

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: P233513

Luminaire Tested: **VERD-C029-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-14)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-C029-D-U-T3-8027
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 1030mA LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8931 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 81
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

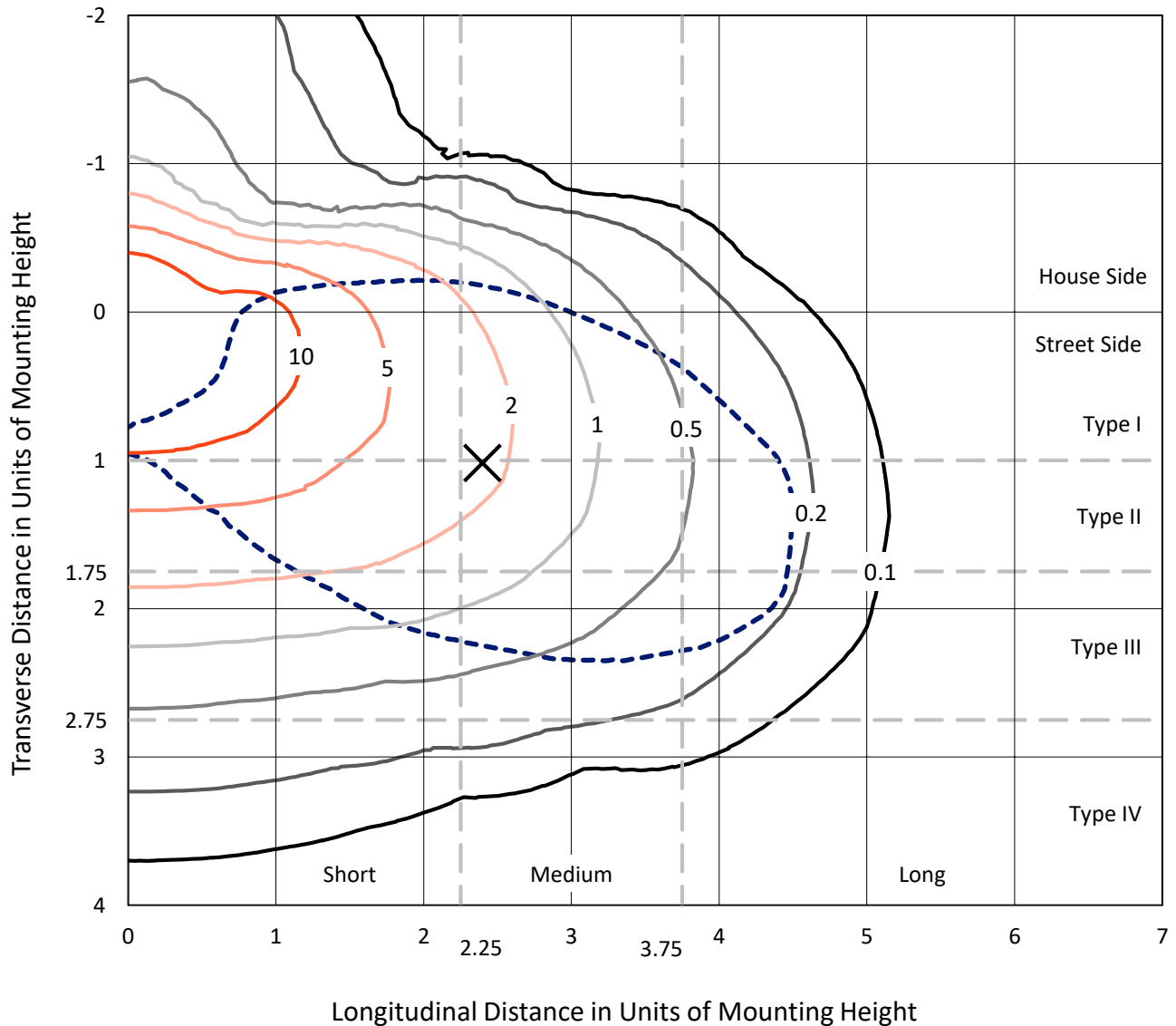


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

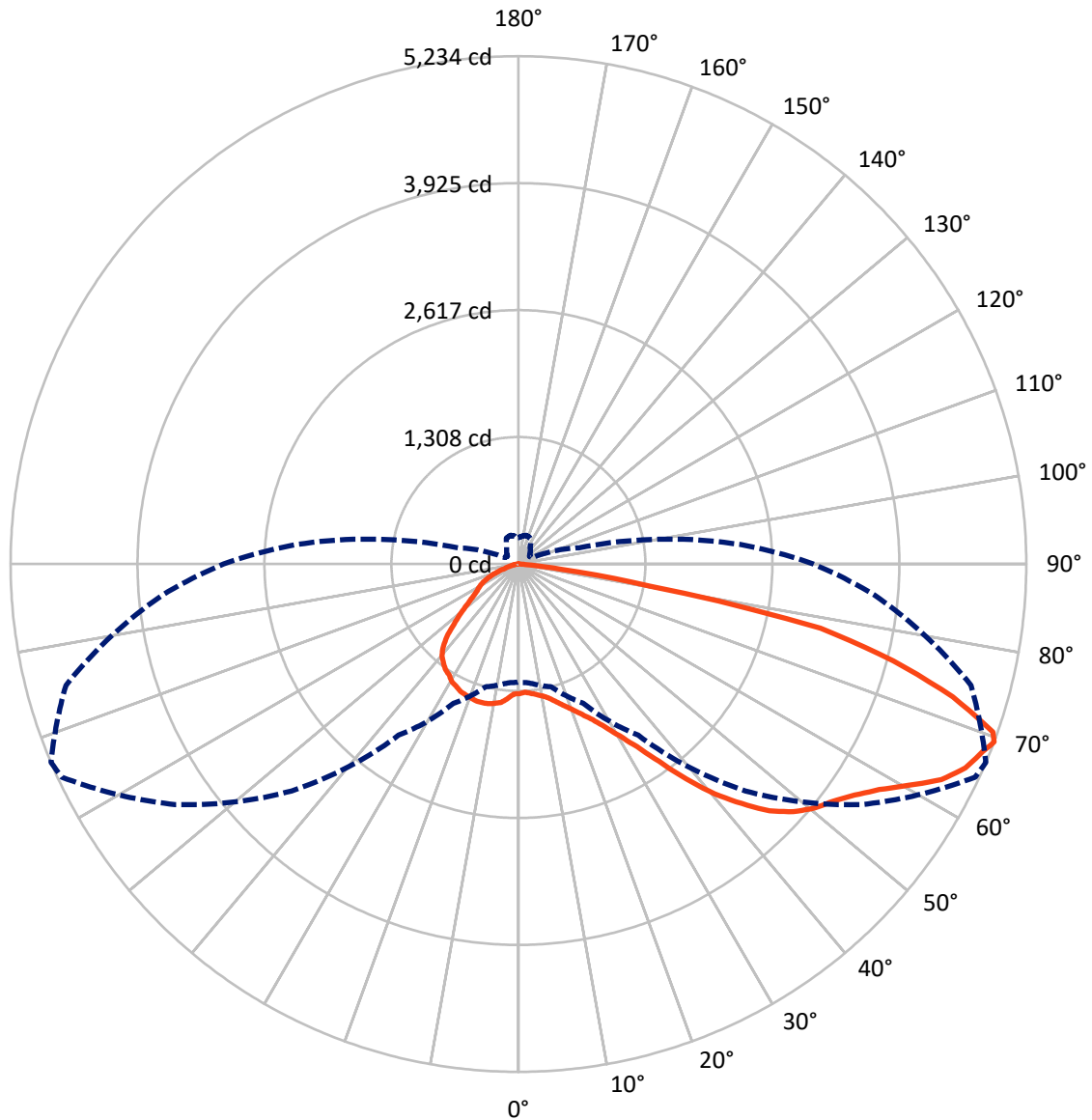


Based on 10 foot mounting height. Maximum calculated value = 15.6 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2011.2 | 0.0 | 2011.2 |
| | % Fixture | 22.5 | 0.0 | 22.5 |
| Street Side | Lumens | 6919.8 | 0.0 | 6919.8 |
| | % Fixture | 77.5 | 0.0 | 77.5 |
| Total | Lumens | 8931.0 | 0.0 | 8931.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 135.3 | 1.5 |
| 10°-20° | 431.2 | 4.8 |
| 20°-30° | 742.9 | 8.3 |
| 30°-40° | 1104.9 | 12.4 |
| 40°-50° | 1521.7 | 17.0 |
| 50°-60° | 1819.1 | 20.4 |
| 60°-70° | 1919.7 | 21.5 |
| 70°-80° | 1150.4 | 12.9 |
| 80°-90° | 105.8 | 1.2 |
| 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° | 8931.0 | 100.0 |
| 0°-180° | 8931.0 | 100.0 |



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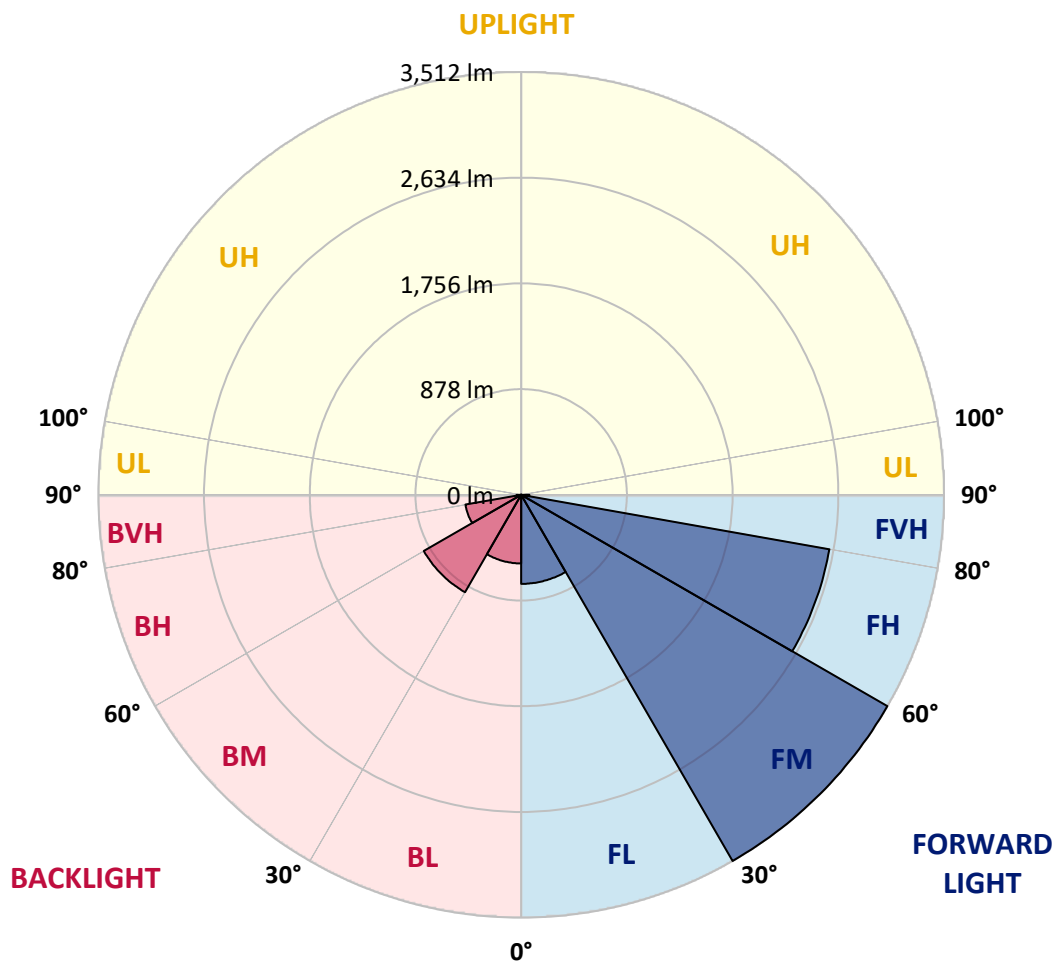
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 739.5 | 8.3 | | | |
| FM | (30°-60°) | 3512.1 | 39.3 | | | |
| FH | (60°-80°) | 2599.8 | 29.1 | | | G2/5000 |
| FVH | (80°-90°) | 68.4 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 569.9 | 6.4 | B2/1000 | | |
| BM | (30°-60°) | 933.7 | 10.5 | B1/1000 | | |
| BH | (60°-80°) | 470.2 | 5.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 37.4 | 0.4 | | | 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 III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 |
| 2.5° | 1357.8 | 1357.0 | 1352.9 | 1338.3 | 1336.7 | 1335.1 | 1325.3 | 1326.1 | 1323.7 | 1326.1 | 1327.0 |
| 5° | 1395.2 | 1391.9 | 1387.9 | 1372.4 | 1366.8 | 1359.4 | 1344.8 | 1344.0 | 1338.3 | 1340.0 | 1341.6 |
| 7.5° | 1441.5 | 1438.2 | 1435.0 | 1417.1 | 1411.4 | 1398.4 | 1375.7 | 1364.3 | 1359.4 | 1361.1 | 1363.5 |
| 10° | 1504.0 | 1498.3 | 1493.4 | 1467.5 | 1458.5 | 1436.6 | 1409.0 | 1389.5 | 1383.0 | 1385.4 | 1391.9 |
| 12.5° | 1575.5 | 1568.2 | 1560.0 | 1533.2 | 1521.1 | 1486.9 | 1454.5 | 1429.3 | 1419.5 | 1425.2 | 1430.1 |
| 15° | 1649.4 | 1645.3 | 1642.1 | 1610.4 | 1593.3 | 1556.0 | 1515.4 | 1483.7 | 1474.8 | 1479.6 | 1482.1 |
| 17.5° | 1746.8 | 1744.4 | 1738.7 | 1706.2 | 1673.7 | 1630.7 | 1577.9 | 1544.6 | 1535.7 | 1538.1 | 1532.4 |
| 20° | 1853.2 | 1846.7 | 1843.5 | 1806.9 | 1772.8 | 1713.5 | 1652.6 | 1605.5 | 1603.1 | 1603.9 | 1586.0 |
| 22.5° | 1972.6 | 1965.3 | 1958.8 | 1925.5 | 1883.2 | 1814.2 | 1734.6 | 1681.8 | 1683.5 | 1685.1 | 1645.3 |
| 25° | 2094.4 | 2088.7 | 2083.0 | 2051.3 | 2009.1 | 1933.6 | 1837.8 | 1778.5 | 1777.7 | 1778.5 | 1723.3 |
| 27.5° | 2221.9 | 2215.4 | 2214.6 | 2188.6 | 2146.4 | 2069.2 | 1958.8 | 1898.7 | 1898.7 | 1895.4 | 1811.8 |
| 30° | 2335.6 | 2342.1 | 2342.1 | 2327.5 | 2287.7 | 2210.5 | 2106.6 | 2046.5 | 2054.6 | 2048.1 | 1941.7 |
| 32.5° | 2459.8 | 2458.2 | 2469.6 | 2458.2 | 2425.7 | 2354.3 | 2267.4 | 2229.2 | 2243.0 | 2264.1 | 2157.7 |
| 35° | 2532.1 | 2543.5 | 2571.9 | 2588.1 | 2572.7 | 2514.2 | 2450.9 | 2480.1 | 2498.8 | 2593.8 | 2466.3 |
| 37.5° | 2615.8 | 2625.5 | 2664.5 | 2704.3 | 2710.8 | 2679.1 | 2679.1 | 2774.9 | 2811.5 | 2935.7 | 2787.1 |
| 40° | 2673.4 | 2683.2 | 2725.4 | 2771.7 | 2835.0 | 2856.9 | 2913.8 | 3062.4 | 3114.4 | 3198.0 | 3025.9 |
| 42.5° | 2639.3 | 2644.2 | 2735.1 | 2848.0 | 2941.4 | 3047.0 | 3137.1 | 3325.5 | 3375.1 | 3433.5 | 3222.4 |
| 45° | 2579.2 | 2588.1 | 2688.8 | 2870.7 | 3031.5 | 3241.1 | 3354.8 | 3573.2 | 3630.1 | 3624.4 | 3373.4 |
| 47.5° | 2512.6 | 2526.4 | 2638.5 | 2841.5 | 3108.7 | 3409.2 | 3553.7 | 3781.1 | 3813.6 | 3773.0 | 3478.2 |
| 50° | 2438.7 | 2462.3 | 2581.6 | 2812.3 | 3164.7 | 3556.2 | 3701.5 | 3937.0 | 3954.1 | 3871.2 | 3570.0 |
| 52.5° | 2354.3 | 2369.7 | 2502.1 | 2756.2 | 3203.7 | 3653.6 | 3819.3 | 4053.2 | 4060.5 | 3993.1 | 3666.6 |
| 55° | 2237.3 | 2251.1 | 2398.1 | 2681.5 | 3209.4 | 3711.3 | 3894.8 | 4177.4 | 4201.8 | 4136.0 | 3754.3 |
| 57.5° | 2111.4 | 2128.5 | 2279.5 | 2573.5 | 3157.4 | 3734.8 | 3985.8 | 4337.4 | 4384.5 | 4290.3 | 3825.0 |
| 60° | 1965.3 | 1987.2 | 2139.9 | 2442.0 | 3055.1 | 3771.4 | 4155.5 | 4570.5 | 4628.9 | 4464.9 | 3892.4 |
| 62.5° | 1813.4 | 1825.6 | 1966.1 | 2260.1 | 2895.9 | 3790.0 | 4309.8 | 4836.8 | 4892.9 | 4629.7 | 3924.0 |
| 65° | 1599.8 | 1619.3 | 1744.4 | 2041.6 | 2671.8 | 3709.6 | 4382.1 | 5022.8 | 5063.4 | 4763.7 | 3893.2 |
| 67.5° | 1373.2 | 1373.2 | 1479.6 | 1780.1 | 2372.9 | 3496.9 | 4352.8 | 5112.1 | 5160.9 | 4857.9 | 3795.7 |
| 69° | 1216.5 | 1228.7 | 1309.9 | 1583.6 | 2153.7 | 3307.7 | 4321.1 | 5194.1 | 5233.9 | 4827.9 | 3683.7 |
| 70° | 1096.3 | 1106.9 | 1188.9 | 1440.7 | 1990.4 | 3158.2 | 4252.9 | 5157.6 | 5186.8 | 4735.3 | 3565.9 |
| 72.5° | 806.4 | 815.3 | 872.2 | 1003.7 | 1496.7 | 2548.3 | 3834.7 | 4663.0 | 4680.9 | 4258.6 | 3146.0 |
| 75° | 549.8 | 554.7 | 597.7 | 678.1 | 873.0 | 1781.7 | 3133.1 | 3938.7 | 3991.4 | 3693.4 | 2576.0 |
| 77.5° | 190.0 | 204.6 | 230.6 | 311.8 | 373.6 | 700.0 | 2123.6 | 3103.8 | 3182.6 | 2860.2 | 1802.0 |
| 80° | 65.0 | 64.2 | 123.4 | 160.0 | 196.5 | 321.6 | 671.6 | 1301.0 | 1374.9 | 1179.2 | 648.9 |
| 82.5° | 48.7 | 50.3 | 82.0 | 88.5 | 60.1 | 118.6 | 261.5 | 397.9 | 436.1 | 380.9 | 268.8 |
| 85° | 30.9 | 30.0 | 36.5 | 38.2 | 27.6 | 50.3 | 63.3 | 64.2 | 66.6 | 57.7 | 58.5 |
| 87.5° | 17.1 | 17.1 | 16.2 | 13.8 | 7.3 | 6.5 | 5.7 | 5.7 | 4.9 | 4.9 | 4.9 |
| 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° | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 | 1335.9 |
| 2.5° | 1322.9 | 1334.3 | 1336.7 | 1340.0 | 1348.1 | 1358.6 | 1373.2 | 1373.2 | 1378.9 | 1396.0 | 1401.7 |
| 5° | 1341.6 | 1355.4 | 1373.2 | 1391.9 | 1413.9 | 1437.4 | 1461.0 | 1469.1 | 1480.4 | 1503.2 | 1508.1 |
| 7.5° | 1370.0 | 1385.4 | 1416.3 | 1441.5 | 1460.1 | 1483.7 | 1503.2 | 1506.4 | 1521.1 | 1542.2 | 1546.2 |
| 10° | 1399.2 | 1413.0 | 1443.9 | 1456.9 | 1482.1 | 1508.1 | 1517.8 | 1522.7 | 1534.9 | 1551.1 | 1548.7 |
| 12.5° | 1439.0 | 1443.1 | 1465.0 | 1473.9 | 1486.1 | 1502.4 | 1507.2 | 1507.2 | 1514.6 | 1540.5 | 1541.4 |
| 15° | 1478.0 | 1478.0 | 1481.3 | 1476.4 | 1478.0 | 1486.1 | 1486.9 | 1476.4 | 1484.5 | 1497.5 | 1492.6 |
| 17.5° | 1519.4 | 1508.1 | 1493.4 | 1472.3 | 1453.6 | 1452.8 | 1435.8 | 1410.6 | 1403.3 | 1422.0 | 1421.2 |
| 20° | 1558.4 | 1538.9 | 1504.0 | 1456.1 | 1430.1 | 1395.2 | 1352.1 | 1337.5 | 1336.7 | 1340.0 | 1337.5 |
| 22.5° | 1609.6 | 1569.8 | 1506.4 | 1440.7 | 1369.2 | 1314.0 | 1278.2 | 1228.7 | 1227.1 | 1219.8 | 1208.4 |
| 25° | 1670.5 | 1613.6 | 1517.0 | 1423.6 | 1319.7 | 1248.2 | 1162.1 | 1109.3 | 1079.3 | 1085.8 | 1066.3 |
| 27.5° | 1749.2 | 1680.2 | 1521.1 | 1386.2 | 1251.4 | 1130.4 | 1026.5 | 958.3 | 932.3 | 920.9 | 907.9 |
| 30° | 1857.3 | 1750.9 | 1550.3 | 1354.6 | 1167.0 | 1007.0 | 879.5 | 780.4 | 743.1 | 752.8 | 754.4 |
| 32.5° | 2030.2 | 1884.9 | 1565.7 | 1292.0 | 1069.5 | 872.2 | 706.5 | 599.3 | 577.4 | 605.0 | 612.3 |
| 35° | 2331.5 | 2092.8 | 1602.3 | 1254.7 | 958.3 | 714.6 | 525.4 | 481.6 | 486.4 | 510.0 | 511.6 |
| 37.5° | 2627.9 | 2355.9 | 1715.1 | 1173.5 | 825.1 | 529.5 | 407.7 | 384.1 | 407.7 | 437.7 | 441.8 |
| 40° | 2835.8 | 2561.3 | 1815.0 | 1093.1 | 638.3 | 383.3 | 311.0 | 282.6 | 316.7 | 364.6 | 373.6 |
| 42.5° | 3020.2 | 2724.6 | 1885.7 | 981.8 | 436.9 | 273.7 | 223.3 | 230.6 | 281.0 | 315.9 | 324.0 |
| 45° | 3152.5 | 2836.6 | 1934.4 | 837.3 | 278.5 | 207.1 | 199.8 | 223.3 | 271.2 | 298.9 | 301.3 |
| 47.5° | 3236.2 | 2902.4 | 1898.7 | 659.4 | 209.5 | 195.7 | 196.5 | 226.6 | 274.5 | 305.3 | 304.5 |
| 50° | 3311.7 | 2937.3 | 1782.5 | 523.0 | 199.0 | 187.6 | 200.6 | 235.5 | 285.0 | 313.5 | 311.8 |
| 52.5° | 3392.1 | 2971.4 | 1641.2 | 410.1 | 190.8 | 183.5 | 205.5 | 241.2 | 285.0 | 302.9 | 300.5 |
| 55° | 3461.1 | 3001.5 | 1534.9 | 329.7 | 185.2 | 182.7 | 210.3 | 250.1 | 283.4 | 290.7 | 285.9 |
| 57.5° | 3496.9 | 2950.3 | 1419.5 | 276.9 | 179.5 | 182.7 | 213.6 | 248.5 | 293.2 | 316.7 | 311.8 |
| 60° | 3477.4 | 2902.4 | 1326.1 | 257.4 | 171.4 | 181.9 | 215.2 | 266.4 | 359.8 | 381.7 | 380.1 |
| 62.5° | 3441.7 | 2849.6 | 1195.4 | 231.4 | 162.4 | 183.5 | 214.4 | 282.6 | 414.2 | 406.9 | 386.6 |
| 65° | 3368.6 | 2744.1 | 1016.7 | 201.4 | 153.5 | 186.8 | 214.4 | 318.3 | 361.4 | 353.3 | 344.3 |
| 67.5° | 3212.6 | 2515.9 | 813.7 | 173.0 | 143.7 | 177.0 | 211.1 | 302.9 | 311.0 | 289.9 | 279.4 |
| 69° | 3038.0 | 2298.2 | 644.0 | 157.5 | 138.1 | 172.2 | 210.3 | 292.4 | 306.2 | 283.4 | 271.2 |
| 70° | 2901.6 | 2128.5 | 520.6 | 146.2 | 132.4 | 170.5 | 209.5 | 285.0 | 303.7 | 278.5 | 265.6 |
| 72.5° | 2416.8 | 1720.0 | 272.9 | 117.8 | 112.9 | 155.1 | 202.2 | 278.5 | 304.5 | 267.2 | 248.5 |
| 75° | 1898.7 | 1223.8 | 181.1 | 90.1 | 86.9 | 135.6 | 185.2 | 268.0 | 286.7 | 240.4 | 212.0 |
| 77.5° | 1171.0 | 536.0 | 125.1 | 62.5 | 63.3 | 105.6 | 159.2 | 239.6 | 289.1 | 242.8 | 206.3 |
| 80° | 340.3 | 207.1 | 79.6 | 42.2 | 39.0 | 62.5 | 125.1 | 206.3 | 274.5 | 249.3 | 224.9 |
| 82.5° | 196.5 | 134.8 | 53.6 | 26.8 | 23.6 | 28.4 | 78.8 | 160.0 | 242.0 | 228.2 | 233.1 |
| 85° | 44.7 | 37.4 | 19.5 | 13.0 | 13.0 | 16.2 | 26.8 | 92.6 | 167.3 | 195.7 | 220.9 |
| 87.5° | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.1 | 4.9 | 25.2 | 73.1 | 103.9 | 121.0 |
| 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)