

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: P401774

Luminaire Tested: **ENT-SA1F-722-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401774
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-722-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5653 lumens
Efficiency: N/A
Efficacy: 85.5 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 - G2

Input Watts (W): 66.1
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

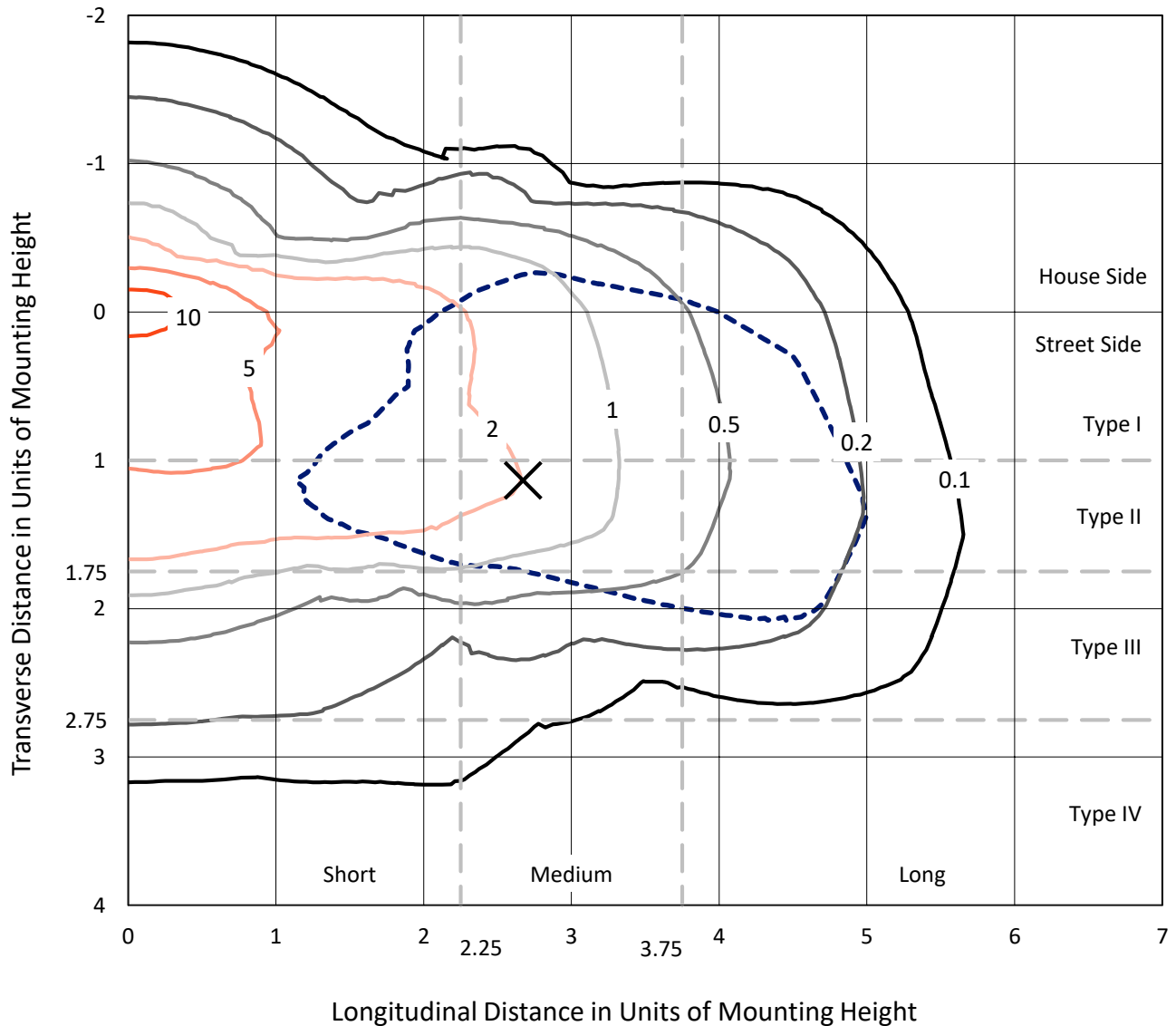


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

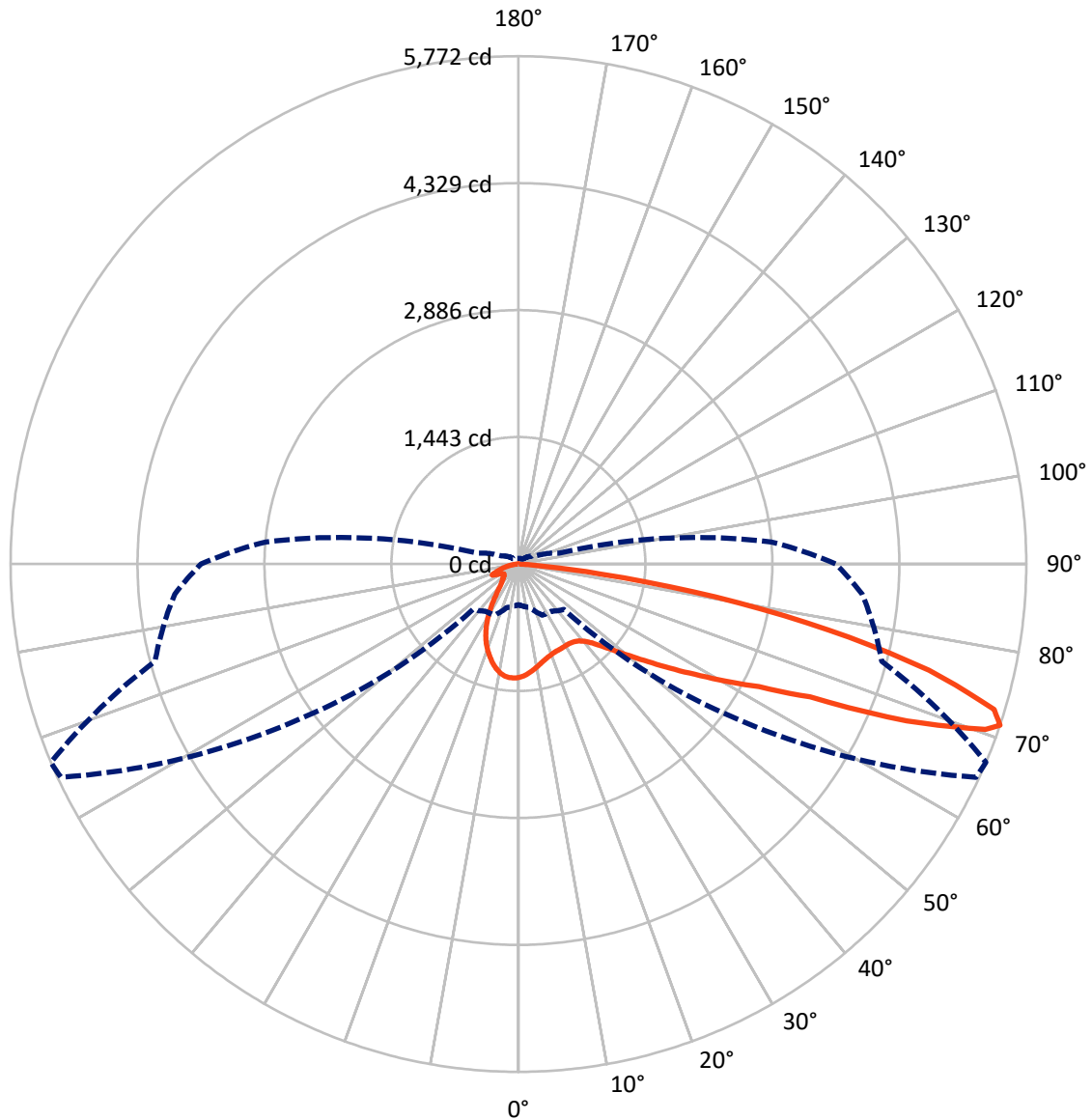


Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1158.1 | 0.0 | 1158.1 |
| | % Fixture | 20.5 | 0.0 | 20.5 |
| Street Side | Lumens | 4494.9 | 0.0 | 4494.9 |
| | % Fixture | 79.5 | 0.0 | 79.5 |
| Total | Lumens | 5653.0 | 0.0 | 5653.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.2 | 2.0 |
| 10°-20° | 280.7 | 5.0 |
| 20°-30° | 379.0 | 6.7 |
| 30°-40° | 499.2 | 8.8 |
| 40°-50° | 711.0 | 12.6 |
| 50°-60° | 1086.1 | 19.2 |
| 60°-70° | 1356.2 | 24.0 |
| 70°-80° | 1094.7 | 19.4 |
| 80°-90° | 131.9 | 2.3 |
| 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° | 5653.0 | 100.0 |
| 0°-180° | 5653.0 | 100.0 |



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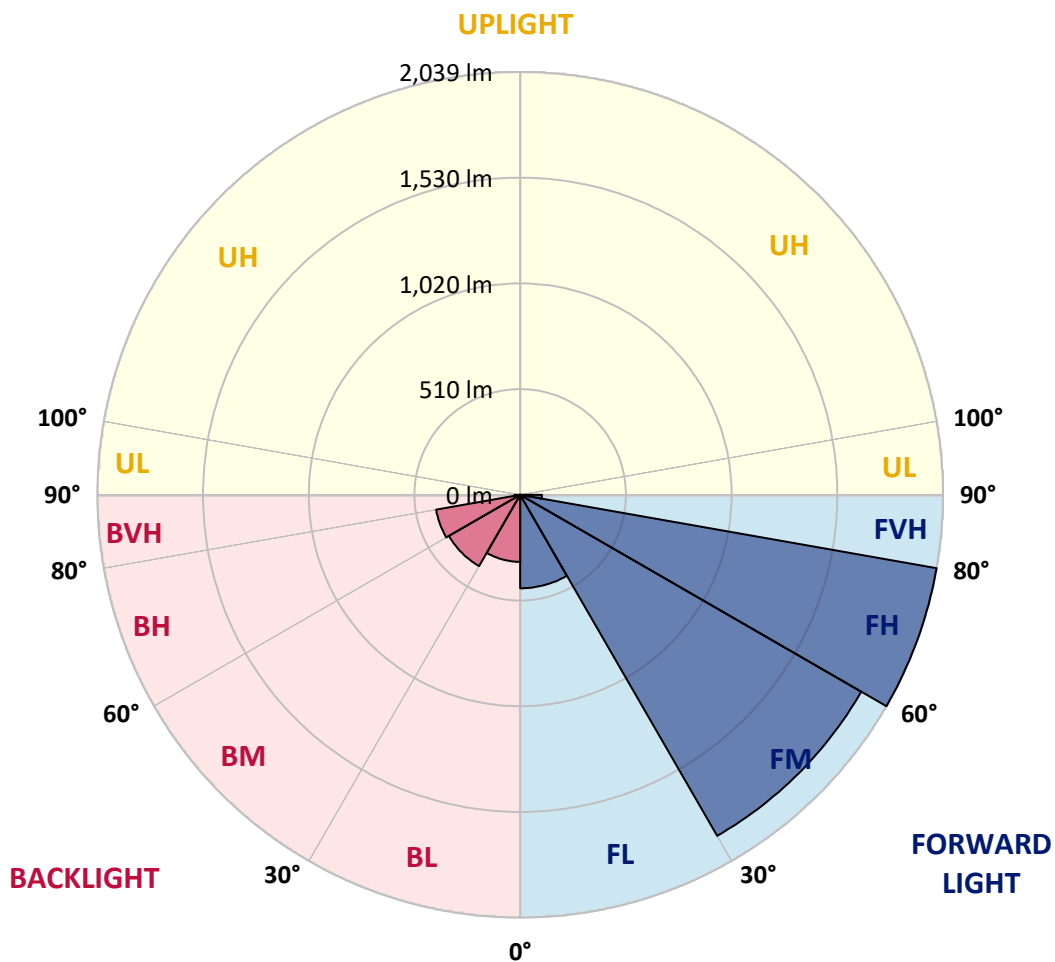
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 450.8 | 8.0 | | | |
| FM | (30°-60°) | 1899.5 | 33.6 | | | |
| FH | (60°-80°) | 2039.3 | 36.1 | | | G2/5000 |
| FVH | (80°-90°) | 105.2 | 1.9 | | | G2/225 |
| BL | (0°-30°) | 323.1 | 5.7 | B1/500 | | |
| BM | (30°-60°) | 396.8 | 7.0 | B1/1000 | | |
| BH | (60°-80°) | 411.5 | 7.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 26.7 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 |
| 2.5° | 1215.8 | 1221.5 | 1222.3 | 1233.7 | 1237.8 | 1250.8 | 1258.1 | 1270.3 | 1271.9 | 1279.3 | 1284.2 |
| 5° | 1136.9 | 1137.7 | 1142.6 | 1152.3 | 1167.8 | 1191.4 | 1209.3 | 1239.4 | 1245.1 | 1266.2 | 1285.0 |
| 7.5° | 1066.1 | 1070.1 | 1078.3 | 1092.9 | 1110.8 | 1138.5 | 1166.2 | 1207.7 | 1215.8 | 1250.0 | 1285.8 |
| 10° | 1018.0 | 1022.1 | 1028.6 | 1044.9 | 1062.8 | 1093.7 | 1127.1 | 1175.1 | 1184.1 | 1231.3 | 1283.3 |
| 12.5° | 979.8 | 983.9 | 988.7 | 1006.7 | 1026.2 | 1057.1 | 1091.3 | 1145.0 | 1153.9 | 1208.5 | 1277.6 |
| 15° | 954.6 | 955.4 | 961.9 | 976.5 | 998.5 | 1028.6 | 1062.8 | 1118.1 | 1128.7 | 1190.6 | 1276.0 |
| 17.5° | 939.1 | 940.7 | 946.4 | 957.8 | 977.4 | 1006.7 | 1040.0 | 1096.2 | 1108.4 | 1175.9 | 1276.8 |
| 20° | 939.9 | 941.5 | 944.8 | 948.9 | 962.7 | 987.9 | 1022.9 | 1079.9 | 1092.1 | 1167.0 | 1282.5 |
| 22.5° | 957.0 | 957.8 | 958.6 | 952.9 | 957.8 | 975.7 | 1009.9 | 1068.5 | 1081.5 | 1162.9 | 1289.0 |
| 25° | 989.6 | 989.6 | 987.9 | 974.9 | 964.3 | 971.7 | 1002.6 | 1064.4 | 1077.5 | 1159.6 | 1295.5 |
| 27.5° | 1034.3 | 1037.6 | 1029.4 | 1014.0 | 989.6 | 977.4 | 1001.0 | 1061.2 | 1074.2 | 1159.6 | 1298.8 |
| 30° | 1095.4 | 1097.0 | 1093.7 | 1073.4 | 1033.5 | 1000.1 | 1005.8 | 1058.7 | 1071.8 | 1158.0 | 1299.6 |
| 32.5° | 1157.2 | 1162.1 | 1166.2 | 1148.2 | 1100.2 | 1040.8 | 1025.4 | 1062.0 | 1073.4 | 1157.2 | 1297.2 |
| 35° | 1219.9 | 1223.1 | 1242.6 | 1239.4 | 1187.3 | 1101.9 | 1057.1 | 1075.0 | 1084.8 | 1161.3 | 1298.8 |
| 37.5° | 1273.6 | 1280.9 | 1309.4 | 1331.4 | 1290.7 | 1184.9 | 1111.6 | 1103.5 | 1109.2 | 1181.6 | 1307.8 |
| 40° | 1331.4 | 1341.9 | 1384.2 | 1425.7 | 1407.8 | 1289.0 | 1188.9 | 1154.8 | 1153.1 | 1219.0 | 1329.7 |
| 42.5° | 1396.5 | 1408.7 | 1463.2 | 1523.4 | 1529.1 | 1421.7 | 1292.3 | 1227.2 | 1225.6 | 1283.3 | 1377.7 |
| 45° | 1472.9 | 1484.3 | 1558.4 | 1630.0 | 1665.0 | 1569.8 | 1419.2 | 1329.7 | 1330.5 | 1372.9 | 1454.2 |
| 47.5° | 1567.3 | 1585.3 | 1656.9 | 1748.0 | 1810.7 | 1736.6 | 1573.0 | 1472.9 | 1466.4 | 1507.9 | 1579.6 |
| 50° | 1700.0 | 1714.6 | 1774.0 | 1862.8 | 1972.6 | 1938.4 | 1766.7 | 1645.5 | 1640.6 | 1660.1 | 1747.2 |
| 52.5° | 1839.2 | 1844.0 | 1872.5 | 1964.5 | 2149.2 | 2183.4 | 2005.2 | 1859.5 | 1840.8 | 1851.4 | 1955.5 |
| 55° | 1847.3 | 1857.9 | 1876.6 | 1993.0 | 2307.9 | 2477.2 | 2268.0 | 2111.8 | 2087.4 | 2080.0 | 2192.3 |
| 57.5° | 1678.0 | 1695.1 | 1719.5 | 1870.1 | 2314.4 | 2816.5 | 2641.5 | 2406.4 | 2362.4 | 2325.8 | 2445.4 |
| 60° | 1319.1 | 1341.1 | 1385.9 | 1570.6 | 2149.2 | 3010.2 | 3264.9 | 2736.8 | 2697.7 | 2573.2 | 2692.8 |
| 62.5° | 953.8 | 962.7 | 1005.8 | 1088.8 | 1705.7 | 3021.6 | 3914.3 | 3168.1 | 3071.2 | 2814.1 | 2906.0 |
| 65° | 768.2 | 782.9 | 795.9 | 795.1 | 1009.9 | 2679.8 | 4345.6 | 3935.5 | 3643.3 | 3083.4 | 3140.4 |
| 67.5° | 633.1 | 638.0 | 669.7 | 725.1 | 686.8 | 1655.2 | 4388.7 | 5056.9 | 4760.6 | 3446.4 | 3418.7 |
| 70° | 529.0 | 530.6 | 562.3 | 661.6 | 657.5 | 854.5 | 3679.9 | 5702.2 | 5630.6 | 4042.1 | 3854.1 |
| 71° | 463.0 | 476.9 | 511.9 | 640.4 | 654.3 | 730.0 | 3126.6 | 5736.4 | 5772.2 | 4275.6 | 3921.6 |
| 72.5° | 364.6 | 364.6 | 414.2 | 587.6 | 660.0 | 673.8 | 2303.8 | 5550.0 | 5653.4 | 4540.9 | 3804.4 |
| 75° | 214.0 | 212.4 | 239.3 | 409.3 | 674.6 | 671.4 | 1258.1 | 4612.5 | 4821.7 | 4588.9 | 3521.2 |
| 77.5° | 120.4 | 122.9 | 137.5 | 227.9 | 535.5 | 644.5 | 722.6 | 3358.5 | 3605.1 | 3838.6 | 2977.6 |
| 80° | 55.3 | 58.6 | 69.2 | 110.7 | 315.7 | 556.6 | 515.9 | 2180.9 | 2274.5 | 2307.1 | 1407.0 |
| 82.5° | 14.6 | 16.3 | 21.2 | 42.3 | 122.1 | 379.2 | 381.7 | 913.1 | 943.2 | 545.2 | 301.9 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 46.4 | 108.2 | 164.4 | 136.7 | 72.4 | 61.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 2.4 | 3.3 | 3.3 | 3.3 | 4.1 |
| 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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CATALOG NUMBER: ENT-SA1F-722-U-SL2

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 | 1289.0 |
| 2.5° | 1288.2 | 1291.5 | 1297.2 | 1296.4 | 1294.7 | 1285.0 | 1290.7 | 1285.0 | 1284.2 | 1281.7 | 1282.5 |
| 5° | 1291.5 | 1296.4 | 1299.6 | 1292.3 | 1280.1 | 1258.9 | 1251.6 | 1232.9 | 1220.7 | 1214.2 | 1210.9 |
| 7.5° | 1296.4 | 1299.6 | 1298.0 | 1277.6 | 1245.9 | 1206.0 | 1171.8 | 1145.0 | 1116.5 | 1111.6 | 1110.0 |
| 10° | 1296.4 | 1299.6 | 1286.6 | 1247.5 | 1193.0 | 1130.3 | 1078.3 | 1034.3 | 990.4 | 974.1 | 976.5 |
| 12.5° | 1293.1 | 1294.7 | 1264.6 | 1202.0 | 1123.0 | 1037.6 | 964.3 | 891.9 | 835.8 | 801.6 | 795.1 |
| 15° | 1290.7 | 1288.2 | 1235.3 | 1145.0 | 1040.0 | 934.2 | 823.5 | 725.9 | 659.2 | 614.4 | 608.7 |
| 17.5° | 1290.7 | 1281.7 | 1200.3 | 1079.9 | 949.7 | 804.0 | 657.5 | 551.7 | 477.7 | 451.7 | 450.8 |
| 20° | 1292.3 | 1272.8 | 1162.9 | 1012.3 | 837.4 | 649.4 | 490.7 | 400.4 | 372.7 | 368.6 | 369.5 |
| 22.5° | 1293.9 | 1260.6 | 1122.2 | 935.9 | 712.1 | 484.2 | 350.7 | 318.2 | 320.6 | 330.4 | 329.6 |
| 25° | 1292.3 | 1244.3 | 1074.2 | 850.4 | 575.3 | 349.1 | 283.2 | 275.1 | 289.7 | 301.1 | 304.4 |
| 27.5° | 1288.2 | 1223.1 | 1022.9 | 748.7 | 438.6 | 275.1 | 247.4 | 246.6 | 261.2 | 271.8 | 271.0 |
| 30° | 1276.0 | 1197.9 | 963.5 | 641.3 | 316.6 | 234.4 | 223.0 | 225.4 | 235.2 | 244.9 | 244.9 |
| 32.5° | 1263.0 | 1169.4 | 900.9 | 524.1 | 243.3 | 212.4 | 208.3 | 209.1 | 215.7 | 223.0 | 222.2 |
| 35° | 1249.2 | 1141.7 | 836.6 | 402.0 | 213.2 | 199.4 | 197.7 | 196.9 | 199.4 | 201.0 | 201.0 |
| 37.5° | 1241.0 | 1117.3 | 765.8 | 302.7 | 196.9 | 191.2 | 188.0 | 184.7 | 183.9 | 182.3 | 180.7 |
| 40° | 1244.3 | 1101.0 | 697.4 | 234.4 | 187.2 | 182.3 | 177.4 | 172.5 | 169.3 | 167.6 | 166.8 |
| 42.5° | 1267.1 | 1096.2 | 621.7 | 201.8 | 178.2 | 174.1 | 167.6 | 159.5 | 156.2 | 156.2 | 155.4 |
| 45° | 1320.0 | 1110.8 | 550.9 | 185.5 | 170.1 | 165.2 | 154.6 | 148.9 | 146.5 | 147.3 | 147.3 |
| 47.5° | 1403.0 | 1152.3 | 487.5 | 177.4 | 164.4 | 157.1 | 144.9 | 139.2 | 137.5 | 138.3 | 138.3 |
| 50° | 1527.5 | 1230.4 | 422.4 | 170.1 | 157.9 | 148.1 | 137.5 | 131.0 | 128.6 | 128.6 | 128.6 |
| 52.5° | 1709.8 | 1359.0 | 375.2 | 165.2 | 152.2 | 140.8 | 130.2 | 122.9 | 119.6 | 119.6 | 118.8 |
| 55° | 1931.9 | 1526.7 | 357.3 | 161.9 | 144.9 | 134.3 | 122.9 | 115.6 | 110.7 | 109.0 | 109.9 |
| 57.5° | 2175.2 | 1743.9 | 383.3 | 161.1 | 136.7 | 127.0 | 115.6 | 106.6 | 101.7 | 100.9 | 100.1 |
| 60° | 2425.9 | 1959.6 | 458.2 | 157.1 | 130.2 | 118.0 | 107.4 | 99.3 | 94.4 | 92.8 | 92.0 |
| 62.5° | 2642.4 | 2174.4 | 581.9 | 153.8 | 125.3 | 109.9 | 98.5 | 91.1 | 87.1 | 84.6 | 84.6 |
| 65° | 2903.6 | 2421.0 | 770.7 | 157.9 | 122.9 | 101.7 | 90.3 | 83.8 | 80.6 | 78.1 | 78.1 |
| 67.5° | 3260.0 | 2786.4 | 913.9 | 177.4 | 128.6 | 95.2 | 81.4 | 76.5 | 74.1 | 72.4 | 72.4 |
| 70° | 3610.8 | 2991.5 | 635.6 | 208.3 | 143.2 | 89.5 | 73.2 | 70.0 | 68.4 | 66.7 | 66.7 |
| 71° | 3605.9 | 2881.6 | 477.7 | 215.7 | 148.1 | 87.9 | 70.0 | 67.5 | 65.9 | 65.1 | 64.3 |
| 72.5° | 3425.2 | 2619.6 | 342.6 | 209.1 | 145.7 | 83.0 | 65.9 | 63.5 | 61.8 | 61.8 | 61.0 |
| 75° | 3072.0 | 2308.7 | 267.7 | 175.0 | 122.1 | 74.1 | 58.6 | 57.0 | 55.3 | 54.5 | 55.3 |
| 77.5° | 2517.0 | 1847.3 | 210.8 | 138.3 | 92.8 | 61.0 | 52.1 | 49.6 | 48.8 | 48.0 | 48.8 |
| 80° | 1156.4 | 804.8 | 153.8 | 107.4 | 69.2 | 48.8 | 43.9 | 43.1 | 42.3 | 41.5 | 41.5 |
| 82.5° | 278.3 | 225.4 | 82.2 | 71.6 | 47.2 | 37.4 | 35.0 | 35.0 | 35.0 | 34.2 | 34.2 |
| 85° | 61.0 | 61.0 | 33.4 | 33.4 | 28.5 | 26.0 | 27.7 | 27.7 | 27.7 | 26.0 | 26.0 |
| 87.5° | 3.3 | 9.8 | 10.6 | 15.5 | 16.3 | 15.5 | 18.7 | 19.5 | 18.7 | 17.9 | 17.1 |
| 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)