

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: P158294

Luminaire Tested: **VST-F11-LED-E-U-SL2-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158294  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33712)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F11-LED-E-U-SL2-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL  
Light Source: (77) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24954.5 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7  
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



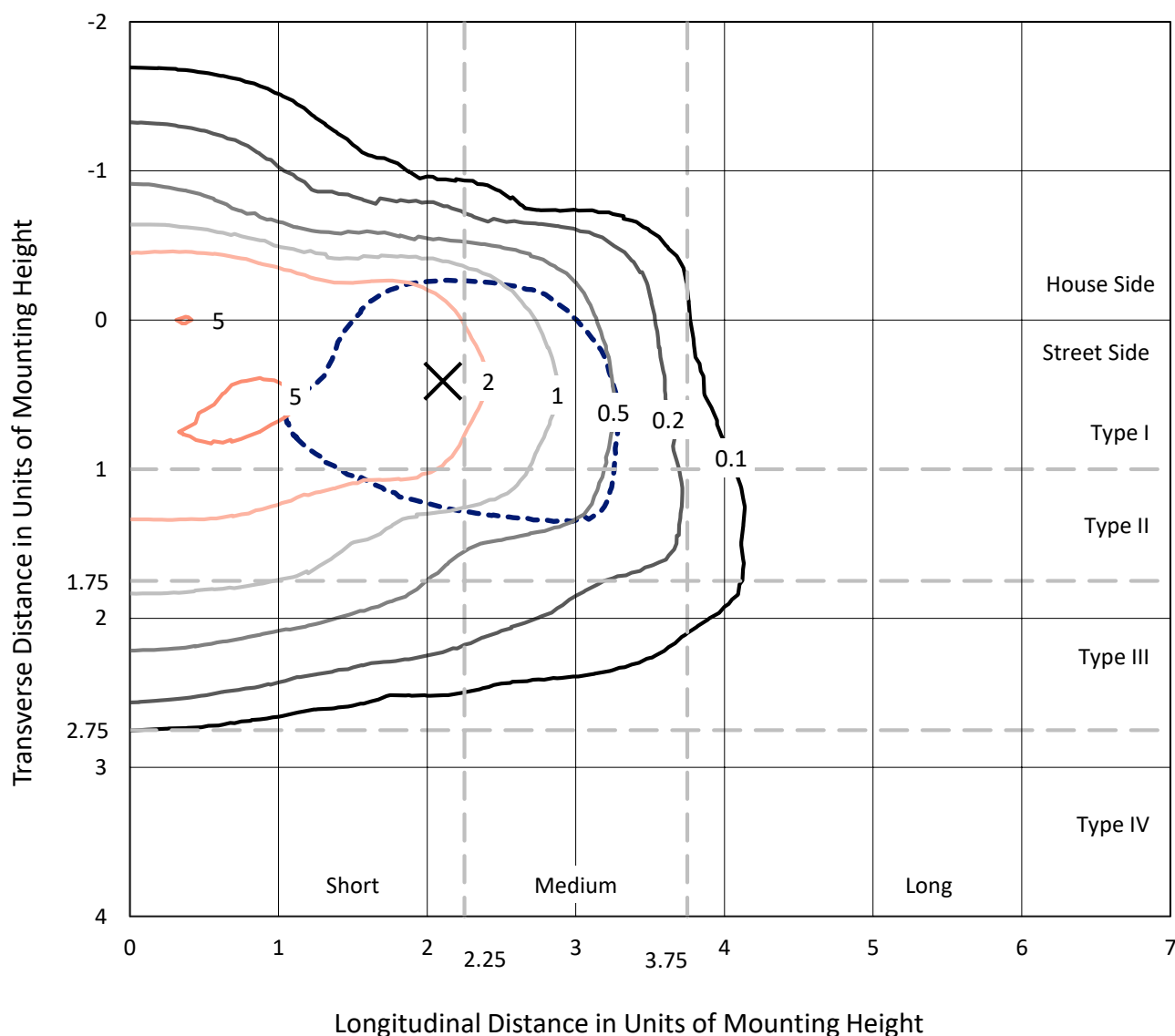
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

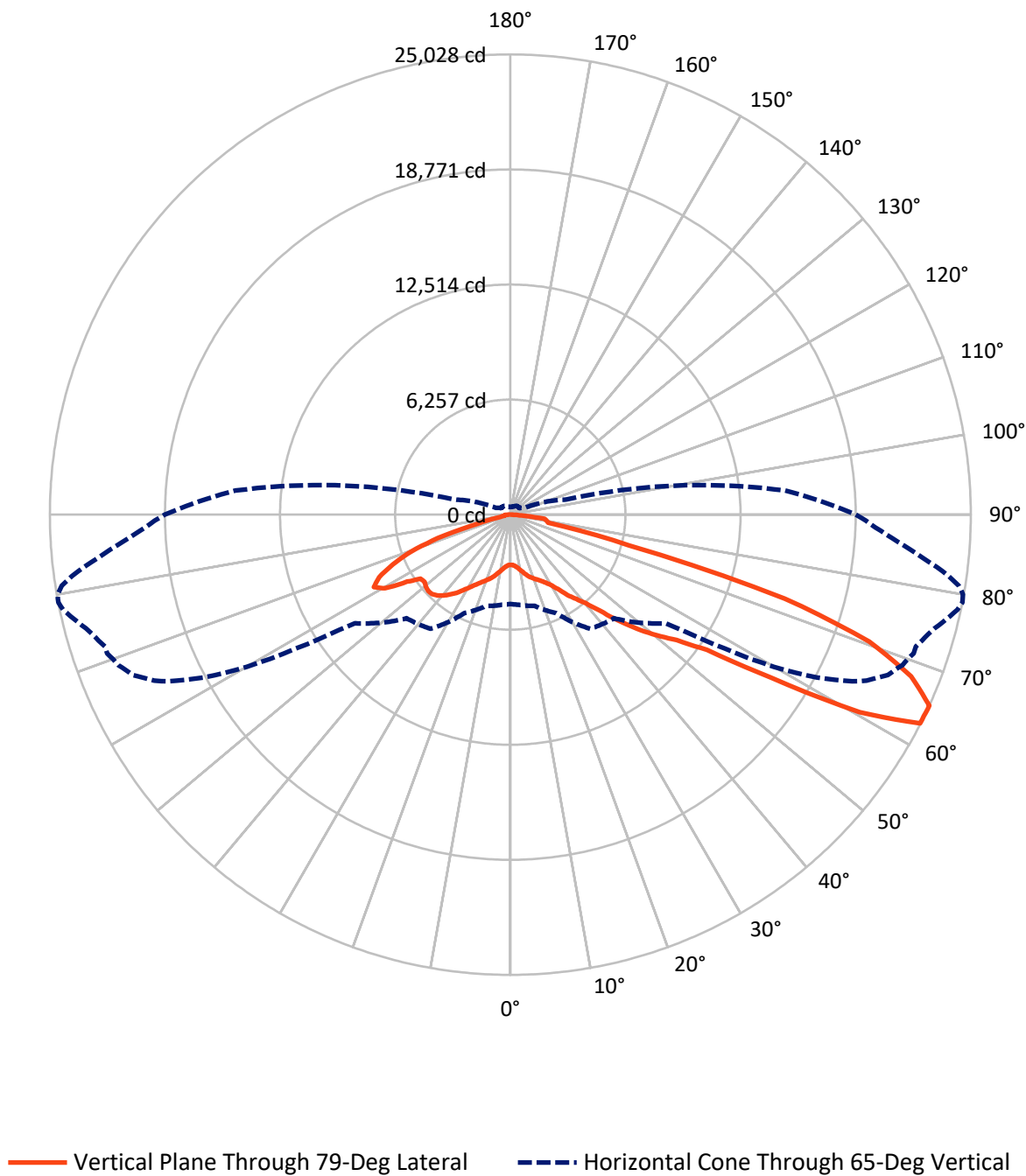


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc  
 Type II - Short - Non-Cutoff

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## Luminous Intensity Polar Plot



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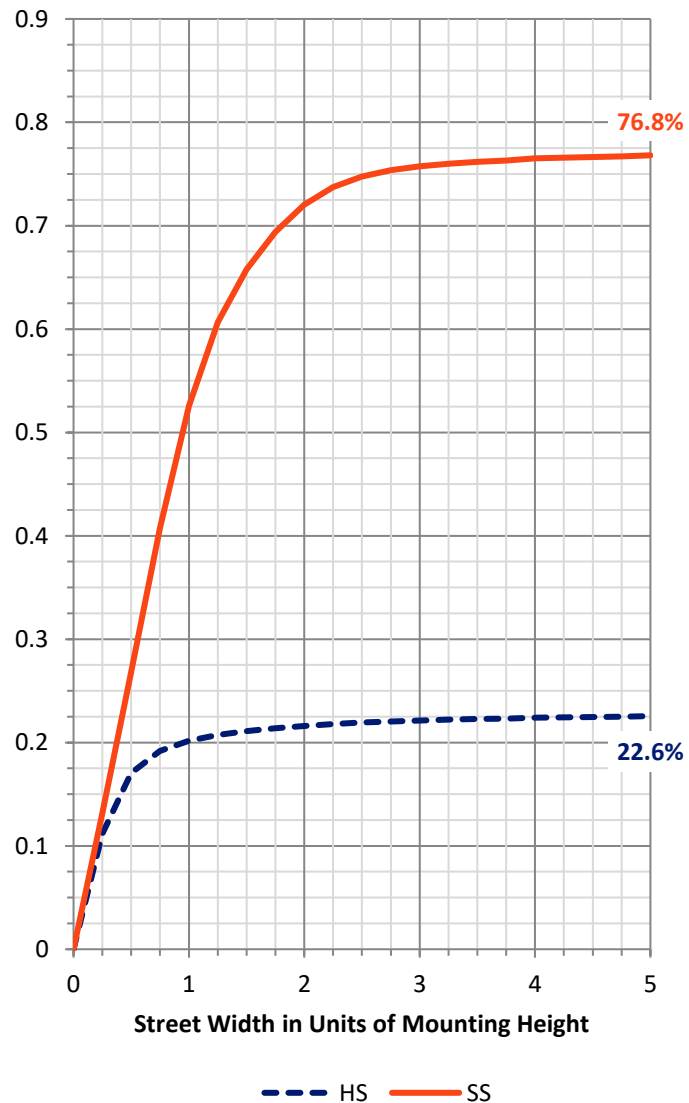
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5734.1   | 0.0    | 5734.1  |
|                    | % Fixture | 23.0     | 0.0    | 23.0    |
| <b>Street Side</b> | Lumens    | 19220.4  | 0.0    | 19220.4 |
|                    | % Fixture | 77.0     | 0.0    | 77.0    |
| <b>Total</b>       | Lumens    | 24954.5  | 0.0    | 24954.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 270.1   | 1.1       |
| 10°-20°   | 877.3   | 3.5       |
| 20°-30°   | 1512.5  | 6.1       |
| 30°-40°   | 2477.4  | 9.9       |
| 40°-50°   | 4148.8  | 16.6      |
| 50°-60°   | 5611.8  | 22.5      |
| 60°-70°   | 6910.9  | 27.7      |
| 70°-80°   | 2675.2  | 10.7      |
| 80°-90°   | 470.5   | 1.9       |
| 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°    | 24954.5 | 100.0     |
| 0°-180°   | 24954.5 | 100.0     |

**Coefficient of Utilization**



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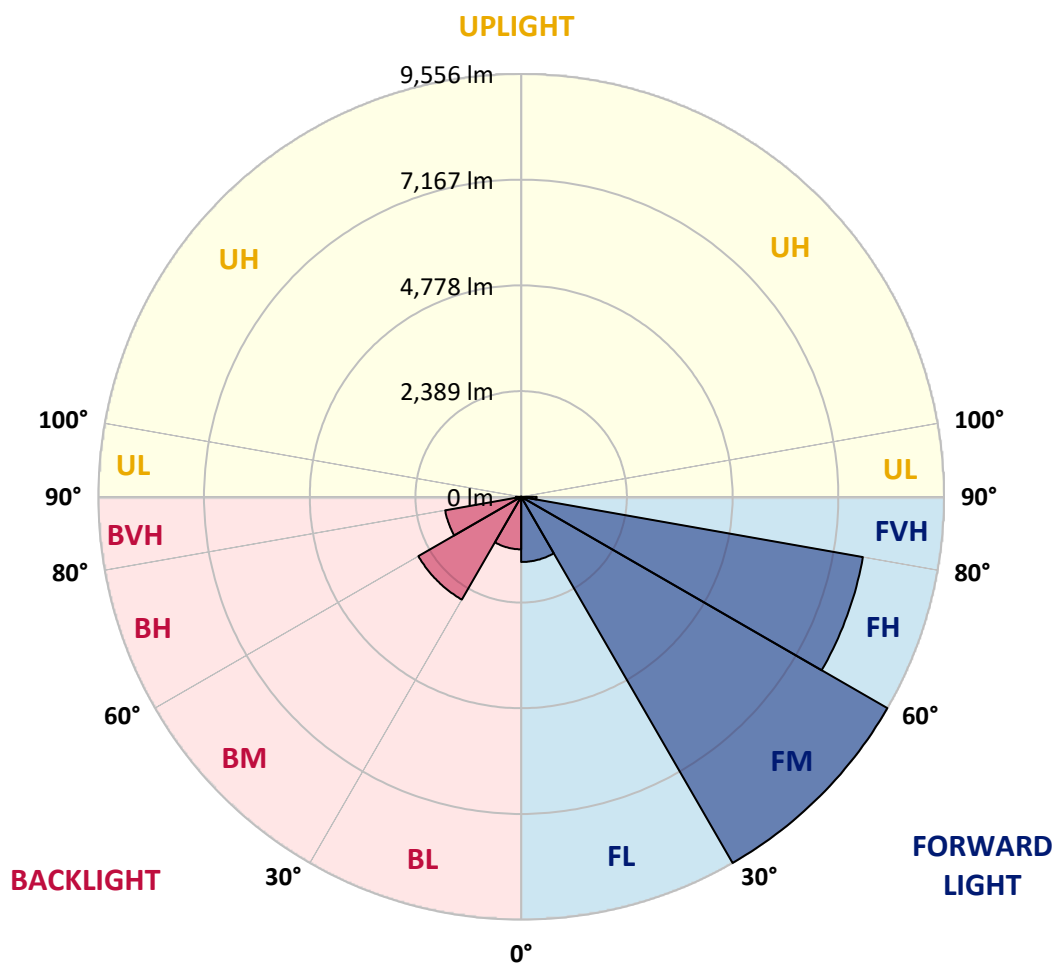
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1473.2 | 5.9       |                         |      |          |
| FM   | (30°-60°)   | 9556.5 | 38.3      |                         |      |          |
| FH   | (60°-80°)   | 7841.6 | 31.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 349.1  | 1.4       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1186.7 | 4.8       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2681.5 | 10.7      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1744.5 | 7.0       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 121.4  | 0.5       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 56°     | 57°     | 58°     | 59°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  |
| 2.5°  | 2735.3 | 2727.0 | 2735.3 | 2742.0 | 2746.9 | 2753.6  | 2751.9  | 2750.3  | 2748.6  | 2750.3  | 2750.3  |
| 5°    | 2758.6 | 2756.9 | 2765.2 | 2771.8 | 2783.4 | 2791.7  | 2801.7  | 2801.7  | 2801.7  | 2800.0  | 2803.3  |
| 7.5°  | 2833.2 | 2831.5 | 2839.8 | 2846.5 | 2856.4 | 2873.0  | 2886.3  | 2892.9  | 2891.3  | 2891.3  | 2891.3  |
| 10°   | 2956.0 | 2949.3 | 2949.3 | 2949.3 | 2962.6 | 2974.2  | 3004.1  | 3007.4  | 3014.0  | 3010.7  | 3012.4  |
| 12.5° | 3075.4 | 3077.0 | 3072.1 | 3067.1 | 3068.8 | 3092.0  | 3135.1  | 3143.4  | 3145.1  | 3150.0  | 3153.4  |
| 15°   | 3183.2 | 3181.6 | 3169.9 | 3158.3 | 3173.3 | 3213.1  | 3269.5  | 3284.4  | 3284.4  | 3294.3  | 3301.0  |
| 17.5° | 3282.7 | 3279.4 | 3257.9 | 3237.9 | 3252.9 | 3320.9  | 3408.8  | 3418.8  | 3433.7  | 3438.7  | 3445.3  |
| 20°   | 3400.5 | 3393.9 | 3369.0 | 3315.9 | 3315.9 | 3408.8  | 3524.9  | 3534.9  | 3548.1  | 3551.5  | 3563.1  |
| 22.5° | 3564.7 | 3548.1 | 3495.1 | 3398.9 | 3372.3 | 3480.1  | 3622.8  | 3627.8  | 3637.7  | 3651.0  | 3660.9  |
| 25°   | 3750.5 | 3753.8 | 3667.6 | 3500.0 | 3442.0 | 3554.8  | 3717.3  | 3725.6  | 3743.9  | 3753.8  | 3765.4  |
| 27.5° | 3942.9 | 3947.9 | 3851.7 | 3642.7 | 3544.8 | 3657.6  | 3845.1  | 3855.0  | 3876.6  | 3888.2  | 3906.4  |
| 30°   | 4161.9 | 4168.5 | 4075.6 | 3865.0 | 3715.7 | 3808.6  | 4034.2  | 4060.7  | 4079.0  | 4093.9  | 4123.7  |
| 32.5° | 4687.7 | 4647.9 | 4583.2 | 4359.3 | 4123.7 | 4117.1  | 4339.4  | 4369.2  | 4394.1  | 4425.6  | 4453.8  |
| 35°   | 5349.6 | 5374.5 | 5407.6 | 5256.7 | 5049.3 | 4898.4  | 4916.6  | 4900.1  | 4923.3  | 4969.7  | 4997.9  |
| 37.5° | 5873.8 | 5928.5 | 6072.8 | 6170.7 | 6162.4 | 6132.5  | 5853.9  | 5853.9  | 5868.8  | 5843.9  | 5840.6  |
| 40°   | 6285.1 | 6320.0 | 6615.2 | 6995.1 | 7315.2 | 7472.8  | 7252.2  | 7220.7  | 7237.3  | 7109.6  | 7114.5  |
| 42.5° | 6497.5 | 6548.9 | 6973.5 | 7640.4 | 8275.7 | 8781.6  | 8713.6  | 8692.0  | 8642.3  | 8610.8  | 8590.9  |
| 45°   | 6605.3 | 6666.7 | 7172.6 | 8088.2 | 9013.8 | 9795.1  | 10146.8 | 10143.5 | 10098.7 | 10062.2 | 10045.6 |
| 47.5° | 6550.5 | 6603.6 | 7142.7 | 8224.3 | 9402.0 | 10448.7 | 11226.7 | 11274.8 | 11261.5 | 11314.6 | 11336.1 |
| 50°   | 6192.2 | 6260.3 | 6801.0 | 7930.7 | 9239.4 | 10705.8 | 11974.8 | 12064.3 | 12185.4 | 12261.7 | 12362.9 |
| 52.5° | 5868.8 | 5925.2 | 6412.9 | 7454.6 | 8705.3 | 10496.8 | 12426.0 | 12610.1 | 12776.0 | 12931.9 | 13053.0 |
| 55°   | 5530.4 | 5586.8 | 6014.8 | 6960.3 | 8166.2 | 9879.7  | 12631.7 | 12900.4 | 13159.1 | 13422.9 | 13665.1 |
| 57.5° | 5402.7 | 5462.4 | 5780.9 | 6577.1 | 7725.0 | 9267.6  | 12732.8 | 13174.1 | 13595.4 | 14043.3 | 14507.7 |
| 60°   | 5734.4 | 5787.5 | 6029.7 | 6587.0 | 7388.2 | 8655.5  | 12528.8 | 13222.2 | 13947.1 | 14685.2 | 15398.5 |
| 62.5° | 5633.2 | 5661.4 | 5963.3 | 6827.6 | 7817.9 | 8051.7  | 11644.7 | 12560.3 | 13613.7 | 14695.2 | 15788.3 |
| 65°   | 4860.2 | 4915.0 | 5142.2 | 5902.0 | 7577.3 | 7970.5  | 10297.7 | 11218.4 | 12460.8 | 13739.7 | 15204.4 |
| 67.5° | 3486.8 | 3410.5 | 3586.3 | 4251.5 | 5878.7 | 7957.2  | 8781.6  | 9463.4  | 10437.1 | 11417.4 | 12618.4 |
| 70°   | 1584.1 | 1547.6 | 1685.3 | 2211.2 | 3546.5 | 6288.5  | 7424.7  | 7655.3  | 8016.9  | 8677.1  | 9488.3  |
| 72.5° | 625.4  | 623.7  | 713.3  | 914.0  | 1677.0 | 4047.4  | 6243.7  | 6376.4  | 6504.1  | 6791.1  | 7141.1  |
| 75°   | 409.7  | 409.7  | 436.3  | 492.7  | 826.1  | 1954.0  | 5281.6  | 5402.7  | 5598.4  | 5679.7  | 5829.0  |
| 77.5° | 308.5  | 310.2  | 321.8  | 335.1  | 456.2  | 1028.4  | 3727.3  | 4156.9  | 4488.7  | 4735.8  | 4916.6  |
| 80°   | 219.0  | 228.9  | 250.5  | 258.8  | 296.9  | 585.6   | 2106.7  | 2416.9  | 2791.7  | 3191.5  | 3694.1  |
| 82.5° | 164.2  | 175.8  | 212.3  | 222.3  | 235.5  | 333.4   | 950.5   | 1078.2  | 1259.0  | 1632.2  | 2347.2  |
| 85°   | 76.3   | 84.6   | 146.0  | 159.2  | 170.9  | 192.4   | 482.7   | 539.1   | 612.1   | 670.1   | 781.3   |
| 87.5° | 11.6   | 8.3    | 24.9   | 34.8   | 54.7   | 56.4    | 165.9   | 197.4   | 214.0   | 257.1   | 267.1   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 60°     | 61°     | 62°     | 64°     | 65°     | 66°     | 67°     | 68°     | 69°     | 70°     | 71°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  |
| 2.5°  | 2750.3  | 2751.9  | 2753.6  | 2750.3  | 2751.9  | 2751.9  | 2748.6  | 2746.9  | 2746.9  | 2746.9  | 2748.6  |
| 5°    | 2803.3  | 2806.7  | 2803.3  | 2805.0  | 2811.6  | 2810.0  | 2806.7  | 2805.0  | 2811.6  | 2813.3  | 2808.3  |
| 7.5°  | 2897.9  | 2899.6  | 2892.9  | 2901.2  | 2904.5  | 2906.2  | 2906.2  | 2909.5  | 2909.5  | 2914.5  | 2909.5  |
| 10°   | 3019.0  | 3019.0  | 3030.6  | 3028.9  | 3030.6  | 3033.9  | 3035.6  | 3042.2  | 3047.2  | 3047.2  | 3050.5  |
| 12.5° | 3158.3  | 3160.0  | 3171.6  | 3173.3  | 3179.9  | 3181.6  | 3191.5  | 3184.9  | 3201.5  | 3201.5  | 3206.4  |
| 15°   | 3302.6  | 3314.3  | 3315.9  | 3332.5  | 3335.8  | 3337.5  | 3350.7  | 3350.7  | 3362.4  | 3364.0  | 3367.3  |
| 17.5° | 3445.3  | 3455.3  | 3461.9  | 3475.2  | 3486.8  | 3491.7  | 3496.7  | 3506.7  | 3515.0  | 3518.3  | 3526.6  |
| 20°   | 3568.0  | 3578.0  | 3584.6  | 3597.9  | 3607.9  | 3616.2  | 3621.1  | 3632.7  | 3641.0  | 3644.4  | 3656.0  |
| 22.5° | 3670.9  | 3677.5  | 3689.1  | 3707.4  | 3710.7  | 3720.7  | 3735.6  | 3743.9  | 3747.2  | 3757.1  | 3770.4  |
| 25°   | 3780.4  | 3790.3  | 3797.0  | 3813.5  | 3826.8  | 3843.4  | 3856.7  | 3869.9  | 3873.3  | 3886.5  | 3898.1  |
| 27.5° | 3926.3  | 3936.3  | 3938.0  | 3971.1  | 3984.4  | 4007.6  | 4022.6  | 4042.5  | 4052.4  | 4064.0  | 4087.2  |
| 30°   | 4142.0  | 4165.2  | 4175.2  | 4213.3  | 4220.0  | 4246.5  | 4273.0  | 4279.7  | 4294.6  | 4296.3  | 4334.4  |
| 32.5° | 4472.1  | 4505.3  | 4518.5  | 4558.3  | 4568.3  | 4593.2  | 4608.1  | 4642.9  | 4644.6  | 4661.2  | 4669.5  |
| 35°   | 5012.9  | 5004.6  | 5056.0  | 5065.9  | 5095.8  | 5117.4  | 5132.3  | 5132.3  | 5163.8  | 5165.5  | 5175.4  |
| 37.5° | 5751.0  | 5734.4  | 5747.7  | 5688.0  | 5702.9  | 5676.4  | 5671.4  | 5678.0  | 5664.8  | 5668.1  | 5666.4  |
| 40°   | 6932.1  | 6857.4  | 6779.5  | 6595.3  | 6555.5  | 6479.2  | 6419.5  | 6371.4  | 6324.9  | 6275.2  | 6242.0  |
| 42.5° | 8413.4  | 8305.5  | 8189.4  | 7894.2  | 7756.5  | 7608.8  | 7464.5  | 7381.6  | 7215.7  | 7114.5  | 7059.8  |
| 45°   | 9966.0  | 9839.9  | 9677.4  | 9431.9  | 9236.1  | 9078.5  | 8814.8  | 8690.4  | 8433.3  | 8305.5  | 8133.0  |
| 47.5° | 11238.3 | 11239.9 | 11108.9 | 10860.1 | 10651.1 | 10546.6 | 10382.3 | 10141.8 | 9849.9  | 9685.6  | 9378.8  |
| 50°   | 12351.3 | 12349.7 | 12341.4 | 12192.1 | 12046.1 | 11931.6 | 11787.3 | 11570.0 | 11331.2 | 11145.4 | 10793.7 |
| 52.5° | 13174.1 | 13283.6 | 13330.0 | 13328.3 | 13310.1 | 13257.0 | 13147.5 | 12960.1 | 12717.9 | 12613.4 | 12333.1 |
| 55°   | 13854.2 | 14093.0 | 14217.5 | 14489.5 | 14514.4 | 14602.3 | 14506.1 | 14507.7 | 14365.1 | 14375.0 | 14285.5 |
| 57.5° | 14884.3 | 15320.5 | 15571.0 | 16173.2 | 16475.1 | 16840.0 | 16775.3 | 17080.5 | 17191.7 | 17332.7 | 17520.1 |
| 60°   | 16053.7 | 16868.2 | 17462.0 | 18659.7 | 19147.4 | 19737.9 | 20063.0 | 20409.7 | 20661.8 | 20920.6 | 21111.4 |
| 62.5° | 16889.8 | 17959.7 | 18935.0 | 20641.9 | 21275.6 | 21897.6 | 22307.3 | 22727.0 | 23010.7 | 23196.5 | 23334.1 |
| 65°   | 16548.0 | 17730.8 | 18883.6 | 20673.4 | 21363.5 | 21814.7 | 22302.4 | 22544.6 | 22828.2 | 22982.5 | 23179.9 |
| 67.5° | 14061.5 | 15247.6 | 16483.4 | 18595.0 | 19316.6 | 19940.3 | 20320.1 | 20633.6 | 20862.5 | 21058.3 | 21285.5 |
| 70°   | 10457.0 | 11754.2 | 13031.4 | 15347.1 | 16257.8 | 17158.5 | 17606.4 | 17994.5 | 18233.4 | 18430.8 | 18681.2 |
| 72.5° | 7525.9  | 8338.7  | 9136.6  | 11729.3 | 12639.9 | 13804.4 | 14268.9 | 14700.2 | 15010.4 | 15000.4 | 15265.8 |
| 75°   | 5991.5  | 6321.6  | 6676.6  | 8015.3  | 8668.8  | 9650.8  | 9911.2  | 10153.4 | 10007.5 | 9727.1  | 9710.5  |
| 77.5° | 4988.0  | 5124.0  | 5243.4  | 5663.1  | 5759.3  | 5993.2  | 5863.8  | 5729.4  | 5296.5  | 4931.6  | 4739.2  |
| 80°   | 4049.1  | 4317.8  | 4493.7  | 4792.2  | 4915.0  | 4984.7  | 5002.9  | 4956.5  | 4797.2  | 4576.6  | 4224.9  |
| 82.5° | 3010.7  | 3521.6  | 3869.9  | 4457.2  | 4672.8  | 4717.6  | 4803.8  | 4750.8  | 4646.3  | 4467.1  | 4215.0  |
| 85°   | 882.5   | 998.6   | 1144.6  | 1552.6  | 1819.7  | 2046.9  | 2279.2  | 2393.6  | 2465.0  | 2365.4  | 2105.0  |
| 87.5° | 310.2   | 350.0   | 391.5   | 539.1   | 573.9   | 693.4   | 680.1   | 802.9   | 807.8   | 842.7   | 806.2   |
| 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):**

|       | 72°     | 73°     | 74°     | 75°     | 76°     | 77°     | 78°     | 79°     | 80°     | 81°     | 82°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  |
| 2.5°  | 2746.9  | 2746.9  | 2746.9  | 2748.6  | 2748.6  | 2748.6  | 2745.3  | 2743.6  | 2745.3  | 2748.6  | 2748.6  |
| 5°    | 2811.6  | 2813.3  | 2816.6  | 2810.0  | 2811.6  | 2816.6  | 2813.3  | 2811.6  | 2813.3  | 2816.6  | 2813.3  |
| 7.5°  | 2916.1  | 2917.8  | 2914.5  | 2921.1  | 2921.1  | 2924.4  | 2929.4  | 2924.4  | 2926.1  | 2927.8  | 2929.4  |
| 10°   | 3052.2  | 3053.8  | 3057.1  | 3062.1  | 3063.8  | 3067.1  | 3070.4  | 3075.4  | 3075.4  | 3072.1  | 3080.4  |
| 12.5° | 3214.7  | 3213.1  | 3216.4  | 3223.0  | 3226.3  | 3231.3  | 3241.3  | 3241.3  | 3247.9  | 3246.2  | 3254.5  |
| 15°   | 3374.0  | 3382.3  | 3383.9  | 3395.5  | 3400.5  | 3408.8  | 3420.4  | 3427.1  | 3427.1  | 3437.0  | 3440.3  |
| 17.5° | 3533.2  | 3539.8  | 3546.5  | 3556.4  | 3563.1  | 3568.0  | 3581.3  | 3589.6  | 3588.0  | 3606.2  | 3606.2  |
| 20°   | 3656.0  | 3669.2  | 3677.5  | 3684.2  | 3695.8  | 3704.1  | 3714.0  | 3724.0  | 3730.6  | 3742.2  | 3745.5  |
| 22.5° | 3775.4  | 3783.7  | 3795.3  | 3803.6  | 3816.9  | 3826.8  | 3838.4  | 3846.7  | 3858.3  | 3873.3  | 3878.2  |
| 25°   | 3908.1  | 3921.4  | 3934.6  | 3946.3  | 3956.2  | 3967.8  | 3987.7  | 4006.0  | 4022.6  | 4035.8  | 4040.8  |
| 27.5° | 4092.2  | 4107.2  | 4127.1  | 4135.4  | 4150.3  | 4160.2  | 4190.1  | 4213.3  | 4221.6  | 4244.8  | 4251.5  |
| 30°   | 4341.0  | 4357.6  | 4377.5  | 4387.5  | 4414.0  | 4427.3  | 4458.8  | 4483.7  | 4492.0  | 4520.2  | 4525.2  |
| 32.5° | 4701.0  | 4711.0  | 4750.8  | 4749.1  | 4785.6  | 4823.7  | 4842.0  | 4861.9  | 4898.4  | 4913.3  | 4918.3  |
| 35°   | 5200.3  | 5223.5  | 5251.7  | 5250.1  | 5296.5  | 5318.1  | 5354.6  | 5376.1  | 5402.7  | 5401.0  | 5429.2  |
| 37.5° | 5683.0  | 5691.3  | 5701.2  | 5722.8  | 5756.0  | 5785.8  | 5799.1  | 5820.7  | 5840.6  | 5870.4  | 5906.9  |
| 40°   | 6208.8  | 6228.7  | 6230.4  | 6242.0  | 6258.6  | 6296.8  | 6321.6  | 6344.9  | 6412.9  | 6456.0  | 6477.6  |
| 42.5° | 6996.8  | 6991.8  | 6958.6  | 6980.2  | 6990.1  | 7048.2  | 7066.4  | 7137.8  | 7214.1  | 7305.3  | 7330.2  |
| 45°   | 8010.3  | 7943.9  | 7924.0  | 7915.7  | 7968.8  | 7998.7  | 8073.3  | 8206.0  | 8285.6  | 8371.9  | 8413.4  |
| 47.5° | 9257.7  | 9050.3  | 8952.5  | 8930.9  | 8985.6  | 9113.4  | 9138.3  | 9269.3  | 9373.8  | 9436.8  | 9478.3  |
| 50°   | 10506.7 | 10344.2 | 10138.5 | 10068.8 | 10053.9 | 10171.7 | 10199.9 | 10309.4 | 10415.5 | 10433.8 | 10412.2 |
| 52.5° | 12076.0 | 11810.6 | 11470.5 | 11347.8 | 11249.9 | 11258.2 | 11281.4 | 11327.8 | 11395.9 | 11367.7 | 11309.6 |
| 55°   | 14083.1 | 13781.2 | 13613.7 | 13381.4 | 13233.8 | 13207.3 | 13106.1 | 12966.7 | 12961.8 | 12980.0 | 12805.8 |
| 57.5° | 17425.5 | 17299.5 | 17370.8 | 17345.9 | 17199.9 | 17287.9 | 16831.7 | 16702.3 | 16599.5 | 16420.3 | 16259.4 |
| 60°   | 21280.6 | 21409.9 | 21557.6 | 21897.6 | 21882.7 | 22224.4 | 21907.6 | 21828.0 | 21731.8 | 21179.4 | 20909.0 |
| 62.5° | 23574.7 | 23626.1 | 23843.4 | 24160.2 | 24472.1 | 24798.8 | 24946.5 | 24997.9 | 24797.2 | 24346.0 | 23782.0 |
| 65°   | 23174.9 | 23402.1 | 23612.8 | 23886.5 | 24206.7 | 24533.4 | 24845.3 | 25027.8 | 24981.3 | 24682.7 | 24062.3 |
| 67.5° | 21358.5 | 21597.4 | 21905.9 | 22192.9 | 22537.9 | 22821.6 | 23163.3 | 23498.4 | 23508.3 | 23359.0 | 22927.7 |
| 70°   | 18707.8 | 18984.8 | 19303.3 | 19464.2 | 19837.4 | 20094.5 | 20378.2 | 20709.9 | 20817.8 | 20836.0 | 20333.4 |
| 72.5° | 15209.4 | 15325.5 | 15481.4 | 15396.8 | 15471.5 | 15635.7 | 15559.4 | 15585.9 | 15176.2 | 15252.5 | 14632.1 |
| 75°   | 9262.7  | 9156.5  | 8685.4  | 8255.8  | 7731.6  | 7328.5  | 7424.7  | 6655.0  | 5897.0  | 5858.8  | 5311.4  |
| 77.5° | 4697.7  | 4528.5  | 4236.5  | 3933.0  | 3488.4  | 2979.2  | 2554.5  | 2096.7  | 1710.2  | 1489.6  | 1278.9  |
| 80°   | 4001.0  | 3881.6  | 3720.7  | 3500.0  | 3176.6  | 2800.0  | 2357.1  | 2008.8  | 1685.3  | 1348.6  | 1079.9  |
| 82.5° | 3828.5  | 3463.5  | 3229.7  | 3045.5  | 2695.5  | 2347.2  | 2105.0  | 1866.1  | 1637.2  | 1429.9  | 1133.0  |
| 85°   | 1899.3  | 1680.3  | 1421.6  | 1260.7  | 970.4   | 759.7   | 711.6   | 585.6   | 545.7   | 421.3   | 355.0   |
| 87.5° | 638.6   | 522.5   | 389.8   | 328.4   | 262.1   | 214.0   | 210.7   | 187.4   | 185.8   | 169.2   | 155.9   |
| 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):**

|       | 83°     | 84°     | 85°     | 86°     | 87°     | 88°     | 89°     | 90°     | 95°     | 105°   | 115°   |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 0°    | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4  | 2730.4 | 2730.4 |
| 2.5°  | 2746.9  | 2750.3  | 2750.3  | 2746.9  | 2748.6  | 2745.3  | 2746.9  | 2748.6  | 2743.6  | 2742.0 | 2737.0 |
| 5°    | 2815.0  | 2813.3  | 2813.3  | 2815.0  | 2819.9  | 2821.6  | 2813.3  | 2816.6  | 2818.3  | 2810.0 | 2791.7 |
| 7.5°  | 2927.8  | 2927.8  | 2932.7  | 2931.1  | 2941.0  | 2937.7  | 2936.1  | 2936.1  | 2936.1  | 2919.5 | 2889.6 |
| 10°   | 3080.4  | 3080.4  | 3085.3  | 3092.0  | 3093.6  | 3090.3  | 3090.3  | 3092.0  | 3100.3  | 3067.1 | 3020.6 |
| 12.5° | 3251.2  | 3259.5  | 3257.9  | 3257.9  | 3277.8  | 3272.8  | 3266.1  | 3272.8  | 3281.1  | 3234.6 | 3168.3 |
| 15°   | 3442.0  | 3447.0  | 3450.3  | 3461.9  | 3458.6  | 3470.2  | 3473.5  | 3470.2  | 3478.5  | 3418.8 | 3307.6 |
| 17.5° | 3614.5  | 3624.4  | 3627.8  | 3641.0  | 3641.0  | 3642.7  | 3656.0  | 3651.0  | 3652.6  | 3584.6 | 3425.4 |
| 20°   | 3757.1  | 3767.1  | 3772.1  | 3787.0  | 3790.3  | 3797.0  | 3801.9  | 3805.3  | 3813.5  | 3732.3 | 3521.6 |
| 22.5° | 3899.8  | 3908.1  | 3916.4  | 3926.3  | 3939.6  | 3947.9  | 3954.5  | 3957.9  | 3972.8  | 3878.2 | 3612.8 |
| 25°   | 4059.0  | 4077.3  | 4085.6  | 4102.2  | 4115.4  | 4128.7  | 4138.7  | 4140.3  | 4165.2  | 4047.4 | 3687.5 |
| 27.5° | 4271.4  | 4296.3  | 4309.5  | 4336.1  | 4349.3  | 4362.6  | 4359.3  | 4379.2  | 4414.0  | 4241.5 | 3745.5 |
| 30°   | 4550.0  | 4581.6  | 4589.9  | 4616.4  | 4638.0  | 4651.2  | 4666.2  | 4682.8  | 4706.0  | 4457.2 | 3773.7 |
| 32.5° | 4938.2  | 4986.3  | 4997.9  | 5012.9  | 5044.4  | 5067.6  | 5077.5  | 5104.1  | 5110.7  | 4661.2 | 3765.4 |
| 35°   | 5470.7  | 5449.1  | 5505.5  | 5518.8  | 5563.6  | 5581.8  | 5593.4  | 5628.3  | 5601.7  | 4883.5 | 3710.7 |
| 37.5° | 5951.7  | 5945.1  | 5999.8  | 6029.7  | 6087.7  | 6074.5  | 6102.7  | 6125.9  | 6031.3  | 5041.0 | 3609.5 |
| 40°   | 6538.9  | 6530.6  | 6606.9  | 6616.9  | 6706.5  | 6686.6  | 6698.2  | 6716.4  | 6505.8  | 5150.5 | 3425.4 |
| 42.5° | 7358.4  | 7361.7  | 7443.0  | 7452.9  | 7464.5  | 7501.0  | 7441.3  | 7444.6  | 7010.0  | 5180.4 | 3121.8 |
| 45°   | 8438.2  | 8496.3  | 8446.5  | 8448.2  | 8444.9  | 8375.2  | 8300.6  | 8212.6  | 7534.2  | 5077.5 | 2730.4 |
| 47.5° | 9484.9  | 9445.1  | 9382.1  | 9324.0  | 9275.9  | 9166.4  | 9057.0  | 8907.7  | 7987.1  | 4833.7 | 2294.1 |
| 50°   | 10380.7 | 10291.1 | 10234.7 | 10073.8 | 9959.3  | 9816.7  | 9664.1  | 9493.2  | 8358.6  | 4482.0 | 1886.0 |
| 52.5° | 11213.4 | 11120.5 | 10909.8 | 10742.3 | 10578.1 | 10389.0 | 10211.5 | 10010.8 | 8687.1  | 4080.6 | 1574.2 |
| 55°   | 12596.8 | 12515.5 | 12304.9 | 11998.0 | 11795.6 | 11535.2 | 11301.3 | 11029.3 | 9352.2  | 3755.5 | 1368.5 |
| 57.5° | 15816.5 | 15746.9 | 15304.0 | 15109.9 | 14842.8 | 14189.3 | 14093.0 | 13668.4 | 11135.4 | 3717.3 | 1247.4 |
| 60°   | 20350.0 | 20051.4 | 19683.2 | 19152.3 | 18527.0 | 18311.3 | 17830.3 | 17264.6 | 14005.1 | 3821.8 | 1149.5 |
| 62.5° | 23133.4 | 22453.3 | 21912.6 | 21300.5 | 20724.9 | 20230.5 | 19704.7 | 19145.7 | 15473.2 | 3684.2 | 1028.4 |
| 65°   | 23342.4 | 22542.9 | 21828.0 | 21109.7 | 20462.8 | 19847.4 | 19336.5 | 18777.5 | 14995.4 | 3166.6 | 870.9  |
| 67.5° | 22191.2 | 21348.6 | 20568.9 | 19754.5 | 19100.9 | 18545.2 | 17895.0 | 17357.5 | 13648.5 | 2465.0 | 724.9  |
| 70°   | 19817.5 | 19077.7 | 18405.9 | 17528.4 | 16986.0 | 16309.2 | 15896.1 | 15224.3 | 11896.8 | 1680.3 | 598.8  |
| 72.5° | 14273.9 | 13716.5 | 13497.5 | 12885.4 | 12175.5 | 11777.4 | 11586.6 | 10934.7 | 8791.6  | 1043.4 | 489.3  |
| 75°   | 4822.1  | 4959.8  | 4644.6  | 4161.9  | 4397.4  | 4034.2  | 4181.8  | 3871.6  | 3719.0  | 598.8  | 411.4  |
| 77.5° | 1069.9  | 1005.2  | 928.9   | 862.6   | 857.6   | 806.2   | 854.3   | 807.8   | 864.2   | 381.5  | 363.3  |
| 80°   | 844.3   | 666.8   | 567.3   | 517.5   | 491.0   | 476.1   | 464.5   | 451.2   | 411.4   | 325.1  | 335.1  |
| 82.5° | 912.3   | 688.4   | 504.3   | 403.1   | 345.0   | 323.5   | 318.5   | 305.2   | 301.9   | 315.2  | 338.4  |
| 85°   | 291.9   | 243.8   | 207.3   | 195.7   | 180.8   | 172.5   | 169.2   | 164.2   | 199.1   | 343.4  | 325.1  |
| 87.5° | 152.6   | 134.4   | 119.4   | 114.5   | 99.5    | 92.9    | 91.2    | 92.9    | 139.3   | 343.4  | 235.5  |
| 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):**

|       | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 |
| 2.5°  | 2732.0 | 2730.4 | 2727.0 | 2725.4 | 2723.7 | 2715.4 | 2722.1 |
| 5°    | 2783.4 | 2766.9 | 2751.9 | 2733.7 | 2723.7 | 2715.4 | 2715.4 |
| 7.5°  | 2861.4 | 2815.0 | 2776.8 | 2735.3 | 2707.1 | 2685.6 | 2682.3 |
| 10°   | 2959.3 | 2869.7 | 2781.8 | 2707.1 | 2654.1 | 2614.2 | 2609.3 |
| 12.5° | 3052.2 | 2916.1 | 2776.8 | 2654.1 | 2571.1 | 2514.7 | 2511.4 |
| 15°   | 3138.4 | 2941.0 | 2738.7 | 2557.8 | 2433.4 | 2358.8 | 2350.5 |
| 17.5° | 3206.4 | 2926.1 | 2652.4 | 2423.5 | 2254.3 | 2166.4 | 2161.4 |
| 20°   | 3221.4 | 2866.4 | 2529.6 | 2257.6 | 2078.5 | 1985.6 | 1964.0 |
| 22.5° | 3208.1 | 2758.6 | 2377.0 | 2075.1 | 1869.5 | 1776.6 | 1764.9 |
| 25°   | 3168.3 | 2627.5 | 2187.9 | 1862.8 | 1672.1 | 1577.5 | 1554.3 |
| 27.5° | 3097.0 | 2473.2 | 1983.9 | 1657.1 | 1468.0 | 1376.8 | 1353.6 |
| 30°   | 2990.8 | 2287.5 | 1766.6 | 1464.7 | 1269.0 | 1196.0 | 1172.8 |
| 32.5° | 2843.2 | 2061.9 | 1552.6 | 1267.3 | 1104.8 | 1046.7 | 1036.7 |
| 35°   | 2639.1 | 1803.1 | 1328.7 | 1104.8 | 985.3  | 950.5  | 945.5  |
| 37.5° | 2378.7 | 1544.3 | 1141.2 | 988.6  | 902.4  | 880.8  | 877.5  |
| 40°   | 2038.6 | 1278.9 | 1008.5 | 905.7  | 842.7  | 824.4  | 821.1  |
| 42.5° | 1688.6 | 1079.9 | 910.7  | 839.3  | 787.9  | 771.3  | 766.4  |
| 45°   | 1381.8 | 945.5  | 837.7  | 784.6  | 736.5  | 718.3  | 716.6  |
| 47.5° | 1152.9 | 867.5  | 778.0  | 734.8  | 686.7  | 665.2  | 666.8  |
| 50°   | 985.3  | 796.2  | 728.2  | 691.7  | 637.0  | 617.1  | 618.7  |
| 52.5° | 870.9  | 724.9  | 681.8  | 640.3  | 593.8  | 573.9  | 573.9  |
| 55°   | 781.3  | 666.8  | 637.0  | 592.2  | 555.7  | 537.4  | 535.8  |
| 57.5° | 708.3  | 620.4  | 593.8  | 557.4  | 520.9  | 499.3  | 499.3  |
| 60°   | 663.5  | 587.2  | 565.6  | 532.5  | 489.3  | 466.1  | 464.5  |
| 62.5° | 637.0  | 577.3  | 559.0  | 512.6  | 464.5  | 441.2  | 436.3  |
| 65°   | 617.1  | 600.5  | 577.3  | 501.0  | 444.6  | 419.7  | 414.7  |
| 67.5° | 618.7  | 655.2  | 622.0  | 507.6  | 437.9  | 401.4  | 394.8  |
| 70°   | 628.7  | 698.3  | 653.6  | 522.5  | 466.1  | 393.1  | 378.2  |
| 72.5° | 578.9  | 632.0  | 588.9  | 497.6  | 454.5  | 378.2  | 360.0  |
| 75°   | 482.7  | 461.1  | 423.0  | 404.7  | 408.1  | 343.4  | 336.7  |
| 77.5° | 391.5  | 343.4  | 306.9  | 321.8  | 343.4  | 293.6  | 287.0  |
| 80°   | 340.1  | 278.7  | 260.4  | 285.3  | 311.9  | 250.5  | 233.9  |
| 82.5° | 318.5  | 235.5  | 223.9  | 296.9  | 326.8  | 215.6  | 189.1  |
| 85°   | 280.3  | 192.4  | 175.8  | 350.0  | 326.8  | 162.6  | 150.9  |
| 87.5° | 187.4  | 114.5  | 109.5  | 257.1  | 223.9  | 112.8  | 91.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)