

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: P401273

Luminaire Tested: **ENV-SA1C-730-U-SL4-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1C-730-U-SL4-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3371 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 33.3
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

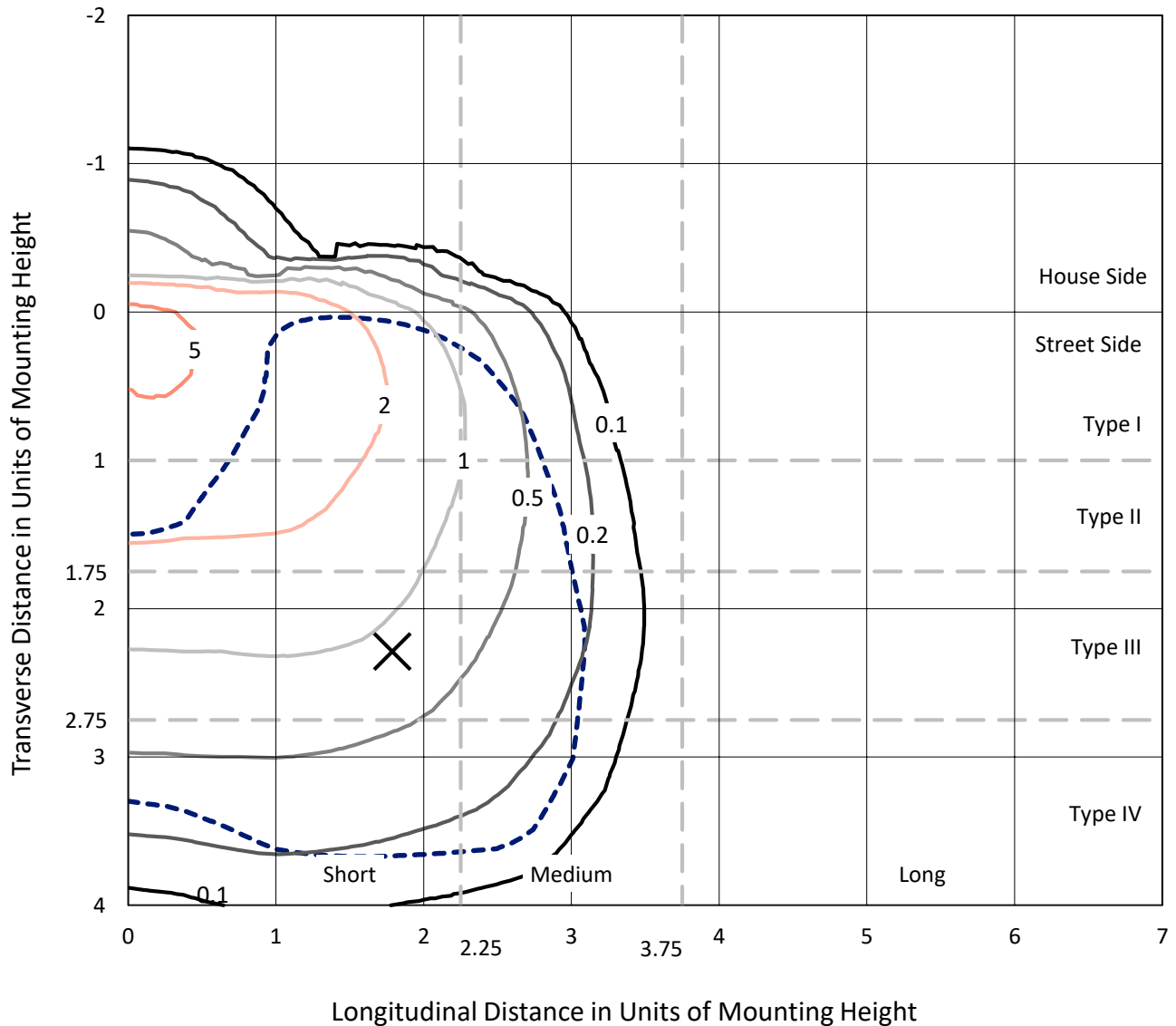


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

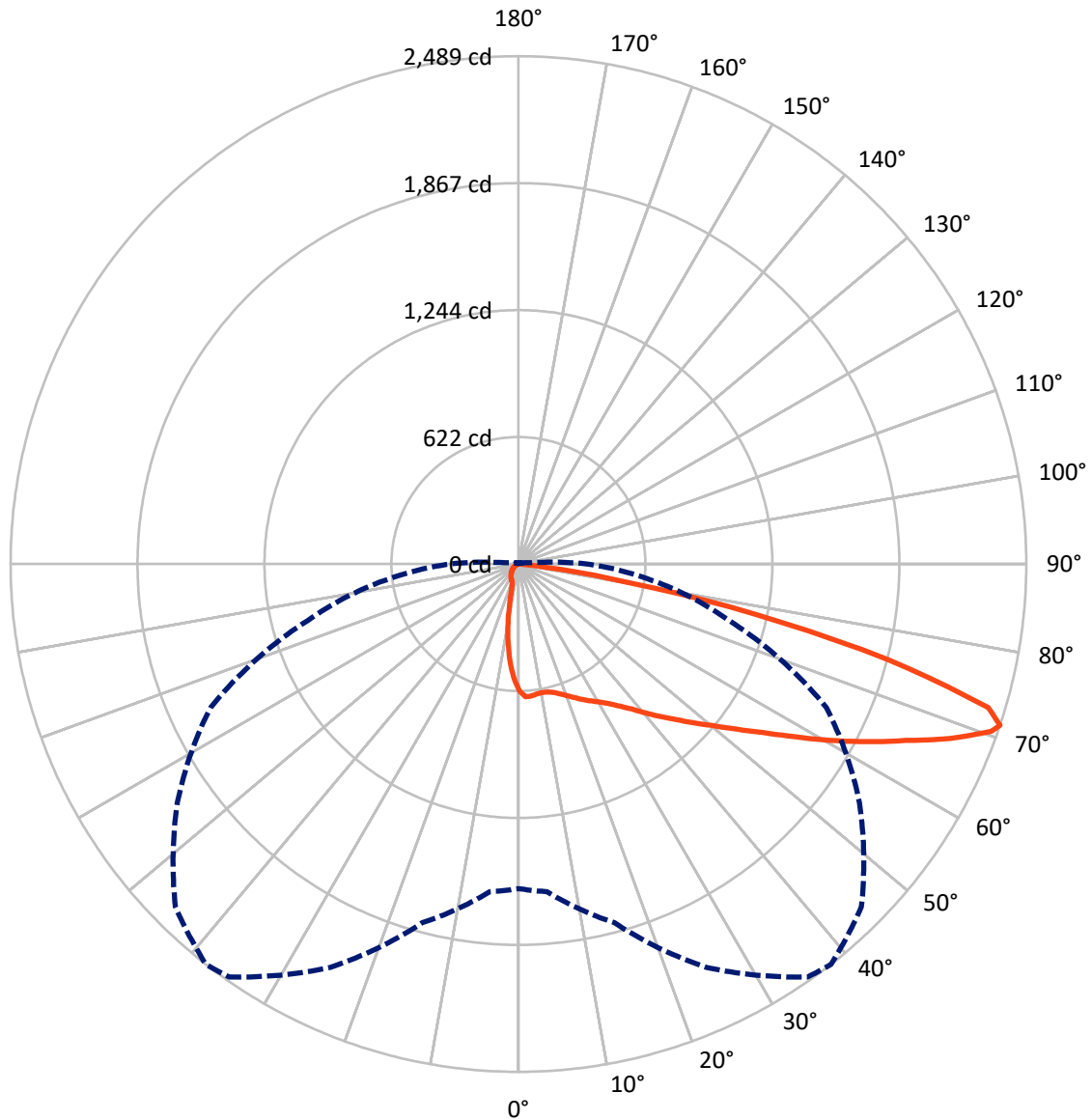


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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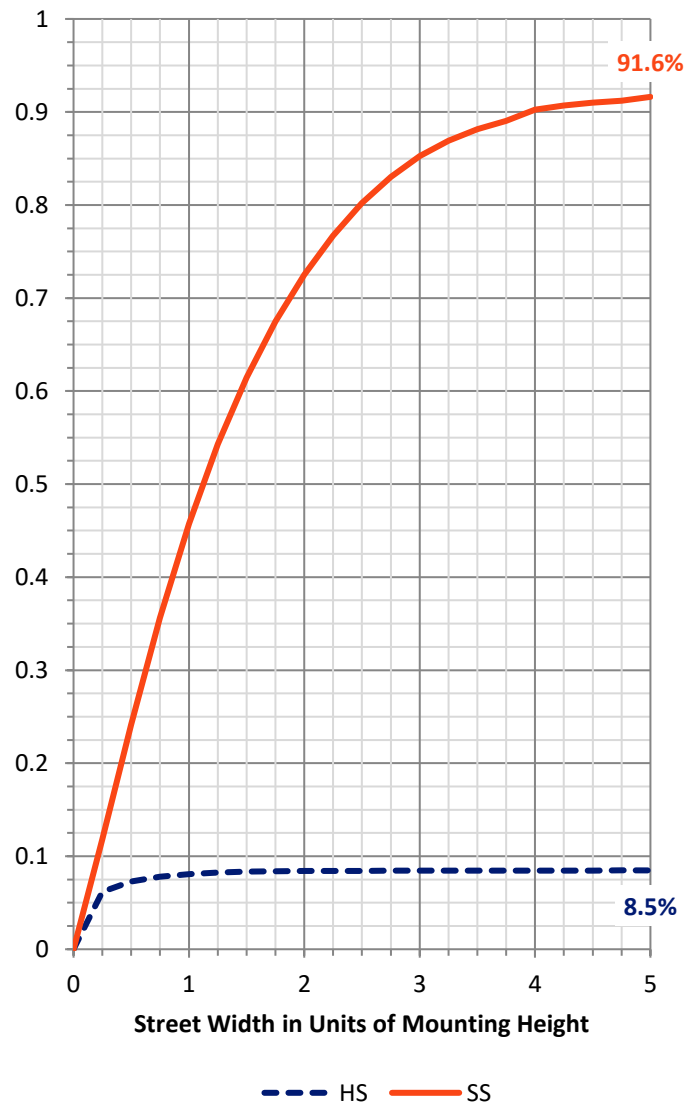
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 288.0 | 0.0 | 288.0 |
| | % Fixture | 8.5 | 0.0 | 8.5 |
| Street Side | Lumens | 3083.0 | 0.0 | 3083.0 |
| | % Fixture | 91.5 | 0.0 | 91.5 |
| Total | Lumens | 3371.0 | 0.0 | 3371.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.5 | 1.6 |
| 10°-20° | 127.1 | 3.8 |
| 20°-30° | 203.8 | 6.0 |
| 30°-40° | 310.0 | 9.2 |
| 40°-50° | 483.2 | 14.3 |
| 50°-60° | 706.5 | 21.0 |
| 60°-70° | 906.2 | 26.9 |
| 70°-80° | 553.9 | 16.4 |
| 80°-90° | 27.8 | 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° | 3371.0 | 100.0 |
| 0°-180° | 3371.0 | 100.0 |



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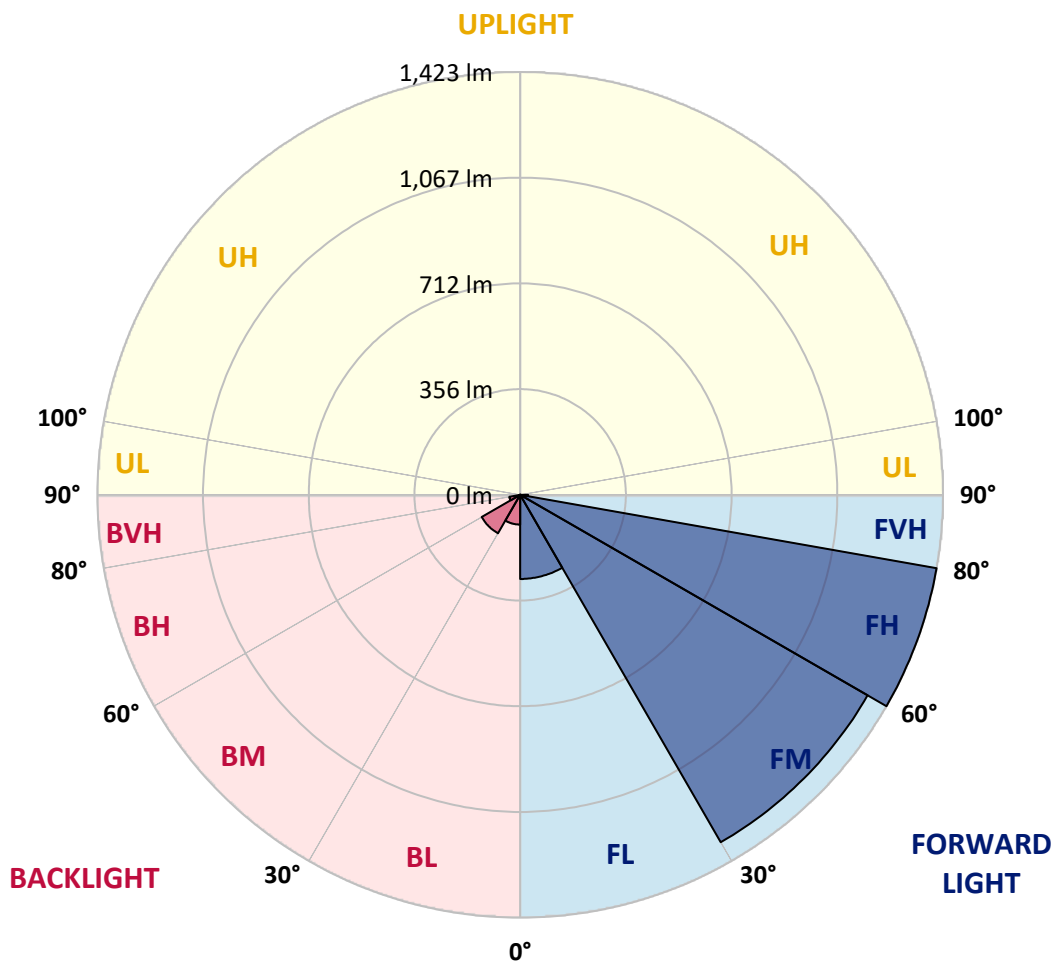
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 283.2 | 8.4 | | | |
| FM | (30°-60°) | 1350.1 | 40.1 | | | |
| FH | (60°-80°) | 1423.1 | 42.2 | | | G1/1800 |
| FVH | (80°-90°) | 26.6 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 100.1 | 3.0 | B0/110 | | |
| BM | (30°-60°) | 149.6 | 4.4 | B0/220 | | |
| BH | (60°-80°) | 37.0 | 1.1 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.2 | 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 IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 |
| 2.5° | 658.2 | 656.5 | 658.2 | 656.5 | 653.0 | 651.2 | 648.9 | 642.5 | 636.6 | 629.6 | 619.1 |
| 5° | 659.4 | 658.2 | 658.2 | 655.9 | 651.8 | 650.1 | 647.7 | 641.3 | 633.7 | 623.2 | 607.4 |
| 7.5° | 653.0 | 652.4 | 651.2 | 648.9 | 644.2 | 643.1 | 641.3 | 633.7 | 626.1 | 615.0 | 595.8 |
| 10° | 642.5 | 643.6 | 643.1 | 643.1 | 641.3 | 640.1 | 639.0 | 630.2 | 622.0 | 609.2 | 588.7 |
| 12.5° | 632.5 | 633.7 | 636.6 | 641.3 | 643.1 | 643.6 | 643.6 | 634.9 | 625.0 | 610.9 | 589.9 |
| 15° | 626.1 | 628.5 | 636.6 | 646.0 | 651.2 | 653.0 | 654.7 | 645.4 | 633.7 | 618.5 | 596.3 |
| 17.5° | 624.4 | 627.9 | 643.6 | 658.2 | 668.2 | 669.3 | 669.3 | 657.7 | 645.4 | 627.9 | 603.9 |
| 20° | 630.2 | 634.9 | 655.3 | 675.8 | 688.0 | 689.2 | 686.9 | 671.7 | 657.1 | 637.8 | 610.4 |
| 22.5° | 647.7 | 651.8 | 675.2 | 699.1 | 710.8 | 712.0 | 706.7 | 685.7 | 669.9 | 654.2 | 619.1 |
| 25° | 678.1 | 680.4 | 705.6 | 728.3 | 734.8 | 736.5 | 727.8 | 702.6 | 684.5 | 669.9 | 631.4 |
| 27.5° | 718.4 | 719.6 | 742.4 | 759.3 | 760.5 | 759.9 | 750.5 | 724.2 | 706.1 | 693.9 | 650.1 |
| 30° | 760.5 | 762.2 | 780.9 | 792.0 | 787.3 | 785.0 | 776.8 | 748.8 | 732.4 | 723.1 | 676.9 |
| 32.5° | 799.6 | 801.3 | 821.8 | 827.6 | 817.1 | 815.4 | 809.5 | 779.7 | 765.7 | 770.4 | 715.5 |
| 35° | 838.1 | 838.1 | 861.5 | 864.4 | 855.1 | 855.1 | 855.1 | 819.5 | 817.1 | 832.9 | 769.2 |
| 37.5° | 872.6 | 878.4 | 903.0 | 901.8 | 900.1 | 901.2 | 904.7 | 877.9 | 886.0 | 912.9 | 839.9 |
| 40° | 901.8 | 909.4 | 942.1 | 945.0 | 952.6 | 959.0 | 964.3 | 950.3 | 969.6 | 1013.4 | 930.4 |
| 42.5° | 928.1 | 936.8 | 978.9 | 992.3 | 1013.4 | 1022.1 | 1032.1 | 1028.5 | 1071.2 | 1151.2 | 1046.1 |
| 45° | 962.0 | 971.3 | 1014.5 | 1046.7 | 1075.9 | 1087.5 | 1109.7 | 1124.9 | 1195.6 | 1286.7 | 1171.1 |
| 47.5° | 1006.9 | 1013.4 | 1053.1 | 1103.9 | 1143.6 | 1164.6 | 1199.1 | 1238.2 | 1324.1 | 1430.4 | 1282.6 |
| 50° | 1068.3 | 1068.8 | 1098.6 | 1164.6 | 1223.6 | 1246.4 | 1306.0 | 1356.8 | 1464.3 | 1557.1 | 1363.2 |
| 52.5° | 1136.0 | 1132.5 | 1155.9 | 1239.4 | 1314.2 | 1345.1 | 1415.2 | 1485.9 | 1593.9 | 1648.8 | 1399.4 |
| 55° | 1200.3 | 1202.0 | 1216.6 | 1318.8 | 1428.1 | 1457.8 | 1546.6 | 1618.5 | 1712.5 | 1704.9 | 1419.3 |
| 57.5° | 1274.4 | 1273.9 | 1292.5 | 1405.9 | 1561.2 | 1595.7 | 1688.5 | 1747.5 | 1784.3 | 1745.2 | 1422.8 |
| 60° | 1344.5 | 1342.8 | 1371.4 | 1509.8 | 1703.1 | 1754.0 | 1837.5 | 1835.1 | 1856.2 | 1770.9 | 1419.9 |
| 62.5° | 1407.0 | 1411.1 | 1461.3 | 1630.7 | 1862.0 | 1916.9 | 1959.0 | 1929.8 | 1935.6 | 1800.7 | 1383.7 |
| 65° | 1483.0 | 1490.5 | 1571.7 | 1777.3 | 2058.3 | 2084.5 | 2100.9 | 2053.6 | 1995.2 | 1776.7 | 1273.9 |
| 67.5° | 1578.7 | 1601.5 | 1716.0 | 1993.4 | 2262.7 | 2280.8 | 2281.4 | 2128.4 | 1992.8 | 1655.8 | 1071.2 |
| 70° | 1616.7 | 1640.7 | 1822.9 | 2164.6 | 2435.0 | 2457.8 | 2386.5 | 2116.7 | 1835.7 | 1296.6 | 723.1 |
| 71° | 1590.4 | 1612.0 | 1820.0 | 2180.9 | 2470.6 | 2488.7 | 2377.2 | 2040.2 | 1664.6 | 1068.3 | 560.1 |
| 72.5° | 1400.6 | 1456.7 | 1707.8 | 2078.1 | 2407.0 | 2407.5 | 2225.9 | 1859.7 | 1324.1 | 667.0 | 281.5 |
| 75° | 756.4 | 824.1 | 1251.7 | 1581.7 | 1856.8 | 1871.4 | 1712.5 | 1291.4 | 640.7 | 172.9 | 68.3 |
| 77.5° | 249.4 | 280.9 | 561.3 | 821.2 | 1164.6 | 1187.4 | 1047.2 | 573.6 | 202.1 | 58.4 | 35.6 |
| 80° | 156.5 | 160.0 | 189.8 | 345.2 | 518.1 | 537.3 | 431.0 | 232.5 | 91.1 | 32.1 | 24.5 |
| 82.5° | 26.3 | 31.5 | 89.4 | 101.6 | 182.8 | 144.8 | 98.1 | 118.6 | 42.6 | 14.6 | 21.0 |
| 85° | 0.0 | 0.0 | 0.6 | 0.6 | 2.9 | 0.6 | 0.6 | 23.9 | 2.3 | 2.3 | 11.1 |
| 87.5° | 0.0 | 0.0 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 |
| 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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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 | 621.5 |
| 2.5° | 614.4 | 609.8 | 600.4 | 590.5 | 578.2 | 567.7 | 564.2 | 556.6 | 553.1 | 550.2 | 550.2 |
| 5° | 597.5 | 589.3 | 569.5 | 549.0 | 529.2 | 508.1 | 488.9 | 470.8 | 462.0 | 449.7 | 455.6 |
| 7.5° | 583.5 | 569.5 | 541.4 | 509.3 | 468.4 | 427.0 | 394.8 | 366.8 | 343.4 | 335.8 | 330.6 |
| 10° | 573.6 | 556.0 | 515.1 | 466.1 | 406.5 | 347.5 | 297.9 | 251.7 | 224.9 | 208.5 | 208.5 |
| 12.5° | 572.4 | 550.2 | 497.0 | 421.7 | 335.8 | 255.8 | 194.5 | 150.7 | 129.1 | 119.2 | 118.6 |
| 15° | 576.5 | 549.6 | 480.7 | 381.4 | 271.0 | 177.6 | 121.5 | 102.2 | 97.0 | 95.8 | 95.8 |
| 17.5° | 580.0 | 549.0 | 461.4 | 335.8 | 199.8 | 116.8 | 96.4 | 92.9 | 91.7 | 91.1 | 91.1 |
| 20° | 583.5 | 546.1 | 439.2 | 284.4 | 141.3 | 95.2 | 89.9 | 88.2 | 87.6 | 87.0 | 87.0 |
| 22.5° | 588.2 | 543.2 | 416.4 | 226.0 | 104.5 | 88.8 | 85.9 | 84.1 | 83.5 | 83.5 | 83.5 |
| 25° | 594.6 | 541.4 | 388.4 | 171.1 | 89.9 | 84.1 | 81.2 | 80.0 | 80.0 | 79.4 | 79.4 |
| 27.5° | 606.8 | 543.2 | 358.0 | 122.7 | 84.1 | 79.4 | 77.7 | 76.5 | 76.5 | 75.9 | 75.9 |
| 30° | 623.8 | 548.4 | 320.1 | 95.8 | 79.4 | 74.8 | 73.0 | 72.4 | 71.8 | 71.8 | 71.8 |
| 32.5° | 647.7 | 556.6 | 278.6 | 81.8 | 73.6 | 70.1 | 68.3 | 67.8 | 67.8 | 67.8 | 67.2 |
| 35° | 684.5 | 573.6 | 227.8 | 74.8 | 68.3 | 64.8 | 63.1 | 63.1 | 63.1 | 62.5 | 63.1 |
| 37.5° | 740.6 | 601.0 | 176.4 | 68.9 | 62.5 | 59.6 | 58.4 | 57.8 | 57.8 | 57.8 | 57.8 |
| 40° | 811.3 | 645.4 | 128.5 | 63.7 | 57.2 | 54.3 | 53.2 | 52.6 | 52.0 | 52.0 | 52.0 |
| 42.5° | 902.4 | 694.5 | 93.5 | 57.8 | 52.6 | 49.6 | 48.5 | 47.3 | 46.1 | 45.6 | 45.6 |
| 45° | 997.0 | 752.9 | 73.0 | 53.2 | 47.9 | 45.6 | 44.4 | 42.6 | 40.9 | 39.1 | 39.1 |
| 47.5° | 1088.7 | 797.8 | 62.5 | 47.9 | 43.8 | 41.5 | 40.3 | 38.0 | 35.0 | 33.3 | 33.3 |
| 50° | 1146.5 | 811.9 | 56.1 | 43.2 | 39.7 | 38.0 | 36.2 | 33.3 | 29.2 | 27.5 | 27.5 |
| 52.5° | 1164.6 | 786.2 | 50.2 | 39.1 | 36.2 | 34.5 | 32.1 | 28.0 | 23.9 | 21.6 | 21.6 |
| 55° | 1171.6 | 736.5 | 44.4 | 36.2 | 32.7 | 30.4 | 27.5 | 23.4 | 19.3 | 16.9 | 16.9 |
| 57.5° | 1162.9 | 666.4 | 39.7 | 32.7 | 29.2 | 26.9 | 23.4 | 18.7 | 14.6 | 12.8 | 12.8 |
| 60° | 1133.1 | 564.8 | 35.6 | 29.2 | 25.7 | 22.8 | 19.3 | 14.6 | 11.1 | 8.8 | 9.3 |
| 62.5° | 1052.5 | 436.9 | 31.0 | 24.5 | 22.2 | 19.3 | 15.2 | 11.1 | 7.0 | 5.8 | 5.8 |
| 65° | 924.0 | 302.5 | 26.3 | 20.4 | 18.7 | 15.8 | 11.7 | 7.6 | 4.1 | 3.5 | 3.5 |
| 67.5° | 750.5 | 195.7 | 20.4 | 16.9 | 15.8 | 12.8 | 8.8 | 4.7 | 2.3 | 2.3 | 1.8 |
| 70° | 471.3 | 97.0 | 16.4 | 12.8 | 12.8 | 9.9 | 6.4 | 2.9 | 1.8 | 1.8 | 1.8 |
| 71° | 333.5 | 66.0 | 14.6 | 11.7 | 11.7 | 9.3 | 5.8 | 2.3 | 1.8 | 1.8 | 1.8 |
| 72.5° | 150.7 | 41.5 | 12.3 | 10.5 | 9.9 | 7.6 | 5.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| 75° | 47.3 | 22.8 | 8.8 | 8.2 | 8.2 | 6.4 | 4.7 | 2.9 | 2.9 | 2.9 | 2.9 |
| 77.5° | 31.5 | 17.5 | 5.8 | 5.3 | 6.4 | 6.4 | 4.7 | 3.5 | 3.5 | 3.5 | 3.5 |
| 80° | 25.7 | 9.3 | 3.5 | 3.5 | 4.7 | 5.8 | 4.7 | 3.5 | 4.1 | 3.5 | 3.5 |
| 82.5° | 25.1 | 4.7 | 1.2 | 1.8 | 2.9 | 3.5 | 3.5 | 2.9 | 3.5 | 3.5 | 3.5 |
| 85° | 10.5 | 1.2 | 0.6 | 1.2 | 1.2 | 1.8 | 1.8 | 2.3 | 2.9 | 2.9 | 2.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 | 1.2 | 1.2 | 1.8 | 2.3 | 2.3 |
| 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)