

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: P509168

Luminaire Tested: **VERD-CA2-120-730-U-T4-HSS**

Issue Date: 3/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509168  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-139-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-CA2-120-730-U-T4-HSS  
Description: VERDEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 1120mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

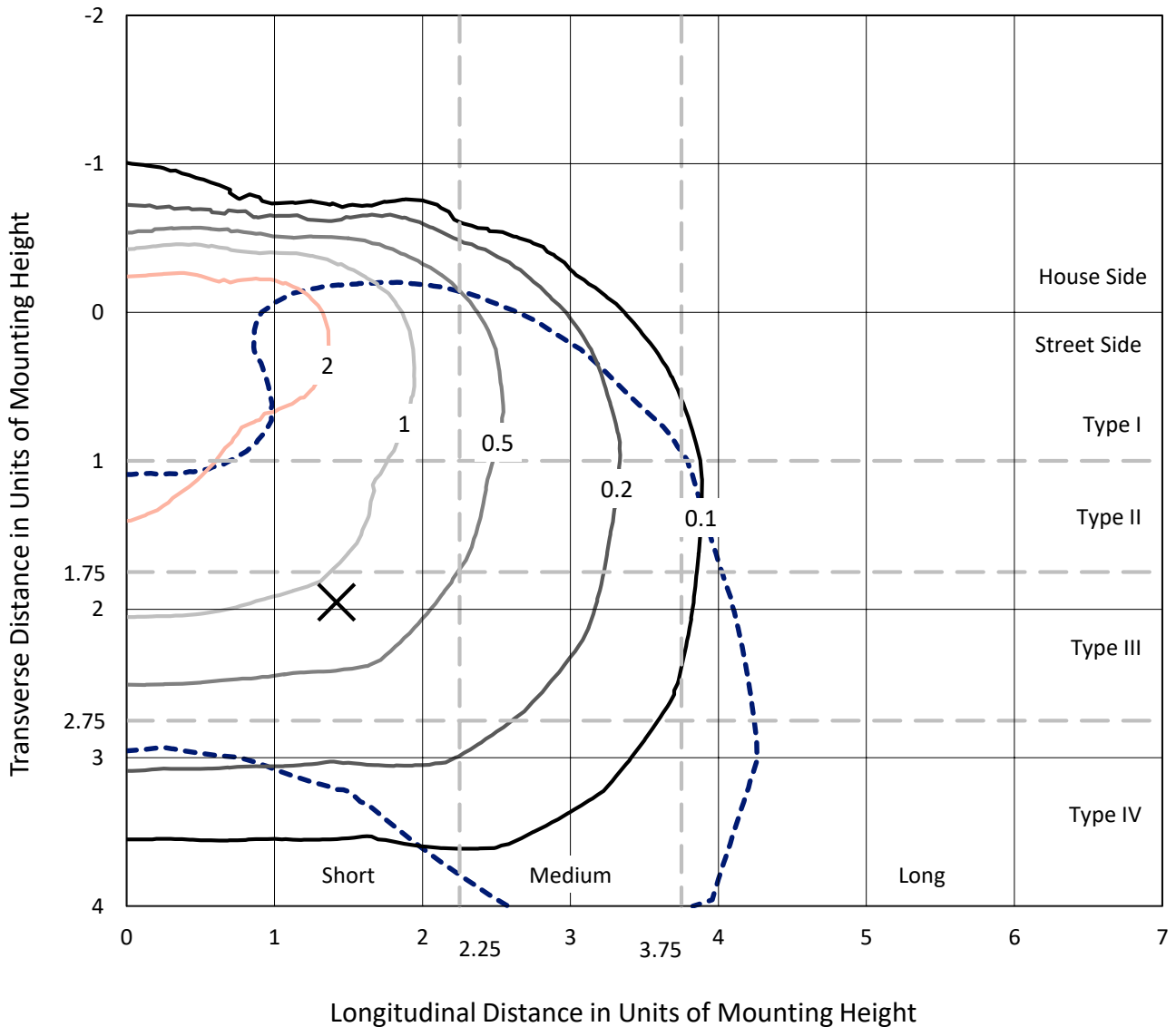
Lumens per Lamp: N/A  
Luminaire Lumens: 15263 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 122.7  
Input Voltage (V): NR  
Input Current (Ain): 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

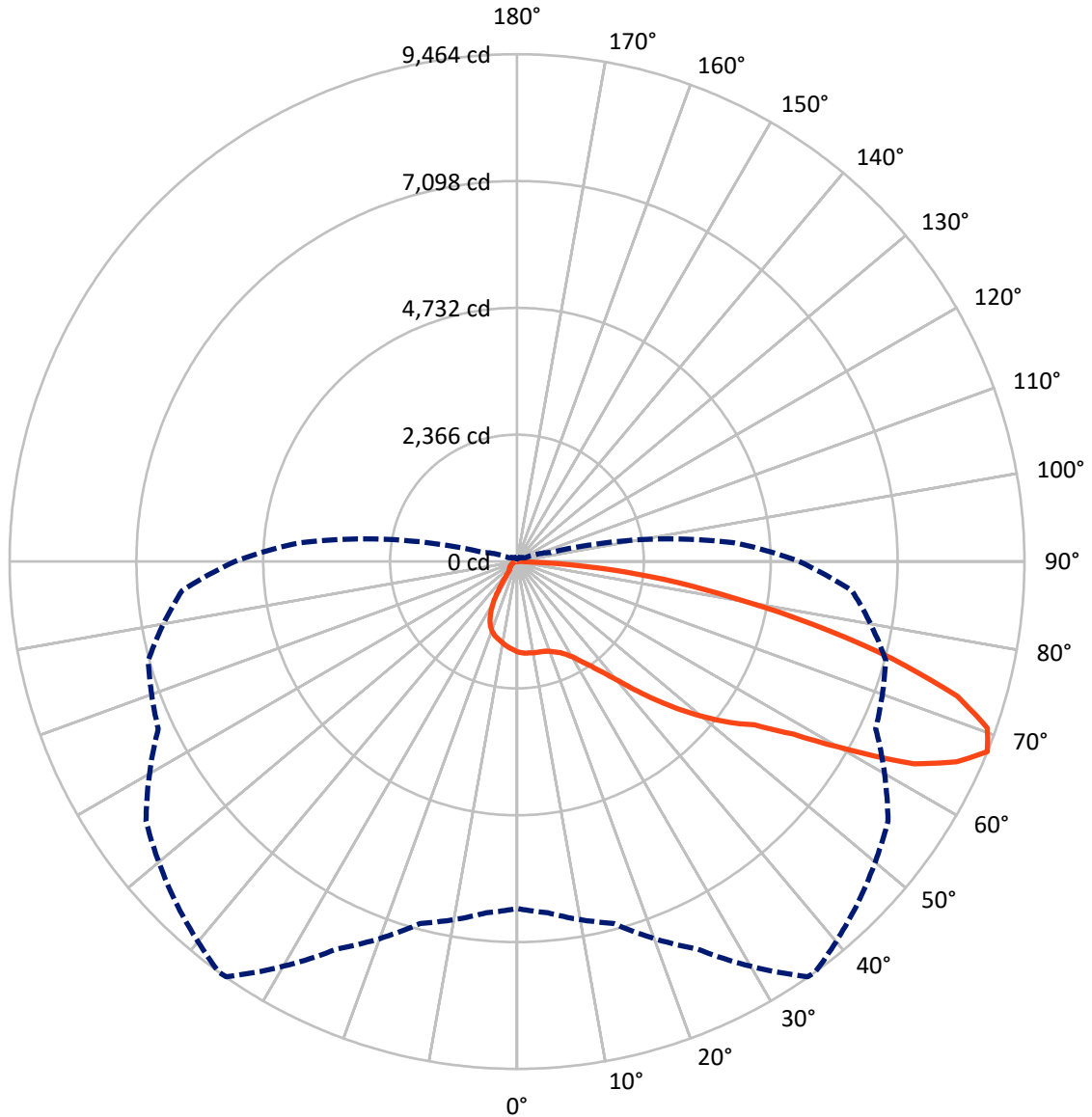
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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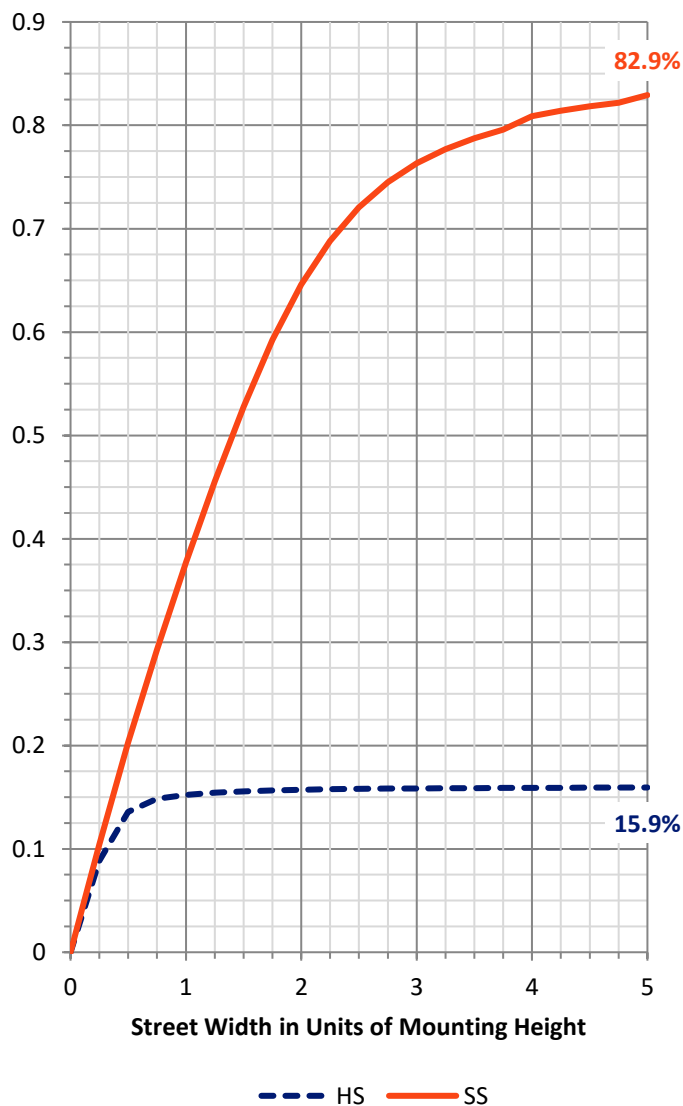
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2461.4   | 0.0    | 2461.4  |
|                    | % Fixture | 16.1     | 0.0    | 16.1    |
| <b>Street Side</b> | Lumens    | 12801.6  | 0.0    | 12801.6 |
|                    | % Fixture | 83.9     | 0.0    | 83.9    |
| <b>Total</b>       | Lumens    | 15263.0  | 0.0    | 15263.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 159.2   | 1.0       |
| 10°-20°   | 471.6   | 3.1       |
| 20°-30°   | 780.0   | 5.1       |
| 30°-40°   | 1237.2  | 8.1       |
| 40°-50°   | 2135.5  | 14.0      |
| 50°-60°   | 3165.4  | 20.7      |
| 60°-70°   | 4092.4  | 26.8      |
| 70°-80°   | 2762.5  | 18.1      |
| 80°-90°   | 459.2   | 3.0       |
| 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°    | 15263.0 | 100.0     |
| 0°-180°   | 15263.0 | 100.0     |

**Coefficient of Utilization**



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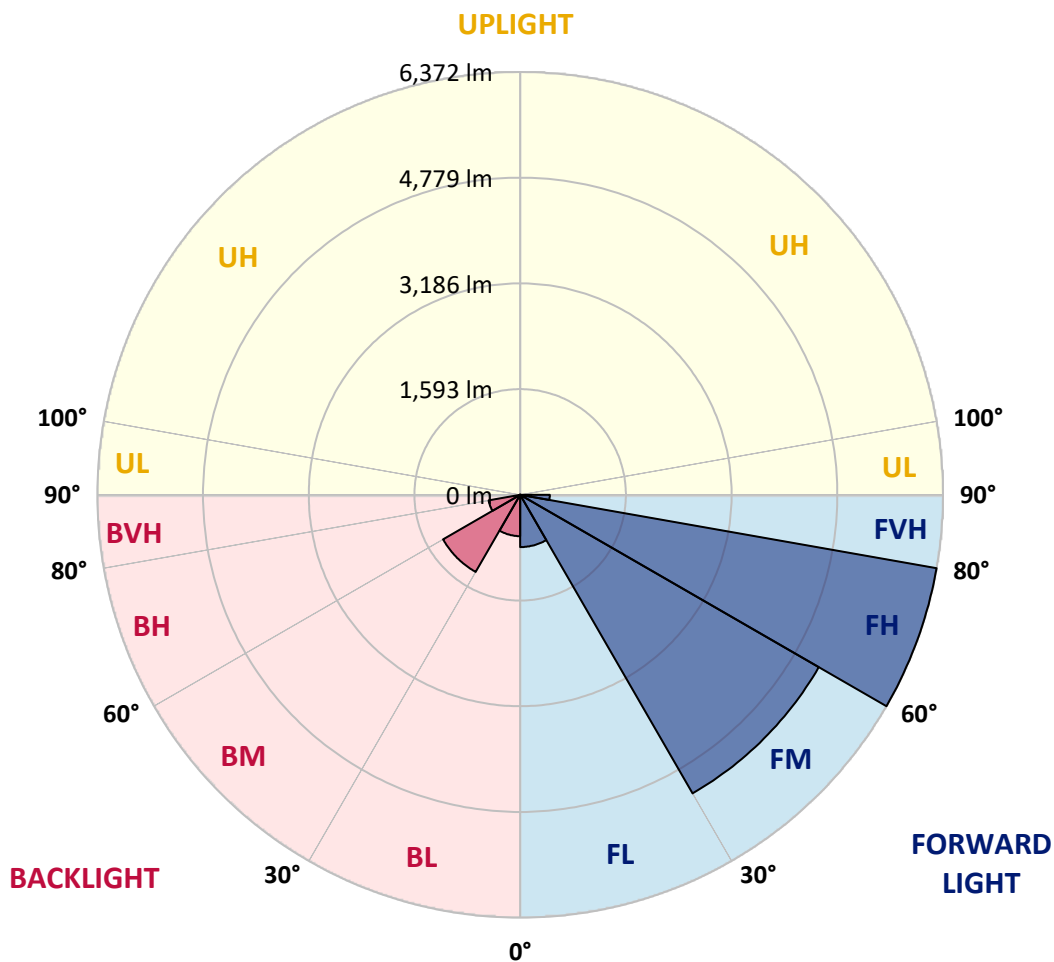
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 787.9  | 5.2       |                         |      |         |
| FM   | (30°-60°)   | 5195.2 | 34.0      |                         |      |         |
| FH   | (60°-80°)   | 6372.3 | 41.8      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 446.1  | 2.9       |                         |      | G3/500  |
| BL   | (0°-30°)    | 622.9  | 4.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1342.9 | 8.8       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 482.6  | 3.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 13.0   | 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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 36°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 |
| 2.5°  | 1694.1 | 1710.6 | 1708.8 | 1706.9 | 1706.9 | 1705.1 | 1694.1 | 1683.2 | 1688.7 | 1686.8 | 1685.0 |
| 5°    | 1701.4 | 1717.9 | 1716.1 | 1714.2 | 1714.2 | 1716.1 | 1699.6 | 1686.8 | 1690.5 | 1694.1 | 1692.3 |
| 7.5°  | 1705.1 | 1719.7 | 1716.1 | 1714.2 | 1712.4 | 1717.9 | 1705.1 | 1706.9 | 1710.6 | 1710.6 | 1710.6 |
| 10°   | 1710.6 | 1721.5 | 1721.5 | 1723.4 | 1725.2 | 1730.7 | 1725.2 | 1730.7 | 1745.3 | 1741.6 | 1750.7 |
| 12.5° | 1696.0 | 1708.8 | 1714.2 | 1723.4 | 1732.5 | 1736.1 | 1741.6 | 1756.2 | 1774.5 | 1783.6 | 1792.7 |
| 15°   | 1690.5 | 1703.3 | 1712.4 | 1723.4 | 1738.0 | 1741.6 | 1756.2 | 1781.8 | 1803.7 | 1821.9 | 1842.0 |
| 17.5° | 1708.8 | 1723.4 | 1736.1 | 1743.4 | 1750.7 | 1756.2 | 1770.8 | 1803.7 | 1842.0 | 1874.9 | 1904.1 |
| 20°   | 1743.4 | 1758.0 | 1772.6 | 1780.0 | 1785.4 | 1789.1 | 1800.0 | 1831.1 | 1880.4 | 1931.5 | 1973.5 |
| 22.5° | 1783.6 | 1798.2 | 1814.6 | 1820.1 | 1832.9 | 1832.9 | 1834.7 | 1865.8 | 1926.0 | 1995.4 | 2046.5 |
| 25°   | 1827.4 | 1836.5 | 1851.1 | 1860.3 | 1878.5 | 1882.2 | 1887.7 | 1915.0 | 1989.9 | 2068.4 | 2148.7 |
| 27.5° | 1878.5 | 1896.8 | 1911.4 | 1922.3 | 1958.9 | 1960.7 | 1957.0 | 1991.7 | 2064.7 | 2161.5 | 2274.7 |
| 30°   | 1971.6 | 1991.7 | 2006.3 | 2024.6 | 2072.0 | 2070.2 | 2094.0 | 2130.5 | 2172.5 | 2278.3 | 2429.9 |
| 32.5° | 2119.5 | 2121.3 | 2128.6 | 2152.4 | 2219.9 | 2227.2 | 2272.9 | 2338.6 | 2422.6 | 2490.1 | 2650.8 |
| 35°   | 2389.7 | 2380.6 | 2358.7 | 2355.0 | 2400.7 | 2404.3 | 2493.8 | 2632.5 | 2815.1 | 3039.6 | 3287.9 |
| 37.5° | 2705.5 | 2729.3 | 2703.7 | 2625.2 | 2632.5 | 2634.3 | 2740.2 | 2917.3 | 3256.9 | 3819.1 | 4054.6 |
| 40°   | 3260.5 | 3273.3 | 3114.5 | 2990.3 | 2946.5 | 2926.4 | 2981.2 | 3249.6 | 3684.0 | 4416.1 | 4582.2 |
| 42.5° | 3749.8 | 3749.8 | 3601.9 | 3410.2 | 3298.8 | 3313.4 | 3297.0 | 3563.6 | 4122.2 | 4934.6 | 4994.8 |
| 45°   | 4239.0 | 4222.6 | 4087.5 | 3926.8 | 3731.5 | 3718.7 | 3676.7 | 3881.2 | 4525.6 | 5307.0 | 5308.8 |
| 47.5° | 4695.4 | 4733.8 | 4531.1 | 4354.0 | 4155.0 | 4145.9 | 4071.1 | 4229.9 | 4912.7 | 5633.8 | 5584.5 |
| 50°   | 5175.5 | 5228.5 | 4974.7 | 4775.7 | 4560.3 | 4573.1 | 4511.0 | 4622.4 | 5297.9 | 5938.6 | 5849.2 |
| 52.5° | 5858.3 | 5759.7 | 5456.7 | 5181.0 | 4958.3 | 4994.8 | 4930.9 | 4996.6 | 5697.7 | 6181.4 | 5995.2 |
| 55°   | 6590.4 | 6415.1 | 6163.2 | 5701.3 | 5378.2 | 5374.5 | 5327.1 | 5405.6 | 6101.1 | 6458.9 | 6161.4 |
| 57.5° | 6982.9 | 7035.8 | 6977.4 | 6603.2 | 6081.0 | 6071.9 | 5787.1 | 5796.2 | 6471.7 | 6696.3 | 6393.2 |
| 60°   | 7430.2 | 7495.9 | 7623.7 | 7390.0 | 7128.9 | 7136.2 | 6426.1 | 6214.3 | 6862.4 | 6886.1 | 6411.5 |
| 62.5° | 7667.5 | 7674.8 | 7968.7 | 8050.9 | 8262.6 | 8310.1 | 7771.5 | 6725.5 | 7121.6 | 7032.2 | 6442.5 |
| 65°   | 7247.6 | 7260.4 | 7826.3 | 8240.7 | 8947.2 | 9011.1 | 8779.3 | 7714.9 | 7315.1 | 7108.8 | 6413.3 |
| 67.5° | 6471.7 | 6575.8 | 6988.4 | 7977.8 | 9454.7 | 9463.9 | 8996.5 | 8447.0 | 7382.7 | 7119.8 | 6272.7 |
| 70°   | 5423.8 | 5387.3 | 5909.4 | 7097.9 | 9376.2 | 9308.7 | 8901.6 | 8531.0 | 7333.4 | 6970.1 | 5631.9 |
| 72.5° | 4021.8 | 3967.0 | 4505.6 | 5706.8 | 8458.0 | 8585.7 | 8476.2 | 8039.9 | 7147.2 | 6411.5 | 4571.3 |
| 75°   | 2753.0 | 2816.9 | 3300.7 | 4302.9 | 7024.9 | 7218.4 | 7702.2 | 7660.2 | 6358.5 | 5314.3 | 3129.1 |
| 77.5° | 1884.0 | 1911.4 | 2325.8 | 3202.1 | 5568.0 | 5642.9 | 6444.3 | 6188.8 | 4675.3 | 3266.0 | 1044.2 |
| 80°   | 1226.8 | 1217.7 | 1590.1 | 2280.2 | 4082.0 | 4072.9 | 4602.3 | 3915.9 | 2519.3 | 1113.6 | 144.2  |
| 82.5° | 684.6  | 724.8  | 953.0  | 1498.8 | 2758.5 | 2787.7 | 2873.5 | 2141.4 | 969.4  | 129.6  | 91.3   |
| 85°   | 385.2  | 401.6  | 547.7  | 848.9  | 1445.9 | 1518.9 | 1281.6 | 786.8  | 173.4  | 71.2   | 52.9   |
| 87.5° | 91.3   | 87.6   | 175.3  | 325.0  | 241.0  | 261.1  | 124.1  | 36.5   | 18.3   | 12.8   | 12.8   |
| 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°    | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 | 1686.8 |
| 2.5°  | 1685.0 | 1681.4 | 1677.7 | 1670.4 | 1664.9 | 1648.5 | 1650.3 | 1661.3 | 1650.3 | 1668.6 | 1657.6 |
| 5°    | 1688.7 | 1683.2 | 1674.1 | 1652.2 | 1635.7 | 1622.9 | 1619.3 | 1617.5 | 1602.9 | 1619.3 | 1612.0 |
| 7.5°  | 1703.3 | 1697.8 | 1677.7 | 1654.0 | 1630.3 | 1591.9 | 1586.4 | 1579.1 | 1551.8 | 1562.7 | 1553.6 |
| 10°   | 1738.0 | 1730.7 | 1696.0 | 1663.1 | 1626.6 | 1575.5 | 1546.3 | 1524.4 | 1493.3 | 1497.0 | 1487.9 |
| 12.5° | 1781.8 | 1774.5 | 1734.3 | 1679.5 | 1628.4 | 1557.2 | 1506.1 | 1464.1 | 1418.5 | 1418.5 | 1409.4 |
| 15°   | 1832.9 | 1825.6 | 1780.0 | 1716.1 | 1635.7 | 1542.6 | 1465.9 | 1398.4 | 1325.4 | 1316.3 | 1305.3 |
| 17.5° | 1902.3 | 1891.3 | 1838.4 | 1756.2 | 1655.8 | 1529.8 | 1425.8 | 1325.4 | 1214.0 | 1179.3 | 1161.1 |
| 20°   | 1973.5 | 1960.7 | 1915.0 | 1812.8 | 1683.2 | 1517.1 | 1367.4 | 1230.4 | 1086.2 | 1015.0 | 1002.2 |
| 22.5° | 2064.7 | 2061.1 | 2004.5 | 1862.1 | 1692.3 | 1489.7 | 1294.3 | 1124.6 | 931.1  | 832.5  | 812.4  |
| 25°   | 2172.5 | 2167.0 | 2079.3 | 1900.4 | 1681.4 | 1434.9 | 1190.3 | 973.0  | 755.8  | 657.2  | 635.3  |
| 27.5° | 2300.2 | 2285.6 | 2143.2 | 1909.6 | 1650.3 | 1349.1 | 1057.0 | 777.7  | 558.6  | 474.7  | 458.2  |
| 30°   | 2435.3 | 2413.4 | 2210.8 | 1911.4 | 1588.3 | 1243.2 | 881.8  | 571.4  | 396.2  | 335.9  | 335.9  |
| 32.5° | 2661.7 | 2586.9 | 2276.5 | 1885.8 | 1498.8 | 1091.7 | 671.8  | 385.2  | 277.5  | 253.8  | 253.8  |
| 35°   | 3147.3 | 2968.4 | 2380.6 | 1853.0 | 1382.0 | 903.7  | 456.4  | 261.1  | 231.8  | 231.8  | 230.0  |
| 37.5° | 3875.7 | 3543.5 | 2557.7 | 1798.2 | 1223.1 | 671.8  | 301.2  | 215.4  | 220.9  | 220.9  | 220.9  |
| 40°   | 4341.3 | 3992.6 | 2798.6 | 1712.4 | 1040.6 | 456.4  | 215.4  | 204.5  | 208.1  | 211.8  | 211.8  |
| 42.5° | 4775.7 | 4383.2 | 3039.6 | 1593.7 | 839.8  | 292.1  | 200.8  | 191.7  | 193.5  | 193.5  | 195.3  |
| 45°   | 5051.4 | 4673.5 | 3218.5 | 1467.8 | 618.9  | 208.1  | 197.2  | 180.7  | 175.3  | 175.3  | 178.9  |
| 47.5° | 5307.0 | 4863.4 | 3297.0 | 1301.6 | 399.8  | 195.3  | 188.0  | 168.0  | 160.7  | 158.8  | 158.8  |
| 50°   | 5562.6 | 5058.7 | 3340.8 | 1104.5 | 250.1  | 188.0  | 173.4  | 153.3  | 146.0  | 144.2  | 144.2  |
| 52.5° | 5675.8 | 5120.8 | 3242.2 | 881.8  | 186.2  | 180.7  | 162.5  | 140.6  | 129.6  | 129.6  | 129.6  |
| 55°   | 5794.4 | 5235.8 | 3076.1 | 631.7  | 177.1  | 168.0  | 149.7  | 126.0  | 116.8  | 120.5  | 120.5  |
| 57.5° | 5925.9 | 5153.6 | 2899.0 | 410.8  | 175.3  | 151.5  | 133.3  | 113.2  | 105.9  | 109.5  | 111.4  |
| 60°   | 5885.7 | 5173.7 | 2645.3 | 275.7  | 168.0  | 138.7  | 120.5  | 100.4  | 94.9   | 94.9   | 94.9   |
| 62.5° | 5885.7 | 5018.5 | 2229.0 | 209.9  | 153.3  | 127.8  | 111.4  | 93.1   | 84.0   | 80.3   | 76.7   |
| 65°   | 5730.5 | 4651.6 | 1628.4 | 182.6  | 136.9  | 118.7  | 100.4  | 82.2   | 71.2   | 65.7   | 63.9   |
| 67.5° | 5261.4 | 4043.7 | 655.4  | 166.1  | 126.0  | 109.5  | 93.1   | 74.8   | 62.1   | 54.8   | 52.9   |
| 70°   | 4472.7 | 2984.8 | 188.0  | 147.9  | 127.8  | 102.2  | 87.6   | 65.7   | 54.8   | 45.6   | 43.8   |
| 72.5° | 3315.3 | 1577.3 | 153.3  | 116.8  | 113.2  | 87.6   | 82.2   | 62.1   | 47.5   | 38.3   | 36.5   |
| 75°   | 1674.1 | 215.4  | 131.4  | 84.0   | 87.6   | 91.3   | 78.5   | 54.8   | 43.8   | 31.0   | 29.2   |
| 77.5° | 173.4  | 127.8  | 115.0  | 56.6   | 62.1   | 63.9   | 67.5   | 51.1   | 38.3   | 25.6   | 23.7   |
| 80°   | 107.7  | 96.8   | 113.2  | 49.3   | 36.5   | 43.8   | 45.6   | 40.2   | 31.0   | 20.1   | 20.1   |
| 82.5° | 76.7   | 82.2   | 84.0   | 31.0   | 27.4   | 25.6   | 23.7   | 23.7   | 27.4   | 18.3   | 18.3   |
| 85°   | 52.9   | 54.8   | 34.7   | 20.1   | 18.3   | 16.4   | 14.6   | 14.6   | 12.8   | 14.6   | 12.8   |
| 87.5° | 12.8   | 11.0   | 11.0   | 11.0   | 9.1    | 9.1    | 7.3    | 7.3    | 7.3    | 7.3    | 9.1    |
| 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)