

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: P401486

Luminaire Tested: **ENV-SA1D-740-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401486
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-SA1D-740-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 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: 4564 lumens
Efficiency: N/A
Efficacy: 105.9 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

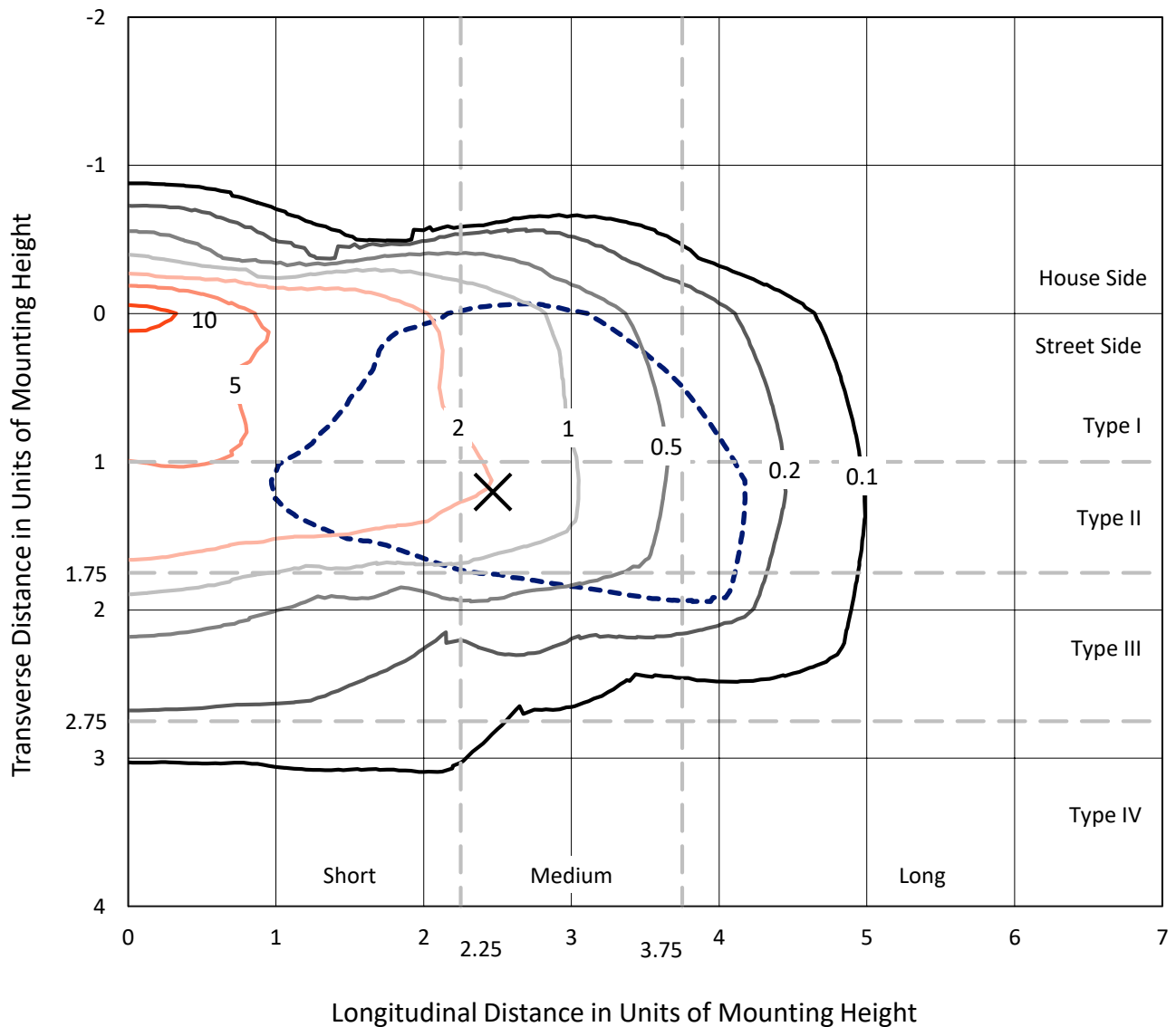


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Iso-Footcandle Lines of Horizontal Illumination

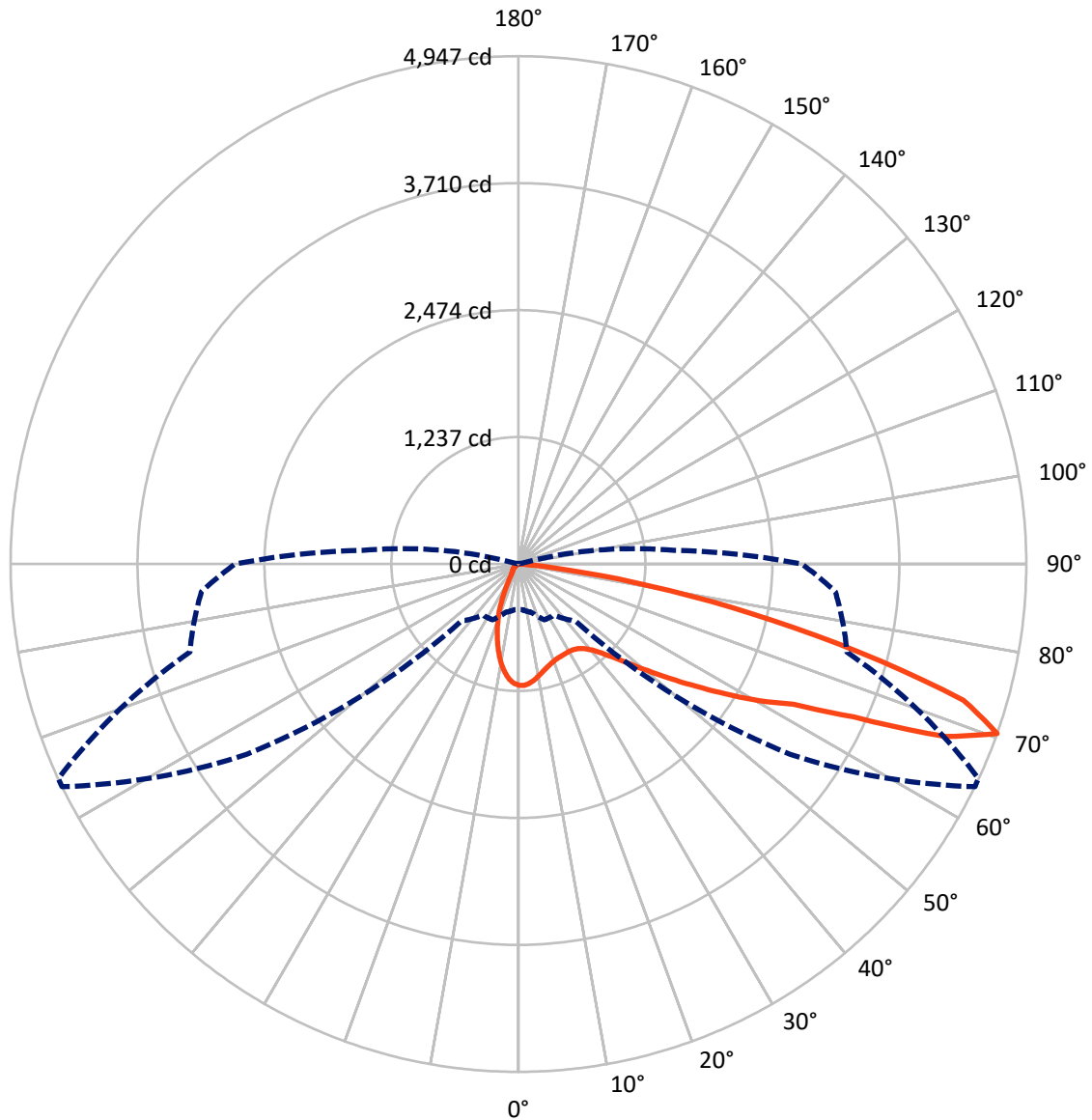
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 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 | 586.3 | 0.0 | 586.3 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 3977.7 | 0.0 | 3977.7 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 4564.0 | 0.0 | 4564.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 99.6 | 2.2 |
| 10°-20° | 220.9 | 4.8 |
| 20°-30° | 304.3 | 6.7 |
| 30°-40° | 419.0 | 9.2 |
| 40°-50° | 624.5 | 13.7 |
| 50°-60° | 986.5 | 21.6 |
| 60°-70° | 1117.8 | 24.5 |
| 70°-80° | 733.9 | 16.1 |
| 80°-90° | 57.5 | 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° | 4564.0 | 100.0 |
| 0°-180° | 4564.0 | 100.0 |



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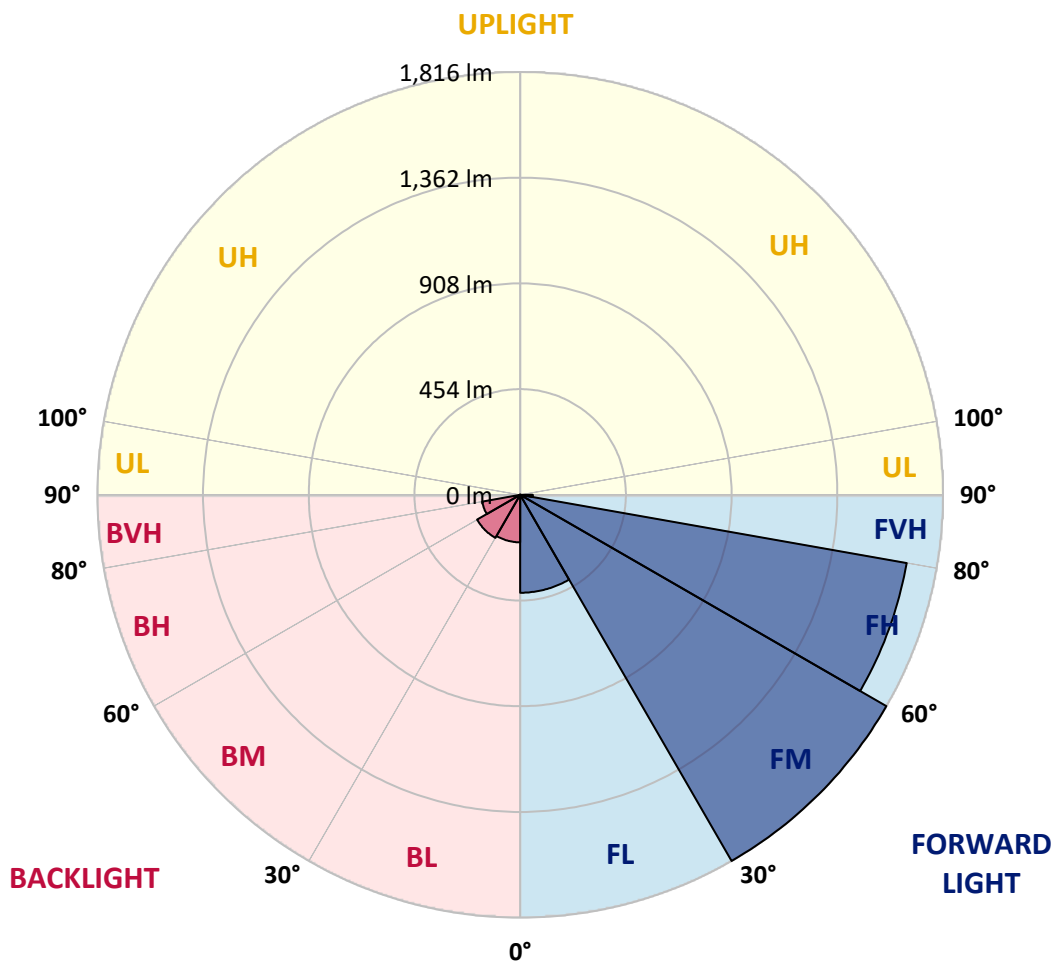
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 420.7 | 9.2 | | | |
| FM | (30°-60°) | 1816.4 | 39.8 | | | |
| FH | (60°-80°) | 1686.2 | 36.9 | | | G1/1800 |
| FVH | (80°-90°) | 54.4 | 1.2 | | | G1/100 |
| BL | (0°-30°) | 204.1 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 213.5 | 4.7 | B0/220 | | |
| BH | (60°-80°) | 165.5 | 3.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.2 | 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° | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 |
| 2.5° | 1148.5 | 1148.5 | 1154.2 | 1159.8 | 1163.0 | 1171.8 | 1178.2 | 1183.1 | 1183.1 | 1186.3 | 1180.6 |
| 5° | 1072.3 | 1072.3 | 1077.1 | 1090.8 | 1105.2 | 1123.7 | 1144.5 | 1165.4 | 1169.4 | 1184.7 | 1183.9 |
| 7.5° | 1001.7 | 1008.1 | 1016.1 | 1029.8 | 1045.0 | 1072.3 | 1101.2 | 1137.3 | 1141.3 | 1178.2 | 1186.3 |
| 10° | 952.7 | 956.7 | 961.5 | 976.8 | 999.3 | 1030.6 | 1061.9 | 1104.4 | 1111.6 | 1167.0 | 1186.3 |
| 12.5° | 913.4 | 914.2 | 921.4 | 938.3 | 959.9 | 990.4 | 1025.7 | 1072.3 | 1081.1 | 1146.9 | 1183.1 |
| 15° | 885.3 | 884.5 | 892.5 | 908.6 | 929.4 | 960.7 | 995.2 | 1044.2 | 1053.8 | 1130.1 | 1182.2 |
| 17.5° | 868.4 | 869.2 | 875.7 | 887.7 | 907.8 | 937.5 | 972.8 | 1020.9 | 1030.6 | 1116.4 | 1186.3 |
| 20° | 868.4 | 868.4 | 872.4 | 878.1 | 893.3 | 919.8 | 954.3 | 1004.1 | 1013.7 | 1107.6 | 1191.9 |
| 22.5° | 885.3 | 883.7 | 886.9 | 882.1 | 889.3 | 907.8 | 943.1 | 992.8 | 1003.3 | 1103.6 | 1200.7 |
| 25° | 915.8 | 912.6 | 915.0 | 904.5 | 896.5 | 904.5 | 935.8 | 988.0 | 999.3 | 1104.4 | 1208.7 |
| 27.5° | 958.3 | 958.3 | 953.5 | 939.1 | 919.0 | 910.2 | 935.0 | 984.8 | 996.0 | 1104.4 | 1214.4 |
| 30° | 1017.7 | 1015.3 | 1008.1 | 993.6 | 962.3 | 932.6 | 943.1 | 984.8 | 996.0 | 1105.2 | 1216.0 |
| 32.5° | 1077.1 | 1078.7 | 1082.7 | 1068.3 | 1025.7 | 971.2 | 962.3 | 992.0 | 1001.7 | 1104.4 | 1213.6 |
| 35° | 1137.3 | 1138.1 | 1155.8 | 1157.4 | 1102.8 | 1033.0 | 995.2 | 1011.3 | 1017.7 | 1112.4 | 1215.2 |
| 37.5° | 1190.3 | 1194.3 | 1228.8 | 1245.7 | 1200.7 | 1112.4 | 1047.4 | 1047.4 | 1050.6 | 1134.1 | 1224.8 |
| 40° | 1249.7 | 1260.1 | 1301.8 | 1339.6 | 1321.9 | 1214.4 | 1123.7 | 1100.4 | 1102.0 | 1173.4 | 1246.5 |
| 42.5° | 1318.7 | 1331.5 | 1386.1 | 1440.7 | 1439.9 | 1339.6 | 1220.0 | 1184.7 | 1186.3 | 1241.6 | 1290.6 |
| 45° | 1406.2 | 1415.0 | 1484.0 | 1552.3 | 1566.7 | 1477.6 | 1341.2 | 1294.6 | 1296.2 | 1345.2 | 1376.5 |
| 47.5° | 1512.9 | 1523.4 | 1590.0 | 1671.8 | 1708.8 | 1643.8 | 1498.5 | 1447.9 | 1443.1 | 1477.6 | 1500.1 |
| 50° | 1652.6 | 1672.6 | 1712.0 | 1790.6 | 1879.7 | 1836.4 | 1683.1 | 1632.5 | 1626.1 | 1653.4 | 1660.6 |
| 52.5° | 1785.8 | 1804.3 | 1820.3 | 1892.6 | 2065.1 | 2075.6 | 1909.4 | 1854.0 | 1847.6 | 1854.0 | 1862.9 |
| 55° | 1805.9 | 1816.3 | 1828.4 | 1926.3 | 2215.2 | 2379.7 | 2167.1 | 2101.2 | 2082.8 | 2070.7 | 2100.4 |
| 57.5° | 1646.2 | 1639.7 | 1679.9 | 1813.1 | 2240.1 | 2716.0 | 2515.4 | 2387.8 | 2370.1 | 2303.5 | 2273.8 |
| 60° | 1303.4 | 1294.6 | 1332.3 | 1514.5 | 2100.4 | 2883.0 | 2998.6 | 2704.8 | 2661.5 | 2438.3 | 2409.4 |
| 62.5° | 915.8 | 905.3 | 954.3 | 1061.9 | 1629.3 | 2850.1 | 3543.5 | 3005.0 | 2919.1 | 2557.9 | 2518.6 |
| 65° | 705.5 | 700.7 | 727.2 | 751.2 | 994.4 | 2468.8 | 3843.7 | 3590.9 | 3413.5 | 2688.0 | 2637.4 |
| 67.5° | 553.0 | 559.4 | 592.3 | 662.2 | 642.1 | 1538.6 | 3815.6 | 4485.0 | 4307.6 | 2927.1 | 2895.0 |
| 70° | 444.6 | 446.3 | 487.2 | 598.7 | 606.0 | 783.4 | 3230.5 | 4947.3 | 4944.9 | 3313.2 | 3099.7 |
| 72.5° | 268.9 | 276.1 | 342.7 | 517.7 | 611.6 | 599.6 | 2171.9 | 4533.2 | 4595.8 | 3403.1 | 2795.5 |
| 75° | 129.2 | 136.4 | 177.4 | 347.5 | 607.6 | 583.5 | 1175.0 | 3432.0 | 3512.2 | 3051.5 | 2266.6 |
| 77.5° | 48.2 | 54.6 | 81.9 | 170.2 | 450.3 | 534.5 | 618.0 | 2313.9 | 2377.3 | 2233.7 | 1535.4 |
| 80° | 15.2 | 17.7 | 32.1 | 77.9 | 228.7 | 441.4 | 398.1 | 1305.0 | 1347.6 | 977.6 | 516.1 |
| 82.5° | 1.6 | 2.4 | 8.8 | 26.5 | 88.3 | 224.7 | 233.6 | 491.2 | 512.9 | 191.0 | 104.3 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.6 | 57.8 | 93.9 | 77.1 | 18.5 | 30.5 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.6 | 2.4 | 2.4 | 2.4 | 3.2 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 | 1181.4 |
| 2.5° | 1179.8 | 1179.8 | 1174.2 | 1165.4 | 1154.2 | 1138.1 | 1134.1 | 1121.3 | 1121.3 | 1110.8 | 1109.2 |
| 5° | 1181.4 | 1176.6 | 1158.2 | 1130.9 | 1093.2 | 1052.2 | 1026.5 | 998.5 | 974.4 | 959.1 | 960.7 |
| 7.5° | 1181.4 | 1171.0 | 1134.1 | 1073.9 | 1003.3 | 932.6 | 878.9 | 816.3 | 787.4 | 768.1 | 776.9 |
| 10° | 1178.2 | 1160.6 | 1096.4 | 1004.9 | 893.3 | 795.4 | 707.1 | 634.9 | 585.1 | 564.2 | 546.6 |
| 12.5° | 1171.0 | 1145.3 | 1049.0 | 919.0 | 776.1 | 647.7 | 525.7 | 431.0 | 365.2 | 332.3 | 328.3 |
| 15° | 1164.6 | 1129.3 | 993.6 | 825.1 | 643.7 | 475.9 | 339.5 | 248.8 | 192.6 | 179.8 | 181.4 |
| 17.5° | 1163.0 | 1114.0 | 940.7 | 725.6 | 514.5 | 317.0 | 195.8 | 158.1 | 150.1 | 146.9 | 146.1 |
| 20° | 1163.8 | 1100.4 | 882.9 | 626.8 | 364.4 | 197.4 | 148.5 | 139.7 | 136.4 | 134.8 | 134.0 |
| 22.5° | 1167.0 | 1085.1 | 825.9 | 523.3 | 248.8 | 144.5 | 132.4 | 126.8 | 122.8 | 120.4 | 119.6 |
| 25° | 1167.0 | 1068.3 | 762.5 | 413.3 | 162.9 | 126.8 | 118.8 | 111.6 | 105.9 | 102.7 | 102.7 |
| 27.5° | 1164.6 | 1049.0 | 696.7 | 313.8 | 129.2 | 113.2 | 104.3 | 94.7 | 87.5 | 83.5 | 83.5 |
| 30° | 1157.4 | 1025.7 | 633.3 | 219.1 | 113.2 | 101.1 | 89.9 | 77.9 | 69.0 | 65.0 | 63.4 |
| 32.5° | 1146.9 | 1000.9 | 560.2 | 154.1 | 101.9 | 88.3 | 75.4 | 62.6 | 54.6 | 49.8 | 49.8 |
| 35° | 1135.7 | 976.0 | 481.6 | 118.0 | 92.3 | 77.9 | 63.4 | 50.6 | 43.3 | 40.1 | 39.3 |
| 37.5° | 1130.1 | 949.5 | 404.5 | 101.9 | 82.7 | 66.6 | 51.4 | 40.9 | 35.3 | 32.9 | 32.1 |
| 40° | 1134.1 | 929.4 | 329.1 | 91.5 | 73.8 | 56.2 | 42.5 | 34.5 | 29.7 | 26.5 | 26.5 |
| 42.5° | 1158.2 | 918.2 | 257.6 | 83.5 | 65.8 | 47.4 | 35.3 | 28.1 | 23.3 | 20.9 | 20.9 |
| 45° | 1207.1 | 926.2 | 195.8 | 76.2 | 56.2 | 39.3 | 29.7 | 22.5 | 17.7 | 15.2 | 15.2 |
| 47.5° | 1289.0 | 958.3 | 148.5 | 69.8 | 48.2 | 32.1 | 24.1 | 17.7 | 13.6 | 12.0 | 11.2 |
| 50° | 1408.6 | 1021.7 | 116.4 | 63.4 | 40.1 | 27.3 | 20.1 | 13.6 | 10.4 | 8.8 | 8.8 |
| 52.5° | 1581.1 | 1131.7 | 99.5 | 56.2 | 32.9 | 22.5 | 16.1 | 10.4 | 8.0 | 6.4 | 6.4 |
| 55° | 1793.0 | 1271.3 | 89.9 | 49.8 | 26.5 | 18.5 | 12.8 | 8.0 | 5.6 | 4.8 | 4.0 |
| 57.5° | 1964.8 | 1382.1 | 84.3 | 43.3 | 22.5 | 16.1 | 9.6 | 6.4 | 4.8 | 3.2 | 3.2 |
| 60° | 2116.5 | 1453.5 | 74.6 | 36.1 | 19.3 | 12.8 | 8.0 | 4.8 | 3.2 | 2.4 | 2.4 |
| 62.5° | 2239.3 | 1500.1 | 61.8 | 28.9 | 16.1 | 10.4 | 6.4 | 4.0 | 3.2 | 2.4 | 2.4 |
| 65° | 2378.9 | 1537.8 | 50.6 | 22.5 | 13.6 | 8.8 | 5.6 | 3.2 | 2.4 | 2.4 | 2.4 |
| 67.5° | 2652.6 | 1622.1 | 37.7 | 17.7 | 10.4 | 7.2 | 4.8 | 3.2 | 2.4 | 1.6 | 1.6 |
| 70° | 2759.4 | 1523.4 | 29.7 | 14.4 | 8.0 | 6.4 | 4.8 | 3.2 | 1.6 | 1.6 | 1.6 |
| 72.5° | 2348.4 | 1140.5 | 23.3 | 12.0 | 7.2 | 5.6 | 4.8 | 3.2 | 2.4 | 2.4 | 1.6 |
| 75° | 1862.9 | 770.5 | 18.5 | 9.6 | 7.2 | 6.4 | 4.8 | 4.8 | 4.0 | 3.2 | 3.2 |
| 77.5° | 1189.5 | 341.1 | 14.4 | 8.0 | 7.2 | 8.0 | 7.2 | 4.8 | 4.8 | 4.0 | 4.0 |
| 80° | 354.8 | 81.9 | 10.4 | 6.4 | 5.6 | 6.4 | 7.2 | 4.8 | 3.2 | 2.4 | 2.4 |
| 82.5° | 77.1 | 19.3 | 6.4 | 3.2 | 4.0 | 3.2 | 4.8 | 4.8 | 3.2 | 2.4 | 2.4 |
| 85° | 25.7 | 7.2 | 4.0 | 3.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 1.6 |
| 87.5° | 1.6 | 2.4 | 2.4 | 1.6 | 1.6 | 1.6 | 1.6 | 0.8 | 0.8 | 1.6 | 1.6 |
| 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)