

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: P401666

Luminaire Tested: **ENV-SA1E-740-U-SL2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401666  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1E-740-U-SL2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5686 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

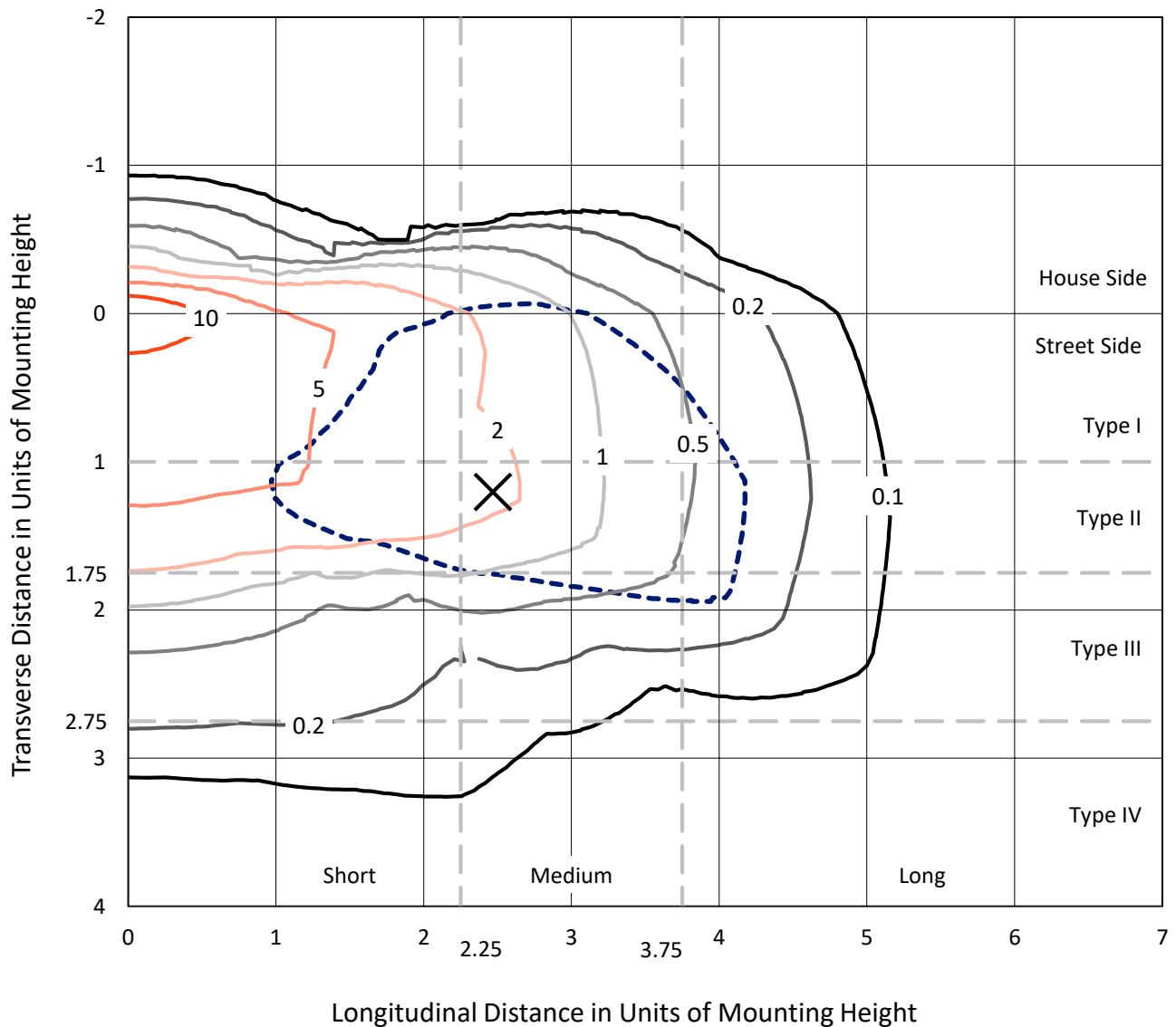
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

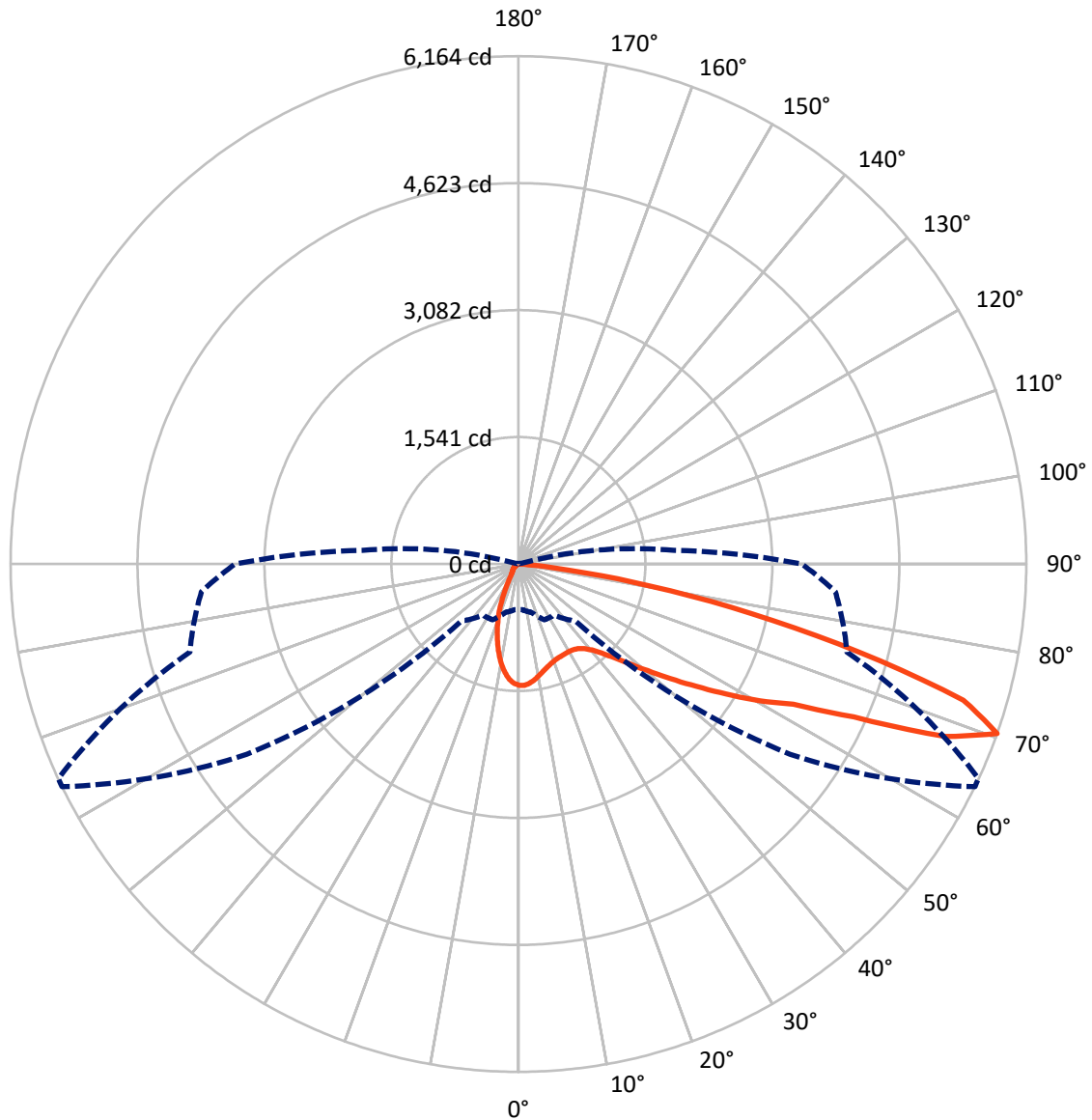


Based on 10 foot mounting height. Maximum calculated value = 14.7 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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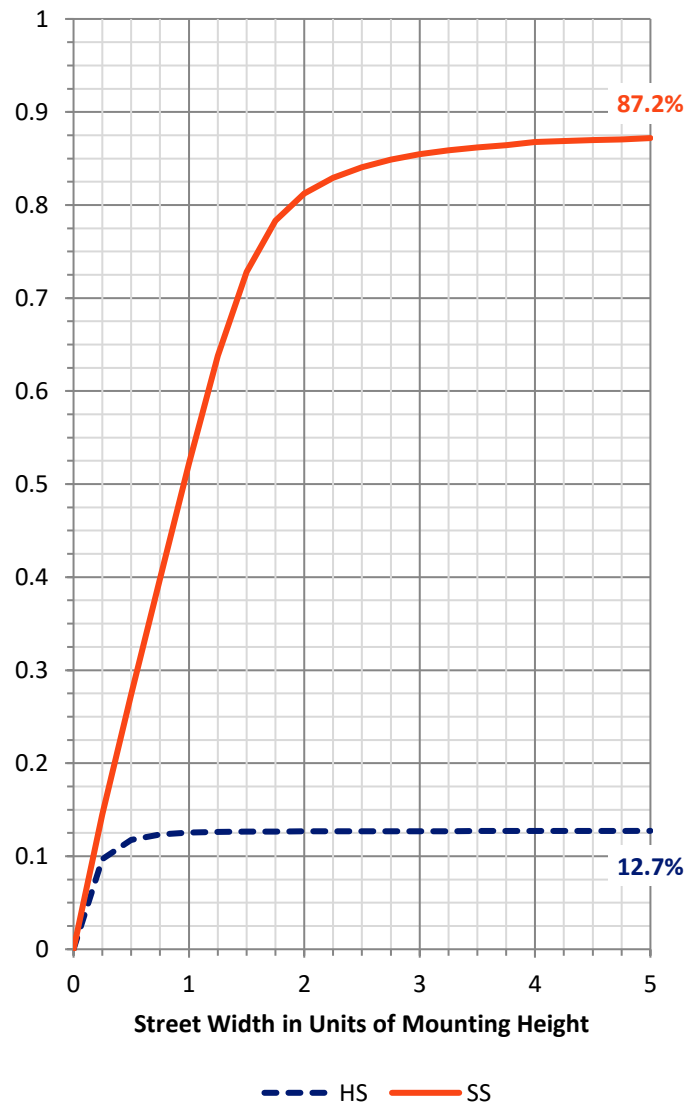
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 730.5    | 0.0    | 730.5  |
|                    | % Fixture | 12.8     | 0.0    | 12.8   |
| <b>Street Side</b> | Lumens    | 4955.5   | 0.0    | 4955.5 |
|                    | % Fixture | 87.2     | 0.0    | 87.2   |
| <b>Total</b>       | Lumens    | 5686.0   | 0.0    | 5686.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 124.0  | 2.2       |
| 10°-20°   | 275.2  | 4.8       |
| 20°-30°   | 379.1  | 6.7       |
| 30°-40°   | 522.0  | 9.2       |
| 40°-50°   | 778.0  | 13.7      |
| 50°-60°   | 1229.0 | 21.6      |
| 60°-70°   | 1392.6 | 24.5      |
| 70°-80°   | 914.4  | 16.1      |
| 80°-90°   | 71.7   | 1.3       |
| 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°    | 5686.0 | 100.0     |
| 0°-180°   | 5686.0 | 100.0     |



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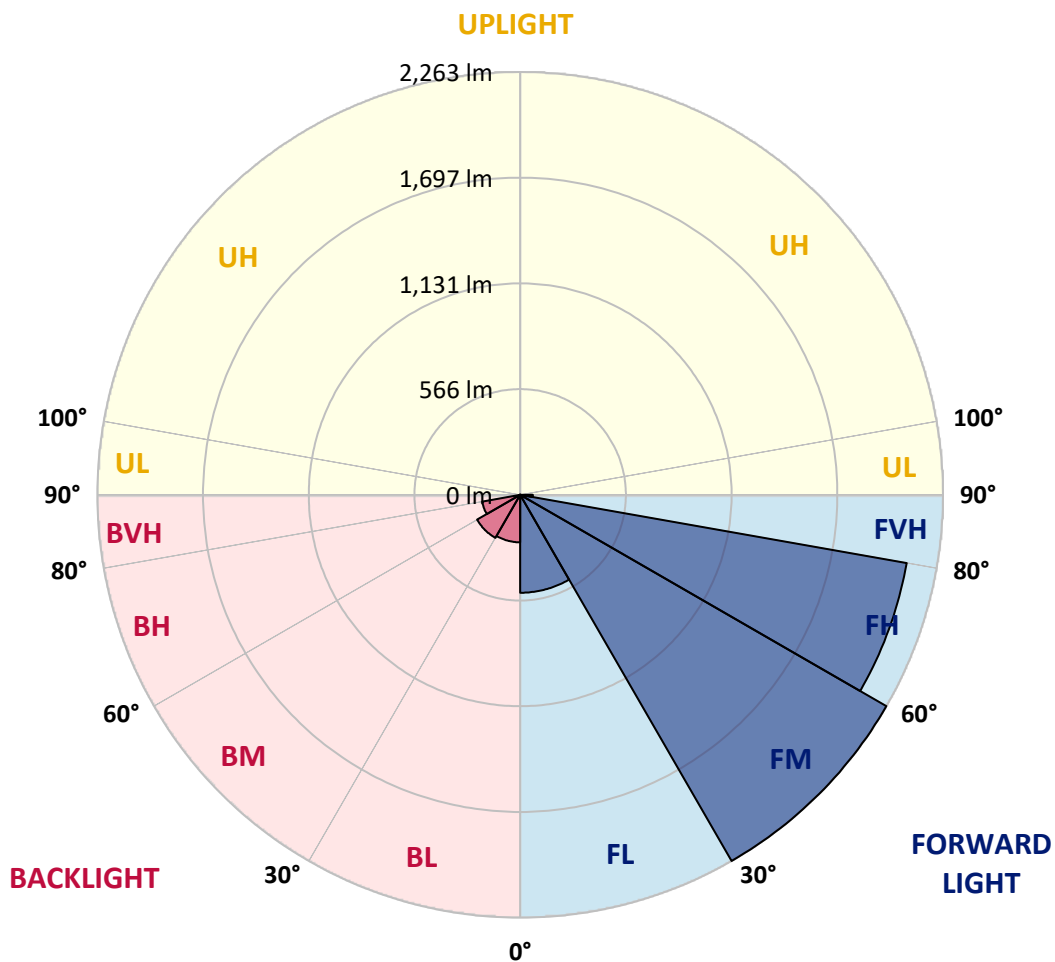
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 524.1  | 9.2       |                         |      |         |
| FM   | (30°-60°)   | 2262.9 | 39.8      |                         |      |         |
| FH   | (60°-80°)   | 2100.8 | 36.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 67.7   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 254.2  | 4.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 266.0  | 4.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 206.2  | 3.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 4.0    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 |
| 2.5°  | 1430.9 | 1430.9 | 1437.9 | 1444.9 | 1448.9 | 1459.9 | 1467.9 | 1473.9 | 1473.9 | 1477.9 | 1470.9 |
| 5°    | 1335.9 | 1335.9 | 1341.9 | 1358.9 | 1376.9 | 1399.9 | 1425.9 | 1451.9 | 1456.9 | 1475.9 | 1474.9 |
| 7.5°  | 1247.9 | 1255.9 | 1265.9 | 1282.9 | 1301.9 | 1335.9 | 1371.9 | 1416.9 | 1421.9 | 1467.9 | 1477.9 |
| 10°   | 1186.9 | 1191.9 | 1197.9 | 1216.9 | 1244.9 | 1283.9 | 1322.9 | 1375.9 | 1384.9 | 1453.9 | 1477.9 |
| 12.5° | 1137.9 | 1138.9 | 1147.9 | 1168.9 | 1195.9 | 1233.9 | 1277.9 | 1335.9 | 1346.9 | 1428.9 | 1473.9 |
| 15°   | 1102.9 | 1101.9 | 1111.9 | 1131.9 | 1157.9 | 1196.9 | 1239.9 | 1300.9 | 1312.9 | 1407.9 | 1472.9 |
| 17.5° | 1081.9 | 1082.9 | 1090.9 | 1105.9 | 1130.9 | 1167.9 | 1211.9 | 1271.9 | 1283.9 | 1390.9 | 1477.9 |
| 20°   | 1081.9 | 1081.9 | 1086.9 | 1093.9 | 1112.9 | 1145.9 | 1188.9 | 1250.9 | 1262.9 | 1379.9 | 1484.9 |
| 22.5° | 1102.9 | 1100.9 | 1104.9 | 1098.9 | 1107.9 | 1130.9 | 1174.9 | 1236.9 | 1249.9 | 1374.9 | 1495.9 |
| 25°   | 1140.9 | 1136.9 | 1139.9 | 1126.9 | 1116.9 | 1126.9 | 1165.9 | 1230.9 | 1244.9 | 1375.9 | 1505.9 |
| 27.5° | 1193.9 | 1193.9 | 1187.9 | 1169.9 | 1144.9 | 1133.9 | 1164.9 | 1226.9 | 1240.9 | 1375.9 | 1512.9 |
| 30°   | 1267.9 | 1264.9 | 1255.9 | 1237.9 | 1198.9 | 1161.9 | 1174.9 | 1226.9 | 1240.9 | 1376.9 | 1514.9 |
| 32.5° | 1341.9 | 1343.9 | 1348.9 | 1330.9 | 1277.9 | 1209.9 | 1198.9 | 1235.9 | 1247.9 | 1375.9 | 1511.9 |
| 35°   | 1416.9 | 1417.9 | 1439.9 | 1441.9 | 1373.9 | 1286.9 | 1239.9 | 1259.9 | 1267.9 | 1385.9 | 1513.9 |
| 37.5° | 1482.9 | 1487.9 | 1530.9 | 1551.9 | 1495.9 | 1385.9 | 1304.9 | 1304.9 | 1308.9 | 1412.9 | 1525.9 |
| 40°   | 1556.9 | 1569.9 | 1621.9 | 1668.9 | 1646.9 | 1512.9 | 1399.9 | 1370.9 | 1372.9 | 1461.9 | 1552.9 |
| 42.5° | 1642.9 | 1658.9 | 1726.9 | 1794.9 | 1793.9 | 1668.9 | 1519.9 | 1475.9 | 1477.9 | 1546.9 | 1607.9 |
| 45°   | 1751.9 | 1762.9 | 1848.9 | 1933.9 | 1951.9 | 1840.9 | 1670.9 | 1612.9 | 1614.9 | 1675.9 | 1714.9 |
| 47.5° | 1884.9 | 1897.9 | 1980.9 | 2082.8 | 2128.8 | 2047.8 | 1866.9 | 1803.9 | 1797.9 | 1840.9 | 1868.9 |
| 50°   | 2058.8 | 2083.8 | 2132.8 | 2230.8 | 2341.8 | 2287.8 | 2096.8 | 2033.8 | 2025.8 | 2059.8 | 2068.8 |
| 52.5° | 2224.8 | 2247.8 | 2267.8 | 2357.8 | 2572.8 | 2585.8 | 2378.8 | 2309.8 | 2301.8 | 2309.8 | 2320.8 |
| 55°   | 2249.8 | 2262.8 | 2277.8 | 2399.8 | 2759.8 | 2964.8 | 2699.8 | 2617.8 | 2594.8 | 2579.8 | 2616.8 |
| 57.5° | 2050.8 | 2042.8 | 2092.8 | 2258.8 | 2790.8 | 3383.7 | 3133.8 | 2974.8 | 2952.8 | 2869.8 | 2832.8 |
| 60°   | 1623.9 | 1612.9 | 1659.9 | 1886.9 | 2616.8 | 3591.7 | 3735.7 | 3369.7 | 3315.8 | 3037.8 | 3001.8 |
| 62.5° | 1140.9 | 1127.9 | 1188.9 | 1322.9 | 2029.8 | 3550.7 | 4414.7 | 3743.7 | 3636.7 | 3186.8 | 3137.8 |
| 65°   | 878.9  | 872.9  | 905.9  | 935.9  | 1238.9 | 3075.8 | 4788.6 | 4473.7 | 4252.7 | 3348.8 | 3285.8 |
| 67.5° | 688.9  | 696.9  | 737.9  | 824.9  | 799.9  | 1916.9 | 4753.6 | 5587.6 | 5366.6 | 3646.7 | 3606.7 |
| 70°   | 554.0  | 556.0  | 607.0  | 745.9  | 754.9  | 975.9  | 4024.7 | 6163.5 | 6160.5 | 4127.7 | 3861.7 |
| 72.5° | 335.0  | 344.0  | 427.0  | 645.0  | 761.9  | 746.9  | 2705.8 | 5647.6 | 5725.6 | 4239.7 | 3482.7 |
| 75°   | 161.0  | 170.0  | 221.0  | 433.0  | 756.9  | 726.9  | 1463.9 | 4275.7 | 4375.7 | 3801.7 | 2823.8 |
| 77.5° | 60.0   | 68.0   | 102.0  | 212.0  | 561.0  | 666.0  | 769.9  | 2882.8 | 2961.8 | 2782.8 | 1912.9 |
| 80°   | 19.0   | 22.0   | 40.0   | 97.0   | 285.0  | 550.0  | 496.0  | 1625.9 | 1678.9 | 1217.9 | 643.0  |
| 82.5° | 2.0    | 3.0    | 11.0   | 33.0   | 110.0  | 280.0  | 291.0  | 612.0  | 639.0  | 238.0  | 130.0  |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 2.0    | 2.0    | 72.0   | 117.0  | 96.0   | 23.0   | 38.0   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.0    | 2.0    | 3.0    | 3.0    | 3.0    | 4.0    |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 | 1471.9 |
| 2.5°  | 1469.9 | 1469.9 | 1462.9 | 1451.9 | 1437.9 | 1417.9 | 1412.9 | 1396.9 | 1396.9 | 1383.9 | 1381.9 |
| 5°    | 1471.9 | 1465.9 | 1442.9 | 1408.9 | 1361.9 | 1310.9 | 1278.9 | 1243.9 | 1213.9 | 1194.9 | 1196.9 |
| 7.5°  | 1471.9 | 1458.9 | 1412.9 | 1337.9 | 1249.9 | 1161.9 | 1094.9 | 1016.9 | 980.9  | 956.9  | 967.9  |
| 10°   | 1467.9 | 1445.9 | 1365.9 | 1251.9 | 1112.9 | 990.9  | 880.9  | 790.9  | 728.9  | 702.9  | 680.9  |
| 12.5° | 1458.9 | 1426.9 | 1306.9 | 1144.9 | 966.9  | 806.9  | 655.0  | 537.0  | 455.0  | 414.0  | 409.0  |
| 15°   | 1450.9 | 1406.9 | 1237.9 | 1027.9 | 801.9  | 593.0  | 423.0  | 310.0  | 240.0  | 224.0  | 226.0  |
| 17.5° | 1448.9 | 1387.9 | 1171.9 | 903.9  | 641.0  | 395.0  | 244.0  | 197.0  | 187.0  | 183.0  | 182.0  |
| 20°   | 1449.9 | 1370.9 | 1099.9 | 780.9  | 454.0  | 246.0  | 185.0  | 174.0  | 170.0  | 168.0  | 167.0  |
| 22.5° | 1453.9 | 1351.9 | 1028.9 | 652.0  | 310.0  | 180.0  | 165.0  | 158.0  | 153.0  | 150.0  | 149.0  |
| 25°   | 1453.9 | 1330.9 | 949.9  | 515.0  | 203.0  | 158.0  | 148.0  | 139.0  | 132.0  | 128.0  | 128.0  |
| 27.5° | 1450.9 | 1306.9 | 867.9  | 391.0  | 161.0  | 141.0  | 130.0  | 118.0  | 109.0  | 104.0  | 104.0  |
| 30°   | 1441.9 | 1277.9 | 788.9  | 273.0  | 141.0  | 126.0  | 112.0  | 97.0   | 86.0   | 81.0   | 79.0   |
| 32.5° | 1428.9 | 1246.9 | 697.9  | 192.0  | 127.0  | 110.0  | 94.0   | 78.0   | 68.0   | 62.0   | 62.0   |
| 35°   | 1414.9 | 1215.9 | 600.0  | 147.0  | 115.0  | 97.0   | 79.0   | 63.0   | 54.0   | 50.0   | 49.0   |
| 37.5° | 1407.9 | 1182.9 | 504.0  | 127.0  | 103.0  | 83.0   | 64.0   | 51.0   | 44.0   | 41.0   | 40.0   |
| 40°   | 1412.9 | 1157.9 | 410.0  | 114.0  | 92.0   | 70.0   | 53.0   | 43.0   | 37.0   | 33.0   | 33.0   |
| 42.5° | 1442.9 | 1143.9 | 321.0  | 104.0  | 82.0   | 59.0   | 44.0   | 35.0   | 29.0   | 26.0   | 26.0   |
| 45°   | 1503.9 | 1153.9 | 244.0  | 95.0   | 70.0   | 49.0   | 37.0   | 28.0   | 22.0   | 19.0   | 19.0   |
| 47.5° | 1605.9 | 1193.9 | 185.0  | 87.0   | 60.0   | 40.0   | 30.0   | 22.0   | 17.0   | 15.0   | 14.0   |
| 50°   | 1754.9 | 1272.9 | 145.0  | 79.0   | 50.0   | 34.0   | 25.0   | 17.0   | 13.0   | 11.0   | 11.0   |
| 52.5° | 1969.9 | 1409.9 | 124.0  | 70.0   | 41.0   | 28.0   | 20.0   | 13.0   | 10.0   | 8.0    | 8.0    |
| 55°   | 2233.8 | 1583.9 | 112.0  | 62.0   | 33.0   | 23.0   | 16.0   | 10.0   | 7.0    | 6.0    | 5.0    |
| 57.5° | 2447.8 | 1721.9 | 105.0  | 54.0   | 28.0   | 20.0   | 12.0   | 8.0    | 6.0    | 4.0    | 4.0    |
| 60°   | 2636.8 | 1810.9 | 93.0   | 45.0   | 24.0   | 16.0   | 10.0   | 6.0    | 4.0    | 3.0    | 3.0    |
| 62.5° | 2789.8 | 1868.9 | 77.0   | 36.0   | 20.0   | 13.0   | 8.0    | 5.0    | 4.0    | 3.0    | 3.0    |
| 65°   | 2963.8 | 1915.9 | 63.0   | 28.0   | 17.0   | 11.0   | 7.0    | 4.0    | 3.0    | 3.0    | 3.0    |
| 67.5° | 3304.8 | 2020.8 | 47.0   | 22.0   | 13.0   | 9.0    | 6.0    | 4.0    | 3.0    | 2.0    | 2.0    |
| 70°   | 3437.7 | 1897.9 | 37.0   | 18.0   | 10.0   | 8.0    | 6.0    | 4.0    | 2.0    | 2.0    | 2.0    |
| 72.5° | 2925.8 | 1420.9 | 29.0   | 15.0   | 9.0    | 7.0    | 6.0    | 4.0    | 3.0    | 3.0    | 2.0    |
| 75°   | 2320.8 | 959.9  | 23.0   | 12.0   | 9.0    | 8.0    | 6.0    | 6.0    | 5.0    | 4.0    | 4.0    |
| 77.5° | 1481.9 | 425.0  | 18.0   | 10.0   | 9.0    | 10.0   | 9.0    | 6.0    | 6.0    | 5.0    | 5.0    |
| 80°   | 442.0  | 102.0  | 13.0   | 8.0    | 7.0    | 8.0    | 9.0    | 6.0    | 4.0    | 3.0    | 3.0    |
| 82.5° | 96.0   | 24.0   | 8.0    | 4.0    | 5.0    | 4.0    | 6.0    | 6.0    | 4.0    | 3.0    | 3.0    |
| 85°   | 32.0   | 9.0    | 5.0    | 4.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 2.0    |
| 87.5° | 2.0    | 3.0    | 3.0    | 2.0    | 2.0    | 2.0    | 2.0    | 1.0    | 1.0    | 2.0    | 2.0    |
| 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)