

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: P1305934

Luminaire Tested: P3SQAS13R359024DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305934  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS13R359024DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R35 optic, 2400K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

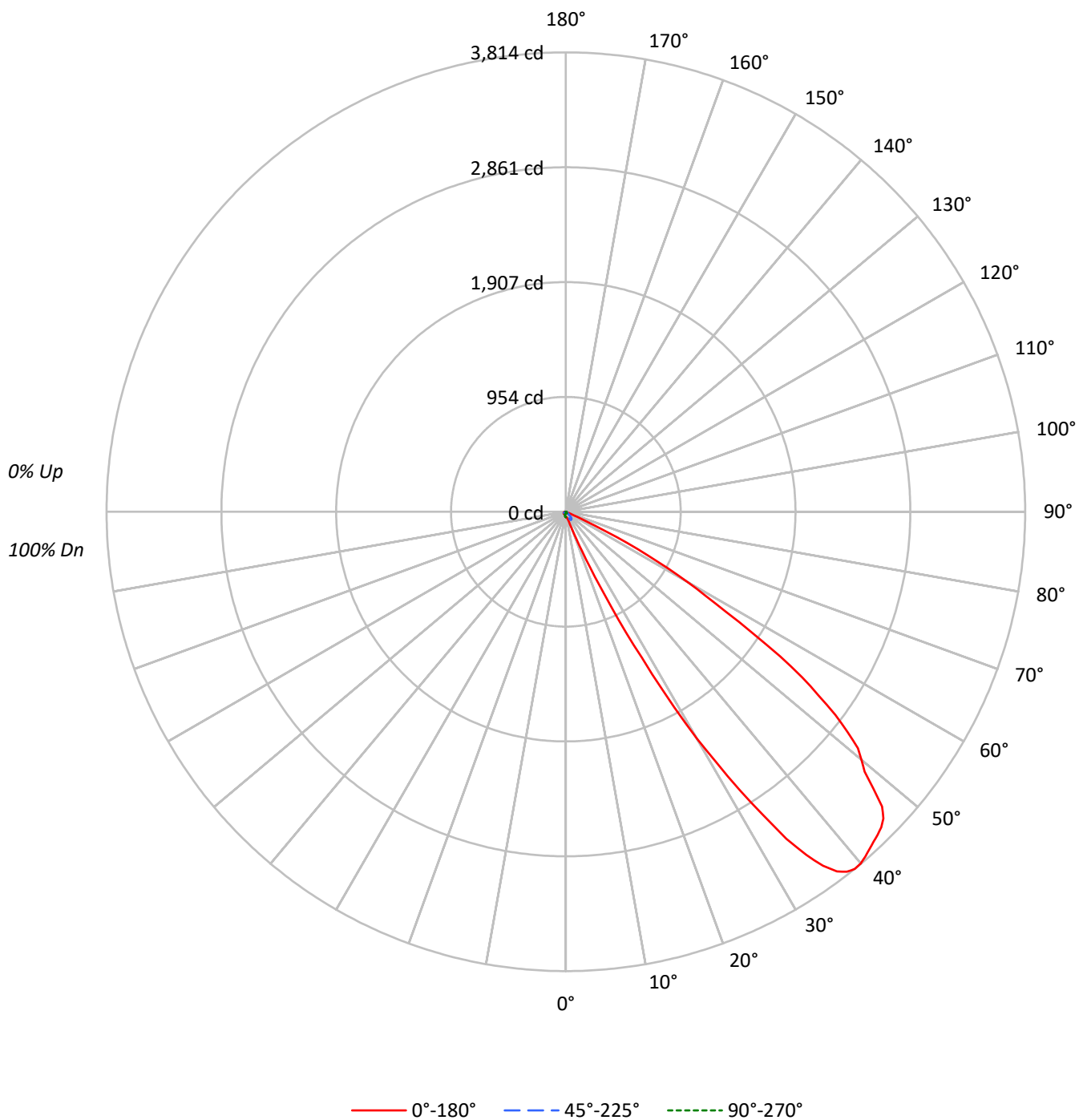
Lumens per Lamp: N/A  
Luminaire Lumens: 950.0 lumens  
Efficiency: N/A  
Efficacy: 65.1 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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: P1305934

CATALOG NUMBER: P3SQAS13R359024DE010 E3SQCA451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1305934

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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 55  | 49  | 44  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  | 50  | 43  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 31  | 42  | 36  | 31  |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 26  | 38  | 31  | 26  |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 22  | 34  | 27  | 22  |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  | 31  | 24  | 19  | 30  | 24  | 19  |

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

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 7526   | 7526  | 7526 | 7526 | 7526  |
| 5°  | 8160   | 8004  | 7417 | 6673 | 6518  |
| 10° | 8552   | 7800  | 6593 | 5701 | 5701  |
| 15° | 12231  | 7649  | 5349 | 4885 | 5046  |
| 20° | 30644  | 8174  | 4252 | 4252 | 4710  |
| 25° | 142273 | 10432 | 3268 | 3915 | 4409  |
| 30° | 432493 | 14159 | 2565 | 3580 | 4435  |
| 35° | 730938 | 16399 | 2166 | 3427 | 4331  |
| 40° | 856814 | 16187 | 1731 | 3462 | 4631  |
| 45° | 902315 | 11496 | 1461 | 3751 | 5017  |
| 50° | 858879 | 6886  | 1366 | 3912 | 5519  |
| 55° | 719696 | 2822  | 1531 | 4384 | 6426  |
| 60° | 402898 | 586   | 1757 | 5029 | 7096  |
| 65° | 69563  | 367   | 1752 | 5583 | 8028  |
| 70° | 1309   | 453   | 2165 | 6043 | 9064  |
| 75° | 1131   | 599   | 2861 | 6854 | 10247 |
| 80° | 893    | 893   | 3372 | 7637 | 11901 |
| 85° | 0      | 1778  | 6719 | 8497 | 13635 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 908717 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 3.9    | 0.4       |
| 10°-20°   | 11.2   | 1.2       |
| 20°-30°   | 58.3   | 6.1       |
| 30°-40°   | 251.7  | 26.5      |
| 40°-50°   | 359.1  | 37.8      |
| 50°-60°   | 222.4  | 23.4      |
| 60°-70°   | 33.8   | 3.6       |
| 70°-80°   | 6.3    | 0.7       |
| 80°-90°   | 3.2    | 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°    | 73.4   | 7.7       |
| 0°-40°    | 325.2  | 34.2      |
| 0°-60°    | 906.7  | 95.4      |
| 0°-90°    | 950.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 950.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 44   | 44  | 44  | 44   | 44   |      |
| 5°  | 47   | 46  | 43  | 39   | 38   | 5    |
| 15° | 69   | 43  | 30  | 27   | 28   | 25   |
| 25° | 749  | 55  | 17  | 21   | 23   | 448  |
| 35° | 3477 | 78  | 10  | 16   | 21   | 2087 |
| 45° | 3705 | 47  | 6   | 15   | 21   | 2799 |
| 55° | 2397 | 9   | 5   | 15   | 21   | 2041 |
| 65° | 171  | 1   | 4   | 14   | 20   | 349  |
| 75° | 2    | 1   | 4   | 10   | 15   | 2    |
| 85° | 0    | 1   | 3   | 4    | 7    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 45°  | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|-------|------|-------|------|--------|
| 0°    | 43.7   | 43.7   | 43.7   | 43.7   | 43.7   | 43.7   | 43.7  | 43.7 | 43.7  | 43.7 | 43.7   |
| 2.5°  | 45.5   | 45.5   | 45.5   | 45.5   | 45.5   | 45.5   | 45.5  | 45.5 | 45.5  | 43.7 | 42.9   |
| 5°    | 47.2   | 47.2   | 46.3   | 46.3   | 46.3   | 46.3   | 46.3  | 46.3 | 44.6  | 42.9 | 40.3   |
| 7.5°  | 48.0   | 48.0   | 47.2   | 47.2   | 47.2   | 47.2   | 46.3  | 45.5 | 43.7  | 40.3 | 37.7   |
| 10°   | 48.9   | 48.9   | 48.9   | 48.9   | 48.0   | 47.2   | 46.3  | 44.6 | 42.0  | 37.7 | 35.2   |
| 12.5° | 54.9   | 54.9   | 54.0   | 52.3   | 50.6   | 48.9   | 47.2  | 43.7 | 38.6  | 34.3 | 31.7   |
| 15°   | 68.6   | 67.7   | 66.0   | 63.5   | 60.0   | 55.7   | 52.3  | 42.9 | 35.2  | 30.0 | 28.3   |
| 17.5° | 96.0   | 94.3   | 91.8   | 83.2   | 75.5   | 67.7   | 60.9  | 42.9 | 31.7  | 26.6 | 24.9   |
| 20°   | 167.2  | 168.1  | 150.1  | 129.5  | 112.3  | 93.5   | 76.3  | 44.6 | 28.3  | 23.2 | 22.3   |
| 22.5° | 349.0  | 335.3  | 292.4  | 242.7  | 185.2  | 143.2  | 108.1 | 48.9 | 24.9  | 19.7 | 19.7   |
| 25°   | 748.7  | 696.4  | 592.6  | 447.7  | 315.6  | 223.8  | 156.9 | 54.9 | 22.3  | 17.2 | 18.0   |
| 27.5° | 1367.0 | 1319.8 | 1111.4 | 837.0  | 555.7  | 337.9  | 212.7 | 62.6 | 19.7  | 14.6 | 16.3   |
| 30°   | 2174.8 | 2044.5 | 1772.6 | 1372.1 | 928.8  | 517.1  | 285.6 | 71.2 | 16.3  | 12.9 | 15.4   |
| 31°   | 2426.9 | 2366.9 | 2035.9 | 1587.4 | 1088.3 | 614.0  | 316.4 | 73.8 | 15.4  | 12.9 | 14.6   |
| 32°   | 2726.2 | 2619.9 | 2323.2 | 1823.2 | 1250.3 | 700.6  | 353.3 | 76.3 | 14.6  | 11.1 | 14.6   |
| 33°   | 2993.8 | 2890.9 | 2529.9 | 2030.7 | 1414.1 | 799.3  | 392.8 | 77.2 | 12.9  | 11.1 | 13.7   |
| 34°   | 3275.1 | 3134.4 | 2776.8 | 2247.7 | 1582.2 | 905.6  | 428.8 | 78.0 | 12.0  | 10.3 | 13.7   |
| 35°   | 3476.6 | 3336.0 | 2989.5 | 2419.2 | 1727.2 | 999.9  | 470.0 | 78.0 | 11.1  | 10.3 | 12.9   |
| 36°   | 3632.7 | 3509.2 | 3173.0 | 2595.9 | 1871.2 | 1084.8 | 502.5 | 78.0 | 9.4   | 9.4  | 12.9   |
| 37°   | 3739.9 | 3622.4 | 3296.5 | 2747.7 | 1981.0 | 1160.3 | 531.7 | 78.0 | 8.6   | 9.4  | 12.9   |
| 38°   | 3792.2 | 3694.4 | 3415.7 | 2858.3 | 2087.3 | 1219.5 | 554.9 | 76.3 | 7.7   | 8.6  | 12.0   |
| 39°   | 3814.5 | 3734.8 | 3488.6 | 2951.8 | 2167.1 | 1270.9 | 572.0 | 74.6 | 6.9   | 8.6  | 12.0   |
| 40°   | 3811.1 | 3741.6 | 3529.8 | 3016.1 | 2231.4 | 1306.1 | 581.4 | 72.0 | 6.0   | 7.7  | 12.0   |
| 41°   | 3791.4 | 3731.3 | 3551.2 | 3071.0 | 2270.0 | 1330.1 | 584.0 | 69.5 | 5.1   | 7.7  | 11.1   |
| 42°   | 3769.1 | 3714.2 | 3558.1 | 3100.1 | 2294.9 | 1337.8 | 577.2 | 66.0 | 5.1   | 6.9  | 11.1   |
| 43°   | 3745.9 | 3695.3 | 3558.1 | 3109.6 | 2300.9 | 1332.7 | 566.0 | 60.0 | 4.3   | 6.9  | 11.1   |
| 44°   | 3727.0 | 3679.0 | 3546.9 | 3107.0 | 2288.0 | 1313.0 | 545.4 | 53.2 | 3.4   | 6.9  | 11.1   |
| 45°   | 3704.7 | 3657.6 | 3532.4 | 3090.7 | 2263.1 | 1279.5 | 519.7 | 47.2 | 2.6   | 6.0  | 11.1   |
| 46°   | 3665.3 | 3628.4 | 3506.6 | 3057.3 | 2223.7 | 1233.2 | 487.1 | 42.9 | 1.7   | 6.0  | 10.3   |
| 47°   | 3589.0 | 3557.2 | 3456.9 | 3007.5 | 2171.4 | 1178.3 | 453.7 | 38.6 | 1.7   | 6.0  | 10.3   |
| 48°   | 3435.5 | 3434.6 | 3357.4 | 2914.9 | 2088.2 | 1109.7 | 418.5 | 34.3 | 1.7   | 6.0  | 10.3   |
| 49°   | 3287.1 | 3271.7 | 3175.6 | 2752.0 | 1969.0 | 1027.4 | 381.6 | 30.9 | 0.9   | 6.0  | 10.3   |
| 50°   | 3205.6 | 3172.2 | 3014.4 | 2559.9 | 1816.4 | 913.3  | 342.2 | 25.7 | 0.9   | 5.1  | 10.3   |
| 51°   | 3120.7 | 3072.7 | 2886.6 | 2386.6 | 1634.5 | 803.6  | 299.3 | 20.6 | 0.9   | 5.1  | 9.4    |
| 52°   | 2967.2 | 2921.8 | 2713.4 | 2221.1 | 1457.9 | 691.2  | 258.1 | 17.2 | 0.9   | 5.1  | 10.3   |
| 53°   | 2801.7 | 2736.5 | 2510.1 | 2039.3 | 1302.7 | 591.7  | 216.1 | 14.6 | 0.9   | 5.1  | 9.4    |
| 54°   | 2593.3 | 2564.2 | 2304.3 | 1816.4 | 1120.9 | 495.7  | 177.5 | 12.0 | 0.9   | 5.1  | 9.4    |
| 55°   | 2396.9 | 2354.1 | 2083.9 | 1588.2 | 956.2  | 406.5  | 148.4 | 9.4  | 0.9   | 5.1  | 9.4    |
| 56°   | 2146.5 | 2082.2 | 1829.2 | 1379.0 | 789.0  | 327.6  | 125.2 | 7.7  | 0.9   | 5.1  | 9.4    |
| 57°   | 1848.1 | 1779.5 | 1579.7 | 1146.6 | 619.2  | 249.6  | 104.6 | 6.0  | 0.9   | 5.1  | 9.4    |
| 58°   | 1563.4 | 1504.2 | 1289.8 | 885.0  | 466.5  | 173.2  | 86.6  | 4.3  | 0.9   | 4.3  | 9.4    |
| 59°   | 1350.7 | 1285.5 | 1072.8 | 680.9  | 324.2  | 127.8  | 65.2  | 3.4  | 0.9   | 5.1  | 9.4    |
| 60°   | 1169.7 | 1085.7 | 863.6  | 527.4  | 231.5  | 91.8   | 48.0  | 1.7  | 1.7   | 5.1  | 9.4    |
| 62.5° | 674.1  | 595.2  | 412.5  | 214.4  | 95.2   | 47.2   | 23.2  | 0.9  | 1.7   | 5.1  | 9.4    |
| 65°   | 170.7  | 151.8  | 98.6   | 46.3   | 26.6   | 16.3   | 8.6   | 0.9  | 1.7   | 4.3  | 8.6    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 6.0 | 6.0 | 6.0 | 5.1 | 4.3 | 3.4 | 1.7 | 0.9 | 1.7   | 4.3 | 8.6    |
| 70°   | 2.6 | 2.6 | 2.6 | 1.7 | 1.7 | 0.9 | 0.9 | 0.9 | 1.7   | 4.3 | 7.7    |
| 72.5° | 1.7 | 1.7 | 1.7 | 1.7 | 0.9 | 0.9 | 0.9 | 0.9 | 2.6   | 4.3 | 6.9    |
| 75°   | 1.7 | 1.7 | 1.7 | 1.7 | 0.9 | 0.9 | 0.9 | 0.9 | 2.6   | 4.3 | 6.9    |
| 77.5° | 1.7 | 1.7 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 2.6   | 3.4 | 6.0    |
| 80°   | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 2.6   | 3.4 | 5.1    |
| 82.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 2.6   | 3.4 | 4.3    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.9 | 2.6   | 3.4 | 3.4    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 2.6   | 3.4 | 2.6    |
| 90°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 43.7 | 43.7   | 43.7 |
| 2.5°  | 41.2 | 41.2   | 41.2 |
| 5°    | 38.6 | 38.6   | 37.7 |
| 7.5°  | 36.0 | 35.2   | 35.2 |
| 10°   | 32.6 | 32.6   | 32.6 |
| 12.5° | 30.0 | 30.0   | 30.0 |
| 15°   | 27.4 | 28.3   | 28.3 |
| 17.5° | 24.9 | 26.6   | 26.6 |
| 20°   | 23.2 | 24.9   | 25.7 |
| 22.5° | 21.4 | 23.2   | 24.0 |
| 25°   | 20.6 | 22.3   | 23.2 |
| 27.5° | 18.9 | 21.4   | 23.2 |
| 30°   | 18.0 | 20.6   | 22.3 |
| 31°   | 18.0 | 20.6   | 21.4 |
| 32°   | 17.2 | 20.6   | 21.4 |
| 33°   | 17.2 | 20.6   | 21.4 |
| 34°   | 17.2 | 19.7   | 21.4 |
| 35°   | 16.3 | 19.7   | 20.6 |
| 36°   | 16.3 | 19.7   | 20.6 |
| 37°   | 16.3 | 19.7   | 21.4 |
| 38°   | 16.3 | 19.7   | 20.6 |
| 39°   | 15.4 | 19.7   | 20.6 |
| 40°   | 15.4 | 19.7   | 20.6 |
| 41°   | 15.4 | 19.7   | 20.6 |
| 42°   | 15.4 | 19.7   | 20.6 |
| 43°   | 15.4 | 19.7   | 20.6 |
| 44°   | 15.4 | 18.9   | 20.6 |
| 45°   | 15.4 | 18.9   | 20.6 |
| 46°   | 15.4 | 19.7   | 20.6 |
| 47°   | 15.4 | 19.7   | 21.4 |
| 48°   | 15.4 | 18.9   | 20.6 |
| 49°   | 14.6 | 18.9   | 20.6 |
| 50°   | 14.6 | 18.9   | 20.6 |
| 51°   | 14.6 | 19.7   | 21.4 |
| 52°   | 14.6 | 19.7   | 21.4 |
| 53°   | 14.6 | 19.7   | 21.4 |
| 54°   | 14.6 | 19.7   | 20.6 |
| 55°   | 14.6 | 19.7   | 21.4 |
| 56°   | 14.6 | 19.7   | 20.6 |
| 57°   | 14.6 | 19.7   | 20.6 |
| 58°   | 14.6 | 18.9   | 20.6 |
| 59°   | 14.6 | 18.9   | 20.6 |
| 60°   | 14.6 | 18.9   | 20.6 |
| 62.5° | 13.7 | 18.9   | 20.6 |
| 65°   | 13.7 | 18.0   | 19.7 |



TEST NUMBER: P1305934

CATALOG NUMBER: P3SQAS13R359024DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 12.9 | 18.0   | 18.9 |
| 70°   | 12.0 | 17.2   | 18.0 |
| 72.5° | 11.1 | 16.3   | 17.2 |
| 75°   | 10.3 | 14.6   | 15.4 |
| 77.5° | 8.6  | 12.9   | 14.6 |
| 80°   | 7.7  | 11.1   | 12.0 |
| 82.5° | 6.0  | 9.4    | 10.3 |
| 85°   | 4.3  | 6.9    | 6.9  |
| 87.5° | 1.7  | 3.4    | 3.4  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)