

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: P382271

Luminaire Tested: **MWL-2-28-17-UNV-L830-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P382271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-25 &
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-2-28-17-UNV-L830-EDD
Description: MWL 2FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

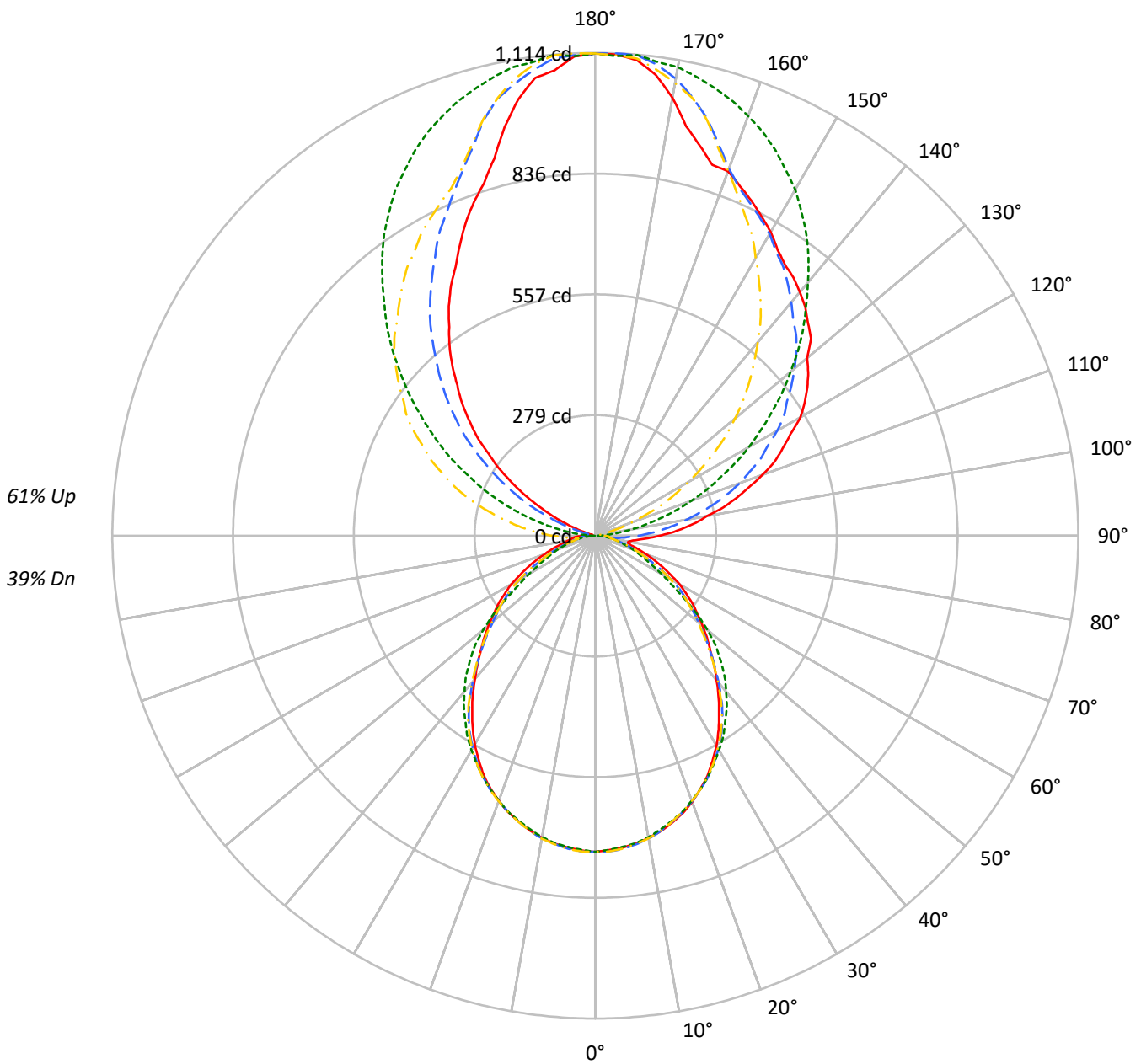
Lumens per Lamp: N/A
Luminaire Lumens: 4310.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')
CIE Type: Semi-Indirect

Input Watts (W): 49.4
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



TEST NUMBER: P382271
CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

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 | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 | | | | |
| 1 | 95 | 91 | 87 | 84 | 86 | 83 | 80 | 77 | 68 | 65 | 63 | 53 | 52 | 51 | 40 | 39 | 39 | 33 | | | | |
| 2 | 87 | 80 | 74 | 69 | 79 | 73 | 68 | 63 | 59 | 56 | 53 | 47 | 45 | 43 | 36 | 34 | 33 | 28 | | | | |
| 3 | 80 | 70 | 63 | 58 | 72 | 64 | 58 | 53 | 53 | 48 | 45 | 42 | 39 | 36 | 32 | 30 | 28 | 24 | | | | |
| 4 | 73 | 62 | 55 | 49 | 66 | 57 | 51 | 45 | 47 | 42 | 38 | 38 | 34 | 31 | 29 | 27 | 25 | 21 | | | | |
| 5 | 67 | 56 | 48 | 42 | 61 | 51 | 44 | 39 | 42 | 37 | 33 | 34 | 30 | 27 | 26 | 24 | 22 | 18 | | | | |
| 6 | 62 | 50 | 42 | 37 | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 24 | 21 | 19 | 16 | | | | |
| 7 | 57 | 45 | 37 | 32 | 52 | 41 | 35 | 30 | 34 | 29 | 26 | 28 | 24 | 21 | 22 | 19 | 17 | 14 | | | | |
| 8 | 53 | 41 | 33 | 28 | 48 | 38 | 31 | 26 | 31 | 26 | 23 | 26 | 22 | 19 | 20 | 17 | 15 | 13 | | | | |
| 9 | 49 | 37 | 30 | 25 | 45 | 34 | 28 | 24 | 29 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 14 | 12 | | | | |
| 10 | 46 | 34 | 27 | 23 | 42 | 32 | 25 | 21 | 27 | 22 | 18 | 22 | 18 | 16 | 17 | 15 | 13 | 11 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|------|------|------|------|
| 0° | 9420 | 9420 | 9420 | 9420 |
| 5° | 9198 | 8593 | 9198 | 8593 |
| 10° | 8956 | 7871 | 8956 | 7871 |
| 15° | 8677 | 7182 | 8647 | 7182 |
| 20° | 8347 | 6555 | 8316 | 6555 |
| 25° | 7942 | 5967 | 7912 | 5967 |
| 30° | 7444 | 5399 | 7402 | 5399 |
| 35° | 6849 | 4845 | 6816 | 4845 |
| 40° | 6245 | 4300 | 6199 | 4300 |
| 45° | 5675 | 3737 | 5640 | 3737 |
| 50° | 5201 | 3094 | 5164 | 3094 |
| 55° | 4752 | 2291 | 4724 | 2291 |
| 60° | 4262 | 1664 | 4247 | 1664 |
| 65° | 3621 | 1231 | 3621 | 1231 |
| 70° | 2976 | 919 | 2995 | 919 |
| 75° | 2403 | 648 | 2471 | 648 |
| 80° | 2632 | 425 | 2124 | 425 |
| 85° | 4462 | 187 | 2222 | 187 |



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 68.6 | 1.6 |
| 10°-20° | 192.5 | 4.5 |
| 20°-30° | 281.7 | 6.5 |
| 30°-40° | 318.1 | 7.4 |
| 40°-50° | 295.3 | 6.9 |
| 50°-60° | 232.2 | 5.4 |
| 60°-70° | 146.9 | 3.4 |
| 70°-80° | 73.8 | 1.7 |
| 80°-90° | 51.1 | 1.2 |
| 90°-100° | 86.4 | 2.0 |
| 100°-110° | 171.1 | 4.0 |
| 110°-120° | 295.2 | 6.8 |
| 120°-130° | 401.1 | 9.3 |
| 130°-140° | 457.5 | 10.6 |
| 140°-150° | 456.8 | 10.6 |
| 150°-160° | 397.8 | 9.2 |
| 160°-170° | 279.8 | 6.5 |
| 170°-180° | 104.2 | 2.4 |
| 0°-30° | 542.8 | 12.6 |
| 0°-40° | 860.8 | 20.0 |
| 0°-60° | 1388.3 | 32.2 |
| 0°-90° | 1660.1 | 38.5 |
| 90°-120° | 552.8 | 12.8 |
| 90°-150° | 1868.1 | 43.3 |
| 90°-180° | 2650.0 | 61.5 |
| 0°-180° | 4310.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0° | 729 | 729 | 729 | 729 | 729 | |
| 5° | 722 | 721 | 722 | 721 | 722 | 69 |
| 15° | 685 | 681 | 683 | 681 | 685 | 193 |
| 25° | 611 | 614 | 609 | 614 | 611 | 281 |
| 35° | 498 | 522 | 495 | 522 | 498 | 311 |
| 45° | 375 | 409 | 373 | 409 | 375 | 291 |
| 55° | 274 | 247 | 272 | 247 | 274 | 244 |
| 65° | 171 | 127 | 171 | 127 | 171 | 171 |
| 75° | 86 | 61 | 88 | 61 | 86 | 97 |
| 85° | 102 | 16 | 51 | 16 | 102 | 78 |
| 90° | 148 | 1 | 30 | 1 | 148 | 82 |
| 95° | 205 | 31 | 19 | 31 | 205 | 180 |
| 105° | 337 | 156 | 6 | 156 | 337 | 355 |
| 115° | 477 | 317 | 109 | 317 | 477 | 473 |
| 125° | 597 | 497 | 271 | 497 | 597 | 533 |
| 135° | 694 | 679 | 436 | 679 | 694 | 535 |
| 145° | 763 | 849 | 588 | 849 | 763 | 481 |
| 155° | 852 | 982 | 739 | 982 | 852 | 393 |
| 165° | 932 | 1068 | 901 | 1068 | 932 | 264 |
| 175° | 1101 | 1113 | 1078 | 1113 | 1101 | 103 |
| 180° | 1112 | 1112 | 1112 | 1112 | 1112 | |



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 |
| 2.5° | 726.0 | 727.5 | 729.1 | 727.1 | 725.3 | 726.3 | 729.1 | 727.5 | 726.8 | 727.5 | 729.1 |
| 5° | 722.3 | 723.8 | 725.4 | 722.5 | 720.7 | 722.5 | 724.6 | 723.8 | 722.3 | 723.8 | 724.6 |
| 7.5° | 716.5 | 718.1 | 718.1 | 716.9 | 715.1 | 716.2 | 717.2 | 717.2 | 716.5 | 717.2 | 717.2 |
| 10° | 707.9 | 709.7 | 709.7 | 707.8 | 705.9 | 707.0 | 708.8 | 708.1 | 707.9 | 708.1 | 708.8 |
| 12.5° | 698.3 | 698.5 | 697.6 | 695.7 | 694.1 | 695.7 | 697.6 | 696.9 | 696.7 | 696.9 | 697.6 |
| 15° | 685.1 | 684.4 | 683.6 | 682.7 | 681.0 | 681.9 | 682.9 | 682.9 | 682.7 | 682.9 | 682.9 |
| 17.5° | 671.1 | 669.5 | 668.7 | 668.9 | 667.9 | 668.9 | 667.9 | 668.7 | 668.7 | 668.7 | 667.9 |
| 20° | 653.3 | 653.4 | 651.9 | 652.0 | 650.4 | 651.3 | 651.1 | 651.9 | 650.9 | 651.9 | 651.1 |
| 22.5° | 632.9 | 633.8 | 634.1 | 633.4 | 632.6 | 632.6 | 633.4 | 632.2 | 631.3 | 632.2 | 633.4 |
| 25° | 611.4 | 612.3 | 614.4 | 613.8 | 613.9 | 613.0 | 612.8 | 610.0 | 609.1 | 610.0 | 612.8 |
| 27.5° | 585.3 | 589.0 | 592.0 | 593.0 | 592.5 | 592.3 | 590.4 | 586.7 | 582.9 | 586.7 | 590.4 |
| 30° | 559.1 | 561.9 | 567.5 | 572.4 | 571.0 | 570.8 | 565.2 | 559.6 | 556.0 | 559.6 | 565.2 |
| 32.5° | 529.2 | 533.0 | 541.4 | 548.1 | 549.3 | 546.5 | 539.0 | 529.9 | 526.2 | 529.9 | 539.0 |
| 35° | 497.7 | 499.5 | 511.7 | 521.0 | 522.4 | 518.7 | 509.3 | 497.2 | 495.3 | 497.2 | 509.3 |
| 37.5° | 466.9 | 465.9 | 478.1 | 494.9 | 497.9 | 492.5 | 475.7 | 463.6 | 464.5 | 463.6 | 475.7 |
| 40° | 435.1 | 433.2 | 442.6 | 464.1 | 469.0 | 462.6 | 439.4 | 430.1 | 431.9 | 430.1 | 439.4 |
| 42.5° | 405.2 | 403.3 | 407.2 | 432.4 | 441.9 | 430.9 | 404.8 | 400.2 | 402.0 | 400.2 | 404.8 |
| 45° | 375.4 | 372.6 | 373.6 | 396.0 | 409.2 | 394.5 | 370.5 | 370.3 | 373.1 | 370.3 | 370.5 |
| 47.5° | 349.3 | 344.6 | 341.8 | 357.9 | 377.5 | 357.1 | 338.7 | 342.3 | 346.9 | 342.3 | 338.7 |
| 50° | 323.1 | 318.5 | 311.0 | 322.4 | 337.5 | 320.8 | 307.9 | 315.4 | 320.8 | 315.4 | 307.9 |
| 52.5° | 297.0 | 294.2 | 283.2 | 288.8 | 293.6 | 287.2 | 280.8 | 291.1 | 294.6 | 291.1 | 280.8 |
| 55° | 273.8 | 270.1 | 257.0 | 254.4 | 247.0 | 252.8 | 254.7 | 267.7 | 272.2 | 267.7 | 254.7 |
| 57.5° | 248.6 | 246.7 | 230.9 | 219.8 | 206.9 | 218.2 | 228.5 | 244.4 | 247.0 | 244.4 | 228.5 |
| 60° | 224.5 | 219.8 | 201.2 | 185.4 | 176.0 | 184.6 | 199.6 | 218.2 | 223.7 | 218.2 | 199.6 |
| 62.5° | 196.5 | 193.7 | 173.1 | 153.6 | 149.1 | 152.9 | 171.6 | 192.1 | 195.6 | 192.1 | 171.6 |
| 65° | 171.4 | 165.8 | 145.2 | 128.4 | 126.7 | 127.7 | 144.5 | 165.0 | 171.4 | 165.0 | 144.5 |
| 67.5° | 148.0 | 138.7 | 120.9 | 106.2 | 107.1 | 106.2 | 120.2 | 137.9 | 148.0 | 137.9 | 120.2 |
| 70° | 123.9 | 113.7 | 99.6 | 87.5 | 91.2 | 87.5 | 99.6 | 114.4 | 124.7 | 114.4 | 99.6 |
| 72.5° | 104.3 | 92.2 | 81.0 | 71.6 | 74.5 | 70.8 | 81.0 | 92.9 | 105.9 | 92.9 | 81.0 |
| 75° | 85.6 | 73.5 | 63.3 | 56.8 | 61.4 | 56.8 | 64.2 | 74.2 | 88.0 | 74.2 | 64.2 |
| 77.5° | 77.0 | 63.5 | 48.4 | 45.6 | 49.3 | 45.6 | 49.2 | 61.2 | 73.8 | 61.2 | 49.2 |
| 80° | 77.2 | 64.3 | 39.6 | 34.4 | 38.1 | 34.4 | 38.0 | 51.7 | 62.3 | 51.7 | 38.0 |
| 82.5° | 85.8 | 75.0 | 43.4 | 24.1 | 26.0 | 24.1 | 34.0 | 46.7 | 55.9 | 46.7 | 34.0 |
| 85° | 101.8 | 92.0 | 56.0 | 20.9 | 15.7 | 19.3 | 33.2 | 44.2 | 50.7 | 44.2 | 33.2 |
| 87.5° | 122.5 | 116.5 | 74.1 | 29.0 | 3.7 | 17.9 | 29.3 | 41.0 | 41.7 | 41.0 | 29.3 |
| 90° | 147.6 | 142.5 | 98.6 | 41.7 | 0.7 | 11.9 | 20.9 | 31.8 | 29.8 | 31.8 | 20.9 |
| 92.5° | 177.4 | 170.8 | 124.9 | 60.4 | 12.6 | 6.3 | 17.3 | 25.6 | 23.5 | 25.6 | 17.3 |
| 95° | 205.3 | 201.5 | 154.0 | 82.6 | 31.4 | 4.1 | 12.6 | 19.3 | 19.1 | 19.3 | 12.6 |
| 97.5° | 235.2 | 231.2 | 182.9 | 109.9 | 55.8 | 9.4 | 9.3 | 15.3 | 15.3 | 15.3 | 9.3 |
| 100° | 261.1 | 259.4 | 214.5 | 143.7 | 85.6 | 26.0 | 6.4 | 12.8 | 13.7 | 12.8 | 6.4 |
| 102.5° | 302.1 | 290.9 | 246.7 | 175.9 | 117.8 | 48.7 | 12.7 | 8.1 | 10.0 | 8.1 | 12.7 |
| 105° | 337.0 | 326.0 | 285.2 | 210.6 | 155.7 | 80.2 | 31.6 | 10.4 | 6.4 | 10.4 | 31.6 |
| 107.5° | 370.8 | 363.0 | 319.8 | 245.1 | 194.9 | 115.6 | 58.3 | 30.0 | 19.0 | 30.0 | 58.3 |
| 110° | 410.1 | 400.6 | 353.6 | 279.7 | 235.7 | 153.3 | 88.9 | 55.1 | 42.6 | 55.1 | 88.9 |



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 447.8 | 440.7 | 384.9 | 315.8 | 278.1 | 194.2 | 126.5 | 86.6 | 74.7 | 86.6 | 126.5 |
| 115° | 476.8 | 472.9 | 421.1 | 349.6 | 317.4 | 240.5 | 168.2 | 123.5 | 109.3 | 123.5 | 168.2 |
| 117.5° | 507.5 | 506.7 | 447.8 | 384.2 | 364.5 | 282.0 | 206.7 | 160.3 | 145.4 | 160.3 | 206.7 |
| 120° | 546.0 | 539.7 | 484.7 | 418.8 | 409.3 | 326.0 | 249.1 | 202.7 | 187.8 | 202.7 | 249.1 |
| 122.5° | 572.7 | 568.7 | 516.1 | 451.7 | 451.7 | 370.8 | 290.0 | 243.6 | 227.9 | 243.6 | 290.0 |
| 125° | 597.0 | 595.4 | 539.7 | 484.7 | 497.3 | 412.4 | 335.5 | 288.4 | 271.1 | 288.4 | 335.5 |
| 127.5° | 619.0 | 621.3 | 570.3 | 520.8 | 543.6 | 454.9 | 380.3 | 328.4 | 310.3 | 328.4 | 380.3 |
| 130° | 637.8 | 645.7 | 599.4 | 553.8 | 587.6 | 501.2 | 420.2 | 368.4 | 356.7 | 368.4 | 420.2 |
| 132.5° | 674.7 | 670.1 | 629.2 | 587.6 | 634.7 | 543.6 | 462.7 | 408.5 | 395.1 | 408.5 | 462.7 |
| 135° | 693.6 | 695.2 | 655.1 | 616.6 | 678.7 | 586.0 | 502.7 | 449.4 | 436.0 | 449.4 | 502.7 |
| 137.5° | 716.4 | 711.6 | 675.5 | 651.9 | 719.5 | 626.8 | 542.0 | 492.5 | 471.3 | 492.5 | 542.0 |
| 140° | 733.8 | 733.0 | 703.1 | 683.4 | 763.5 | 666.9 | 583.0 | 532.8 | 513.1 | 532.8 | 583.0 |
| 142.5° | 751.0 | 755.8 | 729.8 | 718.0 | 807.4 | 709.3 | 626.2 | 571.3 | 552.4 | 571.3 | 626.2 |
| 145° | 762.8 | 773.1 | 756.5 | 762.1 | 849.1 | 757.4 | 663.9 | 608.1 | 587.7 | 608.1 | 663.9 |
| 147.5° | 782.5 | 795.9 | 776.2 | 792.7 | 885.2 | 798.9 | 701.6 | 646.6 | 628.6 | 646.6 | 701.6 |
| 150° | 809.2 | 815.5 | 803.7 | 835.1 | 922.1 | 845.3 | 740.1 | 683.5 | 665.5 | 683.5 | 740.1 |
| 152.5° | 830.4 | 838.3 | 824.9 | 881.4 | 951.2 | 887.8 | 782.5 | 719.7 | 698.5 | 719.7 | 782.5 |
| 155° | 852.4 | 855.5 | 846.1 | 926.2 | 981.8 | 929.3 | 816.2 | 759.7 | 739.3 | 759.7 | 816.2 |
| 157.5° | 872.8 | 879.1 | 868.0 | 959.9 | 1008.5 | 965.5 | 854.7 | 799.8 | 781.7 | 799.8 | 854.7 |
| 160° | 894.8 | 894.8 | 901.0 | 998.3 | 1030.5 | 995.9 | 895.6 | 843.8 | 818.6 | 843.8 | 895.6 |
| 162.5° | 897.1 | 912.0 | 945.8 | 1025.8 | 1051.7 | 1023.4 | 939.6 | 875.1 | 853.2 | 875.1 | 939.6 |
| 165° | 931.6 | 945.0 | 996.1 | 1050.2 | 1068.2 | 1047.7 | 993.7 | 927.0 | 901.0 | 927.0 | 993.7 |
| 167.5° | 967.8 | 996.1 | 1036.0 | 1077.6 | 1083.9 | 1070.5 | 1034.4 | 989.0 | 965.5 | 989.0 | 1034.4 |
| 170° | 1025.8 | 1051.1 | 1070.5 | 1088.7 | 1097.4 | 1089.6 | 1060.3 | 1038.5 | 1022.6 | 1038.5 | 1060.3 |
| 172.5° | 1072.1 | 1087.8 | 1095.6 | 1107.6 | 1102.1 | 1099.0 | 1083.9 | 1072.9 | 1065.0 | 1072.9 | 1083.9 |
| 175° | 1101.1 | 1104.3 | 1112.4 | 1108.4 | 1113.1 | 1104.4 | 1105.3 | 1109.8 | 1077.6 | 1109.8 | 1105.3 |
| 177.5° | 1111.4 | 1116.8 | 1113.8 | 1106.8 | 1107.6 | 1106.0 | 1109.2 | 1111.4 | 1106.7 | 1111.4 | 1109.2 |
| 180° | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 |



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|-------|--------|-------|--------|-------|
| 0° | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 | 729.3 |
| 2.5° | 726.3 | 725.3 | 727.1 | 729.1 | 727.5 | 726.0 |
| 5° | 722.5 | 720.7 | 722.5 | 725.4 | 723.8 | 722.3 |
| 7.5° | 716.2 | 715.1 | 716.9 | 718.1 | 718.1 | 716.5 |
| 10° | 707.0 | 705.9 | 707.8 | 709.7 | 709.7 | 707.9 |
| 12.5° | 695.7 | 694.1 | 695.7 | 697.6 | 698.5 | 698.3 |
| 15° | 681.9 | 681.0 | 682.7 | 683.6 | 684.4 | 685.1 |
| 17.5° | 668.9 | 667.9 | 668.9 | 668.7 | 669.5 | 671.1 |
| 20° | 651.3 | 650.4 | 652.0 | 651.9 | 653.4 | 653.3 |
| 22.5° | 632.6 | 632.6 | 633.4 | 634.1 | 633.8 | 632.9 |
| 25° | 613.0 | 613.9 | 613.8 | 614.4 | 612.3 | 611.4 |
| 27.5° | 592.3 | 592.5 | 593.0 | 592.0 | 589.0 | 585.3 |
| 30° | 570.8 | 571.0 | 572.4 | 567.5 | 561.9 | 559.1 |
| 32.5° | 546.5 | 549.3 | 548.1 | 541.4 | 533.0 | 529.2 |
| 35° | 518.7 | 522.4 | 521.0 | 511.7 | 499.5 | 497.7 |
| 37.5° | 492.5 | 497.9 | 494.9 | 478.1 | 465.9 | 466.9 |
| 40° | 462.6 | 469.0 | 464.1 | 442.6 | 433.2 | 435.1 |
| 42.5° | 430.9 | 441.9 | 432.4 | 407.2 | 403.3 | 405.2 |
| 45° | 394.5 | 409.2 | 396.0 | 373.6 | 372.6 | 375.4 |
| 47.5° | 357.1 | 377.5 | 357.9 | 341.8 | 344.6 | 349.3 |
| 50° | 320.8 | 337.5 | 322.4 | 311.0 | 318.5 | 323.1 |
| 52.5° | 287.2 | 293.6 | 288.8 | 283.2 | 294.2 | 297.0 |
| 55° | 252.8 | 247.0 | 254.4 | 257.0 | 270.1 | 273.8 |
| 57.5° | 218.2 | 206.9 | 219.8 | 230.9 | 246.7 | 248.6 |
| 60° | 184.6 | 176.0 | 185.4 | 201.2 | 219.8 | 224.5 |
| 62.5° | 152.9 | 149.1 | 153.6 | 173.1 | 193.7 | 196.5 |
| 65° | 127.7 | 126.7 | 128.4 | 145.2 | 165.8 | 171.4 |
| 67.5° | 106.2 | 107.1 | 106.2 | 120.9 | 138.7 | 148.0 |
| 70° | 87.5 | 91.2 | 87.5 | 99.6 | 113.7 | 123.9 |
| 72.5° | 70.8 | 74.5 | 71.6 | 81.0 | 92.2 | 104.3 |
| 75° | 56.8 | 61.4 | 56.8 | 63.3 | 73.5 | 85.6 |
| 77.5° | 45.6 | 49.3 | 45.6 | 48.4 | 63.5 | 77.0 |
| 80° | 34.4 | 38.1 | 34.4 | 39.6 | 64.3 | 77.2 |
| 82.5° | 24.1 | 26.0 | 24.1 | 43.4 | 75.0 | 85.8 |
| 85° | 19.3 | 15.7 | 20.9 | 56.0 | 92.0 | 101.8 |
| 87.5° | 17.9 | 3.7 | 29.0 | 74.1 | 116.5 | 122.5 |
| 90° | 11.9 | 0.7 | 41.7 | 98.6 | 142.5 | 147.6 |
| 92.5° | 6.3 | 12.6 | 60.4 | 124.9 | 170.8 | 177.4 |
| 95° | 4.1 | 31.4 | 82.6 | 154.0 | 201.5 | 205.3 |
| 97.5° | 9.4 | 55.8 | 109.9 | 182.9 | 231.2 | 235.2 |
| 100° | 26.0 | 85.6 | 143.7 | 214.5 | 259.4 | 261.1 |
| 102.5° | 48.7 | 117.8 | 175.9 | 246.7 | 290.9 | 302.1 |
| 105° | 80.2 | 155.7 | 210.6 | 285.2 | 326.0 | 337.0 |
| 107.5° | 115.6 | 194.9 | 245.1 | 319.8 | 363.0 | 370.8 |
| 110° | 153.3 | 235.7 | 279.7 | 353.6 | 400.6 | 410.1 |



TEST NUMBER: P382271

CATALOG NUMBER: MWL-2-28-17-UNV-L830-EDD

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 194.2 | 278.1 | 315.8 | 384.9 | 440.7 | 447.8 |
| 115° | 240.5 | 317.4 | 349.6 | 421.1 | 472.9 | 476.8 |
| 117.5° | 282.0 | 364.5 | 384.2 | 447.8 | 506.7 | 507.5 |
| 120° | 326.0 | 409.3 | 418.8 | 484.7 | 539.7 | 546.0 |
| 122.5° | 370.8 | 451.7 | 451.7 | 516.1 | 568.7 | 572.7 |
| 125° | 412.4 | 497.3 | 484.7 | 539.7 | 595.4 | 597.0 |
| 127.5° | 454.9 | 543.6 | 520.8 | 570.3 | 621.3 | 619.0 |
| 130° | 501.2 | 587.6 | 553.8 | 599.4 | 645.7 | 637.8 |
| 132.5° | 543.6 | 634.7 | 587.6 | 629.2 | 670.1 | 674.7 |
| 135° | 586.0 | 678.7 | 616.6 | 655.1 | 695.2 | 693.6 |
| 137.5° | 626.8 | 719.5 | 651.9 | 675.5 | 711.6 | 716.4 |
| 140° | 666.9 | 763.5 | 683.4 | 703.1 | 733.0 | 733.8 |
| 142.5° | 709.3 | 807.4 | 718.0 | 729.8 | 755.8 | 751.0 |
| 145° | 757.4 | 849.1 | 762.1 | 756.5 | 773.1 | 762.8 |
| 147.5° | 798.9 | 885.2 | 792.7 | 776.2 | 795.9 | 782.5 |
| 150° | 845.3 | 922.1 | 835.1 | 803.7 | 815.5 | 809.2 |
| 152.5° | 887.8 | 951.2 | 881.4 | 824.9 | 838.3 | 830.4 |
| 155° | 929.3 | 981.8 | 926.2 | 846.1 | 855.5 | 852.4 |
| 157.5° | 965.5 | 1008.5 | 959.9 | 868.0 | 879.1 | 872.8 |
| 160° | 995.9 | 1030.5 | 998.3 | 901.0 | 894.8 | 894.8 |
| 162.5° | 1023.4 | 1051.7 | 1025.8 | 945.8 | 912.0 | 897.1 |
| 165° | 1047.7 | 1068.2 | 1050.2 | 996.1 | 945.0 | 931.6 |
| 167.5° | 1070.5 | 1083.9 | 1077.6 | 1036.0 | 996.1 | 967.8 |
| 170° | 1089.6 | 1097.4 | 1088.7 | 1070.5 | 1051.1 | 1025.8 |
| 172.5° | 1099.0 | 1102.1 | 1107.6 | 1095.6 | 1087.8 | 1072.1 |
| 175° | 1104.4 | 1113.1 | 1108.4 | 1112.4 | 1104.3 | 1101.1 |
| 177.5° | 1106.0 | 1107.6 | 1106.8 | 1113.8 | 1116.8 | 1111.4 |
| 180° | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 | 1112.4 |

(END OF REPORT)