

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: P401804

Luminaire Tested: **ENT-SA1F-727-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401804
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-727-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6630 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

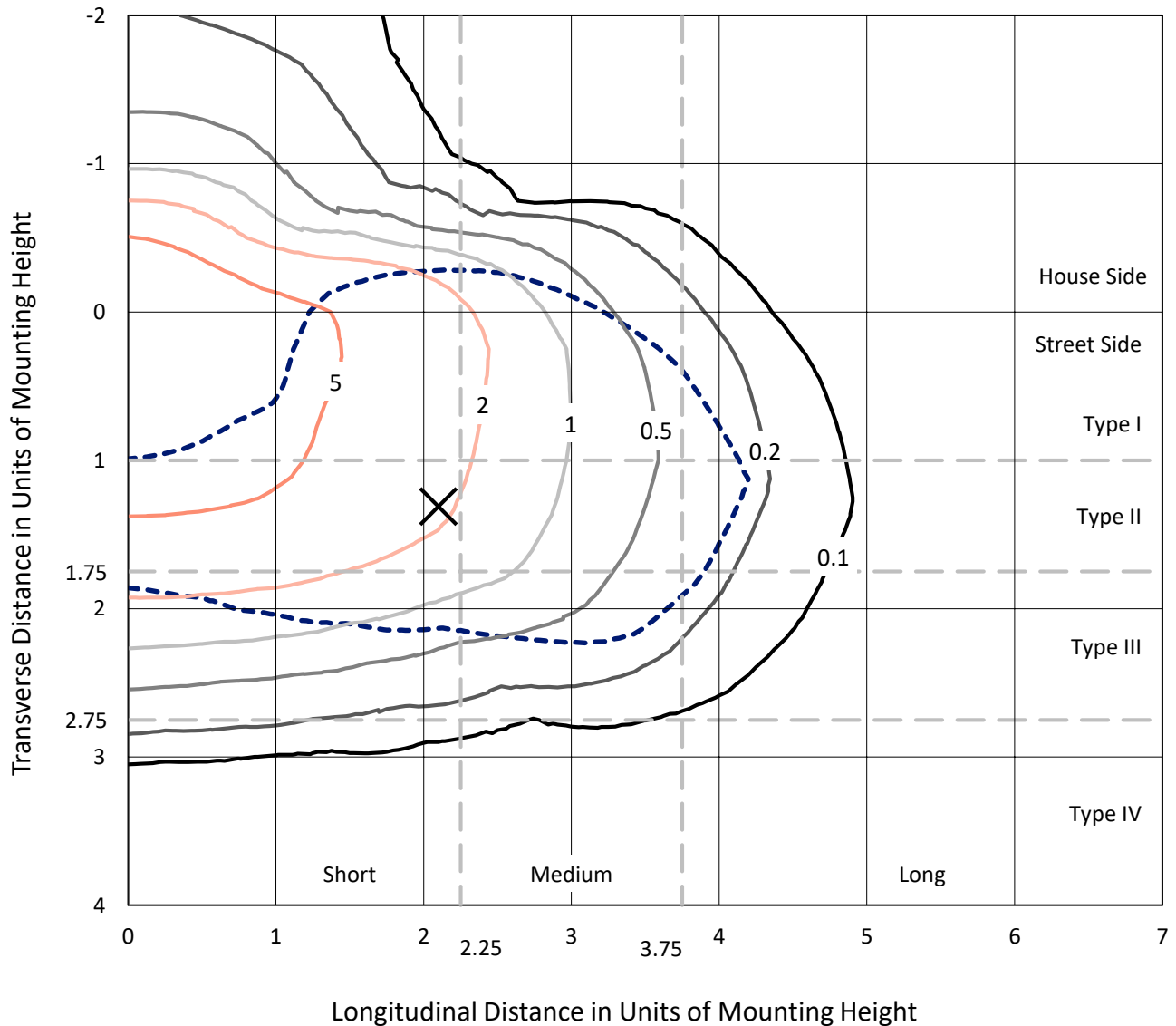
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401804
 CATALOG NUMBER: ENT-SA1F-727-U-T3

Iso-Footcandle Lines of Horizontal Illumination

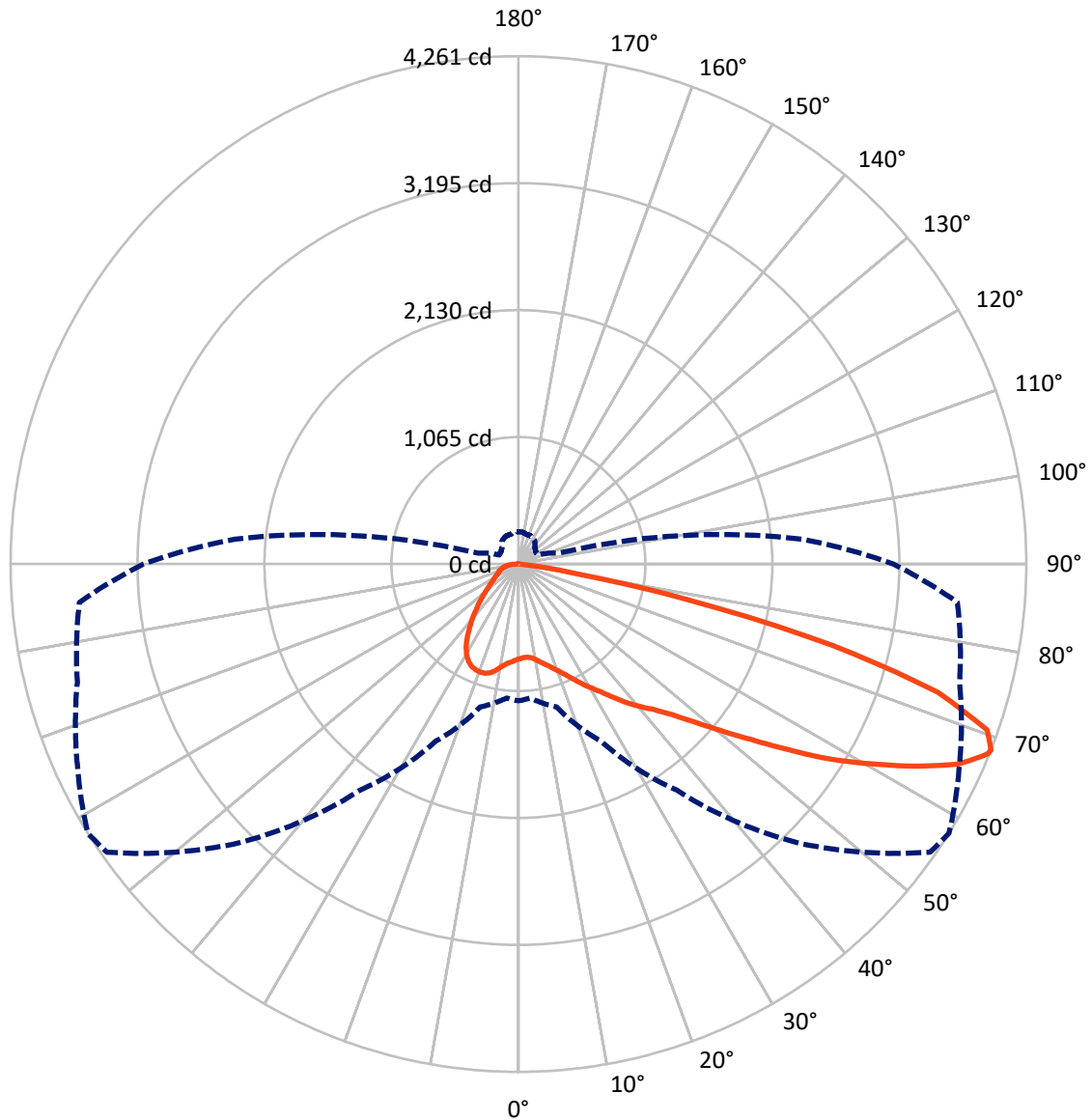
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P401804
CATALOG NUMBER: ENT-SA1F-727-U-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P401804

CATALOG NUMBER: ENT-SA1F-727-U-T3

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1552.4 | 0.0 | 1552.4 |
| | % Fixture | 23.4 | 0.0 | 23.4 |
| Street Side | Lumens | 5077.6 | 0.0 | 5077.6 |
| | % Fixture | 76.6 | 0.0 | 76.6 |
| Total | Lumens | 6630.0 | 0.0 | 6630.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 78.4 | 1.2 |
| 10°-20° | 256.5 | 3.9 |
| 20°-30° | 461.2 | 7.0 |
| 30°-40° | 677.6 | 10.2 |
| 40°-50° | 993.8 | 15.0 |
| 50°-60° | 1485.5 | 22.4 |
| 60°-70° | 1737.0 | 26.2 |
| 70°-80° | 856.4 | 12.9 |
| 80°-90° | 83.6 | 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° | 6630.0 | 100.0 |
| 0°-180° | 6630.0 | 100.0 |



REPORT NUMBER: P401804

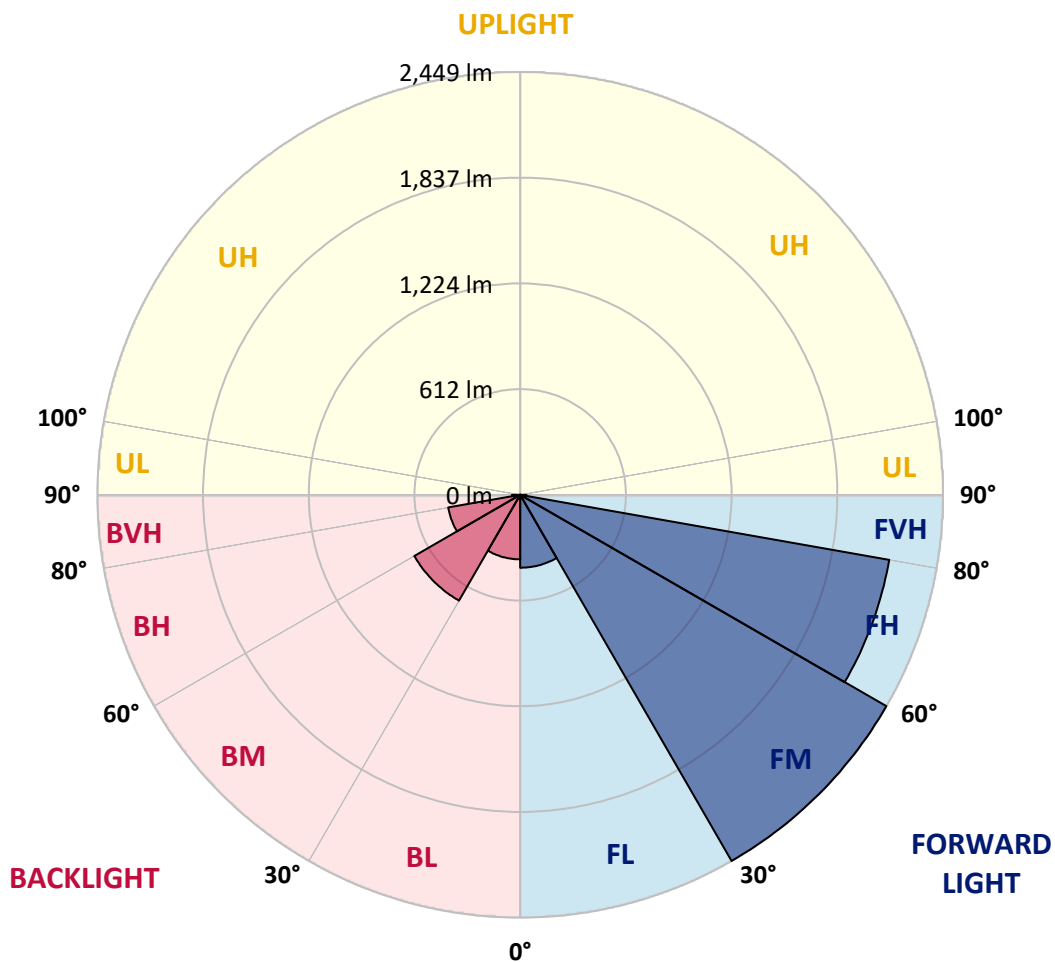
CATALOG NUMBER: ENT-SA1F-727-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 422.4 | 6.4 | | | |
| FM (30°-60°) | 2448.9 | 36.9 | | | |
| FH (60°-80°) | 2170.4 | 32.7 | | | G2/5000 |
| FVH (80°-90°) | 36.0 | 0.5 | | | G1/100 |
| BL (0°-30°) | 373.8 | 5.6 | B1/500 | | |
| BM (30°-60°) | 708.0 | 10.7 | B1/1000 | | |
| BH (60°-80°) | 423.0 | 6.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 47.6 | 0.7 | | | 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 Short





REPORT NUMBER: P401804

CATALOG NUMBER: ENT-SA1F-727-U-T3

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 |
| 2.5° | 776.7 | 776.7 | 779.5 | 780.4 | 782.3 | 784.1 | 786.0 | 786.9 | 789.7 | 793.4 | 795.2 |
| 5° | 770.3 | 771.2 | 773.0 | 774.0 | 776.7 | 780.4 | 783.2 | 785.1 | 789.7 | 797.1 | 801.7 |
| 7.5° | 785.1 | 787.8 | 788.8 | 789.7 | 790.6 | 793.4 | 793.4 | 794.3 | 799.0 | 806.4 | 812.8 |
| 10° | 809.1 | 811.0 | 813.8 | 816.5 | 819.3 | 821.2 | 815.6 | 816.5 | 818.4 | 825.8 | 835.1 |
| 12.5° | 839.7 | 839.7 | 840.6 | 844.3 | 847.1 | 852.6 | 847.1 | 847.1 | 847.1 | 853.6 | 864.7 |
| 15° | 873.9 | 872.1 | 872.1 | 875.8 | 876.7 | 880.4 | 877.6 | 877.6 | 881.3 | 887.8 | 898.9 |
| 17.5° | 912.8 | 915.6 | 912.8 | 911.0 | 908.2 | 910.0 | 911.9 | 913.7 | 921.2 | 931.3 | 937.8 |
| 20° | 969.3 | 973.9 | 972.1 | 964.7 | 952.6 | 947.1 | 953.6 | 957.3 | 972.1 | 984.1 | 985.0 |
| 22.5° | 1059.1 | 1056.3 | 1053.5 | 1040.6 | 1016.5 | 1001.7 | 1002.6 | 1008.2 | 1031.3 | 1049.8 | 1040.6 |
| 25° | 1142.4 | 1145.2 | 1145.2 | 1126.7 | 1095.2 | 1064.7 | 1067.4 | 1070.2 | 1093.3 | 1110.0 | 1085.0 |
| 27.5° | 1243.3 | 1241.5 | 1240.5 | 1215.6 | 1177.6 | 1148.0 | 1132.2 | 1139.6 | 1156.3 | 1162.8 | 1114.6 |
| 30° | 1347.9 | 1355.3 | 1347.9 | 1312.8 | 1276.7 | 1238.7 | 1207.2 | 1205.4 | 1213.7 | 1212.8 | 1149.8 |
| 32.5° | 1473.8 | 1467.4 | 1464.6 | 1423.9 | 1378.5 | 1328.5 | 1288.7 | 1282.2 | 1277.6 | 1271.1 | 1191.5 |
| 35° | 1571.1 | 1579.4 | 1579.4 | 1544.2 | 1490.5 | 1441.4 | 1379.4 | 1373.9 | 1362.8 | 1341.5 | 1246.1 |
| 37.5° | 1685.9 | 1684.0 | 1690.5 | 1649.7 | 1596.0 | 1548.8 | 1491.4 | 1475.7 | 1450.7 | 1419.2 | 1310.9 |
| 40° | 1797.9 | 1802.5 | 1817.3 | 1768.2 | 1719.2 | 1682.1 | 1600.7 | 1572.0 | 1534.0 | 1505.3 | 1405.3 |
| 42.5° | 1950.6 | 1957.1 | 1962.7 | 1921.9 | 1863.6 | 1830.3 | 1704.4 | 1668.3 | 1647.0 | 1641.4 | 1530.3 |
| 45° | 2135.8 | 2146.9 | 2151.5 | 2114.5 | 2081.2 | 2001.5 | 1834.9 | 1801.6 | 1778.4 | 1802.5 | 1700.7 |
| 47.5° | 2313.5 | 2308.0 | 2329.3 | 2328.3 | 2332.0 | 2236.7 | 2022.8 | 1972.8 | 1950.6 | 2011.7 | 1896.0 |
| 50° | 2413.5 | 2421.8 | 2468.1 | 2515.4 | 2581.1 | 2512.6 | 2240.4 | 2190.4 | 2164.5 | 2240.4 | 2125.6 |
| 52.5° | 2465.4 | 2476.5 | 2538.5 | 2670.9 | 2810.7 | 2778.3 | 2502.4 | 2446.8 | 2424.6 | 2498.7 | 2371.9 |
| 55° | 2470.0 | 2476.5 | 2559.8 | 2765.3 | 2985.6 | 2995.8 | 2801.4 | 2748.6 | 2718.1 | 2766.2 | 2640.3 |
| 57.5° | 2393.1 | 2373.7 | 2517.2 | 2779.2 | 3097.7 | 3222.6 | 3130.1 | 3092.1 | 3006.0 | 3057.9 | 2973.6 |
| 60° | 2256.1 | 2275.6 | 2416.3 | 2721.8 | 3144.9 | 3399.5 | 3459.7 | 3402.3 | 3302.3 | 3323.6 | 3332.8 |
| 62.5° | 2048.8 | 2073.8 | 2220.0 | 2588.5 | 3106.9 | 3549.5 | 3764.2 | 3735.5 | 3601.3 | 3590.2 | 3606.8 |
| 65° | 1753.4 | 1738.6 | 1901.6 | 2296.9 | 2927.3 | 3599.4 | 4063.3 | 4051.2 | 3891.1 | 3760.5 | 3767.0 |
| 67.5° | 1264.6 | 1250.7 | 1364.6 | 1772.9 | 2441.3 | 3413.4 | 4222.5 | 4249.3 | 4066.0 | 3835.5 | 3735.5 |
| 68° | 1148.0 | 1128.5 | 1242.4 | 1638.6 | 2316.3 | 3306.0 | 4214.2 | 4260.5 | 4079.0 | 3830.9 | 3696.7 |
| 70° | 661.0 | 629.5 | 739.7 | 1069.3 | 1705.3 | 2782.9 | 4043.8 | 4171.6 | 4048.4 | 3741.1 | 3442.1 |
| 72.5° | 207.4 | 207.4 | 286.1 | 432.3 | 836.9 | 1760.8 | 3459.7 | 3677.2 | 3703.1 | 3400.4 | 2860.7 |
| 75° | 129.6 | 129.6 | 149.1 | 204.6 | 333.3 | 747.1 | 2386.7 | 2718.1 | 2942.1 | 2862.5 | 2085.8 |
| 77.5° | 87.9 | 86.1 | 99.1 | 126.8 | 186.1 | 239.8 | 1198.0 | 1472.0 | 1799.7 | 1954.3 | 1220.2 |
| 80° | 48.1 | 49.1 | 61.1 | 75.9 | 105.5 | 111.1 | 351.8 | 497.1 | 792.5 | 928.6 | 462.9 |
| 82.5° | 27.8 | 26.8 | 29.6 | 33.3 | 46.3 | 48.1 | 100.9 | 124.1 | 207.4 | 192.6 | 124.1 |
| 85° | 0.0 | 0.9 | 0.9 | 0.9 | 1.9 | 4.6 | 13.0 | 19.4 | 31.5 | 43.5 | 30.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P401804

CATALOG NUMBER: ENT-SA1F-727-U-T3

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 | 796.2 |
| 2.5° | 797.1 | 799.9 | 804.5 | 808.2 | 810.1 | 808.2 | 814.7 | 813.8 | 815.6 | 815.6 | 817.5 |
| 5° | 805.4 | 809.1 | 817.5 | 822.1 | 826.7 | 828.6 | 836.0 | 837.8 | 841.5 | 843.4 | 842.5 |
| 7.5° | 817.5 | 822.1 | 832.3 | 840.6 | 847.1 | 851.7 | 863.8 | 869.3 | 874.9 | 876.7 | 878.6 |
| 10° | 839.7 | 846.2 | 857.3 | 867.5 | 876.7 | 883.2 | 893.4 | 900.8 | 906.3 | 908.2 | 910.0 |
| 12.5° | 869.3 | 876.7 | 890.6 | 904.5 | 914.7 | 918.4 | 917.5 | 915.6 | 915.6 | 914.7 | 915.6 |
| 15° | 903.6 | 911.0 | 928.6 | 941.5 | 942.4 | 930.4 | 913.7 | 905.4 | 903.6 | 903.6 | 904.5 |
| 17.5° | 943.4 | 952.6 | 963.7 | 971.1 | 953.6 | 923.9 | 904.5 | 896.2 | 894.3 | 893.4 | 891.5 |
| 20° | 988.7 | 994.3 | 998.0 | 988.7 | 949.9 | 915.6 | 893.4 | 881.3 | 872.1 | 871.2 | 867.5 |
| 22.5° | 1036.9 | 1035.0 | 1030.4 | 997.1 | 939.7 | 896.2 | 865.6 | 843.4 | 831.4 | 830.4 | 826.7 |
| 25° | 1072.1 | 1064.7 | 1050.8 | 998.9 | 921.2 | 864.7 | 821.2 | 786.0 | 770.3 | 762.8 | 764.7 |
| 27.5° | 1095.2 | 1079.5 | 1055.4 | 989.7 | 888.8 | 816.5 | 755.4 | 709.1 | 686.0 | 682.3 | 685.1 |
| 30° | 1123.0 | 1098.0 | 1059.1 | 966.5 | 842.5 | 749.0 | 669.3 | 623.1 | 610.1 | 603.6 | 605.5 |
| 32.5° | 1156.3 | 1123.9 | 1071.1 | 931.3 | 784.1 | 670.3 | 584.2 | 551.8 | 537.0 | 524.9 | 528.6 |
| 35° | 1199.8 | 1159.1 | 1090.6 | 881.3 | 710.1 | 586.9 | 523.1 | 493.4 | 466.6 | 453.6 | 454.6 |
| 37.5° | 1250.7 | 1204.4 | 1107.2 | 823.0 | 629.5 | 524.0 | 470.3 | 435.1 | 401.8 | 376.8 | 372.2 |
| 40° | 1332.2 | 1294.2 | 1121.1 | 758.2 | 552.7 | 472.1 | 418.5 | 378.6 | 347.2 | 322.2 | 319.4 |
| 42.5° | 1468.3 | 1402.6 | 1122.0 | 680.5 | 487.0 | 427.7 | 375.9 | 332.4 | 297.2 | 275.9 | 275.0 |
| 45° | 1628.5 | 1526.6 | 1102.6 | 597.1 | 429.6 | 383.3 | 337.9 | 288.8 | 268.5 | 254.6 | 252.7 |
| 47.5° | 1818.2 | 1669.2 | 1060.0 | 519.4 | 380.5 | 339.8 | 299.0 | 269.4 | 254.6 | 244.4 | 244.4 |
| 50° | 2034.9 | 1836.8 | 1017.4 | 452.7 | 333.3 | 304.6 | 276.8 | 261.1 | 250.0 | 240.7 | 239.8 |
| 52.5° | 2279.3 | 2034.9 | 1003.5 | 385.1 | 294.4 | 272.2 | 269.4 | 254.6 | 245.3 | 238.9 | 237.0 |
| 55° | 2570.9 | 2257.1 | 1016.5 | 332.4 | 263.8 | 259.2 | 264.8 | 252.7 | 246.3 | 236.1 | 233.3 |
| 57.5° | 2907.9 | 2473.7 | 1002.6 | 287.9 | 242.6 | 247.2 | 259.2 | 252.7 | 247.2 | 234.2 | 230.5 |
| 60° | 3225.4 | 2667.2 | 908.2 | 250.9 | 222.2 | 232.4 | 251.8 | 244.4 | 236.1 | 233.3 | 231.4 |
| 62.5° | 3395.8 | 2730.1 | 724.0 | 222.2 | 206.4 | 217.6 | 239.8 | 230.5 | 225.0 | 231.4 | 232.4 |
| 65° | 3397.6 | 2658.8 | 532.3 | 200.9 | 193.5 | 204.6 | 227.7 | 225.0 | 228.7 | 243.5 | 246.3 |
| 67.5° | 3208.8 | 2442.2 | 375.9 | 181.5 | 180.5 | 194.4 | 233.3 | 251.8 | 254.6 | 269.4 | 269.4 |
| 68° | 3144.0 | 2388.5 | 349.0 | 178.7 | 177.8 | 194.4 | 237.9 | 256.4 | 258.3 | 272.2 | 271.3 |
| 70° | 2788.5 | 2019.1 | 252.7 | 167.6 | 173.1 | 208.3 | 262.9 | 269.4 | 258.3 | 274.0 | 273.1 |
| 72.5° | 2179.3 | 1493.3 | 188.9 | 155.5 | 164.8 | 205.5 | 264.8 | 258.3 | 241.6 | 245.3 | 240.7 |
| 75° | 1472.9 | 951.7 | 155.5 | 142.6 | 146.3 | 174.0 | 240.7 | 243.5 | 224.0 | 220.3 | 214.8 |
| 77.5° | 771.2 | 446.2 | 125.9 | 126.8 | 130.5 | 150.9 | 214.8 | 221.3 | 203.7 | 192.6 | 190.7 |
| 80° | 284.2 | 176.8 | 102.8 | 112.0 | 113.9 | 132.4 | 184.2 | 194.4 | 177.8 | 169.4 | 167.6 |
| 82.5° | 103.7 | 87.9 | 85.2 | 98.1 | 96.3 | 112.9 | 161.1 | 168.5 | 150.9 | 142.6 | 137.9 |
| 85° | 28.7 | 32.4 | 53.7 | 76.8 | 75.0 | 87.9 | 129.6 | 136.1 | 121.3 | 100.0 | 97.2 |
| 87.5° | 1.9 | 6.5 | 21.3 | 45.4 | 47.2 | 54.6 | 93.5 | 102.8 | 89.8 | 74.1 | 73.1 |
| 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)