

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: P1305749

Luminaire Tested: P3SQAS09R309024DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305749  
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: P3SQAS09R309024DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 2400K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

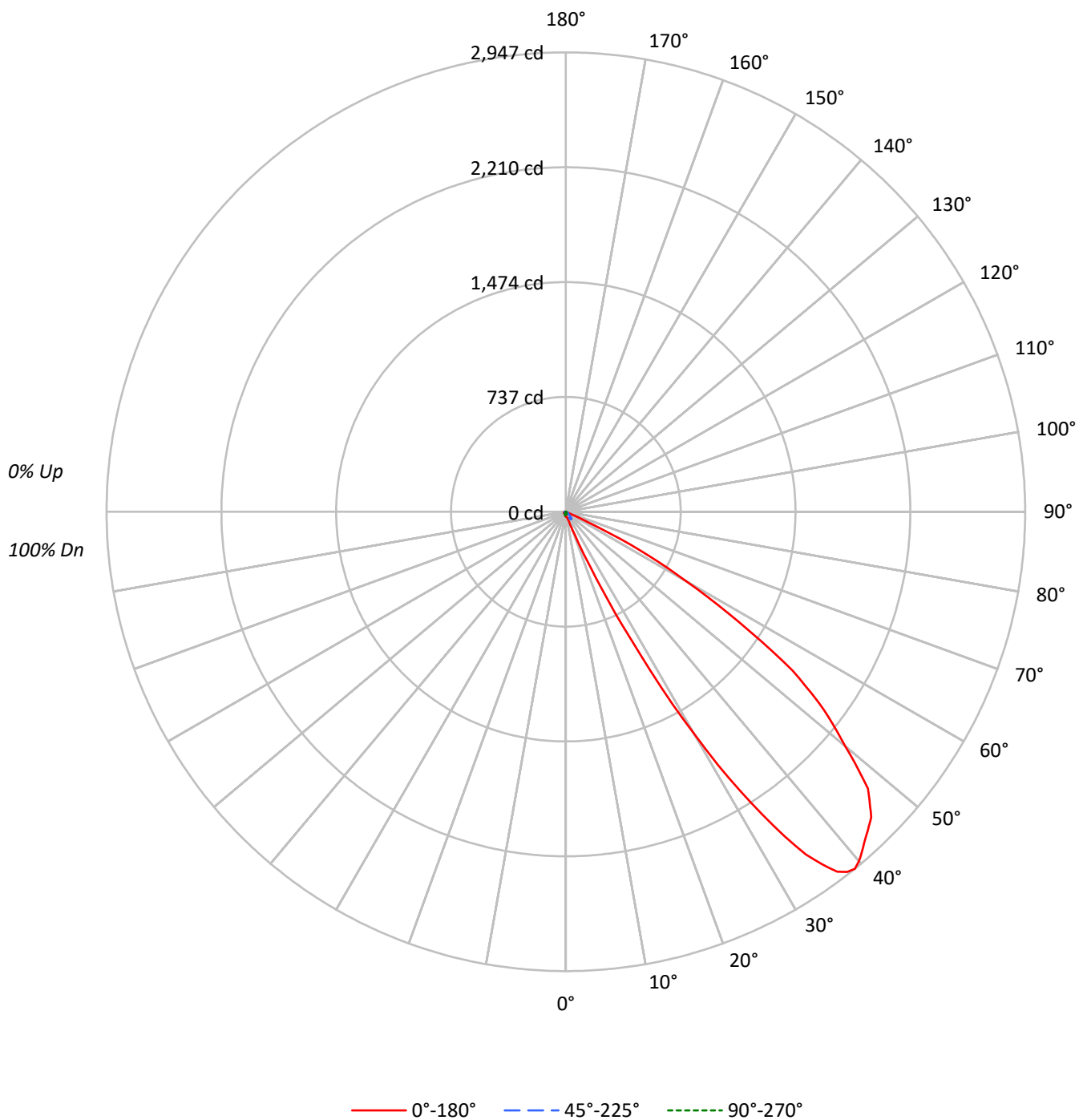
Lumens per Lamp: N/A  
Luminaire Lumens: 766.0 lumens  
Efficiency: N/A  
Efficacy: 69.0 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.1  
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  |
| 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°  | 5115   | 5115  | 5115 | 5115 | 5115  |
| 5°  | 5463   | 5359  | 5014 | 4581 | 4460  |
| 10° | 5981   | 5299  | 4407 | 3952 | 3830  |
| 15° | 8737   | 5295  | 3673 | 3334 | 3459  |
| 20° | 21993  | 5792  | 2841 | 2841 | 3189  |
| 25° | 102139 | 7240  | 2204 | 2584 | 2945  |
| 30° | 325165 | 10003 | 1670 | 2446 | 2943  |
| 35° | 564214 | 12215 | 1367 | 2313 | 2985  |
| 40° | 658005 | 12185 | 1012 | 2316 | 3058  |
| 45° | 674831 | 8646  | 1096 | 2509 | 3312  |
| 50° | 627548 | 4850  | 857  | 2599 | 3805  |
| 55° | 533384 | 2522  | 961  | 2913 | 4264  |
| 60° | 308037 | 654   | 1102 | 3100 | 4684  |
| 65° | 62839  | 0     | 1304 | 3668 | 5257  |
| 70° | 957    | 302   | 1611 | 4230 | 6194  |
| 75° | 865    | 399   | 1730 | 4325 | 7320  |
| 80° | 595    | 595   | 2579 | 5157 | 8331  |
| 85° | 0      | 1186  | 5138 | 5138 | 10275 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 674831 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.7    | 0.4       |
| 10°-20°   | 7.7    | 1.0       |
| 20°-30°   | 44.2   | 5.8       |
| 30°-40°   | 206.3  | 26.9      |
| 40°-50°   | 291.8  | 38.1      |
| 50°-60°   | 179.5  | 23.4      |
| 60°-70°   | 27.3   | 3.6       |
| 70°-80°   | 4.3    | 0.6       |
| 80°-90°   | 2.2    | 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°    | 54.6   | 7.1       |
| 0°-40°    | 260.9  | 34.1      |
| 0°-60°    | 732.2  | 95.6      |
| 0°-90°    | 766.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 766.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 30   | 30  | 30  | 30   | 30   |      |
| 5°  | 32   | 31  | 29  | 26   | 26   | 3    |
| 15° | 49   | 30  | 21  | 19   | 19   | 17   |
| 25° | 538  | 38  | 12  | 14   | 16   | 331  |
| 35° | 2684 | 58  | 6   | 11   | 14   | 1611 |
| 45° | 2771 | 36  | 4   | 10   | 14   | 2101 |
| 55° | 1776 | 8   | 3   | 10   | 14   | 1512 |
| 65° | 154  | 0   | 3   | 9    | 13   | 279  |
| 75° | 1    | 1   | 3   | 6    | 11   | 1    |
| 85° | 0    | 1   | 3   | 3    | 5    | 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°    | 29.7   | 29.7   | 29.7   | 29.7   | 29.7   | 29.7   | 29.7 | 29.7  | 29.7 | 29.7   | 29.7 |
| 2.5°  | 30.3   | 30.3   | 31.0   | 31.0   | 30.3   | 31.0   | 31.0 | 31.0  | 29.7 | 29.0   | 27.7 |
| 5°    | 31.6   | 31.6   | 31.6   | 32.3   | 31.6   | 31.6   | 31.0 | 30.3  | 29.0 | 27.1   | 26.5 |
| 7.5°  | 32.9   | 32.9   | 32.3   | 32.9   | 32.3   | 32.3   | 31.0 | 29.7  | 27.7 | 25.8   | 24.5 |
| 10°   | 34.2   | 34.2   | 33.6   | 33.6   | 32.9   | 32.9   | 30.3 | 28.4  | 25.2 | 23.2   | 22.6 |
| 12.5° | 38.1   | 38.1   | 37.4   | 36.8   | 35.5   | 34.8   | 29.7 | 26.5  | 22.6 | 20.6   | 20.0 |
| 15°   | 49.0   | 48.4   | 47.1   | 45.2   | 41.9   | 41.3   | 29.7 | 24.5  | 20.6 | 18.7   | 18.7 |
| 17.5° | 67.1   | 66.5   | 64.5   | 59.4   | 53.6   | 51.6   | 29.7 | 21.9  | 18.1 | 16.8   | 16.8 |
| 20°   | 120.0  | 114.9  | 105.2  | 92.3   | 78.7   | 71.6   | 31.6 | 19.4  | 15.5 | 14.8   | 15.5 |
| 21°   | 156.8  | 151.6  | 139.4  | 118.1  | 94.2   | 86.5   | 32.9 | 18.7  | 14.8 | 14.2   | 15.5 |
| 22°   | 213.6  | 207.8  | 182.6  | 153.6  | 119.4  | 105.8  | 33.6 | 17.4  | 13.6 | 13.6   | 14.8 |
| 23°   | 298.1  | 288.4  | 245.8  | 199.4  | 149.1  | 129.7  | 34.8 | 16.8  | 12.9 | 13.6   | 14.2 |
| 24°   | 390.4  | 382.0  | 333.6  | 263.9  | 190.3  | 162.6  | 36.1 | 16.1  | 12.3 | 12.3   | 13.6 |
| 25°   | 537.5  | 527.8  | 442.0  | 332.9  | 241.3  | 195.5  | 38.1 | 14.8  | 11.6 | 11.6   | 13.6 |
| 26°   | 727.8  | 683.3  | 569.1  | 429.1  | 297.5  | 245.2  | 40.0 | 14.2  | 11.0 | 11.6   | 12.9 |
| 27°   | 908.5  | 871.7  | 743.3  | 550.4  | 367.8  | 301.3  | 42.6 | 13.6  | 10.3 | 11.0   | 12.9 |
| 28°   | 1146.0 | 1094.3 | 932.4  | 696.2  | 463.3  | 364.6  | 45.2 | 12.9  | 9.7  | 11.0   | 12.3 |
| 29°   | 1411.8 | 1339.5 | 1144.0 | 860.1  | 571.0  | 435.5  | 47.7 | 12.3  | 9.0  | 10.3   | 12.3 |
| 30°   | 1635.1 | 1567.3 | 1371.8 | 1054.3 | 694.9  | 529.1  | 50.3 | 11.6  | 8.4  | 10.3   | 12.3 |
| 31°   | 1897.0 | 1794.4 | 1557.6 | 1218.9 | 801.4  | 622.7  | 52.9 | 10.3  | 7.7  | 9.7    | 11.6 |
| 32°   | 2109.3 | 2037.7 | 1786.0 | 1404.7 | 941.4  | 725.9  | 54.8 | 9.7   | 7.7  | 9.7    | 11.6 |
| 33°   | 2314.5 | 2218.4 | 1975.1 | 1582.8 | 1067.9 | 831.7  | 56.8 | 9.0   | 7.1  | 9.0    | 11.6 |
| 34°   | 2510.7 | 2422.3 | 2153.8 | 1726.7 | 1187.3 | 932.4  | 58.1 | 7.7   | 7.1  | 9.0    | 11.0 |
| 35°   | 2683.6 | 2581.0 | 2311.3 | 1867.3 | 1309.8 | 1024.0 | 58.1 | 7.1   | 6.5  | 8.4    | 11.0 |
| 36°   | 2795.9 | 2722.3 | 2448.1 | 2006.1 | 1420.8 | 1111.1 | 58.1 | 6.5   | 5.8  | 8.4    | 10.3 |
| 37°   | 2892.0 | 2806.2 | 2557.8 | 2112.5 | 1502.8 | 1180.8 | 58.1 | 5.8   | 5.8  | 8.4    | 10.3 |
| 38°   | 2931.4 | 2857.8 | 2633.2 | 2206.7 | 1579.6 | 1251.8 | 57.4 | 5.2   | 5.2  | 7.7    | 10.3 |
| 39°   | 2946.8 | 2881.0 | 2690.0 | 2274.5 | 1636.3 | 1299.5 | 56.1 | 4.5   | 5.2  | 7.7    | 10.3 |
| 40°   | 2926.8 | 2877.2 | 2719.1 | 2318.4 | 1681.5 | 1334.4 | 54.2 | 3.9   | 4.5  | 7.7    | 10.3 |
| 42.5° | 2844.2 | 2811.3 | 2712.6 | 2362.2 | 1720.2 | 1360.2 | 47.1 | 2.6   | 4.5  | 7.1    | 10.3 |
| 45°   | 2770.7 | 2734.6 | 2647.4 | 2316.4 | 1669.9 | 1309.2 | 35.5 | 1.3   | 4.5  | 7.1    | 10.3 |
| 47.5° | 2628.1 | 2605.5 | 2537.1 | 2199.6 | 1559.6 | 1194.4 | 25.2 | 0.6   | 3.9  | 6.5    | 9.7  |
| 50°   | 2342.2 | 2321.0 | 2230.6 | 1909.9 | 1341.5 | 1009.8 | 18.1 | 0.6   | 3.2  | 6.5    | 9.7  |
| 52.5° | 2086.1 | 2063.5 | 1933.8 | 1588.0 | 1030.5 | 740.1  | 11.6 | 0.6   | 3.2  | 6.5    | 9.7  |
| 55°   | 1776.4 | 1737.0 | 1566.7 | 1205.3 | 730.4  | 496.2  | 8.4  | 0.6   | 3.2  | 5.8    | 9.7  |
| 57.5° | 1315.0 | 1257.6 | 1105.3 | 822.0  | 420.7  | 269.1  | 4.5  | 0.6   | 3.2  | 5.8    | 9.7  |
| 60°   | 894.3  | 860.1  | 691.7  | 433.6  | 179.4  | 113.6  | 1.9  | 0.6   | 3.2  | 5.8    | 9.0  |
| 62.5° | 542.0  | 498.8  | 347.8  | 184.5  | 77.4   | 51.6   | 0.0  | 1.3   | 3.2  | 5.8    | 9.0  |
| 65°   | 154.2  | 136.8  | 91.0   | 41.9   | 21.9   | 16.8   | 0.0  | 1.3   | 3.2  | 5.8    | 9.0  |
| 67.5° | 5.2    | 5.2    | 5.2    | 4.5    | 3.2    | 3.2    | 0.6  | 1.3   | 3.2  | 5.8    | 8.4  |
| 70°   | 1.9    | 1.9    | 1.9    | 1.3    | 1.3    | 0.6    | 0.6  | 1.3   | 3.2  | 5.2    | 8.4  |
| 72.5° | 1.3    | 1.3    | 1.3    | 1.3    | 0.6    | 0.6    | 0.6  | 1.3   | 2.6  | 4.5    | 7.7  |
| 75°   | 1.3    | 1.3    | 1.3    | 0.6    | 0.6    | 0.6    | 0.6  | 1.9   | 2.6  | 4.5    | 6.5  |
| 77.5° | 1.3    | 1.3    | 1.3    | 0.6    | 0.6    | 0.6    | 0.6  | 1.9   | 2.6  | 3.9    | 6.5  |
| 80°   | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6  | 1.9   | 2.6  | 3.9    | 5.2  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.6 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0   | 0.6 | 1.9   | 2.6 | 2.6    | 3.9  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.6 | 1.9   | 2.6 | 1.9    | 2.6  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.6 | 1.9   | 1.9 | 1.9    | 1.3  |
| 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):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 29.7   | 29.7 |
| 2.5°  | 27.7   | 27.7 |
| 5°    | 25.8   | 25.8 |
| 7.5°  | 23.9   | 23.9 |
| 10°   | 21.9   | 21.9 |
| 12.5° | 20.6   | 20.6 |
| 15°   | 18.7   | 19.4 |
| 17.5° | 17.4   | 18.1 |
| 20°   | 16.8   | 17.4 |
| 21°   | 16.8   | 17.4 |
| 22°   | 16.1   | 16.8 |
| 23°   | 16.1   | 16.8 |
| 24°   | 15.5   | 16.1 |
| 25°   | 14.8   | 15.5 |
| 26°   | 14.8   | 15.5 |
| 27°   | 14.8   | 15.5 |
| 28°   | 14.2   | 15.5 |
| 29°   | 14.2   | 14.8 |
| 30°   | 14.2   | 14.8 |
| 31°   | 13.6   | 14.8 |
| 32°   | 13.6   | 14.8 |
| 33°   | 13.6   | 14.2 |
| 34°   | 12.9   | 14.2 |
| 35°   | 12.9   | 14.2 |
| 36°   | 12.9   | 14.2 |
| 37°   | 12.9   | 13.6 |
| 38°   | 12.9   | 14.2 |
| 39°   | 12.9   | 13.6 |
| 40°   | 12.9   | 13.6 |
| 42.5° | 12.9   | 13.6 |
| 45°   | 12.9   | 13.6 |
| 47.5° | 12.9   | 14.2 |
| 50°   | 12.9   | 14.2 |
| 52.5° | 12.9   | 14.2 |
| 55°   | 12.9   | 14.2 |
| 57.5° | 12.9   | 13.6 |
| 60°   | 12.9   | 13.6 |
| 62.5° | 12.3   | 13.6 |
| 65°   | 12.3   | 12.9 |
| 67.5° | 12.3   | 12.9 |
| 70°   | 11.6   | 12.3 |
| 72.5° | 11.0   | 11.6 |
| 75°   | 9.7    | 11.0 |
| 77.5° | 9.0    | 9.7  |
| 80°   | 7.7    | 8.4  |

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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 6.5    | 6.5  |
| 85°   | 4.5    | 5.2  |
| 87.5° | 2.6    | 2.6  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)