

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: P198819

Luminaire Tested: **XNV2-AF-02-LED-U-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198819
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-5WQ-7050-600
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8266 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 66
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

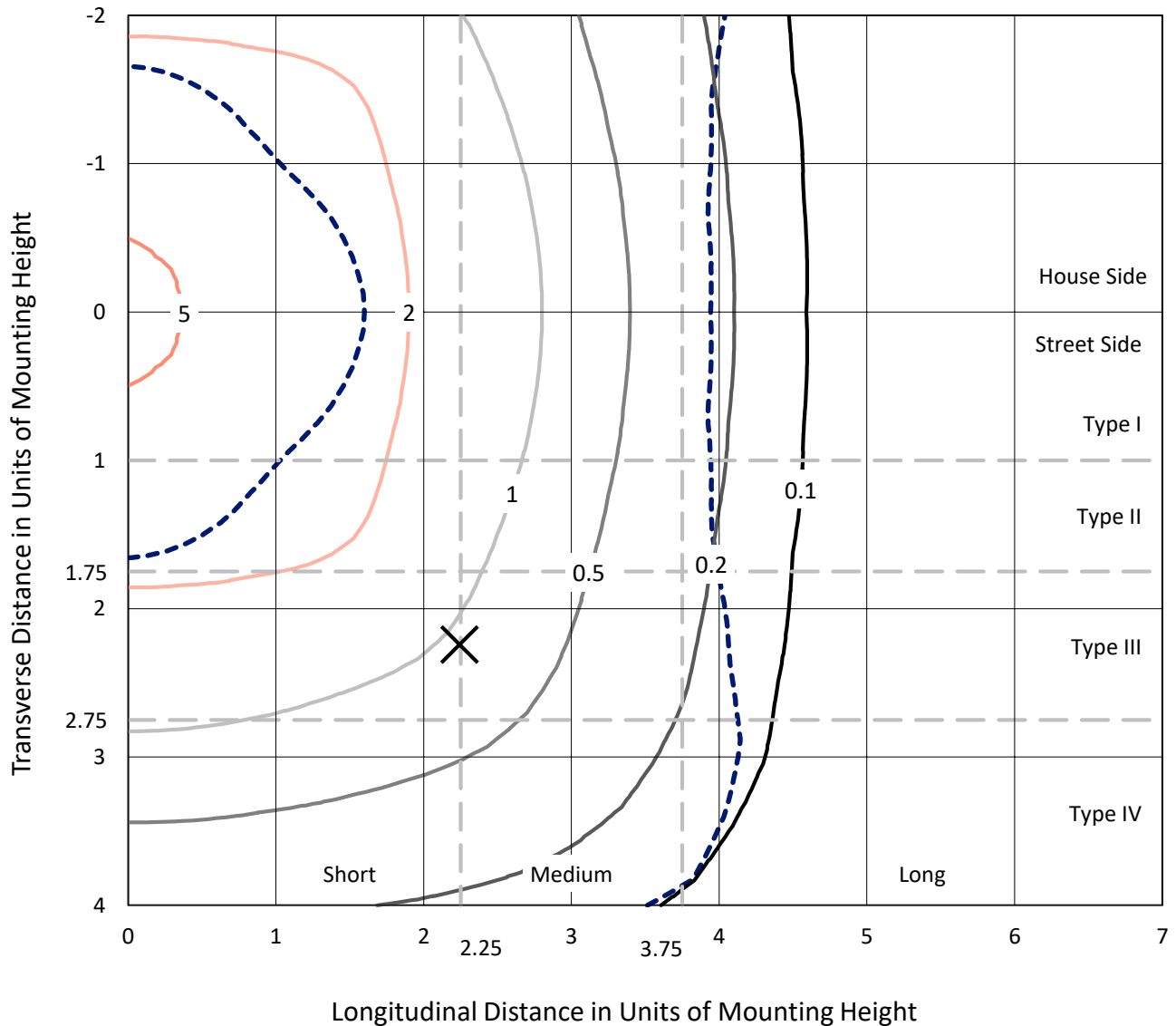


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

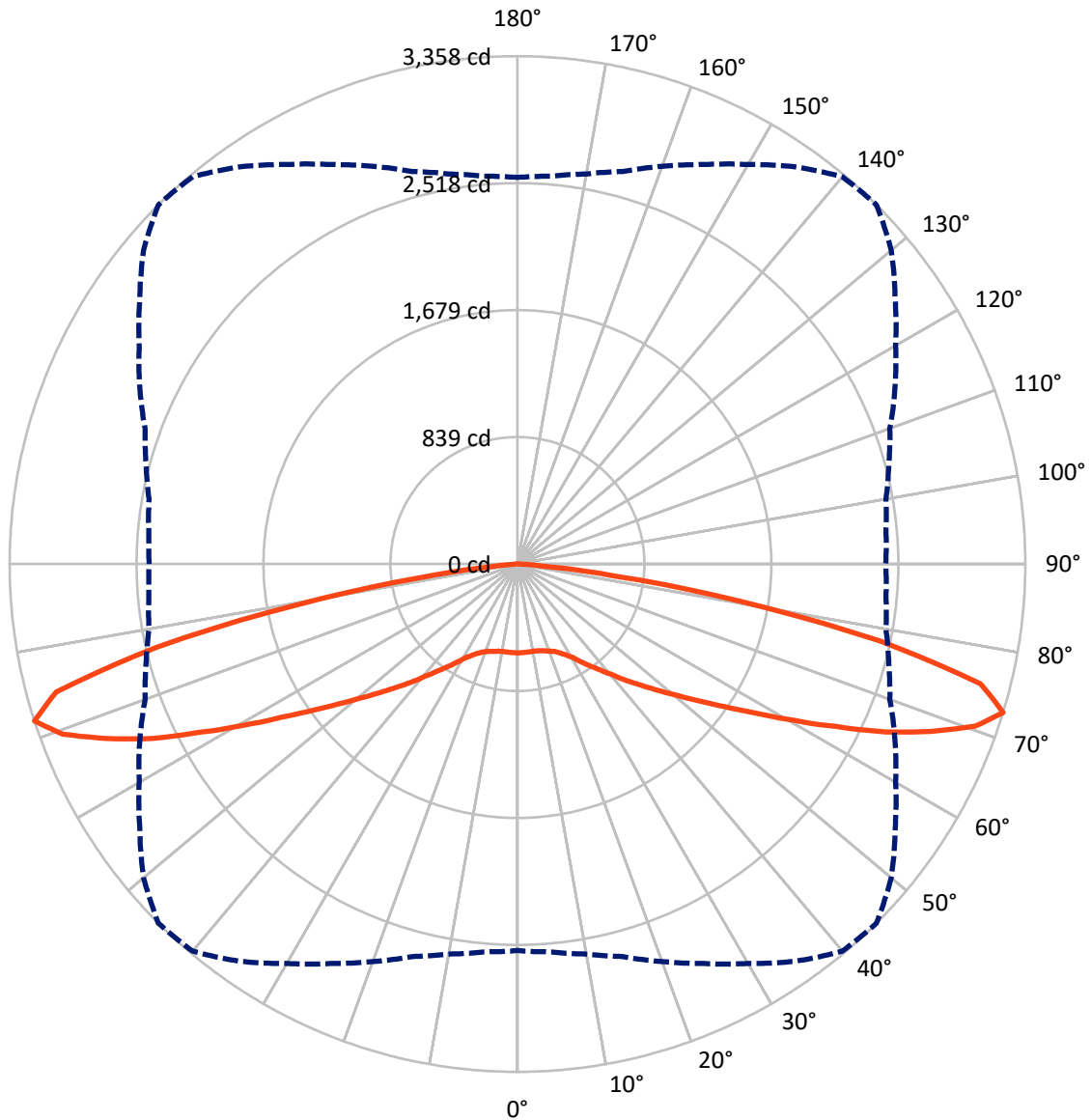


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 4133.0 | 0.0 | 4133.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 4133.0 | 0.0 | 4133.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 8266.0 | 0.0 | 8266.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.1 | 0.7 |
| 10°-20° | 169.8 | 2.1 |
| 20°-30° | 306.5 | 3.7 |
| 30°-40° | 522.7 | 6.3 |
| 40°-50° | 890.0 | 10.8 |
| 50°-60° | 1432.2 | 17.3 |
| 60°-70° | 2381.8 | 28.8 |
| 70°-80° | 2304.2 | 27.9 |
| 80°-90° | 202.8 | 2.5 |
| 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° | 8266.0 | 100.0 |
| 0°-180° | 8266.0 | 100.0 |



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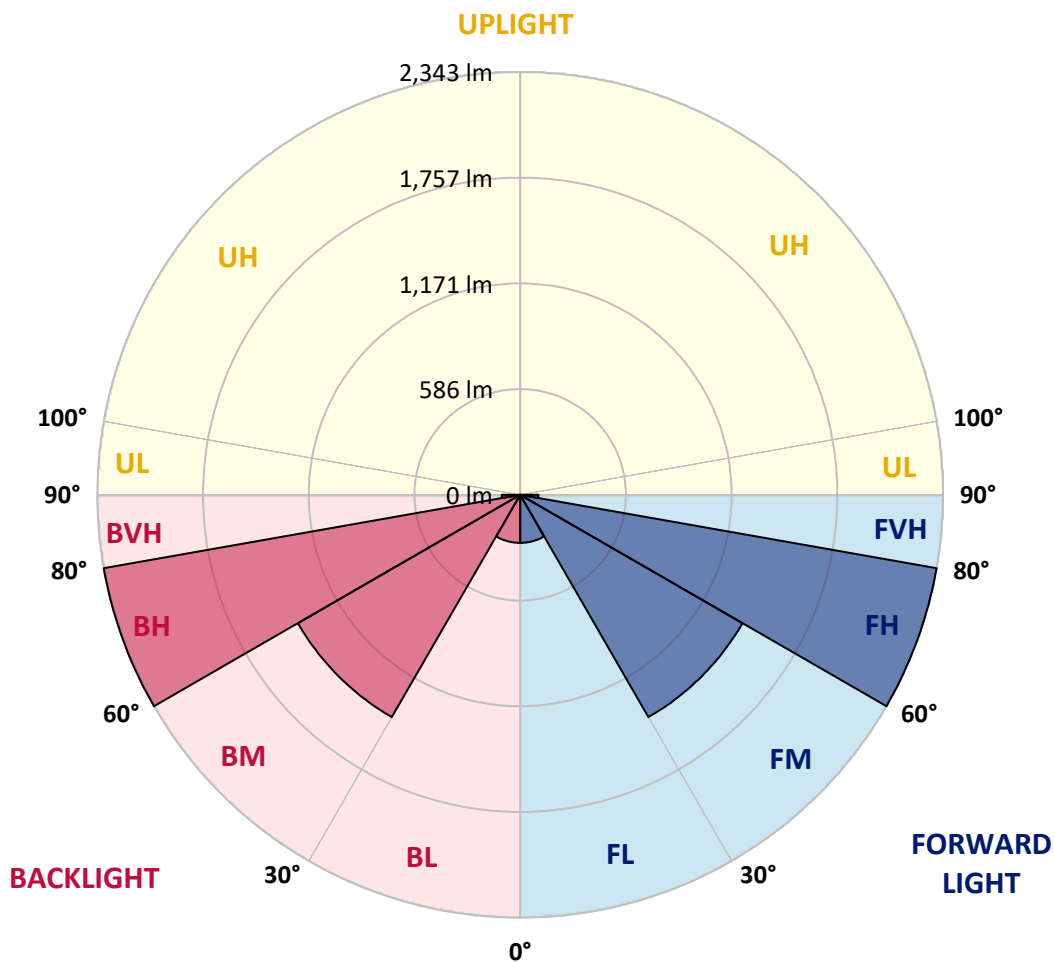
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 266.1 | 3.2 | | | |
| FM (30°-60°) | 1422.5 | 17.2 | | | |
| FH (60°-80°) | 2343.0 | 28.3 | | | G2/5000 |
| FVH (80°-90°) | 101.4 | 1.2 | | | G2/225 |
| BL (0°-30°) | 266.1 | 3.2 | B1/500 | | |
| BM (30°-60°) | 1422.5 | 17.2 | B2/2500 | | |
| BH (60°-80°) | 2343.0 | 28.3 | B3/2500 | | G2/5000 |
| BVH (80°-90°) | 101.4 | 1.2 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 |
| 2.5° | 592.2 | 592.2 | 592.7 | 592.2 | 591.2 | 590.7 | 589.2 | 588.2 | 587.1 | 586.6 | 585.6 |
| 5° | 592.7 | 592.7 | 593.2 | 592.7 | 591.7 | 590.7 | 589.7 | 588.2 | 587.1 | 586.1 | 585.6 |
| 7.5° | 594.8 | 595.3 | 595.8 | 595.3 | 593.2 | 592.2 | 590.7 | 589.2 | 587.1 | 586.1 | 585.1 |
| 10° | 598.8 | 598.8 | 598.8 | 598.3 | 596.8 | 594.8 | 592.7 | 591.2 | 588.7 | 586.1 | 584.6 |
| 12.5° | 601.9 | 602.4 | 602.4 | 601.4 | 599.4 | 596.8 | 594.8 | 593.2 | 591.2 | 589.2 | 587.7 |
| 15° | 606.5 | 606.5 | 606.0 | 603.9 | 600.9 | 598.8 | 597.8 | 597.3 | 596.8 | 595.8 | 594.3 |
| 17.5° | 615.6 | 615.1 | 613.6 | 610.5 | 607.0 | 605.5 | 604.4 | 604.4 | 604.4 | 603.9 | 602.9 |
| 20° | 628.9 | 628.9 | 626.8 | 621.7 | 618.7 | 617.2 | 615.6 | 615.6 | 615.6 | 614.1 | 612.6 |
| 22.5° | 650.2 | 650.7 | 647.7 | 641.6 | 637.5 | 634.5 | 632.4 | 630.9 | 629.4 | 628.4 | 625.8 |
| 25° | 679.2 | 678.7 | 675.2 | 667.5 | 664.5 | 661.4 | 657.4 | 654.8 | 652.8 | 651.2 | 648.2 |
| 27.5° | 709.8 | 709.3 | 705.2 | 698.6 | 696.5 | 692.0 | 688.9 | 685.3 | 682.8 | 680.3 | 677.2 |
| 30° | 748.9 | 746.4 | 743.3 | 738.3 | 737.2 | 733.7 | 729.6 | 724.5 | 720.4 | 716.4 | 712.8 |
| 32.5° | 784.0 | 784.0 | 779.5 | 776.9 | 779.0 | 777.4 | 777.9 | 774.9 | 772.3 | 770.8 | 767.3 |
| 35° | 832.9 | 832.9 | 830.9 | 827.8 | 828.3 | 824.7 | 824.2 | 824.7 | 826.8 | 826.8 | 822.7 |
| 37.5° | 898.0 | 899.0 | 892.4 | 891.4 | 888.9 | 883.8 | 881.2 | 882.2 | 886.8 | 889.4 | 883.8 |
| 40° | 978.9 | 980.9 | 978.9 | 972.3 | 969.2 | 960.6 | 955.5 | 955.5 | 959.1 | 961.6 | 959.6 |
| 42.5° | 1058.8 | 1062.4 | 1058.8 | 1053.7 | 1051.2 | 1044.5 | 1042.0 | 1044.0 | 1048.6 | 1051.7 | 1048.6 |
| 45° | 1147.8 | 1150.4 | 1145.8 | 1139.7 | 1136.6 | 1133.1 | 1131.5 | 1133.1 | 1138.2 | 1141.2 | 1140.2 |
| 47.5° | 1235.3 | 1238.9 | 1233.3 | 1230.8 | 1230.8 | 1227.2 | 1231.3 | 1235.3 | 1239.9 | 1247.0 | 1244.0 |
| 50° | 1320.8 | 1325.4 | 1321.8 | 1322.3 | 1326.4 | 1333.0 | 1340.7 | 1348.8 | 1356.9 | 1364.6 | 1365.6 |
| 52.5° | 1397.1 | 1404.3 | 1404.8 | 1413.9 | 1426.6 | 1436.8 | 1458.2 | 1476.0 | 1495.3 | 1501.9 | 1498.9 |
| 55° | 1477.5 | 1487.2 | 1499.9 | 1514.2 | 1534.5 | 1555.4 | 1591.5 | 1623.5 | 1649.0 | 1664.8 | 1662.2 |
| 57.5° | 1592.5 | 1602.2 | 1615.4 | 1638.8 | 1669.3 | 1697.8 | 1747.2 | 1797.0 | 1835.7 | 1859.6 | 1847.9 |
| 60° | 1741.6 | 1751.8 | 1769.1 | 1794.0 | 1833.7 | 1872.3 | 1940.0 | 2011.7 | 2071.8 | 2099.3 | 2077.9 |
| 62.5° | 1939.0 | 1948.7 | 1959.9 | 1992.9 | 2037.2 | 2087.0 | 2172.0 | 2264.1 | 2340.4 | 2366.9 | 2336.9 |
| 65° | 2220.4 | 2232.1 | 2235.6 | 2262.6 | 2305.8 | 2352.1 | 2443.7 | 2547.5 | 2634.5 | 2677.8 | 2617.7 |
| 67.5° | 2537.3 | 2541.9 | 2556.2 | 2587.7 | 2632.0 | 2673.7 | 2745.9 | 2844.1 | 2927.6 | 2951.5 | 2887.4 |
| 70° | 2723.0 | 2732.2 | 2757.1 | 2800.9 | 2853.8 | 2919.4 | 2998.3 | 3104.1 | 3198.8 | 3209.9 | 3128.5 |
| 72.5° | 2555.1 | 2574.0 | 2618.2 | 2686.4 | 2797.3 | 2913.8 | 3049.7 | 3205.9 | 3341.7 | 3357.5 | 3226.7 |
| 75° | 2049.4 | 2070.8 | 2123.7 | 2198.5 | 2329.7 | 2502.7 | 2699.1 | 2933.7 | 3137.2 | 3163.1 | 2990.1 |
| 77.5° | 1092.4 | 1118.8 | 1195.7 | 1296.4 | 1483.6 | 1712.6 | 1949.2 | 2216.8 | 2389.8 | 2448.3 | 2323.6 |
| 80° | 275.3 | 289.5 | 326.6 | 385.7 | 512.3 | 697.0 | 901.1 | 1189.0 | 1403.7 | 1494.8 | 1403.7 |
| 82.5° | 106.8 | 117.5 | 127.7 | 134.8 | 147.0 | 172.5 | 238.1 | 388.2 | 523.0 | 644.1 | 557.6 |
| 85° | 41.2 | 43.8 | 63.1 | 71.7 | 71.7 | 78.9 | 90.6 | 106.8 | 132.3 | 144.5 | 121.1 |
| 87.5° | 16.3 | 17.8 | 21.9 | 33.6 | 34.6 | 30.5 | 32.6 | 36.6 | 28.0 | 23.4 | 26.5 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 | 587.7 |
| 2.5° | 585.1 | 584.6 | 583.6 | 584.1 | 583.6 | 583.6 | 583.6 | 583.6 |
| 5° | 584.6 | 584.6 | 583.6 | 583.6 | 583.6 | 584.1 | 583.6 | 583.6 |
| 7.5° | 584.1 | 583.6 | 582.6 | 582.1 | 582.1 | 581.5 | 581.5 | 581.5 |
| 10° | 583.1 | 582.1 | 581.0 | 580.5 | 580.5 | 579.5 | 579.5 | 579.5 |
| 12.5° | 585.6 | 584.1 | 583.1 | 582.6 | 582.6 | 582.6 | 583.1 | 583.1 |
| 15° | 592.7 | 589.7 | 588.2 | 587.7 | 588.2 | 589.2 | 589.7 | 590.2 |
| 17.5° | 600.4 | 597.3 | 594.8 | 593.8 | 594.3 | 595.8 | 597.3 | 598.3 |
| 20° | 610.0 | 607.5 | 604.4 | 603.4 | 603.4 | 605.5 | 606.5 | 608.0 |
| 22.5° | 623.8 | 621.7 | 619.2 | 617.7 | 616.7 | 619.2 | 620.7 | 621.7 |
| 25° | 645.7 | 643.6 | 641.6 | 640.1 | 639.5 | 642.1 | 643.1 | 643.6 |
| 27.5° | 674.7 | 672.6 | 671.6 | 671.1 | 669.6 | 670.6 | 672.1 | 671.6 |
| 30° | 712.3 | 713.8 | 712.3 | 712.3 | 709.8 | 710.8 | 709.8 | 708.7 |
| 32.5° | 762.7 | 761.1 | 756.6 | 753.5 | 750.0 | 750.0 | 748.4 | 746.9 |
| 35° | 813.0 | 808.0 | 805.4 | 806.9 | 805.4 | 806.4 | 803.9 | 801.3 |
| 37.5° | 872.6 | 869.5 | 869.0 | 873.6 | 872.6 | 873.6 | 873.6 | 870.0 |
| 40° | 951.4 | 949.4 | 953.0 | 960.6 | 963.6 | 963.1 | 964.2 | 959.6 |
| 42.5° | 1042.0 | 1038.4 | 1040.0 | 1046.6 | 1050.1 | 1051.2 | 1050.6 | 1046.6 |
| 45° | 1132.6 | 1133.6 | 1133.6 | 1140.7 | 1144.3 | 1146.3 | 1142.7 | 1141.2 |
| 47.5° | 1234.8 | 1236.4 | 1232.8 | 1237.4 | 1238.4 | 1242.0 | 1238.9 | 1236.4 |
| 50° | 1352.9 | 1347.3 | 1339.1 | 1340.7 | 1340.7 | 1339.6 | 1336.1 | 1333.0 |
| 52.5° | 1484.6 | 1471.9 | 1456.7 | 1451.6 | 1446.0 | 1440.4 | 1433.3 | 1427.7 |
| 55° | 1634.7 | 1612.9 | 1585.4 | 1572.7 | 1562.0 | 1549.3 | 1533.0 | 1527.4 |
| 57.5° | 1808.7 | 1771.1 | 1734.5 | 1711.6 | 1684.1 | 1667.3 | 1646.4 | 1645.4 |
| 60° | 2015.3 | 1964.4 | 1899.8 | 1865.7 | 1838.3 | 1818.4 | 1802.6 | 1796.5 |
| 62.5° | 2253.9 | 2166.4 | 2096.7 | 2060.1 | 2028.0 | 2015.8 | 1996.0 | 1998.5 |
| 65° | 2498.7 | 2409.6 | 2342.0 | 2312.4 | 2282.4 | 2274.3 | 2256.0 | 2262.6 |
| 67.5° | 2763.7 | 2690.5 | 2616.2 | 2588.7 | 2561.2 | 2553.1 | 2534.3 | 2539.9 |
| 70° | 3001.3 | 2908.2 | 2823.8 | 2769.8 | 2723.0 | 2685.4 | 2661.5 | 2651.8 |
| 72.5° | 3048.7 | 2887.4 | 2754.6 | 2619.8 | 2541.9 | 2473.7 | 2445.7 | 2435.1 |
| 75° | 2739.3 | 2489.0 | 2299.7 | 2141.5 | 2054.0 | 1954.8 | 1944.1 | 1929.3 |
| 77.5° | 2130.8 | 1845.9 | 1616.9 | 1413.4 | 1295.9 | 1174.8 | 1133.1 | 1101.5 |
| 80° | 1271.0 | 976.9 | 757.1 | 530.7 | 433.0 | 348.5 | 327.7 | 305.8 |
| 82.5° | 454.9 | 291.5 | 196.4 | 153.1 | 136.9 | 126.2 | 118.0 | 107.4 |
| 85° | 109.9 | 92.6 | 87.5 | 79.4 | 78.4 | 66.7 | 47.3 | 42.2 |
| 87.5° | 35.1 | 32.1 | 32.6 | 31.0 | 32.6 | 24.4 | 19.8 | 17.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)