

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: P966625

Luminaire Tested: **NVN-SB4C-727-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4C-727-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21981.1 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

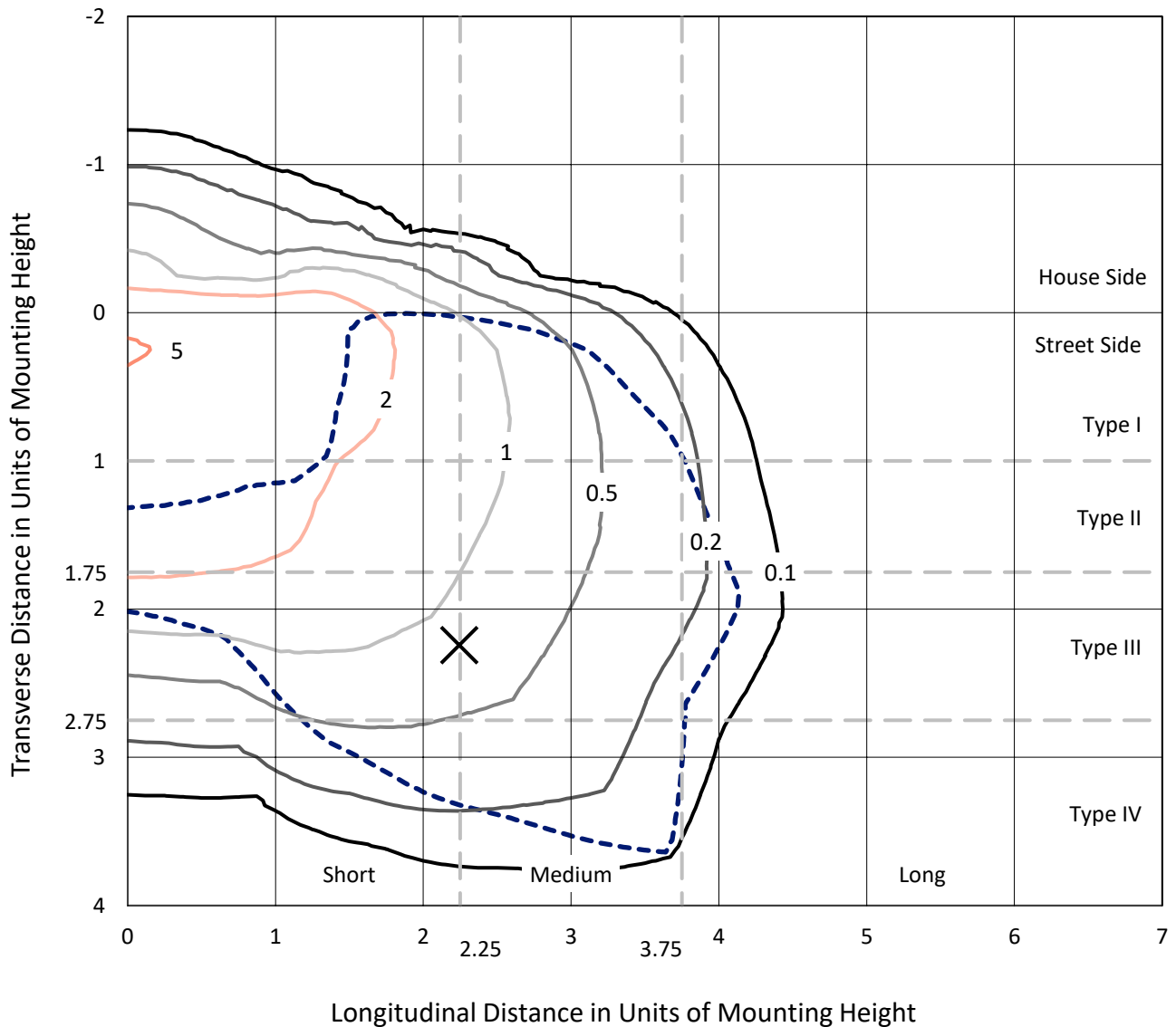
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

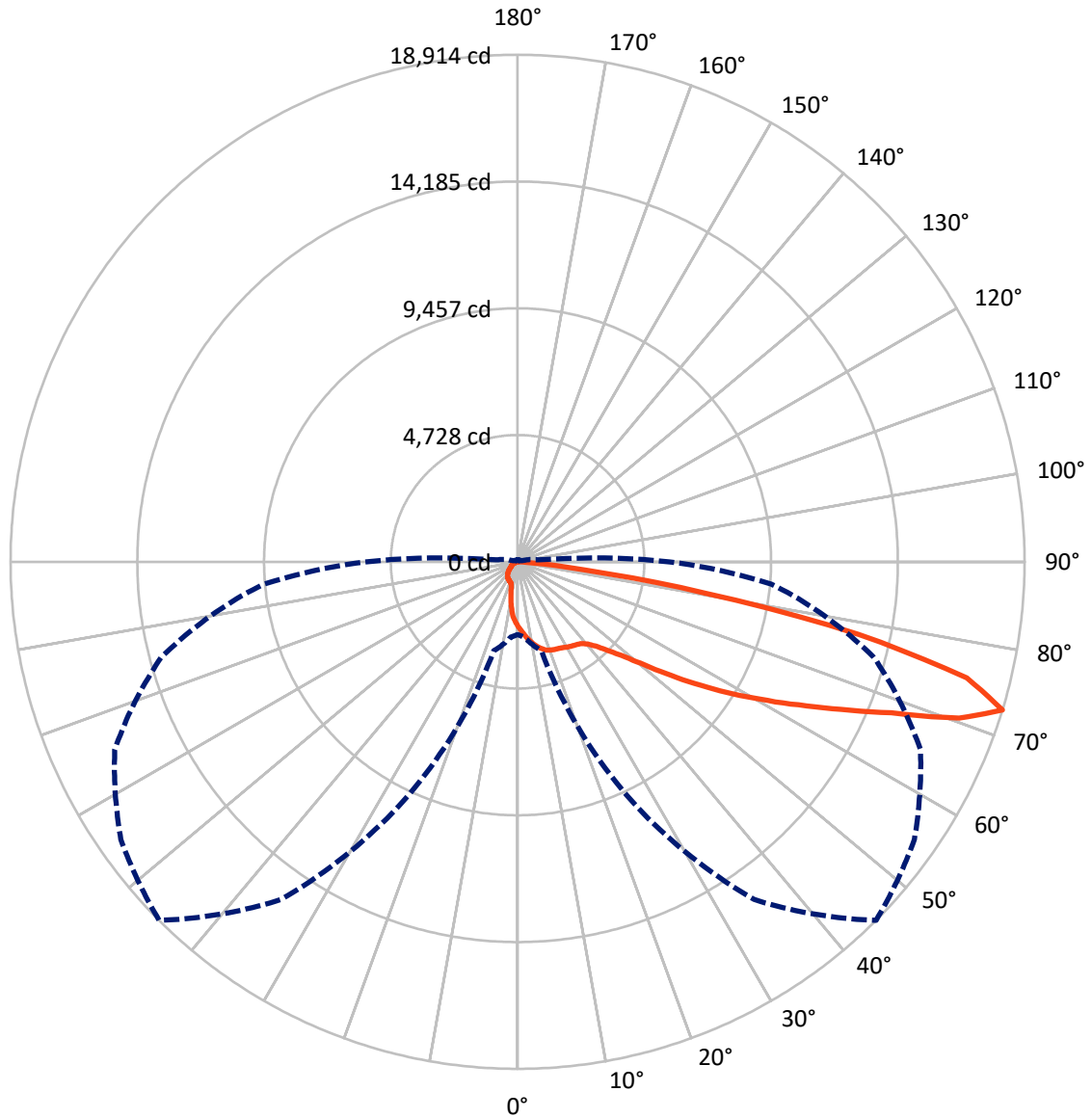
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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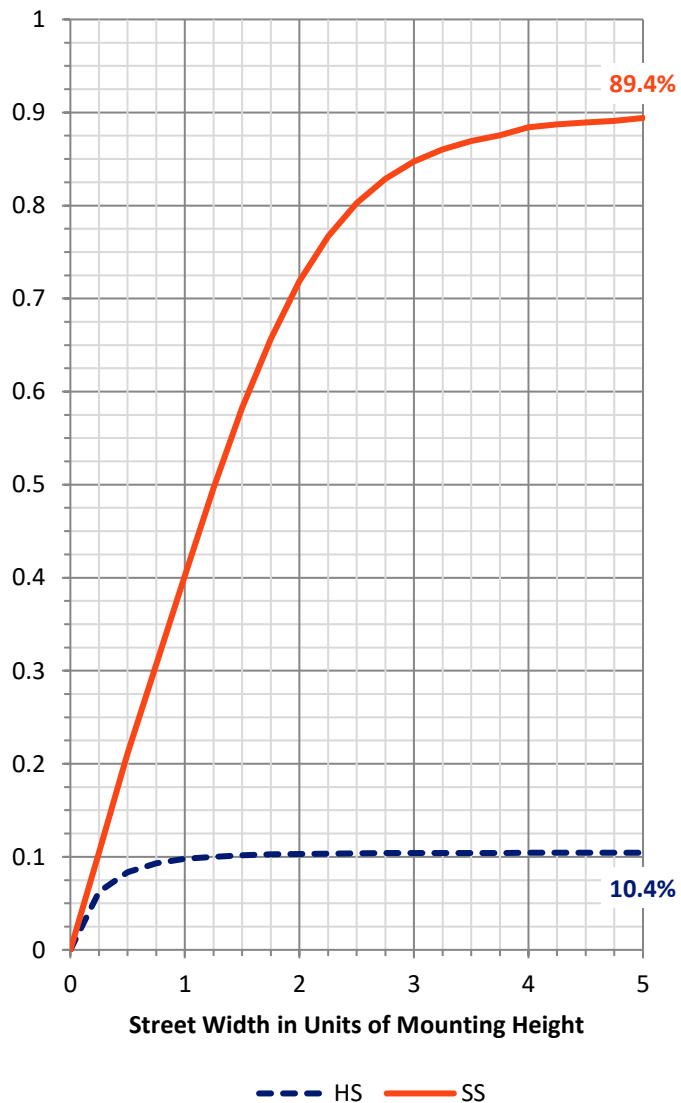
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2309.6 | 0.0 | 2309.6 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 19671.5 | 0.0 | 19671.5 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 21981.1 | 0.0 | 21981.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 226.9 | 1.0 |
| 10°-20° | 663.1 | 3.0 |
| 20°-30° | 1088.9 | 5.0 |
| 30°-40° | 1544.3 | 7.0 |
| 40°-50° | 2552.6 | 11.6 |
| 50°-60° | 4585.5 | 20.9 |
| 60°-70° | 6367.2 | 29.0 |
| 70°-80° | 4618.6 | 21.0 |
| 80°-90° | 333.9 | 1.5 |
| 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° | 21981.1 | 100.0 |
| 0°-180° | 21981.1 | 100.0 |

Coefficient of Utilization



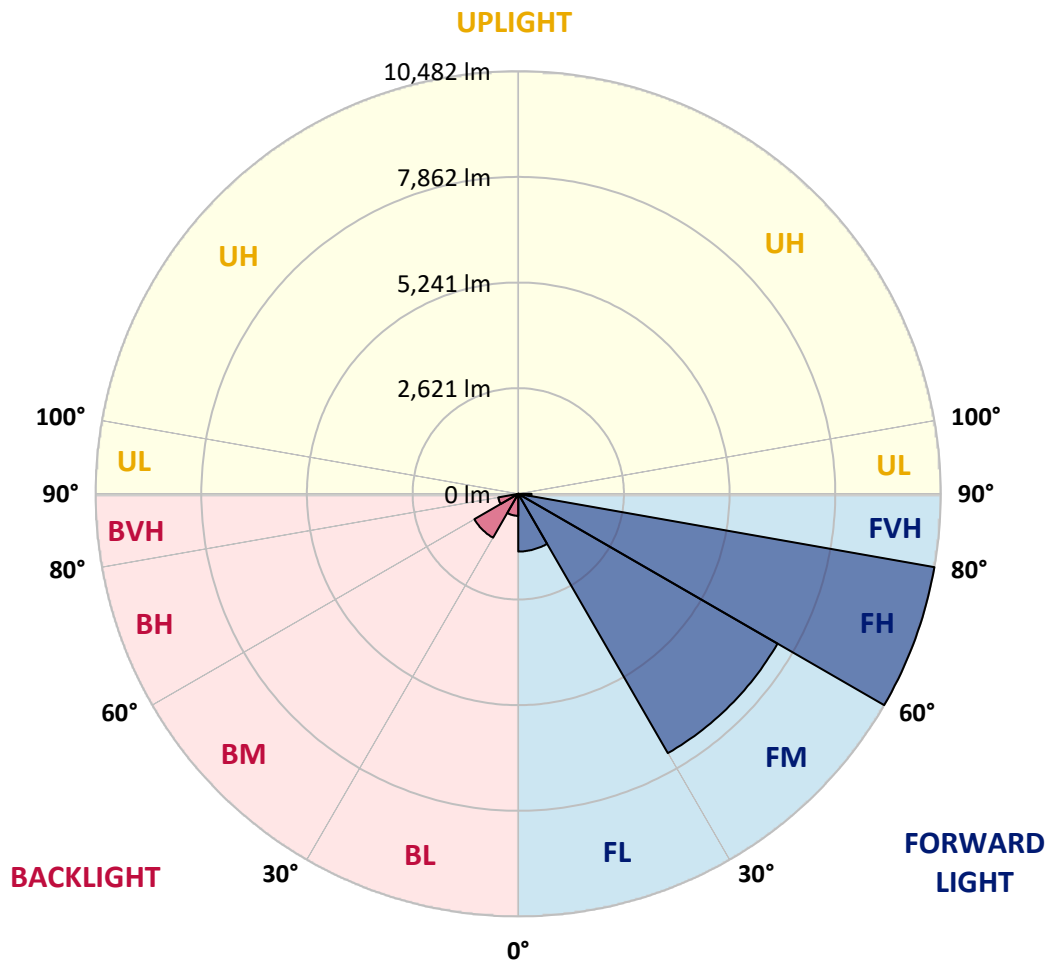
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1431.9 | 6.5 | | | |
| FM (30°-60°) | 7426.4 | 33.8 | | | |
| FH (60°-80°) | 10482.2 | 47.7 | | | G4/12000 |
| FVH (80°-90°) | 331.1 | 1.5 | | | G3/500 |
| BL (0°-30°) | 547.1 | 2.5 | B2/1000 | | |
| BM (30°-60°) | 1256.1 | 5.7 | B2/2500 | | |
| BH (60°-80°) | 503.7 | 2.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 2.8 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 |
| 2.5° | 2630.1 | 2634.7 | 2631.6 | 2613.6 | 2583.6 | 2567.1 | 2558.1 | 2528.1 | 2508.6 | 2474.1 | 2438.1 |
| 5° | 2871.6 | 2889.7 | 2879.2 | 2843.1 | 2786.2 | 2745.7 | 2733.7 | 2672.2 | 2616.6 | 2552.1 | 2477.1 |
| 7.5° | 3128.3 | 3137.2 | 3117.7 | 3071.2 | 2994.7 | 2925.7 | 2915.2 | 2829.7 | 2741.2 | 2642.1 | 2540.2 |
| 10° | 3350.3 | 3360.8 | 3330.8 | 3263.3 | 3176.3 | 3090.8 | 3075.7 | 2981.2 | 2876.1 | 2754.7 | 2624.1 |
| 12.5° | 3536.4 | 3546.8 | 3507.9 | 3426.8 | 3330.8 | 3242.3 | 3227.3 | 3128.3 | 3012.7 | 2877.7 | 2715.6 |
| 15° | 3677.4 | 3696.9 | 3644.4 | 3557.4 | 3453.8 | 3365.3 | 3357.8 | 3260.3 | 3147.8 | 2997.7 | 2825.2 |
| 17.5° | 3759.9 | 3779.4 | 3729.9 | 3624.9 | 3536.4 | 3461.3 | 3452.3 | 3371.3 | 3266.3 | 3122.3 | 2931.7 |
| 20° | 3773.4 | 3791.4 | 3738.9 | 3647.4 | 3573.9 | 3513.8 | 3509.4 | 3450.9 | 3374.3 | 3236.2 | 3047.2 |
| 22.5° | 3732.9 | 3755.4 | 3707.4 | 3633.8 | 3582.9 | 3551.3 | 3545.4 | 3512.4 | 3468.8 | 3351.9 | 3155.3 |
| 25° | 3690.9 | 3708.9 | 3672.9 | 3608.4 | 3581.4 | 3578.4 | 3582.9 | 3576.8 | 3567.8 | 3468.8 | 3281.3 |
| 27.5° | 3687.8 | 3707.4 | 3666.8 | 3605.3 | 3590.4 | 3621.8 | 3626.3 | 3654.8 | 3662.4 | 3575.4 | 3402.8 |
| 30° | 3713.4 | 3726.9 | 3687.8 | 3623.4 | 3615.9 | 3687.8 | 3689.4 | 3740.4 | 3752.4 | 3665.4 | 3522.8 |
| 32.5° | 3768.9 | 3783.9 | 3744.9 | 3650.3 | 3639.9 | 3740.4 | 3744.9 | 3812.4 | 3832.0 | 3761.4 | 3648.9 |
| 35° | 3899.4 | 3917.4 | 3872.4 | 3725.4 | 3687.8 | 3789.9 | 3803.4 | 3882.9 | 3922.0 | 3863.4 | 3779.4 |
| 37.5° | 4225.0 | 4172.5 | 4111.0 | 3877.0 | 3797.4 | 3867.9 | 3890.4 | 3983.5 | 4052.4 | 3985.0 | 3935.5 |
| 40° | 5033.7 | 4868.6 | 4676.7 | 4135.0 | 3989.5 | 4034.5 | 4052.4 | 4145.5 | 4240.0 | 4174.0 | 4150.0 |
| 42.5° | 6247.5 | 6052.4 | 5743.4 | 4729.1 | 4279.1 | 4301.5 | 4315.0 | 4396.0 | 4529.6 | 4477.1 | 4483.0 |
| 45° | 7329.3 | 7258.7 | 6943.7 | 5743.4 | 4820.7 | 4709.7 | 4726.2 | 4768.2 | 4964.7 | 4945.2 | 4984.2 |
| 47.5° | 8160.4 | 8119.9 | 7876.9 | 6907.7 | 5735.9 | 5209.3 | 5255.8 | 5275.3 | 5558.9 | 5627.9 | 5732.9 |
| 50° | 8799.6 | 8784.7 | 8567.1 | 7942.9 | 6931.7 | 5945.9 | 5962.4 | 5920.4 | 6345.1 | 6516.0 | 6715.6 |
| 52.5° | 9402.7 | 9453.8 | 9293.3 | 8904.7 | 8208.5 | 6910.7 | 6907.7 | 6709.6 | 7282.7 | 7540.8 | 7881.4 |
| 55° | 9947.4 | 9965.4 | 9981.9 | 9885.9 | 9492.8 | 8008.9 | 7980.4 | 7656.3 | 8370.6 | 8637.6 | 9006.7 |
| 57.5° | 10459.0 | 10466.5 | 10613.6 | 10810.1 | 10829.6 | 9188.2 | 9135.7 | 8747.1 | 9558.8 | 9749.4 | 9975.9 |
| 60° | 10802.6 | 10837.1 | 11147.7 | 11693.8 | 11932.3 | 10405.0 | 10376.5 | 9980.4 | 10768.1 | 10856.6 | 10814.6 |
| 62.5° | 10307.5 | 10517.5 | 11300.7 | 12383.9 | 12973.6 | 11753.8 | 11740.3 | 11368.3 | 12040.4 | 11968.4 | 11608.3 |
| 65° | 8343.5 | 8699.1 | 10076.5 | 12850.6 | 13995.4 | 13260.2 | 13279.7 | 12883.6 | 13347.2 | 13113.1 | 12253.5 |
| 67.5° | 5836.5 | 6211.5 | 7840.8 | 12888.1 | 15137.1 | 15029.1 | 15141.6 | 14520.5 | 14735.1 | 14209.9 | 12406.5 |
| 70° | 4035.9 | 4229.6 | 5290.2 | 12080.9 | 16026.9 | 17465.7 | 17462.7 | 16531.0 | 16115.4 | 14709.6 | 11626.3 |
| 72.5° | 2714.2 | 2814.6 | 3435.8 | 9584.3 | 15372.7 | 18913.5 | 18826.5 | 18067.4 | 16580.5 | 13756.8 | 9498.8 |
| 75° | 1144.8 | 1218.3 | 1590.4 | 5386.3 | 12161.9 | 17303.6 | 17068.1 | 15966.8 | 14732.0 | 10832.6 | 5926.4 |
| 77.5° | 363.1 | 394.6 | 627.2 | 1927.9 | 6699.1 | 13006.6 | 12757.6 | 9971.4 | 9873.8 | 5434.3 | 2166.5 |
| 80° | 172.5 | 201.0 | 352.6 | 774.2 | 2636.1 | 7074.2 | 7039.7 | 4523.6 | 4247.5 | 1467.4 | 435.1 |
| 82.5° | 75.0 | 88.6 | 195.1 | 414.1 | 1179.3 | 2523.7 | 2574.6 | 1539.3 | 1273.8 | 556.7 | 133.6 |
| 85° | 24.0 | 31.5 | 90.0 | 190.5 | 498.2 | 627.2 | 619.6 | 366.1 | 513.1 | 303.1 | 46.5 |
| 87.5° | 0.0 | 0.0 | 30.0 | 43.5 | 51.0 | 36.0 | 40.5 | 31.5 | 142.6 | 84.0 | 16.5 |
| 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° | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 | 2408.0 |
| 2.5° | 2420.1 | 2396.0 | 2354.0 | 2315.1 | 2280.5 | 2246.1 | 2225.1 | 2195.0 | 2192.1 | 2192.1 | 2199.5 |
| 5° | 2436.6 | 2397.6 | 2322.5 | 2243.0 | 2151.5 | 2064.5 | 1977.4 | 1893.5 | 1866.4 | 1846.9 | 1856.0 |
| 7.5° | 2484.6 | 2423.1 | 2304.5 | 2153.0 | 1979.0 | 1788.4 | 1654.9 | 1510.8 | 1455.4 | 1425.4 | 1429.9 |
| 10° | 2553.6 | 2469.6 | 2289.5 | 2024.0 | 1741.9 | 1482.4 | 1291.8 | 1135.8 | 1075.7 | 1050.2 | 1050.2 |
| 12.5° | 2630.1 | 2526.6 | 2262.6 | 1863.4 | 1482.4 | 1171.8 | 985.7 | 913.7 | 904.8 | 904.8 | 904.8 |
| 15° | 2721.7 | 2595.6 | 2216.0 | 1674.4 | 1210.8 | 927.2 | 861.2 | 864.2 | 873.2 | 879.2 | 879.2 |
| 17.5° | 2816.2 | 2669.1 | 2142.6 | 1462.9 | 970.8 | 834.2 | 835.7 | 840.2 | 847.7 | 853.7 | 853.7 |
| 20° | 2918.2 | 2742.7 | 2045.0 | 1237.8 | 832.7 | 807.2 | 811.7 | 816.2 | 822.2 | 825.2 | 826.7 |
| 22.5° | 3027.7 | 2811.7 | 1929.5 | 1017.2 | 786.2 | 784.6 | 786.2 | 790.7 | 798.2 | 798.2 | 801.2 |
| 25° | 3144.8 | 2888.2 | 1797.4 | 856.7 | 762.2 | 762.2 | 765.2 | 768.1 | 774.2 | 774.2 | 775.7 |
| 27.5° | 3264.8 | 2958.7 | 1657.9 | 772.6 | 741.2 | 739.6 | 739.6 | 744.2 | 747.2 | 748.7 | 750.2 |
| 30° | 3396.8 | 3041.3 | 1518.3 | 754.7 | 724.7 | 717.2 | 712.7 | 715.7 | 718.6 | 720.2 | 723.1 |
| 32.5° | 3531.8 | 3120.7 | 1393.8 | 762.2 | 708.2 | 694.6 | 679.7 | 676.7 | 676.7 | 682.6 | 687.2 |
| 35° | 3681.9 | 3207.7 | 1297.9 | 787.7 | 699.2 | 661.6 | 637.7 | 624.1 | 625.7 | 634.7 | 639.2 |
| 37.5° | 3861.9 | 3312.8 | 1227.3 | 810.2 | 693.2 | 624.1 | 585.2 | 568.7 | 558.1 | 568.7 | 565.6 |
| 40° | 4097.4 | 3467.4 | 1176.3 | 828.2 | 685.6 | 580.7 | 528.1 | 501.1 | 481.6 | 487.6 | 484.6 |
| 42.5° | 4444.1 | 3710.4 | 1156.8 | 829.7 | 669.1 | 529.6 | 469.7 | 433.6 | 405.1 | 406.6 | 400.6 |
| 45° | 4930.1 | 4094.5 | 1257.3 | 810.2 | 633.1 | 474.2 | 408.1 | 360.1 | 342.0 | 337.5 | 331.6 |
| 47.5° | 5596.3 | 4654.1 | 1489.8 | 769.7 | 580.7 | 420.1 | 348.1 | 307.6 | 294.1 | 286.6 | 282.1 |
| 50° | 6489.1 | 5372.7 | 1747.9 | 724.7 | 528.1 | 369.1 | 298.6 | 273.1 | 264.0 | 256.6 | 255.0 |
| 52.5° | 7524.3 | 6101.9 | 1959.5 | 679.7 | 475.6 | 324.1 | 267.1 | 252.0 | 244.6 | 238.5 | 237.1 |
| 55° | 8474.1 | 6604.6 | 1947.5 | 631.6 | 424.6 | 288.0 | 244.6 | 235.5 | 226.5 | 220.6 | 217.5 |
| 57.5° | 9065.2 | 6675.1 | 1605.4 | 579.1 | 366.1 | 259.5 | 223.6 | 217.5 | 207.0 | 199.6 | 198.0 |
| 60° | 9336.7 | 6273.0 | 1125.2 | 510.1 | 307.6 | 232.6 | 201.0 | 198.0 | 184.5 | 174.0 | 171.1 |
| 62.5° | 9386.2 | 5525.9 | 750.2 | 424.6 | 256.6 | 207.0 | 178.6 | 174.0 | 156.0 | 138.1 | 129.0 |
| 65° | 9185.2 | 4457.6 | 519.2 | 331.6 | 219.0 | 180.1 | 153.0 | 144.0 | 124.5 | 106.5 | 100.6 |
| 67.5° | 8549.0 | 3129.7 | 361.6 | 238.5 | 186.0 | 142.6 | 121.6 | 118.5 | 103.5 | 88.6 | 84.0 |
| 70° | 7383.3 | 1783.9 | 241.6 | 178.6 | 147.0 | 97.5 | 96.0 | 99.0 | 84.0 | 72.1 | 66.0 |
| 72.5° | 5660.9 | 816.2 | 150.1 | 130.5 | 100.6 | 66.0 | 76.6 | 78.0 | 64.5 | 54.0 | 48.0 |
| 75° | 3332.3 | 349.6 | 94.5 | 84.0 | 51.0 | 43.5 | 55.6 | 57.0 | 43.5 | 34.5 | 30.0 |
| 77.5° | 1134.3 | 132.0 | 60.1 | 49.5 | 25.5 | 24.0 | 36.0 | 36.0 | 24.0 | 13.5 | 10.5 |
| 80° | 258.1 | 49.5 | 30.0 | 19.5 | 12.0 | 10.5 | 12.0 | 10.5 | 6.0 | 1.5 | 0.0 |
| 82.5° | 73.5 | 19.5 | 12.0 | 7.5 | 4.5 | 4.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 21.0 | 9.0 | 3.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 9.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)