

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: P157344

Luminaire Tested: **VST-F04-LED-E-U-5MQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157344  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F04-LED-E-U-5MQ-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9647.7 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

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: 28.75 FT

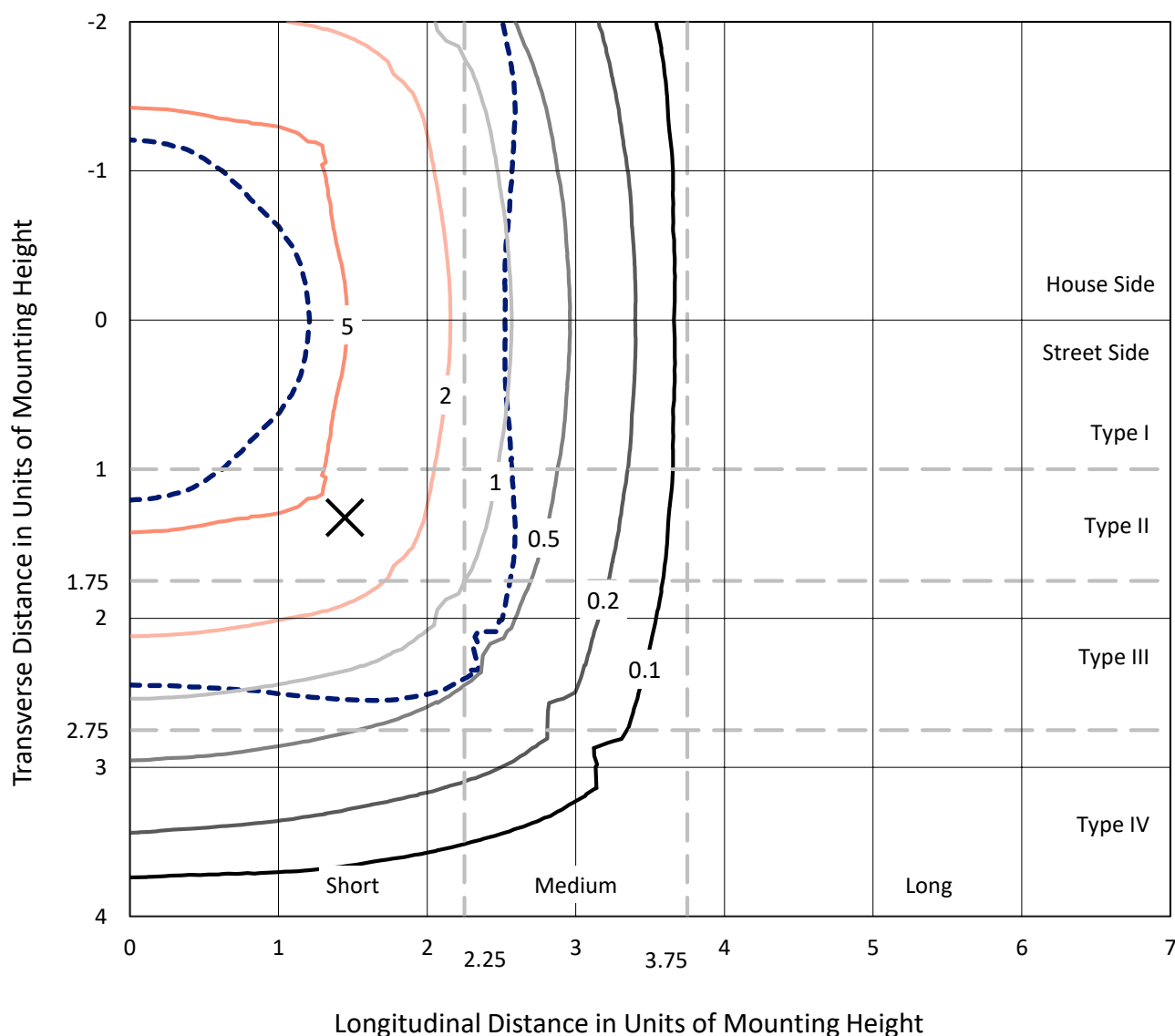


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

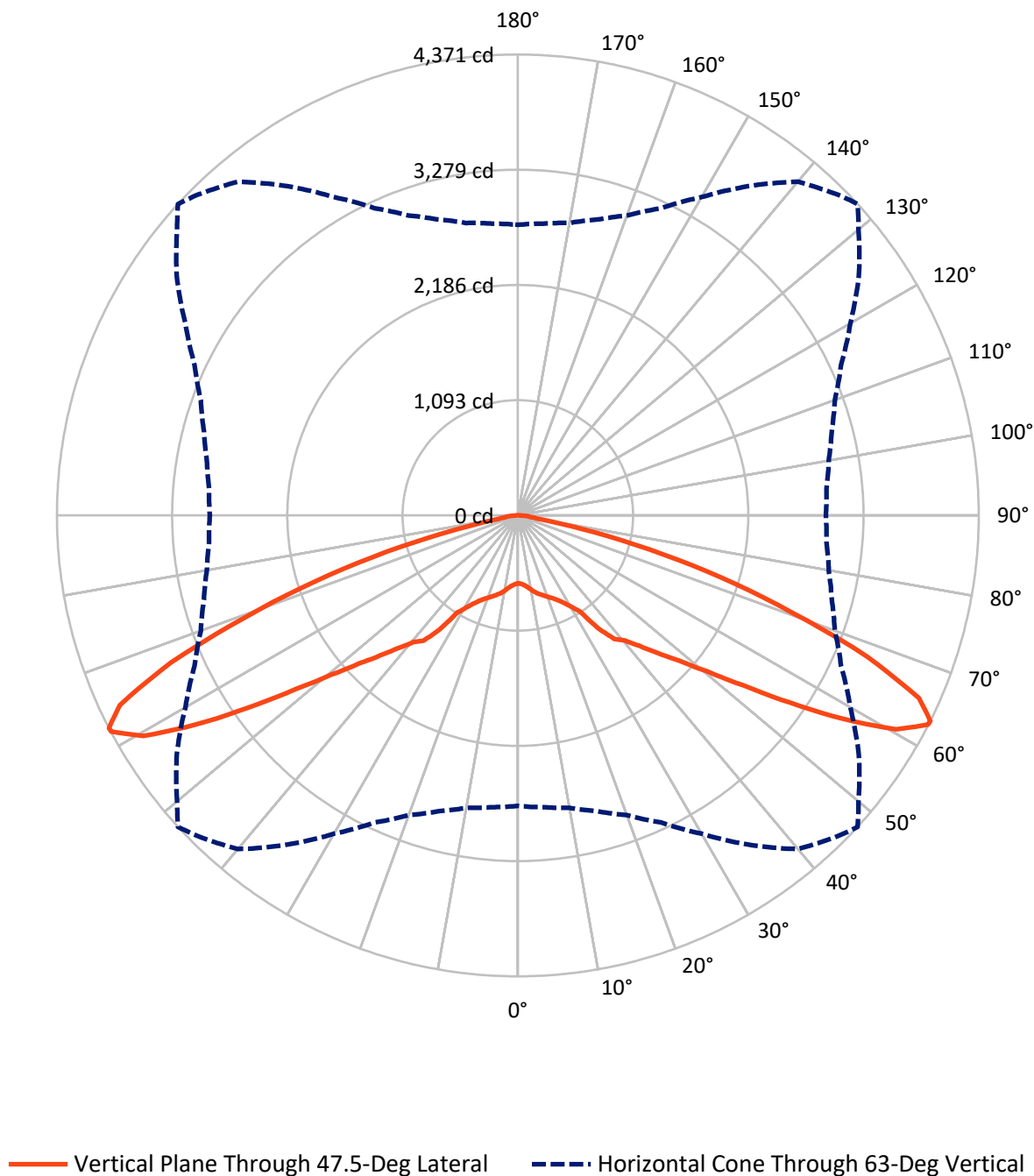


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type V - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4823.8   | 0.0    | 4823.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4823.8   | 0.0    | 4823.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9647.7   | 0.0    | 9647.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.7   | 0.7       |
| 10°-20°   | 219.8  | 2.3       |
| 20°-30°   | 420.5  | 4.4       |
| 30°-40°   | 804.4  | 8.3       |
| 40°-50°   | 1391.9 | 14.4      |
| 50°-60°   | 2499.8 | 25.9      |
| 60°-70°   | 3039.8 | 31.5      |
| 70°-80°   | 1097.8 | 11.4      |
| 80°-90°   | 108.7  | 1.1       |
| 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°-90°    | 9647.7 | 100.0     |
| 0°-180°   | 9647.7 | 100.0     |

**Coefficient of Utilization**



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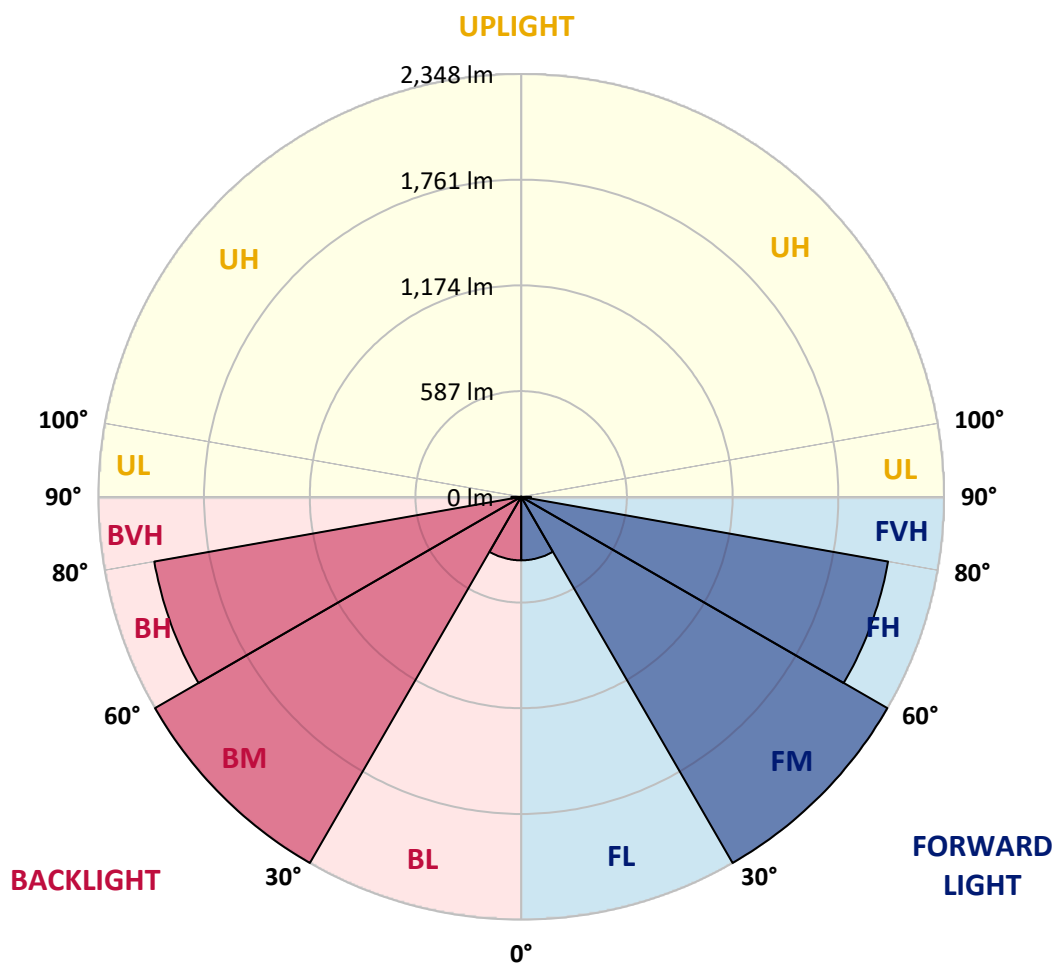
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 352.5  | 3.7       |                         |      |         |
| FM   | (30°-60°)   | 2348.1 | 24.3      |                         |      |         |
| FH   | (60°-80°)   | 2068.8 | 21.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 54.4   | 0.6       |                         |      | G1/100  |
| BL   | (0°-30°)    | 352.5  | 3.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 2348.1 | 24.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 2068.8 | 21.4      | B3/2500                 |      | G2/5000 |
| BVH  | (80°-90°)   | 54.4   | 0.6       |                         |      | G1/100  |
| 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°    | 47.5°  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  |
| 2.5°  | 648.4  | 647.2  | 647.8  | 648.4  | 647.8  | 647.2  | 647.2  | 647.2  | 648.4  | 647.2  | 650.2  |
| 5°    | 661.1  | 659.9  | 660.5  | 660.5  | 660.5  | 659.3  | 659.3  | 659.3  | 658.7  | 659.3  | 665.9  |
| 7.5°  | 685.2  | 683.4  | 682.8  | 684.0  | 682.8  | 682.2  | 681.6  | 681.6  | 680.4  | 680.4  | 688.8  |
| 10°   | 714.2  | 711.8  | 713.0  | 713.6  | 711.8  | 710.6  | 710.6  | 710.6  | 708.8  | 708.2  | 719.0  |
| 12.5° | 746.2  | 744.9  | 744.9  | 743.7  | 743.1  | 741.9  | 741.3  | 741.9  | 739.5  | 739.5  | 750.4  |
| 15°   | 776.9  | 774.5  | 775.1  | 773.3  | 772.1  | 770.9  | 770.3  | 769.7  | 768.5  | 768.5  | 775.1  |
| 17.5° | 805.3  | 803.5  | 802.9  | 801.0  | 799.2  | 797.4  | 796.2  | 795.6  | 793.8  | 793.8  | 799.8  |
| 20°   | 834.8  | 833.0  | 831.8  | 828.8  | 825.8  | 824.0  | 821.6  | 820.3  | 817.9  | 818.5  | 825.2  |
| 22.5° | 868.6  | 865.6  | 863.2  | 860.8  | 855.3  | 851.7  | 848.7  | 846.3  | 845.1  | 845.1  | 854.1  |
| 25°   | 913.8  | 912.0  | 908.4  | 900.6  | 893.9  | 888.5  | 883.7  | 881.3  | 878.9  | 877.6  | 891.5  |
| 27.5° | 969.3  | 967.5  | 962.7  | 954.9  | 945.8  | 936.8  | 931.3  | 927.1  | 924.1  | 922.3  | 942.2  |
| 30°   | 1042.9 | 1039.9 | 1035.7 | 1023.0 | 1015.2 | 1001.3 | 995.3  | 989.2  | 982.6  | 984.4  | 1007.9 |
| 32.5° | 1187.1 | 1182.9 | 1169.6 | 1155.7 | 1131.6 | 1112.9 | 1093.6 | 1079.1 | 1065.2 | 1063.4 | 1088.8 |
| 35°   | 1318.0 | 1316.2 | 1313.8 | 1304.1 | 1295.1 | 1283.6 | 1274.6 | 1259.5 | 1246.8 | 1243.8 | 1315.0 |
| 37.5° | 1388.6 | 1392.8 | 1389.2 | 1388.0 | 1388.0 | 1393.4 | 1410.3 | 1427.2 | 1439.2 | 1446.5 | 1486.3 |
| 40°   | 1496.5 | 1496.5 | 1492.3 | 1489.9 | 1485.1 | 1492.3 | 1499.5 | 1512.2 | 1517.6 | 1518.2 | 1558.7 |
| 42.5° | 1619.0 | 1619.6 | 1615.4 | 1608.1 | 1605.7 | 1612.3 | 1622.0 | 1634.1 | 1641.3 | 1643.1 | 1690.2 |
| 45°   | 1755.3 | 1753.5 | 1749.9 | 1747.5 | 1749.3 | 1755.3 | 1766.8 | 1790.3 | 1801.1 | 1809.6 | 1860.9 |
| 47.5° | 1903.1 | 1915.1 | 1904.9 | 1906.7 | 1906.7 | 1925.4 | 1951.3 | 1970.6 | 1988.1 | 2004.4 | 2058.7 |
| 50°   | 2096.7 | 2098.5 | 2100.3 | 2105.8 | 2109.4 | 2134.1 | 2166.7 | 2189.6 | 2214.9 | 2236.0 | 2324.7 |
| 52.5° | 2355.5 | 2351.9 | 2360.9 | 2366.9 | 2387.4 | 2400.7 | 2455.0 | 2484.0 | 2518.9 | 2546.1 | 2675.8 |
| 55°   | 2664.9 | 2663.1 | 2676.4 | 2681.2 | 2708.3 | 2740.9 | 2801.2 | 2864.6 | 2924.3 | 2957.5 | 3134.8 |
| 57.5° | 2886.9 | 2891.7 | 2914.6 | 2946.6 | 2999.7 | 3069.1 | 3158.9 | 3298.9 | 3412.3 | 3448.5 | 3643.9 |
| 60°   | 2935.7 | 2951.4 | 2985.8 | 3049.8 | 3140.8 | 3269.9 | 3446.7 | 3660.8 | 3868.3 | 3937.7 | 4121.0 |
| 62.5° | 2798.8 | 2816.9 | 2867.6 | 2944.2 | 3063.0 | 3254.2 | 3509.4 | 3811.6 | 4119.8 | 4274.2 | 4366.5 |
| 63°   | 2755.4 | 2777.7 | 2815.7 | 2904.4 | 3025.0 | 3213.8 | 3485.3 | 3811.0 | 4130.7 | 4299.0 | 4371.4 |
| 65°   | 2551.5 | 2555.7 | 2612.4 | 2701.1 | 2836.8 | 3032.9 | 3306.7 | 3683.1 | 4037.8 | 4232.0 | 4181.9 |
| 67.5° | 2195.6 | 2213.1 | 2260.8 | 2350.0 | 2482.1 | 2686.0 | 2983.4 | 3331.4 | 3643.3 | 3798.3 | 3574.5 |
| 70°   | 1774.0 | 1772.8 | 1831.9 | 1903.7 | 2020.1 | 2199.2 | 2459.8 | 2774.1 | 3021.4 | 3134.2 | 2759.6 |
| 72.5° | 1267.3 | 1235.9 | 1279.4 | 1359.0 | 1454.3 | 1597.3 | 1803.6 | 2047.8 | 2269.2 | 2366.9 | 2017.7 |
| 75°   | 577.3  | 568.8  | 607.4  | 686.4  | 782.9  | 910.2  | 1079.7 | 1290.8 | 1503.2 | 1617.8 | 1285.4 |
| 77.5° | 194.2  | 196.6  | 211.7  | 240.1  | 291.9  | 355.9  | 461.4  | 596.6  | 768.5  | 881.9  | 603.2  |
| 80°   | 130.3  | 133.9  | 138.7  | 143.0  | 149.0  | 158.6  | 181.6  | 216.5  | 269.6  | 326.3  | 190.6  |
| 82.5° | 106.8  | 111.0  | 121.8  | 126.7  | 130.3  | 133.3  | 135.1  | 137.5  | 137.5  | 138.7  | 120.6  |
| 85°   | 76.6   | 83.8   | 98.3   | 107.4  | 111.0  | 113.4  | 116.4  | 120.0  | 114.6  | 109.8  | 93.5   |
| 87.5° | 26.5   | 36.2   | 53.1   | 58.5   | 62.7   | 63.3   | 67.6   | 74.8   | 71.2   | 57.9   | 28.4   |
| 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):**

|       | 50°    | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  | 644.2  |
| 2.5°  | 647.2  | 646.6  | 647.2  | 647.8  | 647.8  | 647.8  | 648.4  | 649.0  | 649.0  |
| 5°    | 659.3  | 659.9  | 659.3  | 659.9  | 659.9  | 660.5  | 660.5  | 661.7  | 661.7  |
| 7.5°  | 679.8  | 681.0  | 680.4  | 681.6  | 681.6  | 682.8  | 682.2  | 684.0  | 684.0  |
| 10°   | 707.5  | 708.8  | 710.0  | 710.6  | 710.0  | 711.2  | 712.4  | 713.0  | 712.4  |
| 12.5° | 738.9  | 739.5  | 738.9  | 740.1  | 740.1  | 741.3  | 741.3  | 743.1  | 743.1  |
| 15°   | 767.9  | 767.3  | 766.7  | 768.5  | 769.7  | 770.3  | 771.5  | 773.3  | 771.5  |
| 17.5° | 793.8  | 794.4  | 793.2  | 795.0  | 797.4  | 799.2  | 800.4  | 802.9  | 802.2  |
| 20°   | 819.7  | 818.5  | 819.7  | 822.8  | 825.2  | 827.6  | 830.0  | 833.6  | 833.0  |
| 22.5° | 845.1  | 846.3  | 849.3  | 851.7  | 855.9  | 859.6  | 862.6  | 867.4  | 869.2  |
| 25°   | 880.7  | 880.7  | 885.5  | 888.5  | 894.5  | 899.4  | 906.0  | 911.4  | 914.4  |
| 27.5° | 925.9  | 925.9  | 931.3  | 938.0  | 947.0  | 955.5  | 962.7  | 969.9  | 968.7  |
| 30°   | 987.4  | 990.4  | 995.3  | 1003.7 | 1015.8 | 1026.0 | 1035.7 | 1042.9 | 1043.5 |
| 32.5° | 1068.3 | 1071.9 | 1086.4 | 1108.1 | 1133.4 | 1152.7 | 1167.2 | 1184.7 | 1187.1 |
| 35°   | 1251.6 | 1260.7 | 1279.4 | 1296.9 | 1307.1 | 1318.6 | 1325.8 | 1326.4 | 1327.6 |
| 37.5° | 1444.7 | 1429.0 | 1414.5 | 1401.2 | 1395.2 | 1394.0 | 1394.0 | 1396.4 | 1397.6 |
| 40°   | 1515.2 | 1507.4 | 1500.7 | 1492.3 | 1494.7 | 1494.1 | 1498.3 | 1502.0 | 1504.4 |
| 42.5° | 1635.9 | 1629.8 | 1623.8 | 1612.9 | 1619.0 | 1617.2 | 1623.2 | 1628.6 | 1631.6 |
| 45°   | 1804.2 | 1785.5 | 1772.2 | 1754.7 | 1760.7 | 1757.1 | 1757.1 | 1763.7 | 1764.9 |
| 47.5° | 1989.9 | 1968.2 | 1941.1 | 1919.4 | 1912.1 | 1905.5 | 1911.5 | 1911.5 | 1904.9 |
| 50°   | 2212.5 | 2186.6 | 2154.6 | 2119.6 | 2107.6 | 2100.9 | 2103.3 | 2106.4 | 2087.7 |
| 52.5° | 2514.7 | 2485.8 | 2440.5 | 2387.4 | 2376.0 | 2370.6 | 2369.3 | 2365.1 | 2360.3 |
| 55°   | 2924.3 | 2870.0 | 2814.5 | 2744.5 | 2723.4 | 2717.4 | 2718.0 | 2713.2 | 2724.6 |
| 57.5° | 3407.4 | 3327.8 | 3199.9 | 3114.9 | 3064.2 | 3044.9 | 3027.4 | 3020.2 | 3020.8 |
| 60°   | 3885.8 | 3723.5 | 3532.3 | 3383.9 | 3277.8 | 3210.2 | 3157.1 | 3127.6 | 3119.1 |
| 62.5° | 4194.0 | 3938.9 | 3651.7 | 3411.1 | 3236.7 | 3125.2 | 3041.3 | 2988.2 | 2971.3 |
| 63°   | 4218.1 | 3947.9 | 3640.9 | 3382.7 | 3199.3 | 3082.3 | 2994.3 | 2939.4 | 2921.3 |
| 65°   | 4165.7 | 3856.8 | 3499.1 | 3191.5 | 2990.6 | 2861.0 | 2765.6 | 2713.8 | 2699.9 |
| 67.5° | 3757.9 | 3500.9 | 3136.6 | 2818.7 | 2616.1 | 2484.6 | 2375.4 | 2325.9 | 2310.2 |
| 70°   | 3057.0 | 2880.9 | 2582.3 | 2310.8 | 2122.0 | 1995.4 | 1885.0 | 1844.0 | 1843.4 |
| 72.5° | 2266.2 | 2037.6 | 1859.6 | 1660.6 | 1495.9 | 1395.2 | 1299.3 | 1253.4 | 1230.5 |
| 75°   | 1498.9 | 1254.0 | 1055.0 | 887.3  | 723.2  | 632.8  | 524.8  | 478.3  | 451.2  |
| 77.5° | 755.2  | 559.8  | 401.1  | 278.1  | 215.9  | 177.3  | 162.3  | 154.4  | 153.8  |
| 80°   | 251.5  | 188.8  | 162.3  | 152.0  | 149.0  | 149.6  | 147.8  | 144.8  | 141.1  |
| 82.5° | 139.3  | 146.6  | 147.8  | 143.6  | 143.6  | 141.1  | 138.7  | 127.3  | 121.2  |
| 85°   | 119.4  | 131.5  | 132.7  | 130.3  | 129.7  | 126.1  | 121.8  | 106.2  | 97.1   |
| 87.5° | 74.8   | 86.3   | 84.4   | 75.4   | 83.2   | 77.8   | 73.6   | 47.7   | 35.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)