

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: P967095

Luminaire Tested: **NVN-SB4D-722-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967095  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB4D-722-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29443.1 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G3

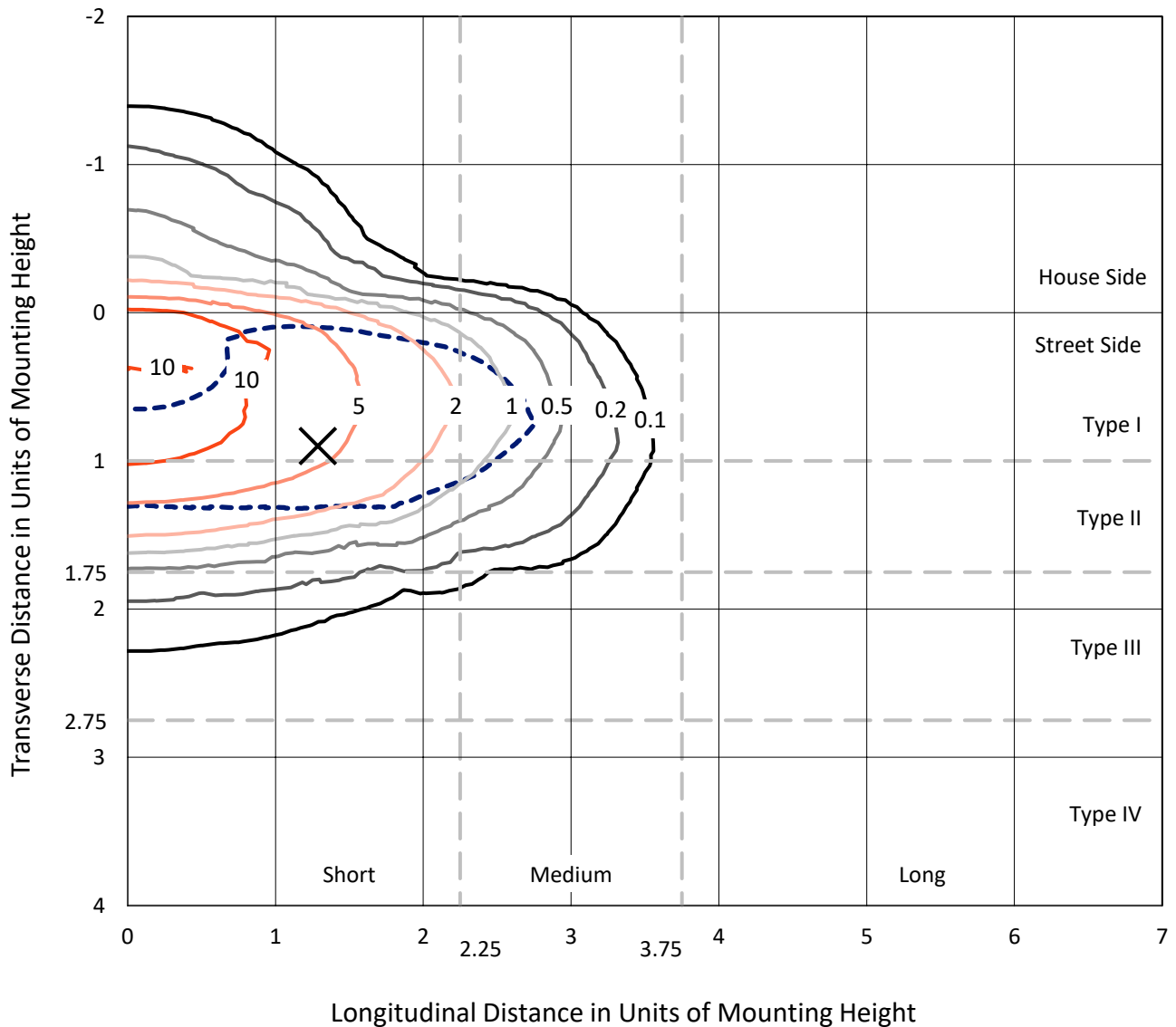
Input Watts (W): 293.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

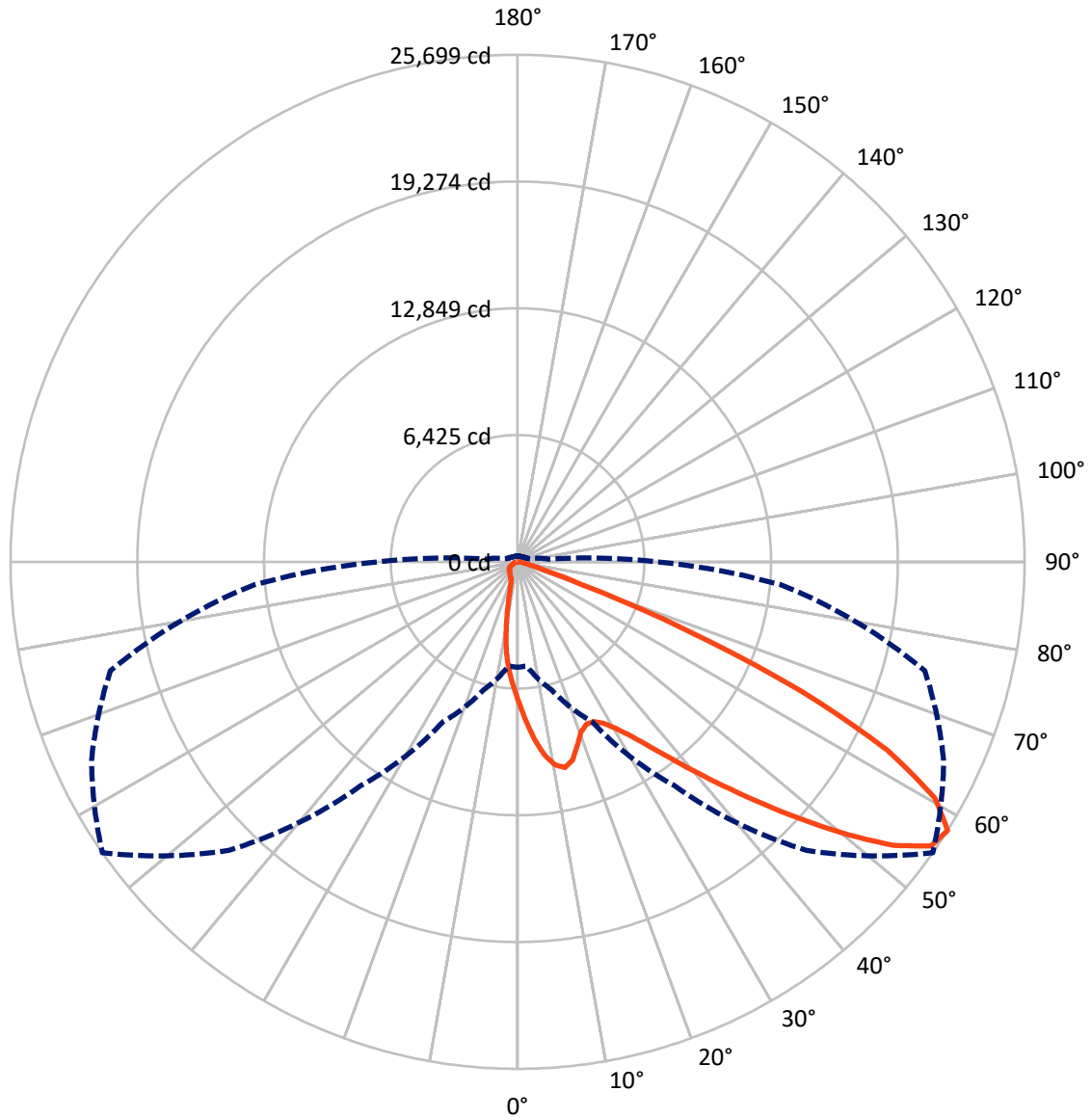
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2299.4   | 0.0    | 2299.4  |
|                    | % Fixture | 7.8      | 0.0    | 7.8     |
| <b>Street Side</b> | Lumens    | 27143.7  | 0.0    | 27143.7 |
|                    | % Fixture | 92.2     | 0.0    | 92.2    |
| <b>Total</b>       | Lumens    | 29443.1  | 0.0    | 29443.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 660.2   | 2.2       |
| 10°-20°   | 1594.6  | 5.4       |
| 20°-30°   | 2551.4  | 8.7       |
| 30°-40°   | 4318.3  | 14.7      |
| 40°-50°   | 7089.8  | 24.1      |
| 50°-60°   | 7792.2  | 26.5      |
| 60°-70°   | 4469.6  | 15.2      |
| 70°-80°   | 913.3   | 3.1       |
| 80°-90°   | 53.9    | 0.2       |
| 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°    | 29443.1 | 100.0     |
| 0°-180°   | 29443.1 | 100.0     |

**Coefficient of Utilization**

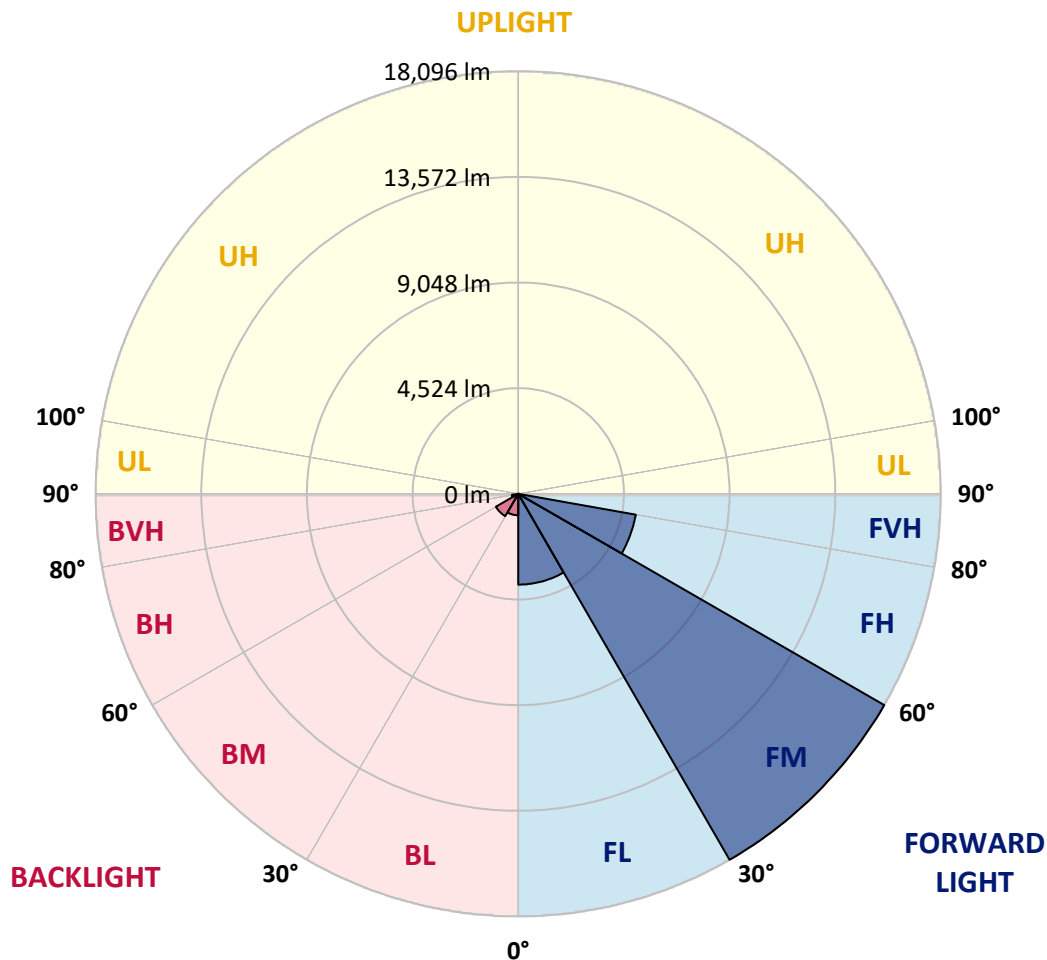


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3888.1  | 13.2      |                         |      |         |
| FM (30°-60°)   | 18096.0 | 61.5      |                         |      |         |
| FH (60°-80°)   | 5109.4  | 17.4      |                         |      | G3/7500 |
| FVH (80°-90°)  | 50.2    | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 918.0   | 3.1       | B2/1000                 |      |         |
| BM (30°-60°)   | 1104.3  | 3.8       | B2/2500                 |      |         |
| BH (60°-80°)   | 273.5   | 0.9       | B1/500                  |      | G1/500  |
| 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-G3**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0  | 7095.0 |
| 2.5°  | 8803.5  | 8692.7  | 8676.4  | 8654.6  | 8444.1  | 8286.1  | 8057.3  | 7806.7  | 7525.3  | 7238.4  | 7111.4 |
| 5°    | 10170.6 | 10083.4 | 10067.0 | 9965.5  | 9725.7  | 9457.1  | 9050.3  | 8536.6  | 8011.9  | 7394.7  | 7129.6 |
| 7.5°  | 10435.6 | 10419.3 | 10493.7 | 10490.1 | 10457.5 | 10245.0 | 9901.9  | 9290.0  | 8502.1  | 7587.0  | 7176.7 |
| 10°   | 9253.7  | 9295.5  | 9517.0  | 9711.3  | 10236.0 | 10540.9 | 10466.5 | 9961.8  | 9006.8  | 7806.7  | 7229.4 |
| 12.5° | 8177.1  | 8128.1  | 8286.1  | 8505.8  | 9115.7  | 10023.5 | 10700.7 | 10522.8 | 9584.2  | 8055.5  | 7307.5 |
| 15°   | 7501.8  | 7481.8  | 7570.8  | 7672.4  | 8137.2  | 9052.2  | 10428.3 | 10978.5 | 10139.7 | 8349.5  | 7425.5 |
| 17.5° | 7285.7  | 7269.4  | 7296.6  | 7322.0  | 7623.3  | 8331.4  | 9780.2  | 11258.1 | 10671.7 | 8685.4  | 7556.2 |
| 20°   | 7461.8  | 7440.1  | 7436.4  | 7416.4  | 7541.6  | 8024.6  | 9193.8  | 11278.1 | 11149.1 | 8990.5  | 7668.7 |
| 22.5° | 7975.6  | 7950.2  | 7861.2  | 7781.3  | 7792.3  | 8066.3  | 8932.4  | 11078.3 | 11508.6 | 9275.5  | 7739.6 |
| 25°   | 8906.9  | 8865.2  | 8680.0  | 8411.4  | 8240.7  | 8356.8  | 8972.3  | 10815.1 | 11851.8 | 9498.8  | 7705.1 |
| 27.5° | 10072.6 | 10018.0 | 9780.2  | 9380.8  | 8990.5  | 8848.8  | 9261.0  | 10633.6 | 12136.8 | 9669.4  | 7630.6 |
| 30°   | 11214.5 | 11143.7 | 10909.5 | 10599.0 | 10028.9 | 9582.3  | 9782.1  | 10713.4 | 12476.3 | 9847.4  | 7532.6 |
| 32.5° | 12447.2 | 12380.1 | 12069.6 | 11684.7 | 11212.7 | 10611.7 | 10495.6 | 11103.7 | 12892.0 | 10096.1 | 7463.6 |
| 35°   | 14006.7 | 13901.5 | 13460.3 | 12935.6 | 12434.5 | 11826.3 | 11461.4 | 11777.4 | 13445.7 | 10475.6 | 7501.8 |
| 37.5° | 15782.3 | 15640.8 | 15165.1 | 14440.7 | 13787.1 | 13106.3 | 12637.8 | 12703.2 | 14257.3 | 10983.9 | 7619.7 |
| 40°   | 17456.3 | 17327.3 | 16888.0 | 16205.4 | 15384.7 | 14558.7 | 14059.4 | 13914.2 | 15377.5 | 11603.0 | 7826.7 |
| 42.5° | 18460.2 | 18344.0 | 18158.9 | 17870.2 | 17178.5 | 16336.0 | 15706.1 | 15392.0 | 16702.8 | 12343.8 | 8079.0 |
| 45°   | 18516.5 | 18414.8 | 18663.6 | 18999.5 | 18863.3 | 18302.3 | 17534.4 | 16958.8 | 18033.6 | 13039.1 | 8340.5 |
| 47.5° | 17616.1 | 17547.1 | 18302.3 | 19475.1 | 20059.8 | 20295.7 | 19587.6 | 18394.9 | 19132.0 | 13538.4 | 8447.6 |
| 50°   | 15161.4 | 15136.1 | 16690.1 | 18843.3 | 20515.4 | 22042.3 | 21753.6 | 19731.1 | 19983.5 | 13796.2 | 8346.0 |
| 52.5° | 13146.2 | 13053.6 | 13959.6 | 16820.9 | 19852.7 | 22960.9 | 23870.5 | 21041.9 | 20578.9 | 13845.2 | 8108.2 |
| 55°   | 9970.9  | 9889.2  | 11025.7 | 13436.7 | 17715.9 | 22634.2 | 25419.2 | 22394.5 | 21005.6 | 13719.9 | 7681.5 |
| 57.5° | 5348.6  | 5297.7  | 6733.7  | 8943.2  | 13848.8 | 20673.3 | 25698.7 | 23825.1 | 21365.1 | 13387.6 | 7084.2 |
| 60°   | 2082.4  | 2073.4  | 2610.7  | 4339.1  | 8416.8  | 16819.0 | 24288.1 | 24683.8 | 21590.2 | 12979.2 | 6584.9 |
| 62.5° | 1259.9  | 1287.2  | 1374.3  | 1948.0  | 3718.2  | 10448.3 | 21036.5 | 23707.1 | 21740.9 | 12605.1 | 6172.8 |
| 65°   | 1042.1  | 1044.0  | 1054.8  | 1338.0  | 1781.0  | 4371.8  | 15836.9 | 20493.6 | 21368.7 | 11938.9 | 5588.2 |
| 67.5° | 893.3   | 909.6   | 951.3   | 1062.1  | 1256.3  | 1917.2  | 9117.6  | 15874.9 | 19104.8 | 10388.5 | 4676.8 |
| 70°   | 704.4   | 726.2   | 778.9   | 873.3   | 969.4   | 1200.1  | 3369.6  | 10562.7 | 14595.0 | 7830.4  | 3536.7 |
| 72.5° | 593.7   | 591.8   | 619.1   | 709.9   | 769.8   | 844.2   | 1296.3  | 5918.7  | 8482.1  | 3738.2  | 1750.2 |
| 75°   | 459.3   | 477.4   | 512.0   | 593.7   | 630.0   | 611.8   | 702.6   | 2162.3  | 3039.2  | 1132.9  | 595.5  |
| 77.5° | 359.5   | 374.0   | 404.9   | 484.7   | 521.0   | 433.9   | 404.9   | 773.4   | 976.7   | 406.7   | 268.7  |
| 80°   | 161.5   | 174.2   | 275.9   | 357.6   | 424.9   | 299.6   | 219.7   | 395.8   | 433.9   | 185.2   | 136.1  |
| 82.5° | 29.0    | 49.0    | 161.5   | 188.8   | 217.8   | 194.2   | 114.4   | 205.2   | 212.4   | 74.4    | 47.3   |
| 85°   | 1.8     | 3.6     | 56.3    | 69.0    | 87.1    | 63.6    | 34.5    | 81.7    | 70.8    | 25.4    | 18.1   |
| 87.5° | 0.0     | 0.0     | 0.0     | 1.8     | 1.8     | 9.1     | 10.9    | 14.6    | 10.9    | 9.1     | 7.3    |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 | 7095.0 |
| 2.5°  | 6980.7 | 6722.9 | 6472.4 | 6267.2 | 6147.3 | 5944.0 | 5809.7 | 5787.9 | 5731.6 | 5780.6 |
| 5°    | 6846.4 | 6385.2 | 5918.7 | 5501.1 | 5157.9 | 4714.9 | 4384.5 | 4244.7 | 4123.1 | 4164.8 |
| 7.5°  | 6782.8 | 6054.8 | 5328.6 | 4615.1 | 3881.6 | 3173.5 | 2647.1 | 2427.4 | 2260.3 | 2283.9 |
| 10°   | 6697.5 | 5711.6 | 4573.3 | 3484.0 | 2501.8 | 1802.8 | 1439.7 | 1305.3 | 1230.9 | 1232.8 |
| 12.5° | 6632.2 | 5301.3 | 3696.5 | 2362.0 | 1523.3 | 1151.1 | 1038.5 | 1005.8 | 984.0  | 985.8  |
| 15°   | 6599.5 | 4818.4 | 2830.4 | 1574.1 | 1089.3 | 975.0  | 947.7  | 933.2  | 918.6  | 916.9  |
| 17.5° | 6544.9 | 4281.0 | 2071.5 | 1149.2 | 953.1  | 913.2  | 889.6  | 873.3  | 855.2  | 851.5  |
| 20°   | 6463.2 | 3671.0 | 1514.1 | 971.3  | 893.3  | 862.3  | 829.7  | 807.9  | 786.1  | 782.5  |
| 22.5° | 6312.6 | 3026.5 | 1163.8 | 898.7  | 849.6  | 815.2  | 775.2  | 749.8  | 728.1  | 724.4  |
| 25°   | 6032.9 | 2421.9 | 980.4  | 853.3  | 811.5  | 769.8  | 726.2  | 691.7  | 671.8  | 668.1  |
| 27.5° | 5678.9 | 1902.7 | 889.6  | 811.5  | 762.5  | 724.4  | 675.4  | 642.7  | 624.5  | 620.9  |
| 30°   | 5261.4 | 1465.1 | 836.9  | 764.3  | 704.4  | 671.8  | 628.2  | 601.0  | 590.1  | 590.1  |
| 32.5° | 4811.1 | 1171.1 | 815.2  | 717.1  | 653.5  | 617.3  | 582.8  | 571.8  | 568.3  | 566.4  |
| 35°   | 4388.1 | 1016.7 | 804.3  | 679.0  | 608.2  | 573.7  | 559.1  | 561.0  | 568.3  | 568.3  |
| 37.5° | 4012.3 | 967.7  | 798.8  | 651.8  | 568.3  | 537.4  | 546.4  | 562.8  | 555.6  | 555.6  |
| 40°   | 3672.8 | 973.1  | 795.2  | 631.8  | 535.6  | 517.4  | 535.6  | 522.9  | 504.7  | 502.9  |
| 42.5° | 3413.1 | 1018.5 | 787.9  | 615.5  | 515.6  | 502.9  | 495.6  | 475.7  | 473.9  | 477.4  |
| 45°   | 3224.3 | 1058.4 | 786.1  | 608.2  | 493.8  | 470.3  | 461.1  | 441.2  | 477.4  | 486.6  |
| 47.5° | 3001.1 | 1058.4 | 786.1  | 582.8  | 457.6  | 448.4  | 433.9  | 412.2  | 448.4  | 457.6  |
| 50°   | 2712.4 | 991.3  | 755.2  | 553.7  | 428.4  | 423.0  | 397.6  | 370.3  | 363.1  | 368.6  |
| 52.5° | 2347.5 | 869.6  | 677.2  | 513.8  | 399.4  | 388.5  | 357.6  | 337.7  | 332.2  | 332.2  |
| 55°   | 1931.7 | 728.1  | 571.8  | 455.7  | 368.6  | 348.6  | 326.8  | 317.8  | 312.3  | 308.6  |
| 57.5° | 1570.4 | 597.3  | 459.3  | 404.9  | 339.5  | 314.1  | 306.8  | 295.9  | 286.9  | 281.4  |
| 60°   | 1289.0 | 470.3  | 379.5  | 359.5  | 310.5  | 286.9  | 285.1  | 270.5  | 246.9  | 243.2  |
| 62.5° | 994.9  | 344.9  | 319.5  | 312.3  | 281.4  | 261.5  | 257.8  | 228.8  | 192.5  | 185.2  |
| 65°   | 702.6  | 268.7  | 257.8  | 274.2  | 250.5  | 232.4  | 223.3  | 179.8  | 141.7  | 136.1  |
| 67.5° | 493.8  | 225.1  | 203.4  | 239.6  | 217.8  | 194.2  | 188.8  | 152.5  | 118.0  | 114.4  |
| 70°   | 352.2  | 183.4  | 167.1  | 205.2  | 174.2  | 170.7  | 159.8  | 127.1  | 96.2   | 92.6   |
| 72.5° | 248.8  | 139.8  | 128.9  | 177.9  | 119.8  | 147.1  | 130.7  | 98.0   | 72.6   | 69.0   |
| 75°   | 183.4  | 99.8   | 90.8   | 103.5  | 87.1   | 110.7  | 92.6   | 65.4   | 45.4   | 43.6   |
| 77.5° | 134.4  | 63.6   | 54.4   | 50.8   | 50.8   | 69.0   | 50.8   | 27.3   | 20.0   | 18.1   |
| 80°   | 94.4   | 29.0   | 25.4   | 21.8   | 20.0   | 16.3   | 7.3    | 3.6    | 1.8    | 1.8    |
| 82.5° | 56.3   | 12.7   | 12.7   | 9.1    | 5.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 12.7   | 5.4    | 5.4    | 1.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 1.8    | 1.8    | 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    |

(END OF REPORT)