

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: P265654

Luminaire Tested: **ARCH-L-AF72-180-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265654  
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-AF72-180-D-U-T2R-7027-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 775mA 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: 15604.6 lumens  
Efficiency: N/A  
Efficacy: 86.2 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 - G2

Input Watts (W): 181  
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

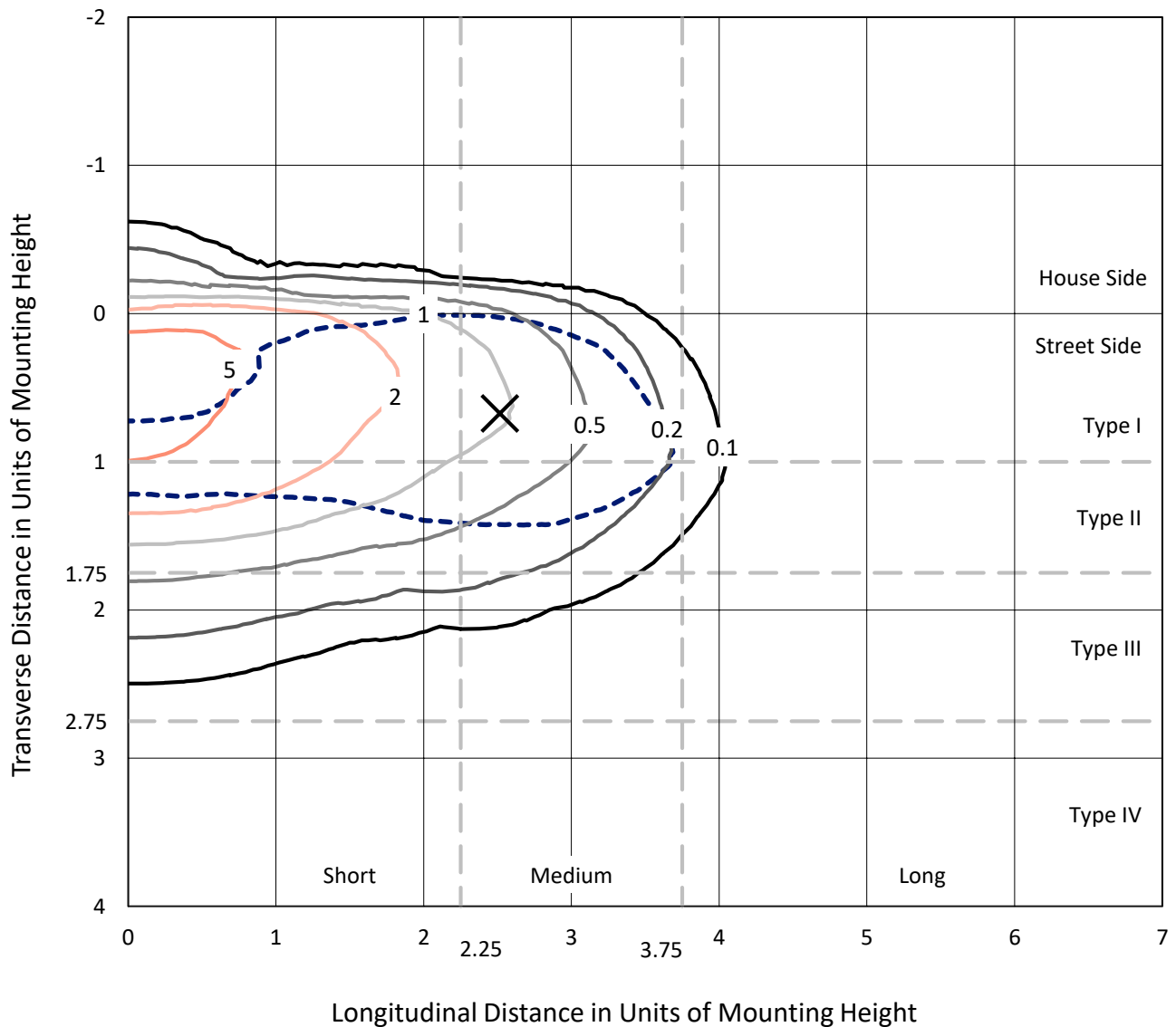


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

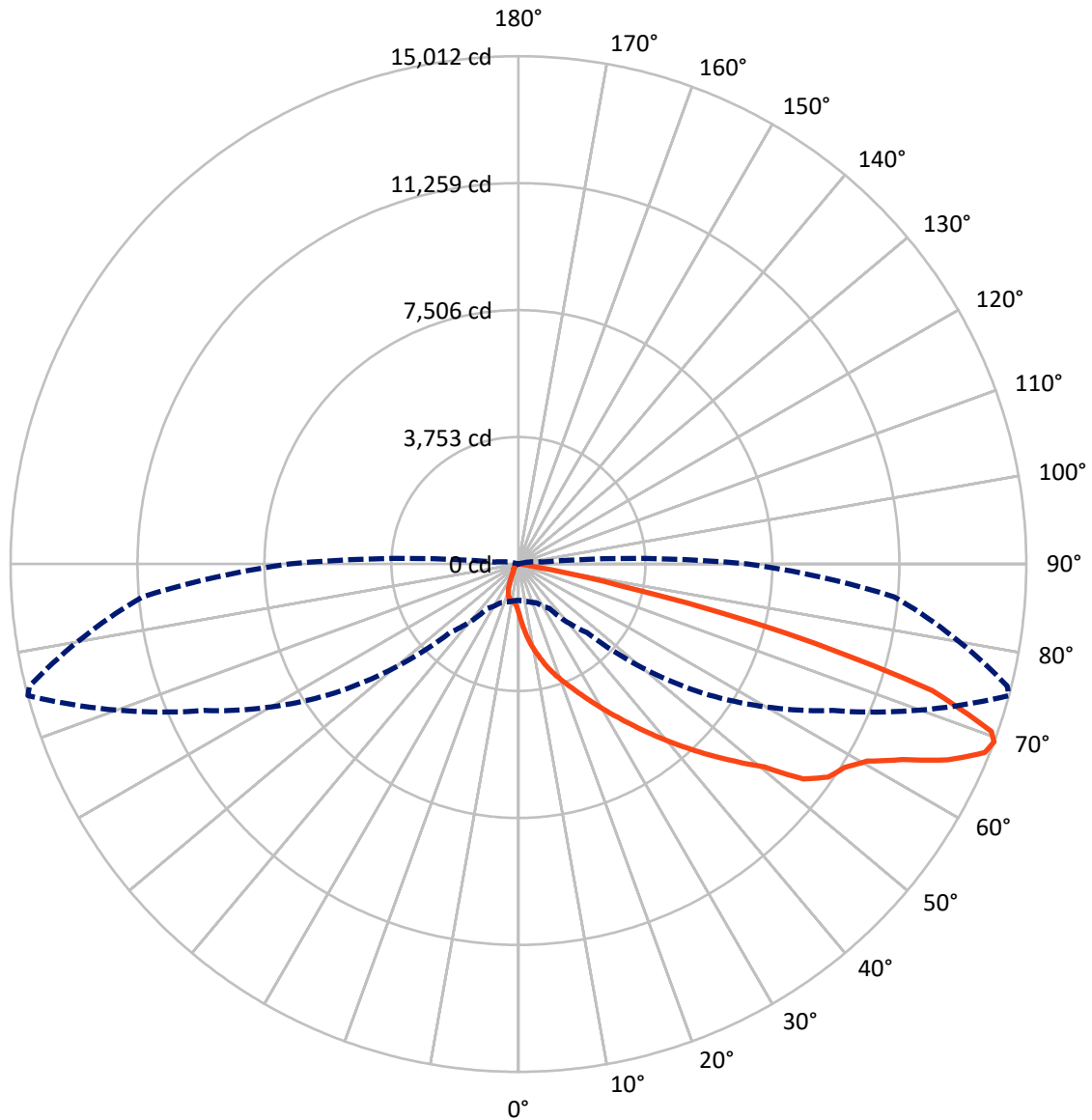


Based on 25 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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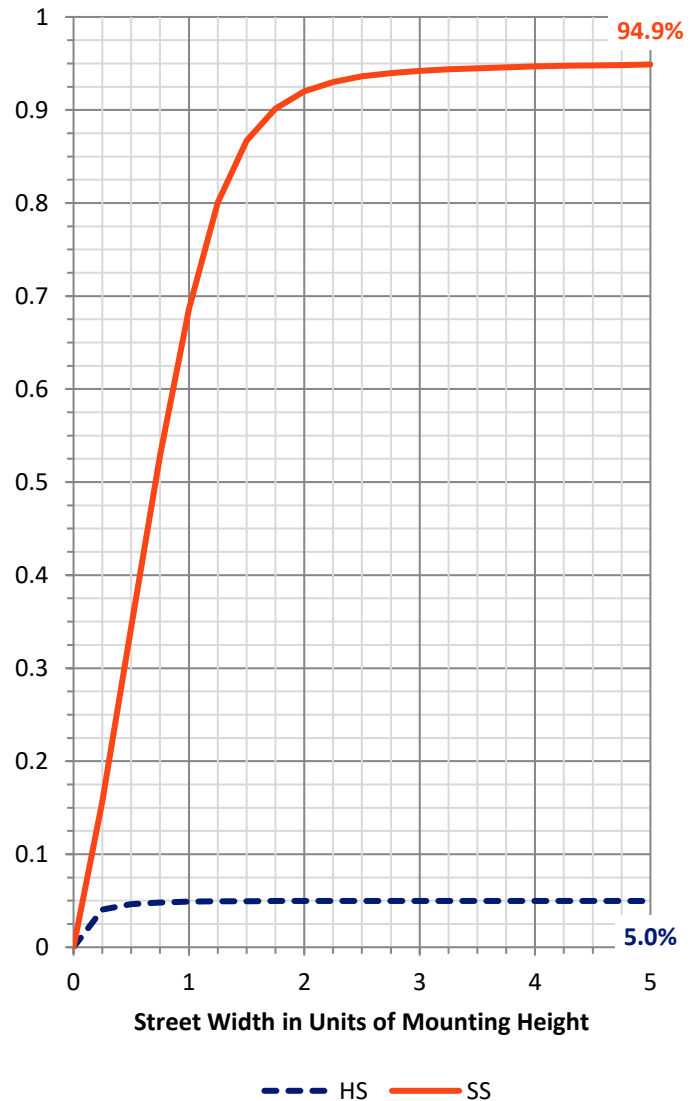
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 778.6    | 0.0    | 778.6   |
|                    | % Fixture | 5.0      | 0.0    | 5.0     |
| <b>Street Side</b> | Lumens    | 14826.0  | 0.0    | 14826.0 |
|                    | % Fixture | 95.0     | 0.0    | 95.0    |
| <b>Total</b>       | Lumens    | 15604.6  | 0.0    | 15604.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 169.3   | 1.1       |
| 10°-20°   | 605.3   | 3.9       |
| 20°-30°   | 1155.6  | 7.4       |
| 30°-40°   | 2072.8  | 13.3      |
| 40°-50°   | 3175.8  | 20.4      |
| 50°-60°   | 3691.0  | 23.7      |
| 60°-70°   | 3268.5  | 20.9      |
| 70°-80°   | 1409.8  | 9.0       |
| 80°-90°   | 56.5    | 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°    | 15604.6 | 100.0     |
| 0°-180°   | 15604.6 | 100.0     |

**Coefficient of Utilization**



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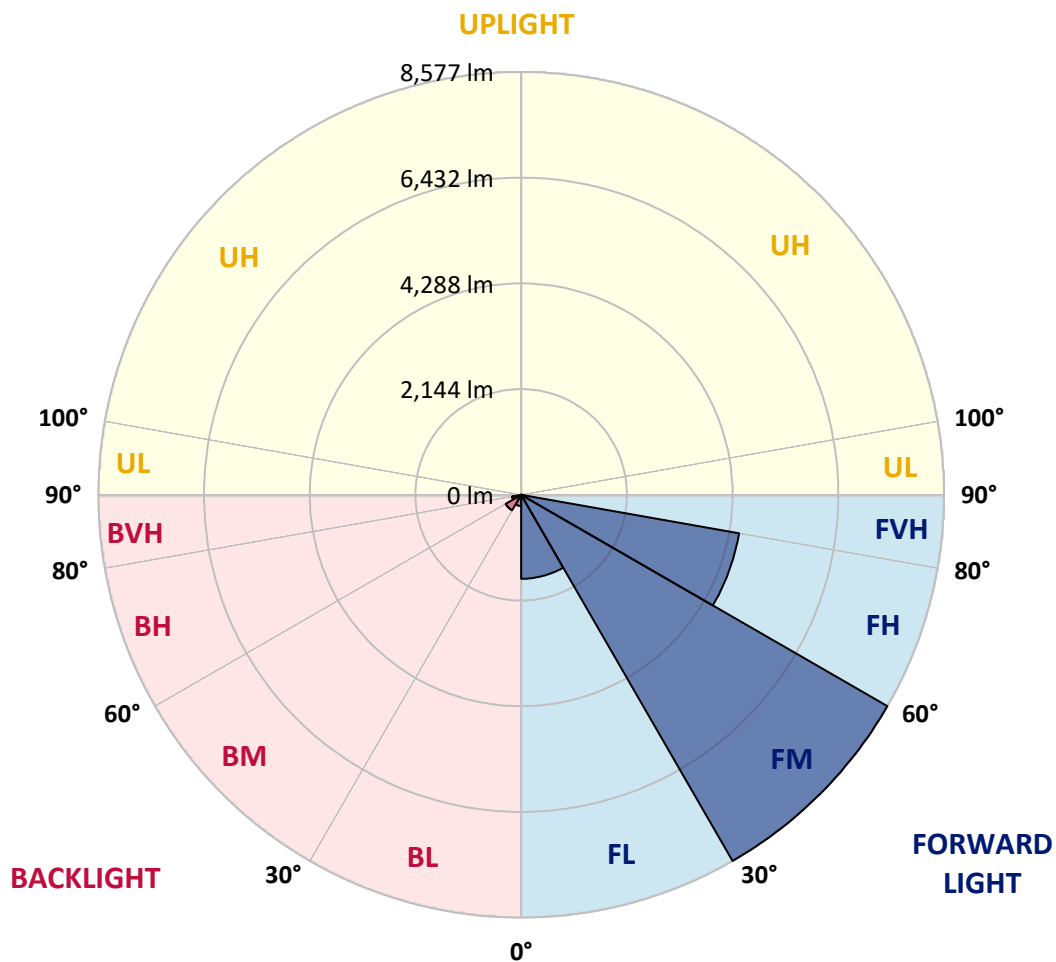
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1704.0 | 10.9      |                         |      |         |
| FM   | (30°-60°)   | 8576.7 | 55.0      |                         |      |         |
| FH   | (60°-80°)   | 4489.6 | 28.8      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 55.7   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 226.1  | 1.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 363.0  | 2.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 188.6  | 1.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.8    | 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-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 76°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0  | 1452.0  | 1452.0  | 1452.0  |
| 2.5°  | 2391.9 | 2368.3 | 2344.8 | 2317.7 | 2257.3 | 2152.8 | 2021.4 | 1879.9  | 1704.7  | 1674.4  | 1532.9  |
| 5°    | 2904.0 | 2893.9 | 2870.4 | 2833.3 | 2765.9 | 2651.3 | 2503.0 | 2294.2  | 2001.2  | 1950.6  | 1650.7  |
| 7.5°  | 3264.5 | 3257.8 | 3237.5 | 3193.7 | 3133.1 | 3018.6 | 2863.5 | 2637.9  | 2297.5  | 2240.4  | 1798.9  |
| 10°   | 3587.9 | 3584.5 | 3567.7 | 3527.3 | 3466.6 | 3342.0 | 3176.9 | 2941.1  | 2580.7  | 2516.6  | 1970.8  |
| 12.5° | 3880.9 | 3884.4 | 3877.7 | 3857.4 | 3813.7 | 3695.6 | 3507.1 | 3251.0  | 2853.5  | 2782.7  | 2176.4  |
| 15°   | 4052.9 | 4062.9 | 4089.9 | 4130.2 | 4143.7 | 4049.4 | 3854.0 | 3571.0  | 3133.1  | 3072.5  | 2412.2  |
| 17.5° | 3995.5 | 4005.6 | 4089.9 | 4228.1 | 4359.4 | 4372.9 | 4197.7 | 3874.2  | 3409.3  | 3348.7  | 2644.6  |
| 20°   | 3857.4 | 3870.8 | 3958.6 | 4147.1 | 4403.1 | 4581.7 | 4511.0 | 4204.3  | 3672.1  | 3598.0  | 2866.9  |
| 22.5° | 4012.4 | 4012.4 | 4039.3 | 4153.9 | 4386.3 | 4665.9 | 4760.3 | 4534.6  | 3941.7  | 3850.7  | 3089.4  |
| 25°   | 4544.6 | 4534.6 | 4477.3 | 4430.1 | 4504.2 | 4753.6 | 4948.9 | 4871.5  | 4258.2  | 4153.9  | 3325.2  |
| 27.5° | 5218.4 | 5265.7 | 5157.8 | 4986.0 | 4817.5 | 4925.3 | 5117.4 | 5205.0  | 4608.7  | 4500.9  | 3567.7  |
| 30°   | 5973.1 | 5993.3 | 5865.3 | 5636.1 | 5339.7 | 5235.3 | 5316.1 | 5491.2  | 4989.4  | 4871.5  | 3820.3  |
| 32.5° | 6653.6 | 6636.8 | 6528.9 | 6289.8 | 5922.5 | 5696.8 | 5572.1 | 5720.3  | 5403.8  | 5269.0  | 4079.7  |
| 35°   | 7256.6 | 7270.2 | 7138.7 | 6862.4 | 6502.0 | 6262.9 | 5966.4 | 5979.7  | 5868.6  | 5713.7  | 4379.5  |
| 37.5° | 7799.1 | 7775.4 | 7650.8 | 7374.5 | 7047.7 | 6788.3 | 6475.1 | 6249.2  | 6377.3  | 6215.6  | 4716.6  |
| 40°   | 8240.3 | 8216.7 | 8085.4 | 7815.9 | 7509.3 | 7297.0 | 7051.2 | 6609.8  | 6912.9  | 6727.6  | 5077.0  |
| 42.5° | 8590.8 | 8563.7 | 8452.6 | 8193.3 | 7896.7 | 7708.0 | 7590.1 | 7054.5  | 7485.8  | 7300.4  | 5481.2  |
| 45°   | 8762.5 | 8738.9 | 8671.6 | 8476.1 | 8216.7 | 8051.7 | 8109.0 | 7566.6  | 8098.8  | 7943.9  | 5925.8  |
| 47.5° | 8560.4 | 8550.2 | 8627.9 | 8594.1 | 8445.9 | 8358.3 | 8557.1 | 8125.8  | 8742.3  | 8590.8  | 6438.1  |
| 50°   | 7947.2 | 7964.2 | 8189.8 | 8469.4 | 8540.1 | 8644.6 | 8924.2 | 8715.4  | 9432.9  | 9271.2  | 7027.5  |
| 52.5° | 6434.6 | 6549.2 | 7229.6 | 7903.5 | 8425.7 | 8819.7 | 9355.5 | 9557.5  | 10558.1 | 10399.8 | 7947.2  |
| 55°   | 4804.0 | 4851.2 | 5592.4 | 6744.6 | 7964.2 | 8806.4 | 9675.6 | 10052.8 | 11114.0 | 10952.3 | 8189.8  |
| 57.5° | 3810.3 | 3827.0 | 4194.2 | 5370.1 | 7014.1 | 8503.1 | 9843.9 | 10231.3 | 11356.6 | 11221.8 | 8550.2  |
| 60°   | 2991.5 | 3011.7 | 3277.9 | 4086.5 | 5676.6 | 7684.6 | 9601.4 | 10386.4 | 11831.5 | 11723.8 | 9180.3  |
| 62.5° | 2327.9 | 2348.1 | 2509.9 | 2984.9 | 4258.2 | 6424.5 | 9112.9 | 10635.7 | 12734.5 | 12684.0 | 10211.2 |
| 65°   | 1802.4 | 1809.0 | 1920.2 | 2142.6 | 3008.5 | 5060.2 | 8516.7 | 10868.1 | 13954.0 | 13910.3 | 11046.6 |
| 67.5° | 1330.7 | 1340.8 | 1418.3 | 1556.5 | 2031.4 | 3635.0 | 7539.7 | 10689.6 | 14873.7 | 14745.7 | 11349.8 |
| 69°   | 1074.7 | 1084.9 | 1152.2 | 1263.3 | 1603.7 | 2863.5 | 6646.9 | 10248.3 | 15011.8 | 14890.6 | 11157.8 |
| 70°   | 919.8  | 926.4  | 993.9  | 1088.1 | 1367.8 | 2432.3 | 5939.5 | 9867.5  | 14829.8 | 14712.0 | 10719.8 |
| 72.5° | 589.6  | 623.2  | 690.6  | 751.3  | 906.2  | 1610.3 | 4009.0 | 8183.1  | 12795.1 | 12593.0 | 8395.3  |
| 75°   | 326.8  | 336.9  | 458.1  | 532.2  | 603.0  | 1047.8 | 2230.2 | 5103.9  | 8139.4  | 7997.8  | 4490.7  |
| 77.5° | 269.5  | 276.3  | 323.4  | 404.2  | 404.2  | 586.2  | 842.3  | 2011.2  | 3096.0  | 2792.8  | 1216.1  |
| 80°   | 188.6  | 195.4  | 246.0  | 266.2  | 289.8  | 330.1  | 272.8  | 441.3   | 478.3   | 424.4   | 181.9   |
| 82.5° | 131.4  | 138.1  | 168.4  | 218.9  | 232.4  | 155.0  | 101.1  | 131.4   | 138.1   | 138.1   | 70.7    |
| 85°   | 23.5   | 33.6   | 124.7  | 181.9  | 138.1  | 47.3   | 57.3   | 47.3    | 43.7    | 47.3    | 16.9    |
| 87.5° | 0.0    | 0.0    | 77.4   | 87.6   | 74.1   | 20.2   | 23.5   | 16.9    | 10.2    | 13.5    | 6.7     |
| 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°    | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 | 1452.0 |
| 2.5°  | 1462.1 | 1391.4 | 1270.1 | 1182.4 | 1108.4 | 1051.0 | 1027.5 | 990.4  | 963.5  | 976.9  | 960.2  |
| 5°    | 1502.5 | 1377.9 | 1182.4 | 1057.8 | 970.3  | 896.1  | 835.6  | 788.4  | 751.3  | 744.5  | 737.8  |
| 7.5°  | 1566.6 | 1388.1 | 1132.0 | 976.9  | 845.7  | 731.0  | 636.7  | 566.0  | 512.0  | 512.0  | 491.8  |
| 10°   | 1654.0 | 1414.9 | 1101.6 | 896.1  | 700.8  | 545.8  | 451.5  | 384.0  | 357.0  | 353.8  | 346.9  |
| 12.5° | 1775.4 | 1465.5 | 1078.1 | 791.6  | 545.8  | 397.5  | 340.3  | 316.7  | 306.6  | 303.2  | 299.9  |
| 15°   | 1940.5 | 1539.5 | 1051.0 | 663.7  | 414.4  | 326.8  | 303.2  | 283.0  | 272.8  | 269.5  | 266.2  |
| 17.5° | 2098.8 | 1607.0 | 993.9  | 532.2  | 336.9  | 296.5  | 269.5  | 252.7  | 239.2  | 235.9  | 235.9  |
| 20°   | 2247.1 | 1664.2 | 896.1  | 414.4  | 303.2  | 266.2  | 239.2  | 218.9  | 205.5  | 202.1  | 202.1  |
| 22.5° | 2402.1 | 1711.5 | 774.9  | 336.9  | 276.3  | 235.9  | 208.9  | 188.6  | 175.2  | 171.8  | 168.4  |
| 25°   | 2567.0 | 1745.0 | 636.7  | 299.9  | 249.3  | 208.9  | 178.6  | 161.8  | 151.6  | 148.2  | 144.8  |
| 27.5° | 2745.7 | 1758.6 | 505.3  | 272.8  | 218.9  | 181.9  | 155.0  | 138.1  | 131.4  | 128.0  | 128.0  |
| 30°   | 2907.4 | 1745.0 | 390.9  | 242.5  | 192.1  | 158.3  | 134.7  | 121.4  | 114.5  | 111.2  | 111.2  |
| 32.5° | 3075.7 | 1711.5 | 313.2  | 215.7  | 168.4  | 134.7  | 114.5  | 104.5  | 101.1  | 97.6   | 97.6   |
| 35°   | 3254.4 | 1667.7 | 269.5  | 192.1  | 144.8  | 117.9  | 101.1  | 94.3   | 91.0   | 87.6   | 87.6   |
| 37.5° | 3463.2 | 1613.7 | 246.0  | 171.8  | 128.0  | 104.5  | 87.6   | 84.3   | 80.8   | 80.8   | 80.8   |
| 40°   | 3699.1 | 1546.3 | 229.1  | 155.0  | 114.5  | 91.0   | 77.4   | 74.1   | 70.7   | 70.7   | 70.7   |
| 42.5° | 3948.4 | 1468.9 | 212.2  | 138.1  | 101.1  | 77.4   | 67.4   | 67.4   | 64.0   | 64.0   | 60.6   |
| 45°   | 4228.1 | 1391.4 | 195.4  | 121.4  | 87.6   | 67.4   | 57.3   | 53.9   | 53.9   | 50.6   | 50.6   |
| 47.5° | 4558.1 | 1320.6 | 178.6  | 107.7  | 77.4   | 57.3   | 50.6   | 47.3   | 43.7   | 40.5   | 40.5   |
| 50°   | 5023.1 | 1314.0 | 158.3  | 94.3   | 70.7   | 47.3   | 40.5   | 37.1   | 33.6   | 30.4   | 30.4   |
| 52.5° | 5484.6 | 1253.2 | 134.7  | 77.4   | 57.3   | 40.5   | 30.4   | 26.9   | 23.5   | 23.5   | 20.2   |
| 55°   | 5589.1 | 1152.2 | 117.9  | 67.4   | 43.7   | 30.4   | 23.5   | 16.9   | 16.9   | 13.5   | 13.5   |
| 57.5° | 5818.1 | 1105.0 | 101.1  | 53.9   | 33.6   | 23.5   | 13.5   | 10.2   | 10.2   | 10.2   | 10.2   |
| 60°   | 6269.5 | 1091.5 | 87.6   | 47.3   | 23.5   | 16.9   | 10.2   | 6.7    | 6.7    | 3.4    | 3.4    |
| 62.5° | 6892.8 | 1078.1 | 74.1   | 40.5   | 16.9   | 10.2   | 6.7    | 3.4    | 0.0    | 0.0    | 0.0    |
| 65°   | 7236.4 | 987.1  | 60.6   | 30.4   | 13.5   | 10.2   | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 7145.5 | 815.3  | 53.9   | 20.2   | 10.2   | 6.7    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 69°   | 6764.7 | 687.3  | 43.7   | 16.9   | 10.2   | 6.7    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 6306.6 | 592.9  | 40.5   | 13.5   | 6.7    | 3.4    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 4477.3 | 309.9  | 26.9   | 10.2   | 6.7    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 2092.2 | 138.1  | 16.9   | 6.7    | 3.4    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 461.5  | 64.0   | 10.2   | 6.7    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 87.6   | 23.5   | 6.7    | 3.4    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 30.4   | 10.2   | 3.4    | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 10.2   | 3.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 3.4    | 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)