

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: LUMARK

Report Number: P146354

Luminaire Tested: **LDRL-T2-F04-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146354
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33694)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-T2-F04-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9043.6 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

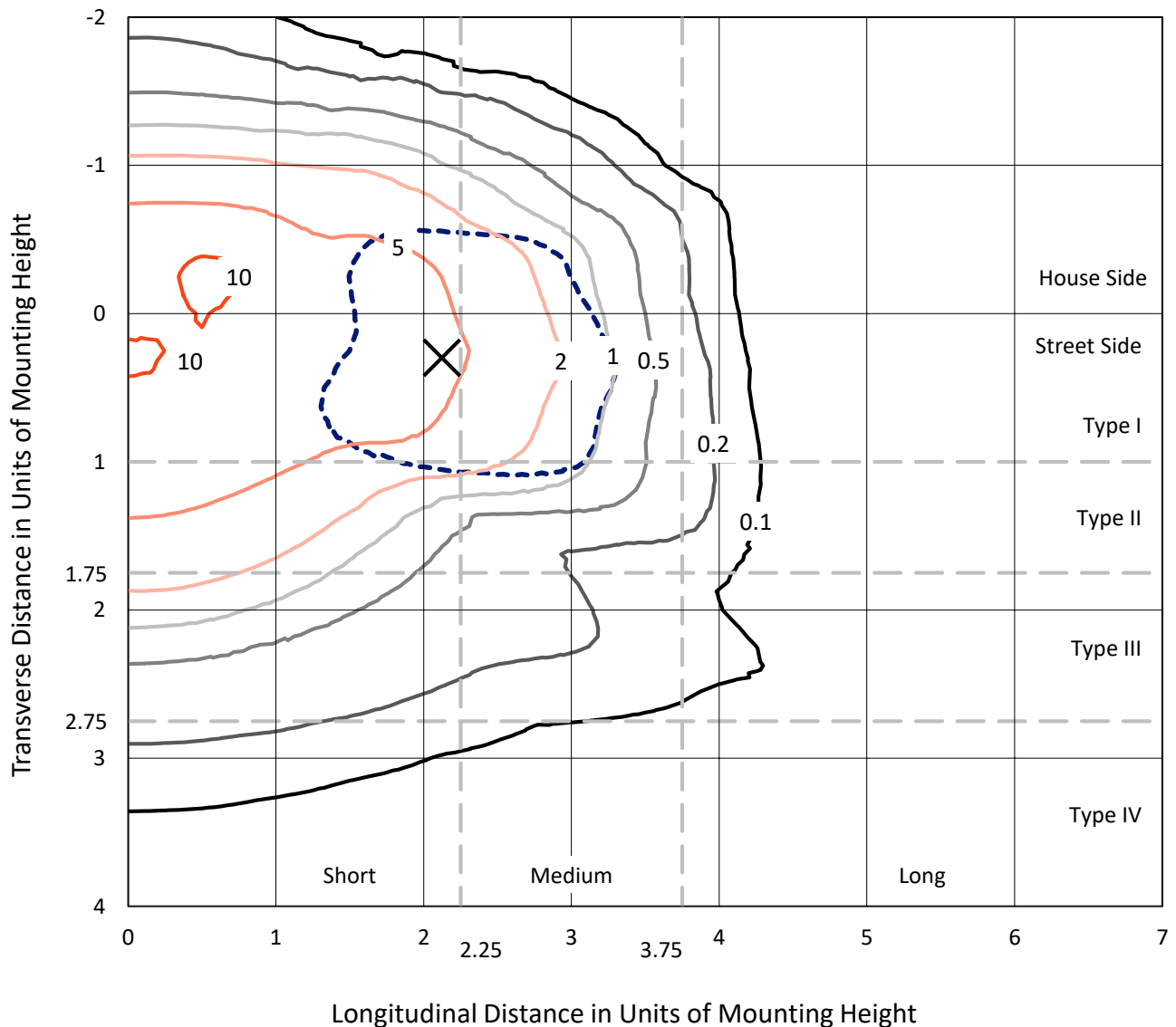
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

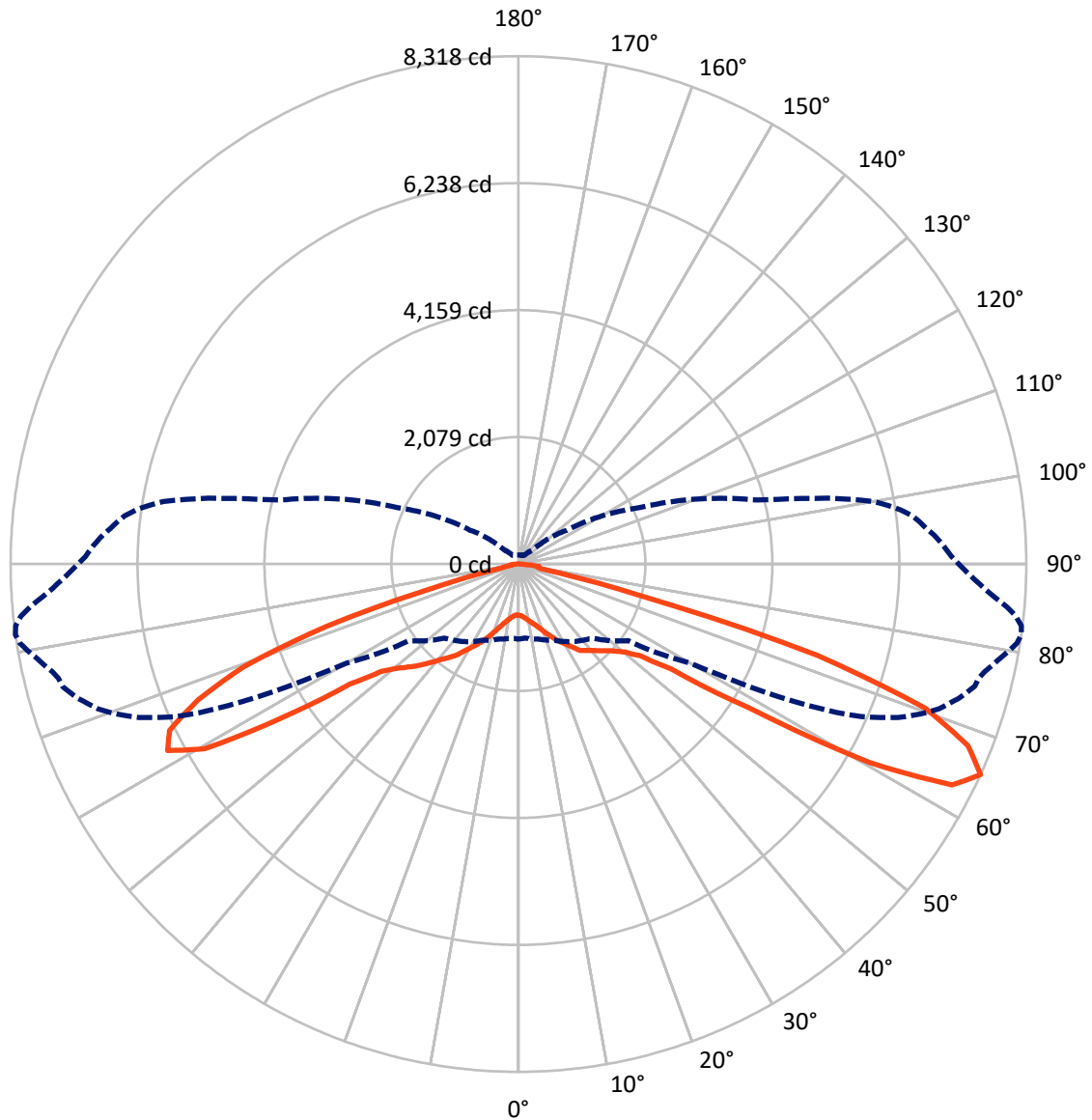
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3329.0 | 0.0 | 3329.0 |
| | % Fixture | 36.8 | 0.0 | 36.8 |
| Street Side | Lumens | 5714.6 | 0.0 | 5714.6 |
| | % Fixture | 63.2 | 0.0 | 63.2 |
| Total | Lumens | 9043.6 | 0.0 | 9043.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 85.0 | 0.9 |
| 10°-20° | 299.5 | 3.3 |
| 20°-30° | 594.0 | 6.6 |
| 30°-40° | 1013.6 | 11.2 |
| 40°-50° | 1519.9 | 16.8 |
| 50°-60° | 2115.6 | 23.4 |
| 60°-70° | 2430.5 | 26.9 |
| 70°-80° | 838.7 | 9.3 |
| 80°-90° | 146.7 | 1.6 |
| 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°-90° | 9043.6 | 100.0 |
| 0°-180° | 9043.6 | 100.0 |



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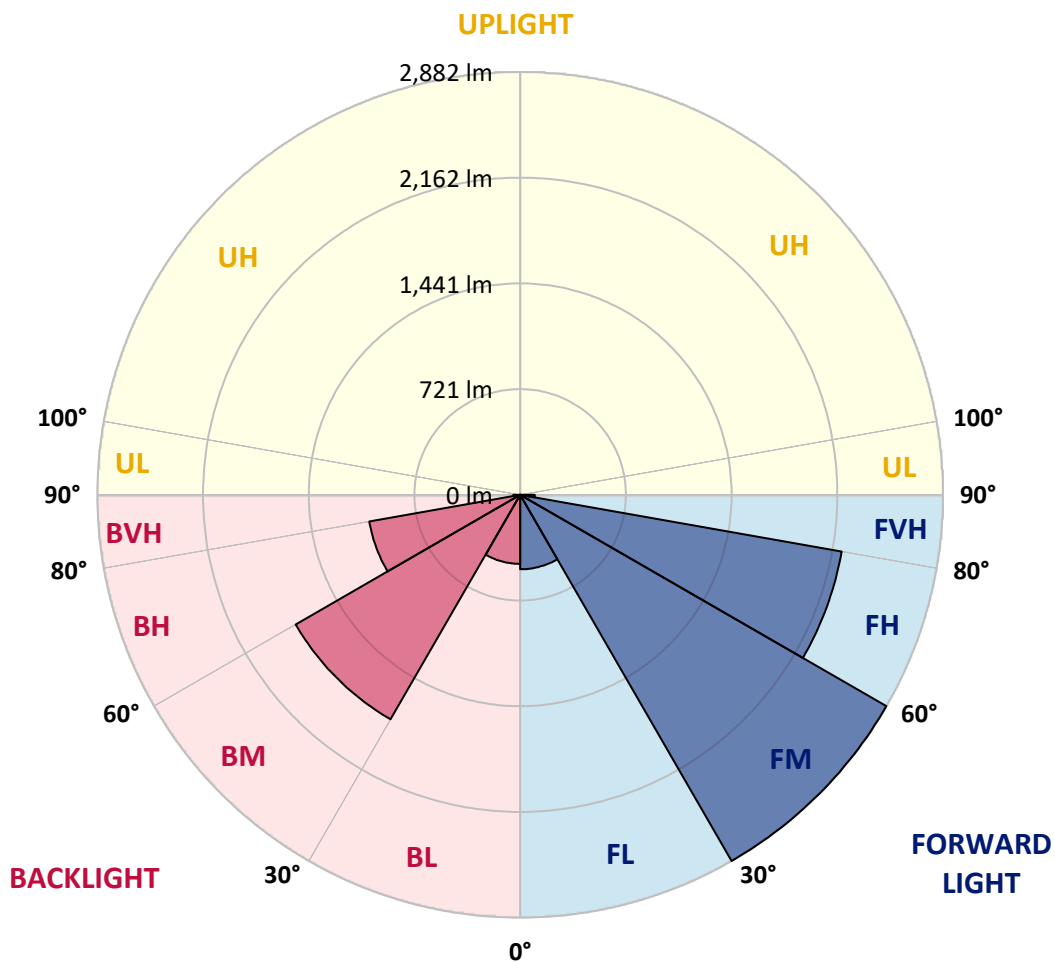
CATALOG NUMBER: LDRL-T2-F04-E-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 507.6 | 5.6 | | | |
| FM | (30°-60°) | 2882.3 | 31.9 | | | |
| FH | (60°-80°) | 2225.0 | 24.6 | | | G2/5000 |
| FVH | (80°-90°) | 99.6 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 470.9 | 5.2 | B1/500 | | |
| BM | (30°-60°) | 1766.8 | 19.5 | B2/2500 | | |
| BH | (60°-80°) | 1044.3 | 11.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 47.1 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 61° | 62° | 64° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 884.3 | 883.7 | 883.1 | 880.7 | 879.5 | 874.6 | 869.8 | 866.8 | 864.4 | 865.6 | 862.0 |
| 5° | 935.6 | 935.6 | 933.1 | 930.1 | 926.5 | 919.9 | 907.8 | 901.8 | 900.6 | 900.6 | 896.3 |
| 7.5° | 988.0 | 991.7 | 985.0 | 982.6 | 976.6 | 966.3 | 952.4 | 944.6 | 942.2 | 942.2 | 938.6 |
| 10° | 1054.4 | 1052.6 | 1045.3 | 1040.5 | 1028.4 | 1014.6 | 995.9 | 986.8 | 983.2 | 986.2 | 980.2 |
| 12.5° | 1124.4 | 1123.8 | 1112.9 | 1103.8 | 1087.0 | 1064.6 | 1039.9 | 1027.8 | 1025.4 | 1025.4 | 1021.8 |
| 15° | 1195.5 | 1196.1 | 1184.1 | 1167.2 | 1140.6 | 1110.5 | 1082.7 | 1071.3 | 1068.3 | 1067.1 | 1062.8 |
| 17.5° | 1249.8 | 1255.9 | 1243.8 | 1222.1 | 1189.5 | 1156.3 | 1126.8 | 1115.3 | 1114.7 | 1113.5 | 1108.7 |
| 20° | 1280.6 | 1281.8 | 1275.2 | 1259.5 | 1230.5 | 1198.5 | 1178.0 | 1172.6 | 1172.0 | 1172.6 | 1173.8 |
| 22.5° | 1279.4 | 1281.2 | 1278.8 | 1272.7 | 1254.0 | 1236.5 | 1234.1 | 1237.2 | 1239.0 | 1237.2 | 1241.4 |
| 25° | 1269.7 | 1272.1 | 1272.1 | 1275.2 | 1270.3 | 1276.4 | 1295.7 | 1304.1 | 1304.7 | 1305.9 | 1315.0 |
| 27.5° | 1290.8 | 1293.2 | 1292.6 | 1298.1 | 1302.3 | 1323.4 | 1358.4 | 1373.5 | 1375.3 | 1379.5 | 1388.0 |
| 30° | 1388.6 | 1389.2 | 1378.3 | 1377.7 | 1381.9 | 1398.8 | 1434.4 | 1451.9 | 1450.1 | 1458.5 | 1464.0 |
| 32.5° | 1543.0 | 1547.8 | 1536.9 | 1525.5 | 1523.7 | 1526.1 | 1532.7 | 1544.8 | 1543.0 | 1547.2 | 1554.4 |
| 35° | 1719.1 | 1719.7 | 1713.7 | 1720.3 | 1723.9 | 1707.6 | 1676.3 | 1673.3 | 1663.6 | 1665.4 | 1667.8 |
| 37.5° | 1880.8 | 1885.0 | 1896.4 | 1938.7 | 1962.8 | 1923.0 | 1861.5 | 1822.9 | 1816.8 | 1813.8 | 1792.7 |
| 40° | 2032.2 | 2053.3 | 2081.0 | 2135.9 | 2169.1 | 2183.6 | 2096.1 | 2018.3 | 1997.2 | 1988.7 | 1955.6 |
| 42.5° | 2209.5 | 2220.4 | 2252.9 | 2315.7 | 2359.7 | 2425.4 | 2366.9 | 2281.3 | 2256.6 | 2220.4 | 2178.7 |
| 45° | 2359.7 | 2366.9 | 2387.4 | 2440.5 | 2532.8 | 2642.6 | 2649.2 | 2589.5 | 2570.2 | 2534.0 | 2473.1 |
| 47.5° | 2460.4 | 2459.8 | 2474.9 | 2526.8 | 2646.8 | 2814.5 | 2914.0 | 2911.6 | 2889.3 | 2876.6 | 2824.8 |
| 50° | 2499.6 | 2499.0 | 2508.7 | 2566.6 | 2697.5 | 2917.0 | 3136.6 | 3212.0 | 3211.4 | 3216.2 | 3189.7 |
| 52.5° | 2506.9 | 2506.3 | 2507.5 | 2553.9 | 2687.2 | 2952.6 | 3297.1 | 3475.0 | 3500.9 | 3533.5 | 3563.1 |
| 55° | 2452.6 | 2458.6 | 2471.9 | 2520.8 | 2648.6 | 2938.2 | 3415.9 | 3721.7 | 3783.8 | 3850.2 | 3957.6 |
| 57.5° | 2327.1 | 2338.6 | 2384.4 | 2471.9 | 2607.6 | 2902.6 | 3498.5 | 4026.9 | 4153.0 | 4313.4 | 4604.2 |
| 60° | 2147.4 | 2157.6 | 2221.0 | 2336.8 | 2488.2 | 2747.6 | 3402.6 | 4154.8 | 4394.3 | 4672.9 | 5268.9 |
| 62.5° | 1829.5 | 1858.4 | 1892.2 | 1974.3 | 2132.9 | 2341.6 | 2971.9 | 3938.9 | 4309.8 | 4718.8 | 5539.1 |
| 65° | 1228.7 | 1216.6 | 1272.7 | 1377.1 | 1551.4 | 1713.7 | 2189.6 | 3248.8 | 3718.1 | 4280.9 | 5296.1 |
| 67.5° | 760.6 | 762.4 | 800.4 | 902.4 | 1033.9 | 1159.9 | 1388.0 | 2070.8 | 2487.0 | 3022.0 | 4242.9 |
| 70° | 628.5 | 635.8 | 666.5 | 761.2 | 873.4 | 1015.8 | 1030.3 | 1097.8 | 1284.2 | 1543.0 | 2620.9 |
| 72.5° | 498.8 | 501.9 | 533.2 | 612.2 | 770.9 | 966.3 | 1223.3 | 834.2 | 819.7 | 858.9 | 1329.4 |
| 75° | 309.4 | 311.9 | 327.5 | 378.2 | 500.0 | 752.8 | 1346.9 | 959.1 | 898.8 | 848.1 | 856.5 |
| 77.5° | 159.8 | 164.7 | 173.1 | 196.0 | 262.4 | 420.4 | 1060.4 | 1216.0 | 1147.3 | 1078.5 | 944.0 |
| 80° | 90.5 | 90.5 | 98.3 | 103.7 | 124.3 | 171.3 | 539.3 | 1316.2 | 1438.0 | 1467.6 | 1318.0 |
| 82.5° | 40.4 | 45.2 | 60.9 | 65.1 | 71.2 | 78.4 | 178.5 | 790.8 | 1097.2 | 1370.5 | 1693.8 |
| 85° | 24.1 | 23.5 | 38.6 | 42.2 | 44.0 | 37.4 | 67.0 | 322.7 | 512.7 | 750.4 | 1122.5 |
| 87.5° | 9.7 | 10.3 | 16.3 | 17.5 | 20.5 | 15.1 | 25.3 | 69.4 | 101.9 | 147.8 | 208.7 |
| 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):

| | 65° | 66° | 67° | 68° | 69° | 70° | 71° | 72° | 73° | 74° | 75° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 861.4 | 861.4 | 860.8 | 860.2 | 859.6 | 857.7 | 857.1 | 855.9 | 855.3 | 853.5 | 852.9 |
| 5° | 895.7 | 893.9 | 893.3 | 892.1 | 891.5 | 889.1 | 889.1 | 886.7 | 884.9 | 882.5 | 881.9 |
| 7.5° | 936.8 | 934.3 | 932.5 | 931.3 | 930.7 | 926.5 | 926.5 | 922.9 | 922.3 | 919.3 | 918.1 |
| 10° | 978.4 | 976.6 | 974.2 | 973.0 | 972.3 | 969.9 | 967.5 | 965.1 | 963.3 | 961.5 | 959.1 |
| 12.5° | 1020.0 | 1016.4 | 1015.2 | 1013.4 | 1012.2 | 1010.4 | 1009.7 | 1004.3 | 1004.3 | 1002.5 | 1000.1 |
| 15° | 1060.4 | 1059.8 | 1055.6 | 1055.0 | 1053.8 | 1054.4 | 1050.8 | 1051.4 | 1049.6 | 1046.5 | 1045.3 |
| 17.5° | 1109.9 | 1105.7 | 1107.5 | 1104.4 | 1105.1 | 1103.8 | 1102.6 | 1102.0 | 1103.2 | 1102.6 | 1103.8 |
| 20° | 1171.4 | 1170.2 | 1172.0 | 1167.8 | 1172.0 | 1172.6 | 1171.4 | 1174.4 | 1173.2 | 1174.4 | 1170.8 |
| 22.5° | 1244.4 | 1240.2 | 1240.2 | 1243.2 | 1245.0 | 1250.4 | 1247.4 | 1249.8 | 1252.2 | 1254.0 | 1251.6 |
| 25° | 1318.0 | 1316.8 | 1319.2 | 1321.6 | 1325.2 | 1330.0 | 1328.8 | 1329.4 | 1334.3 | 1337.3 | 1337.9 |
| 27.5° | 1392.8 | 1392.8 | 1400.0 | 1400.0 | 1404.8 | 1410.3 | 1412.1 | 1414.5 | 1418.1 | 1422.3 | 1422.3 |
| 30° | 1470.0 | 1470.0 | 1476.6 | 1482.7 | 1485.1 | 1491.7 | 1495.3 | 1498.9 | 1505.6 | 1506.8 | 1512.2 |
| 32.5° | 1558.1 | 1559.9 | 1566.5 | 1570.1 | 1575.5 | 1583.4 | 1584.6 | 1588.8 | 1596.7 | 1599.1 | 1603.3 |
| 35° | 1672.7 | 1666.6 | 1672.7 | 1679.3 | 1682.3 | 1679.9 | 1693.2 | 1698.6 | 1704.0 | 1707.0 | 1712.5 |
| 37.5° | 1790.9 | 1780.6 | 1781.2 | 1780.0 | 1772.8 | 1777.0 | 1777.0 | 1775.8 | 1779.4 | 1778.8 | 1781.2 |
| 40° | 1940.5 | 1922.4 | 1917.0 | 1905.5 | 1889.8 | 1881.4 | 1872.3 | 1871.1 | 1862.1 | 1865.7 | 1859.0 |
| 42.5° | 2145.6 | 2118.4 | 2103.9 | 2068.4 | 2049.1 | 2026.1 | 2003.8 | 1984.5 | 1974.3 | 1962.8 | 1954.4 |
| 45° | 2427.3 | 2395.3 | 2360.3 | 2303.0 | 2269.8 | 2224.0 | 2194.4 | 2150.4 | 2120.8 | 2096.1 | 2078.6 |
| 47.5° | 2780.7 | 2727.0 | 2698.7 | 2645.0 | 2587.1 | 2517.7 | 2454.4 | 2392.9 | 2342.8 | 2288.5 | 2245.7 |
| 50° | 3191.5 | 3124.5 | 3102.2 | 3031.1 | 2998.5 | 2920.7 | 2853.1 | 2777.1 | 2698.7 | 2616.7 | 2538.2 |
| 52.5° | 3555.2 | 3547.4 | 3556.4 | 3508.8 | 3507.6 | 3468.4 | 3393.6 | 3304.9 | 3231.9 | 3149.3 | 3046.1 |
| 55° | 3991.3 | 4069.2 | 4086.0 | 4079.4 | 4115.0 | 4113.8 | 4106.6 | 4097.5 | 4039.6 | 3922.6 | 3887.0 |
| 57.5° | 4761.0 | 4848.5 | 4977.6 | 5036.1 | 5165.2 | 5180.2 | 5299.7 | 5253.2 | 5341.9 | 5317.8 | 5334.1 |
| 60° | 5544.6 | 5813.0 | 6057.9 | 6244.3 | 6425.2 | 6589.9 | 6791.4 | 6877.6 | 6942.2 | 7042.9 | 7149.1 |
| 62.5° | 5895.0 | 6233.4 | 6525.4 | 6790.8 | 7015.8 | 7224.5 | 7397.6 | 7561.6 | 7690.7 | 7806.5 | 7895.8 |
| 65° | 5753.3 | 6146.0 | 6430.7 | 6707.5 | 6917.4 | 7111.7 | 7283.6 | 7406.6 | 7535.1 | 7640.1 | 7734.8 |
| 67.5° | 4790.0 | 5312.9 | 5684.5 | 5998.8 | 6262.4 | 6483.7 | 6662.3 | 6831.8 | 6922.9 | 7037.5 | 7088.7 |
| 70° | 3172.8 | 3843.6 | 4368.9 | 4793.6 | 5211.6 | 5462.5 | 5674.3 | 5871.5 | 5975.2 | 6068.1 | 6125.4 |
| 72.5° | 1742.6 | 2201.1 | 2762.0 | 3266.9 | 3668.6 | 3998.0 | 4244.7 | 4431.7 | 4538.4 | 4618.1 | 4535.4 |
| 75° | 987.4 | 1213.6 | 1488.1 | 1767.4 | 2072.0 | 2304.2 | 2369.3 | 2449.0 | 2467.7 | 2426.7 | 2320.5 |
| 77.5° | 907.8 | 907.8 | 908.4 | 901.8 | 915.0 | 931.3 | 921.7 | 905.4 | 831.8 | 815.5 | 792.6 |
| 80° | 1180.5 | 1052.0 | 914.4 | 751.0 | 612.2 | 516.3 | 486.8 | 489.2 | 512.7 | 558.6 | 609.2 |
| 82.5° | 1673.3 | 1546.6 | 1348.1 | 1099.0 | 874.6 | 686.4 | 562.8 | 506.1 | 505.5 | 551.3 | 617.1 |
| 85° | 1220.3 | 1230.5 | 1186.5 | 1049.6 | 837.2 | 659.3 | 532.6 | 409.0 | 369.2 | 369.2 | 364.3 |
| 87.5° | 213.5 | 220.2 | 190.0 | 170.1 | 118.8 | 83.8 | 75.4 | 66.4 | 65.7 | 68.2 | 62.7 |
| 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):

| | 76° | 77° | 78° | 79° | 80° | 81° | 82° | 83° | 84° | 85° | 86° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 852.9 | 851.7 | 850.5 | 849.9 | 849.9 | 848.7 | 848.7 | 847.5 | 848.1 | 847.5 | 845.7 |
| 5° | 880.7 | 880.1 | 878.3 | 875.2 | 874.6 | 872.2 | 872.8 | 870.4 | 870.4 | 869.2 | 866.2 |
| 7.5° | 915.6 | 914.4 | 913.2 | 910.8 | 908.4 | 908.4 | 904.2 | 904.2 | 901.2 | 900.0 | 897.6 |
| 10° | 957.3 | 953.7 | 951.8 | 949.4 | 948.8 | 948.2 | 944.0 | 944.0 | 940.4 | 939.8 | 938.0 |
| 12.5° | 998.3 | 995.9 | 994.1 | 992.9 | 989.8 | 989.2 | 987.4 | 985.6 | 983.8 | 982.6 | 982.0 |
| 15° | 1042.9 | 1041.7 | 1039.9 | 1039.9 | 1039.9 | 1036.9 | 1035.1 | 1033.9 | 1033.9 | 1032.1 | 1033.3 |
| 17.5° | 1100.8 | 1102.6 | 1100.2 | 1099.0 | 1097.2 | 1100.2 | 1097.2 | 1097.2 | 1099.0 | 1099.0 | 1094.8 |
| 20° | 1172.6 | 1175.0 | 1172.6 | 1173.2 | 1172.0 | 1172.6 | 1173.2 | 1174.4 | 1176.8 | 1172.6 | 1173.2 |
| 22.5° | 1252.2 | 1252.8 | 1254.6 | 1252.8 | 1255.9 | 1254.0 | 1257.7 | 1260.7 | 1260.1 | 1258.9 | 1259.5 |
| 25° | 1339.1 | 1337.3 | 1337.9 | 1343.3 | 1347.5 | 1346.3 | 1346.9 | 1351.8 | 1350.6 | 1349.3 | 1349.9 |
| 27.5° | 1427.2 | 1426.0 | 1427.8 | 1432.6 | 1437.4 | 1436.8 | 1435.6 | 1439.2 | 1439.2 | 1436.2 | 1437.4 |
| 30° | 1514.6 | 1516.4 | 1519.4 | 1519.4 | 1521.9 | 1524.3 | 1522.5 | 1526.7 | 1527.3 | 1524.9 | 1527.9 |
| 32.5° | 1606.9 | 1610.5 | 1609.3 | 1617.8 | 1617.8 | 1618.4 | 1620.2 | 1619.6 | 1625.6 | 1620.8 | 1622.6 |
| 35° | 1717.9 | 1719.1 | 1726.3 | 1732.4 | 1736.0 | 1739.0 | 1739.0 | 1740.8 | 1743.8 | 1741.4 | 1745.0 |
| 37.5° | 1785.5 | 1787.9 | 1790.3 | 1793.9 | 1793.9 | 1793.9 | 1796.9 | 1797.5 | 1799.3 | 1798.7 | 1799.9 |
| 40° | 1859.6 | 1860.3 | 1860.9 | 1861.5 | 1863.9 | 1865.1 | 1862.1 | 1866.3 | 1863.3 | 1864.5 | 1866.3 |
| 42.5° | 1949.5 | 1941.1 | 1942.3 | 1940.5 | 1944.7 | 1939.3 | 1940.5 | 1945.3 | 1942.9 | 1946.5 | 1946.5 |
| 45° | 2053.9 | 2044.2 | 2035.8 | 2031.0 | 2031.0 | 2023.7 | 2024.9 | 2026.7 | 2029.8 | 2034.6 | 2043.0 |
| 47.5° | 2208.3 | 2175.1 | 2158.8 | 2141.9 | 2133.5 | 2124.5 | 2127.5 | 2128.1 | 2129.3 | 2137.1 | 2158.2 |
| 50° | 2461.0 | 2405.5 | 2362.7 | 2311.4 | 2292.1 | 2276.5 | 2267.4 | 2268.0 | 2268.0 | 2284.3 | 2305.4 |
| 52.5° | 2949.6 | 2846.5 | 2744.5 | 2655.3 | 2578.7 | 2541.9 | 2499.0 | 2488.2 | 2488.8 | 2502.7 | 2517.1 |
| 55° | 3793.5 | 3651.7 | 3543.8 | 3345.3 | 3285.0 | 3115.5 | 3026.2 | 2975.0 | 2935.1 | 2954.4 | 2975.6 |
| 57.5° | 5307.5 | 5176.6 | 5091.0 | 4853.9 | 4638.0 | 4576.4 | 4429.9 | 4311.0 | 4262.2 | 4205.5 | 4209.1 |
| 60° | 7164.7 | 7097.2 | 7075.5 | 6936.7 | 6858.9 | 6617.0 | 6597.7 | 6447.5 | 6305.8 | 6183.3 | 6233.4 |
| 62.5° | 7964.6 | 7995.9 | 8021.3 | 8070.1 | 8088.8 | 8065.9 | 7968.8 | 7902.5 | 7786.0 | 7625.6 | 7527.3 |
| 65° | 7762.5 | 7834.3 | 7942.3 | 8044.2 | 8166.1 | 8267.4 | 8317.5 | 8298.2 | 8193.2 | 8027.9 | 7821.6 |
| 67.5° | 7125.5 | 7198.5 | 7291.4 | 7420.5 | 7606.9 | 7804.1 | 7941.7 | 8029.1 | 7945.9 | 7796.9 | 7587.0 |
| 70° | 6122.4 | 6193.6 | 6196.6 | 6377.0 | 6577.8 | 6826.4 | 7070.0 | 7161.7 | 7067.0 | 6967.5 | 6792.0 |
| 72.5° | 4585.5 | 4542.7 | 4582.5 | 4615.6 | 4730.3 | 4887.1 | 5123.5 | 5113.3 | 4968.5 | 4891.3 | 4621.7 |
| 75° | 2155.2 | 2126.3 | 2084.0 | 2056.3 | 2029.8 | 1974.3 | 2000.8 | 1887.4 | 1848.2 | 1863.9 | 1631.0 |
| 77.5° | 775.1 | 735.3 | 671.4 | 609.2 | 530.8 | 439.7 | 371.0 | 325.7 | 303.4 | 304.0 | 290.1 |
| 80° | 650.2 | 669.5 | 660.5 | 599.0 | 510.9 | 415.6 | 311.2 | 235.8 | 201.5 | 187.0 | 177.9 |
| 82.5° | 705.1 | 802.2 | 850.5 | 812.5 | 686.4 | 528.4 | 340.2 | 205.7 | 150.8 | 129.1 | 123.7 |
| 85° | 390.9 | 391.5 | 379.4 | 362.5 | 321.5 | 220.8 | 147.2 | 97.7 | 78.4 | 70.0 | 67.6 |
| 87.5° | 66.4 | 63.3 | 63.3 | 59.1 | 51.9 | 50.7 | 45.2 | 42.8 | 38.0 | 35.0 | 33.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P146354

CATALOG NUMBER: LDRL-T2-F04-E-7030

CANDELA DISTRIBUTION (continued):

| | 87° | 88° | 89° | 90° | 91° | 92° | 93° | 94° | 95° | 96° | 97° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 843.9 | 842.7 | 842.1 | 841.5 | 841.5 | 840.9 | 840.9 | 839.6 | 838.4 | 837.8 | 837.2 |
| 5° | 863.2 | 862.0 | 860.8 | 859.6 | 859.6 | 858.3 | 857.1 | 855.9 | 854.1 | 851.1 | 850.5 |
| 7.5° | 895.7 | 893.3 | 893.3 | 889.1 | 889.1 | 886.7 | 884.9 | 884.9 | 882.5 | 877.6 | 877.0 |
| 10° | 936.2 | 931.9 | 930.1 | 927.7 | 926.5 | 924.1 | 924.1 | 921.7 | 920.5 | 918.7 | 912.6 |
| 12.5° | 979.6 | 976.6 | 975.4 | 972.3 | 970.5 | 970.5 | 969.3 | 965.1 | 968.1 | 963.9 | 960.9 |
| 15° | 1032.1 | 1031.5 | 1026.0 | 1027.8 | 1027.2 | 1026.6 | 1027.2 | 1023.6 | 1023.0 | 1023.0 | 1019.4 |
| 17.5° | 1097.8 | 1093.0 | 1093.6 | 1093.6 | 1094.8 | 1094.8 | 1090.0 | 1092.4 | 1093.0 | 1091.8 | 1090.6 |
| 20° | 1175.0 | 1173.2 | 1175.0 | 1171.4 | 1175.0 | 1175.0 | 1177.4 | 1176.8 | 1177.4 | 1178.6 | 1178.6 |
| 22.5° | 1257.7 | 1262.5 | 1263.1 | 1264.3 | 1260.1 | 1267.3 | 1267.3 | 1268.5 | 1271.5 | 1271.5 | 1272.7 |
| 25° | 1357.8 | 1355.4 | 1352.4 | 1356.6 | 1357.8 | 1362.6 | 1363.8 | 1363.8 | 1368.6 | 1368.6 | 1370.5 |
| 27.5° | 1441.0 | 1443.4 | 1442.8 | 1445.3 | 1444.0 | 1450.7 | 1453.1 | 1460.3 | 1458.5 | 1462.1 | 1467.0 |
| 30° | 1526.7 | 1531.5 | 1529.1 | 1529.7 | 1532.7 | 1536.9 | 1541.8 | 1549.0 | 1550.2 | 1559.9 | 1562.3 |
| 32.5° | 1625.6 | 1629.2 | 1632.2 | 1633.5 | 1633.5 | 1640.7 | 1648.5 | 1650.9 | 1663.6 | 1670.8 | 1679.3 |
| 35° | 1751.1 | 1751.7 | 1753.5 | 1755.3 | 1754.1 | 1761.9 | 1769.8 | 1772.2 | 1785.5 | 1787.3 | 1804.8 |
| 37.5° | 1804.2 | 1805.4 | 1812.6 | 1816.2 | 1818.6 | 1828.3 | 1842.8 | 1853.6 | 1868.1 | 1882.0 | 1901.9 |
| 40° | 1870.5 | 1877.7 | 1884.4 | 1889.8 | 1898.9 | 1912.1 | 1934.4 | 1945.3 | 1967.0 | 1993.0 | 2012.3 |
| 42.5° | 1954.4 | 1967.6 | 1972.4 | 1982.7 | 2005.0 | 2021.3 | 2043.6 | 2067.1 | 2096.1 | 2127.5 | 2150.4 |
| 45° | 2053.9 | 2066.5 | 2084.6 | 2096.1 | 2122.0 | 2148.0 | 2183.6 | 2204.1 | 2233.6 | 2269.8 | 2295.2 |
| 47.5° | 2174.5 | 2192.0 | 2210.1 | 2233.6 | 2264.4 | 2291.5 | 2327.1 | 2353.7 | 2383.2 | 2412.8 | 2440.5 |
| 50° | 2324.7 | 2350.7 | 2374.8 | 2399.5 | 2440.5 | 2463.4 | 2498.4 | 2526.2 | 2553.9 | 2583.5 | 2608.8 |
| 52.5° | 2526.8 | 2566.0 | 2596.8 | 2613.6 | 2669.1 | 2692.1 | 2734.9 | 2754.2 | 2777.1 | 2803.6 | 2836.2 |
| 55° | 2967.7 | 3028.6 | 3080.5 | 3110.7 | 3195.1 | 3225.3 | 3280.8 | 3309.1 | 3293.4 | 3327.2 | 3385.7 |
| 57.5° | 4242.9 | 4317.7 | 4379.8 | 4420.8 | 4507.1 | 4549.3 | 4552.3 | 4658.5 | 4595.7 | 4657.9 | 4666.9 |
| 60° | 6100.1 | 6159.2 | 6144.1 | 6144.7 | 6117.6 | 6078.4 | 6153.8 | 6039.2 | 6087.4 | 6090.5 | 5982.5 |
| 62.5° | 7345.7 | 7255.2 | 7213.0 | 7143.0 | 7061.6 | 6998.9 | 6956.0 | 6863.8 | 6790.2 | 6731.7 | 6617.6 |
| 65° | 7638.9 | 7482.0 | 7343.3 | 7212.4 | 7092.4 | 7009.1 | 6918.6 | 6819.7 | 6704.5 | 6607.4 | 6496.4 |
| 67.5° | 7355.4 | 7135.8 | 6930.1 | 6757.6 | 6593.5 | 6483.7 | 6352.8 | 6258.7 | 6114.0 | 5986.1 | 5901.7 |
| 70° | 6533.2 | 6229.2 | 5989.1 | 5878.7 | 5715.9 | 5480.0 | 5355.2 | 5237.5 | 5148.9 | 5033.1 | 4981.8 |
| 72.5° | 4583.1 | 4207.9 | 4022.7 | 4029.9 | 3864.7 | 3695.8 | 3700.0 | 3628.2 | 3513.6 | 3510.0 | 3492.5 |
| 75° | 1684.1 | 1532.1 | 1425.3 | 1430.2 | 1368.6 | 1302.9 | 1321.0 | 1340.3 | 1302.9 | 1378.9 | 1261.3 |
| 77.5° | 267.8 | 260.6 | 258.2 | 252.7 | 239.5 | 249.1 | 242.5 | 255.2 | 257.0 | 270.8 | 272.0 |
| 80° | 170.7 | 163.5 | 161.7 | 158.6 | 158.0 | 158.0 | 156.8 | 156.8 | 156.8 | 157.4 | 156.2 |
| 82.5° | 114.0 | 109.8 | 109.2 | 107.4 | 110.4 | 111.0 | 111.6 | 116.4 | 120.6 | 121.8 | 126.7 |
| 85° | 62.1 | 59.1 | 59.1 | 57.9 | 60.3 | 60.9 | 66.4 | 73.0 | 81.4 | 85.1 | 92.9 |
| 87.5° | 31.4 | 33.2 | 32.6 | 33.8 | 35.6 | 39.8 | 44.0 | 48.3 | 53.1 | 59.7 | 65.1 |
| 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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CATALOG NUMBER: LDRL-T2-F04-E-7030

CANDELA DISTRIBUTION (continued):

| | 98° | 99° | 100° | 101° | 102° | 103° | 104° | 105° | 115° | 125° | 135° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 836.0 | 835.4 | 835.4 | 834.2 | 834.2 | 833.6 | 832.4 | 831.2 | 825.8 | 819.1 | 814.9 |
| 5° | 848.7 | 847.5 | 846.9 | 845.7 | 843.9 | 843.9 | 842.1 | 839.6 | 829.4 | 818.5 | 811.9 |
| 7.5° | 874.6 | 874.0 | 872.2 | 869.8 | 867.4 | 865.0 | 863.8 | 862.6 | 846.9 | 836.6 | 831.8 |
| 10° | 912.0 | 911.4 | 907.2 | 906.6 | 903.0 | 903.6 | 900.6 | 898.2 | 887.9 | 876.4 | 869.8 |
| 12.5° | 959.7 | 962.1 | 959.7 | 954.3 | 955.5 | 953.7 | 950.6 | 947.6 | 938.6 | 929.5 | 919.3 |
| 15° | 1018.8 | 1015.8 | 1013.4 | 1018.2 | 1014.0 | 1013.4 | 1015.2 | 1015.8 | 1004.9 | 995.3 | 980.8 |
| 17.5° | 1092.4 | 1092.4 | 1091.2 | 1092.4 | 1090.0 | 1091.8 | 1090.6 | 1091.8 | 1087.0 | 1073.7 | 1052.6 |
| 20° | 1176.2 | 1181.1 | 1181.1 | 1179.2 | 1178.6 | 1182.3 | 1184.1 | 1177.4 | 1178.6 | 1167.2 | 1129.2 |
| 22.5° | 1273.9 | 1277.6 | 1278.8 | 1277.0 | 1277.6 | 1282.4 | 1285.4 | 1280.6 | 1291.4 | 1272.7 | 1214.2 |
| 25° | 1374.7 | 1380.1 | 1377.7 | 1378.3 | 1383.1 | 1388.6 | 1394.0 | 1389.2 | 1410.3 | 1381.3 | 1304.7 |
| 27.5° | 1474.2 | 1479.0 | 1477.8 | 1481.4 | 1489.3 | 1496.5 | 1502.6 | 1500.7 | 1535.7 | 1497.7 | 1400.0 |
| 30° | 1568.3 | 1579.8 | 1582.2 | 1586.4 | 1596.1 | 1608.1 | 1617.8 | 1617.2 | 1662.4 | 1611.1 | 1477.8 |
| 32.5° | 1684.1 | 1696.8 | 1701.6 | 1710.7 | 1729.4 | 1737.8 | 1749.9 | 1751.1 | 1796.3 | 1710.7 | 1543.6 |
| 35° | 1818.0 | 1830.7 | 1841.0 | 1847.6 | 1868.7 | 1879.0 | 1891.0 | 1896.4 | 1926.6 | 1803.6 | 1589.4 |
| 37.5° | 1921.8 | 1932.6 | 1952.5 | 1966.4 | 1985.1 | 2005.6 | 2019.5 | 2026.1 | 2043.0 | 1883.2 | 1610.5 |
| 40° | 2035.2 | 2058.7 | 2078.0 | 2099.1 | 2119.6 | 2135.9 | 2148.6 | 2158.8 | 2152.2 | 1949.5 | 1601.5 |
| 42.5° | 2178.7 | 2203.5 | 2229.4 | 2247.5 | 2258.4 | 2280.1 | 2286.1 | 2293.3 | 2239.1 | 1979.7 | 1560.5 |
| 45° | 2328.3 | 2348.2 | 2370.0 | 2383.2 | 2397.7 | 2408.6 | 2410.4 | 2411.0 | 2303.6 | 1962.2 | 1486.3 |
| 47.5° | 2472.5 | 2489.4 | 2504.5 | 2511.7 | 2518.9 | 2519.5 | 2516.5 | 2511.7 | 2338.0 | 1903.1 | 1397.0 |
| 50° | 2630.5 | 2640.8 | 2647.4 | 2648.0 | 2654.7 | 2642.0 | 2633.5 | 2611.2 | 2334.4 | 1812.6 | 1302.9 |
| 52.5° | 2857.9 | 2855.5 | 2847.1 | 2846.5 | 2825.4 | 2801.2 | 2785.6 | 2753.6 | 2309.6 | 1714.9 | 1194.3 |
| 55° | 3380.3 | 3357.4 | 3383.9 | 3316.4 | 3260.3 | 3222.9 | 3134.2 | 3069.7 | 2334.4 | 1623.8 | 1069.5 |
| 57.5° | 4635.6 | 4557.1 | 4565.6 | 4456.4 | 4337.0 | 4113.2 | 3981.1 | 3802.5 | 2528.6 | 1573.1 | 912.0 |
| 60° | 5959.6 | 5830.5 | 5708.6 | 5515.0 | 5261.1 | 4977.0 | 4721.2 | 4441.9 | 2721.6 | 1511.0 | 744.3 |
| 62.5° | 6506.1 | 6339.6 | 6127.9 | 5854.6 | 5528.3 | 5176.0 | 4822.5 | 4504.1 | 2615.5 | 1324.0 | 536.2 |
| 65° | 6329.9 | 6130.9 | 5905.3 | 5548.8 | 5178.4 | 4768.9 | 4381.6 | 4045.0 | 2178.1 | 968.1 | 323.9 |
| 67.5° | 5704.4 | 5533.1 | 5255.0 | 4918.5 | 4460.0 | 4049.2 | 3666.2 | 3355.0 | 1605.7 | 598.4 | 185.8 |
| 70° | 4803.2 | 4566.2 | 4328.5 | 4005.2 | 3522.1 | 3134.8 | 2778.3 | 2503.3 | 1018.8 | 295.6 | 136.9 |
| 72.5° | 3315.2 | 3127.6 | 2937.6 | 2648.0 | 2287.3 | 2020.7 | 1714.3 | 1488.1 | 533.2 | 159.2 | 126.1 |
| 75° | 1291.4 | 1270.9 | 1249.2 | 1117.7 | 995.3 | 797.4 | 700.3 | 631.5 | 222.0 | 138.1 | 124.3 |
| 77.5° | 283.5 | 300.4 | 310.0 | 293.8 | 279.9 | 249.7 | 238.9 | 213.5 | 148.4 | 141.8 | 123.1 |
| 80° | 156.2 | 156.2 | 156.2 | 158.0 | 155.0 | 155.0 | 153.2 | 150.2 | 138.7 | 141.8 | 120.6 |
| 82.5° | 127.9 | 129.7 | 132.1 | 132.7 | 132.1 | 132.7 | 131.5 | 130.9 | 135.7 | 142.4 | 114.6 |
| 85° | 97.7 | 103.7 | 107.4 | 112.2 | 117.0 | 120.0 | 121.2 | 121.8 | 124.9 | 135.1 | 100.1 |
| 87.5° | 69.4 | 74.2 | 82.0 | 83.2 | 88.7 | 95.3 | 97.7 | 101.3 | 99.5 | 102.5 | 47.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P146354

CATALOG NUMBER: LDRL-T2-F04-E-7030

CANDELA DISTRIBUTION (continued):

| | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|
| 0° | 837.8 | 837.8 | 837.8 | 837.8 | 837.8 |
| 2.5° | 811.3 | 806.5 | 804.7 | 804.1 | 802.9 |
| 5° | 806.5 | 803.5 | 801.0 | 799.2 | 800.4 |
| 7.5° | 828.2 | 826.4 | 822.2 | 820.9 | 822.8 |
| 10° | 866.8 | 862.6 | 856.5 | 857.1 | 856.5 |
| 12.5° | 915.0 | 903.6 | 893.9 | 889.7 | 886.7 |
| 15° | 964.5 | 942.2 | 922.3 | 913.2 | 909.6 |
| 17.5° | 1019.4 | 981.4 | 950.6 | 934.3 | 931.3 |
| 20° | 1077.3 | 1024.8 | 985.0 | 965.7 | 962.7 |
| 22.5° | 1144.3 | 1071.9 | 1021.2 | 994.7 | 990.4 |
| 25° | 1209.4 | 1114.1 | 1046.5 | 1014.0 | 1008.5 |
| 27.5° | 1268.5 | 1146.1 | 1061.6 | 1023.0 | 1017.6 |
| 30° | 1318.0 | 1171.4 | 1074.3 | 1030.3 | 1024.2 |
| 32.5° | 1350.6 | 1185.3 | 1078.5 | 1030.9 | 1023.6 |
| 35° | 1360.8 | 1176.2 | 1060.4 | 1005.5 | 999.5 |
| 37.5° | 1339.1 | 1139.4 | 1012.2 | 950.0 | 945.2 |
| 40° | 1289.6 | 1071.3 | 936.2 | 871.6 | 865.6 |
| 42.5° | 1212.4 | 985.0 | 848.1 | 779.9 | 774.5 |
| 45° | 1126.8 | 892.7 | 754.6 | 686.4 | 681.0 |
| 47.5° | 1033.3 | 795.0 | 656.3 | 593.5 | 585.1 |
| 50° | 930.7 | 688.8 | 556.1 | 494.6 | 486.8 |
| 52.5° | 810.7 | 573.0 | 450.0 | 394.5 | 389.7 |
| 55° | 670.1 | 456.6 | 358.3 | 317.9 | 313.1 |
| 57.5° | 521.2 | 347.4 | 284.7 | 264.8 | 257.0 |
| 60° | 378.2 | 264.2 | 226.8 | 217.2 | 212.9 |
| 62.5° | 257.0 | 197.2 | 182.8 | 179.8 | 176.7 |
| 65° | 174.3 | 154.4 | 150.2 | 150.8 | 149.0 |
| 67.5° | 137.5 | 129.7 | 127.3 | 128.5 | 127.9 |
| 70° | 120.6 | 114.6 | 114.0 | 115.2 | 114.6 |
| 72.5° | 114.0 | 106.2 | 107.4 | 109.2 | 108.6 |
| 75° | 111.0 | 102.5 | 105.0 | 106.2 | 103.1 |
| 77.5° | 108.0 | 97.1 | 104.4 | 106.8 | 100.7 |
| 80° | 103.7 | 92.3 | 109.2 | 108.0 | 96.5 |
| 82.5° | 94.7 | 81.4 | 106.8 | 97.7 | 86.9 |
| 85° | 77.2 | 60.9 | 120.0 | 86.3 | 63.3 |
| 87.5° | 49.5 | 36.8 | 83.2 | 65.7 | 42.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)