

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: P1338430

Luminaire Tested: P3A05R359730DE010 E3A451WMH

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1338430  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A05R359730DE010 E3A451WMH  
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

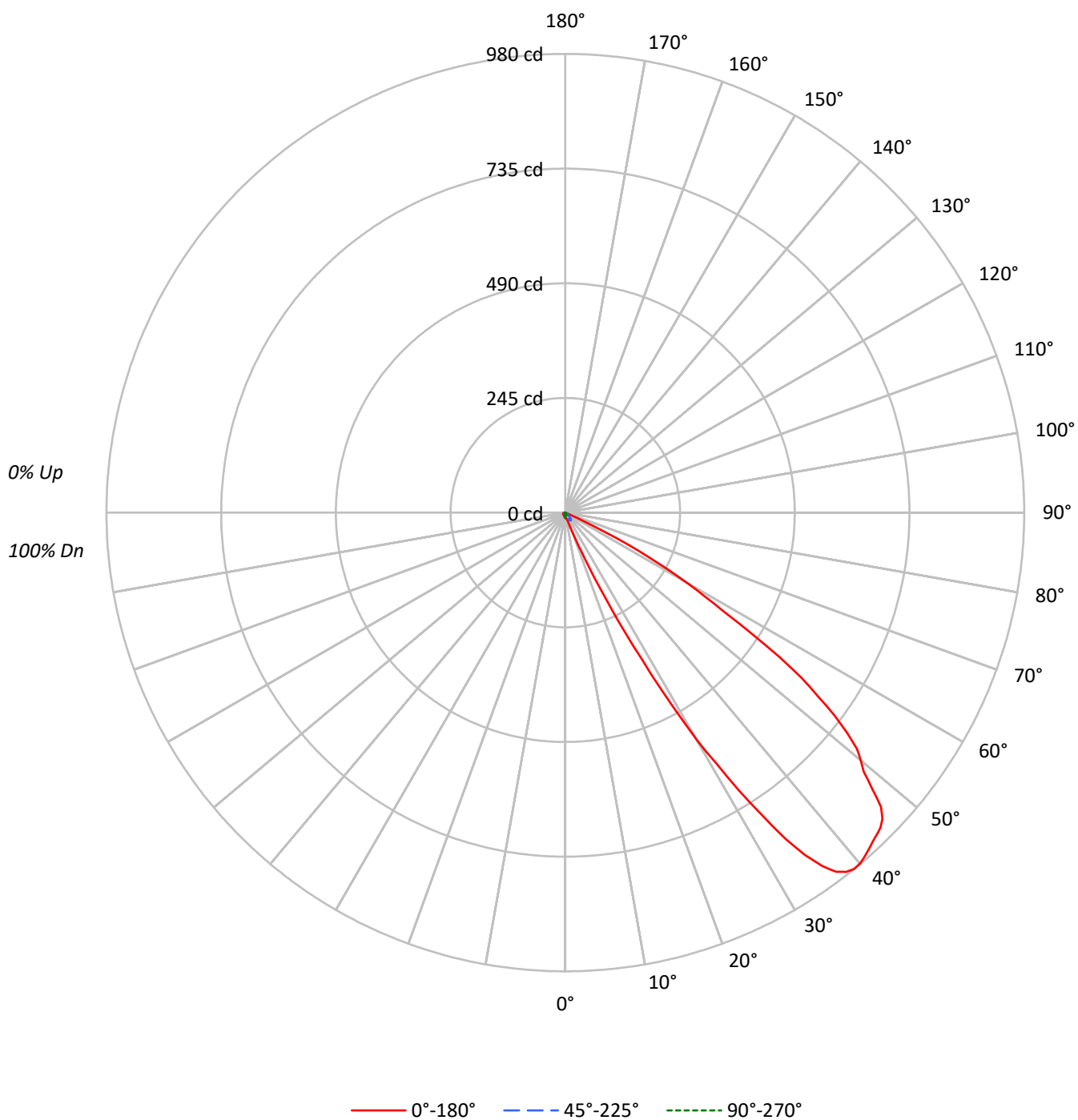
Lumens per Lamp: N/A  
Luminaire Lumens: 244.0 lumens  
Efficiency: N/A  
Efficacy: 33.9 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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

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CATALOG NUMBER: P3A05R359730DE010 E3A451WMH

### Luminous Intensity Polar Plot



TEST NUMBER: P1338430

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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  | 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°  | 2456   | 2456 | 2456 | 2456 | 2456 |
| 5°  | 2663   | 2619 | 2421 | 2179 | 2135 |
| 10° | 2806   | 2561 | 2160 | 1870 | 1870 |
| 15° | 3995   | 2497 | 1748 | 1589 | 1657 |
| 20° | 10034  | 2684 | 1377 | 1377 | 1540 |
| 25° | 46527  | 3411 | 1065 | 1282 | 1428 |
| 30° | 141439 | 4634 | 836  | 1165 | 1443 |
| 35° | 239022 | 5354 | 696  | 1124 | 1419 |
| 40° | 280182 | 5296 | 573  | 1145 | 1517 |
| 45° | 295069 | 3752 | 465  | 1240 | 1644 |
| 50° | 280861 | 2252 | 443  | 1262 | 1808 |
| 55° | 235346 | 918  | 497  | 1415 | 2103 |
| 60° | 131744 | 175  | 570  | 1623 | 2324 |
| 65° | 22726  | 104  | 571  | 1816 | 2646 |
| 70° | 449    | 128  | 705  | 1988 | 2949 |
| 75° | 339    | 169  | 932  | 2203 | 3389 |
| 80° | 253    | 253  | 1137 | 2526 | 3915 |
| 85° | 0      | 503  | 2264 | 2768 | 4529 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 297169 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1.0    | 0.4       |
| 10°-20°   | 2.9    | 1.2       |
| 20°-30°   | 15.0   | 6.1       |
| 30°-40°   | 64.7   | 26.5      |
| 40°-50°   | 92.2   | 37.8      |
| 50°-60°   | 57.1   | 23.4      |
| 60°-70°   | 8.7    | 3.6       |
| 70°-80°   | 1.6    | 0.7       |
| 80°-90°   | 0.8    | 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°    | 18.9   | 7.7       |
| 0°-40°    | 83.5   | 34.2      |
| 0°-60°    | 232.9  | 95.4      |
| 0°-90°    | 244.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 244.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 11  | 11  | 11  | 11   | 11   |      |
| 5°  | 12  | 12  | 11  | 10   | 10   | 1    |
| 15° | 18  | 11  | 8   | 7    | 7    | 6    |
| 25° | 192 | 14  | 4   | 5    | 6    | 115  |
| 35° | 893 | 20  | 3   | 4    | 5    | 536  |
| 45° | 952 | 12  | 2   | 4    | 5    | 719  |
| 55° | 616 | 2   | 1   | 4    | 6    | 524  |
| 65° | 44  | 0   | 1   | 4    | 5    | 90   |
| 75° | 0   | 0   | 1   | 3    | 4    | 0    |
| 85° | 0   | 0   | 1   | 1    | 2    | 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°    | 11.2  | 11.2  | 11.2  | 11.2  | 11.2  | 11.2  | 11.2  | 11.2 | 11.2  | 11.2 | 11.2   |
| 2.5°  | 11.7  | 11.7  | 11.7  | 11.7  | 11.7  | 11.7  | 11.7  | 11.7 | 11.7  | 11.2 | 11.0   |
| 5°    | 12.1  | 12.1  | 11.9  | 11.9  | 11.9  | 11.9  | 11.9  | 11.9 | 11.5  | 11.0 | 10.4   |
| 7.5°  | 12.3  | 12.3  | 12.1  | 12.1  | 12.1  | 12.1  | 11.9  | 11.7 | 11.2  | 10.4 | 9.7    |
| 10°   | 12.6  | 12.6  | 12.6  | 12.6  | 12.3  | 12.1  | 11.9  | 11.5 | 10.8  | 9.7  | 9.0    |
| 12.5° | 14.1  | 14.1  | 13.9  | 13.4  | 13.0  | 12.6  | 12.1  | 11.2 | 9.9   | 8.8  | 8.1    |
| 15°   | 17.6  | 17.4  | 17.0  | 16.3  | 15.4  | 14.3  | 13.4  | 11.0 | 9.0   | 7.7  | 7.3    |
| 17.5° | 24.7  | 24.2  | 23.6  | 21.4  | 19.4  | 17.4  | 15.6  | 11.0 | 8.1   | 6.8  | 6.4    |
| 20°   | 43.0  | 43.2  | 38.5  | 33.3  | 28.9  | 24.0  | 19.6  | 11.5 | 7.3   | 5.9  | 5.7    |
| 22.5° | 89.6  | 86.1  | 75.1  | 62.3  | 47.6  | 36.8  | 27.8  | 12.6 | 6.4   | 5.1  | 5.1    |
| 25°   | 192.3 | 178.9 | 152.2 | 115.0 | 81.1  | 57.5  | 40.3  | 14.1 | 5.7   | 4.4  | 4.6    |
| 27.5° | 351.1 | 339.0 | 285.5 | 215.0 | 142.7 | 86.8  | 54.6  | 16.1 | 5.1   | 3.7  | 4.2    |
| 30°   | 558.6 | 525.1 | 455.3 | 352.4 | 238.5 | 132.8 | 73.3  | 18.3 | 4.2   | 3.3  | 4.0    |
| 31°   | 623.3 | 607.9 | 522.9 | 407.7 | 279.5 | 157.7 | 81.3  | 18.9 | 4.0   | 3.3  | 3.7    |
| 32°   | 700.2 | 672.9 | 596.7 | 468.3 | 321.1 | 180.0 | 90.7  | 19.6 | 3.7   | 2.9  | 3.7    |
| 33°   | 768.9 | 742.5 | 649.8 | 521.6 | 363.2 | 205.3 | 100.9 | 19.8 | 3.3   | 2.9  | 3.5    |
| 34°   | 841.2 | 805.1 | 713.2 | 577.3 | 406.4 | 232.6 | 110.1 | 20.0 | 3.1   | 2.6  | 3.5    |
| 35°   | 892.9 | 856.8 | 767.8 | 621.4 | 443.6 | 256.8 | 120.7 | 20.0 | 2.9   | 2.6  | 3.3    |
| 36°   | 933.0 | 901.3 | 815.0 | 666.7 | 480.6 | 278.6 | 129.1 | 20.0 | 2.4   | 2.4  | 3.3    |
| 37°   | 960.6 | 930.4 | 846.7 | 705.7 | 508.8 | 298.0 | 136.6 | 20.0 | 2.2   | 2.4  | 3.3    |
| 38°   | 974.0 | 948.9 | 877.3 | 734.1 | 536.1 | 313.2 | 142.5 | 19.6 | 2.0   | 2.2  | 3.1    |
| 39°   | 979.7 | 959.2 | 896.0 | 758.1 | 556.6 | 326.4 | 146.9 | 19.2 | 1.8   | 2.2  | 3.1    |
| 40°   | 978.8 | 961.0 | 906.6 | 774.7 | 573.1 | 335.5 | 149.3 | 18.5 | 1.5   | 2.0  | 3.1    |
| 41°   | 973.8 | 958.4 | 912.1 | 788.8 | 583.0 | 341.6 | 150.0 | 17.8 | 1.3   | 2.0  | 2.9    |
| 42°   | 968.1 | 954.0 | 913.9 | 796.2 | 589.4 | 343.6 | 148.2 | 17.0 | 1.3   | 1.8  | 2.9    |
| 43°   | 962.1 | 949.1 | 913.9 | 798.7 | 591.0 | 342.3 | 145.4 | 15.4 | 1.1   | 1.8  | 2.9    |
| 44°   | 957.3 | 944.9 | 911.0 | 798.0 | 587.7 | 337.2 | 140.1 | 13.7 | 0.9   | 1.8  | 2.9    |
| 45°   | 951.5 | 939.4 | 907.3 | 793.8 | 581.3 | 328.6 | 133.5 | 12.1 | 0.7   | 1.5  | 2.9    |
| 46°   | 941.4 | 931.9 | 900.7 | 785.2 | 571.1 | 316.7 | 125.1 | 11.0 | 0.4   | 1.5  | 2.6    |
| 47°   | 921.8 | 913.6 | 887.9 | 772.5 | 557.7 | 302.6 | 116.5 | 9.9  | 0.4   | 1.5  | 2.6    |
| 48°   | 882.4 | 882.2 | 862.3 | 748.7 | 536.3 | 285.0 | 107.5 | 8.8  | 0.4   | 1.5  | 2.6    |
| 49°   | 844.3 | 840.3 | 815.6 | 706.8 | 505.7 | 263.9 | 98.0  | 7.9  | 0.2   | 1.5  | 2.6    |
| 50°   | 823.3 | 814.7 | 774.2 | 657.5 | 466.5 | 234.6 | 87.9  | 6.6  | 0.2   | 1.3  | 2.6    |
| 51°   | 801.5 | 789.2 | 741.4 | 613.0 | 419.8 | 206.4 | 76.9  | 5.3  | 0.2   | 1.3  | 2.4    |
| 52°   | 762.1 | 750.4 | 696.9 | 570.5 | 374.4 | 177.5 | 66.3  | 4.4  | 0.2   | 1.3  | 2.6    |
| 53°   | 719.6 | 702.9 | 644.7 | 523.8 | 334.6 | 152.0 | 55.5  | 3.7  | 0.2   | 1.3  | 2.4    |
| 54°   | 666.1 | 658.6 | 591.8 | 466.5 | 287.9 | 127.3 | 45.6  | 3.1  | 0.2   | 1.3  | 2.4    |
| 55°   | 615.6 | 604.6 | 535.2 | 407.9 | 245.6 | 104.4 | 38.1  | 2.4  | 0.2   | 1.3  | 2.4    |
| 56°   | 551.3 | 534.8 | 469.8 | 354.2 | 202.6 | 84.1  | 32.2  | 2.0  | 0.2   | 1.3  | 2.4    |
| 57°   | 474.7 | 457.0 | 405.7 | 294.5 | 159.0 | 64.1  | 26.9  | 1.5  | 0.2   | 1.3  | 2.4    |
| 58°   | 401.5 | 386.3 | 331.3 | 227.3 | 119.8 | 44.5  | 22.2  | 1.1  | 0.2   | 1.1  | 2.4    |
| 59°   | 346.9 | 330.2 | 275.5 | 174.9 | 83.3  | 32.8  | 16.7  | 0.9  | 0.2   | 1.3  | 2.4    |
| 60°   | 300.4 | 278.9 | 221.8 | 135.5 | 59.5  | 23.6  | 12.3  | 0.4  | 0.4   | 1.3  | 2.4    |
| 62.5° | 173.1 | 152.9 | 105.9 | 55.1  | 24.4  | 12.1  | 5.9   | 0.2  | 0.4   | 1.3  | 2.4    |
| 65°   | 43.8  | 39.0  | 25.3  | 11.9  | 6.8   | 4.2   | 2.2   | 0.2  | 0.4   | 1.1  | 2.2    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 1.5 | 1.5 | 1.5 | 1.3 | 1.1 | 0.9 | 0.4 | 0.2 | 0.4   | 1.1 | 2.2    |
| 70°   | 0.7 | 0.7 | 0.7 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.4   | 1.1 | 2.0    |
| 72.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7   | 1.1 | 1.8    |
| 75°   | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7   | 1.1 | 1.8    |
| 77.5° | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7   | 0.9 | 1.5    |
| 80°   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7   | 0.9 | 1.3    |
| 82.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7   | 0.9 | 1.1    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.7   | 0.9 | 0.9    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.7   | 0.9 | 0.7    |
| 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°    | 11.2 | 11.2   | 11.2 |
| 2.5°  | 10.6 | 10.6   | 10.6 |
| 5°    | 9.9  | 9.9    | 9.7  |
| 7.5°  | 9.3  | 9.0    | 9.0  |
| 10°   | 8.4  | 8.4    | 8.4  |
| 12.5° | 7.7  | 7.7    | 7.7  |
| 15°   | 7.0  | 7.3    | 7.3  |
| 17.5° | 6.4  | 6.8    | 6.8  |
| 20°   | 5.9  | 6.4    | 6.6  |
| 22.5° | 5.5  | 5.9    | 6.2  |
| 25°   | 5.3  | 5.7    | 5.9  |
| 27.5° | 4.8  | 5.5    | 5.9  |
| 30°   | 4.6  | 5.3    | 5.7  |
| 31°   | 4.6  | 5.3    | 5.5  |
| 32°   | 4.4  | 5.3    | 5.5  |
| 33°   | 4.4  | 5.3    | 5.5  |
| 34°   | 4.4  | 5.1    | 5.5  |
| 35°   | 4.2  | 5.1    | 5.3  |
| 36°   | 4.2  | 5.1    | 5.3  |
| 37°   | 4.2  | 5.1    | 5.5  |
| 38°   | 4.2  | 5.1    | 5.3  |
| 39°   | 4.0  | 5.1    | 5.3  |
| 40°   | 4.0  | 5.1    | 5.3  |
| 41°   | 4.0  | 5.1    | 5.3  |
| 42°   | 4.0  | 5.1    | 5.3  |
| 43°   | 4.0  | 5.1    | 5.3  |
| 44°   | 4.0  | 4.8    | 5.3  |
| 45°   | 4.0  | 4.8    | 5.3  |
| 46°   | 4.0  | 5.1    | 5.3  |
| 47°   | 4.0  | 5.1    | 5.5  |
| 48°   | 4.0  | 4.8    | 5.3  |
| 49°   | 3.7  | 4.8    | 5.3  |
| 50°   | 3.7  | 4.8    | 5.3  |
| 51°   | 3.7  | 5.1    | 5.5  |
| 52°   | 3.7  | 5.1    | 5.5  |
| 53°   | 3.7  | 5.1    | 5.5  |
| 54°   | 3.7  | 5.1    | 5.3  |
| 55°   | 3.7  | 5.1    | 5.5  |
| 56°   | 3.7  | 5.1    | 5.3  |
| 57°   | 3.7  | 5.1    | 5.3  |
| 58°   | 3.7  | 4.8    | 5.3  |
| 59°   | 3.7  | 4.8    | 5.3  |
| 60°   | 3.7  | 4.8    | 5.3  |
| 62.5° | 3.5  | 4.8    | 5.3  |
| 65°   | 3.5  | 4.6    | 5.1  |

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CATALOG NUMBER: P3A05R359730DE010 E3A451WMH

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 3.3  | 4.6    | 4.8  |
| 70°   | 3.1  | 4.4    | 4.6  |
| 72.5° | 2.9  | 4.2    | 4.4  |
| 75°   | 2.6  | 3.7    | 4.0  |
| 77.5° | 2.2  | 3.3    | 3.7  |
| 80°   | 2.0  | 2.9    | 3.1  |
| 82.5° | 1.5  | 2.4    | 2.6  |
| 85°   | 1.1  | 1.8    | 1.8  |
| 87.5° | 0.4  | 0.9    | 0.9  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)