

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P274350

Luminaire Tested: **LD4B15DE010W2N2765 EU4B1020W2N902765 4LBLWW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274350  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-12)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B15DE010W2N2765 EU4B1020W2N902765 4LBLWW0H  
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, LENSED WALLWASH WITH HAZE FINISH  
Light Source: W2N 2700K-6500K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1033.5 lumens  
Efficiency: N/A  
Efficacy: 47.0 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.03 / 1.12  
Luminous Opening: Circular (Dia: 0.38' x H: 0')  
CIE Type: Direct

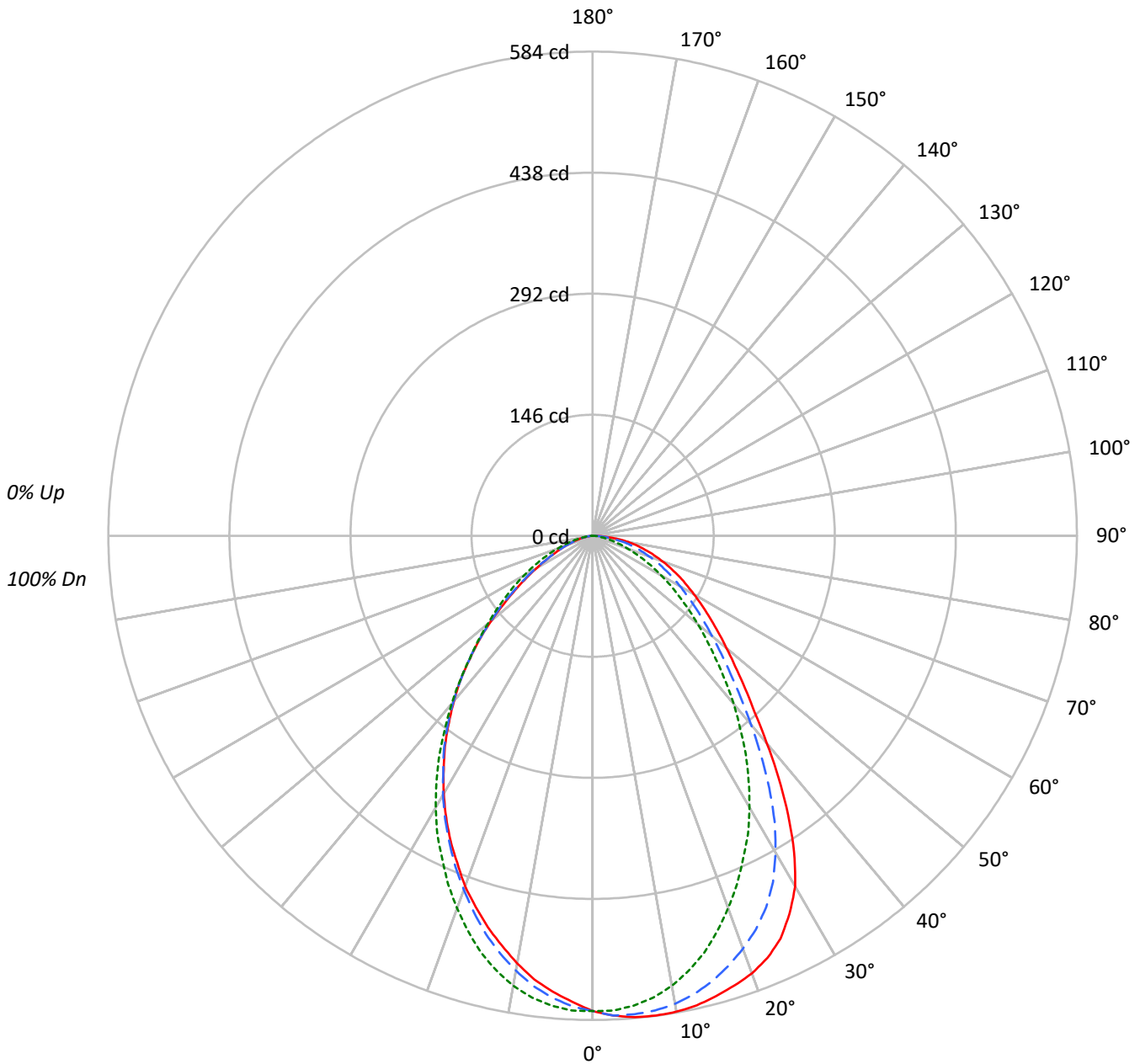
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 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 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 98  | 95  | 96  | 94  | 92  | 93  | 91  | 90  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 102 | 95  | 89  | 85  | 100 | 93  | 88  | 84  | 90  | 85  | 82  | 87  | 83  | 80  | 84  | 81  | 78  | 76  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 74  | 70  | 76  | 72  | 69  | 67  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 88  | 77  | 69  | 63  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 61  | 59  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 71  | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 50  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 55863 | 55863 | 55863 |
| 5°  | 57025 | 55646 | 54002 |
| 10° | 57685 | 54538 | 51836 |
| 15° | 58005 | 52496 | 49288 |
| 20° | 58255 | 49564 | 46640 |
| 25° | 57648 | 46175 | 43615 |
| 30° | 54973 | 42572 | 40389 |
| 35° | 48887 | 38298 | 36930 |
| 40° | 41614 | 33650 | 33091 |
| 45° | 35849 | 28930 | 28806 |
| 50° | 31946 | 25002 | 24198 |
| 55° | 29361 | 21579 | 19336 |
| 60° | 27503 | 18556 | 15125 |
| 65° | 26427 | 15658 | 11784 |
| 70° | 25389 | 12566 | 9546  |
| 75° | 24589 | 9979  | 7305  |
| 80° | 24751 | 6903  | 4434  |
| 85° | 20687 | 4920  | 2013  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.7   | 5.2       |
| 10°-20°   | 147.5  | 14.3      |
| 20°-30°   | 206.3  | 20.0      |
| 30°-40°   | 212.0  | 20.5      |
| 40°-50°   | 172.1  | 16.7      |
| 50°-60°   | 121.2  | 11.7      |
| 60°-70°   | 74.6   | 7.2       |
| 70°-80°   | 37.3   | 3.6       |
| 80°-90°   | 8.9    | 0.9       |
| 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°    | 407.4  | 39.4      |
| 0°-40°    | 619.5  | 59.9      |
| 0°-60°    | 912.8  | 88.3      |
| 0°-90°    | 1033.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1033.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 573 | 573 | 573 | 573  | 573  |      |
| 5°  | 583 | 579 | 569 | 559  | 552  | 56   |
| 15° | 575 | 556 | 520 | 497  | 488  | 162  |
| 25° | 536 | 495 | 429 | 408  | 406  | 245  |
| 35° | 411 | 371 | 322 | 312  | 310  | 256  |
| 45° | 260 | 235 | 210 | 210  | 209  | 202  |
| 55° | 173 | 152 | 127 | 116  | 114  | 155  |
| 65° | 115 | 96  | 68  | 52   | 51   | 113  |
| 75° | 65  | 51  | 26  | 19   | 19   | 70   |
| 85° | 18  | 12  | 4   | 3    | 2    | 22   |
| 90° | 0   | 0   | 0   | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 22.5° | 25°   | 30°   | 35°   | 40°   | 45°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 |
| 2.5°  | 579.3 | 580.2 | 577.6 | 580.2 | 576.7 | 578.5 | 579.3 | 577.6 | 575.8 | 579.3 | 579.3 |
| 5°    | 582.9 | 582.9 | 580.2 | 583.7 | 579.3 | 580.2 | 582.0 | 579.3 | 576.7 | 580.2 | 579.3 |
| 7.5°  | 583.7 | 583.7 | 580.2 | 583.7 | 579.3 | 580.2 | 581.1 | 578.5 | 575.8 | 578.5 | 577.6 |
| 10°   | 582.9 | 582.0 | 579.3 | 582.9 | 578.5 | 578.5 | 579.3 | 576.7 | 572.3 | 574.9 | 573.2 |
| 12.5° | 580.2 | 580.2 | 576.7 | 580.2 | 574.0 | 574.0 | 574.9 | 571.4 | 567.9 | 567.9 | 566.1 |
| 15°   | 574.9 | 574.9 | 571.4 | 574.0 | 568.8 | 568.8 | 567.9 | 564.3 | 559.9 | 559.9 | 556.4 |
| 17.5° | 568.8 | 568.8 | 565.2 | 567.9 | 561.7 | 561.7 | 560.8 | 555.5 | 549.4 | 548.5 | 544.1 |
| 20°   | 561.7 | 561.7 | 557.3 | 559.1 | 552.0 | 552.0 | 551.1 | 544.9 | 537.9 | 536.1 | 530.0 |
| 22.5° | 551.1 | 551.1 | 546.7 | 547.6 | 540.5 | 539.7 | 538.8 | 531.7 | 524.7 | 522.0 | 514.1 |
| 25°   | 536.1 | 535.2 | 531.7 | 531.7 | 524.7 | 522.9 | 521.1 | 514.1 | 507.0 | 501.7 | 494.7 |
| 27.5° | 514.1 | 515.0 | 510.6 | 511.4 | 502.6 | 500.9 | 500.0 | 491.2 | 483.2 | 477.9 | 470.9 |
| 30°   | 488.5 | 485.9 | 481.5 | 481.5 | 474.4 | 473.5 | 471.8 | 463.8 | 455.0 | 448.8 | 440.9 |
| 32.5° | 452.4 | 451.5 | 447.1 | 447.1 | 439.1 | 439.1 | 435.6 | 427.7 | 419.7 | 416.2 | 408.3 |
| 35°   | 410.9 | 410.0 | 406.5 | 406.5 | 399.4 | 400.3 | 396.8 | 390.6 | 382.7 | 377.4 | 371.2 |
| 37.5° | 368.6 | 367.7 | 364.2 | 365.1 | 358.9 | 358.9 | 356.2 | 350.1 | 343.9 | 341.3 | 333.3 |
| 40°   | 327.1 | 326.3 | 321.9 | 324.5 | 319.2 | 317.4 | 316.6 | 312.2 | 305.1 | 301.6 | 297.2 |
| 42.5° | 289.2 | 290.1 | 285.7 | 287.5 | 283.1 | 281.3 | 280.4 | 276.9 | 271.6 | 268.1 | 263.7 |
| 45°   | 260.1 | 258.4 | 256.6 | 256.6 | 252.2 | 251.3 | 250.4 | 246.0 | 242.5 | 239.0 | 234.6 |
| 47.5° | 232.8 | 231.0 | 229.3 | 230.1 | 226.6 | 225.7 | 224.0 | 220.4 | 216.0 | 214.3 | 209.9 |
| 50°   | 210.7 | 209.9 | 207.2 | 207.2 | 203.7 | 202.8 | 201.0 | 198.4 | 194.0 | 191.3 | 187.8 |
| 52.5° | 190.5 | 190.5 | 187.8 | 186.9 | 184.3 | 183.4 | 182.5 | 179.0 | 175.5 | 171.9 | 168.4 |
| 55°   | 172.8 | 171.9 | 170.2 | 170.2 | 166.7 | 165.8 | 164.9 | 161.4 | 157.8 | 155.2 | 151.7 |
| 57.5° | 156.1 | 156.1 | 154.3 | 154.3 | 151.7 | 149.9 | 149.9 | 146.4 | 142.0 | 140.2 | 135.8 |
| 60°   | 141.1 | 141.1 | 139.3 | 139.3 | 136.7 | 136.7 | 134.9 | 131.4 | 128.7 | 125.2 | 121.7 |
| 62.5° | 127.0 | 127.9 | 126.1 | 125.2 | 122.6 | 121.7 | 121.7 | 119.0 | 114.6 | 112.0 | 108.5 |
| 65°   | 114.6 | 113.8 | 112.9 | 112.0 | 109.3 | 108.5 | 108.5 | 104.9 | 102.3 | 98.8  | 96.1  |
| 67.5° | 101.4 | 101.4 | 99.6  | 99.6  | 97.9  | 97.0  | 95.2  | 92.6  | 89.9  | 87.3  | 84.7  |
| 70°   | 89.1  | 89.1  | 88.2  | 88.2  | 85.5  | 84.7  | 83.8  | 81.1  | 78.5  | 75.8  | 72.3  |
| 72.5° | 77.6  | 76.7  | 75.8  | 75.8  | 74.1  | 73.2  | 72.3  | 69.7  | 67.0  | 64.4  | 61.7  |
| 75°   | 65.3  | 65.3  | 64.4  | 64.4  | 62.6  | 61.7  | 61.7  | 60.0  | 56.4  | 54.7  | 51.1  |
| 77.5° | 54.7  | 54.7  | 53.8  | 53.8  | 52.0  | 52.0  | 51.1  | 48.5  | 46.7  | 44.1  | 42.3  |
| 80°   | 44.1  | 43.2  | 43.2  | 42.3  | 40.6  | 40.6  | 39.7  | 38.8  | 36.2  | 34.4  | 31.7  |
| 82.5° | 30.9  | 30.9  | 30.9  | 30.0  | 29.1  | 29.1  | 28.2  | 26.5  | 24.7  | 23.8  | 21.2  |
| 85°   | 18.5  | 18.5  | 17.6  | 16.8  | 17.6  | 16.8  | 15.9  | 15.0  | 14.1  | 13.2  | 12.3  |
| 87.5° | 7.9   | 7.9   | 7.1   | 7.1   | 7.1   | 7.1   | 7.1   | 6.2   | 5.3   | 5.3   | 4.4   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CANDELA DISTRIBUTION (continued):**

|       | 50°   | 55°   | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 |
| 2.5°  | 574.0 | 576.7 | 575.8 | 574.9 | 573.2 | 573.2 | 573.2 | 572.3 | 573.2 | 573.2 | 571.4 |
| 5°    | 574.0 | 575.8 | 574.9 | 573.2 | 571.4 | 571.4 | 570.5 | 568.8 | 568.8 | 568.8 | 565.2 |
| 7.5°  | 571.4 | 573.2 | 570.5 | 568.8 | 567.0 | 565.2 | 565.2 | 562.6 | 562.6 | 561.7 | 558.2 |
| 10°   | 566.1 | 567.0 | 563.5 | 561.7 | 559.1 | 558.2 | 556.4 | 552.9 | 552.0 | 551.1 | 547.6 |
| 12.5° | 558.2 | 559.1 | 554.6 | 551.1 | 547.6 | 546.7 | 544.9 | 540.5 | 538.8 | 537.0 | 532.6 |
| 15°   | 546.7 | 546.7 | 541.4 | 537.0 | 533.5 | 532.6 | 528.2 | 523.8 | 522.0 | 520.3 | 514.1 |
| 17.5° | 533.5 | 532.6 | 525.5 | 521.1 | 516.7 | 515.0 | 510.6 | 505.3 | 501.7 | 500.0 | 494.7 |
| 20°   | 519.4 | 516.7 | 508.8 | 504.4 | 499.1 | 496.4 | 492.0 | 485.0 | 481.5 | 477.9 | 472.6 |
| 22.5° | 502.6 | 499.1 | 490.3 | 484.1 | 478.8 | 476.2 | 470.0 | 463.8 | 458.5 | 455.0 | 448.8 |
| 25°   | 482.3 | 477.9 | 468.2 | 460.3 | 455.9 | 453.2 | 447.1 | 440.0 | 434.7 | 429.4 | 424.1 |
| 27.5° | 458.5 | 453.2 | 443.5 | 435.6 | 431.2 | 426.8 | 422.4 | 414.4 | 410.0 | 405.6 | 399.4 |
| 30°   | 429.4 | 423.3 | 414.4 | 407.4 | 402.1 | 398.6 | 393.3 | 386.2 | 380.9 | 378.3 | 372.1 |
| 32.5° | 397.7 | 390.6 | 382.7 | 375.6 | 373.0 | 368.6 | 364.2 | 357.1 | 352.7 | 350.1 | 345.7 |
| 35°   | 362.4 | 357.1 | 348.3 | 343.0 | 338.6 | 336.8 | 333.3 | 326.3 | 324.5 | 321.9 | 316.6 |
| 37.5° | 325.4 | 321.0 | 314.8 | 310.4 | 306.9 | 305.1 | 301.6 | 297.2 | 294.5 | 291.9 | 289.2 |
| 40°   | 291.0 | 287.5 | 282.2 | 278.6 | 274.2 | 271.6 | 271.6 | 266.3 | 264.5 | 264.5 | 261.9 |
| 42.5° | 257.5 | 255.7 | 251.3 | 246.0 | 245.1 | 242.5 | 241.6 | 239.0 | 237.2 | 236.3 | 235.4 |
| 45°   | 229.3 | 226.6 | 222.2 | 219.6 | 216.9 | 216.9 | 214.3 | 211.6 | 210.7 | 209.9 | 209.0 |
| 47.5° | 204.6 | 201.0 | 197.5 | 194.9 | 193.1 | 192.2 | 189.6 | 187.8 | 186.9 | 186.9 | 186.1 |
| 50°   | 182.5 | 179.9 | 176.4 | 173.7 | 171.9 | 170.2 | 168.4 | 166.7 | 165.8 | 164.9 | 164.9 |
| 52.5° | 164.0 | 160.5 | 157.0 | 154.3 | 151.7 | 150.8 | 149.0 | 147.3 | 146.4 | 145.5 | 144.6 |
| 55°   | 147.3 | 144.6 | 140.2 | 137.6 | 134.9 | 134.9 | 132.3 | 129.6 | 127.9 | 127.0 | 126.1 |
| 57.5° | 131.4 | 128.7 | 124.3 | 121.7 | 119.9 | 118.2 | 116.4 | 114.6 | 112.9 | 111.1 | 109.3 |
| 60°   | 117.3 | 114.6 | 110.2 | 106.7 | 105.8 | 104.1 | 102.3 | 98.8  | 97.0  | 95.2  | 93.5  |
| 62.5° | 104.1 | 100.5 | 97.0  | 93.5  | 92.6  | 90.8  | 88.2  | 85.5  | 82.9  | 81.1  | 78.5  |
| 65°   | 91.7  | 89.1  | 84.7  | 82.0  | 79.4  | 78.5  | 75.8  | 72.3  | 69.7  | 67.9  | 65.3  |
| 67.5° | 80.2  | 76.7  | 72.3  | 69.7  | 67.9  | 66.1  | 63.5  | 60.8  | 58.2  | 55.6  | 52.9  |
| 70°   | 68.8  | 66.1  | 61.7  | 59.1  | 57.3  | 55.6  | 52.9  | 49.4  | 46.7  | 44.1  | 42.3  |
| 72.5° | 58.2  | 54.7  | 51.1  | 48.5  | 46.7  | 45.0  | 42.3  | 39.7  | 37.0  | 35.3  | 32.6  |
| 75°   | 48.5  | 45.0  | 42.3  | 38.8  | 37.9  | 36.2  | 33.5  | 30.9  | 28.2  | 26.5  | 24.7  |
| 77.5° | 38.8  | 36.2  | 32.6  | 30.9  | 29.1  | 27.3  | 25.6  | 22.9  | 21.2  | 18.5  | 16.8  |
| 80°   | 29.1  | 26.5  | 23.8  | 22.0  | 20.3  | 19.4  | 17.6  | 15.9  | 14.1  | 12.3  | 11.5  |
| 82.5° | 19.4  | 17.6  | 15.0  | 14.1  | 13.2  | 12.3  | 10.6  | 9.7   | 8.8   | 7.9   | 7.1   |
| 85°   | 10.6  | 9.7   | 8.8   | 7.1   | 7.1   | 6.2   | 5.3   | 5.3   | 4.4   | 4.4   | 3.5   |
| 87.5° | 4.4   | 3.5   | 3.5   | 2.6   | 2.6   | 2.6   | 1.8   | 1.8   | 1.8   | 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   |



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**CANDELA DISTRIBUTION (continued):**

|       | 100°  | 105°  | 110°  | 112.5° | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  |
|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 573.2 | 573.2 | 573.2 | 573.2  | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 |
| 2.5°  | 572.3 | 568.8 | 568.8 | 568.8  | 566.1 | 567.0 | 567.9 | 568.8 | 567.9 | 565.2 | 567.9 |
| 5°    | 566.1 | 562.6 | 562.6 | 560.8  | 559.1 | 559.1 | 559.1 | 559.9 | 559.1 | 556.4 | 557.3 |
| 7.5°  | 558.2 | 553.8 | 552.9 | 551.1  | 549.4 | 548.5 | 548.5 | 548.5 | 547.6 | 544.1 | 545.8 |
| 10°   | 545.8 | 541.4 | 539.7 | 538.8  | 536.1 | 535.2 | 534.4 | 533.5 | 532.6 | 529.1 | 530.8 |
| 12.5° | 530.8 | 527.3 | 523.8 | 522.9  | 520.3 | 518.5 | 517.6 | 517.6 | 515.8 | 512.3 | 514.1 |
| 15°   | 513.2 | 507.9 | 505.3 | 503.5  | 500.9 | 499.1 | 497.3 | 498.2 | 497.3 | 493.8 | 494.7 |
| 17.5° | 492.0 | 486.7 | 484.1 | 483.2  | 479.7 | 477.9 | 477.0 | 477.0 | 476.2 | 472.6 | 473.5 |
| 20°   | 469.1 | 463.8 | 462.1 | 460.3  | 458.5 | 456.8 | 455.9 | 455.0 | 454.1 | 450.6 | 453.2 |
| 22.5° | 446.2 | 440.0 | 437.4 | 437.4  | 433.8 | 433.0 | 432.1 | 433.0 | 432.1 | 428.5 | 430.3 |
| 25°   | 422.4 | 416.2 | 414.4 | 411.8  | 410.0 | 409.1 | 409.1 | 409.1 | 408.3 | 406.5 | 408.3 |
| 27.5° | 395.9 | 391.5 | 388.9 | 388.0  | 386.2 | 385.3 | 384.5 | 385.3 | 385.3 | 382.7 | 384.5 |
| 30°   | 369.5 | 365.9 | 364.2 | 363.3  | 360.7 | 359.8 | 360.7 | 360.7 | 360.7 | 358.0 | 360.7 |
| 32.5° | 343.0 | 340.4 | 339.5 | 336.8  | 335.1 | 335.1 | 335.1 | 336.0 | 335.1 | 333.3 | 336.0 |
| 35°   | 316.6 | 313.0 | 312.2 | 311.3  | 311.3 | 309.5 | 311.3 | 310.4 | 312.2 | 309.5 | 311.3 |
| 37.5° | 288.3 | 286.6 | 285.7 | 285.7  | 283.9 | 284.8 | 284.8 | 284.8 | 286.6 | 283.9 | 285.7 |
| 40°   | 261.9 | 260.1 | 260.1 | 260.1  | 259.2 | 259.2 | 259.2 | 260.1 | 261.0 | 259.2 | 261.0 |
| 42.5° | 235.4 | 234.6 | 234.6 | 233.7  | 232.8 | 233.7 | 234.6 | 234.6 | 235.4 | 233.7 | 234.6 |
| 45°   | 209.9 | 209.0 | 209.9 | 209.0  | 209.0 | 208.1 | 209.0 | 209.9 | 209.9 | 209.0 | 209.0 |
| 47.5° | 186.1 | 186.1 | 185.2 | 185.2  | 185.2 | 185.2 | 185.2 | 185.2 | 185.2 | 183.4 | 185.2 |
| 50°   | 164.9 | 163.1 | 164.0 | 163.1  | 163.1 | 162.2 | 162.2 | 161.4 | 160.5 | 159.6 | 159.6 |
| 52.5° | 144.6 | 142.8 | 142.8 | 142.0  | 141.1 | 141.1 | 140.2 | 139.3 | 138.4 | 136.7 | 136.7 |
| 55°   | 125.2 | 123.5 | 122.6 | 121.7  | 120.8 | 119.9 | 119.0 | 118.2 | 116.4 | 115.5 | 115.5 |
| 57.5° | 107.6 | 105.8 | 104.1 | 104.1  | 102.3 | 101.4 | 99.6  | 97.9  | 97.0  | 95.2  | 95.2  |
| 60°   | 91.7  | 89.9  | 87.3  | 86.4   | 85.5  | 83.8  | 81.1  | 80.2  | 79.4  | 77.6  | 78.5  |
| 62.5° | 76.7  | 74.1  | 71.4  | 70.5   | 69.7  | 67.9  | 66.1  | 64.4  | 63.5  | 64.4  | 64.4  |
| 65°   | 62.6  | 60.0  | 58.2  | 56.4   | 55.6  | 53.8  | 52.9  | 52.0  | 52.0  | 52.0  | 52.9  |
| 67.5° | 50.3  | 47.6  | 45.9  | 45.0   | 43.2  | 42.3  | 42.3  | 42.3  | 42.3  | 42.3  | 42.3  |
| 70°   | 39.7  | 37.9  | 36.2  | 34.4   | 34.4  | 33.5  | 33.5  | 33.5  | 33.5  | 33.5  | 33.5  |
| 72.5° | 30.0  | 28.2  | 27.3  | 27.3   | 26.5  | 26.5  | 26.5  | 26.5  | 25.6  | 25.6  | 26.5  |
| 75°   | 22.0  | 21.2  | 20.3  | 20.3   | 20.3  | 19.4  | 19.4  | 19.4  | 19.4  | 19.4  | 19.4  |
| 77.5° | 15.9  | 15.0  | 15.0  | 14.1   | 14.1  | 14.1  | 14.1  | 14.1  | 14.1  | 13.2  | 13.2  |
| 80°   | 10.6  | 9.7   | 9.7   | 9.7    | 9.7   | 8.8   | 8.8   | 8.8   | 8.8   | 8.8   | 8.8   |
| 82.5° | 6.2   | 6.2   | 6.2   | 5.3    | 5.3   | 5.3   | 5.3   | 5.3   | 5.3   | 5.3   | 5.3   |
| 85°   | 3.5   | 2.6   | 2.6   | 2.6    | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   |
| 87.5° | 0.9   | 0.9   | 0.9   | 0.9    | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 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: P274350

CATALOG NUMBER: LD4B15DE010W2N2765 EU4B1020W2N902765 4LBLWW0H

**CANDELA DISTRIBUTION (continued):**

|       | 150°  | 155°  | 157.5° | 160°  | 165°  | 170°  | 175°  | 180°  |
|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 0°    | 573.2 | 573.2 | 573.2  | 573.2 | 573.2 | 573.2 | 573.2 | 573.2 |
| 2.5°  | 562.6 | 566.1 | 567.0  | 564.3 | 565.2 | 563.5 | 564.3 | 562.6 |
| 5°    | 552.9 | 555.5 | 556.4  | 554.6 | 554.6 | 552.9 | 553.8 | 552.0 |
| 7.5°  | 540.5 | 543.2 | 544.1  | 542.3 | 542.3 | 540.5 | 540.5 | 539.7 |
| 10°   | 526.4 | 527.3 | 529.1  | 526.4 | 527.3 | 525.5 | 525.5 | 523.8 |
| 12.5° | 508.8 | 510.6 | 512.3  | 509.7 | 509.7 | 508.8 | 508.8 | 506.1 |
| 15°   | 490.3 | 492.0 | 492.9  | 491.2 | 491.2 | 490.3 | 489.4 | 488.5 |
| 17.5° | 470.9 | 471.8 | 473.5  | 470.9 | 472.6 | 470.9 | 470.9 | 469.1 |
| 20°   | 448.8 | 451.5 | 452.4  | 449.7 | 450.6 | 449.7 | 449.7 | 449.7 |
| 22.5° | 427.7 | 429.4 | 430.3  | 428.5 | 429.4 | 427.7 | 428.5 | 426.8 |
| 25°   | 405.6 | 406.5 | 407.4  | 405.6 | 407.4 | 406.5 | 405.6 | 405.6 |
| 27.5° | 382.7 | 383.6 | 384.5  | 382.7 | 384.5 | 383.6 | 384.5 | 382.7 |
| 30°   | 358.0 | 359.8 | 361.5  | 359.8 | 360.7 | 359.8 | 359.8 | 358.9 |
| 32.5° | 333.3 | 335.1 | 336.8  | 335.1 | 336.8 | 335.1 | 336.0 | 334.2 |
| 35°   | 310.4 | 311.3 | 312.2  | 310.4 | 311.3 | 311.3 | 311.3 | 310.4 |
| 37.5° | 284.8 | 286.6 | 286.6  | 285.7 | 287.5 | 286.6 | 286.6 | 284.8 |
| 40°   | 260.1 | 261.0 | 261.9  | 260.1 | 261.0 | 260.1 | 261.0 | 260.1 |
| 42.5° | 234.6 | 236.3 | 237.2  | 235.4 | 235.4 | 235.4 | 234.6 | 235.4 |
| 45°   | 208.1 | 209.9 | 211.6  | 209.0 | 209.9 | 209.9 | 209.9 | 209.0 |
| 47.5° | 184.3 | 184.3 | 185.2  | 184.3 | 185.2 | 183.4 | 185.2 | 184.3 |
| 50°   | 159.6 | 159.6 | 161.4  | 159.6 | 159.6 | 159.6 | 159.6 | 159.6 |
| 52.5° | 135.8 | 136.7 | 136.7  | 134.9 | 135.8 | 134.9 | 135.8 | 134.9 |
| 55°   | 113.8 | 113.8 | 114.6  | 113.8 | 113.8 | 113.8 | 113.8 | 113.8 |
| 57.5° | 94.4  | 95.2  | 95.2   | 94.4  | 95.2  | 94.4  | 94.4  | 94.4  |
| 60°   | 78.5  | 78.5  | 78.5   | 77.6  | 78.5  | 77.6  | 78.5  | 77.6  |
| 62.5° | 63.5  | 64.4  | 64.4   | 63.5  | 64.4  | 63.5  | 63.5  | 63.5  |
| 65°   | 52.0  | 52.0  | 52.0   | 52.0  | 52.0  | 52.0  | 52.0  | 51.1  |
| 67.5° | 41.4  | 41.4  | 42.3   | 41.4  | 42.3  | 42.3  | 42.3  | 42.3  |
| 70°   | 33.5  | 33.5  | 33.5   | 33.5  | 33.5  | 33.5  | 33.5  | 33.5  |
| 72.5° | 25.6  | 25.6  | 26.5   | 25.6  | 25.6  | 25.6  | 25.6  | 25.6  |
| 75°   | 19.4  | 19.4  | 19.4   | 19.4  | 19.4  | 18.5  | 18.5  | 19.4  |
| 77.5° | 13.2  | 13.2  | 13.2   | 13.2  | 13.2  | 13.2  | 13.2  | 14.1  |
| 80°   | 8.8   | 8.8   | 8.8    | 8.8   | 7.9   | 7.9   | 8.8   | 7.9   |
| 82.5° | 4.4   | 4.4   | 4.4    | 4.4   | 4.4   | 4.4   | 4.4   | 4.4   |
| 85°   | 2.6   | 2.6   | 1.8    | 1.8   | 1.8   | 1.8   | 1.8   | 1.8   |
| 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   |



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















(END OF REPORT)