

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: P162115

Luminaire Tested: **OVF-E04-LED-E-U-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P162115
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33694)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVF-E04-LED-E-U-T2-8030
Description: OVF LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10123.1 lumens
Efficiency: N/A
Efficacy: 104.1 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

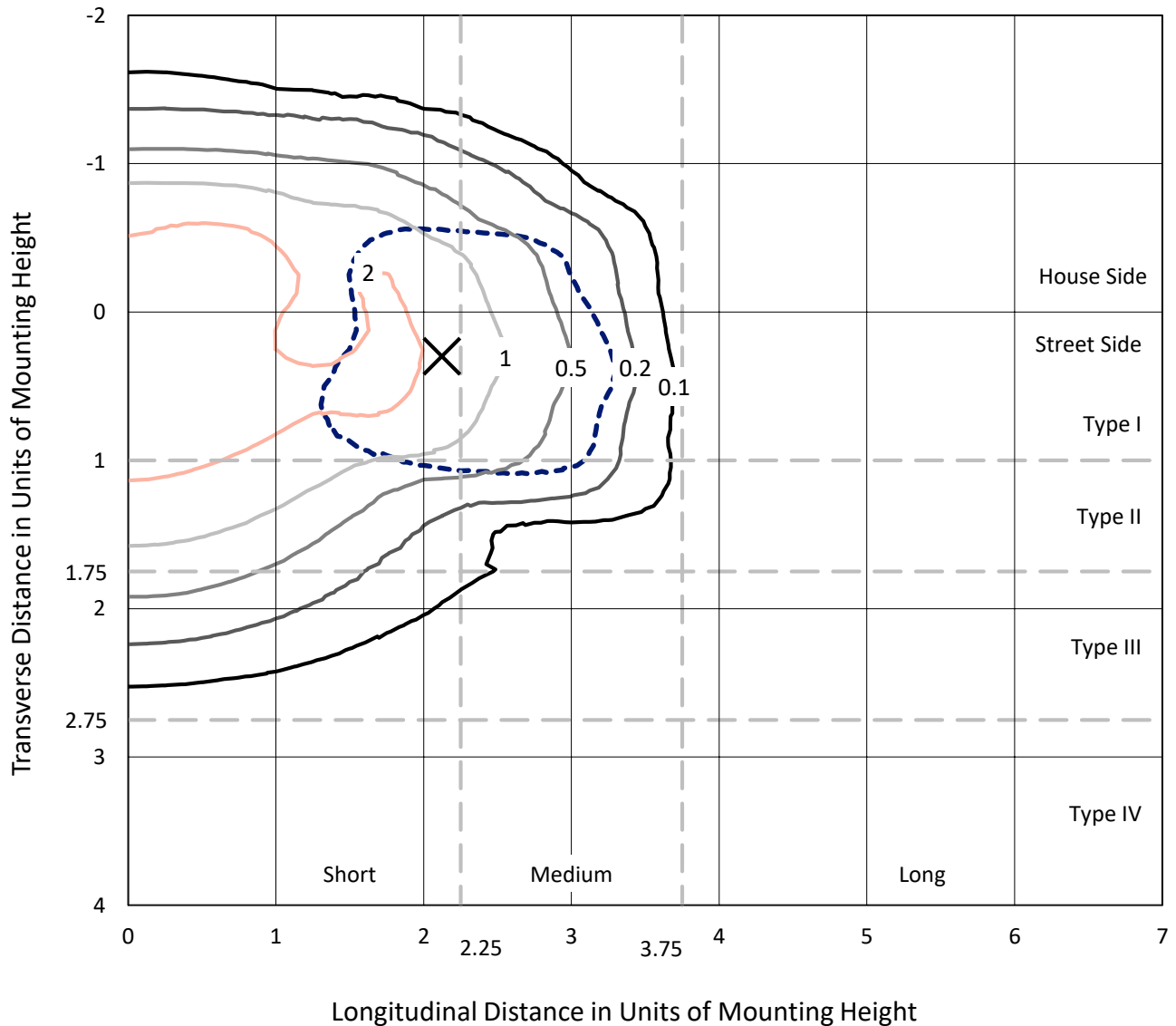
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

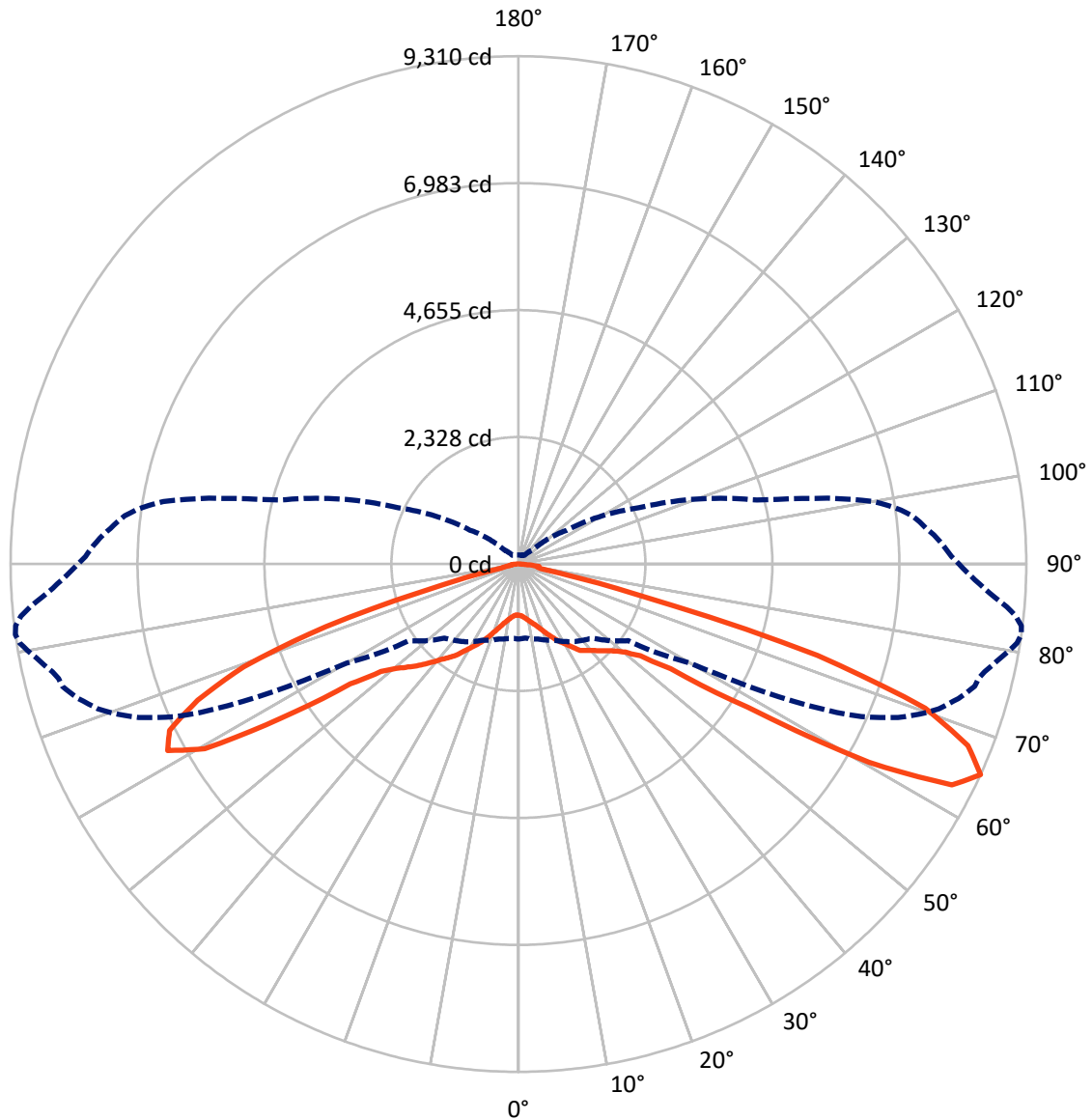
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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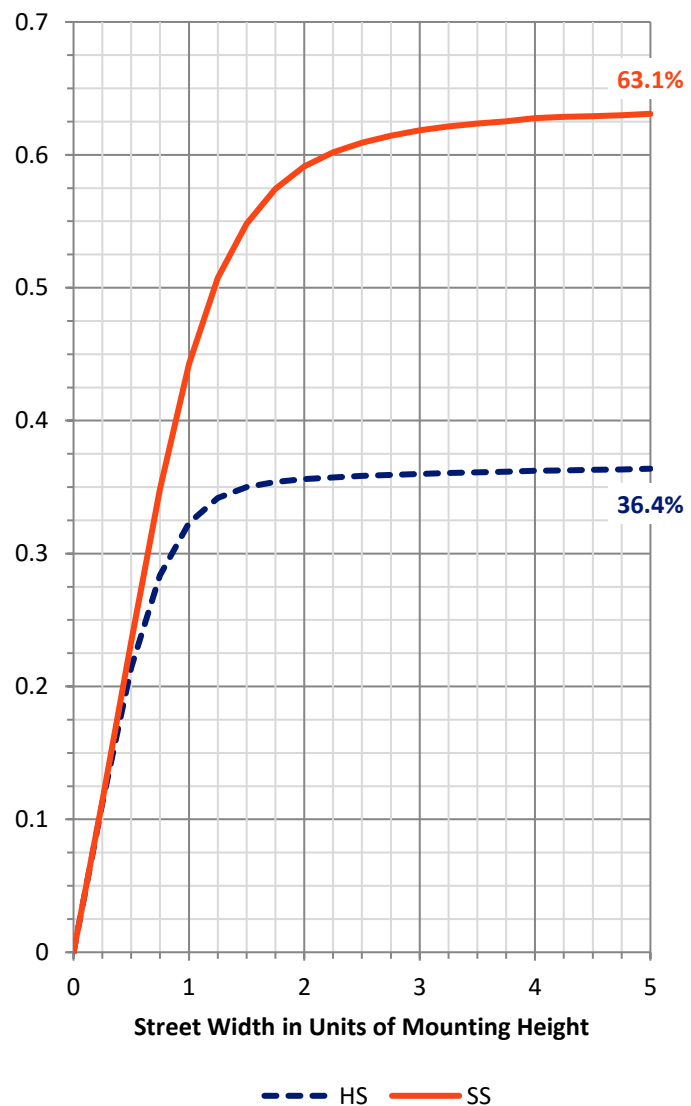
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3726.4 | 0.0 | 3726.4 |
| | % Fixture | 36.8 | 0.0 | 36.8 |
| Street Side | Lumens | 6396.7 | 0.0 | 6396.7 |
| | % Fixture | 63.2 | 0.0 | 63.2 |
| Total | Lumens | 10123.1 | 0.0 | 10123.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 95.2 | 0.9 |
| 10°-20° | 335.2 | 3.3 |
| 20°-30° | 664.9 | 6.6 |
| 30°-40° | 1134.6 | 11.2 |
| 40°-50° | 1701.3 | 16.8 |
| 50°-60° | 2368.1 | 23.4 |
| 60°-70° | 2720.6 | 26.9 |
| 70°-80° | 938.9 | 9.3 |
| 80°-90° | 164.2 | 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° | 10123.1 | 100.0 |
| 0°-180° | 10123.1 | 100.0 |

Coefficient of Utilization



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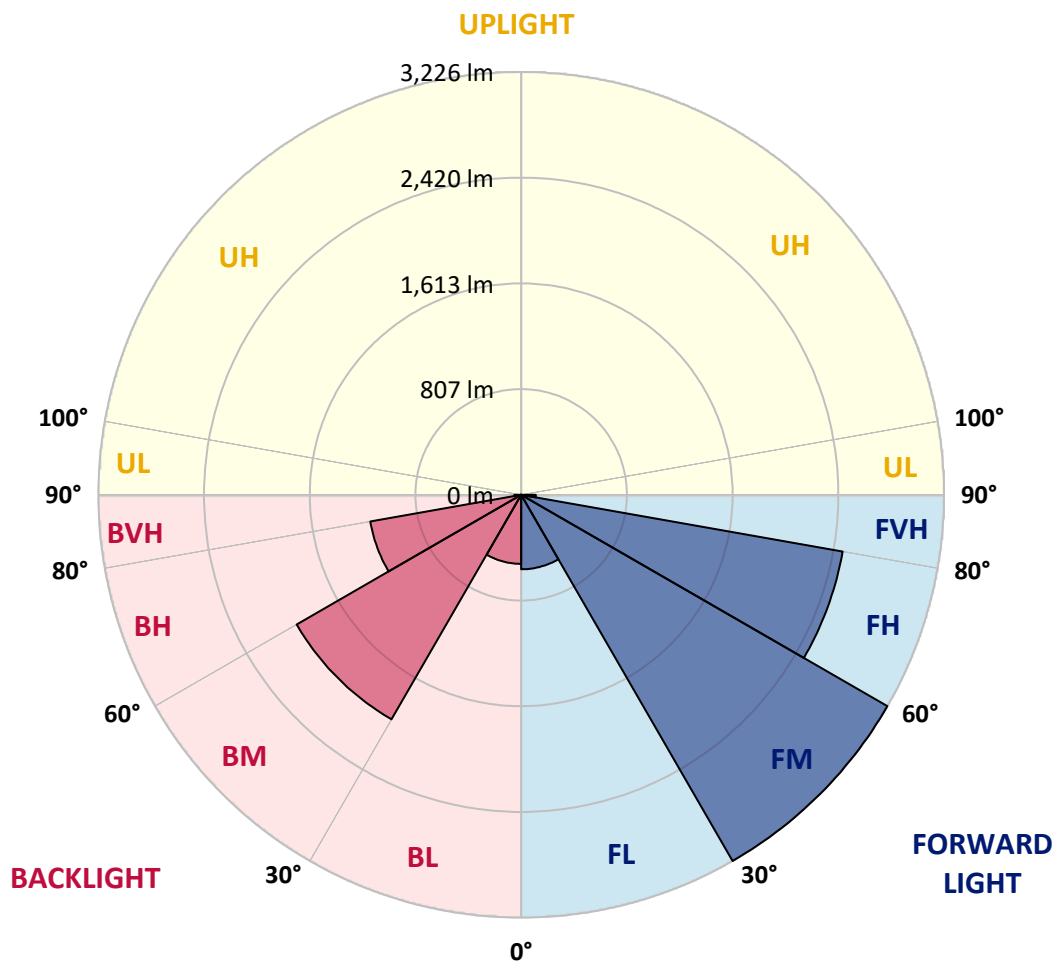
CATALOG NUMBER: OVF-E04-LED-E-U-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 568.2 | 5.6 | | | |
| FM (30°-60°) | 3226.3 | 31.9 | | | |
| FH (60°-80°) | 2490.6 | 24.6 | | | G2/5000 |
| FVH (80°-90°) | 111.5 | 1.1 | | | G2/225 |
| BL (0°-30°) | 527.1 | 5.2 | B2/1000 | | |
| BM (30°-60°) | 1977.7 | 19.5 | B2/2500 | | |
| BH (60°-80°) | 1168.9 | 11.5 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 52.7 | 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° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 989.8 | 989.2 | 988.5 | 985.8 | 984.4 | 979.0 | 973.6 | 970.3 | 967.6 | 968.9 | 964.9 |
| 5° | 1047.2 | 1047.2 | 1044.5 | 1041.1 | 1037.1 | 1029.7 | 1016.2 | 1009.4 | 1008.1 | 1008.1 | 1003.3 |
| 7.5° | 1106.0 | 1110.0 | 1102.6 | 1099.9 | 1093.1 | 1081.7 | 1066.1 | 1057.4 | 1054.7 | 1054.7 | 1050.6 |
| 10° | 1180.2 | 1178.2 | 1170.1 | 1164.7 | 1151.2 | 1135.7 | 1114.7 | 1104.6 | 1100.6 | 1103.9 | 1097.2 |
| 12.5° | 1258.6 | 1257.9 | 1245.7 | 1235.6 | 1216.7 | 1191.7 | 1164.0 | 1150.5 | 1147.8 | 1147.8 | 1143.8 |
| 15° | 1338.2 | 1338.9 | 1325.4 | 1306.5 | 1276.8 | 1243.0 | 1212.0 | 1199.1 | 1195.8 | 1194.4 | 1189.7 |
| 17.5° | 1399.0 | 1405.8 | 1392.2 | 1367.9 | 1331.5 | 1294.3 | 1261.3 | 1248.4 | 1247.8 | 1246.4 | 1241.0 |
| 20° | 1433.4 | 1434.8 | 1427.4 | 1409.8 | 1377.4 | 1341.6 | 1318.7 | 1312.6 | 1311.9 | 1312.6 | 1313.9 |
| 22.5° | 1432.1 | 1434.1 | 1431.4 | 1424.7 | 1403.7 | 1384.1 | 1381.4 | 1384.8 | 1386.8 | 1384.8 | 1389.5 |
| 25° | 1421.3 | 1424.0 | 1424.0 | 1427.4 | 1422.0 | 1428.7 | 1450.3 | 1459.8 | 1460.4 | 1461.8 | 1471.9 |
| 27.5° | 1444.9 | 1447.6 | 1446.9 | 1453.0 | 1457.7 | 1481.4 | 1520.5 | 1537.4 | 1539.4 | 1544.2 | 1553.6 |
| 30° | 1554.3 | 1555.0 | 1542.8 | 1542.1 | 1546.9 | 1565.8 | 1605.6 | 1625.2 | 1623.2 | 1632.6 | 1638.7 |
| 32.5° | 1727.1 | 1732.5 | 1720.4 | 1707.6 | 1705.5 | 1708.2 | 1715.7 | 1729.2 | 1727.1 | 1731.9 | 1740.0 |
| 35° | 1924.3 | 1925.0 | 1918.2 | 1925.6 | 1929.7 | 1911.5 | 1876.4 | 1873.0 | 1862.2 | 1864.2 | 1866.9 |
| 37.5° | 2105.3 | 2110.0 | 2122.8 | 2170.1 | 2197.1 | 2152.5 | 2083.6 | 2040.4 | 2033.7 | 2030.3 | 2006.7 |
| 40° | 2274.7 | 2298.4 | 2329.4 | 2390.9 | 2428.0 | 2444.2 | 2346.3 | 2259.2 | 2235.6 | 2226.1 | 2189.0 |
| 42.5° | 2473.2 | 2485.4 | 2521.8 | 2592.1 | 2641.4 | 2715.0 | 2649.5 | 2553.6 | 2525.9 | 2485.4 | 2438.8 |
| 45° | 2641.4 | 2649.5 | 2672.4 | 2731.8 | 2835.1 | 2958.0 | 2965.4 | 2898.6 | 2877.0 | 2836.5 | 2768.3 |
| 47.5° | 2754.1 | 2753.4 | 2770.3 | 2828.4 | 2962.7 | 3150.4 | 3261.9 | 3259.2 | 3234.2 | 3220.0 | 3161.9 |
| 50° | 2798.0 | 2797.3 | 2808.1 | 2872.9 | 3019.5 | 3265.2 | 3511.0 | 3595.4 | 3594.7 | 3600.1 | 3570.4 |
| 52.5° | 2806.1 | 2805.4 | 2806.8 | 2858.8 | 3008.0 | 3305.1 | 3690.6 | 3889.8 | 3918.8 | 3955.3 | 3988.4 |
| 55° | 2745.3 | 2752.1 | 2766.9 | 2821.6 | 2964.8 | 3288.9 | 3823.6 | 4165.9 | 4235.5 | 4309.8 | 4429.9 |
| 57.5° | 2604.9 | 2617.7 | 2669.0 | 2766.9 | 2918.9 | 3249.0 | 3916.1 | 4507.6 | 4648.7 | 4828.3 | 5153.7 |
| 60° | 2403.7 | 2415.2 | 2486.1 | 2615.7 | 2785.2 | 3075.5 | 3808.8 | 4650.7 | 4918.8 | 5230.7 | 5897.8 |
| 62.5° | 2047.9 | 2080.3 | 2118.1 | 2209.9 | 2387.5 | 2621.1 | 3326.7 | 4409.0 | 4824.3 | 5282.0 | 6200.3 |
| 65° | 1375.4 | 1361.9 | 1424.7 | 1541.5 | 1736.6 | 1918.2 | 2450.9 | 3636.6 | 4161.9 | 4791.8 | 5928.2 |
| 67.5° | 851.4 | 853.4 | 896.0 | 1010.1 | 1157.3 | 1298.4 | 1553.6 | 2317.9 | 2783.8 | 3382.7 | 4749.3 |
| 70° | 703.6 | 711.7 | 746.1 | 852.1 | 977.7 | 1137.0 | 1153.2 | 1228.9 | 1437.5 | 1727.1 | 2933.7 |
| 72.5° | 558.4 | 561.8 | 596.9 | 685.3 | 862.9 | 1081.7 | 1369.3 | 933.8 | 917.6 | 961.5 | 1488.1 |
| 75° | 346.4 | 349.1 | 366.6 | 423.3 | 559.7 | 842.6 | 1507.7 | 1073.6 | 1006.0 | 949.3 | 958.8 |
| 77.5° | 178.9 | 184.3 | 193.8 | 219.4 | 293.7 | 470.6 | 1187.0 | 1361.2 | 1284.2 | 1207.2 | 1056.7 |
| 80° | 101.3 | 101.3 | 110.1 | 116.1 | 139.1 | 191.8 | 603.6 | 1473.3 | 1609.7 | 1642.7 | 1475.3 |
| 82.5° | 45.2 | 50.6 | 68.2 | 72.9 | 79.7 | 87.8 | 199.9 | 885.2 | 1228.2 | 1534.0 | 1895.9 |
| 85° | 27.0 | 26.3 | 43.2 | 47.3 | 49.3 | 41.9 | 74.9 | 361.2 | 573.9 | 839.9 | 1256.5 |
| 87.5° | 10.8 | 11.5 | 18.2 | 19.6 | 23.0 | 16.9 | 28.4 | 77.6 | 114.1 | 165.4 | 233.6 |
| 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° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 964.2 | 964.2 | 963.5 | 962.8 | 962.1 | 960.1 | 959.4 | 958.1 | 957.4 | 955.4 | 954.7 |
| 5° | 1002.7 | 1000.6 | 1000.0 | 998.6 | 997.9 | 995.2 | 995.2 | 992.5 | 990.5 | 987.8 | 987.1 |
| 7.5° | 1048.6 | 1045.9 | 1043.8 | 1042.5 | 1041.8 | 1037.1 | 1037.1 | 1033.0 | 1032.4 | 1029.0 | 1027.6 |
| 10° | 1095.2 | 1093.1 | 1090.4 | 1089.1 | 1088.4 | 1085.7 | 1083.0 | 1080.3 | 1078.3 | 1076.3 | 1073.6 |
| 12.5° | 1141.8 | 1137.7 | 1136.3 | 1134.3 | 1133.0 | 1130.9 | 1130.3 | 1124.2 | 1124.2 | 1122.2 | 1119.5 |
| 15° | 1187.0 | 1186.3 | 1181.6 | 1180.9 | 1179.6 | 1180.2 | 1176.2 | 1176.9 | 1174.8 | 1171.5 | 1170.1 |
| 17.5° | 1242.4 | 1237.6 | 1239.7 | 1236.3 | 1237.0 | 1235.6 | 1234.3 | 1233.6 | 1234.9 | 1234.3 | 1235.6 |
| 20° | 1311.2 | 1309.9 | 1311.9 | 1307.2 | 1311.9 | 1312.6 | 1311.2 | 1314.6 | 1313.2 | 1314.6 | 1310.5 |
| 22.5° | 1392.9 | 1388.2 | 1388.2 | 1391.6 | 1393.6 | 1399.7 | 1396.3 | 1399.0 | 1401.7 | 1403.7 | 1401.0 |
| 25° | 1475.3 | 1473.9 | 1476.6 | 1479.3 | 1483.4 | 1488.8 | 1487.4 | 1488.1 | 1493.5 | 1496.9 | 1497.6 |
| 27.5° | 1559.0 | 1559.0 | 1567.1 | 1567.1 | 1572.5 | 1578.6 | 1580.6 | 1583.3 | 1587.4 | 1592.1 | 1592.1 |
| 30° | 1645.4 | 1645.4 | 1652.9 | 1659.6 | 1662.3 | 1669.8 | 1673.8 | 1677.9 | 1685.3 | 1686.6 | 1692.7 |
| 32.5° | 1744.0 | 1746.0 | 1753.5 | 1757.5 | 1763.6 | 1772.4 | 1773.7 | 1778.5 | 1787.2 | 1789.9 | 1794.7 |
| 35° | 1872.3 | 1865.6 | 1872.3 | 1879.7 | 1883.1 | 1880.4 | 1895.3 | 1901.3 | 1907.4 | 1910.8 | 1916.9 |
| 37.5° | 2004.6 | 1993.2 | 1993.8 | 1992.5 | 1984.4 | 1989.1 | 1989.1 | 1987.8 | 1991.8 | 1991.1 | 1993.8 |
| 40° | 2172.1 | 2151.8 | 2145.8 | 2132.9 | 2115.4 | 2105.9 | 2095.8 | 2094.4 | 2084.3 | 2088.4 | 2080.9 |
| 42.5° | 2401.7 | 2371.3 | 2355.1 | 2315.2 | 2293.6 | 2268.0 | 2243.0 | 2221.4 | 2209.9 | 2197.1 | 2187.6 |
| 45° | 2717.0 | 2681.2 | 2642.0 | 2577.9 | 2540.8 | 2489.4 | 2456.4 | 2407.1 | 2374.0 | 2346.3 | 2326.7 |
| 47.5° | 3112.6 | 3052.5 | 3020.8 | 2960.7 | 2895.9 | 2818.3 | 2747.4 | 2678.5 | 2622.4 | 2561.7 | 2513.7 |
| 50° | 3572.4 | 3497.5 | 3472.5 | 3392.8 | 3356.4 | 3269.3 | 3193.7 | 3108.6 | 3020.8 | 2929.0 | 2841.2 |
| 52.5° | 3979.6 | 3970.8 | 3980.9 | 3927.6 | 3926.2 | 3882.4 | 3798.6 | 3699.4 | 3617.7 | 3525.2 | 3409.7 |
| 55° | 4467.8 | 4554.9 | 4573.8 | 4566.3 | 4606.2 | 4604.8 | 4596.7 | 4586.6 | 4521.8 | 4390.8 | 4350.9 |
| 57.5° | 5329.3 | 5427.2 | 5571.7 | 5637.2 | 5781.7 | 5798.6 | 5932.2 | 5880.3 | 5979.5 | 5952.5 | 5970.7 |
| 60° | 6206.4 | 6506.8 | 6781.0 | 6989.6 | 7192.2 | 7376.5 | 7602.0 | 7698.5 | 7770.8 | 7883.6 | 8002.4 |
| 62.5° | 6598.7 | 6977.4 | 7304.2 | 7601.3 | 7853.2 | 8086.8 | 8280.6 | 8464.2 | 8608.7 | 8738.3 | 8838.3 |
| 65° | 6440.0 | 6879.5 | 7198.2 | 7508.1 | 7743.1 | 7960.5 | 8153.0 | 8290.7 | 8434.5 | 8552.0 | 8658.0 |
| 67.5° | 5361.7 | 5947.1 | 6363.0 | 6714.8 | 7009.9 | 7257.6 | 7457.5 | 7647.2 | 7749.2 | 7877.5 | 7934.9 |
| 70° | 3551.5 | 4302.3 | 4890.4 | 5365.8 | 5833.7 | 6114.5 | 6351.5 | 6572.3 | 6688.5 | 6792.4 | 6856.6 |
| 72.5° | 1950.6 | 2463.8 | 3091.7 | 3656.8 | 4106.5 | 4475.2 | 4751.3 | 4960.6 | 5080.2 | 5169.3 | 5076.8 |
| 75° | 1105.3 | 1358.5 | 1665.7 | 1978.3 | 2319.3 | 2579.2 | 2652.2 | 2741.3 | 2762.2 | 2716.3 | 2597.5 |
| 77.5° | 1016.2 | 1016.2 | 1016.8 | 1009.4 | 1024.3 | 1042.5 | 1031.7 | 1013.5 | 931.1 | 912.9 | 887.2 |
| 80° | 1321.4 | 1177.5 | 1023.6 | 840.6 | 685.3 | 578.0 | 544.9 | 547.6 | 573.9 | 625.2 | 681.9 |
| 82.5° | 1873.0 | 1731.2 | 1509.1 | 1230.2 | 979.0 | 768.4 | 630.0 | 566.5 | 565.8 | 617.1 | 690.7 |
| 85° | 1365.9 | 1377.4 | 1328.1 | 1174.8 | 937.2 | 738.0 | 596.2 | 457.8 | 413.2 | 413.2 | 407.8 |
| 87.5° | 239.0 | 246.4 | 212.7 | 190.4 | 133.0 | 93.9 | 84.4 | 74.3 | 73.6 | 76.3 | 70.2 |
| 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° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 954.7 | 953.4 | 952.0 | 951.3 | 951.3 | 950.0 | 950.0 | 948.6 | 949.3 | 948.6 | 946.6 |
| 5° | 985.8 | 985.1 | 983.1 | 979.7 | 979.0 | 976.3 | 977.0 | 974.3 | 974.3 | 973.0 | 969.6 |
| 7.5° | 1024.9 | 1023.6 | 1022.2 | 1019.5 | 1016.8 | 1016.8 | 1012.1 | 1012.1 | 1008.7 | 1007.4 | 1004.7 |
| 10° | 1071.5 | 1067.5 | 1065.5 | 1062.8 | 1062.1 | 1061.4 | 1056.7 | 1056.7 | 1052.6 | 1052.0 | 1049.9 |
| 12.5° | 1117.4 | 1114.7 | 1112.7 | 1111.4 | 1108.0 | 1107.3 | 1105.3 | 1103.3 | 1101.2 | 1099.9 | 1099.2 |
| 15° | 1167.4 | 1166.1 | 1164.0 | 1164.0 | 1164.0 | 1160.7 | 1158.6 | 1157.3 | 1157.3 | 1155.3 | 1156.6 |
| 17.5° | 1232.2 | 1234.3 | 1231.6 | 1230.2 | 1228.2 | 1231.6 | 1228.2 | 1228.2 | 1230.2 | 1230.2 | 1225.5 |
| 20° | 1312.6 | 1315.3 | 1312.6 | 1313.2 | 1311.9 | 1312.6 | 1313.2 | 1314.6 | 1317.3 | 1312.6 | 1313.2 |
| 22.5° | 1401.7 | 1402.4 | 1404.4 | 1402.4 | 1405.8 | 1403.7 | 1407.8 | 1411.2 | 1410.5 | 1409.1 | 1409.8 |
| 25° | 1498.9 | 1496.9 | 1497.6 | 1503.7 | 1508.4 | 1507.0 | 1507.7 | 1513.1 | 1511.8 | 1510.4 | 1511.1 |
| 27.5° | 1597.5 | 1596.2 | 1598.2 | 1603.6 | 1609.0 | 1608.3 | 1607.0 | 1611.0 | 1611.0 | 1607.6 | 1609.0 |
| 30° | 1695.4 | 1697.4 | 1700.8 | 1700.8 | 1703.5 | 1706.2 | 1704.2 | 1708.9 | 1709.6 | 1706.9 | 1710.3 |
| 32.5° | 1798.7 | 1802.8 | 1801.4 | 1810.9 | 1810.9 | 1811.5 | 1813.6 | 1812.9 | 1819.6 | 1814.2 | 1816.3 |
| 35° | 1922.9 | 1924.3 | 1932.4 | 1939.2 | 1943.2 | 1946.6 | 1946.6 | 1948.6 | 1952.0 | 1949.3 | 1953.3 |
| 37.5° | 1998.6 | 2001.3 | 2004.0 | 2008.0 | 2008.0 | 2008.0 | 2011.4 | 2012.1 | 2014.1 | 2013.4 | 2014.8 |
| 40° | 2081.6 | 2082.3 | 2083.0 | 2083.6 | 2086.3 | 2087.7 | 2084.3 | 2089.0 | 2085.7 | 2087.0 | 2089.0 |
| 42.5° | 2182.2 | 2172.8 | 2174.1 | 2172.1 | 2176.8 | 2170.7 | 2172.1 | 2177.5 | 2174.8 | 2178.8 | 2178.8 |
| 45° | 2299.0 | 2288.2 | 2278.8 | 2273.4 | 2273.4 | 2265.3 | 2266.6 | 2268.6 | 2272.0 | 2277.4 | 2286.9 |
| 47.5° | 2471.9 | 2434.7 | 2416.5 | 2397.6 | 2388.2 | 2378.0 | 2381.4 | 2382.1 | 2383.4 | 2392.2 | 2415.8 |
| 50° | 2754.8 | 2692.7 | 2644.7 | 2587.3 | 2565.7 | 2548.2 | 2538.0 | 2538.7 | 2538.7 | 2557.0 | 2580.6 |
| 52.5° | 3301.7 | 3186.2 | 3072.1 | 2972.2 | 2886.4 | 2845.3 | 2797.3 | 2785.2 | 2785.8 | 2801.4 | 2817.6 |
| 55° | 4246.3 | 4087.6 | 3966.8 | 3744.6 | 3677.1 | 3487.4 | 3387.4 | 3330.1 | 3285.5 | 3307.1 | 3330.7 |
| 57.5° | 5941.0 | 5794.5 | 5698.6 | 5433.3 | 5191.6 | 5122.7 | 4958.6 | 4825.6 | 4770.9 | 4707.4 | 4711.5 |
| 60° | 8019.9 | 7944.3 | 7920.0 | 7764.7 | 7677.6 | 7406.9 | 7385.3 | 7217.1 | 7058.5 | 6921.4 | 6977.4 |
| 62.5° | 8915.2 | 8950.4 | 8978.7 | 9033.4 | 9054.3 | 9028.7 | 8920.0 | 8845.7 | 8715.4 | 8535.8 | 8425.7 |
| 65° | 8689.1 | 8769.4 | 8890.3 | 9004.4 | 9140.8 | 9254.2 | 9310.2 | 9288.6 | 9171.1 | 8986.1 | 8755.2 |
| 67.5° | 7976.1 | 8057.8 | 8161.7 | 8306.2 | 8514.9 | 8735.6 | 8889.6 | 8987.5 | 8894.3 | 8727.5 | 8492.6 |
| 70° | 6853.2 | 6932.9 | 6936.3 | 7138.1 | 7363.0 | 7641.2 | 7913.9 | 8016.6 | 7910.6 | 7799.2 | 7602.7 |
| 72.5° | 5132.8 | 5084.9 | 5129.4 | 5166.6 | 5294.9 | 5470.4 | 5735.1 | 5723.6 | 5561.6 | 5475.1 | 5173.3 |
| 75° | 2412.5 | 2380.1 | 2332.8 | 2301.7 | 2272.0 | 2209.9 | 2239.6 | 2112.7 | 2068.8 | 2086.3 | 1825.7 |
| 77.5° | 867.6 | 823.1 | 751.5 | 681.9 | 594.2 | 492.2 | 415.2 | 364.6 | 339.6 | 340.3 | 324.8 |
| 80° | 727.9 | 749.5 | 739.3 | 670.5 | 571.9 | 465.2 | 348.4 | 264.0 | 225.5 | 209.3 | 199.2 |
| 82.5° | 789.3 | 898.0 | 952.0 | 909.5 | 768.4 | 591.5 | 380.8 | 230.2 | 168.8 | 144.5 | 138.4 |
| 85° | 437.5 | 438.2 | 424.7 | 405.8 | 359.9 | 247.1 | 164.7 | 109.4 | 87.8 | 78.3 | 75.6 |
| 87.5° | 74.3 | 70.9 | 70.9 | 66.2 | 58.1 | 56.7 | 50.6 | 47.9 | 42.5 | 39.2 | 37.8 |
| 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: P162115

CATALOG NUMBER: OVF-E04-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

| | 87° | 88° | 89° | 90° | 91° | 92° | 93° | 94° | 95° | 96° | 97° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 944.6 | 943.2 | 942.6 | 941.9 | 941.9 | 941.2 | 941.2 | 939.9 | 938.5 | 937.8 | 937.2 |
| 5° | 966.2 | 964.9 | 963.5 | 962.1 | 962.1 | 960.8 | 959.4 | 958.1 | 956.1 | 952.7 | 952.0 |
| 7.5° | 1002.7 | 1000.0 | 1000.0 | 995.2 | 995.2 | 992.5 | 990.5 | 990.5 | 987.8 | 982.4 | 981.7 |
| 10° | 1047.9 | 1043.2 | 1041.1 | 1038.4 | 1037.1 | 1034.4 | 1034.4 | 1031.7 | 1030.3 | 1028.3 | 1021.6 |
| 12.5° | 1096.5 | 1093.1 | 1091.8 | 1088.4 | 1086.4 | 1086.4 | 1085.0 | 1080.3 | 1083.7 | 1079.0 | 1075.6 |
| 15° | 1155.3 | 1154.6 | 1148.5 | 1150.5 | 1149.9 | 1149.2 | 1149.9 | 1145.8 | 1145.1 | 1145.1 | 1141.1 |
| 17.5° | 1228.9 | 1223.4 | 1224.1 | 1224.1 | 1225.5 | 1225.5 | 1220.1 | 1222.8 | 1223.4 | 1222.1 | 1220.7 |
| 20° | 1315.3 | 1313.2 | 1315.3 | 1311.2 | 1315.3 | 1315.3 | 1318.0 | 1317.3 | 1318.0 | 1319.3 | 1319.3 |
| 22.5° | 1407.8 | 1413.2 | 1413.9 | 1415.2 | 1410.5 | 1418.6 | 1418.6 | 1419.9 | 1423.3 | 1423.3 | 1424.7 |
| 25° | 1519.9 | 1517.2 | 1513.8 | 1518.5 | 1519.9 | 1525.3 | 1526.6 | 1526.6 | 1532.0 | 1532.0 | 1534.0 |
| 27.5° | 1613.0 | 1615.7 | 1615.1 | 1617.8 | 1616.4 | 1623.8 | 1626.5 | 1634.6 | 1632.6 | 1636.7 | 1642.1 |
| 30° | 1708.9 | 1714.3 | 1711.6 | 1712.3 | 1715.7 | 1720.4 | 1725.8 | 1733.9 | 1735.2 | 1746.0 | 1748.7 |
| 32.5° | 1819.6 | 1823.7 | 1827.1 | 1828.4 | 1828.4 | 1836.5 | 1845.3 | 1848.0 | 1862.2 | 1870.3 | 1879.7 |
| 35° | 1960.1 | 1960.8 | 1962.8 | 1964.8 | 1963.5 | 1972.2 | 1981.0 | 1983.7 | 1998.6 | 2000.6 | 2020.2 |
| 37.5° | 2019.5 | 2020.9 | 2029.0 | 2033.0 | 2035.7 | 2046.5 | 2062.7 | 2074.9 | 2091.1 | 2106.6 | 2128.9 |
| 40° | 2093.8 | 2101.9 | 2109.3 | 2115.4 | 2125.5 | 2140.4 | 2165.3 | 2177.5 | 2201.8 | 2230.8 | 2252.4 |
| 42.5° | 2187.6 | 2202.5 | 2207.9 | 2219.4 | 2244.3 | 2262.6 | 2287.6 | 2313.9 | 2346.3 | 2381.4 | 2407.1 |
| 45° | 2299.0 | 2313.2 | 2333.5 | 2346.3 | 2375.3 | 2404.4 | 2444.2 | 2467.2 | 2500.2 | 2540.8 | 2569.1 |
| 47.5° | 2434.1 | 2453.7 | 2473.9 | 2500.2 | 2534.7 | 2565.1 | 2604.9 | 2634.6 | 2667.7 | 2700.8 | 2731.8 |
| 50° | 2602.2 | 2631.2 | 2658.2 | 2685.9 | 2731.8 | 2757.5 | 2796.6 | 2827.7 | 2858.8 | 2891.9 | 2920.2 |
| 52.5° | 2828.4 | 2872.3 | 2906.7 | 2925.6 | 2987.7 | 3013.4 | 3061.3 | 3082.9 | 3108.6 | 3138.3 | 3174.8 |
| 55° | 3321.9 | 3390.1 | 3448.2 | 3482.0 | 3576.5 | 3610.3 | 3672.4 | 3704.1 | 3686.6 | 3724.4 | 3789.9 |
| 57.5° | 4749.3 | 4833.0 | 4902.6 | 4948.5 | 5045.0 | 5092.3 | 5095.7 | 5214.5 | 5144.3 | 5213.8 | 5224.0 |
| 60° | 6828.2 | 6894.4 | 6877.5 | 6878.2 | 6847.8 | 6803.9 | 6888.3 | 6760.0 | 6814.0 | 6817.4 | 6696.6 |
| 62.5° | 8222.5 | 8121.2 | 8074.0 | 7995.6 | 7904.5 | 7834.3 | 7786.3 | 7683.0 | 7600.6 | 7535.2 | 7407.5 |
| 65° | 8550.6 | 8375.1 | 8219.8 | 8073.3 | 7938.9 | 7845.7 | 7744.5 | 7633.7 | 7504.8 | 7396.1 | 7271.8 |
| 67.5° | 8233.3 | 7987.5 | 7757.3 | 7564.2 | 7380.5 | 7257.6 | 7111.1 | 7005.8 | 6843.8 | 6700.6 | 6606.1 |
| 70° | 7313.0 | 6972.7 | 6704.0 | 6580.4 | 6398.1 | 6134.1 | 5994.4 | 5862.7 | 5763.4 | 5633.8 | 5576.4 |
| 72.5° | 5130.1 | 4710.1 | 4502.9 | 4511.0 | 4326.0 | 4136.9 | 4141.6 | 4061.3 | 3933.0 | 3928.9 | 3909.4 |
| 75° | 1885.1 | 1715.0 | 1595.5 | 1600.9 | 1532.0 | 1458.4 | 1478.7 | 1500.3 | 1458.4 | 1543.5 | 1411.8 |
| 77.5° | 299.8 | 291.7 | 289.0 | 282.9 | 268.1 | 278.9 | 271.4 | 285.6 | 287.6 | 303.2 | 304.5 |
| 80° | 191.1 | 183.0 | 181.0 | 177.6 | 176.9 | 176.9 | 175.6 | 175.6 | 175.6 | 176.2 | 174.9 |
| 82.5° | 127.6 | 122.9 | 122.2 | 120.2 | 123.6 | 124.2 | 124.9 | 130.3 | 135.0 | 136.4 | 141.8 |
| 85° | 69.5 | 66.2 | 66.2 | 64.8 | 67.5 | 68.2 | 74.3 | 81.7 | 91.2 | 95.2 | 104.0 |
| 87.5° | 35.1 | 37.1 | 36.5 | 37.8 | 39.8 | 44.6 | 49.3 | 54.0 | 59.4 | 66.8 | 72.9 |
| 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: P162115

CATALOG NUMBER: OVF-E04-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

| | 98° | 99° | 100° | 101° | 102° | 103° | 104° | 105° | 115° | 125° | 135° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 935.8 | 935.1 | 935.1 | 933.8 | 933.8 | 933.1 | 931.8 | 930.4 | 924.3 | 916.9 | 912.2 |
| 5° | 950.0 | 948.6 | 948.0 | 946.6 | 944.6 | 944.6 | 942.6 | 939.9 | 928.4 | 916.2 | 908.8 |
| 7.5° | 979.0 | 978.4 | 976.3 | 973.6 | 970.9 | 968.2 | 966.9 | 965.5 | 948.0 | 936.5 | 931.1 |
| 10° | 1020.9 | 1020.2 | 1015.5 | 1014.8 | 1010.8 | 1011.4 | 1008.1 | 1005.4 | 993.9 | 981.1 | 973.6 |
| 12.5° | 1074.2 | 1076.9 | 1074.2 | 1068.2 | 1069.5 | 1067.5 | 1064.1 | 1060.7 | 1050.6 | 1040.5 | 1029.0 |
| 15° | 1140.4 | 1137.0 | 1134.3 | 1139.7 | 1135.0 | 1134.3 | 1136.3 | 1137.0 | 1124.9 | 1114.1 | 1097.9 |
| 17.5° | 1222.8 | 1222.8 | 1221.4 | 1222.8 | 1220.1 | 1222.1 | 1220.7 | 1222.1 | 1216.7 | 1201.8 | 1178.2 |
| 20° | 1316.6 | 1322.0 | 1322.0 | 1320.0 | 1319.3 | 1323.4 | 1325.4 | 1318.0 | 1319.3 | 1306.5 | 1264.0 |
| 22.5° | 1426.0 | 1430.1 | 1431.4 | 1429.4 | 1430.1 | 1435.5 | 1438.8 | 1433.4 | 1445.6 | 1424.7 | 1359.2 |
| 25° | 1538.8 | 1544.8 | 1542.1 | 1542.8 | 1548.2 | 1554.3 | 1560.4 | 1555.0 | 1578.6 | 1546.2 | 1460.4 |
| 27.5° | 1650.2 | 1655.6 | 1654.2 | 1658.3 | 1667.1 | 1675.2 | 1681.9 | 1679.9 | 1719.0 | 1676.5 | 1567.1 |
| 30° | 1755.5 | 1768.3 | 1771.0 | 1775.8 | 1786.6 | 1800.1 | 1810.9 | 1810.2 | 1860.8 | 1803.4 | 1654.2 |
| 32.5° | 1885.1 | 1899.3 | 1904.7 | 1914.8 | 1935.8 | 1945.2 | 1958.7 | 1960.1 | 2010.7 | 1914.8 | 1727.8 |
| 35° | 2035.0 | 2049.2 | 2060.7 | 2068.1 | 2091.7 | 2103.2 | 2116.7 | 2122.8 | 2156.6 | 2018.8 | 1779.1 |
| 37.5° | 2151.2 | 2163.3 | 2185.6 | 2201.1 | 2222.1 | 2245.0 | 2260.5 | 2268.0 | 2286.9 | 2108.0 | 1802.8 |
| 40° | 2278.1 | 2304.4 | 2326.0 | 2349.7 | 2372.6 | 2390.9 | 2405.0 | 2416.5 | 2409.1 | 2182.2 | 1792.6 |
| 42.5° | 2438.8 | 2466.5 | 2495.5 | 2515.8 | 2527.9 | 2552.2 | 2559.0 | 2567.1 | 2506.3 | 2216.0 | 1746.7 |
| 45° | 2606.2 | 2628.5 | 2652.8 | 2667.7 | 2683.9 | 2696.0 | 2698.1 | 2698.7 | 2578.6 | 2196.4 | 1663.7 |
| 47.5° | 2767.6 | 2786.5 | 2803.4 | 2811.5 | 2819.6 | 2820.3 | 2816.9 | 2811.5 | 2617.0 | 2130.2 | 1563.7 |
| 50° | 2944.5 | 2956.0 | 2963.4 | 2964.1 | 2971.5 | 2957.3 | 2947.9 | 2922.9 | 2613.0 | 2029.0 | 1458.4 |
| 52.5° | 3199.1 | 3196.4 | 3186.9 | 3186.2 | 3162.6 | 3135.6 | 3118.0 | 3082.3 | 2585.3 | 1919.6 | 1336.9 |
| 55° | 3783.8 | 3758.1 | 3787.8 | 3712.2 | 3649.4 | 3607.6 | 3508.3 | 3436.1 | 2613.0 | 1817.6 | 1197.1 |
| 57.5° | 5188.9 | 5101.1 | 5110.5 | 4988.3 | 4854.6 | 4604.1 | 4456.3 | 4256.4 | 2830.4 | 1760.9 | 1020.9 |
| 60° | 6670.9 | 6526.4 | 6390.0 | 6173.3 | 5889.0 | 5571.0 | 5284.7 | 4972.1 | 3046.5 | 1691.4 | 833.2 |
| 62.5° | 7282.6 | 7096.3 | 6859.3 | 6553.4 | 6188.1 | 5793.8 | 5398.2 | 5041.7 | 2927.6 | 1482.0 | 600.2 |
| 65° | 7085.5 | 6862.7 | 6610.1 | 6211.1 | 5796.5 | 5338.1 | 4904.6 | 4527.8 | 2438.1 | 1083.7 | 362.6 |
| 67.5° | 6385.3 | 6193.5 | 5882.3 | 5505.5 | 4992.4 | 4532.6 | 4103.8 | 3755.4 | 1797.4 | 669.8 | 208.0 |
| 70° | 5376.6 | 5111.2 | 4845.2 | 4483.3 | 3942.5 | 3509.0 | 3109.9 | 2802.0 | 1140.4 | 330.8 | 153.3 |
| 72.5° | 3710.9 | 3500.9 | 3288.2 | 2964.1 | 2560.3 | 2261.9 | 1918.9 | 1665.7 | 596.9 | 178.3 | 141.1 |
| 75° | 1445.6 | 1422.6 | 1398.3 | 1251.1 | 1114.1 | 892.6 | 783.9 | 706.9 | 248.5 | 154.6 | 139.1 |
| 77.5° | 317.3 | 336.2 | 347.0 | 328.8 | 313.3 | 279.5 | 267.4 | 239.0 | 166.1 | 158.7 | 137.7 |
| 80° | 174.9 | 174.9 | 174.9 | 176.9 | 173.5 | 173.5 | 171.5 | 168.1 | 155.3 | 158.7 | 135.0 |
| 82.5° | 143.1 | 145.2 | 147.9 | 148.5 | 147.9 | 148.5 | 147.2 | 146.5 | 151.9 | 159.3 | 128.3 |
| 85° | 109.4 | 116.1 | 120.2 | 125.6 | 131.0 | 134.4 | 135.7 | 136.4 | 139.8 | 151.2 | 112.1 |
| 87.5° | 77.6 | 83.0 | 91.8 | 93.2 | 99.3 | 106.7 | 109.4 | 113.4 | 111.4 | 114.8 | 52.7 |
| 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: P162115

CATALOG NUMBER: OVF-E04-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

| | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|
| 0° | 937.8 | 937.8 | 937.8 | 937.8 | 937.8 |
| 2.5° | 908.1 | 902.7 | 900.7 | 900.0 | 898.7 |
| 5° | 902.7 | 899.4 | 896.7 | 894.6 | 896.0 |
| 7.5° | 927.0 | 925.0 | 920.3 | 918.9 | 921.0 |
| 10° | 970.3 | 965.5 | 958.8 | 959.4 | 958.8 |
| 12.5° | 1024.3 | 1011.4 | 1000.6 | 995.9 | 992.5 |
| 15° | 1079.6 | 1054.7 | 1032.4 | 1022.2 | 1018.2 |
| 17.5° | 1141.1 | 1098.5 | 1064.1 | 1045.9 | 1042.5 |
| 20° | 1205.9 | 1147.2 | 1102.6 | 1081.0 | 1077.6 |
| 22.5° | 1280.8 | 1199.8 | 1143.1 | 1113.4 | 1108.7 |
| 25° | 1353.8 | 1247.1 | 1171.5 | 1135.0 | 1128.9 |
| 27.5° | 1419.9 | 1282.9 | 1188.3 | 1145.1 | 1139.1 |
| 30° | 1475.3 | 1311.2 | 1202.5 | 1153.2 | 1146.5 |
| 32.5° | 1511.8 | 1326.8 | 1207.2 | 1153.9 | 1145.8 |
| 35° | 1523.2 | 1316.6 | 1187.0 | 1125.5 | 1118.8 |
| 37.5° | 1498.9 | 1275.4 | 1133.0 | 1063.4 | 1058.0 |
| 40° | 1443.6 | 1199.1 | 1047.9 | 975.7 | 968.9 |
| 42.5° | 1357.1 | 1102.6 | 949.3 | 873.0 | 866.9 |
| 45° | 1261.3 | 999.3 | 844.7 | 768.4 | 762.3 |
| 47.5° | 1156.6 | 889.9 | 734.6 | 664.4 | 654.9 |
| 50° | 1041.8 | 771.1 | 622.5 | 553.7 | 544.9 |
| 52.5° | 907.5 | 641.4 | 503.7 | 441.6 | 436.2 |
| 55° | 750.1 | 511.1 | 401.1 | 355.8 | 350.4 |
| 57.5° | 583.4 | 388.9 | 318.7 | 296.4 | 287.6 |
| 60° | 423.3 | 295.7 | 253.9 | 243.1 | 238.3 |
| 62.5° | 287.6 | 220.8 | 204.6 | 201.2 | 197.8 |
| 65° | 195.1 | 172.8 | 168.1 | 168.8 | 166.8 |
| 67.5° | 153.9 | 145.2 | 142.5 | 143.8 | 143.1 |
| 70° | 135.0 | 128.3 | 127.6 | 129.0 | 128.3 |
| 72.5° | 127.6 | 118.8 | 120.2 | 122.2 | 121.5 |
| 75° | 124.2 | 114.8 | 117.5 | 118.8 | 115.5 |
| 77.5° | 120.9 | 108.7 | 116.8 | 119.5 | 112.8 |
| 80° | 116.1 | 103.3 | 122.2 | 120.9 | 108.0 |
| 82.5° | 106.0 | 91.2 | 119.5 | 109.4 | 97.2 |
| 85° | 86.4 | 68.2 | 134.4 | 96.6 | 70.9 |
| 87.5° | 55.4 | 41.2 | 93.2 | 73.6 | 47.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)