

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: P208837

Luminaire Tested: **LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P208837  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29054)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°  
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
SELF-FLANGED, 15° SPOT, 30° Tilt  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2097.3 lumens  
Efficiency: N/A  
Efficacy: 47.0 lumens/watt  
Spacing Criteria (0/90/45): 2.18 / 0.62 / 1.12  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

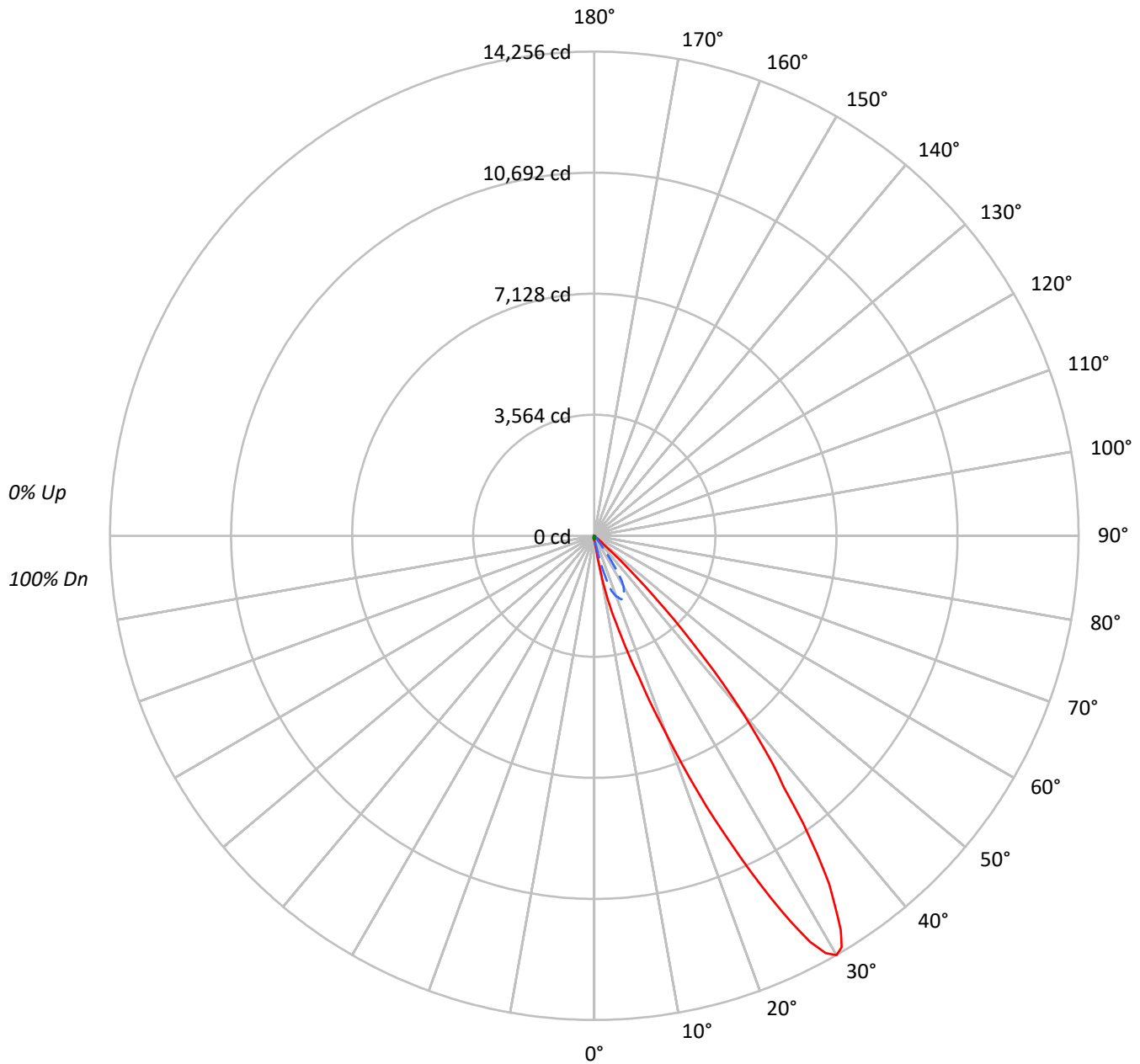
Input Watts (W): 44.62  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 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 |
| 1   | 113 | 109 | 106 | 104 | 110 | 107 | 105 | 102 |  | 103 | 101 | 99  |  | 99  | 98  | 96  |  | 96  | 95  | 93  |
| 2   | 106 | 100 | 95  | 91  | 103 | 98  | 94  | 90  |  | 95  | 91  | 88  |  | 92  | 89  | 86  |  | 89  | 87  | 85  |
| 3   | 99  | 91  | 86  | 81  | 97  | 90  | 85  | 80  |  | 87  | 83  | 79  |  | 85  | 81  | 78  |  | 82  | 79  | 76  |
| 4   | 93  | 84  | 77  | 72  | 91  | 82  | 76  | 72  |  | 80  | 75  | 71  |  | 78  | 73  | 70  |  | 76  | 72  | 69  |
| 5   | 86  | 76  | 70  | 64  | 85  | 75  | 69  | 64  |  | 74  | 68  | 63  |  | 72  | 67  | 63  |  | 70  | 66  | 62  |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 62  | 58  |  | 68  | 62  | 57  |  | 66  | 61  | 57  |  | 65  | 60  | 56  |
| 7   | 75  | 64  | 57  | 52  | 74  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 61  | 55  | 51  |  | 60  | 55  | 51  |
| 8   | 70  | 59  | 52  | 47  | 69  | 58  | 52  | 47  |  | 57  | 51  | 47  |  | 56  | 50  | 46  |  | 55  | 50  | 46  |
| 9   | 66  | 54  | 47  | 42  | 65  | 54  | 47  | 42  |  | 53  | 46  | 42  |  | 52  | 46  | 42  |  | 51  | 46  | 42  |
| 10  | 62  | 50  | 43  | 38  | 60  | 50  | 43  | 38  |  | 49  | 42  | 38  |  | 48  | 42  | 38  |  | 47  | 42  | 38  |

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

|     | 0°     | 90°  | 180° |
|-----|--------|------|------|
| 0°  | 5920   | 5920 | 5920 |
| 5°  | 9128   | 5606 | 4499 |
| 10° | 48958  | 4980 | 3738 |
| 15° | 134985 | 4030 | 3196 |
| 20° | 286638 | 3015 | 2790 |
| 25° | 518849 | 2195 | 2428 |
| 30° | 708772 | 1611 | 2148 |
| 35° | 600796 | 1135 | 1961 |
| 40° | 381375 | 776  | 1877 |
| 45° | 132180 | 597  | 1735 |
| 50° | 8092   | 462  | 1514 |
| 55° | 1404   | 368  | 1179 |
| 60° | 336    | 336  | 758  |
| 65° | 204    | 397  | 601  |
| 70° | 252    | 491  | 617  |
| 75° | 0      | 649  | 649  |
| 80° | 0      | 967  | 496  |
| 85° | 0      | 1927 | 494  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 17.1   | 0.8       |
| 10°-20°   | 215.7  | 10.3      |
| 20°-30°   | 749.5  | 35.7      |
| 30°-40°   | 821.7  | 39.2      |
| 40°-50°   | 271.0  | 12.9      |
| 50°-60°   | 11.2   | 0.5       |
| 60°-70°   | 4.9    | 0.2       |
| 70°-80°   | 3.8    | 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°    | 982.3  | 46.8      |
| 0°-40°    | 1803.9 | 86.0      |
| 0°-60°    | 2086.1 | 99.5      |
| 0°-90°    | 2097.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2097.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 45°  | 90° | 135° | 180° | Flux |
|-----|-------|------|-----|------|------|------|
| 0°  | 138   | 138  | 138 | 138  | 138  |      |
| 5°  | 211   | 172  | 130 | 111  | 104  | 45   |
| 15° | 3028  | 1235 | 90  | 73   | 72   | 1006 |
| 25° | 10922 | 2024 | 46  | 45   | 51   | 5111 |
| 35° | 11430 | 675  | 22  | 28   | 37   | 6870 |
| 45° | 2171  | 33   | 10  | 20   | 28   | 1912 |
| 55° | 19    | 4    | 5   | 13   | 16   | 27   |
| 65° | 2     | 3    | 4   | 8    | 6    | 2    |
| 75° | 0     | 3    | 4   | 5    | 4    | 1    |
| 85° | 0     | 3    | 4   | 3    | 1    | 0    |
| 90° | 0     | 0    | 0   | 0    | 0    |      |



TEST NUMBER: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 2.5°    | 5°      | 7.5°    | 10°     | 12.5°  | 15°    | 17.5°  | 20°    | 22.5°  | 25°    |
|-------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 0°    | 137.5   | 137.5   | 137.5   | 137.5   | 137.5   | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  |
| 2.5°  | 163.1   | 162.1   | 162.1   | 162.1   | 161.1   | 159.1  | 159.1  | 160.1  | 160.1  | 159.1  | 160.1  |
| 5°    | 211.2   | 209.2   | 208.2   | 207.3   | 203.3   | 202.3  | 198.4  | 201.4  | 198.4  | 195.5  | 195.5  |
| 7.5°  | 387.0   | 386.0   | 369.3   | 358.5   | 339.9   | 318.2  | 312.4  | 313.3  | 299.6  | 286.8  | 279.0  |
| 10°   | 1119.8  | 1121.7  | 1072.6  | 1092.3  | 1021.5  | 993.1  | 939.0  | 919.4  | 870.3  | 829.0  | 778.9  |
| 11°   | 1497.9  | 1496.0  | 1434.1  | 1452.7  | 1381.0  | 1340.8 | 1279.9 | 1248.4 | 1186.6 | 1145.3 | 1082.4 |
| 12°   | 1906.5  | 1846.6  | 1826.0  | 1843.7  | 1770.0  | 1717.0 | 1643.3 | 1603.0 | 1526.4 | 1484.2 | 1408.5 |
| 13°   | 2311.2  | 2293.5  | 2224.8  | 2241.5  | 2165.9  | 2050.0 | 2019.5 | 1971.4 | 1882.0 | 1831.9 | 1747.4 |
| 14°   | 2661.9  | 2597.1  | 2575.5  | 2586.3  | 2511.6  | 2401.6 | 2371.1 | 2356.4 | 2218.9 | 2164.9 | 2070.6 |
| 15°   | 3028.3  | 2949.7  | 2919.2  | 2879.0  | 2834.8  | 2704.1 | 2659.9 | 2631.4 | 2489.0 | 2398.6 | 2337.7 |
| 17.5° | 4360.2  | 4249.2  | 4174.6  | 4083.2  | 3986.0  | 3744.3 | 3644.1 | 3548.9 | 3299.4 | 3179.5 | 2998.8 |
| 20°   | 6255.9  | 6086.0  | 5894.5  | 5696.1  | 5505.5  | 5079.2 | 4831.7 | 4566.5 | 4225.6 | 3940.8 | 3724.7 |
| 21°   | 7173.4  | 6970.0  | 6739.2  | 6589.9  | 6231.4  | 5710.8 | 5376.8 | 4998.7 | 4560.6 | 4207.9 | 3935.9 |
| 22°   | 8135.0  | 7903.2  | 7710.6  | 7490.6  | 6993.6  | 6372.8 | 5953.4 | 5468.2 | 4901.4 | 4466.3 | 4122.5 |
| 23°   | 9069.1  | 8806.8  | 8576.0  | 8307.8  | 7733.2  | 7014.2 | 6516.2 | 5937.7 | 5255.0 | 4713.8 | 4288.5 |
| 24°   | 9961.0  | 9688.9  | 9423.7  | 9071.1  | 8412.9  | 7618.3 | 7032.9 | 6373.8 | 5591.9 | 4951.5 | 4444.7 |
| 25°   | 10921.6 | 10603.4 | 10260.6 | 9724.3  | 9055.3  | 8156.6 | 7482.8 | 6753.0 | 5891.5 | 5170.6 | 4576.3 |
| 26°   | 11878.3 | 11507.0 | 10993.3 | 10447.2 | 9647.6  | 8641.8 | 7873.7 | 7060.4 | 6146.9 | 5346.4 | 4673.5 |
| 27°   | 12776.1 | 12378.3 | 11775.2 | 11027.7 | 10179.0 | 9057.3 | 8195.9 | 7304.0 | 6324.7 | 5460.3 | 4718.7 |
| 28°   | 13544.2 | 13106.1 | 12434.3 | 11582.7 | 10574.9 | 9362.8 | 8409.0 | 7447.4 | 6410.1 | 5503.5 | 4724.6 |
| 29°   | 14050.1 | 13613.0 | 12889.1 | 11943.1 | 10798.8 | 9514.0 | 8493.5 | 7478.8 | 6405.2 | 5478.0 | 4684.3 |
| 30°   | 14256.3 | 13815.3 | 13075.7 | 12061.0 | 10841.1 | 9517.0 | 8459.1 | 7413.0 | 6319.8 | 5397.4 | 4604.8 |
| 31°   | 14135.5 | 13712.2 | 12961.7 | 11940.2 | 10691.8 | 9379.5 | 8314.7 | 7247.0 | 6149.9 | 5255.0 | 4485.9 |
| 32°   | 13689.6 | 13301.6 | 12580.6 | 11608.2 | 10384.3 | 9103.5 | 8066.2 | 7001.5 | 5910.2 | 5069.4 | 4337.6 |
| 33°   | 13009.9 | 12686.7 | 11950.0 | 11053.2 | 9973.7  | 8764.6 | 7763.7 | 6752.0 | 5621.4 | 4842.5 | 4179.5 |
| 34°   | 12358.6 | 11881.3 | 11228.1 | 10431.5 | 9447.3  | 8324.5 | 7388.5 | 6359.1 | 5314.9 | 4593.0 | 3998.7 |
| 35°   | 11430.4 | 11003.1 | 10400.0 | 9718.4  | 8834.3  | 7787.3 | 6851.2 | 5976.0 | 4972.1 | 4352.3 | 3809.2 |
| 36°   | 10451.1 | 10074.9 | 9636.8  | 9025.9  | 8180.2  | 7226.4 | 6369.9 | 5505.5 | 4619.5 | 4084.2 | 3608.8 |
| 37°   | 9254.7  | 9170.3  | 8762.6  | 8252.8  | 7497.5  | 6616.4 | 5811.0 | 5063.5 | 4289.5 | 3836.7 | 3388.8 |
| 38°   | 8548.5  | 8271.5  | 7898.3  | 7449.4  | 6708.8  | 6003.5 | 5271.7 | 4619.5 | 3989.9 | 3604.8 | 3138.3 |
| 39°   | 7649.7  | 7416.0  | 7072.2  | 6668.5  | 6031.0  | 5365.0 | 4769.8 | 4249.2 | 3742.4 | 3371.1 | 2868.2 |
| 40°   | 6785.4  | 6590.9  | 6275.6  | 5928.8  | 5350.3  | 4802.2 | 4336.6 | 3923.1 | 3496.8 | 3121.6 | 2601.0 |
| 42.5° | 4278.7  | 4182.4  | 4052.8  | 4005.6  | 3798.4  | 3655.9 | 3486.0 | 3247.3 | 2872.1 | 2449.7 | 2086.3 |
| 45°   | 2170.8  | 2108.9  | 2106.9  | 2203.2  | 2269.0  | 2275.9 | 2260.2 | 2199.3 | 1955.7 | 1834.8 | 1511.7 |
| 47.5° | 365.4   | 347.7   | 358.5   | 423.3   | 514.7   | 625.7  | 749.5  | 901.7  | 1064.8 | 1030.4 | 793.7  |
| 50°   | 120.8   | 116.9   | 113.9   | 116.9   | 113.0   | 115.9  | 113.9  | 111.0  | 100.2  | 105.1  | 108.0  |
| 51°   | 74.7    | 79.6    | 76.6    | 78.6    | 77.6    | 80.5   | 80.5   | 79.6   | 72.7   | 67.8   | 61.9   |
| 52°   | 51.1    | 52.1    | 53.0    | 54.0    | 53.0    | 54.0   | 55.0   | 55.0   | 53.0   | 51.1   | 46.2   |
| 53°   | 36.3    | 36.3    | 37.3    | 37.3    | 37.3    | 38.3   | 38.3   | 38.3   | 37.3   | 37.3   | 36.3   |
| 54°   | 25.5    | 26.5    | 26.5    | 26.5    | 26.5    | 27.5   | 27.5   | 27.5   | 28.5   | 27.5   | 27.5   |
| 55°   | 18.7    | 18.7    | 18.7    | 18.7    | 18.7    | 18.7   | 19.6   | 19.6   | 20.6   | 20.6   | 19.6   |
| 57.5° | 7.9     | 7.9     | 6.9     | 7.9     | 7.9     | 7.9    | 7.9    | 8.8    | 8.8    | 9.8    | 9.8    |
| 60°   | 3.9     | 3.9     | 3.9     | 3.9     | 2.9     | 3.9    | 3.9    | 3.9    | 3.9    | 4.9    | 4.9    |



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CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|-------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 63°   | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 1.0 | 2.0   | 2.0 | 2.0   | 2.0 |
| 64°   | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 65°   | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 66°   | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 1.0   | 1.0 |
| 67.5° | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 1.0 |
| 70°   | 2.0 | 2.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 |
| 72.5° | 2.0 | 1.0  | 2.0 | 2.0  | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 |
| 75°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 77.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 80°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 1.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 82.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 85°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 1.0   | 1.0 | 1.0   | 1.0 |
| 87.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 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   | 0.0 | 0.0   | 0.0 |



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**CANDELA DISTRIBUTION (continued):**

|       | 27.5°  | 30°    | 32.5°  | 35°    | 37.5°  | 40°    | 42.5°  | 45°    | 47.5°  | 50°    | 52.5°  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  | 137.5  |
| 2.5°  | 157.2  | 159.1  | 156.2  | 158.1  | 154.2  | 154.2  | 151.3  | 152.2  | 151.3  | 149.3  | 149.3  |
| 5°    | 190.6  | 190.6  | 185.6  | 185.6  | 179.8  | 176.8  | 171.9  | 171.9  | 168.9  | 164.0  | 163.1  |
| 7.5°  | 261.3  | 251.5  | 240.7  | 236.7  | 224.9  | 217.1  | 208.2  | 204.3  | 195.5  | 187.6  | 181.7  |
| 10°   | 699.4  | 634.5  | 570.7  | 531.4  | 435.1  | 365.4  | 313.3  | 278.0  | 252.4  | 222.0  | 210.2  |
| 11°   | 986.2  | 903.7  | 820.2  | 738.7  | 644.4  | 549.1  | 489.2  | 394.9  | 334.9  | 267.2  | 234.8  |
| 12°   | 1296.6 | 1199.3 | 1098.2 | 1005.8 | 892.9  | 773.0  | 690.5  | 570.7  | 486.2  | 373.3  | 294.7  |
| 13°   | 1614.8 | 1504.8 | 1384.0 | 1287.7 | 1160.0 | 1022.5 | 892.9  | 781.9  | 676.8  | 529.4  | 414.5  |
| 14°   | 1921.3 | 1804.4 | 1671.8 | 1570.6 | 1427.2 | 1277.9 | 1131.5 | 1008.8 | 881.1  | 705.3  | 563.8  |
| 15°   | 2194.3 | 2110.8 | 1942.9 | 1842.7 | 1688.5 | 1529.4 | 1366.3 | 1234.7 | 1083.4 | 888.0  | 724.9  |
| 17.5° | 2766.0 | 2611.8 | 2406.5 | 2307.3 | 2154.1 | 2016.6 | 1839.7 | 1720.9 | 1534.3 | 1328.0 | 1148.2 |
| 20°   | 3439.8 | 3212.9 | 2935.0 | 2725.7 | 2460.5 | 2218.9 | 1995.9 | 1902.6 | 1786.7 | 1646.2 | 1478.3 |
| 21°   | 3624.5 | 3379.9 | 3076.4 | 2863.3 | 2591.2 | 2342.7 | 2080.4 | 1932.1 | 1805.4 | 1683.6 | 1543.1 |
| 22°   | 3759.1 | 3500.7 | 3181.5 | 2959.5 | 2679.6 | 2433.0 | 2164.9 | 1987.1 | 1818.1 | 1680.6 | 1553.9 |
| 23°   | 3873.0 | 3598.0 | 3266.0 | 3024.3 | 2731.6 | 2477.2 | 2208.1 | 2031.3 | 1844.7 | 1673.7 | 1536.2 |
| 24°   | 3976.1 | 3674.6 | 3325.9 | 3066.6 | 2758.2 | 2492.9 | 2214.0 | 2039.1 | 1857.4 | 1677.7 | 1512.7 |
| 25°   | 4053.7 | 3722.7 | 3360.3 | 3088.2 | 2764.0 | 2488.0 | 2200.2 | 2024.4 | 1842.7 | 1664.9 | 1486.1 |
| 26°   | 4106.8 | 3745.3 | 3370.1 | 3087.2 | 2752.3 | 2468.4 | 2171.7 | 1994.0 | 1807.3 | 1618.7 | 1442.9 |
| 27°   | 4123.5 | 3739.4 | 3356.3 | 3064.6 | 2722.8 | 2430.1 | 2123.6 | 1936.0 | 1752.3 | 1563.7 | 1385.0 |
| 28°   | 4106.8 | 3715.8 | 3324.9 | 3020.4 | 2673.7 | 2367.2 | 2046.0 | 1859.4 | 1693.4 | 1502.8 | 1314.2 |
| 29°   | 4060.6 | 3673.6 | 3267.0 | 2954.6 | 2596.1 | 2265.1 | 1946.8 | 1785.7 | 1625.6 | 1410.5 | 1195.4 |
| 30°   | 3988.9 | 3597.0 | 3183.5 | 2858.3 | 2481.2 | 2136.4 | 1857.4 | 1718.0 | 1513.6 | 1261.2 | 1029.4 |
| 31°   | 3888.7 | 3497.8 | 3075.4 | 2730.6 | 2327.9 | 2010.7 | 1779.8 | 1591.2 | 1338.8 | 1063.8 | 827.1  |
| 32°   | 3766.9 | 3379.9 | 2918.3 | 2560.7 | 2176.7 | 1911.5 | 1642.3 | 1397.7 | 1117.8 | 830.0  | 603.1  |
| 33°   | 3636.3 | 3228.6 | 2738.5 | 2382.0 | 2047.0 | 1778.9 | 1443.9 | 1159.1 | 870.3  | 583.5  | 380.1  |
| 34°   | 3485.0 | 3043.0 | 2537.1 | 2202.2 | 1901.6 | 1579.5 | 1208.2 | 900.7  | 620.8  | 354.6  | 195.5  |
| 35°   | 3302.3 | 2814.1 | 2336.8 | 2047.0 | 1693.4 | 1315.2 | 949.8  | 674.8  | 389.0  | 178.8  | 106.1  |
| 36°   | 3081.3 | 2578.4 | 2162.9 | 1847.6 | 1449.8 | 1055.9 | 685.6  | 430.2  | 209.2  | 105.1  | 83.5   |
| 37°   | 2800.4 | 2384.9 | 1980.2 | 1609.9 | 1186.6 | 792.7  | 442.0  | 233.8  | 119.8  | 85.5   | 70.7   |
| 38°   | 2557.8 | 2206.1 | 1784.7 | 1350.6 | 914.5  | 543.2  | 268.2  | 131.6  | 94.3   | 71.7   | 58.9   |
| 39°   | 2348.6 | 2014.6 | 1528.4 | 1077.5 | 652.2  | 329.1  | 147.3  | 100.2  | 78.6   | 58.9   | 50.1   |
| 40°   | 2165.9 | 1741.5 | 1257.3 | 808.4  | 419.4  | 182.7  | 106.1  | 83.5   | 63.8   | 49.1   | 40.3   |
| 42.5° | 1589.3 | 1105.0 | 582.5  | 261.3  | 122.8  | 91.3   | 66.8   | 53.0   | 41.3   | 30.4   | 25.5   |
| 45°   | 943.9  | 497.0  | 175.8  | 107.1  | 77.6   | 58.0   | 42.2   | 33.4   | 25.5   | 18.7   | 15.7   |
| 47.5° | 344.8  | 125.7  | 86.4   | 64.8   | 49.1   | 36.3   | 26.5   | 20.6   | 15.7   | 10.8   | 8.8    |
| 50°   | 70.7   | 60.9   | 47.1   | 38.3   | 28.5   | 21.6   | 15.7   | 11.8   | 8.8    | 6.9    | 5.9    |
| 51°   | 54.0   | 47.1   | 38.3   | 30.4   | 22.6   | 17.7   | 12.8   | 9.8    | 7.9    | 5.9    | 4.9    |
| 52°   | 41.3   | 36.3   | 29.5   | 24.6   | 18.7   | 13.8   | 9.8    | 7.9    | 5.9    | 3.9    | 3.9    |
| 53°   | 32.4   | 28.5   | 22.6   | 18.7   | 14.7   | 10.8   | 7.9    | 5.9    | 4.9    | 3.9    | 3.9    |
| 54°   | 24.6   | 21.6   | 17.7   | 14.7   | 11.8   | 8.8    | 5.9    | 4.9    | 3.9    | 3.9    | 2.9    |
| 55°   | 17.7   | 16.7   | 13.8   | 10.8   | 8.8    | 6.9    | 4.9    | 3.9    | 3.9    | 2.9    | 2.9    |
| 57.5° | 8.8    | 7.9    | 6.9    | 5.9    | 4.9    | 3.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.0    |
| 60°   | 4.9    | 3.9    | 3.9    | 3.9    | 2.9    | 2.9    | 2.9    | 2.0    | 2.0    | 2.9    | 2.9    |



TEST NUMBER: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 47.5° | 50° | 52.5° |
|-------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 63°   | 2.0   | 2.0 | 2.0   | 2.0 | 2.9   | 2.0 | 2.0   | 2.0 | 2.9   | 2.9 | 2.9   |
| 64°   | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 65°   | 1.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 66°   | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 67.5° | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 70°   | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 72.5° | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 75°   | 1.0   | 1.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 77.5° | 1.0   | 1.0 | 2.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 80°   | 1.0   | 1.0 | 1.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 82.5° | 1.0   | 1.0 | 1.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 85°   | 1.0   | 1.0 | 1.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 87.5° | 1.0   | 1.0 | 1.0   | 2.0 | 2.0   | 2.0 | 2.0   | 2.9 | 2.9   | 2.9 | 2.9   |
| 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: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 57.5°  | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° | 75°   | 77.5° | 80°   |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 137.5  | 137.5  | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 |
| 2.5°  | 146.4  | 148.3  | 146.4 | 144.4 | 143.4 | 143.4 | 142.4 | 139.5 | 140.5 | 139.5 | 139.5 |
| 5°    | 158.1  | 159.1  | 155.2 | 152.2 | 150.3 | 148.3 | 146.4 | 142.4 | 141.4 | 140.5 | 139.5 |
| 7.5°  | 173.9  | 172.9  | 165.0 | 160.1 | 155.2 | 151.3 | 147.3 | 142.4 | 140.5 | 137.5 | 135.6 |
| 10°   | 196.4  | 189.6  | 176.8 | 168.0 | 161.1 | 153.2 | 147.3 | 139.5 | 135.6 | 131.6 | 128.7 |
| 11°   | 206.3  | 196.4  | 183.7 | 171.9 | 163.1 | 154.2 | 147.3 | 137.5 | 132.6 | 128.7 | 124.7 |
| 12°   | 236.7  | 210.2  | 189.6 | 176.8 | 165.0 | 155.2 | 146.4 | 136.5 | 130.6 | 124.7 | 120.8 |
| 13°   | 306.5  | 244.6  | 202.3 | 179.8 | 168.0 | 156.2 | 145.4 | 134.6 | 127.7 | 120.8 | 116.9 |
| 14°   | 420.4  | 314.3  | 233.8 | 190.6 | 168.9 | 156.2 | 144.4 | 132.6 | 124.7 | 117.9 | 113.0 |
| 15°   | 556.9  | 422.4  | 297.6 | 217.1 | 172.9 | 155.2 | 142.4 | 129.7 | 120.8 | 113.0 | 108.0 |
| 17.5° | 938.0  | 762.2  | 571.7 | 406.7 | 251.5 | 169.9 | 134.6 | 119.8 | 109.0 | 100.2 | 94.3  |
| 20°   | 1257.3 | 1054.9 | 839.8 | 634.5 | 435.1 | 271.1 | 155.2 | 109.0 | 96.3  | 86.4  | 80.5  |
| 21°   | 1327.0 | 1137.4 | 909.6 | 694.4 | 488.2 | 314.3 | 175.8 | 109.0 | 91.3  | 81.5  | 75.6  |
| 22°   | 1363.4 | 1180.7 | 952.8 | 733.7 | 524.5 | 344.8 | 197.4 | 110.0 | 86.4  | 76.6  | 69.7  |
| 23°   | 1357.5 | 1190.5 | 969.5 | 745.5 | 541.2 | 359.5 | 206.3 | 111.0 | 81.5  | 71.7  | 64.8  |
| 24°   | 1322.1 | 1164.0 | 952.8 | 731.8 | 536.3 | 355.6 | 203.3 | 109.0 | 76.6  | 66.8  | 60.9  |
| 25°   | 1277.9 | 1111.9 | 907.6 | 694.4 | 504.9 | 331.0 | 188.6 | 102.2 | 72.7  | 62.9  | 57.0  |
| 26°   | 1227.8 | 1059.8 | 844.7 | 628.6 | 453.8 | 289.8 | 159.1 | 90.4  | 66.8  | 58.0  | 53.0  |
| 27°   | 1167.9 | 992.1  | 767.1 | 558.9 | 383.1 | 233.8 | 127.7 | 76.6  | 61.9  | 53.0  | 49.1  |
| 28°   | 1078.5 | 895.8  | 667.9 | 466.6 | 306.5 | 176.8 | 96.3  | 65.8  | 57.0  | 49.1  | 45.2  |
| 29°   | 944.9  | 760.3  | 544.2 | 364.4 | 224.9 | 121.8 | 73.7  | 58.9  | 51.1  | 44.2  | 41.3  |
| 30°   | 777.9  | 601.1  | 403.7 | 250.5 | 144.4 | 82.5  | 59.9  | 52.1  | 45.2  | 40.3  | 38.3  |
| 31°   | 589.3  | 427.3  | 261.3 | 144.4 | 86.4  | 60.9  | 53.0  | 45.2  | 40.3  | 36.3  | 35.4  |
| 32°   | 389.0  | 258.3  | 138.5 | 83.5  | 62.9  | 53.0  | 46.2  | 40.3  | 36.3  | 33.4  | 32.4  |
| 33°   | 208.2  | 118.9  | 79.6  | 62.9  | 53.0  | 46.2  | 40.3  | 35.4  | 32.4  | 30.4  | 29.5  |
| 34°   | 106.1  | 77.6   | 64.8  | 54.0  | 45.2  | 40.3  | 35.4  | 31.4  | 29.5  | 27.5  | 26.5  |
| 35°   | 78.6   | 66.8   | 56.0  | 46.2  | 39.3  | 35.4  | 31.4  | 28.5  | 26.5  | 24.6  | 24.6  |
| 36°   | 66.8   | 56.0   | 46.2  | 40.3  | 35.4  | 31.4  | 28.5  | 24.6  | 23.6  | 22.6  | 21.6  |
| 37°   | 56.0   | 48.1   | 40.3  | 34.4  | 30.4  | 27.5  | 24.6  | 22.6  | 20.6  | 19.6  | 19.6  |
| 38°   | 47.1   | 41.3   | 34.4  | 29.5  | 26.5  | 24.6  | 21.6  | 19.6  | 18.7  | 17.7  | 17.7  |
| 39°   | 39.3   | 34.4   | 29.5  | 25.5  | 22.6  | 20.6  | 18.7  | 17.7  | 16.7  | 15.7  | 15.7  |
| 40°   | 32.4   | 29.5   | 24.6  | 21.6  | 19.6  | 17.7  | 16.7  | 15.7  | 14.7  | 13.8  | 14.7  |
| 42.5° | 20.6   | 17.7   | 15.7  | 14.7  | 12.8  | 12.8  | 11.8  | 10.8  | 10.8  | 10.8  | 10.8  |
| 45°   | 11.8   | 10.8   | 9.8   | 9.8   | 8.8   | 8.8   | 8.8   | 7.9   | 8.8   | 8.8   | 8.8   |
| 47.5° | 6.9    | 6.9    | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 5.9   | 6.9   | 6.9   |
| 50°   | 3.9    | 3.9    | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 4.9   | 4.9   |
| 51°   | 3.9    | 3.9    | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 3.9   | 4.9   |
| 52°   | 3.9    | 3.9    | 3.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   | 3.9   | 3.9   |
| 53°   | 2.9    | 3.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   | 3.9   | 3.9   |
| 54°   | 2.9    | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   | 3.9   |
| 55°   | 2.9    | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   | 3.9   |
| 57.5° | 2.9    | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   |
| 60°   | 2.9    | 2.9    | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 3.9   |



TEST NUMBER: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° | 80° |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| 63°   | 2.9 | 2.9   | 2.9 | 2.9   | 2.9 | 3.9   | 2.9 | 2.9   | 2.9 | 3.9   | 3.9 |
| 64°   | 2.9 | 2.9   | 2.9 | 2.9   | 2.9 | 3.9   | 2.9 | 2.9   | 2.9 | 2.9   | 3.9 |
| 65°   | 2.9 | 2.9   | 3.9 | 3.9   | 3.9 | 3.9   | 2.9 | 2.9   | 2.9 | 2.9   | 3.9 |
| 66°   | 2.9 | 2.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 2.9   | 2.9 | 3.9   | 3.9 |
| 67.5° | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 2.9   | 3.9 | 3.9   | 3.9 |
| 70°   | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 72.5° | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 75°   | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 77.5° | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 80°   | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 82.5° | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 85°   | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 87.5° | 2.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 | 3.9   | 3.9 |
| 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: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 82.5° | 85°   | 87.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0°    | 137.5 | 137.5 | 137.5 | 137.5 | 137.5  | 137.5 | 137.5  | 137.5 |
| 2.5°  | 136.5 | 135.6 | 134.6 | 134.6 | 126.7  | 122.8 | 117.9  | 117.9 |
| 5°    | 134.6 | 133.6 | 131.6 | 129.7 | 116.9  | 111.0 | 105.1  | 104.1 |
| 7.5°  | 130.6 | 127.7 | 124.7 | 122.8 | 107.1  | 100.2 | 94.3   | 93.3  |
| 10°   | 122.8 | 118.9 | 115.9 | 113.9 | 97.2   | 90.4  | 85.5   | 85.5  |
| 11°   | 118.9 | 114.9 | 112.0 | 109.0 | 92.3   | 86.4  | 82.5   | 82.5  |
| 12°   | 114.9 | 111.0 | 107.1 | 105.1 | 88.4   | 83.5  | 79.6   | 78.6  |
| 13°   | 111.0 | 106.1 | 103.1 | 100.2 | 84.5   | 79.6  | 76.6   | 76.6  |
| 14°   | 107.1 | 102.2 | 98.2  | 95.3  | 80.5   | 75.6  | 73.7   | 73.7  |
| 15°   | 101.2 | 96.3  | 93.3  | 90.4  | 75.6   | 72.7  | 70.7   | 71.7  |
| 17.5° | 87.4  | 83.5  | 80.5  | 77.6  | 65.8   | 64.8  | 64.8   | 65.8  |
| 20°   | 74.7  | 70.7  | 67.8  | 65.8  | 57.0   | 58.0  | 58.9   | 60.9  |
| 21°   | 69.7  | 65.8  | 62.9  | 60.9  | 54.0   | 55.0  | 57.0   | 58.9  |
| 22°   | 64.8  | 61.9  | 58.9  | 57.0  | 51.1   | 52.1  | 55.0   | 57.0  |
| 23°   | 59.9  | 57.0  | 55.0  | 53.0  | 48.1   | 50.1  | 53.0   | 55.0  |
| 24°   | 56.0  | 53.0  | 51.1  | 49.1  | 45.2   | 47.1  | 51.1   | 53.0  |
| 25°   | 52.1  | 49.1  | 47.1  | 46.2  | 42.2   | 45.2  | 49.1   | 51.1  |
| 26°   | 48.1  | 46.2  | 44.2  | 43.2  | 40.3   | 43.2  | 47.1   | 50.1  |
| 27°   | 44.2  | 42.2  | 41.3  | 40.3  | 37.3   | 41.3  | 45.2   | 48.1  |
| 28°   | 41.3  | 39.3  | 38.3  | 37.3  | 35.4   | 39.3  | 44.2   | 46.2  |
| 29°   | 38.3  | 36.3  | 35.4  | 34.4  | 33.4   | 37.3  | 42.2   | 45.2  |
| 30°   | 35.4  | 34.4  | 32.4  | 32.4  | 31.4   | 36.3  | 40.3   | 43.2  |
| 31°   | 32.4  | 31.4  | 30.4  | 29.5  | 29.5   | 34.4  | 39.3   | 42.2  |
| 32°   | 30.4  | 29.5  | 28.5  | 27.5  | 28.5   | 32.4  | 37.3   | 41.3  |
| 33°   | 27.5  | 26.5  | 26.5  | 25.5  | 26.5   | 31.4  | 36.3   | 40.3  |
| 34°   | 24.6  | 24.6  | 23.6  | 23.6  | 25.5   | 30.4  | 35.4   | 38.3  |
| 35°   | 22.6  | 21.6  | 21.6  | 21.6  | 24.6   | 28.5  | 34.4   | 37.3  |
| 36°   | 20.6  | 20.6  | 19.6  | 19.6  | 23.6   | 27.5  | 33.4   | 36.3  |
| 37°   | 18.7  | 18.7  | 18.7  | 17.7  | 21.6   | 26.5  | 31.4   | 35.4  |
| 38°   | 16.7  | 16.7  | 16.7  | 16.7  | 20.6   | 25.5  | 31.4   | 35.4  |
| 39°   | 14.7  | 14.7  | 15.7  | 15.7  | 19.6   | 24.6  | 29.5   | 34.4  |
| 40°   | 13.8  | 13.8  | 13.8  | 13.8  | 18.7   | 23.6  | 28.5   | 33.4  |
| 42.5° | 10.8  | 10.8  | 11.8  | 11.8  | 16.7   | 21.6  | 26.5   | 30.4  |
| 45°   | 8.8   | 8.8   | 9.8   | 9.8   | 14.7   | 19.6  | 23.6   | 28.5  |
| 47.5° | 6.9   | 6.9   | 7.9   | 7.9   | 12.8   | 17.7  | 21.6   | 25.5  |
| 50°   | 4.9   | 5.9   | 5.9   | 6.9   | 11.8   | 15.7  | 18.7   | 22.6  |
| 51°   | 4.9   | 4.9   | 5.9   | 5.9   | 10.8   | 14.7  | 17.7   | 21.6  |
| 52°   | 4.9   | 4.9   | 5.9   | 5.9   | 9.8    | 13.8  | 16.7   | 19.6  |
| 53°   | 3.9   | 4.9   | 4.9   | 5.9   | 9.8    | 13.8  | 15.7   | 18.7  |
| 54°   | 3.9   | 3.9   | 4.9   | 4.9   | 9.8    | 12.8  | 15.7   | 16.7  |
| 55°   | 3.9   | 3.9   | 4.9   | 4.9   | 8.8    | 12.8  | 14.7   | 15.7  |
| 57.5° | 3.9   | 3.9   | 3.9   | 3.9   | 7.9    | 10.8  | 12.8   | 12.8  |
| 60°   | 3.9   | 3.9   | 3.9   | 3.9   | 7.9    | 9.8   | 11.8   | 8.8   |



TEST NUMBER: P208837

CATALOG NUMBER: LDSQA6A30830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

|       | 82.5° | 85° | 87.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-----|-------|-----|--------|------|--------|------|
| 63°   | 3.9   | 3.9 | 3.9   | 3.9 | 6.9    | 8.8  | 8.8    | 6.9  |
| 64°   | 3.9   | 3.9 | 3.9   | 3.9 | 6.9    | 8.8  | 8.8    | 6.9  |
| 65°   | 3.9   | 3.9 | 3.9   | 3.9 | 6.9    | 7.9  | 7.9    | 5.9  |
| 66°   | 3.9   | 3.9 | 3.9   | 3.9 | 6.9    | 7.9  | 7.9    | 5.9  |
| 67.5° | 3.9   | 3.9 | 3.9   | 3.9 | 5.9    | 6.9  | 6.9    | 5.9  |
| 70°   | 3.9   | 3.9 | 3.9   | 3.9 | 5.9    | 6.9  | 5.9    | 4.9  |
| 72.5° | 3.9   | 3.9 | 3.9   | 3.9 | 5.9    | 5.9  | 4.9    | 3.9  |
| 75°   | 3.9   | 3.9 | 3.9   | 3.9 | 4.9    | 4.9  | 3.9    | 3.9  |
| 77.5° | 3.9   | 3.9 | 3.9   | 3.9 | 4.9    | 4.9  | 3.9    | 2.9  |
| 80°   | 3.9   | 3.9 | 3.9   | 3.9 | 4.9    | 3.9  | 2.9    | 2.0  |
| 82.5° | 3.9   | 3.9 | 3.9   | 3.9 | 3.9    | 2.9  | 2.0    | 2.0  |
| 85°   | 3.9   | 3.9 | 3.9   | 3.9 | 3.9    | 2.9  | 2.0    | 1.0  |
| 87.5° | 3.9   | 3.9 | 3.9   | 3.9 | 3.9    | 2.9  | 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°







|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 61° | 3.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 3.9 | 3.9 |
| 62° | 2.9 | 2.9 | 2.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |





|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 61° | 3.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.0 | 2.0 | 2.9 | 2.9 |
| 62° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.0 | 2.0 | 2.0 | 2.9 | 2.9 |





|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 61° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 3.9 |
| 62° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |





|     |     |     |     |     |     |     |      |     |
|-----|-----|-----|-----|-----|-----|-----|------|-----|
| 61° | 3.9 | 3.9 | 3.9 | 3.9 | 6.9 | 9.8 | 10.8 | 7.9 |
| 62° | 3.9 | 3.9 | 3.9 | 3.9 | 6.9 | 8.8 | 9.8  | 6.9 |



(END OF REPORT)