

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: P1345071

Luminaire Tested: P3A13R309830DE010 E3A451LI

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1345071  
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: P3A13R309830DE010 E3A451LI  
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 98CRI , E3A451LI TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

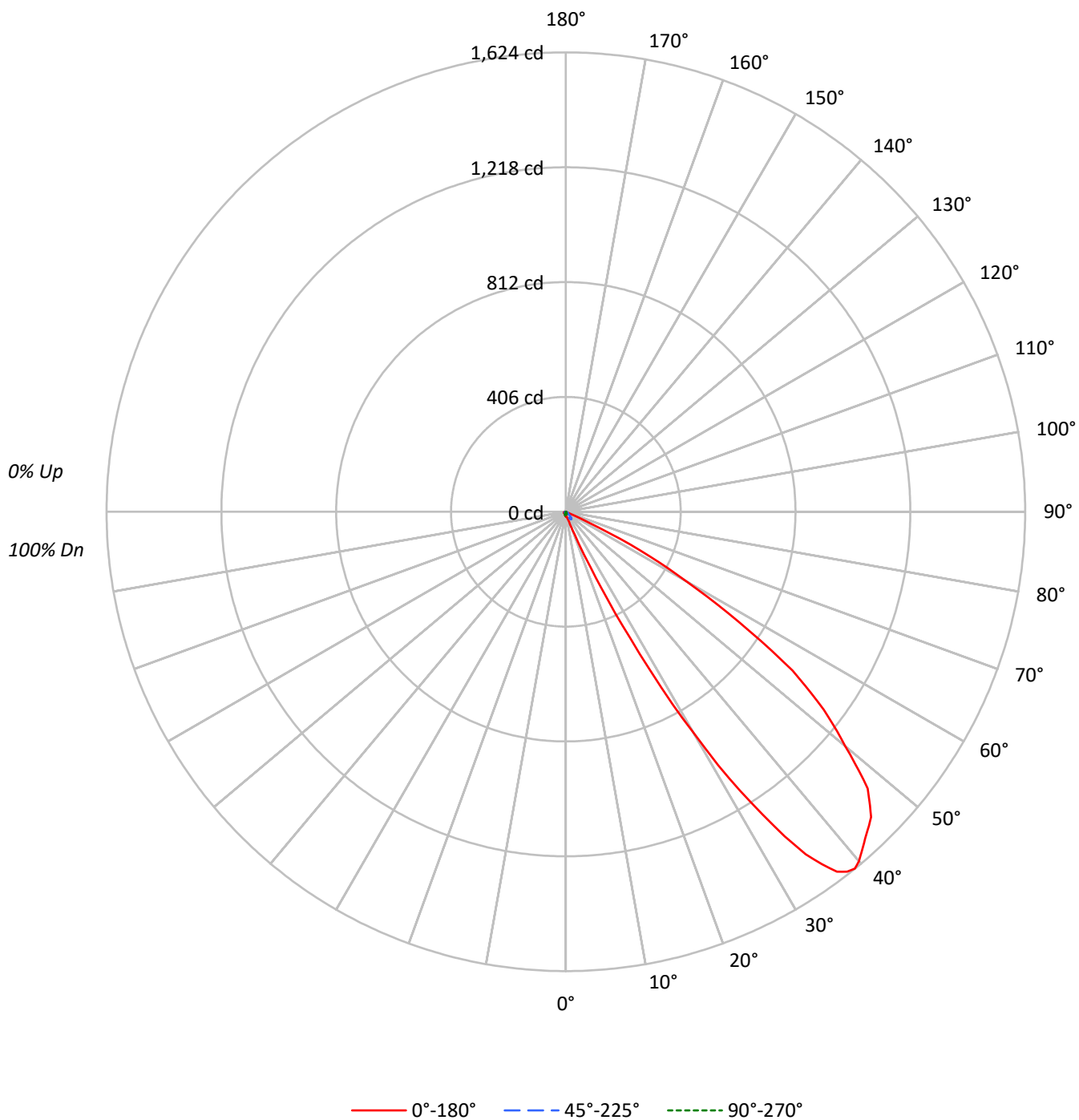
Lumens per Lamp: N/A  
Luminaire Lumens: 422.0 lumens  
Efficiency: N/A  
Efficacy: 29.1 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.5  
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 | 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°  | 3596   | 3596 | 3596 | 3596 | 3596 |
| 5°  | 3830   | 3764 | 3522 | 3214 | 3126 |
| 10° | 4186   | 3718 | 3095 | 2761 | 2694 |
| 15° | 6129   | 3723 | 2588 | 2338 | 2429 |
| 20° | 15425  | 4060 | 1984 | 1984 | 2240 |
| 25° | 71641  | 5081 | 1548 | 1815 | 2057 |
| 30° | 228086 | 7014 | 1165 | 1722 | 2076 |
| 35° | 395756 | 8566 | 964  | 1606 | 2088 |
| 40° | 461550 | 8559 | 716  | 1632 | 2147 |
| 45° | 473351 | 6078 | 775  | 1768 | 2326 |
| 50° | 440207 | 3411 | 614  | 1808 | 2661 |
| 55° | 374123 | 1759 | 688  | 2026 | 2982 |
| 60° | 216079 | 482  | 789  | 2193 | 3289 |
| 65° | 44103  | 0    | 934  | 2594 | 3684 |
| 70° | 705    | 256  | 1154 | 2949 | 4360 |
| 75° | 593    | 339  | 1186 | 3050 | 5083 |
| 80° | 505    | 505  | 1768 | 3536 | 5809 |
| 85° | 0      | 1006 | 3522 | 3522 | 7045 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 473351 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.5    | 0.4       |
| 10°-20°   | 4.3    | 1.0       |
| 20°-30°   | 24.3   | 5.8       |
| 30°-40°   | 113.7  | 26.9      |
| 40°-50°   | 160.7  | 38.1      |
| 50°-60°   | 98.9   | 23.4      |
| 60°-70°   | 15.1   | 3.6       |
| 70°-80°   | 2.4    | 0.6       |
| 80°-90°   | 1.2    | 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°    | 30.1   | 7.1       |
| 0°-40°    | 143.7  | 34.1      |
| 0°-60°    | 403.4  | 95.6      |
| 0°-90°    | 422.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 422.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 16   | 16  | 16  | 16   | 16   |      |
| 5°  | 17   | 17  | 16  | 15   | 14   | 2    |
| 15° | 27   | 16  | 11  | 10   | 11   | 10   |
| 25° | 296  | 21  | 6   | 8    | 8    | 182  |
| 35° | 1478 | 32  | 4   | 6    | 8    | 887  |
| 45° | 1526 | 20  | 2   | 6    | 8    | 1157 |
| 55° | 979  | 5   | 2   | 5    | 8    | 833  |
| 65° | 85   | 0   | 2   | 5    | 7    | 154  |
| 75° | 1    | 0   | 1   | 4    | 6    | 1    |
| 85° | 0    | 0   | 1   | 1    | 3    | 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°    | 16.4   | 16.4   | 16.4   | 16.4   | 16.4  | 16.4  | 16.4 | 16.4  | 16.4 | 16.4   | 16.4 |
| 2.5°  | 16.7   | 16.7   | 17.1   | 17.1   | 16.7  | 17.1  | 17.1 | 17.1  | 16.4 | 16.0   | 15.3 |
| 5°    | 17.4   | 17.4   | 17.4   | 17.8   | 17.4  | 17.4  | 17.1 | 16.7  | 16.0 | 14.9   | 14.6 |
| 7.5°  | 18.1   | 18.1   | 17.8   | 18.1   | 17.8  | 17.8  | 17.1 | 16.4  | 15.3 | 14.2   | 13.5 |
| 10°   | 18.8   | 18.8   | 18.5   | 18.5   | 18.1  | 18.1  | 16.7 | 15.6  | 13.9 | 12.8   | 12.4 |
| 12.5° | 21.0   | 21.0   | 20.6   | 20.3   | 19.6  | 19.2  | 16.4 | 14.6  | 12.4 | 11.4   | 11.0 |
| 15°   | 27.0   | 26.7   | 25.9   | 24.9   | 23.1  | 22.8  | 16.4 | 13.5  | 11.4 | 10.3   | 10.3 |
| 17.5° | 37.0   | 36.6   | 35.5   | 32.7   | 29.5  | 28.4  | 16.4 | 12.1  | 10.0 | 9.2    | 9.2  |
| 20°   | 66.1   | 63.3   | 57.9   | 50.8   | 43.4  | 39.5  | 17.4 | 10.7  | 8.5  | 8.2    | 8.5  |
| 21°   | 86.4   | 83.5   | 76.8   | 65.1   | 51.9  | 47.6  | 18.1 | 10.3  | 8.2  | 7.8    | 8.5  |
| 22°   | 117.7  | 114.5  | 100.6  | 84.6   | 65.8  | 58.3  | 18.5 | 9.6   | 7.5  | 7.5    | 8.2  |
| 23°   | 164.2  | 158.9  | 135.4  | 109.8  | 82.1  | 71.5  | 19.2 | 9.2   | 7.1  | 7.5    | 7.8  |
| 24°   | 215.1  | 210.4  | 183.8  | 145.4  | 104.9 | 89.6  | 19.9 | 8.9   | 6.8  | 6.8    | 7.5  |
| 25°   | 296.1  | 290.8  | 243.5  | 183.4  | 132.9 | 107.7 | 21.0 | 8.2   | 6.4  | 6.4    | 7.5  |
| 26°   | 401.0  | 376.4  | 313.5  | 236.4  | 163.9 | 135.1 | 22.0 | 7.8   | 6.0  | 6.4    | 7.1  |
| 27°   | 500.5  | 480.2  | 409.5  | 303.2  | 202.6 | 166.0 | 23.5 | 7.5   | 5.7  | 6.0    | 7.1  |
| 28°   | 631.3  | 602.9  | 513.7  | 383.6  | 255.2 | 200.8 | 24.9 | 7.1   | 5.3  | 6.0    | 6.8  |
| 29°   | 777.8  | 738.0  | 630.3  | 473.8  | 314.6 | 239.9 | 26.3 | 6.8   | 5.0  | 5.7    | 6.8  |
| 30°   | 900.8  | 863.4  | 755.7  | 580.8  | 382.8 | 291.5 | 27.7 | 6.4   | 4.6  | 5.7    | 6.8  |
| 31°   | 1045.1 | 988.6  | 858.1  | 671.5  | 441.5 | 343.0 | 29.1 | 5.7   | 4.3  | 5.3    | 6.4  |
| 32°   | 1162.0 | 1122.6 | 984.0  | 773.9  | 518.6 | 399.9 | 30.2 | 5.3   | 4.3  | 5.3    | 6.4  |
| 33°   | 1275.1 | 1222.1 | 1088.1 | 872.0  | 588.3 | 458.2 | 31.3 | 5.0   | 3.9  | 5.0    | 6.4  |
| 34°   | 1383.2 | 1334.5 | 1186.6 | 951.3  | 654.1 | 513.7 | 32.0 | 4.3   | 3.9  | 5.0    | 6.0  |
| 35°   | 1478.4 | 1421.9 | 1273.3 | 1028.7 | 721.6 | 564.1 | 32.0 | 3.9   | 3.6  | 4.6    | 6.0  |
| 36°   | 1540.3 | 1499.7 | 1348.7 | 1105.2 | 782.8 | 612.1 | 32.0 | 3.6   | 3.2  | 4.6    | 5.7  |
| 37°   | 1593.2 | 1546.0 | 1409.1 | 1163.8 | 827.9 | 650.5 | 32.0 | 3.2   | 3.2  | 4.6    | 5.7  |
| 38°   | 1614.9 | 1574.4 | 1450.7 | 1215.7 | 870.2 | 689.6 | 31.6 | 2.8   | 2.8  | 4.3    | 5.7  |
| 39°   | 1623.5 | 1587.2 | 1482.0 | 1253.0 | 901.5 | 715.9 | 30.9 | 2.5   | 2.8  | 4.3    | 5.7  |
| 40°   | 1612.4 | 1585.1 | 1498.0 | 1277.2 | 926.4 | 735.1 | 29.9 | 2.1   | 2.5  | 4.3    | 5.7  |
| 42.5° | 1566.9 | 1548.8 | 1494.4 | 1301.4 | 947.7 | 749.3 | 25.9 | 1.4   | 2.5  | 3.9    | 5.7  |
| 45°   | 1526.4 | 1506.5 | 1458.5 | 1276.2 | 920.0 | 721.3 | 19.6 | 0.7   | 2.5  | 3.9    | 5.7  |
| 47.5° | 1447.8 | 1435.4 | 1397.7 | 1211.8 | 859.2 | 658.0 | 13.9 | 0.4   | 2.1  | 3.6    | 5.3  |
| 50°   | 1290.4 | 1278.6 | 1228.9 | 1052.2 | 739.0 | 556.3 | 10.0 | 0.4   | 1.8  | 3.6    | 5.3  |
| 52.5° | 1149.3 | 1136.8 | 1065.4 | 874.8  | 567.7 | 407.7 | 6.4  | 0.4   | 1.8  | 3.6    | 5.3  |
| 55°   | 978.6  | 956.9  | 863.1  | 664.0  | 402.4 | 273.4 | 4.6  | 0.4   | 1.8  | 3.2    | 5.3  |
| 57.5° | 724.5  | 692.8  | 608.9  | 452.9  | 231.8 | 148.2 | 2.5  | 0.4   | 1.8  | 3.2    | 5.3  |
| 60°   | 492.7  | 473.8  | 381.1  | 238.9  | 98.8  | 62.6  | 1.1  | 0.4   | 1.8  | 3.2    | 5.0  |
| 62.5° | 298.6  | 274.8  | 191.6  | 101.7  | 42.7  | 28.4  | 0.0  | 0.7   | 1.8  | 3.2    | 5.0  |
| 65°   | 85.0   | 75.4   | 50.1   | 23.1   | 12.1  | 9.2   | 0.0  | 0.7   | 1.8  | 3.2    | 5.0  |
| 67.5° | 2.8    | 2.8    | 2.8    | 2.5    | 1.8   | 1.8   | 0.4  | 0.7   | 1.8  | 3.2    | 4.6  |
| 70°   | 1.1    | 1.1    | 1.1    | 0.7    | 0.7   | 0.4   | 0.4  | 0.7   | 1.8  | 2.8    | 4.6  |
| 72.5° | 0.7    | 0.7    | 0.7    | 0.7    | 0.4   | 0.4   | 0.4  | 0.7   | 1.4  | 2.5    | 4.3  |
| 75°   | 0.7    | 0.7    | 0.7    | 0.4    | 0.4   | 0.4   | 0.4  | 1.1   | 1.4  | 2.5    | 3.6  |
| 77.5° | 0.7    | 0.7    | 0.7    | 0.4    | 0.4   | 0.4   | 0.4  | 1.1   | 1.4  | 2.1    | 3.6  |
| 80°   | 0.4    | 0.4    | 0.4    | 0.4    | 0.4   | 0.4   | 0.4  | 1.1   | 1.4  | 2.1    | 2.8  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0   | 0.4 | 1.1   | 1.4 | 1.4    | 2.1  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.4 | 1.1   | 1.4 | 1.1    | 1.4  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.4 | 1.1   | 1.1 | 1.1    | 0.7  |
| 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°    | 16.4   | 16.4 |
| 2.5°  | 15.3   | 15.3 |
| 5°    | 14.2   | 14.2 |
| 7.5°  | 13.2   | 13.2 |
| 10°   | 12.1   | 12.1 |
| 12.5° | 11.4   | 11.4 |
| 15°   | 10.3   | 10.7 |
| 17.5° | 9.6    | 10.0 |
| 20°   | 9.2    | 9.6  |
| 21°   | 9.2    | 9.6  |
| 22°   | 8.9    | 9.2  |
| 23°   | 8.9    | 9.2  |
| 24°   | 8.5    | 8.9  |
| 25°   | 8.2    | 8.5  |
| 26°   | 8.2    | 8.5  |
| 27°   | 8.2    | 8.5  |
| 28°   | 7.8    | 8.5  |
| 29°   | 7.8    | 8.2  |
| 30°   | 7.8    | 8.2  |
| 31°   | 7.5    | 8.2  |
| 32°   | 7.5    | 8.2  |
| 33°   | 7.5    | 7.8  |
| 34°   | 7.1    | 7.8  |
| 35°   | 7.1    | 7.8  |
| 36°   | 7.1    | 7.8  |
| 37°   | 7.1    | 7.5  |
| 38°   | 7.1    | 7.8  |
| 39°   | 7.1    | 7.5  |
| 40°   | 7.1    | 7.5  |
| 42.5° | 7.1    | 7.5  |
| 45°   | 7.1    | 7.5  |
| 47.5° | 7.1    | 7.8  |
| 50°   | 7.1    | 7.8  |
| 52.5° | 7.1    | 7.8  |
| 55°   | 7.1    | 7.8  |
| 57.5° | 7.1    | 7.5  |
| 60°   | 7.1    | 7.5  |
| 62.5° | 6.8    | 7.5  |
| 65°   | 6.8    | 7.1  |
| 67.5° | 6.8    | 7.1  |
| 70°   | 6.4    | 6.8  |
| 72.5° | 6.0    | 6.4  |
| 75°   | 5.3    | 6.0  |
| 77.5° | 5.0    | 5.3  |
| 80°   | 4.3    | 4.6  |



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CATALOG NUMBER: P3A13R309830DE010 E3A451LI

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 3.6    | 3.6  |
| 85°   | 2.5    | 2.8  |
| 87.5° | 1.4    | 1.4  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)