

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: P841307

Luminaire Tested: **ARCH4-160-730-U-T2R-HSS**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P841307  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-160-730-U-T2R-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 1305mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 18091 lumens  
Efficiency: N/A  
Efficacy: 112.6 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

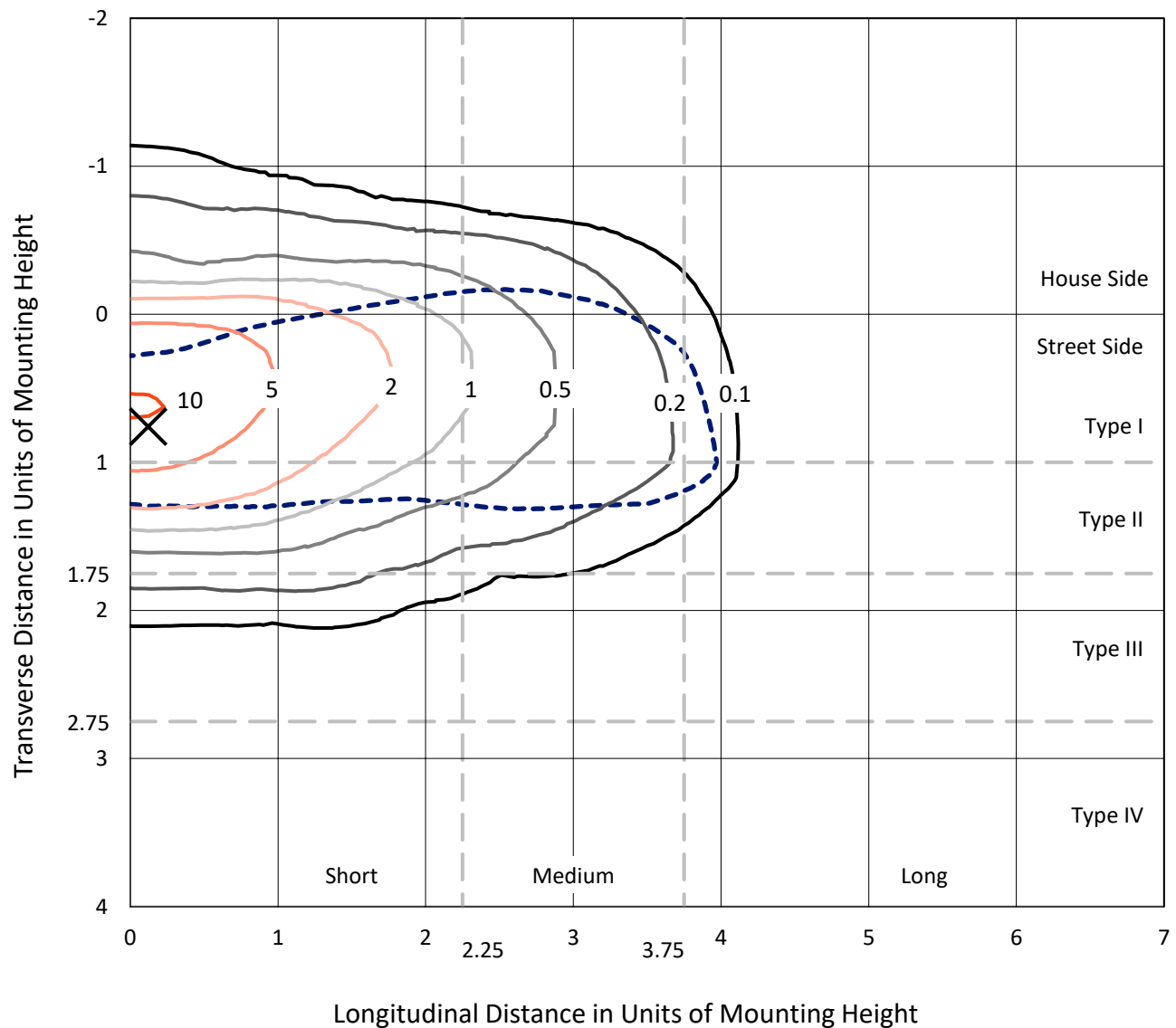
Input Watts (W): 160.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

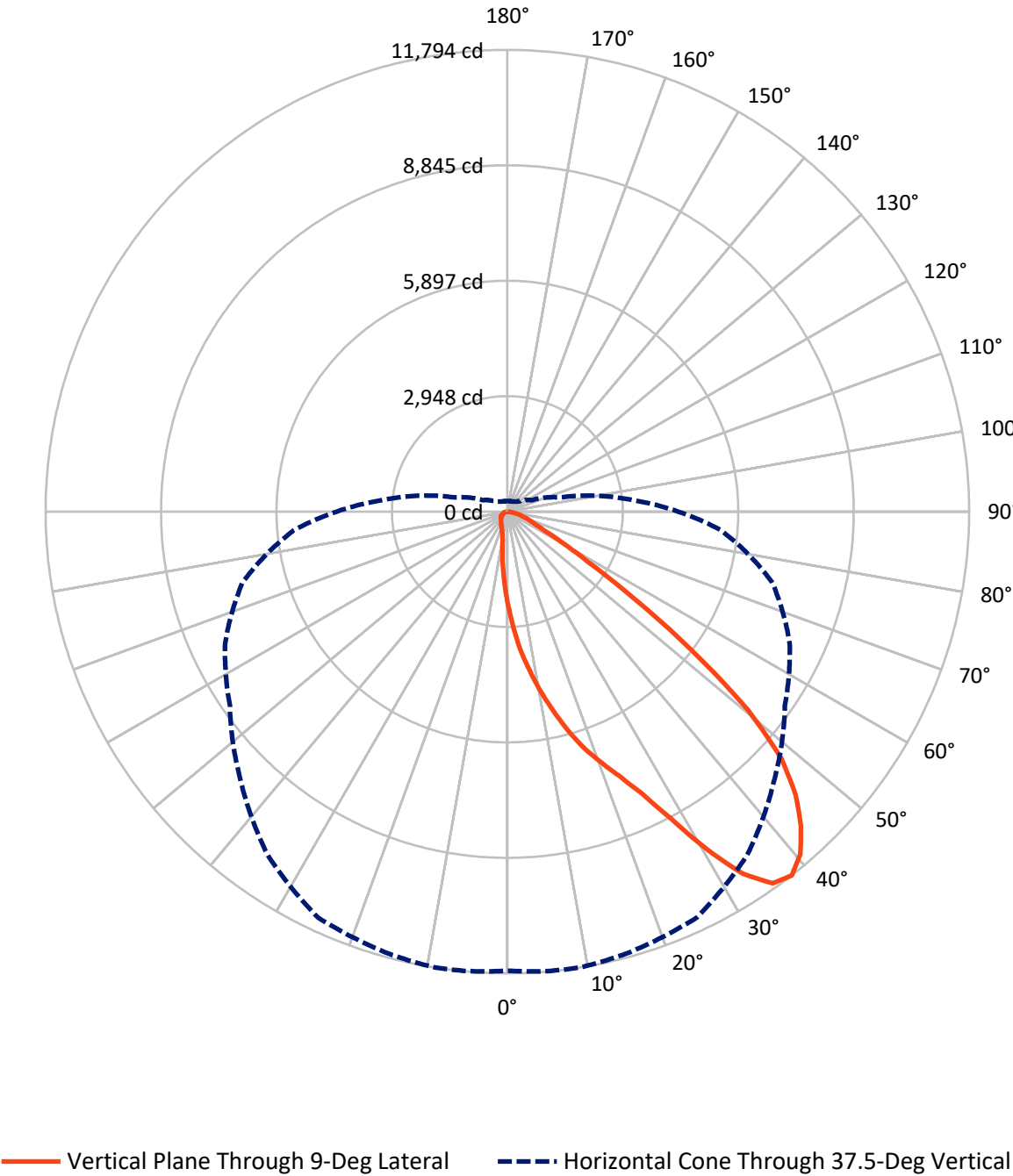
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc  
Type II - Short - N/A

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Luminous Intensity Polar Plot



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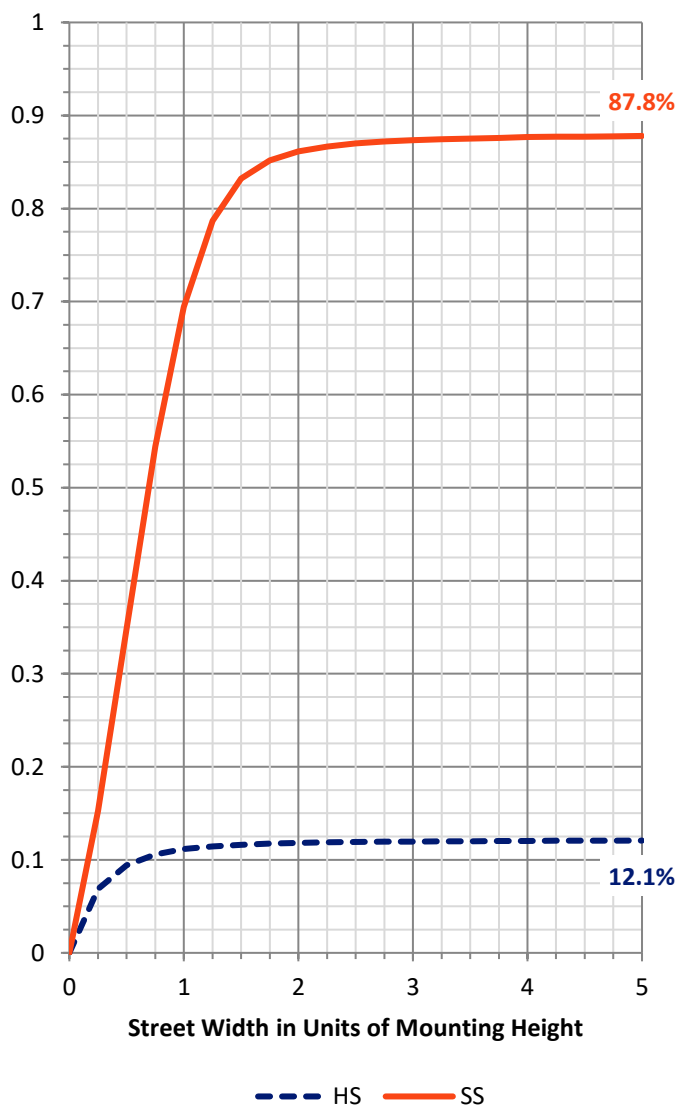
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2200.2   | 0.0    | 2200.2  |
|                    | % Fixture | 12.2     | 0.0    | 12.2    |
| <b>Street Side</b> | Lumens    | 15890.8  | 0.0    | 15890.8 |
|                    | % Fixture | 87.8     | 0.0    | 87.8    |
| <b>Total</b>       | Lumens    | 18091.0  | 0.0    | 18091.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 240.4   | 1.3       |
| 10°-20°   | 835.5   | 4.6       |
| 20°-30°   | 1716.7  | 9.5       |
| 30°-40°   | 3034.4  | 16.8      |
| 40°-50°   | 4030.9  | 22.3      |
| 50°-60°   | 3823.0  | 21.1      |
| 60°-70°   | 2916.6  | 16.1      |
| 70°-80°   | 1414.0  | 7.8       |
| 80°-90°   | 79.6    | 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°    | 18091.0 | 100.0     |
| 0°-180°   | 18091.0 | 100.0     |

**Coefficient of Utilization**



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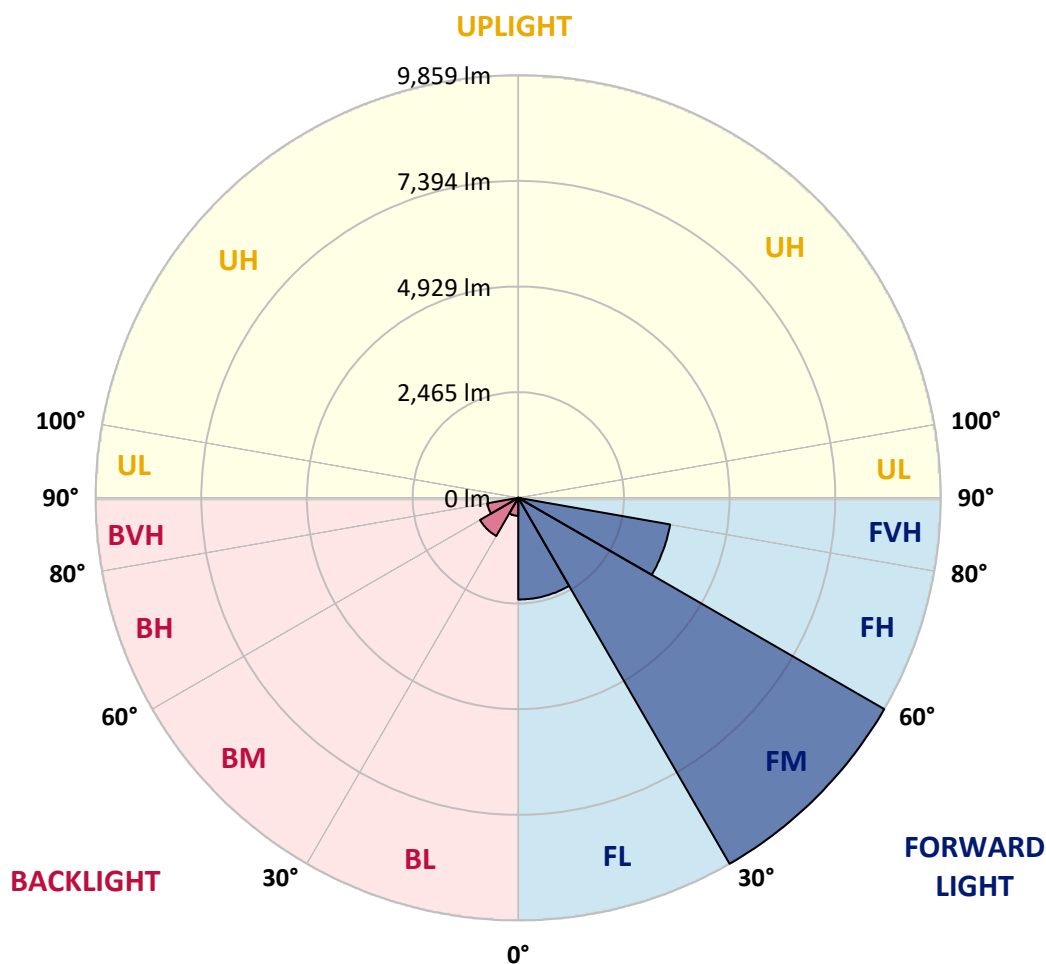
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2372.6 | 13.1      |                         |      |         |
| FM   | (30°-60°)   | 9858.7 | 54.5      |                         |      |         |
| FH   | (60°-80°)   | 3596.4 | 19.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 63.0   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 419.9  | 2.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1029.5 | 5.7       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 734.2  | 4.1       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 16.6   | 0.1       |                         |      | 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°      | 9°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  | 2391.4  |
| 2.5°  | 2963.3  | 2911.3  | 2970.7  | 2963.3  | 2911.3  | 2877.9  | 2773.9  | 2740.5  | 2617.9  | 2528.8  | 2450.8  |
| 5°    | 3572.3  | 3520.3  | 3572.3  | 3557.4  | 3483.1  | 3401.4  | 3230.6  | 3119.2  | 2900.1  | 2707.0  | 2532.5  |
| 7.5°  | 4077.3  | 4077.3  | 4099.6  | 4103.3  | 4014.2  | 3887.9  | 3676.2  | 3509.1  | 3200.9  | 2903.9  | 2625.4  |
| 10°   | 4623.1  | 4626.9  | 4675.1  | 4641.7  | 4522.9  | 4352.1  | 4084.7  | 3873.0  | 3501.7  | 3111.8  | 2714.5  |
| 12.5° | 5206.1  | 5209.9  | 5224.7  | 5209.9  | 5068.8  | 4849.7  | 4526.6  | 4248.1  | 3821.1  | 3349.5  | 2837.0  |
| 15°   | 5789.1  | 5792.9  | 5811.4  | 5785.4  | 5629.5  | 5373.2  | 5005.6  | 4664.0  | 4159.0  | 3616.8  | 2985.6  |
| 17.5° | 6335.0  | 6342.4  | 6357.3  | 6323.9  | 6160.5  | 5856.0  | 5480.9  | 5068.8  | 4519.2  | 3902.8  | 3152.7  |
| 20°   | 6825.2  | 6832.6  | 6843.7  | 6799.2  | 6635.8  | 6331.3  | 5926.5  | 5495.8  | 4886.8  | 4196.1  | 3334.6  |
| 22.5° | 7319.1  | 7326.5  | 7345.0  | 7285.6  | 7103.7  | 6754.6  | 6357.3  | 5911.7  | 5276.7  | 4519.2  | 3546.3  |
| 25°   | 7950.3  | 7957.8  | 7972.6  | 7887.2  | 7638.4  | 7229.9  | 6810.3  | 6353.6  | 5700.0  | 4883.1  | 3806.2  |
| 27.5° | 8875.0  | 8867.5  | 8867.5  | 8711.6  | 8284.5  | 7753.5  | 7267.1  | 6802.9  | 6156.8  | 5273.0  | 4092.1  |
| 30°   | 10018.7 | 10000.1 | 9989.0  | 9777.3  | 9168.3  | 8343.9  | 7735.0  | 7222.5  | 6594.9  | 5685.2  | 4400.3  |
| 32.5° | 11043.6 | 11043.6 | 11021.3 | 10798.5 | 10152.4 | 9138.6  | 8232.5  | 7631.0  | 7018.3  | 6101.1  | 4719.7  |
| 35°   | 11648.8 | 11674.8 | 11663.7 | 11496.6 | 11025.0 | 9992.7  | 8904.7  | 8121.1  | 7463.9  | 6535.5  | 5102.2  |
| 37.5° | 11730.5 | 11782.5 | 11793.7 | 11693.4 | 11444.6 | 10690.8 | 9651.1  | 8652.2  | 7954.0  | 7003.4  | 5473.5  |
| 40°   | 11400.1 | 11511.5 | 11511.5 | 11496.6 | 11407.5 | 11021.3 | 10278.6 | 9268.6  | 8459.1  | 7489.9  | 5848.6  |
| 42.5° | 10891.3 | 11006.4 | 10991.6 | 11047.3 | 11025.0 | 10943.3 | 10631.4 | 9844.1  | 8964.1  | 7991.2  | 6190.2  |
| 45°   | 10226.6 | 10345.5 | 10315.7 | 10416.0 | 10460.6 | 10549.7 | 10594.2 | 10245.2 | 9461.7  | 8537.0  | 6572.7  |
| 47.5° | 9160.9  | 9361.4  | 9406.0  | 9584.2  | 9769.9  | 10048.4 | 10260.0 | 10390.0 | 9925.8  | 9123.8  | 6988.6  |
| 50°   | 7586.4  | 7868.6  | 7957.8  | 8332.8  | 8841.5  | 9417.1  | 9758.7  | 10211.8 | 10252.6 | 9725.3  | 7437.9  |
| 52.5° | 5432.7  | 5759.4  | 5896.8  | 6513.3  | 7560.4  | 8563.0  | 9179.5  | 9818.2  | 10378.9 | 10300.9 | 7924.3  |
| 55°   | 3512.8  | 3791.4  | 3925.0  | 4504.3  | 5896.8  | 7471.3  | 8496.2  | 9309.4  | 10308.3 | 10828.2 | 8481.3  |
| 57.5° | 2164.9  | 2324.6  | 2413.7  | 2911.3  | 4192.4  | 6071.4  | 7601.3  | 8841.5  | 10092.9 | 11284.9 | 9060.6  |
| 60°   | 1459.4  | 1552.2  | 1596.7  | 1830.7  | 2848.2  | 4537.7  | 6372.1  | 8351.4  | 9810.7  | 11593.1 | 9587.9  |
| 62.5° | 969.2   | 998.9   | 1043.5  | 1188.3  | 1879.0  | 3186.1  | 4894.2  | 7475.0  | 9599.1  | 11611.7 | 9977.8  |
| 65°   | 750.1   | 765.0   | 783.5   | 846.6   | 1158.6  | 2228.0  | 3442.3  | 6056.5  | 9283.4  | 11218.1 | 10100.4 |
| 67.5° | 590.4   | 605.3   | 627.6   | 661.0   | 839.2   | 1511.3  | 2343.1  | 4437.5  | 8637.3  | 10601.7 | 9899.8  |
| 70°   | 464.2   | 475.3   | 490.2   | 519.9   | 653.6   | 1095.4  | 1548.5  | 2948.4  | 7333.9  | 10015.0 | 9268.6  |
| 72.5° | 367.6   | 378.8   | 393.6   | 423.3   | 531.0   | 802.1   | 1062.0  | 1838.1  | 5655.5  | 9298.3  | 8054.3  |
| 75°   | 289.6   | 297.1   | 308.2   | 337.9   | 427.0   | 623.8   | 720.4   | 1099.2  | 3843.3  | 7987.5  | 6275.6  |
| 77.5° | 144.8   | 178.2   | 204.2   | 233.9   | 311.9   | 430.8   | 479.0   | 609.0   | 1622.7  | 4099.6  | 2993.0  |
| 80°   | 85.4    | 104.0   | 111.4   | 130.0   | 204.2   | 259.9   | 259.9   | 245.1   | 512.4   | 1574.5  | 1221.7  |
| 82.5° | 48.3    | 66.8    | 70.6    | 74.3    | 122.5   | 148.5   | 118.8   | 89.1    | 104.0   | 527.3   | 356.5   |
| 85°   | 14.9    | 22.3    | 26.0    | 29.7    | 40.8    | 44.6    | 40.8    | 37.1    | 29.7    | 52.0    | 33.4    |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 3.7     | 7.4     | 7.4     | 7.4     | 11.1    | 11.1    | 11.1    |
| 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°    | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 | 2391.4 |
| 2.5°  | 2406.3 | 2358.0 | 2265.2 | 2179.7 | 2098.1 | 2038.6 | 1982.9 | 1931.0 | 1893.8 | 1864.1 | 1860.4 |
| 5°    | 2439.7 | 2343.1 | 2164.9 | 1997.8 | 1845.5 | 1719.3 | 1611.6 | 1526.2 | 1463.1 | 1418.5 | 1414.8 |
| 7.5°  | 2484.2 | 2335.7 | 2064.6 | 1815.8 | 1589.3 | 1407.4 | 1251.4 | 1136.3 | 1054.6 | 1021.2 | 995.2  |
| 10°   | 2521.4 | 2328.3 | 1964.4 | 1633.9 | 1336.8 | 1106.6 | 920.9  | 805.8  | 746.4  | 724.1  | 713.0  |
| 12.5° | 2584.5 | 2335.7 | 1879.0 | 1466.8 | 1117.7 | 846.6  | 705.5  | 642.4  | 616.4  | 597.9  | 594.1  |
| 15°   | 2677.3 | 2369.1 | 1797.3 | 1303.4 | 894.9  | 683.3  | 601.6  | 560.7  | 534.7  | 531.0  | 527.3  |
| 17.5° | 2770.2 | 2398.8 | 1723.0 | 1136.3 | 742.7  | 594.1  | 538.4  | 505.0  | 486.5  | 482.7  | 482.7  |
| 20°   | 2877.9 | 2436.0 | 1641.3 | 976.6  | 635.0  | 534.7  | 490.2  | 464.2  | 441.9  | 438.2  | 438.2  |
| 22.5° | 3004.1 | 2488.0 | 1563.3 | 835.5  | 564.4  | 490.2  | 453.0  | 423.3  | 404.8  | 401.0  | 401.0  |
| 25°   | 3174.9 | 2565.9 | 1500.2 | 731.5  | 516.2  | 453.0  | 419.6  | 393.6  | 378.8  | 371.3  | 371.3  |
| 27.5° | 3364.3 | 2673.6 | 1455.6 | 668.4  | 482.7  | 423.3  | 389.9  | 367.6  | 352.8  | 345.3  | 345.3  |
| 30°   | 3576.0 | 2792.5 | 1425.9 | 642.4  | 464.2  | 397.3  | 367.6  | 345.3  | 326.8  | 323.1  | 323.1  |
| 32.5° | 3809.9 | 2929.9 | 1407.4 | 646.1  | 460.5  | 378.8  | 345.3  | 323.1  | 308.2  | 300.8  | 300.8  |
| 35°   | 4069.9 | 3082.1 | 1396.2 | 668.4  | 467.9  | 363.9  | 326.8  | 304.5  | 289.6  | 282.2  | 282.2  |
| 37.5° | 4359.5 | 3260.3 | 1396.2 | 690.7  | 486.5  | 360.2  | 308.2  | 285.9  | 274.8  | 267.4  | 267.4  |
| 40°   | 4630.6 | 3449.7 | 1411.1 | 716.7  | 505.0  | 360.2  | 293.4  | 274.8  | 259.9  | 252.5  | 252.5  |
| 42.5° | 4842.2 | 3557.4 | 1422.2 | 742.7  | 516.2  | 356.5  | 278.5  | 259.9  | 248.8  | 241.4  | 241.4  |
| 45°   | 5083.6 | 3672.5 | 1399.9 | 753.8  | 516.2  | 349.1  | 267.4  | 248.8  | 237.7  | 230.2  | 230.2  |
| 47.5° | 5351.0 | 3813.6 | 1396.2 | 761.2  | 505.0  | 334.2  | 256.2  | 237.7  | 230.2  | 222.8  | 222.8  |
| 50°   | 5622.0 | 3969.6 | 1403.7 | 757.5  | 490.2  | 311.9  | 241.4  | 230.2  | 219.1  | 211.7  | 211.7  |
| 52.5° | 5930.3 | 4133.0 | 1418.5 | 750.1  | 456.7  | 285.9  | 230.2  | 219.1  | 207.9  | 200.5  | 196.8  |
| 55°   | 6271.9 | 4311.2 | 1448.2 | 735.2  | 412.2  | 259.9  | 219.1  | 207.9  | 193.1  | 185.7  | 182.0  |
| 57.5° | 6665.5 | 4530.3 | 1481.6 | 705.5  | 363.9  | 237.7  | 207.9  | 193.1  | 170.8  | 159.7  | 156.0  |
| 60°   | 7040.6 | 4779.1 | 1518.8 | 635.0  | 315.6  | 215.4  | 196.8  | 174.5  | 152.2  | 144.8  | 141.1  |
| 62.5° | 7393.3 | 5024.2 | 1537.3 | 508.7  | 267.4  | 196.8  | 185.7  | 159.7  | 137.4  | 130.0  | 126.3  |
| 65°   | 7619.8 | 5291.6 | 1496.5 | 345.3  | 219.1  | 182.0  | 170.8  | 148.5  | 126.3  | 115.1  | 115.1  |
| 67.5° | 7634.7 | 5417.8 | 1355.4 | 226.5  | 178.2  | 163.4  | 156.0  | 133.7  | 111.4  | 104.0  | 100.3  |
| 70°   | 7259.6 | 5228.4 | 1036.0 | 178.2  | 148.5  | 141.1  | 141.1  | 118.8  | 96.5   | 89.1   | 85.4   |
| 72.5° | 6398.1 | 4630.6 | 661.0  | 144.8  | 126.3  | 118.8  | 118.8  | 100.3  | 85.4   | 74.3   | 70.6   |
| 75°   | 5050.2 | 3572.3 | 352.8  | 118.8  | 104.0  | 100.3  | 92.8   | 81.7   | 70.6   | 63.1   | 59.4   |
| 77.5° | 2320.9 | 1574.5 | 163.4  | 85.4   | 78.0   | 78.0   | 70.6   | 59.4   | 55.7   | 48.3   | 48.3   |
| 80°   | 917.2  | 534.7  | 81.7   | 55.7   | 52.0   | 52.0   | 52.0   | 40.8   | 40.8   | 33.4   | 29.7   |
| 82.5° | 252.5  | 111.4  | 40.8   | 33.4   | 33.4   | 33.4   | 29.7   | 26.0   | 26.0   | 22.3   | 22.3   |
| 85°   | 26.0   | 18.6   | 18.6   | 18.6   | 18.6   | 14.9   | 14.9   | 11.1   | 7.4    | 7.4    | 7.4    |
| 87.5° | 11.1   | 11.1   | 11.1   | 11.1   | 11.1   | 7.4    | 3.7    | 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)