

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: P271105

Luminaire Tested: **NVN-AF-05-LED-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271105
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-05-LED-U-T3-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26131.9 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

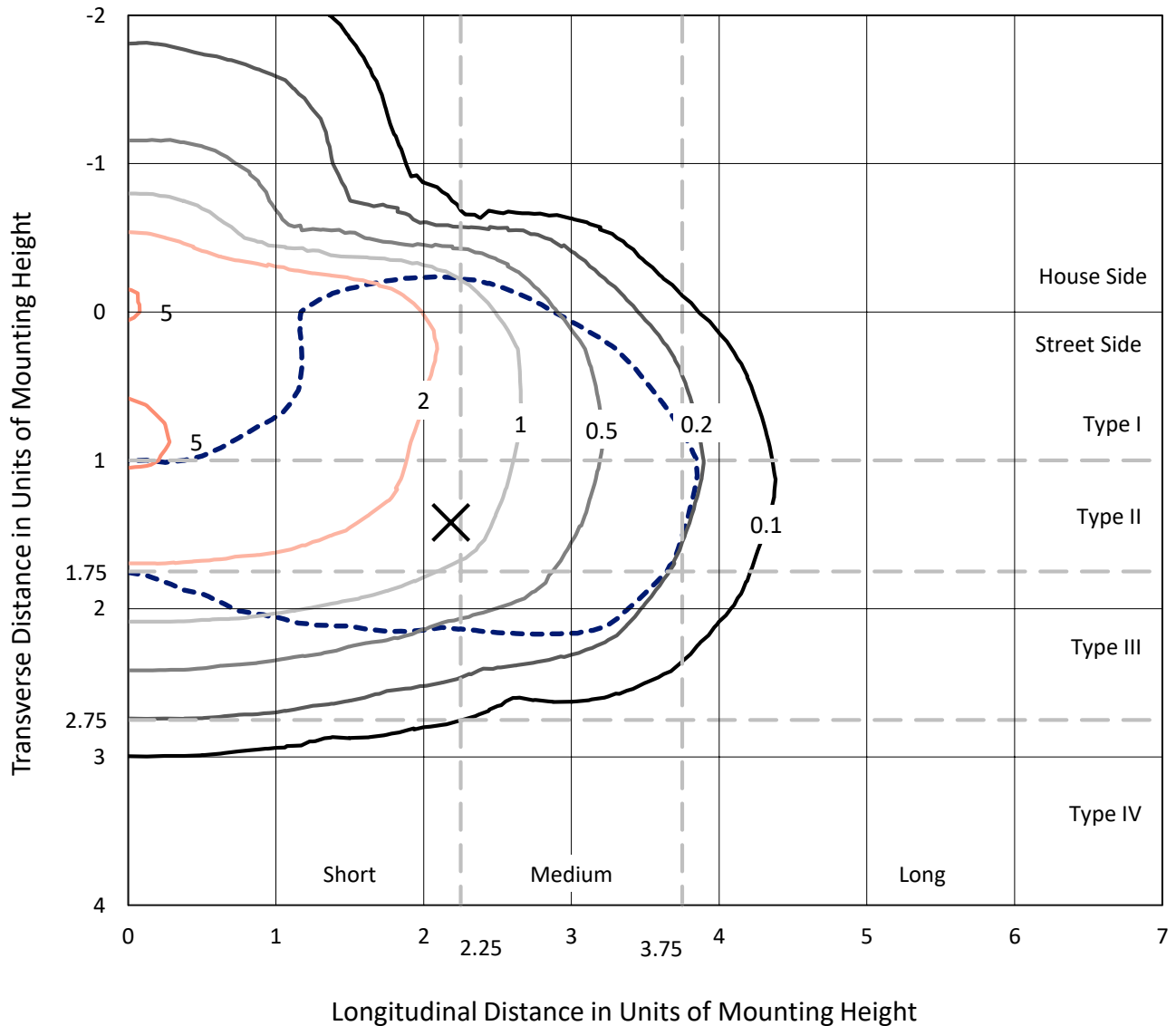
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

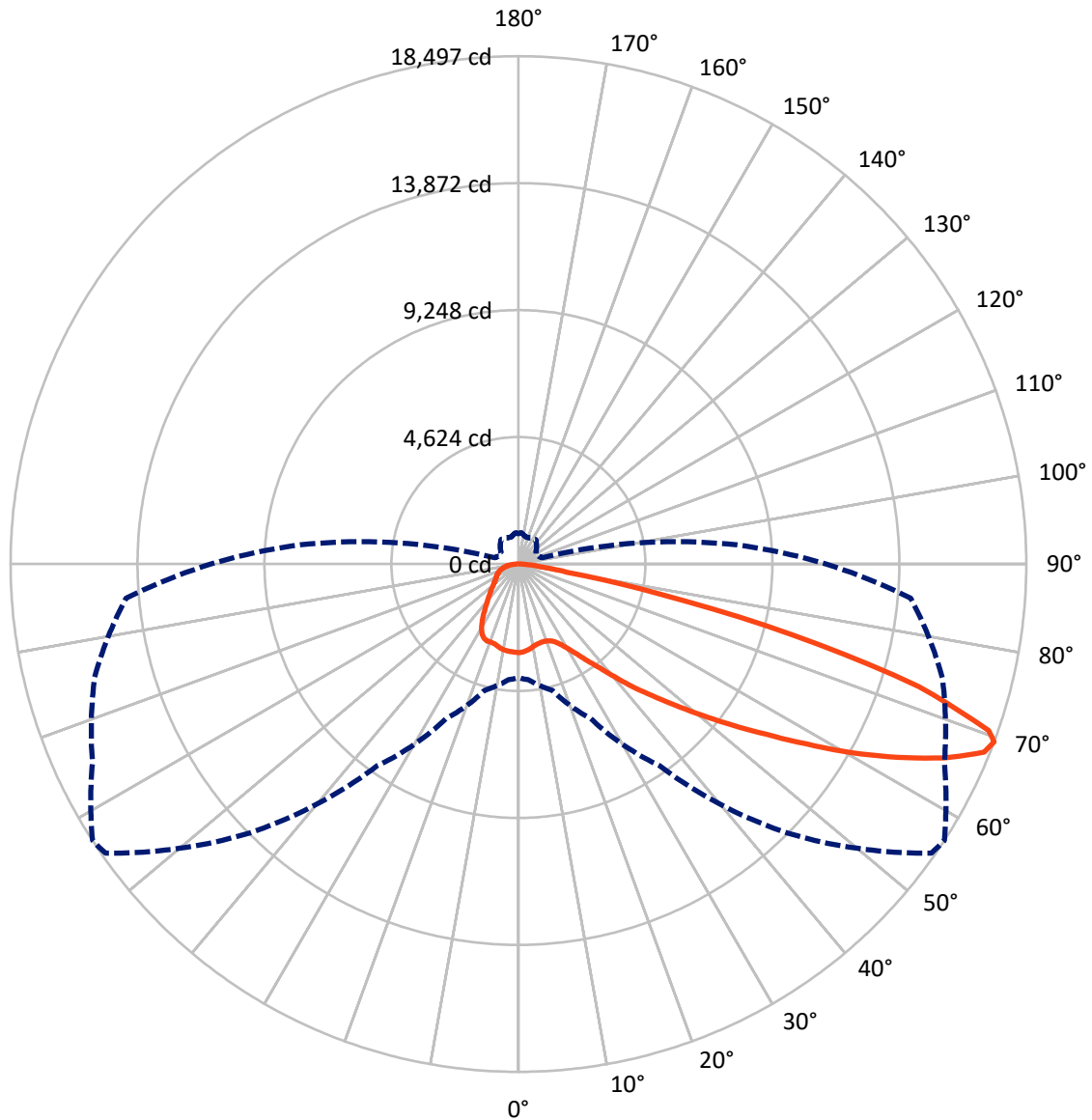
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5766.4 | 0.0 | 5766.4 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 20365.5 | 0.0 | 20365.5 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 26131.9 | 0.0 | 26131.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 302.3 | 1.2 |
| 10°-20° | 859.5 | 3.3 |
| 20°-30° | 1429.7 | 5.5 |
| 30°-40° | 2334.7 | 8.9 |
| 40°-50° | 3940.4 | 15.1 |
| 50°-60° | 6129.5 | 23.5 |
| 60°-70° | 7301.6 | 27.9 |
| 70°-80° | 3401.5 | 13.0 |
| 80°-90° | 432.6 | 1.7 |
| 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° | 26131.9 | 100.0 |
| 0°-180° | 26131.9 | 100.0 |

Coefficient of Utilization



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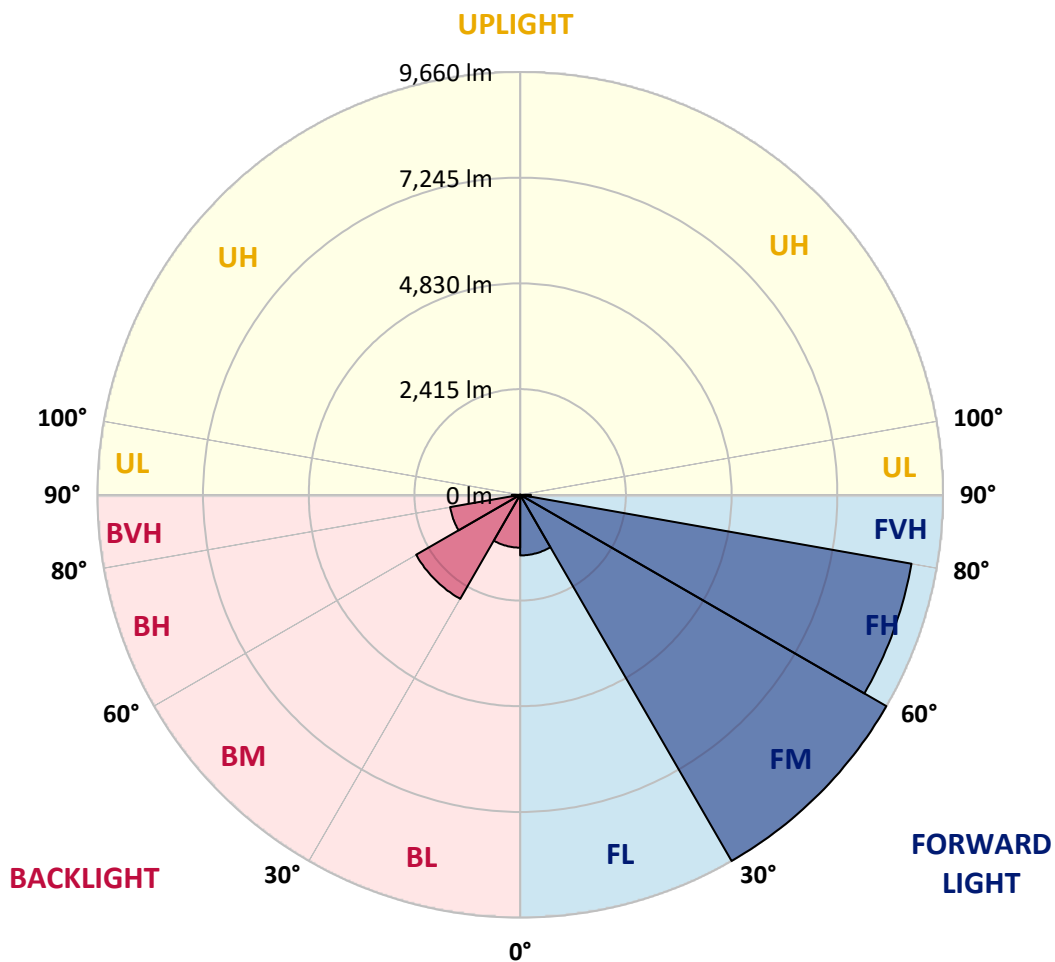
CATALOG NUMBER: NVN-AF-05-LED-U-T3-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1383.9 | 5.3 | | | |
| FM | (30°-60°) | 9660.2 | 37.0 | | | |
| FH | (60°-80°) | 9078.3 | 34.7 | | | G4/12000 |
| FVH | (80°-90°) | 243.2 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 1207.6 | 4.6 | B3/2500 | | |
| BM | (30°-60°) | 2744.5 | 10.5 | B3/5000 | | |
| BH | (60°-80°) | 1624.9 | 6.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 189.4 | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 |
| 2.5° | 3210.5 | 3210.5 | 3218.8 | 3218.8 | 3218.8 | 3215.5 | 3205.4 | 3208.7 | 3202.1 | 3197.1 | 3188.8 |
| 5° | 3145.2 | 3148.6 | 3158.6 | 3161.9 | 3167.0 | 3168.6 | 3168.6 | 3167.0 | 3168.6 | 3168.6 | 3163.7 |
| 7.5° | 3054.9 | 3058.2 | 3069.9 | 3076.7 | 3091.6 | 3105.0 | 3111.8 | 3111.8 | 3120.2 | 3126.8 | 3128.4 |
| 10° | 2999.7 | 2999.7 | 3006.4 | 3006.4 | 3018.0 | 3024.8 | 3046.5 | 3044.9 | 3068.3 | 3090.0 | 3100.1 |
| 12.5° | 2993.0 | 2993.0 | 2989.6 | 2977.9 | 2971.2 | 2969.5 | 2991.3 | 2994.6 | 3029.8 | 3068.3 | 3086.7 |
| 15° | 3014.7 | 3014.7 | 3004.7 | 2981.2 | 2956.1 | 2944.5 | 2966.3 | 2972.9 | 3011.4 | 3056.6 | 3085.0 |
| 17.5° | 3085.0 | 3083.3 | 3061.6 | 3014.7 | 2971.2 | 2952.8 | 2959.5 | 2966.3 | 3001.3 | 3053.2 | 3088.4 |
| 20° | 3240.5 | 3240.5 | 3193.7 | 3108.4 | 3033.0 | 2989.6 | 2979.6 | 2984.6 | 3009.7 | 3058.2 | 3103.4 |
| 22.5° | 3513.4 | 3518.3 | 3434.6 | 3294.2 | 3165.3 | 3073.3 | 3033.0 | 3038.2 | 3049.8 | 3096.6 | 3146.9 |
| 25° | 3914.8 | 3901.3 | 3782.7 | 3583.5 | 3382.7 | 3225.5 | 3143.4 | 3148.6 | 3148.6 | 3192.0 | 3243.9 |
| 27.5° | 4339.7 | 4343.0 | 4172.4 | 3958.3 | 3693.9 | 3459.7 | 3329.3 | 3327.5 | 3325.9 | 3367.7 | 3422.9 |
| 30° | 4819.9 | 4821.6 | 4624.1 | 4376.5 | 4073.8 | 3774.3 | 3578.5 | 3576.8 | 3561.8 | 3613.6 | 3685.6 |
| 32.5° | 5345.2 | 5343.5 | 5114.3 | 4834.9 | 4498.6 | 4159.1 | 3904.8 | 3903.0 | 3891.4 | 3961.6 | 4048.7 |
| 35° | 5927.3 | 5927.3 | 5699.8 | 5355.2 | 4992.2 | 4614.1 | 4319.6 | 4318.0 | 4324.7 | 4420.0 | 4501.9 |
| 37.5° | 6628.4 | 6643.4 | 6369.1 | 5950.8 | 5554.3 | 5151.2 | 4808.2 | 4798.0 | 4747.9 | 4908.5 | 5044.1 |
| 40° | 7359.5 | 7401.2 | 7116.8 | 6628.4 | 6200.1 | 5783.5 | 5405.5 | 5398.8 | 5355.2 | 5525.8 | 5745.0 |
| 42.5° | 8150.9 | 8246.1 | 7930.0 | 7431.4 | 6964.6 | 6514.6 | 6134.9 | 6116.4 | 5949.1 | 6215.2 | 6558.0 |
| 45° | 9188.0 | 9249.8 | 8791.5 | 8339.9 | 7899.9 | 7386.3 | 6934.6 | 6835.8 | 6668.5 | 7009.8 | 7454.9 |
| 47.5° | 9894.0 | 9863.8 | 9577.8 | 9275.0 | 8992.3 | 8500.4 | 7806.1 | 7680.7 | 7476.6 | 7928.4 | 8418.5 |
| 50° | 10332.3 | 10354.0 | 10193.4 | 10178.4 | 10163.3 | 9820.5 | 8789.8 | 8639.3 | 8403.4 | 8938.8 | 9511.0 |
| 52.5° | 10621.7 | 10523.0 | 10551.5 | 10892.8 | 11306.0 | 11142.0 | 9902.3 | 9735.1 | 9492.5 | 10027.9 | 10673.7 |
| 55° | 10501.4 | 10370.8 | 10633.4 | 11306.0 | 12278.0 | 12314.9 | 11123.6 | 10951.3 | 10743.9 | 11185.5 | 12072.2 |
| 57.5° | 10002.7 | 10068.1 | 10483.0 | 11418.0 | 12942.2 | 13365.4 | 12527.4 | 12351.7 | 11943.4 | 12391.8 | 13400.6 |
| 60° | 9301.8 | 9433.9 | 10068.1 | 11240.9 | 13407.4 | 14183.6 | 14068.0 | 13950.9 | 13248.4 | 13566.3 | 14795.9 |
| 62.5° | 8548.9 | 8679.5 | 9459.1 | 10937.9 | 13198.2 | 14907.9 | 15580.6 | 15508.6 | 14688.7 | 14697.2 | 15680.9 |
| 65° | 7436.3 | 7490.0 | 8286.2 | 10111.5 | 12617.7 | 15562.1 | 17094.6 | 17031.0 | 16065.6 | 15662.5 | 15928.4 |
| 67.5° | 5616.3 | 5683.1 | 6337.3 | 7981.8 | 10850.9 | 15207.3 | 18304.1 | 18294.1 | 16893.7 | 16020.6 | 15339.5 |
| 69° | 4147.4 | 4229.3 | 4763.0 | 6196.7 | 8972.2 | 13855.6 | 18360.9 | 18496.6 | 17117.9 | 15983.7 | 14344.1 |
| 70° | 3034.8 | 3128.4 | 3622.0 | 4918.6 | 7473.2 | 12363.4 | 17874.1 | 18165.3 | 17032.7 | 15751.2 | 13567.9 |
| 72.5° | 1289.8 | 1321.6 | 1564.3 | 2220.0 | 3790.9 | 7454.9 | 14640.2 | 15252.6 | 15383.0 | 14113.4 | 10600.0 |
| 75° | 808.0 | 818.0 | 913.4 | 1139.3 | 1686.4 | 3083.3 | 9480.8 | 10315.5 | 11485.0 | 10949.7 | 7096.8 |
| 77.5° | 609.1 | 617.3 | 672.6 | 784.6 | 1047.2 | 1151.0 | 4398.3 | 5244.8 | 6578.2 | 6440.9 | 3531.6 |
| 80° | 466.8 | 471.8 | 508.6 | 570.6 | 737.8 | 721.1 | 1427.0 | 1793.5 | 2745.4 | 2422.5 | 1249.7 |
| 82.5° | 366.4 | 368.0 | 399.8 | 411.6 | 515.3 | 485.2 | 715.9 | 798.1 | 1109.1 | 921.8 | 610.7 |
| 85° | 324.6 | 329.6 | 361.4 | 301.1 | 329.6 | 292.8 | 393.2 | 426.6 | 588.8 | 555.4 | 230.9 |
| 87.5° | 165.6 | 174.0 | 302.8 | 257.6 | 165.6 | 138.9 | 172.4 | 185.7 | 239.3 | 259.3 | 112.1 |
| 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° | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 | 3228.9 |
| 2.5° | 3190.4 | 3192.0 | 3197.1 | 3205.4 | 3218.8 | 3235.5 | 3255.6 | 3275.7 | 3287.3 | 3295.8 | 3292.5 |
| 5° | 3163.7 | 3165.3 | 3175.2 | 3190.4 | 3207.0 | 3232.2 | 3265.7 | 3290.8 | 3309.1 | 3320.9 | 3319.1 |
| 7.5° | 3130.1 | 3135.2 | 3155.2 | 3171.9 | 3195.5 | 3215.5 | 3242.3 | 3265.7 | 3284.1 | 3295.8 | 3294.2 |
| 10° | 3105.0 | 3110.1 | 3135.2 | 3157.0 | 3176.9 | 3180.3 | 3175.2 | 3168.6 | 3167.0 | 3175.2 | 3171.9 |
| 12.5° | 3093.4 | 3103.4 | 3126.8 | 3141.8 | 3133.5 | 3101.7 | 3064.8 | 3049.8 | 3044.9 | 3061.6 | 3063.2 |
| 15° | 3096.6 | 3105.0 | 3125.2 | 3115.1 | 3069.9 | 3016.4 | 2996.2 | 3008.1 | 3018.0 | 3028.0 | 3029.8 |
| 17.5° | 3105.0 | 3110.1 | 3115.1 | 3078.3 | 3014.7 | 2979.6 | 2972.9 | 2961.3 | 2931.1 | 2914.3 | 2912.7 |
| 20° | 3120.2 | 3126.8 | 3118.5 | 3059.8 | 3003.0 | 2956.1 | 2875.8 | 2803.9 | 2735.2 | 2698.5 | 2683.4 |
| 22.5° | 3171.9 | 3176.9 | 3152.0 | 3095.0 | 3008.1 | 2855.8 | 2693.5 | 2569.7 | 2464.3 | 2407.4 | 2385.7 |
| 25° | 3274.1 | 3282.3 | 3247.3 | 3175.2 | 2947.8 | 2681.8 | 2452.6 | 2285.3 | 2153.1 | 2084.5 | 2066.1 |
| 27.5° | 3453.1 | 3461.3 | 3422.9 | 3235.5 | 2807.3 | 2449.3 | 2171.6 | 2005.9 | 1892.1 | 1833.6 | 1825.3 |
| 30° | 3720.7 | 3732.4 | 3697.3 | 3233.9 | 2593.0 | 2153.1 | 1897.2 | 1800.2 | 1734.8 | 1694.7 | 1693.0 |
| 32.5° | 4092.0 | 4135.5 | 3991.8 | 3176.9 | 2328.8 | 1853.7 | 1689.7 | 1656.2 | 1624.5 | 1597.6 | 1597.6 |
| 35° | 4563.8 | 4665.9 | 4282.8 | 3058.2 | 2037.6 | 1649.6 | 1574.3 | 1542.5 | 1502.3 | 1473.8 | 1470.5 |
| 37.5° | 5127.6 | 5286.6 | 4490.3 | 2847.4 | 1786.8 | 1550.8 | 1504.0 | 1452.1 | 1388.6 | 1333.4 | 1320.0 |
| 40° | 5902.3 | 5939.1 | 4592.3 | 2504.5 | 1599.3 | 1497.4 | 1438.7 | 1373.5 | 1293.2 | 1231.2 | 1224.6 |
| 42.5° | 6680.2 | 6559.8 | 4572.3 | 2136.3 | 1492.4 | 1448.7 | 1371.8 | 1299.8 | 1228.0 | 1176.2 | 1176.2 |
| 45° | 7565.3 | 7101.8 | 4420.0 | 1766.6 | 1395.2 | 1393.6 | 1310.0 | 1241.4 | 1186.1 | 1147.7 | 1139.3 |
| 47.5° | 8411.8 | 7588.6 | 4157.4 | 1494.1 | 1294.8 | 1338.4 | 1269.8 | 1214.6 | 1164.5 | 1127.6 | 1120.8 |
| 50° | 9439.0 | 8152.5 | 3878.0 | 1303.3 | 1197.9 | 1289.8 | 1253.0 | 1224.6 | 1176.2 | 1112.6 | 1105.9 |
| 52.5° | 10459.4 | 8811.7 | 3662.2 | 1159.4 | 1112.6 | 1251.3 | 1263.0 | 1266.4 | 1221.2 | 1097.5 | 1089.1 |
| 55° | 11555.3 | 9515.9 | 3434.6 | 1047.2 | 1042.3 | 1233.1 | 1286.6 | 1283.1 | 1261.4 | 1100.9 | 1087.5 |
| 57.5° | 12597.6 | 10223.6 | 3095.0 | 968.6 | 987.1 | 1214.6 | 1291.6 | 1238.0 | 1199.5 | 1117.5 | 1095.8 |
| 60° | 13460.8 | 10809.1 | 2596.6 | 913.4 | 940.3 | 1177.8 | 1258.0 | 1177.8 | 1112.6 | 1114.2 | 1094.1 |
| 62.5° | 13880.7 | 10973.1 | 1985.9 | 849.8 | 901.8 | 1117.5 | 1209.6 | 1132.7 | 1072.3 | 1120.8 | 1109.1 |
| 65° | 13561.3 | 10506.3 | 1415.3 | 791.3 | 854.8 | 1047.2 | 1181.1 | 1094.1 | 1052.4 | 1154.3 | 1140.9 |
| 67.5° | 12413.5 | 9234.8 | 1027.2 | 739.5 | 809.7 | 975.4 | 1127.6 | 1059.0 | 1032.2 | 1179.5 | 1149.3 |
| 69° | 11193.9 | 7973.4 | 890.0 | 709.3 | 777.9 | 936.8 | 1092.5 | 1040.5 | 1017.2 | 1144.4 | 1100.9 |
| 70° | 10180.1 | 7001.4 | 821.4 | 690.9 | 751.2 | 915.2 | 1065.7 | 1028.9 | 1002.1 | 1102.5 | 1050.7 |
| 72.5° | 7299.2 | 4525.4 | 690.9 | 635.7 | 680.9 | 866.7 | 1007.1 | 985.4 | 945.2 | 995.4 | 961.9 |
| 75° | 4410.0 | 2362.3 | 587.2 | 578.9 | 607.3 | 799.8 | 938.5 | 911.8 | 871.6 | 876.7 | 859.9 |
| 77.5° | 2025.9 | 1090.8 | 491.8 | 511.9 | 530.3 | 715.9 | 854.8 | 824.7 | 788.0 | 774.6 | 776.2 |
| 80° | 888.3 | 637.3 | 411.6 | 436.7 | 446.6 | 644.2 | 764.5 | 731.1 | 690.9 | 762.9 | 707.7 |
| 82.5° | 480.1 | 369.7 | 321.2 | 337.9 | 366.4 | 560.5 | 664.1 | 620.6 | 582.2 | 677.5 | 547.1 |
| 85° | 194.0 | 189.1 | 217.5 | 234.2 | 254.3 | 403.2 | 555.4 | 510.2 | 463.4 | 414.8 | 404.9 |
| 87.5° | 83.6 | 90.3 | 107.1 | 113.7 | 135.6 | 250.9 | 373.1 | 326.3 | 327.9 | 281.1 | 276.0 |
| 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)