

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P646225

Luminaire Tested: **FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W**

Issue Date: 12/13/2022

Test Information

Test Method: LM-79-08
Report Number: P646225
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 12/13/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W
Description: 4 INCH 5000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND F4LC-SQLWW TRIM WITH LI FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

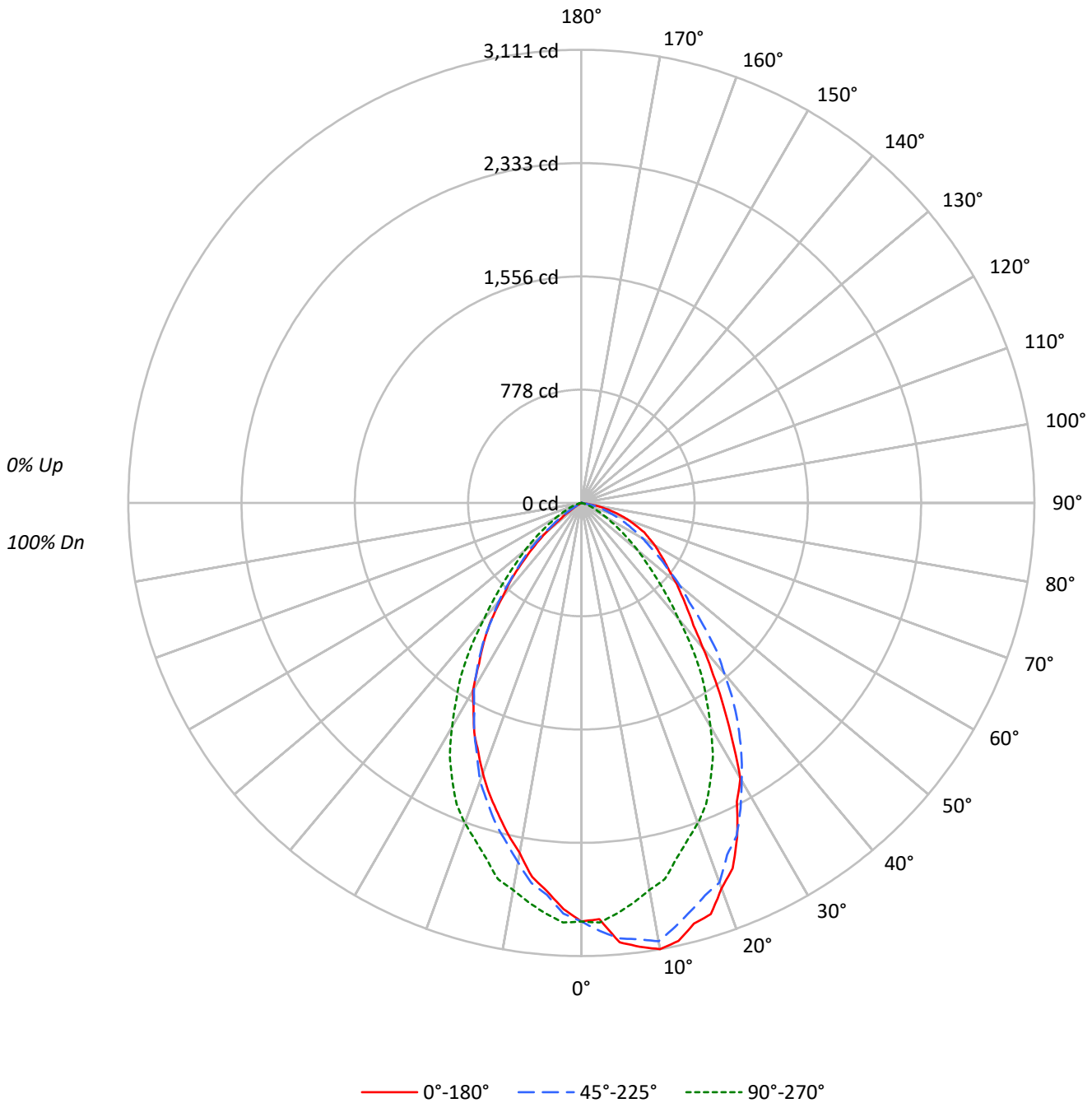
Lumens per Lamp: N/A
Luminaire Lumens: 4118.0 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 58.4
Input Voltage (V):
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



TEST NUMBER: P646225
CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

Luminous Intensity Polar Plot





TEST NUMBER: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 84 | 82 | 80 |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 72 |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 |
| 5 | 85 | 75 | 67 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 64 | 60 | 58 |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 53 |
| 7 | 75 | 63 | 56 | 51 | 73 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 48 |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 46 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 41 |
| 10 | 62 | 51 | 44 | 40 | 61 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 38 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 277193 | 277193 | 277193 |
| 5° | 293275 | 273923 | 259249 |
| 10° | 304768 | 264265 | 238947 |
| 15° | 298679 | 252219 | 220563 |
| 20° | 288986 | 240161 | 203022 |
| 25° | 269555 | 223340 | 185204 |
| 30° | 243332 | 197652 | 165809 |
| 35° | 200445 | 169207 | 137557 |
| 40° | 163581 | 130605 | 105867 |
| 45° | 140550 | 99190 | 76142 |
| 50° | 127203 | 75505 | 48095 |
| 55° | 117050 | 54471 | 17394 |
| 60° | 112352 | 37225 | 2663 |
| 65° | 108517 | 25183 | 799 |
| 70° | 97160 | 17463 | 987 |
| 75° | 79631 | 9022 | 0 |
| 80° | 49787 | 3834 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 269.2 | 6.5 |
| 10°-20° | 725.2 | 17.6 |
| 20°-30° | 968.3 | 23.5 |
| 30°-40° | 919.2 | 22.3 |
| 40°-50° | 635.4 | 15.4 |
| 50°-60° | 351.1 | 8.5 |
| 60°-70° | 174.3 | 4.2 |
| 70°-80° | 68.7 | 1.7 |
| 80°-90° | 6.5 | 0.2 |
| 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° | 1962.7 | 47.7 |
| 0°-40° | 2881.9 | 70.0 |
| 0°-60° | 3868.4 | 93.9 |
| 0°-90° | 4118.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4118.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 2873 | 2873 | 2873 | 2873 | 2873 | |
| 5° | 3028 | 3000 | 2828 | 2701 | 2677 | 290 |
| 15° | 2990 | 2900 | 2525 | 2277 | 2208 | 846 |
| 25° | 2532 | 2522 | 2098 | 1740 | 1740 | 1154 |
| 35° | 1702 | 1881 | 1436 | 1182 | 1168 | 1066 |
| 45° | 1030 | 1182 | 727 | 596 | 558 | 803 |
| 55° | 696 | 654 | 324 | 165 | 103 | 626 |
| 65° | 475 | 344 | 110 | 4 | 4 | 461 |
| 75° | 214 | 131 | 24 | 0 | 0 | 228 |
| 85° | 0 | 4 | 0 | 0 | 0 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 |
| 2.5° | 2859.0 | 2938.3 | 2945.1 | 2938.3 | 2948.7 | 2945.1 | 2962.4 | 2945.1 | 2965.9 | 2934.9 | 2941.8 |
| 5° | 3027.9 | 2996.8 | 3062.3 | 3027.9 | 3027.9 | 3024.5 | 3014.1 | 3010.6 | 3024.5 | 2979.7 | 3000.3 |
| 7.5° | 3072.7 | 3117.5 | 3176.1 | 3103.7 | 3107.1 | 3107.1 | 3086.4 | 3079.6 | 3079.6 | 2996.8 | 3021.0 |
| 10° | 3110.6 | 3082.9 | 3114.0 | 3086.4 | 3110.6 | 3107.1 | 3120.9 | 3076.1 | 3107.1 | 3058.9 | 3055.4 |
| 12.5° | 3079.6 | 3069.2 | 3110.6 | 3065.8 | 3052.0 | 3055.4 | 3038.3 | 3027.9 | 3038.3 | 2983.1 | 2979.7 |
| 15° | 2990.0 | 3000.3 | 3062.3 | 3014.1 | 3007.2 | 3000.3 | 2979.7 | 2945.1 | 2972.8 | 2897.0 | 2900.5 |
| 17.5° | 2959.0 | 2941.8 | 2952.2 | 2910.7 | 2921.1 | 2914.2 | 2910.7 | 2879.8 | 2872.8 | 2824.6 | 2824.6 |
| 20° | 2814.4 | 2852.2 | 2852.2 | 2824.6 | 2824.6 | 2821.3 | 2776.5 | 2804.0 | 2772.9 | 2759.2 | 2772.9 |
| 22.5° | 2714.4 | 2717.9 | 2717.9 | 2693.7 | 2697.2 | 2683.5 | 2659.3 | 2642.0 | 2659.3 | 2642.0 | 2614.5 |
| 25° | 2531.9 | 2538.8 | 2580.1 | 2535.3 | 2528.4 | 2542.2 | 2521.5 | 2511.1 | 2507.8 | 2466.5 | 2521.5 |
| 27.5° | 2311.4 | 2380.2 | 2376.8 | 2359.6 | 2380.2 | 2352.7 | 2342.4 | 2345.8 | 2356.2 | 2352.7 | 2366.5 |
| 30° | 2184.0 | 2194.3 | 2204.6 | 2190.9 | 2194.3 | 2184.0 | 2184.0 | 2187.4 | 2214.9 | 2204.6 | 2201.1 |
| 32.5° | 1925.6 | 1960.0 | 1987.6 | 1987.6 | 1991.0 | 2001.4 | 1997.9 | 2070.2 | 2087.5 | 2053.1 | 2046.2 |
| 35° | 1701.7 | 1725.8 | 1749.8 | 1753.3 | 1798.2 | 1801.5 | 1805.0 | 1825.7 | 1873.9 | 1884.3 | 1880.7 |
| 37.5° | 1488.2 | 1512.2 | 1519.1 | 1550.1 | 1574.3 | 1598.3 | 1626.0 | 1653.5 | 1694.8 | 1729.2 | 1712.1 |
| 40° | 1298.7 | 1308.9 | 1326.2 | 1340.0 | 1388.2 | 1388.2 | 1401.9 | 1457.1 | 1501.9 | 1529.5 | 1525.9 |
| 42.5° | 1140.2 | 1143.6 | 1157.4 | 1181.5 | 1226.3 | 1216.0 | 1226.3 | 1264.3 | 1329.6 | 1333.1 | 1371.0 |
| 45° | 1030.0 | 1026.5 | 1036.9 | 1040.2 | 1067.9 | 1081.7 | 1088.6 | 1116.1 | 1171.1 | 1178.0 | 1181.5 |
| 47.5° | 930.1 | 926.6 | 943.9 | 950.8 | 961.0 | 974.8 | 974.8 | 978.3 | 998.9 | 1016.2 | 1002.5 |
| 50° | 847.4 | 847.4 | 847.4 | 854.3 | 871.5 | 868.0 | 871.5 | 885.3 | 895.6 | 888.7 | 885.3 |
| 52.5° | 757.8 | 771.5 | 781.9 | 785.4 | 788.8 | 788.8 | 792.3 | 785.4 | 781.9 | 771.5 | 750.9 |
| 55° | 695.8 | 709.6 | 709.6 | 709.6 | 709.6 | 723.4 | 706.2 | 709.6 | 709.6 | 682.1 | 654.5 |
| 57.5° | 633.9 | 647.7 | 657.9 | 644.1 | 657.9 | 644.1 | 637.3 | 633.9 | 626.9 | 599.3 | 558.0 |
| 60° | 582.2 | 589.1 | 585.6 | 582.2 | 589.1 | 578.7 | 571.8 | 558.0 | 551.2 | 513.2 | 485.7 |
| 62.5° | 523.6 | 527.0 | 530.5 | 523.6 | 516.7 | 513.2 | 499.5 | 478.8 | 465.1 | 434.0 | 409.9 |
| 65° | 475.3 | 465.1 | 461.5 | 458.2 | 451.3 | 440.9 | 430.6 | 406.5 | 396.1 | 368.6 | 344.4 |
| 67.5° | 403.0 | 399.6 | 406.5 | 396.1 | 379.0 | 379.0 | 368.6 | 347.9 | 323.8 | 306.6 | 282.5 |
| 70° | 344.4 | 341.0 | 334.2 | 323.8 | 320.4 | 306.6 | 306.6 | 282.5 | 275.6 | 244.5 | 223.9 |
| 72.5° | 282.5 | 282.5 | 272.1 | 261.8 | 251.4 | 244.5 | 241.2 | 223.9 | 213.6 | 196.4 | 179.1 |
| 75° | 213.6 | 213.6 | 210.1 | 199.7 | 192.9 | 186.0 | 182.6 | 168.8 | 158.4 | 141.3 | 130.9 |
| 77.5° | 151.6 | 151.6 | 137.8 | 130.9 | 134.3 | 127.4 | 120.5 | 117.1 | 113.6 | 103.4 | 89.6 |
| 80° | 89.6 | 86.1 | 75.8 | 79.2 | 75.8 | 75.8 | 72.3 | 68.8 | 61.9 | 55.1 | 48.2 |
| 82.5° | 24.2 | 27.5 | 27.5 | 27.5 | 31.0 | 24.2 | 24.2 | 24.2 | 27.5 | 27.5 | 17.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 3.5 | 3.5 |
| 87.5° | 3.5 | 6.9 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 10.4 | 10.4 | 10.4 | 6.9 |
| 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: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 |
| 2.5° | 2907.4 | 2903.9 | 2907.4 | 2883.2 | 2938.3 | 2897.0 | 2890.1 | 2883.2 | 2907.4 | 2883.2 | 2848.8 |
| 5° | 2969.3 | 2934.9 | 2924.5 | 2914.2 | 2945.1 | 2897.0 | 2886.7 | 2890.1 | 2872.8 | 2828.1 | 2831.5 |
| 7.5° | 2990.0 | 2959.0 | 2928.0 | 2862.6 | 2890.1 | 2879.8 | 2852.2 | 2831.5 | 2804.0 | 2766.1 | 2759.2 |
| 10° | 2996.8 | 2962.4 | 2917.6 | 2897.0 | 2855.7 | 2841.9 | 2831.5 | 2797.1 | 2762.7 | 2697.2 | 2680.0 |
| 12.5° | 2976.2 | 2934.9 | 2879.8 | 2862.6 | 2831.5 | 2786.7 | 2762.7 | 2728.1 | 2697.2 | 2645.5 | 2607.6 |
| 15° | 2886.7 | 2852.2 | 2835.0 | 2776.5 | 2762.7 | 2735.0 | 2686.8 | 2638.7 | 2593.9 | 2524.9 | 2504.2 |
| 17.5° | 2783.3 | 2769.6 | 2752.3 | 2707.5 | 2704.1 | 2676.6 | 2631.8 | 2590.3 | 2531.9 | 2425.0 | 2390.6 |
| 20° | 2676.6 | 2676.6 | 2621.4 | 2604.2 | 2638.7 | 2583.5 | 2549.1 | 2511.1 | 2390.6 | 2338.9 | 2277.0 |
| 22.5° | 2597.4 | 2559.4 | 2528.4 | 2500.9 | 2504.2 | 2469.8 | 2421.7 | 2345.8 | 2301.0 | 2239.1 | 2166.7 |
| 25° | 2442.3 | 2456.1 | 2387.2 | 2376.8 | 2387.2 | 2307.9 | 2283.9 | 2221.8 | 2156.3 | 2097.8 | 2042.7 |
| 27.5° | 2345.8 | 2307.9 | 2263.2 | 2225.3 | 2225.3 | 2194.3 | 2125.4 | 2111.7 | 2011.7 | 1956.6 | 1887.6 |
| 30° | 2201.1 | 2173.6 | 2135.7 | 2080.6 | 2073.7 | 2049.6 | 1994.5 | 1960.0 | 1856.7 | 1774.0 | 1736.1 |
| 32.5° | 2018.5 | 2008.3 | 1977.2 | 1915.3 | 1894.6 | 1867.0 | 1798.2 | 1739.6 | 1691.4 | 1598.3 | 1553.6 |
| 35° | 1887.6 | 1849.8 | 1784.4 | 1732.7 | 1715.4 | 1667.2 | 1612.1 | 1570.8 | 1519.1 | 1436.5 | 1377.9 |
| 37.5° | 1691.4 | 1653.5 | 1591.4 | 1529.5 | 1529.5 | 1481.3 | 1405.4 | 1364.1 | 1291.8 | 1243.5 | 1195.3 |
| 40° | 1519.1 | 1470.9 | 1408.9 | 1336.6 | 1326.2 | 1257.3 | 1226.3 | 1157.4 | 1112.6 | 1036.9 | 1030.0 |
| 42.5° | 1326.2 | 1281.4 | 1226.3 | 1171.1 | 1129.9 | 1095.4 | 1016.2 | 964.5 | 916.4 | 878.4 | 868.0 |
| 45° | 1150.5 | 1091.9 | 1043.8 | 974.8 | 933.5 | 892.2 | 840.5 | 806.1 | 768.2 | 726.9 | 702.7 |
| 47.5° | 998.9 | 950.8 | 881.8 | 819.9 | 778.6 | 757.8 | 699.2 | 661.4 | 630.4 | 602.8 | 585.6 |
| 50° | 844.0 | 785.4 | 747.5 | 678.6 | 671.7 | 623.5 | 575.3 | 544.3 | 527.0 | 503.0 | 478.8 |
| 52.5° | 726.9 | 671.7 | 620.0 | 568.4 | 540.8 | 523.6 | 478.8 | 447.8 | 423.8 | 406.5 | 392.7 |
| 55° | 613.1 | 564.9 | 523.6 | 471.9 | 454.7 | 430.6 | 379.0 | 372.1 | 347.9 | 323.8 | 306.6 |
| 57.5° | 527.0 | 482.2 | 434.0 | 399.6 | 368.6 | 351.4 | 310.0 | 282.5 | 268.7 | 248.0 | 230.8 |
| 60° | 447.8 | 399.6 | 361.7 | 320.4 | 306.6 | 282.5 | 251.4 | 227.4 | 210.1 | 192.9 | 175.7 |
| 62.5° | 375.4 | 334.2 | 292.9 | 258.3 | 237.7 | 223.9 | 199.7 | 179.1 | 161.9 | 148.2 | 134.3 |
| 65° | 310.0 | 272.1 | 237.7 | 203.2 | 192.9 | 175.7 | 158.4 | 141.3 | 127.4 | 110.3 | 96.5 |
| 67.5° | 254.9 | 220.5 | 186.0 | 161.9 | 151.6 | 144.7 | 124.0 | 106.8 | 96.5 | 86.1 | 72.3 |
| 70° | 199.7 | 175.7 | 148.2 | 127.4 | 117.1 | 106.8 | 93.0 | 82.7 | 68.8 | 61.9 | 51.7 |
| 72.5° | 155.1 | 134.3 | 110.3 | 93.0 | 86.1 | 79.2 | 65.5 | 55.1 | 48.2 | 41.3 | 34.4 |
| 75° | 110.3 | 93.0 | 79.2 | 61.9 | 58.6 | 55.1 | 44.8 | 37.9 | 31.0 | 24.2 | 20.6 |
| 77.5° | 75.8 | 61.9 | 48.2 | 41.3 | 37.9 | 31.0 | 27.5 | 20.6 | 17.3 | 13.8 | 10.4 |
| 80° | 41.3 | 31.0 | 24.2 | 20.6 | 17.3 | 13.8 | 13.8 | 10.4 | 6.9 | 6.9 | 3.5 |
| 82.5° | 13.8 | 10.4 | 6.9 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 0.0 | 3.5 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 0.0 | 0.0 | 0.0 |
| 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: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 |
| 2.5° | 2869.4 | 2831.5 | 2841.9 | 2841.9 | 2835.0 | 2835.0 | 2828.1 | 2817.7 | 2821.3 | 2800.5 | 2755.8 |
| 5° | 2838.4 | 2790.2 | 2783.3 | 2790.2 | 2762.7 | 2755.8 | 2742.0 | 2762.7 | 2700.6 | 2724.8 | 2697.2 |
| 7.5° | 2748.9 | 2704.1 | 2693.7 | 2717.9 | 2683.5 | 2662.7 | 2659.3 | 2686.8 | 2631.8 | 2604.2 | 2573.2 |
| 10° | 2648.9 | 2631.8 | 2600.7 | 2583.5 | 2573.2 | 2576.6 | 2549.1 | 2514.6 | 2504.2 | 2497.4 | 2469.8 |
| 12.5° | 2559.4 | 2521.5 | 2494.0 | 2473.3 | 2466.5 | 2466.5 | 2421.7 | 2414.8 | 2383.7 | 2376.8 | 2335.6 |
| 15° | 2452.6 | 2407.9 | 2390.6 | 2363.1 | 2338.9 | 2352.7 | 2301.0 | 2287.2 | 2277.0 | 2232.2 | 2239.1 |
| 17.5° | 2359.6 | 2311.4 | 2270.1 | 2252.8 | 2232.2 | 2211.5 | 2163.2 | 2173.6 | 2149.4 | 2149.4 | 2087.5 |
| 20° | 2239.1 | 2187.4 | 2156.3 | 2121.9 | 2121.9 | 2094.4 | 2060.0 | 2063.3 | 2032.3 | 2001.4 | 1946.2 |
| 22.5° | 2111.7 | 2056.5 | 2018.5 | 2004.8 | 1970.4 | 1963.5 | 1922.2 | 1911.8 | 1870.5 | 1873.9 | 1825.7 |
| 25° | 1977.2 | 1922.2 | 1870.5 | 1873.9 | 1843.0 | 1829.2 | 1805.0 | 1756.9 | 1739.6 | 1718.9 | 1705.2 |
| 27.5° | 1818.8 | 1780.9 | 1736.1 | 1732.7 | 1674.1 | 1677.5 | 1646.6 | 1632.8 | 1591.4 | 1601.8 | 1570.8 |
| 30° | 1674.1 | 1619.1 | 1577.6 | 1567.4 | 1543.2 | 1536.3 | 1488.2 | 1467.4 | 1474.4 | 1446.7 | 1429.6 |
| 32.5° | 1525.9 | 1443.4 | 1426.1 | 1405.4 | 1391.7 | 1374.4 | 1340.0 | 1353.7 | 1322.7 | 1329.6 | 1302.1 |
| 35° | 1329.6 | 1295.2 | 1250.4 | 1250.4 | 1236.6 | 1222.8 | 1198.8 | 1212.6 | 1181.5 | 1167.8 | 1140.2 |
| 37.5° | 1164.3 | 1133.4 | 1088.6 | 1102.3 | 1078.2 | 1057.5 | 1036.9 | 1040.2 | 1012.7 | 1009.3 | 981.7 |
| 40° | 985.2 | 967.9 | 937.0 | 937.0 | 919.7 | 919.7 | 909.3 | 899.1 | 881.8 | 861.2 | 830.1 |
| 42.5° | 816.3 | 802.6 | 788.8 | 792.3 | 768.2 | 788.8 | 761.3 | 778.6 | 723.4 | 720.0 | 699.2 |
| 45° | 692.3 | 661.4 | 664.8 | 651.0 | 637.3 | 644.1 | 620.0 | 626.9 | 596.0 | 589.1 | 568.4 |
| 47.5° | 561.6 | 551.2 | 530.5 | 523.6 | 523.6 | 513.2 | 503.0 | 499.5 | 485.7 | 468.4 | 440.9 |
| 50° | 461.5 | 423.8 | 416.7 | 406.5 | 399.6 | 399.6 | 385.8 | 365.2 | 368.6 | 351.4 | 323.8 |
| 52.5° | 361.7 | 330.6 | 316.9 | 313.5 | 299.7 | 292.9 | 275.6 | 261.8 | 251.4 | 244.5 | 227.4 |
| 55° | 279.0 | 251.4 | 234.3 | 234.3 | 213.6 | 213.6 | 189.5 | 179.1 | 165.3 | 151.6 | 141.3 |
| 57.5° | 210.1 | 196.4 | 179.1 | 165.3 | 158.4 | 141.3 | 127.4 | 110.3 | 99.9 | 79.2 | 65.5 |
| 60° | 158.4 | 144.7 | 127.4 | 117.1 | 110.3 | 93.0 | 75.8 | 61.9 | 37.9 | 31.0 | 27.5 |
| 62.5° | 117.1 | 103.4 | 86.1 | 79.2 | 72.3 | 58.6 | 41.3 | 20.6 | 10.4 | 10.4 | 10.4 |
| 65° | 86.1 | 68.8 | 55.1 | 48.2 | 41.3 | 31.0 | 13.8 | 6.9 | 3.5 | 3.5 | 3.5 |
| 67.5° | 58.6 | 44.8 | 31.0 | 27.5 | 20.6 | 10.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 70° | 37.9 | 27.5 | 13.8 | 10.4 | 6.9 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 72.5° | 24.2 | 13.8 | 6.9 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 13.8 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 6.9 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 3.5 | 3.5 |
| 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: P646225
 CATALOG NUMBER: FLDSQ4C50D010 FEU4C509030 F4LC-SQLWW-LI-D2W

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 | 2872.8 |
| 2.5° | 2804.0 | 2779.8 | 2793.6 | 2762.7 | 2776.5 | 2800.5 | 2783.3 | 2790.2 |
| 5° | 2707.5 | 2693.7 | 2676.6 | 2631.8 | 2666.2 | 2693.7 | 2680.0 | 2676.6 |
| 7.5° | 2604.2 | 2555.9 | 2580.1 | 2566.3 | 2559.4 | 2587.0 | 2555.9 | 2590.3 |
| 10° | 2497.4 | 2462.9 | 2459.6 | 2435.4 | 2435.4 | 2456.1 | 2459.6 | 2438.8 |
| 12.5° | 2338.9 | 2321.8 | 2321.8 | 2318.3 | 2314.8 | 2335.6 | 2338.9 | 2328.7 |
| 15° | 2225.3 | 2218.4 | 2201.1 | 2197.8 | 2177.1 | 2208.0 | 2211.5 | 2208.0 |
| 17.5° | 2087.5 | 2090.9 | 2073.7 | 2073.7 | 2087.5 | 2097.8 | 2070.2 | 2097.8 |
| 20° | 1994.5 | 1977.2 | 1970.4 | 1939.3 | 1956.6 | 1973.9 | 1973.9 | 1977.2 |
| 22.5° | 1860.1 | 1832.6 | 1843.0 | 1825.7 | 1815.3 | 1839.5 | 1839.5 | 1849.8 |
| 25° | 1708.5 | 1708.5 | 1715.4 | 1705.2 | 1712.1 | 1725.8 | 1715.4 | 1739.6 |
| 27.5° | 1563.9 | 1577.6 | 1577.6 | 1563.9 | 1570.8 | 1612.1 | 1629.3 | 1601.8 |
| 30° | 1429.6 | 1433.0 | 1443.4 | 1436.5 | 1457.1 | 1470.9 | 1467.4 | 1488.2 |
| 32.5° | 1278.0 | 1295.2 | 1302.1 | 1291.8 | 1298.7 | 1329.6 | 1312.4 | 1308.9 |
| 35° | 1160.9 | 1129.9 | 1126.5 | 1129.9 | 1143.6 | 1150.5 | 1143.6 | 1167.8 |
| 37.5° | 992.1 | 981.7 | 967.9 | 971.4 | 981.7 | 995.6 | 1002.5 | 1019.6 |
| 40° | 830.1 | 816.3 | 816.3 | 813.0 | 802.6 | 840.5 | 840.5 | 840.5 |
| 42.5° | 689.0 | 685.4 | 668.3 | 668.3 | 682.1 | 692.3 | 685.4 | 709.6 |
| 45° | 564.9 | 551.2 | 540.8 | 540.8 | 551.2 | 551.2 | 561.6 | 558.0 |
| 47.5° | 444.4 | 430.6 | 434.0 | 423.8 | 434.0 | 447.8 | 430.6 | 434.0 |
| 50° | 334.2 | 334.2 | 327.3 | 334.2 | 330.6 | 334.2 | 327.3 | 320.4 |
| 52.5° | 227.4 | 258.3 | 261.8 | 248.0 | 217.0 | 189.5 | 172.2 | 186.0 |
| 55° | 130.9 | 117.1 | 117.1 | 113.6 | 106.8 | 103.4 | 93.0 | 103.4 |
| 57.5° | 65.5 | 58.6 | 58.6 | 58.6 | 55.1 | 51.7 | 44.8 | 44.8 |
| 60° | 27.5 | 24.2 | 24.2 | 20.6 | 17.3 | 13.8 | 10.4 | 13.8 |
| 62.5° | 10.4 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| 65° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 67.5° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 70° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)