

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: INVUE

Report Number: P674454

Luminaire Tested: **CCP-SA-2B-827-U-AFL-HSS**

Issue Date: 04/16/2023



Test Information

Test Method: LM-79-08
Report Number: P674454
Test Lab: INNOVATION CENTER(G2)
Issue Date: 04/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-SA-2B-827-U-AFL-HSS
Description: INVUE CLEAR CURVE POLE MOUNT Light Square Luminaire @450mA w/ AFL distribution lens and House Side Shield
Light Source: (32) 2700K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4209.9 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

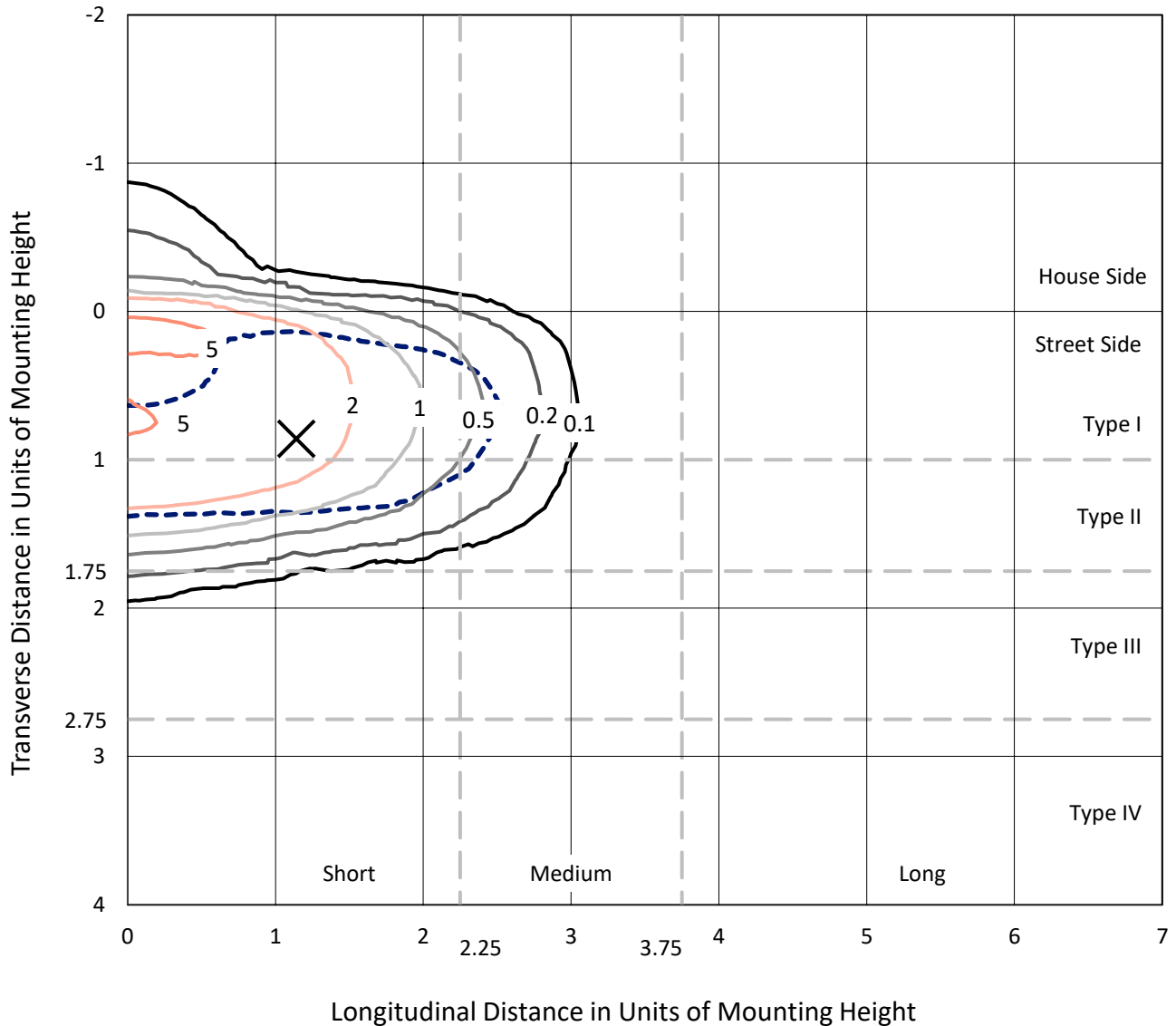
Input Watts (W): 46
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

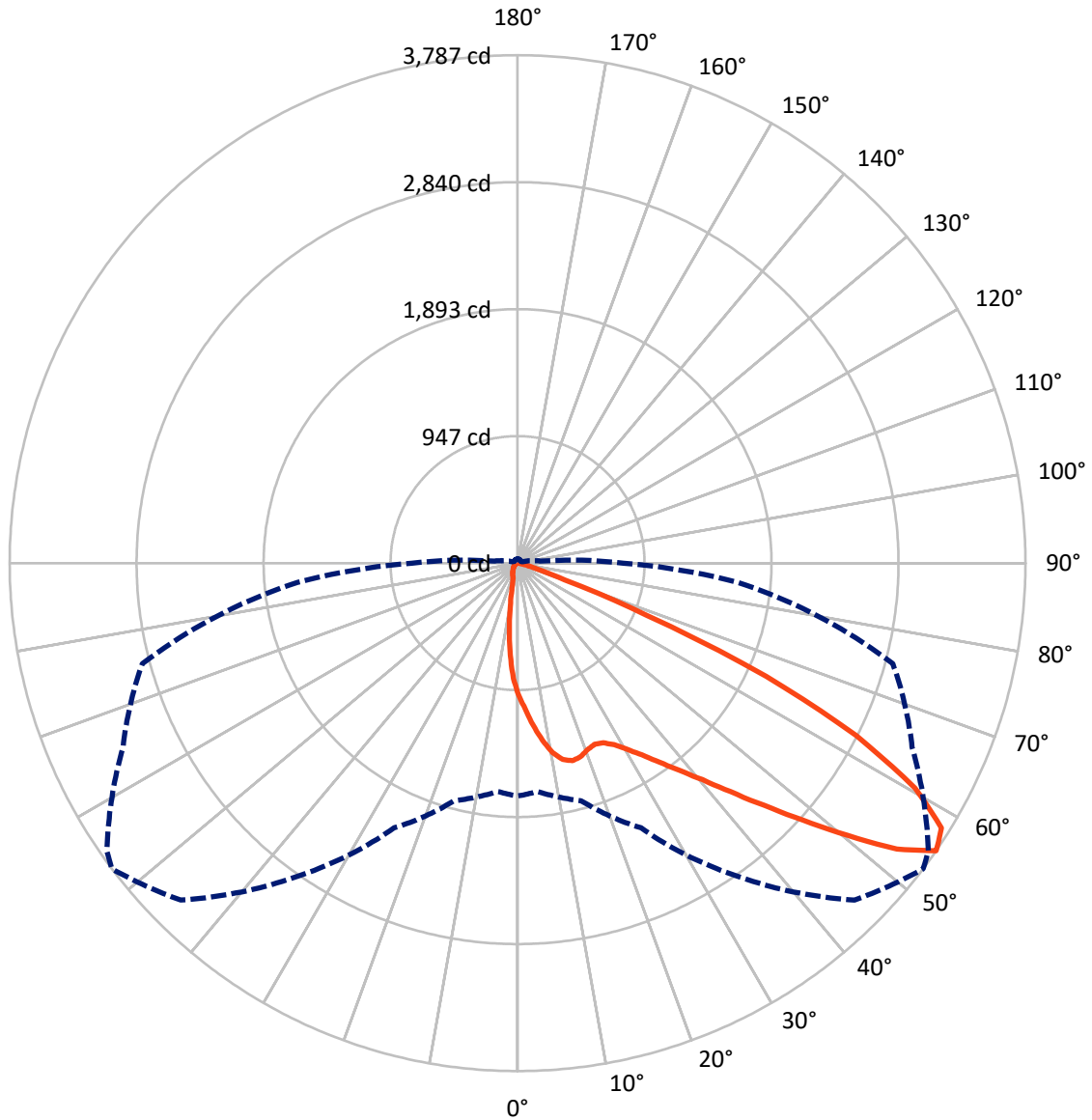
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 53-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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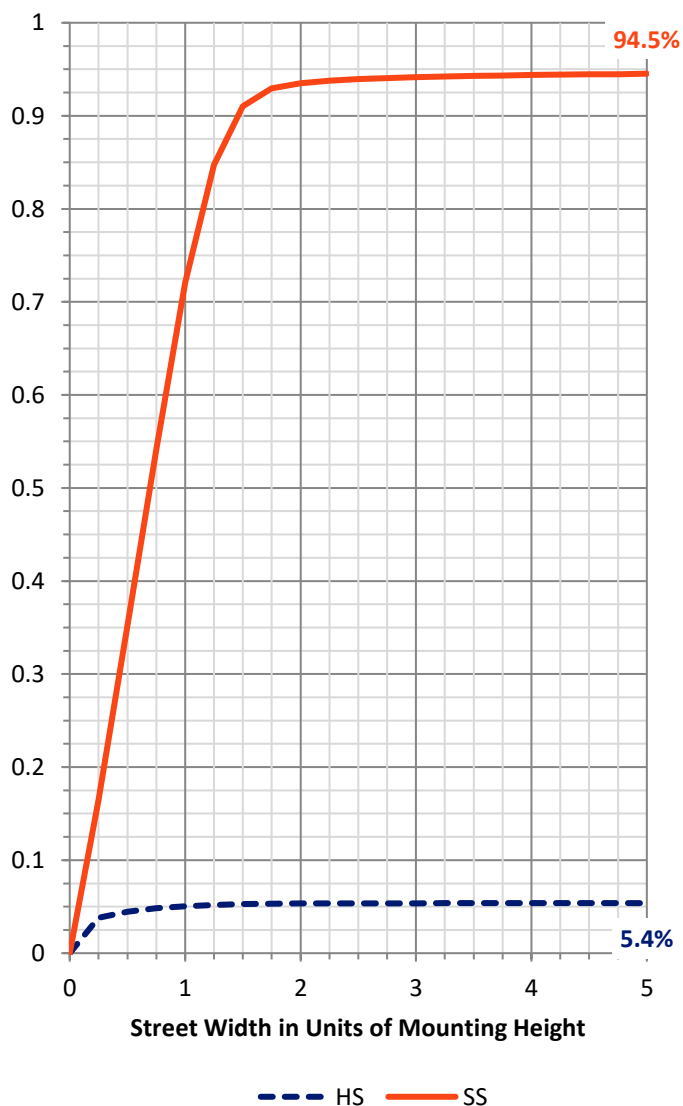
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 227.6 | 0.0 | 227.6 |
| | % Fixture | 5.4 | 0.0 | 5.4 |
| Street Side | Lumens | 3982.4 | 0.0 | 3982.4 |
| | % Fixture | 94.6 | 0.0 | 94.6 |
| Total | Lumens | 4209.9 | 0.0 | 4209.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 88.1 | 2.1 |
| 10°-20° | 230.2 | 5.5 |
| 20°-30° | 385.2 | 9.2 |
| 30°-40° | 630.2 | 15.0 |
| 40°-50° | 1013.1 | 24.1 |
| 50°-60° | 1143.8 | 27.2 |
| 60°-70° | 610.1 | 14.5 |
| 70°-80° | 100.3 | 2.4 |
| 80°-90° | 9.0 | 0.2 |
| 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° | 4209.9 | 100.0 |
| 0°-180° | 4209.9 | 100.0 |



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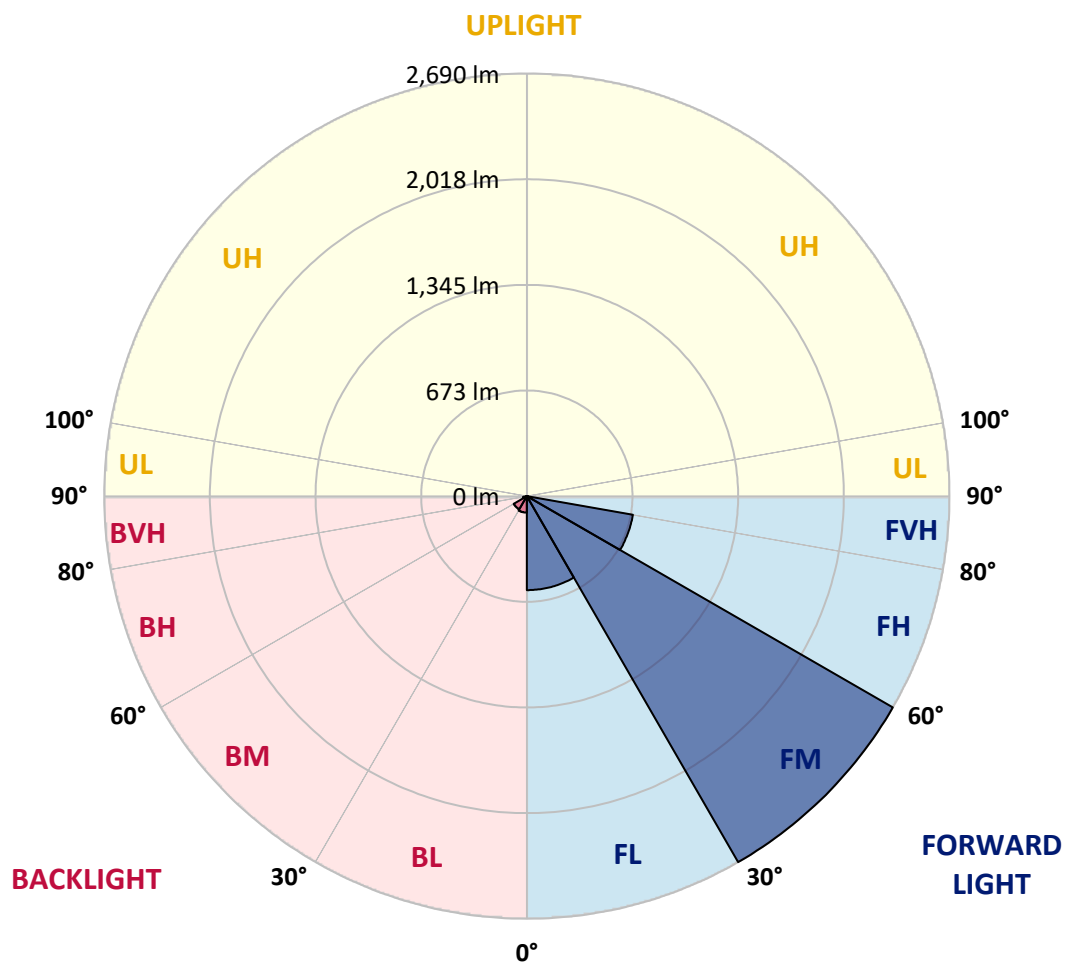
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 598.5 | 14.2 | | | |
| FM (30°-60°) | 2690.2 | 63.9 | | | |
| FH (60°-80°) | 685.5 | 16.3 | | | G1/1800 |
| FVH (80°-90°) | 8.2 | 0.2 | | | G0/10 |
| BL (0°-30°) | 105.0 | 2.5 | B0/110 | | |
| BM (30°-60°) | 96.9 | 2.3 | B0/220 | | |
| BH (60°-80°) | 24.9 | 0.6 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.7 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 53° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 |
| 2.5° | 1181.5 | 1174.4 | 1178.5 | 1167.8 | 1148.3 | 1123.9 | 1087.4 | 1089.2 | 1060.5 | 1035.4 | 1000.7 |
| 5° | 1376.6 | 1369.2 | 1367.0 | 1339.7 | 1312.4 | 1268.5 | 1214.3 | 1205.4 | 1152.7 | 1088.9 | 1016.2 |
| 7.5° | 1479.5 | 1473.2 | 1478.0 | 1468.1 | 1441.1 | 1401.3 | 1332.7 | 1326.0 | 1244.5 | 1147.9 | 1040.9 |
| 10° | 1432.3 | 1430.1 | 1450.4 | 1474.0 | 1495.7 | 1490.9 | 1436.0 | 1425.6 | 1334.2 | 1212.8 | 1066.4 |
| 12.5° | 1305.4 | 1312.4 | 1338.2 | 1381.7 | 1448.9 | 1512.0 | 1503.1 | 1504.9 | 1425.6 | 1283.3 | 1094.4 |
| 15° | 1230.9 | 1239.4 | 1254.1 | 1276.6 | 1359.2 | 1471.4 | 1528.6 | 1547.0 | 1513.4 | 1361.8 | 1127.6 |
| 17.5° | 1224.6 | 1231.6 | 1233.8 | 1242.3 | 1290.6 | 1406.1 | 1518.2 | 1553.3 | 1591.6 | 1436.0 | 1164.9 |
| 20° | 1272.9 | 1275.9 | 1274.0 | 1267.8 | 1285.1 | 1370.7 | 1485.8 | 1535.9 | 1656.2 | 1514.9 | 1197.7 |
| 22.5° | 1364.0 | 1359.6 | 1354.1 | 1330.8 | 1329.7 | 1380.6 | 1468.1 | 1520.4 | 1694.5 | 1580.2 | 1219.4 |
| 25° | 1476.9 | 1467.7 | 1459.9 | 1427.1 | 1411.6 | 1432.6 | 1483.9 | 1526.0 | 1729.2 | 1643.6 | 1234.9 |
| 27.5° | 1600.1 | 1603.1 | 1583.9 | 1539.6 | 1515.3 | 1510.8 | 1533.0 | 1564.3 | 1762.8 | 1700.4 | 1243.4 |
| 30° | 1731.8 | 1733.3 | 1708.2 | 1662.4 | 1640.3 | 1611.9 | 1610.4 | 1629.3 | 1798.9 | 1765.7 | 1251.5 |
| 32.5° | 1881.9 | 1886.0 | 1845.0 | 1797.5 | 1758.7 | 1721.8 | 1703.8 | 1719.6 | 1863.8 | 1850.9 | 1268.1 |
| 35° | 2098.8 | 2081.1 | 2025.8 | 1953.8 | 1898.9 | 1850.6 | 1822.9 | 1833.2 | 1950.2 | 1953.1 | 1301.3 |
| 37.5° | 2322.3 | 2320.5 | 2259.3 | 2155.6 | 2065.6 | 2005.5 | 1958.3 | 1975.2 | 2071.5 | 2090.0 | 1354.5 |
| 40° | 2530.7 | 2535.5 | 2482.4 | 2392.1 | 2276.2 | 2172.9 | 2122.4 | 2133.9 | 2232.7 | 2255.9 | 1419.0 |
| 42.5° | 2666.9 | 2664.3 | 2668.3 | 2642.5 | 2526.3 | 2404.6 | 2328.6 | 2334.9 | 2420.1 | 2432.3 | 1499.8 |
| 45° | 2729.6 | 2719.6 | 2754.3 | 2836.2 | 2790.1 | 2662.1 | 2575.4 | 2567.6 | 2614.5 | 2611.2 | 1573.2 |
| 47.5° | 2675.3 | 2656.9 | 2736.6 | 2933.9 | 3023.2 | 2984.4 | 2860.5 | 2846.5 | 2806.6 | 2780.1 | 1649.5 |
| 50° | 2405.7 | 2397.6 | 2568.0 | 2887.4 | 3169.6 | 3282.5 | 3191.4 | 3139.4 | 2978.2 | 2904.8 | 1689.7 |
| 52.5° | 2149.3 | 2126.8 | 2241.9 | 2650.3 | 3104.3 | 3522.2 | 3541.0 | 3448.5 | 3120.5 | 2940.5 | 1676.1 |
| 55° | 1736.2 | 1708.6 | 1834.0 | 2177.4 | 2845.7 | 3552.9 | 3786.7 | 3738.4 | 3245.2 | 2896.3 | 1648.4 |
| 57.5° | 1054.6 | 1027.3 | 1211.7 | 1559.5 | 2275.9 | 3298.3 | 3726.2 | 3775.3 | 3341.1 | 2847.6 | 1630.4 |
| 60° | 443.4 | 426.0 | 498.3 | 744.4 | 1453.3 | 2710.7 | 3405.3 | 3527.8 | 3359.2 | 2780.8 | 1637.7 |
| 62.5° | 230.5 | 222.8 | 226.8 | 298.0 | 587.6 | 1784.9 | 2834.3 | 3047.5 | 3177.0 | 2751.3 | 1645.1 |
| 65° | 173.0 | 167.1 | 154.2 | 163.8 | 228.3 | 771.7 | 2036.8 | 2322.3 | 2781.9 | 2676.4 | 1595.3 |
| 67.5° | 142.0 | 136.5 | 127.3 | 124.3 | 134.6 | 267.8 | 1039.8 | 1410.9 | 2180.0 | 2357.4 | 1416.8 |
| 70° | 113.2 | 111.4 | 108.4 | 102.9 | 101.1 | 129.8 | 372.9 | 575.1 | 1441.5 | 1662.4 | 1026.9 |
| 72.5° | 94.4 | 94.8 | 91.5 | 86.7 | 80.0 | 83.7 | 148.7 | 196.6 | 697.5 | 797.1 | 430.1 |
| 75° | 78.9 | 78.9 | 80.0 | 73.4 | 66.8 | 57.5 | 82.6 | 95.9 | 223.9 | 184.1 | 91.8 |
| 77.5° | 62.0 | 62.7 | 67.5 | 62.0 | 53.5 | 36.1 | 45.0 | 51.3 | 66.4 | 53.1 | 33.6 |
| 80° | 49.4 | 48.7 | 46.8 | 55.7 | 48.0 | 25.5 | 21.4 | 23.6 | 31.0 | 25.5 | 16.6 |
| 82.5° | 34.7 | 34.3 | 32.8 | 37.6 | 37.3 | 18.8 | 14.0 | 14.4 | 18.8 | 16.2 | 10.3 |
| 85° | 8.5 | 10.0 | 21.0 | 17.7 | 15.5 | 11.1 | 8.5 | 9.2 | 12.2 | 10.7 | 5.5 |
| 87.5° | 3.7 | 3.7 | 9.6 | 11.4 | 7.4 | 4.8 | 3.7 | 4.1 | 6.3 | 6.3 | 3.3 |
| 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° | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 | 985.2 |
| 2.5° | 988.5 | 964.6 | 934.3 | 902.2 | 869.4 | 829.9 | 804.9 | 784.2 | 768.0 | 755.4 | 751.0 |
| 5° | 992.2 | 946.1 | 877.5 | 792.3 | 705.6 | 624.5 | 561.8 | 515.3 | 476.9 | 455.9 | 446.7 |
| 7.5° | 991.9 | 930.6 | 806.7 | 663.9 | 523.0 | 406.1 | 323.1 | 271.8 | 237.5 | 223.5 | 215.0 |
| 10° | 991.5 | 910.3 | 725.9 | 521.6 | 349.7 | 235.3 | 173.4 | 144.6 | 132.1 | 127.3 | 126.5 |
| 12.5° | 1002.2 | 887.1 | 635.5 | 384.0 | 219.5 | 146.4 | 120.6 | 114.0 | 111.0 | 109.6 | 109.2 |
| 15° | 1008.1 | 865.7 | 540.4 | 271.1 | 147.9 | 115.8 | 107.7 | 104.8 | 103.6 | 102.9 | 102.5 |
| 17.5° | 1014.4 | 832.5 | 450.0 | 196.2 | 118.4 | 105.1 | 100.3 | 98.5 | 97.7 | 97.7 | 97.7 |
| 20° | 1015.5 | 796.7 | 360.4 | 144.6 | 105.1 | 98.1 | 93.3 | 91.5 | 90.4 | 89.6 | 89.6 |
| 22.5° | 1007.4 | 754.3 | 283.3 | 117.3 | 97.4 | 91.5 | 86.3 | 83.4 | 81.5 | 81.1 | 81.1 |
| 25° | 987.1 | 694.2 | 217.3 | 102.9 | 91.1 | 84.8 | 78.6 | 75.2 | 73.8 | 73.8 | 73.8 |
| 27.5° | 957.9 | 623.4 | 167.8 | 91.5 | 83.0 | 76.7 | 71.2 | 68.2 | 67.9 | 67.5 | 67.9 |
| 30° | 924.7 | 555.1 | 128.4 | 81.1 | 73.4 | 68.2 | 63.8 | 62.3 | 63.1 | 63.1 | 63.4 |
| 32.5° | 891.5 | 486.9 | 100.3 | 73.0 | 64.9 | 60.5 | 58.3 | 58.3 | 59.4 | 59.4 | 59.4 |
| 35° | 863.1 | 420.1 | 84.1 | 66.4 | 59.0 | 55.3 | 54.2 | 55.3 | 56.1 | 56.4 | 56.4 |
| 37.5° | 847.3 | 362.6 | 74.1 | 60.5 | 54.2 | 51.3 | 50.9 | 52.0 | 53.5 | 54.6 | 55.0 |
| 40° | 841.4 | 318.3 | 68.2 | 56.1 | 49.8 | 48.0 | 47.6 | 49.1 | 51.6 | 53.5 | 53.9 |
| 42.5° | 841.7 | 279.2 | 63.1 | 51.6 | 46.8 | 44.3 | 44.3 | 46.5 | 49.1 | 50.9 | 50.9 |
| 45° | 844.3 | 245.7 | 57.9 | 47.2 | 44.3 | 39.8 | 40.2 | 43.2 | 45.0 | 46.8 | 46.8 |
| 47.5° | 846.5 | 218.7 | 52.4 | 42.4 | 38.4 | 36.1 | 36.9 | 39.1 | 41.7 | 44.6 | 44.6 |
| 50° | 833.6 | 199.6 | 46.8 | 37.3 | 33.6 | 32.8 | 34.3 | 36.1 | 39.8 | 42.8 | 43.2 |
| 52.5° | 802.6 | 182.2 | 42.0 | 33.2 | 30.2 | 30.6 | 32.5 | 33.6 | 36.5 | 36.9 | 37.3 |
| 55° | 789.0 | 173.4 | 38.4 | 30.2 | 27.7 | 28.8 | 29.9 | 30.2 | 29.5 | 27.7 | 27.7 |
| 57.5° | 786.0 | 167.5 | 34.7 | 27.3 | 25.5 | 26.9 | 26.6 | 24.3 | 22.1 | 19.9 | 19.5 |
| 60° | 789.0 | 159.3 | 31.7 | 23.6 | 23.2 | 23.6 | 22.5 | 18.4 | 15.5 | 14.0 | 13.3 |
| 62.5° | 772.0 | 147.5 | 29.1 | 20.3 | 20.3 | 19.9 | 17.0 | 12.5 | 10.0 | 8.9 | 8.5 |
| 65° | 716.0 | 124.3 | 26.6 | 17.0 | 16.6 | 15.9 | 11.4 | 8.5 | 6.6 | 5.5 | 5.2 |
| 67.5° | 605.7 | 96.3 | 24.0 | 14.0 | 13.3 | 11.1 | 7.4 | 5.5 | 3.7 | 3.3 | 3.0 |
| 70° | 413.1 | 59.8 | 20.3 | 11.1 | 10.0 | 7.0 | 4.4 | 3.3 | 2.2 | 1.8 | 1.5 |
| 72.5° | 149.8 | 34.7 | 17.0 | 8.5 | 6.6 | 4.4 | 2.6 | 1.5 | 1.1 | 1.1 | 0.7 |
| 75° | 35.4 | 24.3 | 12.9 | 6.3 | 4.4 | 2.6 | 1.5 | 1.1 | 0.7 | 0.7 | 0.4 |
| 77.5° | 16.2 | 18.8 | 8.5 | 3.7 | 3.0 | 1.8 | 1.1 | 0.7 | 0.4 | 0.4 | 0.0 |
| 80° | 9.2 | 13.3 | 4.1 | 2.6 | 2.2 | 1.5 | 0.7 | 0.4 | 0.4 | 0.0 | 0.0 |
| 82.5° | 4.8 | 7.4 | 3.0 | 2.2 | 1.8 | 1.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.3 | 3.7 | 2.2 | 1.8 | 1.5 | 1.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.6 | 2.6 | 2.2 | 1.8 | 1.5 | 1.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)