

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: P836316

Luminaire Tested: **ARCH3-170-727-U-T2R**

Issue Date: 5/16/2024

### Test Information

Test Method: LM-79-08  
Report Number: P836316  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH3-170-727-U-T2R  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1310mA LIGHTSQUARE WITH 40 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 22423 lumens  
Efficiency: N/A  
Efficacy: 131.4 lumens/watt  
Luminous Opening: Rectangular (W 0.58' x L: 0.58' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 170.6  
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: 24 FT



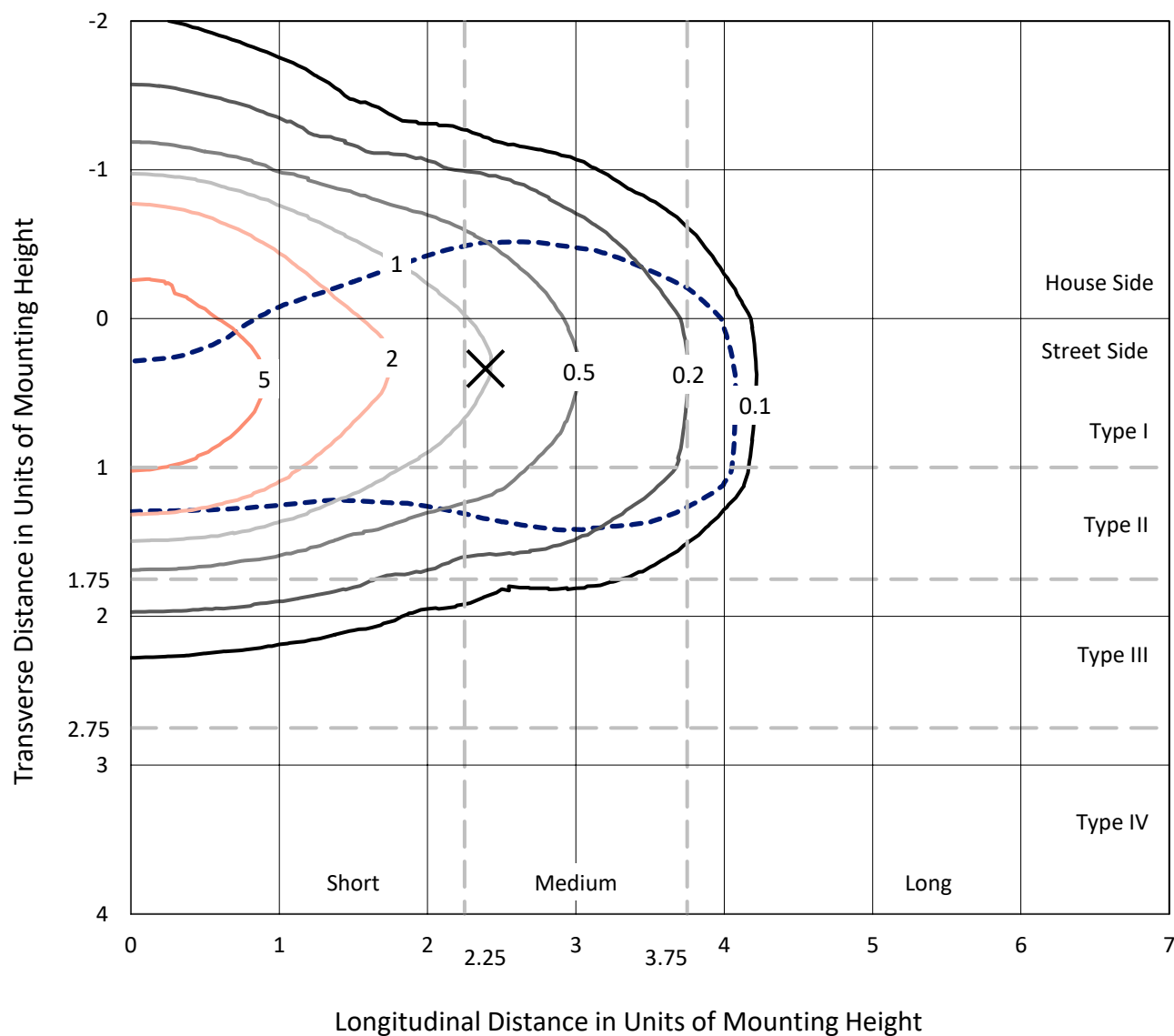
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

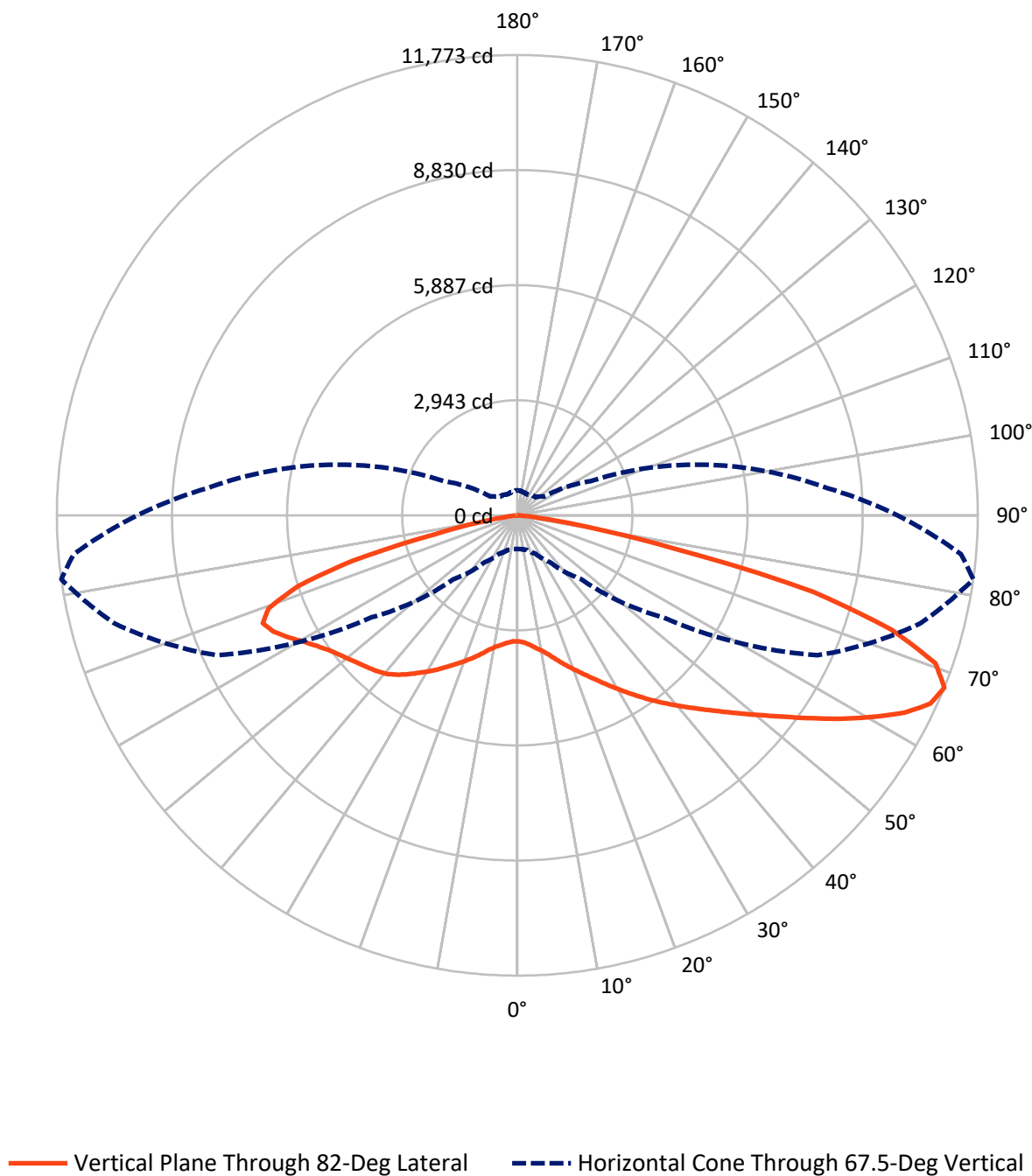
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc  
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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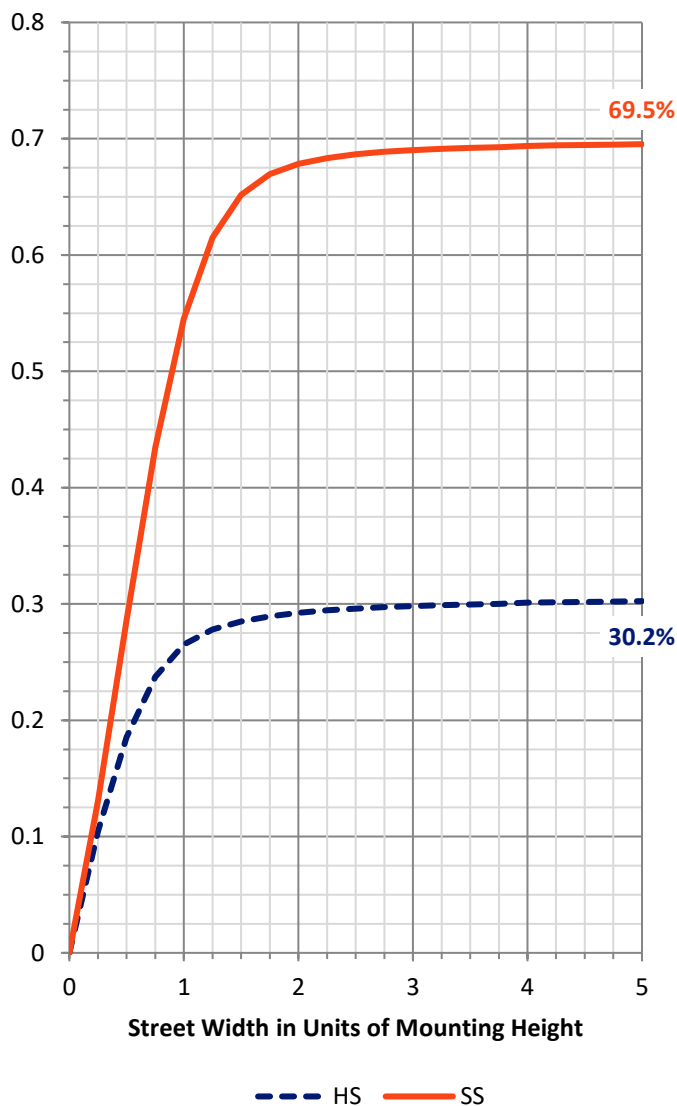
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6828.7   | 0.0    | 6828.7  |
|                    | % Fixture | 30.5     | 0.0    | 30.5    |
| <b>Street Side</b> | Lumens    | 15594.3  | 0.0    | 15594.3 |
|                    | % Fixture | 69.5     | 0.0    | 69.5    |
| <b>Total</b>       | Lumens    | 22423.0  | 0.0    | 22423.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 333.1   | 1.5       |
| 10°-20°   | 1199.9  | 5.4       |
| 20°-30°   | 2411.5  | 10.8      |
| 30°-40°   | 3788.1  | 16.9      |
| 40°-50°   | 4614.7  | 20.6      |
| 50°-60°   | 4360.3  | 19.4      |
| 60°-70°   | 3600.6  | 16.1      |
| 70°-80°   | 1960.7  | 8.7       |
| 80°-90°   | 154.2   | 0.7       |
| 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°    | 22423.0 | 100.0     |
| 0°-180°   | 22423.0 | 100.0     |

**Coefficient of Utilization**



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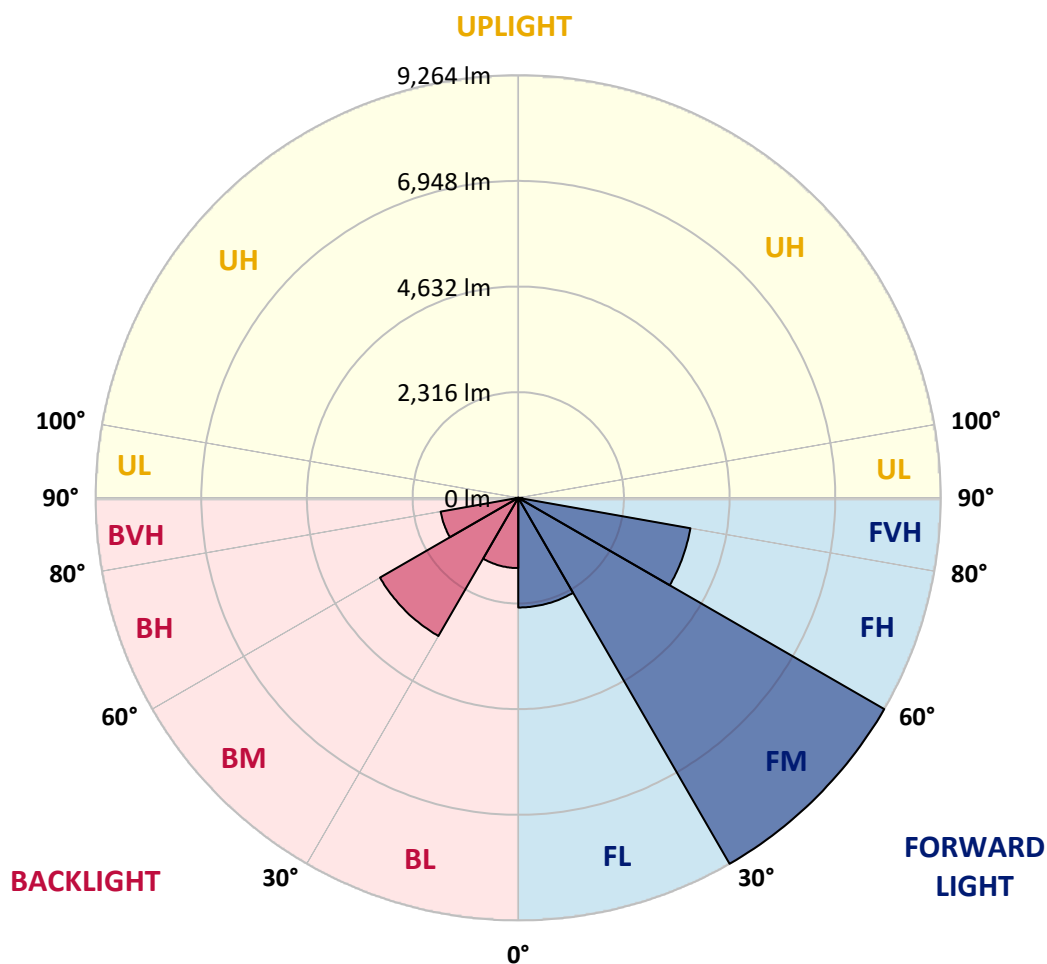
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2404.6 | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 9263.9 | 41.3      |                         |      |         |
| FH   | (60°-80°)   | 3832.9 | 17.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 92.9   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1539.9 | 6.9       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3499.2 | 15.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1728.4 | 7.7       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 61.2   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°    | 45°    | 55°    | 65°    | 75°     | 82°     | 85°     |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 3223.3  | 3223.3  | 3223.3  | 3223.3  | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3  | 3223.3  | 3223.3  |
| 2.5°  | 3369.8  | 3369.8  | 3395.9  | 3395.9  | 3373.1 | 3337.2 | 3327.5 | 3288.4 | 3252.6  | 3252.6  | 3255.9  |
| 5°    | 3692.1  | 3688.9  | 3708.4  | 3682.4  | 3627.0 | 3555.4 | 3506.6 | 3421.9 | 3350.3  | 3327.5  | 3324.2  |
| 7.5°  | 4086.1  | 4082.8  | 4092.6  | 4050.3  | 3946.1 | 3828.9 | 3731.2 | 3594.5 | 3477.3  | 3428.4  | 3415.4  |
| 10°   | 4525.6  | 4522.4  | 4512.6  | 4441.0  | 4301.0 | 4118.7 | 3972.1 | 3783.3 | 3607.5  | 3529.3  | 3513.1  |
| 12.5° | 5030.3  | 5023.8  | 5001.0  | 4896.8  | 4704.7 | 4470.3 | 4258.7 | 4014.5 | 3780.0  | 3672.6  | 3636.8  |
| 15°   | 5593.6  | 5583.8  | 5541.5  | 5414.5  | 5157.3 | 4861.0 | 4587.5 | 4274.9 | 3988.4  | 3848.4  | 3799.6  |
| 17.5° | 6186.1  | 6186.1  | 6121.0  | 5932.2  | 5645.6 | 5277.7 | 4939.1 | 4541.9 | 4206.6  | 4034.0  | 3975.4  |
| 20°   | 6788.5  | 6785.2  | 6703.8  | 6475.9  | 6137.3 | 5714.0 | 5284.2 | 4848.0 | 4431.2  | 4222.8  | 4151.2  |
| 22.5° | 7423.3  | 7416.8  | 7315.9  | 7055.4  | 6651.7 | 6173.1 | 5671.7 | 5150.8 | 4678.7  | 4428.0  | 4336.8  |
| 25°   | 8152.7  | 8142.9  | 8019.2  | 7700.1  | 7221.5 | 6681.0 | 6108.0 | 5505.6 | 4961.9  | 4655.9  | 4548.4  |
| 27.5° | 8927.5  | 8914.5  | 8768.0  | 8396.8  | 7872.7 | 7221.5 | 6589.8 | 5915.9 | 5274.5  | 4909.8  | 4789.4  |
| 30°   | 9617.8  | 9608.0  | 9448.5  | 9067.6  | 8465.2 | 7758.7 | 7048.9 | 6326.1 | 5603.3  | 5180.1  | 5030.3  |
| 32.5° | 10138.7 | 10138.7 | 9995.5  | 9621.0  | 8995.9 | 8273.1 | 7511.3 | 6713.6 | 5945.2  | 5469.8  | 5294.0  |
| 35°   | 10454.5 | 10464.3 | 10340.6 | 10041.1 | 9451.7 | 8758.2 | 7989.9 | 7169.4 | 6309.8  | 5779.1  | 5590.3  |
| 37.5° | 10500.1 | 10532.7 | 10461.1 | 10259.2 | 9767.6 | 9162.0 | 8458.7 | 7608.9 | 6687.5  | 6091.7  | 5880.1  |
| 40°   | 10288.5 | 10311.3 | 10314.5 | 10236.4 | 9897.8 | 9451.7 | 8872.2 | 8074.5 | 7088.0  | 6420.5  | 6176.4  |
| 42.5° | 9865.2  | 9881.5  | 9910.8  | 9933.6  | 9803.4 | 9578.7 | 9188.0 | 8507.5 | 7514.5  | 6755.9  | 6469.4  |
| 45°   | 9318.3  | 9315.0  | 9363.8  | 9461.5  | 9455.0 | 9507.1 | 9363.8 | 8901.5 | 7957.3  | 7136.8  | 6795.0  |
| 47.5° | 8501.0  | 8484.8  | 8657.3  | 8878.7  | 8989.4 | 9233.6 | 9367.1 | 9210.8 | 8439.2  | 7556.8  | 7166.1  |
| 50°   | 7221.5  | 7205.2  | 7582.9  | 8103.8  | 8429.4 | 8800.6 | 9188.0 | 9396.4 | 8943.8  | 8028.9  | 7569.9  |
| 52.5° | 5665.2  | 5648.9  | 6127.5  | 7039.2  | 7748.9 | 8289.4 | 8826.6 | 9438.7 | 9422.4  | 8556.4  | 8025.7  |
| 55°   | 4213.1  | 4200.1  | 4665.6  | 5652.2  | 6801.5 | 7696.8 | 8383.8 | 9328.0 | 9871.7  | 9162.0  | 8579.2  |
| 57.5° | 2969.3  | 2962.8  | 3366.6  | 4183.8  | 5583.8 | 6974.0 | 7957.3 | 9113.1 | 10285.2 | 9819.7  | 9204.3  |
| 60°   | 2083.7  | 2074.0  | 2367.0  | 2998.6  | 4222.8 | 5883.3 | 7534.0 | 8826.6 | 10594.5 | 10467.6 | 9868.5  |
| 62.5° | 1403.3  | 1396.8  | 1605.1  | 2132.6  | 2998.6 | 4528.9 | 6892.6 | 8634.5 | 10770.4 | 11118.7 | 10539.2 |
| 65°   | 1064.7  | 1061.4  | 1155.8  | 1445.6  | 2122.8 | 3252.6 | 5873.6 | 8611.7 | 10793.2 | 11607.1 | 11109.0 |
| 67.5° | 859.5   | 862.8   | 914.9   | 1080.9  | 1468.4 | 2311.7 | 4554.9 | 8468.5 | 10672.7 | 11773.2 | 11385.7 |
| 70°   | 703.3   | 703.3   | 726.1   | 836.8   | 1084.2 | 1559.6 | 3181.0 | 7817.3 | 10337.3 | 11340.1 | 11056.9 |
| 72.5° | 537.2   | 540.5   | 612.1   | 677.2   | 817.2  | 1094.0 | 2038.2 | 6469.4 | 9546.2  | 9998.7  | 9783.8  |
| 75°   | 426.5   | 423.3   | 465.6   | 556.8   | 634.9  | 781.4  | 1250.2 | 4639.6 | 8123.4  | 7814.0  | 7677.3  |
| 77.5° | 306.1   | 302.8   | 335.4   | 413.5   | 481.9  | 553.5  | 745.6  | 2341.0 | 4418.2  | 4060.0  | 3959.1  |
| 80°   | 208.4   | 201.9   | 231.2   | 286.5   | 319.1  | 325.6  | 364.7  | 898.6  | 1927.5  | 1816.8  | 1794.0  |
| 82.5° | 107.4   | 107.4   | 123.7   | 162.8   | 166.0  | 169.3  | 162.8  | 289.8  | 638.1   | 595.8   | 569.8   |
| 85°   | 42.3    | 42.3    | 45.6    | 55.3    | 55.3   | 58.6   | 58.6   | 74.9   | 68.4    | 65.1    | 61.9    |
| 87.5° | 3.3     | 3.3     | 6.5     | 6.5     | 9.8    | 9.8    | 9.8    | 13.0   | 16.3    | 16.3    | 16.3    |
| 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°    | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 | 3223.3 |
| 2.5°  | 3249.3 | 3236.3 | 3194.0 | 3184.2 | 3177.7 | 3167.9 | 3171.2 | 3148.4 | 3138.6 | 3141.9 | 3128.9 |
| 5°    | 3307.9 | 3285.2 | 3233.1 | 3210.3 | 3203.8 | 3194.0 | 3203.8 | 3187.5 | 3171.2 | 3177.7 | 3171.2 |
| 7.5°  | 3389.3 | 3356.8 | 3291.7 | 3268.9 | 3265.6 | 3255.9 | 3268.9 | 3255.9 | 3242.8 | 3249.3 | 3236.3 |
| 10°   | 3474.0 | 3431.7 | 3360.0 | 3337.2 | 3337.2 | 3334.0 | 3347.0 | 3327.5 | 3314.5 | 3317.7 | 3311.2 |
| 12.5° | 3597.7 | 3542.4 | 3464.2 | 3444.7 | 3434.9 | 3444.7 | 3447.9 | 3421.9 | 3399.1 | 3402.4 | 3392.6 |
| 15°   | 3747.5 | 3685.6 | 3601.0 | 3571.7 | 3565.2 | 3561.9 | 3548.9 | 3516.3 | 3487.0 | 3483.8 | 3474.0 |
| 17.5° | 3910.3 | 3832.1 | 3731.2 | 3701.9 | 3672.6 | 3662.8 | 3630.3 | 3588.0 | 3542.4 | 3542.4 | 3529.3 |
| 20°   | 4066.6 | 3978.7 | 3858.2 | 3815.9 | 3773.5 | 3734.5 | 3679.1 | 3610.7 | 3552.1 | 3542.4 | 3529.3 |
| 22.5° | 4235.9 | 4131.7 | 3991.7 | 3929.8 | 3854.9 | 3776.8 | 3682.4 | 3591.2 | 3516.3 | 3500.0 | 3490.3 |
| 25°   | 4424.7 | 4294.5 | 4128.4 | 4037.3 | 3916.8 | 3796.3 | 3656.3 | 3539.1 | 3451.2 | 3425.2 | 3418.6 |
| 27.5° | 4633.1 | 4476.8 | 4274.9 | 4141.4 | 3965.6 | 3776.8 | 3597.7 | 3457.7 | 3350.3 | 3317.7 | 3307.9 |
| 30°   | 4844.7 | 4659.1 | 4408.4 | 4213.1 | 3965.6 | 3714.9 | 3490.3 | 3327.5 | 3203.8 | 3158.2 | 3151.7 |
| 32.5° | 5056.3 | 4848.0 | 4528.9 | 4252.1 | 3926.6 | 3610.7 | 3350.3 | 3158.2 | 3018.2 | 2962.8 | 2975.8 |
| 35°   | 5310.3 | 5056.3 | 4639.6 | 4268.4 | 3861.4 | 3483.8 | 3190.7 | 2966.1 | 2822.8 | 2774.0 | 2783.8 |
| 37.5° | 5574.0 | 5264.7 | 4727.5 | 4255.4 | 3770.3 | 3340.5 | 3011.7 | 2793.5 | 2614.5 | 2529.8 | 2539.6 |
| 40°   | 5801.9 | 5453.6 | 4789.4 | 4209.8 | 3653.1 | 3177.7 | 2835.8 | 2549.3 | 2301.9 | 2220.5 | 2210.7 |
| 42.5° | 6016.8 | 5593.6 | 4821.9 | 4141.4 | 3519.6 | 2988.9 | 2585.1 | 2217.2 | 1969.8 | 1868.9 | 1872.1 |
| 45°   | 6241.5 | 5730.3 | 4808.9 | 4050.3 | 3353.5 | 2767.5 | 2262.8 | 1891.7 | 1673.5 | 1582.3 | 1585.6 |
| 47.5° | 6498.7 | 5876.8 | 4795.9 | 3952.6 | 3151.7 | 2481.0 | 1953.5 | 1605.1 | 1416.3 | 1351.2 | 1344.7 |
| 50°   | 6772.2 | 6039.6 | 4779.6 | 3832.1 | 2927.0 | 2161.9 | 1647.5 | 1338.2 | 1178.6 | 1136.3 | 1126.5 |
| 52.5° | 7081.5 | 6215.4 | 4769.8 | 3688.9 | 2656.8 | 1823.3 | 1374.0 | 1103.7 | 996.3  | 967.0  | 963.7  |
| 55°   | 7452.6 | 6420.5 | 4782.8 | 3516.3 | 2331.2 | 1504.2 | 1142.8 | 950.7  | 879.1  | 862.8  | 859.5  |
| 57.5° | 7905.2 | 6684.3 | 4821.9 | 3314.5 | 1989.3 | 1227.5 | 973.5  | 856.3  | 810.7  | 797.7  | 797.7  |
| 60°   | 8396.8 | 6983.8 | 4893.5 | 3086.5 | 1647.5 | 1012.6 | 862.8  | 781.4  | 761.9  | 778.1  | 778.1  |
| 62.5° | 8927.5 | 7335.4 | 5020.5 | 2809.8 | 1328.4 | 856.3  | 774.9  | 719.5  | 706.5  | 739.1  | 742.3  |
| 65°   | 9419.2 | 7677.3 | 5101.9 | 2477.7 | 1054.9 | 742.3  | 706.5  | 657.7  | 664.2  | 696.8  | 693.5  |
| 67.5° | 9722.0 | 7960.6 | 4988.0 | 2061.0 | 836.8  | 657.7  | 634.9  | 592.6  | 608.8  | 634.9  | 638.1  |
| 70°   | 9536.4 | 7801.0 | 4424.7 | 1556.3 | 654.4  | 573.0  | 556.8  | 530.7  | 543.7  | 576.3  | 589.3  |
| 72.5° | 8628.0 | 6987.1 | 3441.4 | 1051.6 | 527.4  | 481.9  | 488.4  | 475.4  | 491.6  | 520.9  | 550.2  |
| 75°   | 7003.3 | 5281.0 | 2308.4 | 674.0  | 416.7  | 410.2  | 420.0  | 410.2  | 416.7  | 446.1  | 462.3  |
| 77.5° | 3656.3 | 2575.4 | 1149.3 | 420.0  | 309.3  | 319.1  | 335.4  | 338.6  | 358.1  | 364.7  | 371.2  |
| 80°   | 1706.1 | 1159.1 | 478.6  | 234.4  | 205.1  | 224.7  | 257.2  | 260.5  | 267.0  | 276.7  | 280.0  |
| 82.5° | 556.8  | 348.4  | 221.4  | 127.0  | 117.2  | 127.0  | 166.0  | 198.6  | 201.9  | 221.4  | 221.4  |
| 85°   | 58.6   | 35.8   | 48.8   | 52.1   | 45.6   | 55.3   | 74.9   | 71.6   | 32.6   | 19.5   | 19.5   |
| 87.5° | 16.3   | 13.0   | 16.3   | 16.3   | 13.0   | 13.0   | 9.8    | 3.3    | 0.0    | 0.0    | 0.0    |
| 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)