

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: P967338

Luminaire Tested: **NVN-SB4D-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967338
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-SB4D-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA 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: 27999.9 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

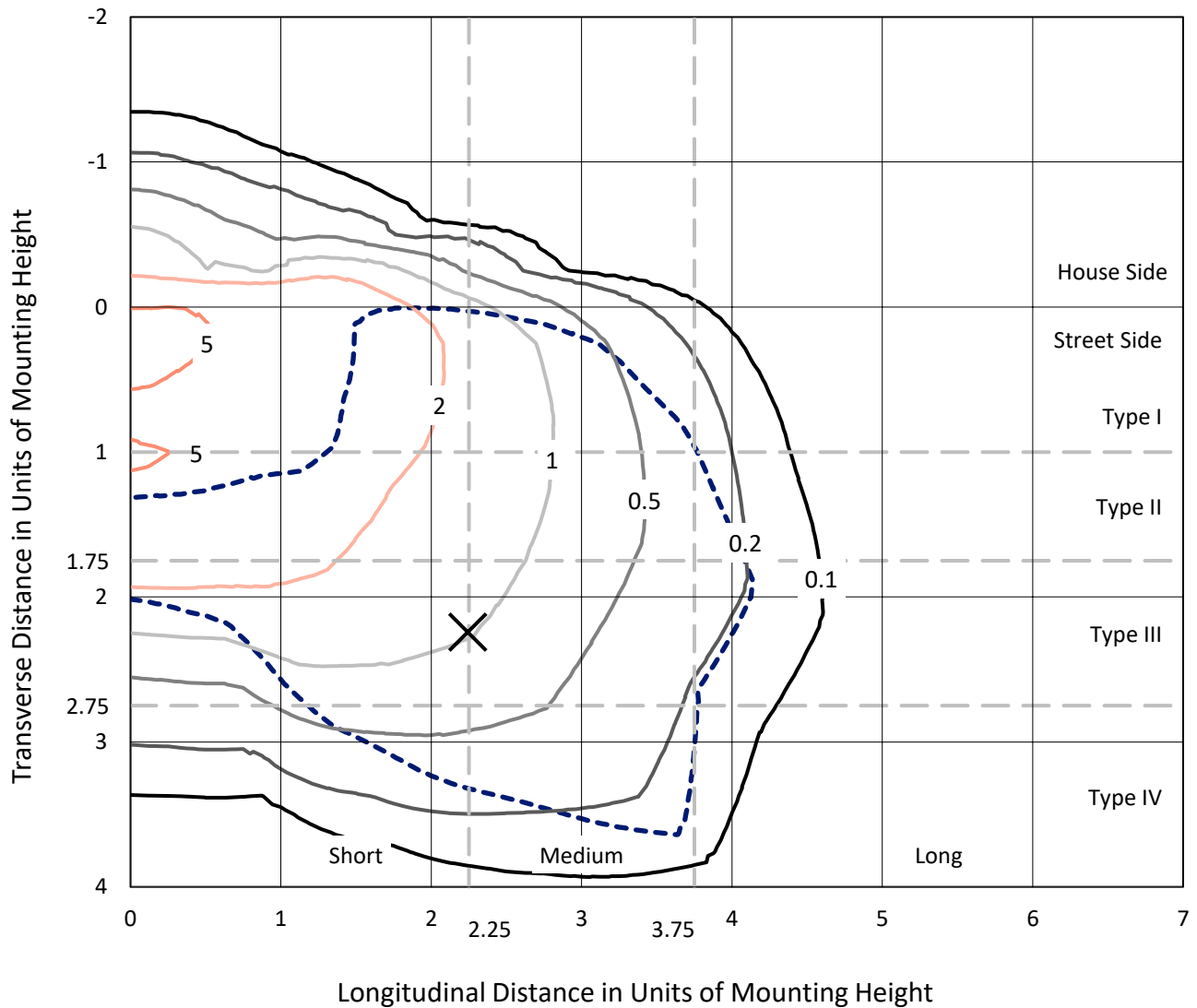
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

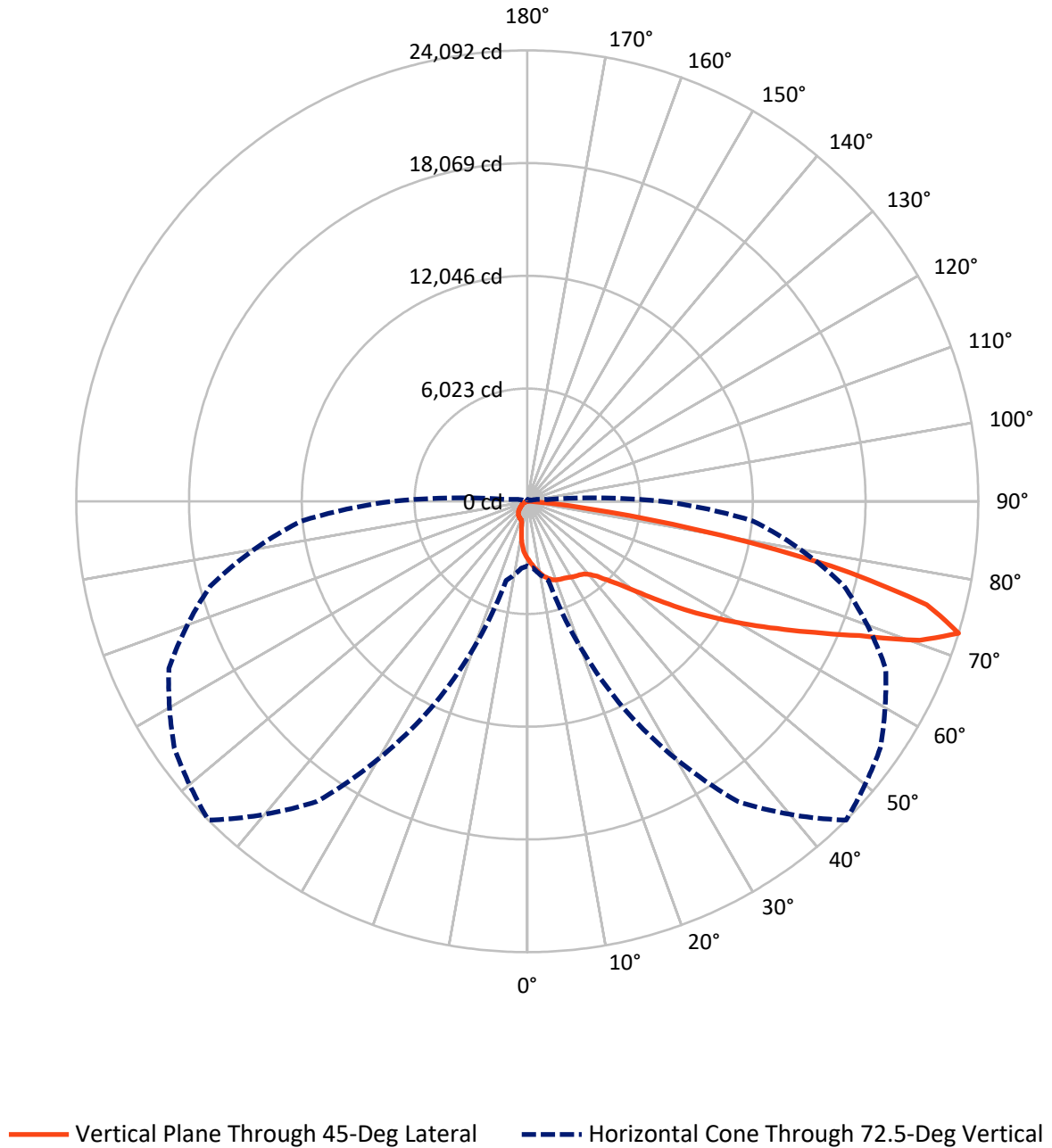
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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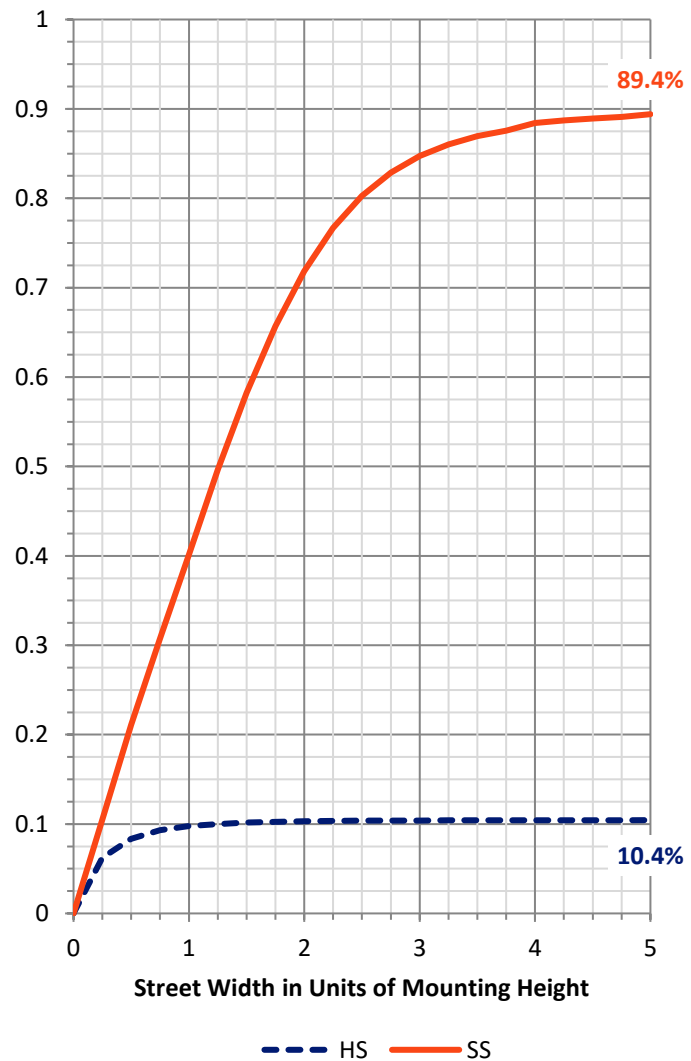
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2942.0 | 0.0 | 2942.0 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 25057.9 | 0.0 | 25057.9 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 27999.9 | 0.0 | 27999.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 289.0 | 1.0 |
| 10°-20° | 844.7 | 3.0 |
| 20°-30° | 1387.1 | 5.0 |
| 30°-40° | 1967.2 | 7.0 |
| 40°-50° | 3251.6 | 11.6 |
| 50°-60° | 5841.1 | 20.9 |
| 60°-70° | 8110.7 | 29.0 |
| 70°-80° | 5883.2 | 21.0 |
| 80°-90° | 425.3 | 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° | 27999.9 | 100.0 |
| 0°-180° | 27999.9 | 100.0 |

Coefficient of Utilization



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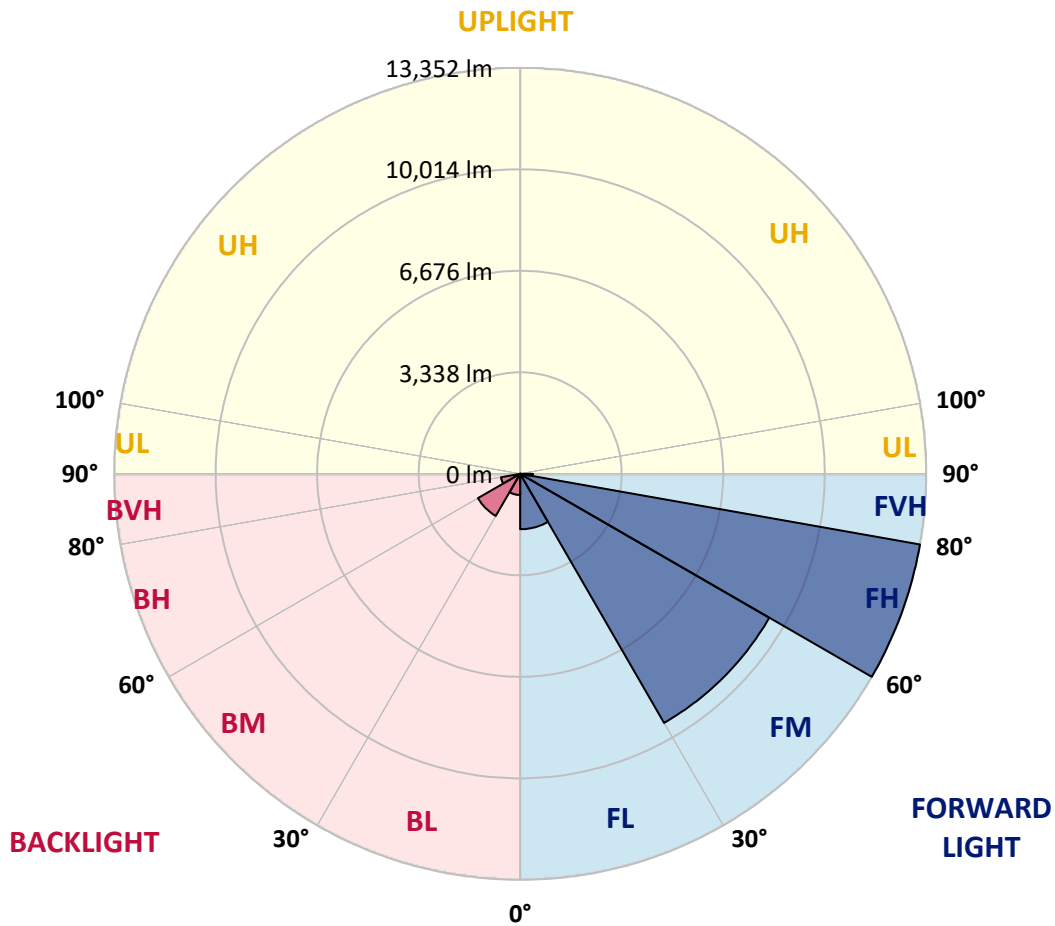
CATALOG NUMBER: NVN-SB4D-827-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1823.9 | 6.5 | | | |
| FM (30°-60°) | 9459.9 | 33.8 | | | |
| FH (60°-80°) | 13352.4 | 47.7 | | | G5 |
| FVH (80°-90°) | 421.8 | 1.5 | | | G3/500 |
| BL (0°-30°) | 696.8 | 2.5 | B2/1000 | | |
| BM (30°-60°) | 1600.0 | 5.7 | B2/2500 | | |
| BH (60°-80°) | 641.6 | 2.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 3.6 | 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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 |
| 2.5° | 3350.3 | 3356.1 | 3352.3 | 3329.3 | 3291.1 | 3270.1 | 3258.6 | 3220.3 | 3195.5 | 3151.6 | 3105.6 |
| 5° | 3658.0 | 3681.0 | 3667.6 | 3621.7 | 3549.1 | 3497.5 | 3482.1 | 3403.8 | 3333.1 | 3250.9 | 3155.4 |
| 7.5° | 3984.8 | 3996.3 | 3971.5 | 3912.2 | 3814.7 | 3726.8 | 3713.5 | 3604.5 | 3491.8 | 3365.6 | 3235.6 |
| 10° | 4267.7 | 4281.0 | 4242.8 | 4156.8 | 4046.0 | 3937.0 | 3918.0 | 3797.5 | 3663.8 | 3509.0 | 3342.6 |
| 12.5° | 4504.7 | 4518.0 | 4468.4 | 4365.2 | 4242.8 | 4130.0 | 4111.0 | 3984.8 | 3837.7 | 3665.6 | 3459.3 |
| 15° | 4684.4 | 4709.2 | 4642.2 | 4531.4 | 4399.5 | 4286.8 | 4277.2 | 4153.0 | 4009.7 | 3818.5 | 3598.8 |
| 17.5° | 4789.4 | 4814.3 | 4751.2 | 4617.4 | 4504.7 | 4409.1 | 4397.7 | 4294.4 | 4160.7 | 3977.2 | 3734.5 |
| 20° | 4806.6 | 4829.6 | 4762.7 | 4646.1 | 4552.4 | 4476.0 | 4470.2 | 4395.7 | 4298.2 | 4122.4 | 3881.6 |
| 22.5° | 4755.1 | 4783.7 | 4722.6 | 4628.9 | 4563.9 | 4523.7 | 4516.2 | 4474.1 | 4418.7 | 4269.6 | 4019.2 |
| 25° | 4701.5 | 4724.4 | 4678.6 | 4596.4 | 4562.0 | 4558.2 | 4563.9 | 4556.2 | 4544.7 | 4418.7 | 4179.7 |
| 27.5° | 4697.7 | 4722.6 | 4670.9 | 4592.6 | 4573.4 | 4613.6 | 4619.4 | 4655.7 | 4665.2 | 4554.4 | 4334.5 |
| 30° | 4730.2 | 4747.4 | 4697.7 | 4615.5 | 4605.9 | 4697.7 | 4699.6 | 4764.6 | 4779.9 | 4669.0 | 4487.4 |
| 32.5° | 4800.9 | 4820.0 | 4770.3 | 4649.9 | 4636.5 | 4764.6 | 4770.3 | 4856.3 | 4881.2 | 4791.4 | 4648.0 |
| 35° | 4967.2 | 4990.1 | 4932.8 | 4745.4 | 4697.7 | 4827.6 | 4844.9 | 4946.1 | 4995.8 | 4921.3 | 4814.3 |
| 37.5° | 5381.9 | 5315.0 | 5236.6 | 4938.4 | 4837.2 | 4927.1 | 4955.7 | 5074.2 | 5162.1 | 5076.1 | 5013.1 |
| 40° | 6412.0 | 6201.8 | 5957.2 | 5267.3 | 5081.8 | 5139.1 | 5162.1 | 5280.6 | 5401.0 | 5316.9 | 5286.3 |
| 42.5° | 7958.2 | 7709.7 | 7316.0 | 6024.0 | 5450.7 | 5479.3 | 5496.6 | 5599.8 | 5769.8 | 5703.0 | 5710.6 |
| 45° | 9336.1 | 9246.3 | 8844.9 | 7316.0 | 6140.7 | 5999.2 | 6020.2 | 6073.7 | 6324.1 | 6299.2 | 6349.0 |
| 47.5° | 10394.9 | 10343.4 | 10033.7 | 8799.1 | 7306.5 | 6635.6 | 6694.9 | 6719.7 | 7080.9 | 7168.8 | 7302.6 |
| 50° | 11209.1 | 11190.0 | 10912.9 | 10117.8 | 8829.7 | 7574.0 | 7595.0 | 7541.5 | 8082.4 | 8300.2 | 8554.4 |
| 52.5° | 11977.4 | 12042.4 | 11837.8 | 11342.9 | 10456.1 | 8802.9 | 8799.1 | 8546.9 | 9276.9 | 9605.6 | 10039.5 |
| 55° | 12671.2 | 12694.1 | 12715.1 | 12592.8 | 12092.0 | 10201.9 | 10165.5 | 9752.8 | 10662.5 | 11002.7 | 11472.8 |
| 57.5° | 13322.8 | 13332.4 | 13519.7 | 13770.1 | 13795.0 | 11704.1 | 11637.2 | 11142.2 | 12176.2 | 12418.9 | 12707.4 |
| 60° | 13760.5 | 13804.5 | 14200.1 | 14895.8 | 15199.6 | 13254.1 | 13217.8 | 12713.2 | 13716.6 | 13829.3 | 13775.8 |
| 62.5° | 13129.8 | 13397.4 | 14395.0 | 15775.0 | 16526.0 | 14972.2 | 14955.1 | 14481.0 | 15337.3 | 15245.5 | 14786.9 |
| 65° | 10628.1 | 11081.1 | 12835.6 | 16369.2 | 17827.5 | 16891.1 | 16915.9 | 16411.4 | 17001.9 | 16703.7 | 15608.6 |
| 67.5° | 7434.5 | 7912.3 | 9987.8 | 16417.1 | 19282.0 | 19144.3 | 19287.6 | 18496.4 | 18769.7 | 18100.8 | 15803.6 |
| 70° | 5141.1 | 5387.6 | 6738.9 | 15388.8 | 20415.2 | 22248.1 | 22244.2 | 21057.4 | 20528.1 | 18737.2 | 14809.8 |
| 72.5° | 3457.3 | 3585.3 | 4376.6 | 12208.7 | 19582.0 | 24092.4 | 23981.5 | 23014.5 | 21120.5 | 17523.6 | 12099.7 |
| 75° | 1458.3 | 1551.8 | 2025.8 | 6861.1 | 15492.1 | 22041.7 | 21741.7 | 20338.9 | 18765.9 | 13798.8 | 7549.2 |
| 77.5° | 462.5 | 502.7 | 798.9 | 2455.9 | 8533.4 | 16568.1 | 16250.8 | 12701.7 | 12577.5 | 6922.3 | 2759.7 |
| 80° | 219.8 | 256.1 | 449.2 | 986.2 | 3358.0 | 9011.2 | 8967.3 | 5762.2 | 5410.6 | 1869.1 | 554.2 |
| 82.5° | 95.5 | 112.7 | 248.5 | 527.5 | 1502.2 | 3214.6 | 3279.6 | 1960.8 | 1622.6 | 709.1 | 170.0 |
| 85° | 30.5 | 40.2 | 114.7 | 242.7 | 634.5 | 798.9 | 789.4 | 466.4 | 653.6 | 386.0 | 59.2 |
| 87.5° | 0.0 | 0.0 | 38.2 | 55.5 | 65.0 | 45.8 | 51.6 | 40.2 | 181.5 | 107.0 | 21.0 |
| 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° | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 | 3067.4 |
| 2.5° | 3082.8 | 3052.1 | 2998.6 | 2948.9 | 2905.0 | 2861.1 | 2834.3 | 2796.1 | 2792.2 | 2792.2 | 2801.8 |
| 5° | 3103.8 | 3054.1 | 2958.6 | 2857.2 | 2740.6 | 2629.7 | 2518.9 | 2411.9 | 2377.5 | 2352.7 | 2364.2 |
| 7.5° | 3164.9 | 3086.6 | 2935.6 | 2742.6 | 2520.9 | 2278.2 | 2108.0 | 1924.5 | 1853.8 | 1815.6 | 1821.3 |
| 10° | 3252.8 | 3145.8 | 2916.4 | 2578.2 | 2218.9 | 1888.3 | 1645.5 | 1446.8 | 1370.3 | 1337.8 | 1337.8 |
| 12.5° | 3350.3 | 3218.4 | 2882.1 | 2373.7 | 1888.3 | 1492.6 | 1255.6 | 1163.9 | 1152.4 | 1152.4 | 1152.4 |
| 15° | 3466.9 | 3306.3 | 2822.8 | 2132.9 | 1542.3 | 1181.1 | 1097.1 | 1100.8 | 1112.3 | 1119.9 | 1119.9 |
| 17.5° | 3587.3 | 3400.0 | 2729.2 | 1863.4 | 1236.6 | 1062.6 | 1064.6 | 1070.3 | 1079.8 | 1087.4 | 1087.4 |
| 20° | 3717.3 | 3493.6 | 2604.9 | 1576.8 | 1060.7 | 1028.2 | 1033.9 | 1039.7 | 1047.3 | 1051.1 | 1053.1 |
| 22.5° | 3856.8 | 3581.6 | 2457.7 | 1295.8 | 1001.4 | 999.6 | 1001.4 | 1007.2 | 1016.8 | 1016.8 | 1020.6 |
| 25° | 4005.8 | 3679.0 | 2289.6 | 1091.3 | 970.9 | 970.9 | 974.7 | 978.6 | 986.2 | 986.2 | 988.1 |
| 27.5° | 4158.7 | 3768.8 | 2111.9 | 984.3 | 944.1 | 942.2 | 942.2 | 947.9 | 951.8 | 953.7 | 955.6 |
| 30° | 4326.9 | 3874.0 | 1934.1 | 961.3 | 923.1 | 913.6 | 907.8 | 911.6 | 915.4 | 917.4 | 921.2 |
| 32.5° | 4498.9 | 3975.3 | 1775.5 | 970.9 | 902.1 | 884.9 | 865.8 | 861.9 | 861.9 | 869.6 | 875.4 |
| 35° | 4690.1 | 4086.2 | 1653.2 | 1003.4 | 890.6 | 842.9 | 812.2 | 795.1 | 796.9 | 808.4 | 814.2 |
| 37.5° | 4919.4 | 4219.9 | 1563.3 | 1032.1 | 882.9 | 795.1 | 745.4 | 724.4 | 710.9 | 724.4 | 720.5 |
| 40° | 5219.4 | 4416.7 | 1498.3 | 1054.9 | 873.4 | 739.6 | 672.7 | 638.4 | 613.5 | 621.2 | 617.4 |
| 42.5° | 5661.0 | 4726.4 | 1473.5 | 1056.9 | 852.4 | 674.7 | 598.2 | 552.4 | 516.0 | 517.9 | 510.2 |
| 45° | 6280.2 | 5215.6 | 1601.6 | 1032.1 | 806.5 | 603.9 | 519.9 | 458.7 | 435.7 | 430.0 | 422.4 |
| 47.5° | 7128.7 | 5928.5 | 1897.8 | 980.4 | 739.6 | 535.2 | 443.4 | 391.8 | 374.6 | 365.0 | 359.3 |
| 50° | 8265.9 | 6843.9 | 2226.5 | 923.1 | 672.7 | 470.2 | 380.3 | 347.9 | 336.4 | 326.8 | 324.9 |
| 52.5° | 9584.6 | 7772.8 | 2496.0 | 865.8 | 605.9 | 412.8 | 340.2 | 321.0 | 311.5 | 303.9 | 302.0 |
| 55° | 10794.4 | 8413.0 | 2480.7 | 804.6 | 540.9 | 367.0 | 311.5 | 300.0 | 288.6 | 281.0 | 277.2 |
| 57.5° | 11547.3 | 8502.9 | 2045.0 | 737.7 | 466.4 | 330.7 | 284.7 | 277.2 | 263.7 | 254.2 | 252.3 |
| 60° | 11893.3 | 7990.7 | 1433.4 | 649.8 | 391.8 | 296.2 | 256.1 | 252.3 | 235.0 | 221.7 | 217.9 |
| 62.5° | 11956.4 | 7038.9 | 955.6 | 540.9 | 326.8 | 263.7 | 227.4 | 221.7 | 198.7 | 175.8 | 164.4 |
| 65° | 11700.3 | 5678.1 | 661.2 | 422.4 | 279.0 | 229.3 | 195.0 | 183.5 | 158.7 | 135.7 | 128.0 |
| 67.5° | 10889.9 | 3986.7 | 460.6 | 303.9 | 237.0 | 181.5 | 154.8 | 151.0 | 131.9 | 112.7 | 107.0 |
| 70° | 9405.0 | 2272.4 | 307.7 | 227.4 | 187.3 | 124.2 | 122.3 | 126.2 | 107.0 | 91.7 | 84.0 |
| 72.5° | 7210.9 | 1039.7 | 191.2 | 166.3 | 128.0 | 84.0 | 97.5 | 99.4 | 82.2 | 68.8 | 61.2 |
| 75° | 4244.7 | 445.3 | 120.4 | 107.0 | 65.0 | 55.5 | 70.7 | 72.7 | 55.5 | 44.0 | 38.2 |
| 77.5° | 1444.8 | 168.2 | 76.5 | 63.0 | 32.5 | 30.5 | 45.8 | 45.8 | 30.5 | 17.2 | 13.4 |
| 80° | 328.7 | 63.0 | 38.2 | 24.8 | 15.3 | 13.4 | 15.3 | 13.4 | 7.7 | 1.9 | 0.0 |
| 82.5° | 93.7 | 24.8 | 15.3 | 9.5 | 5.7 | 5.7 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 26.8 | 11.5 | 3.8 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 11.5 | 1.9 | 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)