

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: P1345460

Luminaire Tested: P3A13R359035DE010 E3CA451MB

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1345460  
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: P3A13R359035DE010 E3CA451MB  
Description: 3in Adjustable LED luminaire with, R35 optic, 3500K CCT AND, 90CRI , E3CA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

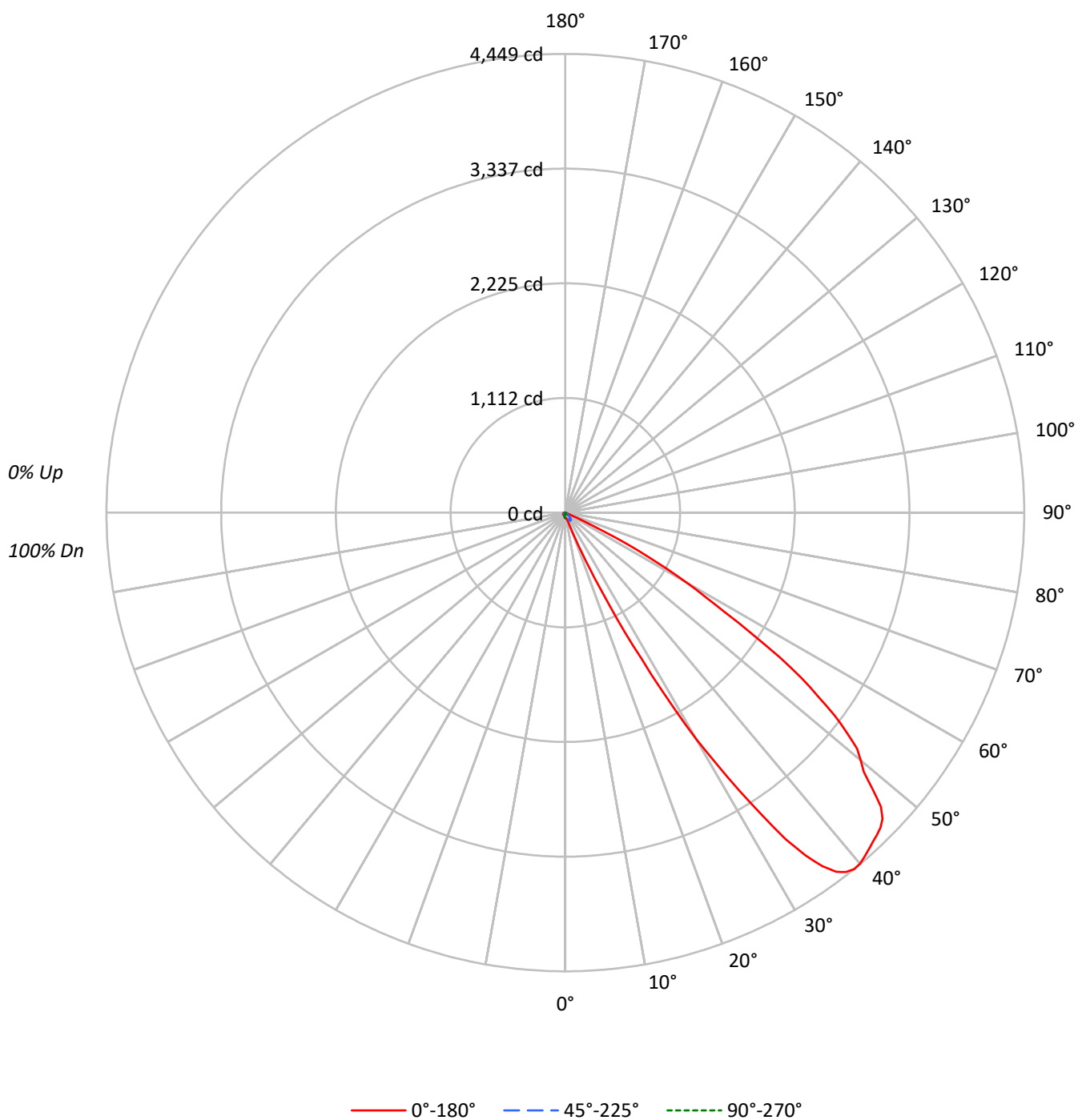
Lumens per Lamp: N/A  
Luminaire Lumens: 1108.0 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 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: P1345460

CATALOG NUMBER: P3A13R359035DE010 E3CA451MB

### Luminous Intensity Polar Plot



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

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

|     | 0°      | 45°   | 90°   | 135°  | 180°  |
|-----|---------|-------|-------|-------|-------|
| 0°  | 11183   | 11183 | 11183 | 11183 | 11183 |
| 5°  | 12107   | 11886 | 11006 | 9905  | 9685  |
| 10° | 12692   | 11578 | 9797  | 8461  | 8461  |
| 15° | 18161   | 11351 | 7946  | 7265  | 7492  |
| 20° | 45504   | 12134 | 6301  | 6301  | 7001  |
| 25° | 211270  | 15485 | 4839  | 5807  | 6533  |
| 30° | 642251  | 21016 | 3798  | 5317  | 6583  |
| 35° | 1085439 | 24360 | 3212  | 5086  | 6425  |
| 40° | 1272355 | 24045 | 2576  | 5153  | 6870  |
| 45° | 1339953 | 17056 | 2171  | 5582  | 7443  |
| 50° | 1275455 | 10234 | 2047  | 5799  | 8187  |
| 55° | 1068770 | 4205  | 2294  | 6499  | 9558  |
| 60° | 598329  | 877   | 2631  | 7456  | 10525 |
| 65° | 103254  | 519   | 2594  | 8302  | 11934 |
| 70° | 1923    | 641   | 3206  | 8976  | 13464 |
| 75° | 1694    | 847   | 4236  | 10167 | 15250 |
| 80° | 1263    | 1263  | 5051  | 11365 | 17679 |
| 85° | 0       | 2516  | 10064 | 12580 | 20128 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 1349445 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.6    | 0.4       |
| 10°-20°   | 13.1   | 1.2       |
| 20°-30°   | 68.0   | 6.1       |
| 30°-40°   | 293.6  | 26.5      |
| 40°-50°   | 418.8  | 37.8      |
| 50°-60°   | 259.4  | 23.4      |
| 60°-70°   | 39.5   | 3.6       |
| 70°-80°   | 7.4    | 0.7       |
| 80°-90°   | 3.7    | 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°    | 85.6   | 7.7       |
| 0°-40°    | 379.2  | 34.2      |
| 0°-60°    | 1057.4 | 95.4      |
| 0°-90°    | 1108.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1108.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 51   | 51  | 51  | 51   | 51   |      |
| 5°  | 55   | 54  | 50  | 45   | 44   | 5    |
| 15° | 80   | 50  | 35  | 32   | 33   | 29   |
| 25° | 873  | 64  | 20  | 24   | 27   | 523  |
| 35° | 4055 | 91  | 12  | 19   | 24   | 2435 |
| 45° | 4321 | 55  | 7   | 18   | 24   | 3264 |
| 55° | 2796 | 11  | 6   | 17   | 25   | 2381 |
| 65° | 199  | 1   | 5   | 16   | 23   | 407  |
| 75° | 2    | 1   | 5   | 12   | 18   | 2    |
| 85° | 0    | 1   | 4   | 5    | 8    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1345460

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 45°  | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|-------|------|-------|------|--------|
| 0°    | 51.0   | 51.0   | 51.0   | 51.0   | 51.0   | 51.0   | 51.0  | 51.0 | 51.0  | 51.0 | 51.0   |
| 2.5°  | 53.0   | 53.0   | 53.0   | 53.0   | 53.0   | 53.0   | 53.0  | 53.0 | 53.0  | 51.0 | 50.0   |
| 5°    | 55.0   | 55.0   | 54.0   | 54.0   | 54.0   | 54.0   | 54.0  | 54.0 | 52.0  | 50.0 | 47.0   |
| 7.5°  | 56.0   | 56.0   | 55.0   | 55.0   | 55.0   | 55.0   | 54.0  | 53.0 | 51.0  | 47.0 | 44.0   |
| 10°   | 57.0   | 57.0   | 57.0   | 57.0   | 56.0   | 55.0   | 54.0  | 52.0 | 49.0  | 44.0 | 41.0   |
| 12.5° | 64.0   | 64.0   | 63.0   | 61.0   | 59.0   | 57.0   | 55.0  | 51.0 | 45.0  | 40.0 | 37.0   |
| 15°   | 80.0   | 79.0   | 77.0   | 74.0   | 70.0   | 65.0   | 61.0  | 50.0 | 41.0  | 35.0 | 33.0   |
| 17.5° | 112.0  | 110.0  | 107.0  | 97.0   | 88.0   | 79.0   | 71.0  | 50.0 | 37.0  | 31.0 | 29.0   |
| 20°   | 195.0  | 196.0  | 175.0  | 151.0  | 131.0  | 109.0  | 89.0  | 52.0 | 33.0  | 27.0 | 26.0   |
| 22.5° | 407.1  | 391.1  | 341.1  | 283.1  | 216.0  | 167.0  | 126.0 | 57.0 | 29.0  | 23.0 | 23.0   |
| 25°   | 873.2  | 812.2  | 691.1  | 522.1  | 368.1  | 261.1  | 183.0 | 64.0 | 26.0  | 20.0 | 21.0   |
| 27.5° | 1594.3 | 1539.3 | 1296.3 | 976.2  | 648.1  | 394.1  | 248.1 | 73.0 | 23.0  | 17.0 | 19.0   |
| 30°   | 2536.5 | 2384.5 | 2067.4 | 1600.3 | 1083.2 | 603.1  | 333.1 | 83.0 | 19.0  | 15.0 | 18.0   |
| 31°   | 2830.6 | 2760.6 | 2374.5 | 1851.4 | 1269.3 | 716.1  | 369.1 | 86.0 | 18.0  | 15.0 | 17.0   |
| 32°   | 3179.7 | 3055.6 | 2709.6 | 2126.4 | 1458.3 | 817.2  | 412.1 | 89.0 | 17.0  | 13.0 | 17.0   |
| 33°   | 3491.7 | 3371.7 | 2950.6 | 2368.5 | 1649.3 | 932.2  | 458.1 | 90.0 | 15.0  | 13.0 | 16.0   |
| 34°   | 3819.8 | 3655.8 | 3238.7 | 2621.5 | 1845.4 | 1056.2 | 500.1 | 91.0 | 14.0  | 12.0 | 16.0   |
| 35°   | 4054.8 | 3890.8 | 3486.7 | 2821.6 | 2014.4 | 1166.2 | 548.1 | 91.0 | 13.0  | 12.0 | 15.0   |
| 36°   | 4236.9 | 4092.8 | 3700.8 | 3027.6 | 2182.5 | 1265.3 | 586.1 | 91.0 | 11.0  | 11.0 | 15.0   |
| 37°   | 4361.9 | 4224.9 | 3844.8 | 3204.7 | 2310.5 | 1353.3 | 620.1 | 91.0 | 10.0  | 11.0 | 15.0   |
| 38°   | 4422.9 | 4308.9 | 3983.8 | 3333.7 | 2434.5 | 1422.3 | 647.1 | 89.0 | 9.0   | 10.0 | 14.0   |
| 39°   | 4448.9 | 4355.9 | 4068.8 | 3442.7 | 2527.5 | 1482.3 | 667.1 | 87.0 | 8.0   | 10.0 | 14.0   |
| 40°   | 4444.9 | 4363.9 | 4116.9 | 3517.7 | 2602.5 | 1523.3 | 678.1 | 84.0 | 7.0   | 9.0  | 14.0   |
| 41°   | 4421.9 | 4351.9 | 4141.9 | 3581.7 | 2647.5 | 1551.3 | 681.1 | 81.0 | 6.0   | 9.0  | 13.0   |
| 42°   | 4395.9 | 4331.9 | 4149.9 | 3615.7 | 2676.6 | 1560.3 | 673.1 | 77.0 | 6.0   | 8.0  | 13.0   |
| 43°   | 4368.9 | 4309.9 | 4149.9 | 3626.8 | 2683.6 | 1554.3 | 660.1 | 70.0 | 5.0   | 8.0  | 13.0   |
| 44°   | 4346.9 | 4290.9 | 4136.9 | 3623.8 | 2668.6 | 1531.3 | 636.1 | 62.0 | 4.0   | 8.0  | 13.0   |
| 45°   | 4320.9 | 4265.9 | 4119.9 | 3604.7 | 2639.5 | 1492.3 | 606.1 | 55.0 | 3.0   | 7.0  | 13.0   |
| 46°   | 4274.9 | 4231.9 | 4089.8 | 3565.7 | 2593.5 | 1438.3 | 568.1 | 50.0 | 2.0   | 7.0  | 12.0   |
| 47°   | 4185.9 | 4148.9 | 4031.8 | 3507.7 | 2532.5 | 1374.3 | 529.1 | 45.0 | 2.0   | 7.0  | 12.0   |
| 48°   | 4006.8 | 4005.8 | 3915.8 | 3399.7 | 2435.5 | 1294.3 | 488.1 | 40.0 | 2.0   | 7.0  | 12.0   |
| 49°   | 3833.8 | 3815.8 | 3703.8 | 3209.7 | 2296.5 | 1198.2 | 445.1 | 36.0 | 1.0   | 7.0  | 12.0   |
| 50°   | 3738.8 | 3699.8 | 3515.7 | 2985.6 | 2118.4 | 1065.2 | 399.1 | 30.0 | 1.0   | 6.0  | 12.0   |
| 51°   | 3639.8 | 3583.7 | 3366.7 | 2783.6 | 1906.4 | 937.2  | 349.1 | 24.0 | 1.0   | 6.0  | 11.0   |
| 52°   | 3460.7 | 3407.7 | 3164.7 | 2590.5 | 1700.4 | 806.2  | 301.1 | 20.0 | 1.0   | 6.0  | 12.0   |
| 53°   | 3267.7 | 3191.7 | 2927.6 | 2378.5 | 1519.3 | 690.1  | 252.1 | 17.0 | 1.0   | 6.0  | 11.0   |
| 54°   | 3024.6 | 2990.6 | 2687.6 | 2118.4 | 1307.3 | 578.1  | 207.0 | 14.0 | 1.0   | 6.0  | 11.0   |
| 55°   | 2795.6 | 2745.6 | 2430.5 | 1852.4 | 1115.2 | 474.1  | 173.0 | 11.0 | 1.0   | 6.0  | 11.0   |
| 56°   | 2503.5 | 2428.5 | 2133.4 | 1608.3 | 920.2  | 382.1  | 146.0 | 9.0  | 1.0   | 6.0  | 11.0   |
| 57°   | 2155.4 | 2075.4 | 1842.4 | 1337.3 | 722.1  | 291.1  | 122.0 | 7.0  | 1.0   | 6.0  | 11.0   |
| 58°   | 1823.4 | 1754.4 | 1504.3 | 1032.2 | 544.1  | 202.0  | 101.0 | 5.0  | 1.0   | 5.0  | 11.0   |
| 59°   | 1575.3 | 1499.3 | 1251.3 | 794.2  | 378.1  | 149.0  | 76.0  | 4.0  | 1.0   | 6.0  | 11.0   |
| 60°   | 1364.3 | 1266.3 | 1007.2 | 615.1  | 270.1  | 107.0  | 56.0  | 2.0  | 2.0   | 6.0  | 11.0   |
| 62.5° | 786.2  | 694.1  | 481.1  | 250.1  | 111.0  | 55.0   | 27.0  | 1.0  | 2.0   | 6.0  | 11.0   |
| 65°   | 199.0  | 177.0  | 115.0  | 54.0   | 31.0   | 19.0   | 10.0  | 1.0  | 2.0   | 5.0  | 10.0   |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 7.0 | 7.0 | 7.0 | 6.0 | 5.0 | 4.0 | 2.0 | 1.0 | 2.0   | 5.0 | 10.0   |
| 70°   | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 2.0   | 5.0 | 9.0    |
| 72.5° | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0   | 5.0 | 8.0    |
| 75°   | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0   | 5.0 | 8.0    |
| 77.5° | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0   | 4.0 | 7.0    |
| 80°   | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0   | 4.0 | 6.0    |
| 82.5° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0   | 4.0 | 5.0    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 3.0   | 4.0 | 4.0    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 3.0   | 4.0 | 3.0    |
| 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°    | 51.0 | 51.0   | 51.0 |
| 2.5°  | 48.0 | 48.0   | 48.0 |
| 5°    | 45.0 | 45.0   | 44.0 |
| 7.5°  | 42.0 | 41.0   | 41.0 |
| 10°   | 38.0 | 38.0   | 38.0 |
| 12.5° | 35.0 | 35.0   | 35.0 |
| 15°   | 32.0 | 33.0   | 33.0 |
| 17.5° | 29.0 | 31.0   | 31.0 |
| 20°   | 27.0 | 29.0   | 30.0 |
| 22.5° | 25.0 | 27.0   | 28.0 |
| 25°   | 24.0 | 26.0   | 27.0 |
| 27.5° | 22.0 | 25.0   | 27.0 |
| 30°   | 21.0 | 24.0   | 26.0 |
| 31°   | 21.0 | 24.0   | 25.0 |
| 32°   | 20.0 | 24.0   | 25.0 |
| 33°   | 20.0 | 24.0   | 25.0 |
| 34°   | 20.0 | 23.0   | 25.0 |
| 35°   | 19.0 | 23.0   | 24.0 |
| 36°   | 19.0 | 23.0   | 24.0 |
| 37°   | 19.0 | 23.0   | 25.0 |
| 38°   | 19.0 | 23.0   | 24.0 |
| 39°   | 18.0 | 23.0   | 24.0 |
| 40°   | 18.0 | 23.0   | 24.0 |
| 41°   | 18.0 | 23.0   | 24.0 |
| 42°   | 18.0 | 23.0   | 24.0 |
| 43°   | 18.0 | 23.0   | 24.0 |
| 44°   | 18.0 | 22.0   | 24.0 |
| 45°   | 18.0 | 22.0   | 24.0 |
| 46°   | 18.0 | 23.0   | 24.0 |
| 47°   | 18.0 | 23.0   | 25.0 |
| 48°   | 18.0 | 22.0   | 24.0 |
| 49°   | 17.0 | 22.0   | 24.0 |
| 50°   | 17.0 | 22.0   | 24.0 |
| 51°   | 17.0 | 23.0   | 25.0 |
| 52°   | 17.0 | 23.0   | 25.0 |
| 53°   | 17.0 | 23.0   | 25.0 |
| 54°   | 17.0 | 23.0   | 24.0 |
| 55°   | 17.0 | 23.0   | 25.0 |
| 56°   | 17.0 | 23.0   | 24.0 |
| 57°   | 17.0 | 23.0   | 24.0 |
| 58°   | 17.0 | 22.0   | 24.0 |
| 59°   | 17.0 | 22.0   | 24.0 |
| 60°   | 17.0 | 22.0   | 24.0 |
| 62.5° | 16.0 | 22.0   | 24.0 |
| 65°   | 16.0 | 21.0   | 23.0 |





TEST NUMBER: P1345460

CATALOG NUMBER: P3A13R359035DE010 E3CA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 15.0 | 21.0   | 22.0 |
| 70°   | 14.0 | 20.0   | 21.0 |
| 72.5° | 13.0 | 19.0   | 20.0 |
| 75°   | 12.0 | 17.0   | 18.0 |
| 77.5° | 10.0 | 15.0   | 17.0 |
| 80°   | 9.0  | 13.0   | 14.0 |
| 82.5° | 7.0  | 11.0   | 12.0 |
| 85°   | 5.0  | 8.0    | 8.0  |
| 87.5° | 2.0  | 4.0    | 4.0  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)