

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: P233460

Luminaire Tested: **VERD-C028-D-U-T2-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233460
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-10)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-C028-D-U-T2-8027
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 930mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8226 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 73
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

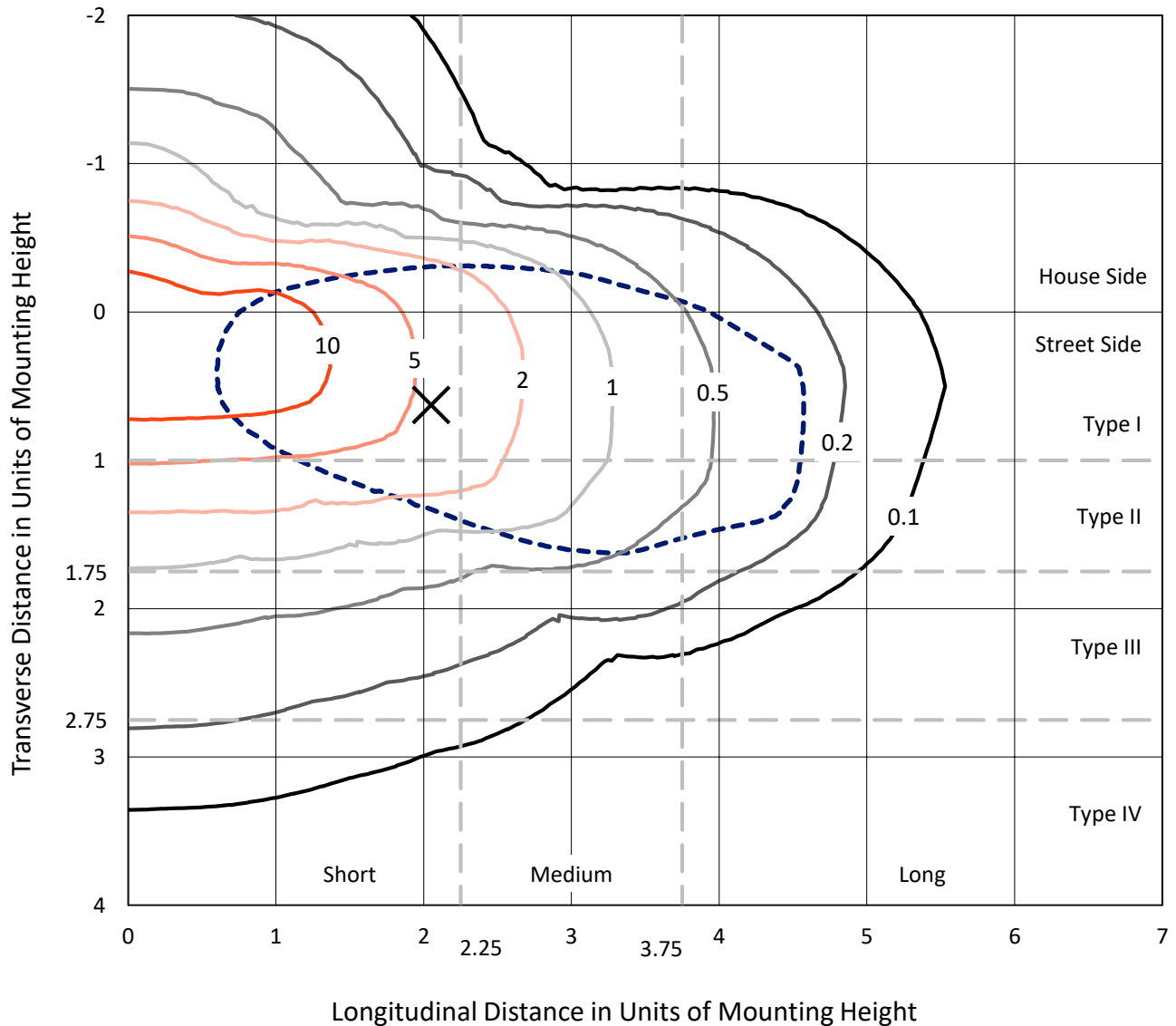


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

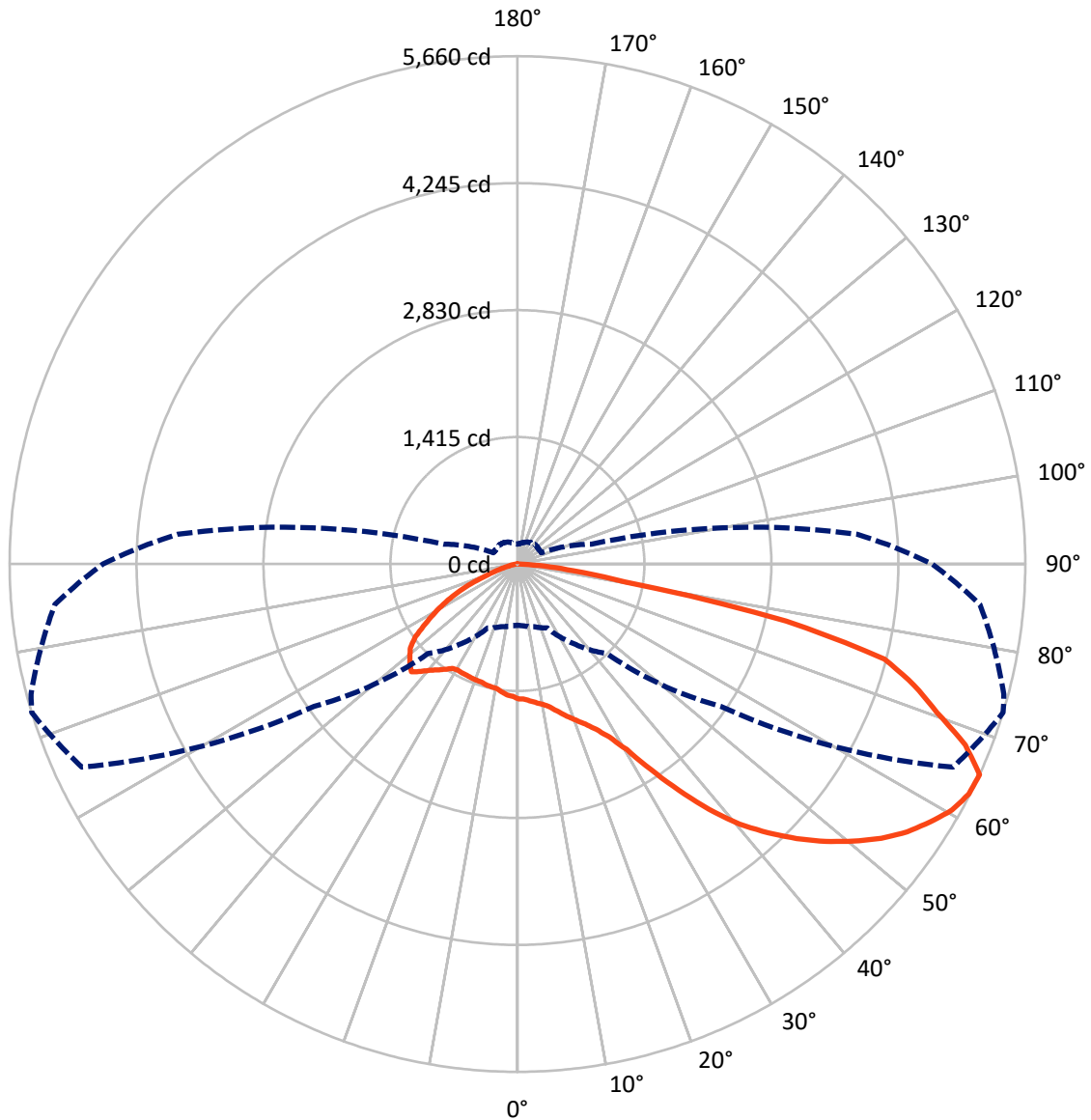


Based on 10 foot mounting height. Maximum calculated value = 17.5 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2108.7 | 0.0 | 2108.7 |
| | % Fixture | 25.6 | 0.0 | 25.6 |
| Street Side | Lumens | 6117.3 | 0.0 | 6117.3 |
| | % Fixture | 74.4 | 0.0 | 74.4 |
| Total | Lumens | 8226.0 | 0.0 | 8226.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 143.5 | 1.7 |
| 10°-20° | 434.0 | 5.3 |
| 20°-30° | 728.0 | 8.8 |
| 30°-40° | 1067.6 | 13.0 |
| 40°-50° | 1442.8 | 17.5 |
| 50°-60° | 1671.4 | 20.3 |
| 60°-70° | 1632.7 | 19.8 |
| 70°-80° | 980.4 | 11.9 |
| 80°-90° | 125.6 | 1.5 |
| 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° | 8226.0 | 100.0 |
| 0°-180° | 8226.0 | 100.0 |



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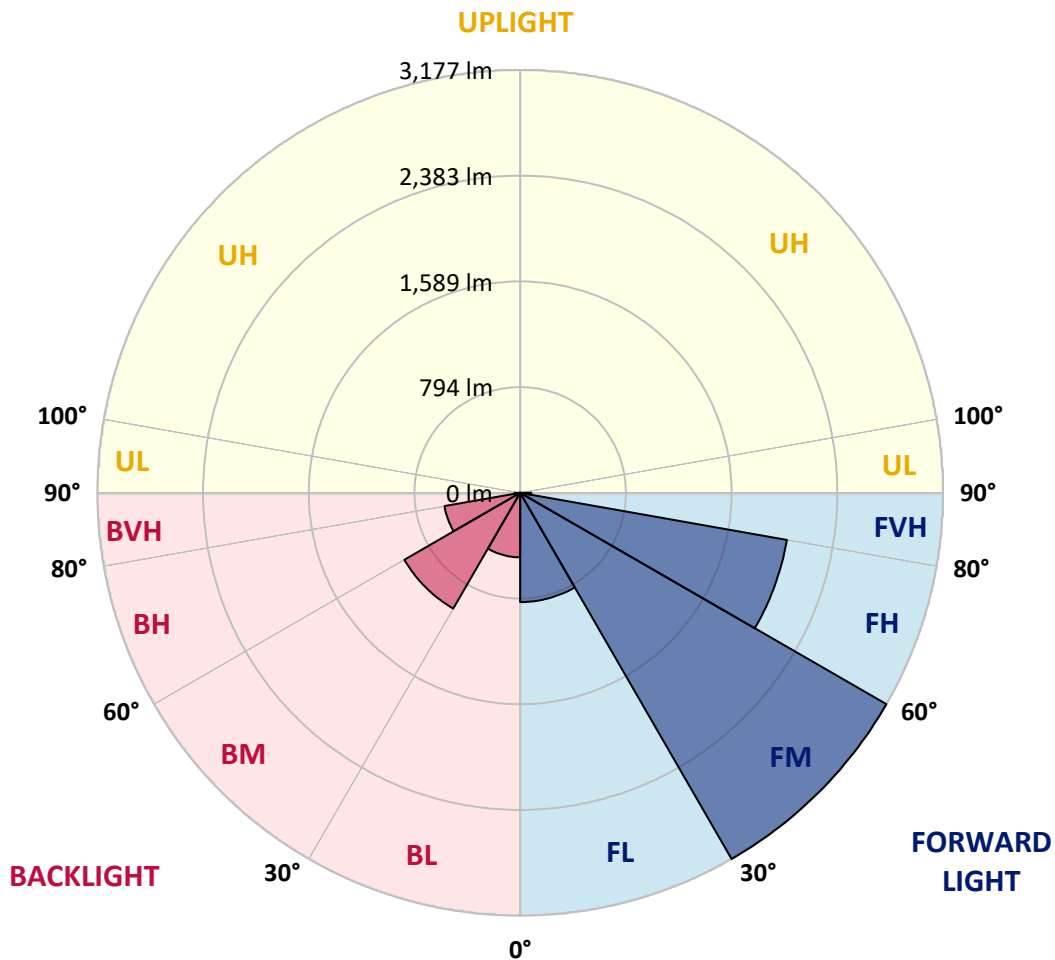
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 820.8 | 10.0 | | | |
| FM (30°-60°) | 3177.1 | 38.6 | | | |
| FH (60°-80°) | 2035.8 | 24.7 | | | G2/5000 |
| FVH (80°-90°) | 83.6 | 1.0 | | | G1/100 |
| BL (0°-30°) | 484.7 | 5.9 | B1/500 | | |
| BM (30°-60°) | 1004.7 | 12.2 | B2/2500 | | |
| BH (60°-80°) | 577.4 | 7.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 42.0 | 0.5 | | | 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° | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 |
| 2.5° | 1596.7 | 1602.7 | 1596.0 | 1576.6 | 1566.9 | 1560.1 | 1540.0 | 1522.0 | 1507.9 | 1506.4 | 1492.9 |
| 5° | 1658.0 | 1666.9 | 1655.7 | 1631.1 | 1621.4 | 1607.2 | 1584.8 | 1560.1 | 1534.7 | 1529.5 | 1502.6 |
| 7.5° | 1735.6 | 1737.1 | 1731.2 | 1706.5 | 1686.3 | 1656.5 | 1617.6 | 1591.5 | 1562.4 | 1554.2 | 1511.6 |
| 10° | 1801.4 | 1800.6 | 1793.1 | 1769.2 | 1749.1 | 1722.9 | 1668.4 | 1625.9 | 1591.5 | 1581.0 | 1522.0 |
| 12.5° | 1864.1 | 1862.6 | 1855.1 | 1830.5 | 1805.1 | 1783.4 | 1742.4 | 1684.9 | 1638.5 | 1625.1 | 1551.9 |
| 15° | 1941.8 | 1938.0 | 1926.1 | 1893.2 | 1873.1 | 1847.7 | 1817.8 | 1760.3 | 1707.3 | 1688.6 | 1595.2 |
| 17.5° | 2001.5 | 2000.8 | 1991.8 | 1964.2 | 1940.3 | 1912.6 | 1885.0 | 1840.2 | 1782.7 | 1761.8 | 1637.8 |
| 20° | 2035.9 | 2032.9 | 2030.6 | 2009.0 | 2003.0 | 1988.1 | 1948.5 | 1914.1 | 1856.6 | 1835.0 | 1685.6 |
| 22.5° | 2072.5 | 2073.2 | 2074.0 | 2062.7 | 2079.9 | 2067.2 | 2038.1 | 1996.3 | 1938.0 | 1913.4 | 1752.8 |
| 25° | 2080.7 | 2082.2 | 2097.1 | 2121.7 | 2142.7 | 2165.8 | 2144.9 | 2103.8 | 2041.1 | 2015.0 | 1844.7 |
| 27.5° | 2057.5 | 2063.5 | 2108.3 | 2150.1 | 2224.1 | 2253.9 | 2250.2 | 2248.0 | 2183.7 | 2157.6 | 1970.9 |
| 30° | 2078.4 | 2078.4 | 2109.1 | 2180.7 | 2274.1 | 2352.5 | 2369.7 | 2417.5 | 2398.1 | 2379.4 | 2183.0 |
| 32.5° | 2015.7 | 2026.9 | 2081.4 | 2181.5 | 2329.4 | 2443.6 | 2521.3 | 2654.2 | 2731.2 | 2715.5 | 2483.2 |
| 35° | 1897.7 | 1912.6 | 1992.5 | 2145.6 | 2357.0 | 2551.2 | 2690.1 | 2946.2 | 3094.9 | 3113.5 | 2844.7 |
| 37.5° | 1806.6 | 1819.3 | 1919.4 | 2089.6 | 2367.5 | 2652.0 | 2885.0 | 3274.9 | 3466.8 | 3457.1 | 3150.9 |
| 40° | 1695.3 | 1717.7 | 1818.5 | 2023.2 | 2342.8 | 2737.9 | 3096.4 | 3576.6 | 3812.6 | 3767.8 | 3442.1 |
| 42.5° | 1595.2 | 1614.6 | 1699.0 | 1917.1 | 2308.5 | 2786.4 | 3287.6 | 3887.3 | 4094.1 | 4058.3 | 3717.7 |
| 45° | 1489.2 | 1506.4 | 1584.8 | 1790.2 | 2228.5 | 2810.3 | 3466.8 | 4184.5 | 4364.5 | 4324.2 | 3973.1 |
| 47.5° | 1367.4 | 1390.6 | 1484.0 | 1670.7 | 2111.3 | 2795.4 | 3597.5 | 4442.9 | 4621.4 | 4591.5 | 4184.5 |
| 50° | 1060.5 | 1084.4 | 1328.6 | 1558.6 | 1948.5 | 2733.4 | 3714.7 | 4701.3 | 4853.7 | 4825.3 | 4371.2 |
| 52.5° | 962.7 | 973.1 | 1049.3 | 1430.2 | 1779.0 | 2610.9 | 3787.9 | 4914.2 | 5079.9 | 5051.6 | 4547.5 |
| 55° | 902.9 | 910.4 | 953.0 | 1168.0 | 1634.8 | 2413.8 | 3796.9 | 5135.2 | 5270.4 | 5233.0 | 4734.9 |
| 57.5° | 841.7 | 849.9 | 896.9 | 1007.5 | 1489.9 | 2105.3 | 3702.0 | 5322.7 | 5425.0 | 5384.7 | 4914.2 |
| 60° | 790.1 | 794.6 | 840.9 | 917.1 | 1326.4 | 1799.1 | 3457.8 | 5450.4 | 5567.6 | 5515.4 | 5089.7 |
| 62.5° | 743.1 | 749.1 | 782.7 | 852.1 | 1189.0 | 1569.8 | 3117.3 | 5451.1 | 5646.0 | 5613.9 | 5178.5 |
| 65° | 681.9 | 690.8 | 723.7 | 786.4 | 1077.7 | 1413.0 | 2764.8 | 5356.3 | 5660.2 | 5612.4 | 5174.0 |
| 67.5° | 610.9 | 622.1 | 652.0 | 702.0 | 929.8 | 1245.7 | 2273.4 | 5231.6 | 5383.2 | 5374.9 | 4960.5 |
| 70° | 540.0 | 540.0 | 573.6 | 613.9 | 771.5 | 1066.5 | 1796.1 | 4787.2 | 4960.5 | 4973.2 | 4577.3 |
| 72.5° | 455.6 | 457.1 | 483.2 | 518.3 | 621.4 | 875.3 | 1308.4 | 4092.6 | 4624.4 | 4470.5 | 4128.5 |
| 75° | 382.4 | 380.9 | 407.8 | 436.9 | 505.6 | 689.3 | 853.6 | 3006.7 | 4226.3 | 4260.7 | 3633.3 |
| 77.5° | 203.1 | 195.7 | 230.0 | 253.2 | 296.5 | 383.1 | 473.5 | 1507.9 | 3060.5 | 3127.7 | 2908.9 |
| 80° | 57.5 | 58.3 | 152.4 | 170.3 | 194.9 | 189.7 | 219.6 | 575.1 | 1210.6 | 1364.5 | 1696.1 |
| 82.5° | 34.4 | 39.6 | 86.6 | 101.6 | 76.2 | 49.3 | 83.6 | 319.6 | 626.6 | 702.0 | 841.7 |
| 85° | 17.9 | 19.4 | 30.6 | 38.1 | 29.1 | 24.6 | 25.4 | 134.4 | 304.7 | 309.9 | 336.1 |
| 87.5° | 8.2 | 8.2 | 11.2 | 11.9 | 7.5 | 4.5 | 3.0 | 2.2 | 2.2 | 1.5 | 1.5 |
| 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° | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 | 1504.1 |
| 2.5° | 1482.5 | 1489.9 | 1477.2 | 1467.5 | 1460.1 | 1455.6 | 1450.3 | 1437.7 | 1441.4 | 1446.6 | 1445.9 |
| 5° | 1489.9 | 1493.7 | 1471.3 | 1440.6 | 1412.3 | 1392.1 | 1378.7 | 1358.5 | 1358.5 | 1366.7 | 1366.7 |
| 7.5° | 1496.7 | 1491.4 | 1445.9 | 1394.3 | 1362.2 | 1345.8 | 1324.1 | 1302.5 | 1298.7 | 1304.7 | 1305.5 |
| 10° | 1500.4 | 1478.0 | 1414.5 | 1366.7 | 1324.9 | 1291.3 | 1263.6 | 1239.0 | 1238.2 | 1246.5 | 1248.0 |
| 12.5° | 1516.8 | 1473.5 | 1412.3 | 1346.5 | 1283.8 | 1248.0 | 1215.1 | 1187.5 | 1177.8 | 1178.5 | 1180.0 |
| 15° | 1542.2 | 1491.4 | 1409.3 | 1318.9 | 1250.9 | 1203.1 | 1155.3 | 1120.2 | 1111.3 | 1123.2 | 1127.7 |
| 17.5° | 1572.8 | 1520.5 | 1395.1 | 1293.5 | 1210.6 | 1153.1 | 1105.3 | 1073.9 | 1045.6 | 1032.9 | 1030.6 |
| 20° | 1613.2 | 1545.2 | 1402.5 | 1256.2 | 1171.8 | 1094.9 | 1035.1 | 997.0 | 973.1 | 971.6 | 970.1 |
| 22.5° | 1666.2 | 1572.8 | 1404.0 | 1231.5 | 1110.5 | 1030.6 | 956.7 | 935.0 | 892.5 | 876.8 | 883.5 |
| 25° | 1736.4 | 1614.6 | 1400.3 | 1205.4 | 1063.5 | 955.9 | 867.1 | 827.5 | 811.8 | 793.9 | 795.4 |
| 27.5° | 1826.7 | 1681.1 | 1410.0 | 1171.0 | 986.6 | 864.8 | 765.5 | 722.9 | 699.0 | 684.1 | 686.3 |
| 30° | 2010.5 | 1781.9 | 1409.3 | 1138.2 | 915.6 | 770.7 | 658.7 | 630.3 | 606.4 | 593.0 | 599.7 |
| 32.5° | 2271.9 | 2000.8 | 1440.6 | 1094.1 | 835.0 | 644.5 | 569.1 | 537.0 | 516.8 | 501.9 | 505.6 |
| 35° | 2595.2 | 2239.0 | 1521.3 | 1034.4 | 743.1 | 548.2 | 496.6 | 457.1 | 432.4 | 426.4 | 424.2 |
| 37.5° | 2895.5 | 2449.6 | 1597.5 | 994.8 | 637.8 | 495.1 | 430.2 | 390.6 | 368.9 | 376.4 | 376.4 |
| 40° | 3163.6 | 2728.9 | 1683.4 | 931.3 | 542.2 | 434.7 | 356.2 | 338.3 | 327.1 | 339.8 | 344.3 |
| 42.5° | 3366.0 | 2997.0 | 1799.9 | 847.7 | 464.5 | 363.0 | 304.7 | 317.4 | 321.9 | 330.8 | 328.6 |
| 45° | 3616.9 | 3150.1 | 1914.9 | 770.0 | 396.6 | 302.5 | 294.3 | 320.4 | 330.8 | 339.1 | 335.3 |
| 47.5° | 3847.7 | 3268.9 | 1891.7 | 626.6 | 333.8 | 292.8 | 299.5 | 320.4 | 338.3 | 351.8 | 349.5 |
| 50° | 4046.3 | 3417.5 | 1847.7 | 486.9 | 320.4 | 301.7 | 304.7 | 312.2 | 339.1 | 348.0 | 348.0 |
| 52.5° | 4170.3 | 3564.6 | 1793.1 | 393.6 | 330.1 | 312.9 | 307.7 | 306.9 | 324.9 | 331.6 | 325.6 |
| 55° | 4319.7 | 3717.0 | 1652.0 | 365.2 | 333.8 | 320.4 | 315.9 | 309.2 | 314.4 | 309.2 | 312.2 |
| 57.5° | 4485.5 | 3867.1 | 1435.4 | 357.0 | 331.6 | 318.2 | 342.0 | 306.2 | 303.2 | 284.5 | 280.1 |
| 60° | 4631.1 | 3926.1 | 1245.7 | 338.3 | 319.6 | 312.2 | 318.2 | 302.5 | 287.5 | 262.9 | 253.2 |
| 62.5° | 4685.6 | 3920.9 | 1053.0 | 318.9 | 301.7 | 303.2 | 302.5 | 291.3 | 277.8 | 253.2 | 247.2 |
| 65° | 4619.9 | 3801.4 | 853.6 | 295.7 | 287.5 | 293.5 | 286.0 | 269.6 | 247.2 | 227.0 | 221.8 |
| 67.5° | 4397.3 | 3496.7 | 634.1 | 265.1 | 264.4 | 275.6 | 270.4 | 247.9 | 223.3 | 207.6 | 207.6 |
| 70° | 3971.6 | 3121.8 | 410.8 | 220.3 | 236.7 | 256.2 | 256.2 | 232.3 | 200.2 | 186.7 | 190.4 |
| 72.5° | 3505.6 | 2686.4 | 265.9 | 163.6 | 186.7 | 232.3 | 230.8 | 214.3 | 184.5 | 167.3 | 168.0 |
| 75° | 3036.6 | 2131.5 | 171.8 | 112.8 | 121.0 | 197.9 | 204.6 | 174.8 | 143.4 | 122.5 | 118.7 |
| 77.5° | 2308.5 | 1603.4 | 109.0 | 65.7 | 76.9 | 121.0 | 155.3 | 145.6 | 146.4 | 178.5 | 177.0 |
| 80° | 1419.7 | 966.4 | 79.2 | 32.1 | 38.1 | 79.2 | 125.5 | 138.9 | 194.9 | 128.5 | 118.0 |
| 82.5° | 711.0 | 451.8 | 41.8 | 19.4 | 21.7 | 35.1 | 74.7 | 166.5 | 141.9 | 85.1 | 80.7 |
| 85° | 265.9 | 121.7 | 12.7 | 9.7 | 11.9 | 17.9 | 30.6 | 152.4 | 90.4 | 68.0 | 66.5 |
| 87.5° | 1.5 | 2.2 | 2.2 | 3.0 | 4.5 | 5.2 | 11.2 | 72.4 | 45.6 | 32.9 | 31.4 |
| 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)