

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P182704

Luminaire Tested: **LDSQA4A18835D010TE LAR25NF 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182704  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26800)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A18835D010TE LAR25NF 4LSQA1H 30°  
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
SELF-FLANGED, 25° NARROW FLOOD, 30° Tilt  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2145.1 lumens  
Efficiency: N/A  
Efficacy: 73.7 lumens/watt  
Spacing Criteria (0/90/45): 2.38 / 0.59 / 1.18  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

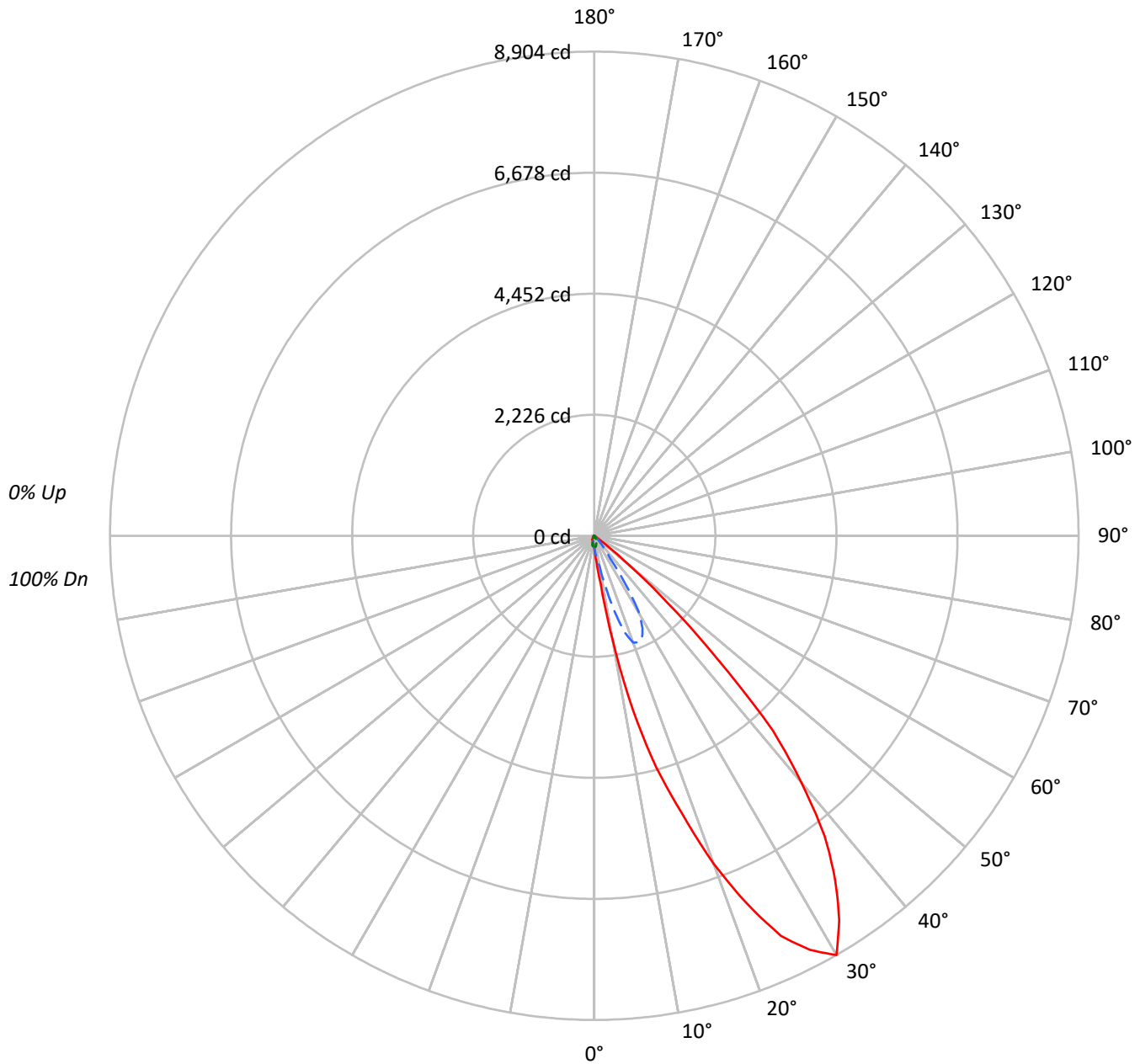
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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   | 113 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99  |  | 99  | 98  | 96  |  | 96  |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  |  | 92  | 89  | 86  |  | 89  |
| 3   | 99  | 91  | 86  | 81  | 97  | 90  | 85  | 80  | 87  | 83  | 79  |  | 85  | 81  | 78  |  | 82  |
| 4   | 93  | 84  | 77  | 72  | 91  | 82  | 76  | 72  | 80  | 75  | 71  |  | 78  | 73  | 70  |  | 76  |
| 5   | 87  | 77  | 70  | 64  | 85  | 76  | 69  | 64  | 74  | 68  | 64  |  | 72  | 67  | 63  |  | 70  |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 63  | 58  | 68  | 62  | 57  |  | 66  | 61  | 57  |  | 65  |
| 7   | 76  | 64  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  |  | 61  | 56  | 51  |  | 60  |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 57  | 51  | 47  |  | 56  | 51  | 47  |  | 55  |
| 9   | 66  | 55  | 48  | 43  | 65  | 54  | 47  | 43  | 53  | 47  | 43  |  | 52  | 46  | 42  |  | 51  |
| 10  | 62  | 50  | 44  | 39  | 61  | 50  | 43  | 39  | 49  | 43  | 39  |  | 48  | 43  | 39  |  | 47  |

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

|     | 0°     | 90°   | 180°  |
|-----|--------|-------|-------|
| 0°  | 21700  | 21700 | 21700 |
| 5°  | 48020  | 20529 | 14431 |
| 10° | 192264 | 17825 | 12050 |
| 15° | 443164 | 14181 | 10581 |
| 20° | 661546 | 10062 | 9443  |
| 25° | 867681 | 6702  | 8412  |
| 30° | 996031 | 4228  | 7349  |
| 35° | 913263 | 2708  | 6363  |
| 40° | 748920 | 1758  | 5413  |
| 45° | 434188 | 1233  | 4370  |
| 50° | 123041 | 904   | 3602  |
| 55° | 11265  | 844   | 3023  |
| 60° | 1744   | 969   | 2499  |
| 65° | 458    | 917   | 1834  |
| 70° | 566    | 1133  | 1416  |
| 75° | 749    | 1497  | 1497  |
| 80° | 0      | 2232  | 1116  |
| 85° | 0      | 4446  | 1112  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 31.8   | 1.5       |
| 10°-20°   | 285.3  | 13.3      |
| 20°-30°   | 695.0  | 32.4      |
| 30°-40°   | 753.2  | 35.1      |
| 40°-50°   | 341.3  | 15.9      |
| 50°-60°   | 26.4   | 1.2       |
| 60°-70°   | 5.5    | 0.3       |
| 70°-80°   | 4.0    | 0.2       |
| 80°-90°   | 2.5    | 0.1       |
| 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°    | 1012.1 | 47.2      |
| 0°-40°    | 1765.3 | 82.3      |
| 0°-60°    | 2133.0 | 99.4      |
| 0°-90°    | 2145.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2145.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 224  | 224  | 224 | 224  | 224  |      |
| 5°  | 494  | 364  | 211 | 159  | 148  | 89   |
| 15° | 4419 | 1446 | 141 | 103  | 106  | 1284 |
| 25° | 8118 | 2076 | 63  | 62   | 79   | 3700 |
| 35° | 7722 | 528  | 23  | 36   | 54   | 4750 |
| 45° | 3169 | 67   | 9   | 20   | 32   | 2502 |
| 55° | 67   | 9    | 5   | 12   | 18   | 153  |
| 65° | 2    | 3    | 4   | 8    | 8    | 3    |
| 75° | 2    | 3    | 4   | 6    | 4    | 1    |
| 85° | 0    | 3    | 4   | 3    | 1    | 0    |
| 90° | 0    | 0    | 0   | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  | 224.0  |
| 2.5°  | 335.5  | 329.6  | 332.5  | 324.6  | 319.6  | 315.6  | 317.6  | 315.6  | 302.7  | 299.7  | 289.7  |
| 5°    | 493.8  | 484.9  | 484.9  | 468.0  | 450.0  | 439.1  | 439.1  | 426.1  | 398.3  | 385.3  | 364.4  |
| 7.5°  | 885.1  | 867.2  | 852.3  | 799.5  | 730.8  | 692.0  | 682.0  | 627.3  | 556.6  | 511.8  | 459.0  |
| 10°   | 1954.5 | 1879.8 | 1827.0 | 1689.6 | 1505.4 | 1390.9 | 1342.1 | 1153.0 | 927.9  | 758.7  | 605.4  |
| 12.5° | 3286.6 | 3185.1 | 3092.5 | 2867.5 | 2602.6 | 2422.4 | 2325.8 | 2047.1 | 1610.0 | 1297.3 | 970.8  |
| 15°   | 4418.7 | 4309.2 | 4199.7 | 3925.9 | 3646.1 | 3489.8 | 3312.5 | 2943.1 | 2365.7 | 1921.6 | 1445.7 |
| 17.5° | 5347.6 | 5285.9 | 5173.4 | 4772.2 | 4419.7 | 4175.8 | 3991.6 | 3508.7 | 2914.3 | 2407.5 | 1868.8 |
| 20°   | 6417.0 | 6264.6 | 6063.5 | 5576.6 | 5094.7 | 4789.1 | 4530.2 | 3941.8 | 3254.8 | 2672.3 | 2092.9 |
| 22.5° | 7317.0 | 7208.5 | 6919.8 | 6277.6 | 5568.7 | 5307.8 | 4991.2 | 4283.3 | 3473.8 | 2784.8 | 2118.7 |
| 25°   | 8117.5 | 7947.3 | 7584.9 | 6821.2 | 6095.4 | 5651.3 | 5263.0 | 4468.5 | 3554.5 | 2792.8 | 2075.9 |
| 27.5° | 8586.5 | 8364.5 | 7938.3 | 7106.0 | 6277.6 | 5786.7 | 5356.6 | 4500.3 | 3503.7 | 2687.3 | 1919.6 |
| 30°   | 8904.1 | 8462.0 | 7991.1 | 7109.0 | 6219.8 | 5718.0 | 5272.0 | 4340.0 | 3292.6 | 2446.3 | 1656.8 |
| 32.5° | 8380.4 | 8124.5 | 7674.5 | 6826.2 | 5905.2 | 5415.3 | 4972.3 | 3992.6 | 2963.1 | 2088.9 | 1153.0 |
| 35°   | 7722.3 | 7515.2 | 7123.9 | 6281.6 | 5433.3 | 4971.3 | 4501.3 | 3546.5 | 2533.9 | 1435.7 | 527.7  |
| 37.5° | 6957.6 | 6795.3 | 6374.2 | 5604.5 | 4857.8 | 4405.8 | 3934.8 | 3022.8 | 1784.2 | 711.9  | 320.6  |
| 40°   | 5922.1 | 5784.7 | 5439.2 | 4820.9 | 4133.0 | 3702.8 | 3268.7 | 2261.1 | 968.8  | 397.3  | 209.1  |
| 42.5° | 4867.7 | 4752.2 | 4437.6 | 3903.0 | 3298.6 | 2944.1 | 2561.8 | 1378.0 | 481.9  | 249.9  | 116.5  |
| 45°   | 3169.2 | 3024.8 | 2855.5 | 2610.6 | 2311.9 | 2093.9 | 1642.8 | 665.1  | 285.8  | 139.4  | 66.7   |
| 47.5° | 1817.1 | 1721.5 | 1443.7 | 1139.0 | 925.0  | 844.3  | 614.3  | 309.6  | 157.3  | 80.6   | 40.8   |
| 50°   | 816.4  | 754.7  | 633.2  | 515.7  | 373.4  | 291.7  | 247.9  | 155.3  | 77.7   | 43.8   | 27.9   |
| 52.5° | 201.1  | 205.1  | 194.2  | 170.3  | 151.3  | 128.4  | 111.5  | 72.7   | 40.8   | 26.9   | 17.9   |
| 55°   | 66.7   | 67.7   | 61.7   | 58.7   | 53.8   | 49.8   | 45.8   | 32.9   | 24.9   | 23.9   | 9.0    |
| 57.5° | 23.9   | 23.9   | 24.9   | 22.9   | 21.9   | 20.9   | 19.9   | 16.9   | 14.9   | 9.0    | 5.0    |
| 60°   | 9.0    | 9.0    | 9.0    | 10.0   | 10.0   | 10.0   | 11.0   | 10.0   | 7.0    | 5.0    | 4.0    |
| 62.5° | 4.0    | 4.0    | 4.0    | 4.0    | 5.0    | 5.0    | 6.0    | 5.0    | 4.0    | 4.0    | 3.0    |
| 65°   | 2.0    | 2.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    |
| 67.5° | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 3.0    | 3.0    |
| 70°   | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 3.0    | 3.0    |
| 72.5° | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 3.0    | 3.0    |
| 75°   | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 3.0    |
| 77.5° | 0.0    | 0.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 2.0    | 2.0    | 2.0    | 3.0    |
| 80°   | 0.0    | 0.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 2.0    | 2.0    | 2.0    | 3.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 2.0    | 2.0    | 2.0    | 3.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 2.0    | 2.0    | 3.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 2.0    | 2.0    | 2.0    |
| 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):**

|       | 50°    | 55°    | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 224.0  | 224.0  | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 |
| 2.5°  | 279.8  | 273.8  | 261.9 | 252.9 | 245.9 | 244.9 | 239.0 | 229.0 | 225.0 | 218.0 | 212.1 |
| 5°    | 344.5  | 329.6  | 310.6 | 292.7 | 279.8 | 272.8 | 251.9 | 233.0 | 222.0 | 211.1 | 201.1 |
| 7.5°  | 414.2  | 380.3  | 347.5 | 318.6 | 300.7 | 289.7 | 264.8 | 234.0 | 214.1 | 198.1 | 185.2 |
| 10°   | 501.8  | 432.1  | 375.4 | 330.6 | 306.7 | 291.7 | 261.9 | 225.0 | 200.1 | 181.2 | 168.3 |
| 12.5° | 701.9  | 511.8  | 401.2 | 336.5 | 306.7 | 285.8 | 249.9 | 213.1 | 185.2 | 162.3 | 148.4 |
| 15°   | 1044.4 | 714.9  | 475.9 | 339.5 | 296.7 | 272.8 | 232.0 | 193.2 | 165.3 | 141.4 | 128.4 |
| 17.5° | 1367.0 | 940.9  | 594.4 | 360.4 | 290.7 | 253.9 | 208.1 | 170.3 | 141.4 | 118.5 | 107.5 |
| 20°   | 1534.3 | 1053.4 | 660.1 | 376.4 | 280.8 | 230.0 | 180.2 | 145.4 | 117.5 | 97.6  | 88.6  |
| 22.5° | 1538.3 | 1043.4 | 628.3 | 339.5 | 243.9 | 197.1 | 154.3 | 119.5 | 95.6  | 78.7  | 71.7  |
| 25°   | 1443.7 | 923.0  | 516.7 | 264.8 | 197.1 | 165.3 | 128.4 | 97.6  | 74.7  | 62.7  | 57.7  |
| 27.5° | 1265.5 | 746.7  | 381.3 | 191.2 | 154.3 | 131.4 | 100.6 | 74.7  | 56.8  | 48.8  | 45.8  |
| 30°   | 978.7  | 462.0  | 211.1 | 141.4 | 116.5 | 98.6  | 72.7  | 49.8  | 42.8  | 37.8  | 35.8  |
| 32.5° | 485.9  | 226.0  | 149.3 | 100.6 | 79.7  | 62.7  | 45.8  | 36.8  | 32.9  | 29.9  | 28.9  |
| 35°   | 263.8  | 162.3  | 93.6  | 60.7  | 47.8  | 39.8  | 30.9  | 25.9  | 23.9  | 22.9  | 22.9  |
| 37.5° | 184.2  | 96.6   | 56.8  | 36.8  | 29.9  | 26.9  | 21.9  | 18.9  | 17.9  | 17.9  | 17.9  |
| 40°   | 101.6  | 57.7   | 34.8  | 23.9  | 19.9  | 17.9  | 14.9  | 13.9  | 13.9  | 13.9  | 14.9  |
| 42.5° | 58.7   | 35.8   | 23.9  | 16.9  | 13.9  | 12.9  | 11.0  | 10.0  | 11.0  | 11.0  | 11.9  |
| 45°   | 37.8   | 26.9   | 15.9  | 11.9  | 10.0  | 9.0   | 8.0   | 8.0   | 9.0   | 9.0   | 10.0  |
| 47.5° | 26.9   | 18.9   | 11.0  | 8.0   | 6.0   | 6.0   | 6.0   | 6.0   | 7.0   | 8.0   | 9.0   |
| 50°   | 15.9   | 10.0   | 6.0   | 5.0   | 4.0   | 4.0   | 4.0   | 5.0   | 6.0   | 6.0   | 7.0   |
| 52.5° | 9.0    | 6.0    | 4.0   | 4.0   | 3.0   | 3.0   | 4.0   | 4.0   | 5.0   | 6.0   | 7.0   |
| 55°   | 5.0    | 4.0    | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   | 4.0   | 4.0   | 5.0   | 6.0   |
| 57.5° | 4.0    | 3.0    | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   | 4.0   | 4.0   | 5.0   | 5.0   |
| 60°   | 3.0    | 3.0    | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   | 4.0   | 4.0   | 5.0   | 5.0   |
| 62.5° | 3.0    | 3.0    | 3.0   | 3.0   | 3.0   | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 5.0   |
| 65°   | 3.0    | 3.0    | 3.0   | 4.0   | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 5.0   |
| 67.5° | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 5.0   |
| 70°   | 3.0    | 3.0    | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 5.0   |
| 72.5° | 3.0    | 3.0    | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 5.0   |
| 75°   | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 77.5° | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 80°   | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 82.5° | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 85°   | 3.0    | 3.0    | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 87.5° | 3.0    | 3.0    | 3.0   | 3.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 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):**

|       | 100°  | 105°  | 110°  | 112.5° | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  |
|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 224.0 | 224.0 | 224.0 | 224.0  | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 |
| 2.5°  | 210.1 | 203.1 | 198.1 | 196.1  | 192.2 | 193.2 | 190.2 | 188.2 | 182.2 | 182.2 | 178.2 |
| 5°    | 194.2 | 185.2 | 179.2 | 176.2  | 172.2 | 171.3 | 168.3 | 165.3 | 159.3 | 158.3 | 155.3 |
| 7.5°  | 177.2 | 168.3 | 161.3 | 158.3  | 154.3 | 153.3 | 149.3 | 147.4 | 142.4 | 141.4 | 138.4 |
| 10°   | 159.3 | 149.3 | 143.4 | 140.4  | 136.4 | 136.4 | 133.4 | 131.4 | 127.4 | 127.4 | 125.5 |
| 12.5° | 140.4 | 131.4 | 127.4 | 123.5  | 121.5 | 121.5 | 119.5 | 117.5 | 114.5 | 115.5 | 114.5 |
| 15°   | 120.5 | 113.5 | 109.5 | 107.5  | 106.5 | 106.5 | 105.5 | 104.5 | 102.6 | 104.5 | 102.6 |
| 17.5° | 101.6 | 96.6  | 93.6  | 92.6   | 91.6  | 91.6  | 91.6  | 92.6  | 91.6  | 93.6  | 93.6  |
| 20°   | 83.6  | 79.7  | 77.7  | 77.7   | 76.7  | 78.7  | 78.7  | 80.6  | 80.6  | 83.6  | 84.6  |
| 22.5° | 68.7  | 65.7  | 64.7  | 64.7   | 64.7  | 66.7  | 67.7  | 69.7  | 70.7  | 73.7  | 75.7  |
| 25°   | 54.8  | 53.8  | 53.8  | 53.8   | 54.8  | 56.8  | 58.7  | 60.7  | 61.7  | 65.7  | 66.7  |
| 27.5° | 44.8  | 43.8  | 44.8  | 44.8   | 45.8  | 48.8  | 50.8  | 52.8  | 54.8  | 57.7  | 59.7  |
| 30°   | 35.8  | 35.8  | 36.8  | 37.8   | 38.8  | 40.8  | 43.8  | 45.8  | 47.8  | 50.8  | 52.8  |
| 32.5° | 28.9  | 29.9  | 30.9  | 31.9   | 31.9  | 34.8  | 36.8  | 39.8  | 40.8  | 43.8  | 45.8  |
| 35°   | 23.9  | 24.9  | 25.9  | 26.9   | 26.9  | 29.9  | 31.9  | 33.9  | 35.8  | 37.8  | 39.8  |
| 37.5° | 18.9  | 19.9  | 21.9  | 22.9   | 22.9  | 25.9  | 26.9  | 28.9  | 30.9  | 32.9  | 34.8  |
| 40°   | 15.9  | 16.9  | 18.9  | 18.9   | 19.9  | 21.9  | 22.9  | 24.9  | 26.9  | 28.9  | 30.9  |
| 42.5° | 12.9  | 13.9  | 15.9  | 16.9   | 16.9  | 18.9  | 19.9  | 21.9  | 22.9  | 24.9  | 25.9  |
| 45°   | 11.9  | 11.9  | 13.9  | 13.9   | 14.9  | 15.9  | 17.9  | 18.9  | 19.9  | 21.9  | 22.9  |
| 47.5° | 10.0  | 11.0  | 11.9  | 12.9   | 12.9  | 13.9  | 14.9  | 15.9  | 16.9  | 18.9  | 19.9  |
| 50°   | 8.0   | 9.0   | 11.0  | 11.0   | 11.0  | 12.9  | 13.9  | 14.9  | 14.9  | 15.9  | 16.9  |
| 52.5° | 8.0   | 8.0   | 9.0   | 10.0   | 10.0  | 11.0  | 11.9  | 12.9  | 12.9  | 13.9  | 14.9  |
| 55°   | 7.0   | 7.0   | 8.0   | 9.0    | 9.0   | 10.0  | 11.0  | 11.0  | 11.9  | 11.9  | 12.9  |
| 57.5° | 6.0   | 7.0   | 8.0   | 8.0    | 8.0   | 9.0   | 10.0  | 10.0  | 11.0  | 11.0  | 11.9  |
| 60°   | 6.0   | 7.0   | 7.0   | 8.0    | 8.0   | 9.0   | 9.0   | 9.0   | 10.0  | 10.0  | 10.0  |
| 62.5° | 6.0   | 6.0   | 7.0   | 7.0    | 7.0   | 8.0   | 8.0   | 9.0   | 9.0   | 9.0   | 9.0   |
| 65°   | 6.0   | 6.0   | 7.0   | 7.0    | 7.0   | 8.0   | 8.0   | 8.0   | 8.0   | 8.0   | 8.0   |
| 67.5° | 5.0   | 6.0   | 6.0   | 6.0    | 7.0   | 7.0   | 7.0   | 7.0   | 7.0   | 7.0   | 7.0   |
| 70°   | 5.0   | 5.0   | 6.0   | 6.0    | 6.0   | 7.0   | 7.0   | 7.0   | 7.0   | 7.0   | 7.0   |
| 72.5° | 5.0   | 5.0   | 6.0   | 6.0    | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |
| 75°   | 5.0   | 5.0   | 5.0   | 5.0    | 5.0   | 6.0   | 6.0   | 6.0   | 6.0   | 5.0   | 5.0   |
| 77.5° | 4.0   | 5.0   | 5.0   | 5.0    | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   | 4.0   |
| 80°   | 4.0   | 4.0   | 5.0   | 4.0    | 5.0   | 5.0   | 5.0   | 5.0   | 4.0   | 4.0   | 4.0   |
| 82.5° | 4.0   | 4.0   | 4.0   | 4.0    | 4.0   | 4.0   | 4.0   | 4.0   | 4.0   | 3.0   | 3.0   |
| 85°   | 4.0   | 4.0   | 4.0   | 4.0    | 4.0   | 4.0   | 4.0   | 3.0   | 3.0   | 3.0   | 2.0   |
| 87.5° | 4.0   | 4.0   | 4.0   | 4.0    | 4.0   | 4.0   | 3.0   | 3.0   | 3.0   | 2.0   | 2.0   |
| 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: P182704

CATALOG NUMBER: LDSQA4A18835D010TE LAR25NF 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 150°  | 155°  | 157.5° | 160°  | 165°  | 170°  | 175°  | 180°  |
|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 0°    | 224.0 | 224.0 | 224.0  | 224.0 | 224.0 | 224.0 | 224.0 | 224.0 |
| 2.5°  | 176.2 | 178.2 | 176.2  | 178.2 | 173.2 | 175.2 | 177.2 | 172.2 |
| 5°    | 153.3 | 151.3 | 152.3  | 154.3 | 150.3 | 151.3 | 152.3 | 148.4 |
| 7.5°  | 137.4 | 138.4 | 136.4  | 138.4 | 135.4 | 136.4 | 137.4 | 134.4 |
| 10°   | 124.5 | 125.5 | 124.5  | 125.5 | 122.5 | 124.5 | 125.5 | 122.5 |
| 12.5° | 112.5 | 114.5 | 113.5  | 115.5 | 112.5 | 114.5 | 116.5 | 112.5 |
| 15°   | 103.5 | 105.5 | 104.5  | 106.5 | 104.5 | 106.5 | 108.5 | 105.5 |
| 17.5° | 94.6  | 96.6  | 96.6   | 98.6  | 97.6  | 99.6  | 101.6 | 98.6  |
| 20°   | 85.6  | 88.6  | 88.6   | 90.6  | 90.6  | 91.6  | 94.6  | 91.6  |
| 22.5° | 77.7  | 80.6  | 80.6   | 82.6  | 82.6  | 84.6  | 86.6  | 84.6  |
| 25°   | 68.7  | 72.7  | 73.7   | 75.7  | 75.7  | 77.7  | 80.6  | 78.7  |
| 27.5° | 62.7  | 65.7  | 66.7   | 68.7  | 69.7  | 71.7  | 73.7  | 71.7  |
| 30°   | 54.8  | 58.7  | 59.7   | 61.7  | 62.7  | 65.7  | 66.7  | 65.7  |
| 32.5° | 48.8  | 51.8  | 52.8   | 54.8  | 56.8  | 58.7  | 60.7  | 59.7  |
| 35°   | 42.8  | 45.8  | 46.8   | 48.8  | 49.8  | 52.8  | 54.8  | 53.8  |
| 37.5° | 37.8  | 40.8  | 41.8   | 42.8  | 43.8  | 46.8  | 48.8  | 47.8  |
| 40°   | 32.9  | 34.8  | 35.8   | 37.8  | 38.8  | 40.8  | 42.8  | 42.8  |
| 42.5° | 28.9  | 30.9  | 31.9   | 32.9  | 33.9  | 35.8  | 37.8  | 36.8  |
| 45°   | 24.9  | 26.9  | 27.9   | 28.9  | 29.9  | 30.9  | 32.9  | 31.9  |
| 47.5° | 20.9  | 22.9  | 23.9   | 24.9  | 25.9  | 26.9  | 28.9  | 27.9  |
| 50°   | 17.9  | 19.9  | 19.9   | 20.9  | 21.9  | 22.9  | 24.9  | 23.9  |
| 52.5° | 15.9  | 16.9  | 17.9   | 17.9  | 18.9  | 19.9  | 21.9  | 20.9  |
| 55°   | 13.9  | 14.9  | 14.9   | 15.9  | 15.9  | 16.9  | 17.9  | 17.9  |
| 57.5° | 11.9  | 12.9  | 12.9   | 13.9  | 13.9  | 14.9  | 15.9  | 15.9  |
| 60°   | 11.0  | 11.0  | 11.9   | 11.9  | 11.9  | 12.9  | 12.9  | 12.9  |
| 62.5° | 10.0  | 10.0  | 10.0   | 10.0  | 10.0  | 10.0  | 10.0  | 10.0  |
| 65°   | 8.0   | 8.0   | 8.0    | 8.0   | 8.0   | 8.0   | 8.0   | 8.0   |
| 67.5° | 7.0   | 7.0   | 7.0    | 7.0   | 7.0   | 6.0   | 6.0   | 6.0   |
| 70°   | 6.0   | 6.0   | 6.0    | 6.0   | 6.0   | 5.0   | 5.0   | 5.0   |
| 72.5° | 6.0   | 6.0   | 5.0    | 5.0   | 5.0   | 5.0   | 5.0   | 4.0   |
| 75°   | 5.0   | 5.0   | 5.0    | 5.0   | 4.0   | 4.0   | 4.0   | 4.0   |
| 77.5° | 4.0   | 4.0   | 4.0    | 4.0   | 3.0   | 3.0   | 3.0   | 3.0   |
| 80°   | 4.0   | 3.0   | 3.0    | 3.0   | 3.0   | 3.0   | 3.0   | 2.0   |
| 82.5° | 3.0   | 3.0   | 3.0    | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| 85°   | 2.0   | 2.0   | 2.0    | 2.0   | 1.0   | 1.0   | 1.0   | 1.0   |
| 87.5° | 2.0   | 1.0   | 1.0    | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   |
| 90°   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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— 0°-180°    - - 45°-225°    - - - 90°-270°













(END OF REPORT)