

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: STREETWORKS

Report Number: P265945

Luminaire Tested: **ARCH-AF24-50-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T3-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5752.5 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

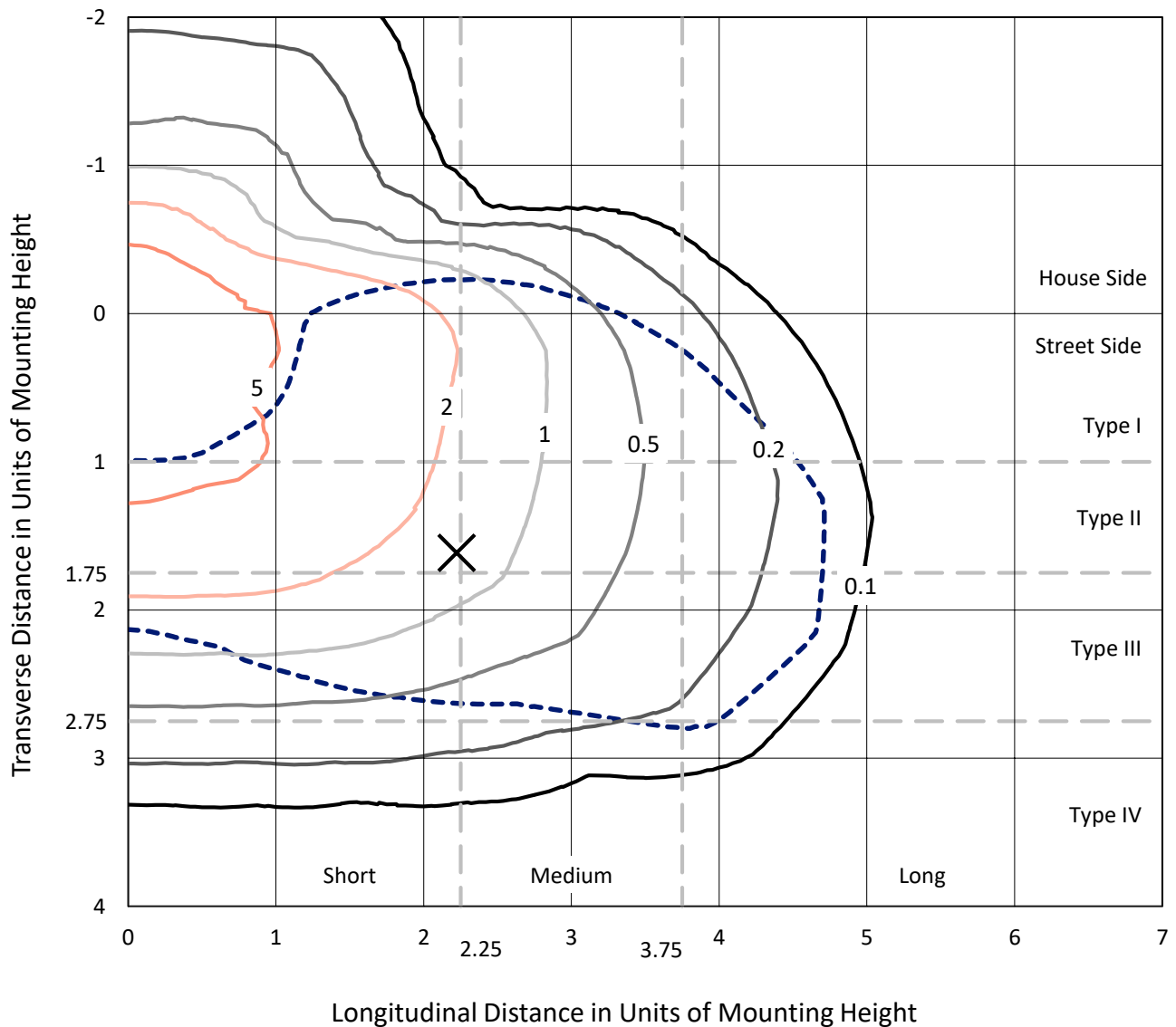
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

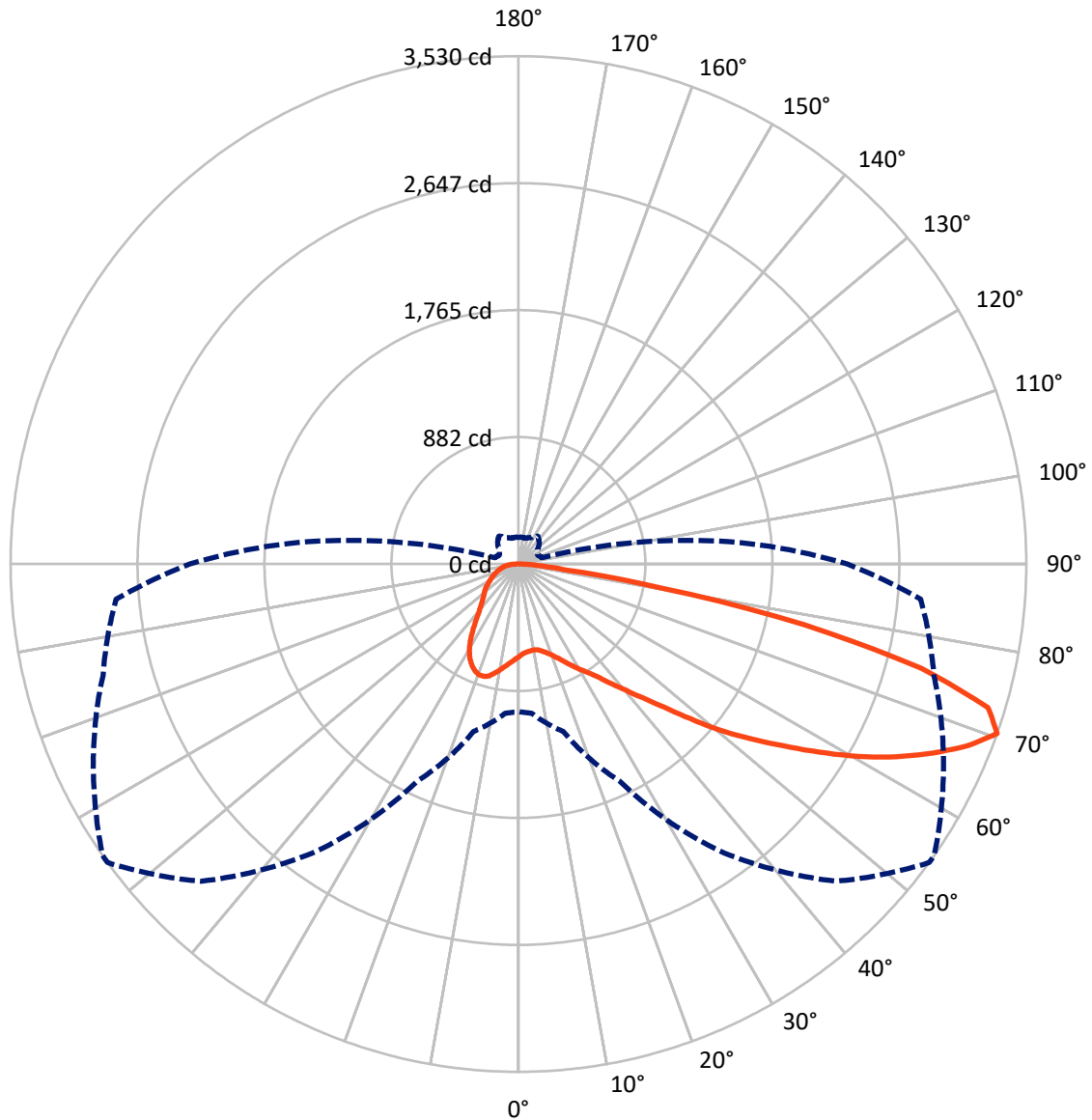
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1304.6 | 0.0 | 1304.6 |
| | % Fixture | 22.7 | 0.0 | 22.7 |
| Street Side | Lumens | 4447.8 | 0.0 | 4447.8 |
| | % Fixture | 77.3 | 0.0 | 77.3 |
| Total | Lumens | 5752.5 | 0.0 | 5752.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.2 | 1.1 |
| 10°-20° | 201.8 | 3.5 |
| 20°-30° | 350.6 | 6.1 |
| 30°-40° | 512.4 | 8.9 |
| 40°-50° | 804.2 | 14.0 |
| 50°-60° | 1236.6 | 21.5 |
| 60°-70° | 1510.9 | 26.3 |
| 70°-80° | 936.7 | 16.3 |
| 80°-90° | 136.1 | 2.4 |
| 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° | 5752.5 | 100.0 |
| 0°-180° | 5752.5 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P265945

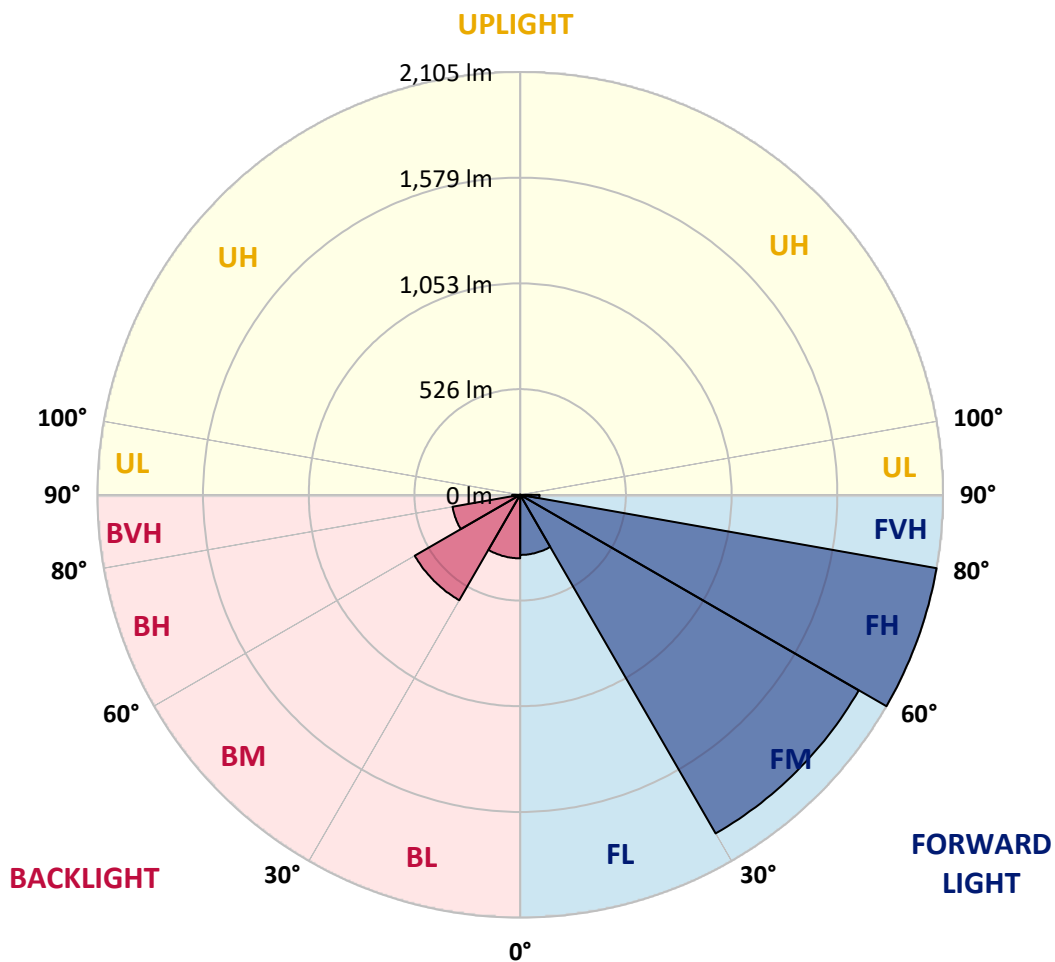
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 299.3 | 5.2 | | | |
| FM | (30°-60°) | 1946.9 | 33.8 | | | |
| FH | (60°-80°) | 2105.5 | 36.6 | | | G2/5000 |
| FVH | (80°-90°) | 96.1 | 1.7 | | | G1/100 |
| BL | (0°-30°) | 316.3 | 5.5 | B1/500 | | |
| BM | (30°-60°) | 606.2 | 10.5 | B1/1000 | | |
| BH | (60°-80°) | 342.1 | 5.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 40.0 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 |
| 2.5° | 618.4 | 616.1 | 616.1 | 619.3 | 620.4 | 623.6 | 623.6 | 624.6 | 627.7 | 633.0 | 639.4 |
| 5° | 599.3 | 598.4 | 599.3 | 603.5 | 605.6 | 611.9 | 614.1 | 615.2 | 621.4 | 629.9 | 639.4 |
| 7.5° | 580.3 | 579.3 | 581.5 | 587.8 | 594.0 | 603.5 | 608.8 | 609.9 | 619.3 | 630.9 | 643.5 |
| 10° | 574.0 | 572.9 | 576.2 | 581.5 | 587.8 | 598.4 | 606.7 | 607.8 | 621.4 | 635.1 | 653.1 |
| 12.5° | 582.6 | 581.5 | 584.5 | 589.8 | 596.1 | 603.5 | 613.1 | 614.1 | 632.0 | 650.0 | 668.9 |
| 15° | 603.5 | 603.5 | 604.6 | 607.8 | 614.1 | 620.4 | 628.9 | 629.9 | 648.8 | 670.0 | 688.9 |
| 17.5° | 636.2 | 634.2 | 634.2 | 633.0 | 637.3 | 640.4 | 650.9 | 652.0 | 672.0 | 690.9 | 709.9 |
| 20° | 676.2 | 675.2 | 670.9 | 665.7 | 664.7 | 666.7 | 677.3 | 678.3 | 698.3 | 714.2 | 732.1 |
| 22.5° | 724.8 | 725.7 | 716.3 | 704.7 | 699.4 | 702.6 | 712.0 | 713.2 | 727.8 | 741.6 | 757.4 |
| 25° | 788.9 | 785.7 | 772.2 | 755.2 | 744.8 | 744.8 | 754.1 | 754.1 | 768.0 | 776.3 | 786.8 |
| 27.5° | 850.1 | 843.7 | 831.1 | 806.9 | 790.0 | 793.2 | 802.6 | 802.6 | 815.3 | 818.4 | 823.7 |
| 30° | 916.5 | 910.1 | 894.4 | 863.7 | 841.6 | 839.5 | 851.1 | 850.1 | 866.9 | 865.8 | 861.7 |
| 32.5° | 997.5 | 994.3 | 968.1 | 929.0 | 899.6 | 892.1 | 902.6 | 903.8 | 914.2 | 911.2 | 897.4 |
| 35° | 1111.3 | 1110.2 | 1086.1 | 1017.5 | 978.6 | 964.9 | 971.2 | 971.2 | 978.6 | 970.1 | 947.0 |
| 37.5° | 1254.6 | 1256.5 | 1235.6 | 1134.4 | 1079.7 | 1056.4 | 1057.6 | 1056.4 | 1058.7 | 1049.1 | 1024.8 |
| 40° | 1397.8 | 1403.1 | 1402.0 | 1279.7 | 1210.2 | 1170.2 | 1155.5 | 1153.5 | 1158.6 | 1154.4 | 1131.2 |
| 42.5° | 1586.2 | 1599.0 | 1569.5 | 1458.8 | 1381.0 | 1313.5 | 1273.4 | 1268.1 | 1279.7 | 1285.0 | 1262.9 |
| 45° | 1782.2 | 1778.0 | 1731.7 | 1651.7 | 1581.0 | 1494.7 | 1418.9 | 1410.3 | 1418.9 | 1434.7 | 1411.4 |
| 47.5° | 1884.5 | 1881.2 | 1869.6 | 1829.7 | 1819.1 | 1720.1 | 1605.4 | 1597.9 | 1582.2 | 1604.3 | 1576.9 |
| 50° | 2052.9 | 2056.1 | 2008.7 | 2004.5 | 2048.8 | 1994.0 | 1816.0 | 1799.0 | 1770.6 | 1788.5 | 1765.3 |
| 52.5° | 2175.2 | 2161.4 | 2131.9 | 2168.8 | 2306.8 | 2277.4 | 2014.0 | 2006.6 | 1980.3 | 1976.0 | 1965.5 |
| 55° | 2224.7 | 2224.7 | 2230.0 | 2315.2 | 2512.2 | 2473.3 | 2228.9 | 2236.2 | 2200.4 | 2170.9 | 2184.6 |
| 57.5° | 2239.4 | 2245.8 | 2290.9 | 2432.2 | 2753.5 | 2625.9 | 2465.8 | 2476.4 | 2424.7 | 2365.7 | 2409.0 |
| 60° | 2166.7 | 2185.7 | 2294.1 | 2498.5 | 2889.3 | 2788.2 | 2715.4 | 2718.6 | 2643.8 | 2557.5 | 2633.3 |
| 62.5° | 1980.3 | 2003.4 | 2197.3 | 2525.9 | 2867.2 | 2954.5 | 2951.4 | 2958.7 | 2856.6 | 2749.3 | 2844.0 |
| 65° | 1751.7 | 1774.8 | 1981.3 | 2449.0 | 2850.3 | 3073.6 | 3167.3 | 3187.4 | 3055.8 | 2911.3 | 2975.6 |
| 67.5° | 1415.6 | 1446.2 | 1642.1 | 2189.9 | 2768.1 | 3171.6 | 3369.6 | 3390.7 | 3209.6 | 2995.7 | 2964.0 |
| 70° | 1026.0 | 1040.6 | 1204.9 | 1664.3 | 2433.1 | 3117.8 | 3529.7 | 3528.6 | 3260.0 | 2989.4 | 2806.0 |
| 72.5° | 494.0 | 505.6 | 647.8 | 1033.3 | 1740.0 | 2646.0 | 3413.9 | 3433.9 | 3190.5 | 2897.8 | 2444.7 |
| 75° | 203.2 | 214.9 | 262.2 | 436.0 | 913.2 | 1748.6 | 2893.5 | 2941.0 | 2897.8 | 2600.7 | 1912.9 |
| 77.5° | 126.4 | 130.7 | 153.8 | 225.5 | 417.2 | 816.3 | 2025.6 | 2089.7 | 2296.2 | 2083.4 | 1262.9 |
| 80° | 94.9 | 97.9 | 114.9 | 158.0 | 263.4 | 301.2 | 1005.9 | 1086.9 | 1391.5 | 1195.6 | 572.0 |
| 82.5° | 79.1 | 80.0 | 91.6 | 114.9 | 179.0 | 172.7 | 322.3 | 359.2 | 648.8 | 456.1 | 197.0 |
| 85° | 73.8 | 75.8 | 82.1 | 82.1 | 113.7 | 108.4 | 133.8 | 140.0 | 188.6 | 155.9 | 68.5 |
| 87.5° | 37.9 | 35.8 | 72.8 | 64.3 | 59.0 | 52.7 | 57.0 | 61.1 | 70.5 | 74.7 | 30.5 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 | 643.5 |
| 2.5° | 641.5 | 644.7 | 650.0 | 655.1 | 661.5 | 668.9 | 673.1 | 678.3 | 682.5 | 680.5 | 679.4 |
| 5° | 644.7 | 650.0 | 661.5 | 672.0 | 684.7 | 699.4 | 708.9 | 719.5 | 727.8 | 730.0 | 726.8 |
| 7.5° | 650.0 | 659.4 | 675.2 | 694.1 | 711.0 | 730.0 | 744.8 | 759.4 | 769.9 | 772.2 | 772.2 |
| 10° | 662.5 | 673.1 | 694.1 | 719.5 | 739.5 | 759.4 | 776.3 | 788.0 | 797.3 | 801.6 | 801.6 |
| 12.5° | 680.5 | 693.1 | 718.4 | 748.8 | 771.0 | 790.0 | 799.5 | 804.7 | 809.0 | 813.1 | 814.3 |
| 15° | 701.5 | 715.2 | 745.8 | 778.4 | 801.6 | 811.1 | 811.1 | 810.0 | 810.0 | 812.1 | 814.3 |
| 17.5° | 722.5 | 737.2 | 768.9 | 803.8 | 818.4 | 813.1 | 805.8 | 802.6 | 800.5 | 799.5 | 802.6 |
| 20° | 744.8 | 759.4 | 791.0 | 823.7 | 819.6 | 797.3 | 786.8 | 779.5 | 773.1 | 769.9 | 774.2 |
| 22.5° | 768.9 | 782.7 | 815.3 | 837.4 | 805.8 | 772.2 | 752.2 | 740.6 | 730.0 | 723.7 | 727.8 |
| 25° | 797.3 | 811.1 | 842.7 | 841.6 | 781.5 | 734.2 | 702.6 | 683.6 | 672.0 | 665.7 | 665.7 |
| 27.5° | 831.1 | 842.7 | 873.2 | 831.1 | 747.8 | 683.6 | 637.3 | 619.3 | 616.1 | 610.9 | 610.9 |
| 30° | 865.8 | 875.3 | 901.7 | 806.9 | 701.5 | 617.2 | 566.7 | 558.2 | 559.4 | 554.1 | 555.2 |
| 32.5° | 901.7 | 911.2 | 918.4 | 771.0 | 641.5 | 542.4 | 508.8 | 502.4 | 501.3 | 497.2 | 493.0 |
| 35° | 952.3 | 965.9 | 920.7 | 722.5 | 568.7 | 480.4 | 456.1 | 449.8 | 443.5 | 428.8 | 428.8 |
| 37.5° | 1029.1 | 1043.8 | 915.4 | 662.5 | 494.0 | 431.8 | 409.7 | 401.4 | 390.9 | 376.0 | 370.8 |
| 40° | 1134.4 | 1134.4 | 903.8 | 595.1 | 434.1 | 392.9 | 371.8 | 361.3 | 349.7 | 335.0 | 331.8 |
| 42.5° | 1258.7 | 1229.2 | 885.9 | 526.6 | 389.8 | 366.6 | 347.6 | 336.1 | 322.3 | 305.5 | 303.4 |
| 45° | 1404.1 | 1324.0 | 860.5 | 465.6 | 357.0 | 350.8 | 339.2 | 319.2 | 296.0 | 278.0 | 274.9 |
| 47.5° | 1545.3 | 1409.4 | 836.3 | 422.5 | 329.7 | 344.4 | 335.0 | 301.2 | 269.6 | 244.3 | 241.3 |
| 50° | 1700.1 | 1485.2 | 807.8 | 386.6 | 308.6 | 340.2 | 329.7 | 274.9 | 240.1 | 222.2 | 220.2 |
| 52.5° | 1854.9 | 1562.2 | 777.4 | 348.6 | 290.7 | 331.8 | 317.0 | 255.9 | 239.0 | 214.9 | 211.7 |
| 55° | 2018.2 | 1651.7 | 741.6 | 306.5 | 269.6 | 314.9 | 300.3 | 254.8 | 246.4 | 214.9 | 207.5 |
| 57.5° | 2177.2 | 1750.6 | 683.6 | 265.4 | 246.4 | 289.7 | 293.8 | 248.7 | 230.7 | 212.8 | 204.4 |
| 60° | 2353.1 | 1856.0 | 587.8 | 230.7 | 226.5 | 268.7 | 285.4 | 234.8 | 212.8 | 206.4 | 202.3 |
| 62.5° | 2494.2 | 1950.8 | 459.3 | 206.4 | 209.7 | 251.7 | 274.9 | 226.5 | 205.4 | 200.1 | 199.1 |
| 65° | 2555.4 | 1952.8 | 329.7 | 185.4 | 192.7 | 236.0 | 264.5 | 219.0 | 199.1 | 197.0 | 195.9 |
| 67.5° | 2491.1 | 1845.5 | 231.8 | 165.4 | 174.9 | 221.3 | 250.6 | 211.7 | 192.7 | 193.9 | 191.7 |
| 70° | 2283.6 | 1618.9 | 169.6 | 146.5 | 158.0 | 205.4 | 236.0 | 202.3 | 185.4 | 187.4 | 184.3 |
| 72.5° | 1910.8 | 1261.8 | 135.9 | 130.7 | 144.3 | 188.6 | 221.3 | 191.7 | 173.8 | 174.9 | 168.5 |
| 75° | 1411.4 | 836.3 | 113.7 | 116.9 | 128.5 | 172.7 | 202.3 | 178.0 | 161.2 | 156.9 | 152.7 |
| 77.5° | 839.5 | 429.7 | 93.8 | 102.1 | 114.9 | 153.8 | 181.2 | 161.2 | 147.4 | 140.0 | 136.9 |
| 80° | 346.6 | 173.8 | 76.8 | 86.3 | 100.2 | 136.9 | 160.1 | 141.2 | 131.7 | 124.2 | 120.1 |
| 82.5° | 138.0 | 85.2 | 61.1 | 70.5 | 84.4 | 119.0 | 140.0 | 124.2 | 114.9 | 109.6 | 97.9 |
| 85° | 52.7 | 42.1 | 41.1 | 49.4 | 63.2 | 91.6 | 115.9 | 104.3 | 96.8 | 83.3 | 80.0 |
| 87.5° | 21.1 | 19.0 | 19.0 | 24.3 | 35.8 | 57.9 | 83.3 | 72.8 | 75.8 | 60.0 | 61.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)