

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: P170799

Luminaire Tested: **LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P170799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26105)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt
Description: PORTFOLIO 4" Lensed Adjustable, Self-flanged, 25° Narrow Flood
Optic, at 30° tilt. --- 27.9W
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3112.9 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 2.53 / 1.09 / 1.29
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

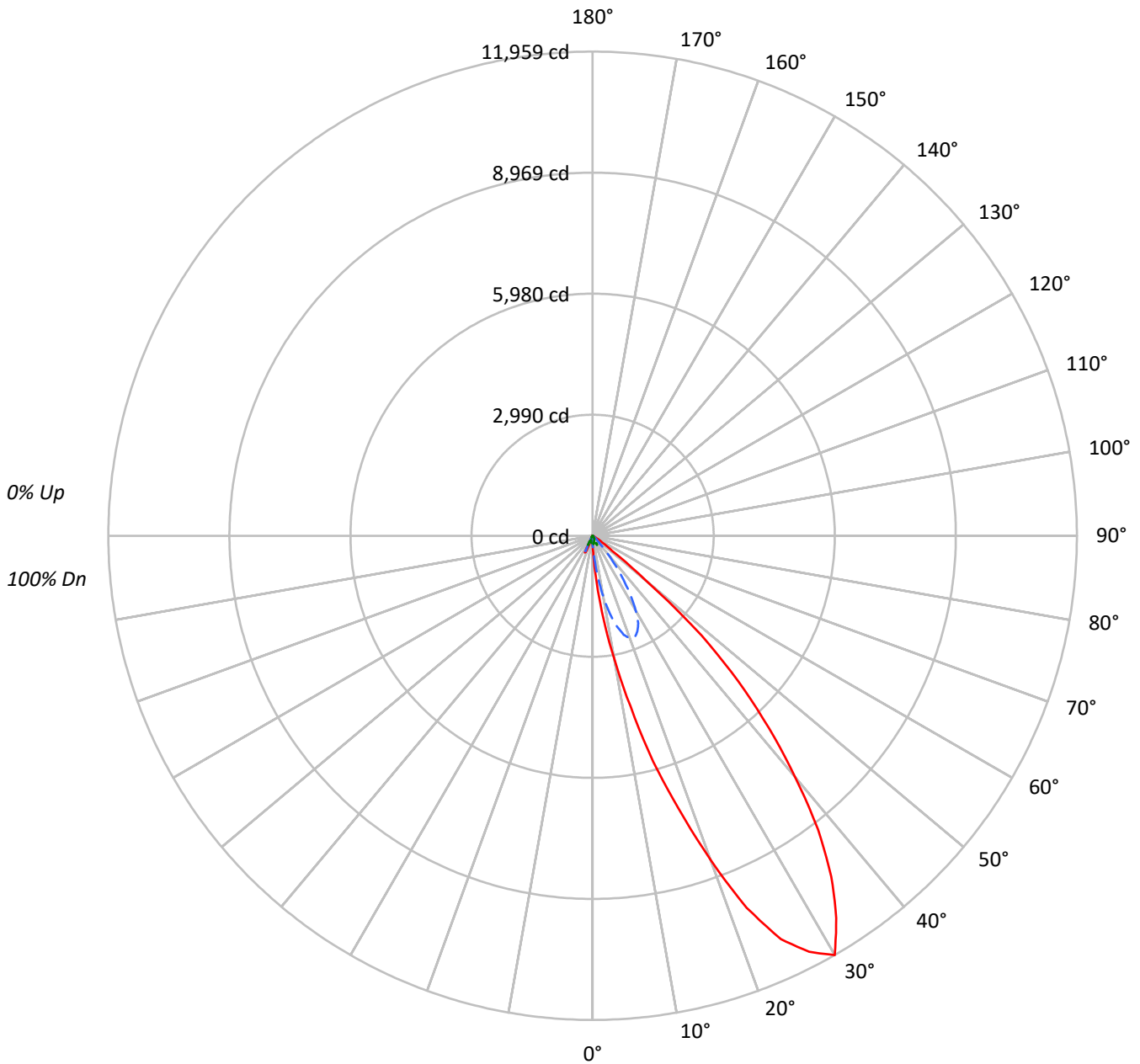
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

Luminous Intensity Polar Plot





TEST NUMBER: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

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 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 | | | | | | | | | | | | | | | | | | | |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 86 | 84 | 83 | | | | | | | | | | | | | | | | | | | |
| 3 | 99 | 91 | 85 | 81 | 97 | 90 | 84 | 80 | 87 | 82 | 79 | 84 | 81 | 77 | 82 | 79 | 76 | 74 | | | | | | | | | | | | | | | | | | | |
| 4 | 92 | 83 | 77 | 72 | 90 | 82 | 76 | 71 | 80 | 74 | 70 | 78 | 73 | 69 | 76 | 72 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | | | | | | | | | | | | | | | | | |
| 6 | 80 | 70 | 63 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 60 | 56 | 54 | | | | | | | | | | | | | | | | | | | |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 56 | 51 | 62 | 56 | 51 | 61 | 55 | 51 | 59 | 54 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | | | | | | | | | | | | | | | | |
| 9 | 66 | 54 | 47 | 42 | 64 | 54 | 47 | 42 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 40 | | | | | | | | | | | | | | | | | | | |
| 10 | 62 | 50 | 43 | 38 | 60 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|---------|-------|-------|
| 0° | 28579 | 28579 | 28579 |
| 5° | 146921 | 26559 | 12406 |
| 10° | 387243 | 22156 | 6475 |
| 15° | 737053 | 17392 | 4993 |
| 20° | 1119491 | 14386 | 13362 |
| 25° | 1495868 | 34296 | 61788 |
| 30° | 1703245 | 12932 | 12491 |
| 35° | 1547060 | 7303 | 5662 |
| 40° | 1253029 | 3285 | 2270 |
| 45° | 886681 | 1919 | 541 |
| 50° | 323529 | 1209 | 0 |
| 55° | 67331 | 1011 | 0 |
| 60° | 16232 | 1159 | 0 |
| 65° | 5020 | 1372 | 0 |
| 70° | 1695 | 1695 | 0 |
| 75° | 763 | 2240 | 0 |
| 80° | 0 | 3339 | 0 |
| 85° | 0 | 6652 | 0 |



TEST NUMBER: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.5 | 1.7 |
| 10°-20° | 391.5 | 12.6 |
| 20°-30° | 993.0 | 31.9 |
| 30°-40° | 1062.7 | 34.1 |
| 40°-50° | 543.2 | 17.5 |
| 50°-60° | 56.7 | 1.8 |
| 60°-70° | 6.5 | 0.2 |
| 70°-80° | 3.6 | 0.1 |
| 80°-90° | 3.2 | 0.1 |
| 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° | 1437.0 | 46.2 |
| 0°-40° | 2499.7 | 80.3 |
| 0°-60° | 3099.6 | 99.6 |
| 0°-90° | 3112.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3112.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-------|------|-----|------|------|------|
| 0° | 232 | 232 | 232 | 232 | 232 | |
| 5° | 1187 | 645 | 214 | 124 | 100 | 173 |
| 15° | 5772 | 2320 | 136 | 48 | 39 | 1705 |
| 25° | 10991 | 2613 | 252 | 423 | 454 | 4994 |
| 35° | 10274 | 1324 | 48 | 38 | 38 | 6308 |
| 45° | 5083 | 177 | 11 | 6 | 3 | 3793 |
| 55° | 313 | 28 | 5 | 3 | 0 | 425 |
| 65° | 17 | 6 | 5 | 3 | 0 | 23 |
| 75° | 2 | 3 | 5 | 5 | 0 | 1 |
| 85° | 0 | 3 | 5 | 5 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 |
| 2.5° | 468.1 | 472.8 | 438.3 | 449.3 | 457.1 | 441.5 | 438.3 | 438.3 | 455.6 | 446.2 | 461.8 |
| 5° | 1186.6 | 1181.9 | 1122.4 | 1139.7 | 1152.2 | 1122.4 | 1136.5 | 1114.6 | 1141.2 | 1124.0 | 1141.2 |
| 7.5° | 2072.7 | 2127.5 | 2052.3 | 2069.6 | 2080.5 | 2049.2 | 2057.0 | 2025.7 | 2055.5 | 2035.1 | 2049.2 |
| 10° | 3091.8 | 3148.2 | 3060.5 | 3074.6 | 3082.4 | 3052.7 | 3054.2 | 3013.5 | 3040.2 | 3018.2 | 3027.6 |
| 12.5° | 4309.8 | 4331.7 | 4289.4 | 4300.4 | 4305.1 | 4265.9 | 4192.3 | 4200.2 | 4226.8 | 4189.2 | 4198.6 |
| 15° | 5771.9 | 5756.3 | 5706.2 | 5742.2 | 5706.2 | 5687.4 | 5576.2 | 5570.0 | 5585.6 | 5543.4 | 5476.0 |
| 17.5° | 7060.3 | 7179.3 | 7122.9 | 7143.3 | 7099.4 | 7099.4 | 6957.0 | 6933.5 | 6935.1 | 6822.4 | 6809.8 |
| 20° | 8528.7 | 8680.6 | 8542.8 | 8549.1 | 8491.1 | 8489.6 | 8315.8 | 8267.3 | 8246.9 | 8118.6 | 8082.6 |
| 22.5° | 9943.9 | 9987.7 | 9986.2 | 9959.6 | 9823.4 | 9901.6 | 9684.0 | 9607.3 | 9544.7 | 9399.1 | 9327.1 |
| 25° | 10991.2 | 11129.0 | 11035.0 | 10967.7 | 10848.8 | 10947.4 | 10703.2 | 10603.0 | 10509.0 | 10386.9 | 10293.0 |
| 27.5° | 11583.0 | 11711.3 | 11689.4 | 11589.2 | 11467.1 | 11562.6 | 11294.9 | 11165.0 | 11031.9 | 10942.7 | 10825.3 |
| 30° | 11958.7 | 12154.4 | 12090.2 | 11872.6 | 11694.1 | 11725.4 | 11424.9 | 11251.1 | 11103.9 | 11011.6 | 10862.8 |
| 32.5° | 11196.3 | 11398.2 | 11379.5 | 11221.3 | 11129.0 | 11205.7 | 10944.3 | 10772.0 | 10631.2 | 10557.6 | 10391.6 |
| 35° | 10274.2 | 10510.6 | 10459.0 | 10327.5 | 10260.1 | 10349.4 | 10094.2 | 9950.2 | 9807.7 | 9743.5 | 9561.9 |
| 37.5° | 9145.5 | 9367.8 | 9316.2 | 9190.9 | 9125.2 | 9190.9 | 8946.7 | 8813.6 | 8679.0 | 8611.7 | 8488.0 |
| 40° | 7782.0 | 7977.7 | 7922.9 | 7807.0 | 7752.2 | 7799.2 | 7587.9 | 7472.0 | 7357.7 | 7307.6 | 7143.3 |
| 42.5° | 6449.8 | 6606.3 | 6556.2 | 6456.0 | 6413.8 | 6445.1 | 6271.3 | 6168.0 | 6067.8 | 6025.5 | 5928.5 |
| 45° | 5083.1 | 5238.1 | 5189.6 | 5103.5 | 5064.3 | 5081.5 | 4936.0 | 4843.6 | 4757.5 | 4718.3 | 4630.7 |
| 47.5° | 3647.6 | 3821.3 | 3761.8 | 3688.3 | 3647.6 | 3639.7 | 3511.4 | 3428.4 | 3436.2 | 3303.2 | 3221.8 |
| 50° | 1686.0 | 1833.2 | 1773.7 | 1734.5 | 1695.4 | 1673.5 | 1628.1 | 1534.2 | 1560.8 | 1440.2 | 1393.3 |
| 52.5° | 612.1 | 648.1 | 634.0 | 621.5 | 609.0 | 604.3 | 588.6 | 565.1 | 568.3 | 538.5 | 524.4 |
| 55° | 313.1 | 330.3 | 325.6 | 317.8 | 317.8 | 313.1 | 305.3 | 295.9 | 289.6 | 284.9 | 280.2 |
| 57.5° | 144.0 | 153.4 | 150.3 | 147.2 | 147.2 | 144.0 | 140.9 | 136.2 | 139.3 | 131.5 | 129.9 |
| 60° | 65.8 | 70.4 | 68.9 | 67.3 | 67.3 | 67.3 | 65.8 | 64.2 | 64.2 | 62.6 | 61.1 |
| 62.5° | 31.3 | 34.4 | 32.9 | 32.9 | 32.9 | 32.9 | 31.3 | 31.3 | 31.3 | 31.3 | 29.7 |
| 65° | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 15.7 | 17.2 | 15.7 | 15.7 |
| 67.5° | 9.4 | 9.4 | 9.4 | 9.4 | 7.8 | 9.4 | 9.4 | 7.8 | 7.8 | 7.8 | 7.8 |
| 70° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| 72.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 75° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 77.5° | 0.0 | 1.6 | 1.6 | 1.6 | 0.0 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 1.6 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 11° | 12° | 13° | 14° | 15° | 17.5° | 20° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|--------|-------|-------|
| 0° | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 | 231.7 |
| 2.5° | 425.8 | 436.8 | 447.7 | 444.6 | 428.9 | 427.4 | 421.1 | 424.2 | 330.3 | 267.7 | 223.9 |
| 5° | 1080.2 | 1094.3 | 1108.4 | 1100.5 | 1061.4 | 1052.0 | 1020.7 | 1014.4 | 645.0 | 316.2 | 214.5 |
| 7.5° | 1974.1 | 1981.9 | 1992.9 | 1983.5 | 1925.5 | 1898.9 | 1833.2 | 1769.0 | 1084.9 | 382.0 | 198.8 |
| 10° | 2943.1 | 2940.0 | 2944.7 | 2932.1 | 2860.1 | 2808.5 | 2706.7 | 2661.3 | 1537.3 | 438.3 | 176.9 |
| 12.5° | 4073.4 | 4060.8 | 3992.0 | 4024.8 | 3923.1 | 3818.2 | 3650.7 | 3509.8 | 1964.7 | 469.6 | 156.5 |
| 15° | 5393.1 | 5355.5 | 5330.5 | 5292.9 | 5167.6 | 4998.6 | 4743.4 | 4586.8 | 2320.0 | 466.5 | 136.2 |
| 17.5° | 6704.9 | 6643.9 | 6534.3 | 6548.4 | 6402.8 | 6166.4 | 5829.8 | 5562.1 | 2565.8 | 427.4 | 120.5 |
| 20° | 7946.4 | 7855.6 | 7717.8 | 7706.8 | 7531.5 | 7220.0 | 6795.7 | 6463.9 | 2700.4 | 363.2 | 109.6 |
| 22.5° | 9142.4 | 9001.5 | 8816.8 | 8758.8 | 8533.4 | 8092.0 | 7537.8 | 7133.9 | 2713.0 | 303.7 | 131.5 |
| 25° | 10084.8 | 9907.9 | 9702.8 | 9602.6 | 9353.7 | 8790.2 | 8099.8 | 7603.5 | 2612.8 | 300.6 | 252.0 |
| 27.5° | 10610.8 | 10410.4 | 10205.3 | 10069.2 | 9817.1 | 9178.4 | 8397.2 | 7824.3 | 2440.6 | 322.5 | 239.5 |
| 30° | 10639.0 | 10413.6 | 10200.7 | 10028.4 | 9778.0 | 9095.4 | 8265.7 | 7669.3 | 2130.6 | 203.5 | 90.8 |
| 32.5° | 10170.9 | 9929.8 | 9716.9 | 9522.8 | 9275.5 | 8588.2 | 7774.2 | 7204.3 | 1733.0 | 142.5 | 64.2 |
| 35° | 9352.2 | 9103.3 | 8899.7 | 8694.7 | 8463.0 | 7816.4 | 7069.7 | 6539.0 | 1324.4 | 112.7 | 48.5 |
| 37.5° | 8237.5 | 8007.4 | 7827.4 | 7688.1 | 7437.6 | 6922.5 | 6240.0 | 5678.0 | 936.2 | 79.8 | 29.7 |
| 40° | 6989.9 | 6795.7 | 6648.6 | 6528.0 | 6296.3 | 5839.2 | 5150.4 | 4676.1 | 568.3 | 56.4 | 20.4 |
| 42.5° | 5734.3 | 5552.7 | 5422.8 | 5308.5 | 5094.1 | 4690.2 | 4123.5 | 3647.6 | 272.4 | 39.1 | 14.1 |
| 45° | 4460.0 | 4297.2 | 4187.7 | 4084.3 | 3891.8 | 3494.1 | 3044.9 | 2700.4 | 176.9 | 28.2 | 11.0 |
| 47.5° | 3046.4 | 2961.9 | 2781.9 | 2669.1 | 2471.9 | 2168.2 | 1747.1 | 1368.2 | 117.4 | 20.4 | 7.8 |
| 50° | 1266.5 | 1222.6 | 1103.7 | 1027.0 | 914.2 | 759.3 | 551.0 | 461.8 | 72.0 | 14.1 | 6.3 |
| 52.5° | 491.6 | 480.6 | 450.9 | 433.6 | 405.5 | 364.8 | 303.7 | 270.8 | 43.8 | 11.0 | 6.3 |
| 55° | 264.6 | 261.4 | 245.8 | 236.4 | 220.7 | 200.4 | 164.4 | 144.0 | 28.2 | 7.8 | 4.7 |
| 57.5° | 122.1 | 120.5 | 112.7 | 112.7 | 101.8 | 93.9 | 78.3 | 70.4 | 17.2 | 6.3 | 4.7 |
| 60° | 57.9 | 57.9 | 54.8 | 54.8 | 50.1 | 47.0 | 39.1 | 36.0 | 11.0 | 4.7 | 4.7 |
| 62.5° | 28.2 | 28.2 | 28.2 | 28.2 | 26.6 | 25.0 | 21.9 | 20.4 | 7.8 | 4.7 | 4.7 |
| 65° | 15.7 | 15.7 | 15.7 | 15.7 | 14.1 | 14.1 | 12.5 | 11.0 | 6.3 | 4.7 | 4.7 |
| 67.5° | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 6.3 | 6.3 | 4.7 | 4.7 | 4.7 |
| 70° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 3.1 | 3.1 | 3.1 | 3.1 | 4.7 | 4.7 |
| 72.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 75° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 77.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 80° | 0.0 | 0.0 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 82.5° | 0.0 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3.1 | 4.7 | 4.7 |
| 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: P170799

CATALOG NUMBER: LDA4A28835D010TE LAR25NF 4LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 112.5° | 135° | 157.5° | 180° |
|-------|--------|-------|--------|-------|
| 0° | 231.7 | 231.7 | 231.7 | 231.7 |
| 2.5° | 192.6 | 167.5 | 155.0 | 151.9 |
| 5° | 158.1 | 123.7 | 106.5 | 100.2 |
| 7.5° | 128.4 | 89.2 | 75.1 | 68.9 |
| 10° | 101.8 | 70.4 | 56.4 | 51.7 |
| 12.5° | 84.5 | 56.4 | 45.4 | 42.3 |
| 15° | 72.0 | 48.5 | 40.7 | 39.1 |
| 17.5° | 65.8 | 51.7 | 48.5 | 50.1 |
| 20° | 79.8 | 84.5 | 98.6 | 101.8 |
| 22.5° | 169.1 | 292.7 | 397.6 | 421.1 |
| 25° | 352.2 | 422.7 | 438.3 | 454.0 |
| 27.5° | 195.7 | 151.9 | 148.7 | 155.0 |
| 30° | 79.8 | 81.4 | 84.5 | 87.7 |
| 32.5° | 59.5 | 59.5 | 57.9 | 59.5 |
| 35° | 40.7 | 37.6 | 36.0 | 37.6 |
| 37.5° | 25.0 | 23.5 | 21.9 | 21.9 |
| 40° | 17.2 | 15.7 | 14.1 | 14.1 |
| 42.5° | 12.5 | 9.4 | 7.8 | 7.8 |
| 45° | 9.4 | 6.3 | 4.7 | 3.1 |
| 47.5° | 7.8 | 4.7 | 1.6 | 1.6 |
| 50° | 6.3 | 3.1 | 1.6 | 0.0 |
| 52.5° | 4.7 | 3.1 | 1.6 | 0.0 |
| 55° | 4.7 | 3.1 | 0.0 | 0.0 |
| 57.5° | 4.7 | 3.1 | 0.0 | 0.0 |
| 60° | 4.7 | 3.1 | 1.6 | 0.0 |
| 62.5° | 4.7 | 3.1 | 1.6 | 1.6 |
| 65° | 4.7 | 3.1 | 1.6 | 0.0 |
| 67.5° | 4.7 | 3.1 | 1.6 | 0.0 |
| 70° | 4.7 | 3.1 | 1.6 | 0.0 |
| 72.5° | 6.3 | 3.1 | 1.6 | 0.0 |
| 75° | 6.3 | 4.7 | 1.6 | 0.0 |
| 77.5° | 6.3 | 4.7 | 1.6 | 0.0 |
| 80° | 6.3 | 4.7 | 1.6 | 0.0 |
| 82.5° | 6.3 | 4.7 | 1.6 | 0.0 |
| 85° | 6.3 | 4.7 | 1.6 | 0.0 |
| 87.5° | 6.3 | 4.7 | 1.6 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





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











(END OF REPORT)