

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: LUMARK

Report Number: P971358

Luminaire Tested: **NAV-SB6D-727-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P971358
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB6D-727-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(6) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59755.5 lumens
Efficiency: N/A
Efficacy: 135.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

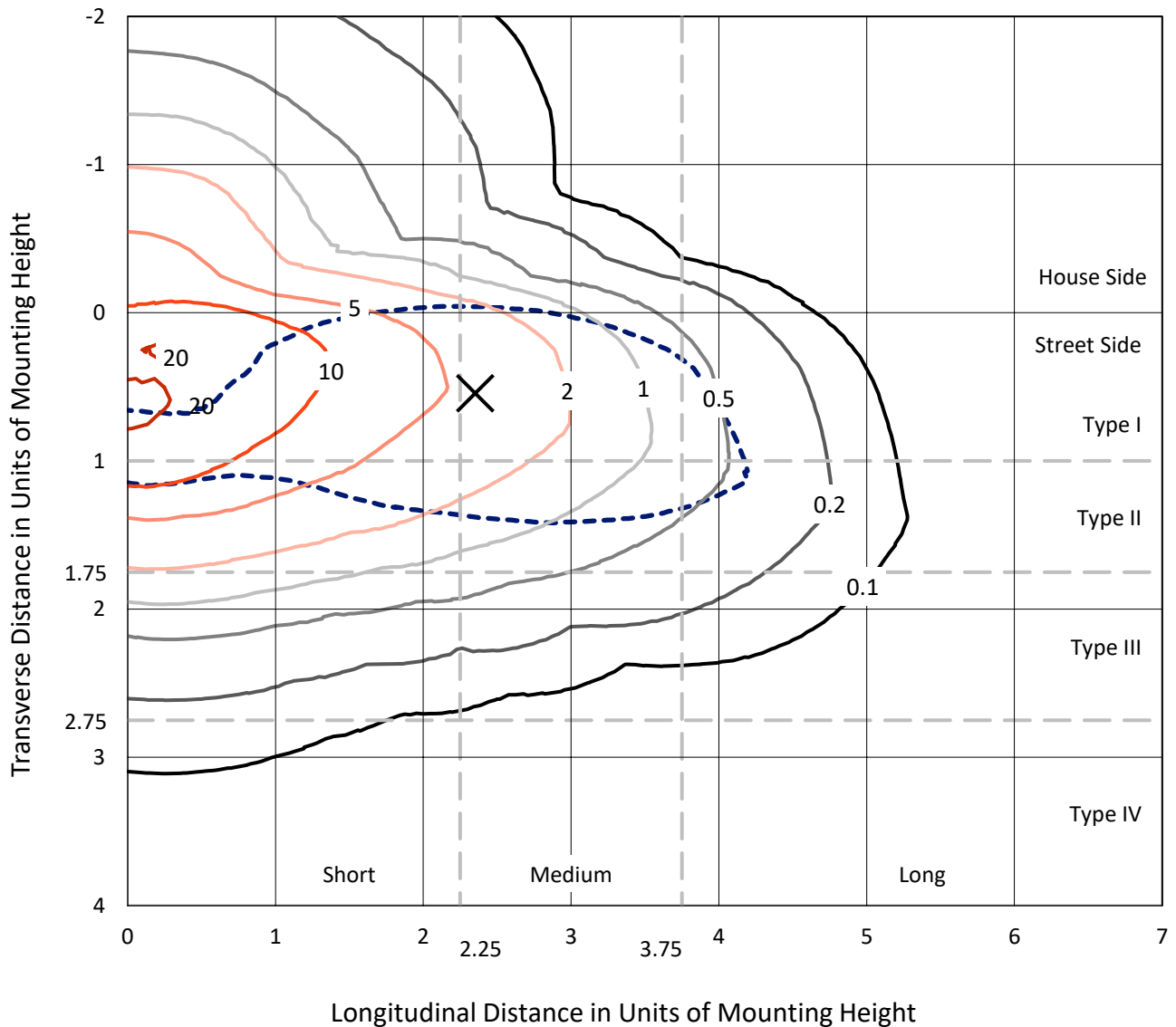
Input Watts (W): 440.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

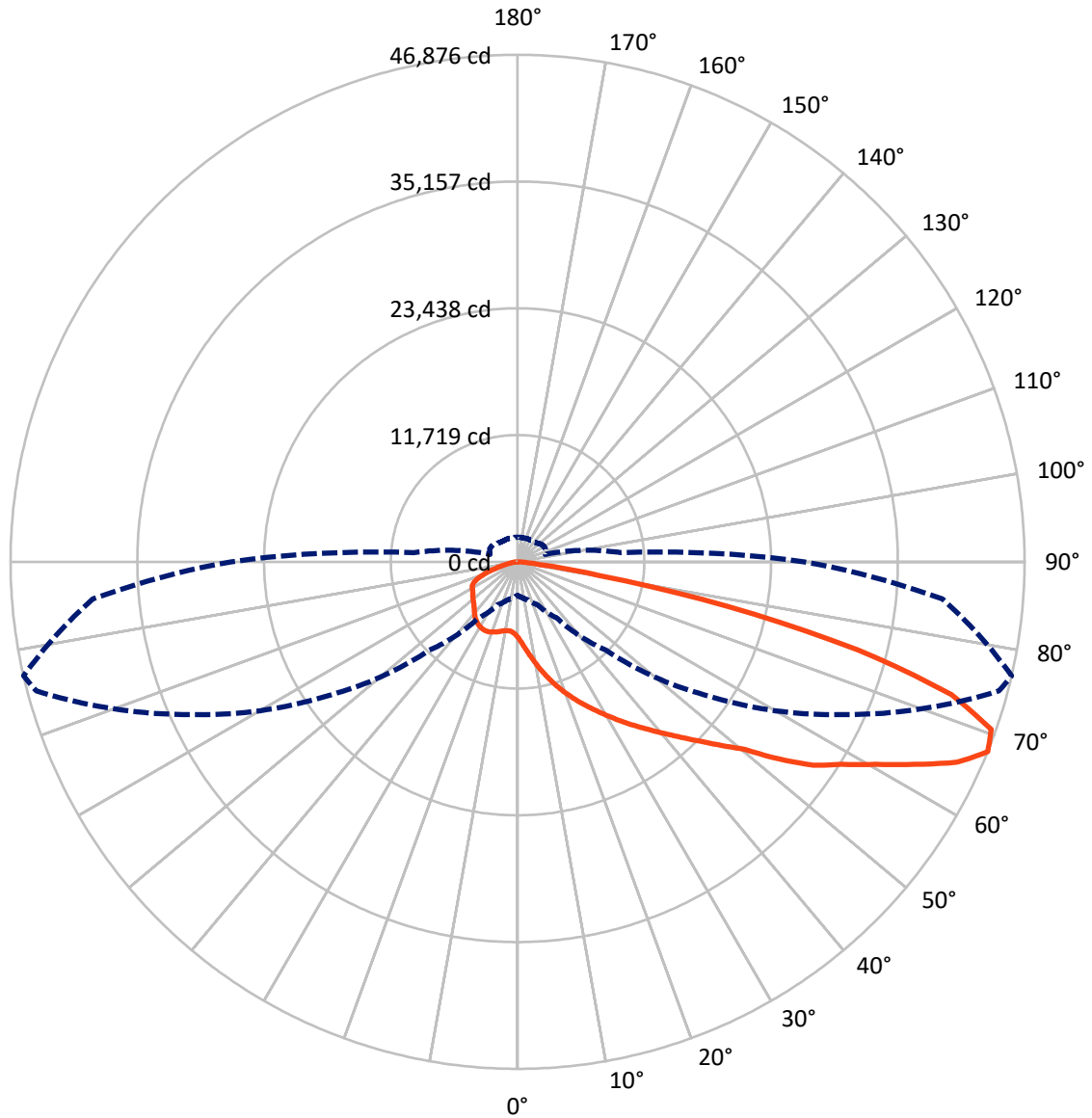
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 21.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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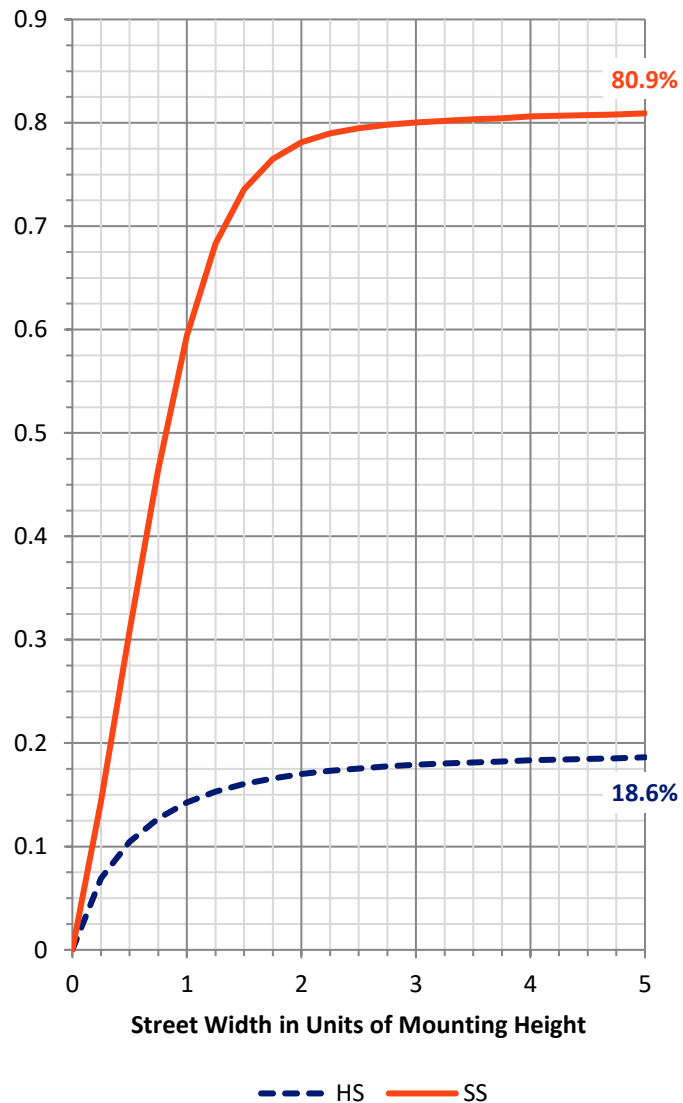
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11303.3 | 0.0 | 11303.3 |
| | % Fixture | 18.9 | 0.0 | 18.9 |
| Street Side | Lumens | 48452.1 | 0.0 | 48452.1 |
| | % Fixture | 81.1 | 0.0 | 81.1 |
| Total | Lumens | 59755.5 | 0.0 | 59755.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 751.5 | 1.3 |
| 10°-20° | 2699.9 | 4.5 |
| 20°-30° | 5097.6 | 8.5 |
| 30°-40° | 8212.1 | 13.7 |
| 40°-50° | 11232.7 | 18.8 |
| 50°-60° | 12670.5 | 21.2 |
| 60°-70° | 11826.4 | 19.8 |
| 70°-80° | 6482.8 | 10.8 |
| 80°-90° | 782.0 | 1.3 |
| 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° | 59755.5 | 100.0 |
| 0°-180° | 59755.5 | 100.0 |

Coefficient of Utilization

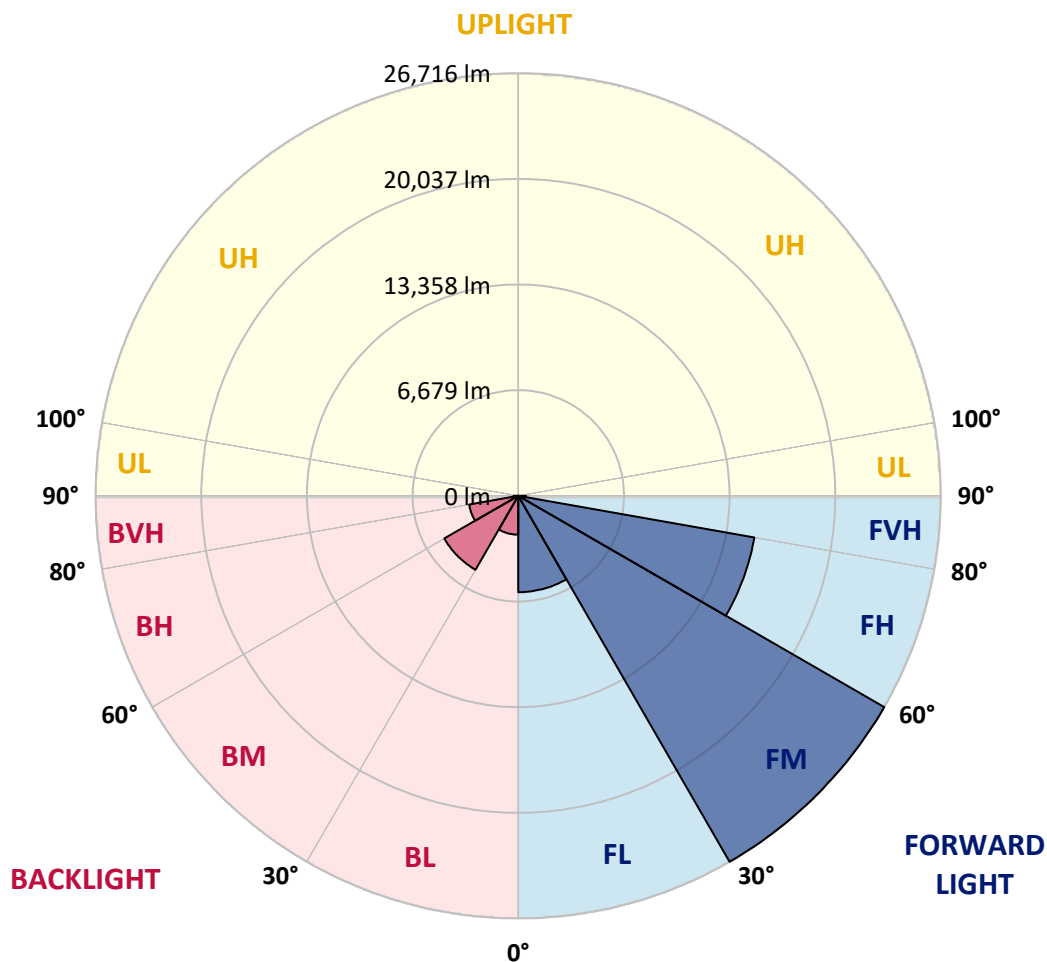


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 6091.3 | 10.2 | | | |
| FM (30°-60°) | 26716.0 | 44.7 | | | |
| FH (60°-80°) | 15155.7 | 25.4 | | | G5 |
| FVH (80°-90°) | 489.0 | 0.8 | | | G3/500 |
| BL (0°-30°) | 2457.6 | 4.1 | B3/2500 | | |
| BM (30°-60°) | 5399.3 | 9.0 | B4/8500 | | |
| BH (60°-80°) | 3153.5 | 5.3 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 293.0 | 0.5 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 |
| 2.5° | 8778.6 | 8840.3 | 8763.2 | 8763.2 | 8504.1 | 8368.4 | 8109.3 | 7911.9 | 7557.1 | 7495.4 | 7261.0 |
| 5° | 10376.4 | 10453.6 | 10345.5 | 10299.3 | 9994.0 | 9713.2 | 9278.3 | 8849.5 | 8217.2 | 8152.4 | 7600.3 |
| 7.5° | 11613.4 | 11712.1 | 11616.4 | 11567.0 | 11295.6 | 10981.0 | 10472.0 | 9873.6 | 8982.2 | 8855.7 | 8056.8 |
| 10° | 12622.0 | 12637.4 | 12606.6 | 12625.0 | 12412.2 | 12153.1 | 11631.8 | 10934.7 | 9821.1 | 9648.4 | 8609.0 |
| 12.5° | 13192.6 | 13263.5 | 13325.2 | 13436.3 | 13399.3 | 13238.9 | 12770.1 | 11937.2 | 10709.5 | 10487.5 | 9210.4 |
| 15° | 13460.9 | 13584.3 | 13723.1 | 13979.2 | 14185.8 | 14225.9 | 13868.1 | 13013.7 | 11613.4 | 11345.0 | 9818.1 |
| 17.5° | 13556.5 | 13673.8 | 13892.7 | 14263.0 | 14707.1 | 15006.3 | 14845.9 | 14059.3 | 12507.9 | 12199.3 | 10456.6 |
| 20° | 14040.9 | 14074.8 | 14207.4 | 14559.1 | 15040.2 | 15536.8 | 15657.2 | 15064.9 | 13393.1 | 13044.6 | 11116.7 |
| 22.5° | 15077.2 | 15009.4 | 15046.4 | 15206.8 | 15552.3 | 16033.5 | 16308.0 | 15953.3 | 14303.1 | 13902.1 | 11783.0 |
| 25° | 16789.2 | 16591.8 | 16394.4 | 16209.2 | 16385.1 | 16656.6 | 16968.1 | 16841.6 | 15256.2 | 14747.2 | 12455.4 |
| 27.5° | 18951.4 | 18710.9 | 18276.0 | 17668.2 | 17455.4 | 17551.1 | 17689.9 | 17665.2 | 16138.3 | 15623.3 | 13149.4 |
| 30° | 21079.7 | 20799.1 | 20280.9 | 19401.8 | 18840.4 | 18587.5 | 18482.6 | 18411.7 | 17097.6 | 16548.6 | 13849.6 |
| 32.5° | 22779.4 | 22557.3 | 22048.4 | 21064.4 | 20250.0 | 19818.2 | 19469.7 | 19216.7 | 18100.1 | 17551.1 | 14589.8 |
| 35° | 24266.2 | 24059.4 | 23476.5 | 22403.0 | 21517.8 | 21058.2 | 20601.7 | 20061.9 | 19142.7 | 18587.5 | 15385.7 |
| 37.5° | 25623.4 | 25416.6 | 24617.7 | 23501.1 | 22609.8 | 22292.0 | 21884.9 | 20968.7 | 20188.3 | 19664.0 | 16227.8 |
| 40° | 26480.8 | 26434.5 | 25688.1 | 24423.4 | 23498.0 | 23340.8 | 23205.1 | 22020.6 | 21348.1 | 20860.8 | 17153.2 |
| 42.5° | 26699.8 | 26801.6 | 26209.4 | 25169.9 | 24287.7 | 24161.2 | 24478.9 | 23211.2 | 22649.8 | 22184.1 | 18201.9 |
| 45° | 26172.4 | 26465.4 | 26076.7 | 25370.4 | 24849.1 | 24781.2 | 25607.9 | 24512.9 | 24090.3 | 23664.6 | 19466.6 |
| 47.5° | 24836.8 | 25333.4 | 25173.0 | 25074.3 | 25000.3 | 25293.3 | 26601.1 | 25894.8 | 25722.1 | 25351.8 | 20910.1 |
| 50° | 22140.8 | 23081.7 | 23362.3 | 23985.4 | 24701.1 | 25691.2 | 27504.8 | 27403.1 | 27628.3 | 27255.1 | 22668.3 |
| 52.5° | 17480.1 | 18775.6 | 20404.3 | 21965.0 | 23781.8 | 25558.6 | 28498.1 | 29568.5 | 30518.5 | 30314.9 | 25462.9 |
| 55° | 14429.5 | 15012.5 | 16264.8 | 19127.2 | 21999.0 | 25000.3 | 28945.4 | 31317.3 | 33387.1 | 33205.1 | 27582.0 |
| 57.5° | 12085.3 | 12606.6 | 13377.7 | 15768.2 | 19303.1 | 23732.4 | 29223.0 | 32384.7 | 35351.9 | 35333.5 | 29673.3 |
| 60° | 9571.3 | 10123.5 | 10913.1 | 12606.6 | 16153.8 | 21542.4 | 29161.2 | 33599.9 | 37859.7 | 38014.0 | 32224.3 |
| 62.5° | 6733.5 | 7341.3 | 8217.2 | 9796.5 | 12936.6 | 18704.7 | 27902.8 | 34479.1 | 40811.6 | 41231.1 | 35293.3 |
| 65° | 4426.4 | 4827.3 | 5487.4 | 6850.8 | 9639.2 | 15055.7 | 25499.9 | 34593.1 | 43970.1 | 44679.6 | 38174.3 |
| 67.5° | 3103.1 | 3257.2 | 3645.9 | 4386.2 | 6354.2 | 11545.5 | 21672.0 | 33411.8 | 46076.9 | 46875.8 | 39423.5 |
| 70° | 2421.4 | 2498.4 | 2695.9 | 2992.0 | 3991.3 | 7763.8 | 16607.2 | 30339.6 | 45626.5 | 46459.5 | 38118.8 |
| 72.5° | 2091.3 | 2165.3 | 2239.4 | 2276.4 | 2677.4 | 4793.4 | 11249.4 | 25367.3 | 41385.3 | 41949.8 | 33143.5 |
| 75° | 1897.0 | 1915.5 | 1977.2 | 1964.8 | 2042.0 | 3109.2 | 6493.0 | 18482.6 | 32653.0 | 32458.7 | 24466.6 |
| 77.5° | 1594.7 | 1619.4 | 1721.2 | 1705.7 | 1813.7 | 2125.2 | 3371.4 | 11927.9 | 21169.2 | 19849.0 | 13618.3 |
| 80° | 1351.1 | 1363.4 | 1474.5 | 1455.9 | 1576.2 | 1539.1 | 1721.2 | 6079.7 | 8979.1 | 7606.5 | 3926.7 |
| 82.5° | 468.8 | 579.9 | 1125.9 | 1159.8 | 1202.9 | 931.5 | 993.2 | 2480.0 | 2742.2 | 2100.5 | 823.6 |
| 85° | 228.3 | 243.6 | 573.7 | 814.4 | 811.2 | 468.8 | 484.3 | 885.3 | 863.7 | 678.6 | 274.5 |
| 87.5° | 37.0 | 46.2 | 67.9 | 317.8 | 253.0 | 123.4 | 166.6 | 172.7 | 178.9 | 154.3 | 61.7 |
| 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° | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 | 7011.2 |
| 2.5° | 7088.3 | 6934.0 | 6610.2 | 6311.0 | 6076.5 | 5851.4 | 5724.9 | 5617.0 | 5555.3 | 5542.9 | 5542.9 |
| 5° | 7279.6 | 6961.8 | 6372.6 | 5876.0 | 5552.2 | 5311.5 | 5185.2 | 5104.9 | 5064.8 | 5040.1 | 5037.1 |
| 7.5° | 7554.0 | 7088.3 | 6249.3 | 5684.9 | 5345.5 | 5172.8 | 5108.0 | 5095.7 | 5092.6 | 5095.7 | 5104.9 |
| 10° | 7933.5 | 7294.9 | 6236.9 | 5638.5 | 5354.8 | 5259.2 | 5256.1 | 5259.2 | 5271.5 | 5274.5 | 5277.6 |
| 12.5° | 8343.7 | 7507.8 | 6286.3 | 5678.6 | 5472.0 | 5419.6 | 5410.3 | 5407.2 | 5416.5 | 5422.7 | 5425.7 |
| 15° | 8790.9 | 7788.5 | 6369.6 | 5765.0 | 5601.5 | 5546.0 | 5536.7 | 5518.3 | 5515.2 | 5512.0 | 5509.0 |
| 17.5° | 9250.5 | 8066.1 | 6462.1 | 5857.6 | 5684.9 | 5607.7 | 5573.7 | 5530.6 | 5496.7 | 5487.4 | 5496.7 |
| 20° | 9716.3 | 8340.6 | 6526.9 | 5903.8 | 5691.0 | 5583.1 | 5515.2 | 5441.1 | 5382.5 | 5348.6 | 5361.0 |
| 22.5° | 10212.9 | 8627.4 | 6567.0 | 5891.5 | 5635.4 | 5487.4 | 5364.0 | 5277.6 | 5188.2 | 5129.6 | 5132.7 |
| 25° | 10697.2 | 8877.3 | 6563.9 | 5826.7 | 5527.5 | 5339.3 | 5182.0 | 5071.0 | 4947.6 | 4886.0 | 4886.0 |
| 27.5° | 11163.0 | 9102.5 | 6486.8 | 5712.5 | 5373.3 | 5163.5 | 4975.3 | 4842.7 | 4722.5 | 4663.9 | 4660.8 |
| 30° | 11644.2 | 9290.6 | 6366.5 | 5546.0 | 5191.3 | 4960.0 | 4753.3 | 4639.2 | 4531.2 | 4475.7 | 4472.6 |
| 32.5° | 12122.3 | 9463.4 | 6196.8 | 5339.3 | 4981.5 | 4759.5 | 4555.9 | 4451.0 | 4386.2 | 4386.2 | 4389.4 |
| 35° | 12628.1 | 9583.6 | 5971.6 | 5098.8 | 4759.5 | 4546.6 | 4386.2 | 4324.6 | 4318.3 | 4281.3 | 4272.1 |
| 37.5° | 13161.7 | 9660.8 | 5697.2 | 4851.9 | 4540.4 | 4340.0 | 4290.6 | 4216.5 | 4154.8 | 4074.7 | 4062.4 |
| 40° | 13723.1 | 9737.9 | 5367.1 | 4596.0 | 4309.1 | 4198.1 | 4176.5 | 4077.8 | 3902.0 | 3704.6 | 3676.8 |
| 42.5° | 14404.8 | 9790.4 | 5024.8 | 4340.0 | 4065.5 | 4028.5 | 4059.3 | 3889.6 | 3608.9 | 3460.8 | 3464.0 |
| 45° | 15194.5 | 9876.7 | 4710.1 | 4087.0 | 3815.6 | 3815.6 | 3945.1 | 3723.0 | 3491.7 | 3399.2 | 3414.6 |
| 47.5° | 16218.6 | 10077.2 | 4417.0 | 3809.4 | 3584.2 | 3645.9 | 3692.2 | 3522.5 | 3393.0 | 3278.9 | 3275.8 |
| 50° | 17699.1 | 10558.4 | 4114.8 | 3528.8 | 3408.4 | 3531.8 | 3467.1 | 3368.4 | 3217.2 | 3124.6 | 3115.4 |
| 52.5° | 19537.5 | 10842.1 | 3846.4 | 3275.8 | 3257.2 | 3380.7 | 3288.1 | 3195.5 | 3081.5 | 2958.0 | 2933.4 |
| 55° | 20789.9 | 10894.6 | 3621.2 | 3090.7 | 3155.5 | 3143.2 | 3109.2 | 3025.9 | 2964.2 | 2800.8 | 2803.9 |
| 57.5° | 22190.2 | 10999.5 | 3436.2 | 2979.7 | 3090.7 | 2955.0 | 2942.7 | 2871.7 | 2791.5 | 2680.5 | 2643.5 |
| 60° | 23865.1 | 11163.0 | 3275.8 | 2936.5 | 3035.2 | 2831.6 | 2770.0 | 2742.2 | 2661.9 | 2606.5 | 2621.8 |
| 62.5° | 25691.2 | 11311.0 | 3112.3 | 2942.7 | 2970.4 | 2711.3 | 2618.8 | 2609.5 | 2560.1 | 2541.7 | 2541.7 |
| 65° | 26937.3 | 10906.9 | 2908.7 | 2936.5 | 2868.7 | 2587.9 | 2470.8 | 2467.6 | 2427.5 | 2421.4 | 2418.3 |
| 67.5° | 26502.4 | 9626.9 | 2634.2 | 2850.1 | 2763.7 | 2464.5 | 2335.0 | 2322.6 | 2270.3 | 2273.3 | 2273.3 |
| 70° | 24324.7 | 7800.9 | 2254.8 | 2637.3 | 2634.2 | 2353.5 | 2193.1 | 2153.0 | 2082.1 | 2094.4 | 2106.8 |
| 72.5° | 20240.8 | 5780.5 | 1745.9 | 2282.6 | 2427.5 | 2251.7 | 2029.6 | 1964.8 | 1875.4 | 1887.7 | 1884.7 |
| 75° | 14617.6 | 3929.7 | 1270.8 | 1736.6 | 2112.9 | 2131.4 | 1869.2 | 1758.2 | 1650.2 | 1668.7 | 1675.0 |
| 77.5° | 7480.0 | 2227.0 | 934.6 | 1196.8 | 1659.5 | 1937.0 | 1724.3 | 1576.2 | 1551.5 | 1724.3 | 1699.6 |
| 80° | 2439.9 | 1116.6 | 647.8 | 839.0 | 1088.9 | 1585.5 | 1511.5 | 1341.8 | 1335.6 | 1375.8 | 1181.4 |
| 82.5° | 728.0 | 471.9 | 416.5 | 552.2 | 601.5 | 1215.3 | 1304.7 | 1014.9 | 872.9 | 919.2 | 950.1 |
| 85° | 249.9 | 228.3 | 237.5 | 274.5 | 286.9 | 712.6 | 913.1 | 672.4 | 635.4 | 700.2 | 691.0 |
| 87.5° | 58.6 | 80.2 | 67.9 | 61.7 | 61.7 | 172.7 | 354.8 | 280.6 | 388.7 | 259.1 | 249.9 |
| 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)