

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: STREETWORKS

Report Number: P198690

Luminaire Tested: **XNV-AF-01-LED-U-SL2-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198690  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV-AF-01-LED-U-SL2-600-HSS  
Description: XNV ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH 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: 3324.6 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

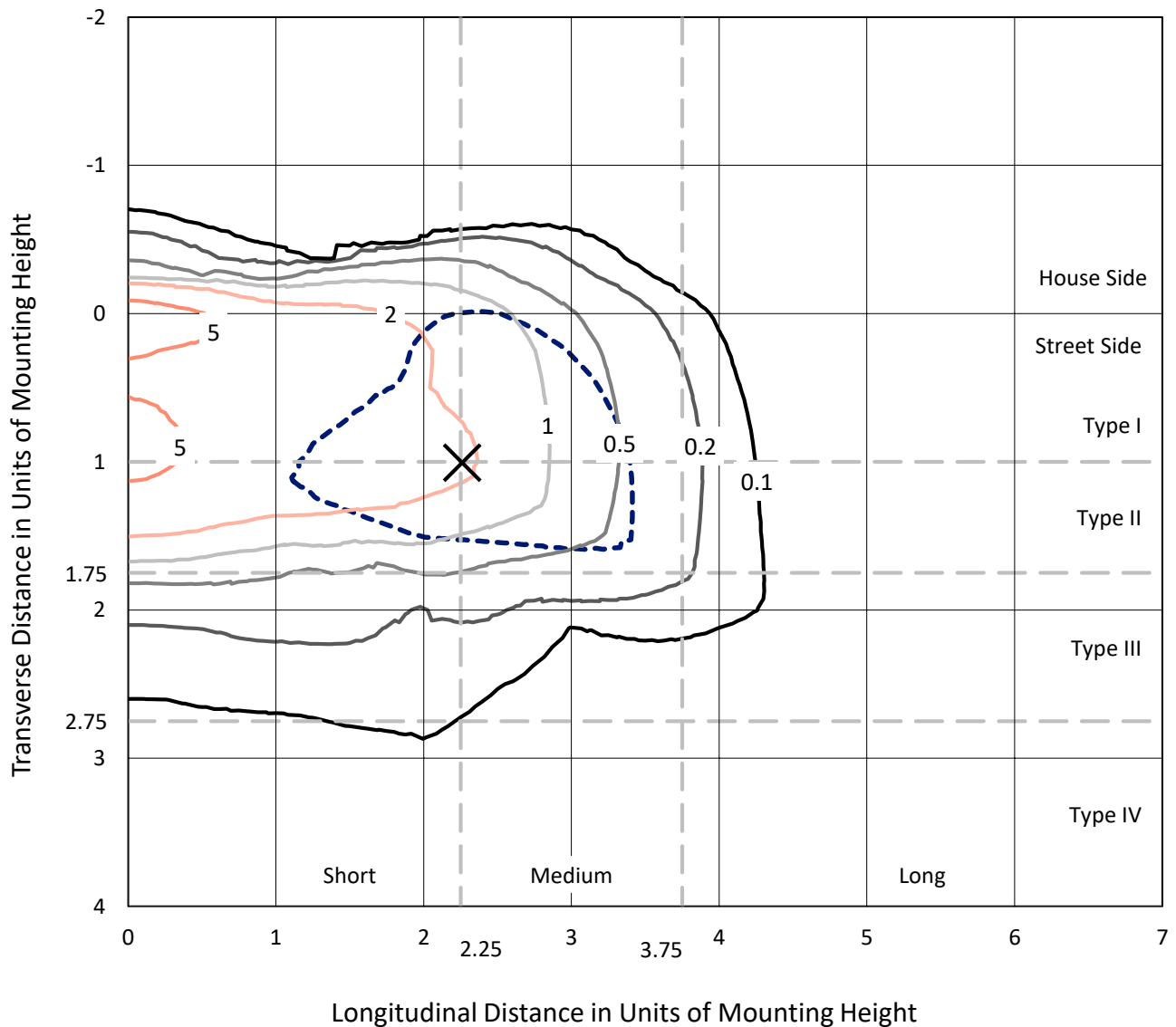
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

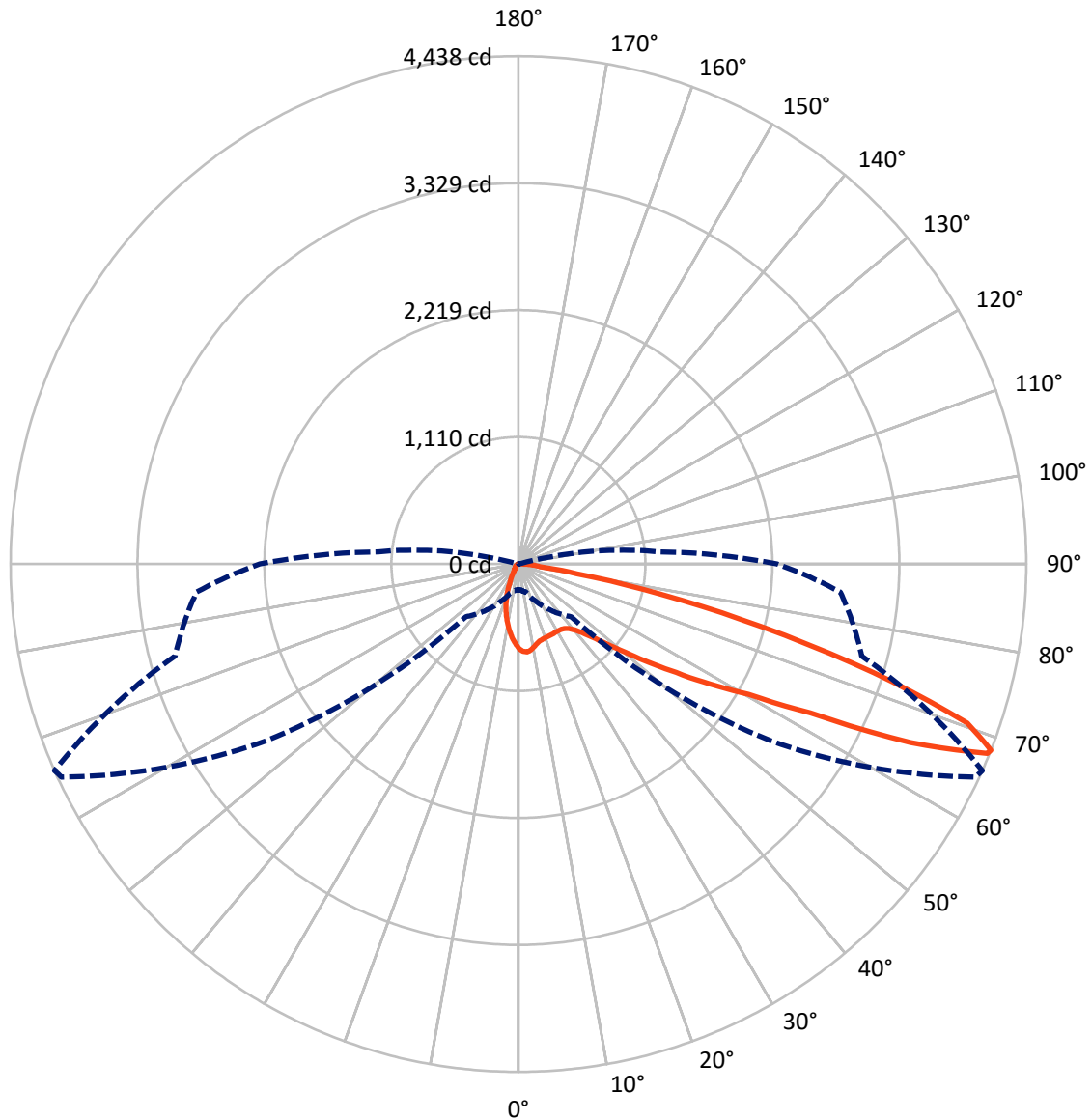
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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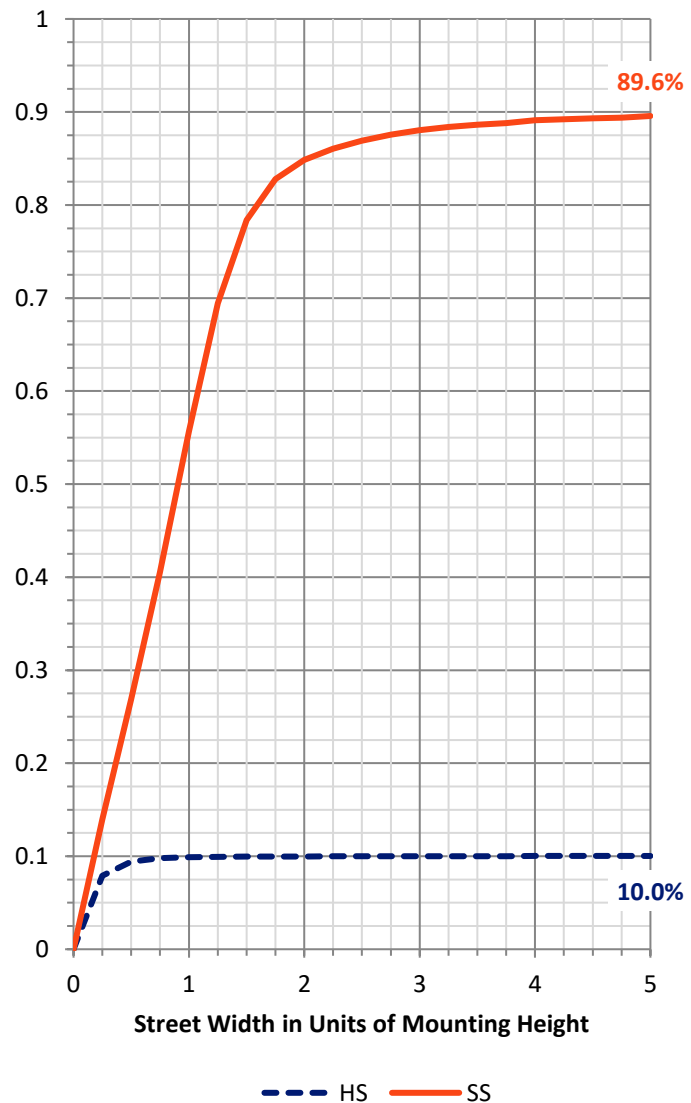
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 336.7    | 0.0    | 336.7  |
|                    | % Fixture | 10.1     | 0.0    | 10.1   |
| <b>Street Side</b> | Lumens    | 2987.8   | 0.0    | 2987.8 |
|                    | % Fixture | 89.9     | 0.0    | 89.9   |
| <b>Total</b>       | Lumens    | 3324.6   | 0.0    | 3324.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 60.7   | 1.8       |
| 10°-20°   | 130.6  | 3.9       |
| 20°-30°   | 189.3  | 5.7       |
| 30°-40°   | 289.8  | 8.7       |
| 40°-50°   | 495.7  | 14.9      |
| 50°-60°   | 775.4  | 23.3      |
| 60°-70°   | 892.9  | 26.9      |
| 70°-80°   | 446.8  | 13.4      |
| 80°-90°   | 43.3   | 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°    | 3324.6 | 100.0     |
| 0°-180°   | 3324.6 | 100.0     |



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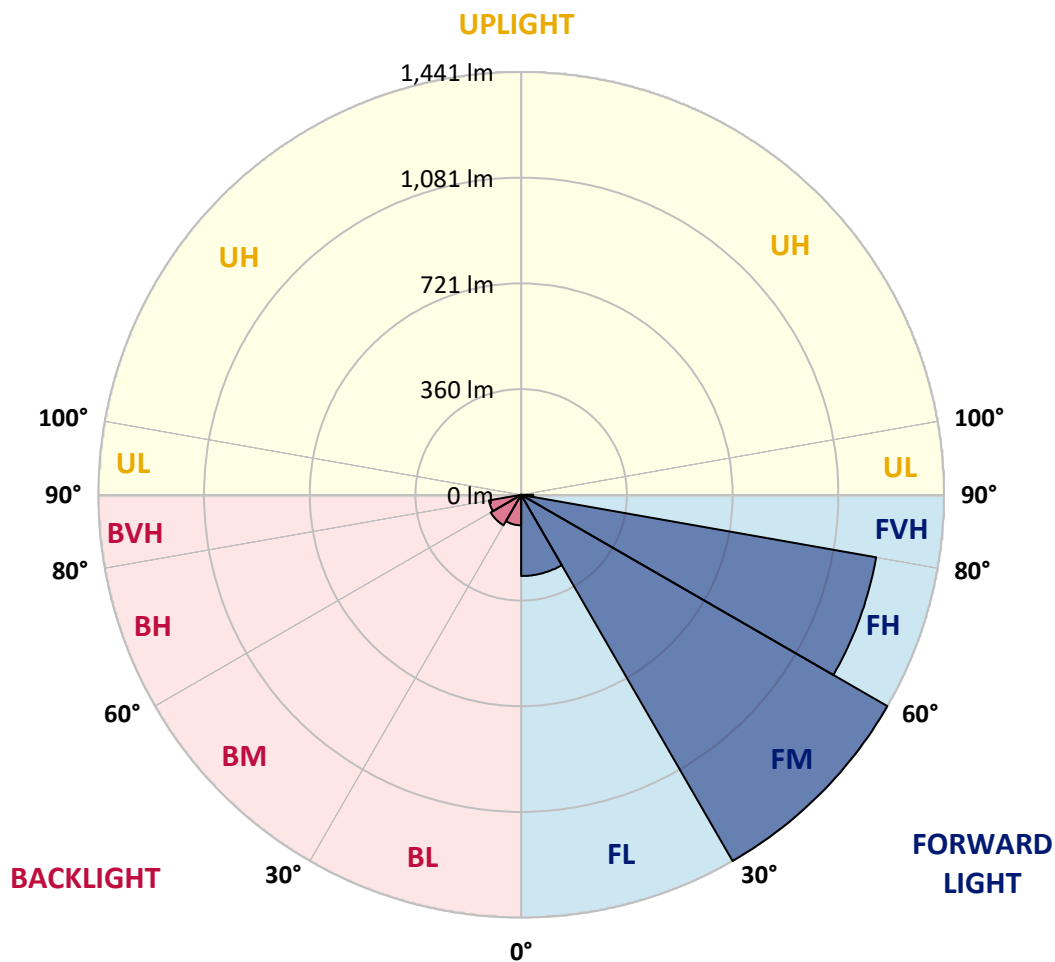
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 276.8  | 8.3       |                         |      |         |
| FM (30°-60°)   | 1441.0 | 43.3      |                         |      |         |
| FH (60°-80°)   | 1228.4 | 36.9      |                         |      | G1/1800 |
| FVH (80°-90°)  | 41.6   | 1.3       |                         |      | G1/100  |
| BL (0°-30°)    | 103.9  | 3.1       | B0/110                  |      |         |
| BM (30°-60°)   | 119.9  | 3.6       | B0/220                  |      |         |
| BH (60°-80°)   | 111.3  | 3.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 1.6    | 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-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 66°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  | 740.7  |
| 2.5°  | 779.1  | 779.6  | 779.3  | 780.1  | 779.6  | 775.7  | 771.5  | 762.6  | 763.4  | 751.9  | 739.1  |
| 5°    | 724.2  | 728.6  | 733.1  | 737.5  | 748.3  | 757.7  | 768.8  | 771.5  | 771.5  | 761.6  | 742.8  |
| 7.5°  | 668.4  | 668.7  | 673.6  | 679.6  | 694.0  | 711.2  | 737.3  | 760.8  | 761.3  | 763.9  | 743.3  |
| 10°   | 626.4  | 627.7  | 631.1  | 637.6  | 651.9  | 668.9  | 698.2  | 735.0  | 737.9  | 757.1  | 738.1  |
| 12.5° | 593.7  | 595.4  | 598.9  | 606.5  | 619.6  | 637.1  | 667.9  | 709.9  | 713.8  | 750.6  | 736.5  |
| 15°   | 568.7  | 570.8  | 573.7  | 581.2  | 595.4  | 613.9  | 647.5  | 693.2  | 697.9  | 748.0  | 741.4  |
| 17.5° | 558.2  | 558.2  | 558.0  | 563.2  | 577.4  | 596.1  | 631.4  | 684.4  | 690.3  | 750.1  | 749.8  |
| 20°   | 562.7  | 561.9  | 556.4  | 555.2  | 563.7  | 582.6  | 618.6  | 678.5  | 685.4  | 754.0  | 760.0  |
| 22.5° | 586.2  | 584.6  | 572.3  | 562.2  | 559.6  | 572.1  | 609.9  | 674.6  | 682.7  | 762.1  | 773.6  |
| 25°   | 636.1  | 631.4  | 614.4  | 591.4  | 570.8  | 569.5  | 604.0  | 672.6  | 681.2  | 771.5  | 788.5  |
| 27.5° | 700.7  | 699.5  | 672.3  | 641.5  | 601.8  | 578.1  | 602.1  | 671.0  | 679.6  | 778.3  | 800.5  |
| 30°   | 781.1  | 781.6  | 750.3  | 710.1  | 650.1  | 602.3  | 607.8  | 670.2  | 679.1  | 778.8  | 805.7  |
| 32.5° | 864.1  | 864.7  | 838.5  | 795.4  | 716.2  | 644.2  | 624.0  | 673.9  | 682.0  | 776.7  | 805.4  |
| 35°   | 944.0  | 944.8  | 929.1  | 894.4  | 804.3  | 702.1  | 654.6  | 686.4  | 692.1  | 778.1  | 804.9  |
| 37.5° | 1045.0 | 1048.1 | 1028.8 | 996.5  | 915.0  | 787.2  | 704.4  | 711.7  | 716.4  | 788.7  | 808.8  |
| 40°   | 1217.2 | 1213.1 | 1157.8 | 1102.9 | 1035.1 | 890.8  | 776.4  | 755.3  | 756.9  | 816.4  | 823.7  |
| 42.5° | 1417.9 | 1412.7 | 1318.0 | 1223.6 | 1158.5 | 1015.8 | 868.6  | 822.1  | 821.8  | 862.9  | 856.0  |
| 45°   | 1590.7 | 1587.6 | 1487.9 | 1361.9 | 1295.3 | 1153.8 | 982.1  | 918.4  | 915.3  | 943.3  | 915.0  |
| 47.5° | 1713.4 | 1710.8 | 1635.4 | 1509.1 | 1453.4 | 1305.7 | 1123.8 | 1049.6 | 1043.2 | 1048.4 | 1010.8 |
| 50°   | 1725.4 | 1722.5 | 1696.2 | 1615.0 | 1638.3 | 1528.6 | 1298.9 | 1221.7 | 1213.3 | 1205.2 | 1155.6 |
| 52.5° | 1613.2 | 1612.9 | 1626.7 | 1621.5 | 1767.7 | 1815.4 | 1513.8 | 1434.4 | 1424.5 | 1403.9 | 1354.5 |
| 55°   | 1383.7 | 1382.4 | 1434.9 | 1511.1 | 1764.8 | 2111.4 | 1841.3 | 1687.6 | 1674.5 | 1633.2 | 1568.6 |
| 57.5° | 1011.1 | 1004.3 | 1113.9 | 1275.4 | 1640.8 | 2240.9 | 2361.4 | 2002.0 | 1980.4 | 1849.6 | 1750.0 |
| 60°   | 558.2  | 560.9  | 701.8  | 893.1  | 1347.2 | 2215.3 | 2840.1 | 2368.7 | 2311.9 | 2036.3 | 1935.7 |
| 62.5° | 312.9  | 319.5  | 424.3  | 580.4  | 858.9  | 2007.7 | 3096.9 | 2999.8 | 2862.8 | 2253.9 | 2170.6 |
| 65°   | 236.7  | 240.6  | 293.4  | 447.8  | 541.6  | 1403.1 | 3137.9 | 3882.2 | 3763.9 | 2583.8 | 2544.7 |
| 67.5° | 222.9  | 226.0  | 251.9  | 371.4  | 493.3  | 727.6  | 2829.4 | 4404.2 | 4419.0 | 3033.8 | 2834.4 |
| 68°   | 224.4  | 228.3  | 254.2  | 357.3  | 492.4  | 650.9  | 2697.8 | 4406.8 | 4438.4 | 3106.3 | 2824.5 |
| 70°   | 206.2  | 207.2  | 268.8  | 350.5  | 477.3  | 512.8  | 1951.7 | 4104.8 | 4161.5 | 3192.6 | 2563.9 |
| 72.5° | 78.9   | 79.1   | 120.6  | 303.5  | 500.0  | 515.7  | 983.2  | 3244.4 | 3247.3 | 2778.5 | 1998.9 |
| 75°   | 41.0   | 34.5   | 37.8   | 95.0   | 477.6  | 502.7  | 493.3  | 2215.3 | 2201.5 | 1879.2 | 1224.8 |
| 77.5° | 28.2   | 24.0   | 25.3   | 32.8   | 198.7  | 502.4  | 356.3  | 1273.9 | 1271.0 | 799.4  | 349.4  |
| 80°   | 16.0   | 13.8   | 15.1   | 27.6   | 69.7   | 471.6  | 331.9  | 547.6  | 516.0  | 140.5  | 56.7   |
| 82.5° | 8.1    | 6.8    | 8.1    | 23.2   | 43.4   | 296.8  | 322.8  | 214.8  | 191.3  | 33.5   | 36.8   |
| 85°   | 2.0    | 2.0    | 3.9    | 16.2   | 26.9   | 97.4   | 289.4  | 155.0  | 139.3  | 14.6   | 26.1   |
| 87.5° | 0.5    | 0.3    | 1.5    | 6.0    | 9.6    | 21.2   | 160.5  | 86.3   | 74.4   | 7.6    | 15.1   |
| 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°    | 740.7  | 740.7  | 740.7 | 740.7 | 740.7 | 740.7 | 740.7 | 740.7 | 740.7 | 740.7 | 740.7 |
| 2.5°  | 733.9  | 726.6  | 712.3 | 696.0 | 684.6 | 672.1 | 664.7 | 655.9 | 649.1 | 643.0 | 647.5 |
| 5°    | 731.3  | 717.2  | 685.4 | 649.6 | 619.6 | 590.9 | 569.5 | 549.1 | 533.7 | 524.1 | 527.9 |
| 7.5°  | 724.6  | 703.6  | 651.9 | 596.1 | 547.1 | 500.8 | 463.3 | 429.5 | 403.5 | 389.4 | 393.8 |
| 10°   | 713.0  | 683.5  | 614.1 | 536.6 | 468.0 | 402.7 | 346.9 | 296.8 | 258.9 | 241.1 | 245.3 |
| 12.5° | 704.7  | 665.7  | 575.0 | 479.2 | 388.8 | 296.2 | 222.1 | 164.7 | 135.2 | 117.4 | 119.0 |
| 15°   | 701.0  | 651.9  | 538.4 | 418.6 | 302.5 | 190.3 | 120.1 | 87.0  | 76.7  | 73.0  | 73.3  |
| 17.5° | 701.5  | 641.0  | 503.7 | 355.7 | 215.3 | 109.4 | 73.6  | 66.3  | 64.8  | 63.9  | 63.9  |
| 20°   | 702.9  | 630.0  | 467.7 | 290.2 | 137.8 | 70.5  | 61.4  | 59.0  | 58.2  | 57.2  | 57.4  |
| 22.5° | 706.8  | 621.6  | 431.4 | 224.4 | 84.8  | 57.4  | 54.3  | 52.2  | 50.9  | 49.3  | 49.6  |
| 25°   | 712.8  | 615.4  | 395.7 | 161.5 | 59.7  | 50.1  | 47.3  | 44.4  | 42.0  | 40.2  | 40.4  |
| 27.5° | 716.4  | 606.5  | 357.5 | 110.2 | 49.6  | 43.9  | 39.9  | 36.0  | 33.5  | 31.8  | 31.6  |
| 30°   | 713.8  | 592.2  | 314.3 | 72.3  | 43.9  | 37.8  | 33.1  | 28.7  | 26.1  | 24.8  | 24.8  |
| 32.5° | 706.8  | 573.7  | 266.5 | 52.7  | 38.9  | 32.6  | 26.9  | 23.0  | 21.2  | 20.4  | 20.7  |
| 35°   | 698.7  | 554.3  | 215.5 | 44.6  | 35.0  | 27.6  | 21.9  | 18.8  | 18.0  | 17.7  | 17.7  |
| 37.5° | 694.3  | 537.7  | 166.7 | 40.4  | 31.3  | 23.0  | 18.0  | 16.2  | 15.4  | 15.4  | 15.4  |
| 40°   | 699.2  | 524.9  | 123.5 | 37.3  | 27.6  | 19.0  | 15.1  | 13.8  | 13.6  | 13.6  | 13.6  |
| 42.5° | 720.4  | 520.4  | 90.3  | 34.7  | 24.0  | 16.0  | 13.1  | 12.0  | 11.8  | 12.0  | 12.0  |
| 45°   | 761.6  | 530.1  | 68.3  | 32.1  | 20.7  | 13.1  | 11.3  | 10.4  | 10.4  | 10.7  | 10.7  |
| 47.5° | 831.6  | 554.8  | 56.2  | 29.5  | 17.2  | 10.9  | 9.6   | 9.1   | 9.1   | 9.4   | 9.4   |
| 50°   | 940.1  | 600.8  | 50.3  | 26.6  | 14.3  | 9.4   | 8.1   | 7.9   | 7.9   | 8.1   | 8.4   |
| 52.5° | 1105.0 | 688.2  | 47.5  | 23.7  | 11.8  | 7.9   | 6.8   | 6.5   | 6.8   | 7.1   | 7.1   |
| 55°   | 1288.5 | 800.2  | 44.1  | 20.9  | 9.9   | 6.5   | 5.5   | 5.5   | 5.7   | 6.2   | 6.2   |
| 57.5° | 1459.4 | 908.3  | 41.0  | 17.2  | 8.6   | 5.2   | 4.4   | 4.4   | 4.9   | 5.5   | 5.5   |
| 60°   | 1640.1 | 1014.2 | 36.8  | 13.8  | 7.3   | 4.2   | 3.7   | 3.7   | 4.4   | 4.9   | 5.2   |
| 62.5° | 1863.2 | 1137.4 | 31.3  | 10.9  | 5.7   | 3.2   | 2.7   | 3.4   | 4.2   | 4.9   | 4.9   |
| 65°   | 2185.7 | 1290.6 | 24.6  | 8.6   | 4.4   | 2.4   | 2.0   | 3.2   | 3.9   | 4.7   | 4.9   |
| 67.5° | 2303.0 | 1271.0 | 18.5  | 7.1   | 3.4   | 1.8   | 1.8   | 2.9   | 3.9   | 4.7   | 4.7   |
| 68°   | 2260.2 | 1228.3 | 17.7  | 6.8   | 3.2   | 1.8   | 1.8   | 2.9   | 3.9   | 4.7   | 4.7   |
| 70°   | 1969.4 | 1004.0 | 14.6  | 5.2   | 2.7   | 1.5   | 1.5   | 2.7   | 3.9   | 4.4   | 4.7   |
| 72.5° | 1474.6 | 667.1  | 12.5  | 3.4   | 2.4   | 1.5   | 1.3   | 2.7   | 3.7   | 4.4   | 4.4   |
| 75°   | 845.9  | 276.9  | 10.7  | 2.7   | 2.0   | 1.3   | 1.3   | 2.4   | 3.7   | 4.4   | 4.4   |
| 77.5° | 239.1  | 64.8   | 8.6   | 2.0   | 1.8   | 1.3   | 1.0   | 2.4   | 3.4   | 4.2   | 4.2   |
| 80°   | 43.9   | 19.3   | 6.8   | 1.8   | 1.5   | 1.3   | 1.0   | 2.4   | 3.4   | 4.2   | 4.2   |
| 82.5° | 28.9   | 9.1    | 4.9   | 1.8   | 1.5   | 1.3   | 1.0   | 2.0   | 3.2   | 3.9   | 3.9   |
| 85°   | 21.7   | 6.5    | 3.2   | 1.8   | 1.5   | 1.3   | 1.0   | 2.0   | 3.2   | 3.9   | 3.9   |
| 87.5° | 12.0   | 2.9    | 2.4   | 2.0   | 1.8   | 1.3   | 1.0   | 1.8   | 2.9   | 3.7   | 3.7   |
| 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)