

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: P1344934

Luminaire Tested: P3A13R309030DE010 E3CA451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1344934  
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: P3A13R309030DE010 E3CA451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 90CRI , E3CA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

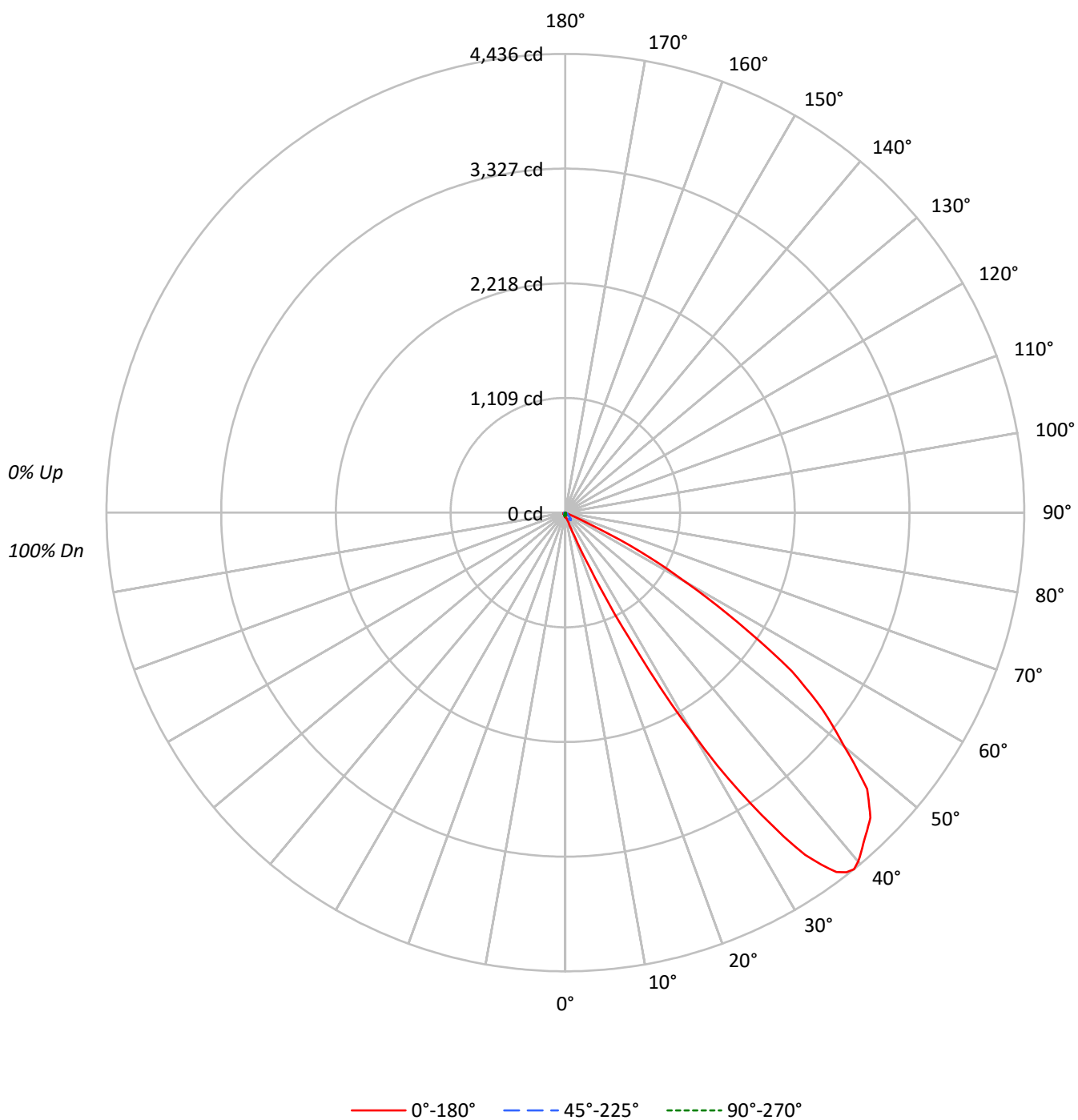
Lumens per Lamp: N/A  
Luminaire Lumens: 1153.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |     |     |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  | 0   |
| 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°  | 9802    | 9802  | 9802 | 9802 | 9802  |
| 5°  | 10478   | 10258 | 9619 | 8761 | 8541  |
| 10° | 11467   | 10153 | 8439 | 7571 | 7348  |
| 15° | 16754   | 10148 | 7060 | 6402 | 6606  |
| 20° | 42167   | 11108 | 5437 | 5437 | 6114  |
| 25° | 195737  | 13864 | 4234 | 4936 | 5637  |
| 30° | 623159  | 19193 | 3190 | 4684 | 5646  |
| 35° | 1081316 | 23396 | 2597 | 4417 | 5729  |
| 40° | 1261077 | 23358 | 1947 | 4437 | 5840  |
| 45° | 1293313 | 16560 | 2109 | 4807 | 6326  |
| 50° | 1202724 | 9279  | 1672 | 4981 | 7300  |
| 55° | 1022205 | 4817  | 1873 | 5582 | 8181  |
| 60° | 590347  | 1272  | 2149 | 5964 | 8947  |
| 65° | 120428  | 0     | 2542 | 7057 | 10066 |
| 70° | 1859    | 641   | 3142 | 8078 | 11861 |
| 75° | 1610    | 847   | 3304 | 8218 | 13979 |
| 80° | 1263    | 1263  | 4925 | 9850 | 15911 |
| 85° | 0       | 2516  | 9812 | 9812 | 19625 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1293313 cd/sqm

TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.0    | 0.4       |
| 10°-20°   | 11.6   | 1.0       |
| 20°-30°   | 66.5   | 5.8       |
| 30°-40°   | 310.6  | 26.9      |
| 40°-50°   | 439.2  | 38.1      |
| 50°-60°   | 270.2  | 23.4      |
| 60°-70°   | 41.2   | 3.6       |
| 70°-80°   | 6.5    | 0.6       |
| 80°-90°   | 3.3    | 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°    | 82.2   | 7.1       |
| 0°-40°    | 392.7  | 34.1      |
| 0°-60°    | 1102.1 | 95.6      |
| 0°-90°    | 1153.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1153.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 45   | 45  | 45  | 45   | 45   |      |
| 5°  | 48   | 47  | 44  | 40   | 39   | 5    |
| 15° | 74   | 45  | 31  | 28   | 29   | 26   |
| 25° | 809  | 57  | 18  | 20   | 23   | 498  |
| 35° | 4039 | 87  | 10  | 16   | 21   | 2424 |
| 45° | 4170 | 53  | 7   | 16   | 20   | 3162 |
| 55° | 2674 | 13  | 5   | 15   | 21   | 2275 |
| 65° | 232  | 0   | 5   | 14   | 19   | 420  |
| 75° | 2    | 1   | 4   | 10   | 16   | 2    |
| 85° | 0    | 1   | 4   | 4    | 8    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°  | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|--------|------|-------|------|--------|------|
| 0°    | 44.7   | 44.7   | 44.7   | 44.7   | 44.7   | 44.7   | 44.7 | 44.7  | 44.7 | 44.7   | 44.7 |
| 2.5°  | 45.6   | 45.6   | 46.6   | 46.6   | 45.6   | 46.6   | 46.6 | 46.6  | 44.7 | 43.7   | 41.8 |
| 5°    | 47.6   | 47.6   | 47.6   | 48.6   | 47.6   | 47.6   | 46.6 | 45.6  | 43.7 | 40.8   | 39.8 |
| 7.5°  | 49.5   | 49.5   | 48.6   | 49.5   | 48.6   | 48.6   | 46.6 | 44.7  | 41.8 | 38.8   | 36.9 |
| 10°   | 51.5   | 51.5   | 50.5   | 50.5   | 49.5   | 49.5   | 45.6 | 42.7  | 37.9 | 35.0   | 34.0 |
| 12.5° | 57.3   | 57.3   | 56.3   | 55.4   | 53.4   | 52.4   | 44.7 | 39.8  | 34.0 | 31.1   | 30.1 |
| 15°   | 73.8   | 72.8   | 70.9   | 68.0   | 63.1   | 62.2   | 44.7 | 36.9  | 31.1 | 28.2   | 28.2 |
| 17.5° | 101.0  | 100.0  | 97.1   | 89.4   | 80.6   | 77.7   | 44.7 | 33.0  | 27.2 | 25.3   | 25.3 |
| 20°   | 180.7  | 172.9  | 158.3  | 138.9  | 118.5  | 107.8  | 47.6 | 29.1  | 23.3 | 22.3   | 23.3 |
| 21°   | 236.0  | 228.2  | 209.8  | 177.7  | 141.8  | 130.1  | 49.5 | 28.2  | 22.3 | 21.4   | 23.3 |
| 22°   | 321.5  | 312.7  | 274.9  | 231.2  | 179.7  | 159.3  | 50.5 | 26.2  | 20.4 | 20.4   | 22.3 |
| 23°   | 448.7  | 434.1  | 370.0  | 300.1  | 224.4  | 195.2  | 52.4 | 25.3  | 19.4 | 20.4   | 21.4 |
| 24°   | 587.6  | 575.0  | 502.1  | 397.2  | 286.5  | 244.8  | 54.4 | 24.3  | 18.5 | 18.5   | 20.4 |
| 25°   | 809.0  | 794.5  | 665.3  | 501.2  | 363.2  | 294.3  | 57.3 | 22.3  | 17.5 | 17.5   | 20.4 |
| 26°   | 1095.6 | 1028.5 | 856.6  | 645.9  | 447.7  | 369.1  | 60.2 | 21.4  | 16.5 | 17.5   | 19.4 |
| 27°   | 1367.5 | 1312.1 | 1118.9 | 828.5  | 553.6  | 453.6  | 64.1 | 20.4  | 15.5 | 16.5   | 19.4 |
| 28°   | 1724.9 | 1647.2 | 1403.4 | 1048.0 | 697.3  | 548.7  | 68.0 | 19.4  | 14.6 | 16.5   | 18.5 |
| 29°   | 2125.1 | 2016.3 | 1722.0 | 1294.7 | 859.5  | 655.6  | 71.9 | 18.5  | 13.6 | 15.5   | 18.5 |
| 30°   | 2461.1 | 2359.1 | 2064.9 | 1587.0 | 1046.0 | 796.4  | 75.8 | 17.5  | 12.6 | 15.5   | 18.5 |
| 31°   | 2855.4 | 2701.0 | 2344.6 | 1834.7 | 1206.3 | 937.2  | 79.6 | 15.5  | 11.7 | 14.6   | 17.5 |
| 32°   | 3175.0 | 3067.2 | 2688.4 | 2114.4 | 1417.0 | 1092.6 | 82.6 | 14.6  | 11.7 | 14.6   | 17.5 |
| 33°   | 3483.8 | 3339.1 | 2973.0 | 2382.4 | 1607.4 | 1251.9 | 85.5 | 13.6  | 10.7 | 13.6   | 17.5 |
| 34°   | 3779.1 | 3646.0 | 3242.0 | 2599.0 | 1787.1 | 1403.4 | 87.4 | 11.7  | 10.7 | 13.6   | 16.5 |
| 35°   | 4039.4 | 3885.0 | 3479.0 | 2810.8 | 1971.6 | 1541.4 | 87.4 | 10.7  | 9.7  | 12.6   | 16.5 |
| 36°   | 4208.4 | 4097.7 | 3684.9 | 3019.6 | 2138.7 | 1672.5 | 87.4 | 9.7   | 8.7  | 12.6   | 15.5 |
| 37°   | 4353.1 | 4223.9 | 3850.0 | 3179.8 | 2262.0 | 1777.4 | 87.4 | 8.7   | 8.7  | 12.6   | 15.5 |
| 38°   | 4412.3 | 4301.6 | 3963.6 | 3321.6 | 2377.6 | 1884.2 | 86.4 | 7.8   | 7.8  | 11.7   | 15.5 |
| 39°   | 4435.6 | 4336.6 | 4049.1 | 3423.6 | 2463.1 | 1956.1 | 84.5 | 6.8   | 7.8  | 11.7   | 15.5 |
| 40°   | 4405.5 | 4330.8 | 4092.8 | 3489.7 | 2531.0 | 2008.5 | 81.6 | 5.8   | 6.8  | 11.7   | 15.5 |
| 42.5° | 4281.2 | 4231.7 | 4083.1 | 3555.7 | 2589.3 | 2047.4 | 70.9 | 3.9   | 6.8  | 10.7   | 15.5 |
| 45°   | 4170.5 | 4116.1 | 3985.0 | 3486.7 | 2513.6 | 1970.6 | 53.4 | 1.9   | 6.8  | 10.7   | 15.5 |
| 47.5° | 3955.9 | 3921.9 | 3818.9 | 3311.0 | 2347.5 | 1797.8 | 37.9 | 1.0   | 5.8  | 9.7    | 14.6 |
| 50°   | 3525.6 | 3493.5 | 3357.6 | 2874.9 | 2019.2 | 1520.0 | 27.2 | 1.0   | 4.9  | 9.7    | 14.6 |
| 52.5° | 3140.0 | 3106.0 | 2910.8 | 2390.2 | 1551.1 | 1114.0 | 17.5 | 1.0   | 4.9  | 9.7    | 14.6 |
| 55°   | 2673.8 | 2614.6 | 2358.2 | 1814.3 | 1099.4 | 746.9  | 12.6 | 1.0   | 4.9  | 8.7    | 14.6 |
| 57.5° | 1979.4 | 1892.9 | 1663.7 | 1237.4 | 633.2  | 405.0  | 6.8  | 1.0   | 4.9  | 8.7    | 14.6 |
| 60°   | 1346.1 | 1294.7 | 1041.2 | 652.7  | 270.0  | 170.9  | 2.9  | 1.0   | 4.9  | 8.7    | 13.6 |
| 62.5° | 815.8  | 750.8  | 523.5  | 277.8  | 116.5  | 77.7   | 0.0  | 1.9   | 4.9  | 8.7    | 13.6 |
| 65°   | 232.1  | 205.9  | 136.9  | 63.1   | 33.0   | 25.3   | 0.0  | 1.9   | 4.9  | 8.7    | 13.6 |
| 67.5° | 7.8    | 7.8    | 7.8    | 6.8    | 4.9    | 4.9    | 1.0  | 1.9   | 4.9  | 8.7    | 12.6 |
| 70°   | 2.9    | 2.9    | 2.9    | 1.9    | 1.9    | 1.0    | 1.0  | 1.9   | 4.9  | 7.8    | 12.6 |
| 72.5° | 1.9    | 1.9    | 1.9    | 1.9    | 1.0    | 1.0    | 1.0  | 1.9   | 3.9  | 6.8    | 11.7 |
| 75°   | 1.9    | 1.9    | 1.9    | 1.0    | 1.0    | 1.0    | 1.0  | 2.9   | 3.9  | 6.8    | 9.7  |
| 77.5° | 1.9    | 1.9    | 1.9    | 1.0    | 1.0    | 1.0    | 1.0  | 2.9   | 3.9  | 5.8    | 9.7  |
| 80°   | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0  | 2.9   | 3.9  | 5.8    | 7.8  |



TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0   | 1.0 | 2.9   | 3.9 | 3.9    | 5.8  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.0 | 2.9   | 3.9 | 2.9    | 3.9  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.0 | 2.9   | 2.9 | 2.9    | 1.9  |
| 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: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 44.7   | 44.7 |
| 2.5°  | 41.8   | 41.8 |
| 5°    | 38.8   | 38.8 |
| 7.5°  | 35.9   | 35.9 |
| 10°   | 33.0   | 33.0 |
| 12.5° | 31.1   | 31.1 |
| 15°   | 28.2   | 29.1 |
| 17.5° | 26.2   | 27.2 |
| 20°   | 25.3   | 26.2 |
| 21°   | 25.3   | 26.2 |
| 22°   | 24.3   | 25.3 |
| 23°   | 24.3   | 25.3 |
| 24°   | 23.3   | 24.3 |
| 25°   | 22.3   | 23.3 |
| 26°   | 22.3   | 23.3 |
| 27°   | 22.3   | 23.3 |
| 28°   | 21.4   | 23.3 |
| 29°   | 21.4   | 22.3 |
| 30°   | 21.4   | 22.3 |
| 31°   | 20.4   | 22.3 |
| 32°   | 20.4   | 22.3 |
| 33°   | 20.4   | 21.4 |
| 34°   | 19.4   | 21.4 |
| 35°   | 19.4   | 21.4 |
| 36°   | 19.4   | 21.4 |
| 37°   | 19.4   | 20.4 |
| 38°   | 19.4   | 21.4 |
| 39°   | 19.4   | 20.4 |
| 40°   | 19.4   | 20.4 |
| 42.5° | 19.4   | 20.4 |
| 45°   | 19.4   | 20.4 |
| 47.5° | 19.4   | 21.4 |
| 50°   | 19.4   | 21.4 |
| 52.5° | 19.4   | 21.4 |
| 55°   | 19.4   | 21.4 |
| 57.5° | 19.4   | 20.4 |
| 60°   | 19.4   | 20.4 |
| 62.5° | 18.5   | 20.4 |
| 65°   | 18.5   | 19.4 |
| 67.5° | 18.5   | 19.4 |
| 70°   | 17.5   | 18.5 |
| 72.5° | 16.5   | 17.5 |
| 75°   | 14.6   | 16.5 |
| 77.5° | 13.6   | 14.6 |
| 80°   | 11.7   | 12.6 |

TEST NUMBER: P1344934

CATALOG NUMBER: P3A13R309030DE010 E3CA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 9.7    | 9.7  |
| 85°   | 6.8    | 7.8  |
| 87.5° | 3.9    | 3.9  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)