

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: **FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H**

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: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H
 Description: 4 INCH 1500 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND F4LC-SQLWW TRIM WITH H FINISH
 Light Source: -
 Ballast/Driver: -

Summary

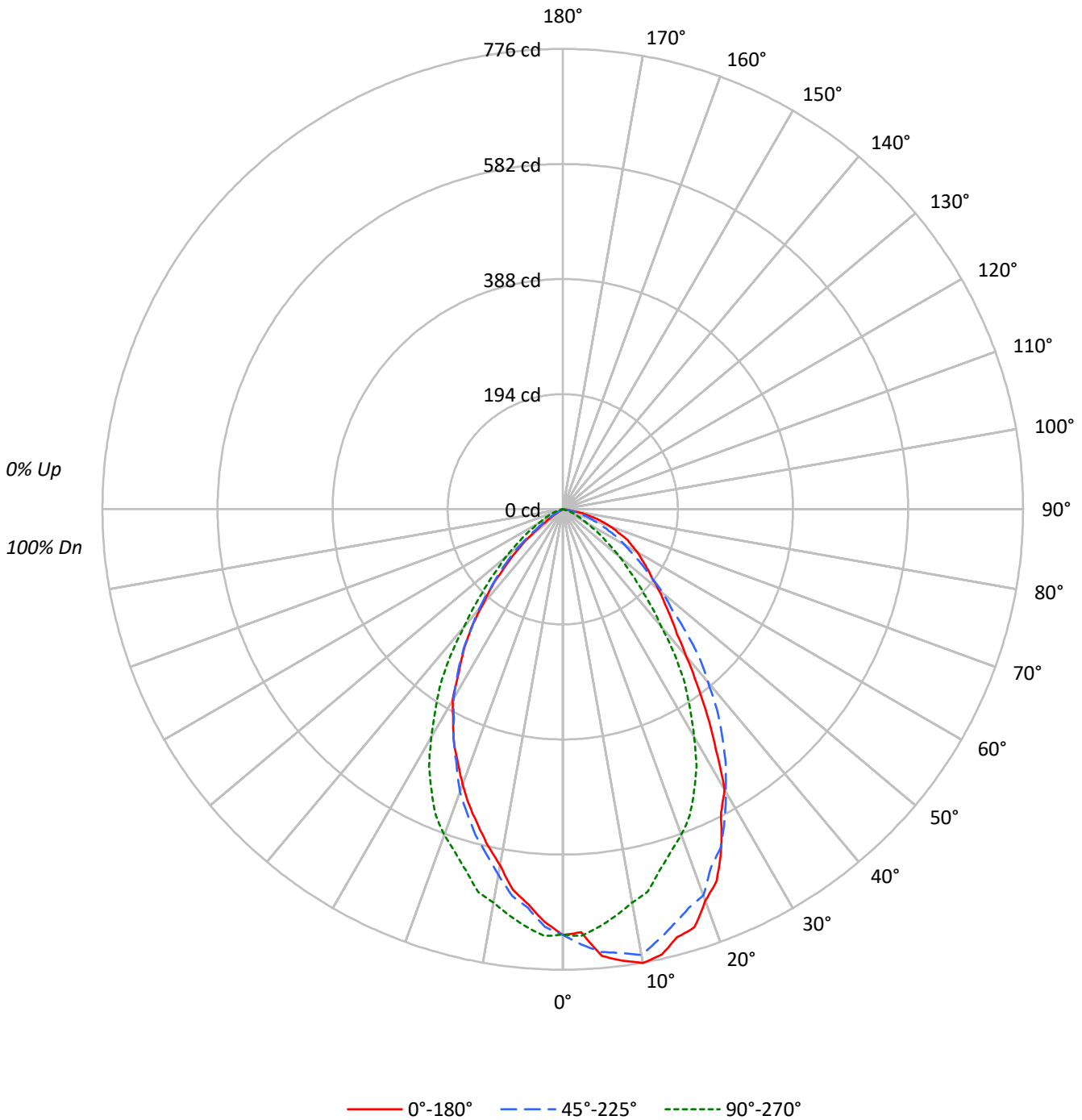
Lumens per Lamp: N/A
 Luminaire Lumens: 1028.0 lumens
 Efficiency: N/A
 Efficacy: 65.1 lumens/watt
 Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 15.8
 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: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

Luminous Intensity Polar Plot



TEST NUMBER: P#

CATALOG NUMBER: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 | | | | 90 |
| 2 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 84 | 82 | 80 | | | | 80 |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 72 | | | | 72 |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | 64 |
| 5 | 85 | 75 | 67 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 64 | 60 | 58 | | | | 58 |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 53 | | | | 53 |
| 7 | 75 | 63 | 56 | 51 | 73 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 48 | | | | 48 |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 46 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | 44 |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 41 | | | | 41 |
| 10 | 62 | 51 | 44 | 40 | 61 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 38 | | | | 38 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 69202 | 69202 | 69202 |
| 5° | 73215 | 68381 | 64720 |
| 10° | 76079 | 65968 | 59649 |
| 15° | 74560 | 62962 | 55061 |
| 20° | 72144 | 59956 | 50684 |
| 25° | 67296 | 55755 | 46237 |
| 30° | 60744 | 49346 | 41391 |
| 35° | 50038 | 42240 | 34336 |
| 40° | 40835 | 32598 | 26426 |
| 45° | 35083 | 24767 | 19008 |
| 50° | 31748 | 18854 | 12009 |
| 55° | 29220 | 13592 | 4340 |
| 60° | 28040 | 9282 | 656 |
| 65° | 27101 | 6279 | 205 |
| 70° | 24262 | 4373 | 254 |
| 75° | 19870 | 2237 | 0 |
| 80° | 12447 | 945 | 0 |
| 85° | 0 | 0 | 0 |

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 67.2 | 6.5 |
| 10°-20° | 181.0 | 17.6 |
| 20°-30° | 241.7 | 23.5 |
| 30°-40° | 229.5 | 22.3 |
| 40°-50° | 158.6 | 15.4 |
| 50°-60° | 87.6 | 8.5 |
| 60°-70° | 43.5 | 4.2 |
| 70°-80° | 17.1 | 1.7 |
| 80°-90° | 1.6 | 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° | 490.0 | 47.7 |
| 0°-40° | 719.4 | 70.0 |
| 0°-60° | 965.7 | 93.9 |
| 0°-90° | 1028.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1028.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 717 | 717 | 717 | 717 | 717 | |
| 5° | 756 | 749 | 706 | 674 | 668 | 72 |
| 15° | 746 | 724 | 630 | 568 | 551 | 211 |
| 25° | 632 | 630 | 524 | 434 | 434 | 288 |
| 35° | 425 | 470 | 359 | 295 | 292 | 266 |
| 45° | 257 | 295 | 182 | 149 | 139 | 201 |
| 55° | 174 | 163 | 81 | 41 | 26 | 156 |
| 65° | 119 | 86 | 28 | 1 | 1 | 115 |
| 75° | 53 | 33 | 6 | 0 | 0 | 57 |
| 85° | 0 | 1 | 0 | 0 | 0 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 |
| 2.5° | 713.7 | 733.5 | 735.2 | 733.5 | 736.1 | 735.2 | 739.5 | 735.2 | 740.4 | 732.7 | 734.4 |
| 5° | 755.9 | 748.1 | 764.5 | 755.9 | 755.9 | 755.0 | 752.4 | 751.6 | 755.0 | 743.8 | 749.0 |
| 7.5° | 767.1 | 778.2 | 792.9 | 774.8 | 775.6 | 775.6 | 770.5 | 768.8 | 768.8 | 748.1 | 754.1 |
| 10° | 776.5 | 769.6 | 777.4 | 770.5 | 776.5 | 775.6 | 779.1 | 767.9 | 775.6 | 763.6 | 762.7 |
| 12.5° | 768.8 | 766.2 | 776.5 | 765.3 | 761.9 | 762.7 | 758.5 | 755.9 | 758.5 | 744.7 | 743.8 |
| 15° | 746.4 | 749.0 | 764.5 | 752.4 | 750.7 | 749.0 | 743.8 | 735.2 | 742.1 | 723.2 | 724.1 |
| 17.5° | 738.7 | 734.4 | 737.0 | 726.6 | 729.2 | 727.5 | 726.6 | 718.9 | 717.2 | 705.1 | 705.1 |
| 20° | 702.6 | 712.0 | 712.0 | 705.1 | 705.1 | 704.3 | 693.1 | 700.0 | 692.2 | 688.8 | 692.2 |
| 22.5° | 677.6 | 678.5 | 678.5 | 672.4 | 673.3 | 669.9 | 663.9 | 659.5 | 663.9 | 659.5 | 652.7 |
| 25° | 632.1 | 633.8 | 644.1 | 632.9 | 631.2 | 634.6 | 629.5 | 626.9 | 626.0 | 615.7 | 629.5 |
| 27.5° | 577.0 | 594.2 | 593.3 | 589.0 | 594.2 | 587.3 | 584.8 | 585.6 | 588.2 | 587.3 | 590.8 |
| 30° | 545.2 | 547.8 | 550.4 | 546.9 | 547.8 | 545.2 | 545.2 | 546.0 | 552.9 | 550.4 | 549.5 |
| 32.5° | 480.7 | 489.3 | 496.2 | 496.2 | 497.0 | 499.6 | 498.7 | 516.8 | 521.1 | 512.5 | 510.8 |
| 35° | 424.8 | 430.8 | 436.8 | 437.7 | 448.9 | 449.7 | 450.6 | 455.8 | 467.8 | 470.4 | 469.5 |
| 37.5° | 371.5 | 377.5 | 379.2 | 387.0 | 393.0 | 399.0 | 405.9 | 412.8 | 423.1 | 431.7 | 427.4 |
| 40° | 324.2 | 326.8 | 331.1 | 334.5 | 346.5 | 346.5 | 350.0 | 363.7 | 374.9 | 381.8 | 380.9 |
| 42.5° | 284.6 | 285.5 | 288.9 | 295.0 | 306.1 | 303.5 | 306.1 | 315.6 | 331.9 | 332.8 | 342.3 |
| 45° | 257.1 | 256.2 | 258.8 | 259.7 | 266.6 | 270.0 | 271.7 | 278.6 | 292.4 | 294.1 | 295.0 |
| 47.5° | 232.2 | 231.3 | 235.6 | 237.3 | 239.9 | 243.3 | 243.3 | 244.2 | 249.4 | 253.7 | 250.2 |
| 50° | 211.5 | 211.5 | 211.5 | 213.3 | 217.6 | 216.7 | 217.6 | 221.0 | 223.6 | 221.8 | 221.0 |
| 52.5° | 189.2 | 192.6 | 195.2 | 196.1 | 196.9 | 196.9 | 197.8 | 196.1 | 195.2 | 192.6 | 187.5 |
| 55° | 173.7 | 177.1 | 177.1 | 177.1 | 177.1 | 180.6 | 176.3 | 177.1 | 177.1 | 170.3 | 163.4 |
| 57.5° | 158.2 | 161.7 | 164.2 | 160.8 | 164.2 | 160.8 | 159.1 | 158.2 | 156.5 | 149.6 | 139.3 |
| 60° | 145.3 | 147.1 | 146.2 | 145.3 | 147.1 | 144.5 | 142.7 | 139.3 | 137.6 | 128.1 | 121.2 |
| 62.5° | 130.7 | 131.6 | 132.4 | 130.7 | 129.0 | 128.1 | 124.7 | 119.5 | 116.1 | 108.3 | 102.3 |
| 65° | 118.7 | 116.1 | 115.2 | 114.4 | 112.7 | 110.1 | 107.5 | 101.5 | 98.9 | 92.0 | 86.0 |
| 67.5° | 100.6 | 99.8 | 101.5 | 98.9 | 94.6 | 94.6 | 92.0 | 86.9 | 80.8 | 76.5 | 70.5 |
| 70° | 86.0 | 85.1 | 83.4 | 80.8 | 80.0 | 76.5 | 76.5 | 70.5 | 68.8 | 61.0 | 55.9 |
| 72.5° | 70.5 | 70.5 | 67.9 | 65.4 | 62.8 | 61.0 | 60.2 | 55.9 | 53.3 | 49.0 | 44.7 |
| 75° | 53.3 | 53.3 | 52.5 | 49.9 | 48.1 | 46.4 | 45.6 | 42.1 | 39.6 | 35.3 | 32.7 |
| 77.5° | 37.8 | 37.8 | 34.4 | 32.7 | 33.5 | 31.8 | 30.1 | 29.2 | 28.4 | 25.8 | 22.4 |
| 80° | 22.4 | 21.5 | 18.9 | 19.8 | 18.9 | 18.9 | 18.1 | 17.2 | 15.5 | 13.7 | 12.0 |
| 82.5° | 6.0 | 6.9 | 6.9 | 6.9 | 7.7 | 6.0 | 6.0 | 6.0 | 6.9 | 6.9 | 4.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.9 | 0.9 |
| 87.5° | 0.9 | 1.7 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 2.6 | 2.6 | 2.6 | 1.7 |
| 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#
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CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 |
| 2.5° | 725.8 | 724.9 | 725.8 | 719.8 | 733.5 | 723.2 | 721.5 | 719.8 | 725.8 | 719.8 | 711.2 |
| 5° | 741.2 | 732.7 | 730.1 | 727.5 | 735.2 | 723.2 | 720.6 | 721.5 | 717.2 | 706.0 | 706.8 |
| 7.5° | 746.4 | 738.7 | 730.9 | 714.6 | 721.5 | 718.9 | 712.0 | 706.8 | 700.0 | 690.5 | 688.8 |
| 10° | 748.1 | 739.5 | 728.3 | 723.2 | 712.9 | 709.4 | 706.8 | 698.3 | 689.7 | 673.3 | 669.0 |
| 12.5° | 743.0 | 732.7 | 718.9 | 714.6 | 706.8 | 695.7 | 689.7 | 681.0 | 673.3 | 660.4 | 651.0 |
| 15° | 720.6 | 712.0 | 707.7 | 693.1 | 689.7 | 682.8 | 670.7 | 658.7 | 647.5 | 630.3 | 625.1 |
| 17.5° | 694.8 | 691.4 | 687.1 | 675.9 | 675.0 | 668.2 | 657.0 | 646.6 | 632.1 | 605.4 | 596.8 |
| 20° | 668.2 | 668.2 | 654.4 | 650.1 | 658.7 | 644.9 | 636.3 | 626.9 | 596.8 | 583.9 | 568.4 |
| 22.5° | 648.4 | 638.9 | 631.2 | 624.3 | 625.1 | 616.6 | 604.5 | 585.6 | 574.4 | 558.9 | 540.9 |
| 25° | 609.7 | 613.1 | 595.9 | 593.3 | 595.9 | 576.1 | 570.1 | 554.6 | 538.3 | 523.7 | 509.9 |
| 27.5° | 585.6 | 576.1 | 565.0 | 555.5 | 555.5 | 547.8 | 530.6 | 527.1 | 502.2 | 488.4 | 471.2 |
| 30° | 549.5 | 542.6 | 533.1 | 519.4 | 517.7 | 511.6 | 497.9 | 489.3 | 463.5 | 442.9 | 433.4 |
| 32.5° | 503.9 | 501.3 | 493.6 | 478.1 | 473.0 | 466.1 | 448.9 | 434.3 | 422.2 | 399.0 | 387.8 |
| 35° | 471.2 | 461.8 | 445.4 | 432.5 | 428.2 | 416.2 | 402.4 | 392.1 | 379.2 | 358.6 | 344.0 |
| 37.5° | 422.2 | 412.8 | 397.3 | 381.8 | 381.8 | 369.8 | 350.8 | 340.5 | 322.5 | 310.4 | 298.4 |
| 40° | 379.2 | 367.2 | 351.7 | 333.7 | 331.1 | 313.9 | 306.1 | 288.9 | 277.7 | 258.8 | 257.1 |
| 42.5° | 331.1 | 319.9 | 306.1 | 292.4 | 282.1 | 273.5 | 253.7 | 240.8 | 228.8 | 219.3 | 216.7 |
| 45° | 287.2 | 272.6 | 260.6 | 243.3 | 233.0 | 222.7 | 209.8 | 201.2 | 191.8 | 181.5 | 175.4 |
| 47.5° | 249.4 | 237.3 | 220.1 | 204.7 | 194.4 | 189.2 | 174.5 | 165.1 | 157.4 | 150.5 | 146.2 |
| 50° | 210.7 | 196.1 | 186.6 | 169.4 | 167.7 | 155.6 | 143.6 | 135.9 | 131.6 | 125.6 | 119.5 |
| 52.5° | 181.5 | 167.7 | 154.8 | 141.9 | 135.0 | 130.7 | 119.5 | 111.8 | 105.8 | 101.5 | 98.0 |
| 55° | 153.1 | 141.0 | 130.7 | 117.8 | 113.5 | 107.5 | 94.6 | 92.9 | 86.9 | 80.8 | 76.5 |
| 57.5° | 131.6 | 120.4 | 108.3 | 99.8 | 92.0 | 87.7 | 77.4 | 70.5 | 67.1 | 61.9 | 57.6 |
| 60° | 111.8 | 99.8 | 90.3 | 80.0 | 76.5 | 70.5 | 62.8 | 56.8 | 52.5 | 48.1 | 43.9 |
| 62.5° | 93.7 | 83.4 | 73.1 | 64.5 | 59.3 | 55.9 | 49.9 | 44.7 | 40.4 | 37.0 | 33.5 |
| 65° | 77.4 | 67.9 | 59.3 | 50.7 | 48.1 | 43.9 | 39.6 | 35.3 | 31.8 | 27.5 | 24.1 |
| 67.5° | 63.6 | 55.0 | 46.4 | 40.4 | 37.8 | 36.1 | 31.0 | 26.6 | 24.1 | 21.5 | 18.1 |
| 70° | 49.9 | 43.9 | 37.0 | 31.8 | 29.2 | 26.6 | 23.2 | 20.7 | 17.2 | 15.5 | 12.9 |
| 72.5° | 38.7 | 33.5 | 27.5 | 23.2 | 21.5 | 19.8 | 16.3 | 13.7 | 12.0 | 10.3 | 8.6 |
| 75° | 27.5 | 23.2 | 19.8 | 15.5 | 14.6 | 13.7 | 11.2 | 9.5 | 7.7 | 6.0 | 5.2 |
| 77.5° | 18.9 | 15.5 | 12.0 | 10.3 | 9.5 | 7.7 | 6.9 | 5.2 | 4.3 | 3.4 | 2.6 |
| 80° | 10.3 | 7.7 | 6.0 | 5.2 | 4.3 | 3.4 | 3.4 | 2.6 | 1.7 | 1.7 | 0.9 |
| 82.5° | 3.4 | 2.6 | 1.7 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.0 | 0.9 |
| 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° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 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: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 |
| 2.5° | 716.3 | 706.8 | 709.4 | 709.4 | 707.7 | 707.7 | 706.0 | 703.4 | 704.3 | 699.1 | 687.9 |
| 5° | 708.6 | 696.5 | 694.8 | 696.5 | 689.7 | 687.9 | 684.5 | 689.7 | 674.2 | 680.2 | 673.3 |
| 7.5° | 686.2 | 675.0 | 672.4 | 678.5 | 669.9 | 664.7 | 663.9 | 670.7 | 657.0 | 650.1 | 642.4 |
| 10° | 661.3 | 657.0 | 649.2 | 644.9 | 642.4 | 643.2 | 636.3 | 627.7 | 625.1 | 623.4 | 616.6 |
| 12.5° | 638.9 | 629.5 | 622.6 | 617.4 | 615.7 | 615.7 | 604.5 | 602.8 | 595.1 | 593.3 | 583.0 |
| 15° | 612.2 | 601.1 | 596.8 | 589.9 | 583.9 | 587.3 | 574.4 | 571.0 | 568.4 | 557.2 | 558.9 |
| 17.5° | 589.0 | 577.0 | 566.7 | 562.4 | 557.2 | 552.1 | 540.0 | 542.6 | 536.6 | 536.6 | 521.1 |
| 20° | 558.9 | 546.0 | 538.3 | 529.7 | 529.7 | 522.8 | 514.2 | 515.1 | 507.3 | 499.6 | 485.8 |
| 22.5° | 527.1 | 513.4 | 503.9 | 500.5 | 491.9 | 490.2 | 479.8 | 477.3 | 466.9 | 467.8 | 455.8 |
| 25° | 493.6 | 479.8 | 466.9 | 467.8 | 460.1 | 456.6 | 450.6 | 438.6 | 434.3 | 429.1 | 425.7 |
| 27.5° | 454.0 | 444.6 | 433.4 | 432.5 | 417.9 | 418.8 | 411.1 | 407.6 | 397.3 | 399.9 | 392.1 |
| 30° | 417.9 | 404.2 | 393.8 | 391.3 | 385.2 | 383.5 | 371.5 | 366.3 | 368.1 | 361.2 | 356.9 |
| 32.5° | 380.9 | 360.3 | 356.0 | 350.8 | 347.4 | 343.1 | 334.5 | 337.9 | 330.2 | 331.9 | 325.0 |
| 35° | 331.9 | 323.3 | 312.1 | 312.1 | 308.7 | 305.3 | 299.3 | 302.7 | 295.0 | 291.5 | 284.6 |
| 37.5° | 290.6 | 282.9 | 271.7 | 275.2 | 269.1 | 264.0 | 258.8 | 259.7 | 252.8 | 252.0 | 245.1 |
| 40° | 245.9 | 241.6 | 233.9 | 233.9 | 229.6 | 229.6 | 227.0 | 224.4 | 220.1 | 215.0 | 207.2 |
| 42.5° | 203.8 | 200.4 | 196.9 | 197.8 | 191.8 | 196.9 | 190.0 | 194.4 | 180.6 | 179.7 | 174.5 |
| 45° | 172.8 | 165.1 | 166.0 | 162.5 | 159.1 | 160.8 | 154.8 | 156.5 | 148.8 | 147.1 | 141.9 |
| 47.5° | 140.2 | 137.6 | 132.4 | 130.7 | 130.7 | 128.1 | 125.6 | 124.7 | 121.2 | 116.9 | 110.1 |
| 50° | 115.2 | 105.8 | 104.0 | 101.5 | 99.8 | 99.8 | 96.3 | 91.2 | 92.0 | 87.7 | 80.8 |
| 52.5° | 90.3 | 82.5 | 79.1 | 78.3 | 74.8 | 73.1 | 68.8 | 65.4 | 62.8 | 61.0 | 56.8 |
| 55° | 69.6 | 62.8 | 58.5 | 58.5 | 53.3 | 53.3 | 47.3 | 44.7 | 41.3 | 37.8 | 35.3 |
| 57.5° | 52.5 | 49.0 | 44.7 | 41.3 | 39.6 | 35.3 | 31.8 | 27.5 | 24.9 | 19.8 | 16.3 |
| 60° | 39.6 | 36.1 | 31.8 | 29.2 | 27.5 | 23.2 | 18.9 | 15.5 | 9.5 | 7.7 | 6.9 |
| 62.5° | 29.2 | 25.8 | 21.5 | 19.8 | 18.1 | 14.6 | 10.3 | 5.2 | 2.6 | 2.6 | 2.6 |
| 65° | 21.5 | 17.2 | 13.7 | 12.0 | 10.3 | 7.7 | 3.4 | 1.7 | 0.9 | 0.9 | 0.9 |
| 67.5° | 14.6 | 11.2 | 7.7 | 6.9 | 5.2 | 2.6 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 70° | 9.5 | 6.9 | 3.4 | 2.6 | 1.7 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 72.5° | 6.0 | 3.4 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.9 | 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 | 0.9 | 0.9 | 0.9 |
| 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: P#
 CATALOG NUMBER: FLDSQ4C15D010 FEU4C159040 F4LC-SQLWW-H

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 0° | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 | 717.2 |
| 2.5° | 700.0 | 693.9 | 697.4 | 689.7 | 693.1 | 699.1 | 694.8 | 696.5 |
| 5° | 675.9 | 672.4 | 668.2 | 657.0 | 665.6 | 672.4 | 669.0 | 668.2 |
| 7.5° | 650.1 | 638.1 | 644.1 | 640.6 | 638.9 | 645.8 | 638.1 | 646.6 |
| 10° | 623.4 | 614.8 | 614.0 | 608.0 | 608.0 | 613.1 | 614.0 | 608.8 |
| 12.5° | 583.9 | 579.6 | 579.6 | 578.7 | 577.8 | 583.0 | 583.9 | 581.3 |
| 15° | 555.5 | 553.8 | 549.5 | 548.6 | 543.5 | 551.2 | 552.1 | 551.2 |
| 17.5° | 521.1 | 522.0 | 517.7 | 517.7 | 521.1 | 523.7 | 516.8 | 523.7 |
| 20° | 497.9 | 493.6 | 491.9 | 484.1 | 488.4 | 492.7 | 492.7 | 493.6 |
| 22.5° | 464.3 | 457.5 | 460.1 | 455.8 | 453.2 | 459.2 | 459.2 | 461.8 |
| 25° | 426.5 | 426.5 | 428.2 | 425.7 | 427.4 | 430.8 | 428.2 | 434.3 |
| 27.5° | 390.4 | 393.8 | 393.8 | 390.4 | 392.1 | 402.4 | 406.7 | 399.9 |
| 30° | 356.9 | 357.7 | 360.3 | 358.6 | 363.7 | 367.2 | 366.3 | 371.5 |
| 32.5° | 319.0 | 323.3 | 325.0 | 322.5 | 324.2 | 331.9 | 327.6 | 326.8 |
| 35° | 289.8 | 282.1 | 281.2 | 282.1 | 285.5 | 287.2 | 285.5 | 291.5 |
| 37.5° | 247.7 | 245.1 | 241.6 | 242.5 | 245.1 | 248.5 | 250.2 | 254.5 |
| 40° | 207.2 | 203.8 | 203.8 | 202.9 | 200.4 | 209.8 | 209.8 | 209.8 |
| 42.5° | 172.0 | 171.1 | 166.8 | 166.8 | 170.3 | 172.8 | 171.1 | 177.1 |
| 45° | 141.0 | 137.6 | 135.0 | 135.0 | 137.6 | 137.6 | 140.2 | 139.3 |
| 47.5° | 110.9 | 107.5 | 108.3 | 105.8 | 108.3 | 111.8 | 107.5 | 108.3 |
| 50° | 83.4 | 83.4 | 81.7 | 83.4 | 82.5 | 83.4 | 81.7 | 80.0 |
| 52.5° | 56.8 | 64.5 | 65.4 | 61.9 | 54.2 | 47.3 | 43.0 | 46.4 |
| 55° | 32.7 | 29.2 | 29.2 | 28.4 | 26.6 | 25.8 | 23.2 | 25.8 |
| 57.5° | 16.3 | 14.6 | 14.6 | 14.6 | 13.7 | 12.9 | 11.2 | 11.2 |
| 60° | 6.9 | 6.0 | 6.0 | 5.2 | 4.3 | 3.4 | 2.6 | 3.4 |
| 62.5° | 2.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| 65° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 67.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 70° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 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)