

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: P401532

Luminaire Tested: **ENV-SA1D-750-U-T2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401532  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-750-U-T2  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5619 lumens  
Efficiency: N/A  
Efficacy: 130.4 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

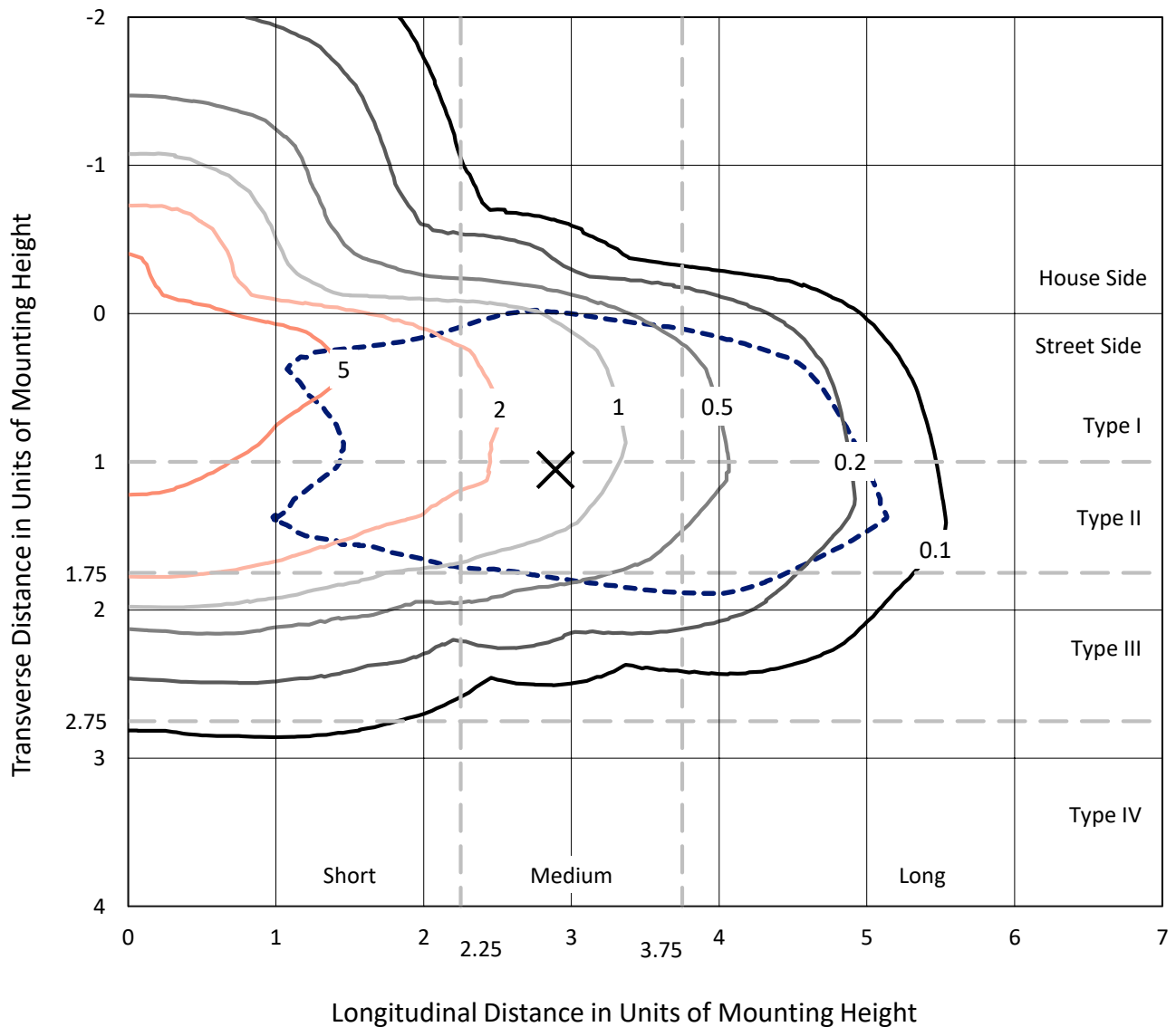
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401532  
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### Iso-Footcandle Lines of Horizontal Illumination

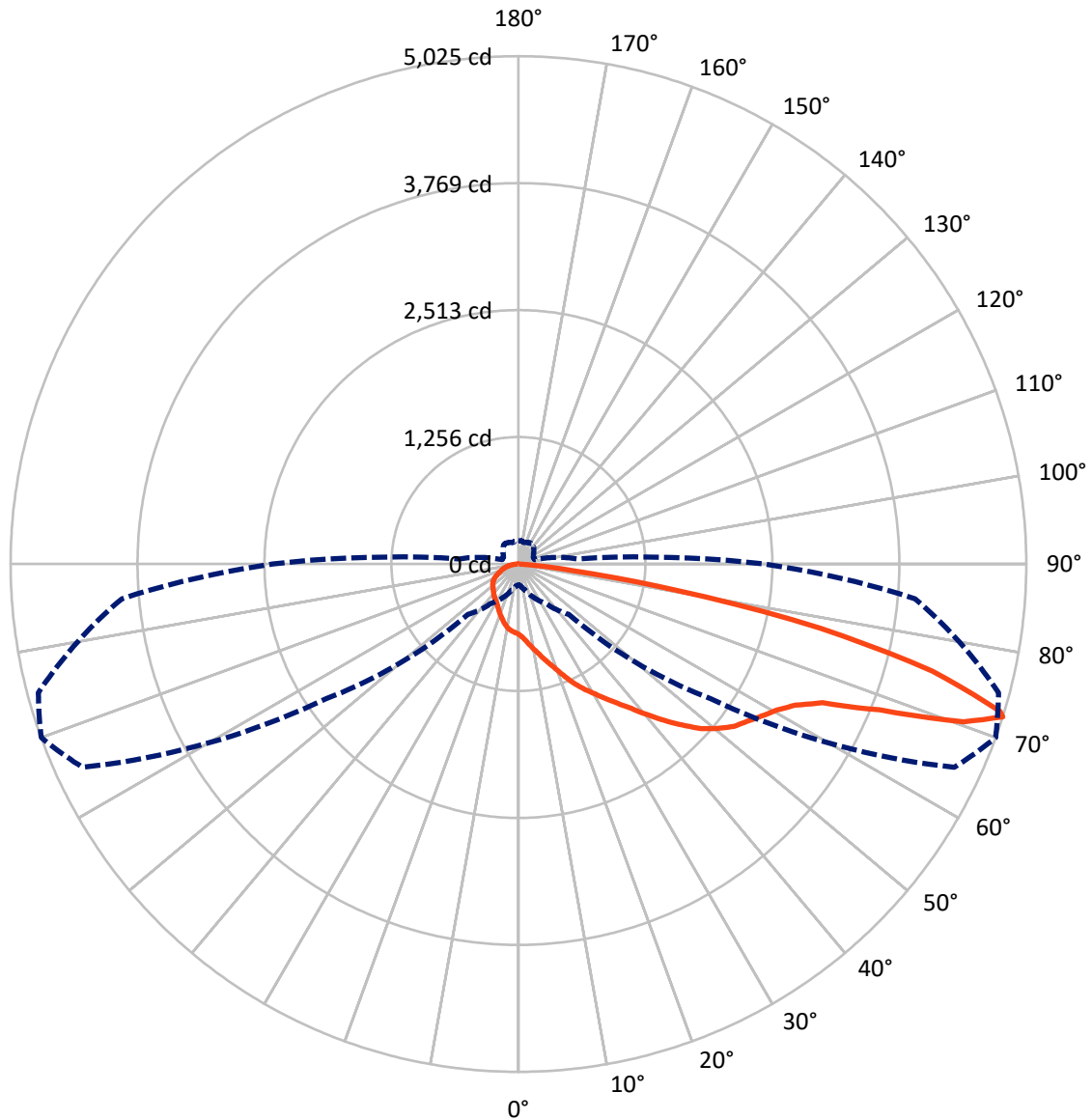
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401532  
CATALOG NUMBER: ENV-SA1D-750-U-T2

### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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CATALOG NUMBER: ENV-SA1D-750-U-T2

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1044.1   | 0.0    | 1044.1 |
|                    | % Fixture | 18.6     | 0.0    | 18.6   |
| <b>Street Side</b> | Lumens    | 4574.9   | 0.0    | 4574.9 |
|                    | % Fixture | 81.4     | 0.0    | 81.4   |
| <b>Total</b>       | Lumens    | 5619.0   | 0.0    | 5619.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.0   | 1.2       |
| 10°-20°   | 224.4  | 4.0       |
| 20°-30°   | 397.4  | 7.1       |
| 30°-40°   | 590.8  | 10.5      |
| 40°-50°   | 857.1  | 15.3      |
| 50°-60°   | 1170.9 | 20.8      |
| 60°-70°   | 1282.0 | 22.8      |
| 70°-80°   | 911.9  | 16.2      |
| 80°-90°   | 114.5  | 2.0       |
| 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°    | 5619.0 | 100.0     |
| 0°-180°   | 5619.0 | 100.0     |



REPORT NUMBER: P401532

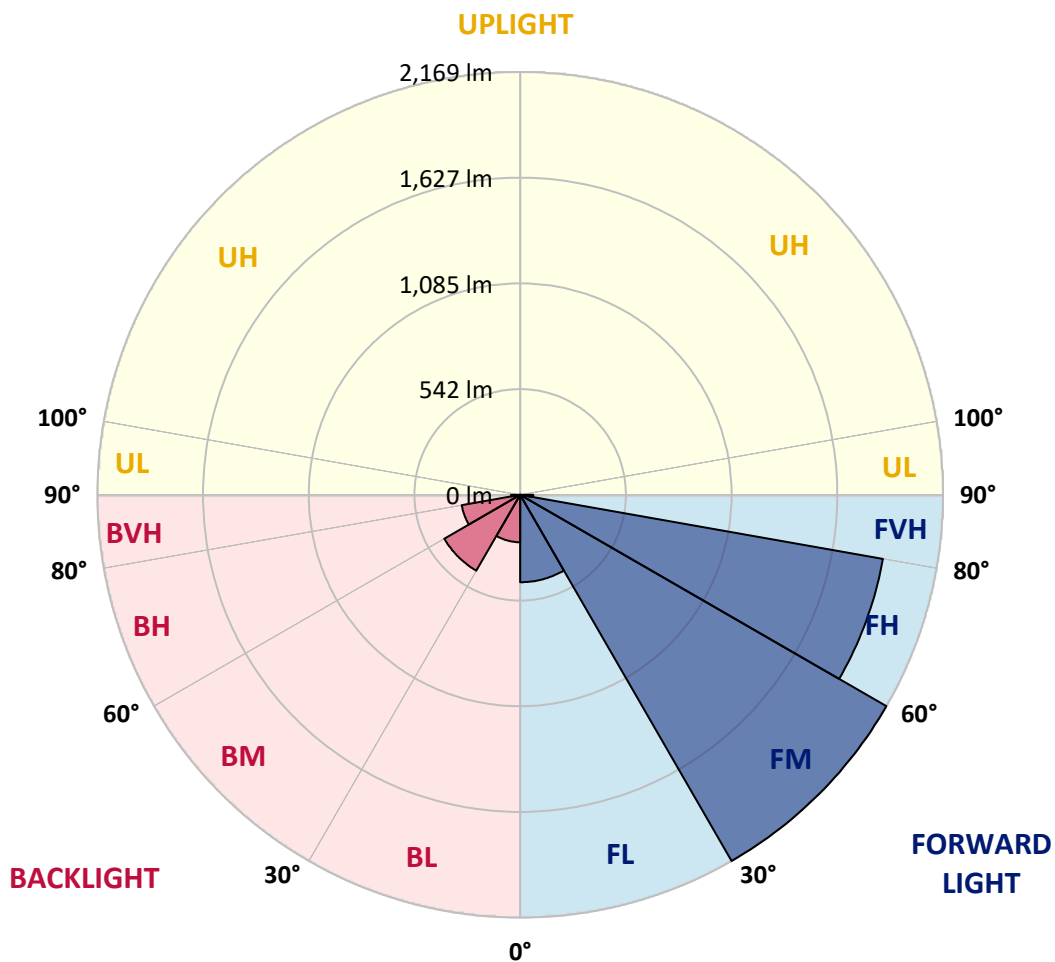
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 448.5  | 8.0       |                         |      |         |
| FM   | (30°-60°)   | 2169.3 | 38.6      |                         |      |         |
| FH   | (60°-80°)   | 1889.5 | 33.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 67.6   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 243.3  | 4.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 449.5  | 8.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 304.4  | 5.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 46.9   | 0.8       |                         |      | 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





REPORT NUMBER: P401532

CATALOG NUMBER: ENV-SA1D-750-U-T2

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 70°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  | 695.9  |
| 2.5°  | 773.7  | 769.7  | 770.5  | 763.3  | 759.3  | 749.6  | 739.2  | 728.0  | 722.4  | 718.3  | 704.7  |
| 5°    | 849.2  | 849.2  | 852.4  | 846.8  | 831.5  | 815.5  | 797.0  | 772.1  | 761.7  | 747.2  | 720.0  |
| 7.5°  | 911.8  | 913.4  | 913.4  | 911.8  | 898.1  | 880.5  | 856.4  | 825.9  | 809.0  | 788.2  | 745.6  |
| 10°   | 943.9  | 947.9  | 951.1  | 953.5  | 951.9  | 941.5  | 914.2  | 882.9  | 859.6  | 832.3  | 775.3  |
| 12.5° | 959.9  | 961.5  | 967.2  | 979.2  | 988.8  | 996.9  | 976.8  | 939.9  | 916.6  | 883.7  | 807.4  |
| 15°   | 977.6  | 977.6  | 983.2  | 998.5  | 1016.9 | 1038.6 | 1036.2 | 1007.3 | 982.4  | 941.5  | 848.4  |
| 17.5° | 988.8  | 992.0  | 1002.5 | 1018.5 | 1044.2 | 1080.3 | 1098.8 | 1082.7 | 1050.6 | 1007.3 | 892.5  |
| 20°   | 982.4  | 984.8  | 1005.7 | 1037.0 | 1069.9 | 1116.4 | 1163.0 | 1163.0 | 1132.5 | 1082.7 | 941.5  |
| 22.5° | 994.4  | 998.5  | 1012.9 | 1042.6 | 1087.6 | 1147.7 | 1224.0 | 1250.5 | 1224.0 | 1169.4 | 998.5  |
| 25°   | 1041.0 | 1039.4 | 1051.4 | 1063.5 | 1102.0 | 1176.6 | 1276.2 | 1344.4 | 1320.3 | 1260.1 | 1053.8 |
| 27.5° | 1108.4 | 1108.4 | 1114.8 | 1114.0 | 1127.7 | 1200.7 | 1321.9 | 1427.1 | 1407.0 | 1334.8 | 1099.6 |
| 30°   | 1186.3 | 1187.9 | 1186.3 | 1185.5 | 1183.1 | 1233.6 | 1362.9 | 1500.9 | 1490.5 | 1419.0 | 1141.3 |
| 32.5° | 1281.0 | 1285.0 | 1278.6 | 1262.5 | 1252.9 | 1281.0 | 1397.4 | 1583.6 | 1586.8 | 1502.5 | 1182.3 |
| 35°   | 1399.8 | 1406.2 | 1382.1 | 1358.8 | 1334.8 | 1347.6 | 1437.5 | 1661.4 | 1693.5 | 1597.2 | 1232.0 |
| 37.5° | 1518.6 | 1529.0 | 1525.0 | 1462.4 | 1428.7 | 1427.9 | 1496.9 | 1758.5 | 1812.3 | 1720.8 | 1302.7 |
| 40°   | 1618.9 | 1627.7 | 1632.5 | 1575.5 | 1529.0 | 1527.4 | 1584.4 | 1859.7 | 1958.4 | 1862.9 | 1386.1 |
| 42.5° | 1685.5 | 1693.5 | 1708.0 | 1674.3 | 1630.9 | 1651.0 | 1680.7 | 1960.0 | 2115.7 | 2036.3 | 1488.9 |
| 45°   | 1757.7 | 1764.2 | 1773.0 | 1753.7 | 1731.3 | 1789.0 | 1802.7 | 2071.6 | 2273.0 | 2222.5 | 1609.3 |
| 47.5° | 1834.8 | 1841.2 | 1846.0 | 1831.6 | 1823.6 | 1904.6 | 1922.3 | 2185.5 | 2431.9 | 2415.1 | 1726.4 |
| 50°   | 1919.9 | 1922.3 | 1927.1 | 1919.9 | 1922.3 | 2009.8 | 2021.0 | 2285.9 | 2558.0 | 2615.7 | 1848.4 |
| 52.5° | 2065.9 | 2069.2 | 2070.8 | 2036.3 | 2024.2 | 2076.4 | 2100.5 | 2392.6 | 2668.7 | 2782.7 | 1956.0 |
| 55°   | 2181.5 | 2192.8 | 2243.3 | 2220.9 | 2192.0 | 2123.7 | 2166.3 | 2478.5 | 2747.4 | 2938.4 | 2068.4 |
| 57.5° | 2086.8 | 2112.5 | 2238.5 | 2344.5 | 2425.5 | 2262.6 | 2244.1 | 2566.8 | 2838.1 | 3072.4 | 2199.2 |
| 60°   | 1811.5 | 1849.2 | 2032.2 | 2253.0 | 2515.4 | 2581.2 | 2403.9 | 2676.7 | 2936.8 | 3212.1 | 2339.6 |
| 62.5° | 1256.1 | 1294.6 | 1547.5 | 1899.8 | 2363.7 | 2763.4 | 2841.3 | 2871.8 | 3074.0 | 3355.0 | 2522.6 |
| 65°   | 602.0  | 641.3  | 850.0  | 1221.6 | 1866.9 | 2646.2 | 3350.9 | 3276.3 | 3305.2 | 3536.4 | 2792.3 |
| 67.5° | 382.9  | 403.7  | 485.6  | 665.4  | 1085.9 | 2061.1 | 3533.9 | 4082.1 | 3852.6 | 3954.5 | 3329.3 |
| 70°   | 280.1  | 284.9  | 355.6  | 460.7  | 644.5  | 1203.9 | 3120.6 | 4853.5 | 4673.7 | 4662.4 | 3977.0 |
| 72°   | 207.1  | 215.1  | 269.7  | 367.6  | 476.8  | 703.9  | 2322.0 | 4759.5 | 5025.2 | 4918.5 | 3938.5 |
| 72.5° | 195.0  | 201.5  | 248.8  | 347.5  | 450.3  | 618.0  | 2080.4 | 4650.4 | 4981.9 | 4925.7 | 3864.6 |
| 75°   | 142.1  | 146.9  | 170.2  | 247.2  | 348.3  | 358.0  | 1110.8 | 3569.3 | 4230.6 | 4702.6 | 3503.4 |
| 77.5° | 97.9   | 101.1  | 113.2  | 151.7  | 238.4  | 242.4  | 471.1  | 2436.8 | 3053.2 | 3760.3 | 2694.4 |
| 80°   | 59.4   | 61.0   | 68.2   | 82.7   | 151.7  | 143.7  | 194.2  | 1273.8 | 1593.2 | 2044.3 | 1249.7 |
| 82.5° | 24.9   | 25.7   | 29.7   | 32.9   | 64.2   | 68.2   | 78.7   | 415.8  | 527.3  | 638.9  | 360.4  |
| 85°   | 0.0    | 0.0    | 0.8    | 0.8    | 1.6    | 7.2    | 11.2   | 51.4   | 77.9   | 93.1   | 65.0   |
| 87.5° | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 1.6    | 1.6    | 2.4    | 3.2    | 3.2    | 4.8    |
| 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: P401532

CATALOG NUMBER: ENV-SA1D-750-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 695.9  | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 | 695.9 |
| 2.5°  | 698.3  | 695.1 | 685.4 | 677.4 | 671.0 | 660.6 | 659.8 | 651.7 | 651.7 | 649.3 | 647.7 |
| 5°    | 709.5  | 699.1 | 679.8 | 662.2 | 649.3 | 634.1 | 626.8 | 618.0 | 612.4 | 609.2 | 610.0 |
| 7.5°  | 724.0  | 706.3 | 673.4 | 643.7 | 619.6 | 600.4 | 589.1 | 581.9 | 577.9 | 576.3 | 576.3 |
| 10°   | 744.0  | 716.7 | 663.0 | 618.0 | 587.5 | 573.1 | 567.5 | 566.7 | 567.5 | 568.3 | 569.1 |
| 12.5° | 766.5  | 724.0 | 643.7 | 587.5 | 563.4 | 557.8 | 561.0 | 568.3 | 574.7 | 577.1 | 577.1 |
| 15°   | 789.8  | 728.8 | 617.2 | 559.4 | 545.0 | 550.6 | 561.8 | 575.5 | 585.9 | 592.3 | 593.9 |
| 17.5° | 813.9  | 729.6 | 589.1 | 533.7 | 528.9 | 543.4 | 563.4 | 585.1 | 602.0 | 612.4 | 614.0 |
| 20°   | 839.5  | 728.0 | 556.2 | 510.5 | 512.9 | 537.0 | 565.0 | 594.7 | 617.2 | 630.9 | 632.5 |
| 22.5° | 867.6  | 721.6 | 524.1 | 488.0 | 499.2 | 530.5 | 563.4 | 598.0 | 622.0 | 638.1 | 641.3 |
| 25°   | 894.9  | 708.7 | 492.0 | 467.9 | 489.6 | 524.1 | 555.4 | 585.1 | 608.4 | 623.6 | 627.7 |
| 27.5° | 909.4  | 681.4 | 461.5 | 452.7 | 482.4 | 514.5 | 537.0 | 557.0 | 569.9 | 579.5 | 583.5 |
| 30°   | 911.8  | 642.9 | 436.6 | 442.2 | 474.3 | 500.8 | 513.7 | 516.9 | 514.5 | 517.7 | 513.7 |
| 32.5° | 907.0  | 601.2 | 416.6 | 434.2 | 461.5 | 481.6 | 484.8 | 475.2 | 460.7 | 440.6 | 441.4 |
| 35°   | 903.8  | 555.4 | 400.5 | 423.0 | 444.7 | 457.5 | 451.9 | 436.6 | 409.3 | 385.3 | 383.7 |
| 37.5° | 909.4  | 513.7 | 386.9 | 408.5 | 423.0 | 428.6 | 420.6 | 400.5 | 376.4 | 355.6 | 353.2 |
| 40°   | 925.4  | 483.2 | 374.0 | 392.5 | 399.7 | 403.7 | 394.1 | 376.4 | 366.8 | 351.5 | 349.1 |
| 42.5° | 956.7  | 462.3 | 362.0 | 374.8 | 378.0 | 382.0 | 372.4 | 360.4 | 369.2 | 366.0 | 366.0 |
| 45°   | 1000.1 | 452.7 | 351.5 | 358.0 | 361.2 | 367.6 | 362.0 | 351.5 | 361.2 | 342.7 | 339.5 |
| 47.5° | 1056.3 | 455.9 | 344.3 | 341.1 | 350.7 | 362.0 | 355.6 | 342.7 | 339.5 | 306.6 | 301.0 |
| 50°   | 1115.6 | 472.7 | 337.1 | 327.5 | 339.5 | 354.8 | 346.7 | 326.7 | 307.4 | 290.5 | 287.3 |
| 52.5° | 1185.5 | 500.8 | 330.7 | 312.2 | 326.7 | 346.7 | 341.1 | 319.4 | 299.4 | 287.3 | 284.9 |
| 55°   | 1262.5 | 528.1 | 322.7 | 294.6 | 309.8 | 344.3 | 342.7 | 314.6 | 288.1 | 282.5 | 280.9 |
| 57.5° | 1349.2 | 550.6 | 313.0 | 274.5 | 293.0 | 337.1 | 335.5 | 303.4 | 284.9 | 280.1 | 279.3 |
| 60°   | 1457.6 | 577.1 | 296.2 | 251.2 | 276.1 | 323.5 | 321.9 | 297.8 | 277.7 | 273.7 | 272.1 |
| 62.5° | 1605.2 | 626.0 | 267.3 | 229.5 | 258.4 | 299.4 | 309.0 | 286.5 | 267.3 | 266.5 | 266.5 |
| 65°   | 1848.4 | 720.8 | 237.6 | 211.1 | 238.4 | 276.1 | 292.2 | 273.7 | 257.6 | 261.7 | 261.7 |
| 67.5° | 2308.3 | 848.4 | 207.1 | 193.4 | 219.1 | 253.6 | 277.7 | 260.9 | 247.2 | 255.2 | 255.2 |
| 70°   | 2663.1 | 801.0 | 183.0 | 176.6 | 199.9 | 233.6 | 259.2 | 247.2 | 234.4 | 248.0 | 246.4 |
| 72°   | 2429.5 | 586.7 | 166.9 | 162.9 | 183.8 | 216.7 | 243.2 | 234.4 | 220.7 | 232.0 | 228.7 |
| 72.5° | 2332.4 | 532.9 | 162.1 | 158.9 | 179.0 | 213.5 | 240.0 | 231.2 | 216.7 | 227.9 | 223.1 |
| 75°   | 2034.6 | 449.5 | 141.3 | 139.7 | 158.9 | 191.8 | 219.1 | 214.3 | 199.9 | 206.3 | 201.5 |
| 77.5° | 1683.9 | 378.8 | 118.8 | 122.0 | 135.6 | 171.0 | 197.4 | 192.6 | 179.0 | 178.2 | 177.4 |
| 80°   | 789.8  | 211.1 | 97.9  | 100.3 | 114.0 | 146.1 | 170.2 | 166.9 | 154.1 | 152.5 | 150.1 |
| 82.5° | 228.7  | 101.1 | 75.4  | 77.1  | 91.5  | 119.6 | 146.1 | 144.5 | 134.8 | 132.4 | 126.8 |
| 85°   | 42.5   | 32.9  | 40.9  | 48.2  | 66.6  | 99.5  | 133.2 | 130.0 | 115.6 | 105.1 | 97.1  |
| 87.5° | 2.4    | 6.4   | 13.6  | 23.3  | 42.5  | 74.6  | 107.6 | 105.1 | 92.3  | 79.5  | 80.3  |
| 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)