

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: P836253

Luminaire Tested: **ARCH3-160-730-U-T2R**

Issue Date: 5/16/2024

### Test Information

Test Method: LM-79-08  
Report Number: P836253  
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: ARCH3-160-730-U-T2R  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1245mA LIGHTSQUARE WITH 40 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 22405 lumens  
Efficiency: N/A  
Efficacy: 139.2 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): 161  
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



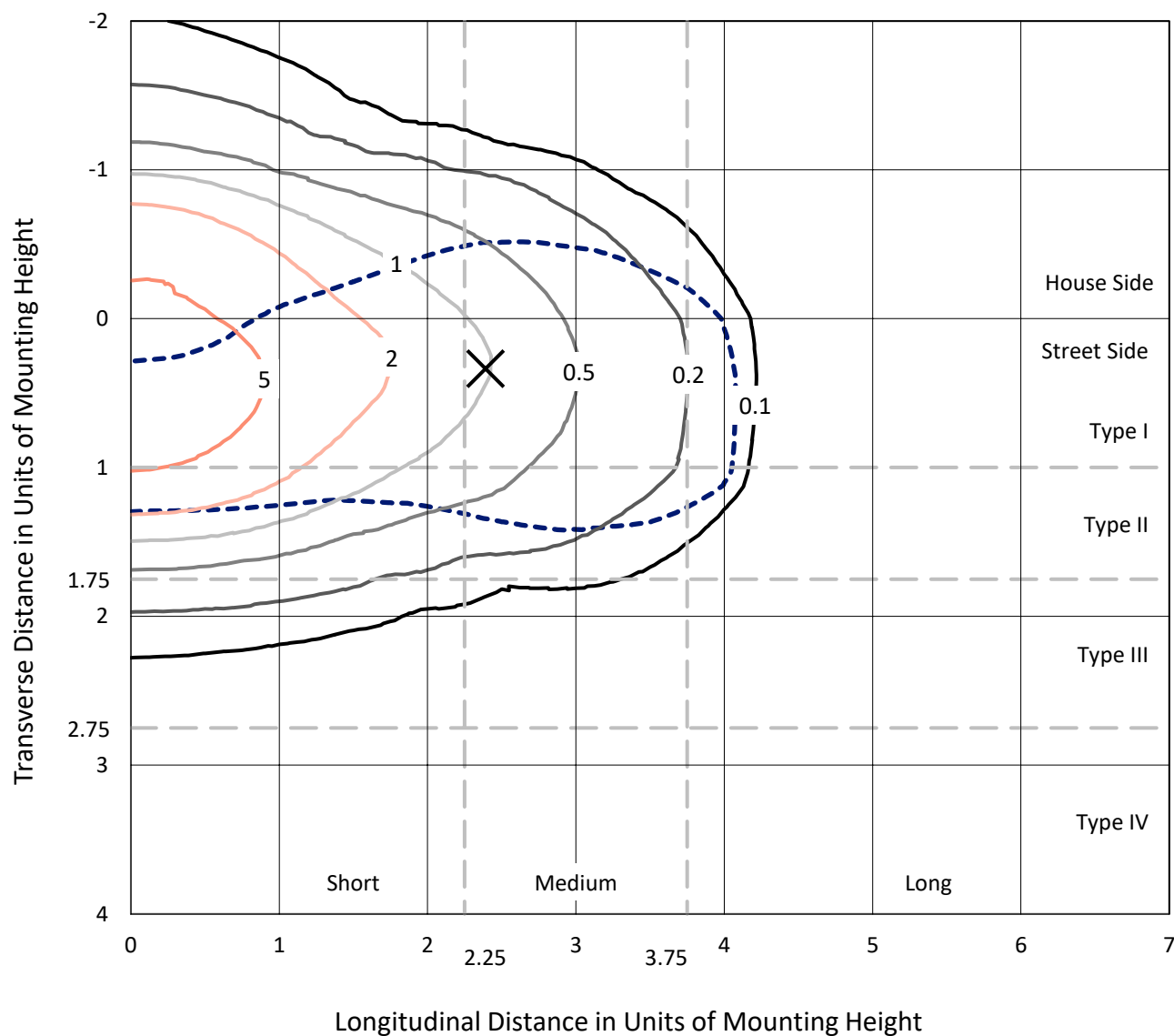
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

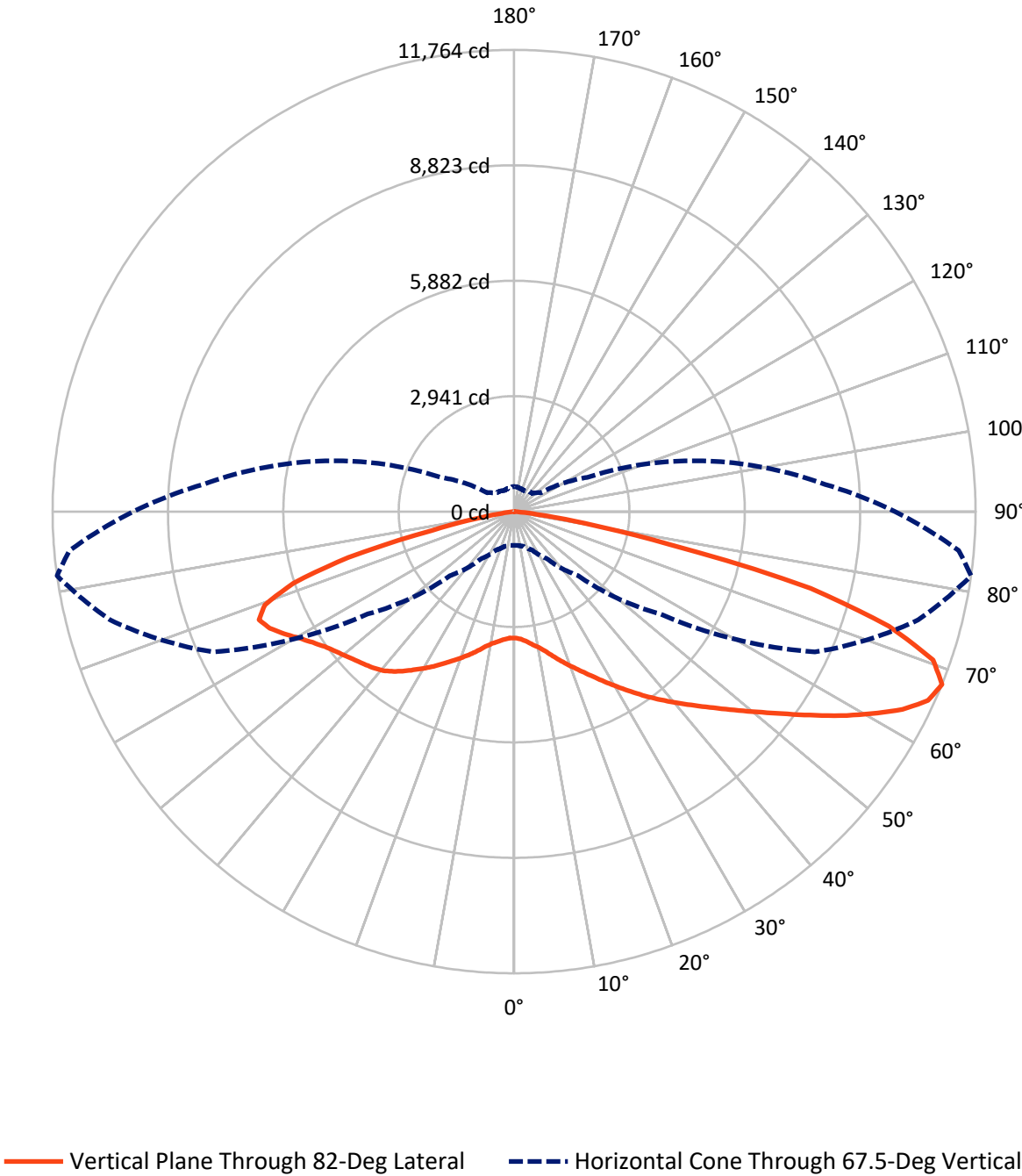
--- 1/2 Max cd



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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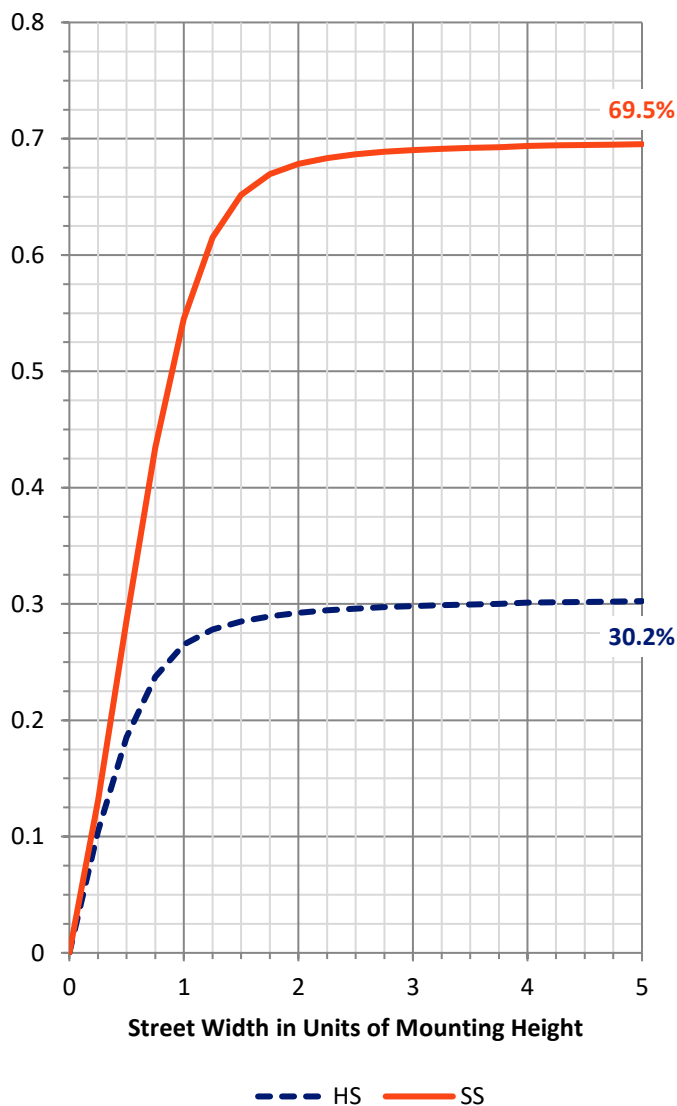
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6823.2   | 0.0    | 6823.2  |
|                    | % Fixture | 30.5     | 0.0    | 30.5    |
| <b>Street Side</b> | Lumens    | 15581.8  | 0.0    | 15581.8 |
|                    | % Fixture | 69.5     | 0.0    | 69.5    |
| <b>Total</b>       | Lumens    | 22405.0  | 0.0    | 22405.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 332.9   | 1.5       |
| 10°-20°   | 1198.9  | 5.4       |
| 20°-30°   | 2409.6  | 10.8      |
| 30°-40°   | 3785.1  | 16.9      |
| 40°-50°   | 4611.0  | 20.6      |
| 50°-60°   | 4356.8  | 19.4      |
| 60°-70°   | 3597.7  | 16.1      |
| 70°-80°   | 1959.1  | 8.7       |
| 80°-90°   | 154.0   | 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°    | 22405.0 | 100.0     |
| 0°-180°   | 22405.0 | 100.0     |

**Coefficient of Utilization**



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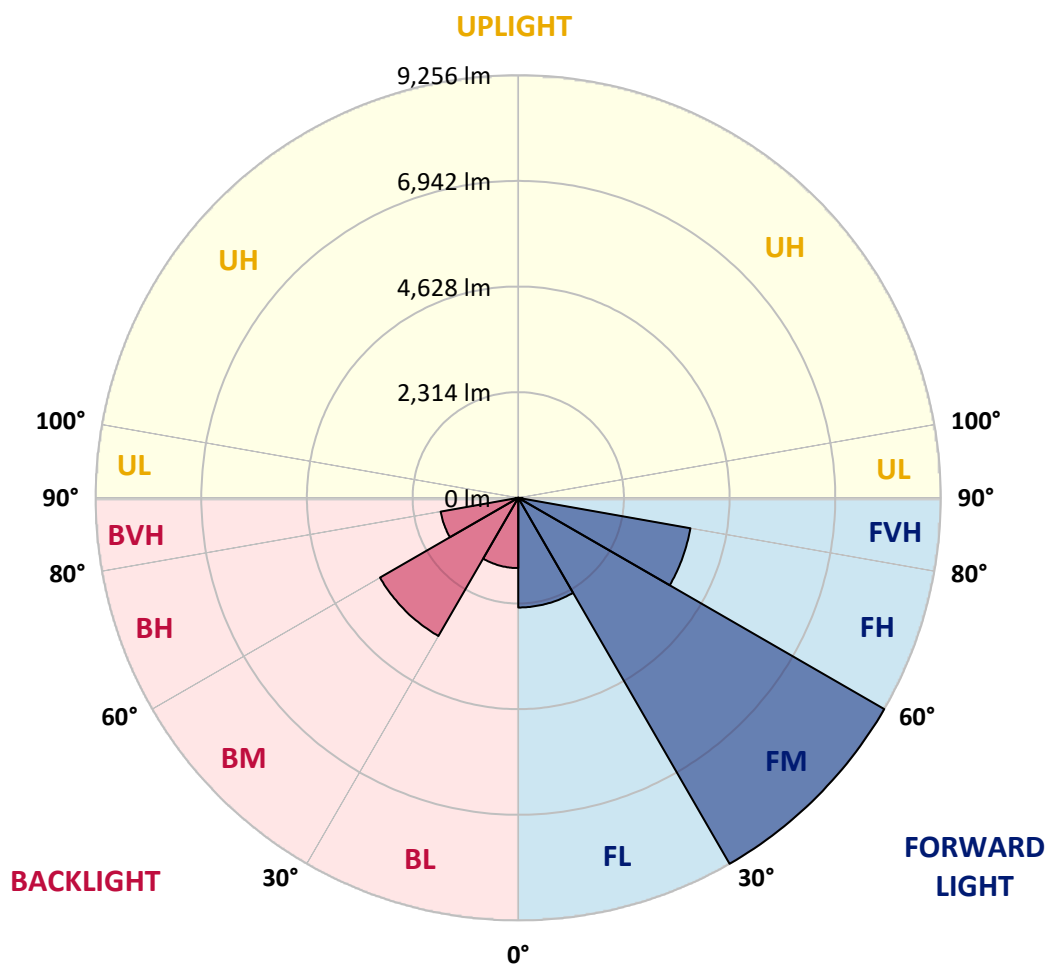
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2402.6 | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 9256.5 | 41.3      |                         |      |         |
| FH   | (60°-80°)   | 3829.8 | 17.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 92.8   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1538.7 | 6.9       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3496.4 | 15.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1727.0 | 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°    | 3220.7  | 3220.7  | 3220.7  | 3220.7  | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7  | 3220.7  | 3220.7  |
| 2.5°  | 3367.1  | 3367.1  | 3393.1  | 3393.1  | 3370.4 | 3334.6 | 3324.8 | 3285.8 | 3250.0  | 3250.0  | 3253.2  |
| 5°    | 3689.2  | 3685.9  | 3705.4  | 3679.4  | 3624.1 | 3552.5 | 3503.7 | 3419.2 | 3347.6  | 3324.8  | 3321.6  |
| 7.5°  | 4082.8  | 4079.6  | 4089.3  | 4047.0  | 3942.9 | 3825.8 | 3728.2 | 3591.6 | 3474.5  | 3425.7  | 3412.6  |
| 10°   | 4522.0  | 4518.7  | 4509.0  | 4437.4  | 4297.5 | 4115.3 | 3969.0 | 3780.3 | 3604.6  | 3526.5  | 3510.2  |
| 12.5° | 5026.3  | 5019.7  | 4997.0  | 4892.9  | 4700.9 | 4466.7 | 4255.2 | 4011.2 | 3777.0  | 3669.7  | 3633.9  |
| 15°   | 5589.1  | 5579.3  | 5537.0  | 5410.1  | 5153.1 | 4857.1 | 4583.8 | 4271.5 | 3985.2  | 3845.3  | 3796.5  |
| 17.5° | 6181.2  | 6181.2  | 6116.1  | 5927.4  | 5641.1 | 5273.5 | 4935.2 | 4538.3 | 4203.2  | 4030.8  | 3972.2  |
| 20°   | 6783.0  | 6779.8  | 6698.4  | 6470.7  | 6132.4 | 5709.4 | 5280.0 | 4844.1 | 4427.7  | 4219.5  | 4147.9  |
| 22.5° | 7417.4  | 7410.9  | 7310.0  | 7049.8  | 6646.4 | 6168.1 | 5667.1 | 5146.6 | 4674.9  | 4424.4  | 4333.3  |
| 25°   | 8146.1  | 8136.4  | 8012.7  | 7693.9  | 7215.7 | 6675.6 | 6103.1 | 5501.2 | 4957.9  | 4652.1  | 4544.8  |
| 27.5° | 8920.4  | 8907.4  | 8761.0  | 8390.1  | 7866.3 | 7215.7 | 6584.6 | 5911.1 | 5270.2  | 4905.9  | 4785.5  |
| 30°   | 9610.1  | 9600.3  | 9440.9  | 9060.3  | 8458.4 | 7752.5 | 7043.3 | 6321.0 | 5598.8  | 5175.9  | 5026.3  |
| 32.5° | 10130.6 | 10130.6 | 9987.4  | 9613.3  | 8988.7 | 8266.5 | 7505.2 | 6708.2 | 5940.4  | 5465.4  | 5289.8  |
| 35°   | 10446.2 | 10455.9 | 10332.3 | 10033.0 | 9444.2 | 8751.2 | 7983.4 | 7163.6 | 6304.8  | 5774.5  | 5585.8  |
| 37.5° | 10491.7 | 10524.2 | 10452.7 | 10251.0 | 9759.7 | 9154.6 | 8451.9 | 7602.8 | 6682.2  | 6086.8  | 5875.4  |
| 40°   | 10280.2 | 10303.0 | 10306.3 | 10228.2 | 9889.8 | 9444.2 | 8865.1 | 8068.0 | 7082.3  | 6415.4  | 6171.4  |
| 42.5° | 9857.3  | 9873.6  | 9902.9  | 9925.6  | 9795.5 | 9571.0 | 9180.6 | 8500.7 | 7508.5  | 6750.5  | 6464.2  |
| 45°   | 9310.8  | 9307.5  | 9356.3  | 9453.9  | 9447.4 | 9499.5 | 9356.3 | 8894.4 | 7950.9  | 7131.1  | 6789.5  |
| 47.5° | 8494.2  | 8477.9  | 8650.4  | 8871.6  | 8982.2 | 9226.2 | 9359.6 | 9203.4 | 8432.4  | 7550.8  | 7160.4  |
| 50°   | 7215.7  | 7199.4  | 7576.8  | 8097.3  | 8422.6 | 8793.5 | 9180.6 | 9388.8 | 8936.6  | 8022.5  | 7563.8  |
| 52.5° | 5660.6  | 5644.4  | 6122.6  | 7033.5  | 7742.7 | 8282.7 | 8819.5 | 9431.1 | 9414.9  | 8549.5  | 8019.2  |
| 55°   | 4209.7  | 4196.7  | 4661.9  | 5647.6  | 6796.0 | 7690.7 | 8377.1 | 9320.5 | 9863.8  | 9154.6  | 8572.3  |
| 57.5° | 2967.0  | 2960.4  | 3363.8  | 4180.4  | 5579.3 | 6968.4 | 7950.9 | 9105.8 | 10277.0 | 9811.8  | 9196.9  |
| 60°   | 2082.1  | 2072.3  | 2365.1  | 2996.2  | 4219.5 | 5878.6 | 7528.0 | 8819.5 | 10586.0 | 10459.2 | 9860.6  |
| 62.5° | 1402.1  | 1395.6  | 1603.8  | 2130.9  | 2996.2 | 4525.3 | 6887.1 | 8627.6 | 10761.7 | 11109.8 | 10530.7 |
| 65°   | 1063.8  | 1060.6  | 1154.9  | 1444.4  | 2121.1 | 3250.0 | 5868.8 | 8604.8 | 10784.5 | 11597.8 | 11100.1 |
| 67.5° | 858.9   | 862.1   | 914.2   | 1080.1  | 1467.2 | 2309.8 | 4551.3 | 8461.7 | 10664.1 | 11763.7 | 11376.6 |
| 70°   | 702.7   | 702.7   | 725.5   | 836.1   | 1083.3 | 1558.3 | 3178.4 | 7811.0 | 10329.0 | 11331.0 | 11048.0 |
| 72.5° | 536.8   | 540.0   | 611.6   | 676.7   | 816.6  | 1093.1 | 2036.5 | 6464.2 | 9538.5  | 9990.7  | 9776.0  |
| 75°   | 426.2   | 422.9   | 465.2   | 556.3   | 634.4  | 780.8  | 1249.2 | 4635.9 | 8116.8  | 7807.8  | 7671.1  |
| 77.5° | 305.8   | 302.6   | 335.1   | 413.2   | 481.5  | 553.1  | 745.0  | 2339.1 | 4414.6  | 4056.8  | 3955.9  |
| 80°   | 208.2   | 201.7   | 231.0   | 286.3   | 318.8  | 325.3  | 364.4  | 897.9  | 1925.9  | 1815.3  | 1792.5  |
| 82.5° | 107.4   | 107.4   | 123.6   | 162.7   | 165.9  | 169.2  | 162.7  | 289.5  | 637.6   | 595.3   | 569.3   |
| 85°   | 42.3    | 42.3    | 45.5    | 55.3    | 55.3   | 58.6   | 58.6   | 74.8   | 68.3    | 65.1    | 61.8    |
| 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°    | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 | 3220.7 |
| 2.5°  | 3246.7 | 3233.7 | 3191.4 | 3181.7 | 3175.2 | 3165.4 | 3168.7 | 3145.9 | 3136.1 | 3139.4 | 3126.4 |
| 5°    | 3305.3 | 3282.5 | 3230.5 | 3207.7 | 3201.2 | 3191.4 | 3201.2 | 3184.9 | 3168.7 | 3175.2 | 3168.7 |
| 7.5°  | 3386.6 | 3354.1 | 3289.0 | 3266.3 | 3263.0 | 3253.2 | 3266.3 | 3253.2 | 3240.2 | 3246.7 | 3233.7 |
| 10°   | 3471.2 | 3428.9 | 3357.3 | 3334.6 | 3334.6 | 3331.3 | 3344.3 | 3324.8 | 3311.8 | 3315.1 | 3308.5 |
| 12.5° | 3594.8 | 3539.5 | 3461.4 | 3441.9 | 3432.2 | 3441.9 | 3445.2 | 3419.2 | 3396.4 | 3399.6 | 3389.9 |
| 15°   | 3744.5 | 3682.7 | 3598.1 | 3568.8 | 3562.3 | 3559.0 | 3546.0 | 3513.5 | 3484.2 | 3481.0 | 3471.2 |
| 17.5° | 3907.1 | 3829.1 | 3728.2 | 3698.9 | 3669.7 | 3659.9 | 3627.4 | 3585.1 | 3539.5 | 3539.5 | 3526.5 |
| 20°   | 4063.3 | 3975.5 | 3855.1 | 3812.8 | 3770.5 | 3731.5 | 3676.2 | 3607.8 | 3549.3 | 3539.5 | 3526.5 |
| 22.5° | 4232.5 | 4128.4 | 3988.5 | 3926.7 | 3851.8 | 3773.8 | 3679.4 | 3588.3 | 3513.5 | 3497.2 | 3487.5 |
| 25°   | 4421.2 | 4291.0 | 4125.1 | 4034.0 | 3913.6 | 3793.3 | 3653.4 | 3536.3 | 3448.4 | 3422.4 | 3415.9 |
| 27.5° | 4629.4 | 4473.2 | 4271.5 | 4138.1 | 3962.4 | 3773.8 | 3594.8 | 3454.9 | 3347.6 | 3315.1 | 3305.3 |
| 30°   | 4840.8 | 4655.4 | 4404.9 | 4209.7 | 3962.4 | 3711.9 | 3487.5 | 3324.8 | 3201.2 | 3155.6 | 3149.1 |
| 32.5° | 5052.3 | 4844.1 | 4525.3 | 4248.7 | 3923.4 | 3607.8 | 3347.6 | 3155.6 | 3015.8 | 2960.4 | 2973.5 |
| 35°   | 5306.0 | 5052.3 | 4635.9 | 4265.0 | 3858.3 | 3481.0 | 3188.2 | 2963.7 | 2820.6 | 2771.8 | 2781.5 |
| 37.5° | 5569.5 | 5260.5 | 4723.7 | 4252.0 | 3767.3 | 3337.8 | 3009.2 | 2791.3 | 2612.4 | 2527.8 | 2537.5 |
| 40°   | 5797.3 | 5449.2 | 4785.5 | 4206.4 | 3650.1 | 3175.2 | 2833.6 | 2547.3 | 2300.0 | 2218.7 | 2208.9 |
| 42.5° | 6012.0 | 5589.1 | 4818.0 | 4138.1 | 3516.8 | 2986.5 | 2583.1 | 2215.5 | 1968.2 | 1867.4 | 1870.6 |
| 45°   | 6236.5 | 5725.7 | 4805.0 | 4047.0 | 3350.8 | 2765.3 | 2261.0 | 1890.1 | 1672.2 | 1581.1 | 1584.3 |
| 47.5° | 6493.5 | 5872.1 | 4792.0 | 3949.4 | 3149.1 | 2479.0 | 1951.9 | 1603.8 | 1415.2 | 1350.1 | 1343.6 |
| 50°   | 6766.7 | 6034.8 | 4775.8 | 3829.1 | 2924.7 | 2160.2 | 1646.1 | 1337.1 | 1177.7 | 1135.4 | 1125.6 |
| 52.5° | 7075.8 | 6210.4 | 4766.0 | 3685.9 | 2654.6 | 1821.8 | 1372.9 | 1102.8 | 995.5  | 966.2  | 963.0  |
| 55°   | 7446.7 | 6415.4 | 4779.0 | 3513.5 | 2329.3 | 1503.0 | 1141.9 | 949.9  | 878.4  | 862.1  | 858.9  |
| 57.5° | 7898.9 | 6678.9 | 4818.0 | 3311.8 | 1987.7 | 1226.5 | 972.7  | 855.6  | 810.1  | 797.0  | 797.0  |
| 60°   | 8390.1 | 6978.2 | 4889.6 | 3084.1 | 1646.1 | 1011.8 | 862.1  | 780.8  | 761.3  | 777.5  | 777.5  |
| 62.5° | 8920.4 | 7329.5 | 5016.5 | 2807.5 | 1327.3 | 855.6  | 774.3  | 719.0  | 706.0  | 738.5  | 741.7  |
| 65°   | 9411.6 | 7671.1 | 5097.8 | 2475.7 | 1054.0 | 741.7  | 706.0  | 657.2  | 663.7  | 696.2  | 692.9  |
| 67.5° | 9714.2 | 7954.2 | 4984.0 | 2059.3 | 836.1  | 657.2  | 634.4  | 592.1  | 608.4  | 634.4  | 637.6  |
| 70°   | 9528.7 | 7794.8 | 4421.2 | 1555.0 | 653.9  | 572.6  | 556.3  | 530.3  | 543.3  | 575.8  | 588.8  |
| 72.5° | 8621.1 | 6981.5 | 3438.7 | 1050.8 | 527.0  | 481.5  | 488.0  | 475.0  | 491.2  | 520.5  | 549.8  |
| 75°   | 6997.7 | 5276.8 | 2306.5 | 673.4  | 416.4  | 409.9  | 419.7  | 409.9  | 416.4  | 445.7  | 462.0  |
| 77.5° | 3653.4 | 2573.3 | 1148.4 | 419.7  | 309.1  | 318.8  | 335.1  | 338.3  | 357.9  | 364.4  | 370.9  |
| 80°   | 1704.7 | 1158.2 | 478.2  | 234.2  | 205.0  | 224.5  | 257.0  | 260.3  | 266.8  | 276.5  | 279.8  |
| 82.5° | 556.3  | 348.1  | 221.2  | 126.9  | 117.1  | 126.9  | 165.9  | 198.4  | 201.7  | 221.2  | 221.2  |
| 85°   | 58.6   | 35.8   | 48.8   | 52.1   | 45.5   | 55.3   | 74.8   | 71.6   | 32.5   | 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)