

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: P401735

Luminaire Tested: **ENV-SA1E-760-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401735
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-SA1E-760-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K, 1050mA 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: 5246 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

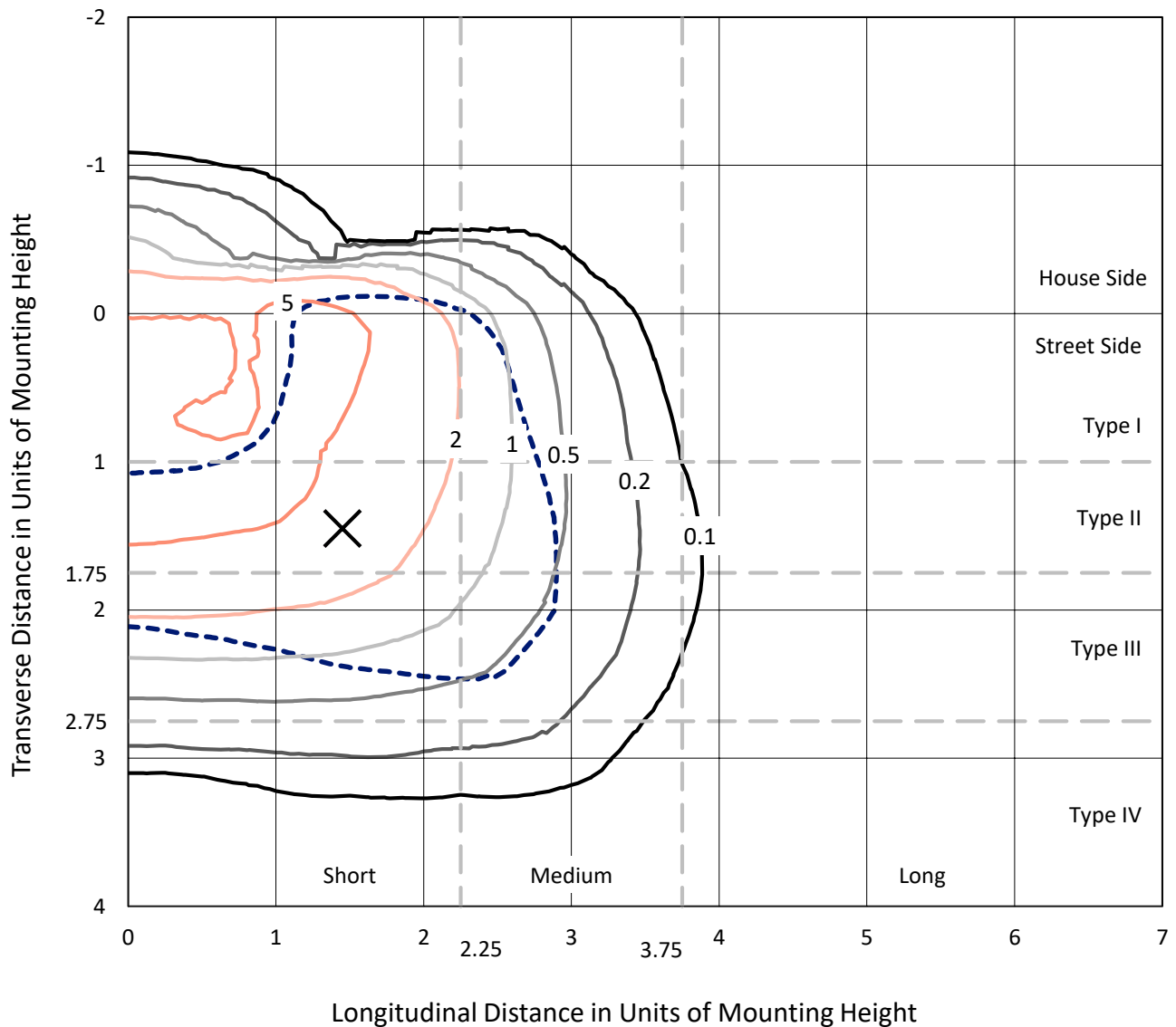
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

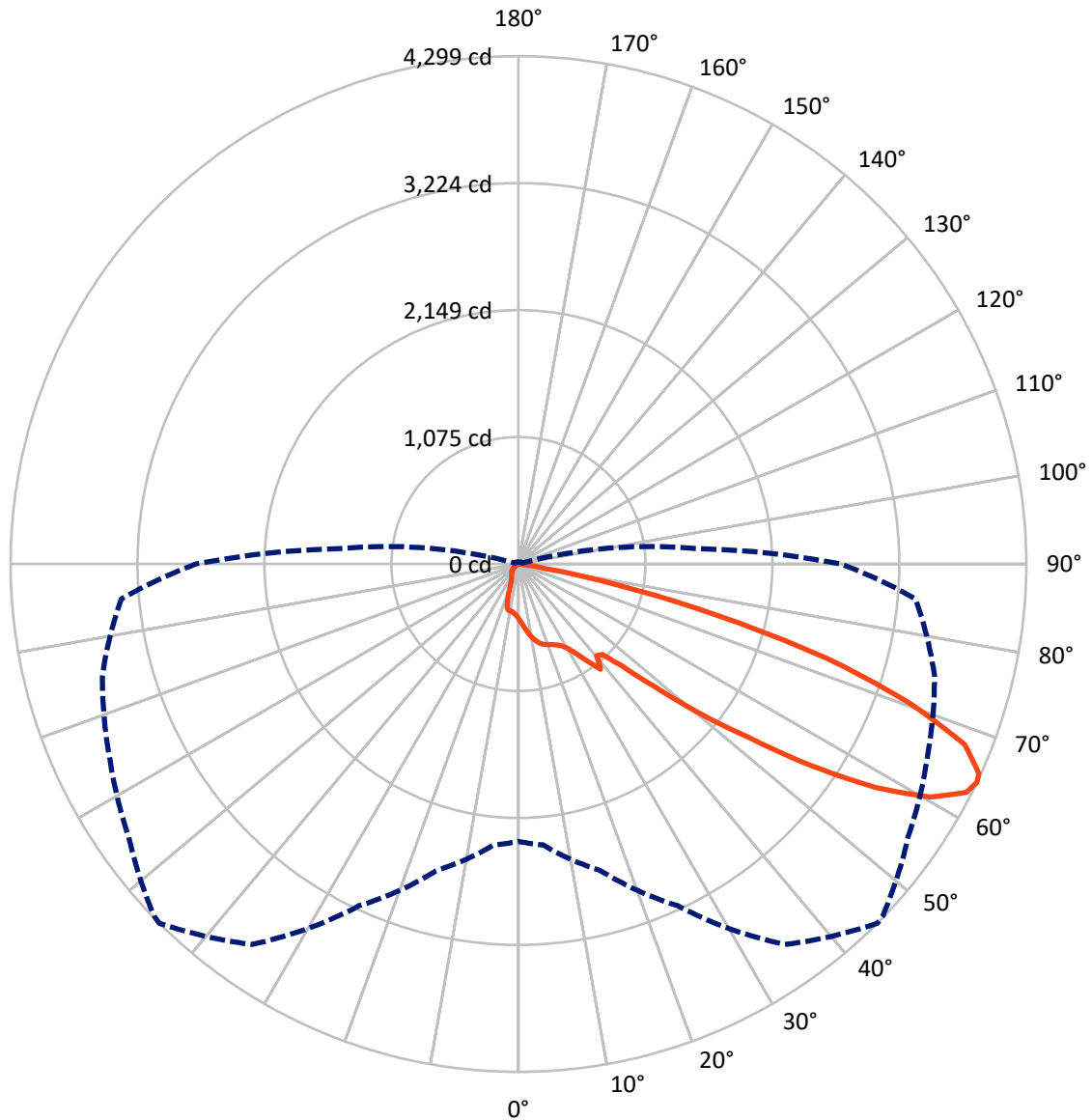
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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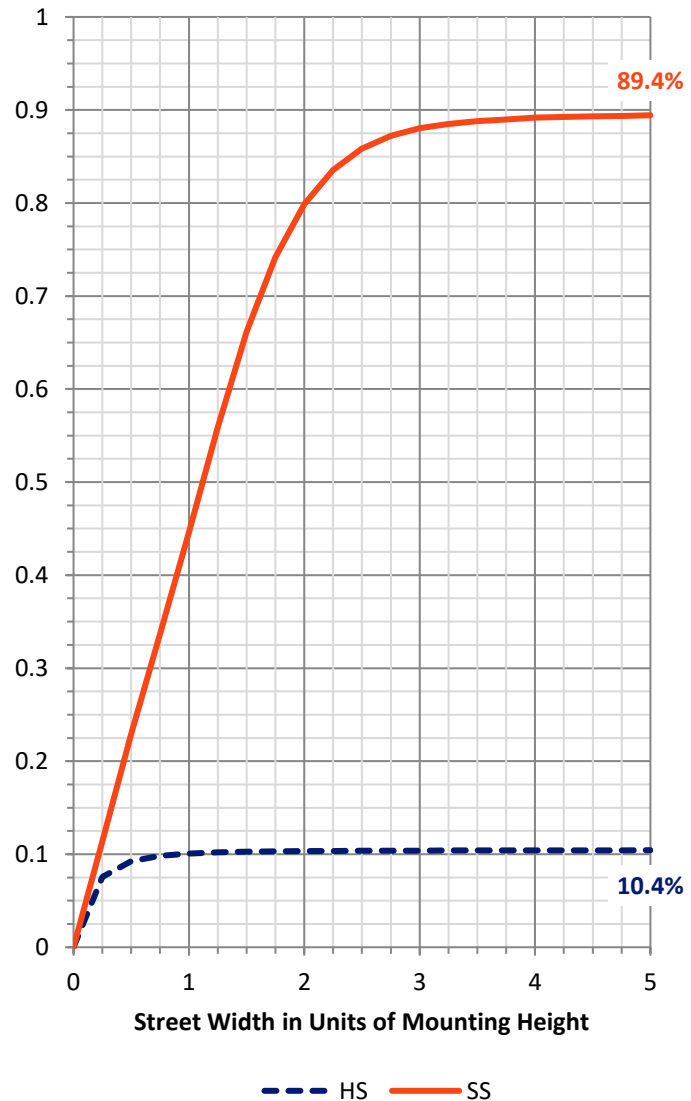
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 553.6 | 0.0 | 553.6 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| Street Side | Lumens | 4692.5 | 0.0 | 4692.5 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| Total | Lumens | 5246.0 | 0.0 | 5246.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 47.2 | 0.9 |
| 10°-20° | 147.1 | 2.8 |
| 20°-30° | 239.4 | 4.6 |
| 30°-40° | 380.3 | 7.2 |
| 40°-50° | 724.4 | 13.8 |
| 50°-60° | 1492.7 | 28.5 |
| 60°-70° | 1667.1 | 31.8 |
| 70°-80° | 526.6 | 10.0 |
| 80°-90° | 21.4 | 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° | 5246.0 | 100.0 |
| 0°-180° | 5246.0 | 100.0 |



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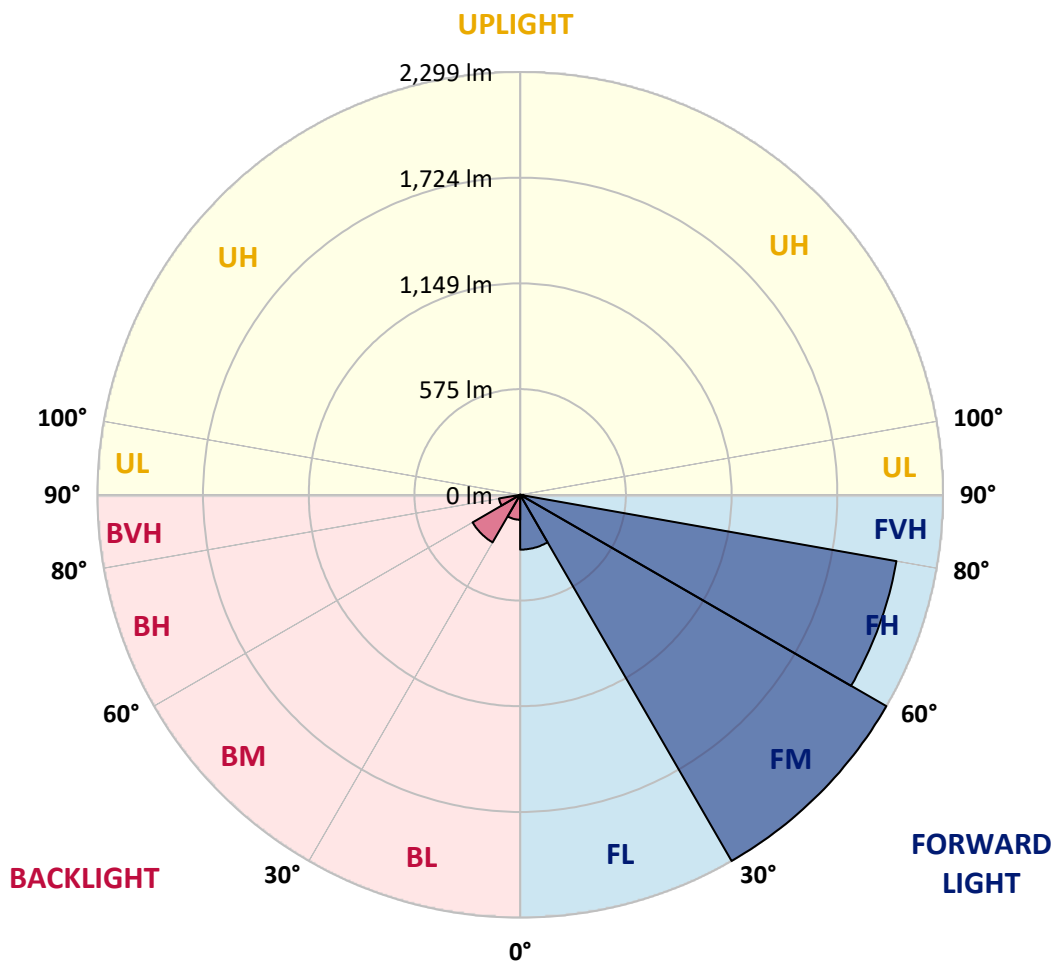
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 298.0 | 5.7 | | | |
| FM | (30°-60°) | 2298.6 | 43.8 | | | |
| FH | (60°-80°) | 2077.0 | 39.6 | | | G2/5000 |
| FVH | (80°-90°) | 18.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 135.6 | 2.6 | B1/500 | | |
| BM | (30°-60°) | 298.7 | 5.7 | B1/1000 | | |
| BH | (60°-80°) | 116.7 | 2.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.5 | 0.0 | | | G0/10 |
| 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





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 |
| 2.5° | 513.0 | 515.0 | 512.0 | 508.0 | 504.0 | 497.0 | 498.0 | 489.0 | 482.0 | 477.0 | 469.0 |
| 5° | 578.0 | 577.0 | 571.0 | 562.0 | 553.0 | 540.0 | 538.0 | 524.0 | 509.0 | 493.0 | 478.0 |
| 7.5° | 644.0 | 641.0 | 635.0 | 623.0 | 606.0 | 589.0 | 584.0 | 564.0 | 542.0 | 518.0 | 492.0 |
| 10° | 698.0 | 696.0 | 689.0 | 676.0 | 656.0 | 630.0 | 630.0 | 602.0 | 573.0 | 544.0 | 513.0 |
| 12.5° | 742.0 | 740.0 | 732.0 | 716.0 | 692.0 | 669.0 | 666.0 | 641.0 | 609.0 | 575.0 | 537.0 |
| 15° | 769.0 | 767.0 | 758.0 | 740.0 | 719.0 | 698.0 | 695.0 | 671.0 | 642.0 | 603.0 | 559.0 |
| 17.5° | 776.0 | 774.0 | 767.0 | 751.0 | 735.0 | 717.0 | 713.0 | 692.0 | 667.0 | 627.0 | 582.0 |
| 20° | 773.0 | 769.0 | 765.0 | 752.0 | 739.0 | 727.0 | 725.0 | 710.0 | 688.0 | 654.0 | 606.0 |
| 22.5° | 765.0 | 761.0 | 758.0 | 749.0 | 742.0 | 741.0 | 739.0 | 730.0 | 716.0 | 687.0 | 642.0 |
| 25° | 762.0 | 759.0 | 756.0 | 750.0 | 749.0 | 759.0 | 758.0 | 757.0 | 751.0 | 726.0 | 679.0 |
| 27.5° | 779.0 | 778.0 | 771.0 | 761.0 | 766.0 | 783.0 | 784.0 | 789.0 | 785.0 | 769.0 | 733.0 |
| 30° | 839.0 | 834.0 | 818.0 | 796.0 | 809.0 | 831.0 | 835.0 | 851.0 | 852.0 | 854.0 | 805.0 |
| 32.5° | 920.0 | 912.0 | 885.0 | 857.0 | 865.0 | 906.0 | 907.0 | 932.0 | 985.0 | 952.0 | 844.0 |
| 35° | 976.0 | 966.0 | 925.0 | 910.0 | 950.0 | 1015.0 | 1024.0 | 1075.0 | 1079.0 | 959.0 | 841.0 |
| 37.5° | 1133.0 | 1118.0 | 1043.0 | 952.0 | 991.0 | 1131.0 | 1141.0 | 1132.0 | 1048.0 | 949.0 | 884.0 |
| 40° | 1343.0 | 1329.0 | 1262.0 | 1109.0 | 999.0 | 1020.0 | 1025.0 | 1052.0 | 1068.0 | 1019.0 | 1022.0 |
| 42.5° | 1616.0 | 1598.0 | 1529.0 | 1342.0 | 1124.0 | 1047.0 | 1057.0 | 1112.0 | 1217.0 | 1240.0 | 1358.0 |
| 45° | 1895.0 | 1885.0 | 1815.0 | 1613.0 | 1352.0 | 1231.0 | 1236.0 | 1303.0 | 1491.0 | 1636.0 | 1736.0 |
| 47.5° | 2168.0 | 2170.0 | 2110.0 | 1939.0 | 1684.0 | 1550.0 | 1544.0 | 1631.0 | 1869.0 | 1972.0 | 2074.0 |
| 50° | 2553.0 | 2551.0 | 2444.0 | 2338.0 | 2139.0 | 1980.0 | 1970.0 | 2019.0 | 2248.0 | 2286.0 | 2444.0 |
| 52.5° | 2990.9 | 2988.9 | 2827.9 | 2777.9 | 2693.9 | 2438.0 | 2465.0 | 2423.0 | 2587.9 | 2655.9 | 2879.9 |
| 55° | 3198.9 | 3180.9 | 3112.9 | 3175.9 | 3275.9 | 3018.9 | 3014.9 | 2854.9 | 2983.9 | 3041.9 | 3250.9 |
| 57.5° | 3177.9 | 3184.9 | 3249.9 | 3458.9 | 3786.9 | 3571.9 | 3577.9 | 3280.9 | 3355.9 | 3391.9 | 3544.9 |
| 60° | 3058.9 | 3063.9 | 3214.9 | 3562.9 | 4041.9 | 4004.9 | 3983.9 | 3678.9 | 3629.9 | 3614.9 | 3687.9 |
| 62.5° | 2718.9 | 2720.9 | 2965.9 | 3412.9 | 4039.9 | 4254.9 | 4234.9 | 3958.9 | 3805.9 | 3709.9 | 3576.9 |
| 64° | 2349.0 | 2387.0 | 2686.9 | 3191.9 | 3930.9 | 4298.9 | 4287.9 | 4026.9 | 3821.9 | 3645.9 | 3372.9 |
| 65° | 2045.0 | 2102.0 | 2465.0 | 2995.9 | 3807.9 | 4283.9 | 4270.9 | 4014.9 | 3799.9 | 3525.9 | 3161.9 |
| 67.5° | 1395.0 | 1425.0 | 1751.0 | 2358.0 | 3338.9 | 4072.9 | 4068.9 | 3860.9 | 3560.9 | 3045.9 | 2481.0 |
| 70° | 823.0 | 845.0 | 1086.0 | 1646.0 | 2565.9 | 3498.9 | 3551.9 | 3476.9 | 2955.9 | 2188.0 | 1580.0 |
| 72.5° | 256.0 | 269.0 | 479.0 | 914.0 | 1682.0 | 2725.9 | 2794.9 | 2740.9 | 2152.0 | 1367.0 | 876.0 |
| 75° | 96.0 | 100.0 | 158.0 | 397.0 | 837.0 | 1743.0 | 1764.0 | 1827.0 | 1311.0 | 722.0 | 383.0 |
| 77.5° | 53.0 | 54.0 | 78.0 | 149.0 | 368.0 | 856.0 | 876.0 | 868.0 | 697.0 | 341.0 | 122.0 |
| 80° | 26.0 | 27.0 | 38.0 | 66.0 | 143.0 | 242.0 | 287.0 | 379.0 | 246.0 | 168.0 | 39.0 |
| 82.5° | 9.0 | 8.0 | 17.0 | 30.0 | 48.0 | 65.0 | 73.0 | 105.0 | 103.0 | 92.0 | 14.0 |
| 85° | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 13.0 | 26.0 | 30.0 | 4.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 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 |



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CATALOG NUMBER: ENV-SA1E-760-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 | 465.0 |
| 2.5° | 465.0 | 463.0 | 456.0 | 449.0 | 444.0 | 438.0 | 437.0 | 433.0 | 432.0 | 432.0 | 432.0 |
| 5° | 470.0 | 464.0 | 451.0 | 440.0 | 430.0 | 421.0 | 417.0 | 413.0 | 410.0 | 409.0 | 409.0 |
| 7.5° | 481.0 | 472.0 | 451.0 | 435.0 | 420.0 | 409.0 | 403.0 | 399.0 | 396.0 | 396.0 | 396.0 |
| 10° | 497.0 | 483.0 | 457.0 | 435.0 | 417.0 | 403.0 | 394.0 | 388.0 | 384.0 | 383.0 | 384.0 |
| 12.5° | 517.0 | 499.0 | 467.0 | 440.0 | 419.0 | 401.0 | 382.0 | 347.0 | 324.0 | 311.0 | 309.0 |
| 15° | 536.0 | 515.0 | 478.0 | 447.0 | 422.0 | 382.0 | 313.0 | 259.0 | 223.0 | 212.0 | 210.0 |
| 17.5° | 557.0 | 535.0 | 493.0 | 457.0 | 411.0 | 308.0 | 223.0 | 178.0 | 171.0 | 173.0 | 173.0 |
| 20° | 583.0 | 557.0 | 509.0 | 467.0 | 354.0 | 219.0 | 163.0 | 157.0 | 159.0 | 163.0 | 163.0 |
| 22.5° | 613.0 | 585.0 | 531.0 | 461.0 | 270.0 | 160.0 | 149.0 | 150.0 | 152.0 | 156.0 | 156.0 |
| 25° | 652.0 | 623.0 | 555.0 | 416.0 | 188.0 | 140.0 | 141.0 | 142.0 | 145.0 | 149.0 | 150.0 |
| 27.5° | 710.0 | 675.0 | 584.0 | 349.0 | 142.0 | 130.0 | 131.0 | 134.0 | 137.0 | 142.0 | 142.0 |
| 30° | 772.0 | 729.0 | 610.0 | 269.0 | 124.0 | 119.0 | 120.0 | 123.0 | 128.0 | 132.0 | 134.0 |
| 32.5° | 799.0 | 761.0 | 615.0 | 184.0 | 115.0 | 110.0 | 108.0 | 111.0 | 115.0 | 119.0 | 120.0 |
| 35° | 814.0 | 798.0 | 591.0 | 133.0 | 108.0 | 102.0 | 98.0 | 97.0 | 98.0 | 101.0 | 101.0 |
| 37.5° | 888.0 | 877.0 | 543.0 | 114.0 | 101.0 | 95.0 | 89.0 | 84.0 | 82.0 | 81.0 | 82.0 |
| 40° | 1030.0 | 1006.0 | 480.0 | 105.0 | 95.0 | 88.0 | 80.0 | 72.0 | 65.0 | 62.0 | 62.0 |
| 42.5° | 1343.0 | 1222.0 | 390.0 | 99.0 | 89.0 | 81.0 | 69.0 | 58.0 | 50.0 | 48.0 | 48.0 |
| 45° | 1680.0 | 1490.0 | 293.0 | 94.0 | 83.0 | 73.0 | 58.0 | 46.0 | 39.0 | 37.0 | 37.0 |
| 47.5° | 2004.0 | 1688.0 | 205.0 | 88.0 | 76.0 | 64.0 | 48.0 | 37.0 | 32.0 | 31.0 | 31.0 |
| 50° | 2344.0 | 1860.0 | 143.0 | 81.0 | 69.0 | 55.0 | 39.0 | 30.0 | 27.0 | 27.0 | 27.0 |
| 52.5° | 2674.9 | 1987.0 | 105.0 | 74.0 | 60.0 | 46.0 | 33.0 | 27.0 | 25.0 | 25.0 | 25.0 |
| 55° | 2924.9 | 2036.0 | 80.0 | 65.0 | 51.0 | 39.0 | 30.0 | 26.0 | 24.0 | 23.0 | 23.0 |
| 57.5° | 3091.9 | 1995.0 | 65.0 | 54.0 | 43.0 | 34.0 | 27.0 | 24.0 | 22.0 | 21.0 | 21.0 |
| 60° | 3087.9 | 1859.0 | 52.0 | 44.0 | 35.0 | 29.0 | 25.0 | 22.0 | 20.0 | 19.0 | 19.0 |
| 62.5° | 2906.9 | 1638.0 | 41.0 | 35.0 | 29.0 | 25.0 | 22.0 | 20.0 | 18.0 | 17.0 | 16.0 |
| 64° | 2729.9 | 1501.0 | 35.0 | 30.0 | 26.0 | 23.0 | 20.0 | 18.0 | 16.0 | 14.0 | 14.0 |
| 65° | 2538.0 | 1371.0 | 32.0 | 27.0 | 23.0 | 21.0 | 19.0 | 17.0 | 14.0 | 12.0 | 12.0 |
| 67.5° | 1930.0 | 1015.0 | 26.0 | 21.0 | 18.0 | 17.0 | 15.0 | 13.0 | 10.0 | 8.0 | 8.0 |
| 70° | 1253.0 | 657.0 | 22.0 | 17.0 | 15.0 | 15.0 | 14.0 | 11.0 | 8.0 | 7.0 | 6.0 |
| 72.5° | 642.0 | 327.0 | 18.0 | 14.0 | 13.0 | 13.0 | 12.0 | 9.0 | 7.0 | 6.0 | 5.0 |
| 75° | 272.0 | 133.0 | 15.0 | 12.0 | 11.0 | 10.0 | 9.0 | 8.0 | 6.0 | 5.0 | 5.0 |
| 77.5° | 95.0 | 50.0 | 14.0 | 12.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 | 6.0 |
| 80° | 32.0 | 19.0 | 9.0 | 9.0 | 10.0 | 11.0 | 11.0 | 10.0 | 11.0 | 9.0 | 7.0 |
| 82.5° | 13.0 | 7.0 | 3.0 | 4.0 | 7.0 | 8.0 | 9.0 | 9.0 | 9.0 | 7.0 | 6.0 |
| 85° | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 | 4.0 |
| 87.5° | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 |
| 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)