

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: P239497

Luminaire Tested: **UTLD-AF24-20-D-U-T4W-7030**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P239497  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-11-U0)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: UTLD-AF24-20-D-U-T4W-7030  
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE  
(1) 70 CRI, 3000K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
PHOTOMETRIC DATA REPORTED FOR LOWER HEMISPHERE ONLY. MINIMAL LIGHT IN  
UPPER HEMISPHERE NOT REPORTED.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 2136 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 1.21' x L: 1.21' x H: 0.96')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 21  
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



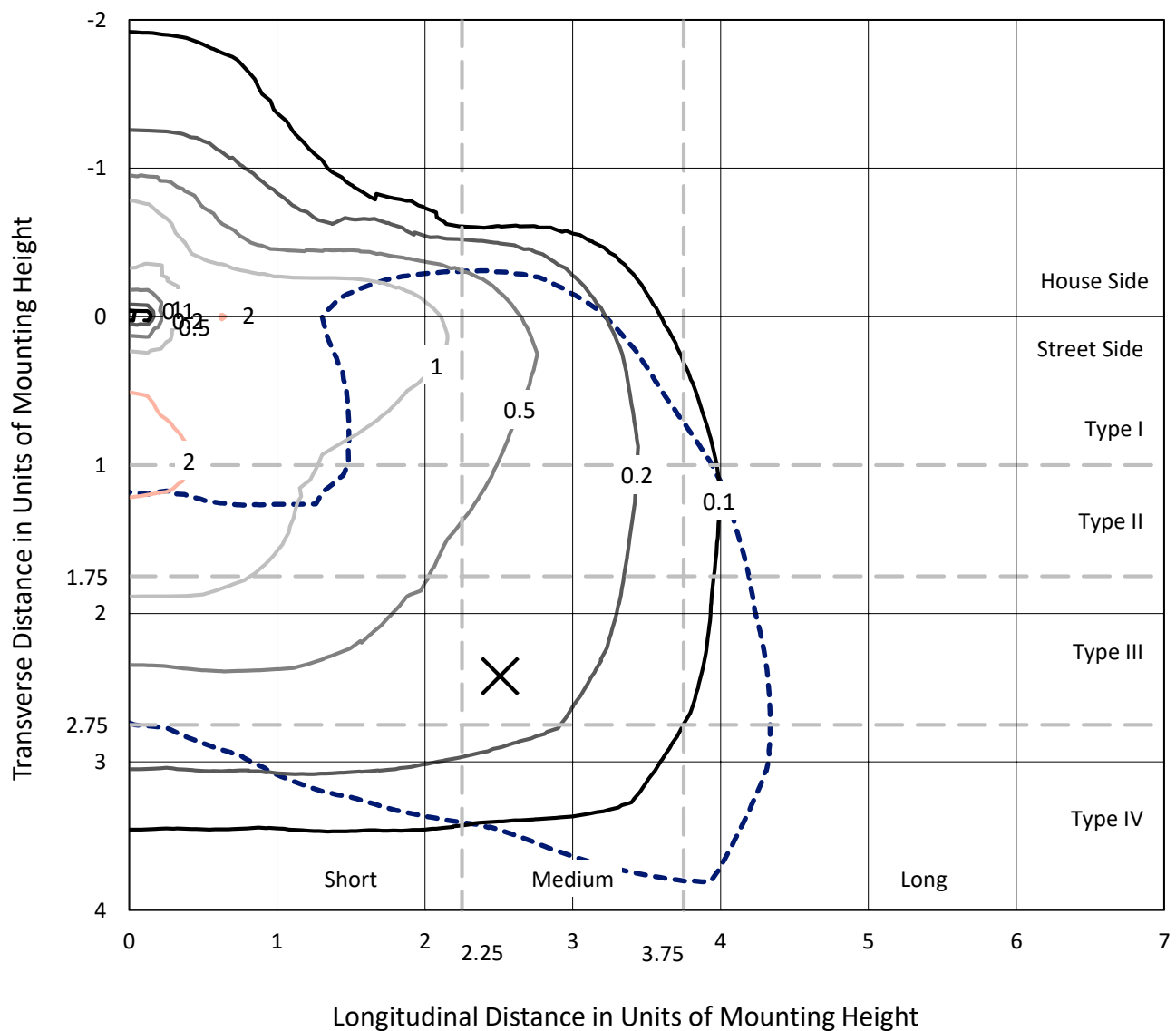
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## Iso-Footcandle Lines of Horizontal Illumination

✘ Max cd

--- 1/2 Max cd



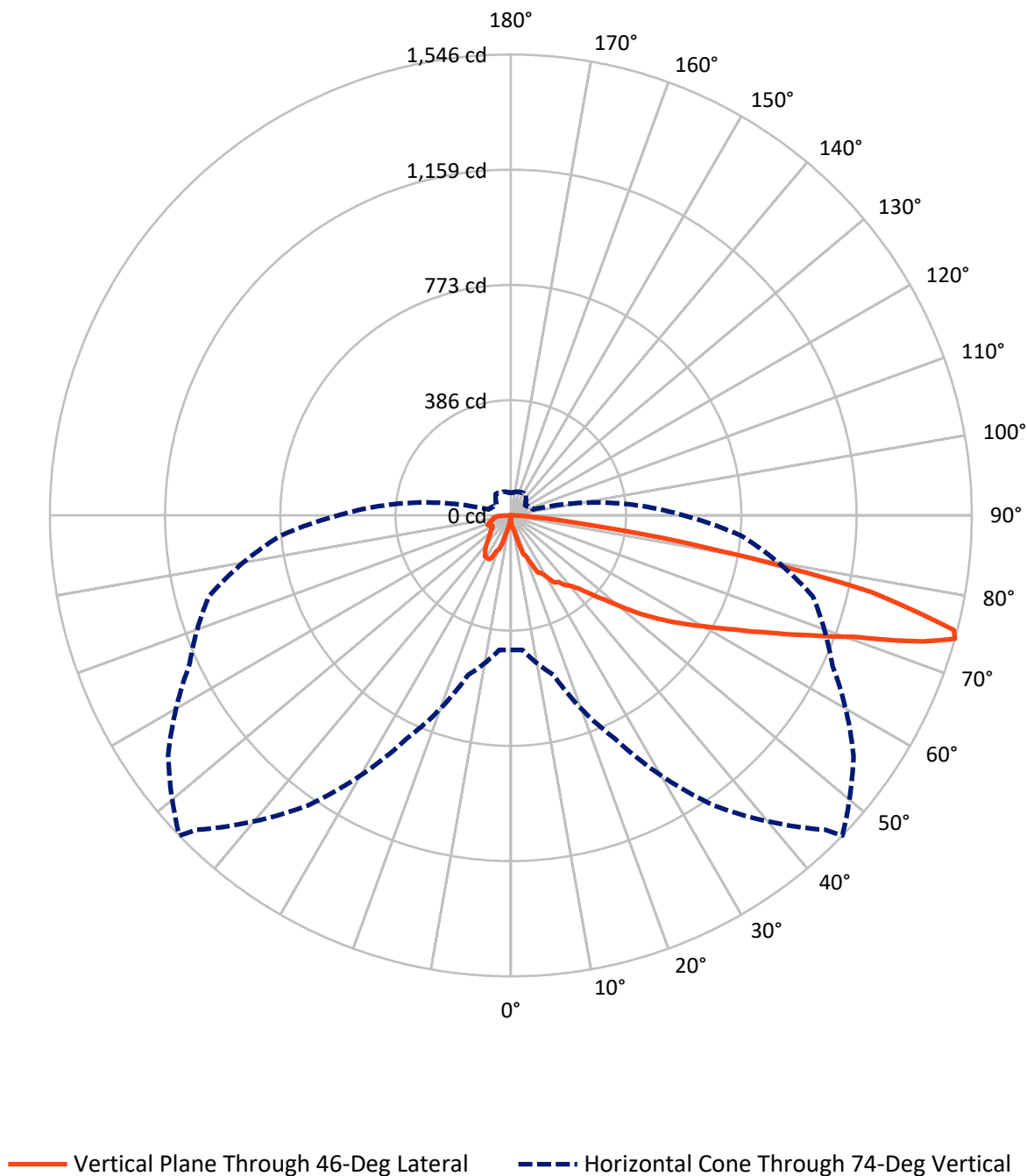
Based on 10 foot mounting height. Maximum calculated value = 2.6 fc

Type IV - Medium - Non-Cutoff

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## Luminous Intensity Polar Plot



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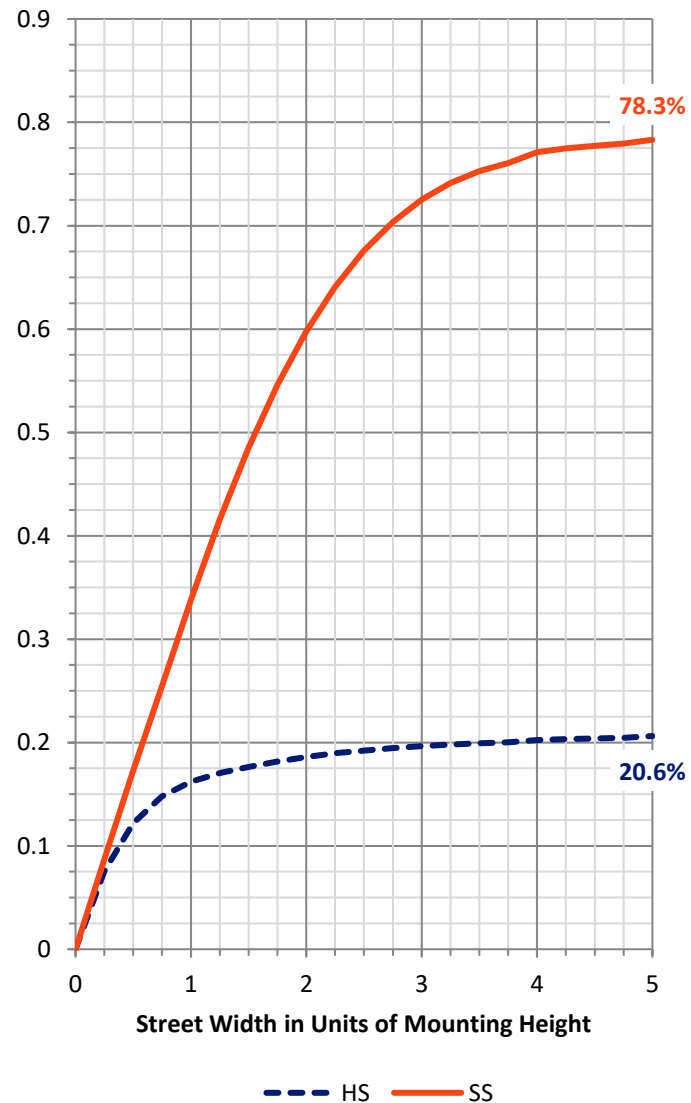
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 455.6    | 0.0    | 455.6  |
|                    | % Fixture | 21.3     | 0.0    | 21.3   |
| <b>Street Side</b> | Lumens    | 1680.4   | 0.0    | 1680.4 |
|                    | % Fixture | 78.7     | 0.0    | 78.7   |
| <b>Total</b>       | Lumens    | 2136.0   | 0.0    | 2136.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.0    | 0.1       |
| 10°-20°   | 26.8   | 1.3       |
| 20°-30°   | 90.0   | 4.2       |
| 30°-40°   | 168.9  | 7.9       |
| 40°-50°   | 259.2  | 12.1      |
| 50°-60°   | 421.7  | 19.7      |
| 60°-70°   | 611.9  | 28.6      |
| 70°-80°   | 483.2  | 22.6      |
| 80°-90°   | 72.5   | 3.4       |
| 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°    | 2136.0 | 100.0     |
| 0°-180°   | 2136.0 | 100.0     |

**Coefficient of Utilization**



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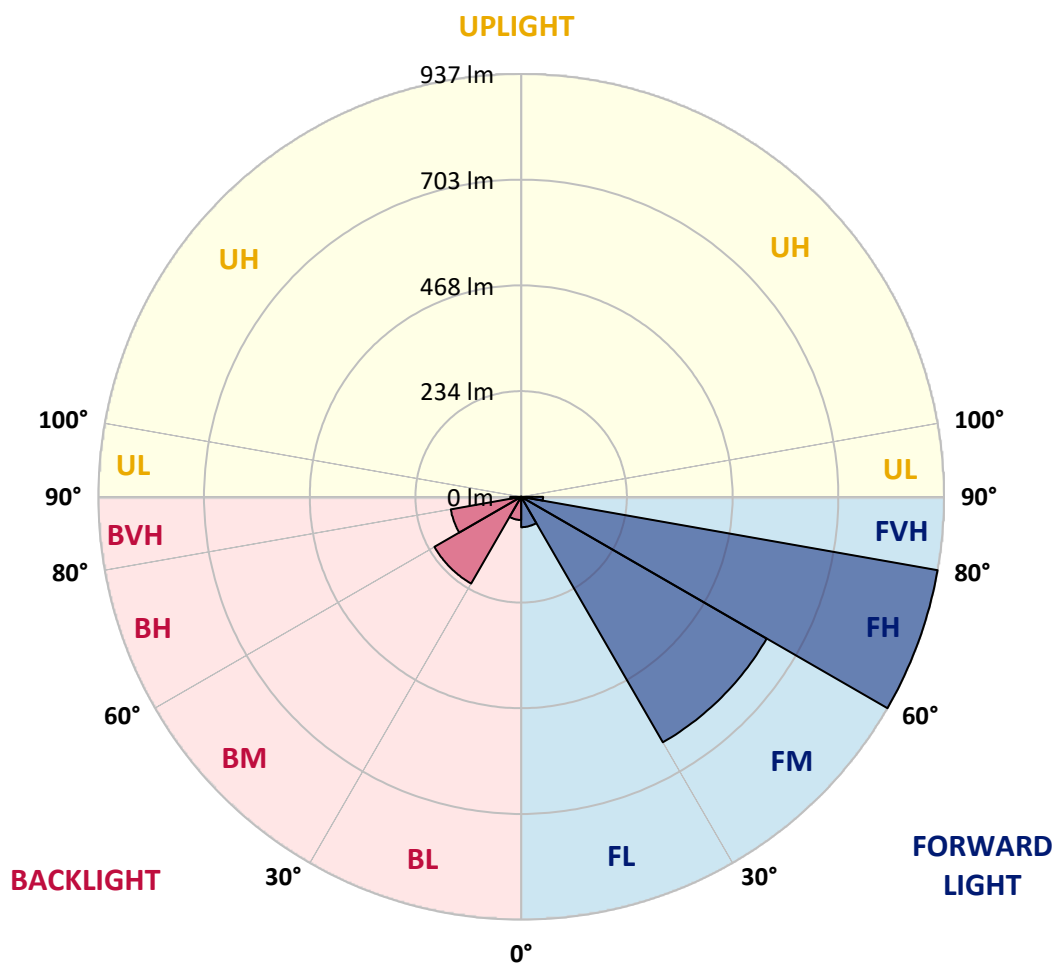
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 67.3   | 3.2       |                         |      |         |
| FM   | (30°-60°)   | 627.9  | 29.4      |                         |      |         |
| FH   | (60°-80°)   | 936.7  | 43.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 48.5   | 2.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 51.4   | 2.4       | B0/110                  |      |         |
| BM   | (30°-60°)   | 221.8  | 10.4      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 158.4  | 7.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 24.0   | 1.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°    | 25°    | 35°    | 45°    | 46°    | 55°    | 65°    | 75°    | 85°    |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 0.5   | 0.5   | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    |
| 2.5°  | 11.1  | 10.8  | 10.8   | 9.6    | 7.9    | 3.4    | 2.5    | 1.2    | 0.7    | 0.7    | 0.5    |
| 5°    | 45.3  | 44.6  | 44.4   | 43.1   | 41.4   | 38.4   | 37.9   | 10.8   | 5.7    | 1.0    | 0.5    |
| 7.5°  | 50.0  | 49.8  | 48.8   | 47.6   | 45.8   | 43.4   | 43.1   | 40.9   | 16.0   | 3.4    | 1.2    |
| 10°   | 98.1  | 96.4  | 93.4   | 60.6   | 53.7   | 46.6   | 46.3   | 44.6   | 33.5   | 9.6    | 5.4    |
| 12.5° | 106.7 | 105.2 | 102.8  | 99.3   | 93.9   | 56.4   | 55.4   | 51.7   | 76.4   | 70.2   | 55.4   |
| 15°   | 125.7 | 123.7 | 118.5  | 105.5  | 100.0  | 90.7   | 90.4   | 102.5  | 94.1   | 84.3   | 66.8   |
| 17.5° | 171.8 | 169.5 | 165.8  | 152.5  | 112.9  | 137.0  | 136.8  | 125.9  | 102.0  | 111.1  | 120.5  |
| 20°   | 183.6 | 183.1 | 172.3  | 164.4  | 179.4  | 146.6  | 145.1  | 135.5  | 153.0  | 149.3  | 136.8  |
| 22.5° | 234.1 | 231.4 | 228.4  | 175.0  | 186.5  | 175.2  | 175.2  | 173.0  | 171.5  | 161.7  | 161.9  |
| 25°   | 240.3 | 236.6 | 233.9  | 213.7  | 200.1  | 212.7  | 212.4  | 181.6  | 220.3  | 217.3  | 217.6  |
| 27.5° | 299.4 | 295.7 | 279.0  | 227.9  | 222.3  | 219.3  | 218.8  | 232.6  | 232.4  | 232.9  | 233.9  |
| 30°   | 309.3 | 305.3 | 299.9  | 270.1  | 239.5  | 239.0  | 240.8  | 243.2  | 250.9  | 288.6  | 299.9  |
| 32.5° | 375.6 | 369.9 | 349.4  | 279.2  | 260.0  | 266.4  | 267.9  | 254.1  | 285.1  | 299.7  | 321.6  |
| 35°   | 423.6 | 411.8 | 382.5  | 317.6  | 269.1  | 273.5  | 274.5  | 283.9  | 296.7  | 311.5  | 336.6  |
| 37.5° | 499.8 | 493.6 | 445.8  | 354.1  | 292.5  | 291.3  | 296.4  | 295.0  | 312.5  | 330.0  | 358.3  |
| 40°   | 576.1 | 570.2 | 541.9  | 421.4  | 318.6  | 305.6  | 311.2  | 312.0  | 322.6  | 349.2  | 389.8  |
| 42.5° | 634.5 | 633.6 | 624.2  | 494.8  | 365.0  | 331.2  | 337.1  | 333.7  | 348.7  | 374.6  | 424.3  |
| 45°   | 679.1 | 672.0 | 688.0  | 556.7  | 423.4  | 368.9  | 375.6  | 364.0  | 381.0  | 422.1  | 474.6  |
| 47.5° | 725.2 | 714.6 | 722.3  | 616.6  | 484.5  | 415.2  | 421.9  | 407.1  | 426.1  | 477.8  | 538.9  |
| 50°   | 769.1 | 760.0 | 762.4  | 668.6  | 550.8  | 477.8  | 481.3  | 463.5  | 485.5  | 542.1  | 629.1  |
| 52.5° | 822.6 | 812.5 | 808.0  | 723.5  | 630.1  | 544.1  | 551.0  | 521.7  | 553.2  | 625.2  | 729.7  |
| 55°   | 876.3 | 868.6 | 870.4  | 795.2  | 689.5  | 606.9  | 617.8  | 586.7  | 632.8  | 715.4  | 851.6  |
| 57.5° | 934.4 | 925.1 | 941.3  | 885.9  | 781.7  | 673.0  | 685.8  | 656.5  | 722.8  | 811.0  | 992.4  |
| 60°   | 970.7 | 966.0 | 996.8  | 962.8  | 863.5  | 742.0  | 757.3  | 731.1  | 817.9  | 924.3  | 1144.4 |
| 62.5° | 976.3 | 980.3 | 1037.0 | 1035.5 | 952.4  | 826.3  | 843.0  | 815.4  | 919.4  | 1034.0 | 1289.1 |
| 65°   | 890.1 | 900.2 | 1042.1 | 1057.9 | 1044.6 | 923.4  | 946.8  | 912.3  | 1017.7 | 1117.5 | 1379.7 |
| 67.5° | 808.3 | 819.6 | 959.3  | 1071.2 | 1123.5 | 1040.2 | 1070.5 | 1027.1 | 1109.2 | 1170.0 | 1397.2 |
| 70°   | 766.1 | 778.5 | 905.1  | 1111.9 | 1203.0 | 1182.6 | 1219.3 | 1144.6 | 1171.0 | 1195.7 | 1297.9 |
| 72.5° | 621.5 | 618.0 | 728.2  | 1010.3 | 1265.4 | 1391.3 | 1445.5 | 1308.3 | 1205.0 | 1146.9 | 1006.9 |
| 74°   | 450.7 | 452.7 | 553.2  | 825.5  | 1187.3 | 1490.9 | 1545.6 | 1402.9 | 1189.7 | 1048.3 | 773.5  |
| 75°   | 285.9 | 283.9 | 390.8  | 666.6  | 1053.2 | 1478.1 | 1534.0 | 1418.4 | 1142.9 | 951.7  | 616.8  |
| 77.5° | 94.6  | 95.9  | 121.0  | 237.6  | 591.9  | 1180.6 | 1237.1 | 1135.8 | 830.2  | 619.0  | 274.0  |
| 80°   | 44.6  | 46.8  | 61.9   | 96.4   | 234.4  | 657.7  | 691.5  | 613.4  | 432.5  | 234.4  | 115.6  |
| 82.5° | 28.1  | 29.3  | 41.9   | 61.6   | 123.7  | 240.5  | 264.2  | 219.6  | 180.4  | 121.5  | 57.7   |
| 85°   | 17.0  | 17.7  | 25.9   | 40.2   | 80.8   | 80.6   | 84.0   | 85.5   | 107.2  | 79.3   | 35.7   |
| 87.5° | 9.4   | 9.9   | 14.5   | 21.4   | 46.8   | 28.8   | 30.6   | 45.8   | 71.0   | 56.7   | 21.9   |
| 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°    | 0.5    | 0.5    | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   |
| 2.5°  | 0.5    | 0.5    | 0.5   | 0.5   | 0.5   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   |
| 5°    | 0.5    | 0.5    | 0.5   | 0.5   | 0.7   | 1.0   | 1.2   | 1.5   | 1.7   | 2.2   | 2.2   |
| 7.5°  | 1.0    | 1.0    | 1.0   | 1.2   | 1.5   | 2.7   | 9.9   | 30.6  | 34.5  | 35.7  | 36.0  |
| 10°   | 6.4    | 4.9    | 3.7   | 3.4   | 4.7   | 33.0  | 42.9  | 45.1  | 46.3  | 47.1  | 46.8  |
| 12.5° | 59.1   | 62.1   | 57.4  | 46.3  | 34.0  | 44.4  | 46.6  | 47.8  | 61.4  | 67.3  | 66.5  |
| 15°   | 68.8   | 69.2   | 69.0  | 66.0  | 87.2  | 57.4  | 61.6  | 82.3  | 90.4  | 91.9  | 92.2  |
| 17.5° | 120.5  | 126.2  | 98.1  | 85.8  | 92.7  | 104.5 | 83.5  | 90.4  | 92.9  | 95.6  | 95.9  |
| 20°   | 143.4  | 142.4  | 132.1 | 138.0 | 106.7 | 121.5 | 111.1 | 110.4 | 129.6 | 138.5 | 139.2 |
| 22.5° | 179.2  | 168.3  | 147.9 | 147.9 | 152.5 | 127.6 | 137.3 | 126.7 | 137.8 | 141.9 | 142.7 |
| 25°   | 225.0  | 225.7  | 208.7 | 186.5 | 157.0 | 157.7 | 145.4 | 141.0 | 169.0 | 180.1 | 180.9 |
| 27.5° | 249.9  | 244.2  | 215.4 | 193.2 | 175.5 | 162.9 | 149.6 | 176.7 | 178.9 | 185.1 | 186.3 |
| 30°   | 317.9  | 319.4  | 273.3 | 211.9 | 169.3 | 161.4 | 172.3 | 179.2 | 198.9 | 218.3 | 220.3 |
| 32.5° | 336.1  | 333.7  | 277.2 | 219.8 | 169.3 | 162.4 | 162.4 | 185.8 | 201.6 | 214.1 | 216.6 |
| 35°   | 353.9  | 349.2  | 279.2 | 211.2 | 164.1 | 149.6 | 156.5 | 173.2 | 211.4 | 233.6 | 235.8 |
| 37.5° | 374.8  | 369.4  | 285.6 | 196.6 | 151.6 | 141.4 | 142.9 | 165.8 | 190.7 | 210.0 | 211.7 |
| 40°   | 401.7  | 393.5  | 292.0 | 179.6 | 137.8 | 127.4 | 128.1 | 145.6 | 162.4 | 176.9 | 180.4 |
| 42.5° | 438.6  | 423.6  | 293.7 | 163.9 | 126.4 | 114.1 | 113.1 | 126.7 | 136.3 | 139.0 | 139.2 |
| 45°   | 491.1  | 463.8  | 295.7 | 150.8 | 115.8 | 103.5 | 101.8 | 110.6 | 116.6 | 110.9 | 110.6 |
| 47.5° | 562.1  | 519.2  | 299.7 | 141.2 | 106.0 | 95.1  | 93.4  | 100.0 | 103.5 | 95.4  | 95.1  |
| 50°   | 655.7  | 589.2  | 307.8 | 131.3 | 97.8  | 89.2  | 87.7  | 91.2  | 91.4  | 86.0  | 85.5  |
| 52.5° | 760.7  | 667.6  | 319.9 | 120.3 | 91.7  | 84.0  | 82.1  | 83.5  | 84.3  | 81.1  | 81.1  |
| 55°   | 887.1  | 763.2  | 338.1 | 111.1 | 85.3  | 78.6  | 77.9  | 79.8  | 81.8  | 80.3  | 80.6  |
| 57.5° | 1018.0 | 868.2  | 350.9 | 102.0 | 78.1  | 74.2  | 75.7  | 79.3  | 83.8  | 86.2  | 87.5  |
| 60°   | 1144.6 | 963.3  | 332.7 | 92.9  | 72.4  | 70.7  | 77.4  | 85.8  | 92.2  | 98.6  | 100.0 |
| 62.5° | 1244.2 | 1025.1 | 261.0 | 85.0  | 69.2  | 71.7  | 86.5  | 98.1  | 101.0 | 102.5 | 102.8 |
| 65°   | 1276.7 | 1029.1 | 174.2 | 80.6  | 67.5  | 78.9  | 96.1  | 100.3 | 95.6  | 91.7  | 90.2  |
| 67.5° | 1237.1 | 967.5  | 121.2 | 76.9  | 66.8  | 85.5  | 97.8  | 94.6  | 90.4  | 88.0  | 85.8  |
| 70°   | 1095.4 | 819.4  | 95.4  | 73.4  | 66.0  | 81.8  | 95.6  | 90.7  | 87.2  | 84.8  | 81.8  |
| 72.5° | 806.5  | 570.7  | 83.3  | 70.2  | 62.8  | 75.2  | 91.2  | 87.5  | 84.3  | 80.3  | 77.9  |
| 74°   | 578.9  | 409.3  | 77.9  | 67.5  | 58.9  | 71.2  | 87.5  | 85.0  | 82.1  | 77.1  | 75.2  |
| 75°   | 441.8  | 284.6  | 74.4  | 65.5  | 55.9  | 68.5  | 85.3  | 83.3  | 80.1  | 75.2  | 73.4  |
| 77.5° | 180.6  | 115.6  | 66.3  | 60.1  | 51.5  | 63.8  | 79.6  | 78.1  | 74.7  | 70.0  | 68.3  |
| 80°   | 86.0   | 67.8   | 58.9  | 54.2  | 48.3  | 61.4  | 76.4  | 73.4  | 69.2  | 65.3  | 62.6  |
| 82.5° | 54.5   | 46.8   | 50.3  | 46.8  | 44.8  | 58.6  | 73.4  | 69.5  | 64.6  | 65.1  | 53.5  |
| 85°   | 32.0   | 33.0   | 39.7  | 38.2  | 38.9  | 51.3  | 68.0  | 64.6  | 57.7  | 49.5  | 47.3  |
| 87.5° | 18.5   | 24.1   | 23.9  | 23.7  | 28.6  | 41.9  | 55.7  | 53.7  | 47.8  | 40.2  | 37.5  |
| 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)