

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: P1310091

Luminaire Tested: P3SQAS09R359040DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1310091  
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: P3SQAS09R359040DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 90CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

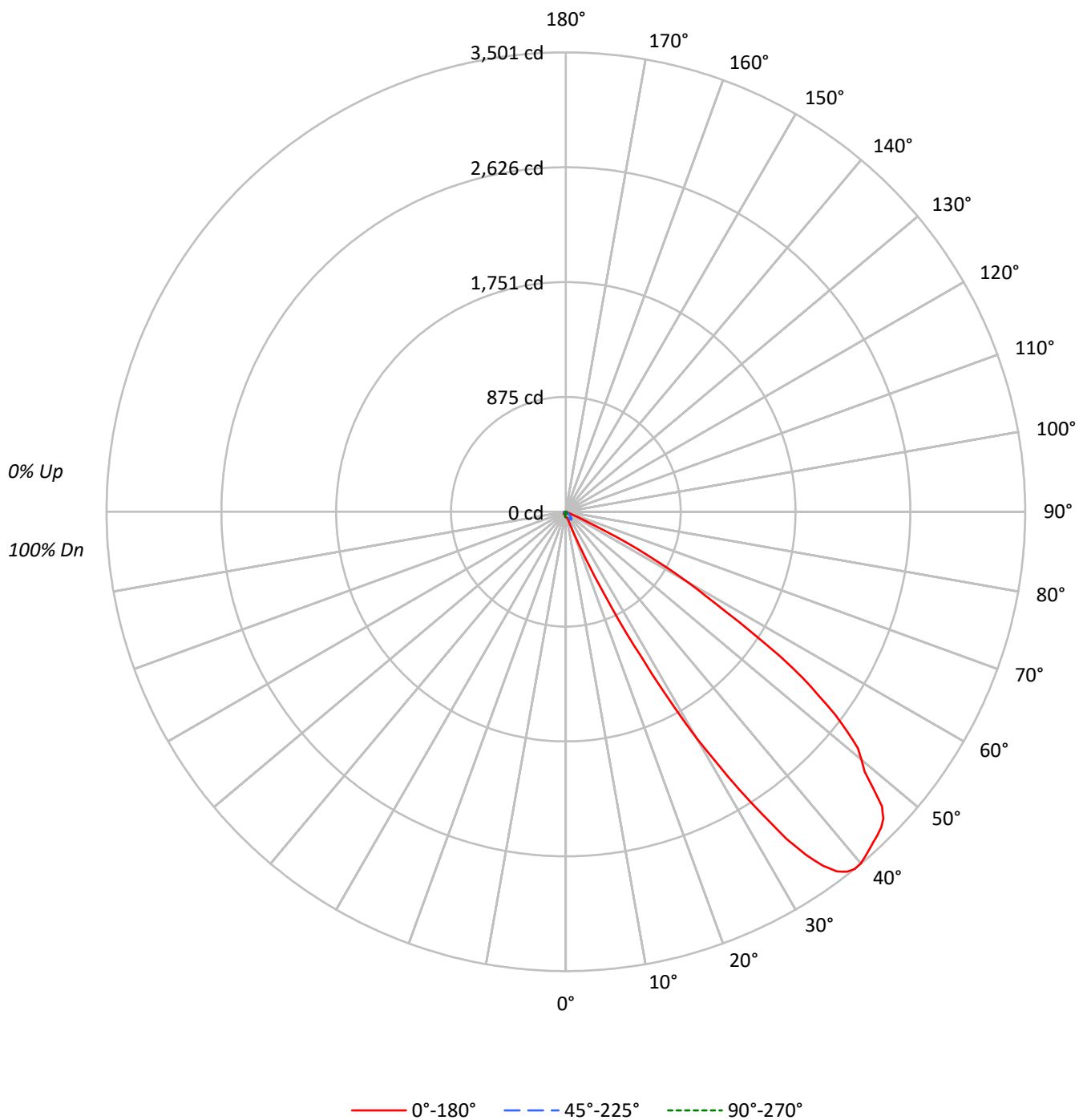
Lumens per Lamp: N/A  
Luminaire Lumens: 872.0 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 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: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

### Luminous Intensity Polar Plot



TEST NUMBER: P1310091

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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  | 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  | 107 | 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  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 55  | 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  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 31  | 42  | 36  | 31  | 29  |    |    |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 26  | 38  | 31  | 26  | 24  |    |    |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 22  | 34  | 27  | 22  | 20  |    |    |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  | 31  | 24  | 19  | 30  | 24  | 19  | 17  |    |    |

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

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 6906   | 6906  | 6906 | 6906 | 6906  |
| 5°  | 7486   | 7347  | 6811 | 6120 | 5982  |
| 10° | 7852   | 7153  | 6051 | 5229 | 5229  |
| 15° | 11233  | 7025  | 4921 | 4493 | 4636  |
| 20° | 28133  | 7496  | 3904 | 3904 | 4325  |
| 25° | 130586 | 9577  | 2983 | 3592 | 4048  |
| 30° | 396995 | 12986 | 2347 | 3281 | 4077  |
| 35° | 670934 | 15054 | 1976 | 3154 | 3974  |
| 40° | 786468 | 14861 | 1596 | 3192 | 4249  |
| 45° | 828249 | 10546 | 1340 | 3459 | 4603  |
| 50° | 788360 | 6323  | 1259 | 3590 | 5064  |
| 55° | 660604 | 2612  | 1411 | 4023 | 5915  |
| 60° | 369831 | 551   | 1619 | 4616 | 6510  |
| 65° | 63817  | 326   | 1589 | 5135 | 7376  |
| 70° | 1209   | 403   | 1964 | 5539 | 8308  |
| 75° | 1065   | 532   | 2595 | 6255 | 9449  |
| 80° | 793    | 793   | 3075 | 7042 | 10910 |
| 85° | 0      | 1581  | 6126 | 7707 | 12449 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 834116 cd/sqm

TEST NUMBER: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 3.6    | 0.4       |
| 10°-20°   | 10.3   | 1.2       |
| 20°-30°   | 53.5   | 6.1       |
| 30°-40°   | 231.1  | 26.5      |
| 40°-50°   | 329.6  | 37.8      |
| 50°-60°   | 204.1  | 23.4      |
| 60°-70°   | 31.1   | 3.6       |
| 70°-80°   | 5.8    | 0.7       |
| 80°-90°   | 2.9    | 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°    | 67.4   | 7.7       |
| 0°-40°    | 298.5  | 34.2      |
| 0°-60°    | 832.2  | 95.4      |
| 0°-90°    | 872.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 872.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 40   | 40  | 40  | 40   | 40   |      |
| 5°  | 43   | 42  | 39  | 35   | 35   | 4    |
| 15° | 63   | 39  | 28  | 25   | 26   | 23   |
| 25° | 687  | 50  | 16  | 19   | 21   | 411  |
| 35° | 3191 | 72  | 9   | 15   | 19   | 1916 |
| 45° | 3401 | 43  | 6   | 14   | 19   | 2569 |
| 55° | 2200 | 9   | 5   | 13   | 20   | 1874 |
| 65° | 157  | 1   | 4   | 13   | 18   | 320  |
| 75° | 2    | 1   | 4   | 9    | 14   | 2    |
| 85° | 0    | 1   | 3   | 4    | 6    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 45°  | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|-------|------|-------|------|--------|
| 0°    | 40.1   | 40.1   | 40.1   | 40.1   | 40.1   | 40.1   | 40.1  | 40.1 | 40.1  | 40.1 | 40.1   |
| 2.5°  | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7  | 41.7 | 41.7  | 40.1 | 39.4   |
| 5°    | 43.3   | 43.3   | 42.5   | 42.5   | 42.5   | 42.5   | 42.5  | 42.5 | 40.9  | 39.4 | 37.0   |
| 7.5°  | 44.1   | 44.1   | 43.3   | 43.3   | 43.3   | 43.3   | 42.5  | 41.7 | 40.1  | 37.0 | 34.6   |
| 10°   | 44.9   | 44.9   | 44.9   | 44.9   | 44.1   | 43.3   | 42.5  | 40.9 | 38.6  | 34.6 | 32.3   |
| 12.5° | 50.4   | 50.4   | 49.6   | 48.0   | 46.4   | 44.9   | 43.3  | 40.1 | 35.4  | 31.5 | 29.1   |
| 15°   | 63.0   | 62.2   | 60.6   | 58.3   | 55.1   | 51.2   | 48.0  | 39.4 | 32.3  | 27.6 | 26.0   |
| 17.5° | 88.2   | 86.6   | 84.2   | 76.4   | 69.3   | 62.2   | 55.9  | 39.4 | 29.1  | 24.4 | 22.8   |
| 20°   | 153.5  | 154.3  | 137.8  | 118.9  | 103.1  | 85.8   | 70.1  | 40.9 | 26.0  | 21.3 | 20.5   |
| 22.5° | 320.4  | 307.8  | 268.4  | 222.8  | 170.0  | 131.5  | 99.2  | 44.9 | 22.8  | 18.1 | 18.1   |
| 25°   | 687.2  | 639.2  | 543.9  | 410.9  | 289.7  | 205.5  | 144.1 | 50.4 | 20.5  | 15.7 | 16.5   |
| 27.5° | 1254.7 | 1211.4 | 1020.2 | 768.3  | 510.1  | 310.1  | 195.2 | 57.5 | 18.1  | 13.4 | 15.0   |
| 30°   | 1996.3 | 1876.6 | 1627.1 | 1259.5 | 852.5  | 474.7  | 262.1 | 65.3 | 15.0  | 11.8 | 14.2   |
| 31°   | 2227.7 | 2172.6 | 1868.7 | 1457.0 | 998.9  | 563.6  | 290.5 | 67.7 | 14.2  | 11.8 | 13.4   |
| 32°   | 2502.4 | 2404.8 | 2132.4 | 1673.5 | 1147.7 | 643.1  | 324.3 | 70.1 | 13.4  | 10.2 | 13.4   |
| 33°   | 2748.0 | 2653.5 | 2322.1 | 1864.0 | 1298.0 | 733.6  | 360.5 | 70.8 | 11.8  | 10.2 | 12.6   |
| 34°   | 3006.2 | 2877.1 | 2548.8 | 2063.2 | 1452.3 | 831.2  | 393.6 | 71.6 | 11.0  | 9.4  | 12.6   |
| 35°   | 3191.2 | 3062.1 | 2744.1 | 2220.6 | 1585.4 | 917.8  | 431.4 | 71.6 | 10.2  | 9.4  | 11.8   |
| 36°   | 3334.4 | 3221.1 | 2912.5 | 2382.8 | 1717.6 | 995.8  | 461.3 | 71.6 | 8.7   | 8.7  | 11.8   |
| 37°   | 3432.8 | 3325.0 | 3025.9 | 2522.1 | 1818.4 | 1065.0 | 488.0 | 71.6 | 7.9   | 8.7  | 11.8   |
| 38°   | 3480.9 | 3391.1 | 3135.3 | 2623.6 | 1916.0 | 1119.4 | 509.3 | 70.1 | 7.1   | 7.9  | 11.0   |
| 39°   | 3501.3 | 3428.1 | 3202.2 | 2709.4 | 1989.2 | 1166.6 | 525.0 | 68.5 | 6.3   | 7.9  | 11.0   |
| 40°   | 3498.2 | 3434.4 | 3240.0 | 2768.5 | 2048.2 | 1198.9 | 533.7 | 66.1 | 5.5   | 7.1  | 11.0   |
| 41°   | 3480.1 | 3425.0 | 3259.7 | 2818.8 | 2083.6 | 1220.9 | 536.1 | 63.8 | 4.7   | 7.1  | 10.2   |
| 42°   | 3459.6 | 3409.2 | 3266.0 | 2845.6 | 2106.5 | 1228.0 | 529.8 | 60.6 | 4.7   | 6.3  | 10.2   |
| 43°   | 3438.3 | 3391.9 | 3266.0 | 2854.3 | 2112.0 | 1223.3 | 519.5 | 55.1 | 3.9   | 6.3  | 10.2   |
| 44°   | 3421.0 | 3376.9 | 3255.7 | 2851.9 | 2100.2 | 1205.2 | 500.6 | 48.8 | 3.1   | 6.3  | 10.2   |
| 45°   | 3400.6 | 3357.3 | 3242.3 | 2836.9 | 2077.3 | 1174.5 | 477.0 | 43.3 | 2.4   | 5.5  | 10.2   |
| 46°   | 3364.4 | 3330.5 | 3218.7 | 2806.2 | 2041.1 | 1131.9 | 447.1 | 39.4 | 1.6   | 5.5  | 9.4    |
| 47°   | 3294.3 | 3265.2 | 3173.1 | 2760.6 | 1993.1 | 1081.6 | 416.4 | 35.4 | 1.6   | 5.5  | 9.4    |
| 48°   | 3153.4 | 3152.6 | 3081.8 | 2675.6 | 1916.8 | 1018.6 | 384.1 | 31.5 | 1.6   | 5.5  | 9.4    |
| 49°   | 3017.2 | 3003.0 | 2914.9 | 2526.0 | 1807.3 | 943.0  | 350.3 | 28.3 | 0.8   | 5.5  | 9.4    |
| 50°   | 2942.4 | 2911.7 | 2766.9 | 2349.7 | 1667.2 | 838.3  | 314.1 | 23.6 | 0.8   | 4.7  | 9.4    |
| 51°   | 2864.5 | 2820.4 | 2649.6 | 2190.7 | 1500.3 | 737.6  | 274.7 | 18.9 | 0.8   | 4.7  | 8.7    |
| 52°   | 2723.6 | 2681.9 | 2490.6 | 2038.8 | 1338.2 | 634.5  | 236.9 | 15.7 | 0.8   | 4.7  | 9.4    |
| 53°   | 2571.7 | 2511.8 | 2304.0 | 1871.9 | 1195.7 | 543.1  | 198.4 | 13.4 | 0.8   | 4.7  | 8.7    |
| 54°   | 2380.4 | 2353.6 | 2115.1 | 1667.2 | 1028.8 | 455.0  | 162.9 | 11.0 | 0.8   | 4.7  | 8.7    |
| 55°   | 2200.1 | 2160.8 | 1912.8 | 1457.8 | 877.7  | 373.1  | 136.2 | 8.7  | 0.8   | 4.7  | 8.7    |
| 56°   | 1970.3 | 1911.2 | 1679.0 | 1265.8 | 724.2  | 300.7  | 114.9 | 7.1  | 0.8   | 4.7  | 8.7    |
| 57°   | 1696.3 | 1633.4 | 1450.0 | 1052.4 | 568.3  | 229.1  | 96.0  | 5.5  | 0.8   | 4.7  | 8.7    |
| 58°   | 1435.0 | 1380.7 | 1183.9 | 812.4  | 428.2  | 159.0  | 79.5  | 3.9  | 0.8   | 3.9  | 8.7    |
| 59°   | 1239.8 | 1180.0 | 984.7  | 625.0  | 297.5  | 117.3  | 59.8  | 3.1  | 0.8   | 4.7  | 8.7    |
| 60°   | 1073.7 | 996.6  | 792.7  | 484.1  | 212.5  | 84.2   | 44.1  | 1.6  | 1.6   | 4.7  | 8.7    |
| 62.5° | 618.7  | 546.3  | 378.6  | 196.8  | 87.4   | 43.3   | 21.3  | 0.8  | 1.6   | 4.7  | 8.7    |
| 65°   | 156.6  | 139.3  | 90.5   | 42.5   | 24.4   | 15.0   | 7.9   | 0.8  | 1.6   | 3.9  | 7.9    |



TEST NUMBER: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 5.5 | 5.5 | 5.5 | 4.7 | 3.9 | 3.1 | 1.6 | 0.8 | 1.6   | 3.9 | 7.9    |
| 70°   | 2.4 | 2.4 | 2.4 | 1.6 | 1.6 | 0.8 | 0.8 | 0.8 | 1.6   | 3.9 | 7.1    |
| 72.5° | 1.6 | 1.6 | 1.6 | 1.6 | 0.8 | 0.8 | 0.8 | 0.8 | 2.4   | 3.9 | 6.3    |
| 75°   | 1.6 | 1.6 | 1.6 | 1.6 | 0.8 | 0.8 | 0.8 | 0.8 | 2.4   | 3.9 | 6.3    |
| 77.5° | 1.6 | 1.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.4   | 3.1 | 5.5    |
| 80°   | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.4   | 3.1 | 4.7    |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.4   | 3.1 | 3.9    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 | 2.4   | 3.1 | 3.1    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 2.4   | 3.1 | 2.4    |
| 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: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 40.1 | 40.1   | 40.1 |
| 2.5°  | 37.8 | 37.8   | 37.8 |
| 5°    | 35.4 | 35.4   | 34.6 |
| 7.5°  | 33.1 | 32.3   | 32.3 |
| 10°   | 29.9 | 29.9   | 29.9 |
| 12.5° | 27.6 | 27.6   | 27.6 |
| 15°   | 25.2 | 26.0   | 26.0 |
| 17.5° | 22.8 | 24.4   | 24.4 |
| 20°   | 21.3 | 22.8   | 23.6 |
| 22.5° | 19.7 | 21.3   | 22.0 |
| 25°   | 18.9 | 20.5   | 21.3 |
| 27.5° | 17.3 | 19.7   | 21.3 |
| 30°   | 16.5 | 18.9   | 20.5 |
| 31°   | 16.5 | 18.9   | 19.7 |
| 32°   | 15.7 | 18.9   | 19.7 |
| 33°   | 15.7 | 18.9   | 19.7 |
| 34°   | 15.7 | 18.1   | 19.7 |
| 35°   | 15.0 | 18.1   | 18.9 |
| 36°   | 15.0 | 18.1   | 18.9 |
| 37°   | 15.0 | 18.1   | 19.7 |
| 38°   | 15.0 | 18.1   | 18.9 |
| 39°   | 14.2 | 18.1   | 18.9 |
| 40°   | 14.2 | 18.1   | 18.9 |
| 41°   | 14.2 | 18.1   | 18.9 |
| 42°   | 14.2 | 18.1   | 18.9 |
| 43°   | 14.2 | 18.1   | 18.9 |
| 44°   | 14.2 | 17.3   | 18.9 |
| 45°   | 14.2 | 17.3   | 18.9 |
| 46°   | 14.2 | 18.1   | 18.9 |
| 47°   | 14.2 | 18.1   | 19.7 |
| 48°   | 14.2 | 17.3   | 18.9 |
| 49°   | 13.4 | 17.3   | 18.9 |
| 50°   | 13.4 | 17.3   | 18.9 |
| 51°   | 13.4 | 18.1   | 19.7 |
| 52°   | 13.4 | 18.1   | 19.7 |
| 53°   | 13.4 | 18.1   | 19.7 |
| 54°   | 13.4 | 18.1   | 18.9 |
| 55°   | 13.4 | 18.1   | 19.7 |
| 56°   | 13.4 | 18.1   | 18.9 |
| 57°   | 13.4 | 18.1   | 18.9 |
| 58°   | 13.4 | 17.3   | 18.9 |
| 59°   | 13.4 | 17.3   | 18.9 |
| 60°   | 13.4 | 17.3   | 18.9 |
| 62.5° | 12.6 | 17.3   | 18.9 |
| 65°   | 12.6 | 16.5   | 18.1 |



TEST NUMBER: P1310091

CATALOG NUMBER: P3SQAS09R359040DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 11.8 | 16.5   | 17.3 |
| 70°   | 11.0 | 15.7   | 16.5 |
| 72.5° | 10.2 | 15.0   | 15.7 |
| 75°   | 9.4  | 13.4   | 14.2 |
| 77.5° | 7.9  | 11.8   | 13.4 |
| 80°   | 7.1  | 10.2   | 11.0 |
| 82.5° | 5.5  | 8.7    | 9.4  |
| 85°   | 3.9  | 6.3    | 6.3  |
| 87.5° | 1.6  | 3.1    | 3.1  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)