

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: P401808

Luminaire Tested: **ENV-SA1F-727-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1F-727-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6511 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - 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

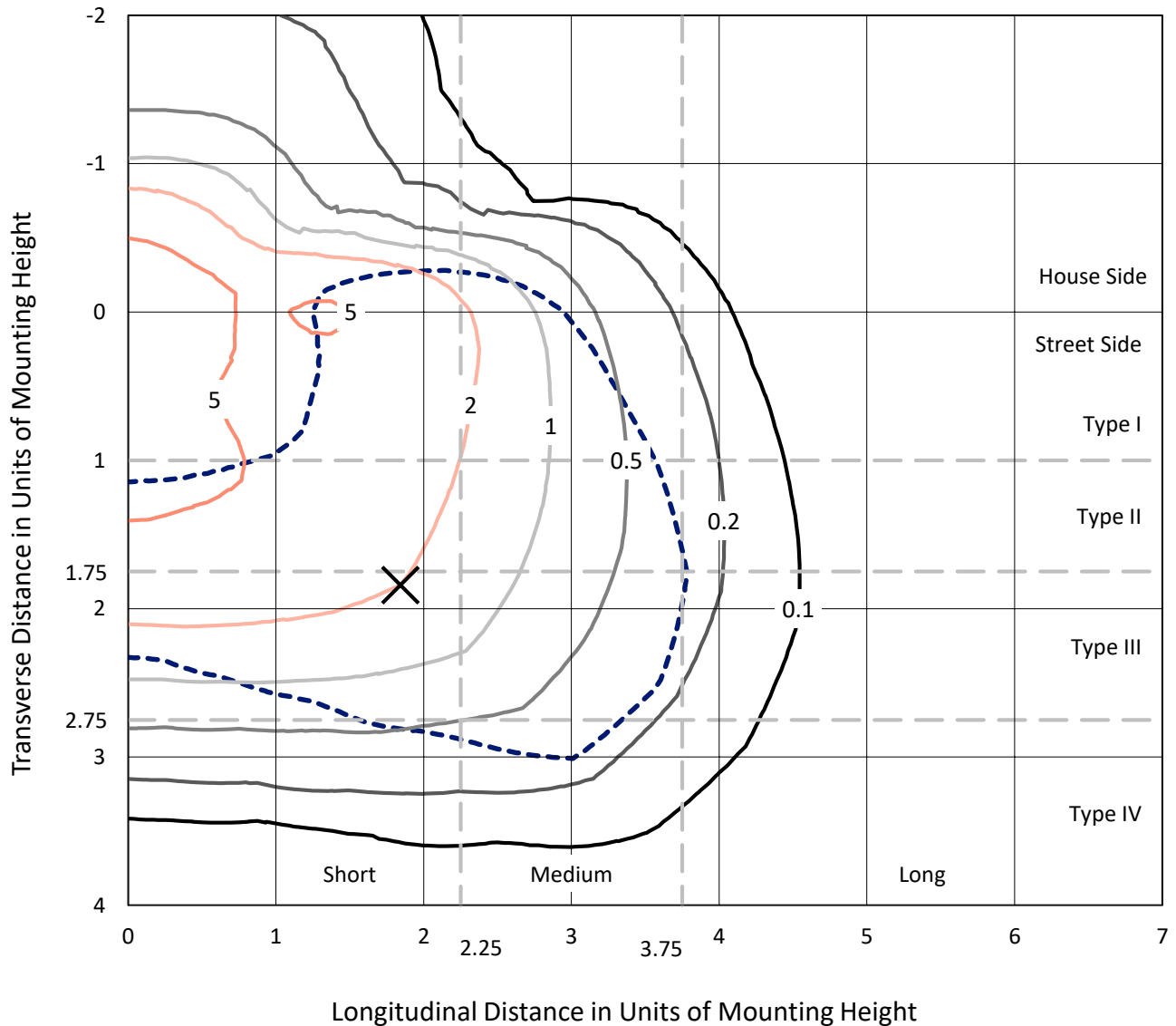


REPORT NUMBER: P401808

CATALOG NUMBER: ENV-SA1F-727-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

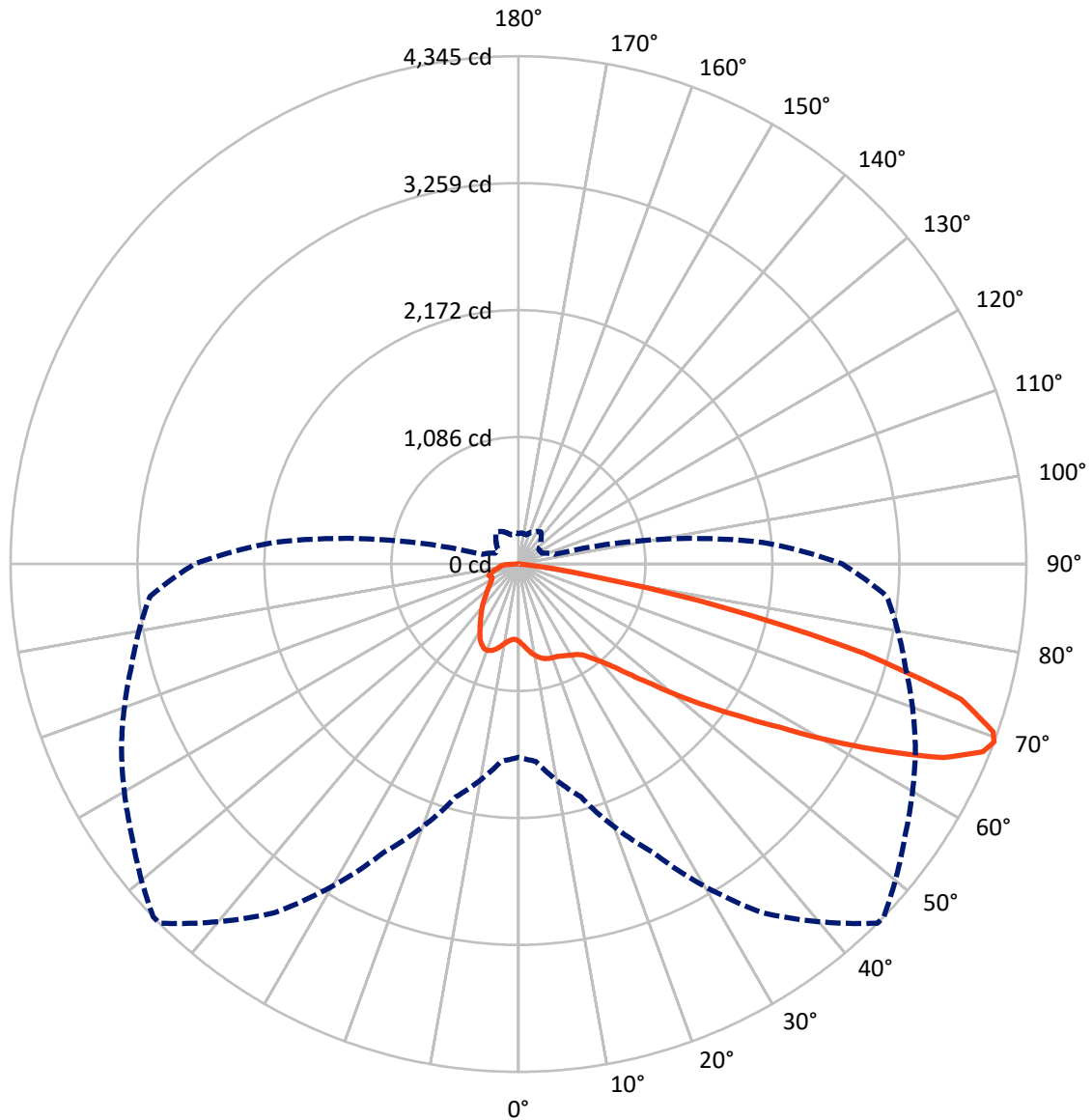


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401808

CATALOG NUMBER: ENV-SA1F-727-U-T4W

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P401808

CATALOG NUMBER: ENV-SA1F-727-U-T4W

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1532.9 | 0.0 | 1532.9 |
| | % Fixture | 23.5 | 0.0 | 23.5 |
| Street Side | Lumens | 4978.1 | 0.0 | 4978.1 |
| | % Fixture | 76.5 | 0.0 | 76.5 |
| Total | Lumens | 6511.0 | 0.0 | 6511.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 67.3 | 1.0 |
| 10°-20° | 223.1 | 3.4 |
| 20°-30° | 377.1 | 5.8 |
| 30°-40° | 545.6 | 8.4 |
| 40°-50° | 823.8 | 12.7 |
| 50°-60° | 1389.0 | 21.3 |
| 60°-70° | 1910.9 | 29.3 |
| 70°-80° | 1058.9 | 16.3 |
| 80°-90° | 115.3 | 1.8 |
| 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° | 6511.0 | 100.0 |
| 0°-180° | 6511.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P401808

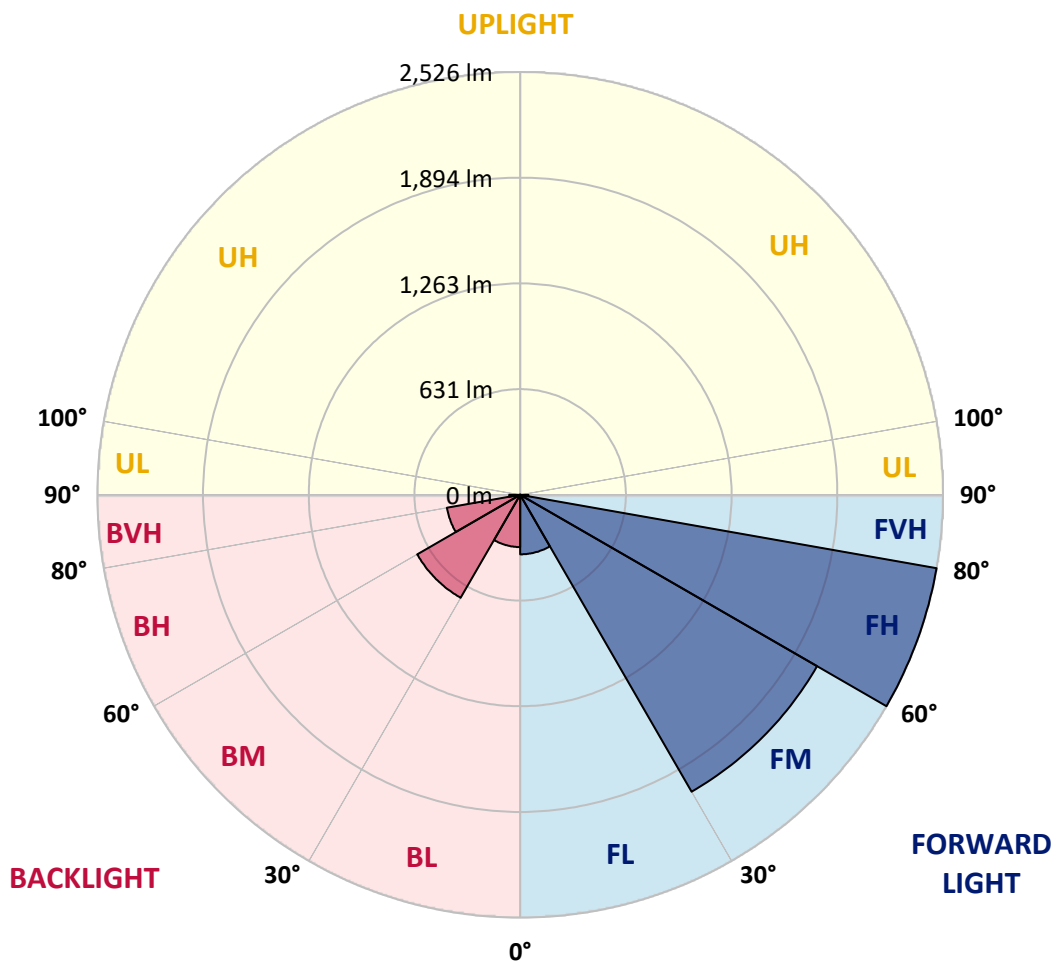
CATALOG NUMBER: ENV-SA1F-727-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 355.4 | 5.5 | | | |
| FM | (30°-60°) | 2047.8 | 31.5 | | | |
| FH | (60°-80°) | 2525.6 | 38.8 | | | G2/5000 |
| FVH | (80°-90°) | 49.4 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 312.1 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 710.6 | 10.9 | B1/1000 | | |
| BH | (60°-80°) | 444.3 | 6.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 65.9 | 1.0 | | | 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 IV Short





REPORT NUMBER: P401808

CATALOG NUMBER: ENV-SA1F-727-U-T4W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 |
| 2.5° | 702.5 | 701.6 | 702.5 | 698.8 | 695.1 | 689.6 | 687.7 | 681.2 | 676.6 | 670.1 | 664.6 |
| 5° | 754.4 | 757.1 | 756.2 | 751.6 | 736.8 | 725.7 | 725.7 | 711.8 | 697.0 | 683.1 | 670.1 |
| 7.5° | 810.8 | 810.8 | 805.3 | 796.0 | 781.2 | 764.5 | 762.7 | 744.2 | 722.9 | 703.5 | 683.1 |
| 10° | 851.6 | 853.4 | 845.1 | 832.1 | 813.6 | 796.0 | 794.2 | 772.9 | 752.5 | 727.5 | 702.5 |
| 12.5° | 880.3 | 880.3 | 872.8 | 860.8 | 838.6 | 821.9 | 820.1 | 800.6 | 779.4 | 753.4 | 724.7 |
| 15° | 895.1 | 893.2 | 886.7 | 873.8 | 854.3 | 840.4 | 837.7 | 821.0 | 803.4 | 777.5 | 747.0 |
| 17.5° | 892.3 | 892.3 | 886.7 | 873.8 | 859.9 | 848.8 | 846.9 | 834.9 | 821.9 | 796.9 | 766.4 |
| 20° | 880.3 | 879.3 | 877.5 | 867.3 | 858.0 | 853.4 | 851.6 | 846.0 | 837.7 | 816.4 | 787.7 |
| 22.5° | 869.1 | 868.2 | 865.4 | 859.0 | 855.3 | 858.0 | 858.0 | 857.1 | 856.2 | 839.5 | 811.8 |
| 25° | 875.6 | 874.7 | 869.1 | 859.9 | 859.0 | 871.9 | 872.8 | 875.6 | 877.5 | 863.6 | 834.9 |
| 27.5° | 921.0 | 918.2 | 902.5 | 878.4 | 870.1 | 886.7 | 888.6 | 896.9 | 895.1 | 880.3 | 855.3 |
| 30° | 1009.8 | 1010.8 | 975.6 | 923.8 | 896.0 | 903.4 | 904.3 | 913.6 | 910.8 | 898.8 | 878.4 |
| 32.5° | 1144.0 | 1144.0 | 1086.7 | 1008.0 | 937.6 | 922.8 | 920.1 | 928.4 | 939.5 | 923.8 | 903.4 |
| 35° | 1314.4 | 1309.7 | 1240.3 | 1119.1 | 1008.9 | 956.1 | 954.3 | 950.6 | 970.0 | 955.2 | 925.6 |
| 37.5° | 1485.6 | 1468.9 | 1401.4 | 1268.1 | 1108.9 | 1020.9 | 1013.5 | 1002.4 | 1013.5 | 982.1 | 956.1 |
| 40° | 1623.5 | 1620.7 | 1565.2 | 1430.1 | 1227.4 | 1099.6 | 1094.1 | 1045.0 | 1052.4 | 1027.4 | 1017.2 |
| 42.5° | 1775.3 | 1777.2 | 1740.1 | 1604.1 | 1369.0 | 1206.1 | 1191.3 | 1115.4 | 1136.6 | 1127.4 | 1122.8 |
| 45° | 1941.9 | 1940.1 | 1912.3 | 1769.8 | 1542.1 | 1354.2 | 1335.6 | 1242.2 | 1285.7 | 1280.1 | 1306.0 |
| 47.5° | 2069.7 | 2079.8 | 2064.1 | 1963.2 | 1747.5 | 1533.7 | 1519.8 | 1406.0 | 1471.7 | 1516.1 | 1565.2 |
| 50° | 2243.7 | 2242.7 | 2200.2 | 2158.5 | 1986.3 | 1763.3 | 1749.4 | 1622.6 | 1717.0 | 1781.8 | 1871.6 |
| 52.5° | 2459.3 | 2451.9 | 2364.0 | 2349.2 | 2277.0 | 2014.1 | 2002.1 | 1869.7 | 2004.9 | 2061.3 | 2243.7 |
| 55° | 2594.5 | 2593.5 | 2548.2 | 2574.1 | 2576.0 | 2293.6 | 2278.8 | 2161.3 | 2314.0 | 2378.8 | 2654.6 |
| 57.5° | 2707.4 | 2708.3 | 2746.3 | 2837.0 | 2898.1 | 2633.3 | 2627.8 | 2484.3 | 2638.9 | 2729.6 | 3055.4 |
| 60° | 2794.4 | 2812.9 | 2919.4 | 3126.7 | 3228.5 | 3066.5 | 3042.5 | 2890.7 | 2994.3 | 3030.4 | 3361.8 |
| 62.5° | 2759.2 | 2783.3 | 2992.5 | 3297.9 | 3559.9 | 3525.6 | 3517.3 | 3297.9 | 3297.0 | 3278.5 | 3590.4 |
| 65° | 2481.5 | 2533.4 | 2862.9 | 3291.5 | 3778.3 | 3992.1 | 3980.1 | 3682.1 | 3578.4 | 3485.8 | 3658.9 |
| 67.5° | 2030.8 | 2041.9 | 2439.0 | 3039.7 | 3776.5 | 4285.5 | 4272.6 | 3961.6 | 3753.3 | 3526.6 | 3458.1 |
| 69° | 1653.1 | 1693.9 | 2061.3 | 2721.3 | 3643.2 | 4344.8 | 4344.8 | 4039.3 | 3746.8 | 3429.4 | 3163.7 |
| 70° | 1430.1 | 1431.9 | 1786.4 | 2467.7 | 3461.8 | 4309.6 | 4317.9 | 4039.3 | 3694.1 | 3302.6 | 2902.7 |
| 72.5° | 670.1 | 711.8 | 935.8 | 1610.6 | 2796.3 | 3961.6 | 3982.0 | 3772.8 | 3387.7 | 2845.3 | 2177.9 |
| 75° | 200.9 | 208.3 | 311.9 | 763.6 | 1602.2 | 3051.7 | 3097.1 | 3138.7 | 2759.2 | 2094.6 | 1341.2 |
| 77.5° | 119.4 | 118.5 | 150.9 | 259.2 | 741.4 | 1809.6 | 1829.9 | 2007.6 | 1790.1 | 1164.4 | 609.0 |
| 80° | 58.3 | 60.2 | 80.5 | 125.9 | 277.7 | 657.2 | 722.9 | 938.6 | 793.2 | 455.4 | 223.1 |
| 82.5° | 19.4 | 21.3 | 33.3 | 50.9 | 117.6 | 212.0 | 234.2 | 294.3 | 253.6 | 165.7 | 95.3 |
| 85° | 0.0 | 0.0 | 0.9 | 1.9 | 6.5 | 15.7 | 15.7 | 35.2 | 52.8 | 58.3 | 31.5 |
| 87.5° | 0.0 | 0.0 | 0.9 | 0.9 | 1.9 | 1.9 | 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: P401808

CATALOG NUMBER: ENV-SA1F-727-U-T4W

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 | 660.9 |
| 2.5° | 661.8 | 660.0 | 656.3 | 652.6 | 650.7 | 646.1 | 647.0 | 645.1 | 644.2 | 644.2 | 645.1 |
| 5° | 663.7 | 660.9 | 655.3 | 651.6 | 647.9 | 646.1 | 650.7 | 652.6 | 654.4 | 654.4 | 655.3 |
| 7.5° | 674.8 | 669.2 | 662.7 | 658.1 | 659.0 | 661.8 | 669.2 | 674.8 | 677.5 | 679.4 | 681.2 |
| 10° | 693.3 | 686.8 | 677.5 | 676.6 | 678.5 | 685.9 | 696.1 | 704.4 | 711.8 | 716.4 | 716.4 |
| 12.5° | 712.7 | 704.4 | 697.0 | 698.8 | 707.2 | 718.3 | 728.5 | 737.7 | 744.2 | 748.8 | 749.7 |
| 15° | 734.0 | 725.7 | 718.3 | 722.9 | 736.8 | 749.7 | 759.0 | 762.7 | 765.5 | 770.1 | 771.0 |
| 17.5° | 753.4 | 746.0 | 739.6 | 751.6 | 763.6 | 773.8 | 776.6 | 774.7 | 771.0 | 773.8 | 775.7 |
| 20° | 773.8 | 767.3 | 763.6 | 776.6 | 784.9 | 785.8 | 778.4 | 770.1 | 760.8 | 760.8 | 761.8 |
| 22.5° | 798.8 | 790.5 | 788.6 | 795.1 | 792.3 | 781.2 | 762.7 | 749.7 | 736.8 | 734.9 | 737.7 |
| 25° | 822.9 | 814.5 | 813.6 | 809.0 | 784.9 | 756.2 | 731.2 | 716.4 | 706.2 | 707.2 | 712.7 |
| 27.5° | 846.9 | 841.4 | 842.3 | 817.3 | 763.6 | 720.1 | 686.8 | 674.8 | 677.5 | 679.4 | 684.9 |
| 30° | 871.0 | 871.0 | 874.7 | 817.3 | 734.0 | 669.2 | 637.7 | 636.8 | 644.2 | 649.8 | 656.3 |
| 32.5° | 898.8 | 907.1 | 900.6 | 807.1 | 694.2 | 617.4 | 592.4 | 594.2 | 602.6 | 611.8 | 617.4 |
| 35° | 925.6 | 945.0 | 926.5 | 784.0 | 639.6 | 570.2 | 549.8 | 547.0 | 553.5 | 561.8 | 564.6 |
| 37.5° | 968.2 | 999.7 | 948.7 | 747.9 | 583.1 | 528.5 | 508.2 | 500.8 | 494.3 | 500.8 | 499.8 |
| 40° | 1042.2 | 1080.2 | 965.4 | 687.7 | 528.5 | 489.6 | 468.4 | 454.5 | 438.7 | 424.9 | 424.9 |
| 42.5° | 1160.7 | 1185.7 | 974.7 | 614.6 | 473.9 | 450.8 | 429.5 | 409.1 | 385.1 | 360.1 | 360.1 |
| 45° | 1354.2 | 1359.7 | 978.4 | 536.9 | 423.9 | 411.9 | 389.7 | 370.2 | 338.8 | 313.8 | 308.2 |
| 47.5° | 1612.4 | 1588.3 | 987.6 | 461.9 | 380.4 | 377.6 | 359.1 | 336.9 | 302.7 | 279.5 | 276.8 |
| 50° | 1959.5 | 1855.8 | 1028.3 | 401.7 | 345.3 | 348.0 | 334.1 | 308.2 | 275.8 | 259.2 | 255.5 |
| 52.5° | 2350.1 | 2193.7 | 1059.8 | 353.6 | 314.7 | 323.0 | 312.9 | 287.9 | 260.1 | 246.2 | 243.4 |
| 55° | 2776.8 | 2518.6 | 1052.4 | 321.2 | 291.6 | 300.8 | 297.1 | 275.8 | 250.8 | 238.8 | 236.0 |
| 57.5° | 3124.8 | 2747.2 | 987.6 | 292.5 | 268.4 | 281.4 | 285.1 | 268.4 | 245.3 | 234.2 | 231.4 |
| 60° | 3385.9 | 2872.2 | 854.3 | 268.4 | 249.9 | 265.6 | 275.8 | 263.8 | 244.4 | 237.9 | 235.1 |
| 62.5° | 3504.3 | 2861.0 | 681.2 | 249.9 | 236.0 | 254.5 | 276.8 | 271.2 | 258.2 | 262.9 | 263.8 |
| 65° | 3437.7 | 2721.3 | 510.9 | 236.0 | 227.7 | 256.4 | 292.5 | 292.5 | 273.1 | 281.4 | 282.3 |
| 67.5° | 3096.1 | 2355.7 | 372.1 | 225.8 | 219.4 | 265.6 | 322.1 | 303.6 | 266.6 | 273.1 | 270.3 |
| 69° | 2771.3 | 2107.6 | 319.3 | 220.3 | 212.9 | 270.3 | 335.1 | 305.4 | 259.2 | 266.6 | 259.2 |
| 70° | 2532.5 | 1883.6 | 286.9 | 215.7 | 210.1 | 270.3 | 338.8 | 303.6 | 255.5 | 261.0 | 252.7 |
| 72.5° | 1802.2 | 1307.9 | 236.0 | 206.4 | 199.9 | 249.9 | 332.3 | 293.4 | 245.3 | 238.8 | 223.1 |
| 75° | 1047.8 | 722.9 | 200.9 | 196.2 | 176.8 | 219.4 | 315.6 | 282.3 | 235.1 | 223.1 | 212.0 |
| 77.5° | 439.7 | 323.0 | 171.2 | 178.6 | 156.4 | 195.3 | 295.3 | 271.2 | 223.1 | 206.4 | 200.9 |
| 80° | 178.6 | 161.1 | 142.5 | 154.6 | 136.1 | 172.2 | 272.1 | 252.7 | 205.5 | 188.8 | 180.5 |
| 82.5° | 93.5 | 88.9 | 109.2 | 125.0 | 112.9 | 158.3 | 256.4 | 239.7 | 190.7 | 174.0 | 163.8 |
| 85° | 27.8 | 37.0 | 62.0 | 85.2 | 86.1 | 142.5 | 249.0 | 222.1 | 165.7 | 143.5 | 141.6 |
| 87.5° | 1.9 | 7.4 | 21.3 | 44.4 | 56.5 | 109.2 | 201.8 | 182.3 | 134.2 | 112.9 | 113.8 |
| 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)