

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: P199045

Luminaire Tested: **XNV2-AF-02-LED-U-SL4-7060-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199045
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-SL4-7060-800-HSS
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5700K, 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: 7937 lumens
Efficiency: N/A
Efficacy: 93.4 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

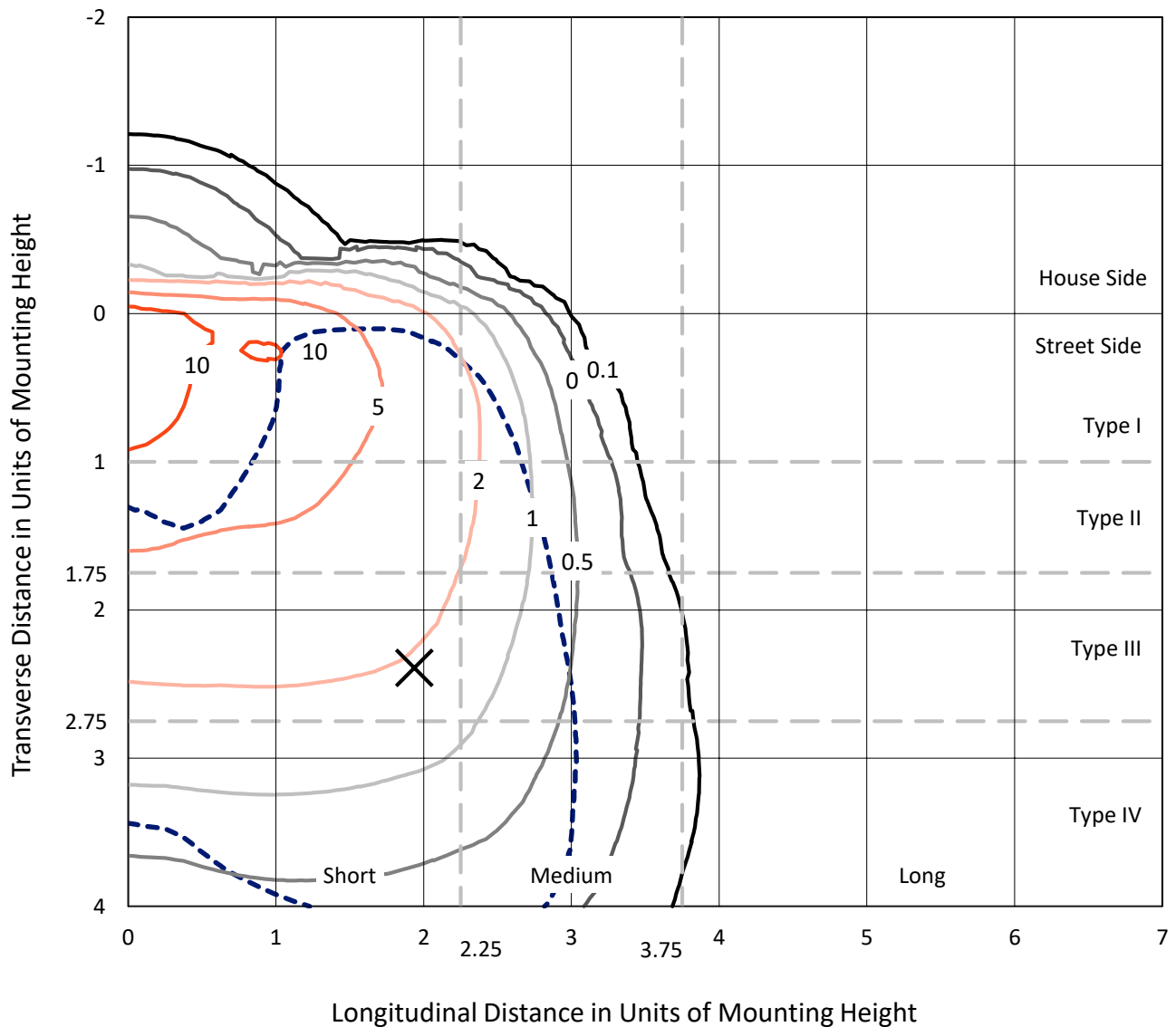


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

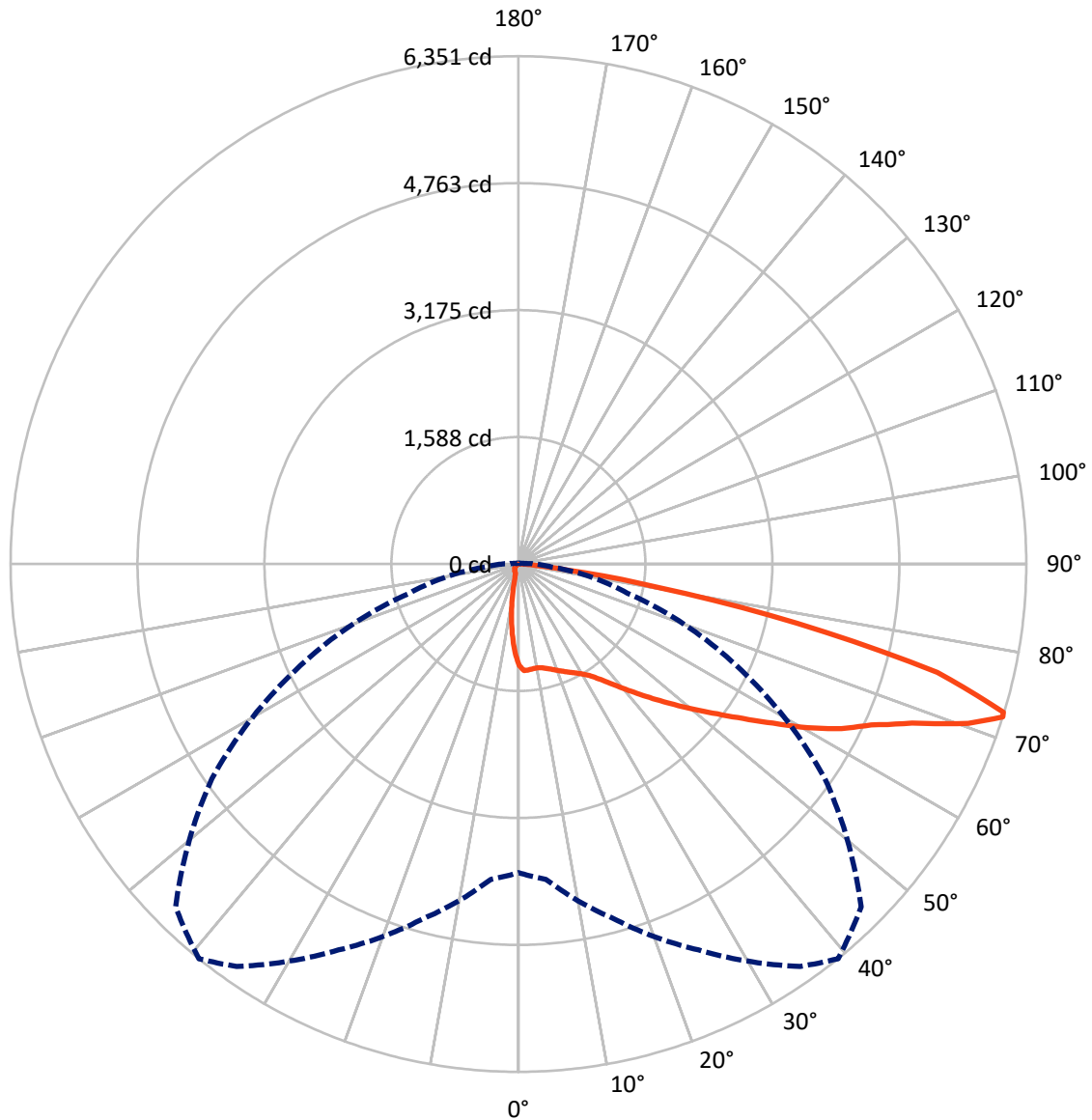


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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



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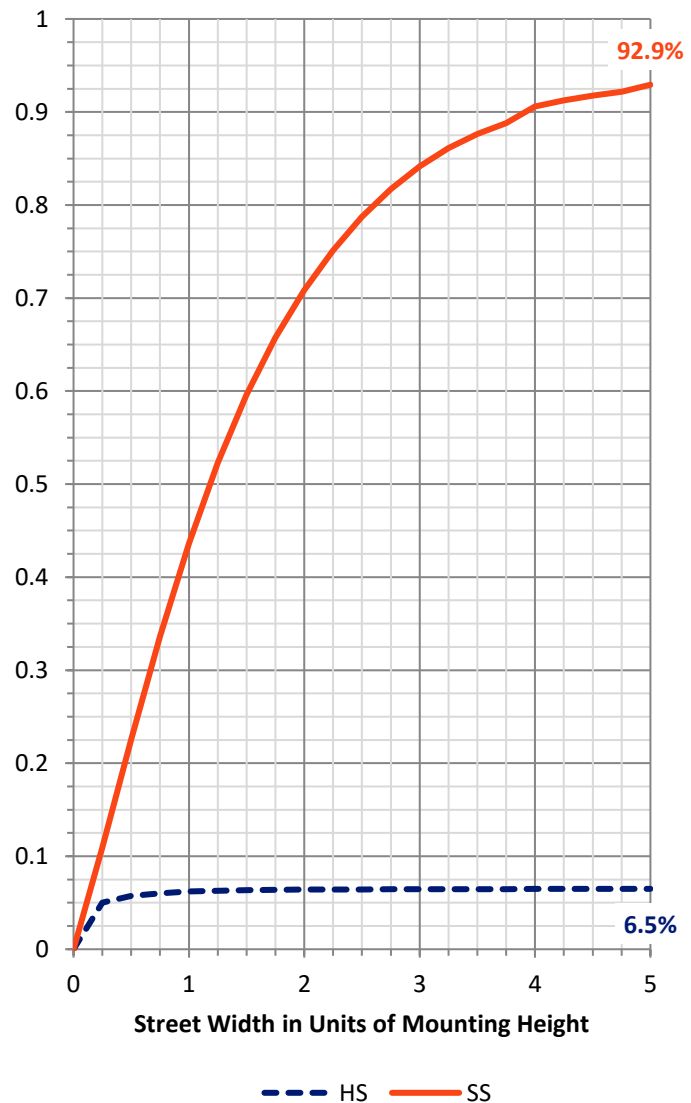
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 520.2 | 0.0 | 520.2 |
| | % Fixture | 6.6 | 0.0 | 6.6 |
| Street Side | Lumens | 7416.8 | 0.0 | 7416.8 |
| | % Fixture | 93.4 | 0.0 | 93.4 |
| Total | Lumens | 7937.0 | 0.0 | 7937.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 103.3 | 1.3 |
| 10°-20° | 250.2 | 3.2 |
| 20°-30° | 415.5 | 5.2 |
| 30°-40° | 662.2 | 8.3 |
| 40°-50° | 1093.0 | 13.8 |
| 50°-60° | 1650.6 | 20.8 |
| 60°-70° | 2150.2 | 27.1 |
| 70°-80° | 1452.9 | 18.3 |
| 80°-90° | 159.1 | 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° | 7937.0 | 100.0 |
| 0°-180° | 7937.0 | 100.0 |



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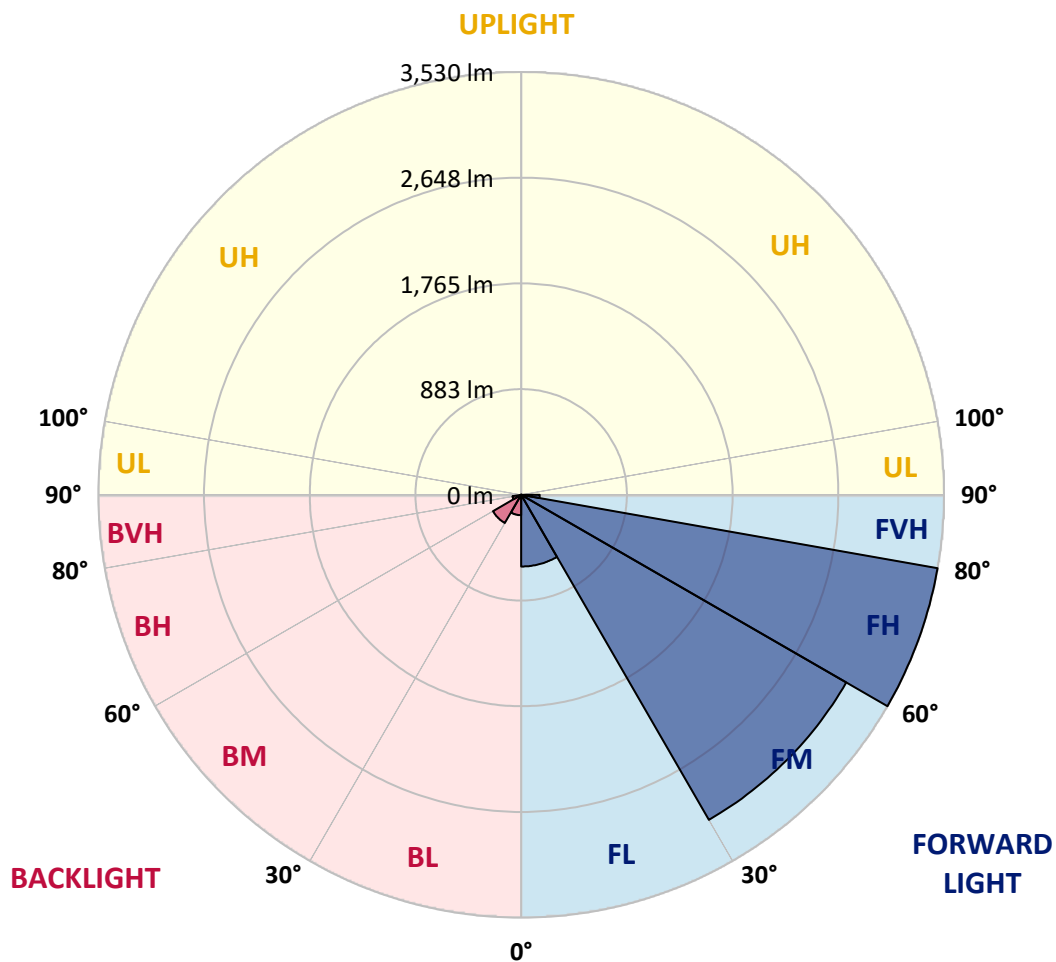
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 598.6 | 7.5 | | | |
| FM | (30°-60°) | 3133.6 | 39.5 | | | |
| FH | (60°-80°) | 3530.0 | 44.5 | | | G2/5000 |
| FVH | (80°-90°) | 154.5 | 1.9 | | | G2/225 |
| BL | (0°-30°) | 170.3 | 2.1 | B1/500 | | |
| BM | (30°-60°) | 272.2 | 3.4 | B1/1000 | | |
| BH | (60°-80°) | 73.1 | 0.9 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 4.6 | 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° | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 |
| 2.5° | 1352.7 | 1355.2 | 1352.1 | 1346.5 | 1338.4 | 1333.4 | 1326.5 | 1311.5 | 1292.8 | 1276.6 | 1257.9 |
| 5° | 1363.3 | 1364.6 | 1360.8 | 1350.2 | 1337.8 | 1330.9 | 1322.2 | 1305.9 | 1286.6 | 1264.1 | 1230.4 |
| 7.5° | 1366.5 | 1365.8 | 1361.5 | 1348.4 | 1329.0 | 1320.3 | 1305.3 | 1285.3 | 1265.4 | 1244.8 | 1206.7 |
| 10° | 1365.2 | 1365.2 | 1362.1 | 1349.6 | 1327.8 | 1319.7 | 1302.8 | 1281.6 | 1256.6 | 1236.1 | 1195.5 |
| 12.5° | 1360.8 | 1363.3 | 1361.5 | 1354.6 | 1338.4 | 1332.1 | 1317.2 | 1296.0 | 1272.2 | 1251.0 | 1208.0 |
| 15° | 1366.5 | 1370.2 | 1373.9 | 1371.4 | 1362.1 | 1356.5 | 1342.7 | 1320.9 | 1301.6 | 1279.1 | 1232.9 |
| 17.5° | 1388.9 | 1397.0 | 1405.8 | 1406.4 | 1396.4 | 1386.4 | 1370.8 | 1348.4 | 1329.6 | 1309.1 | 1259.1 |
| 20° | 1431.3 | 1437.6 | 1453.8 | 1456.9 | 1437.0 | 1422.6 | 1400.8 | 1374.6 | 1355.8 | 1338.4 | 1283.5 |
| 22.5° | 1494.4 | 1501.2 | 1514.3 | 1510.0 | 1476.3 | 1459.4 | 1432.0 | 1402.0 | 1382.7 | 1372.7 | 1311.5 |
| 25° | 1589.8 | 1591.7 | 1594.8 | 1575.5 | 1519.9 | 1501.2 | 1467.5 | 1433.8 | 1418.2 | 1417.0 | 1351.5 |
| 27.5° | 1702.1 | 1704.6 | 1690.9 | 1647.9 | 1568.6 | 1544.3 | 1506.2 | 1475.6 | 1468.2 | 1477.5 | 1402.0 |
| 30° | 1830.7 | 1831.3 | 1793.2 | 1723.4 | 1624.8 | 1597.9 | 1558.6 | 1524.9 | 1531.8 | 1554.9 | 1466.9 |
| 32.5° | 1962.3 | 1956.1 | 1903.7 | 1812.6 | 1701.5 | 1669.1 | 1635.4 | 1601.7 | 1621.7 | 1668.5 | 1561.8 |
| 35° | 2082.8 | 2080.3 | 2018.5 | 1912.4 | 1801.4 | 1772.7 | 1748.3 | 1712.8 | 1745.2 | 1821.3 | 1690.9 |
| 37.5° | 2203.2 | 2201.3 | 2130.8 | 2020.4 | 1924.3 | 1903.7 | 1885.6 | 1858.1 | 1911.2 | 2022.9 | 1863.7 |
| 40° | 2336.1 | 2333.0 | 2246.2 | 2140.2 | 2067.2 | 2055.9 | 2045.3 | 2033.5 | 2123.9 | 2279.3 | 2079.0 |
| 42.5° | 2500.2 | 2486.5 | 2368.5 | 2270.6 | 2224.4 | 2227.5 | 2228.1 | 2240.0 | 2381.6 | 2584.4 | 2333.0 |
| 45° | 2688.6 | 2658.0 | 2491.4 | 2410.3 | 2397.2 | 2415.9 | 2434.7 | 2484.0 | 2681.7 | 2935.7 | 2613.7 |
| 47.5° | 2871.4 | 2822.1 | 2633.1 | 2560.7 | 2587.5 | 2626.2 | 2671.1 | 2767.2 | 3018.7 | 3303.2 | 2868.3 |
| 50° | 3028.7 | 2978.1 | 2773.5 | 2713.6 | 2799.1 | 2856.5 | 2936.3 | 3081.7 | 3374.3 | 3613.9 | 3028.7 |
| 52.5° | 3152.2 | 3112.3 | 2922.0 | 2882.0 | 3033.7 | 3112.3 | 3237.7 | 3428.6 | 3710.0 | 3818.6 | 3141.0 |
| 55° | 3243.3 | 3223.3 | 3064.2 | 3069.8 | 3294.5 | 3408.0 | 3564.0 | 3779.9 | 3993.3 | 3977.7 | 3225.2 |
| 57.5° | 3346.3 | 3330.7 | 3213.4 | 3291.4 | 3608.3 | 3754.9 | 3935.3 | 4108.7 | 4199.2 | 4105.6 | 3307.6 |
| 60° | 3451.7 | 3456.7 | 3394.3 | 3559.7 | 3996.4 | 4158.6 | 4315.9 | 4358.9 | 4375.8 | 4235.4 | 3394.3 |
| 62.5° | 3531.6 | 3552.8 | 3558.4 | 3849.2 | 4394.5 | 4533.0 | 4601.0 | 4570.5 | 4566.7 | 4409.5 | 3387.4 |
| 65° | 3623.3 | 3678.8 | 3771.2 | 4166.8 | 4756.4 | 4847.5 | 4896.2 | 4940.5 | 4846.9 | 4461.3 | 3054.2 |
| 67.5° | 3781.8 | 3869.1 | 4076.9 | 4556.1 | 5174.4 | 5309.2 | 5447.1 | 5400.3 | 4888.7 | 3935.3 | 2326.7 |
| 70° | 3995.2 | 4101.9 | 4468.8 | 5064.6 | 5741.6 | 5967.5 | 6082.9 | 5363.5 | 4150.5 | 2719.2 | 1227.3 |
| 72° | 3860.4 | 3957.1 | 4589.8 | 5324.2 | 6143.4 | 6350.6 | 6061.7 | 4678.4 | 3008.7 | 1409.5 | 411.2 |
| 72.5° | 3729.4 | 3829.2 | 4551.1 | 5321.1 | 6183.4 | 6341.9 | 5923.8 | 4408.2 | 2662.4 | 1096.9 | 283.3 |
| 75° | 2587.5 | 2713.6 | 3901.6 | 4783.2 | 5583.8 | 5409.7 | 4532.4 | 2669.3 | 964.6 | 188.4 | 93.6 |
| 77.5° | 1337.8 | 1435.1 | 2366.7 | 3380.0 | 3891.6 | 3564.0 | 2678.6 | 1158.1 | 267.1 | 99.8 | 61.8 |
| 80° | 829.2 | 877.3 | 1106.9 | 1665.3 | 2021.6 | 1768.3 | 1181.8 | 468.0 | 171.0 | 59.3 | 49.3 |
| 82.5° | 429.3 | 466.1 | 697.0 | 672.0 | 746.9 | 620.8 | 436.1 | 391.8 | 105.4 | 36.8 | 50.5 |
| 85° | 141.0 | 149.7 | 428.0 | 446.8 | 319.5 | 214.6 | 193.4 | 373.7 | 30.6 | 23.7 | 43.1 |
| 87.5° | 18.7 | 21.8 | 150.4 | 255.8 | 157.2 | 97.3 | 116.1 | 131.7 | 10.6 | 13.1 | 11.9 |
| 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° | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 | 1270.4 |
| 2.5° | 1245.4 | 1237.3 | 1211.7 | 1186.1 | 1156.8 | 1130.0 | 1108.8 | 1095.0 | 1101.3 | 1080.7 | 1083.8 |
| 5° | 1209.8 | 1189.3 | 1133.1 | 1072.6 | 1007.1 | 945.9 | 897.2 | 861.1 | 854.2 | 823.0 | 824.2 |
| 7.5° | 1175.5 | 1141.8 | 1050.7 | 950.9 | 842.3 | 754.4 | 674.5 | 604.6 | 579.7 | 554.1 | 539.1 |
| 10° | 1156.8 | 1110.6 | 981.5 | 836.1 | 683.2 | 554.1 | 441.8 | 353.8 | 317.0 | 290.1 | 277.0 |
| 12.5° | 1162.4 | 1101.3 | 929.7 | 731.9 | 531.0 | 366.9 | 249.6 | 185.3 | 162.9 | 150.4 | 146.0 |
| 15° | 1181.1 | 1103.1 | 882.9 | 630.2 | 386.2 | 222.1 | 146.6 | 125.4 | 123.5 | 122.9 | 122.3 |
| 17.5° | 1198.6 | 1105.0 | 833.6 | 524.1 | 258.3 | 141.6 | 117.9 | 116.1 | 116.1 | 116.1 | 116.1 |
| 20° | 1216.7 | 1105.6 | 779.3 | 413.1 | 169.7 | 116.1 | 111.1 | 109.8 | 111.1 | 111.1 | 111.1 |
| 22.5° | 1237.9 | 1110.0 | 726.9 | 305.1 | 125.4 | 109.2 | 106.1 | 105.4 | 106.1 | 106.1 | 105.4 |
| 25° | 1264.1 | 1119.4 | 670.1 | 218.4 | 113.6 | 104.8 | 101.7 | 101.1 | 101.7 | 101.1 | 101.1 |
| 27.5° | 1299.1 | 1131.9 | 604.0 | 156.6 | 108.6 | 100.5 | 97.3 | 97.3 | 97.3 | 96.7 | 96.7 |
| 30° | 1344.0 | 1146.8 | 515.4 | 123.5 | 103.6 | 96.1 | 93.6 | 93.6 | 93.0 | 92.3 | 92.3 |
| 32.5° | 1408.3 | 1171.2 | 418.7 | 111.7 | 98.0 | 90.5 | 88.0 | 88.6 | 88.0 | 87.4 | 86.7 |
| 35° | 1499.4 | 1209.2 | 323.2 | 105.4 | 92.3 | 84.9 | 82.4 | 82.4 | 82.4 | 81.1 | 81.1 |
| 37.5° | 1628.5 | 1267.2 | 242.1 | 99.2 | 86.7 | 79.2 | 76.1 | 76.1 | 75.5 | 74.3 | 74.9 |
| 40° | 1788.2 | 1340.3 | 175.3 | 93.6 | 81.1 | 73.0 | 70.5 | 69.3 | 68.0 | 66.8 | 66.8 |
| 42.5° | 1980.4 | 1411.4 | 131.7 | 88.0 | 75.5 | 68.0 | 64.9 | 63.6 | 61.1 | 59.9 | 59.3 |
| 45° | 2195.7 | 1486.9 | 109.2 | 81.1 | 69.3 | 62.4 | 59.9 | 57.4 | 54.3 | 52.4 | 51.8 |
| 47.5° | 2377.3 | 1533.1 | 97.3 | 74.3 | 63.0 | 56.8 | 54.3 | 50.5 | 46.8 | 45.5 | 45.5 |
| 50° | 2486.5 | 1513.7 | 87.4 | 67.4 | 56.8 | 51.2 | 48.0 | 43.1 | 40.6 | 39.3 | 38.7 |
| 52.5° | 2547.6 | 1456.3 | 79.2 | 61.8 | 51.2 | 44.9 | 40.6 | 36.2 | 34.9 | 33.7 | 33.7 |
| 55° | 2589.4 | 1373.3 | 70.5 | 56.2 | 46.2 | 39.3 | 34.3 | 31.2 | 29.9 | 29.3 | 28.7 |
| 57.5° | 2629.3 | 1272.2 | 62.4 | 51.2 | 41.2 | 34.9 | 29.3 | 28.1 | 25.6 | 25.0 | 25.0 |
| 60° | 2641.2 | 1133.1 | 54.9 | 45.5 | 36.8 | 30.6 | 25.6 | 23.7 | 21.2 | 20.6 | 20.6 |
| 62.5° | 2490.2 | 901.6 | 48.7 | 38.7 | 32.4 | 26.2 | 22.5 | 20.0 | 17.5 | 17.5 | 17.5 |
| 65° | 2080.9 | 612.1 | 41.8 | 33.7 | 28.7 | 22.5 | 19.3 | 16.2 | 15.0 | 15.0 | 15.0 |
| 67.5° | 1449.4 | 341.3 | 35.6 | 28.7 | 24.3 | 18.7 | 16.2 | 13.7 | 13.1 | 13.7 | 13.7 |
| 70° | 653.3 | 135.4 | 29.9 | 23.7 | 20.0 | 15.6 | 13.7 | 11.9 | 13.1 | 13.1 | 13.1 |
| 72° | 195.9 | 72.4 | 25.0 | 19.3 | 16.2 | 13.7 | 11.9 | 11.2 | 12.5 | 13.1 | 13.1 |
| 72.5° | 145.4 | 64.9 | 23.7 | 18.7 | 16.2 | 13.1 | 11.2 | 11.2 | 12.5 | 13.1 | 13.1 |
| 75° | 74.9 | 44.3 | 18.1 | 13.7 | 11.9 | 10.6 | 9.4 | 10.6 | 12.5 | 12.5 | 12.5 |
| 77.5° | 58.7 | 36.2 | 15.0 | 10.6 | 10.0 | 9.4 | 8.7 | 10.0 | 11.2 | 11.2 | 11.2 |
| 80° | 54.9 | 23.7 | 11.9 | 10.0 | 8.7 | 8.1 | 8.1 | 8.7 | 10.0 | 10.6 | 10.6 |
| 82.5° | 55.5 | 19.3 | 10.6 | 9.4 | 8.1 | 7.5 | 7.5 | 8.1 | 9.4 | 10.0 | 10.0 |
| 85° | 35.6 | 13.1 | 9.4 | 8.1 | 7.5 | 6.9 | 6.9 | 7.5 | 8.7 | 9.4 | 9.4 |
| 87.5° | 11.9 | 10.0 | 8.1 | 7.5 | 6.2 | 6.2 | 6.2 | 6.2 | 7.5 | 8.1 | 8.7 |
| 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)