

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: P392584

Luminaire Tested: **MWL-3-30-33-UNV-L835-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392584  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-13 &  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MWL-3-30-33-UNV-L835-EDD  
Description: MWL 3FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6368.0 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')  
CIE Type: General Diffuse

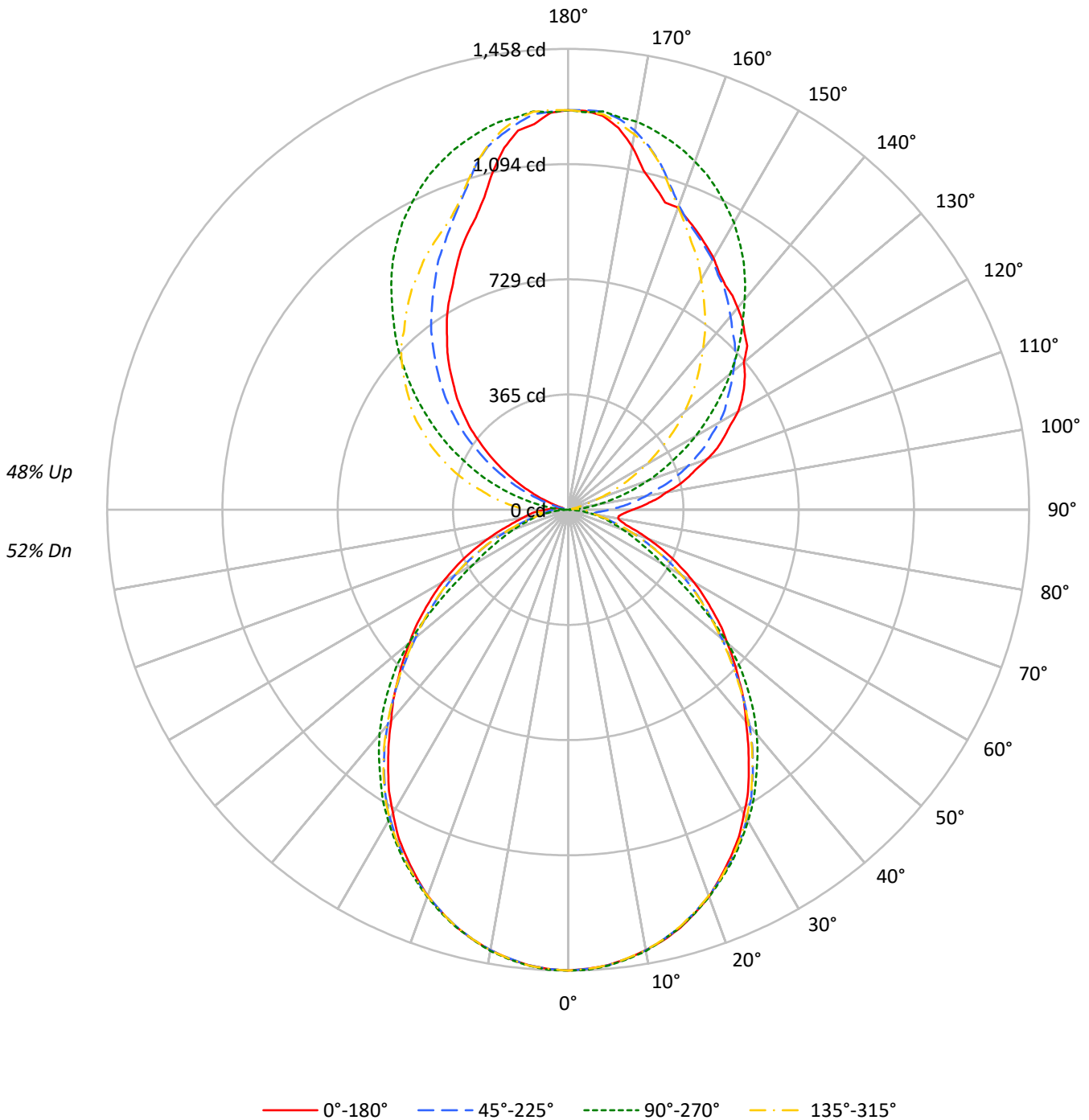
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: MWL-3-30-33-UNV-L835-EDD

### 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 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 58 | 58 | 58 | 52 |
| 1   | 98  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 74 | 72 | 70 | 63 | 61 | 59 | 52 | 51 | 50 | 44 |
| 2   | 90  | 83  | 77  | 72  | 83  | 77  | 72  | 67  | 66 | 62 | 58 | 55 | 53 | 50 | 46 | 44 | 42 | 38 |
| 3   | 82  | 73  | 66  | 60  | 76  | 68  | 62  | 56  | 58 | 53 | 50 | 49 | 46 | 43 | 41 | 39 | 36 | 32 |
| 4   | 75  | 65  | 57  | 51  | 70  | 60  | 54  | 48  | 52 | 47 | 43 | 44 | 40 | 37 | 37 | 34 | 32 | 28 |
| 5   | 69  | 58  | 50  | 44  | 64  | 54  | 47  | 42  | 47 | 41 | 37 | 40 | 36 | 32 | 34 | 30 | 28 | 25 |
| 6   | 64  | 52  | 44  | 38  | 59  | 49  | 42  | 36  | 42 | 37 | 32 | 36 | 32 | 29 | 31 | 27 | 25 | 22 |
| 7   | 59  | 47  | 39  | 34  | 55  | 44  | 37  | 32  | 38 | 33 | 29 | 33 | 29 | 25 | 28 | 25 | 22 | 20 |
| 8   | 55  | 43  | 35  | 30  | 51  | 40  | 33  | 29  | 35 | 30 | 26 | 30 | 26 | 23 | 26 | 22 | 20 | 18 |
| 9   | 51  | 39  | 32  | 27  | 48  | 37  | 30  | 26  | 32 | 27 | 23 | 28 | 24 | 21 | 24 | 20 | 18 | 16 |
| 10  | 48  | 36  | 29  | 24  | 45  | 34  | 27  | 23  | 30 | 24 | 21 | 26 | 22 | 19 | 22 | 19 | 16 | 15 |

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

|     | 0°    | 90°   | 180°  | 270°  |
|-----|-------|-------|-------|-------|
| 0°  | 12555 | 12555 | 12555 | 12555 |
| 5°  | 12353 | 11510 | 12353 | 11510 |
| 10° | 12075 | 10538 | 12075 | 10538 |
| 15° | 11769 | 9616  | 11746 | 9616  |
| 20° | 11361 | 8753  | 11338 | 8753  |
| 25° | 10834 | 7952  | 10810 | 7952  |
| 30° | 10235 | 7172  | 10202 | 7172  |
| 35° | 9534  | 6403  | 9507  | 6403  |
| 40° | 8801  | 5674  | 8764  | 5674  |
| 45° | 8170  | 4892  | 8142  | 4892  |
| 50° | 7552  | 4029  | 7521  | 4029  |
| 55° | 6976  | 3012  | 6953  | 3012  |
| 60° | 6380  | 2186  | 6368  | 2186  |
| 65° | 5690  | 1642  | 5690  | 1642  |
| 70° | 4904  | 1240  | 4920  | 1240  |
| 75° | 4196  | 898   | 4253  | 898   |
| 80° | 4458  | 576   | 3989  | 576   |
| 85° | 6472  | 250   | 4258  | 250   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 137.1  | 2.2       |
| 10°-20°   | 384.9  | 6.0       |
| 20°-30°   | 561.7  | 8.8       |
| 30°-40°   | 634.8  | 10.0      |
| 40°-50°   | 593.6  | 9.3       |
| 50°-60°   | 468.6  | 7.4       |
| 60°-70°   | 306.4  | 4.8       |
| 70°-80°   | 159.7  | 2.5       |
| 80°-90°   | 90.8   | 1.4       |
| 90°-100°  | 111.8  | 1.8       |
| 100°-110° | 197.7  | 3.1       |
| 110°-120° | 336.1  | 5.3       |
| 120°-130° | 456.5  | 7.2       |
| 130°-140° | 520.5  | 8.2       |
| 140°-150° | 519.1  | 8.2       |
| 150°-160° | 452.1  | 7.1       |
| 160°-170° | 318.0  | 5.0       |
| 170°-180° | 118.4  | 1.9       |
| 0°-30°    | 1083.8 | 17.0      |
| 0°-40°    | 1718.6 | 27.0      |
| 0°-60°    | 2780.8 | 43.7      |
| 0°-90°    | 3337.8 | 52.4      |
| 90°-120°  | 645.6  | 10.1      |
| 90°-150°  | 2141.7 | 33.6      |
| 90°-180°  | 3030.0 | 47.6      |
| 0°-180°   | 6368.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 90°  | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 1458 | 1458 | 1458 | 1458 | 1458 |      |
| 5°   | 1446 | 1448 | 1446 | 1448 | 1446 | 137  |
| 15°  | 1369 | 1368 | 1367 | 1368 | 1369 | 385  |
| 25°  | 1214 | 1227 | 1211 | 1227 | 1214 | 558  |
| 35°  | 995  | 1036 | 992  | 1036 | 995  | 622  |
| 45°  | 764  | 804  | 761  | 804  | 764  | 591  |
| 55°  | 557  | 487  | 555  | 487  | 557  | 499  |
| 65°  | 362  | 253  | 362  | 253  | 362  | 359  |
| 75°  | 192  | 128  | 194  | 128  | 192  | 213  |
| 85°  | 170  | 31   | 112  | 31   | 170  | 137  |
| 90°  | 204  | 2    | 70   | 2    | 204  | 113  |
| 95°  | 257  | 37   | 46   | 37   | 257  | 223  |
| 105° | 391  | 177  | 15   | 177  | 391  | 413  |
| 115° | 544  | 361  | 126  | 361  | 544  | 539  |
| 125° | 679  | 566  | 309  | 566  | 679  | 607  |
| 135° | 789  | 772  | 496  | 772  | 789  | 609  |
| 145° | 867  | 966  | 668  | 966  | 867  | 546  |
| 155° | 968  | 1116 | 840  | 1116 | 968  | 447  |
| 165° | 1059 | 1215 | 1024 | 1215 | 1059 | 300  |
| 175° | 1251 | 1265 | 1224 | 1265 | 1251 | 117  |
| 180° | 1264 | 1264 | 1264 | 1264 | 1264 |      |



TEST NUMBER: P392584

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 |
| 2.5°   | 1453.3 | 1456.0 | 1454.0 | 1454.9 | 1456.8 | 1454.0 | 1454.0 | 1456.0 | 1454.2 | 1456.0 | 1454.0 |
| 5°     | 1446.4 | 1448.2 | 1447.1 | 1447.1 | 1448.1 | 1447.1 | 1446.2 | 1448.2 | 1446.4 | 1448.2 | 1446.2 |
| 7.5°   | 1432.5 | 1435.4 | 1432.4 | 1434.3 | 1434.3 | 1433.4 | 1431.5 | 1434.4 | 1432.5 | 1434.4 | 1431.5 |
| 10°    | 1414.8 | 1417.7 | 1415.7 | 1415.7 | 1417.7 | 1414.8 | 1414.8 | 1415.8 | 1414.8 | 1415.8 | 1414.8 |
| 12.5°  | 1395.0 | 1395.1 | 1392.1 | 1394.1 | 1393.2 | 1394.1 | 1392.1 | 1393.2 | 1393.1 | 1393.2 | 1392.1 |
| 15°    | 1369.3 | 1367.6 | 1366.6 | 1367.6 | 1367.7 | 1366.7 | 1365.7 | 1365.7 | 1366.6 | 1365.7 | 1365.7 |
| 17.5°  | 1336.9 | 1338.1 | 1334.2 | 1337.2 | 1337.2 | 1337.2 | 1333.3 | 1337.1 | 1334.2 | 1337.1 | 1333.3 |
| 20°    | 1302.5 | 1301.6 | 1300.7 | 1302.8 | 1302.9 | 1301.9 | 1299.9 | 1299.8 | 1299.8 | 1299.8 | 1299.9 |
| 22.5°  | 1258.4 | 1261.3 | 1262.4 | 1266.4 | 1265.6 | 1265.6 | 1261.5 | 1259.5 | 1256.5 | 1259.5 | 1261.5 |
| 25°    | 1214.1 | 1219.1 | 1222.1 | 1228.1 | 1227.2 | 1227.2 | 1220.2 | 1216.3 | 1211.4 | 1216.3 | 1220.2 |
| 27.5°  | 1168.0 | 1168.9 | 1177.9 | 1186.7 | 1183.0 | 1185.8 | 1176.0 | 1166.2 | 1165.2 | 1166.2 | 1176.0 |
| 30°    | 1111.9 | 1116.8 | 1129.6 | 1139.5 | 1137.8 | 1137.7 | 1126.9 | 1114.1 | 1108.3 | 1114.1 | 1126.9 |
| 32.5°  | 1058.9 | 1060.8 | 1077.5 | 1089.4 | 1090.5 | 1087.6 | 1074.8 | 1057.2 | 1055.2 | 1057.2 | 1074.8 |
| 35°    | 995.1  | 1000.0 | 1017.7 | 1038.3 | 1035.6 | 1035.6 | 1014.9 | 997.2  | 992.3  | 997.2  | 1014.9 |
| 37.5°  | 935.1  | 938.1  | 957.7  | 983.3  | 983.4  | 980.5  | 955.0  | 935.3  | 932.4  | 935.3  | 955.0  |
| 40°    | 874.2  | 873.2  | 891.9  | 920.4  | 928.3  | 918.6  | 888.2  | 869.5  | 870.5  | 869.5  | 888.2  |
| 42.5°  | 823.1  | 811.3  | 824.0  | 855.5  | 868.4  | 853.7  | 821.4  | 807.6  | 819.4  | 807.6  | 821.4  |
| 45°    | 764.1  | 752.3  | 759.2  | 788.7  | 803.5  | 786.9  | 755.6  | 749.6  | 761.4  | 749.6  | 755.6  |
| 47.5°  | 711.0  | 696.3  | 695.3  | 717.0  | 737.6  | 716.1  | 691.7  | 693.6  | 708.4  | 693.6  | 691.7  |
| 50°    | 657.0  | 643.2  | 633.4  | 648.2  | 659.1  | 646.4  | 629.8  | 639.7  | 654.3  | 639.7  | 629.8  |
| 52.5°  | 610.8  | 592.1  | 575.5  | 579.4  | 571.6  | 577.6  | 572.8  | 588.5  | 608.1  | 588.5  | 572.8  |
| 55°    | 556.8  | 545.0  | 521.4  | 508.7  | 487.2  | 507.0  | 518.8  | 542.4  | 555.0  | 542.4  | 518.8  |
| 57.5°  | 508.6  | 497.8  | 469.3  | 439.0  | 408.6  | 437.2  | 466.7  | 495.2  | 506.9  | 495.2  | 466.7  |
| 60°    | 459.6  | 448.8  | 414.4  | 370.2  | 346.7  | 369.4  | 412.6  | 447.0  | 458.7  | 447.0  | 412.6  |
| 62.5°  | 408.5  | 401.6  | 362.3  | 312.3  | 298.6  | 311.4  | 360.5  | 399.8  | 407.6  | 399.8  | 360.5  |
| 65°    | 362.4  | 350.6  | 310.3  | 262.1  | 253.4  | 261.2  | 309.4  | 349.7  | 362.4  | 349.7  | 309.4  |
| 67.5°  | 315.2  | 300.5  | 262.1  | 218.0  | 217.0  | 218.0  | 261.2  | 299.6  | 315.2  | 299.6  | 261.2  |
| 70°    | 269.1  | 252.4  | 217.0  | 180.7  | 184.6  | 180.7  | 217.0  | 253.3  | 270.0  | 253.3  | 217.0  |
| 72.5°  | 228.8  | 206.2  | 177.7  | 148.2  | 152.2  | 147.3  | 177.7  | 207.1  | 230.6  | 207.1  | 177.7  |
| 75°    | 191.5  | 165.9  | 141.4  | 118.8  | 127.7  | 118.8  | 142.3  | 166.8  | 194.1  | 166.8  | 142.3  |
| 77.5°  | 171.1  | 139.0  | 109.0  | 93.3   | 102.1  | 93.3   | 109.9  | 136.3  | 167.5  | 136.3  | 109.9  |
| 80°    | 160.7  | 128.0  | 88.1   | 71.7   | 77.5   | 71.7   | 86.3   | 113.6  | 143.8  | 113.6  | 86.3   |
| 82.5°  | 160.5  | 128.9  | 83.1   | 51.0   | 54.9   | 51.0   | 72.3   | 96.7   | 126.6  | 96.7   | 72.3   |
| 85°    | 169.5  | 141.9  | 90.9   | 40.9   | 31.4   | 39.1   | 65.1   | 87.5   | 111.5  | 87.5   | 65.1   |
| 87.5°  | 183.9  | 163.2  | 107.9  | 45.5   | 8.8    | 32.9   | 57.1   | 77.5   | 92.0   | 77.5   | 57.1   |
| 90°    | 203.9  | 187.2  | 131.2  | 56.3   | 1.9    | 22.4   | 42.9   | 61.3   | 70.2   | 61.3   | 42.9   |
| 92.5°  | 230.5  | 215.8  | 157.4  | 75.2   | 15.2   | 13.6   | 35.1   | 50.7   | 55.5   | 50.7   | 35.1   |
| 95°    | 257.4  | 250.1  | 187.9  | 95.7   | 36.7   | 6.5    | 27.2   | 43.0   | 45.9   | 43.0   | 27.2   |
| 97.5°  | 288.9  | 281.4  | 217.3  | 125.9  | 64.4   | 11.7   | 20.1   | 36.0   | 38.9   | 36.0   | 20.1   |
| 100°   | 314.8  | 310.0  | 249.7  | 164.3  | 98.3   | 30.5   | 13.2   | 29.8   | 33.7   | 29.8   | 13.2   |
| 102.5° | 356.8  | 342.1  | 281.3  | 200.9  | 134.9  | 56.3   | 15.3   | 20.9   | 24.9   | 20.9   | 15.3   |
| 105°   | 390.8  | 373.4  | 325.0  | 239.2  | 176.8  | 91.1   | 36.8   | 14.6   | 15.1   | 14.6   | 36.8   |
| 107.5° | 423.2  | 413.4  | 364.3  | 278.5  | 221.4  | 131.3  | 67.1   | 35.0   | 23.5   | 35.0   | 67.1   |
| 110°   | 467.8  | 456.2  | 402.7  | 317.8  | 267.8  | 174.1  | 101.9  | 63.5   | 50.2   | 63.5   | 101.9  |



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CATALOG NUMBER: MWL-3-30-33-UNV-L835-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 510.7  | 501.8  | 438.4  | 358.8  | 316.0  | 220.6  | 144.8  | 99.3   | 86.8   | 99.3   | 144.8  |
| 115°   | 543.7  | 538.3  | 479.4  | 397.2  | 360.6  | 273.1  | 192.1  | 141.1  | 126.1  | 141.1  | 192.1  |
| 117.5° | 577.5  | 576.7  | 509.7  | 436.5  | 414.2  | 320.4  | 235.8  | 183.1  | 166.2  | 183.1  | 235.8  |
| 120°   | 621.3  | 614.2  | 551.7  | 475.7  | 465.0  | 370.4  | 284.0  | 231.3  | 214.4  | 231.3  | 284.0  |
| 122.5° | 651.6  | 647.2  | 587.4  | 514.2  | 514.2  | 422.2  | 330.3  | 277.8  | 259.9  | 277.8  | 330.3  |
| 125°   | 679.3  | 677.5  | 614.2  | 551.7  | 565.9  | 469.6  | 382.1  | 328.6  | 308.9  | 328.6  | 382.1  |
| 127.5° | 704.3  | 707.0  | 649.0  | 592.8  | 618.6  | 517.8  | 433.0  | 374.1  | 353.5  | 374.1  | 433.0  |
| 130°   | 725.8  | 734.6  | 682.0  | 630.2  | 668.6  | 570.5  | 478.5  | 419.6  | 406.2  | 419.6  | 478.5  |
| 132.5° | 767.6  | 762.3  | 715.9  | 668.6  | 722.1  | 618.6  | 526.7  | 465.1  | 450.0  | 465.1  | 526.7  |
| 135°   | 789.1  | 790.8  | 745.3  | 701.6  | 772.1  | 666.8  | 572.2  | 511.5  | 496.4  | 511.5  | 572.2  |
| 137.5° | 814.9  | 809.6  | 768.5  | 741.8  | 818.5  | 713.2  | 616.9  | 560.6  | 536.6  | 560.6  | 616.9  |
| 140°   | 833.7  | 832.8  | 798.9  | 777.5  | 868.5  | 758.7  | 662.4  | 605.3  | 582.9  | 605.3  | 662.4  |
| 142.5° | 853.3  | 858.6  | 829.3  | 816.8  | 918.5  | 806.9  | 711.4  | 649.0  | 627.6  | 649.0  | 711.4  |
| 145°   | 866.7  | 878.3  | 859.5  | 865.8  | 965.8  | 860.5  | 754.3  | 690.9  | 667.7  | 690.9  | 754.3  |
| 147.5° | 889.0  | 904.1  | 881.8  | 900.6  | 1006.9 | 907.8  | 797.1  | 734.6  | 714.1  | 734.6  | 797.1  |
| 150°   | 919.4  | 926.5  | 913.1  | 948.8  | 1048.7 | 960.4  | 840.8  | 776.6  | 756.0  | 776.6  | 840.8  |
| 152.5° | 943.5  | 952.4  | 937.2  | 1001.5 | 1081.8 | 1008.6 | 889.0  | 817.7  | 793.6  | 817.7  | 889.0  |
| 155°   | 968.4  | 972.0  | 961.4  | 1052.4 | 1116.5 | 1055.9 | 927.3  | 863.2  | 840.0  | 863.2  | 927.3  |
| 157.5° | 991.6  | 998.8  | 986.3  | 1090.7 | 1146.9 | 1097.0 | 971.1  | 908.7  | 888.1  | 908.7  | 971.1  |
| 160°   | 1016.6 | 1016.6 | 1023.8 | 1135.3 | 1171.9 | 1132.7 | 1017.6 | 958.6  | 930.1  | 958.6  | 1017.6 |
| 162.5° | 1019.3 | 1036.2 | 1074.7 | 1166.6 | 1196.0 | 1163.9 | 1067.5 | 994.3  | 969.3  | 994.3  | 1067.5 |
| 165°   | 1058.6 | 1073.8 | 1131.8 | 1194.2 | 1214.7 | 1191.5 | 1129.0 | 1053.2 | 1023.8 | 1053.2 | 1129.0 |
| 167.5° | 1099.6 | 1131.8 | 1178.2 | 1225.4 | 1232.6 | 1217.4 | 1176.4 | 1123.7 | 1097.0 | 1123.7 | 1176.4 |
| 170°   | 1166.6 | 1194.2 | 1217.4 | 1237.0 | 1246.9 | 1237.9 | 1205.8 | 1179.9 | 1162.9 | 1179.9 | 1205.8 |
| 172.5° | 1218.3 | 1237.0 | 1246.0 | 1258.5 | 1252.2 | 1248.6 | 1232.6 | 1220.1 | 1210.2 | 1220.1 | 1232.6 |
| 175°   | 1251.2 | 1255.8 | 1263.8 | 1259.4 | 1264.8 | 1254.9 | 1255.8 | 1262.0 | 1224.5 | 1262.0 | 1255.8 |
| 177.5° | 1262.8 | 1270.1 | 1265.6 | 1257.6 | 1258.5 | 1256.7 | 1260.2 | 1263.8 | 1257.5 | 1263.8 | 1260.2 |
| 180°   | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 |



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CATALOG NUMBER: MWL-3-30-33-UNV-L835-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 | 1458.0 |
| 2.5°   | 1454.0 | 1456.8 | 1454.9 | 1454.0 | 1456.0 | 1453.3 |
| 5°     | 1447.1 | 1448.1 | 1447.1 | 1447.1 | 1448.2 | 1446.4 |
| 7.5°   | 1433.4 | 1434.3 | 1434.3 | 1432.4 | 1435.4 | 1432.5 |
| 10°    | 1414.8 | 1417.7 | 1415.7 | 1415.7 | 1417.7 | 1414.8 |
| 12.5°  | 1394.1 | 1393.2 | 1394.1 | 1392.1 | 1395.1 | 1395.0 |
| 15°    | 1366.7 | 1367.7 | 1367.6 | 1366.6 | 1367.6 | 1369.3 |
| 17.5°  | 1337.2 | 1337.2 | 1337.2 | 1334.2 | 1338.1 | 1336.9 |
| 20°    | 1301.9 | 1302.9 | 1302.8 | 1300.7 | 1301.6 | 1302.5 |
| 22.5°  | 1265.6 | 1265.6 | 1266.4 | 1262.4 | 1261.3 | 1258.4 |
| 25°    | 1227.2 | 1227.2 | 1228.1 | 1222.1 | 1219.1 | 1214.1 |
| 27.5°  | 1185.8 | 1183.0 | 1186.7 | 1177.9 | 1168.9 | 1168.0 |
| 30°    | 1137.7 | 1137.8 | 1139.5 | 1129.6 | 1116.8 | 1111.9 |
| 32.5°  | 1087.6 | 1090.5 | 1089.4 | 1077.5 | 1060.8 | 1058.9 |
| 35°    | 1035.6 | 1035.6 | 1038.3 | 1017.7 | 1000.0 | 995.1  |
| 37.5°  | 980.5  | 983.4  | 983.3  | 957.7  | 938.1  | 935.1  |
| 40°    | 918.6  | 928.3  | 920.4  | 891.9  | 873.2  | 874.2  |
| 42.5°  | 853.7  | 868.4  | 855.5  | 824.0  | 811.3  | 823.1  |
| 45°    | 786.9  | 803.5  | 788.7  | 759.2  | 752.3  | 764.1  |
| 47.5°  | 716.1  | 737.6  | 717.0  | 695.3  | 696.3  | 711.0  |
| 50°    | 646.4  | 659.1  | 648.2  | 633.4  | 643.2  | 657.0  |
| 52.5°  | 577.6  | 571.6  | 579.4  | 575.5  | 592.1  | 610.8  |
| 55°    | 507.0  | 487.2  | 508.7  | 521.4  | 545.0  | 556.8  |
| 57.5°  | 437.2  | 408.6  | 439.0  | 469.3  | 497.8  | 508.6  |
| 60°    | 369.4  | 346.7  | 370.2  | 414.4  | 448.8  | 459.6  |
| 62.5°  | 311.4  | 298.6  | 312.3  | 362.3  | 401.6  | 408.5  |
| 65°    | 261.2  | 253.4  | 262.1  | 310.3  | 350.6  | 362.4  |
| 67.5°  | 218.0  | 217.0  | 218.0  | 262.1  | 300.5  | 315.2  |
| 70°    | 180.7  | 184.6  | 180.7  | 217.0  | 252.4  | 269.1  |
| 72.5°  | 147.3  | 152.2  | 148.2  | 177.7  | 206.2  | 228.8  |
| 75°    | 118.8  | 127.7  | 118.8  | 141.4  | 165.9  | 191.5  |
| 77.5°  | 93.3   | 102.1  | 93.3   | 109.0  | 139.0  | 171.1  |
| 80°    | 71.7   | 77.5   | 71.7   | 88.1   | 128.0  | 160.7  |
| 82.5°  | 51.0   | 54.9   | 51.0   | 83.1   | 128.9  | 160.5  |
| 85°    | 39.1   | 31.4   | 40.9   | 90.9   | 141.9  | 169.5  |
| 87.5°  | 32.9   | 8.8    | 45.5   | 107.9  | 163.2  | 183.9  |
| 90°    | 22.4   | 1.9    | 56.3   | 131.2  | 187.2  | 203.9  |
| 92.5°  | 13.6   | 15.2   | 75.2   | 157.4  | 215.8  | 230.5  |
| 95°    | 6.5    | 36.7   | 95.7   | 187.9  | 250.1  | 257.4  |
| 97.5°  | 11.7   | 64.4   | 125.9  | 217.3  | 281.4  | 288.9  |
| 100°   | 30.5   | 98.3   | 164.3  | 249.7  | 310.0  | 314.8  |
| 102.5° | 56.3   | 134.9  | 200.9  | 281.3  | 342.1  | 356.8  |
| 105°   | 91.1   | 176.8  | 239.2  | 325.0  | 373.4  | 390.8  |
| 107.5° | 131.3  | 221.4  | 278.5  | 364.3  | 413.4  | 423.2  |
| 110°   | 174.1  | 267.8  | 317.8  | 402.7  | 456.2  | 467.8  |





TEST NUMBER: P392584

CATALOG NUMBER: MWL-3-30-33-UNV-L835-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 220.6  | 316.0  | 358.8  | 438.4  | 501.8  | 510.7  |
| 115°   | 273.1  | 360.6  | 397.2  | 479.4  | 538.3  | 543.7  |
| 117.5° | 320.4  | 414.2  | 436.5  | 509.7  | 576.7  | 577.5  |
| 120°   | 370.4  | 465.0  | 475.7  | 551.7  | 614.2  | 621.3  |
| 122.5° | 422.2  | 514.2  | 514.2  | 587.4  | 647.2  | 651.6  |
| 125°   | 469.6  | 565.9  | 551.7  | 614.2  | 677.5  | 679.3  |
| 127.5° | 517.8  | 618.6  | 592.8  | 649.0  | 707.0  | 704.3  |
| 130°   | 570.5  | 668.6  | 630.2  | 682.0  | 734.6  | 725.8  |
| 132.5° | 618.6  | 722.1  | 668.6  | 715.9  | 762.3  | 767.6  |
| 135°   | 666.8  | 772.1  | 701.6  | 745.3  | 790.8  | 789.1  |
| 137.5° | 713.2  | 818.5  | 741.8  | 768.5  | 809.6  | 814.9  |
| 140°   | 758.7  | 868.5  | 777.5  | 798.9  | 832.8  | 833.7  |
| 142.5° | 806.9  | 918.5  | 816.8  | 829.3  | 858.6  | 853.3  |
| 145°   | 860.5  | 965.8  | 865.8  | 859.5  | 878.3  | 866.7  |
| 147.5° | 907.8  | 1006.9 | 900.6  | 881.8  | 904.1  | 889.0  |
| 150°   | 960.4  | 1048.7 | 948.8  | 913.1  | 926.5  | 919.4  |
| 152.5° | 1008.6 | 1081.8 | 1001.5 | 937.2  | 952.4  | 943.5  |
| 155°   | 1055.9 | 1116.5 | 1052.4 | 961.4  | 972.0  | 968.4  |
| 157.5° | 1097.0 | 1146.9 | 1090.7 | 986.3  | 998.8  | 991.6  |
| 160°   | 1132.7 | 1171.9 | 1135.3 | 1023.8 | 1016.6 | 1016.6 |
| 162.5° | 1163.9 | 1196.0 | 1166.6 | 1074.7 | 1036.2 | 1019.3 |
| 165°   | 1191.5 | 1214.7 | 1194.2 | 1131.8 | 1073.8 | 1058.6 |
| 167.5° | 1217.4 | 1232.6 | 1225.4 | 1178.2 | 1131.8 | 1099.6 |
| 170°   | 1237.9 | 1246.9 | 1237.0 | 1217.4 | 1194.2 | 1166.6 |
| 172.5° | 1248.6 | 1252.2 | 1258.5 | 1246.0 | 1237.0 | 1218.3 |
| 175°   | 1254.9 | 1264.8 | 1259.4 | 1263.8 | 1255.8 | 1251.2 |
| 177.5° | 1256.7 | 1258.5 | 1257.6 | 1265.6 | 1270.1 | 1262.8 |
| 180°   | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 | 1263.8 |

(END OF REPORT)