

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: P1335024

Luminaire Tested: P3A02R309040DE010 E3A451H

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1335024  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A02R309040DE010 E3A451H  
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 90CRI , E3A451H TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

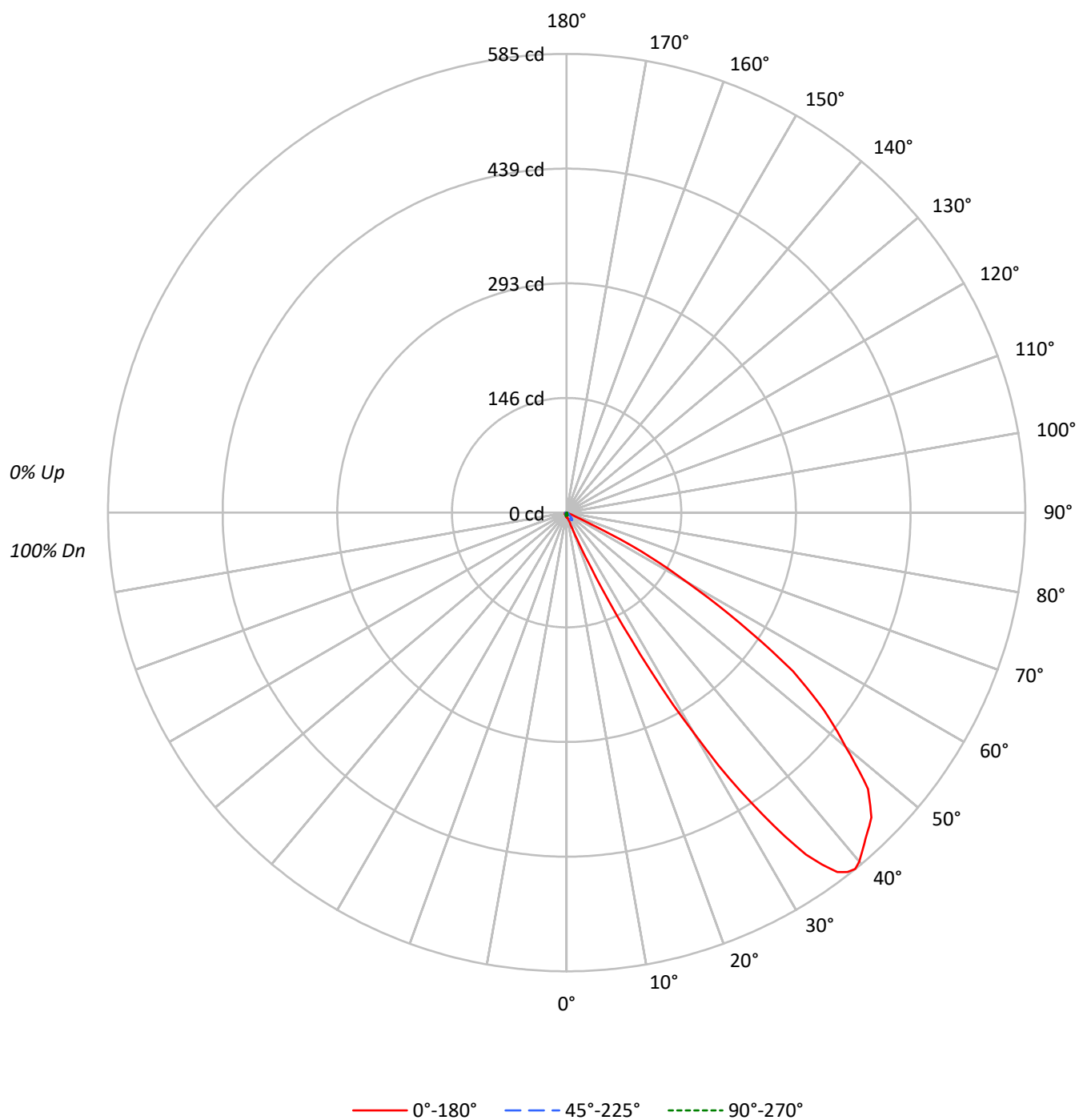
Lumens per Lamp: N/A  
Luminaire Lumens: 152.0 lumens  
Efficiency: N/A  
Efficacy: 42.2 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.43  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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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### Luminous Intensity Polar Plot



TEST NUMBER: P1335024

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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 | 100 |    |    |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 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  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 42  |    |    |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 35  |    |    |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  | 24  |    |    |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  | 20  |    |    |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  | 17  |    |    |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 1294   | 1294 | 1294 | 1294 | 1294 |
| 5°  | 1387   | 1343 | 1277 | 1145 | 1123 |
| 10° | 1514   | 1336 | 1113 | 1002 | 980  |
| 15° | 2202   | 1339 | 931  | 840  | 863  |
| 20° | 5554   | 1470 | 723  | 723  | 817  |
| 25° | 25816  | 1839 | 556  | 653  | 750  |
| 30° | 82139  | 2532 | 430  | 608  | 734  |
| 35° | 142546 | 3078 | 348  | 589  | 750  |
| 40° | 166254 | 3092 | 258  | 573  | 773  |
| 45° | 170498 | 2171 | 279  | 620  | 837  |
| 50° | 158562 | 1228 | 205  | 648  | 955  |
| 55° | 134762 | 650  | 229  | 726  | 1070 |
| 60° | 77845  | 175  | 263  | 789  | 1184 |
| 65° | 15877  | 0    | 311  | 934  | 1349 |
| 70° | 256    | 64   | 385  | 1090 | 1539 |
| 75° | 254    | 85   | 424  | 1101 | 1864 |
| 80° | 126    | 126  | 631  | 1263 | 2147 |
| 85° | 0      | 252  | 1258 | 1258 | 2516 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 170498 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.5    | 0.3       |
| 10°-20°   | 1.5    | 1.0       |
| 20°-30°   | 8.8    | 5.8       |
| 30°-40°   | 40.9   | 26.9      |
| 40°-50°   | 57.9   | 38.1      |
| 50°-60°   | 35.6   | 23.4      |
| 60°-70°   | 5.4    | 3.6       |
| 70°-80°   | 0.9    | 0.6       |
| 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°    | 10.8   | 7.1       |
| 0°-40°    | 51.8   | 34.1      |
| 0°-60°    | 145.3  | 95.6      |
| 0°-90°    | 152.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 152.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 6   | 6   | 6   | 6    | 6    |      |
| 5°  | 6   | 6   | 6   | 5    | 5    | 1    |
| 15° | 10  | 6   | 4   | 4    | 4    | 3    |
| 25° | 107 | 8   | 2   | 3    | 3    | 66   |
| 35° | 532 | 12  | 1   | 2    | 3    | 320  |
| 45° | 550 | 7   | 1   | 2    | 3    | 417  |
| 55° | 352 | 2   | 1   | 2    | 3    | 300  |
| 65° | 31  | 0   | 1   | 2    | 3    | 55   |
| 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°   | 22.5° | 45°  | 67.5° | 90° | 112.5° | 135° |
|-------|-------|-------|-------|-------|-------|-------|------|-------|-----|--------|------|
| 0°    | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9  | 5.9   | 5.9 | 5.9    | 5.9  |
| 2.5°  | 6.0   | 6.0   | 6.1   | 6.1   | 6.0   | 6.1   | 6.1  | 6.1   | 5.9 | 5.8    | 5.5  |
| 5°    | 6.3   | 6.3   | 6.3   | 6.4   | 6.3   | 6.3   | 6.1  | 6.0   | 5.8 | 5.4    | 5.2  |
| 7.5°  | 6.5   | 6.5   | 6.4   | 6.5   | 6.4   | 6.4   | 6.1  | 5.9   | 5.5 | 5.1    | 4.9  |
| 10°   | 6.8   | 6.8   | 6.7   | 6.7   | 6.5   | 6.5   | 6.0  | 5.6   | 5.0 | 4.6    | 4.5  |
| 12.5° | 7.6   | 7.6   | 7.4   | 7.3   | 7.0   | 6.9   | 5.9  | 5.2   | 4.5 | 4.1    | 4.0  |
| 15°   | 9.7   | 9.6   | 9.3   | 9.0   | 8.3   | 8.2   | 5.9  | 4.9   | 4.1 | 3.7    | 3.7  |
| 17.5° | 13.3  | 13.2  | 12.8  | 11.8  | 10.6  | 10.2  | 5.9  | 4.4   | 3.6 | 3.3    | 3.3  |
| 20°   | 23.8  | 22.8  | 20.9  | 18.3  | 15.6  | 14.2  | 6.3  | 3.8   | 3.1 | 2.9    | 3.1  |
| 21°   | 31.1  | 30.1  | 27.7  | 23.4  | 18.7  | 17.2  | 6.5  | 3.7   | 2.9 | 2.8    | 3.1  |
| 22°   | 42.4  | 41.2  | 36.2  | 30.5  | 23.7  | 21.0  | 6.7  | 3.5   | 2.7 | 2.7    | 2.9  |
| 23°   | 59.2  | 57.2  | 48.8  | 39.6  | 29.6  | 25.7  | 6.9  | 3.3   | 2.6 | 2.7    | 2.8  |
| 24°   | 77.5  | 75.8  | 66.2  | 52.4  | 37.8  | 32.3  | 7.2  | 3.2   | 2.4 | 2.4    | 2.7  |
| 25°   | 106.7 | 104.7 | 87.7  | 66.1  | 47.9  | 38.8  | 7.6  | 2.9   | 2.3 | 2.3    | 2.7  |
| 26°   | 144.4 | 135.6 | 112.9 | 85.1  | 59.0  | 48.7  | 7.9  | 2.8   | 2.2 | 2.3    | 2.6  |
| 27°   | 180.3 | 173.0 | 147.5 | 109.2 | 73.0  | 59.8  | 8.5  | 2.7   | 2.0 | 2.2    | 2.6  |
| 28°   | 227.4 | 217.2 | 185.0 | 138.2 | 91.9  | 72.3  | 9.0  | 2.6   | 1.9 | 2.2    | 2.4  |
| 29°   | 280.1 | 265.8 | 227.0 | 170.7 | 113.3 | 86.4  | 9.5  | 2.4   | 1.8 | 2.0    | 2.4  |
| 30°   | 324.4 | 311.0 | 272.2 | 209.2 | 137.9 | 105.0 | 10.0 | 2.3   | 1.7 | 2.0    | 2.4  |
| 31°   | 376.4 | 356.1 | 309.1 | 241.9 | 159.0 | 123.6 | 10.5 | 2.0   | 1.5 | 1.9    | 2.3  |
| 32°   | 418.6 | 404.3 | 354.4 | 278.7 | 186.8 | 144.0 | 10.9 | 1.9   | 1.5 | 1.9    | 2.3  |
| 33°   | 459.3 | 440.2 | 391.9 | 314.1 | 211.9 | 165.0 | 11.3 | 1.8   | 1.4 | 1.8    | 2.3  |
| 34°   | 498.2 | 480.7 | 427.4 | 342.6 | 235.6 | 185.0 | 11.5 | 1.5   | 1.4 | 1.8    | 2.2  |
| 35°   | 532.5 | 512.2 | 458.6 | 370.5 | 259.9 | 203.2 | 11.5 | 1.4   | 1.3 | 1.7    | 2.2  |
| 36°   | 554.8 | 540.2 | 485.8 | 398.1 | 281.9 | 220.5 | 11.5 | 1.3   | 1.2 | 1.7    | 2.0  |
| 37°   | 573.9 | 556.8 | 507.5 | 419.2 | 298.2 | 234.3 | 11.5 | 1.2   | 1.2 | 1.7    | 2.0  |
| 38°   | 581.7 | 567.1 | 522.5 | 437.9 | 313.4 | 248.4 | 11.4 | 1.0   | 1.0 | 1.5    | 2.0  |
| 39°   | 584.8 | 571.7 | 533.8 | 451.3 | 324.7 | 257.9 | 11.1 | 0.9   | 1.0 | 1.5    | 2.0  |
| 40°   | 580.8 | 570.9 | 539.6 | 460.0 | 333.7 | 264.8 | 10.8 | 0.8   | 0.9 | 1.5    | 2.0  |
| 42.5° | 564.4 | 557.9 | 538.3 | 468.7 | 341.4 | 269.9 | 9.3  | 0.5   | 0.9 | 1.4    | 2.0  |
| 45°   | 549.8 | 542.6 | 525.3 | 459.7 | 331.4 | 259.8 | 7.0  | 0.3   | 0.9 | 1.4    | 2.0  |
| 47.5° | 521.5 | 517.0 | 503.4 | 436.5 | 309.5 | 237.0 | 5.0  | 0.1   | 0.8 | 1.3    | 1.9  |
| 50°   | 464.8 | 460.6 | 442.6 | 379.0 | 266.2 | 200.4 | 3.6  | 0.1   | 0.6 | 1.3    | 1.9  |
| 52.5° | 413.9 | 409.5 | 383.7 | 315.1 | 204.5 | 146.9 | 2.3  | 0.1   | 0.6 | 1.3    | 1.9  |
| 55°   | 352.5 | 344.7 | 310.9 | 239.2 | 144.9 | 98.5  | 1.7  | 0.1   | 0.6 | 1.2    | 1.9  |
| 57.5° | 260.9 | 249.5 | 219.3 | 163.1 | 83.5  | 53.4  | 0.9  | 0.1   | 0.6 | 1.2    | 1.9  |
| 60°   | 177.5 | 170.7 | 137.3 | 86.0  | 35.6  | 22.5  | 0.4  | 0.1   | 0.6 | 1.2    | 1.8  |
| 62.5° | 107.6 | 99.0  | 69.0  | 36.6  | 15.4  | 10.2  | 0.0  | 0.3   | 0.6 | 1.2    | 1.8  |
| 65°   | 30.6  | 27.1  | 18.1  | 8.3   | 4.4   | 3.3   | 0.0  | 0.3   | 0.6 | 1.2    | 1.8  |
| 67.5° | 1.0   | 1.0   | 1.0   | 0.9   | 0.6   | 0.6   | 0.1  | 0.3   | 0.6 | 1.2    | 1.7  |
| 70°   | 0.4   | 0.4   | 0.4   | 0.3   | 0.3   | 0.1   | 0.1  | 0.3   | 0.6 | 1.0    | 1.7  |
| 72.5° | 0.3   | 0.3   | 0.3   | 0.3   | 0.1   | 0.1   | 0.1  | 0.3   | 0.5 | 0.9    | 1.5  |
| 75°   | 0.3   | 0.3   | 0.3   | 0.1   | 0.1   | 0.1   | 0.1  | 0.4   | 0.5 | 0.9    | 1.3  |
| 77.5° | 0.3   | 0.3   | 0.3   | 0.1   | 0.1   | 0.1   | 0.1  | 0.4   | 0.5 | 0.8    | 1.3  |
| 80°   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1  | 0.4   | 0.5 | 0.8    | 1.0  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0   | 0.1 | 0.4   | 0.5 | 0.5    | 0.8  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.1 | 0.4   | 0.5 | 0.4    | 0.5  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.1 | 0.4   | 0.4 | 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  |

TEST NUMBER: P1335024

CATALOG NUMBER: P3A02R309040DE010 E3A451H

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 5.9    | 5.9  |
| 2.5°  | 5.5    | 5.5  |
| 5°    | 5.1    | 5.1  |
| 7.5°  | 4.7    | 4.7  |
| 10°   | 4.4    | 4.4  |
| 12.5° | 4.1    | 4.1  |
| 15°   | 3.7    | 3.8  |
| 17.5° | 3.5    | 3.6  |
| 20°   | 3.3    | 3.5  |
| 21°   | 3.3    | 3.5  |
| 22°   | 3.2    | 3.3  |
| 23°   | 3.2    | 3.3  |
| 24°   | 3.1    | 3.2  |
| 25°   | 2.9    | 3.1  |
| 26°   | 2.9    | 3.1  |
| 27°   | 2.9    | 3.1  |
| 28°   | 2.8    | 3.1  |
| 29°   | 2.8    | 2.9  |
| 30°   | 2.8    | 2.9  |
| 31°   | 2.7    | 2.9  |
| 32°   | 2.7    | 2.9  |
| 33°   | 2.7    | 2.8  |
| 34°   | 2.6    | 2.8  |
| 35°   | 2.6    | 2.8  |
| 36°   | 2.6    | 2.8  |
| 37°   | 2.6    | 2.7  |
| 38°   | 2.6    | 2.8  |
| 39°   | 2.6    | 2.7  |
| 40°   | 2.6    | 2.7  |
| 42.5° | 2.6    | 2.7  |
| 45°   | 2.6    | 2.7  |
| 47.5° | 2.6    | 2.8  |
| 50°   | 2.6    | 2.8  |
| 52.5° | 2.6    | 2.8  |
| 55°   | 2.6    | 2.8  |
| 57.5° | 2.6    | 2.7  |
| 60°   | 2.6    | 2.7  |
| 62.5° | 2.4    | 2.7  |
| 65°   | 2.4    | 2.6  |
| 67.5° | 2.4    | 2.6  |
| 70°   | 2.3    | 2.4  |
| 72.5° | 2.2    | 2.3  |
| 75°   | 1.9    | 2.2  |
| 77.5° | 1.8    | 1.9  |
| 80°   | 1.5    | 1.7  |



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CATALOG NUMBER: P3A02R309040DE010 E3A451H

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 1.3    | 1.3  |
| 85°   | 0.9    | 1.0  |
| 87.5° | 0.5    | 0.5  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)