

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: P196032

Luminaire Tested: **NVN-AF-06-LED-U-AFL-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196032
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-06-LED-U-AFL-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41418.3 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

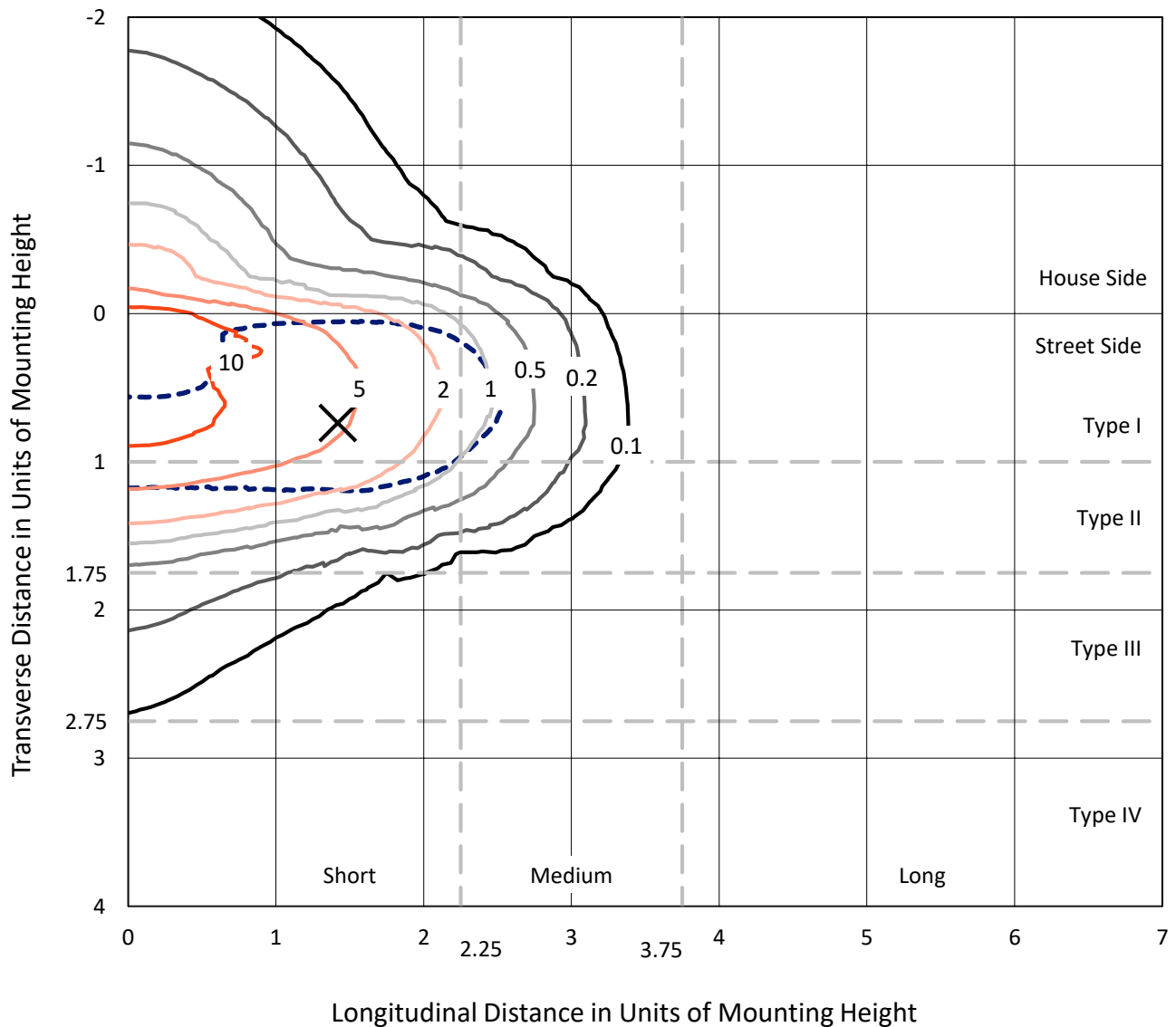
Input Watts (W): 382
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

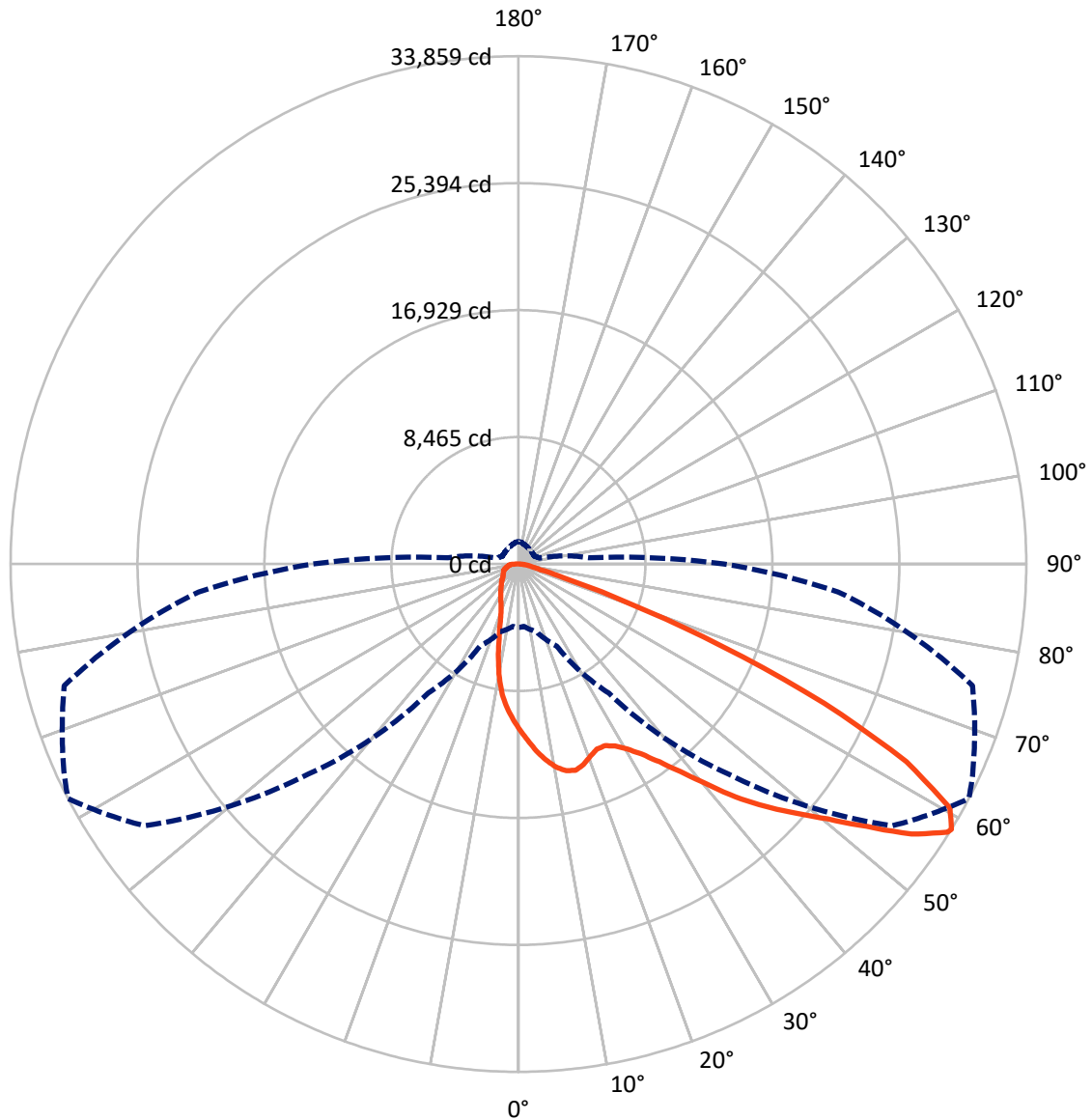
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6359.3 | 0.0 | 6359.3 |
| | % Fixture | 15.4 | 0.0 | 15.4 |
| Street Side | Lumens | 35059.0 | 0.0 | 35059.0 |
| | % Fixture | 84.6 | 0.0 | 84.6 |
| Total | Lumens | 41418.3 | 0.0 | 41418.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 988.4 | 2.4 |
| 10°-20° | 2494.6 | 6.0 |
| 20°-30° | 4042.7 | 9.8 |
| 30°-40° | 6454.6 | 15.6 |
| 40°-50° | 9388.4 | 22.7 |
| 50°-60° | 9824.1 | 23.7 |
| 60°-70° | 5989.1 | 14.5 |
| 70°-80° | 1674.9 | 4.0 |
| 80°-90° | 561.4 | 1.4 |
| 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° | 41418.3 | 100.0 |
| 0°-180° | 41418.3 | 100.0 |

Coefficient of Utilization



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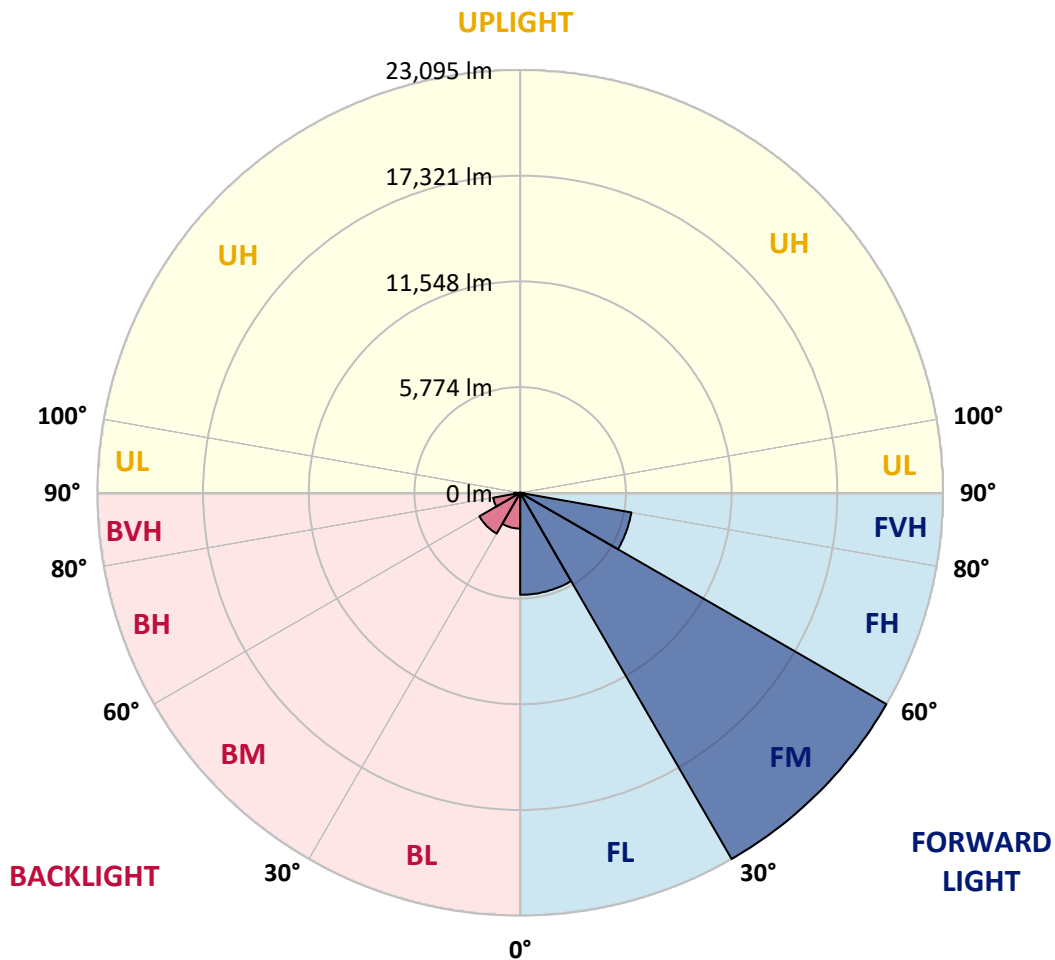
CATALOG NUMBER: NVN-AF-06-LED-U-AFL-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 5570.9 | 13.5 | | | |
| FM | (30°-60°) | 23095.3 | 55.8 | | | |
| FH | (60°-80°) | 6166.9 | 14.9 | | | G3/7500 |
| FVH | (80°-90°) | 225.9 | 0.5 | | | G3/500 |
| BL | (0°-30°) | 1954.9 | 4.7 | B3/2500 | | |
| BM | (30°-60°) | 2571.8 | 6.2 | B3/5000 | | |
| BH | (60°-80°) | 1497.1 | 3.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 335.6 | 0.8 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 |
| 2.5° | 12552.0 | 12544.2 | 12438.2 | 12368.2 | 12285.4 | 12093.8 | 11902.2 | 11759.9 | 11687.4 | 11410.4 | 11141.3 |
| 5° | 13590.0 | 13559.0 | 13499.5 | 13424.4 | 13315.6 | 13074.9 | 12772.1 | 12510.6 | 12407.1 | 11915.2 | 11420.8 |
| 7.5° | 13041.3 | 13090.4 | 13274.2 | 13481.3 | 13698.7 | 13714.3 | 13499.5 | 13188.8 | 13074.9 | 12417.4 | 11692.6 |
| 10° | 11521.8 | 11501.0 | 11731.4 | 12135.3 | 12852.3 | 13561.6 | 13916.2 | 13763.5 | 13644.4 | 12893.7 | 11964.4 |
| 12.5° | 11061.0 | 11055.8 | 11094.6 | 11198.1 | 11648.6 | 12621.9 | 13810.0 | 14141.4 | 14099.9 | 13398.5 | 12254.3 |
| 15° | 11200.8 | 11205.9 | 11203.4 | 11216.3 | 11340.5 | 11803.9 | 13217.2 | 14268.2 | 14397.6 | 13898.1 | 12549.5 |
| 17.5° | 11648.6 | 11630.4 | 11573.6 | 11511.4 | 11529.5 | 11695.2 | 12577.9 | 14050.8 | 14439.1 | 14343.3 | 12797.9 |
| 20° | 12339.8 | 12339.8 | 12187.0 | 12013.6 | 11899.7 | 11935.9 | 12311.3 | 13678.1 | 14247.6 | 14721.3 | 12984.3 |
| 22.5° | 13206.9 | 13219.9 | 12994.6 | 12678.9 | 12420.0 | 12321.6 | 12464.0 | 13401.1 | 14014.5 | 15070.7 | 13149.9 |
| 25° | 14283.8 | 14281.2 | 13952.4 | 13499.5 | 13090.4 | 12854.9 | 12852.3 | 13414.1 | 13942.1 | 15479.7 | 13323.4 |
| 27.5° | 15616.9 | 15495.2 | 15112.2 | 14467.6 | 13890.3 | 13530.5 | 13367.4 | 13740.2 | 14094.8 | 15981.9 | 13556.3 |
| 30° | 17120.8 | 16996.6 | 16494.4 | 15666.1 | 14884.3 | 14358.9 | 14089.6 | 14304.4 | 14560.8 | 16621.2 | 13908.4 |
| 32.5° | 18609.3 | 18637.8 | 18047.5 | 17113.0 | 16108.7 | 15368.4 | 14969.8 | 15101.7 | 15280.3 | 17403.1 | 14384.7 |
| 35° | 20788.8 | 20786.3 | 20014.9 | 18847.5 | 17654.1 | 16629.0 | 16124.3 | 16194.1 | 16357.2 | 18505.7 | 15052.6 |
| 37.5° | 22414.5 | 22388.6 | 21891.6 | 20858.8 | 19515.2 | 18285.8 | 17555.8 | 17566.1 | 17705.8 | 19890.7 | 15932.7 |
| 40° | 22580.2 | 22575.0 | 22572.4 | 22424.8 | 21505.9 | 20346.2 | 19432.5 | 19243.4 | 19300.4 | 21361.0 | 16867.1 |
| 42.5° | 21314.3 | 21503.3 | 22046.9 | 22880.4 | 23136.7 | 22528.3 | 21663.8 | 21241.9 | 21117.6 | 23048.7 | 17856.0 |
| 45° | 19510.1 | 19605.9 | 20558.4 | 22432.6 | 23957.3 | 24578.5 | 23928.8 | 23038.4 | 22826.1 | 24689.8 | 18661.1 |
| 47.5° | 18671.4 | 18630.0 | 19181.4 | 21223.8 | 23877.0 | 26209.3 | 26256.0 | 24796.0 | 24436.1 | 26105.8 | 19347.1 |
| 50° | 16872.3 | 16818.0 | 17514.4 | 19445.4 | 23002.1 | 27019.6 | 28645.2 | 26711.5 | 26046.3 | 27451.9 | 19968.3 |
| 52.5° | 13287.2 | 13235.3 | 14169.9 | 16657.5 | 21045.2 | 26716.7 | 30659.1 | 29061.9 | 27928.2 | 28748.7 | 20548.1 |
| 55° | 8645.9 | 8651.0 | 9541.5 | 12106.7 | 17030.3 | 24951.3 | 31604.0 | 31777.4 | 30506.3 | 30045.6 | 21016.6 |
| 57.5° | 4760.4 | 4716.4 | 5350.5 | 6927.0 | 11715.9 | 20941.5 | 30817.0 | 33734.4 | 33071.7 | 31158.7 | 21355.7 |
| 58° | 4232.4 | 4180.6 | 4669.8 | 6028.8 | 10504.5 | 19810.4 | 30420.9 | 33858.5 | 33400.4 | 31342.5 | 21404.9 |
| 60° | 3015.7 | 2927.7 | 2852.6 | 3398.8 | 6052.1 | 14283.8 | 27780.6 | 33053.6 | 33496.2 | 31710.0 | 21358.4 |
| 62.5° | 2542.0 | 2441.1 | 2171.8 | 2151.1 | 2850.0 | 6986.5 | 21969.3 | 29028.3 | 30268.2 | 30863.7 | 20607.7 |
| 65° | 2360.8 | 2259.8 | 1905.1 | 1778.4 | 1933.7 | 3015.7 | 13584.9 | 22414.5 | 24071.2 | 27920.4 | 18718.0 |
| 67.5° | 2231.4 | 2112.3 | 1731.8 | 1566.1 | 1597.1 | 1804.3 | 5764.7 | 14659.1 | 16579.9 | 21772.5 | 15016.3 |
| 70° | 2114.8 | 1982.9 | 1594.6 | 1403.0 | 1377.1 | 1372.0 | 2252.0 | 7654.4 | 9505.3 | 14247.6 | 10059.2 |
| 72.5° | 1982.9 | 1853.4 | 1472.9 | 1268.4 | 1211.5 | 1113.1 | 1353.9 | 3163.3 | 4335.9 | 6984.0 | 4610.2 |
| 75° | 1791.3 | 1685.2 | 1338.3 | 1157.1 | 1058.8 | 903.4 | 999.2 | 1516.9 | 1868.9 | 2674.0 | 2140.7 |
| 77.5° | 1576.5 | 1491.1 | 1201.1 | 1063.9 | 931.9 | 737.8 | 763.6 | 1027.7 | 1154.5 | 1506.6 | 1239.9 |
| 80° | 1115.6 | 1146.7 | 1048.4 | 937.0 | 820.6 | 595.4 | 587.6 | 753.3 | 828.4 | 1012.1 | 833.5 |
| 82.5° | 768.8 | 792.1 | 854.3 | 740.3 | 662.7 | 463.4 | 432.3 | 522.9 | 561.7 | 610.9 | 403.9 |
| 85° | 548.8 | 533.3 | 592.8 | 530.7 | 486.6 | 295.1 | 277.0 | 331.3 | 354.7 | 372.8 | 194.2 |
| 87.5° | 333.9 | 331.3 | 341.7 | 274.4 | 253.7 | 150.2 | 137.2 | 157.9 | 168.3 | 163.1 | 93.2 |
| 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° | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 | 11058.4 |
| 2.5° | 11040.3 | 10913.5 | 10636.4 | 10413.8 | 10173.1 | 9989.3 | 9805.5 | 9702.0 | 9588.1 | 9523.4 | 9515.6 |
| 5° | 11161.9 | 10903.1 | 10312.9 | 9764.1 | 9199.8 | 8692.4 | 8195.5 | 7827.8 | 7527.6 | 7356.8 | 7346.4 |
| 7.5° | 11296.5 | 10890.1 | 9979.0 | 9029.0 | 8024.6 | 7025.4 | 6142.7 | 5518.8 | 5117.6 | 4931.2 | 4918.3 |
| 10° | 11400.1 | 10835.8 | 9572.6 | 8094.5 | 6502.5 | 5182.4 | 4379.9 | 4012.3 | 3890.6 | 3859.6 | 3854.4 |
| 12.5° | 11524.4 | 10796.9 | 9060.1 | 6896.0 | 4970.1 | 3945.0 | 3701.6 | 3678.3 | 3704.2 | 3719.8 | 3722.4 |
| 15° | 11640.9 | 10721.9 | 8368.9 | 5568.0 | 3890.6 | 3525.6 | 3530.8 | 3580.0 | 3631.8 | 3655.1 | 3657.7 |
| 17.5° | 11695.2 | 10538.1 | 7460.3 | 4387.6 | 3404.0 | 3336.7 | 3396.2 | 3460.9 | 3507.5 | 3525.6 | 3525.6 |
| 20° | 11695.2 | 10243.0 | 6406.7 | 3554.1 | 3150.3 | 3163.3 | 3235.7 | 3284.9 | 3295.2 | 3279.7 | 3272.0 |
| 22.5° | 11646.0 | 9878.0 | 5381.6 | 3101.1 | 2943.2 | 2992.4 | 3049.3 | 3015.7 | 2894.0 | 2800.8 | 2782.7 |
| 25° | 11602.0 | 9445.7 | 4395.4 | 2824.2 | 2762.0 | 2826.7 | 2803.4 | 2573.0 | 2386.6 | 2290.9 | 2275.3 |
| 27.5° | 11529.5 | 8922.8 | 3572.2 | 2596.4 | 2586.0 | 2637.8 | 2407.4 | 2184.7 | 2091.5 | 2039.8 | 2029.4 |
| 30° | 11511.4 | 8356.0 | 2989.8 | 2394.4 | 2412.5 | 2340.1 | 2076.1 | 2003.6 | 1982.9 | 1954.3 | 1941.5 |
| 32.5° | 11570.9 | 7789.1 | 2624.8 | 2228.8 | 2246.9 | 2008.8 | 1907.8 | 1918.1 | 1915.6 | 1879.3 | 1866.4 |
| 35° | 11734.1 | 7237.7 | 2391.9 | 2078.6 | 2026.9 | 1799.1 | 1812.1 | 1843.1 | 1843.1 | 1799.1 | 1783.5 |
| 37.5° | 12018.8 | 6725.1 | 2244.3 | 1951.8 | 1773.2 | 1690.3 | 1724.0 | 1765.4 | 1765.4 | 1734.3 | 1721.4 |
| 40° | 12321.6 | 6225.6 | 2133.0 | 1850.8 | 1612.7 | 1615.2 | 1648.9 | 1680.0 | 1692.9 | 1698.1 | 1687.8 |
| 42.5° | 12596.0 | 5707.9 | 2013.9 | 1742.1 | 1540.2 | 1558.4 | 1573.8 | 1597.1 | 1651.6 | 1687.8 | 1682.5 |
| 45° | 12756.5 | 5187.5 | 1884.5 | 1607.5 | 1491.1 | 1498.8 | 1493.6 | 1535.0 | 1599.7 | 1654.1 | 1654.1 |
| 47.5° | 12904.0 | 4760.4 | 1778.4 | 1472.9 | 1441.8 | 1441.8 | 1426.3 | 1467.7 | 1527.3 | 1592.0 | 1597.1 |
| 50° | 13043.9 | 4483.4 | 1703.3 | 1369.3 | 1379.8 | 1372.0 | 1366.8 | 1405.6 | 1485.8 | 1563.5 | 1576.5 |
| 52.5° | 13186.2 | 4390.2 | 1636.0 | 1294.3 | 1315.0 | 1304.7 | 1309.8 | 1364.2 | 1454.7 | 1535.0 | 1547.9 |
| 55° | 13385.5 | 4449.7 | 1566.1 | 1242.5 | 1252.9 | 1250.3 | 1271.0 | 1333.1 | 1413.4 | 1493.6 | 1498.8 |
| 57.5° | 13631.4 | 4667.2 | 1506.6 | 1203.7 | 1193.4 | 1208.8 | 1242.5 | 1302.0 | 1379.8 | 1475.5 | 1483.3 |
| 58° | 13680.6 | 4719.0 | 1496.2 | 1193.4 | 1180.4 | 1203.7 | 1237.4 | 1294.3 | 1374.5 | 1475.5 | 1483.3 |
| 60° | 13755.7 | 4902.8 | 1470.3 | 1172.6 | 1136.4 | 1177.8 | 1219.3 | 1276.1 | 1364.2 | 1488.4 | 1503.9 |
| 62.5° | 13393.3 | 4939.0 | 1462.5 | 1149.3 | 1089.7 | 1141.6 | 1190.7 | 1255.5 | 1353.9 | 1532.5 | 1566.1 |
| 65° | 12137.8 | 4566.2 | 1408.2 | 1110.5 | 1051.0 | 1113.1 | 1164.8 | 1239.9 | 1384.9 | 1664.4 | 1680.0 |
| 67.5° | 9743.4 | 3792.3 | 1276.1 | 1051.0 | 1007.0 | 1079.4 | 1144.2 | 1239.9 | 1397.9 | 1685.2 | 1695.5 |
| 70° | 6699.2 | 2850.0 | 1110.5 | 986.2 | 955.2 | 1038.0 | 1136.4 | 1268.4 | 1353.9 | 1594.6 | 1563.5 |
| 72.5° | 3499.7 | 1982.9 | 973.3 | 911.1 | 893.0 | 1001.8 | 1211.5 | 1239.9 | 1302.0 | 1488.4 | 1457.4 |
| 75° | 1762.9 | 1348.7 | 856.8 | 825.7 | 823.2 | 988.9 | 1356.4 | 1193.4 | 1247.7 | 1400.4 | 1467.7 |
| 77.5° | 1040.6 | 1056.1 | 763.6 | 745.5 | 758.4 | 965.6 | 1359.0 | 1146.7 | 1185.6 | 1289.1 | 1361.5 |
| 80° | 711.9 | 872.4 | 691.1 | 686.0 | 696.3 | 887.9 | 1252.9 | 1089.7 | 1113.1 | 1219.3 | 1296.9 |
| 82.5° | 401.2 | 481.5 | 605.7 | 639.3 | 634.2 | 727.4 | 1082.0 | 991.4 | 1019.9 | 1441.8 | 1524.7 |
| 85° | 194.2 | 289.9 | 507.4 | 597.9 | 541.0 | 484.1 | 880.1 | 880.1 | 887.9 | 1032.9 | 1045.8 |
| 87.5° | 72.5 | 129.4 | 341.7 | 473.7 | 378.0 | 289.9 | 597.9 | 623.9 | 693.8 | 714.4 | 730.0 |
| 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)