

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: P1306107

Luminaire Tested: P3SQASS17R409024DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1306107  
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: P3SQASS17R409024DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R40 optic, 2400K CCT AND, 90CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

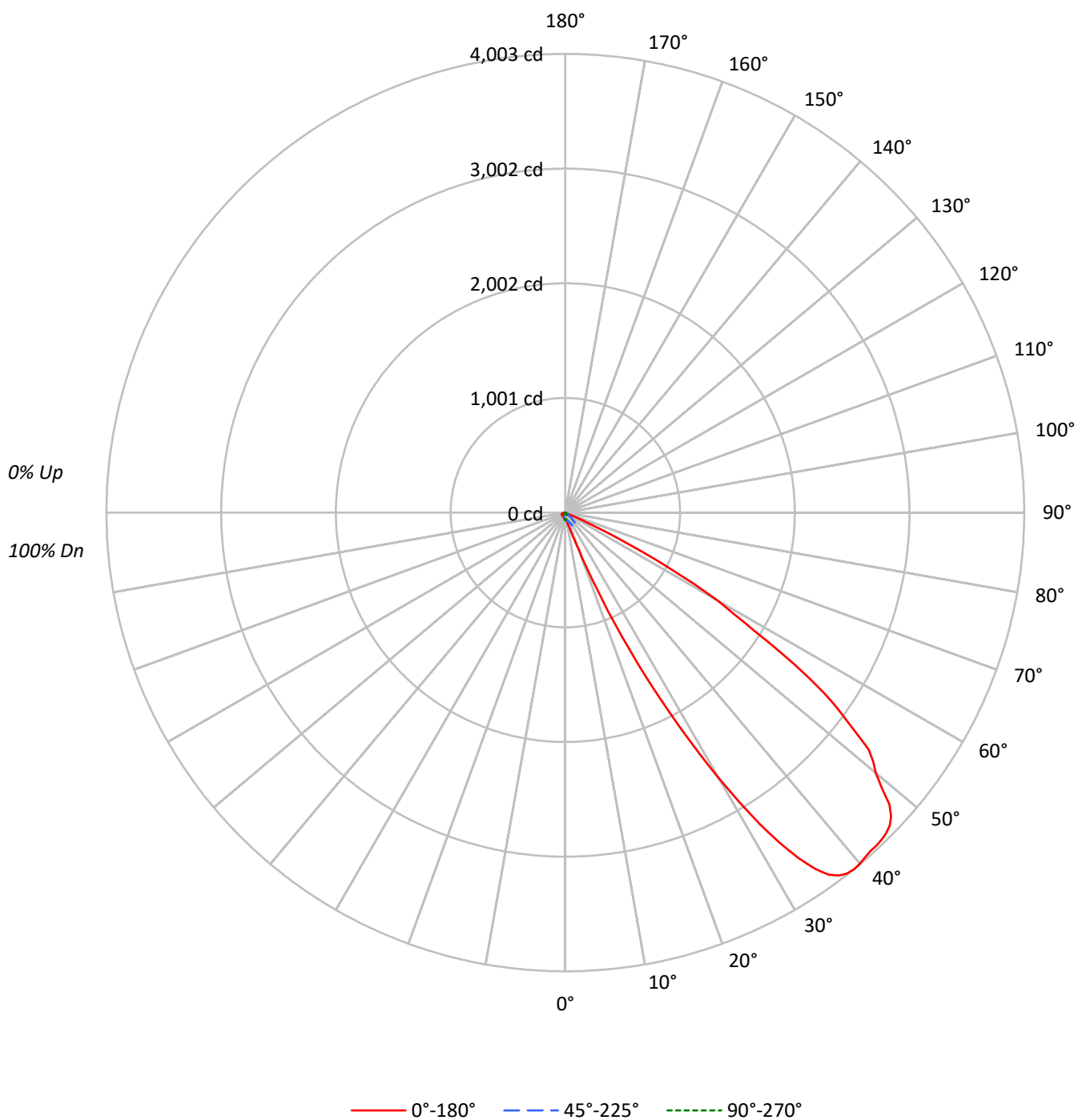
Lumens per Lamp: N/A  
Luminaire Lumens: 1237.0 lumens  
Efficiency: N/A  
Efficacy: 58.3 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.2  
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: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

### Luminous Intensity Polar Plot



TEST NUMBER: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**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  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  | 88  | 88  | 86  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 75  | 75  | 72  |
| 3   | 91  | 81  | 73  | 66  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 73  | 68  | 64  | 71  | 66  | 62  | 62  | 62  | 60  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 52  | 52  | 50  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 44  | 44  | 42  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  | 50  | 43  | 37  | 48  | 42  | 37  | 37  | 37  | 35  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 31  | 42  | 36  | 31  | 31  | 31  | 29  |
| 8   | 57  | 42  | 33  | 27  | 55  | 42  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 26  | 26  | 26  | 24  |
| 9   | 52  | 38  | 29  | 23  | 51  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 23  | 34  | 27  | 23  | 23  | 23  | 21  |
| 10  | 48  | 34  | 25  | 20  | 47  | 33  | 25  | 20  | 32  | 25  | 20  | 31  | 24  | 20  | 30  | 24  | 19  | 19  | 19  | 18  |

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

|     | 0°     | 45°   | 90°   | 135°  | 180°  |
|-----|--------|-------|-------|-------|-------|
| 0°  | 10953  | 10953 | 10953 | 10953 | 10953 |
| 5°  | 12171  | 11790 | 10805 | 9820  | 9629  |
| 10° | 14707  | 12521 | 9933  | 8936  | 8744  |
| 15° | 24106  | 13568 | 8505  | 7899  | 8095  |
| 20° | 63707  | 16037 | 7074  | 7074  | 7698  |
| 25° | 245666 | 19858 | 5606  | 6480  | 7563  |
| 30° | 529997 | 26429 | 4514  | 6324  | 7457  |
| 35° | 797733 | 31284 | 3826  | 6202  | 7653  |
| 40° | 898743 | 31407 | 3327  | 6385  | 8183  |
| 45° | 963692 | 24356 | 3044  | 6649  | 8866  |
| 50° | 947216 | 15218 | 2733  | 6993  | 9753  |
| 55° | 833314 | 7507  | 2732  | 7837  | 10930 |
| 60° | 527449 | 1550  | 3134  | 8611  | 12124 |
| 65° | 107869 | 448   | 3260  | 9251  | 13407 |
| 70° | 2266   | 554   | 3424  | 10272 | 15459 |
| 75° | 2262   | 1530  | 3793  | 11312 | 17367 |
| 80° | 2281   | 1091  | 4463  | 12397 | 20233 |
| 85° | 2174   | 2174  | 8892  | 13437 | 22527 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 981116 cd/sqm

TEST NUMBER: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 5.9    | 0.5       |
| 10°-20°   | 19.6   | 1.6       |
| 20°-30°   | 96.1   | 7.8       |
| 30°-40°   | 312.5  | 25.3      |
| 40°-50°   | 430.8  | 34.8      |
| 50°-60°   | 300.1  | 24.3      |
| 60°-70°   | 56.9   | 4.6       |
| 70°-80°   | 10.3   | 0.8       |
| 80°-90°   | 4.7    | 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°    | 121.6  | 9.8       |
| 0°-40°    | 434.1  | 35.1      |
| 0°-60°    | 1165.1 | 94.2      |
| 0°-90°    | 1237.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1237.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 64   | 64  | 64  | 64   | 64   |      |
| 5°  | 70   | 68  | 62  | 57   | 56   | 7    |
| 15° | 135  | 76  | 48  | 44   | 45   | 49   |
| 25° | 1293 | 104 | 30  | 34   | 40   | 666  |
| 35° | 3794 | 149 | 18  | 30   | 36   | 2293 |
| 45° | 3957 | 100 | 12  | 27   | 36   | 3009 |
| 55° | 2775 | 25  | 9   | 26   | 36   | 2372 |
| 65° | 265  | 1   | 8   | 23   | 33   | 468  |
| 75° | 3    | 2   | 6   | 17   | 26   | 3    |
| 85° | 1    | 1   | 4   | 7    | 11   | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°   | 45°   | 67.5° | 90°  |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|------|
| 0°    | 63.6   | 63.6   | 63.6   | 63.6   | 63.6   | 63.6   | 63.6   | 63.6  | 63.6  | 63.6  | 63.6 |
| 2.5°  | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9  | 65.9  | 64.8  | 63.6 |
| 5°    | 70.4   | 70.4   | 70.4   | 70.4   | 69.3   | 69.3   | 69.3   | 68.2  | 68.2  | 65.9  | 62.5 |
| 7.5°  | 75.0   | 75.0   | 75.0   | 75.0   | 73.8   | 72.7   | 71.6   | 71.6  | 70.4  | 64.8  | 60.2 |
| 10°   | 84.1   | 84.1   | 82.9   | 81.8   | 80.7   | 78.4   | 77.2   | 75.0  | 71.6  | 63.6  | 56.8 |
| 12.5° | 102.2  | 100.0  | 98.8   | 96.6   | 93.2   | 88.6   | 84.1   | 80.7  | 72.7  | 61.3  | 53.4 |
| 15°   | 135.2  | 132.9  | 128.4  | 121.6  | 114.7  | 105.6  | 97.7   | 89.7  | 76.1  | 57.9  | 47.7 |
| 17.5° | 193.1  | 186.3  | 179.5  | 168.1  | 151.1  | 135.2  | 118.1  | 103.4 | 80.7  | 54.5  | 43.2 |
| 20°   | 347.6  | 343.1  | 302.2  | 270.4  | 219.3  | 182.9  | 148.8  | 123.8 | 87.5  | 51.1  | 38.6 |
| 22.5° | 716.8  | 669.1  | 602.1  | 493.0  | 384.0  | 282.9  | 205.6  | 155.6 | 94.3  | 46.6  | 34.1 |
| 25°   | 1292.8 | 1217.8 | 1073.5 | 863.4  | 637.3  | 451.0  | 297.6  | 203.3 | 104.5 | 42.0  | 29.5 |
| 27.5° | 1957.3 | 1881.2 | 1657.4 | 1367.8 | 998.6  | 680.5  | 424.9  | 269.2 | 118.1 | 37.5  | 26.1 |
| 30°   | 2665.1 | 2600.3 | 2316.3 | 1915.3 | 1407.5 | 953.1  | 569.1  | 336.3 | 132.9 | 32.9  | 22.7 |
| 31°   | 2950.2 | 2867.3 | 2560.6 | 2133.4 | 1599.5 | 1065.6 | 627.1  | 364.7 | 138.6 | 31.8  | 21.6 |
| 32°   | 3212.6 | 3118.4 | 2800.3 | 2342.5 | 1755.1 | 1187.1 | 690.7  | 389.7 | 143.1 | 29.5  | 20.4 |
| 33°   | 3438.7 | 3328.5 | 3021.8 | 2540.1 | 1926.7 | 1300.7 | 756.6  | 413.5 | 146.5 | 27.3  | 19.3 |
| 34°   | 3630.7 | 3535.3 | 3205.8 | 2738.9 | 2078.9 | 1409.8 | 821.3  | 437.4 | 148.8 | 26.1  | 18.2 |
| 35°   | 3794.3 | 3707.9 | 3381.9 | 2890.0 | 2227.7 | 1515.4 | 880.4  | 460.1 | 148.8 | 23.9  | 18.2 |
| 36°   | 3904.5 | 3829.5 | 3534.1 | 3044.5 | 2352.7 | 1605.2 | 930.4  | 480.5 | 148.8 | 21.6  | 17.0 |
| 37°   | 3964.7 | 3892.0 | 3634.1 | 3171.7 | 2475.4 | 1693.8 | 975.8  | 496.4 | 147.7 | 20.4  | 15.9 |
| 38°   | 3995.4 | 3931.7 | 3707.9 | 3275.1 | 2560.6 | 1757.4 | 1015.6 | 508.9 | 146.5 | 18.2  | 15.9 |
| 39°   | 4003.3 | 3949.9 | 3754.5 | 3350.1 | 2643.5 | 1821.0 | 1044.0 | 515.7 | 143.1 | 17.0  | 14.8 |
| 40°   | 3997.6 | 3951.1 | 3779.5 | 3417.1 | 2707.1 | 1871.0 | 1064.4 | 518.0 | 139.7 | 14.8  | 14.8 |
| 41°   | 3986.3 | 3949.9 | 3797.7 | 3463.7 | 2758.2 | 1902.8 | 1072.4 | 513.5 | 135.2 | 12.5  | 13.6 |
| 42°   | 3976.0 | 3936.3 | 3805.6 | 3495.5 | 2793.5 | 1918.7 | 1071.3 | 504.4 | 128.4 | 11.4  | 13.6 |
| 43°   | 3976.0 | 3930.6 | 3806.8 | 3516.0 | 2810.5 | 1919.9 | 1057.6 | 487.3 | 119.3 | 10.2  | 12.5 |
| 44°   | 3969.2 | 3927.2 | 3812.5 | 3529.6 | 2815.0 | 1909.6 | 1036.0 | 469.2 | 109.1 | 9.1   | 12.5 |
| 45°   | 3956.7 | 3912.4 | 3811.3 | 3530.7 | 2807.1 | 1884.6 | 1000.8 | 445.3 | 100.0 | 6.8   | 12.5 |
| 46°   | 3932.9 | 3893.1 | 3801.1 | 3522.8 | 2783.2 | 1848.3 | 958.8  | 421.5 | 89.7  | 5.7   | 11.4 |
| 47°   | 3885.2 | 3854.5 | 3773.8 | 3495.5 | 2746.9 | 1794.9 | 908.8  | 394.2 | 81.8  | 4.5   | 11.4 |
| 48°   | 3803.4 | 3781.8 | 3727.3 | 3435.3 | 2677.6 | 1729.0 | 855.4  | 364.7 | 73.8  | 4.5   | 11.4 |
| 49°   | 3653.4 | 3636.4 | 3604.6 | 3338.7 | 2589.0 | 1648.4 | 797.5  | 331.7 | 65.9  | 3.4   | 11.4 |
| 50°   | 3535.3 | 3517.1 | 3452.3 | 3176.3 | 2461.7 | 1546.1 | 733.9  | 298.8 | 56.8  | 2.3   | 10.2 |
| 51°   | 3456.9 | 3427.3 | 3325.1 | 2987.7 | 2276.6 | 1409.8 | 664.6  | 265.8 | 47.7  | 2.3   | 10.2 |
| 52°   | 3358.1 | 3313.7 | 3186.5 | 2818.4 | 2107.3 | 1273.5 | 589.6  | 232.9 | 42.0  | 2.3   | 10.2 |
| 53°   | 3151.3 | 3135.4 | 3009.3 | 2636.7 | 1938.0 | 1142.8 | 512.3  | 205.6 | 36.4  | 2.3   | 10.2 |
| 54°   | 2970.7 | 2946.8 | 2775.3 | 2384.5 | 1754.0 | 997.4  | 432.8  | 181.8 | 30.7  | 2.3   | 10.2 |
| 55°   | 2775.3 | 2728.7 | 2576.5 | 2172.1 | 1538.2 | 863.4  | 356.7  | 156.8 | 25.0  | 2.3   | 9.1  |
| 56°   | 2528.8 | 2487.9 | 2324.3 | 1944.9 | 1339.4 | 727.0  | 298.8  | 128.4 | 19.3  | 2.3   | 9.1  |
| 57°   | 2228.9 | 2191.4 | 2065.3 | 1665.4 | 1132.6 | 594.1  | 243.1  | 103.4 | 14.8  | 2.3   | 9.1  |
| 58°   | 1939.2 | 1897.1 | 1752.9 | 1397.3 | 914.5  | 471.4  | 203.3  | 84.1  | 11.4  | 2.3   | 9.1  |
| 59°   | 1716.5 | 1659.7 | 1473.4 | 1173.5 | 715.7  | 357.8  | 161.3  | 67.0  | 8.0   | 2.3   | 9.1  |
| 60°   | 1531.3 | 1484.8 | 1291.6 | 977.0  | 561.2  | 263.6  | 119.3  | 51.1  | 4.5   | 2.3   | 9.1  |
| 62.5° | 887.2  | 874.7  | 700.9  | 503.3  | 264.7  | 122.7  | 59.1   | 23.9  | 2.3   | 3.4   | 9.1  |
| 65°   | 264.7  | 230.6  | 179.5  | 106.8  | 68.2   | 40.9   | 21.6   | 8.0   | 1.1   | 3.4   | 8.0  |



TEST NUMBER: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 4.5 | 2.3 | 1.1 | 3.4   | 8.0 |
| 70°   | 4.5 | 3.4 | 3.4 | 3.4 | 3.4 | 2.3 | 2.3 | 1.1 | 1.1 | 3.4   | 6.8 |
| 72.5° | 3.4 | 3.4 | 3.4 | 3.4 | 2.3 | 2.3 | 2.3 | 1.1 | 2.3 | 3.4   | 5.7 |
| 75°   | 3.4 | 2.3 | 2.3 | 2.3 | 2.3 | 1.1 | 1.1 | 1.1 | 2.3 | 3.4   | 5.7 |
| 77.5° | 2.3 | 2.3 | 2.3 | 2.3 | 1.1 | 1.1 | 1.1 | 1.1 | 2.3 | 3.4   | 5.7 |
| 80°   | 2.3 | 2.3 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 3.4   | 4.5 |
| 82.5° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 3.4   | 4.5 |
| 85°   | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 3.4   | 4.5 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 3.4   | 3.4 |
| 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: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 63.6   | 63.6 | 63.6   | 63.6 |
| 2.5°  | 61.3   | 60.2 | 59.1   | 59.1 |
| 5°    | 59.1   | 56.8 | 56.8   | 55.7 |
| 7.5°  | 55.7   | 53.4 | 53.4   | 53.4 |
| 10°   | 52.3   | 51.1 | 51.1   | 50.0 |
| 12.5° | 47.7   | 47.7 | 47.7   | 47.7 |
| 15°   | 44.3   | 44.3 | 45.4   | 45.4 |
| 17.5° | 39.8   | 40.9 | 43.2   | 44.3 |
| 20°   | 36.4   | 38.6 | 40.9   | 42.0 |
| 22.5° | 34.1   | 36.4 | 39.8   | 40.9 |
| 25°   | 30.7   | 34.1 | 38.6   | 39.8 |
| 27.5° | 28.4   | 32.9 | 36.4   | 38.6 |
| 30°   | 26.1   | 31.8 | 35.2   | 37.5 |
| 31°   | 26.1   | 30.7 | 35.2   | 37.5 |
| 32°   | 25.0   | 29.5 | 35.2   | 36.4 |
| 33°   | 25.0   | 29.5 | 35.2   | 36.4 |
| 34°   | 23.9   | 29.5 | 34.1   | 36.4 |
| 35°   | 23.9   | 29.5 | 34.1   | 36.4 |
| 36°   | 22.7   | 28.4 | 34.1   | 36.4 |
| 37°   | 22.7   | 28.4 | 34.1   | 36.4 |
| 38°   | 21.6   | 28.4 | 34.1   | 36.4 |
| 39°   | 21.6   | 28.4 | 34.1   | 36.4 |
| 40°   | 21.6   | 28.4 | 34.1   | 36.4 |
| 41°   | 20.4   | 28.4 | 34.1   | 36.4 |
| 42°   | 20.4   | 28.4 | 34.1   | 36.4 |
| 43°   | 20.4   | 27.3 | 34.1   | 36.4 |
| 44°   | 20.4   | 27.3 | 34.1   | 36.4 |
| 45°   | 19.3   | 27.3 | 34.1   | 36.4 |
| 46°   | 19.3   | 27.3 | 34.1   | 36.4 |
| 47°   | 19.3   | 27.3 | 34.1   | 36.4 |
| 48°   | 19.3   | 27.3 | 34.1   | 36.4 |
| 49°   | 19.3   | 27.3 | 34.1   | 36.4 |
| 50°   | 18.2   | 26.1 | 34.1   | 36.4 |
| 51°   | 18.2   | 26.1 | 34.1   | 36.4 |
| 52°   | 18.2   | 26.1 | 34.1   | 36.4 |
| 53°   | 18.2   | 26.1 | 34.1   | 36.4 |
| 54°   | 17.0   | 26.1 | 34.1   | 36.4 |
| 55°   | 17.0   | 26.1 | 34.1   | 36.4 |
| 56°   | 17.0   | 26.1 | 34.1   | 35.2 |
| 57°   | 17.0   | 26.1 | 32.9   | 35.2 |
| 58°   | 17.0   | 25.0 | 32.9   | 35.2 |
| 59°   | 17.0   | 25.0 | 32.9   | 35.2 |
| 60°   | 17.0   | 25.0 | 32.9   | 35.2 |
| 62.5° | 15.9   | 25.0 | 31.8   | 34.1 |
| 65°   | 14.8   | 22.7 | 31.8   | 32.9 |





TEST NUMBER: P1306107

CATALOG NUMBER: P3SQASS17R409024DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 14.8   | 21.6 | 29.5   | 31.8 |
| 70°   | 13.6   | 20.4 | 28.4   | 30.7 |
| 72.5° | 11.4   | 19.3 | 26.1   | 28.4 |
| 75°   | 10.2   | 17.0 | 23.9   | 26.1 |
| 77.5° | 9.1    | 14.8 | 21.6   | 22.7 |
| 80°   | 8.0    | 12.5 | 18.2   | 20.4 |
| 82.5° | 5.7    | 9.1  | 14.8   | 15.9 |
| 85°   | 4.5    | 6.8  | 10.2   | 11.4 |
| 87.5° | 3.4    | 3.4  | 5.7    | 5.7  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)