

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: iO LED

Report Number: P958934

Luminaire Tested: MFO-06W-930-30-X-4F-UNV-STD

Issue Date: 2/11/2025

Test Information

Test Method: LM-79-2019
Report Number: P958934
SCALED TEST REPORT
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/11/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: MFO-06W-930-30-X-4F-UNV-STD
Description: iO LED MiniO-FLEX LINEAR LIGHTING WITH 30 DEGREE OPTICS
6 WATTS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

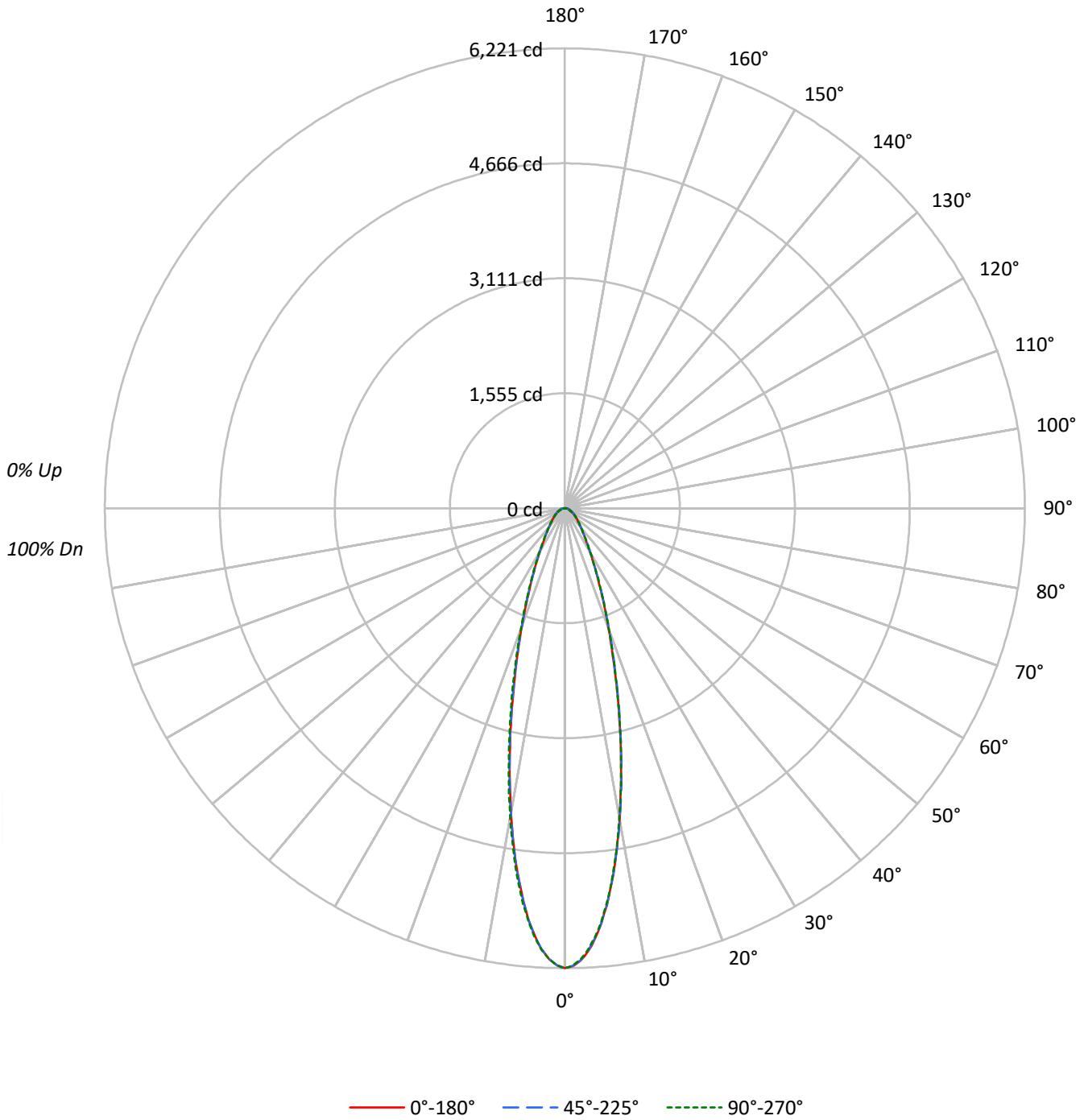
Lumens per Lamp: N/A
Luminaire Lumens: 2581.6 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.46 / 0.5
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 4' x H: 0.03')
CIE Type: Direct

Input Watts (W): 22.8
Input Voltage (V): 120
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: 24 FT



TEST NUMBER: P958934
CATALOG NUMBER: MFO-06W-930-30-X-4F-UNV-STD

Luminous Intensity Polar Plot





TEST NUMBER: P958934

CATALOG NUMBER: MFO-06W-930-30-X-4F-UNV-STD

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 | 109 | 106 | 104 | 110 | 107 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 | | | | |
| 2 | 106 | 101 | 96 | 93 | 104 | 99 | 95 | 92 | 96 | 92 | 90 | 93 | 90 | 88 | 90 | 88 | 86 | 84 | | | | |
| 3 | 101 | 94 | 88 | 84 | 99 | 92 | 87 | 83 | 90 | 85 | 82 | 87 | 84 | 81 | 85 | 82 | 79 | 78 | | | | |
| 4 | 96 | 88 | 82 | 77 | 94 | 86 | 81 | 77 | 84 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 73 | | | | |
| 5 | 91 | 82 | 76 | 72 | 89 | 81 | 76 | 71 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 73 | 69 | 68 | | | | |
| 6 | 87 | 78 | 72 | 67 | 85 | 77 | 71 | 67 | 75 | 70 | 66 | 74 | 69 | 66 | 73 | 69 | 66 | 64 | | | | |
| 7 | 83 | 74 | 67 | 63 | 82 | 73 | 67 | 63 | 72 | 66 | 63 | 70 | 66 | 62 | 69 | 65 | 62 | 61 | | | | |
| 8 | 79 | 70 | 64 | 60 | 78 | 69 | 64 | 60 | 68 | 63 | 59 | 67 | 63 | 59 | 66 | 62 | 59 | 58 | | | | |
| 9 | 76 | 67 | 61 | 57 | 75 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 56 | 63 | 59 | 56 | 55 | | | | |
| 10 | 73 | 64 | 58 | 54 | 72 | 63 | 58 | 54 | 62 | 57 | 54 | 62 | 57 | 54 | 61 | 57 | 54 | 52 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|--------|--------|--------|--------|--------|
| 0° | 220838 | 220838 | 220838 | 220838 | 220838 |
| 5° | 200930 | 195797 | 193133 | 194155 | 199131 |
| 10° | 153443 | 146320 | 142820 | 143694 | 150934 |
| 15° | 103220 | 96350 | 93250 | 93960 | 100762 |
| 20° | 65250 | 59580 | 57229 | 57905 | 63513 |
| 25° | 41759 | 37028 | 35329 | 36090 | 40697 |
| 30° | 28001 | 23951 | 22734 | 23465 | 27438 |
| 35° | 19852 | 16516 | 15618 | 16316 | 19666 |
| 40° | 15510 | 12451 | 11575 | 12351 | 15367 |
| 45° | 12762 | 9896 | 9031 | 9823 | 12667 |
| 50° | 11030 | 8209 | 7302 | 8119 | 10910 |
| 55° | 9664 | 6963 | 6026 | 6867 | 9694 |
| 60° | 7515 | 5906 | 4941 | 5813 | 8748 |
| 65° | 6319 | 4980 | 3946 | 4909 | 8004 |
| 70° | 6735 | 4185 | 3038 | 4140 | 7477 |
| 75° | 7034 | 3544 | 2180 | 3506 | 7421 |
| 80° | 8080 | 3162 | 1510 | 3132 | 8413 |
| 85° | 12437 | 2401 | 895 | 2979 | 12736 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 98104 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 490.8 | 19.0 |
| 10°-20° | 773.0 | 29.9 |
| 20°-30° | 500.3 | 19.4 |
| 30°-40° | 295.2 | 11.4 |
| 40°-50° | 199.6 | 7.7 |
| 50°-60° | 142.5 | 5.5 |
| 60°-70° | 93.9 | 3.6 |
| 70°-80° | 54.9 | 2.1 |
| 80°-90° | 31.4 | 1.2 |
| 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° | 1764.1 | 68.3 |
| 0°-40° | 2059.3 | 79.8 |
| 0°-60° | 2401.4 | 93.0 |
| 0°-90° | 2581.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2581.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 6221 | 6221 | 6221 | 6221 | 6221 | |
| 5° | 5642 | 5639 | 5618 | 5592 | 5592 | 493 |
| 15° | 2814 | 2833 | 2822 | 2763 | 2747 | 777 |
| 25° | 1070 | 1078 | 1078 | 1051 | 1043 | 502 |
| 35° | 461 | 462 | 466 | 456 | 456 | 296 |
| 45° | 256 | 256 | 255 | 255 | 254 | 200 |
| 55° | 158 | 161 | 156 | 159 | 158 | 140 |
| 65° | 76 | 98 | 89 | 96 | 97 | 79 |
| 75° | 53 | 55 | 41 | 54 | 56 | 56 |
| 85° | 33 | 26 | 13 | 32 | 34 | 36 |
| 90° | 22 | 22 | 22 | 22 | 22 | |



TEST NUMBER: P958934

CATALOG NUMBER: MFO-06W-930-30-X-4F-UNV-STD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6220.6 | 6220.6 | 6220.6 | 6220.6 | 6220.6 | 6220.6 | 6220.6 | 6220.6 | 6220.6 |
| 1° | 6195.7 | 6194.4 | 6191.7 | 6188.3 | 6186.2 | 6184.4 | 6184.4 | 6184.2 | 6186.0 |
| 2° | 6123.8 | 6120.9 | 6116.4 | 6110.6 | 6104.7 | 6100.8 | 6099.0 | 6100.1 | 6103.0 |
| 3° | 6005.1 | 6004.5 | 5997.8 | 5990.1 | 5981.4 | 5974.0 | 5971.7 | 5970.9 | 5975.6 |
| 4° | 5844.0 | 5842.2 | 5837.8 | 5828.3 | 5817.2 | 5807.8 | 5799.9 | 5798.8 | 5803.2 |
| 5° | 5642.2 | 5642.6 | 5639.1 | 5628.6 | 5617.8 | 5603.9 | 5591.8 | 5587.9 | 5591.7 |
| 6° | 5406.1 | 5408.1 | 5407.1 | 5399.0 | 5386.5 | 5369.0 | 5352.2 | 5343.9 | 5348.4 |
| 7° | 5142.9 | 5146.5 | 5148.7 | 5141.9 | 5128.2 | 5106.4 | 5086.0 | 5075.2 | 5079.3 |
| 8° | 4858.9 | 4864.2 | 4868.1 | 4863.6 | 4848.2 | 4824.3 | 4799.9 | 4787.8 | 4792.4 |
| 9° | 4563.9 | 4569.6 | 4575.5 | 4572.2 | 4555.4 | 4529.4 | 4502.4 | 4489.1 | 4495.3 |
| 10° | 4262.5 | 4268.5 | 4274.6 | 4271.2 | 4254.0 | 4227.5 | 4197.9 | 4184.8 | 4192.8 |
| 11° | 3960.5 | 3966.3 | 3972.7 | 3969.6 | 3952.0 | 3924.7 | 3893.7 | 3881.2 | 3889.6 |
| 12° | 3660.3 | 3666.5 | 3673.5 | 3671.3 | 3652.9 | 3625.7 | 3594.6 | 3580.7 | 3589.5 |
| 13° | 3367.3 | 3374.4 | 3381.5 | 3380.7 | 3363.8 | 3336.0 | 3305.3 | 3290.2 | 3296.9 |
| 14° | 3083.7 | 3092.0 | 3100.2 | 3100.8 | 3085.4 | 3057.6 | 3025.8 | 3010.7 | 3013.6 |
| 15° | 2814.4 | 2823.3 | 2833.2 | 2836.2 | 2821.5 | 2793.6 | 2762.9 | 2745.7 | 2747.4 |
| 16° | 2559.9 | 2568.9 | 2581.2 | 2585.5 | 2572.0 | 2544.3 | 2513.4 | 2496.3 | 2496.6 |
| 17° | 2325.0 | 2332.8 | 2347.2 | 2352.4 | 2339.9 | 2313.1 | 2283.4 | 2266.1 | 2265.6 |
| 18° | 2108.4 | 2115.6 | 2129.7 | 2136.6 | 2124.4 | 2099.5 | 2071.1 | 2054.7 | 2054.0 |
| 19° | 1910.9 | 1917.7 | 1930.9 | 1937.7 | 1925.8 | 1903.1 | 1876.8 | 1861.3 | 1860.6 |
| 20° | 1732.1 | 1738.4 | 1750.0 | 1757.2 | 1745.4 | 1724.3 | 1700.8 | 1685.9 | 1686.0 |
| 21° | 1571.0 | 1576.0 | 1586.1 | 1593.1 | 1582.3 | 1562.9 | 1541.3 | 1528.4 | 1528.5 |
| 22° | 1425.1 | 1429.6 | 1438.3 | 1445.0 | 1435.4 | 1417.8 | 1398.0 | 1386.0 | 1386.6 |
| 23° | 1293.7 | 1297.6 | 1305.1 | 1312.0 | 1303.4 | 1287.1 | 1269.1 | 1258.6 | 1259.1 |
| 24° | 1175.7 | 1179.1 | 1185.4 | 1192.2 | 1184.7 | 1169.7 | 1153.9 | 1144.2 | 1145.2 |
| 25° | 1070.0 | 1072.6 | 1078.1 | 1084.7 | 1077.8 | 1064.9 | 1050.8 | 1041.9 | 1042.8 |
| 26° | 975.3 | 977.2 | 982.0 | 988.4 | 982.3 | 970.0 | 957.2 | 950.3 | 951.3 |
| 27° | 890.5 | 891.2 | 895.8 | 902.2 | 896.6 | 885.6 | 874.0 | 868.5 | 869.9 |
| 28° | 815.1 | 814.0 | 818.0 | 824.3 | 819.1 | 809.0 | 798.7 | 794.9 | 796.7 |
| 29° | 747.8 | 745.2 | 748.8 | 754.9 | 750.5 | 741.1 | 732.3 | 729.3 | 731.5 |
| 30° | 686.2 | 683.5 | 685.9 | 691.9 | 688.5 | 679.9 | 672.0 | 669.8 | 672.4 |
| 31° | 630.0 | 627.7 | 629.7 | 635.7 | 633.2 | 625.5 | 618.0 | 616.5 | 618.5 |
| 32° | 579.8 | 578.0 | 580.0 | 585.4 | 583.8 | 577.0 | 570.3 | 568.7 | 570.2 |
| 33° | 535.0 | 533.6 | 535.9 | 540.6 | 540.0 | 533.6 | 527.5 | 526.1 | 527.4 |
| 34° | 495.4 | 494.5 | 496.3 | 501.0 | 500.8 | 495.2 | 489.8 | 488.4 | 489.6 |
| 35° | 460.6 | 460.3 | 461.5 | 466.1 | 465.9 | 461.0 | 455.9 | 454.7 | 456.3 |
| 36° | 430.1 | 429.6 | 430.6 | 435.1 | 434.9 | 430.4 | 426.3 | 424.8 | 426.4 |
| 37° | 403.3 | 402.4 | 403.4 | 407.2 | 406.8 | 403.3 | 399.6 | 398.1 | 399.9 |
| 38° | 379.4 | 377.8 | 379.1 | 382.1 | 381.6 | 378.9 | 375.7 | 374.3 | 376.1 |
| 39° | 357.5 | 355.9 | 357.0 | 359.3 | 358.4 | 356.7 | 354.2 | 352.9 | 354.2 |
| 40° | 336.9 | 335.5 | 336.6 | 338.4 | 337.4 | 336.1 | 333.9 | 333.2 | 333.8 |
| 41° | 318.1 | 317.0 | 318.1 | 319.4 | 318.2 | 317.1 | 315.5 | 314.9 | 315.4 |
| 42° | 300.6 | 299.8 | 300.6 | 301.7 | 300.6 | 299.6 | 298.7 | 297.8 | 298.1 |
| 43° | 284.5 | 284.0 | 284.6 | 285.5 | 284.5 | 283.6 | 282.9 | 281.9 | 282.3 |
| 44° | 269.7 | 269.2 | 270.0 | 270.2 | 269.2 | 268.6 | 268.3 | 267.3 | 267.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-----|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 45° | 256.2 | 255.8 | 256.5 | 256.3 | 255.1 | 254.6 | 254.6 | 253.8 | 254.3 |
| 46° | 243.9 | 243.7 | 244.0 | 243.5 | 242.1 | 241.8 | 242.3 | 241.5 | 241.8 |
| 47° | 232.3 | 232.2 | 232.7 | 231.7 | 230.1 | 230.0 | 230.7 | 230.0 | 230.4 |
| 48° | 221.6 | 221.4 | 221.9 | 220.6 | 218.7 | 219.1 | 219.9 | 219.2 | 219.4 |
| 49° | 211.5 | 211.1 | 211.7 | 210.3 | 208.1 | 208.7 | 209.7 | 209.1 | 209.2 |
| 50° | 201.6 | 201.5 | 202.0 | 200.3 | 198.1 | 198.8 | 199.8 | 199.4 | 199.4 |
| 51° | 192.2 | 192.2 | 192.9 | 191.3 | 188.7 | 189.8 | 190.7 | 190.2 | 190.3 |
| 52° | 183.2 | 183.5 | 184.2 | 182.7 | 179.7 | 181.0 | 182.0 | 181.7 | 181.5 |
| 53° | 174.6 | 175.4 | 176.2 | 174.6 | 171.3 | 173.0 | 173.9 | 173.6 | 173.5 |
| 54° | 166.3 | 167.6 | 168.4 | 166.9 | 163.3 | 165.4 | 166.2 | 165.9 | 165.7 |
| 55° | 157.9 | 160.2 | 160.9 | 159.6 | 155.5 | 157.9 | 158.7 | 158.4 | 158.4 |
| 56° | 149.7 | 153.0 | 153.6 | 152.2 | 147.9 | 150.6 | 151.6 | 151.2 | 151.2 |
| 57° | 139.7 | 146.1 | 146.6 | 145.0 | 140.6 | 143.5 | 144.6 | 144.1 | 144.2 |
| 58° | 131.6 | 139.3 | 139.6 | 137.9 | 133.5 | 136.3 | 137.7 | 137.4 | 137.5 |
| 59° | 117.7 | 132.7 | 133.0 | 131.1 | 126.6 | 129.5 | 131.1 | 131.1 | 131.1 |
| 60° | 107.3 | 126.3 | 126.6 | 124.4 | 120.0 | 122.8 | 124.6 | 124.8 | 124.9 |
| 61° | 98.3 | 120.4 | 120.5 | 117.8 | 113.4 | 116.3 | 118.5 | 118.9 | 118.9 |
| 62° | 91.5 | 114.6 | 114.5 | 111.5 | 107.1 | 110.3 | 112.6 | 113.2 | 113.1 |
| 63° | 84.9 | 109.0 | 108.7 | 105.5 | 101.0 | 104.3 | 107.0 | 107.6 | 107.5 |
| 64° | 79.8 | 103.6 | 103.1 | 99.7 | 94.9 | 98.6 | 101.5 | 102.1 | 102.1 |
| 65° | 76.5 | 98.2 | 97.6 | 94.1 | 89.1 | 93.1 | 96.2 | 97.0 | 96.9 |
| 66° | 72.7 | 93.2 | 92.5 | 88.7 | 83.6 | 87.8 | 91.3 | 91.9 | 91.9 |
| 67° | 69.0 | 88.2 | 87.6 | 83.5 | 78.1 | 82.7 | 86.4 | 87.0 | 87.0 |
| 68° | 70.2 | 83.5 | 82.7 | 78.5 | 72.9 | 77.7 | 81.6 | 82.4 | 82.2 |
| 69° | 68.0 | 78.8 | 78.1 | 73.6 | 67.9 | 73.0 | 77.1 | 77.9 | 77.7 |
| 70° | 66.3 | 74.4 | 73.7 | 69.0 | 62.9 | 68.5 | 72.9 | 73.6 | 73.6 |
| 71° | 63.8 | 69.7 | 69.4 | 64.7 | 58.1 | 64.1 | 68.7 | 69.6 | 69.4 |
| 72° | 61.0 | 64.9 | 65.4 | 60.6 | 53.5 | 60.1 | 64.8 | 65.7 | 65.7 |
| 73° | 58.1 | 59.6 | 61.6 | 56.7 | 48.9 | 56.3 | 61.0 | 62.0 | 62.1 |
| 74° | 55.6 | 52.3 | 58.2 | 53.0 | 44.6 | 52.6 | 57.6 | 58.6 | 58.8 |
| 75° | 52.8 | 46.9 | 54.9 | 49.6 | 40.7 | 49.2 | 54.3 | 55.4 | 55.7 |
| 76° | 50.1 | 42.2 | 51.9 | 46.4 | 37.0 | 46.2 | 51.4 | 52.4 | 52.6 |
| 77° | 47.5 | 39.4 | 49.1 | 43.6 | 33.6 | 43.4 | 48.6 | 49.6 | 50.0 |
| 78° | 45.4 | 38.5 | 46.5 | 41.1 | 30.5 | 40.8 | 46.1 | 47.0 | 47.4 |
| 79° | 43.4 | 39.2 | 44.1 | 38.7 | 27.5 | 38.5 | 43.7 | 44.7 | 45.1 |
| 80° | 41.3 | 38.7 | 41.9 | 36.8 | 24.9 | 36.4 | 41.5 | 42.5 | 43.0 |
| 81° | 39.5 | 38.0 | 40.0 | 34.8 | 22.2 | 34.4 | 39.5 | 40.4 | 40.9 |
| 82° | 38.0 | 36.5 | 37.6 | 32.8 | 19.7 | 32.4 | 37.6 | 38.6 | 39.1 |
| 83° | 36.3 | 35.2 | 33.5 | 30.7 | 17.3 | 30.3 | 35.8 | 36.8 | 37.4 |
| 84° | 34.8 | 33.7 | 28.8 | 28.6 | 14.9 | 28.3 | 34.1 | 35.2 | 35.7 |
| 85° | 33.3 | 32.4 | 26.2 | 26.7 | 12.7 | 26.3 | 32.5 | 33.6 | 34.1 |
| 86° | 31.9 | 31.2 | 25.7 | 25.0 | 10.5 | 24.5 | 31.1 | 32.2 | 32.8 |
| 87° | 30.6 | 30.0 | 25.6 | 23.1 | 8.5 | 22.8 | 29.7 | 30.8 | 31.4 |
| 88° | 29.4 | 28.9 | 25.0 | 19.5 | 7.1 | 21.1 | 28.3 | 29.6 | 30.2 |
| 89° | 28.0 | 27.8 | 24.9 | 16.1 | 5.6 | 19.6 | 27.0 | 28.5 | 29.0 |



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CANDELA DISTRIBUTION (continued):

| | | | | | | | | | |
|-----|------|-------|------|-------|------|--------|------|--------|------|
| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
| 90° | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 |

(END OF REPORT)