

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: P1346001

Luminaire Tested: P3A13R409050DE010 E3A451WH

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1346001  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A13R409050DE010 E3A451WH  
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3A451WH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

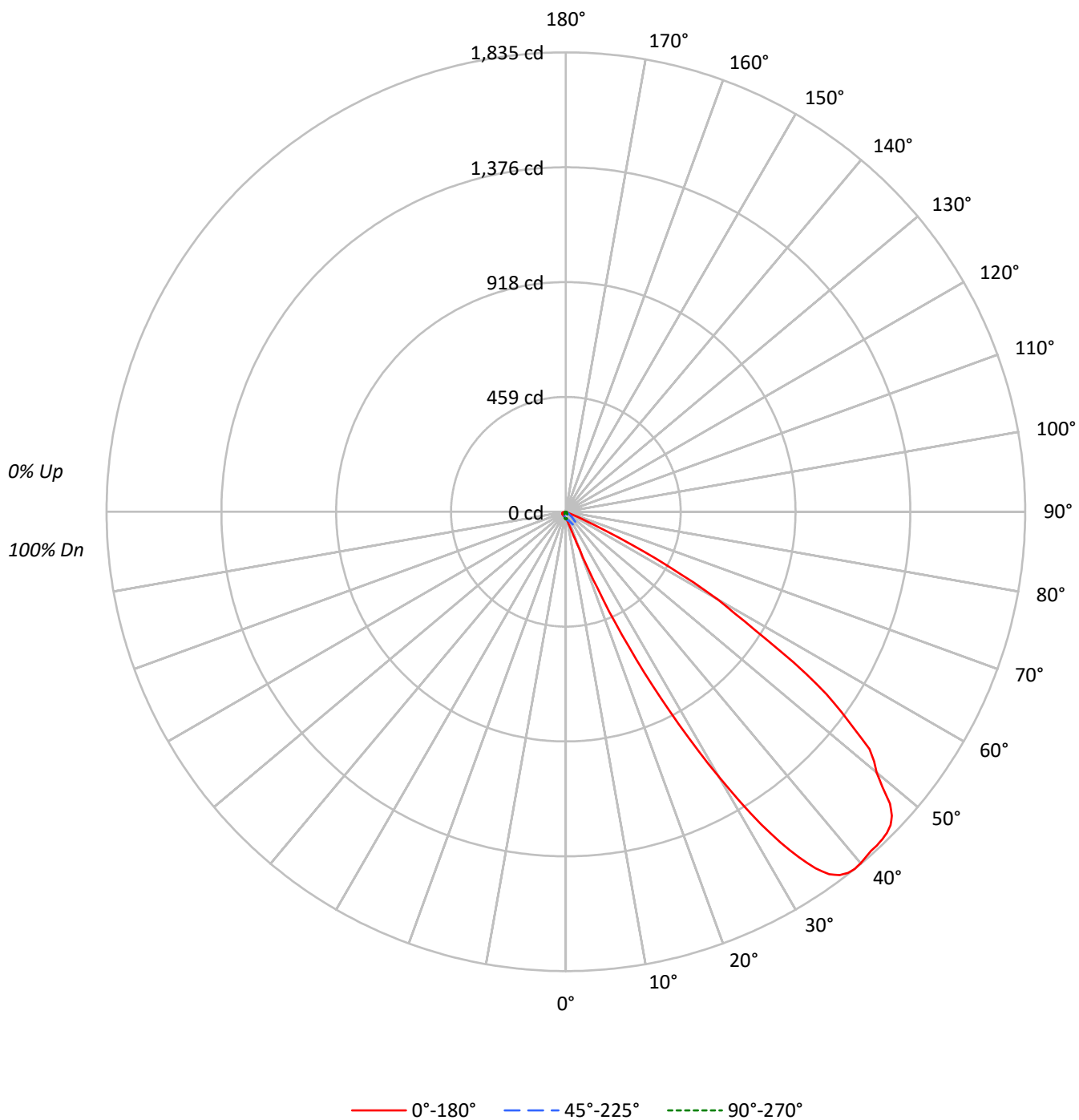
Lumens per Lamp: N/A  
Luminaire Lumens: 567.0 lumens  
Efficiency: N/A  
Efficacy: 38.8 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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: P1346001

CATALOG NUMBER: P3A13R409050DE010 E3A451WH

### Luminous Intensity Polar Plot



TEST NUMBER: P1346001

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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 73  | 68  | 64  |  | 71  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  |  | 64  | 58  | 53  |  | 62  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 54  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  |  | 50  | 43  | 37  |  | 48  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  |
| 8   | 57  | 42  | 33  | 27  | 55  | 42  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 27  |  | 38  |
| 9   | 52  | 38  | 29  | 23  | 51  | 37  | 29  | 23  | 36  | 28  | 23  |  | 35  | 28  | 23  |  | 34  |
| 10  | 48  | 34  | 25  | 20  | 47  | 33  | 25  | 20  | 32  | 25  | 20  |  | 31  | 24  | 20  |  | 30  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 6403   | 6403  | 6403 | 6403 | 6403  |
| 5°  | 7110   | 6868  | 6295 | 5723 | 5613  |
| 10° | 8573   | 7303  | 5789 | 5210 | 5099  |
| 15° | 14075  | 7923  | 4972 | 4608 | 4722  |
| 20° | 37173  | 9357  | 4130 | 4130 | 4504  |
| 25° | 143379 | 11589 | 3266 | 3774 | 4403  |
| 30° | 309313 | 15420 | 2633 | 3697 | 4355  |
| 35° | 465570 | 18257 | 2222 | 3614 | 4470  |
| 40° | 524526 | 18320 | 1947 | 3721 | 4780  |
| 45° | 562415 | 14203 | 1768 | 3876 | 5179  |
| 50° | 552818 | 8870  | 1603 | 4094 | 5697  |
| 55° | 486329 | 4396  | 1606 | 4588 | 6384  |
| 60° | 307826 | 921   | 1842 | 5043 | 7061  |
| 65° | 62938  | 259   | 1868 | 5396 | 7835  |
| 70° | 1346   | 321   | 1988 | 6027 | 9040  |
| 75° | 1356   | 847   | 2203 | 6608 | 10167 |
| 80° | 1263   | 631   | 2652 | 7198 | 11870 |
| 85° | 1258   | 1258  | 5284 | 7799 | 13083 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 572575 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.7    | 0.5       |
| 10°-20°   | 9.0    | 1.6       |
| 20°-30°   | 44.0   | 7.8       |
| 30°-40°   | 143.2  | 25.3      |
| 40°-50°   | 197.5  | 34.8      |
| 50°-60°   | 137.6  | 24.3      |
| 60°-70°   | 26.1   | 4.6       |
| 70°-80°   | 4.7    | 0.8       |
| 80°-90°   | 2.2    | 0.4       |
| 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°    | 55.8   | 9.8       |
| 0°-40°    | 199.0  | 35.1      |
| 0°-60°    | 534.0  | 94.2      |
| 0°-90°    | 567.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 567.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 29   | 29  | 29  | 29   | 29   |      |
| 5°  | 32   | 31  | 29  | 26   | 26   | 3    |
| 15° | 62   | 35  | 22  | 20   | 21   | 23   |
| 25° | 593  | 48  | 14  | 16   | 18   | 305  |
| 35° | 1739 | 68  | 8   | 14   | 17   | 1051 |
| 45° | 1814 | 46  | 6   | 12   | 17   | 1379 |
| 55° | 1272 | 12  | 4   | 12   | 17   | 1087 |
| 65° | 121  | 0   | 4   | 10   | 15   | 215  |
| 75° | 2    | 1   | 3   | 8    | 12   | 2    |
| 85° | 0    | 0   | 2   | 3    | 5    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1346001

CATALOG NUMBER: P3A13R409050DE010 E3A451WH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°   | 30°   | 35°   | 45°  | 67.5° | 90°  |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|------|-------|------|
| 0°    | 29.2   | 29.2   | 29.2   | 29.2   | 29.2   | 29.2  | 29.2  | 29.2  | 29.2 | 29.2  | 29.2 |
| 2.5°  | 30.2   | 30.2   | 30.2   | 30.2   | 30.2   | 30.2  | 30.2  | 30.2  | 30.2 | 29.7  | 29.2 |
| 5°    | 32.3   | 32.3   | 32.3   | 32.3   | 31.8   | 31.8  | 31.8  | 31.2  | 31.2 | 30.2  | 28.6 |
| 7.5°  | 34.4   | 34.4   | 34.4   | 34.4   | 33.8   | 33.3  | 32.8  | 32.8  | 32.3 | 29.7  | 27.6 |
| 10°   | 38.5   | 38.5   | 38.0   | 37.5   | 37.0   | 35.9  | 35.4  | 34.4  | 32.8 | 29.2  | 26.0 |
| 12.5° | 46.9   | 45.8   | 45.3   | 44.3   | 42.7   | 40.6  | 38.5  | 37.0  | 33.3 | 28.1  | 24.5 |
| 15°   | 62.0   | 60.9   | 58.8   | 55.7   | 52.6   | 48.4  | 44.8  | 41.1  | 34.9 | 26.6  | 21.9 |
| 17.5° | 88.5   | 85.4   | 82.3   | 77.1   | 69.3   | 62.0  | 54.2  | 47.4  | 37.0 | 25.0  | 19.8 |
| 20°   | 159.3  | 157.3  | 138.5  | 123.9  | 100.5  | 83.8  | 68.2  | 56.8  | 40.1 | 23.4  | 17.7 |
| 22.5° | 328.6  | 306.7  | 276.0  | 226.0  | 176.0  | 129.7 | 94.2  | 71.3  | 43.2 | 21.3  | 15.6 |
| 25°   | 592.6  | 558.2  | 492.1  | 395.7  | 292.1  | 206.7 | 136.4 | 93.2  | 47.9 | 19.3  | 13.5 |
| 27.5° | 897.2  | 862.3  | 759.7  | 626.9  | 457.7  | 311.9 | 194.7 | 123.4 | 54.2 | 17.2  | 12.0 |
| 30°   | 1221.6 | 1191.9 | 1061.7 | 877.9  | 645.2  | 436.9 | 260.9 | 154.1 | 60.9 | 15.1  | 10.4 |
| 31°   | 1352.3 | 1314.3 | 1173.7 | 977.9  | 733.2  | 488.4 | 287.4 | 167.1 | 63.5 | 14.6  | 9.9  |
| 32°   | 1472.6 | 1429.4 | 1283.6 | 1073.7 | 804.5  | 544.1 | 316.6 | 178.6 | 65.6 | 13.5  | 9.4  |
| 33°   | 1576.2 | 1525.7 | 1385.1 | 1164.3 | 883.1  | 596.2 | 346.8 | 189.5 | 67.2 | 12.5  | 8.9  |
| 34°   | 1664.2 | 1620.5 | 1469.4 | 1255.4 | 952.9  | 646.2 | 376.5 | 200.5 | 68.2 | 12.0  | 8.3  |
| 35°   | 1739.2 | 1699.6 | 1550.2 | 1324.7 | 1021.1 | 694.6 | 403.6 | 210.9 | 68.2 | 10.9  | 8.3  |
| 36°   | 1789.7 | 1755.3 | 1619.9 | 1395.5 | 1078.4 | 735.8 | 426.5 | 220.3 | 68.2 | 9.9   | 7.8  |
| 37°   | 1817.3 | 1784.0 | 1665.8 | 1453.8 | 1134.6 | 776.4 | 447.3 | 227.6 | 67.7 | 9.4   | 7.3  |
| 38°   | 1831.3 | 1802.2 | 1699.6 | 1501.2 | 1173.7 | 805.5 | 465.5 | 233.3 | 67.2 | 8.3   | 7.3  |
| 39°   | 1835.0 | 1810.5 | 1720.9 | 1535.6 | 1211.7 | 834.7 | 478.5 | 236.4 | 65.6 | 7.8   | 6.8  |
| 40°   | 1832.4 | 1811.0 | 1732.4 | 1566.3 | 1240.9 | 857.6 | 487.9 | 237.4 | 64.0 | 6.8   | 6.8  |
| 41°   | 1827.2 | 1810.5 | 1740.7 | 1587.6 | 1264.3 | 872.2 | 491.6 | 235.4 | 62.0 | 5.7   | 6.2  |
| 42°   | 1822.5 | 1804.3 | 1744.4 | 1602.2 | 1280.4 | 879.5 | 491.0 | 231.2 | 58.8 | 5.2   | 6.2  |
| 43°   | 1822.5 | 1801.7 | 1744.9 | 1611.6 | 1288.2 | 880.0 | 484.8 | 223.4 | 54.7 | 4.7   | 5.7  |
| 44°   | 1819.4 | 1800.1 | 1747.5 | 1617.8 | 1290.3 | 875.3 | 474.9 | 215.1 | 50.0 | 4.2   | 5.7  |
| 45°   | 1813.6 | 1793.3 | 1747.0 | 1618.4 | 1286.7 | 863.9 | 458.7 | 204.1 | 45.8 | 3.1   | 5.7  |
| 46°   | 1802.7 | 1784.5 | 1742.3 | 1614.7 | 1275.7 | 847.2 | 439.5 | 193.2 | 41.1 | 2.6   | 5.2  |
| 47°   | 1780.8 | 1766.8 | 1729.8 | 1602.2 | 1259.1 | 822.7 | 416.6 | 180.7 | 37.5 | 2.1   | 5.2  |
| 48°   | 1743.3 | 1733.4 | 1708.5 | 1574.6 | 1227.3 | 792.5 | 392.1 | 167.1 | 33.8 | 2.1   | 5.2  |
| 49°   | 1674.6 | 1666.8 | 1652.2 | 1530.4 | 1186.7 | 755.6 | 365.5 | 152.0 | 30.2 | 1.6   | 5.2  |
| 50°   | 1620.5 | 1612.1 | 1582.4 | 1455.9 | 1128.4 | 708.7 | 336.4 | 136.9 | 26.0 | 1.0   | 4.7  |
| 51°   | 1584.5 | 1571.0 | 1524.1 | 1369.5 | 1043.5 | 646.2 | 304.6 | 121.8 | 21.9 | 1.0   | 4.7  |
| 52°   | 1539.2 | 1518.9 | 1460.6 | 1291.9 | 965.9  | 583.7 | 270.2 | 106.7 | 19.3 | 1.0   | 4.7  |
| 53°   | 1444.5 | 1437.2 | 1379.4 | 1208.6 | 888.3  | 523.8 | 234.8 | 94.2  | 16.7 | 1.0   | 4.7  |
| 54°   | 1361.7 | 1350.7 | 1272.1 | 1093.0 | 804.0  | 457.2 | 198.4 | 83.3  | 14.1 | 1.0   | 4.7  |
| 55°   | 1272.1 | 1250.7 | 1181.0 | 995.6  | 705.0  | 395.7 | 163.5 | 71.9  | 11.5 | 1.0   | 4.2  |
| 56°   | 1159.1 | 1140.4 | 1065.4 | 891.5  | 613.9  | 333.3 | 136.9 | 58.8  | 8.9  | 1.0   | 4.2  |
| 57°   | 1021.6 | 1004.5 | 946.7  | 763.4  | 519.1  | 272.3 | 111.4 | 47.4  | 6.8  | 1.0   | 4.2  |
| 58°   | 888.9  | 869.6  | 803.5  | 640.5  | 419.2  | 216.1 | 93.2  | 38.5  | 5.2  | 1.0   | 4.2  |
| 59°   | 786.8  | 760.8  | 675.4  | 537.9  | 328.0  | 164.0 | 73.9  | 30.7  | 3.6  | 1.0   | 4.2  |
| 60°   | 701.9  | 680.6  | 592.0  | 447.8  | 257.2  | 120.8 | 54.7  | 23.4  | 2.1  | 1.0   | 4.2  |
| 62.5° | 406.7  | 400.9  | 321.3  | 230.7  | 121.3  | 56.2  | 27.1  | 10.9  | 1.0  | 1.6   | 4.2  |
| 65°   | 121.3  | 105.7  | 82.3   | 48.9   | 31.2   | 18.7  | 9.9   | 3.6   | 0.5  | 1.6   | 3.6  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 2.1 | 1.0 | 0.5 | 1.6   | 3.6 |
| 70°   | 2.1 | 1.6 | 1.6 | 1.6 | 1.6 | 1.0 | 1.0 | 0.5 | 0.5 | 1.6   | 3.1 |
| 72.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.0 | 1.0 | 1.0 | 0.5 | 1.0 | 1.6   | 2.6 |
| 75°   | 1.6 | 1.0 | 1.0 | 1.0 | 1.0 | 0.5 | 0.5 | 0.5 | 1.0 | 1.6   | 2.6 |
| 77.5° | 1.0 | 1.0 | 1.0 | 1.0 | 0.5 | 0.5 | 0.5 | 0.5 | 1.0 | 1.6   | 2.6 |
| 80°   | 1.0 | 1.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.6   | 2.1 |
| 82.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.6   | 2.1 |
| 85°   | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.6   | 2.1 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 1.6   | 1.6 |
| 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: P1346001

CATALOG NUMBER: P3A13R409050DE010 E3A451WH

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 29.2   | 29.2 | 29.2   | 29.2 |
| 2.5°  | 28.1   | 27.6 | 27.1   | 27.1 |
| 5°    | 27.1   | 26.0 | 26.0   | 25.5 |
| 7.5°  | 25.5   | 24.5 | 24.5   | 24.5 |
| 10°   | 24.0   | 23.4 | 23.4   | 22.9 |
| 12.5° | 21.9   | 21.9 | 21.9   | 21.9 |
| 15°   | 20.3   | 20.3 | 20.8   | 20.8 |
| 17.5° | 18.2   | 18.7 | 19.8   | 20.3 |
| 20°   | 16.7   | 17.7 | 18.7   | 19.3 |
| 22.5° | 15.6   | 16.7 | 18.2   | 18.7 |
| 25°   | 14.1   | 15.6 | 17.7   | 18.2 |
| 27.5° | 13.0   | 15.1 | 16.7   | 17.7 |
| 30°   | 12.0   | 14.6 | 16.1   | 17.2 |
| 31°   | 12.0   | 14.1 | 16.1   | 17.2 |
| 32°   | 11.5   | 13.5 | 16.1   | 16.7 |
| 33°   | 11.5   | 13.5 | 16.1   | 16.7 |
| 34°   | 10.9   | 13.5 | 15.6   | 16.7 |
| 35°   | 10.9   | 13.5 | 15.6   | 16.7 |
| 36°   | 10.4   | 13.0 | 15.6   | 16.7 |
| 37°   | 10.4   | 13.0 | 15.6   | 16.7 |
| 38°   | 9.9    | 13.0 | 15.6   | 16.7 |
| 39°   | 9.9    | 13.0 | 15.6   | 16.7 |
| 40°   | 9.9    | 13.0 | 15.6   | 16.7 |
| 41°   | 9.4    | 13.0 | 15.6   | 16.7 |
| 42°   | 9.4    | 13.0 | 15.6   | 16.7 |
| 43°   | 9.4    | 12.5 | 15.6   | 16.7 |
| 44°   | 9.4    | 12.5 | 15.6   | 16.7 |
| 45°   | 8.9    | 12.5 | 15.6   | 16.7 |
| 46°   | 8.9    | 12.5 | 15.6   | 16.7 |
| 47°   | 8.9    | 12.5 | 15.6   | 16.7 |
| 48°   | 8.9    | 12.5 | 15.6   | 16.7 |
| 49°   | 8.9    | 12.5 | 15.6   | 16.7 |
| 50°   | 8.3    | 12.0 | 15.6   | 16.7 |
| 51°   | 8.3    | 12.0 | 15.6   | 16.7 |
| 52°   | 8.3    | 12.0 | 15.6   | 16.7 |
| 53°   | 8.3    | 12.0 | 15.6   | 16.7 |
| 54°   | 7.8    | 12.0 | 15.6   | 16.7 |
| 55°   | 7.8    | 12.0 | 15.6   | 16.7 |
| 56°   | 7.8    | 12.0 | 15.6   | 16.1 |
| 57°   | 7.8    | 12.0 | 15.1   | 16.1 |
| 58°   | 7.8    | 11.5 | 15.1   | 16.1 |
| 59°   | 7.8    | 11.5 | 15.1   | 16.1 |
| 60°   | 7.8    | 11.5 | 15.1   | 16.1 |
| 62.5° | 7.3    | 11.5 | 14.6   | 15.6 |
| 65°   | 6.8    | 10.4 | 14.6   | 15.1 |



TEST NUMBER: P1346001

CATALOG NUMBER: P3A13R409050DE010 E3A451WH

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 6.8    | 9.9  | 13.5   | 14.6 |
| 70°   | 6.2    | 9.4  | 13.0   | 14.1 |
| 72.5° | 5.2    | 8.9  | 12.0   | 13.0 |
| 75°   | 4.7    | 7.8  | 10.9   | 12.0 |
| 77.5° | 4.2    | 6.8  | 9.9    | 10.4 |
| 80°   | 3.6    | 5.7  | 8.3    | 9.4  |
| 82.5° | 2.6    | 4.2  | 6.8    | 7.3  |
| 85°   | 2.1    | 3.1  | 4.7    | 5.2  |
| 87.5° | 1.6    | 1.6  | 2.6    | 2.6  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)