

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: P1344941

Luminaire Tested: P3A13R309035DE010 E3A451GPH

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1344941  
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: P3A13R309035DE010 E3A451GPH  
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 90CRI , E3A451GPH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

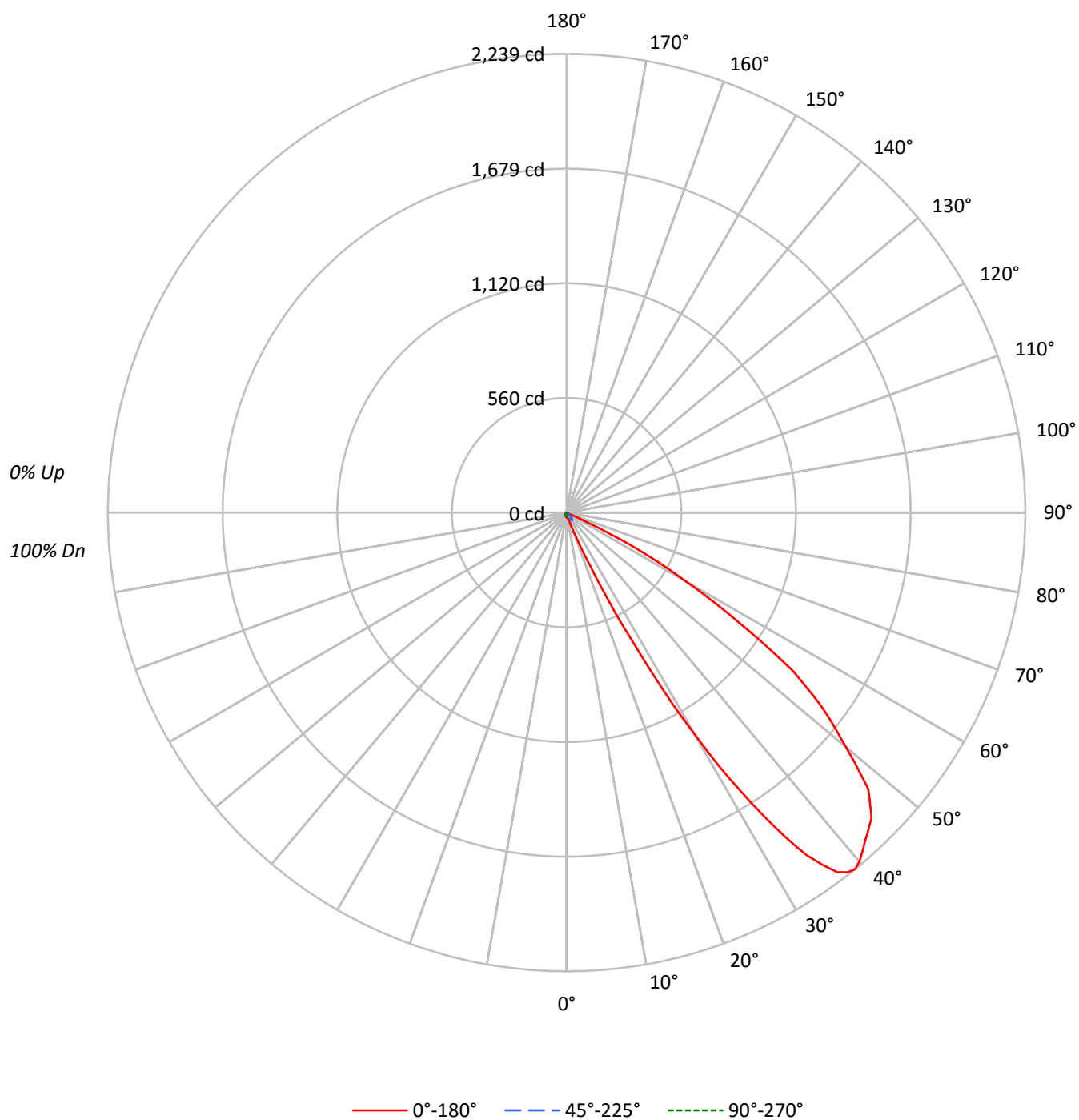
Lumens per Lamp: N/A  
Luminaire Lumens: 582.0 lumens  
Efficiency: N/A  
Efficacy: 39.9 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.6  
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  |
| 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°  | 4956   | 4956  | 4956 | 4956 | 4956 |
| 5°  | 5283   | 5173  | 4865 | 4424 | 4314 |
| 10° | 5789   | 5121  | 4253 | 3830 | 3718 |
| 15° | 8468   | 5131  | 3564 | 3224 | 3337 |
| 20° | 21282  | 5600  | 2754 | 2754 | 3080 |
| 25° | 98812  | 6992  | 2129 | 2492 | 2855 |
| 30° | 314555 | 9672  | 1621 | 2355 | 2861 |
| 35° | 545825 | 11805 | 1312 | 2222 | 2891 |
| 40° | 636564 | 11794 | 973  | 2233 | 2948 |
| 45° | 652812 | 8373  | 1054 | 2419 | 3194 |
| 50° | 607093 | 4674  | 853  | 2524 | 3684 |
| 55° | 515996 | 2447  | 956  | 2829 | 4129 |
| 60° | 298002 | 658   | 1096 | 3026 | 4517 |
| 65° | 60811  | 0     | 1297 | 3580 | 5085 |
| 70° | 962    | 321   | 1603 | 4103 | 5963 |
| 75° | 847    | 424   | 1694 | 4151 | 7032 |
| 80° | 631    | 631   | 2526 | 4925 | 8082 |
| 85° | 0      | 1258  | 5032 | 5032 | 9812 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 652812 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.0    | 0.4       |
| 10°-20°   | 5.9    | 1.0       |
| 20°-30°   | 33.6   | 5.8       |
| 30°-40°   | 156.8  | 26.9      |
| 40°-50°   | 221.7  | 38.1      |
| 50°-60°   | 136.4  | 23.4      |
| 60°-70°   | 20.8   | 3.6       |
| 70°-80°   | 3.3    | 0.6       |
| 80°-90°   | 1.7    | 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°    | 41.5   | 7.1       |
| 0°-40°    | 198.2  | 34.1      |
| 0°-60°    | 556.3  | 95.6      |
| 0°-90°    | 582.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 582.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 23   | 23  | 23  | 23   | 23   |      |
| 5°  | 24   | 24  | 22  | 20   | 20   | 2    |
| 15° | 37   | 23  | 16  | 14   | 15   | 13   |
| 25° | 408  | 29  | 9   | 10   | 12   | 251  |
| 35° | 2039 | 44  | 5   | 8    | 11   | 1224 |
| 45° | 2105 | 27  | 3   | 8    | 10   | 1596 |
| 55° | 1350 | 6   | 2   | 7    | 11   | 1148 |
| 65° | 117  | 0   | 2   | 7    | 10   | 212  |
| 75° | 1    | 0   | 2   | 5    | 8    | 1    |
| 85° | 0    | 0   | 2   | 2    | 4    | 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°    | 22.6   | 22.6   | 22.6   | 22.6   | 22.6   | 22.6   | 22.6 | 22.6  | 22.6 | 22.6   | 22.6 |
| 2.5°  | 23.0   | 23.0   | 23.5   | 23.5   | 23.0   | 23.5   | 23.5 | 23.5  | 22.6 | 22.1   | 21.1 |
| 5°    | 24.0   | 24.0   | 24.0   | 24.5   | 24.0   | 24.0   | 23.5 | 23.0  | 22.1 | 20.6   | 20.1 |
| 7.5°  | 25.0   | 25.0   | 24.5   | 25.0   | 24.5   | 24.5   | 23.5 | 22.6  | 21.1 | 19.6   | 18.6 |
| 10°   | 26.0   | 26.0   | 25.5   | 25.5   | 25.0   | 25.0   | 23.0 | 21.6  | 19.1 | 17.6   | 17.2 |
| 12.5° | 28.9   | 28.9   | 28.4   | 27.9   | 27.0   | 26.5   | 22.6 | 20.1  | 17.2 | 15.7   | 15.2 |
| 15°   | 37.3   | 36.8   | 35.8   | 34.3   | 31.9   | 31.4   | 22.6 | 18.6  | 15.7 | 14.2   | 14.2 |
| 17.5° | 51.0   | 50.5   | 49.0   | 45.1   | 40.7   | 39.2   | 22.6 | 16.7  | 13.7 | 12.7   | 12.7 |
| 20°   | 91.2   | 87.3   | 79.9   | 70.1   | 59.8   | 54.4   | 24.0 | 14.7  | 11.8 | 11.3   | 11.8 |
| 21°   | 119.1  | 115.2  | 105.9  | 89.7   | 71.6   | 65.7   | 25.0 | 14.2  | 11.3 | 10.8   | 11.8 |
| 22°   | 162.3  | 157.9  | 138.7  | 116.7  | 90.7   | 80.4   | 25.5 | 13.2  | 10.3 | 10.3   | 11.3 |
| 23°   | 226.5  | 219.1  | 186.8  | 151.5  | 113.2  | 98.5   | 26.5 | 12.7  | 9.8  | 10.3   | 10.8 |
| 24°   | 296.6  | 290.2  | 253.5  | 200.5  | 144.6  | 123.5  | 27.5 | 12.3  | 9.3  | 9.3    | 10.3 |
| 25°   | 408.4  | 401.0  | 335.8  | 253.0  | 183.4  | 148.5  | 28.9 | 11.3  | 8.8  | 8.8    | 10.3 |
| 26°   | 553.0  | 519.2  | 432.4  | 326.0  | 226.0  | 186.3  | 30.4 | 10.8  | 8.3  | 8.8    | 9.8  |
| 27°   | 690.3  | 662.3  | 564.8  | 418.2  | 279.4  | 228.9  | 32.4 | 10.3  | 7.8  | 8.3    | 9.8  |
| 28°   | 870.7  | 831.5  | 708.4  | 529.0  | 352.0  | 277.0  | 34.3 | 9.8   | 7.4  | 8.3    | 9.3  |
| 29°   | 1072.7 | 1017.8 | 869.2  | 653.5  | 433.9  | 330.9  | 36.3 | 9.3   | 6.9  | 7.8    | 9.3  |
| 30°   | 1242.3 | 1190.8 | 1042.3 | 801.1  | 528.0  | 402.0  | 38.2 | 8.8   | 6.4  | 7.8    | 9.3  |
| 31°   | 1441.3 | 1363.4 | 1183.5 | 926.1  | 608.9  | 473.1  | 40.2 | 7.8   | 5.9  | 7.4    | 8.8  |
| 32°   | 1602.6 | 1548.2 | 1357.0 | 1067.3 | 715.3  | 551.5  | 41.7 | 7.4   | 5.9  | 7.4    | 8.8  |
| 33°   | 1758.5 | 1685.5 | 1500.7 | 1202.6 | 811.4  | 631.9  | 43.1 | 6.9   | 5.4  | 6.9    | 8.8  |
| 34°   | 1907.6 | 1840.4 | 1636.5 | 1311.9 | 902.1  | 708.4  | 44.1 | 5.9   | 5.4  | 6.9    | 8.3  |
| 35°   | 2039.0 | 1961.0 | 1756.1 | 1418.8 | 995.2  | 778.0  | 44.1 | 5.4   | 4.9  | 6.4    | 8.3  |
| 36°   | 2124.3 | 2068.4 | 1860.0 | 1524.2 | 1079.5 | 844.2  | 44.1 | 4.9   | 4.4  | 6.4    | 7.8  |
| 37°   | 2197.3 | 2132.1 | 1943.4 | 1605.1 | 1141.8 | 897.2  | 44.1 | 4.4   | 4.4  | 6.4    | 7.8  |
| 38°   | 2227.2 | 2171.3 | 2000.7 | 1676.7 | 1200.1 | 951.1  | 43.6 | 3.9   | 3.9  | 5.9    | 7.8  |
| 39°   | 2239.0 | 2189.0 | 2043.9 | 1728.1 | 1243.3 | 987.4  | 42.7 | 3.4   | 3.9  | 5.9    | 7.8  |
| 40°   | 2223.8 | 2186.0 | 2065.9 | 1761.5 | 1277.6 | 1013.8 | 41.2 | 2.9   | 3.4  | 5.9    | 7.8  |
| 42.5° | 2161.0 | 2136.0 | 2061.0 | 1794.8 | 1307.0 | 1033.5 | 35.8 | 2.0   | 3.4  | 5.4    | 7.8  |
| 45°   | 2105.1 | 2077.7 | 2011.5 | 1760.0 | 1268.8 | 994.7  | 27.0 | 1.0   | 3.4  | 5.4    | 7.8  |
| 47.5° | 1996.8 | 1979.6 | 1927.7 | 1671.3 | 1184.9 | 907.5  | 19.1 | 0.5   | 2.9  | 4.9    | 7.4  |
| 50°   | 1779.6 | 1763.4 | 1694.8 | 1451.1 | 1019.2 | 767.2  | 13.7 | 0.5   | 2.5  | 4.9    | 7.4  |
| 52.5° | 1585.0 | 1567.8 | 1469.3 | 1206.5 | 782.9  | 562.3  | 8.8  | 0.5   | 2.5  | 4.9    | 7.4  |
| 55°   | 1349.7 | 1319.8 | 1190.3 | 915.8  | 555.0  | 377.0  | 6.4  | 0.5   | 2.5  | 4.4    | 7.4  |
| 57.5° | 999.1  | 955.5  | 839.8  | 624.6  | 319.6  | 204.4  | 3.4  | 0.5   | 2.5  | 4.4    | 7.4  |
| 60°   | 679.5  | 653.5  | 525.6  | 329.4  | 136.3  | 86.3   | 1.5  | 0.5   | 2.5  | 4.4    | 6.9  |
| 62.5° | 411.8  | 379.0  | 264.2  | 140.2  | 58.8   | 39.2   | 0.0  | 1.0   | 2.5  | 4.4    | 6.9  |
| 65°   | 117.2  | 103.9  | 69.1   | 31.9   | 16.7   | 12.7   | 0.0  | 1.0   | 2.5  | 4.4    | 6.9  |
| 67.5° | 3.9    | 3.9    | 3.9    | 3.4    | 2.5    | 2.5    | 0.5  | 1.0   | 2.5  | 4.4    | 6.4  |
| 70°   | 1.5    | 1.5    | 1.5    | 1.0    | 1.0    | 0.5    | 0.5  | 1.0   | 2.5  | 3.9    | 6.4  |
| 72.5° | 1.0    | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5  | 1.0   | 2.0  | 3.4    | 5.9  |
| 75°   | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 3.4    | 4.9  |
| 77.5° | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 2.9    | 4.9  |
| 80°   | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 2.9    | 3.9  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 2.0 | 2.0    | 2.9  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 2.0 | 1.5    | 2.0  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 1.5 | 1.5    | 1.0  |
| 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°    | 22.6   | 22.6 |
| 2.5°  | 21.1   | 21.1 |
| 5°    | 19.6   | 19.6 |
| 7.5°  | 18.1   | 18.1 |
| 10°   | 16.7   | 16.7 |
| 12.5° | 15.7   | 15.7 |
| 15°   | 14.2   | 14.7 |
| 17.5° | 13.2   | 13.7 |
| 20°   | 12.7   | 13.2 |
| 21°   | 12.7   | 13.2 |
| 22°   | 12.3   | 12.7 |
| 23°   | 12.3   | 12.7 |
| 24°   | 11.8   | 12.3 |
| 25°   | 11.3   | 11.8 |
| 26°   | 11.3   | 11.8 |
| 27°   | 11.3   | 11.8 |
| 28°   | 10.8   | 11.8 |
| 29°   | 10.8   | 11.3 |
| 30°   | 10.8   | 11.3 |
| 31°   | 10.3   | 11.3 |
| 32°   | 10.3   | 11.3 |
| 33°   | 10.3   | 10.8 |
| 34°   | 9.8    | 10.8 |
| 35°   | 9.8    | 10.8 |
| 36°   | 9.8    | 10.8 |
| 37°   | 9.8    | 10.3 |
| 38°   | 9.8    | 10.8 |
| 39°   | 9.8    | 10.3 |
| 40°   | 9.8    | 10.3 |
| 42.5° | 9.8    | 10.3 |
| 45°   | 9.8    | 10.3 |
| 47.5° | 9.8    | 10.8 |
| 50°   | 9.8    | 10.8 |
| 52.5° | 9.8    | 10.8 |
| 55°   | 9.8    | 10.8 |
| 57.5° | 9.8    | 10.3 |
| 60°   | 9.8    | 10.3 |
| 62.5° | 9.3    | 10.3 |
| 65°   | 9.3    | 9.8  |
| 67.5° | 9.3    | 9.8  |
| 70°   | 8.8    | 9.3  |
| 72.5° | 8.3    | 8.8  |
| 75°   | 7.4    | 8.3  |
| 77.5° | 6.9    | 7.4  |
| 80°   | 5.9    | 6.4  |

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CATALOG NUMBER: P3A13R309035DE010 E3A451GPH

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 4.9    | 4.9  |
| 85°   | 3.4    | 3.9  |
| 87.5° | 2.0    | 2.0  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)