

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: P401467

Luminaire Tested: **ENT-SA1D-735-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401467
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: ENT-SA1D-735-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 800mA 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: 4287 lumens
Efficiency: N/A
Efficacy: 99.5 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 - G1

Input Watts (W): 43.1
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

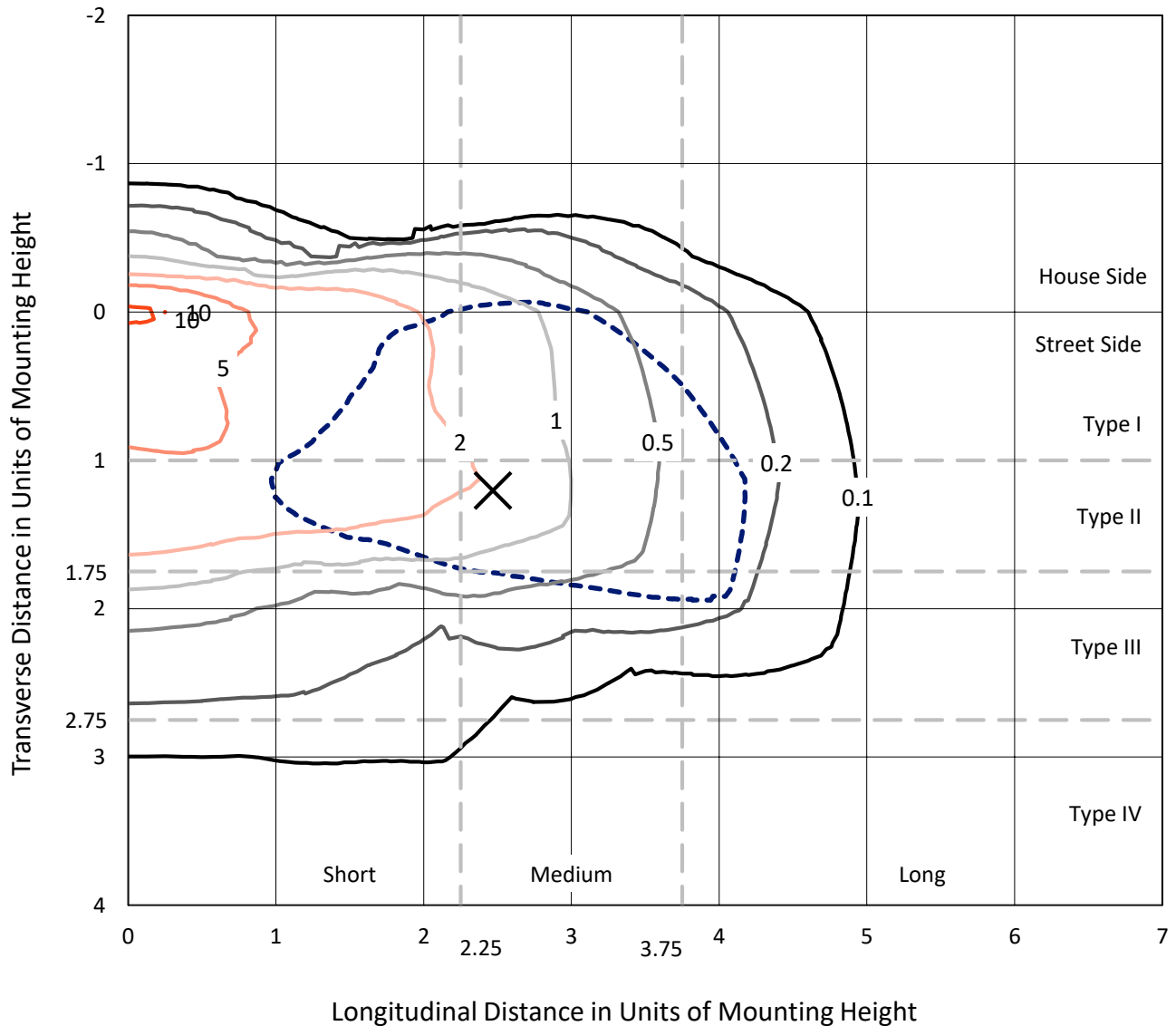


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Iso-Footcandle Lines of Horizontal Illumination

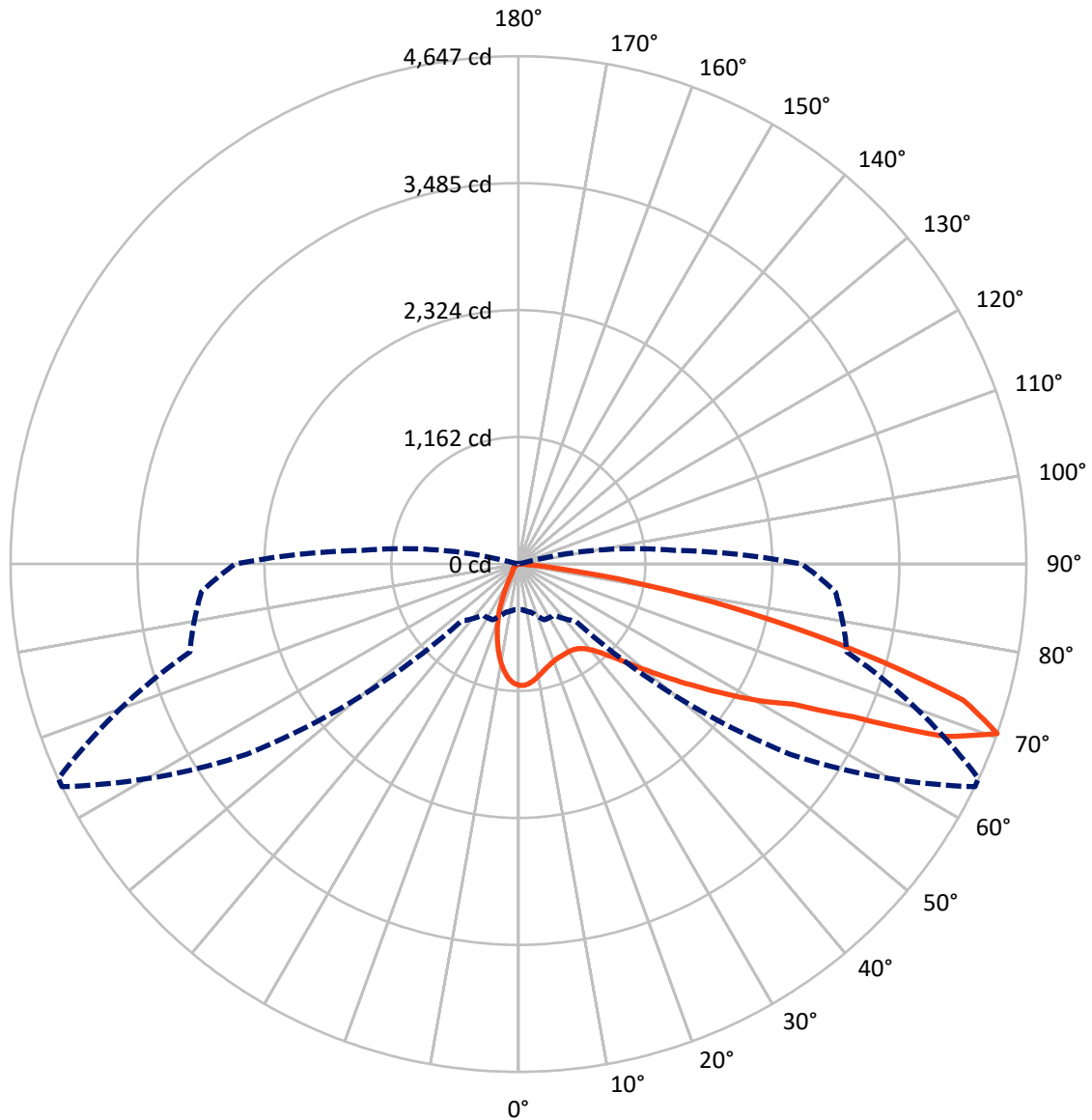
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.1 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 |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 550.7 | 0.0 | 550.7 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 3736.3 | 0.0 | 3736.3 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 4287.0 | 0.0 | 4287.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 93.5 | 2.2 |
| 10°-20° | 207.5 | 4.8 |
| 20°-30° | 285.8 | 6.7 |
| 30°-40° | 393.5 | 9.2 |
| 40°-50° | 586.6 | 13.7 |
| 50°-60° | 926.6 | 21.6 |
| 60°-70° | 1050.0 | 24.5 |
| 70°-80° | 689.4 | 16.1 |
| 80°-90° | 54.1 | 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° | 4287.0 | 100.0 |
| 0°-180° | 4287.0 | 100.0 |



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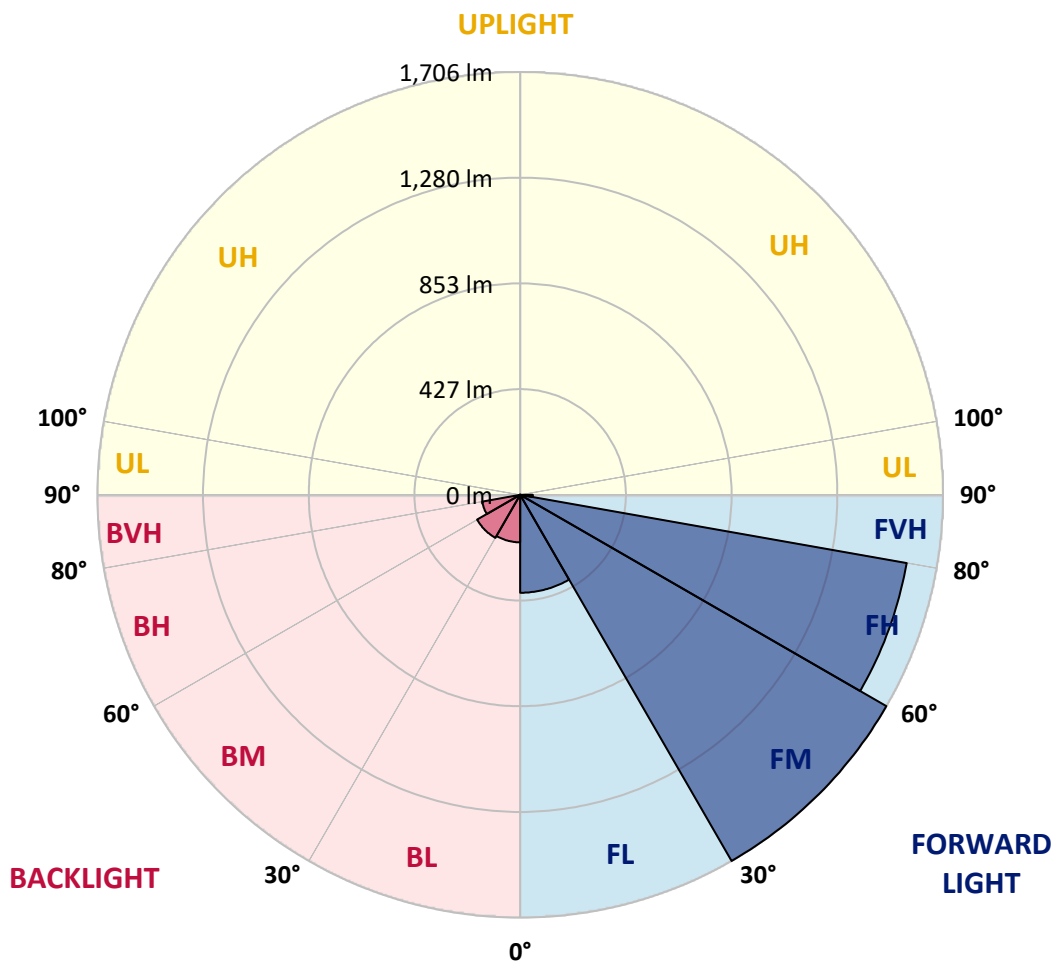
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 395.2 | 9.2 | | | |
| FM | (30°-60°) | 1706.2 | 39.8 | | | |
| FH | (60°-80°) | 1583.9 | 36.9 | | | G1/1800 |
| FVH | (80°-90°) | 51.1 | 1.2 | | | G1/100 |
| BL | (0°-30°) | 191.7 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 200.6 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 155.5 | 3.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.0 | 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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 |
| 2.5° | 1078.8 | 1078.8 | 1084.1 | 1089.4 | 1092.4 | 1100.7 | 1106.7 | 1111.3 | 1111.3 | 1114.3 | 1109.0 |
| 5° | 1007.2 | 1007.2 | 1011.7 | 1024.6 | 1038.1 | 1055.5 | 1075.1 | 1094.7 | 1098.4 | 1112.8 | 1112.0 |
| 7.5° | 940.9 | 946.9 | 954.4 | 967.3 | 981.6 | 1007.2 | 1034.4 | 1068.3 | 1072.0 | 1106.7 | 1114.3 |
| 10° | 894.9 | 898.6 | 903.2 | 917.5 | 938.6 | 968.0 | 997.4 | 1037.4 | 1044.2 | 1096.2 | 1114.3 |
| 12.5° | 857.9 | 858.7 | 865.5 | 881.3 | 901.7 | 930.3 | 963.5 | 1007.2 | 1015.5 | 1077.3 | 1111.3 |
| 15° | 831.6 | 830.8 | 838.3 | 853.4 | 873.0 | 902.4 | 934.8 | 980.8 | 989.9 | 1061.5 | 1110.5 |
| 17.5° | 815.7 | 816.5 | 822.5 | 833.8 | 852.7 | 880.6 | 913.7 | 959.0 | 968.0 | 1048.7 | 1114.3 |
| 20° | 815.7 | 815.7 | 819.5 | 824.8 | 839.1 | 864.0 | 896.4 | 943.1 | 952.2 | 1040.4 | 1119.5 |
| 22.5° | 831.6 | 830.0 | 833.1 | 828.5 | 835.3 | 852.7 | 885.8 | 932.6 | 942.4 | 1036.6 | 1127.8 |
| 25° | 860.2 | 857.2 | 859.4 | 849.6 | 842.1 | 849.6 | 879.0 | 928.1 | 938.6 | 1037.4 | 1135.4 |
| 27.5° | 900.2 | 900.2 | 895.6 | 882.1 | 863.2 | 854.9 | 878.3 | 925.0 | 935.6 | 1037.4 | 1140.7 |
| 30° | 955.9 | 953.7 | 946.9 | 933.3 | 903.9 | 876.0 | 885.8 | 925.0 | 935.6 | 1038.1 | 1142.2 |
| 32.5° | 1011.7 | 1013.2 | 1017.0 | 1003.4 | 963.5 | 912.2 | 903.9 | 931.8 | 940.9 | 1037.4 | 1139.9 |
| 35° | 1068.3 | 1069.0 | 1085.6 | 1087.1 | 1035.9 | 970.3 | 934.8 | 949.9 | 955.9 | 1044.9 | 1141.4 |
| 37.5° | 1118.0 | 1121.8 | 1154.2 | 1170.1 | 1127.8 | 1044.9 | 983.8 | 983.8 | 986.9 | 1065.3 | 1150.5 |
| 40° | 1173.8 | 1183.6 | 1222.8 | 1258.3 | 1241.7 | 1140.7 | 1055.5 | 1033.6 | 1035.1 | 1102.2 | 1170.8 |
| 42.5° | 1238.7 | 1250.7 | 1302.0 | 1353.3 | 1352.5 | 1258.3 | 1145.9 | 1112.8 | 1114.3 | 1166.3 | 1212.3 |
| 45° | 1320.8 | 1329.1 | 1394.0 | 1458.0 | 1471.6 | 1387.9 | 1259.8 | 1216.0 | 1217.6 | 1263.5 | 1292.9 |
| 47.5° | 1421.1 | 1430.9 | 1493.5 | 1570.4 | 1605.1 | 1544.0 | 1407.5 | 1360.0 | 1355.5 | 1387.9 | 1409.0 |
| 50° | 1552.3 | 1571.1 | 1608.1 | 1682.0 | 1765.6 | 1724.9 | 1580.9 | 1533.4 | 1527.4 | 1553.0 | 1559.8 |
| 52.5° | 1677.4 | 1694.8 | 1709.8 | 1777.7 | 1939.8 | 1949.6 | 1793.5 | 1741.5 | 1735.5 | 1741.5 | 1749.8 |
| 55° | 1696.3 | 1706.1 | 1717.4 | 1809.4 | 2080.8 | 2235.3 | 2035.5 | 1973.7 | 1956.4 | 1945.1 | 1973.0 |
| 57.5° | 1546.3 | 1540.2 | 1577.9 | 1703.1 | 2104.1 | 2551.2 | 2362.7 | 2242.9 | 2226.3 | 2163.7 | 2135.8 |
| 60° | 1224.3 | 1216.0 | 1251.5 | 1422.6 | 1973.0 | 2708.0 | 2816.6 | 2540.6 | 2499.9 | 2290.4 | 2263.2 |
| 62.5° | 860.2 | 850.4 | 896.4 | 997.4 | 1530.4 | 2677.1 | 3328.5 | 2822.6 | 2741.9 | 2402.7 | 2365.7 |
| 65° | 662.7 | 658.2 | 683.0 | 705.7 | 934.1 | 2319.0 | 3610.4 | 3373.0 | 3206.3 | 2524.8 | 2477.3 |
| 67.5° | 519.4 | 525.5 | 556.4 | 622.0 | 603.1 | 1445.2 | 3584.0 | 4212.8 | 4046.2 | 2749.5 | 2719.3 |
| 70° | 417.7 | 419.2 | 457.6 | 562.4 | 569.2 | 735.8 | 3034.5 | 4647.0 | 4644.8 | 3112.1 | 2911.6 |
| 72.5° | 252.6 | 259.3 | 321.9 | 486.3 | 574.5 | 563.2 | 2040.1 | 4258.0 | 4316.8 | 3196.5 | 2625.8 |
| 75° | 121.4 | 128.2 | 166.6 | 326.4 | 570.7 | 548.1 | 1103.7 | 3223.7 | 3299.1 | 2866.3 | 2129.0 |
| 77.5° | 45.2 | 51.3 | 76.9 | 159.8 | 422.9 | 502.1 | 580.5 | 2173.5 | 2233.1 | 2098.1 | 1442.2 |
| 80° | 14.3 | 16.6 | 30.2 | 73.1 | 214.9 | 414.6 | 373.9 | 1225.8 | 1265.8 | 918.3 | 484.8 |
| 82.5° | 1.5 | 2.3 | 8.3 | 24.9 | 82.9 | 211.1 | 219.4 | 461.4 | 481.7 | 179.4 | 98.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 54.3 | 88.2 | 72.4 | 17.3 | 28.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.5 | 2.3 | 2.3 | 2.3 | 3.0 |
| 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° | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 | 1109.7 |
| 2.5° | 1108.2 | 1108.2 | 1103.0 | 1094.7 | 1084.1 | 1069.0 | 1065.3 | 1053.2 | 1053.2 | 1043.4 | 1041.9 |
| 5° | 1109.7 | 1105.2 | 1087.9 | 1062.2 | 1026.8 | 988.4 | 964.2 | 937.9 | 915.2 | 900.9 | 902.4 |
| 7.5° | 1109.7 | 1099.9 | 1065.3 | 1008.7 | 942.4 | 876.0 | 825.5 | 766.7 | 739.6 | 721.5 | 729.8 |
| 10° | 1106.7 | 1090.1 | 1029.8 | 943.9 | 839.1 | 747.1 | 664.2 | 596.3 | 549.6 | 530.0 | 513.4 |
| 12.5° | 1099.9 | 1075.8 | 985.3 | 863.2 | 729.0 | 608.4 | 493.8 | 404.8 | 343.0 | 312.1 | 308.3 |
| 15° | 1093.9 | 1060.7 | 933.3 | 775.0 | 604.6 | 447.1 | 318.9 | 233.7 | 180.9 | 168.9 | 170.4 |
| 17.5° | 1092.4 | 1046.4 | 883.6 | 681.5 | 483.3 | 297.8 | 184.0 | 148.5 | 141.0 | 138.0 | 137.2 |
| 20° | 1093.2 | 1033.6 | 829.3 | 588.8 | 342.3 | 185.5 | 139.5 | 131.2 | 128.2 | 126.7 | 125.9 |
| 22.5° | 1096.2 | 1019.3 | 775.8 | 491.5 | 233.7 | 135.7 | 124.4 | 119.1 | 115.3 | 113.1 | 112.3 |
| 25° | 1096.2 | 1003.4 | 716.2 | 388.3 | 153.0 | 119.1 | 111.6 | 104.8 | 99.5 | 96.5 | 96.5 |
| 27.5° | 1093.9 | 985.3 | 654.4 | 294.8 | 121.4 | 106.3 | 98.0 | 89.0 | 82.2 | 78.4 | 78.4 |
| 30° | 1087.1 | 963.5 | 594.8 | 205.8 | 106.3 | 95.0 | 84.4 | 73.1 | 64.8 | 61.1 | 59.6 |
| 32.5° | 1077.3 | 940.1 | 526.2 | 144.7 | 95.7 | 82.9 | 70.9 | 58.8 | 51.3 | 46.7 | 46.7 |
| 35° | 1066.8 | 916.7 | 452.3 | 110.8 | 86.7 | 73.1 | 59.6 | 47.5 | 40.7 | 37.7 | 36.9 |
| 37.5° | 1061.5 | 891.9 | 380.0 | 95.7 | 77.7 | 62.6 | 48.2 | 38.4 | 33.2 | 30.9 | 30.2 |
| 40° | 1065.3 | 873.0 | 309.1 | 85.9 | 69.4 | 52.8 | 40.0 | 32.4 | 27.9 | 24.9 | 24.9 |
| 42.5° | 1087.9 | 862.5 | 242.0 | 78.4 | 61.8 | 44.5 | 33.2 | 26.4 | 21.9 | 19.6 | 19.6 |
| 45° | 1133.9 | 870.0 | 184.0 | 71.6 | 52.8 | 36.9 | 27.9 | 21.1 | 16.6 | 14.3 | 14.3 |
| 47.5° | 1210.8 | 900.2 | 139.5 | 65.6 | 45.2 | 30.2 | 22.6 | 16.6 | 12.8 | 11.3 | 10.6 |
| 50° | 1323.1 | 959.7 | 109.3 | 59.6 | 37.7 | 25.6 | 18.8 | 12.8 | 9.8 | 8.3 | 8.3 |
| 52.5° | 1485.2 | 1063.0 | 93.5 | 52.8 | 30.9 | 21.1 | 15.1 | 9.8 | 7.5 | 6.0 | 6.0 |
| 55° | 1684.2 | 1194.2 | 84.4 | 46.7 | 24.9 | 17.3 | 12.1 | 7.5 | 5.3 | 4.5 | 3.8 |
| 57.5° | 1845.5 | 1298.2 | 79.2 | 40.7 | 21.1 | 15.1 | 9.0 | 6.0 | 4.5 | 3.0 | 3.0 |
| 60° | 1988.0 | 1365.3 | 70.1 | 33.9 | 18.1 | 12.1 | 7.5 | 4.5 | 3.0 | 2.3 | 2.3 |
| 62.5° | 2103.4 | 1409.0 | 58.1 | 27.1 | 15.1 | 9.8 | 6.0 | 3.8 | 3.0 | 2.3 | 2.3 |
| 65° | 2234.6 | 1444.5 | 47.5 | 21.1 | 12.8 | 8.3 | 5.3 | 3.0 | 2.3 | 2.3 | 2.3 |
| 67.5° | 2491.6 | 1523.6 | 35.4 | 16.6 | 9.8 | 6.8 | 4.5 | 3.0 | 2.3 | 1.5 | 1.5 |
| 70° | 2591.9 | 1430.9 | 27.9 | 13.6 | 7.5 | 6.0 | 4.5 | 3.0 | 1.5 | 1.5 | 1.5 |
| 72.5° | 2205.9 | 1071.3 | 21.9 | 11.3 | 6.8 | 5.3 | 4.5 | 3.0 | 2.3 | 2.3 | 1.5 |
| 75° | 1749.8 | 723.7 | 17.3 | 9.0 | 6.8 | 6.0 | 4.5 | 4.5 | 3.8 | 3.0 | 3.0 |
| 77.5° | 1117.3 | 320.4 | 13.6 | 7.5 | 6.8 | 7.5 | 6.8 | 4.5 | 4.5 | 3.8 | 3.8 |
| 80° | 333.2 | 76.9 | 9.8 | 6.0 | 5.3 | 6.0 | 6.8 | 4.5 | 3.0 | 2.3 | 2.3 |
| 82.5° | 72.4 | 18.1 | 6.0 | 3.0 | 3.8 | 3.0 | 4.5 | 4.5 | 3.0 | 2.3 | 2.3 |
| 85° | 24.1 | 6.8 | 3.8 | 3.0 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 1.5 |
| 87.5° | 1.5 | 2.3 | 2.3 | 1.5 | 1.5 | 1.5 | 1.5 | 0.8 | 0.8 | 1.5 | 1.5 |
| 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)