

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: P197316

Luminaire Tested: **NVN-AF-06-LED-U-T4FT-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197316
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
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-T4FT-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23937 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 249
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

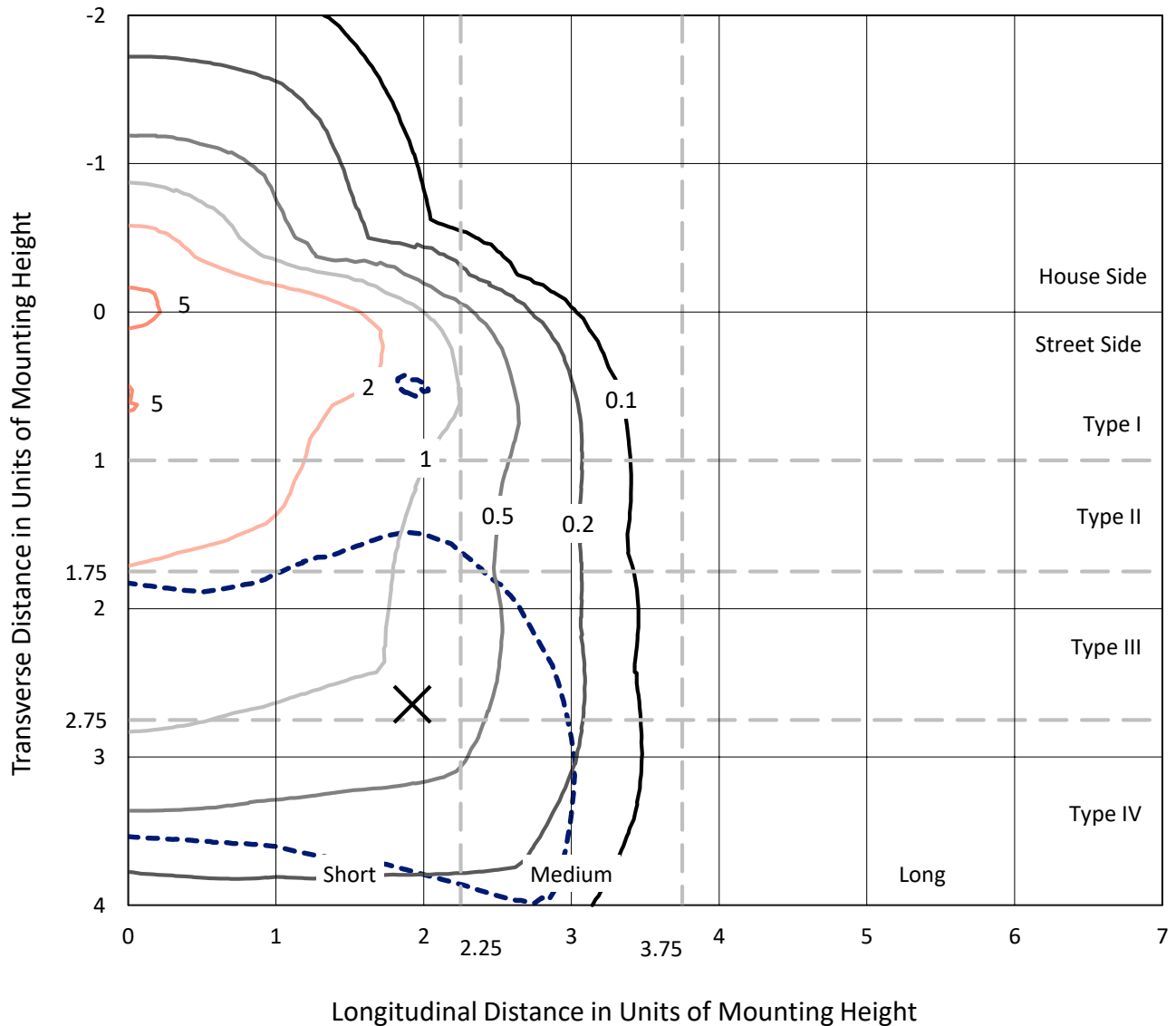


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

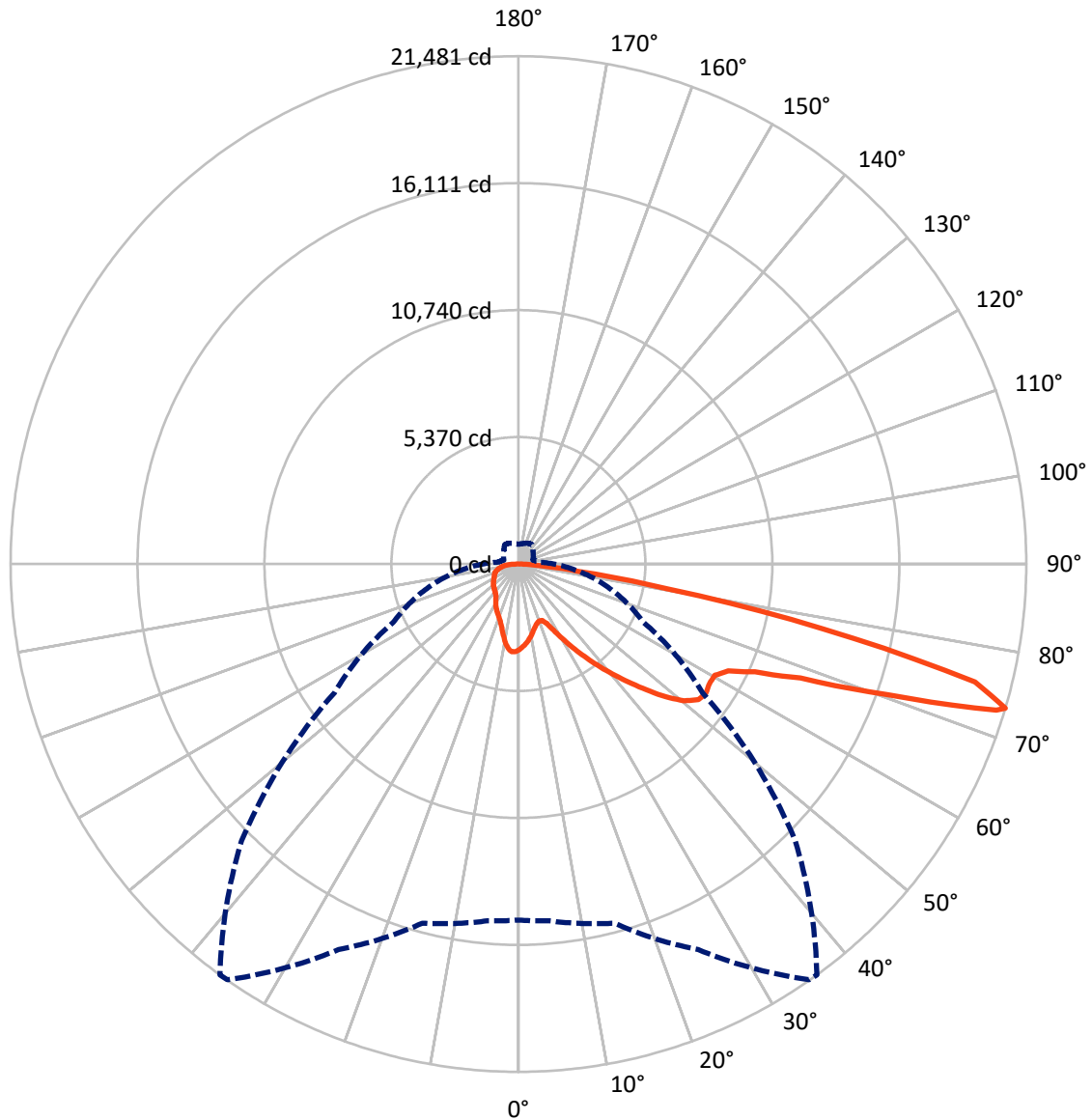


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4615.8 | 0.0 | 4615.8 |
| | % Fixture | 19.3 | 0.0 | 19.3 |
| Street Side | Lumens | 19321.2 | 0.0 | 19321.2 |
| | % Fixture | 80.7 | 0.0 | 80.7 |
| Total | Lumens | 23937.0 | 0.0 | 23937.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 329.3 | 1.4 |
| 10°-20° | 827.1 | 3.5 |
| 20°-30° | 1326.1 | 5.5 |
| 30°-40° | 2193.4 | 9.2 |
| 40°-50° | 3394.1 | 14.2 |
| 50°-60° | 4543.7 | 19.0 |
| 60°-70° | 5935.5 | 24.8 |
| 70°-80° | 4848.2 | 20.3 |
| 80°-90° | 539.7 | 2.3 |
| 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° | 23937.0 | 100.0 |
| 0°-180° | 23937.0 | 100.0 |



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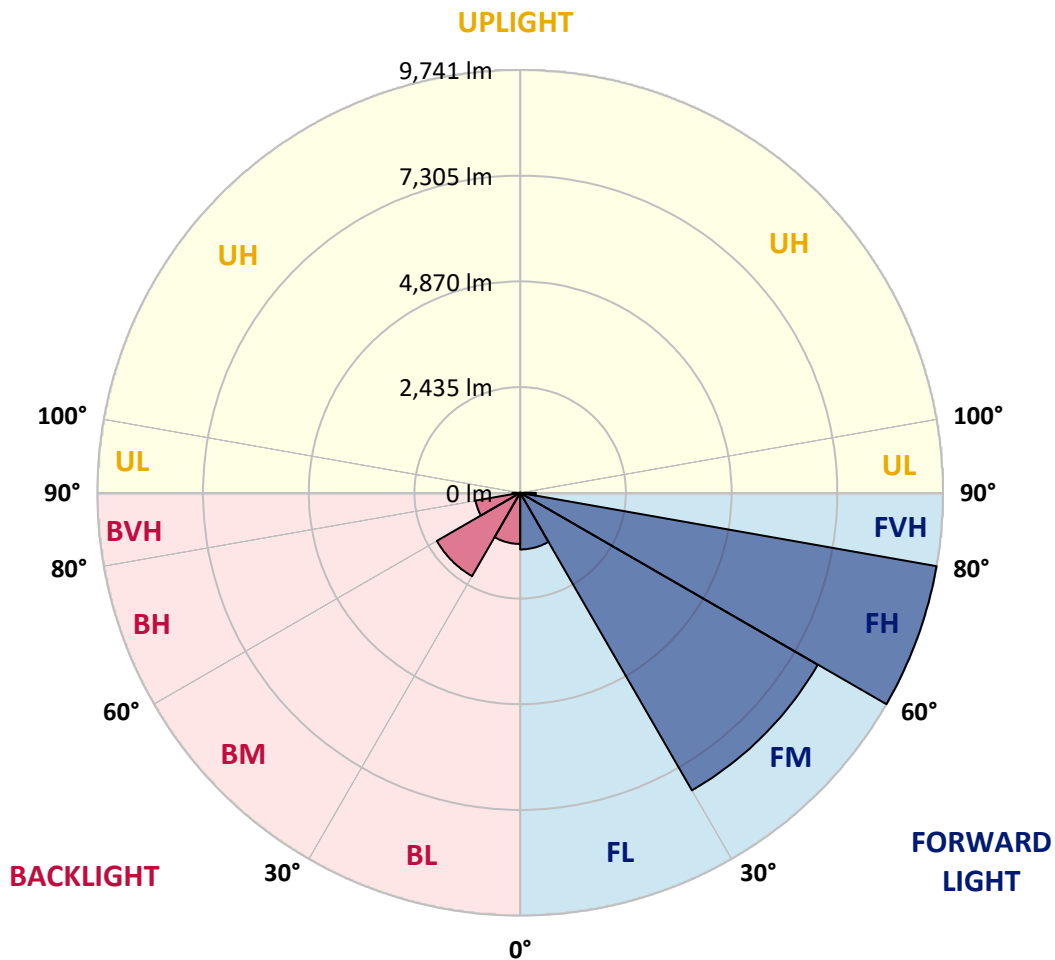
CATALOG NUMBER: NVN-AF-06-LED-U-T4FT-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1304.3 | 5.4 | | | |
| FM | (30°-60°) | 7914.4 | 33.1 | | | |
| FH | (60°-80°) | 9740.6 | 40.7 | | | G4/12000 |
| FVH | (80°-90°) | 361.9 | 1.5 | | | G3/500 |
| BL | (0°-30°) | 1178.2 | 4.9 | B3/2500 | | |
| BM | (30°-60°) | 2216.8 | 9.3 | B2/2500 | | |
| BH | (60°-80°) | 1043.1 | 4.4 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 177.7 | 0.7 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|
| 0° | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 |
| 2.5° | 3487.4 | 3496.5 | 3498.0 | 3508.7 | 3508.7 | 3507.1 | 3511.7 | 3529.9 | 3539.1 | 3560.4 | 3578.6 |
| 5° | 3315.5 | 3326.1 | 3330.7 | 3349.0 | 3371.8 | 3373.3 | 3390.0 | 3425.0 | 3458.5 | 3505.6 | 3545.2 |
| 7.5° | 3122.4 | 3134.5 | 3146.7 | 3184.7 | 3218.2 | 3221.2 | 3253.1 | 3309.4 | 3353.5 | 3411.3 | 3482.8 |
| 10° | 2935.3 | 2938.3 | 2950.5 | 2999.2 | 3043.3 | 3047.8 | 3093.5 | 3157.3 | 3216.6 | 3297.3 | 3377.9 |
| 12.5° | 2781.7 | 2790.8 | 2787.8 | 2824.3 | 2862.3 | 2865.3 | 2926.2 | 3006.8 | 3093.5 | 3184.7 | 3280.5 |
| 15° | 2728.4 | 2726.9 | 2695.0 | 2693.5 | 2710.2 | 2713.2 | 2772.6 | 2866.8 | 2964.2 | 3076.7 | 3199.9 |
| 17.5° | 2764.9 | 2752.8 | 2669.1 | 2617.4 | 2606.8 | 2609.8 | 2653.9 | 2757.3 | 2860.8 | 2990.0 | 3137.6 |
| 20° | 2965.7 | 2918.6 | 2722.4 | 2597.6 | 2562.7 | 2562.7 | 2588.5 | 2672.2 | 2786.2 | 2936.8 | 3122.4 |
| 22.5° | 3441.7 | 3368.7 | 2950.5 | 2728.4 | 2605.3 | 2593.1 | 2573.3 | 2637.2 | 2763.4 | 2944.4 | 3184.7 |
| 25° | 4041.0 | 4006.0 | 3368.7 | 3076.7 | 2822.7 | 2783.2 | 2652.4 | 2675.2 | 2810.6 | 3026.5 | 3355.0 |
| 27.5° | 4596.1 | 4535.2 | 3917.8 | 3583.2 | 3224.2 | 3163.4 | 2886.6 | 2793.8 | 2923.1 | 3178.6 | 3601.4 |
| 30° | 4920.0 | 4879.0 | 4482.0 | 4162.6 | 3735.3 | 3657.7 | 3260.8 | 3028.1 | 3123.9 | 3429.6 | 3951.2 |
| 32.5° | 5272.9 | 5248.5 | 5047.8 | 4757.3 | 4288.9 | 4199.1 | 3744.4 | 3409.8 | 3431.1 | 3762.6 | 4372.5 |
| 35° | 5615.1 | 5647.0 | 5532.9 | 5320.0 | 4885.0 | 4801.4 | 4393.8 | 3908.6 | 3809.8 | 4136.8 | 4822.7 |
| 37.5° | 6025.7 | 6033.3 | 5961.8 | 5823.4 | 5511.6 | 5443.2 | 5107.1 | 4440.9 | 4221.9 | 4535.2 | 5257.7 |
| 40° | 6845.4 | 6725.3 | 6445.5 | 6336.0 | 6150.4 | 6107.8 | 5724.6 | 4929.1 | 4605.2 | 4944.4 | 5668.3 |
| 42.5° | 7732.1 | 7545.0 | 7107.0 | 6927.6 | 6853.1 | 6813.5 | 6238.6 | 5254.6 | 4964.1 | 5353.5 | 6071.3 |
| 45° | 8446.9 | 8294.8 | 7866.0 | 7643.9 | 7653.0 | 7589.2 | 6687.3 | 5545.1 | 5353.5 | 5764.1 | 6521.5 |
| 47.5° | 9151.1 | 8897.1 | 8416.5 | 8384.6 | 8491.0 | 8396.7 | 7116.2 | 5835.6 | 5759.5 | 6211.2 | 6971.7 |
| 50° | 9196.7 | 8965.5 | 8770.9 | 9026.4 | 9208.9 | 9091.8 | 7505.5 | 6215.8 | 6180.8 | 6752.7 | 7552.7 |
| 52.5° | 8641.6 | 8608.1 | 8904.7 | 9335.1 | 9637.8 | 9532.8 | 7823.4 | 6606.7 | 6611.2 | 7429.5 | 8259.9 |
| 55° | 8439.3 | 8396.7 | 8752.6 | 9281.9 | 9691.0 | 9628.6 | 8060.6 | 7047.7 | 7088.8 | 8250.7 | 9018.8 |
| 57.5° | 8780.0 | 8673.5 | 8743.5 | 9181.5 | 9566.3 | 9529.8 | 8307.0 | 7537.4 | 7612.0 | 9196.7 | 9719.9 |
| 60° | 9837.0 | 9619.5 | 9248.4 | 9330.6 | 9570.8 | 9549.6 | 8659.8 | 8083.4 | 8208.1 | 10182.2 | 10164.0 |
| 62.5° | 11420.2 | 11173.8 | 10418.0 | 10053.0 | 9999.7 | 9958.7 | 9242.3 | 8754.1 | 8816.5 | 10894.0 | 9905.4 |
| 65° | 13157.1 | 12892.4 | 11993.6 | 11395.9 | 11082.6 | 10994.4 | 10182.2 | 9563.2 | 9172.4 | 10892.5 | 8898.6 |
| 67.5° | 15106.8 | 14827.0 | 13931.2 | 13360.9 | 13021.7 | 12871.1 | 11707.7 | 10217.2 | 9056.8 | 9970.8 | 7120.7 |
| 70° | 17103.7 | 16837.6 | 16426.9 | 16626.2 | 16775.2 | 16545.6 | 14110.7 | 10434.7 | 8226.4 | 7817.3 | 4781.6 |
| 72.5° | 16043.7 | 16022.4 | 16334.2 | 18223.1 | 21096.0 | 21141.6 | 16510.6 | 9820.3 | 6355.7 | 4646.3 | 2549.0 |
| 73° | 15059.7 | 15149.4 | 15727.3 | 17987.4 | 21465.6 | 21480.8 | 16557.7 | 9502.4 | 5835.6 | 4002.9 | 2238.7 |
| 75° | 7802.1 | 8410.4 | 10554.9 | 14585.2 | 19876.3 | 19947.8 | 14595.8 | 7193.7 | 3478.2 | 2223.5 | 1508.7 |
| 77.5° | 2089.7 | 2062.3 | 3400.7 | 7105.5 | 13251.4 | 13157.1 | 9222.6 | 3482.8 | 1666.9 | 1394.6 | 1058.5 |
| 80° | 716.3 | 725.5 | 1157.4 | 2599.2 | 6185.4 | 6405.9 | 4002.9 | 1519.4 | 1096.5 | 971.8 | 749.8 |
| 82.5° | 365.0 | 377.2 | 605.3 | 1105.7 | 2587.0 | 2532.3 | 1288.2 | 894.3 | 734.6 | 590.1 | 419.8 |
| 85° | 194.7 | 200.8 | 333.1 | 573.4 | 949.0 | 959.7 | 453.2 | 477.6 | 466.9 | 334.6 | 206.8 |
| 87.5° | 95.8 | 98.9 | 159.7 | 252.5 | 351.3 | 339.2 | 158.2 | 206.8 | 229.7 | 188.6 | 114.1 |
| 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° | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 | 3625.8 |
| 2.5° | 3601.4 | 3601.4 | 3621.2 | 3654.7 | 3679.0 | 3701.8 | 3717.0 | 3741.3 | 3755.0 | 3753.5 | 3752.0 |
| 5° | 3577.1 | 3592.3 | 3631.8 | 3672.9 | 3700.3 | 3718.5 | 3718.5 | 3729.2 | 3729.2 | 3724.6 | 3718.5 |
| 7.5° | 3520.8 | 3546.7 | 3604.5 | 3641.0 | 3648.6 | 3628.8 | 3589.3 | 3558.8 | 3520.8 | 3501.0 | 3493.4 |
| 10° | 3431.1 | 3464.5 | 3537.5 | 3554.3 | 3514.7 | 3444.8 | 3349.0 | 3266.8 | 3193.8 | 3160.4 | 3149.7 |
| 12.5° | 3342.9 | 3387.0 | 3455.4 | 3429.6 | 3335.3 | 3198.4 | 3050.9 | 2938.3 | 2856.2 | 2824.3 | 2813.6 |
| 15° | 3269.9 | 3323.1 | 3376.3 | 3295.7 | 3131.5 | 2941.4 | 2778.6 | 2673.7 | 2611.3 | 2587.0 | 2580.9 |
| 17.5° | 3221.2 | 3283.6 | 3301.8 | 3151.2 | 2923.1 | 2710.2 | 2565.7 | 2497.3 | 2469.9 | 2459.3 | 2456.2 |
| 20° | 3224.2 | 3294.2 | 3250.1 | 3011.3 | 2722.4 | 2507.9 | 2412.1 | 2392.3 | 2392.3 | 2392.3 | 2390.8 |
| 22.5° | 3307.9 | 3368.7 | 3228.8 | 2880.5 | 2529.2 | 2337.6 | 2296.5 | 2313.2 | 2325.4 | 2325.4 | 2323.9 |
| 25° | 3481.3 | 3514.7 | 3244.0 | 2754.3 | 2348.2 | 2190.1 | 2191.6 | 2223.5 | 2234.2 | 2234.2 | 2231.1 |
| 27.5° | 3745.9 | 3718.5 | 3271.4 | 2614.4 | 2170.3 | 2056.2 | 2077.5 | 2106.4 | 2114.0 | 2109.4 | 2107.9 |
| 30° | 4077.5 | 3968.0 | 3294.2 | 2450.1 | 2003.0 | 1931.5 | 1949.8 | 1966.5 | 1960.4 | 1949.8 | 1948.2 |
| 32.5° | 4448.6 | 4221.9 | 3280.5 | 2266.1 | 1855.5 | 1802.2 | 1812.9 | 1822.0 | 1812.9 | 1787.0 | 1787.0 |
| 35° | 4816.6 | 4451.6 | 3206.0 | 2065.3 | 1738.4 | 1677.5 | 1676.0 | 1704.9 | 1703.4 | 1673.0 | 1674.5 |
| 37.5° | 5139.0 | 4632.6 | 3061.5 | 1881.3 | 1638.0 | 1586.3 | 1592.4 | 1610.6 | 1619.7 | 1578.7 | 1574.1 |
| 40° | 5420.4 | 4757.3 | 2857.7 | 1724.7 | 1557.4 | 1560.4 | 1543.7 | 1514.8 | 1504.1 | 1485.9 | 1482.9 |
| 42.5° | 5685.0 | 4844.0 | 2641.8 | 1593.9 | 1516.3 | 1551.3 | 1495.0 | 1426.6 | 1397.7 | 1414.4 | 1425.1 |
| 45° | 5945.1 | 4941.3 | 2433.4 | 1485.9 | 1464.6 | 1523.9 | 1446.3 | 1370.3 | 1336.8 | 1344.5 | 1355.1 |
| 47.5° | 6263.0 | 5076.7 | 2182.5 | 1370.3 | 1385.5 | 1473.7 | 1415.9 | 1333.8 | 1283.6 | 1253.2 | 1244.1 |
| 50° | 6681.2 | 5272.9 | 1857.0 | 1245.6 | 1301.9 | 1419.0 | 1390.1 | 1280.6 | 1225.8 | 1165.0 | 1149.8 |
| 52.5° | 7204.4 | 5458.4 | 1528.5 | 1145.2 | 1233.4 | 1371.8 | 1347.5 | 1234.9 | 1168.0 | 1095.0 | 1082.9 |
| 55° | 7726.0 | 5484.3 | 1245.6 | 1058.5 | 1155.9 | 1308.0 | 1295.8 | 1198.4 | 1104.2 | 1044.8 | 1032.7 |
| 57.5° | 8091.0 | 5239.4 | 1055.5 | 985.5 | 1081.3 | 1228.9 | 1248.6 | 1154.3 | 1050.9 | 1005.3 | 997.7 |
| 60° | 8097.1 | 4653.9 | 939.9 | 936.9 | 1025.1 | 1160.4 | 1200.0 | 1102.6 | 1017.5 | 987.0 | 981.0 |
| 62.5° | 7453.8 | 3750.5 | 865.4 | 900.4 | 984.0 | 1104.2 | 1163.5 | 1073.7 | 1009.9 | 997.7 | 991.6 |
| 65° | 6247.7 | 2771.0 | 806.1 | 866.9 | 946.0 | 1057.0 | 1133.0 | 1064.6 | 1006.8 | 1002.3 | 997.7 |
| 67.5° | 4612.8 | 1899.6 | 755.9 | 824.3 | 903.4 | 1008.3 | 1104.2 | 1050.9 | 988.6 | 1006.8 | 1000.7 |
| 70° | 2901.8 | 1268.4 | 708.7 | 775.6 | 847.1 | 952.1 | 1066.1 | 1026.6 | 965.8 | 955.1 | 935.3 |
| 72.5° | 1638.0 | 917.1 | 652.5 | 713.3 | 774.1 | 877.5 | 1014.4 | 985.5 | 914.0 | 871.5 | 851.7 |
| 73° | 1479.8 | 868.4 | 638.8 | 698.1 | 757.4 | 862.3 | 1002.3 | 973.4 | 898.8 | 851.7 | 833.4 |
| 75° | 1082.9 | 710.2 | 576.4 | 635.7 | 687.4 | 792.4 | 944.5 | 912.5 | 831.9 | 775.6 | 763.5 |
| 77.5° | 784.8 | 547.5 | 495.8 | 549.0 | 594.7 | 695.0 | 857.8 | 821.3 | 742.2 | 711.8 | 699.6 |
| 80° | 565.8 | 415.2 | 410.6 | 462.3 | 501.9 | 603.8 | 765.0 | 727.0 | 650.9 | 740.7 | 720.9 |
| 82.5° | 337.6 | 266.2 | 301.1 | 358.9 | 400.0 | 506.5 | 664.6 | 620.5 | 547.5 | 553.6 | 471.5 |
| 85° | 161.2 | 150.6 | 187.1 | 235.7 | 264.6 | 346.8 | 553.6 | 518.6 | 438.0 | 358.9 | 351.3 |
| 87.5° | 71.5 | 68.4 | 89.7 | 104.9 | 141.4 | 208.4 | 378.7 | 336.1 | 317.9 | 190.1 | 149.0 |
| 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)