | 88.4  | 36.2  | 15.4 | 2.2  | 0.3   | 1.4 |
| 58°   | 288.4 | 282.2 | 260.7 | 207.8 | 136.0 | 70.1  | 30.2  | 12.5 | 1.7  | 0.3   | 1.4 |
| 59°   | 255.3 | 246.9 | 219.2 | 174.6 | 106.5 | 53.2  | 24.0  | 10.0 | 1.2  | 0.3   | 1.4 |
| 60°   | 227.8 | 220.9 | 192.1 | 145.3 | 83.5  | 39.2  | 17.7  | 7.6  | 0.7  | 0.3   | 1.4 |
| 62.5° | 132.0 | 130.1 | 104.3 | 74.9  | 39.4  | 18.2  | 8.8   | 3.5  | 0.3  | 0.5   | 1.4 |
| 65°   | 39.4  | 34.3  | 26.7  | 15.9  | 10.1  | 6.1   | 3.2   | 1.2  | 0.2  | 0.5   | 1.2 |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 0.7 | 0.3 | 0.2 | 0.5   | 1.2 |
| 70°   | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 | 0.5   | 1.0 |
| 72.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.5   | 0.8 |
| 75°   | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5   | 0.8 |
| 77.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5   | 0.8 |
| 80°   | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5   | 0.7 |
| 82.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5   | 0.7 |
| 85°   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5   | 0.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.5   | 0.5 |
| 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: P1338986

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**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 9.5    | 9.5  | 9.5    | 9.5  |
| 2.5°  | 9.1    | 9.0  | 8.8    | 8.8  |
| 5°    | 8.8    | 8.4  | 8.4    | 8.3  |
| 7.5°  | 8.3    | 7.9  | 7.9    | 7.9  |
| 10°   | 7.8    | 7.6  | 7.6    | 7.4  |
| 12.5° | 7.1    | 7.1  | 7.1    | 7.1  |
| 15°   | 6.6    | 6.6  | 6.8    | 6.8  |
| 17.5° | 5.9    | 6.1  | 6.4    | 6.6  |
| 20°   | 5.4    | 5.7  | 6.1    | 6.3  |
| 22.5° | 5.1    | 5.4  | 5.9    | 6.1  |
| 25°   | 4.6    | 5.1  | 5.7    | 5.9  |
| 27.5° | 4.2    | 4.9  | 5.4    | 5.7  |
| 30°   | 3.9    | 4.7  | 5.2    | 5.6  |
| 31°   | 3.9    | 4.6  | 5.2    | 5.6  |
| 32°   | 3.7    | 4.4  | 5.2    | 5.4  |
| 33°   | 3.7    | 4.4  | 5.2    | 5.4  |
| 34°   | 3.5    | 4.4  | 5.1    | 5.4  |
| 35°   | 3.5    | 4.4  | 5.1    | 5.4  |
| 36°   | 3.4    | 4.2  | 5.1    | 5.4  |
| 37°   | 3.4    | 4.2  | 5.1    | 5.4  |
| 38°   | 3.2    | 4.2  | 5.1    | 5.4  |
| 39°   | 3.2    | 4.2  | 5.1    | 5.4  |
| 40°   | 3.2    | 4.2  | 5.1    | 5.4  |
| 41°   | 3.0    | 4.2  | 5.1    | 5.4  |
| 42°   | 3.0    | 4.2  | 5.1    | 5.4  |
| 43°   | 3.0    | 4.1  | 5.1    | 5.4  |
| 44°   | 3.0    | 4.1  | 5.1    | 5.4  |
| 45°   | 2.9    | 4.1  | 5.1    | 5.4  |
| 46°   | 2.9    | 4.1  | 5.1    | 5.4  |
| 47°   | 2.9    | 4.1  | 5.1    | 5.4  |
| 48°   | 2.9    | 4.1  | 5.1    | 5.4  |
| 49°   | 2.9    | 4.1  | 5.1    | 5.4  |
| 50°   | 2.7    | 3.9  | 5.1    | 5.4  |
| 51°   | 2.7    | 3.9  | 5.1    | 5.4  |
| 52°   | 2.7    | 3.9  | 5.1    | 5.4  |
| 53°   | 2.7    | 3.9  | 5.1    | 5.4  |
| 54°   | 2.5    | 3.9  | 5.1    | 5.4  |
| 55°   | 2.5    | 3.9  | 5.1    | 5.4  |
| 56°   | 2.5    | 3.9  | 5.1    | 5.2  |
| 57°   | 2.5    | 3.9  | 4.9    | 5.2  |
| 58°   | 2.5    | 3.7  | 4.9    | 5.2  |
| 59°   | 2.5    | 3.7  | 4.9    | 5.2  |
| 60°   | 2.5    | 3.7  | 4.9    | 5.2  |
| 62.5° | 2.4    | 3.7  | 4.7    | 5.1  |
| 65°   | 2.2    | 3.4  | 4.7    | 4.9  |





TEST NUMBER: P1338986

CATALOG NUMBER: P3A05R409827DE010 E3A451H

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 2.2    | 3.2  | 4.4    | 4.7  |
| 70°   | 2.0    | 3.0  | 4.2    | 4.6  |
| 72.5° | 1.7    | 2.9  | 3.9    | 4.2  |
| 75°   | 1.5    | 2.5  | 3.5    | 3.9  |
| 77.5° | 1.4    | 2.2  | 3.2    | 3.4  |
| 80°   | 1.2    | 1.9  | 2.7    | 3.0  |
| 82.5° | 0.8    | 1.4  | 2.2    | 2.4  |
| 85°   | 0.7    | 1.0  | 1.5    | 1.7  |
| 87.5° | 0.5    | 0.5  | 0.8    | 0.8  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)