

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: P401091

Luminaire Tested: **ENT-SA1B-730-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-730-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2616 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 25.4
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

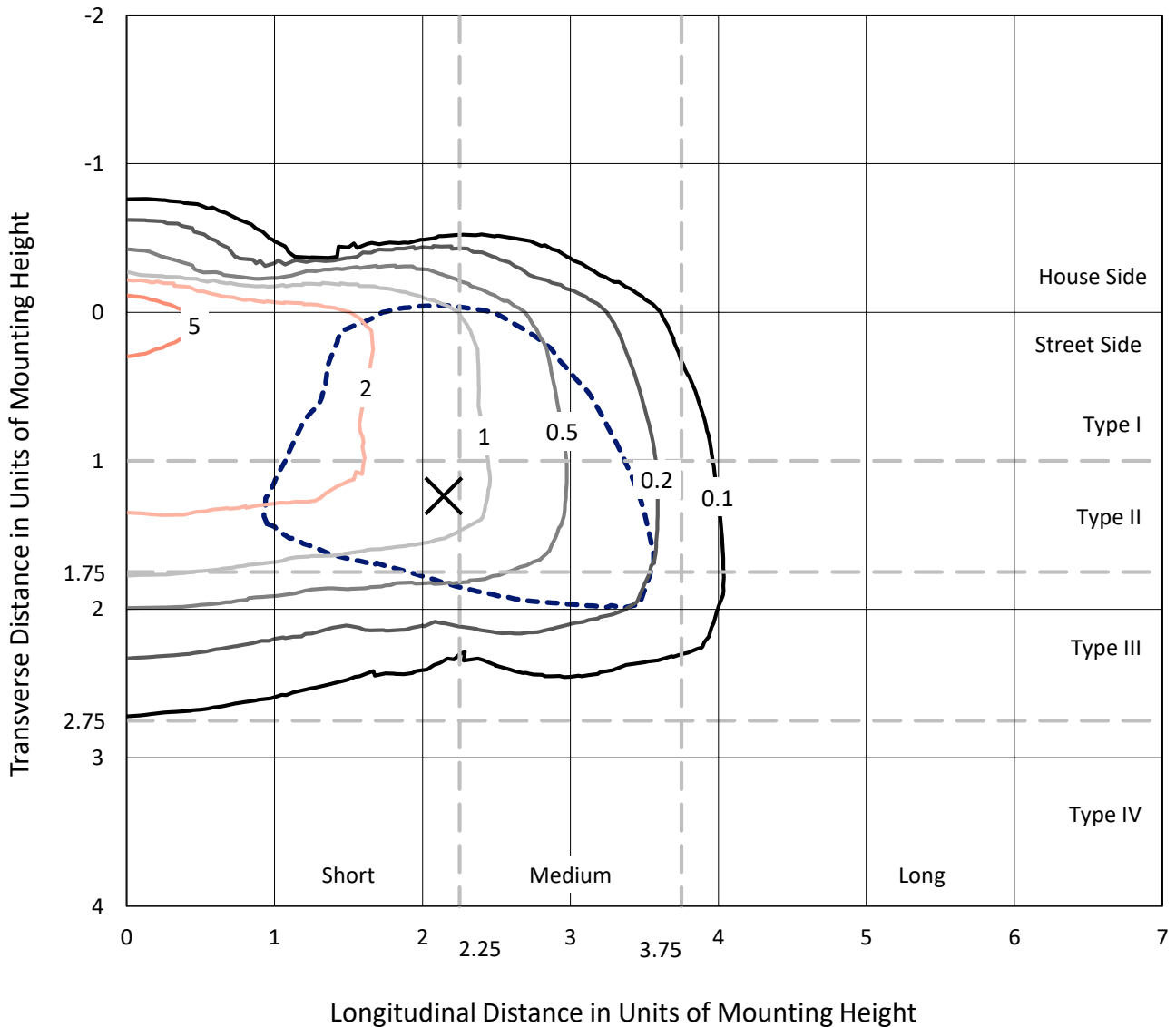


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Iso-Footcandle Lines of Horizontal Illumination

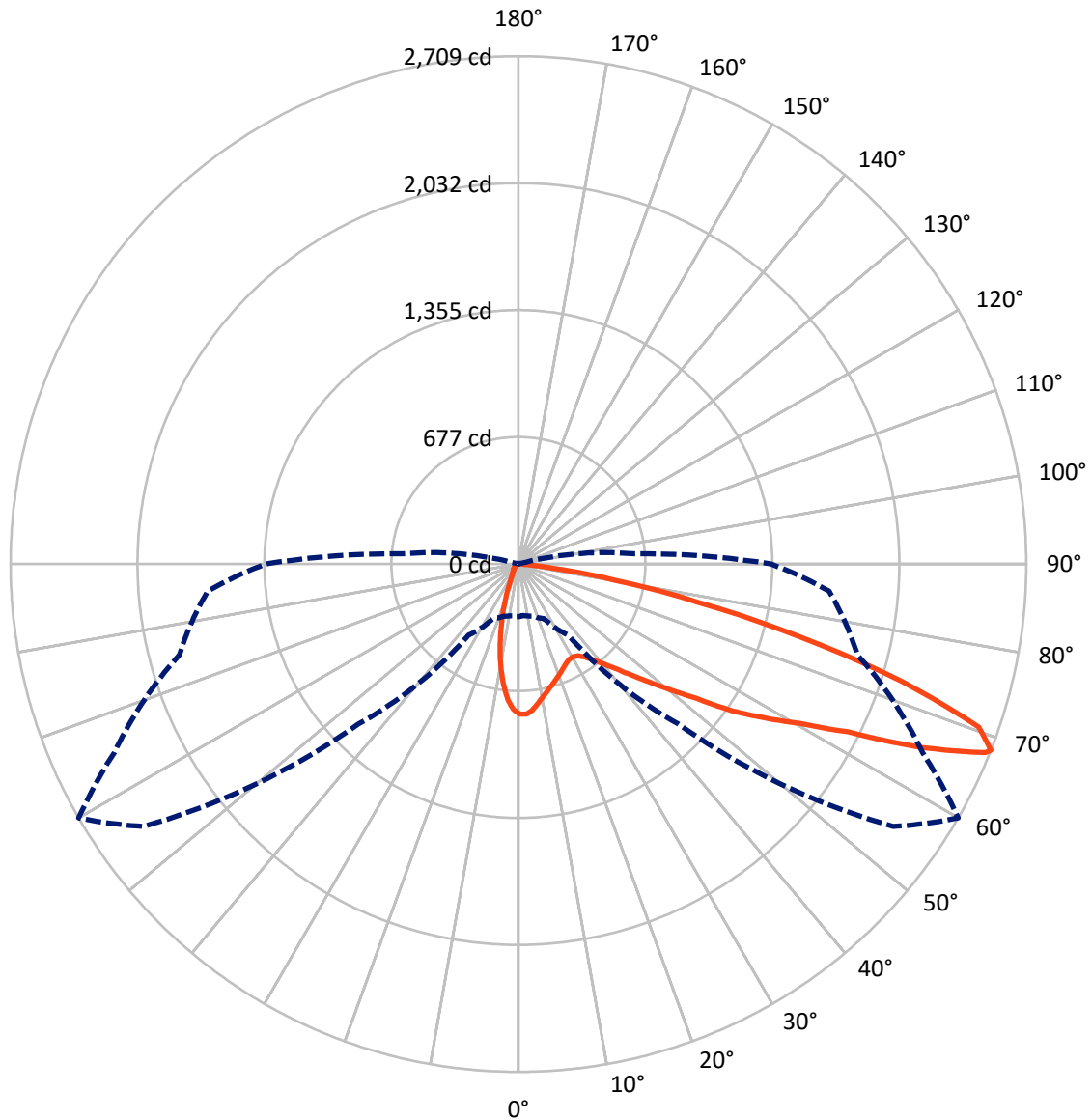
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 292.5 | 0.0 | 292.5 |
| | % Fixture | 11.2 | 0.0 | 11.2 |
| Street Side | Lumens | 2323.5 | 0.0 | 2323.5 |
| | % Fixture | 88.8 | 0.0 | 88.8 |
| Total | Lumens | 2616.0 | 0.0 | 2616.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 65.0 | 2.5 |
| 10°-20° | 132.5 | 5.1 |
| 20°-30° | 174.5 | 6.7 |
| 30°-40° | 240.8 | 9.2 |
| 40°-50° | 365.0 | 14.0 |
| 50°-60° | 589.0 | 22.5 |
| 60°-70° | 699.7 | 26.7 |
| 70°-80° | 329.8 | 12.6 |
| 80°-90° | 19.7 | 0.8 |
| 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° | 2616.0 | 100.0 |
| 0°-180° | 2616.0 | 100.0 |



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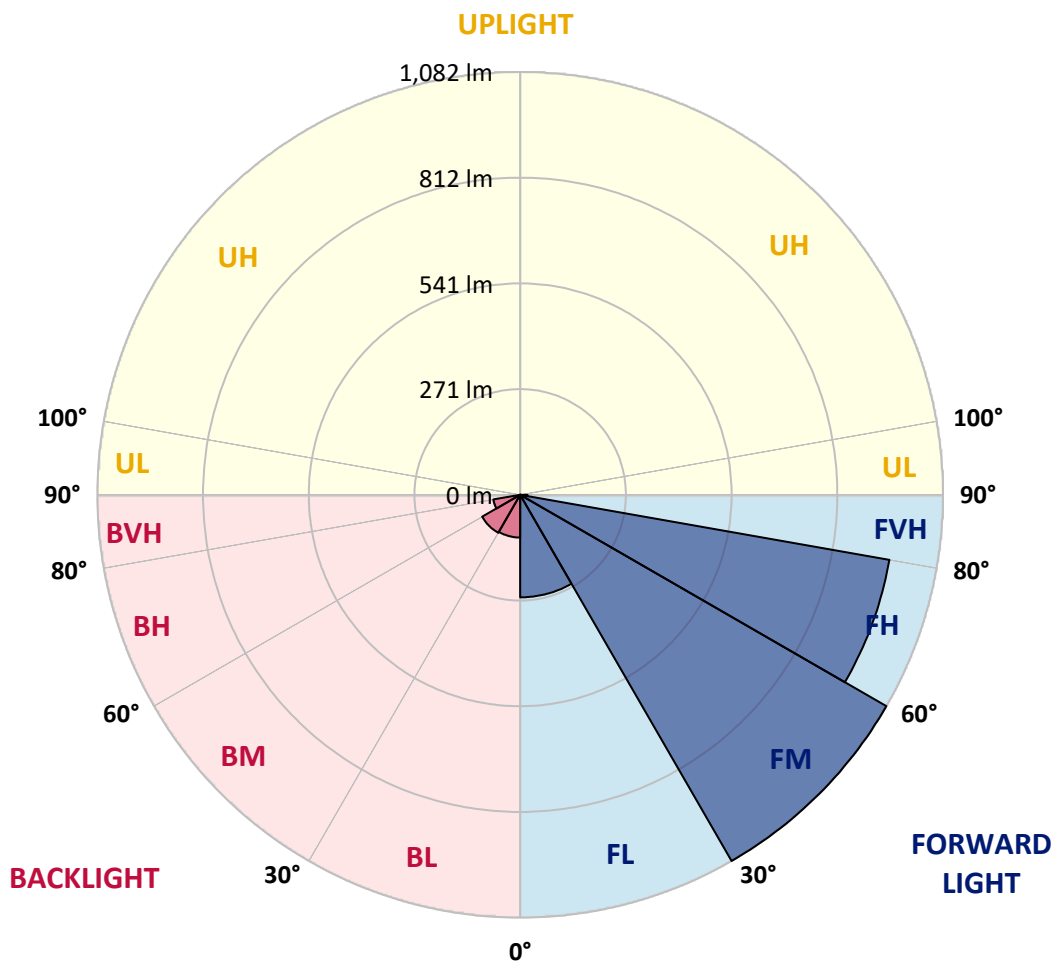
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 262.6 | 10.0 | | | |
| FM | (30°-60°) | 1082.4 | 41.4 | | | |
| FH | (60°-80°) | 959.7 | 36.7 | | | G1/1800 |
| FVH | (80°-90°) | 18.9 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 109.4 | 4.2 | B0/110 | | |
| BM | (30°-60°) | 112.4 | 4.3 | B0/220 | | |
| BH | (60°-80°) | 69.8 | 2.7 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.8 | 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





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 |
| 2.5° | 793.6 | 791.9 | 796.7 | 798.1 | 799.4 | 802.1 | 801.6 | 802.1 | 802.5 | 801.6 | 796.3 |
| 5° | 739.5 | 742.6 | 747.0 | 752.8 | 758.6 | 771.9 | 777.2 | 782.5 | 786.1 | 788.7 | 783.9 |
| 7.5° | 686.2 | 692.4 | 696.0 | 706.6 | 715.5 | 729.3 | 740.8 | 750.1 | 759.0 | 768.8 | 763.9 |
| 10° | 643.6 | 645.8 | 648.9 | 658.7 | 672.0 | 692.9 | 708.0 | 719.5 | 730.2 | 746.6 | 742.6 |
| 12.5° | 601.9 | 603.2 | 609.4 | 620.1 | 633.8 | 659.6 | 679.6 | 692.9 | 704.9 | 725.3 | 725.7 |
| 15° | 571.3 | 571.7 | 575.7 | 585.5 | 601.4 | 629.0 | 654.7 | 669.3 | 686.2 | 711.1 | 712.4 |
| 17.5° | 551.3 | 550.8 | 551.7 | 557.9 | 573.0 | 599.2 | 630.3 | 647.6 | 667.6 | 699.5 | 700.9 |
| 20° | 545.1 | 544.2 | 542.4 | 541.1 | 550.4 | 573.0 | 608.1 | 627.2 | 650.7 | 691.1 | 691.5 |
| 22.5° | 550.4 | 548.6 | 544.6 | 537.1 | 539.7 | 554.4 | 583.7 | 606.8 | 635.6 | 686.7 | 683.5 |
| 25° | 563.3 | 563.3 | 557.9 | 546.0 | 539.7 | 542.8 | 566.4 | 588.6 | 620.5 | 684.4 | 677.8 |
| 27.5° | 584.6 | 583.7 | 576.6 | 564.1 | 552.6 | 544.2 | 555.7 | 576.6 | 609.4 | 687.1 | 675.1 |
| 30° | 610.3 | 607.6 | 600.1 | 591.2 | 577.0 | 558.8 | 557.9 | 573.5 | 604.1 | 695.5 | 676.9 |
| 32.5° | 634.7 | 634.7 | 631.6 | 623.2 | 609.4 | 585.5 | 571.7 | 584.1 | 610.8 | 709.3 | 682.7 |
| 35° | 664.9 | 664.5 | 665.4 | 662.2 | 650.3 | 625.0 | 602.8 | 609.0 | 631.2 | 732.4 | 696.4 |
| 37.5° | 688.9 | 689.3 | 696.9 | 702.2 | 696.9 | 670.2 | 647.2 | 647.2 | 665.8 | 767.0 | 719.9 |
| 40° | 712.4 | 713.3 | 727.5 | 743.0 | 744.4 | 723.1 | 700.9 | 700.4 | 711.1 | 809.6 | 756.3 |
| 42.5° | 733.7 | 737.3 | 757.7 | 784.3 | 799.8 | 785.6 | 769.2 | 763.9 | 769.2 | 874.0 | 815.4 |
| 45° | 756.3 | 763.4 | 791.9 | 830.5 | 855.8 | 856.2 | 850.0 | 843.8 | 846.4 | 946.3 | 894.4 |
| 47.5° | 785.6 | 793.6 | 829.1 | 876.6 | 924.6 | 937.0 | 942.8 | 940.5 | 933.4 | 1037.8 | 996.5 |
| 50° | 833.1 | 840.7 | 874.0 | 927.2 | 992.9 | 1037.8 | 1053.3 | 1055.9 | 1046.6 | 1139.0 | 1112.3 |
| 52.5° | 913.9 | 918.4 | 949.4 | 991.6 | 1065.3 | 1149.2 | 1190.0 | 1190.4 | 1169.6 | 1257.5 | 1237.5 |
| 55° | 1000.5 | 1012.0 | 1048.4 | 1097.2 | 1173.1 | 1267.2 | 1369.3 | 1380.4 | 1316.1 | 1361.3 | 1328.9 |
| 57.5° | 1001.8 | 1012.9 | 1073.3 | 1166.9 | 1325.8 | 1450.5 | 1541.5 | 1549.5 | 1478.1 | 1444.8 | 1415.0 |
| 60° | 896.2 | 901.9 | 985.8 | 1123.0 | 1380.4 | 1697.8 | 1737.7 | 1725.7 | 1591.7 | 1530.9 | 1522.9 |
| 62.5° | 632.5 | 635.2 | 734.6 | 915.2 | 1259.7 | 1815.8 | 2036.4 | 1972.1 | 1753.3 | 1657.8 | 1684.5 |
| 65° | 398.1 | 396.8 | 438.1 | 582.3 | 937.0 | 1699.6 | 2405.7 | 2358.7 | 2050.2 | 1816.7 | 1810.5 |
| 67.5° | 293.8 | 286.7 | 297.8 | 342.7 | 535.3 | 1334.3 | 2473.6 | 2685.8 | 2332.9 | 1882.9 | 1701.3 |
| 68° | 281.9 | 275.6 | 287.2 | 321.8 | 462.9 | 1207.8 | 2440.8 | 2709.3 | 2377.8 | 1872.2 | 1664.0 |
| 70° | 239.2 | 233.5 | 243.2 | 269.4 | 322.2 | 783.9 | 2153.6 | 2605.0 | 2418.6 | 1781.7 | 1466.5 |
| 72.5° | 170.0 | 173.1 | 198.9 | 231.3 | 273.0 | 402.1 | 1585.9 | 2139.4 | 2080.4 | 1584.6 | 1115.9 |
| 75° | 100.8 | 106.5 | 140.3 | 186.4 | 250.8 | 265.4 | 1023.1 | 1555.3 | 1526.4 | 1097.2 | 604.5 |
| 77.5° | 35.5 | 37.7 | 69.7 | 124.3 | 206.8 | 210.4 | 569.9 | 977.8 | 909.5 | 448.3 | 178.4 |
| 80° | 12.9 | 12.9 | 25.7 | 69.2 | 133.6 | 160.7 | 302.7 | 522.0 | 359.1 | 116.3 | 49.3 |
| 82.5° | 2.2 | 2.2 | 5.8 | 23.5 | 59.0 | 85.7 | 140.7 | 185.5 | 106.5 | 25.7 | 24.4 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.9 | 41.3 | 41.7 | 19.5 | 3.6 | 10.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.9 | 0.9 | 0.9 | 0.9 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 | 800.7 |
| 2.5° | 794.1 | 793.2 | 788.3 | 779.4 | 771.9 | 759.4 | 757.2 | 745.2 | 740.8 | 737.3 | 740.8 |
| 5° | 780.3 | 775.4 | 759.0 | 739.0 | 712.0 | 680.0 | 661.4 | 635.6 | 630.3 | 616.1 | 624.5 |
| 7.5° | 757.7 | 746.6 | 716.0 | 672.9 | 623.2 | 574.4 | 537.1 | 501.1 | 470.5 | 459.8 | 456.7 |
| 10° | 733.7 | 718.2 | 666.7 | 600.1 | 528.2 | 453.2 | 397.7 | 345.8 | 316.9 | 289.8 | 289.0 |
| 12.5° | 711.1 | 687.5 | 613.0 | 520.2 | 419.9 | 330.7 | 258.8 | 204.2 | 170.0 | 151.4 | 156.2 |
| 15° | 692.9 | 661.4 | 558.8 | 440.3 | 313.4 | 213.1 | 146.5 | 111.4 | 99.4 | 93.7 | 94.5 |
| 17.5° | 675.1 | 633.4 | 506.4 | 356.9 | 223.3 | 131.4 | 95.0 | 83.0 | 79.5 | 78.1 | 77.2 |
| 20° | 659.1 | 606.3 | 451.4 | 281.4 | 147.4 | 91.0 | 78.1 | 74.1 | 72.8 | 71.9 | 71.9 |
| 22.5° | 643.2 | 577.9 | 396.4 | 208.6 | 100.8 | 74.6 | 70.1 | 68.4 | 67.5 | 66.1 | 66.1 |
| 25° | 628.5 | 550.4 | 341.3 | 146.0 | 77.2 | 66.6 | 63.5 | 61.7 | 59.9 | 58.6 | 58.6 |
| 27.5° | 617.4 | 529.5 | 290.3 | 103.4 | 64.8 | 59.9 | 56.8 | 53.7 | 51.5 | 49.7 | 49.7 |
| 30° | 610.3 | 509.1 | 241.0 | 78.1 | 57.7 | 53.3 | 49.3 | 45.3 | 41.7 | 39.5 | 39.1 |
| 32.5° | 606.3 | 492.2 | 195.3 | 63.9 | 51.5 | 46.6 | 41.7 | 37.3 | 33.3 | 30.6 | 30.6 |
| 35° | 608.1 | 478.9 | 149.6 | 54.2 | 46.6 | 40.8 | 35.5 | 30.2 | 26.6 | 24.4 | 24.0 |
| 37.5° | 619.6 | 471.4 | 111.4 | 47.9 | 41.7 | 35.5 | 30.2 | 24.9 | 21.3 | 19.5 | 19.1 |
| 40° | 641.4 | 473.2 | 84.8 | 43.5 | 38.2 | 31.1 | 24.9 | 20.4 | 17.3 | 15.5 | 15.5 |
| 42.5° | 685.3 | 486.0 | 67.0 | 39.9 | 34.2 | 26.6 | 20.9 | 16.9 | 14.2 | 12.9 | 12.4 |
| 45° | 743.5 | 510.4 | 55.0 | 36.8 | 30.2 | 22.6 | 17.8 | 14.2 | 11.5 | 10.2 | 10.2 |
| 47.5° | 831.4 | 549.5 | 47.5 | 33.7 | 26.2 | 19.1 | 14.6 | 11.5 | 8.9 | 8.0 | 7.5 |
| 50° | 933.0 | 604.1 | 41.7 | 30.2 | 23.1 | 16.0 | 12.4 | 8.9 | 7.1 | 5.8 | 5.8 |
| 52.5° | 1036.9 | 664.9 | 37.7 | 27.1 | 20.0 | 13.8 | 9.8 | 6.7 | 4.9 | 4.0 | 4.0 |
| 55° | 1132.3 | 716.0 | 33.7 | 24.4 | 16.9 | 11.5 | 8.0 | 5.3 | 3.6 | 2.7 | 2.7 |
| 57.5° | 1224.6 | 762.6 | 29.3 | 21.3 | 13.8 | 9.3 | 6.2 | 4.0 | 2.7 | 1.8 | 1.8 |
| 60° | 1340.5 | 822.9 | 25.3 | 18.2 | 11.1 | 7.5 | 4.9 | 3.1 | 1.8 | 1.3 | 0.9 |
| 62.5° | 1480.3 | 866.9 | 21.3 | 14.6 | 8.9 | 5.8 | 3.6 | 2.2 | 1.3 | 0.4 | 0.4 |
| 65° | 1531.8 | 808.7 | 17.8 | 12.0 | 7.1 | 4.4 | 2.7 | 1.8 | 0.9 | 0.4 | 0.4 |
| 67.5° | 1388.0 | 651.6 | 14.2 | 9.3 | 5.3 | 3.1 | 2.2 | 1.3 | 0.9 | 0.4 | 0.4 |
| 68° | 1348.0 | 619.6 | 13.8 | 8.9 | 4.9 | 3.1 | 1.8 | 1.3 | 0.4 | 0.4 | 0.0 |
| 70° | 1138.1 | 497.6 | 11.1 | 6.7 | 4.0 | 2.7 | 1.8 | 0.9 | 0.4 | 0.4 | 0.0 |
| 72.5° | 843.8 | 343.1 | 8.0 | 4.4 | 2.7 | 1.8 | 1.3 | 0.9 | 0.4 | 0.4 | 0.0 |
| 75° | 445.2 | 133.6 | 6.2 | 3.6 | 2.2 | 1.8 | 1.3 | 1.3 | 0.9 | 0.4 | 0.4 |
| 77.5° | 127.8 | 42.2 | 4.9 | 2.7 | 2.2 | 2.2 | 2.2 | 1.8 | 1.8 | 1.3 | 0.9 |
| 80° | 37.3 | 13.8 | 3.1 | 1.8 | 2.2 | 2.2 | 2.7 | 2.2 | 2.2 | 1.8 | 1.8 |
| 82.5° | 20.0 | 5.3 | 1.8 | 1.3 | 1.3 | 1.8 | 2.2 | 1.8 | 1.3 | 0.9 | 0.4 |
| 85° | 8.4 | 1.8 | 1.3 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.4 | 0.4 |
| 87.5° | 0.4 | 0.9 | 0.9 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 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)