

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: P#

Luminaire Tested: **FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI**

Issue Date: 12/13/2022

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P#
 Test Lab: INNOVATION CENTER
 Issue Date: 12/13/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: FAIL-SAFE
 Catalog Number: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI
 Description: 4 INCH 2000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND F4LC-SQLWW TRIM WITH LI FINISH
 Light Source: -
 Ballast/Driver: -

Summary

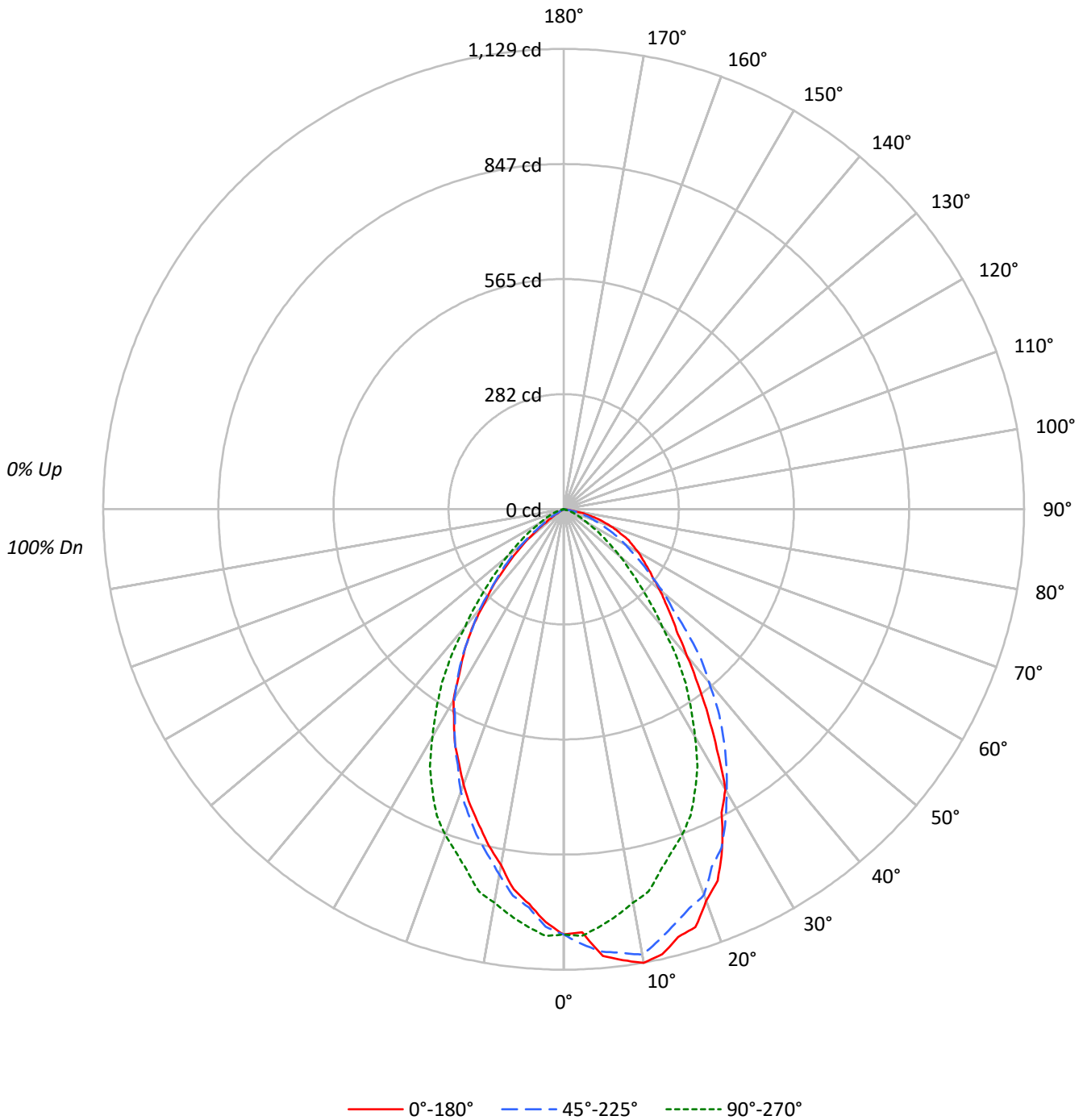
Lumens per Lamp: N/A
 Luminaire Lumens: 1495.0 lumens
 Efficiency: N/A
 Efficacy: 68.6 lumens/watt
 Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 21.8
 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

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | GONIO 1 IN0055 | 4/22/2021 | 10/22/2021 |
| Power Meter | XITRON 2801 IN0197 | 12/1/2020 | 12/1/2021 |
| AC Power Source | CHROMA 61505 IN0196 | 12/1/2020 | 12/1/2021 |
| DC Power Supply | AGILENT E3634A IN0198 | 11/30/2020 | 11/30/2021 |
| Room Thermometer | ONSET IN0143 | 12/1/2020 | 12/1/2021 |

TEST NUMBER: P#
CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

Luminous Intensity Polar Plot



TEST NUMBER: P#

CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

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° | 100628 | 100628 | 100628 |
| 5° | 106466 | 99444 | 94116 |
| 10° | 110646 | 95939 | 86749 |
| 15° | 108433 | 91562 | 80074 |
| 20° | 104910 | 87187 | 73705 |
| 25° | 97861 | 81083 | 67232 |
| 30° | 88342 | 71752 | 60198 |
| 35° | 72771 | 61428 | 49932 |
| 40° | 59389 | 47410 | 38430 |
| 45° | 51021 | 36011 | 27646 |
| 50° | 46174 | 27410 | 17458 |
| 55° | 42493 | 19766 | 6308 |
| 60° | 40796 | 13508 | 965 |
| 65° | 39407 | 9132 | 297 |
| 70° | 35264 | 6348 | 367 |
| 75° | 28930 | 3281 | 0 |
| 80° | 18059 | 1389 | 0 |
| 85° | 0 | 0 | 0 |

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.7 | 6.5 |
| 10°-20° | 263.3 | 17.6 |
| 20°-30° | 351.5 | 23.5 |
| 30°-40° | 333.7 | 22.3 |
| 40°-50° | 230.7 | 15.4 |
| 50°-60° | 127.5 | 8.5 |
| 60°-70° | 63.3 | 4.2 |
| 70°-80° | 24.9 | 1.7 |
| 80°-90° | 2.4 | 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° | 712.5 | 47.7 |
| 0°-40° | 1046.3 | 70.0 |
| 0°-60° | 1404.4 | 93.9 |
| 0°-90° | 1495.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1495.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1043 | 1043 | 1043 | 1043 | 1043 | |
| 5° | 1099 | 1089 | 1027 | 980 | 972 | 105 |
| 15° | 1086 | 1053 | 917 | 827 | 802 | 307 |
| 25° | 919 | 915 | 762 | 632 | 632 | 419 |
| 35° | 618 | 683 | 522 | 429 | 424 | 387 |
| 45° | 374 | 429 | 264 | 216 | 203 | 292 |
| 55° | 253 | 238 | 118 | 60 | 38 | 227 |
| 65° | 173 | 125 | 40 | 1 | 1 | 168 |
| 75° | 78 | 48 | 9 | 0 | 0 | 83 |
| 85° | 0 | 1 | 0 | 0 | 0 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 |
| 2.5° | 1037.9 | 1066.7 | 1069.2 | 1066.7 | 1070.5 | 1069.2 | 1075.5 | 1069.2 | 1076.8 | 1065.5 | 1068.0 |
| 5° | 1099.2 | 1088.0 | 1111.7 | 1099.2 | 1099.2 | 1098.0 | 1094.2 | 1093.0 | 1098.0 | 1081.7 | 1089.2 |
| 7.5° | 1115.5 | 1131.8 | 1153.0 | 1126.8 | 1128.0 | 1128.0 | 1120.5 | 1118.0 | 1118.0 | 1088.0 | 1096.7 |
| 10° | 1129.3 | 1119.2 | 1130.5 | 1120.5 | 1129.3 | 1128.0 | 1133.0 | 1116.7 | 1128.0 | 1110.5 | 1109.2 |
| 12.5° | 1118.0 | 1114.2 | 1129.3 | 1113.0 | 1108.0 | 1109.2 | 1103.0 | 1099.2 | 1103.0 | 1083.0 | 1081.7 |
| 15° | 1085.5 | 1089.2 | 1111.7 | 1094.2 | 1091.7 | 1089.2 | 1081.7 | 1069.2 | 1079.3 | 1051.7 | 1053.0 |
| 17.5° | 1074.3 | 1068.0 | 1071.8 | 1056.7 | 1060.5 | 1058.0 | 1056.7 | 1045.5 | 1042.9 | 1025.5 | 1025.5 |
| 20° | 1021.7 | 1035.5 | 1035.5 | 1025.5 | 1025.5 | 1024.2 | 1008.0 | 1018.0 | 1006.7 | 1001.7 | 1006.7 |
| 22.5° | 985.4 | 986.7 | 986.7 | 977.9 | 979.2 | 974.2 | 965.4 | 959.2 | 965.4 | 959.2 | 949.2 |
| 25° | 919.2 | 921.7 | 936.7 | 920.4 | 917.9 | 922.9 | 915.4 | 911.6 | 910.4 | 895.4 | 915.4 |
| 27.5° | 839.1 | 864.1 | 862.9 | 856.6 | 864.1 | 854.1 | 850.4 | 851.6 | 855.4 | 854.1 | 859.1 |
| 30° | 792.9 | 796.6 | 800.4 | 795.4 | 796.6 | 792.9 | 792.9 | 794.1 | 804.1 | 800.4 | 799.1 |
| 32.5° | 699.1 | 711.5 | 721.6 | 721.6 | 722.8 | 726.6 | 725.3 | 751.6 | 757.8 | 745.4 | 742.9 |
| 35° | 617.8 | 626.5 | 635.3 | 636.5 | 652.8 | 654.0 | 655.3 | 662.8 | 680.3 | 684.1 | 682.8 |
| 37.5° | 540.3 | 549.0 | 551.5 | 562.8 | 571.5 | 580.2 | 590.3 | 600.3 | 615.3 | 627.8 | 621.5 |
| 40° | 471.5 | 475.2 | 481.5 | 486.5 | 504.0 | 504.0 | 509.0 | 529.0 | 545.3 | 555.3 | 554.0 |
| 42.5° | 414.0 | 415.2 | 420.2 | 428.9 | 445.2 | 441.4 | 445.2 | 459.0 | 482.7 | 484.0 | 497.7 |
| 45° | 373.9 | 372.7 | 376.4 | 377.6 | 387.7 | 392.7 | 395.2 | 405.2 | 425.2 | 427.7 | 428.9 |
| 47.5° | 337.7 | 336.4 | 342.7 | 345.2 | 348.9 | 353.9 | 353.9 | 355.2 | 362.7 | 368.9 | 363.9 |
| 50° | 307.6 | 307.6 | 307.6 | 310.1 | 316.4 | 315.1 | 316.4 | 321.4 | 325.1 | 322.6 | 321.4 |
| 52.5° | 275.1 | 280.1 | 283.9 | 285.1 | 286.4 | 286.4 | 287.6 | 285.1 | 283.9 | 280.1 | 272.6 |
| 55° | 252.6 | 257.6 | 257.6 | 257.6 | 257.6 | 262.6 | 256.4 | 257.6 | 257.6 | 247.6 | 237.6 |
| 57.5° | 230.1 | 235.1 | 238.8 | 233.9 | 238.8 | 233.9 | 231.4 | 230.1 | 227.6 | 217.6 | 202.6 |
| 60° | 211.4 | 213.9 | 212.6 | 211.4 | 213.9 | 210.1 | 207.6 | 202.6 | 200.1 | 186.3 | 176.3 |
| 62.5° | 190.1 | 191.3 | 192.6 | 190.1 | 187.6 | 186.3 | 181.3 | 173.8 | 168.8 | 157.6 | 148.8 |
| 65° | 172.6 | 168.8 | 167.6 | 166.3 | 163.8 | 160.1 | 156.3 | 147.6 | 143.8 | 133.8 | 125.0 |
| 67.5° | 146.3 | 145.1 | 147.6 | 143.8 | 137.6 | 137.6 | 133.8 | 126.3 | 117.5 | 111.3 | 102.5 |
| 70° | 125.0 | 123.8 | 121.3 | 117.5 | 116.3 | 111.3 | 111.3 | 102.5 | 100.0 | 88.8 | 81.3 |
| 72.5° | 102.5 | 102.5 | 98.8 | 95.0 | 91.3 | 88.8 | 87.6 | 81.3 | 77.6 | 71.3 | 65.0 |
| 75° | 77.6 | 77.6 | 76.3 | 72.5 | 70.0 | 67.5 | 66.3 | 61.3 | 57.5 | 51.3 | 47.5 |
| 77.5° | 55.0 | 55.0 | 50.0 | 47.5 | 48.7 | 46.3 | 43.8 | 42.5 | 41.3 | 37.5 | 32.5 |
| 80° | 32.5 | 31.3 | 27.5 | 28.8 | 27.5 | 27.5 | 26.3 | 25.0 | 22.5 | 20.0 | 17.5 |
| 82.5° | 8.8 | 10.0 | 10.0 | 10.0 | 11.3 | 8.8 | 8.8 | 8.8 | 10.0 | 10.0 | 6.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 | 1.3 |
| 87.5° | 1.3 | 2.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.8 | 3.8 | 3.8 | 2.5 |
| 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: P#
 CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 |
| 2.5° | 1055.5 | 1054.2 | 1055.5 | 1046.7 | 1066.7 | 1051.7 | 1049.2 | 1046.7 | 1055.5 | 1046.7 | 1034.2 |
| 5° | 1078.0 | 1065.5 | 1061.7 | 1058.0 | 1069.2 | 1051.7 | 1048.0 | 1049.2 | 1042.9 | 1026.7 | 1028.0 |
| 7.5° | 1085.5 | 1074.3 | 1063.0 | 1039.2 | 1049.2 | 1045.5 | 1035.5 | 1028.0 | 1018.0 | 1004.2 | 1001.7 |
| 10° | 1088.0 | 1075.5 | 1059.2 | 1051.7 | 1036.7 | 1031.7 | 1028.0 | 1015.5 | 1003.0 | 979.2 | 972.9 |
| 12.5° | 1080.5 | 1065.5 | 1045.5 | 1039.2 | 1028.0 | 1011.7 | 1003.0 | 990.4 | 979.2 | 960.4 | 946.7 |
| 15° | 1048.0 | 1035.5 | 1029.2 | 1008.0 | 1003.0 | 992.9 | 975.4 | 957.9 | 941.7 | 916.6 | 909.1 |
| 17.5° | 1010.5 | 1005.5 | 999.2 | 982.9 | 981.7 | 971.7 | 955.4 | 940.4 | 919.2 | 880.4 | 867.9 |
| 20° | 971.7 | 971.7 | 951.7 | 945.4 | 957.9 | 937.9 | 925.4 | 911.6 | 867.9 | 849.1 | 826.6 |
| 22.5° | 942.9 | 929.2 | 917.9 | 907.9 | 909.1 | 896.6 | 879.2 | 851.6 | 835.4 | 812.9 | 786.6 |
| 25° | 886.7 | 891.7 | 866.7 | 862.9 | 866.7 | 837.9 | 829.1 | 806.6 | 782.8 | 761.6 | 741.6 |
| 27.5° | 851.6 | 837.9 | 821.6 | 807.9 | 807.9 | 796.6 | 771.6 | 766.6 | 730.3 | 710.3 | 685.3 |
| 30° | 799.1 | 789.1 | 775.3 | 755.3 | 752.8 | 744.1 | 724.1 | 711.5 | 674.1 | 644.0 | 630.3 |
| 32.5° | 732.8 | 729.1 | 717.8 | 695.3 | 687.8 | 677.8 | 652.8 | 631.5 | 614.0 | 580.2 | 564.0 |
| 35° | 685.3 | 671.6 | 647.8 | 629.0 | 622.8 | 605.3 | 585.2 | 570.2 | 551.5 | 521.5 | 500.2 |
| 37.5° | 614.0 | 600.3 | 577.7 | 555.3 | 555.3 | 537.8 | 510.2 | 495.2 | 469.0 | 451.4 | 433.9 |
| 40° | 551.5 | 534.0 | 511.5 | 485.2 | 481.5 | 456.4 | 445.2 | 420.2 | 403.9 | 376.4 | 373.9 |
| 42.5° | 481.5 | 465.2 | 445.2 | 425.2 | 410.2 | 397.7 | 368.9 | 350.2 | 332.7 | 318.9 | 315.1 |
| 45° | 417.7 | 396.4 | 378.9 | 353.9 | 338.9 | 323.9 | 305.1 | 292.6 | 278.9 | 263.9 | 255.1 |
| 47.5° | 362.7 | 345.2 | 320.1 | 297.6 | 282.6 | 275.1 | 253.8 | 240.1 | 228.9 | 218.9 | 212.6 |
| 50° | 306.4 | 285.1 | 271.4 | 246.3 | 243.8 | 226.4 | 208.9 | 197.6 | 191.3 | 182.6 | 173.8 |
| 52.5° | 263.9 | 243.8 | 225.1 | 206.4 | 196.3 | 190.1 | 173.8 | 162.6 | 153.8 | 147.6 | 142.6 |
| 55° | 222.6 | 205.1 | 190.1 | 171.3 | 165.1 | 156.3 | 137.6 | 135.1 | 126.3 | 117.5 | 111.3 |
| 57.5° | 191.3 | 175.1 | 157.6 | 145.1 | 133.8 | 127.6 | 112.5 | 102.5 | 97.5 | 90.1 | 83.8 |
| 60° | 162.6 | 145.1 | 131.3 | 116.3 | 111.3 | 102.5 | 91.3 | 82.6 | 76.3 | 70.0 | 63.8 |
| 62.5° | 136.3 | 121.3 | 106.3 | 93.8 | 86.3 | 81.3 | 72.5 | 65.0 | 58.8 | 53.8 | 48.7 |
| 65° | 112.5 | 98.8 | 86.3 | 73.8 | 70.0 | 63.8 | 57.5 | 51.3 | 46.3 | 40.0 | 35.0 |
| 67.5° | 92.6 | 80.1 | 67.5 | 58.8 | 55.0 | 52.5 | 45.0 | 38.8 | 35.0 | 31.3 | 26.3 |
| 70° | 72.5 | 63.8 | 53.8 | 46.3 | 42.5 | 38.8 | 33.8 | 30.0 | 25.0 | 22.5 | 18.8 |
| 72.5° | 56.3 | 48.7 | 40.0 | 33.8 | 31.3 | 28.8 | 23.8 | 20.0 | 17.5 | 15.0 | 12.5 |
| 75° | 40.0 | 33.8 | 28.8 | 22.5 | 21.3 | 20.0 | 16.3 | 13.8 | 11.3 | 8.8 | 7.5 |
| 77.5° | 27.5 | 22.5 | 17.5 | 15.0 | 13.8 | 11.3 | 10.0 | 7.5 | 6.3 | 5.0 | 3.8 |
| 80° | 15.0 | 11.3 | 8.8 | 7.5 | 6.3 | 5.0 | 5.0 | 3.8 | 2.5 | 2.5 | 1.3 |
| 82.5° | 5.0 | 3.8 | 2.5 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 0.0 | 1.3 |
| 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° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 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: P#
 CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 |
| 2.5° | 1041.7 | 1028.0 | 1031.7 | 1031.7 | 1029.2 | 1029.2 | 1026.7 | 1023.0 | 1024.2 | 1016.7 | 1000.5 |
| 5° | 1030.5 | 1013.0 | 1010.5 | 1013.0 | 1003.0 | 1000.5 | 995.5 | 1003.0 | 980.4 | 989.2 | 979.2 |
| 7.5° | 998.0 | 981.7 | 977.9 | 986.7 | 974.2 | 966.7 | 965.4 | 975.4 | 955.4 | 945.4 | 934.2 |
| 10° | 961.7 | 955.4 | 944.2 | 937.9 | 934.2 | 935.4 | 925.4 | 912.9 | 909.1 | 906.6 | 896.6 |
| 12.5° | 929.2 | 915.4 | 905.4 | 897.9 | 895.4 | 895.4 | 879.2 | 876.7 | 865.4 | 862.9 | 847.9 |
| 15° | 890.4 | 874.2 | 867.9 | 857.9 | 849.1 | 854.1 | 835.4 | 830.4 | 826.6 | 810.4 | 812.9 |
| 17.5° | 856.6 | 839.1 | 824.1 | 817.9 | 810.4 | 802.9 | 785.3 | 789.1 | 780.3 | 780.3 | 757.8 |
| 20° | 812.9 | 794.1 | 782.8 | 770.3 | 770.3 | 760.3 | 747.9 | 749.1 | 737.8 | 726.6 | 706.5 |
| 22.5° | 766.6 | 746.6 | 732.8 | 727.8 | 715.3 | 712.8 | 697.8 | 694.1 | 679.1 | 680.3 | 662.8 |
| 25° | 717.8 | 697.8 | 679.1 | 680.3 | 669.1 | 664.1 | 655.3 | 637.8 | 631.5 | 624.0 | 619.0 |
| 27.5° | 660.3 | 646.5 | 630.3 | 629.0 | 607.8 | 609.0 | 597.8 | 592.8 | 577.7 | 581.5 | 570.2 |
| 30° | 607.8 | 587.8 | 572.7 | 569.0 | 560.3 | 557.8 | 540.3 | 532.7 | 535.3 | 525.2 | 519.0 |
| 32.5° | 554.0 | 524.0 | 517.7 | 510.2 | 505.2 | 499.0 | 486.5 | 491.5 | 480.2 | 482.7 | 472.7 |
| 35° | 482.7 | 470.2 | 453.9 | 453.9 | 448.9 | 443.9 | 435.2 | 440.2 | 428.9 | 423.9 | 414.0 |
| 37.5° | 422.7 | 411.5 | 395.2 | 400.2 | 391.4 | 383.9 | 376.4 | 377.6 | 367.7 | 366.4 | 356.4 |
| 40° | 357.7 | 351.4 | 340.2 | 340.2 | 333.9 | 333.9 | 330.1 | 326.4 | 320.1 | 312.6 | 301.4 |
| 42.5° | 296.4 | 291.4 | 286.4 | 287.6 | 278.9 | 286.4 | 276.4 | 282.6 | 262.6 | 261.4 | 253.8 |
| 45° | 251.3 | 240.1 | 241.3 | 236.3 | 231.4 | 233.9 | 225.1 | 227.6 | 216.4 | 213.9 | 206.4 |
| 47.5° | 203.9 | 200.1 | 192.6 | 190.1 | 190.1 | 186.3 | 182.6 | 181.3 | 176.3 | 170.1 | 160.1 |
| 50° | 167.6 | 153.8 | 151.3 | 147.6 | 145.1 | 145.1 | 140.1 | 132.6 | 133.8 | 127.6 | 117.5 |
| 52.5° | 131.3 | 120.0 | 115.0 | 113.8 | 108.8 | 106.3 | 100.0 | 95.0 | 91.3 | 88.8 | 82.6 |
| 55° | 101.3 | 91.3 | 85.1 | 85.1 | 77.6 | 77.6 | 68.8 | 65.0 | 60.0 | 55.0 | 51.3 |
| 57.5° | 76.3 | 71.3 | 65.0 | 60.0 | 57.5 | 51.3 | 46.3 | 40.0 | 36.3 | 28.8 | 23.8 |
| 60° | 57.5 | 52.5 | 46.3 | 42.5 | 40.0 | 33.8 | 27.5 | 22.5 | 13.8 | 11.3 | 10.0 |
| 62.5° | 42.5 | 37.5 | 31.3 | 28.8 | 26.3 | 21.3 | 15.0 | 7.5 | 3.8 | 3.8 | 3.8 |
| 65° | 31.3 | 25.0 | 20.0 | 17.5 | 15.0 | 11.3 | 5.0 | 2.5 | 1.3 | 1.3 | 1.3 |
| 67.5° | 21.3 | 16.3 | 11.3 | 10.0 | 7.5 | 3.8 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 70° | 13.8 | 10.0 | 5.0 | 3.8 | 2.5 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 72.5° | 8.8 | 5.0 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 5.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 1.3 | 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 | 1.3 | 1.3 | 1.3 |
| 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: P#
 CATALOG NUMBER: FLDSQ4C20D010 FEU4C209027 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 | 1042.9 |
| 2.5° | 1018.0 | 1009.2 | 1014.2 | 1003.0 | 1008.0 | 1016.7 | 1010.5 | 1013.0 |
| 5° | 982.9 | 977.9 | 971.7 | 955.4 | 967.9 | 977.9 | 972.9 | 971.7 |
| 7.5° | 945.4 | 927.9 | 936.7 | 931.7 | 929.2 | 939.2 | 927.9 | 940.4 |
| 10° | 906.6 | 894.1 | 892.9 | 884.2 | 884.2 | 891.7 | 892.9 | 885.4 |
| 12.5° | 849.1 | 842.9 | 842.9 | 841.6 | 840.4 | 847.9 | 849.1 | 845.4 |
| 15° | 807.9 | 805.4 | 799.1 | 797.9 | 790.4 | 801.6 | 802.9 | 801.6 |
| 17.5° | 757.8 | 759.1 | 752.8 | 752.8 | 757.8 | 761.6 | 751.6 | 761.6 |
| 20° | 724.1 | 717.8 | 715.3 | 704.1 | 710.3 | 716.6 | 716.6 | 717.8 |
| 22.5° | 675.3 | 665.3 | 669.1 | 662.8 | 659.0 | 667.8 | 667.8 | 671.6 |
| 25° | 620.3 | 620.3 | 622.8 | 619.0 | 621.5 | 626.5 | 622.8 | 631.5 |
| 27.5° | 567.7 | 572.7 | 572.7 | 567.7 | 570.2 | 585.2 | 591.5 | 581.5 |
| 30° | 519.0 | 520.2 | 524.0 | 521.5 | 529.0 | 534.0 | 532.7 | 540.3 |
| 32.5° | 464.0 | 470.2 | 472.7 | 469.0 | 471.5 | 482.7 | 476.5 | 475.2 |
| 35° | 421.5 | 410.2 | 409.0 | 410.2 | 415.2 | 417.7 | 415.2 | 423.9 |
| 37.5° | 360.2 | 356.4 | 351.4 | 352.7 | 356.4 | 361.4 | 363.9 | 370.2 |
| 40° | 301.4 | 296.4 | 296.4 | 295.1 | 291.4 | 305.1 | 305.1 | 305.1 |
| 42.5° | 250.1 | 248.8 | 242.6 | 242.6 | 247.6 | 251.3 | 248.8 | 257.6 |
| 45° | 205.1 | 200.1 | 196.3 | 196.3 | 200.1 | 200.1 | 203.9 | 202.6 |
| 47.5° | 161.3 | 156.3 | 157.6 | 153.8 | 157.6 | 162.6 | 156.3 | 157.6 |
| 50° | 121.3 | 121.3 | 118.8 | 121.3 | 120.0 | 121.3 | 118.8 | 116.3 |
| 52.5° | 82.6 | 93.8 | 95.0 | 90.1 | 78.8 | 68.8 | 62.5 | 67.5 |
| 55° | 47.5 | 42.5 | 42.5 | 41.3 | 38.8 | 37.5 | 33.8 | 37.5 |
| 57.5° | 23.8 | 21.3 | 21.3 | 21.3 | 20.0 | 18.8 | 16.3 | 16.3 |
| 60° | 10.0 | 8.8 | 8.8 | 7.5 | 6.3 | 5.0 | 3.8 | 5.0 |
| 62.5° | 3.8 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| 65° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 67.5° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 70° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| 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)