

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: P159320

Luminaire Tested: **VST-E04-LED-E-U-T2**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P159320  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E04-LED-E-U-T2  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA  
Light Source: (84) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 12346.9 lumens  
Efficiency: N/A  
Efficacy: 127.0 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 97.2  
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



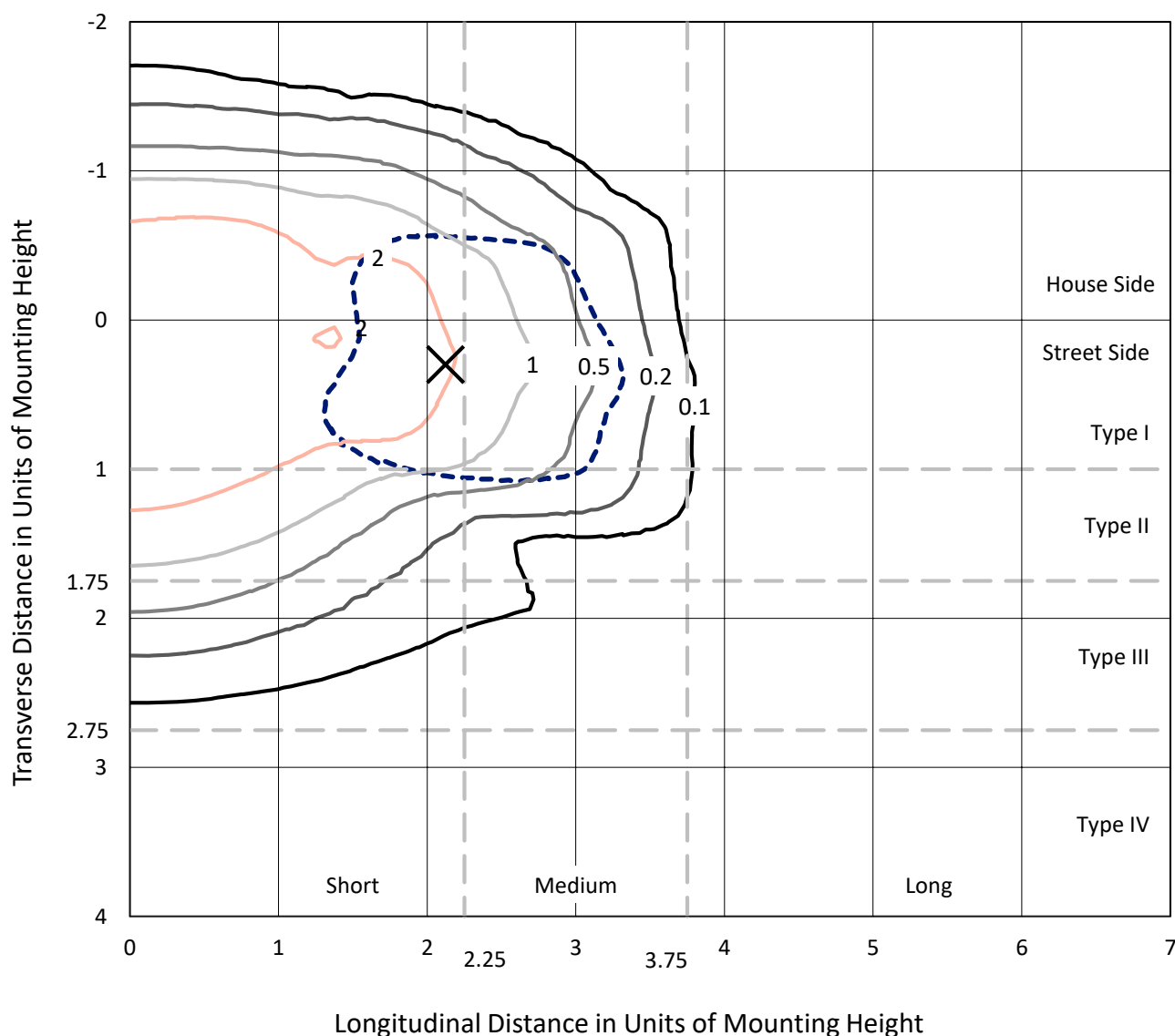
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

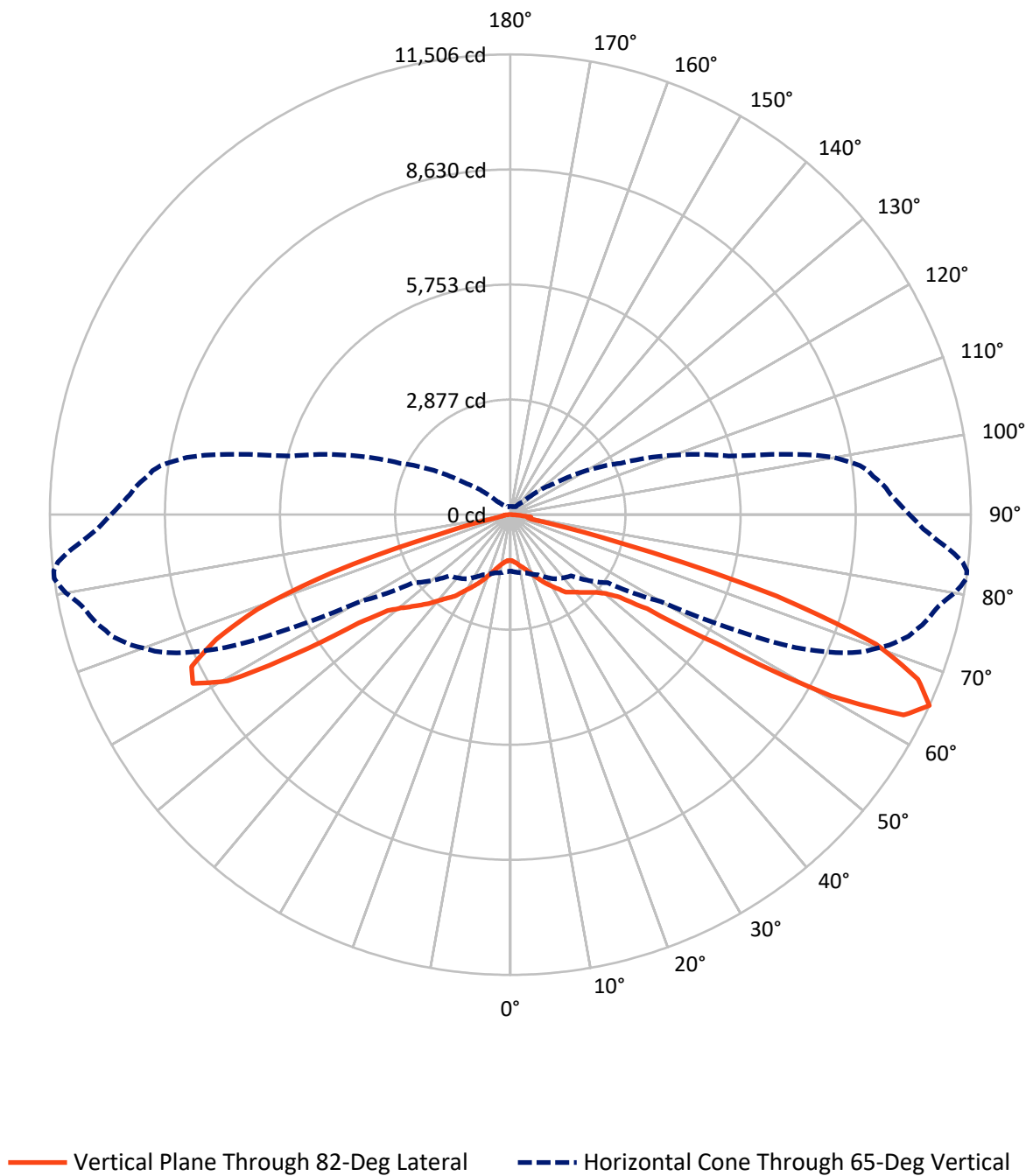


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc  
Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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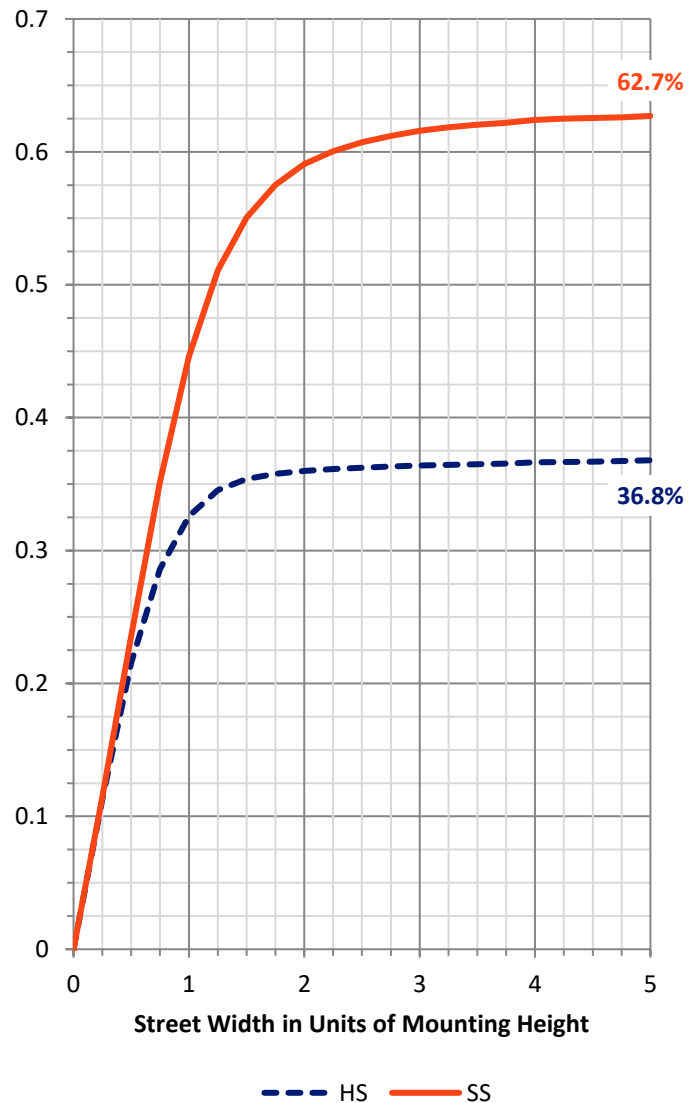
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4597.1   | 0.0    | 4597.1  |
|                    | % Fixture | 37.2     | 0.0    | 37.2    |
| <b>Street Side</b> | Lumens    | 7749.7   | 0.0    | 7749.7  |
|                    | % Fixture | 62.8     | 0.0    | 62.8    |
| <b>Total</b>       | Lumens    | 12346.9  | 0.0    | 12346.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 116.3   | 0.9       |
| 10°-20°   | 408.7   | 3.3       |
| 20°-30°   | 809.7   | 6.6       |
| 30°-40°   | 1388.0  | 11.2      |
| 40°-50°   | 2085.2  | 16.9      |
| 50°-60°   | 2897.0  | 23.5      |
| 60°-70°   | 3305.0  | 26.8      |
| 70°-80°   | 1138.5  | 9.2       |
| 80°-90°   | 198.4   | 1.6       |
| 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°    | 12346.9 | 100.0     |
| 0°-180°   | 12346.9 | 100.0     |

**Coefficient of Utilization**



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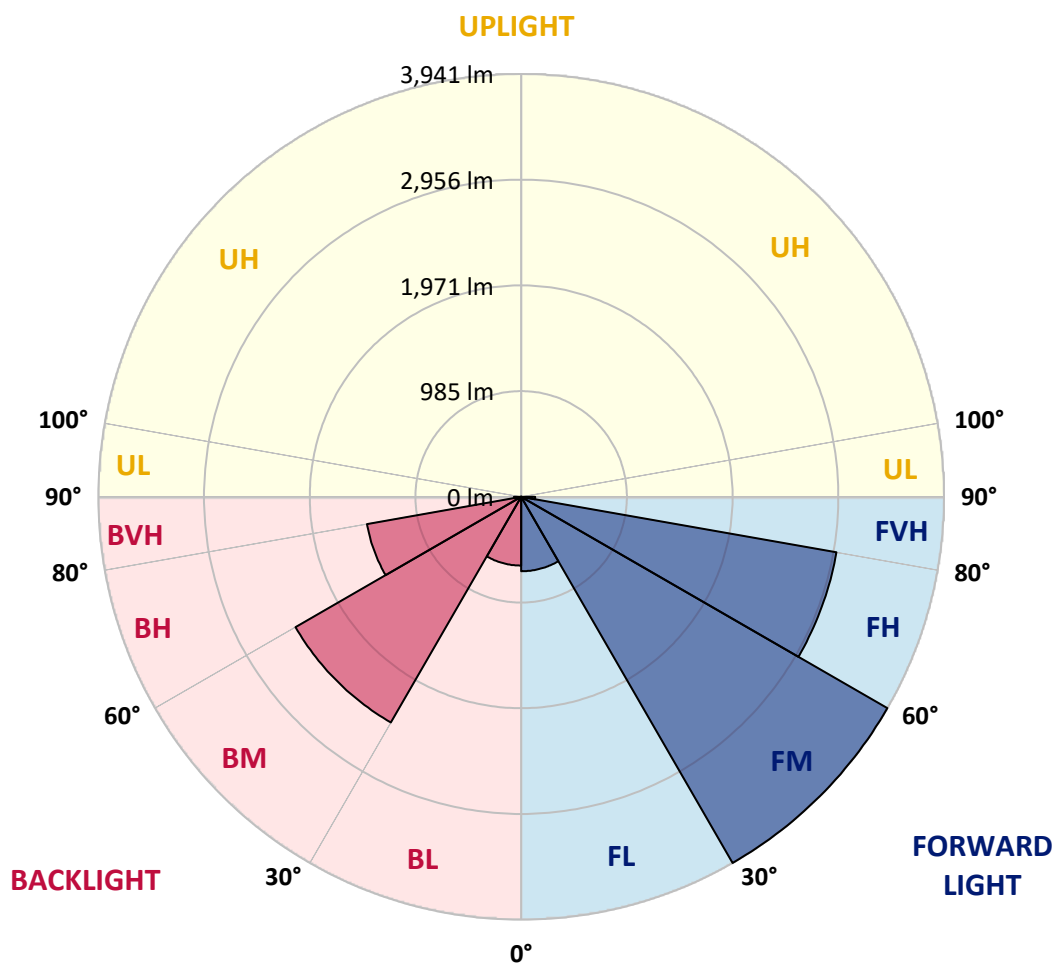
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 693.6  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 3941.4 | 31.9      |                         |      |         |
| FH   | (60°-80°)   | 2984.1 | 24.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 130.6  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 641.0  | 5.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2428.8 | 19.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1459.5 | 11.8      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 67.8   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 60°    | 61°    | 62°    | 64°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 |
| 2.5°  | 1211.2 | 1212.0 | 1211.2 | 1208.8 | 1208.0 | 1200.8 | 1192.8 | 1188.8 | 1188.0 | 1184.8 | 1185.6 |
| 5°    | 1286.4 | 1284.0 | 1280.8 | 1276.8 | 1272.8 | 1260.8 | 1247.2 | 1240.0 | 1237.6 | 1235.2 | 1232.0 |
| 7.5°  | 1353.6 | 1355.2 | 1353.6 | 1348.0 | 1337.6 | 1322.4 | 1304.8 | 1293.6 | 1292.8 | 1290.4 | 1288.0 |
| 10°   | 1440.0 | 1444.0 | 1434.4 | 1424.8 | 1410.4 | 1387.2 | 1367.2 | 1352.8 | 1350.4 | 1347.2 | 1345.6 |
| 12.5° | 1533.6 | 1534.4 | 1531.2 | 1509.6 | 1485.6 | 1453.6 | 1424.8 | 1410.4 | 1407.2 | 1403.2 | 1401.6 |
| 15°   | 1633.6 | 1634.4 | 1616.8 | 1596.0 | 1559.2 | 1520.8 | 1480.8 | 1464.8 | 1460.8 | 1461.6 | 1455.2 |
| 17.5° | 1712.8 | 1714.4 | 1697.6 | 1671.2 | 1627.2 | 1581.6 | 1538.4 | 1525.6 | 1523.2 | 1524.0 | 1520.8 |
| 20°   | 1747.2 | 1749.6 | 1739.2 | 1719.2 | 1677.6 | 1637.6 | 1606.4 | 1598.4 | 1597.6 | 1596.0 | 1602.4 |
| 22.5° | 1745.6 | 1746.4 | 1742.4 | 1734.4 | 1709.6 | 1686.4 | 1682.4 | 1687.2 | 1686.4 | 1688.0 | 1693.6 |
| 25°   | 1731.2 | 1733.6 | 1732.8 | 1736.0 | 1732.0 | 1740.8 | 1759.2 | 1776.0 | 1778.4 | 1781.6 | 1792.0 |
| 27.5° | 1768.0 | 1772.8 | 1767.2 | 1770.4 | 1776.8 | 1806.4 | 1844.0 | 1869.6 | 1874.4 | 1883.2 | 1892.0 |
| 30°   | 1912.0 | 1905.6 | 1898.4 | 1890.4 | 1894.4 | 1912.8 | 1955.2 | 1977.6 | 1980.0 | 1986.4 | 1998.4 |
| 32.5° | 2125.6 | 2118.4 | 2112.0 | 2099.2 | 2096.0 | 2088.0 | 2102.4 | 2108.0 | 2107.2 | 2113.6 | 2116.8 |
| 35°   | 2366.4 | 2367.2 | 2365.6 | 2375.2 | 2383.2 | 2342.4 | 2292.0 | 2278.4 | 2284.0 | 2276.8 | 2278.4 |
| 37.5° | 2572.0 | 2574.4 | 2616.8 | 2669.6 | 2684.8 | 2659.2 | 2548.8 | 2494.4 | 2476.0 | 2473.6 | 2455.2 |
| 40°   | 2800.0 | 2800.0 | 2864.0 | 2928.8 | 2971.2 | 3003.2 | 2872.0 | 2776.0 | 2736.8 | 2725.6 | 2680.0 |
| 42.5° | 3050.4 | 3037.6 | 3096.0 | 3167.2 | 3245.6 | 3318.4 | 3250.4 | 3142.4 | 3086.4 | 3066.4 | 2986.4 |
| 45°   | 3256.0 | 3248.0 | 3276.8 | 3343.2 | 3470.4 | 3612.8 | 3622.4 | 3567.2 | 3533.6 | 3492.0 | 3418.4 |
| 47.5° | 3382.4 | 3378.4 | 3395.2 | 3467.2 | 3626.4 | 3856.8 | 3985.6 | 4013.6 | 3993.6 | 3961.6 | 3890.4 |
| 50°   | 3432.0 | 3426.4 | 3438.4 | 3518.4 | 3696.8 | 4000.8 | 4285.6 | 4417.6 | 4427.2 | 4434.4 | 4412.0 |
| 52.5° | 3414.4 | 3407.2 | 3432.0 | 3499.2 | 3684.8 | 4051.2 | 4520.0 | 4773.6 | 4816.0 | 4852.0 | 4925.6 |
| 55°   | 3245.6 | 3234.4 | 3301.6 | 3428.0 | 3632.8 | 4032.8 | 4691.2 | 5116.0 | 5205.6 | 5301.6 | 5464.8 |
| 57.5° | 2987.2 | 2977.6 | 3074.4 | 3248.0 | 3540.8 | 3982.4 | 4806.4 | 5548.8 | 5750.4 | 5923.2 | 6386.4 |
| 60°   | 2738.4 | 2730.4 | 2787.2 | 2955.2 | 3242.4 | 3736.8 | 4664.0 | 5694.4 | 6032.8 | 6405.6 | 7251.2 |
| 62.5° | 2293.6 | 2272.0 | 2348.0 | 2489.6 | 2671.2 | 3091.2 | 4042.4 | 5370.4 | 5892.0 | 6440.0 | 7586.4 |
| 65°   | 1409.6 | 1440.8 | 1506.4 | 1663.2 | 1960.8 | 2160.8 | 2968.8 | 4344.8 | 5032.8 | 5720.0 | 7207.2 |
| 67.5° | 895.2  | 904.0  | 952.8  | 1061.6 | 1292.0 | 1492.8 | 1799.2 | 2726.4 | 3256.8 | 3932.8 | 5658.4 |
| 70°   | 767.2  | 772.8  | 814.4  | 928.0  | 1087.2 | 1334.4 | 1361.6 | 1424.0 | 1614.4 | 2044.8 | 3326.4 |
| 72.5° | 604.8  | 614.4  | 647.2  | 745.6  | 937.6  | 1203.2 | 1680.8 | 1125.6 | 1087.2 | 1123.2 | 1623.2 |
| 75°   | 360.0  | 371.2  | 398.4  | 452.0  | 602.4  | 920.0  | 1760.8 | 1309.6 | 1220.8 | 1151.2 | 1120.0 |
| 77.5° | 190.4  | 182.4  | 200.8  | 232.0  | 309.6  | 490.4  | 1323.2 | 1604.8 | 1542.4 | 1459.2 | 1282.4 |
| 80°   | 94.4   | 97.6   | 103.2  | 109.6  | 138.4  | 199.2  | 661.6  | 1660.0 | 1840.0 | 1920.0 | 1763.2 |
| 82.5° | 37.6   | 42.4   | 60.0   | 64.0   | 76.0   | 84.8   | 212.8  | 920.0  | 1317.6 | 1787.2 | 2333.6 |
| 85°   | 19.2   | 18.4   | 32.0   | 38.4   | 44.8   | 40.0   | 75.2   | 343.2  | 617.6  | 962.4  | 1559.2 |
| 87.5° | 2.4    | 3.2    | 7.2    | 9.6    | 13.6   | 12.8   | 21.6   | 74.4   | 118.4  | 168.0  | 236.0  |
| 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):**

|       | 65°    | 66°    | 67°    | 68°    | 69°    | 70°    | 71°     | 72°     | 73°     | 74°     | 75°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  |
| 2.5°  | 1181.6 | 1180.8 | 1180.8 | 1177.6 | 1177.6 | 1178.4 | 1176.0  | 1174.4  | 1174.4  | 1175.2  | 1172.0  |
| 5°    | 1229.6 | 1227.2 | 1227.2 | 1224.0 | 1220.0 | 1220.0 | 1216.8  | 1216.0  | 1214.4  | 1211.2  | 1208.8  |
| 7.5°  | 1285.6 | 1283.2 | 1279.2 | 1276.8 | 1275.2 | 1272.8 | 1268.8  | 1267.2  | 1264.0  | 1260.8  | 1257.6  |
| 10°   | 1343.2 | 1340.0 | 1338.4 | 1334.4 | 1332.8 | 1328.0 | 1325.6  | 1326.4  | 1320.0  | 1317.6  | 1318.4  |
| 12.5° | 1400.8 | 1397.6 | 1392.0 | 1390.4 | 1389.6 | 1384.8 | 1382.4  | 1380.8  | 1376.0  | 1375.2  | 1372.8  |
| 15°   | 1452.0 | 1453.6 | 1451.2 | 1447.2 | 1444.0 | 1443.2 | 1440.8  | 1439.2  | 1436.0  | 1432.8  | 1429.6  |
| 17.5° | 1518.4 | 1520.8 | 1517.6 | 1512.0 | 1512.0 | 1511.2 | 1512.0  | 1511.2  | 1505.6  | 1508.0  | 1506.4  |
| 20°   | 1603.2 | 1604.8 | 1596.8 | 1599.2 | 1600.8 | 1600.0 | 1602.4  | 1604.8  | 1603.2  | 1603.2  | 1605.6  |
| 22.5° | 1700.8 | 1703.2 | 1698.4 | 1701.6 | 1706.4 | 1702.4 | 1709.6  | 1708.8  | 1710.4  | 1712.8  | 1713.6  |
| 25°   | 1800.8 | 1805.6 | 1801.6 | 1810.4 | 1807.2 | 1810.4 | 1819.2  | 1816.8  | 1820.8  | 1827.2  | 1829.6  |
| 27.5° | 1900.8 | 1904.0 | 1904.8 | 1910.4 | 1916.0 | 1920.8 | 1932.0  | 1932.0  | 1935.2  | 1946.4  | 1946.4  |
| 30°   | 2005.6 | 2008.8 | 2012.0 | 2020.0 | 2023.2 | 2032.0 | 2043.2  | 2046.4  | 2044.8  | 2060.8  | 2065.6  |
| 32.5° | 2126.4 | 2129.6 | 2135.2 | 2144.8 | 2148.8 | 2157.6 | 2157.6  | 2166.4  | 2172.8  | 2186.4  | 2187.2  |
| 35°   | 2287.2 | 2289.6 | 2287.2 | 2286.4 | 2292.0 | 2304.0 | 2304.8  | 2317.6  | 2323.2  | 2336.8  | 2340.8  |
| 37.5° | 2448.0 | 2447.2 | 2436.8 | 2425.6 | 2426.4 | 2421.6 | 2418.4  | 2424.0  | 2426.4  | 2427.2  | 2436.0  |
| 40°   | 2664.8 | 2644.0 | 2628.0 | 2600.0 | 2587.2 | 2567.2 | 2555.2  | 2554.4  | 2541.6  | 2540.0  | 2542.4  |
| 42.5° | 2948.8 | 2924.8 | 2887.2 | 2840.0 | 2804.0 | 2767.2 | 2740.0  | 2724.0  | 2696.0  | 2681.6  | 2669.6  |
| 45°   | 3345.6 | 3286.4 | 3241.6 | 3185.6 | 3116.0 | 3052.0 | 2984.8  | 2954.4  | 2900.8  | 2868.0  | 2831.2  |
| 47.5° | 3830.4 | 3772.0 | 3703.2 | 3645.6 | 3554.4 | 3465.6 | 3373.6  | 3292.8  | 3199.2  | 3124.8  | 3064.0  |
| 50°   | 4356.8 | 4322.4 | 4272.8 | 4219.2 | 4101.6 | 4043.2 | 3927.2  | 3817.6  | 3716.8  | 3584.0  | 3468.0  |
| 52.5° | 4896.8 | 4916.8 | 4905.6 | 4886.4 | 4812.0 | 4789.6 | 4689.6  | 4556.0  | 4454.4  | 4363.2  | 4161.6  |
| 55°   | 5562.4 | 5586.4 | 5634.4 | 5662.4 | 5653.6 | 5710.4 | 5685.6  | 5581.6  | 5540.8  | 5498.4  | 5355.2  |
| 57.5° | 6580.8 | 6752.0 | 6935.2 | 7096.0 | 7133.6 | 7335.2 | 7292.0  | 7396.0  | 7469.6  | 7416.8  | 7370.4  |
| 60°   | 7666.4 | 8012.0 | 8323.2 | 8648.8 | 8913.6 | 9112.0 | 9374.4  | 9551.2  | 9662.4  | 9862.4  | 9878.4  |
| 62.5° | 8104.0 | 8573.6 | 8968.8 | 9346.4 | 9660.8 | 9936.0 | 10172.8 | 10416.8 | 10616.8 | 10797.6 | 10928.0 |
| 65°   | 7864.0 | 8354.4 | 8833.6 | 9216.8 | 9519.2 | 9756.0 | 10013.6 | 10207.2 | 10404.0 | 10520.0 | 10656.8 |
| 67.5° | 6537.6 | 7187.2 | 7776.8 | 8208.8 | 8622.4 | 8863.2 | 9168.0  | 9358.4  | 9567.2  | 9689.6  | 9777.6  |
| 70°   | 4262.4 | 5108.0 | 5913.6 | 6568.8 | 7127.2 | 7408.0 | 7776.0  | 8036.0  | 8287.2  | 8293.6  | 8440.0  |
| 72.5° | 2300.0 | 3007.2 | 3681.6 | 4351.2 | 4988.0 | 5361.6 | 5724.8  | 6040.8  | 6290.4  | 6184.0  | 6329.6  |
| 75°   | 1280.8 | 1612.0 | 1980.8 | 2383.2 | 2771.2 | 2984.8 | 3256.0  | 3257.6  | 3386.4  | 3184.0  | 3235.2  |
| 77.5° | 1232.0 | 1216.8 | 1222.4 | 1233.6 | 1252.8 | 1212.0 | 1211.2  | 1186.4  | 1148.0  | 1078.4  | 1090.4  |
| 80°   | 1618.4 | 1424.8 | 1285.6 | 1067.2 | 859.2  | 700.8  | 656.8   | 667.2   | 698.4   | 760.8   | 840.0   |
| 82.5° | 2340.0 | 2176.8 | 1943.2 | 1599.2 | 1255.2 | 968.0  | 795.2   | 705.6   | 701.6   | 764.0   | 884.0   |
| 85°   | 1704.0 | 1802.4 | 1787.2 | 1492.0 | 1230.4 | 999.2  | 727.2   | 614.4   | 508.8   | 484.0   | 526.4   |
| 87.5° | 251.2  | 208.0  | 234.4  | 196.0  | 142.4  | 110.4  | 96.8    | 77.6    | 74.4    | 76.0    | 83.2    |
| 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):**

|       | 76°     | 77°     | 78°     | 79°     | 80°     | 81°     | 82°     | 83°     | 84°     | 85°     | 86°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  | 1148.8  |
| 2.5°  | 1172.8  | 1169.6  | 1166.4  | 1168.8  | 1166.4  | 1165.6  | 1163.2  | 1161.6  | 1160.8  | 1160.8  | 1160.8  |
| 5°    | 1208.8  | 1204.8  | 1202.4  | 1201.6  | 1199.2  | 1196.8  | 1196.0  | 1192.0  | 1191.2  | 1191.2  | 1188.8  |
| 7.5°  | 1257.6  | 1254.4  | 1250.4  | 1248.0  | 1246.4  | 1242.4  | 1238.4  | 1237.6  | 1236.8  | 1233.6  | 1231.2  |
| 10°   | 1314.4  | 1309.6  | 1304.8  | 1304.8  | 1301.6  | 1300.8  | 1296.8  | 1291.2  | 1290.4  | 1285.6  | 1284.0  |
| 12.5° | 1368.0  | 1366.4  | 1360.8  | 1359.2  | 1356.8  | 1354.4  | 1352.0  | 1349.6  | 1347.2  | 1343.2  | 1344.8  |
| 15°   | 1432.0  | 1428.0  | 1423.2  | 1424.0  | 1423.2  | 1420.0  | 1416.8  | 1414.4  | 1412.8  | 1411.2  | 1411.2  |
| 17.5° | 1508.8  | 1507.2  | 1506.4  | 1502.4  | 1499.2  | 1501.6  | 1501.6  | 1501.6  | 1497.6  | 1498.4  | 1499.2  |
| 20°   | 1606.4  | 1608.0  | 1606.4  | 1603.2  | 1602.4  | 1604.8  | 1599.2  | 1608.0  | 1603.2  | 1600.0  | 1601.6  |
| 22.5° | 1714.4  | 1720.0  | 1713.6  | 1714.4  | 1718.4  | 1720.0  | 1714.4  | 1721.6  | 1719.2  | 1714.4  | 1718.4  |
| 25°   | 1832.0  | 1836.0  | 1832.8  | 1832.0  | 1834.4  | 1840.0  | 1839.2  | 1838.4  | 1844.0  | 1839.2  | 1841.6  |
| 27.5° | 1952.8  | 1955.2  | 1956.8  | 1959.2  | 1960.8  | 1960.0  | 1963.2  | 1963.2  | 1966.4  | 1960.8  | 1963.2  |
| 30°   | 2072.8  | 2072.8  | 2076.0  | 2079.2  | 2079.2  | 2079.2  | 2085.6  | 2086.4  | 2081.6  | 2083.2  | 2077.6  |
| 32.5° | 2200.8  | 2201.6  | 2204.8  | 2204.8  | 2211.2  | 2212.0  | 2219.2  | 2209.6  | 2219.2  | 2211.2  | 2212.8  |
| 35°   | 2351.2  | 2361.6  | 2363.2  | 2371.2  | 2377.6  | 2380.0  | 2380.0  | 2380.8  | 2389.6  | 2383.2  | 2385.6  |
| 37.5° | 2439.2  | 2441.6  | 2448.0  | 2452.0  | 2452.0  | 2455.2  | 2457.6  | 2455.2  | 2457.6  | 2456.8  | 2459.2  |
| 40°   | 2543.2  | 2540.8  | 2548.0  | 2549.6  | 2546.4  | 2550.4  | 2549.6  | 2547.2  | 2553.6  | 2548.8  | 2552.0  |
| 42.5° | 2669.6  | 2656.0  | 2655.2  | 2661.6  | 2655.2  | 2658.4  | 2657.6  | 2652.0  | 2660.0  | 2662.4  | 2660.0  |
| 45°   | 2804.8  | 2797.6  | 2783.2  | 2783.2  | 2776.8  | 2774.4  | 2775.2  | 2774.4  | 2775.2  | 2784.8  | 2788.0  |
| 47.5° | 3024.8  | 2980.8  | 2956.0  | 2932.8  | 2913.6  | 2912.8  | 2904.0  | 2908.8  | 2915.2  | 2931.2  | 2945.6  |
| 50°   | 3393.6  | 3292.0  | 3229.6  | 3172.0  | 3130.4  | 3116.0  | 3099.2  | 3097.6  | 3103.2  | 3121.6  | 3146.4  |
| 52.5° | 4051.2  | 3910.4  | 3777.6  | 3654.4  | 3547.2  | 3464.8  | 3424.0  | 3402.4  | 3394.4  | 3412.8  | 3436.8  |
| 55°   | 5254.4  | 4988.8  | 4801.6  | 4676.8  | 4410.4  | 4297.6  | 4152.8  | 4086.4  | 4021.6  | 4028.0  | 4068.8  |
| 57.5° | 7310.4  | 7167.2  | 7010.4  | 6792.0  | 6628.8  | 6432.0  | 6070.4  | 5868.8  | 5877.6  | 5924.8  | 5777.6  |
| 60°   | 10004.8 | 9860.0  | 9795.2  | 9596.8  | 9483.2  | 9404.0  | 9212.0  | 8877.6  | 8759.2  | 8736.8  | 8466.4  |
| 62.5° | 11028.0 | 11062.4 | 11113.6 | 11169.6 | 11166.4 | 11200.8 | 11032.8 | 10924.0 | 10787.2 | 10609.6 | 10342.4 |
| 65°   | 10760.8 | 10848.0 | 10952.0 | 11102.4 | 11273.6 | 11400.0 | 11506.4 | 11493.6 | 11365.6 | 11128.8 | 10846.4 |
| 67.5° | 9856.0  | 9942.4  | 10018.4 | 10220.0 | 10500.8 | 10757.6 | 10984.8 | 11139.2 | 11053.6 | 10857.6 | 10528.0 |
| 70°   | 8496.0  | 8558.4  | 8606.4  | 8781.6  | 9089.6  | 9403.2  | 9700.0  | 9959.2  | 9932.8  | 9695.2  | 9432.0  |
| 72.5° | 6156.0  | 6307.2  | 6388.8  | 6376.8  | 6567.2  | 6918.4  | 6960.0  | 7181.6  | 7243.2  | 6987.2  | 6568.0  |
| 75°   | 2999.2  | 3001.6  | 2907.2  | 2876.0  | 2885.6  | 2946.4  | 2830.4  | 2837.6  | 2797.6  | 2616.0  | 2466.4  |
| 77.5° | 1048.0  | 1019.2  | 950.4   | 868.8   | 752.0   | 642.4   | 531.2   | 483.2   | 467.2   | 420.0   | 387.2   |
| 80°   | 903.2   | 945.6   | 932.0   | 864.8   | 741.6   | 591.2   | 441.6   | 327.2   | 279.2   | 262.4   | 246.4   |
| 82.5° | 1025.6  | 1188.8  | 1292.8  | 1287.2  | 1118.4  | 840.0   | 524.0   | 300.8   | 214.4   | 188.0   | 172.8   |
| 85°   | 572.0   | 615.2   | 627.2   | 571.2   | 474.4   | 324.0   | 180.8   | 127.2   | 108.0   | 98.4    | 88.8    |
| 87.5° | 91.2    | 83.2    | 81.6    | 71.2    | 67.2    | 61.6    | 54.4    | 51.2    | 47.2    | 44.8    | 44.8    |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



REPORT NUMBER: P159320

CATALOG NUMBER: VST-E04-LED-E-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 87°     | 88°     | 89°     | 90°    | 91°    | 92°    | 93°    | 94°    | 95°    | 96°    | 97°    |
|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.8  | 1148.8  | 1148.8  | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 |
| 2.5°  | 1160.0  | 1159.2  | 1156.8  | 1154.4 | 1152.8 | 1152.0 | 1151.2 | 1149.6 | 1148.8 | 1148.0 | 1146.4 |
| 5°    | 1187.2  | 1185.6  | 1181.6  | 1177.6 | 1176.0 | 1173.6 | 1171.2 | 1169.6 | 1168.0 | 1167.2 | 1164.0 |
| 7.5°  | 1229.6  | 1228.0  | 1223.2  | 1220.0 | 1219.2 | 1212.8 | 1212.0 | 1209.6 | 1205.6 | 1204.8 | 1200.0 |
| 10°   | 1280.8  | 1280.0  | 1276.0  | 1273.6 | 1272.0 | 1268.8 | 1264.0 | 1260.0 | 1256.0 | 1256.0 | 1252.8 |
| 12.5° | 1340.0  | 1336.8  | 1339.2  | 1333.6 | 1332.0 | 1328.8 | 1326.4 | 1325.6 | 1320.8 | 1316.8 | 1316.0 |
| 15°   | 1409.6  | 1405.6  | 1405.6  | 1404.0 | 1402.4 | 1399.2 | 1398.4 | 1399.2 | 1394.4 | 1396.0 | 1391.2 |
| 17.5° | 1496.0  | 1497.6  | 1496.8  | 1496.8 | 1492.8 | 1492.8 | 1486.4 | 1494.4 | 1488.8 | 1492.8 | 1491.2 |
| 20°   | 1604.0  | 1604.8  | 1603.2  | 1605.6 | 1607.2 | 1606.4 | 1605.6 | 1604.8 | 1607.2 | 1610.4 | 1608.0 |
| 22.5° | 1719.2  | 1719.2  | 1718.4  | 1727.2 | 1717.6 | 1724.8 | 1727.2 | 1722.4 | 1735.2 | 1733.6 | 1736.0 |
| 25°   | 1844.0  | 1844.0  | 1850.4  | 1857.6 | 1859.2 | 1853.6 | 1856.8 | 1852.8 | 1860.8 | 1867.2 | 1868.8 |
| 27.5° | 1960.0  | 1970.4  | 1975.2  | 1970.4 | 1974.4 | 1983.2 | 1982.4 | 1982.4 | 1988.0 | 1986.4 | 2001.6 |
| 30°   | 2079.2  | 2085.6  | 2092.0  | 2088.8 | 2090.4 | 2101.6 | 2102.4 | 2103.2 | 2110.4 | 2120.8 | 2132.0 |
| 32.5° | 2215.2  | 2221.6  | 2218.4  | 2228.8 | 2228.0 | 2241.6 | 2244.0 | 2246.4 | 2268.8 | 2264.8 | 2288.0 |
| 35°   | 2382.4  | 2388.8  | 2385.6  | 2396.8 | 2395.2 | 2400.0 | 2408.8 | 2418.4 | 2422.4 | 2445.6 | 2464.0 |
| 37.5° | 2460.8  | 2460.8  | 2468.0  | 2480.8 | 2485.6 | 2493.6 | 2507.2 | 2519.2 | 2539.2 | 2564.0 | 2592.8 |
| 40°   | 2555.2  | 2557.6  | 2567.2  | 2580.8 | 2589.6 | 2608.0 | 2632.8 | 2649.6 | 2680.0 | 2707.2 | 2740.8 |
| 42.5° | 2669.6  | 2680.0  | 2691.2  | 2709.6 | 2728.8 | 2757.6 | 2792.8 | 2814.4 | 2854.4 | 2889.6 | 2931.2 |
| 45°   | 2803.2  | 2813.6  | 2840.0  | 2873.6 | 2901.6 | 2933.6 | 2962.4 | 3013.6 | 3049.6 | 3086.4 | 3122.4 |
| 47.5° | 2964.8  | 2995.2  | 3016.8  | 3056.8 | 3091.2 | 3133.6 | 3169.6 | 3217.6 | 3256.8 | 3301.6 | 3332.0 |
| 50°   | 3172.0  | 3209.6  | 3237.6  | 3289.6 | 3323.2 | 3370.4 | 3416.0 | 3452.0 | 3492.0 | 3536.0 | 3560.8 |
| 52.5° | 3469.6  | 3508.0  | 3543.2  | 3608.0 | 3649.6 | 3681.6 | 3742.4 | 3787.2 | 3824.0 | 3856.0 | 3883.2 |
| 55°   | 4114.4  | 4103.2  | 4200.8  | 4326.4 | 4340.8 | 4456.8 | 4478.4 | 4516.0 | 4584.0 | 4593.6 | 4669.6 |
| 57.5° | 5956.8  | 5899.2  | 6040.8  | 6224.8 | 6192.8 | 6134.4 | 6378.4 | 6393.6 | 6359.2 | 6451.2 | 6347.2 |
| 60°   | 8506.4  | 8405.6  | 8444.0  | 8494.4 | 8421.6 | 8387.2 | 8399.2 | 8433.6 | 8400.0 | 8363.2 | 8262.4 |
| 62.5° | 10208.8 | 10053.6 | 9942.4  | 9848.8 | 9730.4 | 9644.8 | 9548.8 | 9430.4 | 9398.4 | 9264.0 | 9151.2 |
| 65°   | 10572.0 | 10330.4 | 10154.4 | 9977.6 | 9814.4 | 9663.2 | 9518.4 | 9416.8 | 9282.4 | 9123.2 | 9005.6 |
| 67.5° | 10172.8 | 9873.6  | 9616.0  | 9359.2 | 9174.4 | 8952.0 | 8843.2 | 8677.6 | 8512.0 | 8329.6 | 8221.6 |
| 70°   | 9012.8  | 8700.8  | 8376.8  | 8125.6 | 7874.4 | 7599.2 | 7545.6 | 7349.6 | 7254.4 | 7005.6 | 6962.4 |
| 72.5° | 6220.8  | 6012.8  | 5868.0  | 5557.6 | 5404.8 | 5264.0 | 5219.2 | 5037.6 | 5056.8 | 4784.0 | 4883.2 |
| 75°   | 2212.0  | 2182.4  | 2140.0  | 1964.8 | 1933.6 | 1879.2 | 1864.8 | 1852.0 | 1981.6 | 1801.6 | 1932.0 |
| 77.5° | 380.0   | 377.6   | 356.0   | 345.6  | 365.6  | 352.8  | 356.0  | 349.6  | 387.2  | 392.8  | 384.0  |
| 80°   | 236.0   | 229.6   | 222.4   | 217.6  | 218.4  | 213.6  | 214.4  | 216.0  | 218.4  | 217.6  | 220.0  |
| 82.5° | 161.6   | 156.0   | 152.8   | 149.6  | 154.4  | 156.0  | 160.0  | 164.0  | 170.4  | 174.4  | 179.2  |
| 85°   | 88.0    | 80.8    | 80.8    | 80.0   | 86.4   | 91.2   | 97.6   | 105.6  | 116.8  | 126.4  | 136.8  |
| 87.5° | 44.8    | 43.2    | 44.0    | 45.6   | 51.2   | 55.2   | 63.2   | 70.4   | 80.0   | 90.4   | 100.0  |
| 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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CATALOG NUMBER: VST-E04-LED-E-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 98°    | 99°    | 100°   | 101°   | 102°   | 103°   | 104°   | 105°   | 115°   | 125°   | 135°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 |
| 2.5°  | 1145.6 | 1145.6 | 1144.8 | 1144.8 | 1144.0 | 1143.2 | 1142.4 | 1140.0 | 1131.2 | 1123.2 | 1117.6 |
| 5°    | 1163.2 | 1160.8 | 1160.0 | 1157.6 | 1156.8 | 1155.2 | 1152.8 | 1150.4 | 1134.4 | 1120.0 | 1109.6 |
| 7.5°  | 1199.2 | 1196.0 | 1194.4 | 1192.0 | 1189.6 | 1186.4 | 1183.2 | 1180.8 | 1161.6 | 1144.8 | 1132.0 |
| 10°   | 1246.4 | 1244.8 | 1244.0 | 1240.8 | 1240.8 | 1236.0 | 1235.2 | 1229.6 | 1208.8 | 1193.6 | 1182.4 |
| 12.5° | 1312.0 | 1308.8 | 1308.0 | 1304.0 | 1305.6 | 1304.0 | 1302.4 | 1299.2 | 1284.0 | 1266.4 | 1251.2 |
| 15°   | 1393.6 | 1393.6 | 1389.6 | 1386.4 | 1387.2 | 1385.6 | 1388.8 | 1384.8 | 1375.2 | 1359.2 | 1334.4 |
| 17.5° | 1492.0 | 1490.4 | 1492.0 | 1489.6 | 1491.2 | 1492.8 | 1488.8 | 1489.6 | 1484.8 | 1464.8 | 1428.0 |
| 20°   | 1606.4 | 1604.0 | 1613.6 | 1609.6 | 1618.4 | 1610.4 | 1612.0 | 1614.4 | 1614.4 | 1588.0 | 1538.4 |
| 22.5° | 1737.6 | 1736.0 | 1736.0 | 1744.0 | 1747.2 | 1748.0 | 1751.2 | 1753.6 | 1760.0 | 1726.4 | 1647.2 |
| 25°   | 1868.8 | 1874.4 | 1875.2 | 1885.6 | 1890.4 | 1890.4 | 1892.8 | 1901.6 | 1920.8 | 1874.4 | 1772.0 |
| 27.5° | 2002.4 | 2016.0 | 2019.2 | 2026.4 | 2033.6 | 2040.8 | 2046.4 | 2052.8 | 2084.0 | 2033.6 | 1900.0 |
| 30°   | 2136.0 | 2151.2 | 2162.4 | 2170.4 | 2179.2 | 2196.8 | 2200.0 | 2212.8 | 2264.8 | 2203.2 | 2021.6 |
| 32.5° | 2292.8 | 2314.4 | 2328.8 | 2339.2 | 2352.8 | 2369.6 | 2379.2 | 2395.2 | 2445.6 | 2344.8 | 2110.4 |
| 35°   | 2480.0 | 2492.8 | 2513.6 | 2531.2 | 2539.2 | 2568.0 | 2583.2 | 2587.2 | 2625.6 | 2467.2 | 2176.0 |
| 37.5° | 2609.6 | 2631.2 | 2667.2 | 2692.0 | 2706.4 | 2722.4 | 2748.0 | 2764.8 | 2801.6 | 2578.4 | 2208.8 |
| 40°   | 2774.4 | 2807.2 | 2836.0 | 2872.8 | 2896.0 | 2908.0 | 2933.6 | 2947.2 | 2952.0 | 2673.6 | 2198.4 |
| 42.5° | 2975.2 | 3004.8 | 3043.2 | 3072.8 | 3090.4 | 3104.0 | 3124.8 | 3130.4 | 3068.0 | 2718.4 | 2142.4 |
| 45°   | 3164.0 | 3209.6 | 3242.4 | 3264.0 | 3276.8 | 3284.0 | 3296.8 | 3297.6 | 3164.0 | 2696.0 | 2046.4 |
| 47.5° | 3367.2 | 3400.0 | 3430.4 | 3445.6 | 3444.0 | 3445.6 | 3440.8 | 3437.6 | 3212.0 | 2618.4 | 1923.2 |
| 50°   | 3592.0 | 3613.6 | 3626.4 | 3633.6 | 3637.6 | 3622.4 | 3600.8 | 3586.4 | 3216.0 | 2508.0 | 1798.4 |
| 52.5° | 3893.6 | 3920.8 | 3918.4 | 3917.6 | 3885.6 | 3871.2 | 3813.6 | 3784.0 | 3192.8 | 2378.4 | 1657.6 |
| 55°   | 4657.6 | 4631.2 | 4579.2 | 4604.8 | 4474.4 | 4406.4 | 4316.8 | 4233.6 | 3223.2 | 2255.2 | 1494.4 |
| 57.5° | 6388.8 | 6399.2 | 6251.2 | 6172.0 | 5952.0 | 5676.8 | 5455.2 | 5240.0 | 3496.8 | 2180.0 | 1281.6 |
| 60°   | 8195.2 | 8059.2 | 7871.2 | 7584.8 | 7301.6 | 6892.8 | 6498.4 | 6125.6 | 3769.6 | 2101.6 | 1029.6 |
| 62.5° | 8984.0 | 8790.4 | 8506.4 | 8136.0 | 7691.2 | 7191.2 | 6700.0 | 6245.6 | 3637.6 | 1848.0 | 748.8  |
| 65°   | 8824.0 | 8528.0 | 8214.4 | 7780.8 | 7240.0 | 6692.0 | 6118.4 | 5654.4 | 3043.2 | 1378.4 | 461.6  |
| 67.5° | 7987.2 | 7736.0 | 7404.8 | 6890.4 | 6312.0 | 5741.6 | 5216.0 | 4696.0 | 2260.8 | 859.2  | 258.4  |
| 70°   | 6741.6 | 6496.0 | 6160.0 | 5633.6 | 5056.0 | 4510.4 | 3953.6 | 3529.6 | 1440.8 | 414.4  | 186.4  |
| 72.5° | 4676.8 | 4477.6 | 4240.0 | 3864.8 | 3358.4 | 2862.4 | 2485.6 | 2160.0 | 798.4  | 220.0  | 170.4  |
| 75°   | 1899.2 | 1900.0 | 1856.8 | 1698.4 | 1435.2 | 1237.6 | 1055.2 | 895.2  | 333.6  | 187.2  | 168.0  |
| 77.5° | 430.4  | 437.6  | 478.4  | 453.6  | 408.8  | 382.4  | 342.4  | 302.4  | 203.2  | 192.8  | 169.6  |
| 80°   | 217.6  | 218.4  | 216.0  | 216.8  | 214.4  | 215.2  | 212.0  | 209.6  | 190.4  | 198.4  | 169.6  |
| 82.5° | 181.6  | 185.6  | 184.8  | 184.8  | 185.6  | 185.6  | 185.6  | 184.8  | 197.6  | 208.8  | 164.0  |
| 85°   | 144.0  | 152.0  | 158.4  | 164.8  | 172.0  | 176.8  | 179.2  | 181.6  | 192.0  | 205.6  | 148.8  |
| 87.5° | 108.8  | 118.4  | 126.4  | 132.8  | 144.0  | 144.0  | 152.0  | 157.6  | 157.6  | 160.8  | 78.4   |
| 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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CATALOG NUMBER: VST-E04-LED-E-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1148.8 | 1148.8 | 1148.8 | 1148.8 | 1148.8 |
| 2.5°  | 1109.6 | 1106.4 | 1103.2 | 1101.6 | 1098.4 |
| 5°    | 1101.6 | 1095.2 | 1091.2 | 1091.2 | 1088.0 |
| 7.5°  | 1124.8 | 1122.4 | 1116.8 | 1113.6 | 1116.8 |
| 10°   | 1174.4 | 1170.4 | 1164.0 | 1159.2 | 1161.6 |
| 12.5° | 1240.8 | 1224.8 | 1212.0 | 1206.4 | 1202.4 |
| 15°   | 1309.6 | 1277.6 | 1252.0 | 1237.6 | 1233.6 |
| 17.5° | 1383.2 | 1327.2 | 1288.8 | 1267.2 | 1263.2 |
| 20°   | 1458.4 | 1388.8 | 1334.4 | 1306.4 | 1305.6 |
| 22.5° | 1548.8 | 1456.0 | 1386.4 | 1349.6 | 1347.2 |
| 25°   | 1644.0 | 1516.0 | 1424.0 | 1376.8 | 1372.0 |
| 27.5° | 1726.4 | 1564.0 | 1447.2 | 1391.2 | 1386.4 |
| 30°   | 1795.2 | 1600.0 | 1466.4 | 1401.6 | 1395.2 |
| 32.5° | 1844.8 | 1620.8 | 1474.4 | 1404.8 | 1397.6 |
| 35°   | 1860.8 | 1612.8 | 1452.0 | 1376.0 | 1368.0 |
| 37.5° | 1839.2 | 1560.8 | 1389.6 | 1305.6 | 1296.0 |
| 40°   | 1774.4 | 1469.6 | 1288.0 | 1201.6 | 1189.6 |
| 42.5° | 1675.2 | 1357.6 | 1165.6 | 1083.2 | 1068.0 |
| 45°   | 1552.8 | 1231.2 | 1044.0 | 952.0  | 944.8  |
| 47.5° | 1424.8 | 1098.4 | 907.2  | 824.0  | 815.2  |
| 50°   | 1286.4 | 944.8  | 773.6  | 683.2  | 683.2  |
| 52.5° | 1121.6 | 795.2  | 618.4  | 550.4  | 544.8  |
| 55°   | 932.0  | 626.4  | 492.8  | 440.8  | 433.6  |
| 57.5° | 728.0  | 481.6  | 393.6  | 363.2  | 355.2  |
| 60°   | 535.2  | 361.6  | 316.8  | 300.0  | 296.8  |
| 62.5° | 363.2  | 275.2  | 255.2  | 248.0  | 247.2  |
| 65°   | 245.6  | 214.4  | 208.8  | 206.4  | 207.2  |
| 67.5° | 188.8  | 178.4  | 176.0  | 175.2  | 175.2  |
| 70°   | 164.0  | 157.6  | 155.2  | 156.0  | 155.2  |
| 72.5° | 154.4  | 145.6  | 146.4  | 148.0  | 147.2  |
| 75°   | 151.2  | 140.0  | 143.2  | 144.0  | 140.8  |
| 77.5° | 148.8  | 133.6  | 141.6  | 144.0  | 135.2  |
| 80°   | 144.0  | 128.0  | 147.2  | 148.0  | 132.8  |
| 82.5° | 132.0  | 113.6  | 147.2  | 136.0  | 120.0  |
| 85°   | 112.0  | 86.4   | 166.4  | 118.4  | 88.8   |
| 87.5° | 71.2   | 51.2   | 112.8  | 80.8   | 53.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)