

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: P1311943

Luminaire Tested: P3SQAS02R309727DE010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1311943  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS02R309727DE010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 97CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

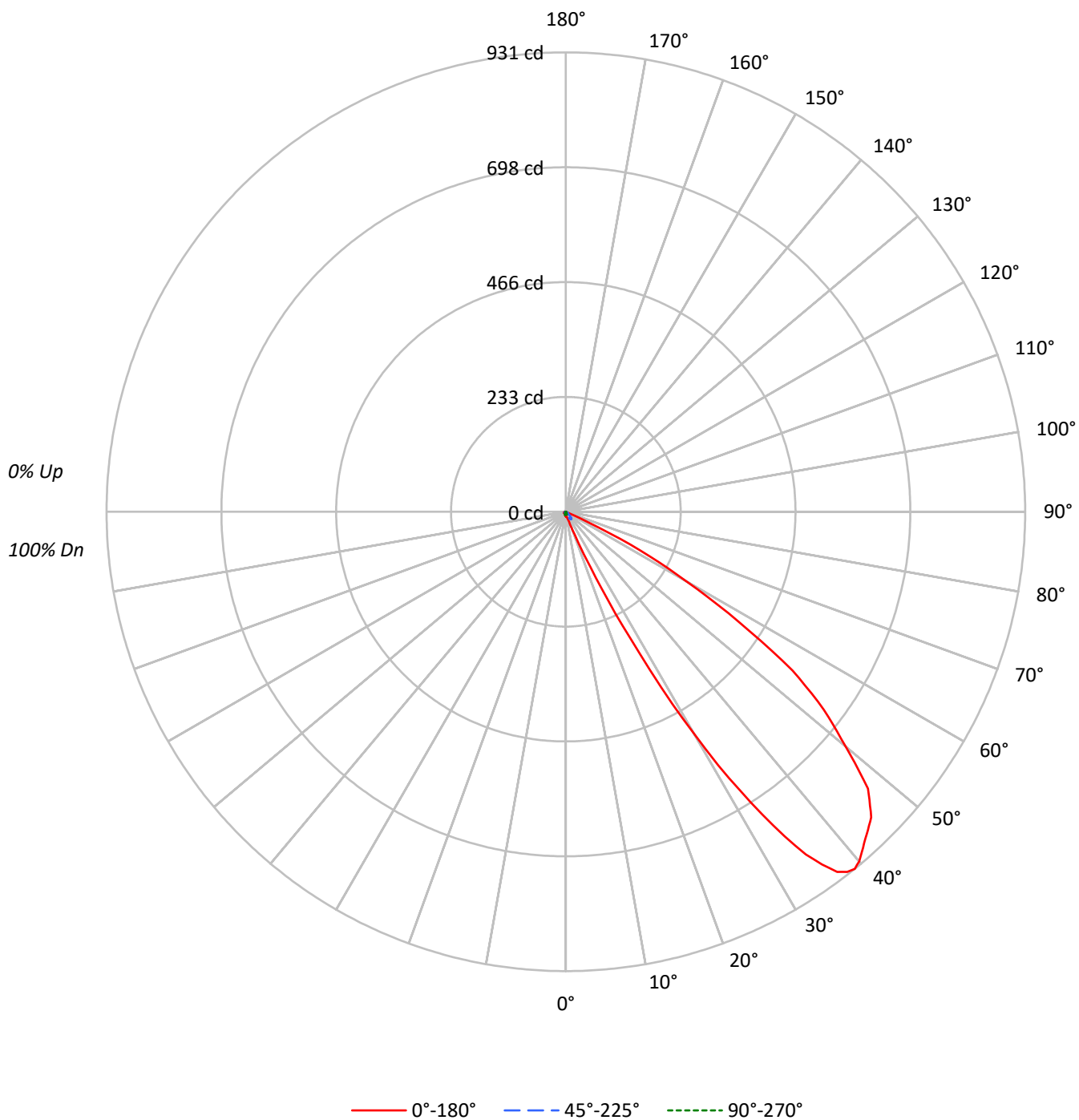
Lumens per Lamp: N/A  
Luminaire Lumens: 242.0 lumens  
Efficiency: N/A  
Efficacy: 67.2 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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



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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  | 87  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  | 73  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  | 61  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  | 50  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 42  | 42  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 35  | 35  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 29  | 29  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  | 24  | 24  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  | 20  | 20  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  | 17  | 17  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 1619   | 1619 | 1619 | 1619 | 1619 |
| 5°  | 1729   | 1694 | 1591 | 1452 | 1418 |
| 10° | 1889   | 1679 | 1399 | 1242 | 1207 |
| 15° | 2764   | 1676 | 1159 | 1052 | 1088 |
| 20° | 6946   | 1833 | 898  | 898  | 1008 |
| 25° | 32267  | 2280 | 703  | 817  | 931  |
| 30° | 102734 | 3162 | 537  | 776  | 935  |
| 35° | 178246 | 3847 | 420  | 736  | 946  |
| 40° | 207892 | 3844 | 315  | 742  | 967  |
| 45° | 213188 | 2728 | 341  | 804  | 1047 |
| 50° | 198269 | 1527 | 268  | 831  | 1206 |
| 55° | 168506 | 811  | 300  | 931  | 1351 |
| 60° | 97306  | 207  | 344  | 999  | 1481 |
| 65° | 19846  | 0    | 408  | 1182 | 1671 |
| 70° | 302    | 101  | 504  | 1360 | 1964 |
| 75° | 266    | 133  | 532  | 1331 | 2329 |
| 80° | 198    | 198  | 793  | 1587 | 2678 |
| 85° | 0      | 395  | 1581 | 1581 | 3162 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 213188 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.8    | 0.4       |
| 10°-20°   | 2.4    | 1.0       |
| 20°-30°   | 14.0   | 5.8       |
| 30°-40°   | 65.2   | 26.9      |
| 40°-50°   | 92.2   | 38.1      |
| 50°-60°   | 56.7   | 23.4      |
| 60°-70°   | 8.6    | 3.6       |
| 70°-80°   | 1.4    | 0.6       |
| 80°-90°   | 0.7    | 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°    | 17.2   | 7.1       |
| 0°-40°    | 82.4   | 34.1      |
| 0°-60°    | 231.3  | 95.6      |
| 0°-90°    | 242.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 242.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 9   | 9   | 9   | 9    | 9    |      |
| 5°  | 10  | 10  | 9   | 8    | 8    | 1    |
| 15° | 16  | 9   | 6   | 6    | 6    | 6    |
| 25° | 170 | 12  | 4   | 4    | 5    | 104  |
| 35° | 848 | 18  | 2   | 4    | 4    | 509  |
| 45° | 875 | 11  | 1   | 3    | 4    | 664  |
| 55° | 561 | 3   | 1   | 3    | 4    | 478  |
| 65° | 49  | 0   | 1   | 3    | 4    | 88   |
| 75° | 0   | 0   | 1   | 2    | 4    | 0    |
| 85° | 0   | 0   | 1   | 1    | 2    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1311943

CATALOG NUMBER: P3SQAS02R309727DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 22.5° | 45°  | 67.5° | 90° | 112.5° | 135° |
|-------|-------|-------|-------|-------|-------|-------|------|-------|-----|--------|------|
| 0°    | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   | 9.4  | 9.4   | 9.4 | 9.4    | 9.4  |
| 2.5°  | 9.6   | 9.6   | 9.8   | 9.8   | 9.6   | 9.8   | 9.8  | 9.8   | 9.4 | 9.2    | 8.8  |
| 5°    | 10.0  | 10.0  | 10.0  | 10.2  | 10.0  | 10.0  | 9.8  | 9.6   | 9.2 | 8.6    | 8.4  |
| 7.5°  | 10.4  | 10.4  | 10.2  | 10.4  | 10.2  | 10.2  | 9.8  | 9.4   | 8.8 | 8.2    | 7.7  |
| 10°   | 10.8  | 10.8  | 10.6  | 10.6  | 10.4  | 10.4  | 9.6  | 9.0   | 8.0 | 7.3    | 7.1  |
| 12.5° | 12.0  | 12.0  | 11.8  | 11.6  | 11.2  | 11.0  | 9.4  | 8.4   | 7.1 | 6.5    | 6.3  |
| 15°   | 15.5  | 15.3  | 14.9  | 14.3  | 13.3  | 13.0  | 9.4  | 7.7   | 6.5 | 5.9    | 5.9  |
| 17.5° | 21.2  | 21.0  | 20.4  | 18.8  | 16.9  | 16.3  | 9.4  | 6.9   | 5.7 | 5.3    | 5.3  |
| 20°   | 37.9  | 36.3  | 33.2  | 29.2  | 24.9  | 22.6  | 10.0 | 6.1   | 4.9 | 4.7    | 4.9  |
| 21°   | 49.5  | 47.9  | 44.0  | 37.3  | 29.8  | 27.3  | 10.4 | 5.9   | 4.7 | 4.5    | 4.9  |
| 22°   | 67.5  | 65.6  | 57.7  | 48.5  | 37.7  | 33.4  | 10.6 | 5.5   | 4.3 | 4.3    | 4.7  |
| 23°   | 94.2  | 91.1  | 77.7  | 63.0  | 47.1  | 41.0  | 11.0 | 5.3   | 4.1 | 4.3    | 4.5  |
| 24°   | 123.3 | 120.7 | 105.4 | 83.4  | 60.1  | 51.4  | 11.4 | 5.1   | 3.9 | 3.9    | 4.3  |
| 25°   | 169.8 | 166.7 | 139.6 | 105.2 | 76.2  | 61.8  | 12.0 | 4.7   | 3.7 | 3.7    | 4.3  |
| 26°   | 229.9 | 215.9 | 179.8 | 135.6 | 94.0  | 77.5  | 12.6 | 4.5   | 3.5 | 3.7    | 4.1  |
| 27°   | 287.0 | 275.4 | 234.8 | 173.9 | 116.2 | 95.2  | 13.5 | 4.3   | 3.3 | 3.5    | 4.1  |
| 28°   | 362.0 | 345.7 | 294.6 | 220.0 | 146.4 | 115.2 | 14.3 | 4.1   | 3.1 | 3.5    | 3.9  |
| 29°   | 446.0 | 423.2 | 361.4 | 271.7 | 180.4 | 137.6 | 15.1 | 3.9   | 2.9 | 3.3    | 3.9  |
| 30°   | 516.6 | 495.2 | 433.4 | 333.1 | 219.5 | 167.2 | 15.9 | 3.7   | 2.7 | 3.3    | 3.9  |
| 31°   | 599.3 | 566.9 | 492.1 | 385.1 | 253.2 | 196.7 | 16.7 | 3.3   | 2.4 | 3.1    | 3.7  |
| 32°   | 666.4 | 643.8 | 564.3 | 443.8 | 297.4 | 229.3 | 17.3 | 3.1   | 2.4 | 3.1    | 3.7  |
| 33°   | 731.2 | 700.8 | 624.0 | 500.0 | 337.4 | 262.8 | 17.9 | 2.9   | 2.2 | 2.9    | 3.7  |
| 34°   | 793.2 | 765.3 | 680.5 | 545.5 | 375.1 | 294.6 | 18.3 | 2.4   | 2.2 | 2.9    | 3.5  |
| 35°   | 847.8 | 815.4 | 730.2 | 589.9 | 413.8 | 323.5 | 18.3 | 2.2   | 2.0 | 2.7    | 3.5  |
| 36°   | 883.3 | 860.0 | 773.4 | 633.8 | 448.9 | 351.0 | 18.3 | 2.0   | 1.8 | 2.7    | 3.3  |
| 37°   | 913.7 | 886.5 | 808.1 | 667.4 | 474.8 | 373.0 | 18.3 | 1.8   | 1.8 | 2.7    | 3.3  |
| 38°   | 926.1 | 902.9 | 831.9 | 697.2 | 499.0 | 395.5 | 18.1 | 1.6   | 1.6 | 2.4    | 3.3  |
| 39°   | 931.0 | 910.2 | 849.9 | 718.6 | 517.0 | 410.6 | 17.7 | 1.4   | 1.6 | 2.4    | 3.3  |
| 40°   | 924.7 | 909.0 | 859.0 | 732.4 | 531.2 | 421.6 | 17.1 | 1.2   | 1.4 | 2.4    | 3.3  |
| 42.5° | 898.6 | 888.2 | 857.0 | 746.3 | 543.5 | 429.7 | 14.9 | 0.8   | 1.4 | 2.2    | 3.3  |
| 45°   | 875.3 | 863.9 | 836.4 | 731.8 | 527.6 | 413.6 | 11.2 | 0.4   | 1.4 | 2.2    | 3.3  |
| 47.5° | 830.3 | 823.1 | 801.5 | 694.9 | 492.7 | 377.3 | 8.0  | 0.2   | 1.2 | 2.0    | 3.1  |
| 50°   | 740.0 | 733.3 | 704.7 | 603.4 | 423.8 | 319.0 | 5.7  | 0.2   | 1.0 | 2.0    | 3.1  |
| 52.5° | 659.0 | 651.9 | 610.9 | 501.7 | 325.5 | 233.8 | 3.7  | 0.2   | 1.0 | 2.0    | 3.1  |
| 55°   | 561.2 | 548.8 | 494.9 | 380.8 | 230.8 | 156.8 | 2.7  | 0.2   | 1.0 | 1.8    | 3.1  |
| 57.5° | 415.4 | 397.3 | 349.2 | 259.7 | 132.9 | 85.0  | 1.4  | 0.2   | 1.0 | 1.8    | 3.1  |
| 60°   | 282.5 | 271.7 | 218.5 | 137.0 | 56.7  | 35.9  | 0.6  | 0.2   | 1.0 | 1.8    | 2.9  |
| 62.5° | 171.2 | 157.6 | 109.9 | 58.3  | 24.5  | 16.3  | 0.0  | 0.4   | 1.0 | 1.8    | 2.9  |
| 65°   | 48.7  | 43.2  | 28.7  | 13.3  | 6.9   | 5.3   | 0.0  | 0.4   | 1.0 | 1.8    | 2.9  |
| 67.5° | 1.6   | 1.6   | 1.6   | 1.4   | 1.0   | 1.0   | 0.2  | 0.4   | 1.0 | 1.8    | 2.7  |
| 70°   | 0.6   | 0.6   | 0.6   | 0.4   | 0.4   | 0.2   | 0.2  | 0.4   | 1.0 | 1.6    | 2.7  |
| 72.5° | 0.4   | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2  | 0.4   | 0.8 | 1.4    | 2.4  |
| 75°   | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.8 | 1.4    | 2.0  |
| 77.5° | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.8 | 1.2    | 2.0  |
| 80°   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.8 | 1.2    | 1.6  |



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CATALOG NUMBER: P3SQAS02R309727DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0   | 0.2 | 0.6   | 0.8 | 0.8    | 1.2  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.2 | 0.6   | 0.8 | 0.6    | 0.8  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.2 | 0.6   | 0.6 | 0.6    | 0.4  |
| 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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CATALOG NUMBER: P3SQAS02R309727DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 9.4    | 9.4  |
| 2.5°  | 8.8    | 8.8  |
| 5°    | 8.2    | 8.2  |
| 7.5°  | 7.5    | 7.5  |
| 10°   | 6.9    | 6.9  |
| 12.5° | 6.5    | 6.5  |
| 15°   | 5.9    | 6.1  |
| 17.5° | 5.5    | 5.7  |
| 20°   | 5.3    | 5.5  |
| 21°   | 5.3    | 5.5  |
| 22°   | 5.1    | 5.3  |
| 23°   | 5.1    | 5.3  |
| 24°   | 4.9    | 5.1  |
| 25°   | 4.7    | 4.9  |
| 26°   | 4.7    | 4.9  |
| 27°   | 4.7    | 4.9  |
| 28°   | 4.5    | 4.9  |
| 29°   | 4.5    | 4.7  |
| 30°   | 4.5    | 4.7  |
| 31°   | 4.3    | 4.7  |
| 32°   | 4.3    | 4.7  |
| 33°   | 4.3    | 4.5  |
| 34°   | 4.1    | 4.5  |
| 35°   | 4.1    | 4.5  |
| 36°   | 4.1    | 4.5  |
| 37°   | 4.1    | 4.3  |
| 38°   | 4.1    | 4.5  |
| 39°   | 4.1    | 4.3  |
| 40°   | 4.1    | 4.3  |
| 42.5° | 4.1    | 4.3  |
| 45°   | 4.1    | 4.3  |
| 47.5° | 4.1    | 4.5  |
| 50°   | 4.1    | 4.5  |
| 52.5° | 4.1    | 4.5  |
| 55°   | 4.1    | 4.5  |
| 57.5° | 4.1    | 4.3  |
| 60°   | 4.1    | 4.3  |
| 62.5° | 3.9    | 4.3  |
| 65°   | 3.9    | 4.1  |
| 67.5° | 3.9    | 4.1  |
| 70°   | 3.7    | 3.9  |
| 72.5° | 3.5    | 3.7  |
| 75°   | 3.1    | 3.5  |
| 77.5° | 2.9    | 3.1  |
| 80°   | 2.4    | 2.7  |





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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 2.0    | 2.0  |
| 85°   | 1.4    | 1.6  |
| 87.5° | 0.8    | 0.8  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)