

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: P1335504

Luminaire Tested: P3A02R359840DE010 E3A451H

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1335504  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A02R359840DE010 E3A451H  
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 98CRI , E3A451H TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

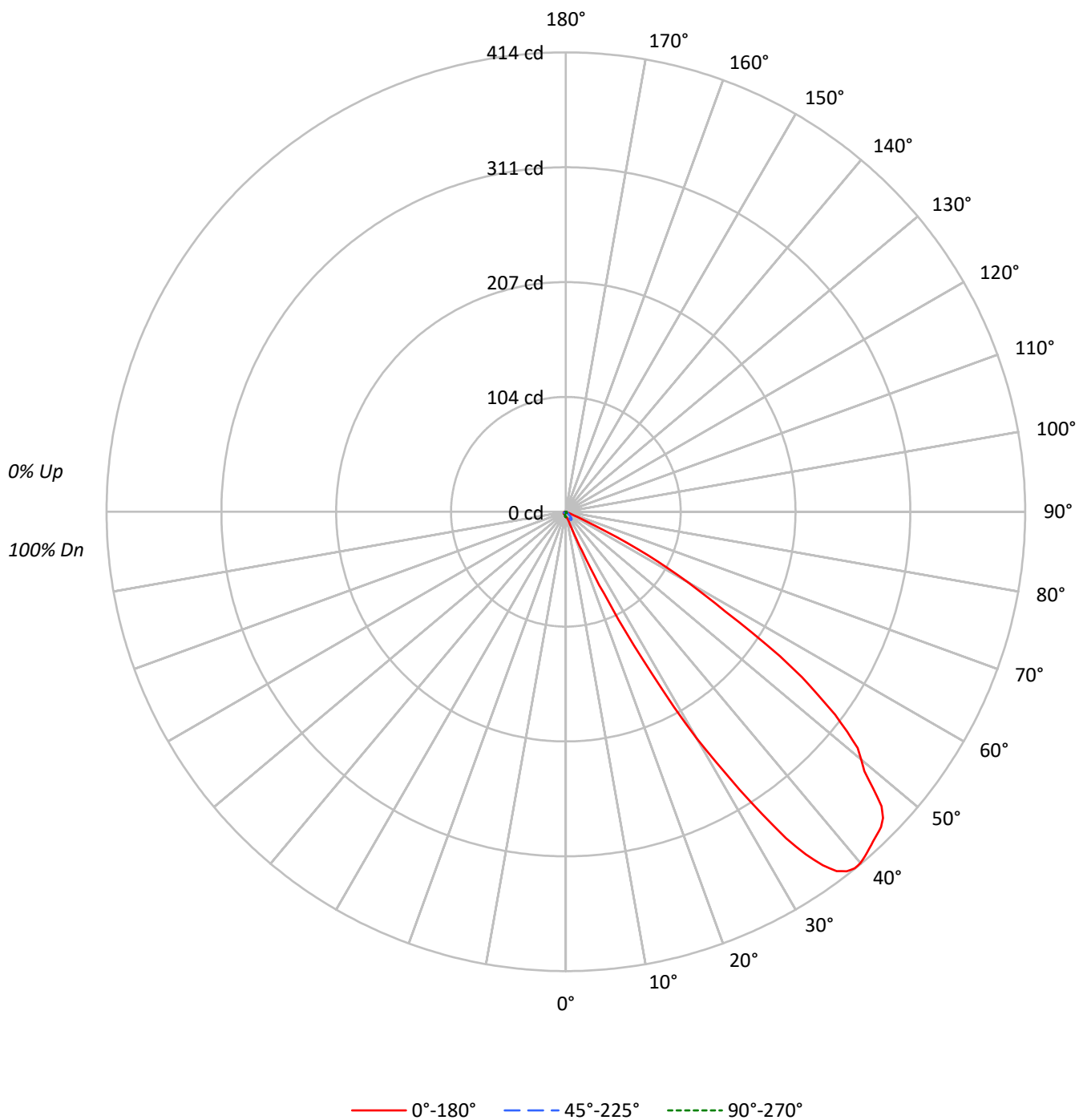
Lumens per Lamp: N/A  
Luminaire Lumens: 103.0 lumens  
Efficiency: N/A  
Efficacy: 28.6 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.67 / 1.42  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

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CATALOG NUMBER: P3A02R359840DE010 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  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  | 90  | 89  | 87  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  | 78  | 75  | 73  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  | 67  | 63  | 61  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 64  | 58  | 53  |  | 62  | 57  | 52  | 50  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 55  | 49  | 44  | 42  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  |  | 50  | 43  | 37  |  | 48  | 42  | 37  | 35  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  | 36  | 31  | 29  |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 26  |  | 38  | 31  | 26  | 24  |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  |  | 35  | 28  | 22  |  | 34  | 27  | 22  | 20  |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  |  | 31  | 24  | 19  |  | 30  | 24  | 19  | 17  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 1031   | 1031 | 1031 | 1031 | 1031 |
| 5°  | 1123   | 1101 | 1013 | 924  | 902  |
| 10° | 1180   | 1069 | 913  | 779  | 779  |
| 15° | 1680   | 1044 | 749  | 681  | 704  |
| 20° | 4224   | 1120 | 583  | 583  | 653  |
| 25° | 19646  | 1452 | 460  | 532  | 605  |
| 30° | 59705  | 1950 | 354  | 506  | 608  |
| 35° | 100893 | 2275 | 294  | 482  | 589  |
| 40° | 118279 | 2233 | 229  | 487  | 630  |
| 45° | 124571 | 1582 | 217  | 527  | 682  |
| 50° | 118580 | 955  | 205  | 546  | 751  |
| 55° | 99361  | 382  | 229  | 612  | 879  |
| 60° | 55610  | 88   | 263  | 702  | 965  |
| 65° | 9599   | 52   | 259  | 778  | 1090 |
| 70° | 192    | 64   | 321  | 833  | 1282 |
| 75° | 169    | 85   | 424  | 932  | 1440 |
| 80° | 126    | 126  | 505  | 1010 | 1642 |
| 85° | 0      | 252  | 1006 | 1258 | 1761 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 125446 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.4    | 0.4       |
| 10°-20°   | 1.2    | 1.2       |
| 20°-30°   | 6.3    | 6.1       |
| 30°-40°   | 27.3   | 26.5      |
| 40°-50°   | 38.9   | 37.8      |
| 50°-60°   | 24.1   | 23.4      |
| 60°-70°   | 3.7    | 3.6       |
| 70°-80°   | 0.7    | 0.7       |
| 80°-90°   | 0.4    | 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°    | 8.0    | 7.7       |
| 0°-40°    | 35.3   | 34.2      |
| 0°-60°    | 98.3   | 95.4      |
| 0°-90°    | 103.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 103.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 5   | 5   | 5   | 5    | 5    |      |
| 5°  | 5   | 5   | 5   | 4    | 4    | 0    |
| 15° | 7   | 5   | 3   | 3    | 3    | 3    |
| 25° | 81  | 6   | 2   | 2    | 2    | 49   |
| 35° | 377 | 8   | 1   | 2    | 2    | 226  |
| 45° | 402 | 5   | 1   | 2    | 2    | 303  |
| 55° | 260 | 1   | 1   | 2    | 2    | 221  |
| 65° | 18  | 0   | 0   | 2    | 2    | 38   |
| 75° | 0   | 0   | 0   | 1    | 2    | 0    |
| 85° | 0   | 0   | 0   | 0    | 1    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°  | 45° | 67.5° | 90° | 112.5° |
|-------|-------|-------|-------|-------|-------|-------|------|-----|-------|-----|--------|
| 0°    | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7   | 4.7  | 4.7 | 4.7   | 4.7 | 4.7    |
| 2.5°  | 4.9   | 4.9   | 4.9   | 4.9   | 4.9   | 4.9   | 4.9  | 4.9 | 4.9   | 4.7 | 4.6    |
| 5°    | 5.1   | 5.1   | 5.0   | 5.0   | 5.0   | 5.0   | 5.0  | 5.0 | 4.8   | 4.6 | 4.4    |
| 7.5°  | 5.2   | 5.2   | 5.1   | 5.1   | 5.1   | 5.1   | 5.0  | 4.9 | 4.7   | 4.4 | 4.1    |
| 10°   | 5.3   | 5.3   | 5.3   | 5.3   | 5.2   | 5.1   | 5.0  | 4.8 | 4.6   | 4.1 | 3.8    |
| 12.5° | 6.0   | 6.0   | 5.9   | 5.7   | 5.5   | 5.3   | 5.1  | 4.7 | 4.2   | 3.7 | 3.4    |
| 15°   | 7.4   | 7.3   | 7.2   | 6.9   | 6.5   | 6.0   | 5.7  | 4.6 | 3.8   | 3.3 | 3.1    |
| 17.5° | 10.4  | 10.2  | 9.9   | 9.0   | 8.2   | 7.3   | 6.6  | 4.6 | 3.4   | 2.9 | 2.7    |
| 20°   | 18.1  | 18.2  | 16.3  | 14.0  | 12.2  | 10.1  | 8.3  | 4.8 | 3.1   | 2.5 | 2.4    |
| 22.5° | 37.8  | 36.4  | 31.7  | 26.3  | 20.1  | 15.5  | 11.7 | 5.3 | 2.7   | 2.1 | 2.1    |
| 25°   | 81.2  | 75.5  | 64.2  | 48.5  | 34.2  | 24.3  | 17.0 | 6.0 | 2.4   | 1.9 | 2.0    |
| 27.5° | 148.2 | 143.1 | 120.5 | 90.7  | 60.3  | 36.6  | 23.1 | 6.8 | 2.1   | 1.6 | 1.8    |
| 30°   | 235.8 | 221.7 | 192.2 | 148.8 | 100.7 | 56.1  | 31.0 | 7.7 | 1.8   | 1.4 | 1.7    |
| 31°   | 263.1 | 256.6 | 220.7 | 172.1 | 118.0 | 66.6  | 34.3 | 8.0 | 1.7   | 1.4 | 1.6    |
| 32°   | 295.6 | 284.1 | 251.9 | 197.7 | 135.6 | 76.0  | 38.3 | 8.3 | 1.6   | 1.2 | 1.6    |
| 33°   | 324.6 | 313.4 | 274.3 | 220.2 | 153.3 | 86.7  | 42.6 | 8.4 | 1.4   | 1.2 | 1.5    |
| 34°   | 355.1 | 339.8 | 301.1 | 243.7 | 171.5 | 98.2  | 46.5 | 8.5 | 1.3   | 1.1 | 1.5    |
| 35°   | 376.9 | 361.7 | 324.1 | 262.3 | 187.3 | 108.4 | 51.0 | 8.5 | 1.2   | 1.1 | 1.4    |
| 36°   | 393.9 | 380.5 | 344.0 | 281.4 | 202.9 | 117.6 | 54.5 | 8.5 | 1.0   | 1.0 | 1.4    |
| 37°   | 405.5 | 392.7 | 357.4 | 297.9 | 214.8 | 125.8 | 57.6 | 8.5 | 0.9   | 1.0 | 1.4    |
| 38°   | 411.2 | 400.6 | 370.3 | 309.9 | 226.3 | 132.2 | 60.2 | 8.3 | 0.8   | 0.9 | 1.3    |
| 39°   | 413.6 | 404.9 | 378.2 | 320.0 | 235.0 | 137.8 | 62.0 | 8.1 | 0.7   | 0.9 | 1.3    |
| 40°   | 413.2 | 405.7 | 382.7 | 327.0 | 241.9 | 141.6 | 63.0 | 7.8 | 0.7   | 0.8 | 1.3    |
| 41°   | 411.1 | 404.6 | 385.0 | 333.0 | 246.1 | 144.2 | 63.3 | 7.5 | 0.6   | 0.8 | 1.2    |
| 42°   | 408.6 | 402.7 | 385.8 | 336.1 | 248.8 | 145.0 | 62.6 | 7.2 | 0.6   | 0.7 | 1.2    |
| 43°   | 406.1 | 400.6 | 385.8 | 337.1 | 249.5 | 144.5 | 61.4 | 6.5 | 0.5   | 0.7 | 1.2    |
| 44°   | 404.1 | 398.9 | 384.6 | 336.9 | 248.1 | 142.4 | 59.1 | 5.8 | 0.4   | 0.7 | 1.2    |
| 45°   | 401.7 | 396.6 | 383.0 | 335.1 | 245.4 | 138.7 | 56.3 | 5.1 | 0.3   | 0.7 | 1.2    |
| 46°   | 397.4 | 393.4 | 380.2 | 331.5 | 241.1 | 133.7 | 52.8 | 4.6 | 0.2   | 0.7 | 1.1    |
| 47°   | 389.1 | 385.7 | 374.8 | 326.1 | 235.4 | 127.8 | 49.2 | 4.2 | 0.2   | 0.7 | 1.1    |
| 48°   | 372.5 | 372.4 | 364.0 | 316.0 | 226.4 | 120.3 | 45.4 | 3.7 | 0.2   | 0.7 | 1.1    |
| 49°   | 356.4 | 354.7 | 344.3 | 298.4 | 213.5 | 111.4 | 41.4 | 3.3 | 0.1   | 0.7 | 1.1    |
| 50°   | 347.6 | 343.9 | 326.8 | 277.5 | 196.9 | 99.0  | 37.1 | 2.8 | 0.1   | 0.6 | 1.1    |
| 51°   | 338.4 | 333.1 | 313.0 | 258.8 | 177.2 | 87.1  | 32.4 | 2.2 | 0.1   | 0.6 | 1.0    |
| 52°   | 321.7 | 316.8 | 294.2 | 240.8 | 158.1 | 74.9  | 28.0 | 1.9 | 0.1   | 0.6 | 1.1    |
| 53°   | 303.8 | 296.7 | 272.2 | 221.1 | 141.2 | 64.2  | 23.4 | 1.6 | 0.1   | 0.6 | 1.0    |
| 54°   | 281.2 | 278.0 | 249.8 | 196.9 | 121.5 | 53.7  | 19.2 | 1.3 | 0.1   | 0.6 | 1.0    |
| 55°   | 259.9 | 255.2 | 225.9 | 172.2 | 103.7 | 44.1  | 16.1 | 1.0 | 0.1   | 0.6 | 1.0    |
| 56°   | 232.7 | 225.8 | 198.3 | 149.5 | 85.5  | 35.5  | 13.6 | 0.8 | 0.1   | 0.6 | 1.0    |
| 57°   | 200.4 | 192.9 | 171.3 | 124.3 | 67.1  | 27.1  | 11.3 | 0.7 | 0.1   | 0.6 | 1.0    |
| 58°   | 169.5 | 163.1 | 139.8 | 96.0  | 50.6  | 18.8  | 9.4  | 0.5 | 0.1   | 0.5 | 1.0    |
| 59°   | 146.4 | 139.4 | 116.3 | 73.8  | 35.1  | 13.9  | 7.1  | 0.4 | 0.1   | 0.6 | 1.0    |
| 60°   | 126.8 | 117.7 | 93.6  | 57.2  | 25.1  | 9.9   | 5.2  | 0.2 | 0.2   | 0.6 | 1.0    |
| 62.5° | 73.1  | 64.5  | 44.7  | 23.2  | 10.3  | 5.1   | 2.5  | 0.1 | 0.2   | 0.6 | 1.0    |
| 65°   | 18.5  | 16.5  | 10.7  | 5.0   | 2.9   | 1.8   | 0.9  | 0.1 | 0.2   | 0.5 | 0.9    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 0.7 | 0.7 | 0.7 | 0.6 | 0.5 | 0.4 | 0.2 | 0.1 | 0.2   | 0.5 | 0.9    |
| 70°   | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2   | 0.5 | 0.8    |
| 72.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.5 | 0.7    |
| 75°   | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.5 | 0.7    |
| 77.5° | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.7    |
| 80°   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.6    |
| 82.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.5    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.3   | 0.4 | 0.4    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3   | 0.4 | 0.3    |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 4.7  | 4.7    | 4.7  |
| 2.5°  | 4.5  | 4.5    | 4.5  |
| 5°    | 4.2  | 4.2    | 4.1  |
| 7.5°  | 3.9  | 3.8    | 3.8  |
| 10°   | 3.5  | 3.5    | 3.5  |
| 12.5° | 3.3  | 3.3    | 3.3  |
| 15°   | 3.0  | 3.1    | 3.1  |
| 17.5° | 2.7  | 2.9    | 2.9  |
| 20°   | 2.5  | 2.7    | 2.8  |
| 22.5° | 2.3  | 2.5    | 2.6  |
| 25°   | 2.2  | 2.4    | 2.5  |
| 27.5° | 2.0  | 2.3    | 2.5  |
| 30°   | 2.0  | 2.2    | 2.4  |
| 31°   | 2.0  | 2.2    | 2.3  |
| 32°   | 1.9  | 2.2    | 2.3  |
| 33°   | 1.9  | 2.2    | 2.3  |
| 34°   | 1.9  | 2.1    | 2.3  |
| 35°   | 1.8  | 2.1    | 2.2  |
| 36°   | 1.8  | 2.1    | 2.2  |
| 37°   | 1.8  | 2.1    | 2.3  |
| 38°   | 1.8  | 2.1    | 2.2  |
| 39°   | 1.7  | 2.1    | 2.2  |
| 40°   | 1.7  | 2.1    | 2.2  |
| 41°   | 1.7  | 2.1    | 2.2  |
| 42°   | 1.7  | 2.1    | 2.2  |
| 43°   | 1.7  | 2.1    | 2.2  |
| 44°   | 1.7  | 2.0    | 2.2  |
| 45°   | 1.7  | 2.0    | 2.2  |
| 46°   | 1.7  | 2.1    | 2.2  |
| 47°   | 1.7  | 2.1    | 2.3  |
| 48°   | 1.7  | 2.0    | 2.2  |
| 49°   | 1.6  | 2.0    | 2.2  |
| 50°   | 1.6  | 2.0    | 2.2  |
| 51°   | 1.6  | 2.1    | 2.3  |
| 52°   | 1.6  | 2.1    | 2.3  |
| 53°   | 1.6  | 2.1    | 2.3  |
| 54°   | 1.6  | 2.1    | 2.2  |
| 55°   | 1.6  | 2.1    | 2.3  |
| 56°   | 1.6  | 2.1    | 2.2  |
| 57°   | 1.6  | 2.1    | 2.2  |
| 58°   | 1.6  | 2.0    | 2.2  |
| 59°   | 1.6  | 2.0    | 2.2  |
| 60°   | 1.6  | 2.0    | 2.2  |
| 62.5° | 1.5  | 2.0    | 2.2  |
| 65°   | 1.5  | 2.0    | 2.1  |



TEST NUMBER: P1335504

CATALOG NUMBER: P3A02R359840DE010 E3A451H

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 1.4  | 2.0    | 2.0  |
| 70°   | 1.3  | 1.9    | 2.0  |
| 72.5° | 1.2  | 1.8    | 1.9  |
| 75°   | 1.1  | 1.6    | 1.7  |
| 77.5° | 0.9  | 1.4    | 1.6  |
| 80°   | 0.8  | 1.2    | 1.3  |
| 82.5° | 0.7  | 1.0    | 1.1  |
| 85°   | 0.5  | 0.7    | 0.7  |
| 87.5° | 0.2  | 0.4    | 0.4  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)