

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: P199205

Luminaire Tested: **XNV2-AF-02-LED-U-SL4-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-SL4-8030-800-HSS
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH 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: 6477 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 85
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

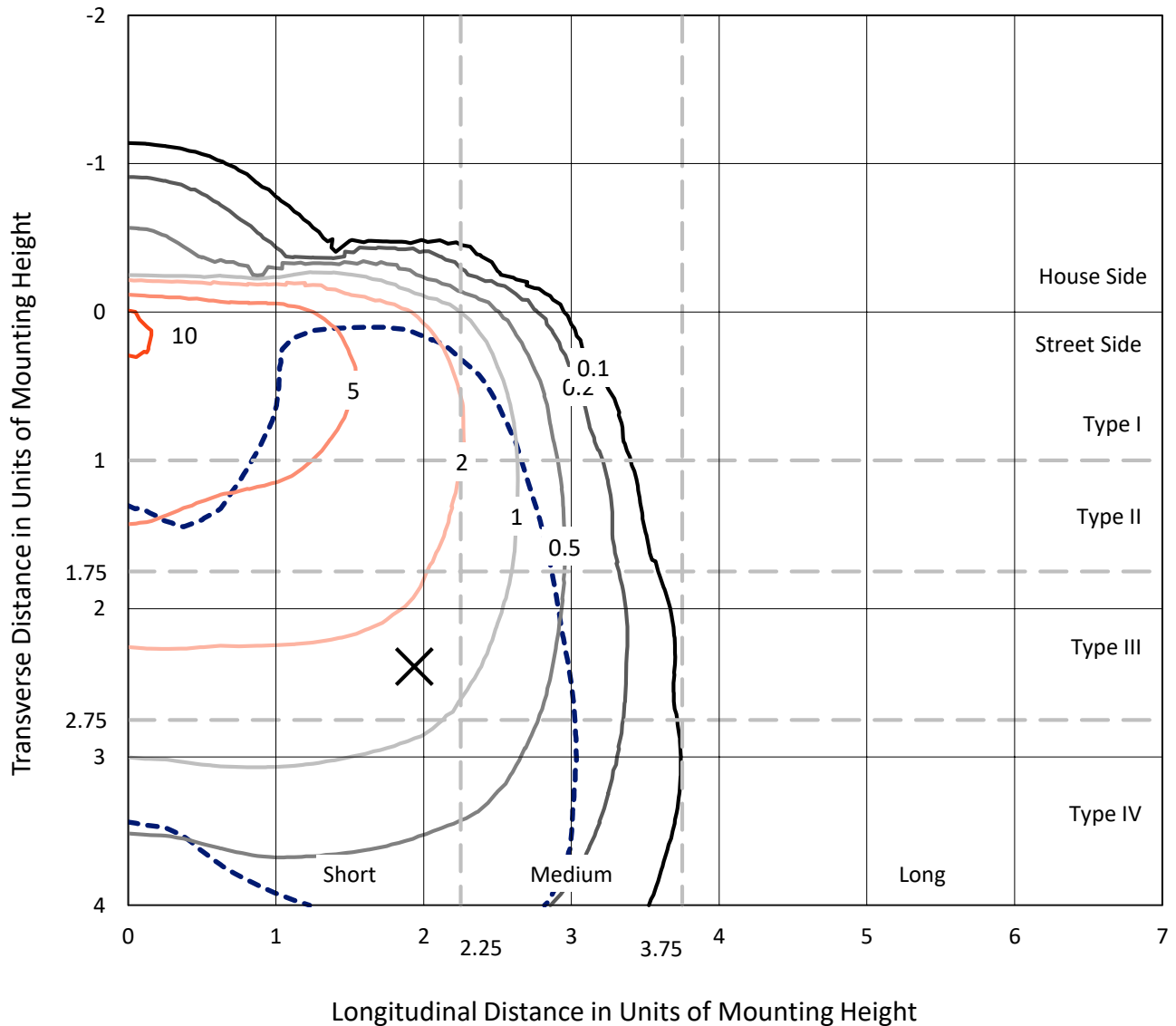


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

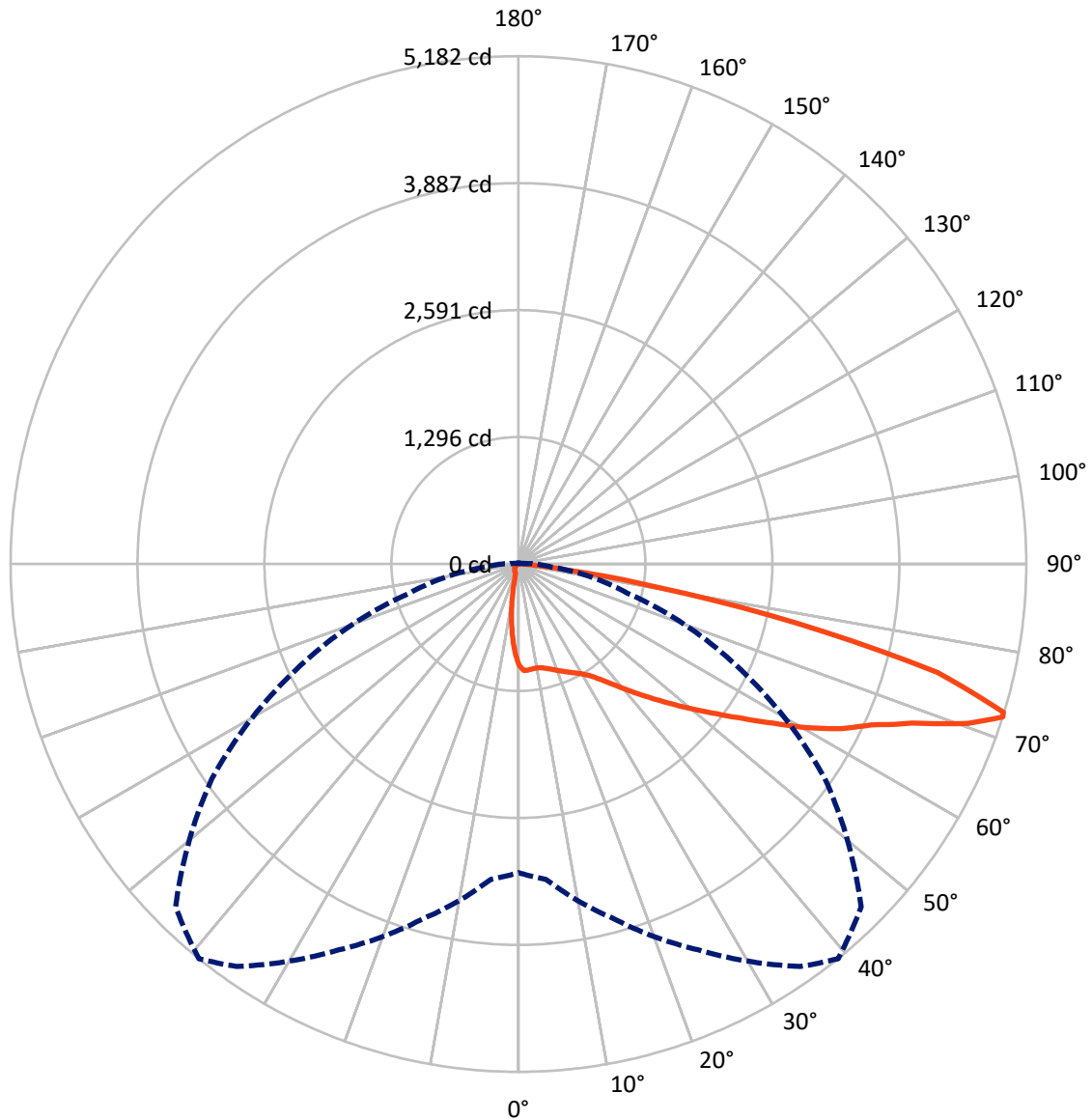


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical



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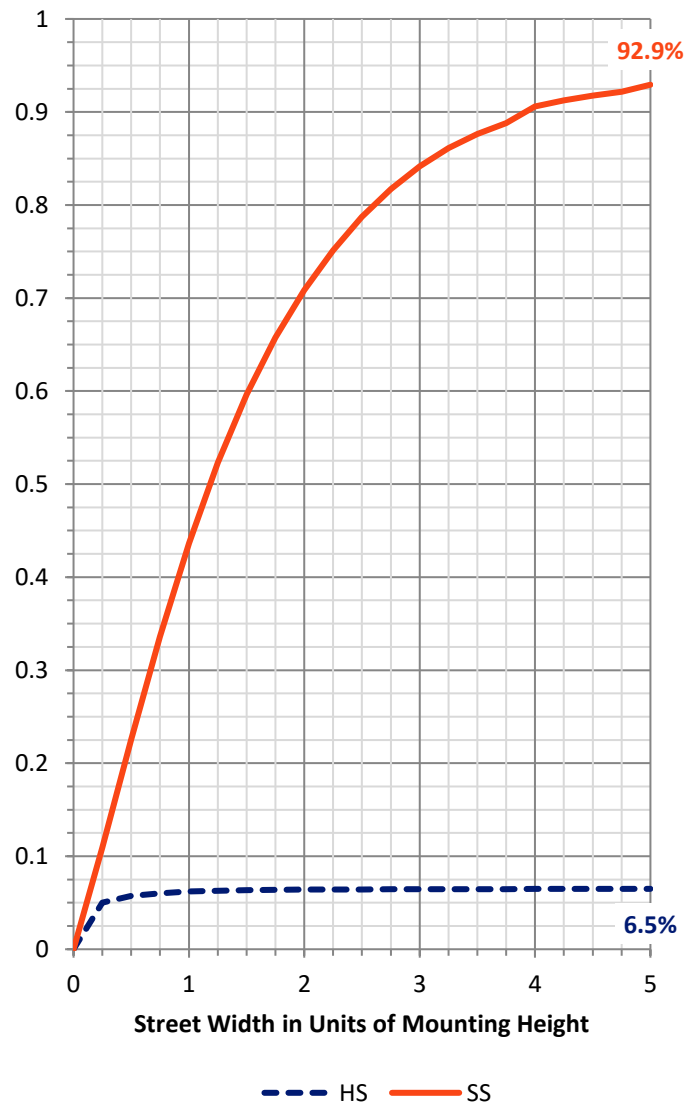
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 424.5 | 0.0 | 424.5 |
| | % Fixture | 6.6 | 0.0 | 6.6 |
| Street Side | Lumens | 6052.5 | 0.0 | 6052.5 |
| | % Fixture | 93.4 | 0.0 | 93.4 |
| Total | Lumens | 6477.0 | 0.0 | 6477.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.3 | 1.3 |
| 10°-20° | 204.1 | 3.2 |
| 20°-30° | 339.0 | 5.2 |
| 30°-40° | 540.4 | 8.3 |
| 40°-50° | 891.9 | 13.8 |
| 50°-60° | 1347.0 | 20.8 |
| 60°-70° | 1754.7 | 27.1 |
| 70°-80° | 1185.7 | 18.3 |
| 80°-90° | 129.8 | 2.0 |
| 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° | 6477.0 | 100.0 |
| 0°-180° | 6477.0 | 100.0 |



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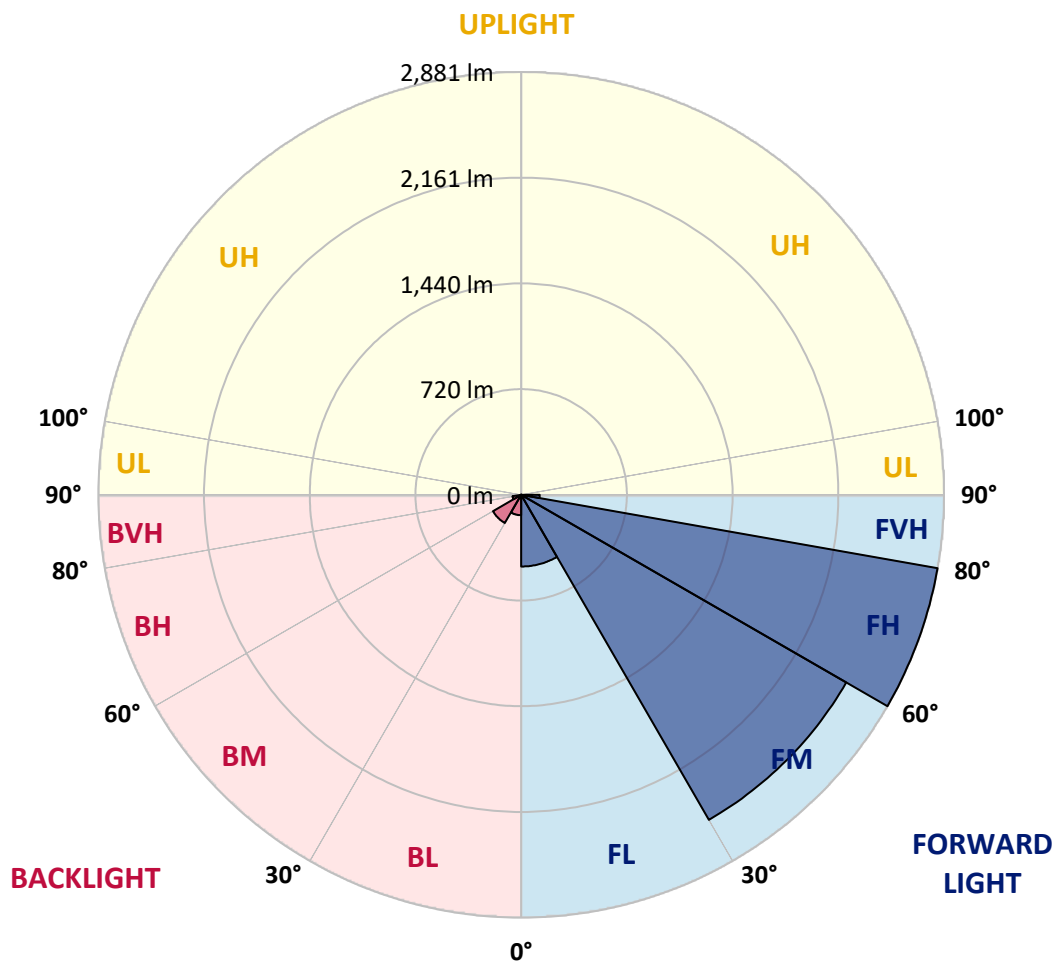
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 488.5 | 7.5 | | | |
| FM | (30°-60°) | 2557.2 | 39.5 | | | |
| FH | (60°-80°) | 2880.7 | 44.5 | | | G2/5000 |
| FVH | (80°-90°) | 126.1 | 1.9 | | | G2/225 |
| BL | (0°-30°) | 139.0 | 2.1 | B1/500 | | |
| BM | (30°-60°) | 222.1 | 3.4 | B1/1000 | | |
| BH | (60°-80°) | 59.7 | 0.9 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 3.7 | 0.1 | | | 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 IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 |
| 2.5° | 1103.9 | 1105.9 | 1103.4 | 1098.8 | 1092.2 | 1088.1 | 1082.5 | 1070.3 | 1055.0 | 1041.8 | 1026.5 |
| 5° | 1112.6 | 1113.6 | 1110.5 | 1101.9 | 1091.7 | 1086.1 | 1078.9 | 1065.7 | 1049.9 | 1031.6 | 1004.1 |
| 7.5° | 1115.1 | 1114.6 | 1111.0 | 1100.3 | 1084.5 | 1077.4 | 1065.2 | 1048.9 | 1032.6 | 1015.8 | 984.7 |
| 10° | 1114.1 | 1114.1 | 1111.5 | 1101.4 | 1083.5 | 1076.9 | 1063.2 | 1045.9 | 1025.5 | 1008.7 | 975.6 |
| 12.5° | 1110.5 | 1112.6 | 1111.0 | 1105.4 | 1092.2 | 1087.1 | 1074.9 | 1057.6 | 1038.2 | 1020.9 | 985.8 |
| 15° | 1115.1 | 1118.2 | 1121.2 | 1119.2 | 1111.5 | 1107.0 | 1095.8 | 1077.9 | 1062.1 | 1043.8 | 1006.1 |
| 17.5° | 1133.4 | 1140.0 | 1147.2 | 1147.7 | 1139.5 | 1131.4 | 1118.7 | 1100.3 | 1085.1 | 1068.3 | 1027.5 |
| 20° | 1168.1 | 1173.1 | 1186.4 | 1188.9 | 1172.6 | 1160.9 | 1143.1 | 1121.7 | 1106.4 | 1092.2 | 1047.4 |
| 22.5° | 1219.5 | 1225.1 | 1235.8 | 1232.2 | 1204.7 | 1191.0 | 1168.6 | 1144.1 | 1128.3 | 1120.2 | 1070.3 |
| 25° | 1297.4 | 1298.9 | 1301.5 | 1285.7 | 1240.4 | 1225.1 | 1197.6 | 1170.1 | 1157.4 | 1156.3 | 1102.9 |
| 27.5° | 1389.0 | 1391.1 | 1379.9 | 1344.7 | 1280.1 | 1260.2 | 1229.2 | 1204.2 | 1198.1 | 1205.7 | 1144.1 |
| 30° | 1493.9 | 1494.4 | 1463.4 | 1406.3 | 1325.9 | 1304.0 | 1271.9 | 1244.4 | 1250.0 | 1268.9 | 1197.1 |
| 32.5° | 1601.4 | 1596.3 | 1553.5 | 1479.2 | 1388.5 | 1362.1 | 1334.6 | 1307.1 | 1323.4 | 1361.5 | 1274.5 |
| 35° | 1699.6 | 1697.6 | 1647.2 | 1560.6 | 1470.0 | 1446.6 | 1426.7 | 1397.7 | 1424.2 | 1486.3 | 1379.9 |
| 37.5° | 1797.9 | 1796.4 | 1738.8 | 1648.7 | 1570.3 | 1553.5 | 1538.7 | 1516.3 | 1559.6 | 1650.8 | 1520.9 |
| 40° | 1906.4 | 1903.8 | 1833.0 | 1746.5 | 1686.9 | 1677.7 | 1669.1 | 1659.4 | 1733.2 | 1860.0 | 1696.6 |
| 42.5° | 2040.3 | 2029.1 | 1932.8 | 1852.9 | 1815.2 | 1817.8 | 1818.3 | 1827.9 | 1943.5 | 2109.0 | 1903.8 |
| 45° | 2194.0 | 2169.1 | 2033.1 | 1967.0 | 1956.3 | 1971.5 | 1986.8 | 2027.0 | 2188.4 | 2395.7 | 2132.9 |
| 47.5° | 2343.2 | 2303.0 | 2148.7 | 2089.7 | 2111.6 | 2143.1 | 2179.8 | 2258.2 | 2463.4 | 2695.6 | 2340.7 |
| 50° | 2471.5 | 2430.3 | 2263.3 | 2214.4 | 2284.2 | 2331.0 | 2396.2 | 2514.8 | 2753.6 | 2949.2 | 2471.5 |
| 52.5° | 2572.4 | 2539.8 | 2384.5 | 2351.9 | 2475.6 | 2539.8 | 2642.1 | 2797.9 | 3027.6 | 3116.2 | 2563.2 |
| 55° | 2646.7 | 2630.4 | 2500.6 | 2505.2 | 2688.5 | 2781.1 | 2908.4 | 3084.6 | 3258.7 | 3246.0 | 2631.9 |
| 57.5° | 2730.7 | 2718.0 | 2622.3 | 2685.9 | 2944.6 | 3064.2 | 3211.4 | 3352.9 | 3426.8 | 3350.4 | 2699.2 |
| 60° | 2816.8 | 2820.8 | 2769.9 | 2904.9 | 3261.3 | 3393.7 | 3522.0 | 3557.1 | 3570.9 | 3456.3 | 2769.9 |
| 62.5° | 2881.9 | 2899.3 | 2903.8 | 3141.1 | 3586.1 | 3699.2 | 3754.7 | 3729.7 | 3726.7 | 3598.4 | 2764.3 |
| 65° | 2956.8 | 3002.1 | 3077.5 | 3400.3 | 3881.5 | 3955.8 | 3995.5 | 4031.7 | 3955.3 | 3640.6 | 2492.4 |
| 67.5° | 3086.1 | 3157.4 | 3327.0 | 3718.0 | 4222.6 | 4332.6 | 4445.1 | 4406.9 | 3989.4 | 3211.4 | 1898.7 |
| 70° | 3260.3 | 3347.3 | 3646.7 | 4133.0 | 4685.5 | 4869.8 | 4964.0 | 4376.9 | 3387.0 | 2219.0 | 1001.6 |
| 72° | 3150.3 | 3229.2 | 3745.5 | 4344.8 | 5013.4 | 5182.4 | 4946.7 | 3817.8 | 2455.3 | 1150.2 | 335.5 |
| 72.5° | 3043.4 | 3124.8 | 3713.9 | 4342.3 | 5046.0 | 5175.3 | 4834.1 | 3597.3 | 2172.7 | 895.1 | 231.2 |
| 75° | 2111.6 | 2214.4 | 3183.9 | 3903.4 | 4556.6 | 4414.6 | 3698.7 | 2178.3 | 787.2 | 153.8 | 76.4 |
| 77.5° | 1091.7 | 1171.1 | 1931.3 | 2758.2 | 3175.7 | 2908.4 | 2185.9 | 945.0 | 217.9 | 81.5 | 50.4 |
| 80° | 676.7 | 715.9 | 903.3 | 1359.0 | 1649.7 | 1443.0 | 964.4 | 381.9 | 139.5 | 48.4 | 40.2 |
| 82.5° | 350.3 | 380.4 | 568.8 | 548.4 | 609.5 | 506.6 | 355.9 | 319.8 | 86.1 | 30.0 | 41.2 |
| 85° | 115.1 | 122.2 | 349.3 | 364.6 | 260.7 | 175.2 | 157.8 | 305.0 | 24.9 | 19.3 | 35.1 |
| 87.5° | 15.3 | 17.8 | 122.7 | 208.8 | 128.3 | 79.4 | 94.7 | 107.4 | 8.7 | 10.7 | 9.7 |
| 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° | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 | 1036.7 |
| 2.5° | 1016.3 | 1009.7 | 988.8 | 967.9 | 944.0 | 922.1 | 904.8 | 893.6 | 898.7 | 881.9 | 884.4 |
| 5° | 987.3 | 970.5 | 924.7 | 875.3 | 821.8 | 771.9 | 732.2 | 702.7 | 697.1 | 671.6 | 672.6 |
| 7.5° | 959.3 | 931.8 | 857.5 | 776.0 | 687.4 | 615.6 | 550.4 | 493.4 | 473.0 | 452.1 | 439.9 |
| 10° | 944.0 | 906.3 | 800.9 | 682.3 | 557.5 | 452.1 | 360.5 | 288.7 | 258.7 | 236.8 | 226.1 |
| 12.5° | 948.6 | 898.7 | 758.7 | 597.3 | 433.3 | 299.4 | 203.7 | 151.2 | 132.9 | 122.7 | 119.1 |
| 15° | 963.9 | 900.2 | 720.5 | 514.3 | 315.2 | 181.3 | 119.7 | 102.3 | 100.8 | 100.3 | 99.8 |
| 17.5° | 978.1 | 901.8 | 680.3 | 427.7 | 210.8 | 115.6 | 96.2 | 94.7 | 94.7 | 94.7 | 94.7 |
| 20° | 992.9 | 902.3 | 636.0 | 337.1 | 138.5 | 94.7 | 90.6 | 89.6 | 90.6 | 90.6 | 90.6 |
| 22.5° | 1010.2 | 905.8 | 593.2 | 249.0 | 102.3 | 89.1 | 86.6 | 86.1 | 86.6 | 86.6 | 86.1 |
| 25° | 1031.6 | 913.5 | 546.9 | 178.2 | 92.7 | 85.5 | 83.0 | 82.5 | 83.0 | 82.5 | 82.5 |
| 27.5° | 1060.1 | 923.6 | 492.9 | 127.8 | 88.6 | 82.0 | 79.4 | 79.4 | 79.4 | 78.9 | 78.9 |
| 30° | 1096.8 | 935.9 | 420.6 | 100.8 | 84.5 | 78.4 | 76.4 | 76.4 | 75.9 | 75.4 | 75.4 |
| 32.5° | 1149.2 | 955.7 | 341.7 | 91.1 | 79.9 | 73.8 | 71.8 | 72.3 | 71.8 | 71.3 | 70.8 |
| 35° | 1223.6 | 986.8 | 263.8 | 86.1 | 75.4 | 69.2 | 67.2 | 67.2 | 67.2 | 66.2 | 66.2 |
| 37.5° | 1329.0 | 1034.1 | 197.6 | 81.0 | 70.8 | 64.7 | 62.1 | 62.1 | 61.6 | 60.6 | 61.1 |
| 40° | 1459.3 | 1093.7 | 143.1 | 76.4 | 66.2 | 59.6 | 57.5 | 56.5 | 55.5 | 54.5 | 54.5 |
| 42.5° | 1616.1 | 1151.8 | 107.4 | 71.8 | 61.6 | 55.5 | 53.0 | 51.9 | 49.9 | 48.9 | 48.4 |
| 45° | 1791.8 | 1213.4 | 89.1 | 66.2 | 56.5 | 50.9 | 48.9 | 46.8 | 44.3 | 42.8 | 42.3 |
| 47.5° | 1940.0 | 1251.0 | 79.4 | 60.6 | 51.4 | 46.3 | 44.3 | 41.2 | 38.2 | 37.2 | 37.2 |
| 50° | 2029.1 | 1235.3 | 71.3 | 55.0 | 46.3 | 41.8 | 39.2 | 35.1 | 33.1 | 32.1 | 31.6 |
| 52.5° | 2079.0 | 1188.4 | 64.7 | 50.4 | 41.8 | 36.7 | 33.1 | 29.5 | 28.5 | 27.5 | 27.5 |
| 55° | 2113.1 | 1120.7 | 57.5 | 45.8 | 37.7 | 32.1 | 28.0 | 25.5 | 24.4 | 23.9 | 23.4 |
| 57.5° | 2145.7 | 1038.2 | 50.9 | 41.8 | 33.6 | 28.5 | 23.9 | 22.9 | 20.9 | 20.4 | 20.4 |
| 60° | 2155.3 | 924.7 | 44.8 | 37.2 | 30.0 | 24.9 | 20.9 | 19.3 | 17.3 | 16.8 | 16.8 |
| 62.5° | 2032.1 | 735.8 | 39.7 | 31.6 | 26.5 | 21.4 | 18.3 | 16.3 | 14.3 | 14.3 | 14.3 |
| 65° | 1698.1 | 499.5 | 34.1 | 27.5 | 23.4 | 18.3 | 15.8 | 13.2 | 12.2 | 12.2 | 12.2 |
| 67.5° | 1182.8 | 278.5 | 29.0 | 23.4 | 19.9 | 15.3 | 13.2 | 11.2 | 10.7 | 11.2 | 11.2 |
| 70° | 533.1 | 110.5 | 24.4 | 19.3 | 16.3 | 12.7 | 11.2 | 9.7 | 10.7 | 10.7 | 10.7 |
| 72° | 159.9 | 59.1 | 20.4 | 15.8 | 13.2 | 11.2 | 9.7 | 9.2 | 10.2 | 10.7 | 10.7 |
| 72.5° | 118.6 | 53.0 | 19.3 | 15.3 | 13.2 | 10.7 | 9.2 | 9.2 | 10.2 | 10.7 | 10.7 |
| 75° | 61.1 | 36.2 | 14.8 | 11.2 | 9.7 | 8.7 | 7.6 | 8.7 | 10.2 | 10.2 | 10.2 |
| 77.5° | 47.9 | 29.5 | 12.2 | 8.7 | 8.1 | 7.6 | 7.1 | 8.1 | 9.2 | 9.2 | 9.2 |
| 80° | 44.8 | 19.3 | 9.7 | 8.1 | 7.1 | 6.6 | 6.6 | 7.1 | 8.1 | 8.7 | 8.7 |
| 82.5° | 45.3 | 15.8 | 8.7 | 7.6 | 6.6 | 6.1 | 6.1 | 6.6 | 7.6 | 8.1 | 8.1 |
| 85° | 29.0 | 10.7 | 7.6 | 6.6 | 6.1 | 5.6 | 5.6 | 6.1 | 7.1 | 7.6 | 7.6 |
| 87.5° | 9.7 | 8.1 | 6.6 | 6.1 | 5.1 | 5.1 | 5.1 | 5.1 | 6.1 | 6.6 | 7.1 |
| 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)