

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: P315313

Luminaire Tested: **LDA2B10FL8040D010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-15)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B10FL8040D010 PIN1MB  
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in  
Adj PinHole, Black oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 910.9 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

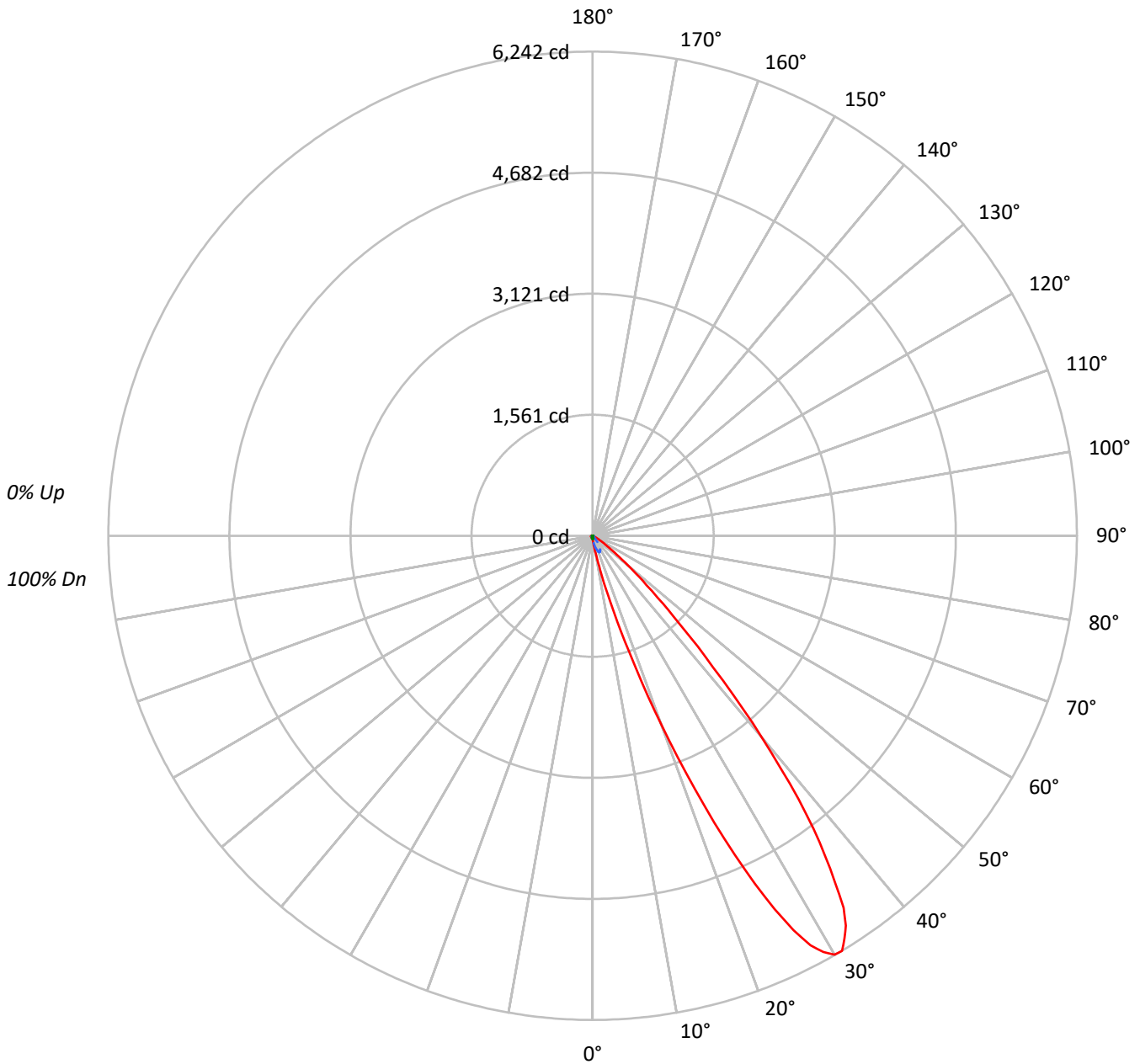
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

### Luminous Intensity Polar Plot





TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**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 |    |    |    |  |  |  |  |   |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |  |  |  |  |   |
| 2   | 104 | 98  | 93  | 89  | 102 | 96  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 84  | 82  | 80  |    |    |    |  |  |  |  |   |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 82  | 77  | 85  | 80  | 75  | 82  | 78  | 74  | 80  | 76  | 73  | 71  |    |    |    |  |  |  |  |   |
| 4   | 90  | 81  | 74  | 68  | 88  | 79  | 73  | 68  | 77  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |    |    |    |  |  |  |  |   |
| 5   | 84  | 73  | 66  | 60  | 82  | 72  | 65  | 60  | 70  | 64  | 59  | 68  | 63  | 59  | 67  | 62  | 58  | 56  |    |    |    |  |  |  |  |   |
| 6   | 78  | 67  | 59  | 53  | 76  | 66  | 58  | 53  | 64  | 58  | 53  | 62  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |    |  |  |  |  |   |
| 7   | 72  | 61  | 53  | 48  | 71  | 60  | 53  | 47  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 45  |    |    |    |  |  |  |  |   |
| 8   | 67  | 55  | 48  | 43  | 66  | 55  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    |    |  |  |  |  |   |
| 9   | 63  | 51  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 38  | 47  | 41  | 37  | 36  |    |    |    |  |  |  |  |   |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |    |  |  |  |  |   |

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

|     | 0°      | 90°   | 180°  |
|-----|---------|-------|-------|
| 0°  | 19142   | 19142 | 19142 |
| 5°  | 42740   | 19760 | 15402 |
| 10° | 114372  | 12324 | 4358  |
| 15° | 450342  | 15885 | 10317 |
| 20° | 1362386 | 9765  | 8033  |
| 25° | 2696020 | 8329  | 7131  |
| 30° | 3552442 | 4956  | 8716  |
| 35° | 3277988 | 7227  | 10540 |
| 40° | 2183418 | 6312  | 14426 |
| 45° | 1029903 | 2302  | 6070  |
| 50° | 454074  | 8366  | 18881 |
| 55° | 184674  | 0     | 19267 |
| 60° | 76570   | 5427  | 17268 |
| 65° | 26150   | 6421  | 12725 |
| 70° | 22070   | 12550 | 32312 |
| 75° | 12581   | 18681 | 42699 |
| 80° | 0       | 9376  | 18752 |
| 85° | 12454   | 12454 | 61702 |



TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 5.3    | 0.6       |
| 10°-20°   | 55.7   | 6.1       |
| 20°-30°   | 286.5  | 31.5      |
| 30°-40°   | 366.9  | 40.3      |
| 40°-50°   | 141.1  | 15.5      |
| 50°-60°   | 28.7   | 3.1       |
| 60°-70°   | 9.7    | 1.1       |
| 70°-80°   | 11.3   | 1.2       |
| 80°-90°   | 5.8    | 0.6       |
| 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°    | 347.5  | 38.1      |
| 0°-40°    | 714.4  | 78.4      |
| 0°-60°    | 884.1  | 97.1      |
| 0°-90°    | 910.9  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 910.9  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 39   | 39  | 39  | 39   | 39   |      |
| 5°  | 86   | 71  | 40  | 29   | 31   | 13   |
| 15° | 882  | 172 | 31  | 19   | 20   | 338  |
| 25° | 4953 | 224 | 15  | 12   | 13   | 2261 |
| 35° | 5443 | 116 | 12  | 10   | 18   | 3253 |
| 45° | 1476 | 29  | 3   | 2    | 9    | 1269 |
| 55° | 215  | 6   | 0   | 4    | 22   | 222  |
| 65° | 22   | 8   | 6   | 8    | 11   | 31   |
| 75° | 7    | 12  | 10  | 16   | 22   | 9    |
| 85° | 2    | 8   | 2   | 9    | 11   | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |



TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5°  | 22.5°  | 45°   | 67.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 0°    | 38.8   | 38.8   | 38.8   | 38.8   | 38.8   | 38.8   | 38.8   | 38.8   | 38.8   | 38.8  | 38.8  |
| 2.5°  | 57.4   | 49.7   | 51.9   | 44.2   | 48.6   | 49.7   | 41.0   | 54.1   | 48.6   | 50.8  | 44.2  |
| 5°    | 86.3   | 92.9   | 85.2   | 81.9   | 79.8   | 81.9   | 79.8   | 83.0   | 80.9   | 71.0  | 50.8  |
| 7.5°  | 144.2  | 131.7  | 131.7  | 127.3  | 130.6  | 129.5  | 124.0  | 127.3  | 119.6  | 86.3  | 58.5  |
| 10°   | 228.3  | 215.8  | 214.7  | 211.4  | 210.3  | 200.5  | 195.0  | 190.7  | 174.8  | 102.2 | 53.0  |
| 12.5° | 447.4  | 436.5  | 428.8  | 409.7  | 396.6  | 389.0  | 360.0  | 344.7  | 299.4  | 151.9 | 67.7  |
| 15°   | 881.7  | 825.4  | 839.6  | 777.9  | 732.6  | 702.5  | 642.4  | 589.4  | 480.7  | 171.5 | 65.6  |
| 17.5° | 1560.2 | 1505.6 | 1469.0 | 1401.8 | 1309.4 | 1229.7 | 1111.1 | 993.7  | 772.4  | 195.0 | 61.2  |
| 20°   | 2594.9 | 2508.5 | 2432.1 | 2316.8 | 2139.3 | 1985.7 | 1777.1 | 1552.5 | 1149.9 | 222.9 | 55.2  |
| 21°   | 3049.4 | 2982.7 | 2894.2 | 2742.3 | 2535.3 | 2329.9 | 2079.7 | 1809.3 | 1310.5 | 225.1 | 49.7  |
| 22°   | 3523.5 | 3480.4 | 3364.0 | 3189.8 | 2948.3 | 2703.6 | 2396.6 | 2099.4 | 1481.5 | 228.3 | 47.5  |
| 23°   | 4017.4 | 3972.0 | 3840.4 | 3641.0 | 3369.5 | 3073.4 | 2715.6 | 2363.2 | 1642.1 | 232.7 | 46.4  |
| 24°   | 4500.8 | 4450.6 | 4303.6 | 4080.7 | 3772.6 | 3432.3 | 3028.1 | 2619.4 | 1791.8 | 230.5 | 48.6  |
| 25°   | 4952.6 | 4882.7 | 4727.5 | 4480.6 | 4142.5 | 3760.6 | 3314.9 | 2840.7 | 1923.5 | 224.0 | 41.0  |
| 26°   | 5355.8 | 5276.0 | 5108.9 | 4839.5 | 4469.7 | 4056.2 | 3554.1 | 3046.1 | 2020.7 | 218.5 | 38.8  |
| 27°   | 5705.9 | 5605.4 | 5426.8 | 5144.4 | 4747.8 | 4291.1 | 3758.4 | 3206.7 | 2106.5 | 210.3 | 31.1  |
| 28°   | 5978.5 | 5863.3 | 5681.9 | 5383.6 | 4964.6 | 4474.1 | 3908.7 | 3307.2 | 2157.3 | 211.4 | 35.5  |
| 29°   | 6135.9 | 6047.4 | 5850.2 | 5537.7 | 5096.8 | 4579.5 | 3987.9 | 3362.9 | 2167.1 | 195.0 | 33.3  |
| 30°   | 6235.8 | 6137.0 | 5934.3 | 5607.6 | 5147.6 | 4603.5 | 3997.7 | 3352.5 | 2138.2 | 183.0 | 31.1  |
| 31°   | 6242.4 | 6139.1 | 5933.2 | 5595.0 | 5128.0 | 4563.7 | 3943.1 | 3290.8 | 2075.3 | 170.4 | 25.7  |
| 32°   | 6124.9 | 6045.2 | 5842.5 | 5493.4 | 5021.4 | 4453.9 | 3825.6 | 3186.5 | 1976.5 | 145.3 | 17.5  |
| 33°   | 5992.2 | 5895.5 | 5693.9 | 5341.6 | 4874.0 | 4303.6 | 3656.3 | 3046.1 | 1873.8 | 143.1 | 22.4  |
| 34°   | 5785.7 | 5669.3 | 5471.0 | 5124.2 | 4669.1 | 4089.5 | 3454.7 | 2858.7 | 1742.6 | 130.6 | 21.3  |
| 35°   | 5442.6 | 5380.4 | 5179.9 | 4837.4 | 4395.4 | 3832.7 | 3212.2 | 2652.8 | 1603.3 | 116.4 | 15.3  |
| 36°   | 5099.0 | 5022.5 | 4833.0 | 4501.9 | 4082.9 | 3526.8 | 2938.5 | 2417.9 | 1446.0 | 98.9  | 12.0  |
| 37°   | 4735.7 | 4635.8 | 4463.1 | 4139.2 | 3701.6 | 3222.0 | 2675.7 | 2193.9 | 1317.6 | 104.3 | 16.4  |
| 38°   | 4312.4 | 4279.0 | 4051.8 | 3750.2 | 3346.0 | 2893.1 | 2393.3 | 1957.9 | 1175.6 | 97.2  | 26.8  |
| 39°   | 3846.9 | 3824.5 | 3597.8 | 3323.0 | 2960.3 | 2544.0 | 2104.3 | 1713.1 | 1033.6 | 71.0  | 8.7   |
| 40°   | 3390.2 | 3326.3 | 3165.7 | 2916.1 | 2600.3 | 2226.1 | 1845.9 | 1504.5 | 910.7  | 69.9  | 17.5  |
| 42.5° | 2297.7 | 2317.9 | 2144.2 | 1965.5 | 1762.9 | 1508.8 | 1255.4 | 1031.4 | 637.0  | 51.9  | 10.9  |
| 45°   | 1476.1 | 1480.4 | 1402.9 | 1264.1 | 1131.4 | 972.9  | 805.8  | 671.4  | 410.8  | 29.0  | 3.3   |
| 47.5° | 939.6  | 937.4  | 887.7  | 808.0  | 721.1  | 628.2  | 523.9  | 438.7  | 266.0  | 22.4  | 9.8   |
| 50°   | 591.6  | 589.4  | 558.3  | 507.5  | 458.9  | 397.7  | 332.1  | 282.4  | 168.3  | 26.8  | 10.9  |
| 51°   | 480.7  | 484.0  | 457.8  | 406.4  | 368.7  | 310.3  | 264.9  | 225.1  | 131.7  | 18.6  | 9.8   |
| 52°   | 396.6  | 394.4  | 378.0  | 334.9  | 303.7  | 253.5  | 215.8  | 184.1  | 109.8  | 16.4  | 4.4   |
| 53°   | 319.0  | 320.1  | 303.7  | 270.4  | 240.4  | 202.7  | 172.6  | 143.1  | 78.7   | 12.0  | 3.3   |
| 54°   | 252.4  | 250.2  | 244.7  | 212.5  | 193.9  | 160.6  | 134.9  | 109.8  | 67.7   | 2.2   | 0.0   |
| 55°   | 214.7  | 211.4  | 203.8  | 175.9  | 157.3  | 132.7  | 107.6  | 94.0   | 58.5   | 5.5   | 0.0   |
| 57.5° | 124.0  | 124.0  | 119.6  | 104.3  | 91.8   | 81.9   | 65.6   | 61.2   | 30.0   | 5.5   | 0.0   |
| 60°   | 77.6   | 67.7   | 75.4   | 64.5   | 50.8   | 45.3   | 37.7   | 34.4   | 25.7   | 9.8   | 2.2   |
| 61°   | 64.5   | 51.9   | 50.8   | 47.5   | 44.2   | 30.0   | 25.7   | 27.9   | 16.4   | 3.3   | 2.2   |
| 62°   | 46.4   | 41.0   | 44.2   | 37.7   | 33.3   | 23.5   | 21.3   | 20.2   | 9.8    | 4.4   | 5.5   |
| 63°   | 42.1   | 37.7   | 36.6   | 27.9   | 24.6   | 24.6   | 18.6   | 17.5   | 12.0   | 8.7   | 4.4   |



TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**CANDELA DISTRIBUTION (continued):**

|       | 0°   | 2.5° | 5°   | 7.5° | 10°  | 12.5° | 15°  | 17.5° | 22.5° | 45°  | 67.5° |
|-------|------|------|------|------|------|-------|------|-------|-------|------|-------|
| 66°   | 22.4 | 18.6 | 16.4 | 18.6 | 10.9 | 14.2  | 5.5  | 15.3  | 3.3   | 5.5  | 3.3   |
| 67.5° | 17.5 | 10.9 | 9.8  | 12.0 | 7.6  | 5.5   | 7.6  | 9.8   | 3.3   | 5.5  | 7.6   |
| 70°   | 15.3 | 7.6  | 10.9 | 9.8  | 7.6  | 9.8   | 10.9 | 10.9  | 3.3   | 10.9 | 9.8   |
| 72.5° | 15.3 | 9.8  | 5.5  | 4.4  | 4.4  | 4.4   | 4.4  | 4.4   | 6.6   | 15.3 | 12.0  |
| 75°   | 6.6  | 6.6  | 3.3  | 7.6  | 4.4  | 6.6   | 4.4  | 10.9  | 4.4   | 12.0 | 9.8   |
| 77.5° | 4.4  | 5.5  | 0.0  | 5.5  | 0.0  | 0.0   | 3.3  | 7.6   | 3.3   | 8.7  | 10.9  |
| 80°   | 0.0  | 5.5  | 3.3  | 0.0  | 2.2  | 3.3   | 0.0  | 1.1   | 2.2   | 9.8  | 4.4   |
| 82.5° | 2.2  | 3.3  | 4.4  | 2.2  | 2.2  | 0.0   | 0.0  | 0.0   | 0.0   | 6.6  | 5.5   |
| 85°   | 2.2  | 4.4  | 0.0  | 1.1  | 4.4  | 2.2   | 1.1  | 5.5   | 2.2   | 7.6  | 8.7   |
| 87.5° | 0.0  | 2.2  | 2.2  | 0.0  | 3.3  | 0.0   | 3.3  | 2.2   | 0.0   | 6.6  | 3.3   |
| 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: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**CANDELA DISTRIBUTION (continued):**

|       | 90°  | 112.5° | 135° | 157.5° | 180° |
|-------|------|--------|------|--------|------|
| 0°    | 38.8 | 38.8   | 38.8 | 38.8   | 38.8 |
| 2.5°  | 33.3 | 30.0   | 25.7 | 32.2   | 26.8 |
| 5°    | 39.9 | 36.6   | 29.0 | 34.4   | 31.1 |
| 7.5°  | 41.0 | 34.4   | 30.0 | 27.9   | 31.1 |
| 10°   | 24.6 | 16.4   | 12.0 | 16.4   | 8.7  |
| 12.5° | 41.0 | 29.0   | 26.8 | 30.0   | 33.3 |
| 15°   | 31.1 | 18.6   | 18.6 | 14.2   | 20.2 |
| 17.5° | 17.5 | 14.2   | 13.1 | 17.5   | 20.2 |
| 20°   | 18.6 | 12.0   | 9.8  | 16.4   | 15.3 |
| 21°   | 16.4 | 4.4    | 13.1 | 13.1   | 15.3 |
| 22°   | 23.5 | 10.9   | 13.1 | 21.3   | 22.4 |
| 23°   | 15.3 | 12.0   | 9.8  | 13.1   | 17.5 |
| 24°   | 22.4 | 13.1   | 12.0 | 16.4   | 24.6 |
| 25°   | 15.3 | 12.0   | 12.0 | 15.3   | 13.1 |
| 26°   | 8.7  | 12.0   | 8.7  | 13.1   | 10.9 |
| 27°   | 6.6  | 10.9   | 6.6  | 9.8    | 13.1 |
| 28°   | 14.2 | 17.5   | 16.4 | 17.5   | 15.3 |
| 29°   | 15.3 | 18.6   | 15.3 | 23.5   | 17.5 |
| 30°   | 8.7  | 16.4   | 7.6  | 17.5   | 15.3 |
| 31°   | 8.7  | 12.0   | 5.5  | 17.5   | 15.3 |
| 32°   | 1.1  | 6.6    | 3.3  | 6.6    | 6.6  |
| 33°   | 6.6  | 7.6    | 8.7  | 14.2   | 10.9 |
| 34°   | 10.9 | 13.1   | 8.7  | 15.3   | 13.1 |
| 35°   | 12.0 | 6.6    | 9.8  | 16.4   | 17.5 |
| 36°   | 3.3  | 3.3    | 5.5  | 13.1   | 4.4  |
| 37°   | 6.6  | 18.6   | 13.1 | 22.4   | 13.1 |
| 38°   | 10.9 | 22.4   | 21.3 | 27.9   | 22.4 |
| 39°   | 2.2  | 6.6    | 7.6  | 15.3   | 15.3 |
| 40°   | 9.8  | 16.4   | 12.0 | 22.4   | 22.4 |
| 42.5° | 7.6  | 12.0   | 8.7  | 18.6   | 15.3 |
| 45°   | 3.3  | 3.3    | 2.2  | 12.0   | 8.7  |
| 47.5° | 5.5  | 5.5    | 9.8  | 15.3   | 26.8 |
| 50°   | 10.9 | 10.9   | 14.2 | 25.7   | 24.6 |
| 51°   | 6.6  | 5.5    | 7.6  | 17.5   | 22.4 |
| 52°   | 5.5  | 7.6    | 7.6  | 17.5   | 17.5 |
| 53°   | 2.2  | 0.0    | 0.0  | 13.1   | 10.9 |
| 54°   | 2.2  | 1.1    | 3.3  | 9.8    | 15.3 |
| 55°   | 0.0  | 5.5    | 4.4  | 20.2   | 22.4 |
| 57.5° | 1.1  | 8.7    | 4.4  | 14.2   | 17.5 |
| 60°   | 5.5  | 6.6    | 12.0 | 14.2   | 17.5 |
| 61°   | 0.0  | 5.5    | 5.5  | 13.1   | 15.3 |
| 62°   | 0.0  | 4.4    | 9.8  | 12.0   | 15.3 |
| 63°   | 5.5  | 6.6    | 8.7  | 14.2   | 17.5 |





TEST NUMBER: P315313

CATALOG NUMBER: LDA2B10FL8040D010 PIN1MB

**CANDELA DISTRIBUTION (continued):**

|       | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-----|--------|------|--------|------|
| 66°   | 3.3 | 8.7    | 10.9 | 14.2   | 13.1 |
| 67.5° | 6.6 | 7.6    | 6.6  | 18.6   | 22.4 |
| 70°   | 8.7 | 14.2   | 15.3 | 13.1   | 22.4 |
| 72.5° | 5.5 | 7.6    | 10.9 | 20.2   | 22.4 |
| 75°   | 9.8 | 10.9   | 16.4 | 18.6   | 22.4 |
| 77.5° | 7.6 | 10.9   | 10.9 | 12.0   | 22.4 |
| 80°   | 3.3 | 9.8    | 10.9 | 12.0   | 6.6  |
| 82.5° | 4.4 | 6.6    | 4.4  | 12.0   | 8.7  |
| 85°   | 2.2 | 9.8    | 8.7  | 10.9   | 10.9 |
| 87.5° | 3.3 | 5.5    | 5.5  | 9.8    | 6.6  |
| 90°   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  |



Report Generated By E9808895 / USPTCWHP6082093





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







|     |      |      |      |      |      |      |     |      |     |     |     |
|-----|------|------|------|------|------|------|-----|------|-----|-----|-----|
| 64° | 24.6 | 25.7 | 24.6 | 17.5 | 13.1 | 12.0 | 8.7 | 15.3 | 4.4 | 4.4 | 0.0 |
| 65° | 22.4 | 24.6 | 18.6 | 21.3 | 14.2 | 13.1 | 7.6 | 15.3 | 2.2 | 7.6 | 5.5 |







|     |     |     |     |      |      |
|-----|-----|-----|-----|------|------|
| 64° | 3.3 | 5.5 | 5.5 | 9.8  | 15.3 |
| 65° | 5.5 | 7.6 | 7.6 | 14.2 | 10.9 |



(END OF REPORT)