

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: P1339005

Luminaire Tested: P3A05R409830DE010 E3A451WH

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1339005  
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: P3A05R409830DE010 E3A451WH  
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3A451WH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

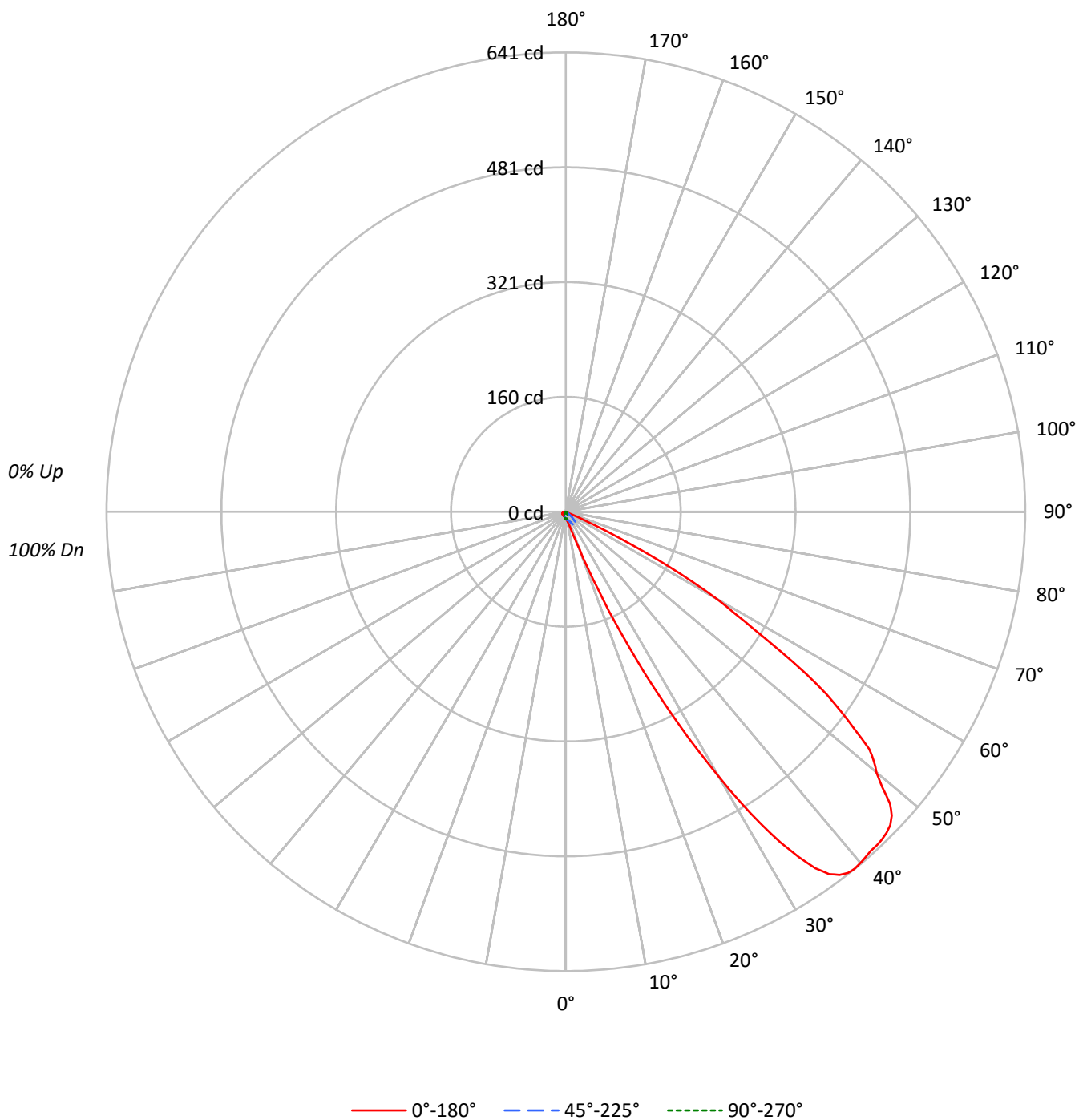
Lumens per Lamp: N/A  
Luminaire Lumens: 198.0 lumens  
Efficiency: N/A  
Efficacy: 27.5 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P1339005

CATALOG NUMBER: P3A05R409830DE010 E3A451WH

### 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°  | 2237   | 2237 | 2237 | 2237 | 2237 |
| 5°  | 2487   | 2399 | 2201 | 2003 | 1959 |
| 10° | 3006   | 2561 | 2026 | 1826 | 1781 |
| 15° | 4904   | 2770 | 1725 | 1612 | 1657 |
| 20° | 12974  | 3267 | 1447 | 1447 | 1563 |
| 25° | 50059  | 4041 | 1137 | 1331 | 1548 |
| 30° | 108017 | 5393 | 912  | 1291 | 1519 |
| 35° | 162570 | 6371 | 776  | 1258 | 1553 |
| 40° | 183172 | 6412 | 687  | 1288 | 1660 |
| 45° | 196392 | 4962 | 620  | 1364 | 1799 |
| 50° | 193051 | 3104 | 546  | 1433 | 1979 |
| 55° | 169820 | 1529 | 573  | 1606 | 2217 |
| 60° | 107491 | 307  | 658  | 1754 | 2456 |
| 65° | 22000  | 104  | 675  | 1868 | 2750 |
| 70° | 449    | 128  | 705  | 2116 | 3142 |
| 75° | 424    | 339  | 763  | 2288 | 3558 |
| 80° | 505    | 253  | 884  | 2526 | 4167 |
| 85° | 503    | 503  | 1761 | 2768 | 4529 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 199957 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.0    | 0.5       |
| 10°-20°   | 3.1    | 1.6       |
| 20°-30°   | 15.4   | 7.8       |
| 30°-40°   | 50.0   | 25.3      |
| 40°-50°   | 69.0   | 34.8      |
| 50°-60°   | 48.0   | 24.3      |
| 60°-70°   | 9.1    | 4.6       |
| 70°-80°   | 1.6    | 0.8       |
| 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°    | 19.5   | 9.8       |
| 0°-40°    | 69.5   | 35.1      |
| 0°-60°    | 186.5  | 94.2      |
| 0°-90°    | 198.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 198.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 10  | 10  | 10  | 10   | 10   |      |
| 5°  | 11  | 11  | 10  | 9    | 9    | 1    |
| 15° | 22  | 12  | 8   | 7    | 7    | 8    |
| 25° | 207 | 17  | 5   | 6    | 6    | 107  |
| 35° | 607 | 24  | 3   | 5    | 6    | 367  |
| 45° | 633 | 16  | 2   | 4    | 6    | 482  |
| 55° | 444 | 4   | 2   | 4    | 6    | 380  |
| 65° | 42  | 0   | 1   | 4    | 5    | 75   |
| 75° | 0   | 0   | 1   | 3    | 4    | 1    |
| 85° | 0   | 0   | 1   | 1    | 2    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1339005

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°  | 45°  | 67.5° | 90°  |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|------|
| 0°    | 10.2  | 10.2  | 10.2  | 10.2  | 10.2  | 10.2  | 10.2  | 10.2 | 10.2 | 10.2  | 10.2 |
| 2.5°  | 10.5  | 10.5  | 10.5  | 10.5  | 10.5  | 10.5  | 10.5  | 10.5 | 10.5 | 10.4  | 10.2 |
| 5°    | 11.3  | 11.3  | 11.3  | 11.3  | 11.1  | 11.1  | 11.1  | 10.9 | 10.9 | 10.5  | 10.0 |
| 7.5°  | 12.0  | 12.0  | 12.0  | 12.0  | 11.8  | 11.6  | 11.5  | 11.5 | 11.3 | 10.4  | 9.6  |
| 10°   | 13.5  | 13.5  | 13.3  | 13.1  | 12.9  | 12.5  | 12.4  | 12.0 | 11.5 | 10.2  | 9.1  |
| 12.5° | 16.4  | 16.0  | 15.8  | 15.5  | 14.9  | 14.2  | 13.5  | 12.9 | 11.6 | 9.8   | 8.5  |
| 15°   | 21.6  | 21.3  | 20.5  | 19.5  | 18.4  | 16.9  | 15.6  | 14.4 | 12.2 | 9.3   | 7.6  |
| 17.5° | 30.9  | 29.8  | 28.7  | 26.9  | 24.2  | 21.6  | 18.9  | 16.5 | 12.9 | 8.7   | 6.9  |
| 20°   | 55.6  | 54.9  | 48.4  | 43.3  | 35.1  | 29.3  | 23.8  | 19.8 | 14.0 | 8.2   | 6.2  |
| 22.5° | 114.7 | 107.1 | 96.4  | 78.9  | 61.5  | 45.3  | 32.9  | 24.9 | 15.1 | 7.5   | 5.5  |
| 25°   | 206.9 | 194.9 | 171.8 | 138.2 | 102.0 | 72.2  | 47.6  | 32.5 | 16.7 | 6.7   | 4.7  |
| 27.5° | 313.3 | 301.1 | 265.3 | 218.9 | 159.8 | 108.9 | 68.0  | 43.1 | 18.9 | 6.0   | 4.2  |
| 30°   | 426.6 | 416.2 | 370.8 | 306.6 | 225.3 | 152.6 | 91.1  | 53.8 | 21.3 | 5.3   | 3.6  |
| 31°   | 472.2 | 459.0 | 409.9 | 341.5 | 256.0 | 170.6 | 100.4 | 58.4 | 22.2 | 5.1   | 3.5  |
| 32°   | 514.2 | 499.1 | 448.2 | 374.9 | 280.9 | 190.0 | 110.6 | 62.4 | 22.9 | 4.7   | 3.3  |
| 33°   | 550.4 | 532.8 | 483.7 | 406.6 | 308.4 | 208.2 | 121.1 | 66.2 | 23.5 | 4.4   | 3.1  |
| 34°   | 581.1 | 565.9 | 513.1 | 438.4 | 332.8 | 225.7 | 131.5 | 70.0 | 23.8 | 4.2   | 2.9  |
| 35°   | 607.3 | 593.5 | 541.3 | 462.6 | 356.6 | 242.6 | 140.9 | 73.6 | 23.8 | 3.8   | 2.9  |
| 36°   | 625.0 | 613.0 | 565.7 | 487.3 | 376.6 | 256.9 | 148.9 | 76.9 | 23.8 | 3.5   | 2.7  |
| 37°   | 634.6 | 623.0 | 581.7 | 507.7 | 396.2 | 271.1 | 156.2 | 79.5 | 23.6 | 3.3   | 2.5  |
| 38°   | 639.5 | 629.3 | 593.5 | 524.2 | 409.9 | 281.3 | 162.6 | 81.5 | 23.5 | 2.9   | 2.5  |
| 39°   | 640.8 | 632.2 | 601.0 | 536.2 | 423.1 | 291.5 | 167.1 | 82.6 | 22.9 | 2.7   | 2.4  |
| 40°   | 639.9 | 632.4 | 605.0 | 547.0 | 433.3 | 299.5 | 170.4 | 82.9 | 22.4 | 2.4   | 2.4  |
| 41°   | 638.1 | 632.2 | 607.9 | 554.4 | 441.5 | 304.6 | 171.7 | 82.2 | 21.6 | 2.0   | 2.2  |
| 42°   | 636.4 | 630.1 | 609.1 | 559.5 | 447.1 | 307.1 | 171.5 | 80.7 | 20.5 | 1.8   | 2.2  |
| 43°   | 636.4 | 629.2 | 609.3 | 562.8 | 449.9 | 307.3 | 169.3 | 78.0 | 19.1 | 1.6   | 2.0  |
| 44°   | 635.3 | 628.6 | 610.2 | 565.0 | 450.6 | 305.7 | 165.8 | 75.1 | 17.5 | 1.5   | 2.0  |
| 45°   | 633.3 | 626.2 | 610.1 | 565.1 | 449.3 | 301.7 | 160.2 | 71.3 | 16.0 | 1.1   | 2.0  |
| 46°   | 629.5 | 623.2 | 608.4 | 563.9 | 445.5 | 295.8 | 153.5 | 67.5 | 14.4 | 0.9   | 1.8  |
| 47°   | 621.9 | 617.0 | 604.1 | 559.5 | 439.7 | 287.3 | 145.5 | 63.1 | 13.1 | 0.7   | 1.8  |
| 48°   | 608.8 | 605.3 | 596.6 | 549.9 | 428.6 | 276.8 | 136.9 | 58.4 | 11.8 | 0.7   | 1.8  |
| 49°   | 584.8 | 582.1 | 577.0 | 534.4 | 414.4 | 263.8 | 127.6 | 53.1 | 10.5 | 0.5   | 1.8  |
| 50°   | 565.9 | 563.0 | 552.6 | 508.4 | 394.0 | 247.5 | 117.5 | 47.8 | 9.1  | 0.4   | 1.6  |
| 51°   | 553.3 | 548.6 | 532.2 | 478.2 | 364.4 | 225.7 | 106.4 | 42.5 | 7.6  | 0.4   | 1.6  |
| 52°   | 537.5 | 530.4 | 510.0 | 451.1 | 337.3 | 203.8 | 94.4  | 37.3 | 6.7  | 0.4   | 1.6  |
| 53°   | 504.4 | 501.9 | 481.7 | 422.0 | 310.2 | 182.9 | 82.0  | 32.9 | 5.8  | 0.4   | 1.6  |
| 54°   | 475.5 | 471.7 | 444.2 | 381.7 | 280.8 | 159.7 | 69.3  | 29.1 | 4.9  | 0.4   | 1.6  |
| 55°   | 444.2 | 436.8 | 412.4 | 347.7 | 246.2 | 138.2 | 57.1  | 25.1 | 4.0  | 0.4   | 1.5  |
| 56°   | 404.8 | 398.2 | 372.0 | 311.3 | 214.4 | 116.4 | 47.8  | 20.5 | 3.1  | 0.4   | 1.5  |
| 57°   | 356.8 | 350.8 | 330.6 | 266.6 | 181.3 | 95.1  | 38.9  | 16.5 | 2.4  | 0.4   | 1.5  |
| 58°   | 310.4 | 303.7 | 280.6 | 223.7 | 146.4 | 75.5  | 32.5  | 13.5 | 1.8  | 0.4   | 1.5  |
| 59°   | 274.8 | 265.7 | 235.8 | 187.8 | 114.6 | 57.3  | 25.8  | 10.7 | 1.3  | 0.4   | 1.5  |
| 60°   | 245.1 | 237.7 | 206.7 | 156.4 | 89.8  | 42.2  | 19.1  | 8.2  | 0.7  | 0.4   | 1.5  |
| 62.5° | 142.0 | 140.0 | 112.2 | 80.6  | 42.4  | 19.6  | 9.5   | 3.8  | 0.4  | 0.5   | 1.5  |
| 65°   | 42.4  | 36.9  | 28.7  | 17.1  | 10.9  | 6.5   | 3.5   | 1.3  | 0.2  | 0.5   | 1.3  |



TEST NUMBER: P1339005

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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 0.7 | 0.4 | 0.2 | 0.5   | 1.3 |
| 70°   | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.2 | 0.2 | 0.5   | 1.1 |
| 72.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.2 | 0.4 | 0.5   | 0.9 |
| 75°   | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.4 | 0.5   | 0.9 |
| 77.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 | 0.5   | 0.9 |
| 80°   | 0.4 | 0.4 | 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: P1339005

CATALOG NUMBER: P3A05R409830DE010 E3A451WH

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 10.2   | 10.2 | 10.2   | 10.2 |
| 2.5°  | 9.8    | 9.6  | 9.5    | 9.5  |
| 5°    | 9.5    | 9.1  | 9.1    | 8.9  |
| 7.5°  | 8.9    | 8.5  | 8.5    | 8.5  |
| 10°   | 8.4    | 8.2  | 8.2    | 8.0  |
| 12.5° | 7.6    | 7.6  | 7.6    | 7.6  |
| 15°   | 7.1    | 7.1  | 7.3    | 7.3  |
| 17.5° | 6.4    | 6.5  | 6.9    | 7.1  |
| 20°   | 5.8    | 6.2  | 6.5    | 6.7  |
| 22.5° | 5.5    | 5.8  | 6.4    | 6.5  |
| 25°   | 4.9    | 5.5  | 6.2    | 6.4  |
| 27.5° | 4.5    | 5.3  | 5.8    | 6.2  |
| 30°   | 4.2    | 5.1  | 5.6    | 6.0  |
| 31°   | 4.2    | 4.9  | 5.6    | 6.0  |
| 32°   | 4.0    | 4.7  | 5.6    | 5.8  |
| 33°   | 4.0    | 4.7  | 5.6    | 5.8  |
| 34°   | 3.8    | 4.7  | 5.5    | 5.8  |
| 35°   | 3.8    | 4.7  | 5.5    | 5.8  |
| 36°   | 3.6    | 4.5  | 5.5    | 5.8  |
| 37°   | 3.6    | 4.5  | 5.5    | 5.8  |
| 38°   | 3.5    | 4.5  | 5.5    | 5.8  |
| 39°   | 3.5    | 4.5  | 5.5    | 5.8  |
| 40°   | 3.5    | 4.5  | 5.5    | 5.8  |
| 41°   | 3.3    | 4.5  | 5.5    | 5.8  |
| 42°   | 3.3    | 4.5  | 5.5    | 5.8  |
| 43°   | 3.3    | 4.4  | 5.5    | 5.8  |
| 44°   | 3.3    | 4.4  | 5.5    | 5.8  |
| 45°   | 3.1    | 4.4  | 5.5    | 5.8  |
| 46°   | 3.1    | 4.4  | 5.5    | 5.8  |
| 47°   | 3.1    | 4.4  | 5.5    | 5.8  |
| 48°   | 3.1    | 4.4  | 5.5    | 5.8  |
| 49°   | 3.1    | 4.4  | 5.5    | 5.8  |
| 50°   | 2.9    | 4.2  | 5.5    | 5.8  |
| 51°   | 2.9    | 4.2  | 5.5    | 5.8  |
| 52°   | 2.9    | 4.2  | 5.5    | 5.8  |
| 53°   | 2.9    | 4.2  | 5.5    | 5.8  |
| 54°   | 2.7    | 4.2  | 5.5    | 5.8  |
| 55°   | 2.7    | 4.2  | 5.5    | 5.8  |
| 56°   | 2.7    | 4.2  | 5.5    | 5.6  |
| 57°   | 2.7    | 4.2  | 5.3    | 5.6  |
| 58°   | 2.7    | 4.0  | 5.3    | 5.6  |
| 59°   | 2.7    | 4.0  | 5.3    | 5.6  |
| 60°   | 2.7    | 4.0  | 5.3    | 5.6  |
| 62.5° | 2.5    | 4.0  | 5.1    | 5.5  |
| 65°   | 2.4    | 3.6  | 5.1    | 5.3  |



TEST NUMBER: P1339005

CATALOG NUMBER: P3A05R409830DE010 E3A451WH

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 2.4    | 3.5  | 4.7    | 5.1  |
| 70°   | 2.2    | 3.3  | 4.5    | 4.9  |
| 72.5° | 1.8    | 3.1  | 4.2    | 4.5  |
| 75°   | 1.6    | 2.7  | 3.8    | 4.2  |
| 77.5° | 1.5    | 2.4  | 3.5    | 3.6  |
| 80°   | 1.3    | 2.0  | 2.9    | 3.3  |
| 82.5° | 0.9    | 1.5  | 2.4    | 2.5  |
| 85°   | 0.7    | 1.1  | 1.6    | 1.8  |
| 87.5° | 0.5    | 0.5  | 0.9    | 0.9  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)