

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: P1344912

Luminaire Tested: P3A13R309030D2WDE010 E3A451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1344912  
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: P3A13R309030D2WDE010 E3A451MW  
Description: 3in Adjustable Dim to Warm LED luminaire with, R30 optic, 3000K CCT AND, 90CRI ,  
E3A451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

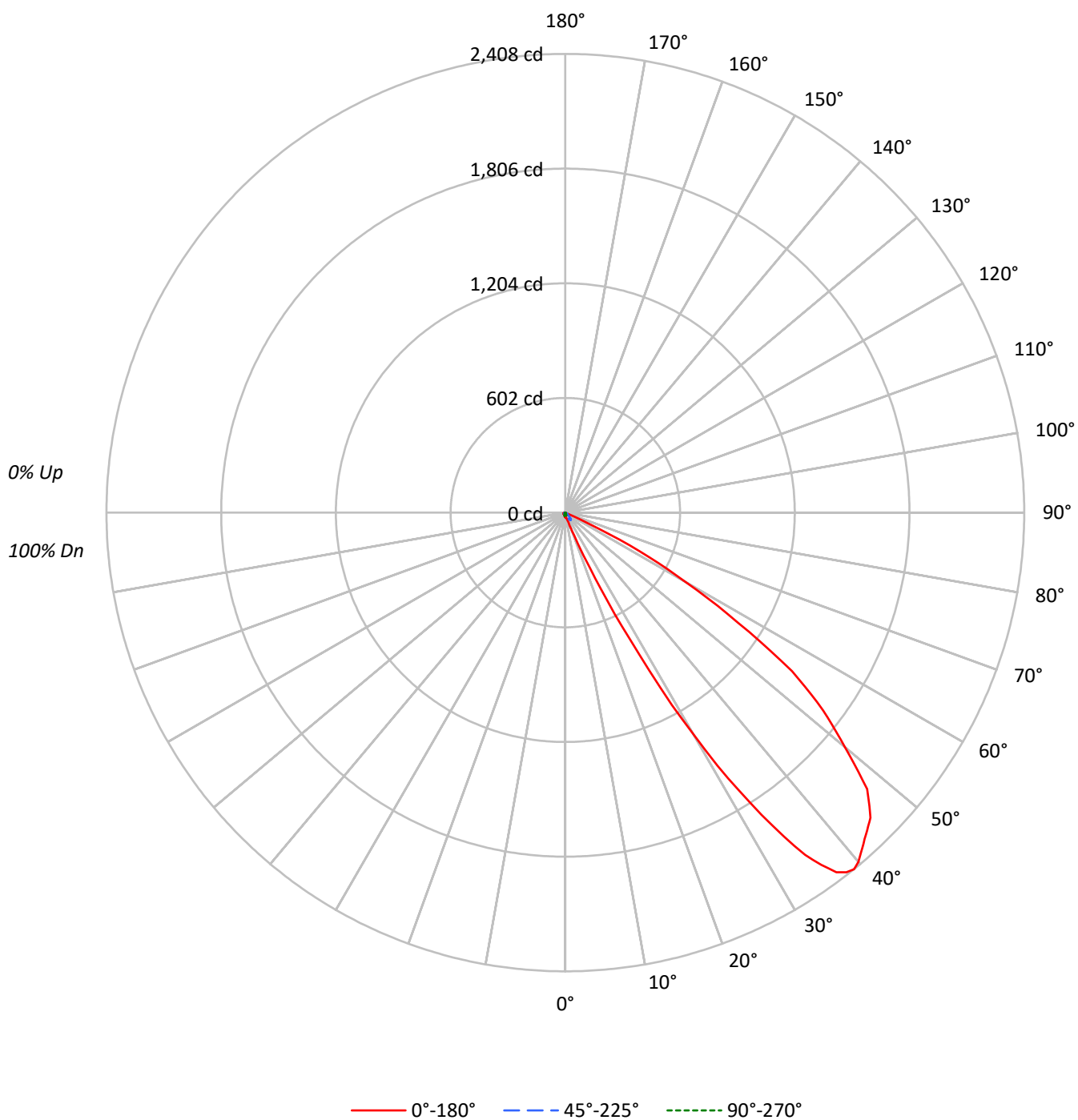
Lumens per Lamp: N/A  
Luminaire Lumens: 626.0 lumens  
Efficiency: N/A  
Efficacy: 31.1 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.1  
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

TEST NUMBER: P1344912

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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°  | 5329   | 5329  | 5329 | 5329 | 5329  |
| 5°  | 5679   | 5569  | 5217 | 4755 | 4644  |
| 10° | 6212   | 5522  | 4587 | 4119 | 3986  |
| 15° | 9103   | 5516  | 3837 | 3473 | 3587  |
| 20° | 22892  | 6021  | 2964 | 2964 | 3314  |
| 25° | 106288 | 7525  | 2299 | 2686 | 3073  |
| 30° | 338331 | 10407 | 1747 | 2532 | 3064  |
| 35° | 587076 | 12715 | 1419 | 2409 | 3105  |
| 40° | 684683 | 12681 | 1059 | 2405 | 3177  |
| 45° | 702181 | 8993  | 1147 | 2605 | 3442  |
| 50° | 653011 | 5049  | 887  | 2695 | 3957  |
| 55° | 554991 | 2638  | 994  | 3020 | 4435  |
| 60° | 320544 | 702   | 1140 | 3245 | 4868  |
| 65° | 65377  | 0     | 1349 | 3840 | 5448  |
| 70° | 1026   | 321   | 1667 | 4424 | 6411  |
| 75° | 932    | 424   | 1779 | 4490 | 7625  |
| 80° | 631    | 631   | 2652 | 5304 | 8713  |
| 85° | 0      | 1258  | 5284 | 5284 | 10567 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 702181 cd/sqm

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CATALOG NUMBER: P3A13R309030D2WDE010 E3A451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.2    | 0.4       |
| 10°-20°   | 6.3    | 1.0       |
| 20°-30°   | 36.1   | 5.8       |
| 30°-40°   | 168.6  | 26.9      |
| 40°-50°   | 238.4  | 38.1      |
| 50°-60°   | 146.7  | 23.4      |
| 60°-70°   | 22.3   | 3.6       |
| 70°-80°   | 3.5    | 0.6       |
| 80°-90°   | 1.8    | 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°    | 44.6   | 7.1       |
| 0°-40°    | 213.2  | 34.1      |
| 0°-60°    | 598.3  | 95.6      |
| 0°-90°    | 626.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 626.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 24   | 24  | 24  | 24   | 24   |      |
| 5°  | 26   | 25  | 24  | 22   | 21   | 3    |
| 15° | 40   | 24  | 17  | 15   | 16   | 14   |
| 25° | 439  | 31  | 10  | 11   | 13   | 270  |
| 35° | 2193 | 48  | 5   | 9    | 12   | 1316 |
| 45° | 2264 | 29  | 4   | 8    | 11   | 1717 |
| 55° | 1452 | 7   | 3   | 8    | 12   | 1235 |
| 65° | 126  | 0   | 3   | 7    | 10   | 228  |
| 75° | 1    | 0   | 2   | 5    | 9    | 1    |
| 85° | 0    | 0   | 2   | 2    | 4    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1344912

CATALOG NUMBER: P3A13R309030D2WDE010 E3A451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°  | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|--------|------|-------|------|--------|------|
| 0°    | 24.3   | 24.3   | 24.3   | 24.3   | 24.3   | 24.3   | 24.3 | 24.3  | 24.3 | 24.3   | 24.3 |
| 2.5°  | 24.8   | 24.8   | 25.3   | 25.3   | 24.8   | 25.3   | 25.3 | 25.3  | 24.3 | 23.7   | 22.7 |
| 5°    | 25.8   | 25.8   | 25.8   | 26.4   | 25.8   | 25.8   | 25.3 | 24.8  | 23.7 | 22.1   | 21.6 |
| 7.5°  | 26.9   | 26.9   | 26.4   | 26.9   | 26.4   | 26.4   | 25.3 | 24.3  | 22.7 | 21.1   | 20.0 |
| 10°   | 27.9   | 27.9   | 27.4   | 27.4   | 26.9   | 26.9   | 24.8 | 23.2  | 20.6 | 19.0   | 18.5 |
| 12.5° | 31.1   | 31.1   | 30.6   | 30.1   | 29.0   | 28.5   | 24.3 | 21.6  | 18.5 | 16.9   | 16.3 |
| 15°   | 40.1   | 39.5   | 38.5   | 36.9   | 34.3   | 33.7   | 24.3 | 20.0  | 16.9 | 15.3   | 15.3 |
| 17.5° | 54.8   | 54.3   | 52.7   | 48.5   | 43.8   | 42.2   | 24.3 | 17.9  | 14.8 | 13.7   | 13.7 |
| 20°   | 98.1   | 93.9   | 86.0   | 75.4   | 64.3   | 58.5   | 25.8 | 15.8  | 12.7 | 12.1   | 12.7 |
| 21°   | 128.1  | 123.9  | 113.9  | 96.5   | 77.0   | 70.7   | 26.9 | 15.3  | 12.1 | 11.6   | 12.7 |
| 22°   | 174.5  | 169.8  | 149.2  | 125.5  | 97.6   | 86.5   | 27.4 | 14.2  | 11.1 | 11.1   | 12.1 |
| 23°   | 243.6  | 235.7  | 200.9  | 162.9  | 121.8  | 106.0  | 28.5 | 13.7  | 10.5 | 11.1   | 11.6 |
| 24°   | 319.0  | 312.2  | 272.6  | 215.7  | 155.6  | 132.9  | 29.5 | 13.2  | 10.0 | 10.0   | 11.1 |
| 25°   | 439.3  | 431.3  | 361.2  | 272.1  | 197.2  | 159.8  | 31.1 | 12.1  | 9.5  | 9.5    | 11.1 |
| 26°   | 594.8  | 558.4  | 465.1  | 350.7  | 243.1  | 200.4  | 32.7 | 11.6  | 9.0  | 9.5    | 10.5 |
| 27°   | 742.5  | 712.4  | 607.5  | 449.8  | 300.6  | 246.3  | 34.8 | 11.1  | 8.4  | 9.0    | 10.5 |
| 28°   | 936.5  | 894.3  | 762.0  | 569.0  | 378.6  | 297.9  | 36.9 | 10.5  | 7.9  | 9.0    | 10.0 |
| 29°   | 1153.8 | 1094.7 | 934.9  | 702.9  | 466.7  | 355.9  | 39.0 | 10.0  | 7.4  | 8.4    | 10.0 |
| 30°   | 1336.2 | 1280.9 | 1121.1 | 861.6  | 567.9  | 432.4  | 41.1 | 9.5   | 6.9  | 8.4    | 10.0 |
| 31°   | 1550.3 | 1466.5 | 1272.9 | 996.1  | 654.9  | 508.9  | 43.2 | 8.4   | 6.3  | 7.9    | 9.5  |
| 32°   | 1723.8 | 1665.3 | 1459.6 | 1148.0 | 769.4  | 593.2  | 44.8 | 7.9   | 6.3  | 7.9    | 9.5  |
| 33°   | 1891.5 | 1812.9 | 1614.1 | 1293.5 | 872.7  | 679.7  | 46.4 | 7.4   | 5.8  | 7.4    | 9.5  |
| 34°   | 2051.8 | 1979.5 | 1760.2 | 1411.1 | 970.3  | 762.0  | 47.5 | 6.3   | 5.8  | 7.4    | 9.0  |
| 35°   | 2193.1 | 2109.3 | 1888.8 | 1526.1 | 1070.5 | 836.9  | 47.5 | 5.8   | 5.3  | 6.9    | 9.0  |
| 36°   | 2284.9 | 2224.7 | 2000.6 | 1639.4 | 1161.1 | 908.0  | 47.5 | 5.3   | 4.7  | 6.9    | 8.4  |
| 37°   | 2363.4 | 2293.3 | 2090.3 | 1726.4 | 1228.1 | 965.0  | 47.5 | 4.7   | 4.7  | 6.9    | 8.4  |
| 38°   | 2395.6 | 2335.5 | 2152.0 | 1803.4 | 1290.9 | 1023.0 | 46.9 | 4.2   | 4.2  | 6.3    | 8.4  |
| 39°   | 2408.3 | 2354.5 | 2198.4 | 1858.8 | 1337.3 | 1062.0 | 45.9 | 3.7   | 4.2  | 6.3    | 8.4  |
| 40°   | 2391.9 | 2351.3 | 2222.1 | 1894.6 | 1374.2 | 1090.5 | 44.3 | 3.2   | 3.7  | 6.3    | 8.4  |
| 42.5° | 2324.4 | 2297.5 | 2216.8 | 1930.5 | 1405.8 | 1111.6 | 38.5 | 2.1   | 3.7  | 5.8    | 8.4  |
| 45°   | 2264.3 | 2234.8 | 2163.6 | 1893.1 | 1364.7 | 1069.9 | 29.0 | 1.1   | 3.7  | 5.8    | 8.4  |
| 47.5° | 2147.8 | 2129.3 | 2073.4 | 1797.6 | 1274.5 | 976.1  | 20.6 | 0.5   | 3.2  | 5.3    | 7.9  |
| 50°   | 1914.2 | 1896.8 | 1822.9 | 1560.9 | 1096.3 | 825.2  | 14.8 | 0.5   | 2.6  | 5.3    | 7.9  |
| 52.5° | 1704.8 | 1686.4 | 1580.4 | 1297.7 | 842.1  | 604.8  | 9.5  | 0.5   | 2.6  | 5.3    | 7.9  |
| 55°   | 1451.7 | 1419.5 | 1280.3 | 985.0  | 596.9  | 405.5  | 6.9  | 0.5   | 2.6  | 4.7    | 7.9  |
| 57.5° | 1074.7 | 1027.7 | 903.3  | 671.8  | 343.8  | 219.9  | 3.7  | 0.5   | 2.6  | 4.7    | 7.9  |
| 60°   | 730.9  | 702.9  | 565.3  | 354.4  | 146.6  | 92.8   | 1.6  | 0.5   | 2.6  | 4.7    | 7.4  |
| 62.5° | 442.9  | 407.6  | 284.2  | 150.8  | 63.3   | 42.2   | 0.0  | 1.1   | 2.6  | 4.7    | 7.4  |
| 65°   | 126.0  | 111.8  | 74.4   | 34.3   | 17.9   | 13.7   | 0.0  | 1.1   | 2.6  | 4.7    | 7.4  |
| 67.5° | 4.2    | 4.2    | 4.2    | 3.7    | 2.6    | 2.6    | 0.5  | 1.1   | 2.6  | 4.7    | 6.9  |
| 70°   | 1.6    | 1.6    | 1.6    | 1.1    | 1.1    | 0.5    | 0.5  | 1.1   | 2.6  | 4.2    | 6.9  |
| 72.5° | 1.1    | 1.1    | 1.1    | 1.1    | 0.5    | 0.5    | 0.5  | 1.1   | 2.1  | 3.7    | 6.3  |
| 75°   | 1.1    | 1.1    | 1.1    | 0.5    | 0.5    | 0.5    | 0.5  | 1.6   | 2.1  | 3.7    | 5.3  |
| 77.5° | 1.1    | 1.1    | 1.1    | 0.5    | 0.5    | 0.5    | 0.5  | 1.6   | 2.1  | 3.2    | 5.3  |
| 80°   | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5  | 1.6   | 2.1  | 3.2    | 4.2  |



TEST NUMBER: P1344912

CATALOG NUMBER: P3A13R309030D2WDE010 E3A451MW

**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 | 1.6   | 2.1 | 2.1    | 3.2  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.6   | 2.1 | 1.6    | 2.1  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.6   | 1.6 | 1.6    | 1.1  |
| 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: P1344912

CATALOG NUMBER: P3A13R309030D2WDE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 24.3   | 24.3 |
| 2.5°  | 22.7   | 22.7 |
| 5°    | 21.1   | 21.1 |
| 7.5°  | 19.5   | 19.5 |
| 10°   | 17.9   | 17.9 |
| 12.5° | 16.9   | 16.9 |
| 15°   | 15.3   | 15.8 |
| 17.5° | 14.2   | 14.8 |
| 20°   | 13.7   | 14.2 |
| 21°   | 13.7   | 14.2 |
| 22°   | 13.2   | 13.7 |
| 23°   | 13.2   | 13.7 |
| 24°   | 12.7   | 13.2 |
| 25°   | 12.1   | 12.7 |
| 26°   | 12.1   | 12.7 |
| 27°   | 12.1   | 12.7 |
| 28°   | 11.6   | 12.7 |
| 29°   | 11.6   | 12.1 |
| 30°   | 11.6   | 12.1 |
| 31°   | 11.1   | 12.1 |
| 32°   | 11.1   | 12.1 |
| 33°   | 11.1   | 11.6 |
| 34°   | 10.5   | 11.6 |
| 35°   | 10.5   | 11.6 |
| 36°   | 10.5   | 11.6 |
| 37°   | 10.5   | 11.1 |
| 38°   | 10.5   | 11.6 |
| 39°   | 10.5   | 11.1 |
| 40°   | 10.5   | 11.1 |
| 42.5° | 10.5   | 11.1 |
| 45°   | 10.5   | 11.1 |
| 47.5° | 10.5   | 11.6 |
| 50°   | 10.5   | 11.6 |
| 52.5° | 10.5   | 11.6 |
| 55°   | 10.5   | 11.6 |
| 57.5° | 10.5   | 11.1 |
| 60°   | 10.5   | 11.1 |
| 62.5° | 10.0   | 11.1 |
| 65°   | 10.0   | 10.5 |
| 67.5° | 10.0   | 10.5 |
| 70°   | 9.5    | 10.0 |
| 72.5° | 9.0    | 9.5  |
| 75°   | 7.9    | 9.0  |
| 77.5° | 7.4    | 7.9  |
| 80°   | 6.3    | 6.9  |



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CATALOG NUMBER: P3A13R309030D2WDE010 E3A451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 5.3    | 5.3  |
| 85°   | 3.7    | 4.2  |
| 87.5° | 2.1    | 2.1  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)