

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: P175464

Luminaire Tested: **LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P175464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26267)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt
Description: PORTFOLIO 6" Lensed Adjustable, Self-flange Trim Ring, 15° Spot
Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2113.6 lumens
Efficiency: N/A
Efficacy: 47.5 lumens/watt
Spacing Criteria (0/90/45): 2.44 / 0.33 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

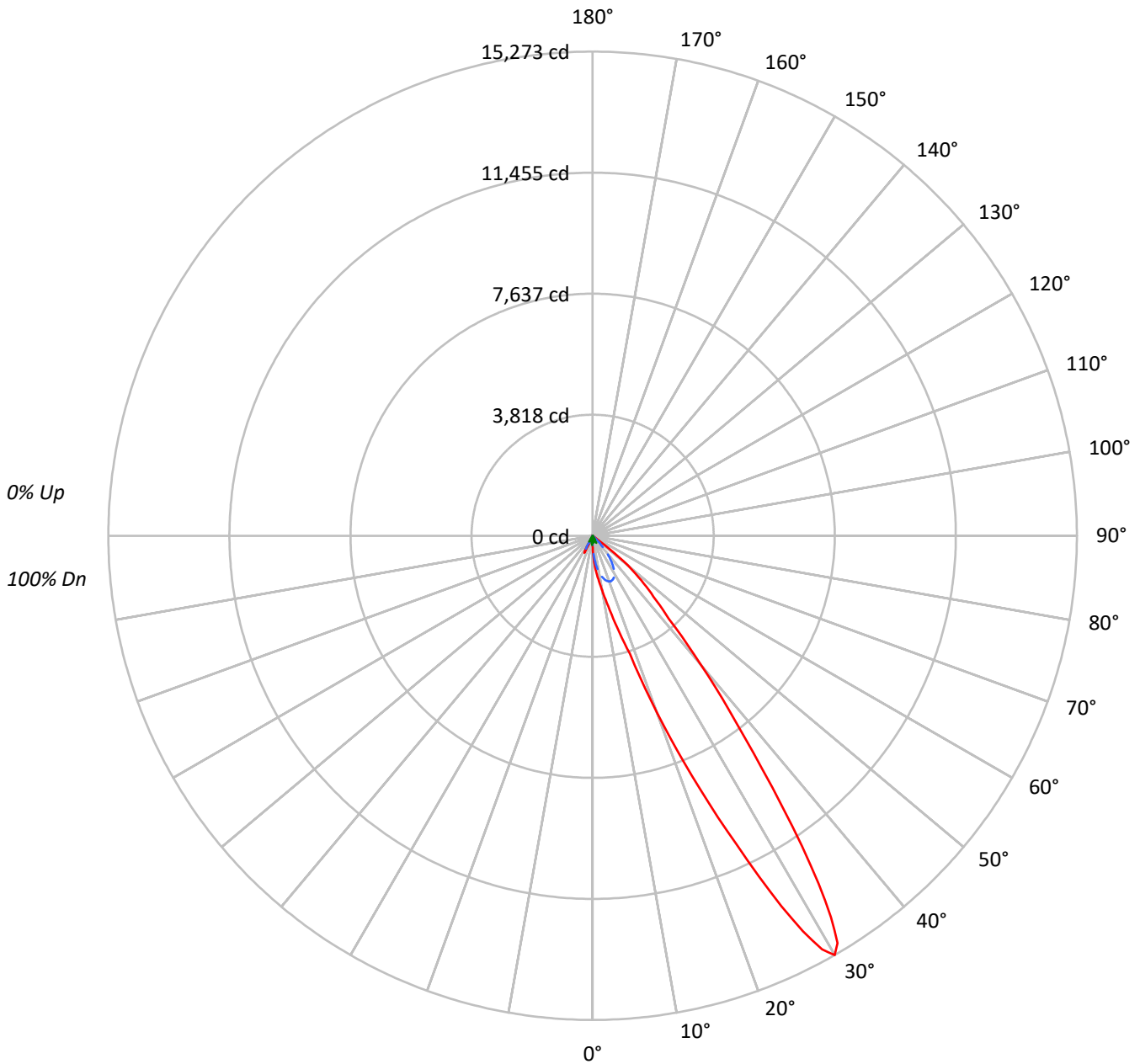
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

Luminous Intensity Polar Plot





TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 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 | 113 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 95 | 93 | 91 | | | | | | | | | | | | | | | | | | | |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 | | | | | | | | | | | | | | | | | | | |
| 3 | 99 | 91 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 4 | 93 | 84 | 77 | 72 | 91 | 82 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 5 | 87 | 77 | 70 | 64 | 85 | 76 | 69 | 64 | 74 | 68 | 64 | 72 | 67 | 63 | 70 | 66 | 62 | 61 | | | | | | | | | | | | | | | | | | | |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 | | | | | | | | | | | | | | | | | | | |
| 7 | 75 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 60 | 55 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 46 | 45 | | | | | | | | | | | | | | | | | | | |
| 9 | 66 | 55 | 47 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 41 | | | | | | | | | | | | | | | | | | | |
| 10 | 62 | 50 | 43 | 39 | 61 | 50 | 43 | 39 | 49 | 43 | 39 | 48 | 42 | 38 | 47 | 42 | 38 | 37 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|-------|-------|
| 0° | 17055 | 17055 | 17055 |
| 5° | 58326 | 14500 | 1937 |
| 10° | 97605 | 8049 | 952 |
| 15° | 169547 | 2968 | 812 |
| 20° | 346396 | 1943 | 1388 |
| 25° | 650227 | 3799 | 24570 |
| 30° | 966782 | 6628 | 3975 |
| 35° | 697700 | 509 | 321 |
| 40° | 378960 | 208 | 0 |
| 45° | 210363 | 225 | 0 |
| 50° | 123092 | 247 | 0 |
| 55° | 3909 | 182 | 0 |
| 60° | 1360 | 318 | 0 |
| 65° | 623 | 376 | 0 |
| 70° | 465 | 465 | 0 |
| 75° | 212 | 805 | 0 |
| 80° | 0 | 1200 | 0 |
| 85° | 0 | 2390 | 0 |



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 43.6 | 2.1 |
| 10°-20° | 226.3 | 10.7 |
| 20°-30° | 728.3 | 34.5 |
| 30°-40° | 758.2 | 35.9 |
| 40°-50° | 323.0 | 15.3 |
| 50°-60° | 26.8 | 1.3 |
| 60°-70° | 2.8 | 0.1 |
| 70°-80° | 2.4 | 0.1 |
| 80°-90° | 2.2 | 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° | 998.1 | 47.2 |
| 0°-40° | 1756.3 | 83.1 |
| 0°-60° | 2106.2 | 99.6 |
| 0°-90° | 2113.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2113.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-------|------|-----|------|------|------|
| 0° | 311 | 311 | 311 | 311 | 311 | |
| 5° | 1060 | 772 | 264 | 48 | 35 | 120 |
| 15° | 2987 | 1422 | 52 | 18 | 14 | 977 |
| 25° | 10750 | 1515 | 63 | 189 | 406 | 5163 |
| 35° | 10425 | 1082 | 8 | 7 | 5 | 6454 |
| 45° | 2713 | 186 | 3 | 2 | 0 | 2232 |
| 55° | 41 | 6 | 2 | 2 | 0 | 255 |
| 65° | 5 | 3 | 3 | 2 | 0 | 5 |
| 75° | 1 | 3 | 4 | 3 | 0 | 1 |
| 85° | 0 | 3 | 4 | 3 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (FULL):

| | 0° | 2.5° | 5° | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|-------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 0° | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 |
| 2.5° | 690.7 | 654.6 | 682.2 | 666.0 | 655.5 | 652.7 | 668.8 | 650.8 | 631.7 | 630.8 | 625.1 |
| 5° | 1059.9 | 1025.6 | 1054.1 | 1029.4 | 1018.0 | 1008.5 | 1016.1 | 986.6 | 955.2 | 956.2 | 941.9 |
| 7.5° | 1381.4 | 1362.4 | 1381.4 | 1354.8 | 1346.2 | 1336.7 | 1333.9 | 1305.3 | 1268.2 | 1271.1 | 1249.2 |
| 10° | 1753.4 | 1698.2 | 1728.7 | 1670.7 | 1656.4 | 1630.7 | 1622.1 | 1575.5 | 1516.5 | 1513.7 | 1482.3 |
| 12.5° | 2266.2 | 2244.3 | 2274.8 | 2193.0 | 2175.8 | 2132.1 | 2108.3 | 2034.1 | 1937.0 | 1912.3 | 1840.0 |
| 15° | 2987.4 | 2917.0 | 2947.4 | 2832.3 | 2800.0 | 2723.8 | 2671.5 | 2556.4 | 2464.1 | 2359.5 | 2249.1 |
| 17.5° | 3903.6 | 3863.6 | 3902.6 | 3676.2 | 3592.5 | 3444.1 | 3321.3 | 3129.1 | 2933.2 | 2839.0 | 2683.9 |
| 20° | 5937.7 | 5747.4 | 5768.3 | 5347.8 | 5079.5 | 4679.9 | 4360.2 | 3935.9 | 3546.8 | 3323.2 | 3067.3 |
| 22.5° | 8195.3 | 7978.4 | 7925.1 | 7384.7 | 6930.0 | 6329.6 | 5768.3 | 5058.6 | 4368.8 | 3869.3 | 3435.5 |
| 25° | 10749.8 | 10609.0 | 10330.3 | 9445.5 | 8663.4 | 7807.2 | 6981.3 | 6052.8 | 5158.5 | 4393.5 | 3742.8 |
| 26° | 11962.9 | 11849.6 | 11431.0 | 10324.6 | 9312.3 | 8287.6 | 7343.8 | 6346.8 | 5382.0 | 4542.9 | 3815.1 |
| 27° | 13115.0 | 13023.7 | 12479.5 | 11191.3 | 9925.9 | 8692.9 | 7607.4 | 6556.1 | 5542.8 | 4639.0 | 3866.5 |
| 28° | 14130.1 | 14036.9 | 13333.8 | 11925.8 | 10412.1 | 8985.9 | 7772.9 | 6686.4 | 5635.1 | 4661.8 | 3863.6 |
| 29° | 14919.8 | 14801.8 | 13894.2 | 12396.7 | 10697.5 | 9126.7 | 7806.2 | 6702.6 | 5621.8 | 4608.6 | 3810.3 |
| 30° | 15272.8 | 15126.3 | 14054.0 | 12497.5 | 10702.3 | 9073.5 | 7712.0 | 6616.0 | 5513.3 | 4483.0 | 3711.4 |
| 31° | 14995.9 | 14871.3 | 13763.9 | 12206.4 | 10412.1 | 8829.9 | 7478.0 | 6416.2 | 5307.8 | 4301.3 | 3580.1 |
| 32° | 14189.1 | 14075.0 | 13054.1 | 11567.1 | 9863.1 | 8418.0 | 7138.3 | 6130.8 | 5034.8 | 4081.5 | 3427.9 |
| 33° | 13082.7 | 12994.2 | 12078.9 | 10688.9 | 9158.1 | 7910.9 | 6732.1 | 5773.1 | 4706.6 | 3835.1 | 3242.4 |
| 34° | 11820.1 | 11750.7 | 10915.4 | 9696.6 | 8388.5 | 7347.6 | 6268.8 | 5258.4 | 4347.9 | 3586.8 | 3103.5 |
| 35° | 10425.4 | 10377.8 | 9696.6 | 8677.7 | 7622.6 | 6762.5 | 5754.0 | 4803.6 | 3986.4 | 3348.0 | 2954.1 |
| 36° | 9100.1 | 9061.1 | 8541.6 | 7743.4 | 6893.8 | 6155.5 | 5196.5 | 4329.8 | 3640.0 | 3132.9 | 2814.2 |
| 37° | 7967.9 | 7939.4 | 7555.0 | 6911.9 | 6193.6 | 5524.8 | 4628.5 | 3886.5 | 3338.4 | 2945.5 | 2670.6 |
| 38° | 7026.1 | 7003.2 | 6691.2 | 6121.3 | 5472.4 | 4872.1 | 4080.5 | 3494.5 | 3081.6 | 2782.8 | 2507.9 |
| 39° | 6147.9 | 6118.4 | 5837.8 | 5322.1 | 4754.1 | 4236.6 | 3717.1 | 3172.0 | 2879.9 | 2613.5 | 2332.8 |
| 40° | 5295.5 | 5257.4 | 5011.0 | 4572.4 | 4098.6 | 3697.1 | 3230.9 | 2974.1 | 2716.2 | 2416.5 | 2154.0 |
| 42.5° | 3553.5 | 3532.5 | 3398.4 | 3200.5 | 2999.8 | 2853.2 | 2705.8 | 2476.5 | 2204.4 | 1957.0 | 1762.9 |
| 45° | 2713.4 | 2708.6 | 2643.0 | 2539.3 | 2406.1 | 2282.4 | 2085.5 | 1953.2 | 1769.6 | 1561.2 | 1422.3 |
| 47.5° | 2081.7 | 2082.6 | 2021.7 | 1943.7 | 1852.4 | 1772.5 | 1628.8 | 1523.2 | 1391.9 | 1273.0 | 1165.5 |
| 50° | 1443.3 | 1382.4 | 1390.9 | 1329.1 | 1254.9 | 1208.3 | 1075.1 | 994.2 | 807.7 | 619.4 | 484.3 |
| 51° | 1081.7 | 1001.8 | 1012.3 | 942.8 | 865.8 | 824.9 | 700.2 | 618.4 | 443.4 | 291.1 | 190.3 |
| 52° | 660.3 | 597.5 | 596.5 | 543.2 | 476.6 | 440.5 | 341.6 | 266.4 | 151.3 | 79.9 | 55.2 |
| 53° | 295.9 | 254.0 | 244.5 | 208.4 | 163.6 | 141.8 | 97.0 | 71.4 | 53.3 | 40.9 | 31.4 |
| 54° | 78.0 | 69.5 | 66.6 | 60.9 | 55.2 | 53.3 | 46.6 | 39.0 | 30.4 | 23.8 | 20.0 |
| 55° | 40.9 | 38.1 | 37.1 | 35.2 | 32.3 | 31.4 | 27.6 | 23.8 | 19.0 | 17.1 | 15.2 |
| 57.5° | 19.0 | 19.0 | 18.1 | 17.1 | 16.2 | 16.2 | 14.3 | 13.3 | 12.4 | 12.4 | 10.5 |
| 60° | 12.4 | 12.4 | 12.4 | 11.4 | 11.4 | 10.5 | 9.5 | 8.6 | 7.6 | 8.6 | 7.6 |
| 61° | 10.5 | 10.5 | 10.5 | 9.5 | 8.6 | 7.6 | 7.6 | 7.6 | 6.7 | 6.7 | 5.7 |
| 62° | 7.6 | 7.6 | 6.7 | 6.7 | 5.7 | 5.7 | 5.7 | 5.7 | 4.8 | 5.7 | 5.7 |
| 63° | 5.7 | 5.7 | 4.8 | 4.8 | 4.8 | 4.8 | 3.8 | 3.8 | 3.8 | 5.7 | 5.7 |
| 64° | 4.8 | 4.8 | 4.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 4.8 | 3.8 |
| 65° | 4.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 2.9 | 3.8 | 3.8 |
| 66° | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 2.9 | 2.9 | 3.8 | 3.8 |



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 0° | 2.5° | 5° | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|-------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 72.5° | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 75° | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 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: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 67.5° | 90° | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|
| 0° | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 | 311.1 |
| 2.5° | 625.1 | 613.7 | 589.9 | 585.1 | 562.3 | 549.0 | 552.8 | 545.2 | 423.4 | 298.7 | 186.5 |
| 5° | 931.4 | 905.7 | 870.5 | 858.2 | 819.2 | 798.2 | 791.6 | 772.5 | 524.2 | 263.5 | 87.5 |
| 7.5° | 1231.1 | 1197.8 | 1155.0 | 1135.0 | 1081.7 | 1046.5 | 1023.7 | 995.2 | 593.7 | 209.3 | 48.5 |
| 10° | 1453.7 | 1415.7 | 1371.0 | 1345.3 | 1285.3 | 1250.1 | 1213.0 | 1181.6 | 630.8 | 144.6 | 36.2 |
| 12.5° | 1750.6 | 1675.4 | 1582.2 | 1526.0 | 1437.6 | 1389.0 | 1346.2 | 1315.8 | 645.0 | 86.6 | 27.6 |
| 15° | 2146.4 | 2025.5 | 1893.3 | 1791.5 | 1641.2 | 1549.8 | 1477.5 | 1422.3 | 633.6 | 52.3 | 23.8 |
| 17.5° | 2529.8 | 2358.5 | 2185.4 | 2047.4 | 1875.2 | 1739.2 | 1600.2 | 1491.8 | 585.1 | 41.9 | 21.9 |
| 20° | 2848.5 | 2647.7 | 2427.0 | 2233.9 | 2035.0 | 1873.3 | 1688.7 | 1535.6 | 507.1 | 33.3 | 23.8 |
| 22.5° | 3093.9 | 2838.0 | 2587.8 | 2348.0 | 2111.1 | 1925.6 | 1723.0 | 1545.1 | 408.1 | 34.3 | 33.3 |
| 25° | 3270.9 | 2935.1 | 2668.7 | 2395.6 | 2137.8 | 1934.2 | 1704.9 | 1514.6 | 300.6 | 62.8 | 112.3 |
| 26° | 3307.1 | 2955.0 | 2679.1 | 2390.9 | 2128.3 | 1919.9 | 1684.0 | 1495.6 | 271.1 | 124.6 | 247.4 |
| 27° | 3327.0 | 2952.2 | 2671.5 | 2371.8 | 2108.3 | 1899.0 | 1660.2 | 1478.5 | 266.4 | 213.1 | 369.1 |
| 28° | 3309.0 | 2928.4 | 2639.2 | 2337.6 | 2075.9 | 1871.4 | 1632.6 | 1458.5 | 263.5 | 261.6 | 350.1 |
| 29° | 3259.5 | 2886.5 | 2590.7 | 2284.3 | 2026.5 | 1827.6 | 1590.7 | 1429.9 | 235.9 | 208.4 | 211.2 |
| 30° | 3184.3 | 2827.5 | 2520.2 | 2212.9 | 1963.7 | 1764.8 | 1530.8 | 1384.3 | 156.0 | 104.7 | 89.4 |
| 31° | 3091.1 | 2751.4 | 2433.7 | 2130.2 | 1892.3 | 1688.7 | 1468.0 | 1325.3 | 80.9 | 44.7 | 41.9 |
| 32° | 2988.3 | 2660.1 | 2340.4 | 2046.5 | 1820.0 | 1615.5 | 1415.7 | 1273.0 | 53.3 | 24.7 | 23.8 |
| 33° | 2879.9 | 2553.5 | 2237.7 | 1959.9 | 1739.2 | 1533.7 | 1361.4 | 1216.8 | 40.0 | 15.2 | 14.3 |
| 34° | 2773.3 | 2439.4 | 2134.0 | 1866.6 | 1651.6 | 1460.4 | 1312.0 | 1152.1 | 32.3 | 11.4 | 9.5 |
| 35° | 2652.5 | 2315.7 | 2027.4 | 1767.7 | 1557.4 | 1397.6 | 1262.5 | 1081.7 | 25.7 | 7.6 | 7.6 |
| 36° | 2511.7 | 2184.4 | 1917.1 | 1664.0 | 1468.0 | 1339.6 | 1208.3 | 1004.7 | 20.0 | 5.7 | 6.7 |
| 37° | 2362.3 | 2054.1 | 1805.8 | 1561.2 | 1394.7 | 1286.3 | 1142.6 | 925.7 | 17.1 | 4.8 | 5.7 |
| 38° | 2208.2 | 1924.7 | 1685.9 | 1462.3 | 1331.0 | 1228.3 | 1068.4 | 843.9 | 14.3 | 3.8 | 4.8 |
| 39° | 2056.9 | 1792.4 | 1566.0 | 1382.4 | 1271.1 | 1159.8 | 983.7 | 760.2 | 12.4 | 3.8 | 4.8 |
| 40° | 1909.5 | 1659.2 | 1459.4 | 1312.9 | 1204.5 | 1076.0 | 896.2 | 672.6 | 8.6 | 2.9 | 4.8 |
| 42.5° | 1559.3 | 1383.3 | 1256.8 | 1110.3 | 987.5 | 842.9 | 659.3 | 436.7 | 6.7 | 2.9 | 3.8 |
| 45° | 1305.3 | 1160.7 | 1013.2 | 847.7 | 726.9 | 578.4 | 390.1 | 185.5 | 6.7 | 2.9 | 3.8 |
| 47.5° | 1032.3 | 862.0 | 645.0 | 435.7 | 284.5 | 146.5 | 45.7 | 25.7 | 4.8 | 2.9 | 3.8 |
| 50° | 300.6 | 174.1 | 64.7 | 39.0 | 29.5 | 18.1 | 11.4 | 10.5 | 3.8 | 2.9 | 3.8 |
| 51° | 86.6 | 51.4 | 34.3 | 22.8 | 17.1 | 10.5 | 8.6 | 9.5 | 3.8 | 2.9 | 2.9 |
| 52° | 40.9 | 29.5 | 20.0 | 15.2 | 11.4 | 8.6 | 7.6 | 8.6 | 3.8 | 2.9 | 2.9 |
| 53° | 23.8 | 18.1 | 14.3 | 12.4 | 8.6 | 7.6 | 5.7 | 7.6 | 3.8 | 2.9 | 2.9 |
| 54° | 16.2 | 14.3 | 12.4 | 10.5 | 7.6 | 5.7 | 5.7 | 7.6 | 3.8 | 2.9 | 2.9 |
| 55° | 14.3 | 12.4 | 10.5 | 9.5 | 6.7 | 5.7 | 5.7 | 5.7 | 2.9 | 1.9 | 2.9 |
| 57.5° | 9.5 | 9.5 | 7.6 | 7.6 | 5.7 | 3.8 | 1.9 | 4.8 | 3.8 | 2.9 | 2.9 |
| 60° | 6.7 | 6.7 | 6.7 | 4.8 | 1.9 | 1.9 | 1.0 | 3.8 | 3.8 | 2.9 | 3.8 |
| 61° | 6.7 | 6.7 | 4.8 | 3.8 | 1.9 | 1.9 | 1.0 | 3.8 | 3.8 | 2.9 | 3.8 |
| 62° | 5.7 | 4.8 | 3.8 | 3.8 | 1.9 | 1.9 | 1.0 | 3.8 | 3.8 | 2.9 | 3.8 |
| 63° | 4.8 | 3.8 | 3.8 | 3.8 | 1.9 | 1.0 | 1.0 | 3.8 | 3.8 | 2.9 | 3.8 |
| 64° | 3.8 | 3.8 | 3.8 | 3.8 | 1.0 | 1.0 | 1.0 | 3.8 | 3.8 | 2.9 | 3.8 |
| 65° | 3.8 | 3.8 | 3.8 | 2.9 | 1.0 | 1.0 | 1.0 | 2.9 | 3.8 | 2.9 | 3.8 |
| 66° | 3.8 | 3.8 | 2.9 | 2.9 | 1.0 | 1.0 | 1.0 | 2.9 | 3.8 | 2.9 | 3.8 |



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 67.5° | 90° | 112.5° |
|-------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|--------|
| 72.5° | 1.0 | 1.9 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 2.9 | 3.8 |
| 75° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 3.8 |
| 77.5° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 4.8 |
| 80° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 4.8 |
| 82.5° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 4.8 |
| 85° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 4.8 |
| 87.5° | 1.0 | 1.0 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 3.8 | 4.8 |
| 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: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 135° | 157.5° | 180° |
|-------|-------|--------|-------|
| 0° | 311.1 | 311.1 | 311.1 |
| 2.5° | 118.9 | 85.6 | 78.0 |
| 5° | 47.6 | 39.0 | 35.2 |
| 7.5° | 29.5 | 24.7 | 22.8 |
| 10° | 23.8 | 18.1 | 17.1 |
| 12.5° | 19.0 | 16.2 | 15.2 |
| 15° | 18.1 | 15.2 | 14.3 |
| 17.5° | 18.1 | 17.1 | 16.2 |
| 20° | 22.8 | 22.8 | 23.8 |
| 22.5° | 39.0 | 45.7 | 51.4 |
| 25° | 189.3 | 306.3 | 406.2 |
| 26° | 396.7 | 559.4 | 598.4 |
| 27° | 491.9 | 509.0 | 489.0 |
| 28° | 378.7 | 339.6 | 319.7 |
| 29° | 202.6 | 169.3 | 155.1 |
| 30° | 80.9 | 66.6 | 62.8 |
| 31° | 39.0 | 33.3 | 32.3 |
| 32° | 21.9 | 18.1 | 18.1 |
| 33° | 13.3 | 11.4 | 10.5 |
| 34° | 9.5 | 7.6 | 6.7 |
| 35° | 6.7 | 5.7 | 4.8 |
| 36° | 5.7 | 3.8 | 2.9 |
| 37° | 4.8 | 2.9 | 2.9 |
| 38° | 3.8 | 2.9 | 1.9 |
| 39° | 2.9 | 1.9 | 1.0 |
| 40° | 2.9 | 1.0 | 0.0 |
| 42.5° | 1.9 | 1.0 | 0.0 |
| 45° | 1.9 | 0.0 | 0.0 |
| 47.5° | 2.9 | 1.9 | 1.0 |
| 50° | 1.9 | 1.0 | 0.0 |
| 51° | 1.9 | 0.0 | 0.0 |
| 52° | 1.9 | 0.0 | 0.0 |
| 53° | 1.9 | 0.0 | 0.0 |
| 54° | 1.9 | 0.0 | 0.0 |
| 55° | 1.9 | 0.0 | 0.0 |
| 57.5° | 1.9 | 0.0 | 0.0 |
| 60° | 1.9 | 0.0 | 0.0 |
| 61° | 1.9 | 0.0 | 0.0 |
| 62° | 1.9 | 0.0 | 0.0 |
| 63° | 1.9 | 1.0 | 0.0 |
| 64° | 1.9 | 1.0 | 0.0 |
| 65° | 1.9 | 1.0 | 0.0 |
| 66° | 1.9 | 1.0 | 0.0 |



TEST NUMBER: P175464

CATALOG NUMBER: LDA6A30830D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

| | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 72.5° | 2.9 | 1.0 | 0.0 |
| 75° | 2.9 | 1.0 | 0.0 |
| 77.5° | 2.9 | 1.0 | 0.0 |
| 80° | 2.9 | 1.0 | 0.0 |
| 82.5° | 2.9 | 1.0 | 0.0 |
| 85° | 2.9 | 1.0 | 0.0 |
| 87.5° | 2.9 | 1.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 |



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







| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 67.5° | 3.8 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 1.9 | 1.9 | 2.9 | 2.9 |
| 70° | 2.9 | 2.9 | 2.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |





| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 67.5° | 2.9 | 2.9 | 2.9 | 2.9 | 1.0 | 0.0 | 0.0 | 2.9 | 3.8 | 2.9 | 3.8 |
| 70° | 1.9 | 1.9 | 1.9 | 1.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 2.9 | 3.8 |





| | | | |
|-------|-----|-----|-----|
| 67.5° | 2.9 | 1.0 | 0.0 |
| 70° | 2.9 | 1.0 | 0.0 |



(END OF REPORT)