

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: P400999

Luminaire Tested: **ENV-SA1A-760-U-SL2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400999  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1A-760-U-SL2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2210 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 20.1  
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

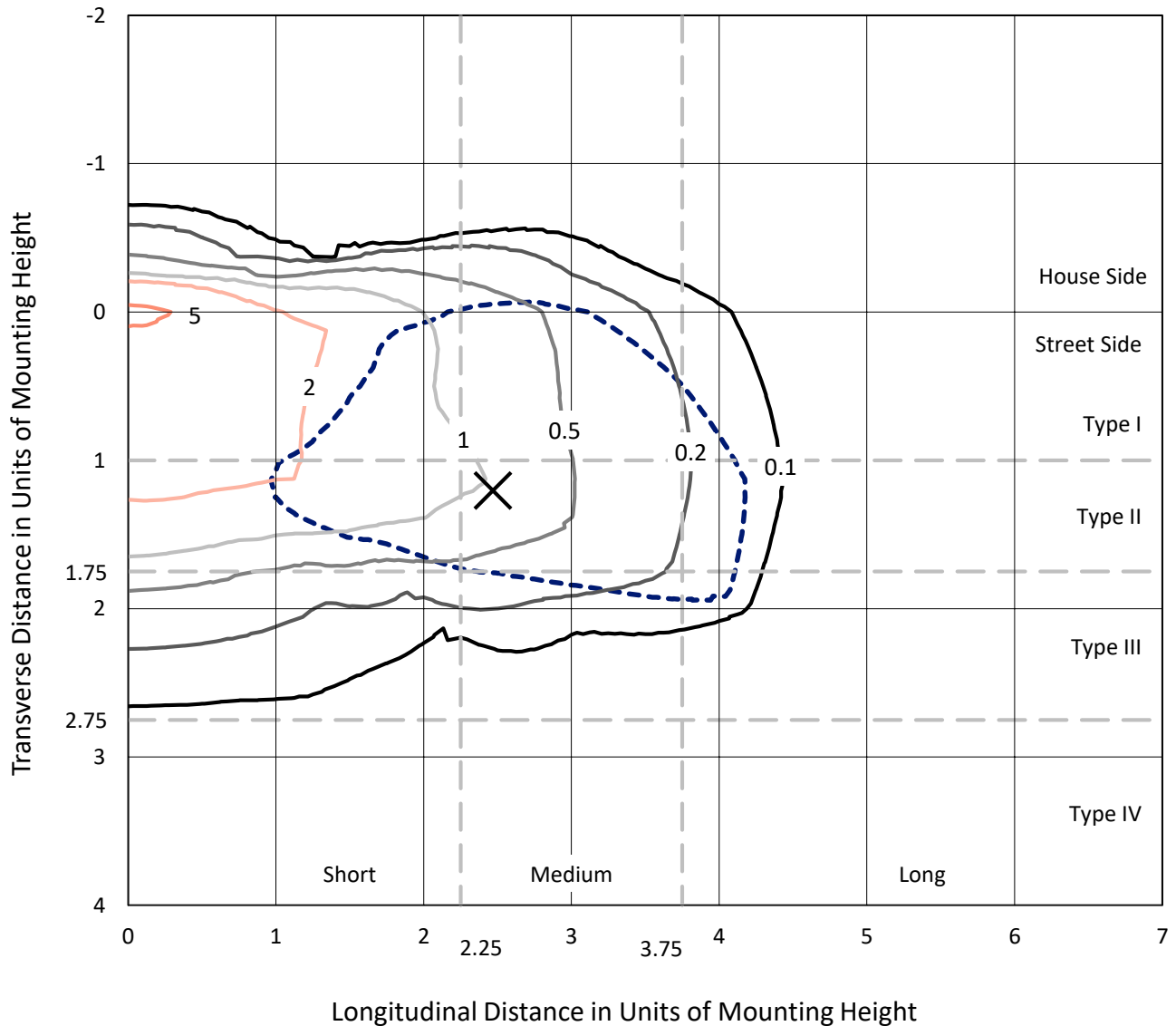


REPORT NUMBER: P400999

CATALOG NUMBER: ENV-SA1A-760-U-SL2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

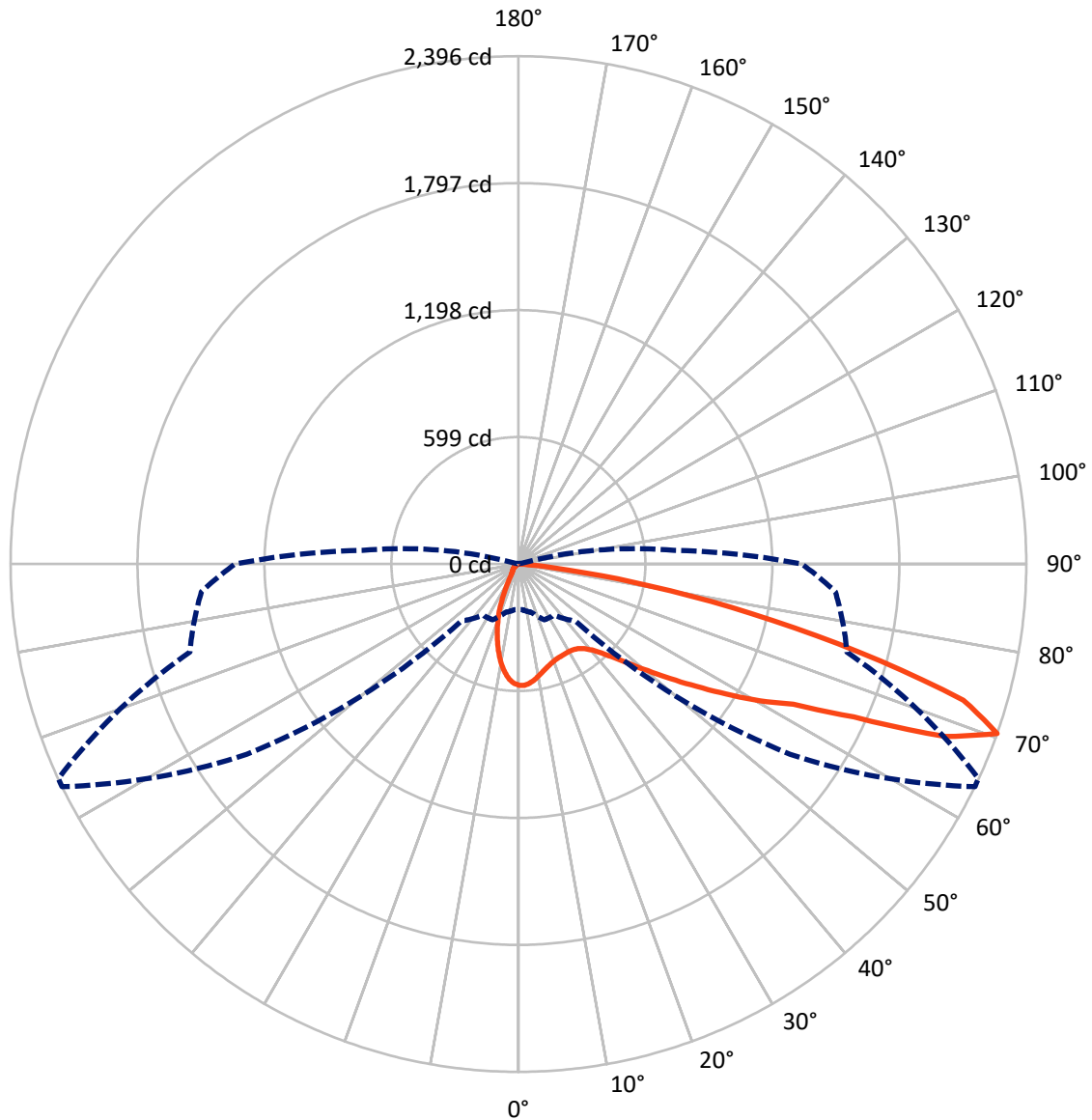
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P400999  
CATALOG NUMBER: ENV-SA1A-760-U-SL2-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 283.9    | 0.0    | 283.9  |
|                    | % Fixture | 12.8     | 0.0    | 12.8   |
| <b>Street Side</b> | Lumens    | 1926.1   | 0.0    | 1926.1 |
|                    | % Fixture | 87.2     | 0.0    | 87.2   |
| <b>Total</b>       | Lumens    | 2210.0   | 0.0    | 2210.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 48.2   | 2.2       |
| 10°-20°   | 107.0  | 4.8       |
| 20°-30°   | 147.3  | 6.7       |
| 30°-40°   | 202.9  | 9.2       |
| 40°-50°   | 302.4  | 13.7      |
| 50°-60°   | 477.7  | 21.6      |
| 60°-70°   | 541.3  | 24.5      |
| 70°-80°   | 355.4  | 16.1      |
| 80°-90°   | 27.9   | 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°    | 2210.0 | 100.0     |
| 0°-180°   | 2210.0 | 100.0     |



REPORT NUMBER: P400999

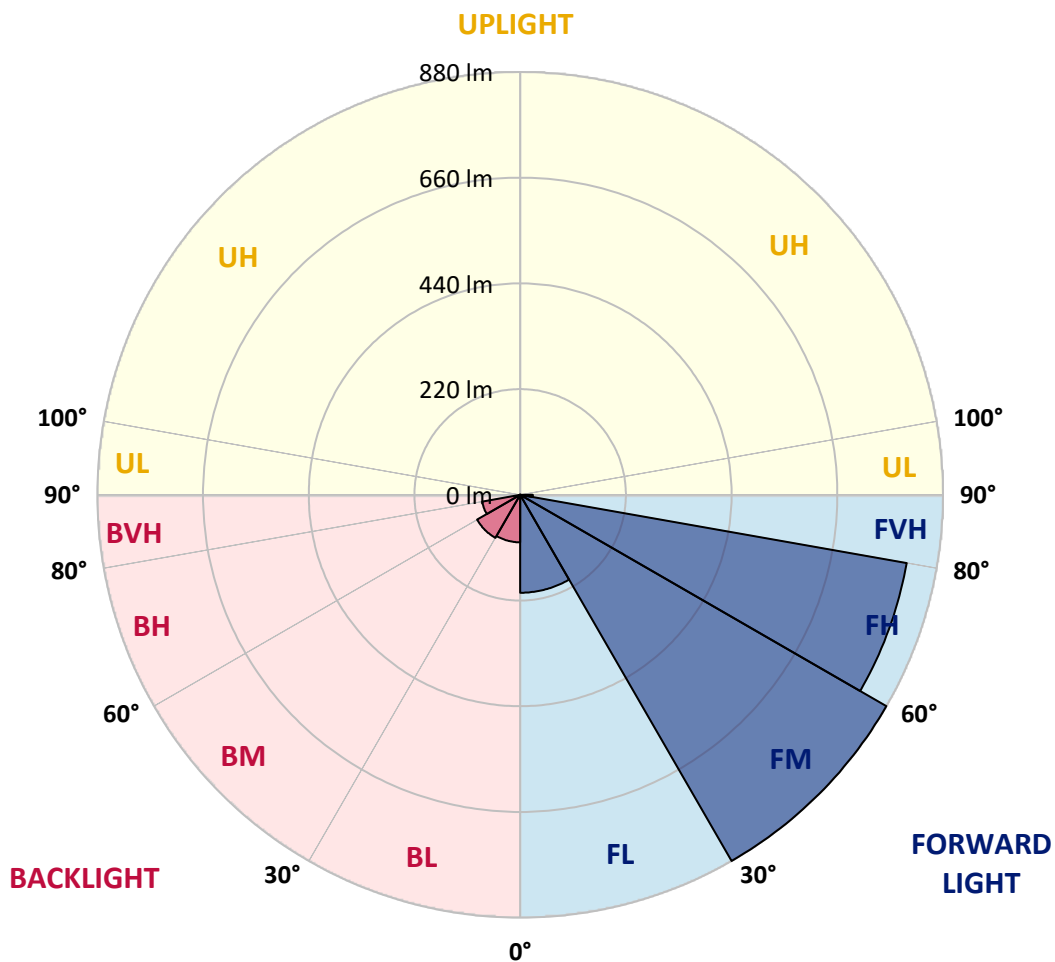
CATALOG NUMBER: ENV-SA1A-760-U-SL2-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 203.7  | 9.2       |                         |      |         |
| FM   | (30°-60°)   | 879.5  | 39.8      |                         |      |         |
| FH   | (60°-80°)   | 816.5  | 36.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 26.3   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 98.8   | 4.5       | B0/110                  |      |         |
| BM   | (30°-60°)   | 103.4  | 4.7       | B0/220                  |      |         |
| BH   | (60°-80°)   | 80.2   | 3.6       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.6    | 0.1       |                         |      | 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 Medium





REPORT NUMBER: P400999

CATALOG NUMBER: ENV-SA1A-760-U-SL2-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 572.1 | 572.1 | 572.1 | 572.1 | 572.1  | 572.1  | 572.1  | 572.1  | 572.1  | 572.1  | 572.1  |
| 2.5°  | 556.2 | 556.2 | 558.9 | 561.6 | 563.1  | 567.4  | 570.5  | 572.9  | 572.9  | 574.4  | 571.7  |
| 5°    | 519.2 | 519.2 | 521.6 | 528.2 | 535.2  | 544.1  | 554.2  | 564.3  | 566.3  | 573.6  | 573.3  |
| 7.5°  | 485.0 | 488.1 | 492.0 | 498.6 | 506.0  | 519.2  | 533.2  | 550.7  | 552.7  | 570.5  | 574.4  |
| 10°   | 461.3 | 463.3 | 465.6 | 473.0 | 483.9  | 499.0  | 514.2  | 534.8  | 538.3  | 565.1  | 574.4  |
| 12.5° | 442.3 | 442.7 | 446.2 | 454.3 | 464.8  | 479.6  | 496.7  | 519.2  | 523.5  | 555.4  | 572.9  |
| 15°   | 428.7 | 428.3 | 432.2 | 439.9 | 450.1  | 465.2  | 481.9  | 505.6  | 510.3  | 547.2  | 572.5  |
| 17.5° | 420.5 | 420.9 | 424.0 | 429.8 | 439.6  | 453.9  | 471.0  | 494.4  | 499.0  | 540.6  | 574.4  |
| 20°   | 420.5 | 420.5 | 422.5 | 425.2 | 432.6  | 445.4  | 462.1  | 486.2  | 490.9  | 536.3  | 577.1  |
| 22.5° | 428.7 | 427.9 | 429.5 | 427.1 | 430.6  | 439.6  | 456.7  | 480.8  | 485.8  | 534.4  | 581.4  |
| 25°   | 443.4 | 441.9 | 443.1 | 438.0 | 434.1  | 438.0  | 453.2  | 478.4  | 483.9  | 534.8  | 585.3  |
| 27.5° | 464.0 | 464.0 | 461.7 | 454.7 | 445.0  | 440.7  | 452.8  | 476.9  | 482.3  | 534.8  | 588.0  |
| 30°   | 492.8 | 491.6 | 488.1 | 481.1 | 466.0  | 451.6  | 456.7  | 476.9  | 482.3  | 535.2  | 588.8  |
| 32.5° | 521.6 | 522.3 | 524.3 | 517.3 | 496.7  | 470.3  | 466.0  | 480.4  | 485.0  | 534.8  | 587.6  |
| 35°   | 550.7 | 551.1 | 559.6 | 560.4 | 534.0  | 500.2  | 481.9  | 489.7  | 492.8  | 538.7  | 588.4  |
| 37.5° | 576.4 | 578.3 | 595.0 | 603.2 | 581.4  | 538.7  | 507.2  | 507.2  | 508.7  | 549.2  | 593.1  |
| 40°   | 605.1 | 610.2 | 630.4 | 648.6 | 640.1  | 588.0  | 544.1  | 532.8  | 533.6  | 568.2  | 603.6  |
| 42.5° | 638.5 | 644.8 | 671.2 | 697.6 | 697.2  | 648.6  | 590.7  | 573.6  | 574.4  | 601.2  | 624.9  |
| 45°   | 680.9 | 685.2 | 718.6 | 751.6 | 758.6  | 715.5  | 649.4  | 626.9  | 627.7  | 651.4  | 666.5  |
| 47.5° | 732.6 | 737.6 | 769.9 | 809.5 | 827.4  | 795.9  | 725.6  | 701.1  | 698.8  | 715.5  | 726.4  |
| 50°   | 800.2 | 809.9 | 829.0 | 867.1 | 910.2  | 889.2  | 815.0  | 790.5  | 787.4  | 800.6  | 804.1  |
| 52.5° | 864.7 | 873.7 | 881.4 | 916.4 | 1000.0 | 1005.0 | 924.6  | 897.8  | 894.7  | 897.8  | 902.0  |
| 55°   | 874.5 | 879.5 | 885.3 | 932.7 | 1072.7 | 1152.3 | 1049.3 | 1017.5 | 1008.5 | 1002.7 | 1017.1 |
| 57.5° | 797.1 | 794.0 | 813.4 | 877.9 | 1084.7 | 1315.2 | 1218.0 | 1156.2 | 1147.7 | 1115.4 | 1101.0 |
| 60°   | 631.2 | 626.9 | 645.2 | 733.4 | 1017.1 | 1396.0 | 1452.0 | 1309.7 | 1288.7 | 1180.7 | 1166.7 |
| 62.5° | 443.4 | 438.4 | 462.1 | 514.2 | 788.9  | 1380.1 | 1715.9 | 1455.1 | 1413.5 | 1238.6 | 1219.6 |
| 65°   | 341.6 | 339.3 | 352.1 | 363.8 | 481.5  | 1195.5 | 1861.2 | 1738.8 | 1652.9 | 1301.6 | 1277.1 |
| 67.5° | 267.8 | 270.9 | 286.8 | 320.6 | 310.9  | 745.0  | 1847.6 | 2171.7 | 2085.9 | 1417.4 | 1401.8 |
| 70°   | 215.3 | 216.1 | 235.9 | 289.9 | 293.4  | 379.3  | 1564.3 | 2395.6 | 2394.4 | 1604.3 | 1500.9 |
| 72.5° | 130.2 | 133.7 | 166.0 | 250.7 | 296.1  | 290.3  | 1051.7 | 2195.1 | 2225.4 | 1647.9 | 1353.7 |
| 75°   | 62.6  | 66.1  | 85.9  | 168.3 | 294.2  | 282.5  | 569.0  | 1661.8 | 1700.7 | 1477.6 | 1097.5 |
| 77.5° | 23.3  | 26.4  | 39.6  | 82.4  | 218.0  | 258.8  | 299.3  | 1120.5 | 1151.2 | 1081.6 | 743.5  |
| 80°   | 7.4   | 8.6   | 15.5  | 37.7  | 110.8  | 213.8  | 192.8  | 631.9  | 652.5  | 473.4  | 249.9  |
| 82.5° | 0.8   | 1.2   | 4.3   | 12.8  | 42.8   | 108.8  | 113.1  | 237.9  | 248.3  | 92.5   | 50.5   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.8    | 0.8    | 28.0   | 45.5   | 37.3   | 8.9    | 14.8   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.4    | 0.8    | 1.2    | 1.2    | 1.2    | 1.6    |
| 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: P400999

CATALOG NUMBER: ENV-SA1A-760-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 572.1  | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 | 572.1 |
| 2.5°  | 571.3  | 571.3 | 568.6 | 564.3 | 558.9 | 551.1 | 549.2 | 542.9 | 542.9 | 537.9 | 537.1 |
| 5°    | 572.1  | 569.8 | 560.8 | 547.6 | 529.3 | 509.5 | 497.1 | 483.5 | 471.8 | 464.4 | 465.2 |
| 7.5°  | 572.1  | 567.0 | 549.2 | 520.0 | 485.8 | 451.6 | 425.6 | 395.3 | 381.3 | 371.9 | 376.2 |
| 10°   | 570.5  | 562.0 | 530.9 | 486.6 | 432.6 | 385.1 | 342.4 | 307.4 | 283.3 | 273.2 | 264.7 |
| 12.5° | 567.0  | 554.6 | 508.0 | 445.0 | 375.8 | 313.6 | 254.6 | 208.7 | 176.8 | 160.9 | 159.0 |
| 15°   | 563.9  | 546.8 | 481.1 | 399.5 | 311.7 | 230.5 | 164.4 | 120.5 | 93.3  | 87.1  | 87.8  |
| 17.5° | 563.1  | 539.4 | 455.5 | 351.3 | 249.1 | 153.5 | 94.8  | 76.6  | 72.7  | 71.1  | 70.7  |
| 20°   | 563.5  | 532.8 | 427.5 | 303.5 | 176.4 | 95.6  | 71.9  | 67.6  | 66.1  | 65.3  | 64.9  |
| 22.5° | 565.1  | 525.4 | 399.9 | 253.4 | 120.5 | 70.0  | 64.1  | 61.4  | 59.5  | 58.3  | 57.9  |
| 25°   | 565.1  | 517.3 | 369.2 | 200.2 | 78.9  | 61.4  | 57.5  | 54.0  | 51.3  | 49.7  | 49.7  |
| 27.5° | 563.9  | 508.0 | 337.3 | 152.0 | 62.6  | 54.8  | 50.5  | 45.9  | 42.4  | 40.4  | 40.4  |
| 30°   | 560.4  | 496.7 | 306.6 | 106.1 | 54.8  | 49.0  | 43.5  | 37.7  | 33.4  | 31.5  | 30.7  |
| 32.5° | 555.4  | 484.6 | 271.3 | 74.6  | 49.4  | 42.8  | 36.5  | 30.3  | 26.4  | 24.1  | 24.1  |
| 35°   | 549.9  | 472.6 | 233.2 | 57.1  | 44.7  | 37.7  | 30.7  | 24.5  | 21.0  | 19.4  | 19.0  |
| 37.5° | 547.2  | 459.8 | 195.9 | 49.4  | 40.0  | 32.3  | 24.9  | 19.8  | 17.1  | 15.9  | 15.5  |
| 40°   | 549.2  | 450.1 | 159.3 | 44.3  | 35.8  | 27.2  | 20.6  | 16.7  | 14.4  | 12.8  | 12.8  |
| 42.5° | 560.8  | 444.6 | 124.8 | 40.4  | 31.9  | 22.9  | 17.1  | 13.6  | 11.3  | 10.1  | 10.1  |
| 45°   | 584.5  | 448.5 | 94.8  | 36.9  | 27.2  | 19.0  | 14.4  | 10.9  | 8.6   | 7.4   | 7.4   |
| 47.5° | 624.2  | 464.0 | 71.9  | 33.8  | 23.3  | 15.5  | 11.7  | 8.6   | 6.6   | 5.8   | 5.4   |
| 50°   | 682.1  | 494.7 | 56.4  | 30.7  | 19.4  | 13.2  | 9.7   | 6.6   | 5.1   | 4.3   | 4.3   |
| 52.5° | 765.6  | 548.0 | 48.2  | 27.2  | 15.9  | 10.9  | 7.8   | 5.1   | 3.9   | 3.1   | 3.1   |
| 55°   | 868.2  | 615.6 | 43.5  | 24.1  | 12.8  | 8.9   | 6.2   | 3.9   | 2.7   | 2.3   | 1.9   |
| 57.5° | 951.4  | 669.2 | 40.8  | 21.0  | 10.9  | 7.8   | 4.7   | 3.1   | 2.3   | 1.6   | 1.6   |
| 60°   | 1024.9 | 703.8 | 36.1  | 17.5  | 9.3   | 6.2   | 3.9   | 2.3   | 1.6   | 1.2   | 1.2   |
| 62.5° | 1084.3 | 726.4 | 29.9  | 14.0  | 7.8   | 5.1   | 3.1   | 1.9   | 1.6   | 1.2   | 1.2   |
| 65°   | 1151.9 | 744.6 | 24.5  | 10.9  | 6.6   | 4.3   | 2.7   | 1.6   | 1.2   | 1.2   | 1.2   |
| 67.5° | 1284.5 | 785.5 | 18.3  | 8.6   | 5.1   | 3.5   | 2.3   | 1.6   | 1.2   | 0.8   | 0.8   |
| 70°   | 1336.2 | 737.6 | 14.4  | 7.0   | 3.9   | 3.1   | 2.3   | 1.6   | 0.8   | 0.8   | 0.8   |
| 72.5° | 1137.2 | 552.3 | 11.3  | 5.8   | 3.5   | 2.7   | 2.3   | 1.6   | 1.2   | 1.2   | 0.8   |
| 75°   | 902.0  | 373.1 | 8.9   | 4.7   | 3.5   | 3.1   | 2.3   | 2.3   | 1.9   | 1.6   | 1.6   |
| 77.5° | 576.0  | 165.2 | 7.0   | 3.9   | 3.5   | 3.9   | 3.5   | 2.3   | 2.3   | 1.9   | 1.9   |
| 80°   | 171.8  | 39.6  | 5.1   | 3.1   | 2.7   | 3.1   | 3.5   | 2.3   | 1.6   | 1.2   | 1.2   |
| 82.5° | 37.3   | 9.3   | 3.1   | 1.6   | 1.9   | 1.6   | 2.3   | 2.3   | 1.6   | 1.2   | 1.2   |
| 85°   | 12.4   | 3.5   | 1.9   | 1.6   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 1.2   | 0.8   |
| 87.5° | 0.8    | 1.2   | 1.2   | 0.8   | 0.8   | 0.8   | 0.8   | 0.4   | 0.4   | 0.8   | 0.8   |
| 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)