

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: P401447

Luminaire Tested: **ENV-SA1D-727-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1D-727-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3521 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G1

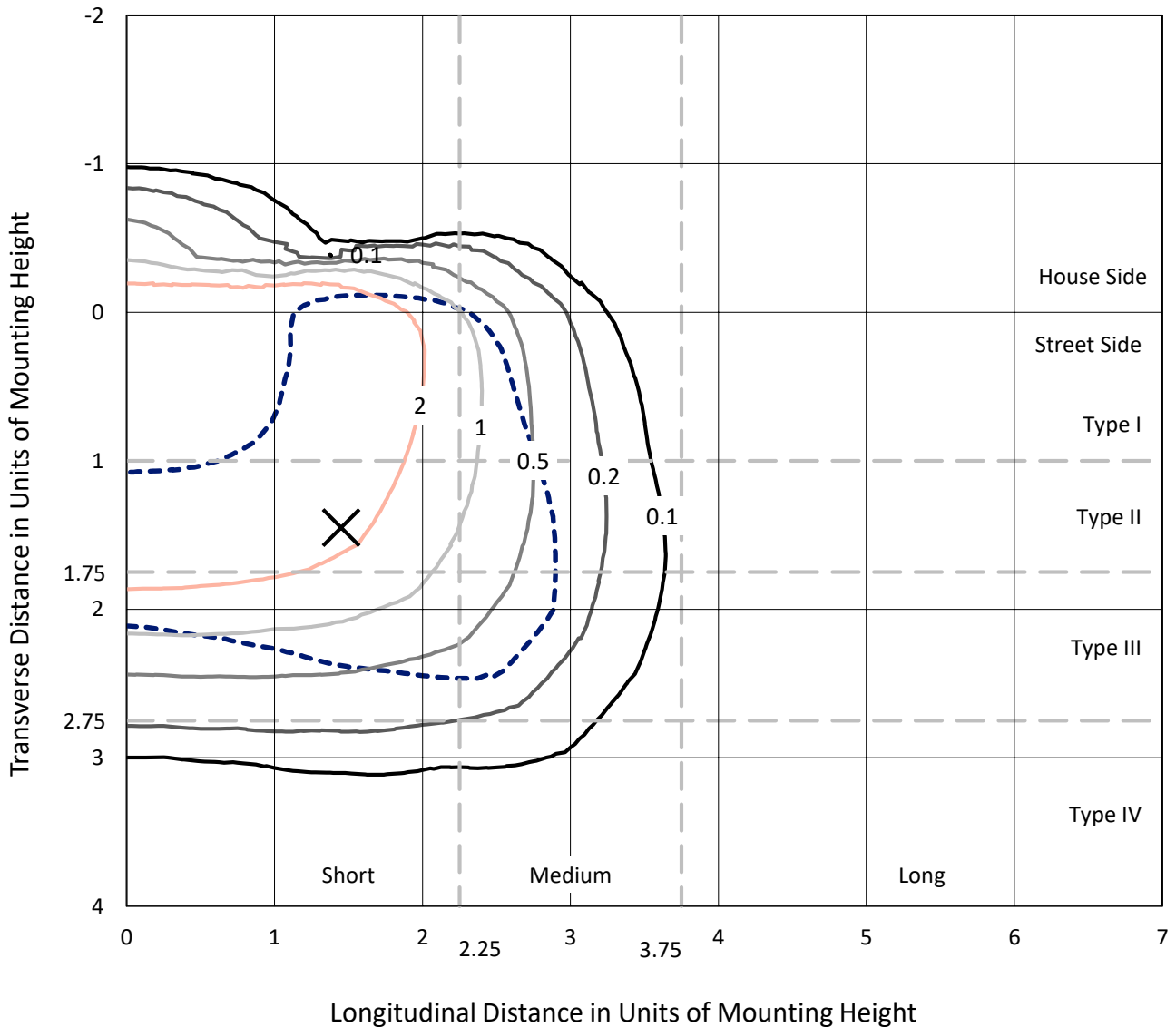
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401447
 CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

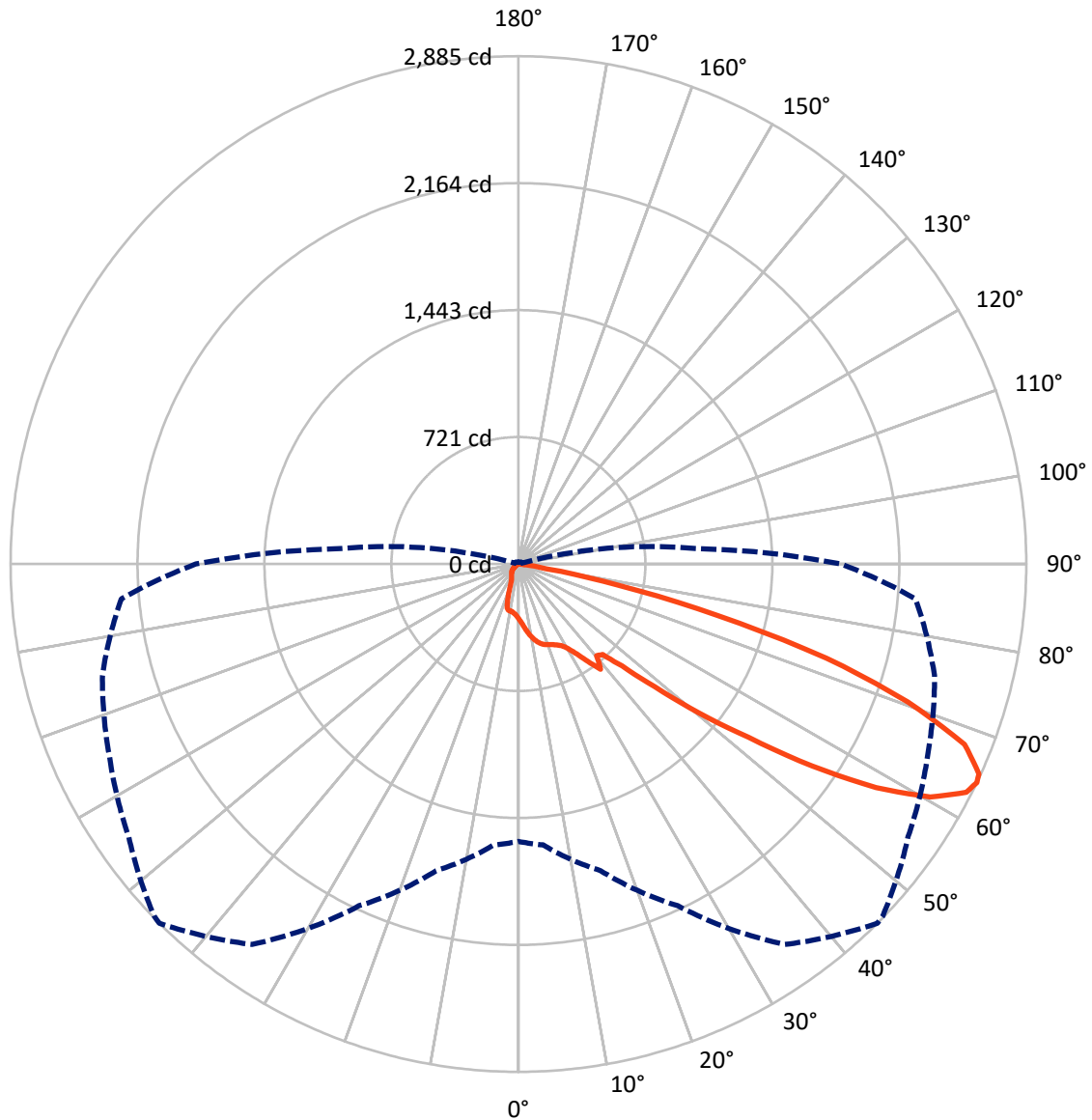
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P401447
CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

REPORT NUMBER: P401447

CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

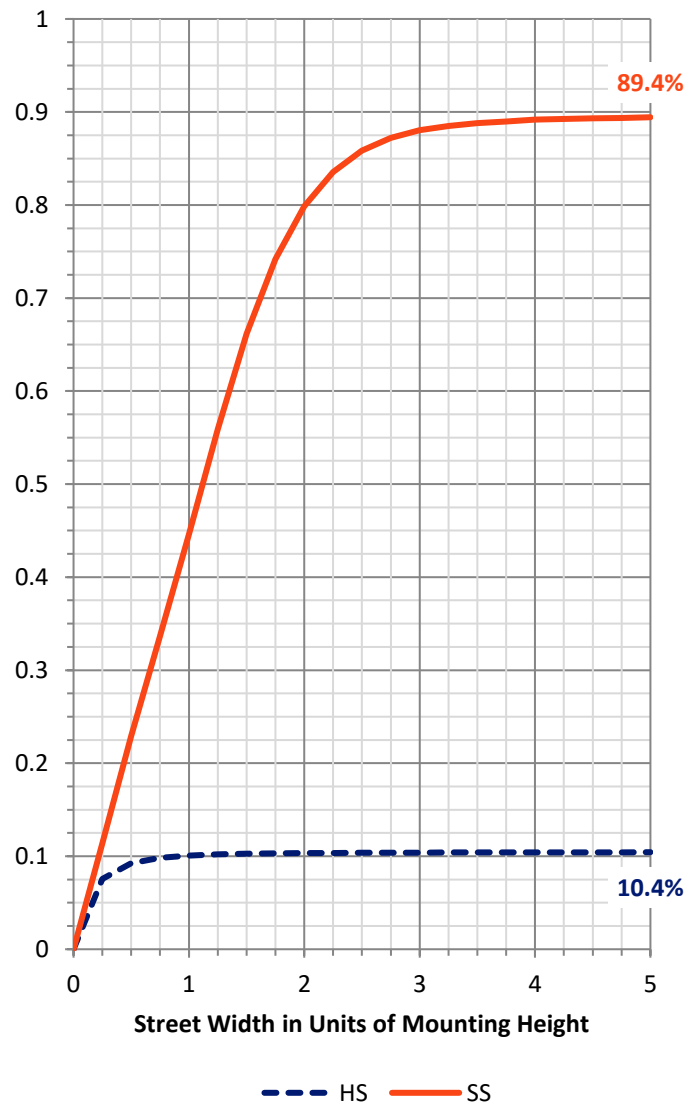
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 371.5 | 0.0 | 371.5 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| Street Side | Lumens | 3149.5 | 0.0 | 3149.5 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| Total | Lumens | 3521.0 | 0.0 | 3521.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 31.6 | 0.9 |
| 10°-20° | 98.7 | 2.8 |
| 20°-30° | 160.7 | 4.6 |
| 30°-40° | 255.2 | 7.2 |
| 40°-50° | 486.2 | 13.8 |
| 50°-60° | 1001.9 | 28.5 |
| 60°-70° | 1118.9 | 31.8 |
| 70°-80° | 353.4 | 10.0 |
| 80°-90° | 14.4 | 0.4 |
| 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° | 3521.0 | 100.0 |
| 0°-180° | 3521.0 | 100.0 |



REPORT NUMBER: P401447

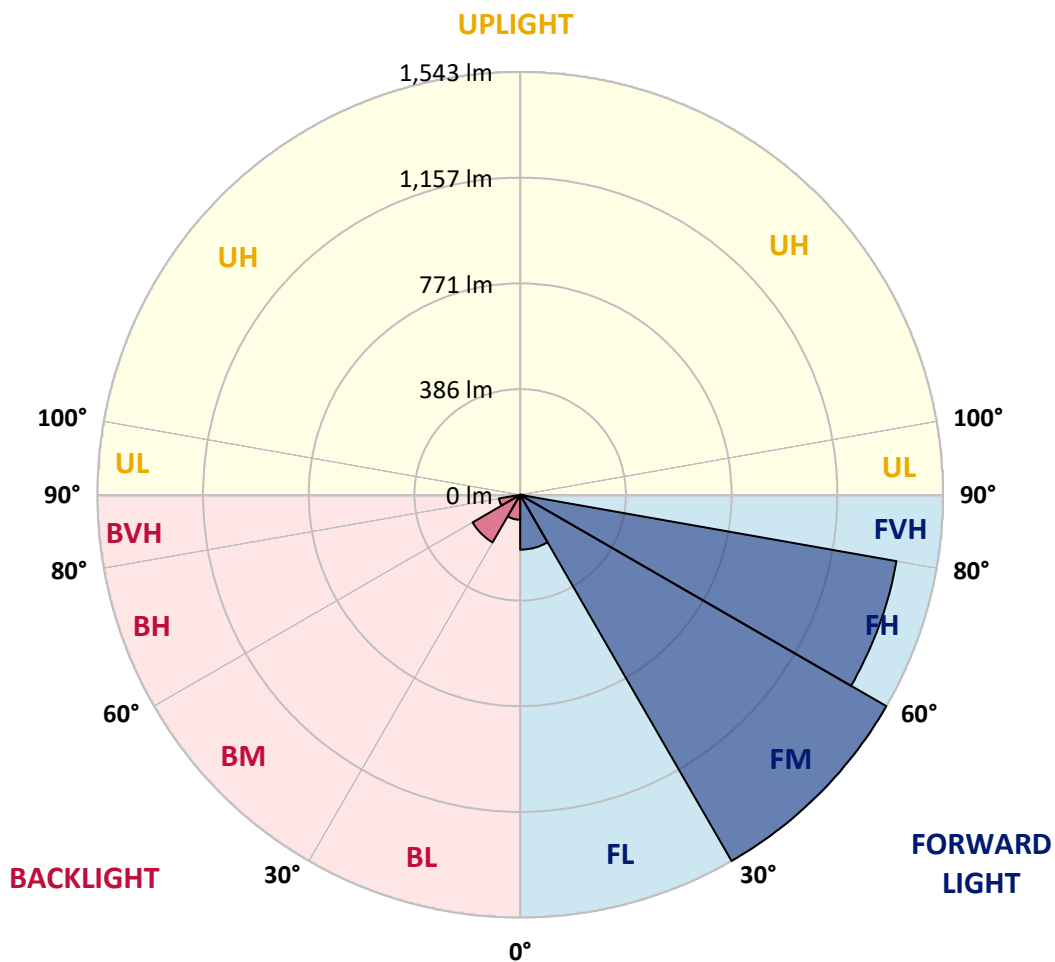
CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 200.0 | 5.7 | | | |
| FM | (30°-60°) | 1542.8 | 43.8 | | | |
| FH | (60°-80°) | 1394.0 | 39.6 | | | G1/1800 |
| FVH | (80°-90°) | 12.7 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 91.0 | 2.6 | B0/110 | | |
| BM | (30°-60°) | 200.5 | 5.7 | B0/220 | | |
| BH | (60°-80°) | 78.3 | 2.2 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.7 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type III Short





REPORT NUMBER: P401447

CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 |
| 2.5° | 344.3 | 345.6 | 343.6 | 341.0 | 338.3 | 333.6 | 334.2 | 328.2 | 323.5 | 320.1 | 314.8 |
| 5° | 387.9 | 387.3 | 383.2 | 377.2 | 371.2 | 362.4 | 361.1 | 351.7 | 341.6 | 330.9 | 320.8 |
| 7.5° | 432.2 | 430.2 | 426.2 | 418.1 | 406.7 | 395.3 | 392.0 | 378.5 | 363.8 | 347.7 | 330.2 |
| 10° | 468.5 | 467.1 | 462.4 | 453.7 | 440.3 | 422.8 | 422.8 | 404.0 | 384.6 | 365.1 | 344.3 |
| 12.5° | 498.0 | 496.7 | 491.3 | 480.6 | 464.4 | 449.0 | 447.0 | 430.2 | 408.7 | 385.9 | 360.4 |
| 15° | 516.1 | 514.8 | 508.7 | 496.7 | 482.6 | 468.5 | 466.5 | 450.4 | 430.9 | 404.7 | 375.2 |
| 17.5° | 520.8 | 519.5 | 514.8 | 504.0 | 493.3 | 481.2 | 478.5 | 464.4 | 447.7 | 420.8 | 390.6 |
| 20° | 518.8 | 516.1 | 513.4 | 504.7 | 496.0 | 487.9 | 486.6 | 476.5 | 461.8 | 438.9 | 406.7 |
| 22.5° | 513.4 | 510.8 | 508.7 | 502.7 | 498.0 | 497.3 | 496.0 | 490.0 | 480.6 | 461.1 | 430.9 |
| 25° | 511.4 | 509.4 | 507.4 | 503.4 | 502.7 | 509.4 | 508.7 | 508.1 | 504.0 | 487.3 | 455.7 |
| 27.5° | 522.8 | 522.2 | 517.5 | 510.8 | 514.1 | 525.5 | 526.2 | 529.5 | 526.9 | 516.1 | 492.0 |
| 30° | 563.1 | 559.8 | 549.0 | 534.2 | 543.0 | 557.7 | 560.4 | 571.2 | 571.8 | 573.2 | 540.3 |
| 32.5° | 617.5 | 612.1 | 594.0 | 575.2 | 580.6 | 608.1 | 608.7 | 625.5 | 661.1 | 638.9 | 566.5 |
| 35° | 655.1 | 648.3 | 620.8 | 610.8 | 637.6 | 681.2 | 687.3 | 721.5 | 724.2 | 643.6 | 564.4 |
| 37.5° | 760.4 | 750.4 | 700.0 | 638.9 | 665.1 | 759.1 | 765.8 | 759.8 | 703.4 | 636.9 | 593.3 |
| 40° | 901.4 | 892.0 | 847.0 | 744.3 | 670.5 | 684.6 | 687.9 | 706.1 | 716.8 | 683.9 | 685.9 |
| 42.5° | 1084.6 | 1072.5 | 1026.2 | 900.7 | 754.4 | 702.7 | 709.4 | 746.3 | 816.8 | 832.2 | 911.4 |
| 45° | 1271.9 | 1265.1 | 1218.2 | 1082.6 | 907.4 | 826.2 | 829.6 | 874.5 | 1000.7 | 1098.0 | 1165.1 |
| 47.5° | 1455.1 | 1456.4 | 1416.2 | 1301.4 | 1130.2 | 1040.3 | 1036.3 | 1094.7 | 1254.4 | 1323.5 | 1392.0 |
| 50° | 1713.5 | 1712.1 | 1640.3 | 1569.2 | 1435.6 | 1328.9 | 1322.2 | 1355.1 | 1508.8 | 1534.3 | 1640.3 |
| 52.5° | 2007.5 | 2006.1 | 1898.1 | 1864.5 | 1808.1 | 1636.3 | 1654.4 | 1626.2 | 1737.0 | 1782.6 | 1933.0 |
| 55° | 2147.1 | 2135.0 | 2089.3 | 2131.6 | 2198.7 | 2026.2 | 2023.6 | 1916.2 | 2002.8 | 2041.7 | 2182.0 |
| 57.5° | 2133.0 | 2137.7 | 2181.3 | 2321.6 | 2541.7 | 2397.4 | 2401.4 | 2202.1 | 2252.4 | 2276.6 | 2379.3 |
| 60° | 2053.1 | 2056.4 | 2157.8 | 2391.4 | 2712.8 | 2688.0 | 2673.9 | 2469.2 | 2436.3 | 2426.3 | 2475.3 |
| 62.5° | 1824.9 | 1826.2 | 1990.7 | 2290.7 | 2711.5 | 2855.8 | 2842.4 | 2657.1 | 2554.5 | 2490.0 | 2400.8 |
| 64° | 1576.6 | 1602.1 | 1803.4 | 2142.4 | 2638.3 | 2885.3 | 2878.0 | 2702.8 | 2565.2 | 2447.1 | 2263.8 |
| 65° | 1372.5 | 1410.8 | 1654.4 | 2010.8 | 2555.8 | 2875.3 | 2866.5 | 2694.7 | 2550.4 | 2366.5 | 2122.2 |
| 67.5° | 936.3 | 956.4 | 1175.2 | 1582.6 | 2241.0 | 2733.7 | 2731.0 | 2591.4 | 2390.0 | 2044.4 | 1665.2 |
| 70° | 552.4 | 567.1 | 728.9 | 1104.7 | 1722.2 | 2348.4 | 2384.0 | 2333.6 | 1984.0 | 1468.5 | 1060.4 |
| 72.5° | 171.8 | 180.5 | 321.5 | 613.4 | 1128.9 | 1829.6 | 1875.9 | 1839.7 | 1444.3 | 917.5 | 587.9 |
| 75° | 64.4 | 67.1 | 106.0 | 266.5 | 561.8 | 1169.8 | 1183.9 | 1226.2 | 879.9 | 484.6 | 257.1 |
| 77.5° | 35.6 | 36.2 | 52.4 | 100.0 | 247.0 | 574.5 | 587.9 | 582.6 | 467.8 | 228.9 | 81.9 |
| 80° | 17.5 | 18.1 | 25.5 | 44.3 | 96.0 | 162.4 | 192.6 | 254.4 | 165.1 | 112.8 | 26.2 |
| 82.5° | 6.0 | 5.4 | 11.4 | 20.1 | 32.2 | 43.6 | 49.0 | 70.5 | 69.1 | 61.7 | 9.4 |
| 85° | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 1.3 | 1.3 | 8.7 | 17.5 | 20.1 | 2.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 1.3 | 1.3 |
| 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: P401447

CATALOG NUMBER: ENV-SA1D-727-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 | 312.1 |
| 2.5° | 312.1 | 310.7 | 306.1 | 301.4 | 298.0 | 294.0 | 293.3 | 290.6 | 289.9 | 289.9 | 289.9 |
| 5° | 315.4 | 311.4 | 302.7 | 295.3 | 288.6 | 282.6 | 279.9 | 277.2 | 275.2 | 274.5 | 274.5 |
| 7.5° | 322.8 | 316.8 | 302.7 | 292.0 | 281.9 | 274.5 | 270.5 | 267.8 | 265.8 | 265.8 | 265.8 |
| 10° | 333.6 | 324.2 | 306.7 | 292.0 | 279.9 | 270.5 | 264.4 | 260.4 | 257.7 | 257.1 | 257.7 |
| 12.5° | 347.0 | 334.9 | 313.4 | 295.3 | 281.2 | 269.1 | 256.4 | 232.9 | 217.5 | 208.7 | 207.4 |
| 15° | 359.7 | 345.6 | 320.8 | 300.0 | 283.2 | 256.4 | 210.1 | 173.8 | 149.7 | 142.3 | 140.9 |
| 17.5° | 373.8 | 359.1 | 330.9 | 306.7 | 275.8 | 206.7 | 149.7 | 119.5 | 114.8 | 116.1 | 116.1 |
| 20° | 391.3 | 373.8 | 341.6 | 313.4 | 237.6 | 147.0 | 109.4 | 105.4 | 106.7 | 109.4 | 109.4 |
| 22.5° | 411.4 | 392.6 | 356.4 | 309.4 | 181.2 | 107.4 | 100.0 | 100.7 | 102.0 | 104.7 | 104.7 |
| 25° | 437.6 | 418.1 | 372.5 | 279.2 | 126.2 | 94.0 | 94.6 | 95.3 | 97.3 | 100.0 | 100.7 |
| 27.5° | 476.5 | 453.0 | 392.0 | 234.2 | 95.3 | 87.3 | 87.9 | 89.9 | 91.9 | 95.3 | 95.3 |
| 30° | 518.1 | 489.3 | 409.4 | 180.5 | 83.2 | 79.9 | 80.5 | 82.6 | 85.9 | 88.6 | 89.9 |
| 32.5° | 536.3 | 510.8 | 412.8 | 123.5 | 77.2 | 73.8 | 72.5 | 74.5 | 77.2 | 79.9 | 80.5 |
| 35° | 546.3 | 535.6 | 396.7 | 89.3 | 72.5 | 68.5 | 65.8 | 65.1 | 65.8 | 67.8 | 67.8 |
| 37.5° | 596.0 | 588.6 | 364.4 | 76.5 | 67.8 | 63.8 | 59.7 | 56.4 | 55.0 | 54.4 | 55.0 |
| 40° | 691.3 | 675.2 | 322.2 | 70.5 | 63.8 | 59.1 | 53.7 | 48.3 | 43.6 | 41.6 | 41.6 |
| 42.5° | 901.4 | 820.2 | 261.8 | 66.4 | 59.7 | 54.4 | 46.3 | 38.9 | 33.6 | 32.2 | 32.2 |
| 45° | 1127.6 | 1000.0 | 196.7 | 63.1 | 55.7 | 49.0 | 38.9 | 30.9 | 26.2 | 24.8 | 24.8 |
| 47.5° | 1345.0 | 1132.9 | 137.6 | 59.1 | 51.0 | 43.0 | 32.2 | 24.8 | 21.5 | 20.8 | 20.8 |
| 50° | 1573.2 | 1248.4 | 96.0 | 54.4 | 46.3 | 36.9 | 26.2 | 20.1 | 18.1 | 18.1 | 18.1 |
| 52.5° | 1795.4 | 1333.6 | 70.5 | 49.7 | 40.3 | 30.9 | 22.1 | 18.1 | 16.8 | 16.8 | 16.8 |
| 55° | 1963.2 | 1366.5 | 53.7 | 43.6 | 34.2 | 26.2 | 20.1 | 17.5 | 16.1 | 15.4 | 15.4 |
| 57.5° | 2075.2 | 1339.0 | 43.6 | 36.2 | 28.9 | 22.8 | 18.1 | 16.1 | 14.8 | 14.1 | 14.1 |
| 60° | 2072.6 | 1247.7 | 34.9 | 29.5 | 23.5 | 19.5 | 16.8 | 14.8 | 13.4 | 12.8 | 12.8 |
| 62.5° | 1951.1 | 1099.4 | 27.5 | 23.5 | 19.5 | 16.8 | 14.8 | 13.4 | 12.1 | 11.4 | 10.7 |
| 64° | 1832.3 | 1007.4 | 23.5 | 20.1 | 17.5 | 15.4 | 13.4 | 12.1 | 10.7 | 9.4 | 9.4 |
| 65° | 1703.4 | 920.2 | 21.5 | 18.1 | 15.4 | 14.1 | 12.8 | 11.4 | 9.4 | 8.1 | 8.1 |
| 67.5° | 1295.3 | 681.2 | 17.5 | 14.1 | 12.1 | 11.4 | 10.1 | 8.7 | 6.7 | 5.4 | 5.4 |
| 70° | 841.0 | 441.0 | 14.8 | 11.4 | 10.1 | 10.1 | 9.4 | 7.4 | 5.4 | 4.7 | 4.0 |
| 72.5° | 430.9 | 219.5 | 12.1 | 9.4 | 8.7 | 8.7 | 8.1 | 6.0 | 4.7 | 4.0 | 3.4 |
| 75° | 182.6 | 89.3 | 10.1 | 8.1 | 7.4 | 6.7 | 6.0 | 5.4 | 4.0 | 3.4 | 3.4 |
| 77.5° | 63.8 | 33.6 | 9.4 | 8.1 | 6.0 | 5.4 | 5.4 | 5.4 | 5.4 | 4.7 | 4.0 |
| 80° | 21.5 | 12.8 | 6.0 | 6.0 | 6.7 | 7.4 | 7.4 | 6.7 | 7.4 | 6.0 | 4.7 |
| 82.5° | 8.7 | 4.7 | 2.0 | 2.7 | 4.7 | 5.4 | 6.0 | 6.0 | 6.0 | 4.7 | 4.0 |
| 85° | 2.0 | 1.3 | 1.3 | 2.0 | 2.0 | 2.7 | 2.7 | 3.4 | 3.4 | 2.7 | 2.7 |
| 87.5° | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 2.0 | 1.3 | 2.0 | 2.0 | 2.0 |
| 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)