

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: P1308990

Luminaire Tested: P3SQAS09R409035DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1308990  
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: P3SQAS09R409035DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 90CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

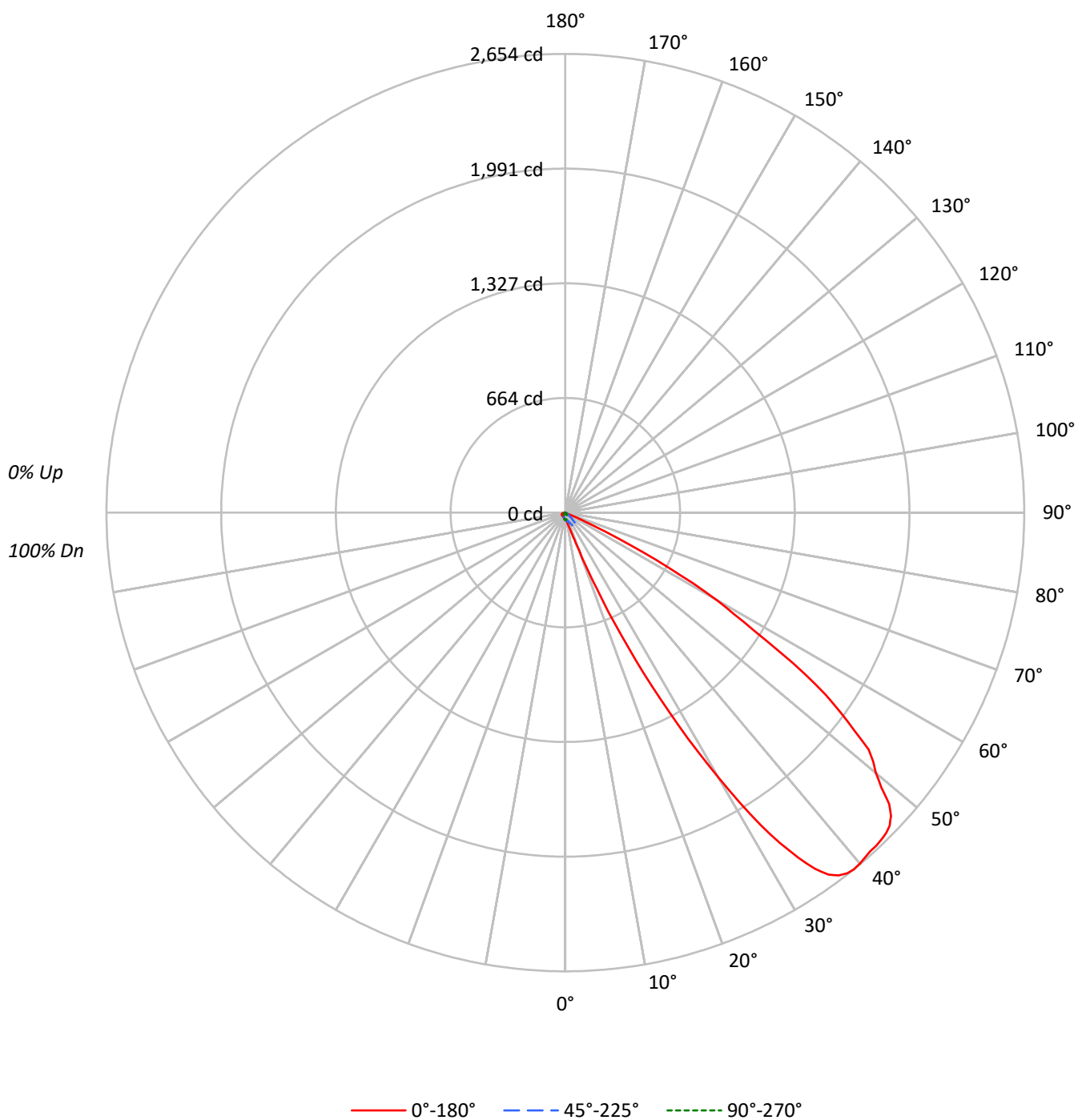
Lumens per Lamp: N/A  
Luminaire Lumens: 820.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.1  
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: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

### Luminous Intensity Polar Plot



TEST NUMBER: P1308990

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**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  | 107 | 104 | 100 | 97  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  | 90  | 88  | 86  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  | 78  | 75  | 72  |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 73  | 68  | 64  |  | 71  | 66  | 62  | 60  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 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  | 38  |  | 50  | 43  | 37  |  | 48  | 42  | 37  | 35  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  | 36  | 31  | 29  |
| 8   | 57  | 42  | 33  | 27  | 55  | 42  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 27  |  | 38  | 31  | 26  | 24  |
| 9   | 52  | 38  | 29  | 23  | 51  | 37  | 29  | 23  | 36  | 28  | 23  |  | 35  | 28  | 23  |  | 34  | 27  | 23  | 21  |
| 10  | 48  | 34  | 25  | 20  | 47  | 33  | 25  | 20  | 32  | 25  | 20  |  | 31  | 24  | 20  |  | 30  | 24  | 19  | 18  |

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

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 7268   | 7268  | 7268 | 7268 | 7268  |
| 5°  | 8074   | 7814  | 7157 | 6518 | 6379  |
| 10° | 9741   | 8289  | 6593 | 5928 | 5789  |
| 15° | 15976  | 9004  | 5634 | 5242 | 5367  |
| 20° | 42227  | 10630 | 4692 | 4692 | 5113  |
| 25° | 162853 | 13169 | 3725 | 4295 | 5017  |
| 30° | 351336 | 17520 | 3003 | 4196 | 4952  |
| 35° | 528808 | 20751 | 2523 | 4121 | 5067  |
| 40° | 595775 | 20818 | 2203 | 4227 | 5418  |
| 45° | 638832 | 16148 | 2022 | 4408 | 5870  |
| 50° | 627896 | 10101 | 1822 | 4635 | 6457  |
| 55° | 552390 | 4984  | 1802 | 5195 | 7236  |
| 60° | 349646 | 1033  | 2067 | 5718 | 8026  |
| 65° | 71519  | 326   | 2160 | 6153 | 8884  |
| 70° | 1511   | 403   | 2266 | 6848 | 10222 |
| 75° | 1530   | 998   | 2529 | 7519 | 11512 |
| 80° | 1488   | 793   | 2975 | 8232 | 13488 |
| 85° | 1581   | 1581  | 5928 | 8892 | 14820 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 650382 cd/sqm

TEST NUMBER: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 3.9    | 0.5       |
| 10°-20°   | 13.0   | 1.6       |
| 20°-30°   | 63.7   | 7.8       |
| 30°-40°   | 207.2  | 25.3      |
| 40°-50°   | 285.6  | 34.8      |
| 50°-60°   | 198.9  | 24.3      |
| 60°-70°   | 37.7   | 4.6       |
| 70°-80°   | 6.8    | 0.8       |
| 80°-90°   | 3.2    | 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°    | 80.6   | 9.8       |
| 0°-40°    | 287.8  | 35.1      |
| 0°-60°    | 772.3  | 94.2      |
| 0°-90°    | 820.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 820.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 42   | 42  | 42  | 42   | 42   |      |
| 5°  | 47   | 45  | 41  | 38   | 37   | 5    |
| 15° | 90   | 50  | 32  | 29   | 30   | 33   |
| 25° | 857  | 69  | 20  | 23   | 26   | 441  |
| 35° | 2515 | 99  | 12  | 20   | 24   | 1520 |
| 45° | 2623 | 66  | 8   | 18   | 24   | 1995 |
| 55° | 1840 | 17  | 6   | 17   | 24   | 1572 |
| 65° | 176  | 1   | 5   | 15   | 22   | 310  |
| 75° | 2    | 2   | 4   | 11   | 17   | 2    |
| 85° | 1    | 1   | 3   | 4    | 8    | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 35°   | 45°  | 67.5° | 90°  |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|------|-------|------|
| 0°    | 42.2   | 42.2   | 42.2   | 42.2   | 42.2   | 42.2   | 42.2  | 42.2  | 42.2 | 42.2  | 42.2 |
| 2.5°  | 43.7   | 43.7   | 43.7   | 43.7   | 43.7   | 43.7   | 43.7  | 43.7  | 43.7 | 42.9  | 42.2 |
| 5°    | 46.7   | 46.7   | 46.7   | 46.7   | 45.9   | 45.9   | 45.9  | 45.2  | 45.2 | 43.7  | 41.4 |
| 7.5°  | 49.7   | 49.7   | 49.7   | 49.7   | 48.9   | 48.2   | 47.4  | 47.4  | 46.7 | 42.9  | 39.9 |
| 10°   | 55.7   | 55.7   | 55.0   | 54.2   | 53.5   | 52.0   | 51.2  | 49.7  | 47.4 | 42.2  | 37.7 |
| 12.5° | 67.8   | 66.3   | 65.5   | 64.0   | 61.8   | 58.7   | 55.7  | 53.5  | 48.2 | 40.7  | 35.4 |
| 15°   | 89.6   | 88.1   | 85.1   | 80.6   | 76.1   | 70.0   | 64.8  | 59.5  | 50.5 | 38.4  | 31.6 |
| 17.5° | 128.0  | 123.5  | 119.0  | 111.5  | 100.2  | 89.6   | 78.3  | 68.5  | 53.5 | 36.1  | 28.6 |
| 20°   | 230.4  | 227.4  | 200.3  | 179.2  | 145.3  | 121.2  | 98.7  | 82.1  | 58.0 | 33.9  | 25.6 |
| 22.5° | 475.2  | 443.6  | 399.1  | 326.8  | 254.5  | 187.5  | 136.3 | 103.2 | 62.5 | 30.9  | 22.6 |
| 25°   | 857.0  | 807.3  | 711.6  | 572.3  | 422.5  | 299.0  | 197.3 | 134.8 | 69.3 | 27.9  | 19.6 |
| 27.5° | 1297.5 | 1247.1 | 1098.7 | 906.7  | 661.9  | 451.1  | 281.6 | 178.5 | 78.3 | 24.9  | 17.3 |
| 30°   | 1766.7 | 1723.7 | 1535.5 | 1269.7 | 933.0  | 631.8  | 377.3 | 222.9 | 88.1 | 21.8  | 15.1 |
| 31°   | 1955.7 | 1900.7 | 1697.4 | 1414.2 | 1060.3 | 706.4  | 415.7 | 241.7 | 91.9 | 21.1  | 14.3 |
| 32°   | 2129.6 | 2067.1 | 1856.3 | 1552.8 | 1163.5 | 786.9  | 457.9 | 258.3 | 94.9 | 19.6  | 13.6 |
| 33°   | 2279.5 | 2206.5 | 2003.1 | 1683.8 | 1277.2 | 862.2  | 501.5 | 274.1 | 97.1 | 18.1  | 12.8 |
| 34°   | 2406.8 | 2343.5 | 2125.1 | 1815.6 | 1378.1 | 934.5  | 544.5 | 289.9 | 98.7 | 17.3  | 12.0 |
| 35°   | 2515.2 | 2458.0 | 2241.8 | 1915.8 | 1476.7 | 1004.6 | 583.6 | 305.0 | 98.7 | 15.8  | 12.0 |
| 36°   | 2588.3 | 2538.6 | 2342.8 | 2018.2 | 1559.6 | 1064.1 | 616.8 | 318.5 | 98.7 | 14.3  | 11.3 |
| 37°   | 2628.2 | 2580.0 | 2409.0 | 2102.5 | 1640.9 | 1122.8 | 646.9 | 329.1 | 97.9 | 13.6  | 10.5 |
| 38°   | 2648.5 | 2606.3 | 2458.0 | 2171.1 | 1697.4 | 1165.0 | 673.2 | 337.4 | 97.1 | 12.0  | 10.5 |
| 39°   | 2653.8 | 2618.4 | 2488.9 | 2220.8 | 1752.4 | 1207.1 | 692.1 | 341.9 | 94.9 | 11.3  | 9.8  |
| 40°   | 2650.0 | 2619.1 | 2505.4 | 2265.2 | 1794.5 | 1240.3 | 705.6 | 343.4 | 92.6 | 9.8   | 9.8  |
| 41°   | 2642.5 | 2618.4 | 2517.5 | 2296.1 | 1828.4 | 1261.4 | 710.9 | 340.4 | 89.6 | 8.3   | 9.0  |
| 42°   | 2635.7 | 2609.3 | 2522.7 | 2317.2 | 1851.8 | 1271.9 | 710.1 | 334.4 | 85.1 | 7.5   | 9.0  |
| 43°   | 2635.7 | 2605.6 | 2523.5 | 2330.7 | 1863.1 | 1272.7 | 701.1 | 323.1 | 79.1 | 6.8   | 8.3  |
| 44°   | 2631.2 | 2603.3 | 2527.3 | 2339.7 | 1866.1 | 1265.9 | 686.8 | 311.0 | 72.3 | 6.0   | 8.3  |
| 45°   | 2622.9 | 2593.5 | 2526.5 | 2340.5 | 1860.8 | 1249.3 | 663.4 | 295.2 | 66.3 | 4.5   | 8.3  |
| 46°   | 2607.1 | 2580.7 | 2519.7 | 2335.2 | 1845.0 | 1225.2 | 635.6 | 279.4 | 59.5 | 3.8   | 7.5  |
| 47°   | 2575.5 | 2555.1 | 2501.7 | 2317.2 | 1820.9 | 1189.8 | 602.4 | 261.3 | 54.2 | 3.0   | 7.5  |
| 48°   | 2521.2 | 2506.9 | 2470.8 | 2277.2 | 1775.0 | 1146.2 | 567.1 | 241.7 | 48.9 | 3.0   | 7.5  |
| 49°   | 2421.8 | 2410.5 | 2389.4 | 2213.2 | 1716.2 | 1092.7 | 528.6 | 219.9 | 43.7 | 2.3   | 7.5  |
| 50°   | 2343.5 | 2331.5 | 2288.5 | 2105.5 | 1631.9 | 1024.9 | 486.5 | 198.1 | 37.7 | 1.5   | 6.8  |
| 51°   | 2291.5 | 2272.0 | 2204.2 | 1980.5 | 1509.1 | 934.5  | 440.5 | 176.2 | 31.6 | 1.5   | 6.8  |
| 52°   | 2226.0 | 2196.7 | 2112.3 | 1868.3 | 1396.9 | 844.2  | 390.8 | 154.4 | 27.9 | 1.5   | 6.8  |
| 53°   | 2089.0 | 2078.4 | 1994.8 | 1747.8 | 1284.7 | 757.6  | 339.6 | 136.3 | 24.1 | 1.5   | 6.8  |
| 54°   | 1969.2 | 1953.4 | 1839.7 | 1580.7 | 1162.7 | 661.2  | 286.9 | 120.5 | 20.3 | 1.5   | 6.8  |
| 55°   | 1839.7 | 1808.8 | 1707.9 | 1439.8 | 1019.6 | 572.3  | 236.5 | 103.9 | 16.6 | 1.5   | 6.0  |
| 56°   | 1676.3 | 1649.2 | 1540.8 | 1289.2 | 887.9  | 482.0  | 198.1 | 85.1  | 12.8 | 1.5   | 6.0  |
| 57°   | 1477.5 | 1452.6 | 1369.1 | 1104.0 | 750.8  | 393.8  | 161.2 | 68.5  | 9.8  | 1.5   | 6.0  |
| 58°   | 1285.5 | 1257.6 | 1162.0 | 926.3  | 606.2  | 312.5  | 134.8 | 55.7  | 7.5  | 1.5   | 6.0  |
| 59°   | 1137.9 | 1100.2 | 976.7  | 777.9  | 474.4  | 237.2  | 106.9 | 44.4  | 5.3  | 1.5   | 6.0  |
| 60°   | 1015.1 | 984.2  | 856.2  | 647.6  | 372.0  | 174.7  | 79.1  | 33.9  | 3.0  | 1.5   | 6.0  |
| 62.5° | 588.1  | 579.9  | 464.6  | 333.6  | 175.5  | 81.3   | 39.2  | 15.8  | 1.5  | 2.3   | 6.0  |
| 65°   | 175.5  | 152.9  | 119.0  | 70.8   | 45.2   | 27.1   | 14.3  | 5.3   | 0.8  | 2.3   | 5.3  |



TEST NUMBER: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 3.0 | 1.5 | 0.8 | 2.3   | 5.3 |
| 70°   | 3.0 | 2.3 | 2.3 | 2.3 | 2.3 | 1.5 | 1.5 | 0.8 | 0.8 | 2.3   | 4.5 |
| 72.5° | 2.3 | 2.3 | 2.3 | 2.3 | 1.5 | 1.5 | 1.5 | 0.8 | 1.5 | 2.3   | 3.8 |
| 75°   | 2.3 | 1.5 | 1.5 | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 1.5 | 2.3   | 3.8 |
| 77.5° | 1.5 | 1.5 | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 0.8 | 1.5 | 2.3   | 3.8 |
| 80°   | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 |
| 85°   | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 | 2.3   | 2.3 |
| 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: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 42.2   | 42.2 | 42.2   | 42.2 |
| 2.5°  | 40.7   | 39.9 | 39.2   | 39.2 |
| 5°    | 39.2   | 37.7 | 37.7   | 36.9 |
| 7.5°  | 36.9   | 35.4 | 35.4   | 35.4 |
| 10°   | 34.6   | 33.9 | 33.9   | 33.1 |
| 12.5° | 31.6   | 31.6 | 31.6   | 31.6 |
| 15°   | 29.4   | 29.4 | 30.1   | 30.1 |
| 17.5° | 26.4   | 27.1 | 28.6   | 29.4 |
| 20°   | 24.1   | 25.6 | 27.1   | 27.9 |
| 22.5° | 22.6   | 24.1 | 26.4   | 27.1 |
| 25°   | 20.3   | 22.6 | 25.6   | 26.4 |
| 27.5° | 18.8   | 21.8 | 24.1   | 25.6 |
| 30°   | 17.3   | 21.1 | 23.3   | 24.9 |
| 31°   | 17.3   | 20.3 | 23.3   | 24.9 |
| 32°   | 16.6   | 19.6 | 23.3   | 24.1 |
| 33°   | 16.6   | 19.6 | 23.3   | 24.1 |
| 34°   | 15.8   | 19.6 | 22.6   | 24.1 |
| 35°   | 15.8   | 19.6 | 22.6   | 24.1 |
| 36°   | 15.1   | 18.8 | 22.6   | 24.1 |
| 37°   | 15.1   | 18.8 | 22.6   | 24.1 |
| 38°   | 14.3   | 18.8 | 22.6   | 24.1 |
| 39°   | 14.3   | 18.8 | 22.6   | 24.1 |
| 40°   | 14.3   | 18.8 | 22.6   | 24.1 |
| 41°   | 13.6   | 18.8 | 22.6   | 24.1 |
| 42°   | 13.6   | 18.8 | 22.6   | 24.1 |
| 43°   | 13.6   | 18.1 | 22.6   | 24.1 |
| 44°   | 13.6   | 18.1 | 22.6   | 24.1 |
| 45°   | 12.8   | 18.1 | 22.6   | 24.1 |
| 46°   | 12.8   | 18.1 | 22.6   | 24.1 |
| 47°   | 12.8   | 18.1 | 22.6   | 24.1 |
| 48°   | 12.8   | 18.1 | 22.6   | 24.1 |
| 49°   | 12.8   | 18.1 | 22.6   | 24.1 |
| 50°   | 12.0   | 17.3 | 22.6   | 24.1 |
| 51°   | 12.0   | 17.3 | 22.6   | 24.1 |
| 52°   | 12.0   | 17.3 | 22.6   | 24.1 |
| 53°   | 12.0   | 17.3 | 22.6   | 24.1 |
| 54°   | 11.3   | 17.3 | 22.6   | 24.1 |
| 55°   | 11.3   | 17.3 | 22.6   | 24.1 |
| 56°   | 11.3   | 17.3 | 22.6   | 23.3 |
| 57°   | 11.3   | 17.3 | 21.8   | 23.3 |
| 58°   | 11.3   | 16.6 | 21.8   | 23.3 |
| 59°   | 11.3   | 16.6 | 21.8   | 23.3 |
| 60°   | 11.3   | 16.6 | 21.8   | 23.3 |
| 62.5° | 10.5   | 16.6 | 21.1   | 22.6 |
| 65°   | 9.8    | 15.1 | 21.1   | 21.8 |



TEST NUMBER: P1308990

CATALOG NUMBER: P3SQAS09R409035DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 9.8    | 14.3 | 19.6   | 21.1 |
| 70°   | 9.0    | 13.6 | 18.8   | 20.3 |
| 72.5° | 7.5    | 12.8 | 17.3   | 18.8 |
| 75°   | 6.8    | 11.3 | 15.8   | 17.3 |
| 77.5° | 6.0    | 9.8  | 14.3   | 15.1 |
| 80°   | 5.3    | 8.3  | 12.0   | 13.6 |
| 82.5° | 3.8    | 6.0  | 9.8    | 10.5 |
| 85°   | 3.0    | 4.5  | 6.8    | 7.5  |
| 87.5° | 2.3    | 2.3  | 3.8    | 3.8  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)