

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: P1305424

Luminaire Tested: P3SQAS02R309024DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305424  
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: P3SQAS02R309024DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 2400K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

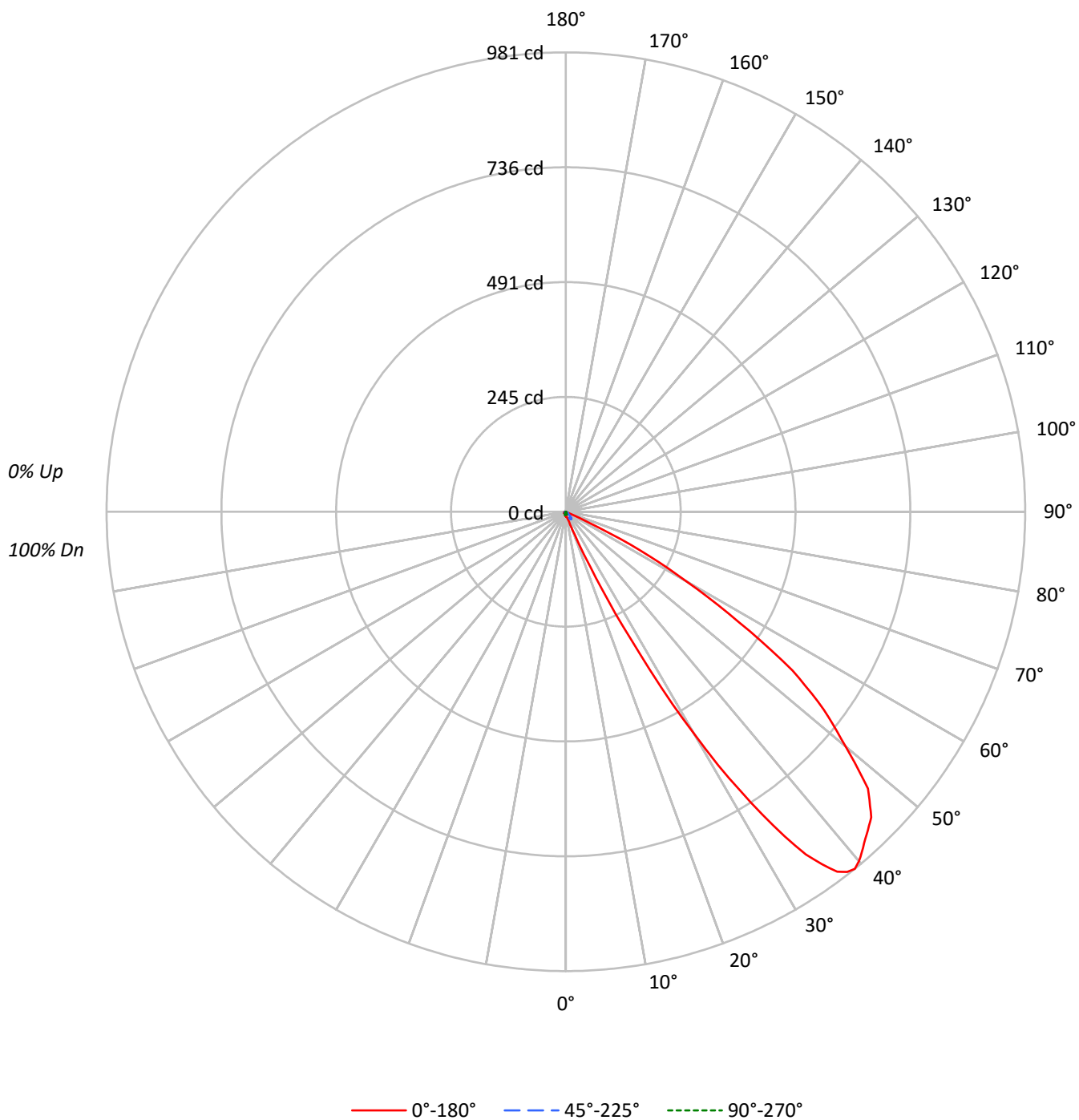
Lumens per Lamp: N/A  
Luminaire Lumens: 255.0 lumens  
Efficiency: N/A  
Efficacy: 70.8 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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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CATALOG NUMBER: P3SQAS02R309024DE010 E3SQCA451MW

### 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  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 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  | 37  | 49  | 42  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  |

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

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 1705   | 1705 | 1705 | 1705 | 1705 |
| 5°  | 1815   | 1781 | 1677 | 1521 | 1487 |
| 10° | 1994   | 1766 | 1469 | 1312 | 1277 |
| 15° | 2906   | 1765 | 1230 | 1105 | 1141 |
| 20° | 7331   | 1924 | 953  | 953  | 1063 |
| 25° | 33996  | 2413 | 741  | 855  | 988  |
| 30° | 108243 | 3341 | 557  | 815  | 974  |
| 35° | 187833 | 4058 | 442  | 778  | 988  |
| 40° | 219043 | 4047 | 337  | 764  | 1012 |
| 45° | 224659 | 2874 | 365  | 828  | 1096 |
| 50° | 208906 | 1608 | 295  | 857  | 1259 |
| 55° | 177544 | 841  | 330  | 961  | 1411 |
| 60° | 102541 | 207  | 379  | 1033 | 1550 |
| 65° | 20905  | 0    | 448  | 1223 | 1752 |
| 70° | 302    | 101  | 554  | 1410 | 2065 |
| 75° | 266    | 133  | 599  | 1397 | 2462 |
| 80° | 198    | 198  | 893  | 1686 | 2777 |
| 85° | 0      | 395  | 1778 | 1778 | 3359 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 224659 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.9    | 0.4       |
| 10°-20°   | 2.6    | 1.0       |
| 20°-30°   | 14.7   | 5.8       |
| 30°-40°   | 68.7   | 26.9      |
| 40°-50°   | 97.1   | 38.1      |
| 50°-60°   | 59.7   | 23.4      |
| 60°-70°   | 9.1    | 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°    | 18.2   | 7.1       |
| 0°-40°    | 86.9   | 34.1      |
| 0°-60°    | 243.7  | 95.6      |
| 0°-90°    | 255.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 255.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 10  | 10  | 10  | 10   | 10   |      |
| 5°  | 10  | 10  | 10  | 9    | 9    | 1    |
| 15° | 16  | 10  | 7   | 6    | 6    | 6    |
| 25° | 179 | 13  | 4   | 4    | 5    | 110  |
| 35° | 893 | 19  | 2   | 4    | 5    | 536  |
| 45° | 922 | 12  | 2   | 3    | 4    | 699  |
| 55° | 591 | 3   | 1   | 3    | 5    | 503  |
| 65° | 51  | 0   | 1   | 3    | 4    | 93   |
| 75° | 0   | 0   | 1   | 2    | 4    | 0    |
| 85° | 0   | 0   | 1   | 1    | 2    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1305424

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 22.5° | 45°  | 67.5° | 90° | 112.5° | 135° |
|-------|-------|-------|-------|-------|-------|-------|------|-------|-----|--------|------|
| 0°    | 9.9   | 9.9   | 9.9   | 9.9   | 9.9   | 9.9   | 9.9  | 9.9   | 9.9 | 9.9    | 9.9  |
| 2.5°  | 10.1  | 10.1  | 10.3  | 10.3  | 10.1  | 10.3  | 10.3 | 10.3  | 9.9 | 9.7    | 9.2  |
| 5°    | 10.5  | 10.5  | 10.5  | 10.7  | 10.5  | 10.5  | 10.3 | 10.1  | 9.7 | 9.0    | 8.8  |
| 7.5°  | 11.0  | 11.0  | 10.7  | 11.0  | 10.7  | 10.7  | 10.3 | 9.9   | 9.2 | 8.6    | 8.2  |
| 10°   | 11.4  | 11.4  | 11.2  | 11.2  | 11.0  | 11.0  | 10.1 | 9.5   | 8.4 | 7.7    | 7.5  |
| 12.5° | 12.7  | 12.7  | 12.5  | 12.2  | 11.8  | 11.6  | 9.9  | 8.8   | 7.5 | 6.9    | 6.7  |
| 15°   | 16.3  | 16.1  | 15.7  | 15.0  | 14.0  | 13.7  | 9.9  | 8.2   | 6.9 | 6.2    | 6.2  |
| 17.5° | 22.3  | 22.1  | 21.5  | 19.8  | 17.8  | 17.2  | 9.9  | 7.3   | 6.0 | 5.6    | 5.6  |
| 20°   | 40.0  | 38.2  | 35.0  | 30.7  | 26.2  | 23.8  | 10.5 | 6.4   | 5.2 | 4.9    | 5.2  |
| 21°   | 52.2  | 50.5  | 46.4  | 39.3  | 31.4  | 28.8  | 11.0 | 6.2   | 4.9 | 4.7    | 5.2  |
| 22°   | 71.1  | 69.2  | 60.8  | 51.1  | 39.7  | 35.2  | 11.2 | 5.8   | 4.5 | 4.5    | 4.9  |
| 23°   | 99.2  | 96.0  | 81.8  | 66.4  | 49.6  | 43.2  | 11.6 | 5.6   | 4.3 | 4.5    | 4.7  |
| 24°   | 130.0 | 127.2 | 111.1 | 87.9  | 63.4  | 54.1  | 12.0 | 5.4   | 4.1 | 4.1    | 4.5  |
| 25°   | 178.9 | 175.7 | 147.1 | 110.8 | 80.3  | 65.1  | 12.7 | 4.9   | 3.9 | 3.9    | 4.5  |
| 26°   | 242.3 | 227.5 | 189.5 | 142.8 | 99.0  | 81.6  | 13.3 | 4.7   | 3.7 | 3.9    | 4.3  |
| 27°   | 302.4 | 290.2 | 247.5 | 183.2 | 122.4 | 100.3 | 14.2 | 4.5   | 3.4 | 3.7    | 4.3  |
| 28°   | 381.5 | 364.3 | 310.4 | 231.8 | 154.2 | 121.4 | 15.0 | 4.3   | 3.2 | 3.7    | 4.1  |
| 29°   | 470.0 | 445.9 | 380.8 | 286.3 | 190.1 | 145.0 | 15.9 | 4.1   | 3.0 | 3.4    | 4.1  |
| 30°   | 544.3 | 521.8 | 456.7 | 351.0 | 231.3 | 176.1 | 16.8 | 3.9   | 2.8 | 3.4    | 4.1  |
| 31°   | 631.5 | 597.4 | 518.5 | 405.8 | 266.8 | 207.3 | 17.6 | 3.4   | 2.6 | 3.2    | 3.9  |
| 32°   | 702.2 | 678.3 | 594.6 | 467.6 | 313.4 | 241.7 | 18.3 | 3.2   | 2.6 | 3.2    | 3.9  |
| 33°   | 770.5 | 738.5 | 657.5 | 526.9 | 355.5 | 276.9 | 18.9 | 3.0   | 2.4 | 3.0    | 3.9  |
| 34°   | 835.8 | 806.4 | 717.0 | 574.8 | 395.2 | 310.4 | 19.3 | 2.6   | 2.4 | 3.0    | 3.7  |
| 35°   | 893.4 | 859.2 | 769.4 | 621.6 | 436.0 | 340.9 | 19.3 | 2.4   | 2.1 | 2.8    | 3.7  |
| 36°   | 930.7 | 906.2 | 815.0 | 667.8 | 473.0 | 369.9 | 19.3 | 2.1   | 1.9 | 2.8    | 3.4  |
| 37°   | 962.7 | 934.2 | 851.5 | 703.3 | 500.3 | 393.1 | 19.3 | 1.9   | 1.9 | 2.8    | 3.4  |
| 38°   | 975.8 | 951.4 | 876.6 | 734.6 | 525.8 | 416.7 | 19.1 | 1.7   | 1.7 | 2.6    | 3.4  |
| 39°   | 981.0 | 959.1 | 895.5 | 757.2 | 544.7 | 432.6 | 18.7 | 1.5   | 1.7 | 2.6    | 3.4  |
| 40°   | 974.3 | 957.8 | 905.2 | 771.8 | 559.8 | 444.2 | 18.0 | 1.3   | 1.5 | 2.6    | 3.4  |
| 42.5° | 946.8 | 935.9 | 903.0 | 786.4 | 572.7 | 452.8 | 15.7 | 0.9   | 1.5 | 2.4    | 3.4  |
| 45°   | 922.4 | 910.3 | 881.3 | 771.1 | 555.9 | 435.8 | 11.8 | 0.4   | 1.5 | 2.4    | 3.4  |
| 47.5° | 874.9 | 867.4 | 844.6 | 732.3 | 519.2 | 397.6 | 8.4  | 0.2   | 1.3 | 2.1    | 3.2  |
| 50°   | 779.7 | 772.6 | 742.6 | 635.8 | 446.6 | 336.2 | 6.0  | 0.2   | 1.1 | 2.1    | 3.2  |
| 52.5° | 694.5 | 686.9 | 643.8 | 528.6 | 343.0 | 246.4 | 3.9  | 0.2   | 1.1 | 2.1    | 3.2  |
| 55°   | 591.3 | 578.2 | 521.5 | 401.2 | 243.2 | 165.2 | 2.8  | 0.2   | 1.1 | 1.9    | 3.2  |
| 57.5° | 437.8 | 418.6 | 368.0 | 273.7 | 140.1 | 89.6  | 1.5  | 0.2   | 1.1 | 1.9    | 3.2  |
| 60°   | 297.7 | 286.3 | 230.3 | 144.3 | 59.7  | 37.8  | 0.6  | 0.2   | 1.1 | 1.9    | 3.0  |
| 62.5° | 180.4 | 166.0 | 115.8 | 61.4  | 25.8  | 17.2  | 0.0  | 0.4   | 1.1 | 1.9    | 3.0  |
| 65°   | 51.3  | 45.5  | 30.3  | 14.0  | 7.3   | 5.6   | 0.0  | 0.4   | 1.1 | 1.9    | 3.0  |
| 67.5° | 1.7   | 1.7   | 1.7   | 1.5   | 1.1   | 1.1   | 0.2  | 0.4   | 1.1 | 1.9    | 2.8  |
| 70°   | 0.6   | 0.6   | 0.6   | 0.4   | 0.4   | 0.2   | 0.2  | 0.4   | 1.1 | 1.7    | 2.8  |
| 72.5° | 0.4   | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2  | 0.4   | 0.9 | 1.5    | 2.6  |
| 75°   | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.9 | 1.5    | 2.1  |
| 77.5° | 0.4   | 0.4   | 0.4   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.9 | 1.3    | 2.1  |
| 80°   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2  | 0.6   | 0.9 | 1.3    | 1.7  |



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**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   | 0.9 | 0.9    | 1.3  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.2 | 0.6   | 0.9 | 0.6    | 0.9  |
| 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  |

TEST NUMBER: P1305424

CATALOG NUMBER: P3SQAS02R309024DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 9.9    | 9.9  |
| 2.5°  | 9.2    | 9.2  |
| 5°    | 8.6    | 8.6  |
| 7.5°  | 7.9    | 7.9  |
| 10°   | 7.3    | 7.3  |
| 12.5° | 6.9    | 6.9  |
| 15°   | 6.2    | 6.4  |
| 17.5° | 5.8    | 6.0  |
| 20°   | 5.6    | 5.8  |
| 21°   | 5.6    | 5.8  |
| 22°   | 5.4    | 5.6  |
| 23°   | 5.4    | 5.6  |
| 24°   | 5.2    | 5.4  |
| 25°   | 4.9    | 5.2  |
| 26°   | 4.9    | 5.2  |
| 27°   | 4.9    | 5.2  |
| 28°   | 4.7    | 5.2  |
| 29°   | 4.7    | 4.9  |
| 30°   | 4.7    | 4.9  |
| 31°   | 4.5    | 4.9  |
| 32°   | 4.5    | 4.9  |
| 33°   | 4.5    | 4.7  |
| 34°   | 4.3    | 4.7  |
| 35°   | 4.3    | 4.7  |
| 36°   | 4.3    | 4.7  |
| 37°   | 4.3    | 4.5  |
| 38°   | 4.3    | 4.7  |
| 39°   | 4.3    | 4.5  |
| 40°   | 4.3    | 4.5  |
| 42.5° | 4.3    | 4.5  |
| 45°   | 4.3    | 4.5  |
| 47.5° | 4.3    | 4.7  |
| 50°   | 4.3    | 4.7  |
| 52.5° | 4.3    | 4.7  |
| 55°   | 4.3    | 4.7  |
| 57.5° | 4.3    | 4.5  |
| 60°   | 4.3    | 4.5  |
| 62.5° | 4.1    | 4.5  |
| 65°   | 4.1    | 4.3  |
| 67.5° | 4.1    | 4.3  |
| 70°   | 3.9    | 4.1  |
| 72.5° | 3.7    | 3.9  |
| 75°   | 3.2    | 3.7  |
| 77.5° | 3.0    | 3.2  |
| 80°   | 2.6    | 2.8  |



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CATALOG NUMBER: P3SQAS02R309024DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 2.1    | 2.1  |
| 85°   | 1.5    | 1.7  |
| 87.5° | 0.9    | 0.9  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)