

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: P1305626

Luminaire Tested: P3SQAS05R409024DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305626  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS05R409024DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R40 optic, 2400K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

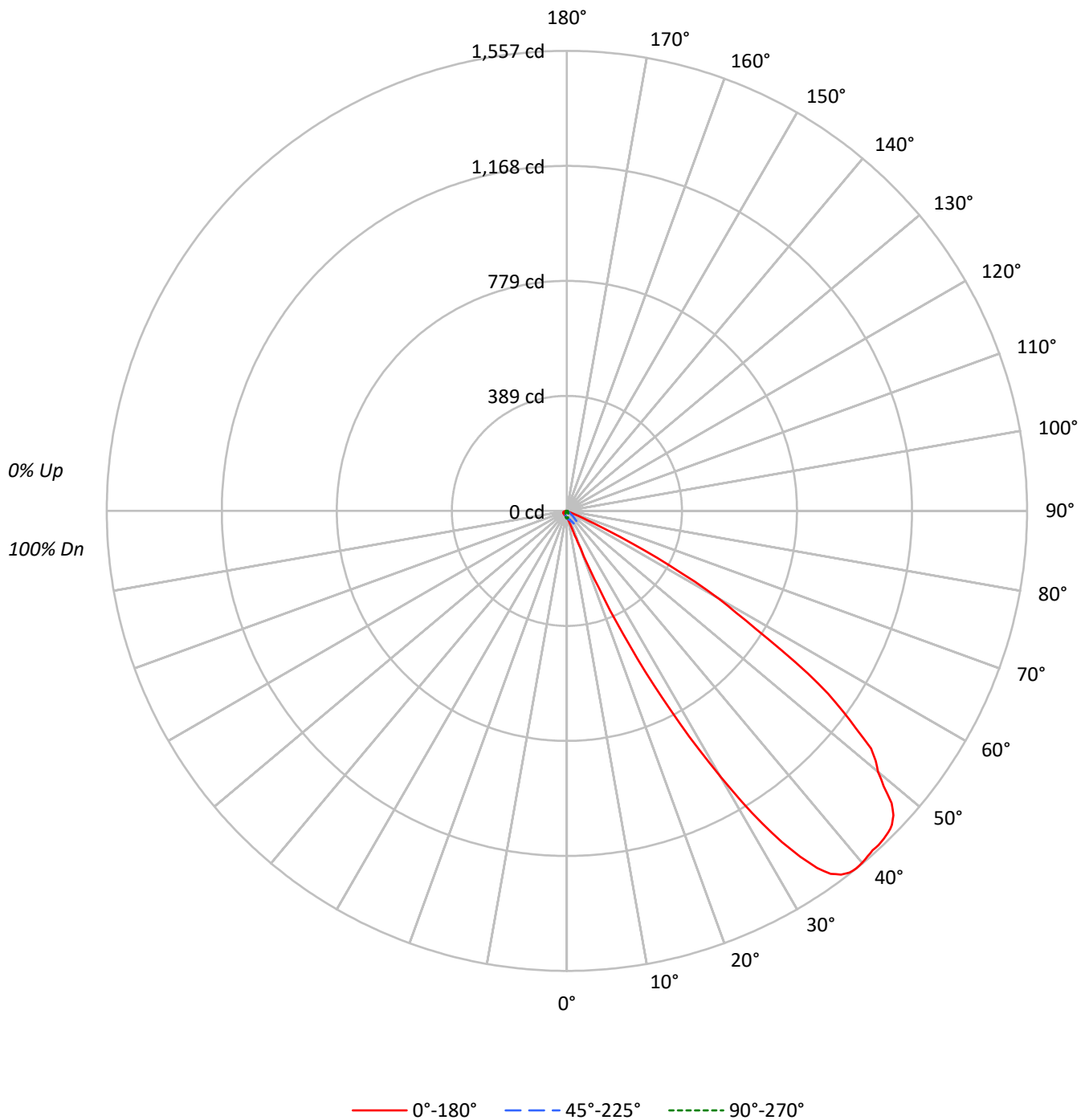
Lumens per Lamp: N/A  
Luminaire Lumens: 481.0 lumens  
Efficiency: N/A  
Efficacy: 66.8 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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: P1305626

CATALOG NUMBER: P3SQAS05R409024DE010 E3SQCA451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1305626

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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°  | 4254   | 4254  | 4254 | 4254 | 4254 |
| 5°  | 4737   | 4581  | 4201 | 3821 | 3734 |
| 10° | 5719   | 4862  | 3865 | 3480 | 3393 |
| 15° | 9378   | 5278  | 3316 | 3067 | 3156 |
| 20° | 24779  | 6231  | 2749 | 2749 | 2987 |
| 25° | 95526  | 7715  | 2185 | 2527 | 2945 |
| 30° | 206084 | 10281 | 1750 | 2466 | 2903 |
| 35° | 310196 | 12173 | 1493 | 2418 | 2964 |
| 40° | 349484 | 12208 | 1281 | 2473 | 3170 |
| 45° | 374741 | 9474  | 1193 | 2582 | 3434 |
| 50° | 368325 | 5921  | 1072 | 2733 | 3778 |
| 55° | 324042 | 2913  | 1051 | 3063 | 4234 |
| 60° | 205117 | 620   | 1206 | 3341 | 4719 |
| 65° | 41933  | 163   | 1263 | 3586 | 5216 |
| 70° | 906    | 201   | 1360 | 4028 | 5992 |
| 75° | 865    | 599   | 1464 | 4392 | 6787 |
| 80° | 893    | 397   | 1785 | 4860 | 7934 |
| 85° | 790    | 790   | 3557 | 5335 | 8695 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 381492 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.3    | 0.5       |
| 10°-20°   | 7.6    | 1.6       |
| 20°-30°   | 37.4   | 7.8       |
| 30°-40°   | 121.5  | 25.3      |
| 40°-50°   | 167.5  | 34.8      |
| 50°-60°   | 116.7  | 24.3      |
| 60°-70°   | 22.1   | 4.6       |
| 70°-80°   | 4.0    | 0.8       |
| 80°-90°   | 1.8    | 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°    | 47.3   | 9.8       |
| 0°-40°    | 168.8  | 35.1      |
| 0°-60°    | 453.0  | 94.2      |
| 0°-90°    | 481.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 481.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 25   | 25  | 25  | 25   | 25   |      |
| 5°  | 27   | 26  | 24  | 22   | 22   | 3    |
| 15° | 53   | 30  | 19  | 17   | 18   | 19   |
| 25° | 503  | 41  | 12  | 13   | 16   | 259  |
| 35° | 1475 | 58  | 7   | 12   | 14   | 892  |
| 45° | 1539 | 39  | 5   | 11   | 14   | 1170 |
| 55° | 1079 | 10  | 4   | 10   | 14   | 922  |
| 65° | 103  | 0   | 3   | 9    | 13   | 182  |
| 75° | 1    | 1   | 2   | 7    | 10   | 1    |
| 85° | 0    | 0   | 2   | 3    | 4    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°   | 30°   | 35°   | 45°  | 67.5° | 90°  |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|------|-------|------|
| 0°    | 24.7   | 24.7   | 24.7   | 24.7   | 24.7   | 24.7  | 24.7  | 24.7  | 24.7 | 24.7  | 24.7 |
| 2.5°  | 25.6   | 25.6   | 25.6   | 25.6   | 25.6   | 25.6  | 25.6  | 25.6  | 25.6 | 25.2  | 24.7 |
| 5°    | 27.4   | 27.4   | 27.4   | 27.4   | 26.9   | 26.9  | 26.9  | 26.5  | 26.5 | 25.6  | 24.3 |
| 7.5°  | 29.2   | 29.2   | 29.2   | 29.2   | 28.7   | 28.3  | 27.8  | 27.8  | 27.4 | 25.2  | 23.4 |
| 10°   | 32.7   | 32.7   | 32.2   | 31.8   | 31.4   | 30.5  | 30.0  | 29.2  | 27.8 | 24.7  | 22.1 |
| 12.5° | 39.8   | 38.9   | 38.4   | 37.5   | 36.2   | 34.5  | 32.7  | 31.4  | 28.3 | 23.9  | 20.8 |
| 15°   | 52.6   | 51.7   | 49.9   | 47.3   | 44.6   | 41.1  | 38.0  | 34.9  | 29.6 | 22.5  | 18.6 |
| 17.5° | 75.1   | 72.4   | 69.8   | 65.4   | 58.8   | 52.6  | 45.9  | 40.2  | 31.4 | 21.2  | 16.8 |
| 20°   | 135.2  | 133.4  | 117.5  | 105.1  | 85.3   | 71.1  | 57.9  | 48.1  | 34.0 | 19.9  | 15.0 |
| 22.5° | 278.7  | 260.2  | 234.1  | 191.7  | 149.3  | 110.0 | 80.0  | 60.5  | 36.7 | 18.1  | 13.3 |
| 25°   | 502.7  | 473.5  | 417.4  | 335.7  | 247.8  | 175.4 | 115.7 | 79.1  | 40.6 | 16.3  | 11.5 |
| 27.5° | 761.1  | 731.5  | 644.5  | 531.8  | 388.3  | 264.6 | 165.2 | 104.7 | 45.9 | 14.6  | 10.2 |
| 30°   | 1036.3 | 1011.1 | 900.7  | 744.8  | 547.3  | 370.6 | 221.3 | 130.8 | 51.7 | 12.8  | 8.8  |
| 31°   | 1147.2 | 1114.9 | 995.7  | 829.6  | 622.0  | 414.3 | 243.8 | 141.8 | 53.9 | 12.4  | 8.4  |
| 32°   | 1249.2 | 1212.6 | 1088.9 | 910.9  | 682.5  | 461.6 | 268.6 | 151.5 | 55.7 | 11.5  | 8.0  |
| 33°   | 1337.1 | 1294.3 | 1175.0 | 987.7  | 749.2  | 505.8 | 294.2 | 160.8 | 57.0 | 10.6  | 7.5  |
| 34°   | 1411.8 | 1374.7 | 1246.6 | 1065.0 | 808.4  | 548.2 | 319.4 | 170.1 | 57.9 | 10.2  | 7.1  |
| 35°   | 1475.4 | 1441.8 | 1315.0 | 1123.8 | 866.2  | 589.3 | 342.3 | 178.9 | 57.9 | 9.3   | 7.1  |
| 36°   | 1518.2 | 1489.1 | 1374.2 | 1183.8 | 914.8  | 624.2 | 361.8 | 186.9 | 57.9 | 8.4   | 6.6  |
| 37°   | 1541.6 | 1513.4 | 1413.1 | 1233.3 | 962.5  | 658.6 | 379.4 | 193.0 | 57.4 | 8.0   | 6.2  |
| 38°   | 1553.6 | 1528.8 | 1441.8 | 1273.5 | 995.7  | 683.4 | 394.9 | 197.9 | 57.0 | 7.1   | 6.2  |
| 39°   | 1556.7 | 1535.9 | 1459.9 | 1302.7 | 1027.9 | 708.1 | 406.0 | 200.5 | 55.7 | 6.6   | 5.7  |
| 40°   | 1554.5 | 1536.3 | 1469.6 | 1328.7 | 1052.6 | 727.5 | 413.9 | 201.4 | 54.3 | 5.7   | 5.7  |
| 41°   | 1550.0 | 1535.9 | 1476.7 | 1346.8 | 1072.5 | 739.9 | 417.0 | 199.7 | 52.6 | 4.9   | 5.3  |
| 42°   | 1546.1 | 1530.6 | 1479.8 | 1359.2 | 1086.2 | 746.1 | 416.6 | 196.1 | 49.9 | 4.4   | 5.3  |
| 43°   | 1546.1 | 1528.4 | 1480.2 | 1367.2 | 1092.8 | 746.5 | 411.3 | 189.5 | 46.4 | 4.0   | 4.9  |
| 44°   | 1543.4 | 1527.1 | 1482.5 | 1372.5 | 1094.6 | 742.6 | 402.9 | 182.4 | 42.4 | 3.5   | 4.9  |
| 45°   | 1538.6 | 1521.3 | 1482.0 | 1372.9 | 1091.5 | 732.8 | 389.2 | 173.2 | 38.9 | 2.7   | 4.9  |
| 46°   | 1529.3 | 1513.8 | 1478.0 | 1369.8 | 1082.2 | 718.7 | 372.8 | 163.9 | 34.9 | 2.2   | 4.4  |
| 47°   | 1510.7 | 1498.8 | 1467.4 | 1359.2 | 1068.1 | 697.9 | 353.4 | 153.3 | 31.8 | 1.8   | 4.4  |
| 48°   | 1478.9 | 1470.5 | 1449.3 | 1335.8 | 1041.2 | 672.3 | 332.6 | 141.8 | 28.7 | 1.8   | 4.4  |
| 49°   | 1420.6 | 1414.0 | 1401.6 | 1298.2 | 1006.7 | 641.0 | 310.1 | 129.0 | 25.6 | 1.3   | 4.4  |
| 50°   | 1374.7 | 1367.6 | 1342.4 | 1235.1 | 957.2  | 601.2 | 285.4 | 116.2 | 22.1 | 0.9   | 4.0  |
| 51°   | 1344.2 | 1332.7 | 1292.9 | 1161.8 | 885.2  | 548.2 | 258.4 | 103.4 | 18.6 | 0.9   | 4.0  |
| 52°   | 1305.8 | 1288.5 | 1239.1 | 1095.9 | 819.4  | 495.2 | 229.3 | 90.6  | 16.3 | 0.9   | 4.0  |
| 53°   | 1225.4 | 1219.2 | 1170.1 | 1025.3 | 753.6  | 444.4 | 199.2 | 80.0  | 14.1 | 0.9   | 4.0  |
| 54°   | 1155.1 | 1145.9 | 1079.2 | 927.2  | 682.0  | 387.8 | 168.3 | 70.7  | 11.9 | 0.9   | 4.0  |
| 55°   | 1079.2 | 1061.0 | 1001.8 | 844.6  | 598.1  | 335.7 | 138.7 | 61.0  | 9.7  | 0.9   | 3.5  |
| 56°   | 983.3  | 967.4  | 903.8  | 756.2  | 520.8  | 282.7 | 116.2 | 49.9  | 7.5  | 0.9   | 3.5  |
| 57°   | 866.7  | 852.1  | 803.1  | 647.6  | 440.4  | 231.0 | 94.5  | 40.2  | 5.7  | 0.9   | 3.5  |
| 58°   | 754.0  | 737.7  | 681.6  | 543.3  | 355.6  | 183.3 | 79.1  | 32.7  | 4.4  | 0.9   | 3.5  |
| 59°   | 667.5  | 645.4  | 572.9  | 456.3  | 278.3  | 139.1 | 62.7  | 26.1  | 3.1  | 0.9   | 3.5  |
| 60°   | 595.5  | 577.3  | 502.2  | 379.9  | 218.2  | 102.5 | 46.4  | 19.9  | 1.8  | 0.9   | 3.5  |
| 62.5° | 345.0  | 340.1  | 272.5  | 195.7  | 102.9  | 47.7  | 23.0  | 9.3   | 0.9  | 1.3   | 3.5  |
| 65°   | 102.9  | 89.7   | 69.8   | 41.5   | 26.5   | 15.9  | 8.4   | 3.1   | 0.4  | 1.3   | 3.1  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 1.8 | 0.9 | 0.4 | 1.3   | 3.1 |
| 70°   | 1.8 | 1.3 | 1.3 | 1.3 | 1.3 | 0.9 | 0.9 | 0.4 | 0.4 | 1.3   | 2.7 |
| 72.5° | 1.3 | 1.3 | 1.3 | 1.3 | 0.9 | 0.9 | 0.9 | 0.4 | 0.9 | 1.3   | 2.2 |
| 75°   | 1.3 | 0.9 | 0.9 | 0.9 | 0.9 | 0.4 | 0.4 | 0.4 | 0.9 | 1.3   | 2.2 |
| 77.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.9 | 1.3   | 2.2 |
| 80°   | 0.9 | 0.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 1.3   | 1.8 |
| 82.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 1.3   | 1.8 |
| 85°   | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 1.3   | 1.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 | 1.3   | 1.3 |
| 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: P1305626

CATALOG NUMBER: P3SQAS05R409024DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 24.7   | 24.7 | 24.7   | 24.7 |
| 2.5°  | 23.9   | 23.4 | 23.0   | 23.0 |
| 5°    | 23.0   | 22.1 | 22.1   | 21.6 |
| 7.5°  | 21.6   | 20.8 | 20.8   | 20.8 |
| 10°   | 20.3   | 19.9 | 19.9   | 19.4 |
| 12.5° | 18.6   | 18.6 | 18.6   | 18.6 |
| 15°   | 17.2   | 17.2 | 17.7   | 17.7 |
| 17.5° | 15.5   | 15.9 | 16.8   | 17.2 |
| 20°   | 14.1   | 15.0 | 15.9   | 16.3 |
| 22.5° | 13.3   | 14.1 | 15.5   | 15.9 |
| 25°   | 11.9   | 13.3 | 15.0   | 15.5 |
| 27.5° | 11.0   | 12.8 | 14.1   | 15.0 |
| 30°   | 10.2   | 12.4 | 13.7   | 14.6 |
| 31°   | 10.2   | 11.9 | 13.7   | 14.6 |
| 32°   | 9.7    | 11.5 | 13.7   | 14.1 |
| 33°   | 9.7    | 11.5 | 13.7   | 14.1 |
| 34°   | 9.3    | 11.5 | 13.3   | 14.1 |
| 35°   | 9.3    | 11.5 | 13.3   | 14.1 |
| 36°   | 8.8    | 11.0 | 13.3   | 14.1 |
| 37°   | 8.8    | 11.0 | 13.3   | 14.1 |
| 38°   | 8.4    | 11.0 | 13.3   | 14.1 |
| 39°   | 8.4    | 11.0 | 13.3   | 14.1 |
| 40°   | 8.4    | 11.0 | 13.3   | 14.1 |
| 41°   | 8.0    | 11.0 | 13.3   | 14.1 |
| 42°   | 8.0    | 11.0 | 13.3   | 14.1 |
| 43°   | 8.0    | 10.6 | 13.3   | 14.1 |
| 44°   | 8.0    | 10.6 | 13.3   | 14.1 |
| 45°   | 7.5    | 10.6 | 13.3   | 14.1 |
| 46°   | 7.5    | 10.6 | 13.3   | 14.1 |
| 47°   | 7.5    | 10.6 | 13.3   | 14.1 |
| 48°   | 7.5    | 10.6 | 13.3   | 14.1 |
| 49°   | 7.5    | 10.6 | 13.3   | 14.1 |
| 50°   | 7.1    | 10.2 | 13.3   | 14.1 |
| 51°   | 7.1    | 10.2 | 13.3   | 14.1 |
| 52°   | 7.1    | 10.2 | 13.3   | 14.1 |
| 53°   | 7.1    | 10.2 | 13.3   | 14.1 |
| 54°   | 6.6    | 10.2 | 13.3   | 14.1 |
| 55°   | 6.6    | 10.2 | 13.3   | 14.1 |
| 56°   | 6.6    | 10.2 | 13.3   | 13.7 |
| 57°   | 6.6    | 10.2 | 12.8   | 13.7 |
| 58°   | 6.6    | 9.7  | 12.8   | 13.7 |
| 59°   | 6.6    | 9.7  | 12.8   | 13.7 |
| 60°   | 6.6    | 9.7  | 12.8   | 13.7 |
| 62.5° | 6.2    | 9.7  | 12.4   | 13.3 |
| 65°   | 5.7    | 8.8  | 12.4   | 12.8 |



TEST NUMBER: P1305626

CATALOG NUMBER: P3SQAS05R409024DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 5.7    | 8.4  | 11.5   | 12.4 |
| 70°   | 5.3    | 8.0  | 11.0   | 11.9 |
| 72.5° | 4.4    | 7.5  | 10.2   | 11.0 |
| 75°   | 4.0    | 6.6  | 9.3    | 10.2 |
| 77.5° | 3.5    | 5.7  | 8.4    | 8.8  |
| 80°   | 3.1    | 4.9  | 7.1    | 8.0  |
| 82.5° | 2.2    | 3.5  | 5.7    | 6.2  |
| 85°   | 1.8    | 2.7  | 4.0    | 4.4  |
| 87.5° | 1.3    | 1.3  | 2.2    | 2.2  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)