

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: P239406

Luminaire Tested: **UTLD-AF24-100-D-U-5WQ**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P239406  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-9-U0)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: UTLD-AF24-100-D-U-5WQ  
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE  
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE V 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: 9031 lumens  
Efficiency: N/A  
Efficacy: 94.1 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 1.21' x L: 1.21' x H: 0.96')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 96  
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

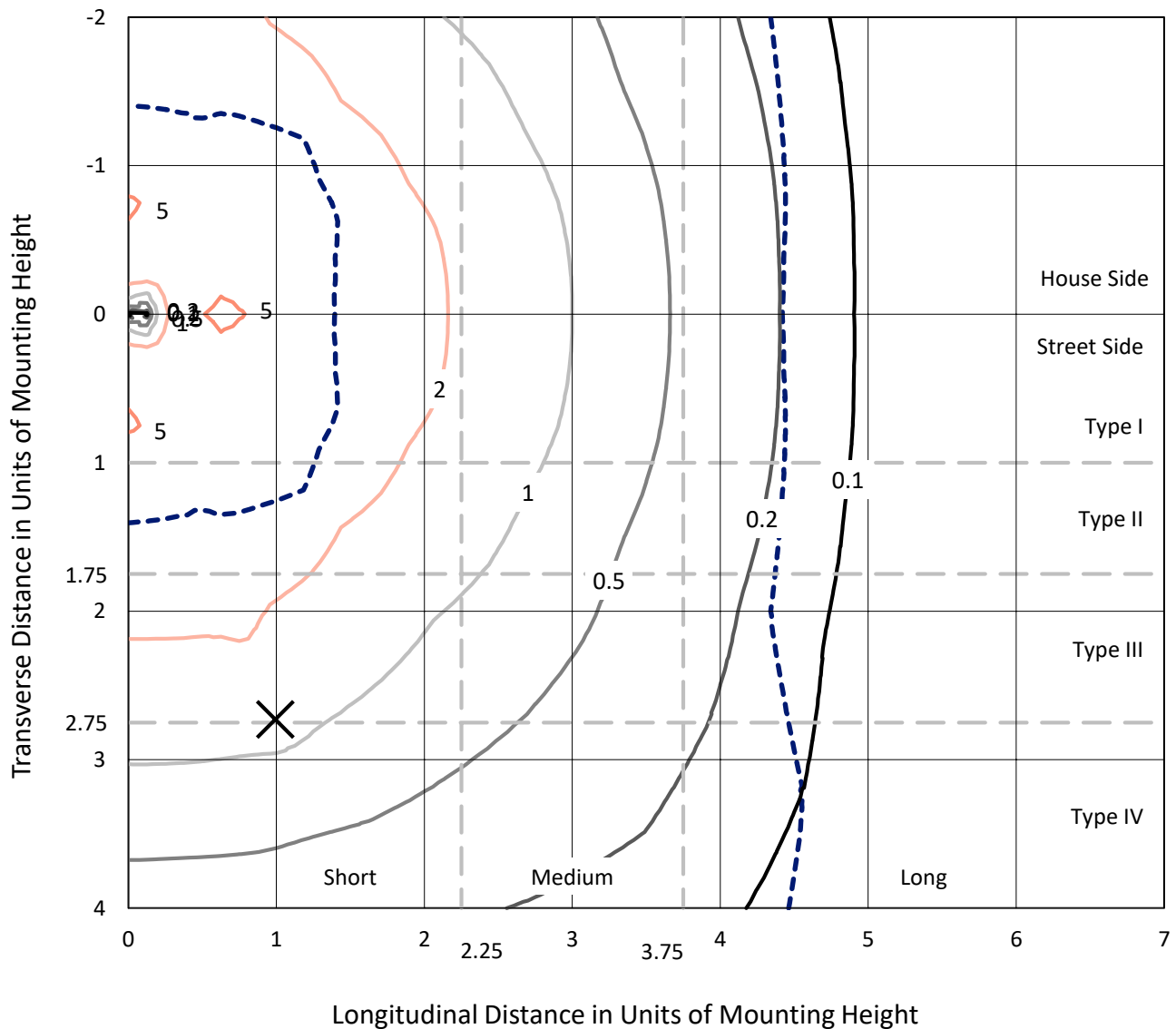


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

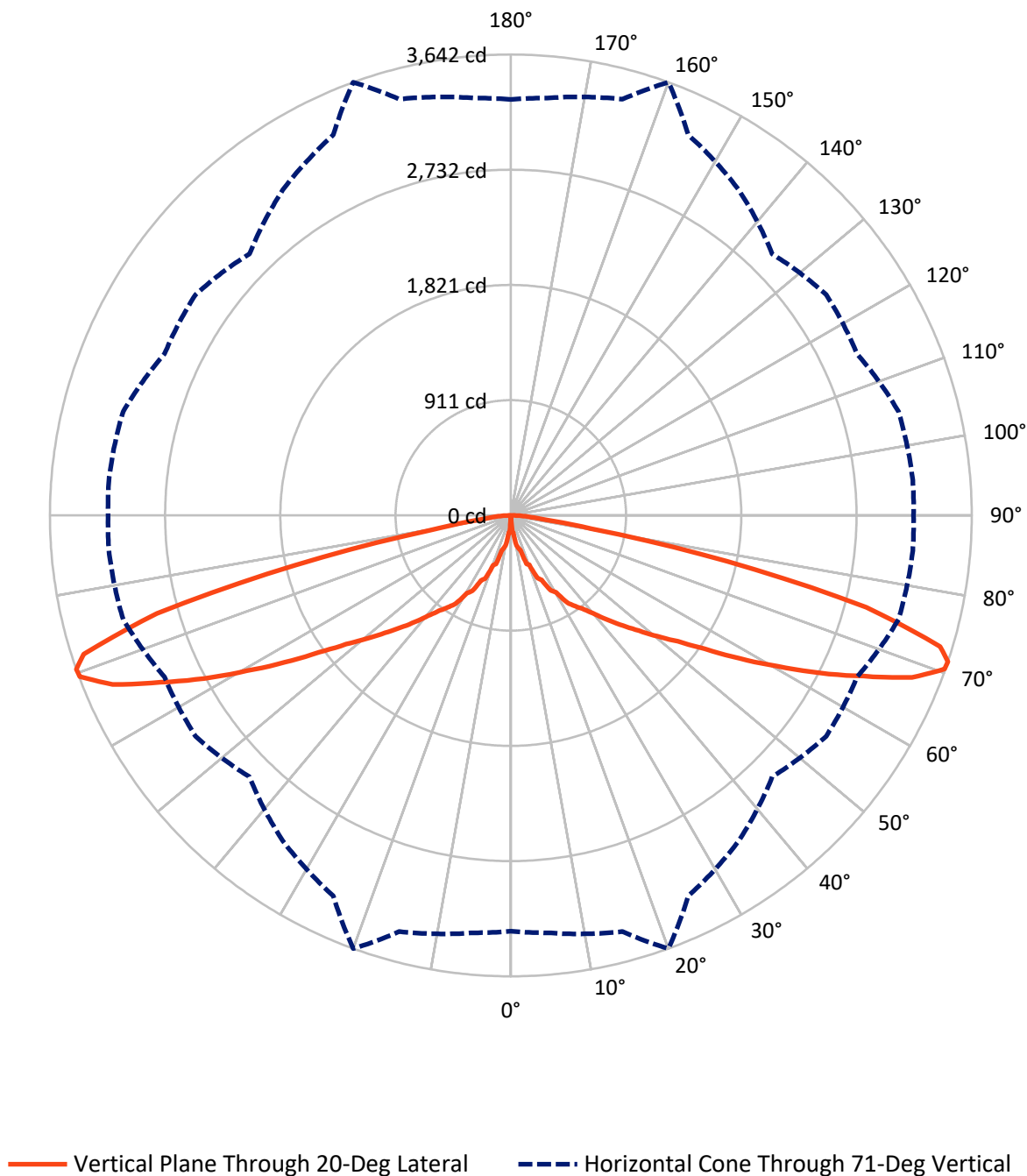


Based on 10 foot mounting height. Maximum calculated value = 5.5 fc  
 Type V - Short - Non-Cutoff

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## Luminous Intensity Polar Plot



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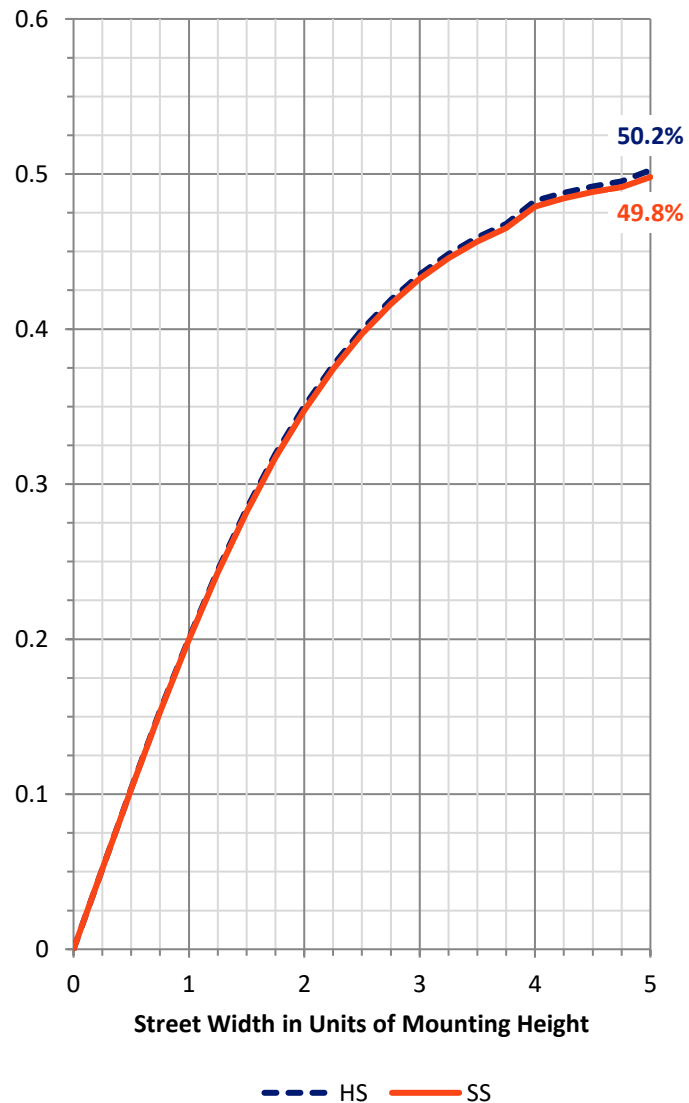
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4515.5   | 0.0    | 4515.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4515.5   | 0.0    | 4515.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9031.0   | 0.0    | 9031.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.1    | 0.1       |
| 10°-20°   | 74.6   | 0.8       |
| 20°-30°   | 252.6  | 2.8       |
| 30°-40°   | 514.9  | 5.7       |
| 40°-50°   | 881.7  | 9.8       |
| 50°-60°   | 1553.5 | 17.2      |
| 60°-70°   | 2645.6 | 29.3      |
| 70°-80°   | 2736.5 | 30.3      |
| 80°-90°   | 365.6  | 4.0       |
| 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°    | 9031.0 | 100.0     |
| 0°-180°   | 9031.0 | 100.0     |

**Coefficient of Utilization**



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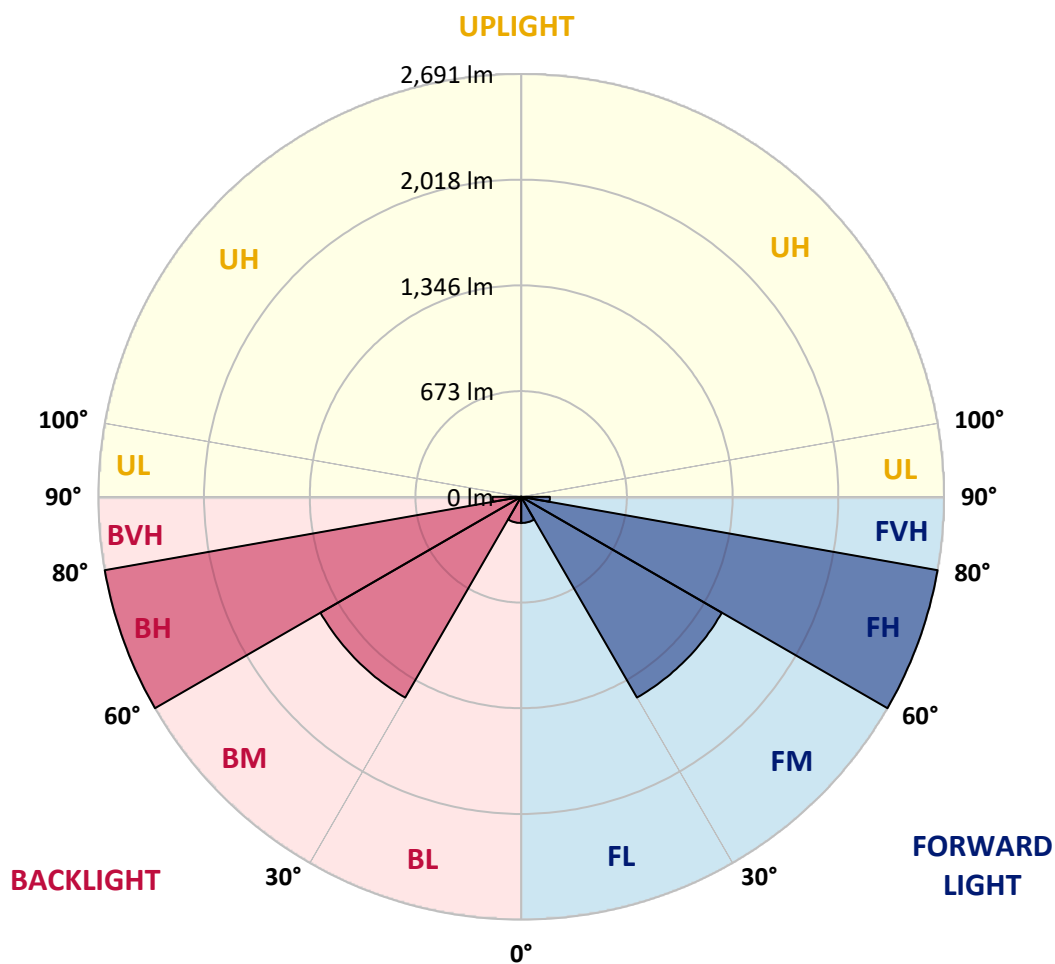
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 166.6  | 1.8       |                         |      |         |
| FM   | (30°-60°)   | 1475.0 | 16.3      |                         |      |         |
| FH   | (60°-80°)   | 2691.0 | 29.8      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 182.8  | 2.0       |                         |      | G2/225  |
| BL   | (0°-30°)    | 166.6  | 1.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1475.0 | 16.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 2691.0 | 29.8      | B4/5000                 |      | G2/5000 |
| BVH  | (80°-90°)   | 182.8  | 2.0       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 20°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    |
| 2.5°  | 20.0   | 19.0   | 18.0   | 33.1   | 17.0   | 14.0   | 7.0    | 4.0    | 3.0    | 3.0    | 3.0    |
| 5°    | 71.1   | 71.1   | 71.1   | 136.3  | 70.1   | 68.1   | 59.1   | 52.1   | 14.0   | 4.0    | 3.0    |
| 7.5°  | 124.2  | 124.2  | 96.2   | 138.3  | 84.2   | 72.1   | 69.1   | 67.1   | 54.1   | 11.0   | 5.0    |
| 10°   | 198.4  | 197.4  | 191.4  | 237.5  | 183.4  | 137.3  | 83.2   | 70.1   | 62.1   | 34.1   | 21.0   |
| 12.5° | 213.4  | 211.4  | 206.4  | 263.5  | 199.4  | 194.4  | 150.3  | 103.2  | 138.3  | 206.4  | 175.3  |
| 15°   | 320.6  | 322.6  | 283.5  | 286.5  | 251.5  | 205.4  | 225.4  | 266.5  | 221.4  | 237.5  | 202.4  |
| 17.5° | 352.7  | 350.7  | 343.7  | 401.8  | 329.6  | 275.5  | 306.6  | 312.6  | 266.5  | 311.6  | 317.6  |
| 20°   | 437.8  | 431.8  | 404.8  | 416.8  | 351.7  | 384.7  | 359.7  | 365.7  | 410.8  | 402.8  | 409.8  |
| 22.5° | 508.0  | 507.0  | 493.9  | 537.0  | 439.8  | 432.8  | 411.8  | 445.9  | 453.9  | 439.8  | 506.0  |
| 25°   | 577.1  | 571.1  | 515.0  | 565.1  | 500.0  | 498.0  | 491.9  | 487.9  | 539.0  | 586.1  | 618.2  |
| 27.5° | 656.3  | 653.3  | 633.2  | 669.3  | 582.1  | 531.0  | 534.0  | 568.1  | 599.1  | 615.2  | 720.4  |
| 30°   | 732.4  | 731.4  | 664.3  | 706.4  | 646.2  | 607.2  | 588.1  | 620.2  | 678.3  | 776.5  | 840.6  |
| 32.5° | 838.6  | 834.6  | 787.5  | 823.6  | 703.3  | 665.3  | 651.2  | 674.3  | 757.5  | 805.5  | 873.7  |
| 35°   | 953.8  | 949.8  | 852.6  | 881.7  | 770.5  | 717.4  | 691.3  | 744.4  | 777.5  | 849.6  | 926.8  |
| 37.5° | 1013.9 | 1006.9 | 956.8  | 942.8  | 870.7  | 783.5  | 747.4  | 780.5  | 824.6  | 905.7  | 983.9  |
| 40°   | 1085.1 | 1082.1 | 1041.0 | 1027.0 | 931.8  | 845.6  | 791.5  | 828.6  | 890.7  | 971.9  | 1061.0 |
| 42.5° | 1170.2 | 1168.2 | 1131.2 | 1132.2 | 1011.9 | 923.8  | 845.6  | 898.7  | 963.8  | 1071.1 | 1170.2 |
| 45°   | 1273.4 | 1266.4 | 1241.4 | 1242.4 | 1114.1 | 1009.9 | 922.8  | 991.9  | 1041.0 | 1167.2 | 1281.5 |
| 47.5° | 1389.7 | 1388.7 | 1360.6 | 1360.6 | 1217.3 | 1111.1 | 1014.9 | 1109.1 | 1163.2 | 1312.5 | 1400.7 |
| 50°   | 1522.9 | 1520.9 | 1500.9 | 1500.9 | 1352.6 | 1221.3 | 1126.2 | 1239.4 | 1298.5 | 1442.8 | 1540.0 |
| 52.5° | 1669.2 | 1668.2 | 1663.2 | 1652.2 | 1502.9 | 1375.6 | 1266.4 | 1395.7 | 1446.8 | 1608.1 | 1692.2 |
| 55°   | 1843.5 | 1856.6 | 1852.6 | 1860.6 | 1700.3 | 1567.0 | 1436.8 | 1576.0 | 1631.1 | 1793.4 | 1857.6 |
| 57.5° | 2065.0 | 2061.0 | 2081.0 | 2132.1 | 1931.7 | 1811.5 | 1651.2 | 1809.5 | 1829.5 | 1982.8 | 2042.9 |
| 60°   | 2267.3 | 2272.4 | 2311.4 | 2419.6 | 2172.2 | 2090.0 | 1906.7 | 2057.9 | 2058.9 | 2190.2 | 2235.3 |
| 62.5° | 2483.8 | 2492.8 | 2559.9 | 2743.3 | 2425.7 | 2371.5 | 2186.2 | 2302.4 | 2292.4 | 2406.6 | 2451.7 |
| 65°   | 2727.2 | 2739.3 | 2830.4 | 3062.9 | 2708.2 | 2641.1 | 2448.7 | 2541.9 | 2538.9 | 2691.2 | 2687.2 |
| 67.5° | 3022.8 | 3037.8 | 3120.0 | 3418.6 | 3043.8 | 2892.5 | 2670.1 | 2783.3 | 2773.3 | 2924.6 | 2913.6 |
| 70°   | 3259.3 | 3275.3 | 3364.5 | 3637.0 | 3269.3 | 3086.9 | 2857.5 | 2979.7 | 2987.7 | 3130.0 | 3146.0 |
| 71°   | 3286.3 | 3310.3 | 3404.5 | 3642.0 | 3317.4 | 3140.0 | 2920.6 | 3041.8 | 3018.8 | 3171.1 | 3188.1 |
| 72.5° | 3206.1 | 3229.2 | 3352.4 | 3547.8 | 3337.4 | 3165.1 | 3012.8 | 3085.9 | 2995.7 | 3139.0 | 3139.0 |
| 75°   | 2721.2 | 2721.2 | 2894.6 | 2901.6 | 3045.8 | 3050.9 | 3074.9 | 3010.8 | 2728.2 | 2738.3 | 2693.2 |
| 77.5° | 1698.3 | 1716.3 | 1897.6 | 1749.4 | 2217.3 | 2588.0 | 2841.4 | 2565.9 | 2090.0 | 1896.6 | 1749.4 |
| 80°   | 645.2  | 637.2  | 847.6  | 647.2  | 1178.3 | 1747.4 | 2139.1 | 1754.4 | 1108.1 | 730.4  | 548.1  |
| 82.5° | 148.3  | 189.4  | 262.5  | 254.5  | 392.8  | 771.5  | 1188.3 | 779.5  | 355.7  | 276.5  | 213.4  |
| 85°   | 73.1   | 77.1   | 131.3  | 139.3  | 156.3  | 211.4  | 393.8  | 242.5  | 182.3  | 181.3  | 133.3  |
| 87.5° | 30.1   | 35.1   | 73.1   | 71.1   | 70.1   | 88.2   | 80.2   | 113.2  | 116.2  | 123.2  | 78.1   |
| 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°    |
|-------|--------|
| 0°    | 3.0    |
| 2.5°  | 3.0    |
| 5°    | 3.0    |
| 7.5°  | 5.0    |
| 10°   | 21.0   |
| 12.5° | 167.3  |
| 15°   | 211.4  |
| 17.5° | 316.6  |
| 20°   | 411.8  |
| 22.5° | 517.0  |
| 25°   | 615.2  |
| 27.5° | 734.4  |
| 30°   | 847.6  |
| 32.5° | 905.7  |
| 35°   | 950.8  |
| 37.5° | 1006.9 |
| 40°   | 1079.1 |
| 42.5° | 1177.3 |
| 45°   | 1286.5 |
| 47.5° | 1407.7 |
| 50°   | 1548.0 |
| 52.5° | 1696.3 |
| 55°   | 1856.6 |
| 57.5° | 2047.9 |
| 60°   | 2227.3 |
| 62.5° | 2450.7 |
| 65°   | 2681.1 |
| 67.5° | 2910.6 |
| 70°   | 3132.0 |
| 71°   | 3182.1 |
| 72.5° | 3120.0 |
| 75°   | 2683.1 |
| 77.5° | 1718.3 |
| 80°   | 521.0  |
| 82.5° | 199.4  |
| 85°   | 127.2  |
| 87.5° | 73.1   |
| 90°   | 0.0    |

(END OF REPORT)