

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: P198534

Luminaire Tested: **XNV-AF-01-LED-U-SL2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198534
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-SL2-7030-HSS
Description: XNV ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA 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: 4367 lumens
Efficiency: N/A
Efficacy: 75.3 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

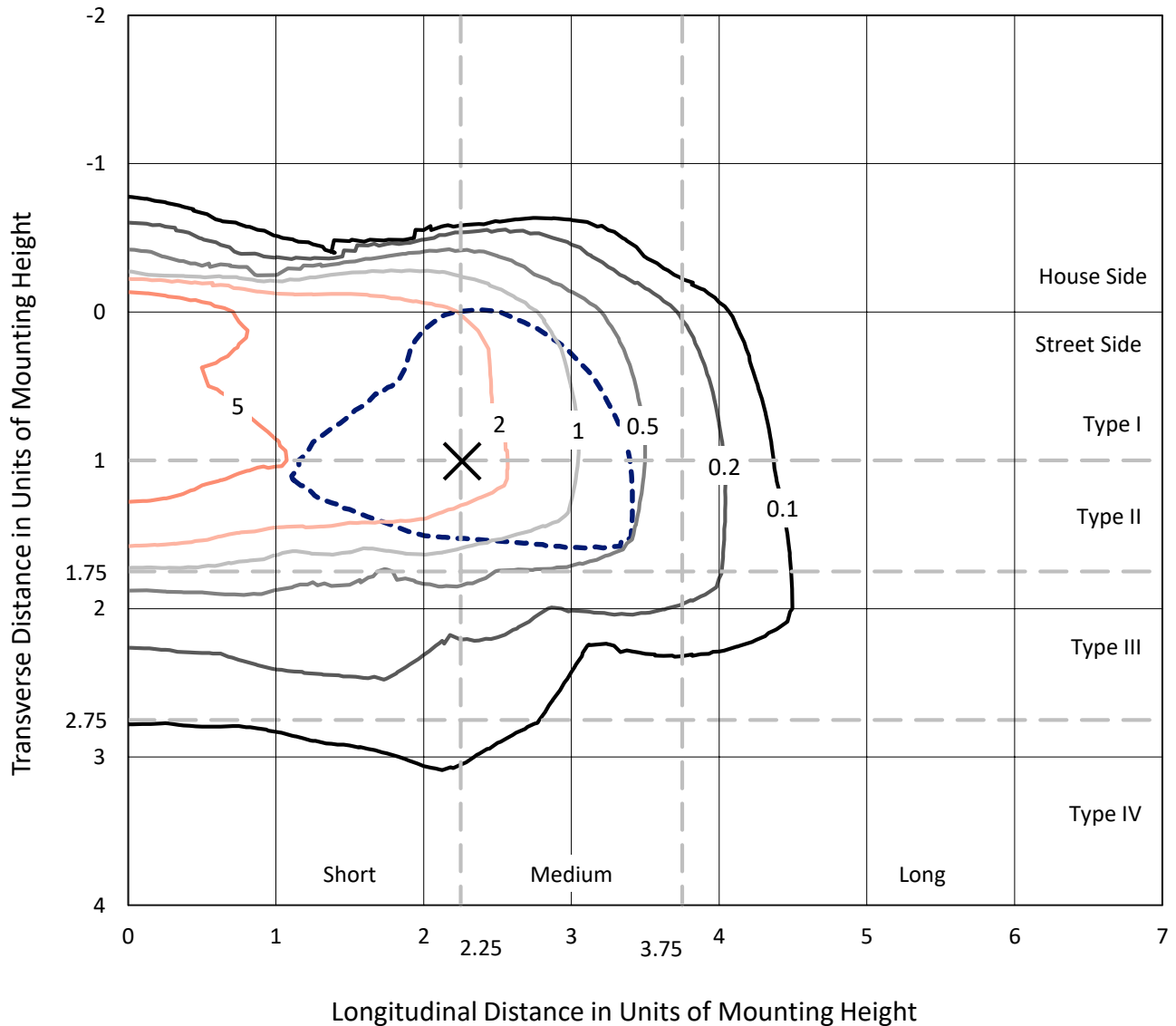
Input Watts (W): 58
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

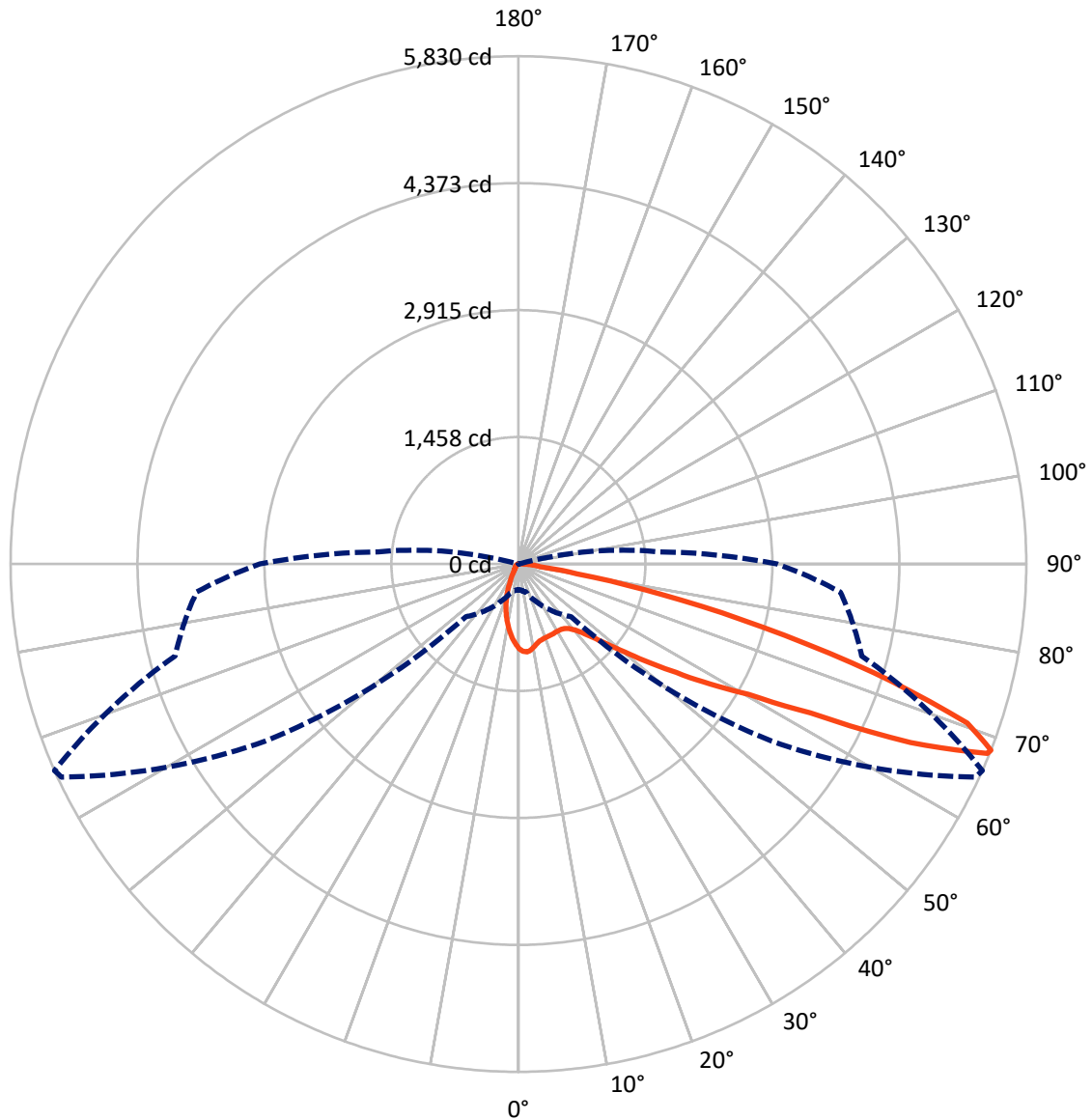
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 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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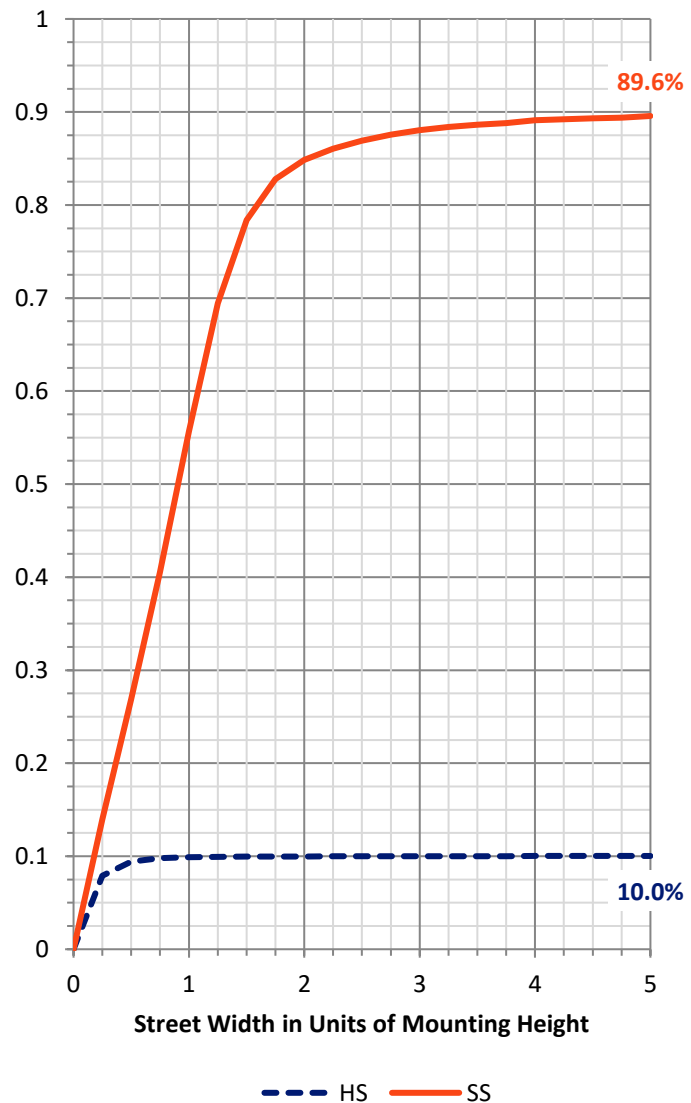
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 442.3 | 0.0 | 442.3 |
| | % Fixture | 10.1 | 0.0 | 10.1 |
| Street Side | Lumens | 3924.7 | 0.0 | 3924.7 |
| | % Fixture | 89.9 | 0.0 | 89.9 |
| Total | Lumens | 4367.0 | 0.0 | 4367.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.8 | 1.8 |
| 10°-20° | 171.6 | 3.9 |
| 20°-30° | 248.7 | 5.7 |
| 30°-40° | 380.7 | 8.7 |
| 40°-50° | 651.1 | 14.9 |
| 50°-60° | 1018.6 | 23.3 |
| 60°-70° | 1172.8 | 26.9 |
| 70°-80° | 586.9 | 13.4 |
| 80°-90° | 56.8 | 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° | 4367.0 | 100.0 |
| 0°-180° | 4367.0 | 100.0 |

Coefficient of Utilization



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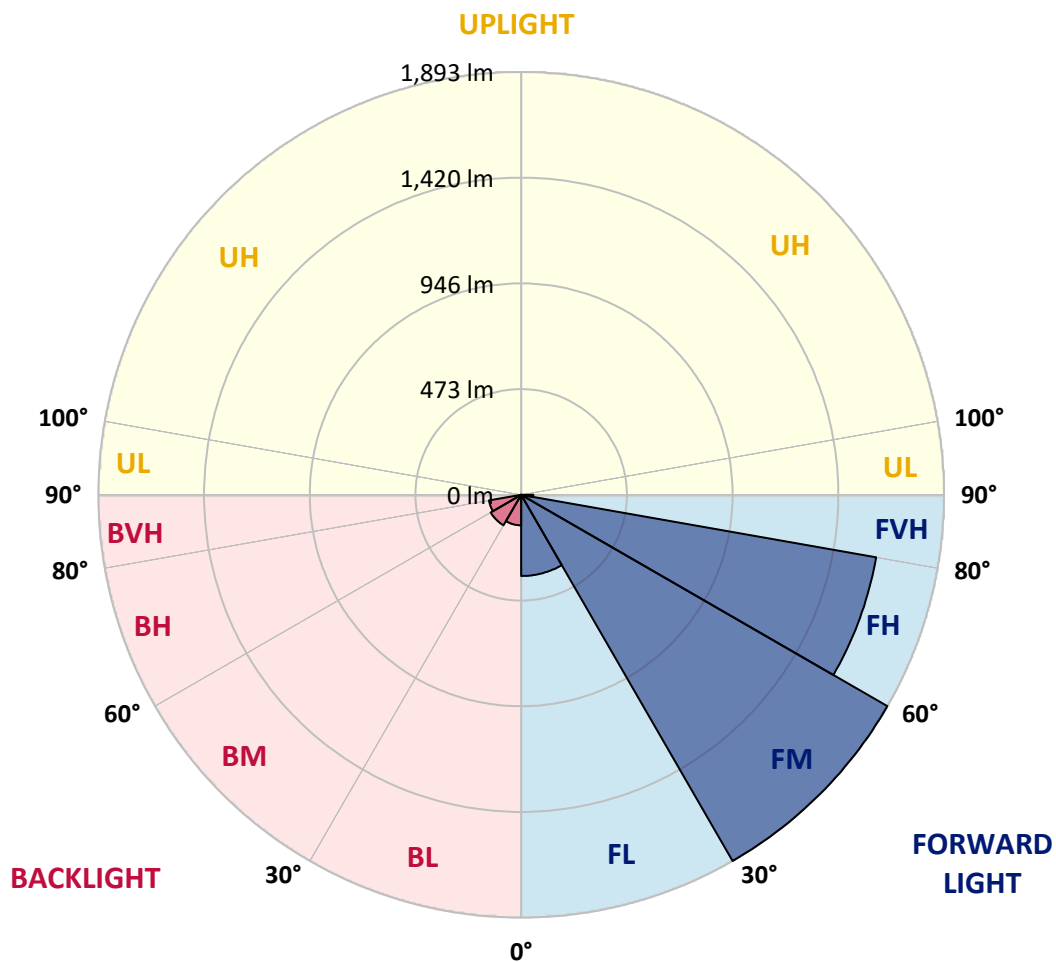
CATALOG NUMBER: XNV-AF-01-LED-U-SL2-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 363.5 | 8.3 | | | |
| FM | (30°-60°) | 1892.9 | 43.3 | | | |
| FH | (60°-80°) | 1613.6 | 36.9 | | | G1/1800 |
| FVH | (80°-90°) | 54.7 | 1.3 | | | G1/100 |
| BL | (0°-30°) | 136.5 | 3.1 | B1/500 | | |
| BM | (30°-60°) | 157.5 | 3.6 | B0/220 | | |
| BH | (60°-80°) | 146.1 | 3.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: 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° | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 |
| 2.5° | 1023.3 | 1024.0 | 1023.7 | 1024.7 | 1024.0 | 1018.9 | 1013.4 | 1001.7 | 1002.8 | 987.7 | 970.9 |
| 5° | 951.3 | 957.2 | 963.0 | 968.8 | 982.9 | 995.2 | 1010.0 | 1013.4 | 1013.4 | 1000.4 | 975.7 |
| 7.5° | 878.0 | 878.3 | 884.8 | 892.7 | 911.6 | 934.2 | 968.5 | 999.3 | 1000.0 | 1003.4 | 976.4 |
| 10° | 822.8 | 824.5 | 828.9 | 837.5 | 856.4 | 878.7 | 917.0 | 965.4 | 969.2 | 994.5 | 969.5 |
| 12.5° | 779.9 | 782.0 | 786.8 | 796.7 | 813.9 | 836.8 | 877.3 | 932.5 | 937.6 | 986.0 | 967.4 |
| 15° | 747.0 | 749.7 | 753.5 | 763.5 | 782.0 | 806.3 | 850.5 | 910.5 | 916.7 | 982.5 | 974.0 |
| 17.5° | 733.3 | 733.3 | 733.0 | 739.8 | 758.3 | 783.0 | 829.3 | 898.9 | 906.8 | 985.3 | 984.9 |
| 20° | 739.1 | 738.1 | 730.9 | 729.2 | 740.5 | 765.2 | 812.5 | 891.3 | 900.2 | 990.4 | 998.3 |
| 22.5° | 770.0 | 767.9 | 751.8 | 738.4 | 735.0 | 751.5 | 801.2 | 886.2 | 896.8 | 1001.0 | 1016.1 |
| 25° | 835.5 | 829.3 | 807.0 | 776.8 | 749.7 | 748.0 | 793.3 | 883.5 | 894.8 | 1013.4 | 1035.7 |
| 27.5° | 920.5 | 918.8 | 883.1 | 842.7 | 790.5 | 759.3 | 790.9 | 881.4 | 892.7 | 1022.3 | 1051.4 |
| 30° | 1026.1 | 1026.7 | 985.6 | 932.8 | 854.0 | 791.2 | 798.4 | 880.4 | 892.0 | 1023.0 | 1058.3 |
| 32.5° | 1135.1 | 1135.8 | 1101.5 | 1044.9 | 940.7 | 846.1 | 819.7 | 885.2 | 895.8 | 1020.2 | 1057.9 |
| 35° | 1240.0 | 1241.0 | 1220.4 | 1174.8 | 1056.6 | 922.2 | 859.8 | 901.6 | 909.2 | 1021.9 | 1057.3 |
| 37.5° | 1372.7 | 1376.8 | 1351.4 | 1308.9 | 1201.9 | 1033.9 | 925.3 | 934.9 | 941.0 | 1036.0 | 1062.4 |
| 40° | 1598.9 | 1593.4 | 1520.8 | 1448.8 | 1359.6 | 1170.0 | 1019.9 | 992.1 | 994.2 | 1072.3 | 1081.9 |
| 42.5° | 1862.5 | 1855.7 | 1731.2 | 1607.1 | 1521.8 | 1334.3 | 1140.9 | 1079.9 | 1079.5 | 1133.4 | 1124.5 |
| 45° | 2089.5 | 2085.4 | 1954.4 | 1788.8 | 1701.4 | 1515.6 | 1290.0 | 1206.4 | 1202.3 | 1239.0 | 1201.9 |
| 47.5° | 2250.6 | 2247.2 | 2148.1 | 1982.2 | 1909.2 | 1715.1 | 1476.2 | 1378.8 | 1370.3 | 1377.1 | 1327.7 |
| 50° | 2266.4 | 2262.6 | 2228.0 | 2121.4 | 2151.9 | 2007.9 | 1706.2 | 1604.7 | 1593.8 | 1583.1 | 1518.0 |
| 52.5° | 2119.0 | 2118.6 | 2136.8 | 2129.9 | 2321.9 | 2384.7 | 1988.4 | 1884.1 | 1871.1 | 1844.0 | 1779.2 |
| 55° | 1817.6 | 1815.9 | 1884.8 | 1984.9 | 2318.2 | 2773.4 | 2418.6 | 2216.7 | 2199.5 | 2145.4 | 2060.4 |
| 57.5° | 1328.1 | 1319.2 | 1463.2 | 1675.4 | 2155.3 | 2943.5 | 3101.8 | 2629.8 | 2601.3 | 2429.6 | 2298.6 |
| 60° | 733.3 | 736.7 | 921.8 | 1173.1 | 1769.6 | 2909.9 | 3730.6 | 3111.4 | 3036.7 | 2674.7 | 2542.7 |
| 62.5° | 411.0 | 419.6 | 557.4 | 762.4 | 1128.2 | 2637.3 | 4067.9 | 3940.4 | 3760.4 | 2960.6 | 2851.2 |
| 65° | 310.9 | 316.1 | 385.3 | 588.3 | 711.4 | 1843.0 | 4121.7 | 5099.5 | 4944.2 | 3393.9 | 3342.5 |
| 67.5° | 292.8 | 296.9 | 330.8 | 487.8 | 647.9 | 955.8 | 3716.5 | 5785.1 | 5804.6 | 3985.0 | 3723.0 |
| 68° | 294.8 | 300.0 | 333.9 | 469.3 | 646.9 | 855.0 | 3543.7 | 5788.5 | 5830.0 | 4080.3 | 3710.0 |
| 70° | 270.8 | 272.2 | 353.1 | 460.4 | 627.0 | 673.6 | 2563.6 | 5391.9 | 5466.3 | 4193.7 | 3367.9 |
| 72.5° | 103.5 | 103.9 | 158.4 | 398.7 | 656.8 | 677.4 | 1291.4 | 4261.6 | 4265.4 | 3649.7 | 2625.7 |
| 75° | 53.8 | 45.3 | 49.7 | 124.8 | 627.4 | 660.3 | 647.9 | 2909.9 | 2891.7 | 2468.3 | 1608.9 |
| 77.5° | 37.0 | 31.5 | 33.3 | 43.2 | 260.9 | 659.9 | 468.0 | 1673.3 | 1669.5 | 1050.1 | 459.0 |
| 80° | 20.9 | 18.2 | 19.9 | 36.3 | 91.5 | 619.5 | 436.1 | 719.2 | 677.8 | 184.4 | 74.4 |
| 82.5° | 10.6 | 8.9 | 10.6 | 30.5 | 56.9 | 389.8 | 424.1 | 282.1 | 251.3 | 43.9 | 48.3 |
| 85° | 2.7 | 2.7 | 5.1 | 21.3 | 35.3 | 127.9 | 380.2 | 203.6 | 183.1 | 19.2 | 34.3 |
| 87.5° | 0.7 | 0.3 | 2.1 | 7.9 | 12.7 | 27.8 | 210.8 | 113.5 | 97.7 | 9.9 | 19.9 |
| 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° | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 |
| 2.5° | 964.0 | 954.4 | 935.6 | 914.3 | 899.2 | 882.8 | 873.2 | 861.5 | 852.6 | 844.7 | 850.5 |
| 5° | 960.6 | 942.1 | 900.2 | 853.3 | 813.9 | 776.1 | 748.0 | 721.3 | 701.1 | 688.4 | 693.5 |
| 7.5° | 951.7 | 924.2 | 856.4 | 783.0 | 718.6 | 657.9 | 608.5 | 564.3 | 530.0 | 511.5 | 517.3 |
| 10° | 936.6 | 897.8 | 806.7 | 704.8 | 614.7 | 529.0 | 455.6 | 389.8 | 340.1 | 316.8 | 322.3 |
| 12.5° | 925.6 | 874.5 | 755.2 | 629.4 | 510.8 | 389.1 | 291.7 | 216.3 | 177.6 | 154.3 | 156.3 |
| 15° | 920.8 | 856.4 | 707.2 | 549.9 | 397.3 | 249.9 | 157.7 | 114.2 | 100.8 | 96.0 | 96.3 |
| 17.5° | 921.5 | 842.0 | 661.6 | 467.3 | 282.8 | 143.6 | 96.7 | 87.1 | 85.0 | 84.0 | 84.0 |
| 20° | 923.2 | 827.6 | 614.3 | 381.2 | 181.0 | 92.6 | 80.6 | 77.5 | 76.4 | 75.1 | 75.4 |
| 22.5° | 928.4 | 816.6 | 566.7 | 294.8 | 111.4 | 75.4 | 71.3 | 68.6 | 66.9 | 64.8 | 65.1 |
| 25° | 936.2 | 808.4 | 519.7 | 212.2 | 78.5 | 65.8 | 62.1 | 58.3 | 55.2 | 52.8 | 53.1 |
| 27.5° | 941.0 | 796.7 | 469.7 | 144.7 | 65.1 | 57.6 | 52.5 | 47.3 | 43.9 | 41.8 | 41.5 |
| 30° | 937.6 | 777.9 | 412.8 | 95.0 | 57.6 | 49.7 | 43.5 | 37.7 | 34.3 | 32.6 | 32.6 |
| 32.5° | 928.4 | 753.5 | 350.0 | 69.2 | 51.1 | 42.9 | 35.3 | 30.2 | 27.8 | 26.7 | 27.1 |
| 35° | 917.7 | 728.2 | 283.2 | 58.6 | 45.9 | 36.3 | 28.8 | 24.7 | 23.7 | 23.3 | 23.3 |
| 37.5° | 911.9 | 706.2 | 219.1 | 53.1 | 41.1 | 30.2 | 23.7 | 21.3 | 20.2 | 20.2 | 20.2 |
| 40° | 918.4 | 689.4 | 162.2 | 49.0 | 36.3 | 25.0 | 19.9 | 18.2 | 17.8 | 17.8 | 17.8 |
| 42.5° | 946.2 | 683.6 | 118.6 | 45.6 | 31.5 | 20.9 | 17.1 | 15.8 | 15.4 | 15.8 | 15.8 |
| 45° | 1000.4 | 696.3 | 89.8 | 42.2 | 27.1 | 17.1 | 14.7 | 13.7 | 13.7 | 14.1 | 14.1 |
| 47.5° | 1092.2 | 728.8 | 73.7 | 38.7 | 22.6 | 14.4 | 12.7 | 12.0 | 12.0 | 12.3 | 12.3 |
| 50° | 1234.8 | 789.2 | 66.2 | 35.0 | 18.9 | 12.3 | 10.6 | 10.3 | 10.3 | 10.6 | 11.0 |
| 52.5° | 1451.5 | 904.0 | 62.4 | 31.2 | 15.4 | 10.3 | 8.9 | 8.6 | 8.9 | 9.3 | 9.3 |
| 55° | 1692.5 | 1051.1 | 57.9 | 27.4 | 13.0 | 8.6 | 7.2 | 7.2 | 7.5 | 8.2 | 8.2 |
| 57.5° | 1917.1 | 1193.0 | 53.8 | 22.6 | 11.3 | 6.9 | 5.8 | 5.8 | 6.5 | 7.2 | 7.2 |
| 60° | 2154.3 | 1332.2 | 48.3 | 18.2 | 9.6 | 5.5 | 4.8 | 4.8 | 5.8 | 6.5 | 6.9 |
| 62.5° | 2447.4 | 1494.0 | 41.1 | 14.4 | 7.5 | 4.1 | 3.4 | 4.5 | 5.5 | 6.5 | 6.5 |
| 65° | 2871.1 | 1695.3 | 32.2 | 11.3 | 5.8 | 3.1 | 2.7 | 4.1 | 5.1 | 6.2 | 6.5 |
| 67.5° | 3025.1 | 1669.5 | 24.3 | 9.3 | 4.5 | 2.4 | 2.4 | 3.8 | 5.1 | 6.2 | 6.2 |
| 68° | 2968.8 | 1613.3 | 23.3 | 8.9 | 4.1 | 2.4 | 2.4 | 3.8 | 5.1 | 6.2 | 6.2 |
| 70° | 2586.9 | 1318.8 | 19.2 | 6.9 | 3.4 | 2.1 | 2.1 | 3.4 | 5.1 | 5.8 | 6.2 |
| 72.5° | 1936.9 | 876.3 | 16.5 | 4.5 | 3.1 | 2.1 | 1.7 | 3.4 | 4.8 | 5.8 | 5.8 |
| 75° | 1111.1 | 363.7 | 14.1 | 3.4 | 2.7 | 1.7 | 1.7 | 3.1 | 4.8 | 5.8 | 5.8 |
| 77.5° | 314.0 | 85.0 | 11.3 | 2.7 | 2.4 | 1.7 | 1.4 | 3.1 | 4.5 | 5.5 | 5.5 |
| 80° | 57.6 | 25.4 | 8.9 | 2.4 | 2.1 | 1.7 | 1.4 | 3.1 | 4.5 | 5.5 | 5.5 |
| 82.5° | 38.1 | 12.0 | 6.5 | 2.4 | 2.1 | 1.7 | 1.4 | 2.7 | 4.1 | 5.1 | 5.1 |
| 85° | 28.5 | 8.6 | 4.1 | 2.4 | 2.1 | 1.7 | 1.4 | 2.7 | 4.1 | 5.1 | 5.1 |
| 87.5° | 15.8 | 3.8 | 3.1 | 2.7 | 2.4 | 1.7 | 1.4 | 2.4 | 3.8 | 4.8 | 4.8 |
| 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)