

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: P1316241

Luminaire Tested: P3SQAS13R309827DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1316241  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS13R309827DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 98CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

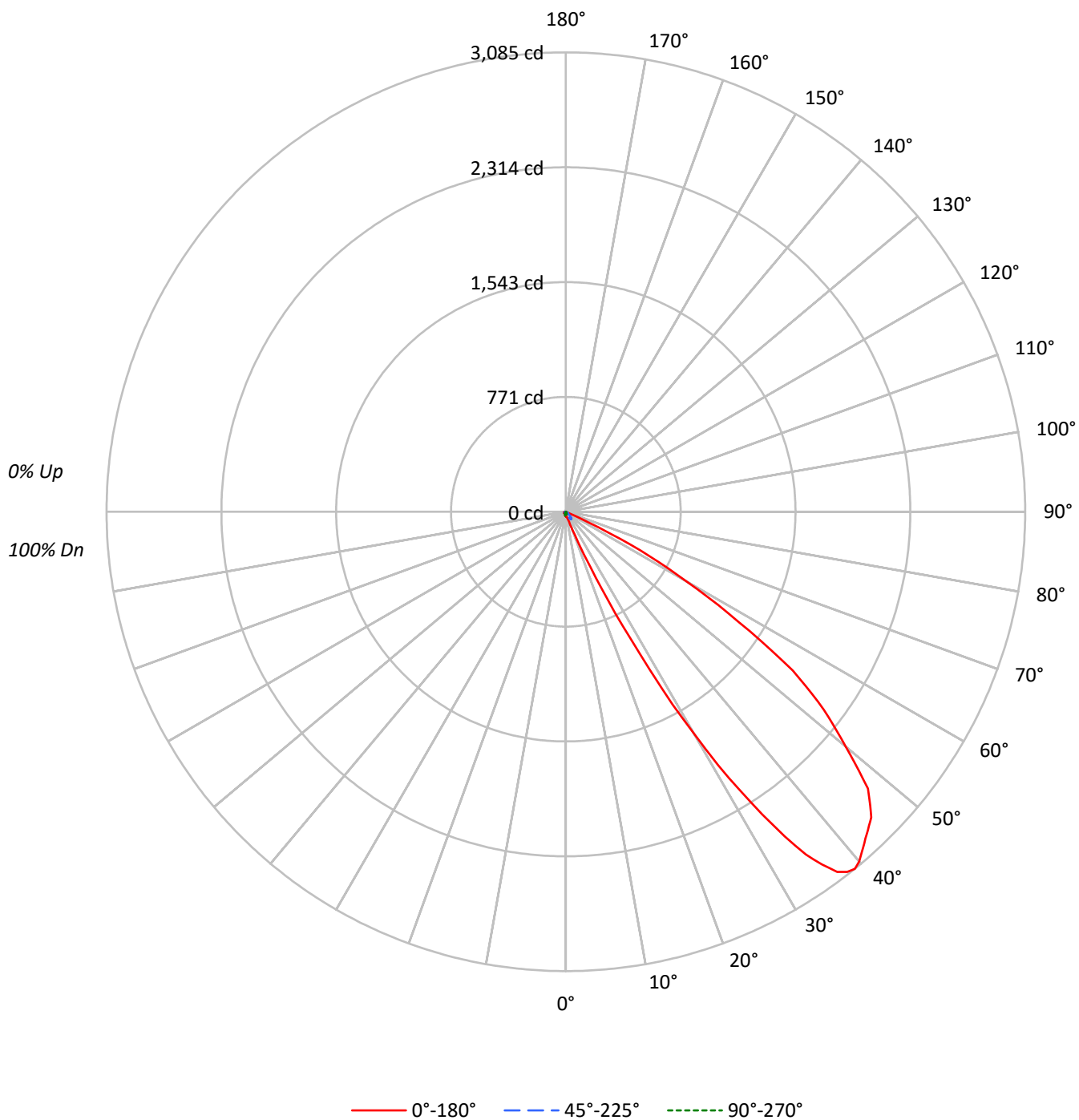
Lumens per Lamp: N/A  
Luminaire Lumens: 802.0 lumens  
Efficiency: N/A  
Efficacy: 55.3 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.5  
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: P1316241

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### Luminous Intensity Polar Plot



TEST NUMBER: P1316241

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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  | 30  | 10  | 50  | 30 | 10 |
| 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°  | 5356   | 5356  | 5356 | 5356 | 5356  |
| 5°  | 5722   | 5601  | 5256 | 4789 | 4668  |
| 10° | 6261   | 5561  | 4599 | 4127 | 4022  |
| 15° | 9147   | 5545  | 3851 | 3495 | 3619  |
| 20° | 23038  | 6066  | 2969 | 2969 | 3336  |
| 25° | 106947 | 7582  | 2318 | 2698 | 3078  |
| 30° | 340438 | 10480 | 1750 | 2545 | 3082  |
| 35° | 590725 | 12783 | 1430 | 2418 | 3133  |
| 40° | 688941 | 12747 | 1057 | 2428 | 3192  |
| 45° | 706542 | 9060  | 1145 | 2630 | 3459  |
| 50° | 657047 | 5064  | 911  | 2706 | 3992  |
| 55° | 558425 | 2642  | 1021 | 3033 | 4474  |
| 60° | 322504 | 689   | 1171 | 3272 | 4891  |
| 65° | 65813  | 0     | 1386 | 3871 | 5501  |
| 70° | 1007   | 352   | 1712 | 4431 | 6445  |
| 75° | 932    | 466   | 1797 | 4525 | 7652  |
| 80° | 694    | 694   | 2678 | 5356 | 8728  |
| 85° | 0      | 1383  | 5335 | 5335 | 10671 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 706542 cd/sqm

TEST NUMBER: P1316241

CATALOG NUMBER: P3SQAS13R309827DE010 E3SQCA451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.8    | 0.4       |
| 10°-20°   | 8.1    | 1.0       |
| 20°-30°   | 46.3   | 5.8       |
| 30°-40°   | 216.0  | 26.9      |
| 40°-50°   | 305.5  | 38.1      |
| 50°-60°   | 187.9  | 23.4      |
| 60°-70°   | 28.6   | 3.6       |
| 70°-80°   | 4.5    | 0.6       |
| 80°-90°   | 2.3    | 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°    | 57.1   | 7.1       |
| 0°-40°    | 273.2  | 34.1      |
| 0°-60°    | 766.6  | 95.6      |
| 0°-90°    | 802.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 802.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 31   | 31  | 31  | 31   | 31   |      |
| 5°  | 33   | 32  | 30  | 28   | 27   | 3    |
| 15° | 51   | 31  | 22  | 20   | 20   | 18   |
| 25° | 563  | 40  | 12  | 14   | 16   | 346  |
| 35° | 2810 | 61  | 7   | 12   | 15   | 1686 |
| 45° | 2901 | 37  | 5   | 11   | 14   | 2199 |
| 55° | 1860 | 9   | 3   | 10   | 15   | 1583 |
| 65° | 162  | 0   | 3   | 10   | 14   | 292  |
| 75° | 1    | 1   | 3   | 7    | 12   | 1    |
| 85° | 0    | 1   | 3   | 3    | 5    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1316241

CATALOG NUMBER: P3SQAS13R309827DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°  | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|--------|------|-------|------|--------|------|
| 0°    | 31.1   | 31.1   | 31.1   | 31.1   | 31.1   | 31.1   | 31.1 | 31.1  | 31.1 | 31.1   | 31.1 |
| 2.5°  | 31.8   | 31.8   | 32.4   | 32.4   | 31.8   | 32.4   | 32.4 | 32.4  | 31.1 | 30.4   | 29.0 |
| 5°    | 33.1   | 33.1   | 33.1   | 33.8   | 33.1   | 33.1   | 32.4 | 31.8  | 30.4 | 28.4   | 27.7 |
| 7.5°  | 34.5   | 34.5   | 33.8   | 34.5   | 33.8   | 33.8   | 32.4 | 31.1  | 29.0 | 27.0   | 25.7 |
| 10°   | 35.8   | 35.8   | 35.1   | 35.1   | 34.5   | 34.5   | 31.8 | 29.7  | 26.3 | 24.3   | 23.6 |
| 12.5° | 39.9   | 39.9   | 39.2   | 38.5   | 37.2   | 36.5   | 31.1 | 27.7  | 23.6 | 21.6   | 20.9 |
| 15°   | 51.3   | 50.7   | 49.3   | 47.3   | 43.9   | 43.2   | 31.1 | 25.7  | 21.6 | 19.6   | 19.6 |
| 17.5° | 70.3   | 69.6   | 67.6   | 62.2   | 56.1   | 54.0   | 31.1 | 23.0  | 18.9 | 17.6   | 17.6 |
| 20°   | 125.7  | 120.3  | 110.1  | 96.6   | 82.4   | 75.0   | 33.1 | 20.3  | 16.2 | 15.5   | 16.2 |
| 21°   | 164.2  | 158.8  | 145.9  | 123.6  | 98.6   | 90.5   | 34.5 | 19.6  | 15.5 | 14.9   | 16.2 |
| 22°   | 223.6  | 217.5  | 191.2  | 160.8  | 125.0  | 110.8  | 35.1 | 18.2  | 14.2 | 14.2   | 15.5 |
| 23°   | 312.1  | 302.0  | 257.4  | 208.8  | 156.1  | 135.8  | 36.5 | 17.6  | 13.5 | 14.2   | 14.9 |
| 24°   | 408.7  | 399.9  | 349.3  | 276.3  | 199.3  | 170.2  | 37.8 | 16.9  | 12.8 | 12.8   | 14.2 |
| 25°   | 562.8  | 552.6  | 462.8  | 348.6  | 252.7  | 204.7  | 39.9 | 15.5  | 12.2 | 12.2   | 14.2 |
| 26°   | 762.0  | 715.4  | 595.9  | 449.3  | 311.4  | 256.7  | 41.9 | 14.9  | 11.5 | 12.2   | 13.5 |
| 27°   | 951.2  | 912.7  | 778.3  | 576.3  | 385.1  | 315.5  | 44.6 | 14.2  | 10.8 | 11.5   | 13.5 |
| 28°   | 1199.8 | 1145.8 | 976.2  | 728.9  | 485.1  | 381.7  | 47.3 | 13.5  | 10.1 | 11.5   | 12.8 |
| 29°   | 1478.1 | 1402.5 | 1197.8 | 900.5  | 597.9  | 456.0  | 50.0 | 12.8  | 9.5  | 10.8   | 12.8 |
| 30°   | 1711.9 | 1641.0 | 1436.3 | 1103.9 | 727.6  | 554.0  | 52.7 | 12.2  | 8.8  | 10.8   | 12.8 |
| 31°   | 1986.2 | 1878.8 | 1630.8 | 1276.2 | 839.1  | 651.9  | 55.4 | 10.8  | 8.1  | 10.1   | 12.2 |
| 32°   | 2208.4 | 2133.5 | 1870.0 | 1470.7 | 985.7  | 760.0  | 57.4 | 10.1  | 8.1  | 10.1   | 12.2 |
| 33°   | 2423.3 | 2322.6 | 2067.9 | 1657.2 | 1118.1 | 870.8  | 59.5 | 9.5   | 7.4  | 9.5    | 12.2 |
| 34°   | 2628.6 | 2536.1 | 2255.1 | 1807.8 | 1243.1 | 976.2  | 60.8 | 8.1   | 7.4  | 9.5    | 11.5 |
| 35°   | 2809.7 | 2702.3 | 2419.9 | 1955.1 | 1371.4 | 1072.1 | 60.8 | 7.4   | 6.8  | 8.8    | 11.5 |
| 36°   | 2927.2 | 2850.2 | 2563.1 | 2100.4 | 1487.6 | 1163.3 | 60.8 | 6.8   | 6.1  | 8.8    | 10.8 |
| 37°   | 3027.9 | 2938.1 | 2678.0 | 2211.8 | 1573.4 | 1236.3 | 60.8 | 6.1   | 6.1  | 8.8    | 10.8 |
| 38°   | 3069.1 | 2992.1 | 2757.0 | 2310.5 | 1653.8 | 1310.6 | 60.1 | 5.4   | 5.4  | 8.1    | 10.8 |
| 39°   | 3085.3 | 3016.4 | 2816.5 | 2381.4 | 1713.2 | 1360.6 | 58.8 | 4.7   | 5.4  | 8.1    | 10.8 |
| 40°   | 3064.4 | 3012.4 | 2846.9 | 2427.3 | 1760.5 | 1397.1 | 56.7 | 4.1   | 4.7  | 8.1    | 10.8 |
| 42.5° | 2977.9 | 2943.5 | 2840.1 | 2473.3 | 1801.1 | 1424.1 | 49.3 | 2.7   | 4.7  | 7.4    | 10.8 |
| 45°   | 2900.9 | 2863.1 | 2771.9 | 2425.3 | 1748.4 | 1370.7 | 37.2 | 1.4   | 4.7  | 7.4    | 10.8 |
| 47.5° | 2751.6 | 2728.0 | 2656.3 | 2303.0 | 1632.9 | 1250.5 | 26.3 | 0.7   | 4.1  | 6.8    | 10.1 |
| 50°   | 2452.3 | 2430.0 | 2335.4 | 1999.7 | 1404.5 | 1057.3 | 18.9 | 0.7   | 3.4  | 6.8    | 10.1 |
| 52.5° | 2184.1 | 2160.5 | 2024.7 | 1662.6 | 1078.9 | 774.9  | 12.2 | 0.7   | 3.4  | 6.8    | 10.1 |
| 55°   | 1859.8 | 1818.6 | 1640.3 | 1262.0 | 764.7  | 519.5  | 8.8  | 0.7   | 3.4  | 6.1    | 10.1 |
| 57.5° | 1376.8 | 1316.7 | 1157.3 | 860.7  | 440.5  | 281.7  | 4.7  | 0.7   | 3.4  | 6.1    | 10.1 |
| 60°   | 936.3  | 900.5  | 724.2  | 454.0  | 187.8  | 118.9  | 2.0  | 0.7   | 3.4  | 6.1    | 9.5  |
| 62.5° | 567.5  | 522.2  | 364.1  | 193.2  | 81.1   | 54.0   | 0.0  | 1.4   | 3.4  | 6.1    | 9.5  |
| 65°   | 161.5  | 143.2  | 95.3   | 43.9   | 23.0   | 17.6   | 0.0  | 1.4   | 3.4  | 6.1    | 9.5  |
| 67.5° | 5.4    | 5.4    | 5.4    | 4.7    | 3.4    | 3.4    | 0.7  | 1.4   | 3.4  | 6.1    | 8.8  |
| 70°   | 2.0    | 2.0    | 2.0    | 1.4    | 1.4    | 0.7    | 0.7  | 1.4   | 3.4  | 5.4    | 8.8  |
| 72.5° | 1.4    | 1.4    | 1.4    | 1.4    | 0.7    | 0.7    | 0.7  | 1.4   | 2.7  | 4.7    | 8.1  |
| 75°   | 1.4    | 1.4    | 1.4    | 0.7    | 0.7    | 0.7    | 0.7  | 2.0   | 2.7  | 4.7    | 6.8  |
| 77.5° | 1.4    | 1.4    | 1.4    | 0.7    | 0.7    | 0.7    | 0.7  | 2.0   | 2.7  | 4.1    | 6.8  |
| 80°   | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7  | 2.0   | 2.7  | 4.1    | 5.4  |



TEST NUMBER: P1316241

CATALOG NUMBER: P3SQAS13R309827DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 | 0.0   | 0.7 | 2.0   | 2.7 | 2.7    | 4.1  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.7 | 2.0   | 2.7 | 2.0    | 2.7  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.7 | 2.0   | 2.0 | 2.0    | 1.4  |
| 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: P1316241

CATALOG NUMBER: P3SQAS13R309827DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 31.1   | 31.1 |
| 2.5°  | 29.0   | 29.0 |
| 5°    | 27.0   | 27.0 |
| 7.5°  | 25.0   | 25.0 |
| 10°   | 23.0   | 23.0 |
| 12.5° | 21.6   | 21.6 |
| 15°   | 19.6   | 20.3 |
| 17.5° | 18.2   | 18.9 |
| 20°   | 17.6   | 18.2 |
| 21°   | 17.6   | 18.2 |
| 22°   | 16.9   | 17.6 |
| 23°   | 16.9   | 17.6 |
| 24°   | 16.2   | 16.9 |
| 25°   | 15.5   | 16.2 |
| 26°   | 15.5   | 16.2 |
| 27°   | 15.5   | 16.2 |
| 28°   | 14.9   | 16.2 |
| 29°   | 14.9   | 15.5 |
| 30°   | 14.9   | 15.5 |
| 31°   | 14.2   | 15.5 |
| 32°   | 14.2   | 15.5 |
| 33°   | 14.2   | 14.9 |
| 34°   | 13.5   | 14.9 |
| 35°   | 13.5   | 14.9 |
| 36°   | 13.5   | 14.9 |
| 37°   | 13.5   | 14.2 |
| 38°   | 13.5   | 14.9 |
| 39°   | 13.5   | 14.2 |
| 40°   | 13.5   | 14.2 |
| 42.5° | 13.5   | 14.2 |
| 45°   | 13.5   | 14.2 |
| 47.5° | 13.5   | 14.9 |
| 50°   | 13.5   | 14.9 |
| 52.5° | 13.5   | 14.9 |
| 55°   | 13.5   | 14.9 |
| 57.5° | 13.5   | 14.2 |
| 60°   | 13.5   | 14.2 |
| 62.5° | 12.8   | 14.2 |
| 65°   | 12.8   | 13.5 |
| 67.5° | 12.8   | 13.5 |
| 70°   | 12.2   | 12.8 |
| 72.5° | 11.5   | 12.2 |
| 75°   | 10.1   | 11.5 |
| 77.5° | 9.5    | 10.1 |
| 80°   | 8.1    | 8.8  |

TEST NUMBER: P1316241

CATALOG NUMBER: P3SQAS13R309827DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 6.8    | 6.8  |
| 85°   | 4.7    | 5.4  |
| 87.5° | 2.7    | 2.7  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)