

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: P392487

Luminaire Tested: **MWL-2-18-13-UNV-L930-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392487  
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-2-18-13-UNV-L930-EDD  
Description: MWL 2FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

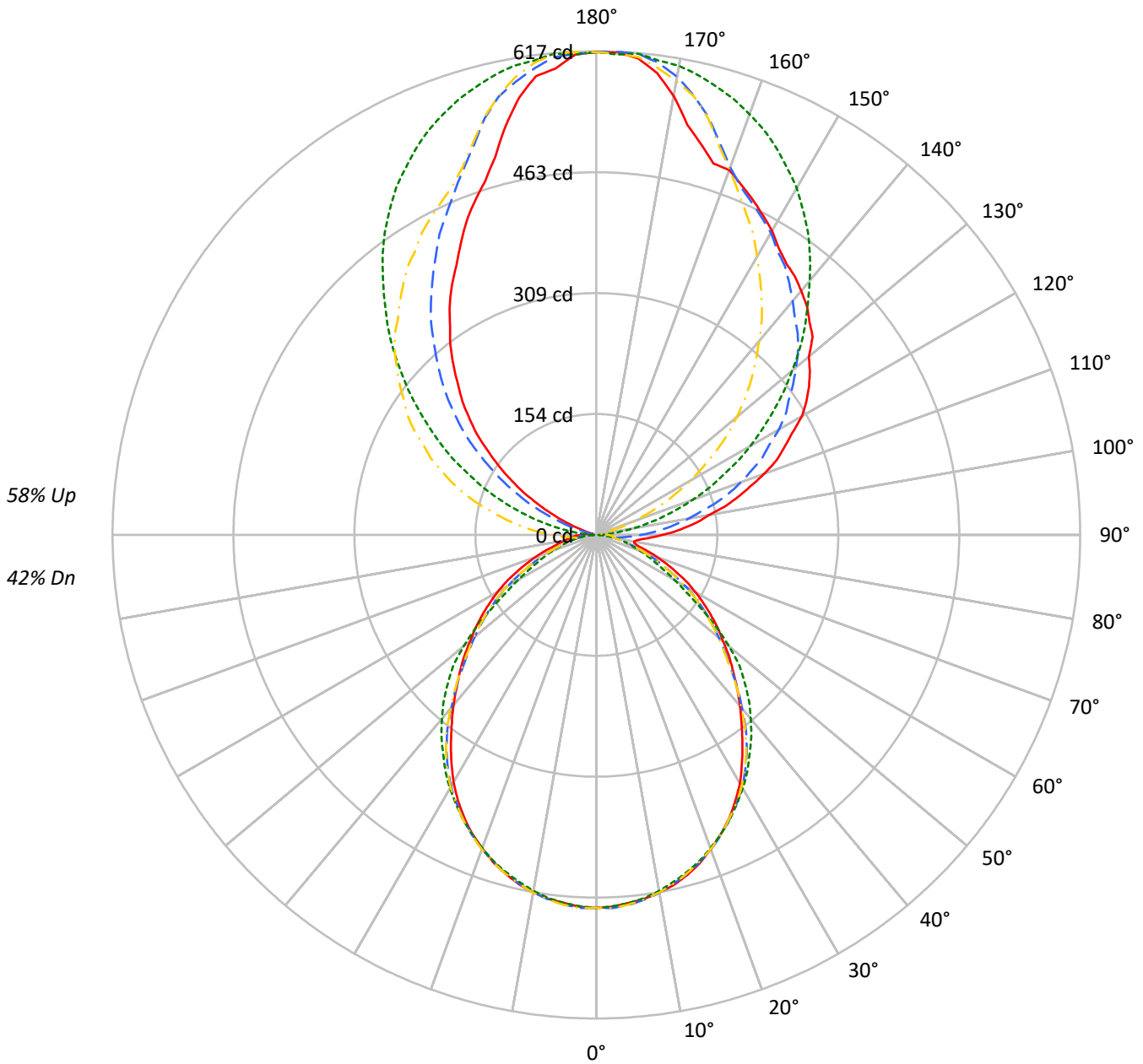
Lumens per Lamp: N/A  
Luminaire Lumens: 2553.5 lumens  
Efficiency: N/A  
Efficacy: 88.7 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 2' x H: 0.42')  
CIE Type: General Diffuse

Input Watts (W): 28.785  
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: P392487  
CATALOG NUMBER: MWL-2-18-13-UNV-L930-EDD

### Luminous Intensity Polar Plot



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



TEST NUMBER: P392487

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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   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 79 | 79 | 79 | 64 | 64 | 64 | 49 | 49 | 49 | 42 |
| 1   | 96  | 92  | 88  | 85  | 88 | 84 | 81 | 78 | 70 | 67 | 65 | 56 | 55 | 53 | 44 | 43 | 42 | 36 |
| 2   | 88  | 81  | 75  | 70  | 80 | 74 | 69 | 65 | 61 | 58 | 54 | 50 | 47 | 45 | 39 | 37 | 36 | 31 |
| 3   | 80  | 71  | 64  | 58  | 73 | 65 | 59 | 54 | 54 | 50 | 46 | 44 | 41 | 38 | 35 | 33 | 31 | 26 |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 51 | 46 | 48 | 44 | 40 | 40 | 36 | 33 | 31 | 29 | 27 | 23 |
| 5   | 68  | 56  | 49  | 43  | 62 | 52 | 45 | 40 | 43 | 38 | 34 | 36 | 32 | 29 | 28 | 26 | 24 | 20 |
| 6   | 62  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 26 | 23 | 21 | 18 |
| 7   | 58  | 46  | 38  | 33  | 53 | 42 | 35 | 31 | 36 | 30 | 27 | 29 | 25 | 23 | 24 | 21 | 19 | 16 |
| 8   | 54  | 42  | 34  | 29  | 49 | 38 | 32 | 27 | 33 | 27 | 24 | 27 | 23 | 20 | 22 | 19 | 17 | 14 |
| 9   | 50  | 38  | 31  | 26  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 | 13 |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 27 | 23 | 19 | 23 | 19 | 16 | 19 | 16 | 14 | 12 |

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

|     | 0°   | 90°  | 180° | 270° |
|-----|------|------|------|------|
| 0°  | 6147 | 6147 | 6147 | 6147 |
| 5°  | 6002 | 5620 | 6002 | 5620 |
| 10° | 5859 | 5141 | 5859 | 5141 |
| 15° | 5685 | 4697 | 5669 | 4697 |
| 20° | 5451 | 4286 | 5434 | 4286 |
| 25° | 5193 | 3901 | 5177 | 3901 |
| 30° | 4874 | 3531 | 4851 | 3531 |
| 35° | 4467 | 3159 | 4448 | 3159 |
| 40° | 4092 | 2809 | 4066 | 2809 |
| 45° | 3733 | 2446 | 3713 | 2446 |
| 50° | 3392 | 2022 | 3371 | 2022 |
| 55° | 3091 | 1500 | 3077 | 1500 |
| 60° | 2764 | 1093 | 2756 | 1093 |
| 65° | 2374 | 800  | 2374 | 800  |
| 70° | 1977 | 598  | 1989 | 598  |
| 75° | 1550 | 429  | 1584 | 429  |
| 80° | 1664 | 271  | 1381 | 271  |
| 85° | 2608 | 112  | 1372 | 112  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 44.8   | 1.8       |
| 10°-20°   | 126.0  | 4.9       |
| 20°-30°   | 184.2  | 7.2       |
| 30°-40°   | 207.9  | 8.1       |
| 40°-50°   | 193.3  | 7.6       |
| 50°-60°   | 151.9  | 5.9       |
| 60°-70°   | 96.4   | 3.8       |
| 70°-80°   | 48.2   | 1.9       |
| 80°-90°   | 31.3   | 1.2       |
| 90°-100°  | 48.9   | 1.9       |
| 100°-110° | 94.8   | 3.7       |
| 110°-120° | 163.8  | 6.4       |
| 120°-130° | 222.4  | 8.7       |
| 130°-140° | 253.6  | 9.9       |
| 140°-150° | 253.0  | 9.9       |
| 150°-160° | 220.3  | 8.6       |
| 160°-170° | 155.0  | 6.1       |
| 170°-180° | 57.7   | 2.3       |
| 0°-30°    | 355.0  | 13.9      |
| 0°-40°    | 562.9  | 22.0      |
| 0°-60°    | 908.1  | 35.6      |
| 0°-90°    | 1084.0 | 42.5      |
| 90°-120°  | 307.5  | 12.0      |
| 90°-150°  | 1036.5 | 40.6      |
| 90°-180°  | 1470.0 | 57.6      |
| 0°-180°   | 2553.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 90° | 180° | 270° | 360° | Flux |
|------|-----|-----|------|------|------|------|
| 0°   | 476 | 476 | 476  | 476  | 476  |      |
| 5°   | 471 | 471 | 471  | 471  | 471  | 45   |
| 15°  | 449 | 445 | 448  | 445  | 449  | 126  |
| 25°  | 400 | 401 | 398  | 401  | 400  | 184  |
| 35°  | 325 | 341 | 323  | 341  | 325  | 203  |
| 45°  | 247 | 268 | 246  | 268  | 247  | 191  |
| 55°  | 178 | 162 | 177  | 162  | 178  | 159  |
| 65°  | 112 | 82  | 112  | 82   | 112  | 112  |
| 75°  | 55  | 41  | 56   | 41   | 55   | 63   |
| 85°  | 60  | 9   | 31   | 9    | 60   | 47   |
| 90°  | 84  | 0   | 19   | 0    | 84   | 47   |
| 95°  | 115 | 17  | 12   | 17   | 115  | 101  |
| 105° | 187 | 86  | 4    | 86   | 187  | 197  |
| 115° | 264 | 176 | 61   | 176  | 264  | 262  |
| 125° | 331 | 276 | 150  | 276  | 331  | 296  |
| 135° | 384 | 376 | 242  | 376  | 384  | 297  |
| 145° | 422 | 471 | 325  | 471  | 422  | 266  |
| 155° | 472 | 544 | 409  | 544  | 472  | 218  |
| 165° | 516 | 592 | 499  | 592  | 516  | 146  |
| 175° | 610 | 616 | 597  | 616  | 610  | 57   |
| 180° | 616 | 616 | 616  | 616  | 616  |      |



TEST NUMBER: P392487

CATALOG NUMBER: MWL-2-18-13-UNV-L930-EDD

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0°     | 475.9 | 475.9 | 475.9 | 475.9 | 475.9 | 475.9  | 475.9 | 475.9  | 475.9 | 475.9  | 475.9 |
| 2.5°   | 474.6 | 475.5 | 476.4 | 475.1 | 474.3 | 474.7  | 476.4 | 475.5  | 475.0 | 475.5  | 476.4 |
| 5°     | 471.3 | 473.0 | 473.9 | 472.2 | 471.4 | 472.2  | 473.4 | 473.0  | 471.3 | 473.0  | 473.4 |
| 7.5°   | 468.4 | 469.3 | 469.3 | 468.1 | 467.3 | 467.6  | 469.0 | 469.0  | 468.4 | 469.0  | 469.0 |
| 10°    | 463.1 | 463.6 | 463.6 | 462.7 | 461.1 | 462.4  | 463.1 | 462.7  | 463.1 | 462.7  | 463.1 |
| 12.5°  | 457.4 | 457.0 | 455.7 | 455.0 | 453.6 | 455.0  | 455.7 | 456.1  | 456.5 | 456.1  | 455.7 |
| 15°    | 448.9 | 447.9 | 447.6 | 447.6 | 445.4 | 447.0  | 447.0 | 447.0  | 447.6 | 447.0  | 447.0 |
| 17.5°  | 439.0 | 438.0 | 437.7 | 437.2 | 436.4 | 437.2  | 437.2 | 437.7  | 437.7 | 437.7  | 437.2 |
| 20°    | 426.6 | 427.0 | 427.0 | 425.6 | 425.3 | 425.3  | 426.5 | 426.2  | 425.3 | 426.2  | 426.5 |
| 22.5°  | 413.8 | 413.8 | 414.6 | 415.0 | 413.7 | 414.5  | 414.1 | 413.0  | 413.0 | 413.0  | 414.1 |
| 25°    | 399.8 | 399.8 | 401.1 | 401.8 | 401.4 | 401.4  | 400.2 | 398.5  | 398.5 | 398.5  | 400.2 |
| 27.5°  | 383.4 | 384.3 | 387.1 | 388.3 | 387.4 | 387.9  | 386.2 | 382.9  | 382.0 | 382.9  | 386.2 |
| 30°    | 366.1 | 367.8 | 371.8 | 373.9 | 373.4 | 373.0  | 370.5 | 366.5  | 364.4 | 366.5  | 370.5 |
| 32.5°  | 345.6 | 348.1 | 353.8 | 358.3 | 358.2 | 357.4  | 352.5 | 346.3  | 343.8 | 346.3  | 352.5 |
| 35°    | 324.6 | 327.0 | 334.4 | 341.0 | 340.6 | 339.7  | 333.2 | 325.7  | 323.2 | 325.7  | 333.2 |
| 37.5°  | 304.0 | 304.8 | 313.1 | 323.0 | 324.5 | 321.6  | 311.8 | 303.5  | 302.7 | 303.5  | 311.8 |
| 40°    | 285.1 | 283.4 | 289.2 | 303.6 | 306.4 | 302.7  | 287.5 | 281.8  | 283.3 | 281.8  | 287.5 |
| 42.5°  | 265.4 | 262.9 | 266.6 | 282.2 | 288.4 | 281.3  | 265.3 | 261.2  | 263.6 | 261.2  | 265.3 |
| 45°    | 246.9 | 244.4 | 243.5 | 259.2 | 267.8 | 258.3  | 241.9 | 243.1  | 245.6 | 243.1  | 241.9 |
| 47.5°  | 229.6 | 225.5 | 223.0 | 234.8 | 248.0 | 234.5  | 221.3 | 224.2  | 228.3 | 224.2  | 221.3 |
| 50°    | 210.7 | 209.0 | 204.1 | 211.1 | 220.5 | 210.2  | 202.4 | 207.4  | 209.4 | 207.4  | 202.4 |
| 52.5°  | 195.0 | 192.6 | 185.5 | 188.8 | 192.5 | 188.0  | 184.3 | 190.9  | 193.7 | 190.9  | 184.3 |
| 55°    | 178.1 | 176.5 | 167.5 | 167.0 | 161.7 | 166.2  | 166.2 | 175.2  | 177.3 | 175.2  | 166.2 |
| 57.5°  | 161.7 | 160.1 | 150.1 | 144.0 | 135.3 | 143.2  | 148.9 | 158.8  | 160.9 | 158.8  | 148.9 |
| 60°    | 145.6 | 144.0 | 131.6 | 122.2 | 115.6 | 121.8  | 130.8 | 143.2  | 145.2 | 143.2  | 130.8 |
| 62.5°  | 130.0 | 126.7 | 112.7 | 100.8 | 97.1  | 100.4  | 111.9 | 125.9  | 129.6 | 125.9  | 111.9 |
| 65°    | 112.4 | 108.2 | 95.1  | 84.4  | 82.3  | 84.0   | 94.7  | 107.8  | 112.4 | 107.8  | 94.7  |
| 67.5°  | 96.7  | 91.0  | 80.3  | 70.0  | 70.8  | 70.0   | 79.9  | 90.5   | 96.7  | 90.5   | 79.9  |
| 70°    | 82.3  | 74.9  | 65.1  | 57.7  | 59.3  | 57.7   | 65.1  | 75.4   | 82.8  | 75.4   | 65.1  |
| 72.5°  | 68.3  | 60.1  | 52.7  | 46.9  | 49.0  | 46.5   | 52.7  | 60.5   | 69.1  | 60.5   | 52.7  |
| 75°    | 55.2  | 48.6  | 40.7  | 37.4  | 40.7  | 37.4   | 41.2  | 49.0   | 56.4  | 49.0   | 41.2  |
| 77.5°  | 49.6  | 41.3  | 31.7  | 29.2  | 32.5  | 29.2   | 32.1  | 40.0   | 47.9  | 40.0   | 32.1  |
| 80°    | 48.8  | 40.8  | 25.5  | 22.6  | 24.3  | 22.6   | 24.7  | 33.8   | 40.5  | 33.8   | 24.7  |
| 82.5°  | 51.8  | 45.4  | 26.8  | 16.0  | 16.8  | 16.0   | 21.5  | 29.8   | 35.3  | 29.8   | 21.5  |
| 85°    | 59.5  | 55.2  | 33.8  | 13.2  | 9.4   | 12.4   | 21.2  | 28.6   | 31.3  | 28.6   | 21.2  |
| 87.5°  | 71.1  | 68.0  | 43.9  | 17.3  | 2.5   | 11.2   | 19.2  | 26.2   | 26.2  | 26.2   | 19.2  |
| 90°    | 83.9  | 81.3  | 57.1  | 24.0  | 0.4   | 7.5    | 14.1  | 19.9   | 18.7  | 19.9   | 14.1  |
| 92.5°  | 100.6 | 97.0  | 70.8  | 34.3  | 7.0   | 4.2    | 11.2  | 16.6   | 15.3  | 16.6   | 11.2  |
| 95°    | 115.1 | 113.3 | 86.2  | 45.3  | 17.4  | 1.8    | 7.9   | 12.4   | 12.0  | 12.4   | 7.9   |
| 97.5°  | 131.7 | 128.8 | 102.0 | 60.9  | 30.9  | 5.2    | 5.9   | 9.2    | 9.9   | 9.2    | 5.9   |
| 100°   | 145.5 | 144.1 | 119.1 | 79.6  | 47.5  | 14.4   | 3.9   | 7.6    | 8.4   | 7.6    | 3.9   |
| 102.5° | 167.7 | 161.7 | 136.2 | 97.5  | 65.2  | 26.9   | 6.5   | 5.1    | 5.9   | 5.1    | 6.5   |
| 105°   | 187.0 | 180.9 | 157.5 | 116.1 | 85.7  | 43.9   | 16.9  | 6.0    | 3.9   | 6.0    | 16.9  |
| 107.5° | 205.7 | 201.3 | 177.5 | 135.2 | 107.5 | 63.5   | 32.6  | 16.9   | 10.8  | 16.9   | 32.6  |
| 110°   | 227.4 | 222.2 | 196.2 | 155.2 | 130.1 | 85.2   | 49.5  | 30.8   | 23.9  | 30.8   | 49.5  |



TEST NUMBER: P392487

CATALOG NUMBER: MWL-2-18-13-UNV-L930-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 112.5° | 248.4 | 244.4 | 213.6 | 175.2 | 154.4 | 107.8  | 70.4  | 48.3   | 41.7  | 48.3   | 70.4  |
| 115°   | 264.4 | 262.2 | 233.5 | 194.0 | 176.2 | 133.5  | 93.5  | 68.7   | 60.8  | 68.7   | 93.5  |
| 117.5° | 281.4 | 280.9 | 248.4 | 213.1 | 202.3 | 156.6  | 114.8 | 89.1   | 80.8  | 89.1   | 114.8 |
| 120°   | 302.7 | 299.3 | 268.7 | 232.3 | 227.1 | 180.9  | 138.2 | 112.6  | 104.3 | 112.6  | 138.2 |
| 122.5° | 317.5 | 315.3 | 286.2 | 250.5 | 250.5 | 205.7  | 161.0 | 135.2  | 126.5 | 135.2  | 161.0 |
| 125°   | 331.0 | 330.1 | 299.3 | 268.7 | 275.8 | 228.8  | 186.1 | 160.1  | 150.5 | 160.1  | 186.1 |
| 127.5° | 343.1 | 344.5 | 316.2 | 288.8 | 301.4 | 252.2  | 211.0 | 182.3  | 172.2 | 182.3  | 211.0 |
| 130°   | 353.6 | 358.0 | 332.3 | 307.0 | 325.7 | 277.9  | 233.2 | 204.5  | 197.8 | 204.5  | 233.2 |
| 132.5° | 374.0 | 371.5 | 348.9 | 325.7 | 351.8 | 301.4  | 256.6 | 226.6  | 219.2 | 226.6  | 256.6 |
| 135°   | 384.4 | 385.4 | 363.1 | 341.9 | 376.2 | 324.9  | 278.8 | 249.2  | 241.8 | 249.2  | 278.8 |
| 137.5° | 397.1 | 394.5 | 374.5 | 361.4 | 398.9 | 347.5  | 300.5 | 273.1  | 261.3 | 273.1  | 300.5 |
| 140°   | 406.3 | 405.8 | 389.3 | 378.9 | 423.2 | 369.7  | 322.7 | 294.9  | 284.0 | 294.9  | 322.7 |
| 142.5° | 415.8 | 418.4 | 404.1 | 397.9 | 447.6 | 393.1  | 346.7 | 316.2  | 305.8 | 316.2  | 346.7 |
| 145°   | 422.4 | 427.9 | 418.9 | 421.8 | 470.6 | 419.3  | 367.5 | 336.7  | 325.3 | 336.7  | 367.5 |
| 147.5° | 433.2 | 440.6 | 429.7 | 438.9 | 490.6 | 442.4  | 388.4 | 358.0  | 348.0 | 358.0  | 388.4 |
| 150°   | 448.0 | 451.5 | 445.0 | 462.4 | 511.1 | 468.0  | 409.7 | 378.4  | 368.4 | 378.4  | 409.7 |
| 152.5° | 459.7 | 464.0 | 456.6 | 488.0 | 527.2 | 491.5  | 433.2 | 398.4  | 386.7 | 398.4  | 433.2 |
| 155°   | 471.9 | 473.7 | 468.4 | 512.8 | 544.1 | 514.6  | 451.9 | 420.5  | 409.3 | 420.5  | 451.9 |
| 157.5° | 483.2 | 486.7 | 480.6 | 531.5 | 558.9 | 534.6  | 473.2 | 442.8  | 432.8 | 442.8  | 473.2 |
| 160°   | 495.4 | 495.4 | 498.9 | 553.3 | 571.1 | 552.0  | 495.9 | 467.1  | 453.2 | 467.1  | 495.9 |
| 162.5° | 496.7 | 505.1 | 523.7 | 568.5 | 582.8 | 567.2  | 520.2 | 484.5  | 472.4 | 484.5  | 520.2 |
| 165°   | 515.9 | 523.3 | 551.5 | 582.0 | 592.0 | 580.7  | 550.2 | 513.2  | 498.9 | 513.2  | 550.2 |
| 167.5° | 535.9 | 551.5 | 574.2 | 597.2 | 600.7 | 593.3  | 573.3 | 547.6  | 534.6 | 547.6  | 573.3 |
| 170°   | 568.5 | 582.0 | 593.3 | 602.9 | 607.6 | 603.3  | 587.6 | 575.0  | 566.8 | 575.0  | 587.6 |
| 172.5° | 594.2 | 602.9 | 607.2 | 613.4 | 610.3 | 608.4  | 600.7 | 594.6  | 590.2 | 594.6  | 600.7 |
| 175°   | 610.3 | 612.0 | 615.9 | 613.7 | 616.3 | 611.6  | 612.0 | 615.0  | 597.2 | 615.0  | 612.0 |
| 177.5° | 615.9 | 618.9 | 616.8 | 612.8 | 613.4 | 612.4  | 614.1 | 615.9  | 613.4 | 615.9  | 614.1 |
| 180°   | 615.9 | 615.9 | 615.9 | 615.9 | 615.9 | 615.9  | 615.9 | 615.9  | 615.9 | 615.9  | 615.9 |



TEST NUMBER: P392487

CATALOG NUMBER: MWL-2-18-13-UNV-L930-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|--------|--------|-------|--------|-------|--------|-------|
| 0°     | 475.9  | 475.9 | 475.9  | 475.9 | 475.9  | 475.9 |
| 2.5°   | 474.7  | 474.3 | 475.1  | 476.4 | 475.5  | 474.6 |
| 5°     | 472.2  | 471.4 | 472.2  | 473.9 | 473.0  | 471.3 |
| 7.5°   | 467.6  | 467.3 | 468.1  | 469.3 | 469.3  | 468.4 |
| 10°    | 462.4  | 461.1 | 462.7  | 463.6 | 463.6  | 463.1 |
| 12.5°  | 455.0  | 453.6 | 455.0  | 455.7 | 457.0  | 457.4 |
| 15°    | 447.0  | 445.4 | 447.6  | 447.6 | 447.9  | 448.9 |
| 17.5°  | 437.2  | 436.4 | 437.2  | 437.7 | 438.0  | 439.0 |
| 20°    | 425.3  | 425.3 | 425.6  | 427.0 | 427.0  | 426.6 |
| 22.5°  | 414.5  | 413.7 | 415.0  | 414.6 | 413.8  | 413.8 |
| 25°    | 401.4  | 401.4 | 401.8  | 401.1 | 399.8  | 399.8 |
| 27.5°  | 387.9  | 387.4 | 388.3  | 387.1 | 384.3  | 383.4 |
| 30°    | 373.0  | 373.4 | 373.9  | 371.8 | 367.8  | 366.1 |
| 32.5°  | 357.4  | 358.2 | 358.3  | 353.8 | 348.1  | 345.6 |
| 35°    | 339.7  | 340.6 | 341.0  | 334.4 | 327.0  | 324.6 |
| 37.5°  | 321.6  | 324.5 | 323.0  | 313.1 | 304.8  | 304.0 |
| 40°    | 302.7  | 306.4 | 303.6  | 289.2 | 283.4  | 285.1 |
| 42.5°  | 281.3  | 288.4 | 282.2  | 266.6 | 262.9  | 265.4 |
| 45°    | 258.3  | 267.8 | 259.2  | 243.5 | 244.4  | 246.9 |
| 47.5°  | 234.5  | 248.0 | 234.8  | 223.0 | 225.5  | 229.6 |
| 50°    | 210.2  | 220.5 | 211.1  | 204.1 | 209.0  | 210.7 |
| 52.5°  | 188.0  | 192.5 | 188.8  | 185.5 | 192.6  | 195.0 |
| 55°    | 166.2  | 161.7 | 167.0  | 167.5 | 176.5  | 178.1 |
| 57.5°  | 143.2  | 135.3 | 144.0  | 150.1 | 160.1  | 161.7 |
| 60°    | 121.8  | 115.6 | 122.2  | 131.6 | 144.0  | 145.6 |
| 62.5°  | 100.4  | 97.1  | 100.8  | 112.7 | 126.7  | 130.0 |
| 65°    | 84.0   | 82.3  | 84.4   | 95.1  | 108.2  | 112.4 |
| 67.5°  | 70.0   | 70.8  | 70.0   | 80.3  | 91.0   | 96.7  |
| 70°    | 57.7   | 59.3  | 57.7   | 65.1  | 74.9   | 82.3  |
| 72.5°  | 46.5   | 49.0  | 46.9   | 52.7  | 60.1   | 68.3  |
| 75°    | 37.4   | 40.7  | 37.4   | 40.7  | 48.6   | 55.2  |
| 77.5°  | 29.2   | 32.5  | 29.2   | 31.7  | 41.3   | 49.6  |
| 80°    | 22.6   | 24.3  | 22.6   | 25.5  | 40.8   | 48.8  |
| 82.5°  | 16.0   | 16.8  | 16.0   | 26.8  | 45.4   | 51.8  |
| 85°    | 12.4   | 9.4   | 13.2   | 33.8  | 55.2   | 59.5  |
| 87.5°  | 11.2   | 2.5   | 17.3   | 43.9  | 68.0   | 71.1  |
| 90°    | 7.5    | 0.4   | 24.0   | 57.1  | 81.3   | 83.9  |
| 92.5°  | 4.2    | 7.0   | 34.3   | 70.8  | 97.0   | 100.6 |
| 95°    | 1.8    | 17.4  | 45.3   | 86.2  | 113.3  | 115.1 |
| 97.5°  | 5.2    | 30.9  | 60.9   | 102.0 | 128.8  | 131.7 |
| 100°   | 14.4   | 47.5  | 79.6   | 119.1 | 144.1  | 145.5 |
| 102.5° | 26.9   | 65.2  | 97.5   | 136.2 | 161.7  | 167.7 |
| 105°   | 43.9   | 85.7  | 116.1  | 157.5 | 180.9  | 187.0 |
| 107.5° | 63.5   | 107.5 | 135.2  | 177.5 | 201.3  | 205.7 |
| 110°   | 85.2   | 130.1 | 155.2  | 196.2 | 222.2  | 227.4 |





TEST NUMBER: P392487

CATALOG NUMBER: MWL-2-18-13-UNV-L930-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|--------|--------|-------|--------|-------|--------|-------|
| 112.5° | 107.8  | 154.4 | 175.2  | 213.6 | 244.4  | 248.4 |
| 115°   | 133.5  | 176.2 | 194.0  | 233.5 | 262.2  | 264.4 |
| 117.5° | 156.6  | 202.3 | 213.1  | 248.4 | 280.9  | 281.4 |
| 120°   | 180.9  | 227.1 | 232.3  | 268.7 | 299.3  | 302.7 |
| 122.5° | 205.7  | 250.5 | 250.5  | 286.2 | 315.3  | 317.5 |
| 125°   | 228.8  | 275.8 | 268.7  | 299.3 | 330.1  | 331.0 |
| 127.5° | 252.2  | 301.4 | 288.8  | 316.2 | 344.5  | 343.1 |
| 130°   | 277.9  | 325.7 | 307.0  | 332.3 | 358.0  | 353.6 |
| 132.5° | 301.4  | 351.8 | 325.7  | 348.9 | 371.5  | 374.0 |
| 135°   | 324.9  | 376.2 | 341.9  | 363.1 | 385.4  | 384.4 |
| 137.5° | 347.5  | 398.9 | 361.4  | 374.5 | 394.5  | 397.1 |
| 140°   | 369.7  | 423.2 | 378.9  | 389.3 | 405.8  | 406.3 |
| 142.5° | 393.1  | 447.6 | 397.9  | 404.1 | 418.4  | 415.8 |
| 145°   | 419.3  | 470.6 | 421.8  | 418.9 | 427.9  | 422.4 |
| 147.5° | 442.4  | 490.6 | 438.9  | 429.7 | 440.6  | 433.2 |
| 150°   | 468.0  | 511.1 | 462.4  | 445.0 | 451.5  | 448.0 |
| 152.5° | 491.5  | 527.2 | 488.0  | 456.6 | 464.0  | 459.7 |
| 155°   | 514.6  | 544.1 | 512.8  | 468.4 | 473.7  | 471.9 |
| 157.5° | 534.6  | 558.9 | 531.5  | 480.6 | 486.7  | 483.2 |
| 160°   | 552.0  | 571.1 | 553.3  | 498.9 | 495.4  | 495.4 |
| 162.5° | 567.2  | 582.8 | 568.5  | 523.7 | 505.1  | 496.7 |
| 165°   | 580.7  | 592.0 | 582.0  | 551.5 | 523.3  | 515.9 |
| 167.5° | 593.3  | 600.7 | 597.2  | 574.2 | 551.5  | 535.9 |
| 170°   | 603.3  | 607.6 | 602.9  | 593.3 | 582.0  | 568.5 |
| 172.5° | 608.4  | 610.3 | 613.4  | 607.2 | 602.9  | 594.2 |
| 175°   | 611.6  | 616.3 | 613.7  | 615.9 | 612.0  | 610.3 |
| 177.5° | 612.4  | 613.4 | 612.8  | 616.8 | 618.9  | 615.9 |
| 180°   | 615.9  | 615.9 | 615.9  | 615.9 | 615.9  | 615.9 |

(END OF REPORT)