

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: P265699

Luminaire Tested: **ARCH-L-AF72-230-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265699  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-230-D-U-T2R-7027-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 980mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18513.7 lumens  
Efficiency: N/A  
Efficacy: 80.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 229  
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

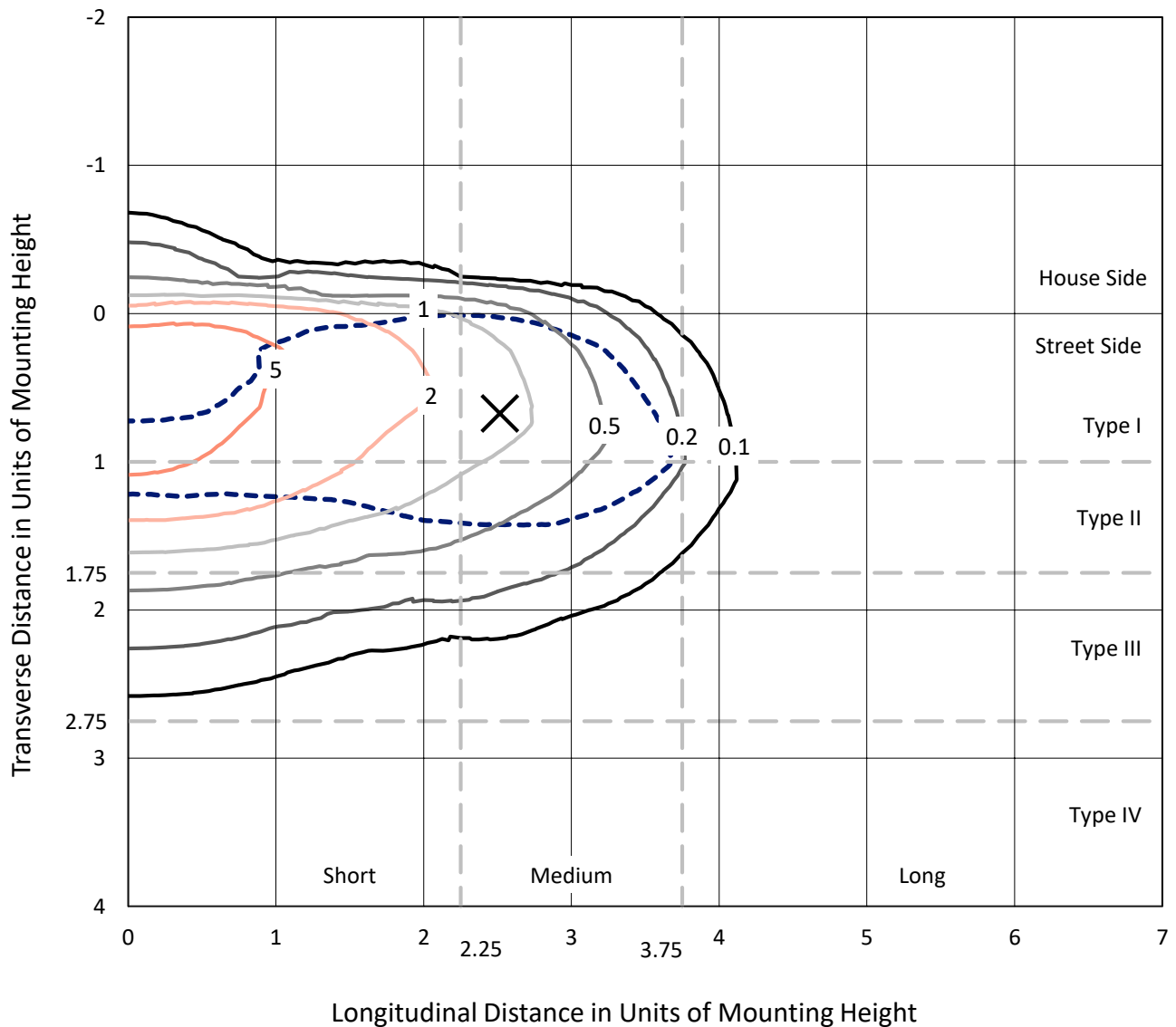


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

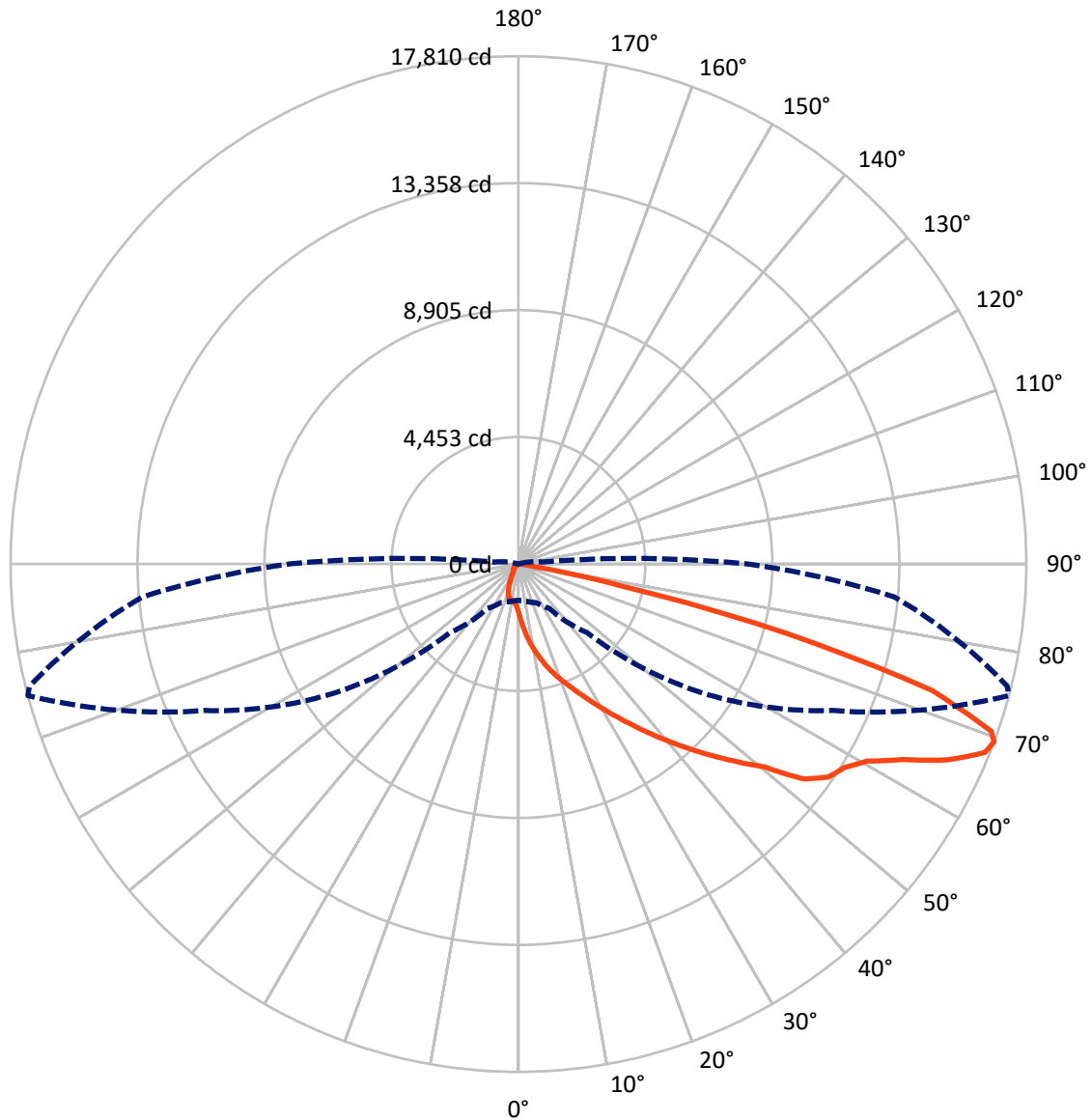


Based on 25 foot mounting height. Maximum calculated value = 7.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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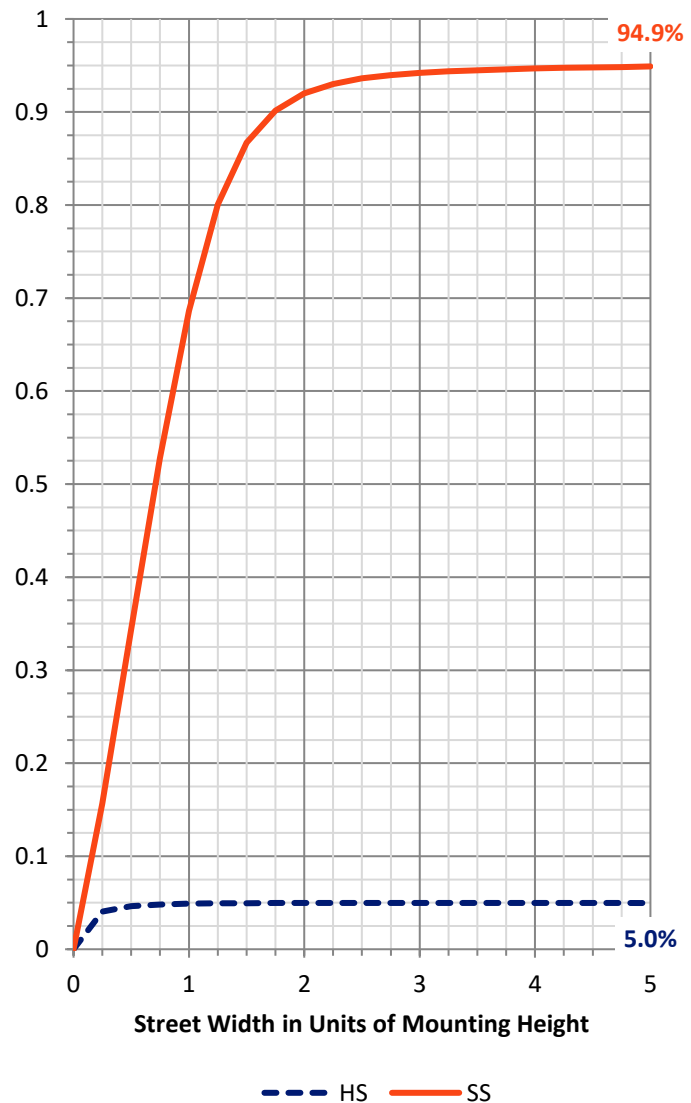
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 923.7    | 0.0    | 923.7   |
|                    | % Fixture | 5.0      | 0.0    | 5.0     |
| <b>Street Side</b> | Lumens    | 17590.0  | 0.0    | 17590.0 |
|                    | % Fixture | 95.0     | 0.0    | 95.0    |
| <b>Total</b>       | Lumens    | 18513.7  | 0.0    | 18513.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 200.9   | 1.1       |
| 10°-20°   | 718.1   | 3.9       |
| 20°-30°   | 1371.0  | 7.4       |
| 30°-40°   | 2459.3  | 13.3      |
| 40°-50°   | 3767.8  | 20.4      |
| 50°-60°   | 4379.1  | 23.7      |
| 60°-70°   | 3877.8  | 20.9      |
| 70°-80°   | 1672.6  | 9.0       |
| 80°-90°   | 67.0    | 0.4       |
| 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°    | 18513.7 | 100.0     |
| 0°-180°   | 18513.7 | 100.0     |



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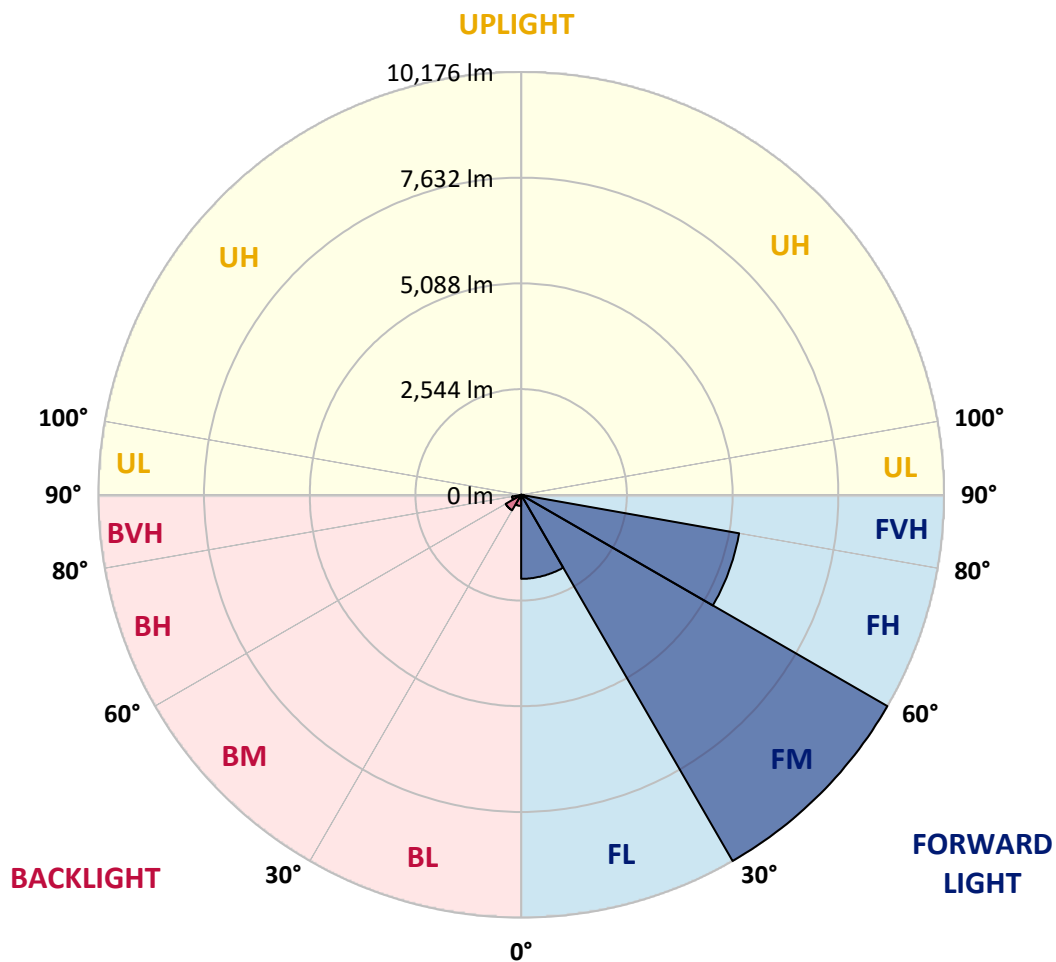
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2021.7  | 10.9      |                         |      |         |
| FM (30°-60°)   | 10175.6 | 55.0      |                         |      |         |
| FH (60°-80°)   | 5326.6  | 28.8      |                         |      | G3/7500 |
| FVH (80°-90°)  | 66.0    | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 268.3   | 1.4       | B1/500                  |      |         |
| BM (30°-60°)   | 430.6   | 2.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 223.8   | 1.2       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 1.0     | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  | 1722.7  |
| 2.5°  | 2837.8  | 2809.9  | 2782.0  | 2749.9  | 2677.9  | 2554.1  | 2398.1  | 2230.3  | 2022.4  | 1986.5  | 1818.6  |
| 5°    | 3445.4  | 3433.4  | 3405.5  | 3361.5  | 3281.5  | 3145.7  | 2969.7  | 2722.0  | 2374.2  | 2314.3  | 1958.6  |
| 7.5°  | 3873.0  | 3865.0  | 3841.2  | 3789.1  | 3717.1  | 3581.4  | 3397.4  | 3129.7  | 2725.9  | 2657.9  | 2134.5  |
| 10°   | 4256.8  | 4252.8  | 4232.8  | 4184.8  | 4112.9  | 3964.9  | 3769.2  | 3489.3  | 3061.7  | 2985.7  | 2338.2  |
| 12.5° | 4604.5  | 4608.6  | 4600.5  | 4576.5  | 4524.6  | 4384.6  | 4160.8  | 3857.1  | 3385.4  | 3301.5  | 2582.1  |
| 15°   | 4808.4  | 4820.3  | 4852.4  | 4900.3  | 4916.2  | 4804.3  | 4572.6  | 4236.8  | 3717.1  | 3645.2  | 2861.8  |
| 17.5° | 4740.4  | 4752.5  | 4852.4  | 5016.1  | 5172.1  | 5188.0  | 4980.3  | 4596.4  | 4044.9  | 3972.9  | 3137.6  |
| 20°   | 4576.5  | 4592.6  | 4696.3  | 4920.2  | 5224.1  | 5435.9  | 5351.9  | 4988.2  | 4356.7  | 4268.7  | 3401.4  |
| 22.5° | 4760.4  | 4760.4  | 4792.4  | 4928.2  | 5204.1  | 5535.7  | 5647.7  | 5379.9  | 4676.4  | 4568.5  | 3665.3  |
| 25°   | 5391.8  | 5379.9  | 5311.9  | 5256.1  | 5343.9  | 5639.6  | 5871.5  | 5779.6  | 5052.2  | 4928.2  | 3944.9  |
| 27.5° | 6191.3  | 6247.3  | 6119.3  | 5915.5  | 5715.6  | 5843.6  | 6071.4  | 6175.3  | 5467.9  | 5340.0  | 4232.8  |
| 30°   | 7086.5  | 7110.7  | 6958.7  | 6687.0  | 6335.1  | 6211.3  | 6307.2  | 6515.0  | 5919.6  | 5779.6  | 4532.6  |
| 32.5° | 7893.9  | 7874.1  | 7746.2  | 7462.3  | 7026.6  | 6758.8  | 6610.9  | 6786.9  | 6411.2  | 6251.2  | 4840.3  |
| 35°   | 8609.4  | 8625.4  | 8469.6  | 8141.8  | 7714.1  | 7430.4  | 7078.6  | 7094.6  | 6962.8  | 6778.9  | 5196.1  |
| 37.5° | 9253.0  | 9225.0  | 9077.2  | 8749.3  | 8361.7  | 8053.8  | 7682.1  | 7414.4  | 7566.2  | 7374.4  | 5595.7  |
| 40°   | 9776.6  | 9748.5  | 9592.7  | 9272.9  | 8909.2  | 8657.4  | 8365.6  | 7842.1  | 8201.7  | 7981.9  | 6023.5  |
| 42.5° | 10192.3 | 10160.3 | 10028.4 | 9720.6  | 9369.0  | 9145.0  | 9005.1  | 8369.7  | 8881.3  | 8661.4  | 6503.1  |
| 45°   | 10396.2 | 10368.1 | 10288.2 | 10056.3 | 9748.5  | 9552.8  | 9620.7  | 8977.2  | 9608.7  | 9424.8  | 7030.7  |
| 47.5° | 10156.2 | 10144.3 | 10236.2 | 10196.2 | 10020.5 | 9916.5  | 10152.3 | 9640.7  | 10372.1 | 10192.3 | 7638.2  |
| 50°   | 9428.8  | 9448.8  | 9716.6  | 10048.4 | 10132.3 | 10256.2 | 10588.0 | 10340.1 | 11191.5 | 10999.7 | 8337.7  |
| 52.5° | 7634.2  | 7770.1  | 8577.5  | 9376.9  | 9996.3  | 10464.0 | 11099.5 | 11339.3 | 12526.4 | 12338.6 | 9428.8  |
| 55°   | 5699.7  | 5755.6  | 6634.9  | 8001.9  | 9448.8  | 10448.0 | 11479.4 | 11926.9 | 13186.0 | 12994.2 | 9716.6  |
| 57.5° | 4520.6  | 4540.6  | 4976.3  | 6371.1  | 8321.7  | 10088.3 | 11679.1 | 12138.7 | 13473.8 | 13313.9 | 10144.3 |
| 60°   | 3549.4  | 3573.3  | 3889.0  | 4848.3  | 6735.0  | 9117.1  | 11391.3 | 12322.6 | 14037.4 | 13909.4 | 10891.7 |
| 62.5° | 2761.8  | 2785.9  | 2977.7  | 3541.3  | 5052.2  | 7622.2  | 10811.8 | 12618.4 | 15108.6 | 15048.5 | 12114.8 |
| 65°   | 2138.3  | 2146.4  | 2278.3  | 2542.1  | 3569.2  | 6003.5  | 10104.3 | 12894.2 | 16555.5 | 16503.5 | 13106.0 |
| 67.5° | 1578.9  | 1590.8  | 1682.7  | 1846.6  | 2410.2  | 4312.8  | 8945.2  | 12682.5 | 17646.7 | 17494.8 | 13465.8 |
| 69°   | 1275.1  | 1287.0  | 1367.0  | 1498.8  | 1902.6  | 3397.4  | 7886.0  | 12158.7 | 17810.4 | 17666.5 | 13238.0 |
| 70°   | 1091.3  | 1099.2  | 1179.1  | 1291.0  | 1622.8  | 2885.8  | 7046.7  | 11707.2 | 17594.7 | 17454.7 | 12718.4 |
| 72.5° | 699.5   | 739.5   | 819.3   | 891.3   | 1075.2  | 1910.5  | 4756.3  | 9708.6  | 15180.5 | 14940.7 | 9960.4  |
| 75°   | 387.7   | 399.7   | 543.6   | 631.5   | 715.5   | 1243.1  | 2646.0  | 6055.5  | 9656.7  | 9488.7  | 5327.9  |
| 77.5° | 319.7   | 327.7   | 383.7   | 479.6   | 479.6   | 695.5   | 999.3   | 2386.2  | 3673.2  | 3313.5  | 1442.9  |
| 80°   | 223.9   | 231.9   | 291.8   | 315.8   | 343.7   | 391.8   | 323.7   | 523.6   | 567.5   | 503.6   | 215.9   |
| 82.5° | 155.9   | 163.9   | 199.9   | 259.8   | 275.8   | 183.9   | 120.0   | 155.9   | 163.9   | 163.9   | 83.9    |
| 85°   | 27.9    | 40.0    | 148.0   | 215.9   | 163.9   | 56.0    | 67.9    | 56.0    | 51.9    | 56.0    | 20.0    |
| 87.5° | 0.0     | 0.0     | 91.9    | 103.9   | 87.9    | 24.0    | 27.9    | 20.0    | 11.9    | 16.0    | 7.9     |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 | 1722.7 |
| 2.5°  | 1734.6 | 1650.7 | 1506.8 | 1403.0 | 1314.9 | 1247.0 | 1219.1 | 1175.2 | 1143.2 | 1159.2 | 1139.1 |
| 5°    | 1782.6 | 1634.7 | 1403.0 | 1255.0 | 1151.1 | 1063.2 | 991.2  | 935.2  | 891.3  | 883.4  | 875.4  |
| 7.5°  | 1858.7 | 1646.8 | 1343.0 | 1159.2 | 1003.2 | 867.4  | 755.5  | 671.6  | 607.6  | 607.6  | 583.5  |
| 10°   | 1962.4 | 1678.8 | 1307.0 | 1063.2 | 831.4  | 647.5  | 535.6  | 455.7  | 423.7  | 419.7  | 411.8  |
| 12.5° | 2106.3 | 1738.7 | 1279.0 | 939.3  | 647.5  | 471.6  | 403.7  | 375.8  | 363.8  | 359.7  | 355.6  |
| 15°   | 2302.3 | 1826.7 | 1247.0 | 787.5  | 491.6  | 387.7  | 359.7  | 335.7  | 323.7  | 319.7  | 315.8  |
| 17.5° | 2490.1 | 1906.6 | 1179.1 | 631.5  | 399.7  | 351.7  | 319.7  | 299.8  | 283.8  | 279.8  | 279.8  |
| 20°   | 2666.0 | 1974.6 | 1063.2 | 491.6  | 359.7  | 315.8  | 283.8  | 259.8  | 243.8  | 239.8  | 239.8  |
| 22.5° | 2849.9 | 2030.4 | 919.2  | 399.7  | 327.7  | 279.8  | 247.8  | 223.9  | 207.9  | 203.8  | 199.9  |
| 25°   | 3045.8 | 2070.5 | 755.5  | 355.6  | 295.8  | 247.8  | 211.8  | 191.9  | 179.9  | 175.9  | 171.8  |
| 27.5° | 3257.6 | 2086.5 | 599.6  | 323.7  | 259.8  | 215.9  | 183.9  | 163.9  | 155.9  | 152.0  | 152.0  |
| 30°   | 3449.4 | 2070.5 | 463.6  | 287.7  | 227.8  | 187.8  | 159.9  | 143.9  | 136.0  | 132.0  | 132.0  |
| 32.5° | 3649.3 | 2030.4 | 371.7  | 255.7  | 199.9  | 159.9  | 136.0  | 123.8  | 120.0  | 115.9  | 115.9  |
| 35°   | 3861.1 | 1978.4 | 319.7  | 227.8  | 171.8  | 139.9  | 120.0  | 111.8  | 107.9  | 103.9  | 103.9  |
| 37.5° | 4108.8 | 1914.6 | 291.8  | 203.8  | 152.0  | 123.8  | 103.9  | 99.9   | 95.8   | 95.8   | 95.8   |
| 40°   | 4388.7 | 1834.6 | 271.7  | 183.9  | 136.0  | 107.9  | 91.9   | 87.9   | 83.9   | 83.9   | 83.9   |
| 42.5° | 4684.4 | 1742.7 | 251.9  | 163.9  | 120.0  | 91.9   | 79.9   | 79.9   | 75.9   | 75.9   | 72.0   |
| 45°   | 5016.1 | 1650.7 | 231.9  | 143.9  | 103.9  | 79.9   | 67.9   | 64.0   | 64.0   | 59.9   | 59.9   |
| 47.5° | 5407.8 | 1566.9 | 211.8  | 127.9  | 91.9   | 67.9   | 59.9   | 56.0   | 51.9   | 48.0   | 48.0   |
| 50°   | 5959.4 | 1558.7 | 187.8  | 111.8  | 83.9   | 56.0   | 48.0   | 43.9   | 40.0   | 36.0   | 36.0   |
| 52.5° | 6507.1 | 1486.9 | 159.9  | 91.9   | 67.9   | 48.0   | 36.0   | 32.0   | 27.9   | 27.9   | 24.0   |
| 55°   | 6631.0 | 1367.0 | 139.9  | 79.9   | 51.9   | 36.0   | 27.9   | 20.0   | 20.0   | 16.0   | 16.0   |
| 57.5° | 6902.8 | 1310.9 | 120.0  | 64.0   | 40.0   | 27.9   | 16.0   | 11.9   | 11.9   | 11.9   | 11.9   |
| 60°   | 7438.3 | 1295.0 | 103.9  | 56.0   | 27.9   | 20.0   | 11.9   | 7.9    | 7.9    | 4.0    | 4.0    |
| 62.5° | 8177.8 | 1279.0 | 87.9   | 48.0   | 20.0   | 11.9   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    |
| 65°   | 8585.6 | 1171.1 | 72.0   | 36.0   | 16.0   | 11.9   | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 8477.6 | 967.3  | 64.0   | 24.0   | 11.9   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 69°   | 8025.8 | 815.4  | 51.9   | 20.0   | 11.9   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 7482.3 | 703.5  | 48.0   | 16.0   | 7.9    | 4.0    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 5311.9 | 367.8  | 32.0   | 11.9   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 2482.0 | 163.9  | 20.0   | 7.9    | 4.0    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 547.5  | 75.9   | 11.9   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 103.9  | 27.9   | 7.9    | 4.0    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 36.0   | 11.9   | 4.0    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 11.9   | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 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)