

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: P1305456

Luminaire Tested: P3SQASS02R409024DE010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305456  
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: P3SQASS02R409024DE010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R40 optic, 2400K CCT AND, 90CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

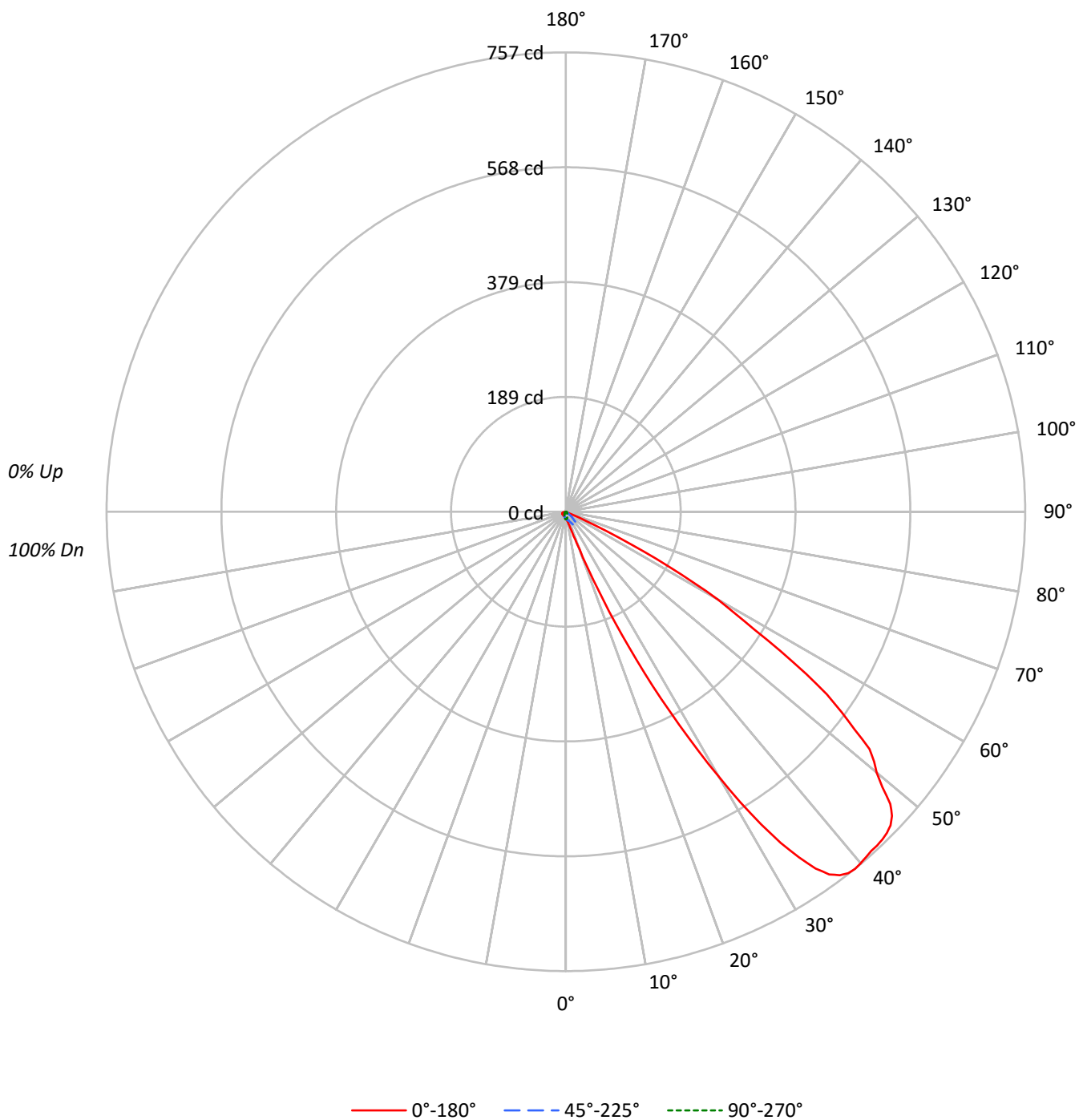
Lumens per Lamp: N/A  
Luminaire Lumens: 234.0 lumens  
Efficiency: N/A  
Efficacy: 65.0 lumens/watt  
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.55  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
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: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

### Luminous Intensity Polar Plot



TEST NUMBER: P1305456

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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  | 73  |
| 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°  | 2067   | 2067 | 2067 | 2067 | 2067 |
| 5°  | 2299   | 2230 | 2040 | 1850 | 1815 |
| 10° | 2781   | 2361 | 1871 | 1696 | 1661 |
| 15° | 4564   | 2567 | 1605 | 1498 | 1533 |
| 20° | 12060  | 3024 | 1338 | 1338 | 1466 |
| 25° | 46481  | 3763 | 1064 | 1216 | 1425 |
| 30° | 100248 | 4992 | 855  | 1193 | 1412 |
| 35° | 150914 | 5929 | 715  | 1177 | 1451 |
| 40° | 170009 | 5935 | 629  | 1214 | 1551 |
| 45° | 182304 | 4603 | 585  | 1267 | 1681 |
| 50° | 179192 | 2867 | 509  | 1313 | 1849 |
| 55° | 157637 | 1411 | 510  | 1471 | 2072 |
| 60° | 99786  | 310  | 586  | 1619 | 2308 |
| 65° | 20416  | 82   | 611  | 1752 | 2527 |
| 70° | 453    | 101  | 655  | 1964 | 2921 |
| 75° | 399    | 266  | 732  | 2129 | 3261 |
| 80° | 397    | 198  | 893  | 2380 | 3868 |
| 85° | 395    | 395  | 1778 | 2569 | 4150 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 185582 cd/sqm

TEST NUMBER: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.1    | 0.5       |
| 10°-20°   | 3.7    | 1.6       |
| 20°-30°   | 18.2   | 7.8       |
| 30°-40°   | 59.1   | 25.3      |
| 40°-50°   | 81.5   | 34.8      |
| 50°-60°   | 56.8   | 24.3      |
| 60°-70°   | 10.8   | 4.6       |
| 70°-80°   | 1.9    | 0.8       |
| 80°-90°   | 0.9    | 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°    | 23.0   | 9.8       |
| 0°-40°    | 82.1   | 35.1      |
| 0°-60°    | 220.4  | 94.2      |
| 0°-90°    | 234.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 234.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 12  | 12  | 12  | 12   | 12   |      |
| 5°  | 13  | 13  | 12  | 11   | 10   | 1    |
| 15° | 26  | 14  | 9   | 8    | 9    | 9    |
| 25° | 245 | 20  | 6   | 6    | 8    | 126  |
| 35° | 718 | 28  | 3   | 6    | 7    | 434  |
| 45° | 748 | 19  | 2   | 5    | 7    | 569  |
| 55° | 525 | 5   | 2   | 5    | 7    | 449  |
| 65° | 50  | 0   | 2   | 4    | 6    | 89   |
| 75° | 1   | 0   | 1   | 3    | 5    | 1    |
| 85° | 0   | 0   | 1   | 1    | 2    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°  | 45°  | 67.5° | 90°  |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|------|
| 0°    | 12.0  | 12.0  | 12.0  | 12.0  | 12.0  | 12.0  | 12.0  | 12.0 | 12.0 | 12.0  | 12.0 |
| 2.5°  | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  | 12.5 | 12.5 | 12.2  | 12.0 |
| 5°    | 13.3  | 13.3  | 13.3  | 13.3  | 13.1  | 13.1  | 13.1  | 12.9 | 12.9 | 12.5  | 11.8 |
| 7.5°  | 14.2  | 14.2  | 14.2  | 14.2  | 14.0  | 13.8  | 13.5  | 13.5 | 13.3 | 12.2  | 11.4 |
| 10°   | 15.9  | 15.9  | 15.7  | 15.5  | 15.3  | 14.8  | 14.6  | 14.2 | 13.5 | 12.0  | 10.7 |
| 12.5° | 19.3  | 18.9  | 18.7  | 18.3  | 17.6  | 16.8  | 15.9  | 15.3 | 13.8 | 11.6  | 10.1 |
| 15°   | 25.6  | 25.1  | 24.3  | 23.0  | 21.7  | 20.0  | 18.5  | 17.0 | 14.4 | 11.0  | 9.0  |
| 17.5° | 36.5  | 35.2  | 34.0  | 31.8  | 28.6  | 25.6  | 22.3  | 19.6 | 15.3 | 10.3  | 8.2  |
| 20°   | 65.8  | 64.9  | 57.2  | 51.1  | 41.5  | 34.6  | 28.2  | 23.4 | 16.5 | 9.7   | 7.3  |
| 22.5° | 135.6 | 126.6 | 113.9 | 93.3  | 72.6  | 53.5  | 38.9  | 29.4 | 17.8 | 8.8   | 6.4  |
| 25°   | 244.6 | 230.4 | 203.1 | 163.3 | 120.6 | 85.3  | 56.3  | 38.5 | 19.8 | 8.0   | 5.6  |
| 27.5° | 370.3 | 355.9 | 313.5 | 258.7 | 188.9 | 128.7 | 80.4  | 50.9 | 22.3 | 7.1   | 4.9  |
| 30°   | 504.1 | 491.9 | 438.2 | 362.3 | 266.3 | 180.3 | 107.7 | 63.6 | 25.1 | 6.2   | 4.3  |
| 31°   | 558.1 | 542.4 | 484.4 | 403.6 | 302.6 | 201.6 | 118.6 | 69.0 | 26.2 | 6.0   | 4.1  |
| 32°   | 607.7 | 589.9 | 529.7 | 443.1 | 332.0 | 224.6 | 130.7 | 73.7 | 27.1 | 5.6   | 3.9  |
| 33°   | 650.5 | 629.6 | 571.6 | 480.5 | 364.5 | 246.1 | 143.1 | 78.2 | 27.7 | 5.2   | 3.7  |
| 34°   | 686.8 | 668.8 | 606.4 | 518.1 | 393.3 | 266.7 | 155.4 | 82.7 | 28.2 | 4.9   | 3.4  |
| 35°   | 717.8 | 701.4 | 639.7 | 546.7 | 421.4 | 286.7 | 166.5 | 87.0 | 28.2 | 4.5   | 3.4  |
| 36°   | 738.6 | 724.4 | 668.5 | 575.9 | 445.1 | 303.6 | 176.0 | 90.9 | 28.2 | 4.1   | 3.2  |
| 37°   | 750.0 | 736.2 | 687.5 | 600.0 | 468.3 | 320.4 | 184.6 | 93.9 | 27.9 | 3.9   | 3.0  |
| 38°   | 755.8 | 743.8 | 701.4 | 619.5 | 484.4 | 332.4 | 192.1 | 96.3 | 27.7 | 3.4   | 3.0  |
| 39°   | 757.3 | 747.2 | 710.2 | 633.7 | 500.1 | 344.5 | 197.5 | 97.6 | 27.1 | 3.2   | 2.8  |
| 40°   | 756.2 | 747.4 | 715.0 | 646.4 | 512.1 | 353.9 | 201.4 | 98.0 | 26.4 | 2.8   | 2.8  |
| 41°   | 754.1 | 747.2 | 718.4 | 655.2 | 521.8 | 360.0 | 202.9 | 97.1 | 25.6 | 2.4   | 2.6  |
| 42°   | 752.1 | 744.6 | 719.9 | 661.2 | 528.4 | 363.0 | 202.6 | 95.4 | 24.3 | 2.1   | 2.6  |
| 43°   | 752.1 | 743.5 | 720.1 | 665.1 | 531.7 | 363.2 | 200.1 | 92.2 | 22.6 | 1.9   | 2.4  |
| 44°   | 750.8 | 742.9 | 721.2 | 667.7 | 532.5 | 361.2 | 196.0 | 88.8 | 20.6 | 1.7   | 2.4  |
| 45°   | 748.5 | 740.1 | 721.0 | 667.9 | 531.0 | 356.5 | 189.3 | 84.2 | 18.9 | 1.3   | 2.4  |
| 46°   | 744.0 | 736.5 | 719.0 | 666.4 | 526.5 | 349.6 | 181.4 | 79.7 | 17.0 | 1.1   | 2.1  |
| 47°   | 734.9 | 729.1 | 713.9 | 661.2 | 519.6 | 339.5 | 171.9 | 74.6 | 15.5 | 0.9   | 2.1  |
| 48°   | 719.5 | 715.4 | 705.1 | 649.8 | 506.5 | 327.1 | 161.8 | 69.0 | 14.0 | 0.9   | 2.1  |
| 49°   | 691.1 | 687.9 | 681.9 | 631.6 | 489.7 | 311.8 | 150.9 | 62.7 | 12.5 | 0.6   | 2.1  |
| 50°   | 668.8 | 665.3 | 653.1 | 600.9 | 465.7 | 292.5 | 138.8 | 56.5 | 10.7 | 0.4   | 1.9  |
| 51°   | 653.9 | 648.3 | 629.0 | 565.2 | 430.7 | 266.7 | 125.7 | 50.3 | 9.0  | 0.4   | 1.9  |
| 52°   | 635.2 | 626.9 | 602.8 | 533.2 | 398.6 | 240.9 | 111.5 | 44.1 | 8.0  | 0.4   | 1.9  |
| 53°   | 596.1 | 593.1 | 569.3 | 498.8 | 366.6 | 216.2 | 96.9  | 38.9 | 6.9  | 0.4   | 1.9  |
| 54°   | 562.0 | 557.4 | 525.0 | 451.1 | 331.8 | 188.7 | 81.9  | 34.4 | 5.8  | 0.4   | 1.9  |
| 55°   | 525.0 | 516.2 | 487.4 | 410.9 | 291.0 | 163.3 | 67.5  | 29.7 | 4.7  | 0.4   | 1.7  |
| 56°   | 478.4 | 470.6 | 439.7 | 367.9 | 253.4 | 137.5 | 56.5  | 24.3 | 3.7  | 0.4   | 1.7  |
| 57°   | 421.6 | 414.5 | 390.7 | 315.0 | 214.3 | 112.4 | 46.0  | 19.6 | 2.8  | 0.4   | 1.7  |
| 58°   | 366.8 | 358.9 | 331.6 | 264.3 | 173.0 | 89.2  | 38.5  | 15.9 | 2.1  | 0.4   | 1.7  |
| 59°   | 324.7 | 314.0 | 278.7 | 222.0 | 135.4 | 67.7  | 30.5  | 12.7 | 1.5  | 0.4   | 1.7  |
| 60°   | 289.7 | 280.9 | 244.3 | 184.8 | 106.2 | 49.9  | 22.6  | 9.7  | 0.9  | 0.4   | 1.7  |
| 62.5° | 167.8 | 165.5 | 132.6 | 95.2  | 50.1  | 23.2  | 11.2  | 4.5  | 0.4  | 0.6   | 1.7  |
| 65°   | 50.1  | 43.6  | 34.0  | 20.2  | 12.9  | 7.7   | 4.1   | 1.5  | 0.2  | 0.6   | 1.5  |



TEST NUMBER: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 45° | 67.5° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|
| 67.5° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 0.9 | 0.4 | 0.2 | 0.6   | 1.5 |
| 70°   | 0.9 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.2 | 0.2 | 0.6   | 1.3 |
| 72.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 0.2 | 0.4 | 0.6   | 1.1 |
| 75°   | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.4 | 0.6   | 1.1 |
| 77.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 | 0.6   | 1.1 |
| 80°   | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.6   | 0.9 |
| 82.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.6   | 0.9 |
| 85°   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.6   | 0.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.6   | 0.6 |
| 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: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 12.0   | 12.0 | 12.0   | 12.0 |
| 2.5°  | 11.6   | 11.4 | 11.2   | 11.2 |
| 5°    | 11.2   | 10.7 | 10.7   | 10.5 |
| 7.5°  | 10.5   | 10.1 | 10.1   | 10.1 |
| 10°   | 9.9    | 9.7  | 9.7    | 9.5  |
| 12.5° | 9.0    | 9.0  | 9.0    | 9.0  |
| 15°   | 8.4    | 8.4  | 8.6    | 8.6  |
| 17.5° | 7.5    | 7.7  | 8.2    | 8.4  |
| 20°   | 6.9    | 7.3  | 7.7    | 8.0  |
| 22.5° | 6.4    | 6.9  | 7.5    | 7.7  |
| 25°   | 5.8    | 6.4  | 7.3    | 7.5  |
| 27.5° | 5.4    | 6.2  | 6.9    | 7.3  |
| 30°   | 4.9    | 6.0  | 6.7    | 7.1  |
| 31°   | 4.9    | 5.8  | 6.7    | 7.1  |
| 32°   | 4.7    | 5.6  | 6.7    | 6.9  |
| 33°   | 4.7    | 5.6  | 6.7    | 6.9  |
| 34°   | 4.5    | 5.6  | 6.4    | 6.9  |
| 35°   | 4.5    | 5.6  | 6.4    | 6.9  |
| 36°   | 4.3    | 5.4  | 6.4    | 6.9  |
| 37°   | 4.3    | 5.4  | 6.4    | 6.9  |
| 38°   | 4.1    | 5.4  | 6.4    | 6.9  |
| 39°   | 4.1    | 5.4  | 6.4    | 6.9  |
| 40°   | 4.1    | 5.4  | 6.4    | 6.9  |
| 41°   | 3.9    | 5.4  | 6.4    | 6.9  |
| 42°   | 3.9    | 5.4  | 6.4    | 6.9  |
| 43°   | 3.9    | 5.2  | 6.4    | 6.9  |
| 44°   | 3.9    | 5.2  | 6.4    | 6.9  |
| 45°   | 3.7    | 5.2  | 6.4    | 6.9  |
| 46°   | 3.7    | 5.2  | 6.4    | 6.9  |
| 47°   | 3.7    | 5.2  | 6.4    | 6.9  |
| 48°   | 3.7    | 5.2  | 6.4    | 6.9  |
| 49°   | 3.7    | 5.2  | 6.4    | 6.9  |
| 50°   | 3.4    | 4.9  | 6.4    | 6.9  |
| 51°   | 3.4    | 4.9  | 6.4    | 6.9  |
| 52°   | 3.4    | 4.9  | 6.4    | 6.9  |
| 53°   | 3.4    | 4.9  | 6.4    | 6.9  |
| 54°   | 3.2    | 4.9  | 6.4    | 6.9  |
| 55°   | 3.2    | 4.9  | 6.4    | 6.9  |
| 56°   | 3.2    | 4.9  | 6.4    | 6.7  |
| 57°   | 3.2    | 4.9  | 6.2    | 6.7  |
| 58°   | 3.2    | 4.7  | 6.2    | 6.7  |
| 59°   | 3.2    | 4.7  | 6.2    | 6.7  |
| 60°   | 3.2    | 4.7  | 6.2    | 6.7  |
| 62.5° | 3.0    | 4.7  | 6.0    | 6.4  |
| 65°   | 2.8    | 4.3  | 6.0    | 6.2  |



TEST NUMBER: P1305456

CATALOG NUMBER: P3SQASS02R409024DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 67.5° | 2.8    | 4.1  | 5.6    | 6.0  |
| 70°   | 2.6    | 3.9  | 5.4    | 5.8  |
| 72.5° | 2.1    | 3.7  | 4.9    | 5.4  |
| 75°   | 1.9    | 3.2  | 4.5    | 4.9  |
| 77.5° | 1.7    | 2.8  | 4.1    | 4.3  |
| 80°   | 1.5    | 2.4  | 3.4    | 3.9  |
| 82.5° | 1.1    | 1.7  | 2.8    | 3.0  |
| 85°   | 0.9    | 1.3  | 1.9    | 2.1  |
| 87.5° | 0.6    | 0.6  | 1.1    | 1.1  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)