Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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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: P841381

Luminaire Tested: **ARCH4-170-730-U-T2U-HSS**

Issue Date: 5/27/2024

Report Generated By 670246001

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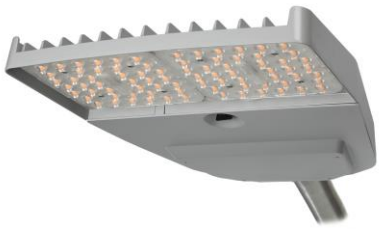
**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P841381 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-25) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 5/27/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | STREETWORKS |
| Catalog Number: | ARCH4-170-730-U-T2U-HSS |
| Description: | ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE |
| | (2) 70 CRI, 3000K, 1380mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II U OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | - |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 19068 lumens |
| Efficiency: | N/A |
| Efficacy: | 112.3 lumens/watt |
| Luminous Opening: | Rectangular (W 1.17' x L: 0.58' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 169.8 |
| 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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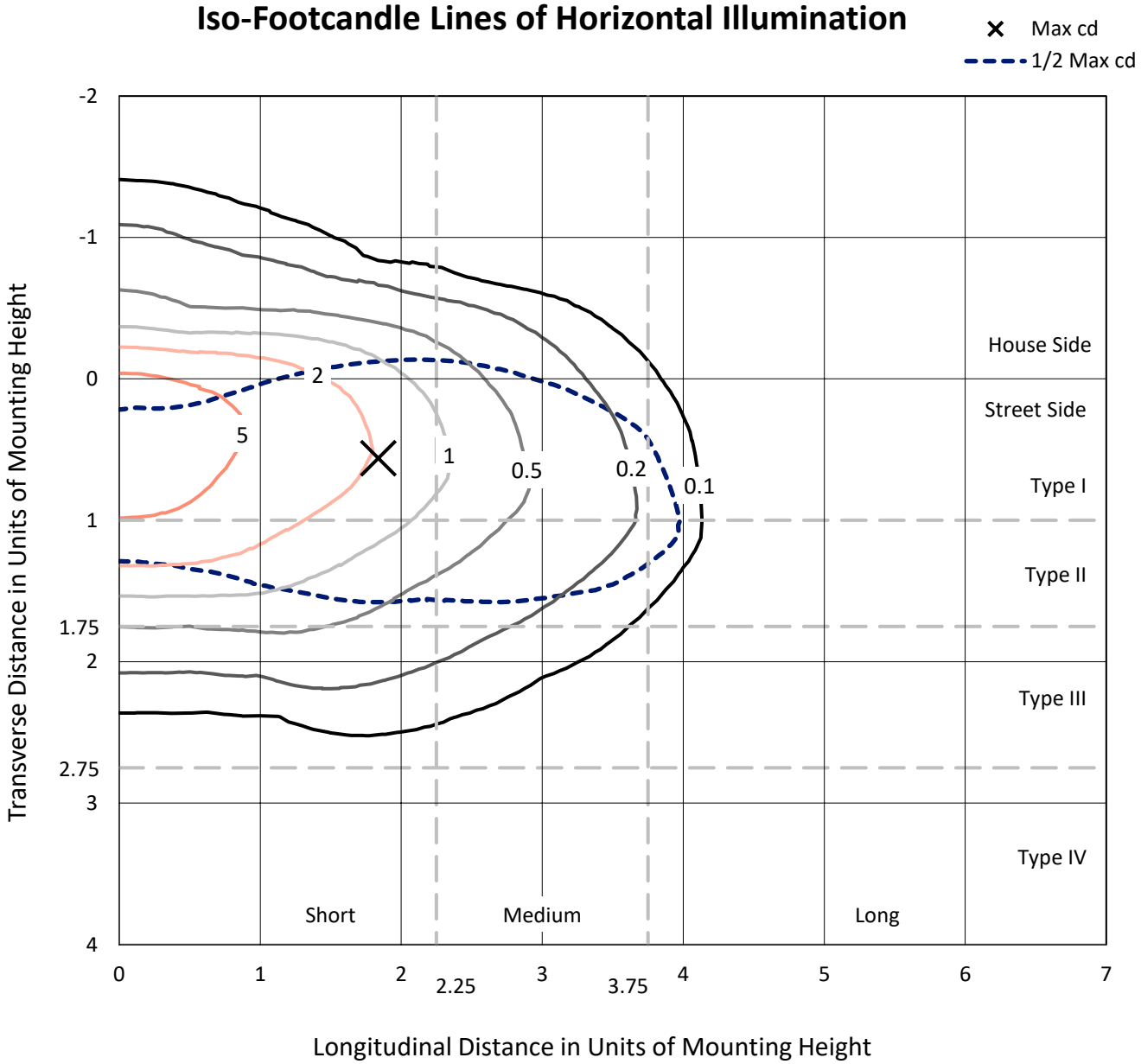
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
Type II - Short - N/A

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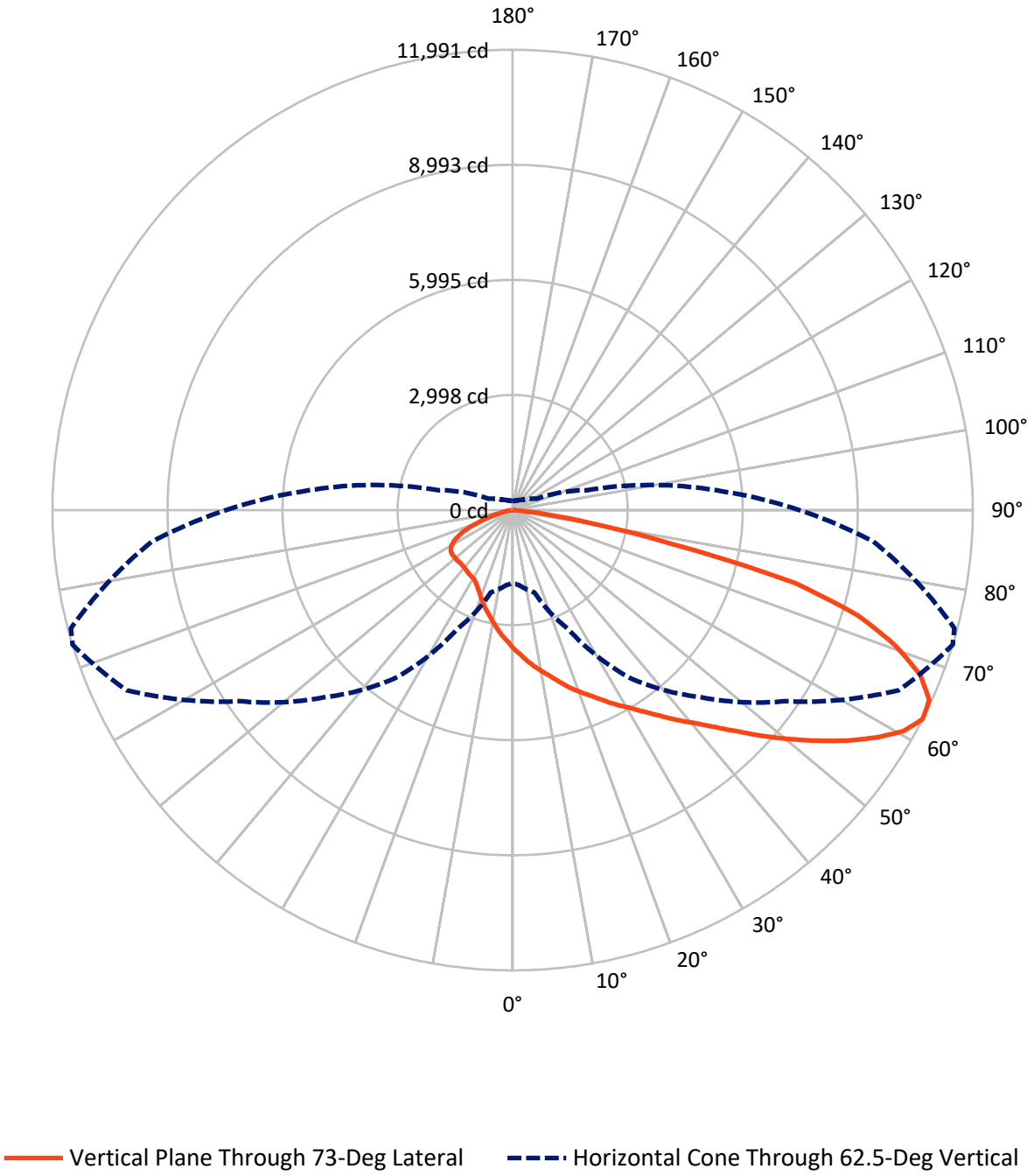
## Luminous Intensity Polar Plot



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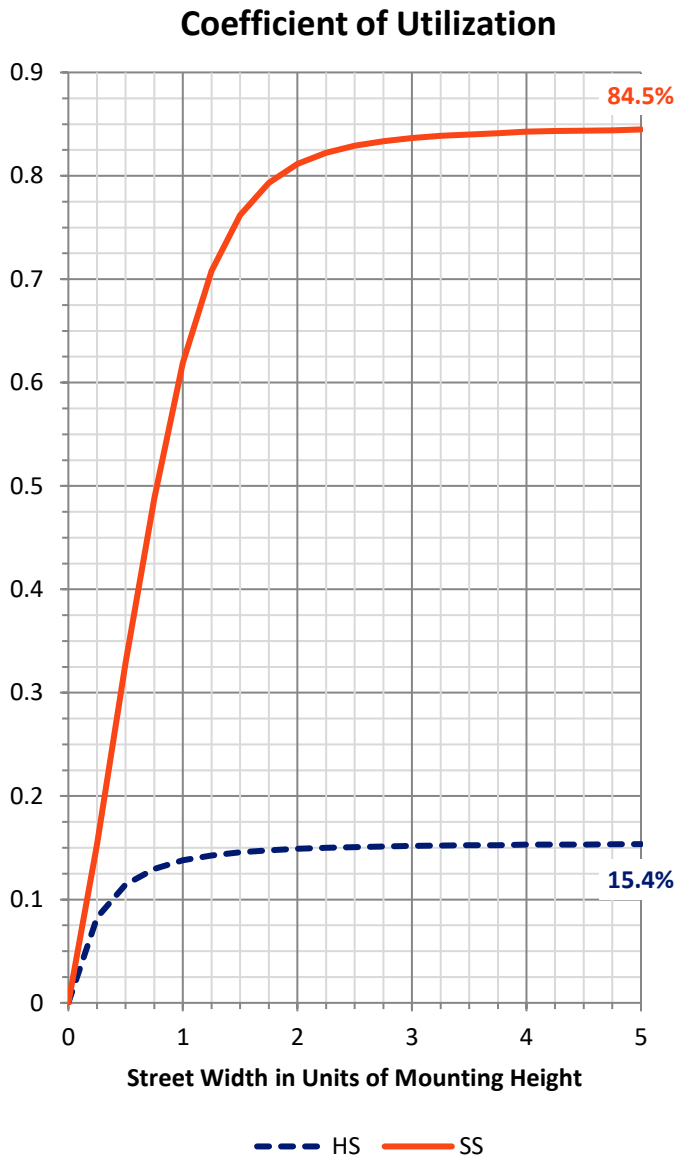
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2955.8 | 0.0 | 2955.8 |
| | % Fixture | 15.5 | 0.0 | 15.5 |
| **Street Side** | Lumens | 16112.2 | 0.0 | 16112.2 |
| | % Fixture | 84.5 | 0.0 | 84.5 |
| **Total** | Lumens | 19068.0 | 0.0 | 19068.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 348.8 | 1.8 |
| 10°-20° | 1052.5 | 5.5 |
| 20°-30° | 1752.0 | 9.2 |
| 30°-40° | 2643.4 | 13.9 |
| 40°-50° | 3694.8 | 19.4 |
| 50°-60° | 4081.2 | 21.4 |
| 60°-70° | 3555.2 | 18.6 |
| 70°-80° | 1795.9 | 9.4 |
| 80°-90° | 144.1 | 0.8 |
| 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° | 19068.0 | 100.0 |
| 0°-180° | 19068.0 | 100.0 |



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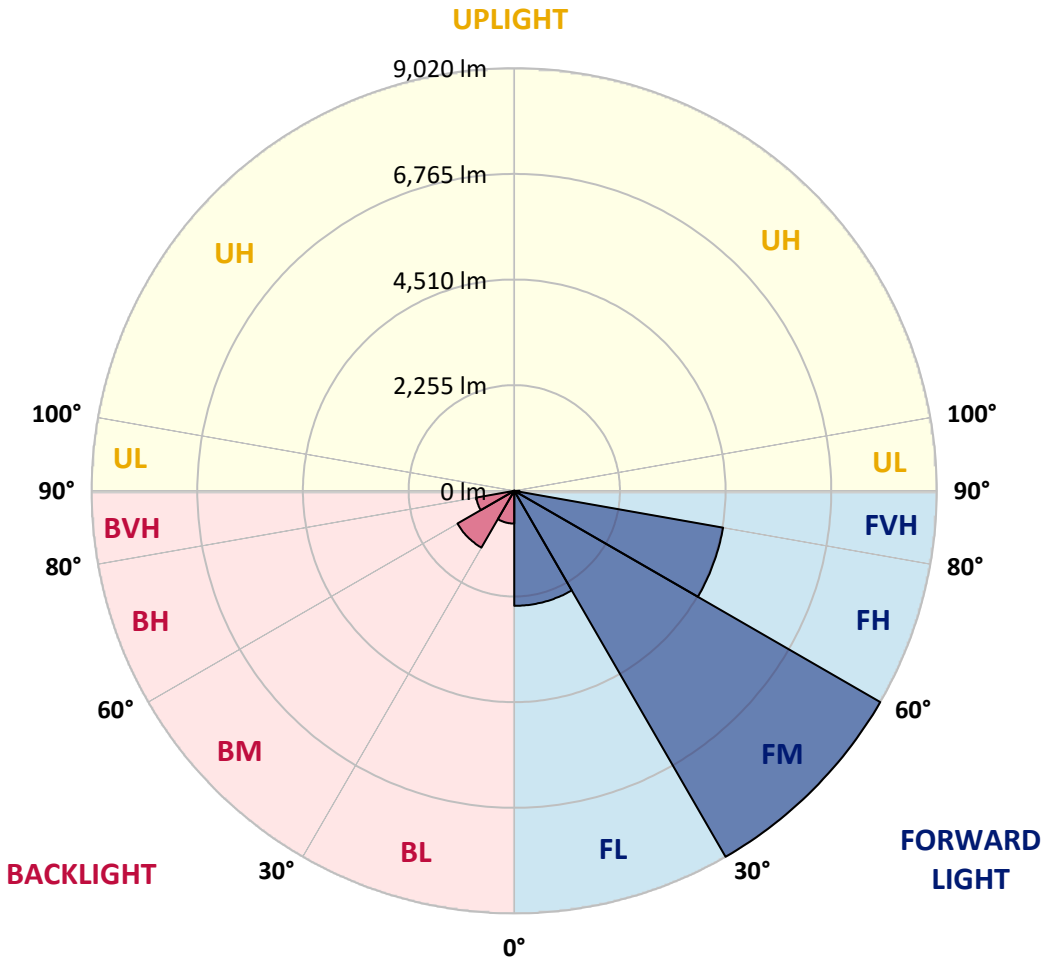
**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2454.6 | 12.9 | | | |
| FM | (30°-60°) | 9019.9 | 47.3 | | | |
| FH | (60°-80°) | 4526.1 | 23.7 | | | G2/5000 |
| FVH | (80°-90°) | 111.6 | 0.6 | | | G2/225 |
| BL | (0°-30°) | 698.6 | 3.7 | B2/1000 | | |
| BM | (30°-60°) | 1399.6 | 7.3 | B2/2500 | | |
| BH | (60°-80°) | 825.0 | 4.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 32.6 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type II Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 73° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | *3610.6* | 3610.6 | 3610.6 |
| 2.5° | 4109.1 | 4154.9 | 4129.9 | 4146.5 | 4063.4 | 4009.4 | 3947.1 | 3826.6 | *3760.1* | 3751.8 | 3672.9 |
| 5° | 4711.6 | 4761.5 | 4719.9 | 4707.4 | 4562.0 | 4437.4 | 4296.1 | 4084.2 | *3943.0* | 3918.0 | 3743.5 |
| 7.5° | 5314.1 | 5359.8 | 5309.9 | 5272.5 | 5077.2 | 4857.0 | 4649.3 | 4337.7 | *4117.5* | 4075.9 | 3801.7 |
| 10° | 5737.9 | 5779.4 | 5742.0 | 5704.6 | 5501.0 | 5276.7 | 4981.7 | 4574.5 | *4275.3* | 4208.9 | 3839.1 |
| 12.5° | 6057.8 | 6082.7 | 6066.1 | 6032.8 | 5841.7 | 5600.7 | 5318.2 | 4840.4 | *4454.0* | 4370.9 | 3897.3 |
| 15° | 6319.5 | 6361.1 | 6340.3 | 6315.4 | 6132.6 | 5891.6 | 5621.5 | 5118.8 | *4661.7* | 4557.9 | 3984.5 |
| 17.5° | 6494.0 | 6523.1 | 6527.3 | 6527.3 | 6365.2 | 6128.4 | 5866.7 | 5372.2 | *4869.5* | 4736.5 | 4067.6 |
| 20° | 6573.0 | 6606.2 | 6627.0 | 6660.2 | 6527.3 | 6323.7 | 6057.8 | 5588.3 | *5064.8* | 4915.2 | 4146.5 |
| 22.5° | 6610.4 | 6639.5 | 6693.5 | 6768.3 | 6660.2 | 6489.9 | 6244.7 | 5787.7 | *5260.0* | 5102.2 | 4237.9 |
| 25° | 6639.5 | 6676.8 | 6755.8 | 6897.1 | 6822.3 | 6676.8 | 6464.9 | 6016.2 | *5492.7* | 5330.7 | 4370.9 |
| 27.5° | 6718.4 | 6764.1 | 6838.9 | 7009.2 | 6917.8 | 6847.2 | 6697.6 | 6261.4 | *5737.9* | 5571.7 | 4532.9 |
| 30° | 6992.6 | 7030.0 | 7025.9 | 7133.9 | 7021.7 | 7000.9 | 6897.1 | 6498.2 | *5974.7* | 5808.5 | 4724.1 |
| 32.5° | 7491.2 | 7528.6 | 7437.2 | 7395.6 | 7150.5 | 7154.7 | 7113.1 | 6751.6 | *6257.2* | 6086.9 | 4944.3 |
| 35° | 8027.2 | 8068.7 | 7948.2 | 7877.6 | 7466.3 | 7345.8 | 7366.6 | 7067.4 | *6573.0* | 6402.6 | 5218.5 |
| 37.5° | 8505.0 | 8554.8 | 8451.0 | 8347.1 | 7931.6 | 7653.2 | 7649.1 | 7420.6 | *6934.4* | 6759.9 | 5521.8 |
| 40° | 8766.7 | 8824.9 | 8887.2 | 8829.1 | 8392.8 | 8085.3 | 7952.4 | 7782.0 | *7291.8* | 7113.1 | 5850.0 |
| 42.5° | 8891.4 | 9053.4 | 9165.6 | 9128.2 | 8770.9 | 8459.3 | 8301.4 | 8160.1 | *7728.0* | 7553.5 | 6240.6 |
| 45° | 8542.4 | 8546.5 | 8783.4 | 8986.9 | 8920.5 | 8712.7 | 8683.6 | 8583.9 | *8226.6* | 8060.4 | 6681.0 |
| 47.5° | 8106.1 | 8072.9 | 8239.1 | 8600.5 | 8787.5 | 8841.5 | 9011.9 | 9053.4 | *8795.8* | 8629.6 | 7129.7 |
| 50° | 7059.1 | 7079.9 | 7620.0 | 8139.4 | 8505.0 | 8854.0 | 9244.5 | 9535.4 | *9381.7* | 9223.8 | 7603.4 |
| 52.5° | 5742.0 | 5791.9 | 6410.9 | 7553.5 | 8131.0 | 8729.3 | 9381.7 | 10017.3 | *9980.0* | 9830.4 | 8077.0 |
| 55° | 4603.6 | 4682.5 | 5339.0 | 6577.1 | 7653.2 | 8451.0 | 9439.8 | 10457.8 | *10599.0* | 10461.9 | 8542.4 |
| 57.5° | 3519.2 | 3602.3 | 4154.9 | 5426.2 | 7042.5 | 7998.1 | 9398.3 | 10844.2 | *11176.6* | 11089.3 | 8970.3 |
| 60° | 2650.8 | 2733.9 | 3087.1 | 4400.0 | 6278.0 | 7491.2 | 9190.5 | 11097.6 | *11695.9* | 11604.5 | 9281.9 |
| 62.5° | *1898.8* | *1965.2* | *2227.0* | *3423.6* | *5347.3* | *6888.7* | *8679.5* | *11101.8* | *11990.9* | *11916.1* | *9431.5* |
| 65° | 1366.9 | 1366.9 | 1578.8 | 2443.1 | 4474.8 | 6165.8 | 7906.7 | 10590.7 | *11928.6* | 11907.8 | 9327.6 |
| 67.5° | 984.7 | 993.0 | 1163.4 | 1707.6 | 3569.0 | 5289.1 | 6905.4 | 9680.8 | *11446.6* | 11550.5 | 8953.7 |
| 70° | 698.0 | 718.8 | 797.7 | 1192.4 | 2696.5 | 4175.6 | 5833.4 | 8488.4 | *10578.3* | 10761.1 | 8230.8 |
| 72.5° | 540.1 | 552.6 | 606.6 | 831.0 | 1969.4 | 3103.7 | 4649.3 | 7158.8 | *9419.0* | 9626.8 | 7246.1 |
| 75° | 415.5 | 427.9 | 469.5 | 610.8 | 1412.6 | 2177.1 | 3303.1 | 5555.0 | *7595.1* | 7964.9 | 5820.9 |
| 77.5° | 303.3 | 319.9 | 349.0 | 444.6 | 822.7 | 1383.6 | 2002.6 | 3124.4 | *4192.2* | 4366.7 | 3049.7 |
| 80° | 141.3 | 162.0 | 203.6 | 286.7 | 444.6 | 652.3 | 710.5 | 1204.9 | *2015.1* | 2106.5 | 1653.6 |
| 82.5° | 78.9 | 99.7 | 116.3 | 174.5 | 224.4 | 232.7 | 241.0 | 303.3 | *760.3* | 839.3 | 693.9 |
| 85° | 37.4 | 49.9 | 54.0 | 74.8 | 74.8 | 66.5 | 78.9 | 58.2 | *124.6* | 149.6 | 145.4 |
| 87.5° | 0.0 | 4.2 | 8.3 | 20.8 | 16.6 | 12.5 | 12.5 | 12.5 | *12.5* | 16.6 | 12.5 |
| 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):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 | 3610.6 |
| 2.5° | 3635.5 | 3581.5 | 3456.8 | 3348.8 | 3278.2 | 3215.9 | 3132.8 | 3095.4 | 3028.9 | 3041.4 | 3004.0 |
| 5° | 3656.3 | 3556.6 | 3336.3 | 3132.8 | 2983.2 | 2850.2 | 2704.8 | 2621.7 | 2530.3 | 2522.0 | 2492.9 |
| 7.5° | 3668.7 | 3515.0 | 3199.2 | 2912.6 | 2684.0 | 2480.4 | 2285.2 | 2177.1 | 2065.0 | 2040.0 | 2015.1 |
| 10° | 3656.3 | 3452.7 | 3058.0 | 2684.0 | 2380.7 | 2127.3 | 1907.1 | 1770.0 | 1653.6 | 1624.5 | 1599.6 |
| 12.5° | 3668.7 | 3419.4 | 2925.0 | 2472.1 | 2110.7 | 1824.0 | 1574.7 | 1433.4 | 1325.4 | 1296.3 | 1279.7 |
| 15° | 3697.8 | 3398.7 | 2812.8 | 2281.0 | 1869.7 | 1549.8 | 1304.6 | 1184.1 | 1096.9 | 1067.8 | 1059.5 |
| 17.5° | 3722.7 | 3377.9 | 2692.3 | 2094.0 | 1628.7 | 1308.8 | 1096.9 | 997.2 | 922.4 | 893.3 | 885.0 |
| 20° | 3756.0 | 3348.8 | 2571.9 | 1915.4 | 1416.8 | 1117.7 | 930.7 | 843.4 | 785.3 | 764.5 | 760.3 |
| 22.5° | 3785.1 | 3328.0 | 2459.7 | 1736.7 | 1221.5 | 963.9 | 806.0 | 735.4 | 693.9 | 673.1 | 673.1 |
| 25° | 3859.9 | 3336.3 | 2364.1 | 1570.5 | 1076.1 | 843.4 | 710.5 | 656.5 | 623.2 | 610.8 | 610.8 |
| 27.5° | 3947.1 | 3369.6 | 2289.3 | 1429.3 | 951.5 | 752.0 | 644.0 | 598.3 | 581.7 | 565.1 | 569.2 |
| 30° | 4071.8 | 3436.1 | 2239.5 | 1312.9 | 860.1 | 681.4 | 590.0 | 556.8 | 540.1 | 536.0 | 536.0 |
| 32.5° | 4229.6 | 3544.1 | 2235.3 | 1238.1 | 793.6 | 627.4 | 552.6 | 523.5 | 515.2 | 511.0 | 511.0 |
| 35° | 4416.6 | 3639.7 | 2210.4 | 1204.9 | 752.0 | 590.0 | 523.5 | 502.7 | 498.6 | 498.6 | 498.6 |
| 37.5° | 4641.0 | 3797.5 | 2193.8 | 1159.2 | 731.3 | 569.2 | 502.7 | 486.1 | 486.1 | 486.1 | 486.1 |
| 40° | 4873.6 | 3926.3 | 2168.8 | 1117.7 | 722.9 | 556.8 | 490.3 | 469.5 | 469.5 | 469.5 | 469.5 |
| 42.5° | 5152.0 | 4113.3 | 2160.5 | 1096.9 | 710.5 | 548.4 | 473.7 | 448.7 | 452.9 | 452.9 | 457.0 |
| 45° | 5488.6 | 4325.2 | 2156.4 | 1076.1 | 706.3 | 540.1 | 457.0 | 427.9 | 432.1 | 427.9 | 427.9 |
| 47.5° | 5829.3 | 4570.3 | 2168.8 | 1063.6 | 702.2 | 531.8 | 444.6 | 407.2 | 407.2 | 403.0 | 403.0 |
| 50° | 6186.6 | 4794.7 | 2177.1 | 1051.2 | 693.9 | 515.2 | 423.8 | 390.6 | 382.2 | 373.9 | 378.1 |
| 52.5° | 6523.1 | 5002.4 | 2181.3 | 1030.4 | 668.9 | 490.3 | 407.2 | 369.8 | 357.3 | 344.9 | 349.0 |
| 55° | 6859.7 | 5201.9 | 2189.6 | 1005.5 | 635.7 | 465.3 | 386.4 | 349.0 | 332.4 | 315.8 | 315.8 |
| 57.5° | 7163.0 | 5376.4 | 2168.8 | 943.2 | 598.3 | 440.4 | 365.6 | 324.1 | 299.1 | 282.5 | 282.5 |
| 60° | 7370.7 | 5501.0 | 2106.5 | 851.7 | 548.4 | 411.3 | 344.9 | 299.1 | 270.1 | 257.6 | 257.6 |
| 62.5° | *7470.4* | *5521.8* | *1994.3* | *702.2* | *486.1* | *382.2* | *319.9* | *274.2* | *249.3* | *241.0* | *241.0* |
| 65° | 7374.9 | 5430.4 | 1819.8 | 527.7 | 419.6 | 349.0 | 295.0 | 253.4 | 228.5 | 207.7 | 207.7 |
| 67.5° | 7042.5 | 5172.8 | 1578.8 | 398.9 | 357.3 | 315.8 | 270.1 | 232.7 | 203.6 | 187.0 | 187.0 |
| 70° | 6373.5 | 4636.8 | 1221.5 | 319.9 | 303.3 | 274.2 | 245.1 | 207.7 | 182.8 | 162.0 | 162.0 |
| 72.5° | 5496.9 | 3930.5 | 860.1 | 257.6 | 257.6 | 232.7 | 207.7 | 182.8 | 157.9 | 141.3 | 141.3 |
| 75° | 4217.2 | 2908.4 | 577.5 | 207.7 | 211.9 | 195.3 | 170.3 | 149.6 | 133.0 | 120.5 | 120.5 |
| 77.5° | 2301.8 | 1437.6 | 353.2 | 153.7 | 157.9 | 149.6 | 133.0 | 120.5 | 112.2 | 99.7 | 99.7 |
| 80° | 1117.7 | 631.5 | 203.6 | 108.0 | 112.2 | 108.0 | 99.7 | 87.3 | 87.3 | 78.9 | 78.9 |
| 82.5° | 469.5 | 236.8 | 108.0 | 74.8 | 74.8 | 66.5 | 62.3 | 62.3 | 62.3 | 58.2 | 58.2 |
| 85° | 116.3 | 45.7 | 45.7 | 41.5 | 41.5 | 41.5 | 37.4 | 37.4 | 37.4 | 29.1 | 33.2 |
| 87.5° | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 12.5 | 4.2 | 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)