

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: P965174

Luminaire Tested: **NAV-SB3D-760-U-AFL**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965174  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-760-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33673.3 lumens  
Efficiency: N/A  
Efficacy: 154.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

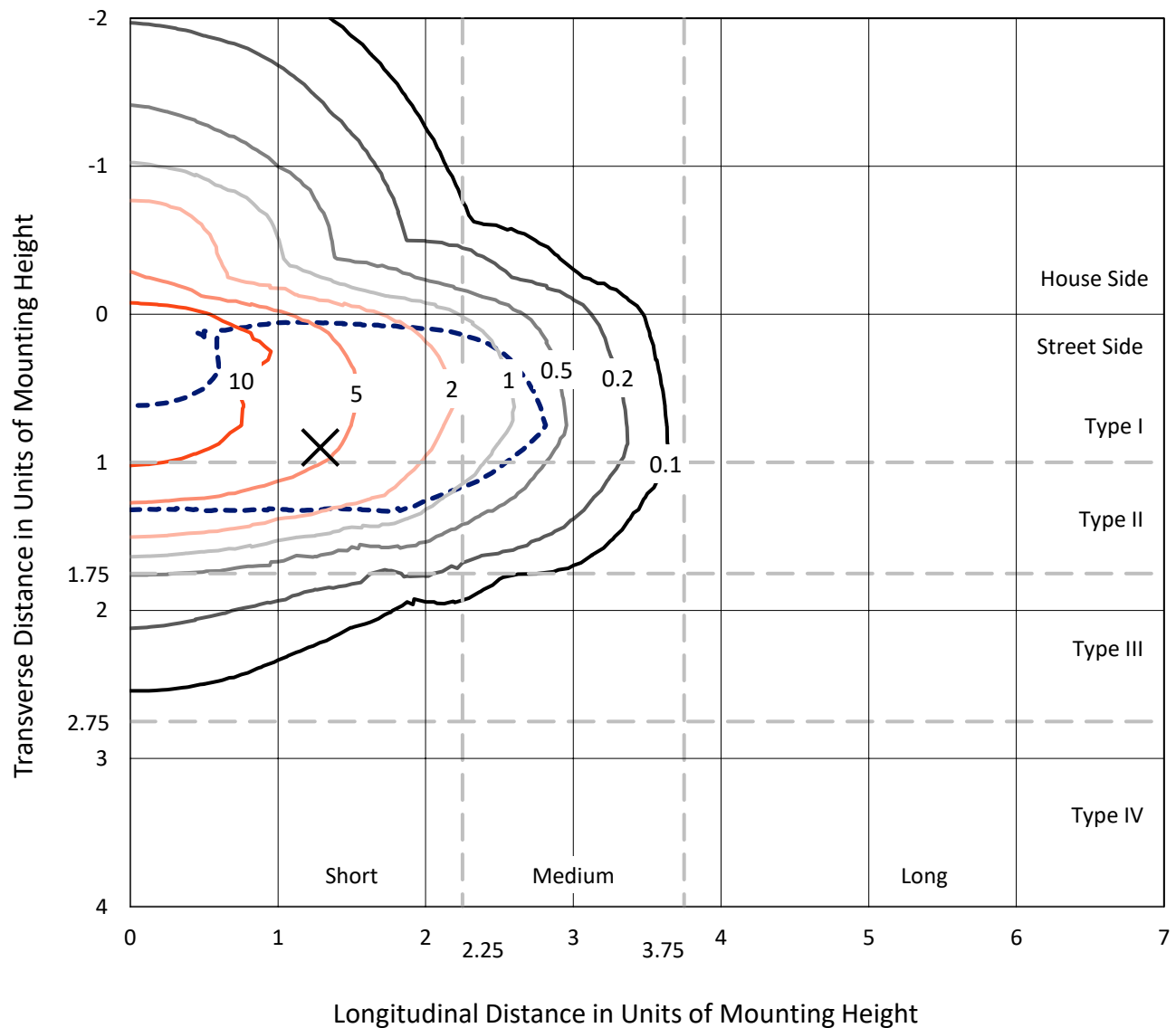
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

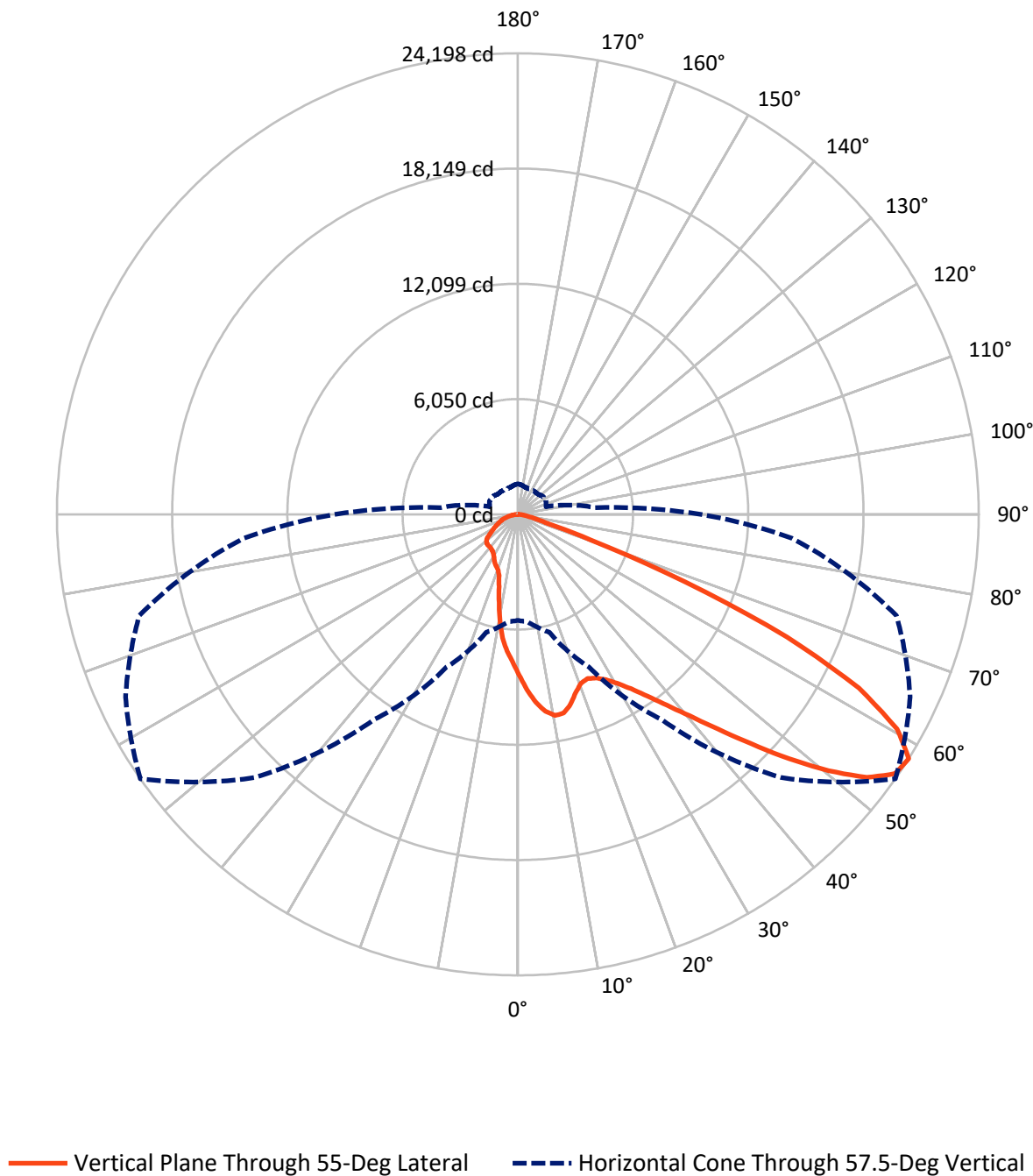


Based on 25 foot mounting height. Maximum calculated value = 16.3 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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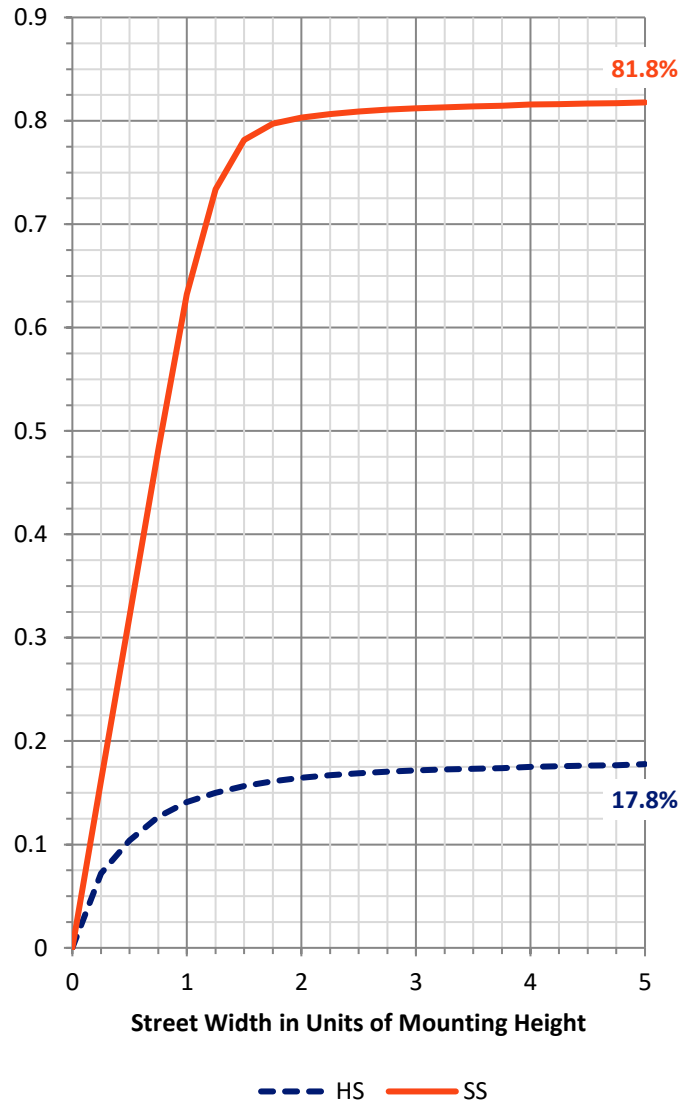
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6093.0   | 0.0    | 6093.0  |
|                    | % Fixture | 18.1     | 0.0    | 18.1    |
| <b>Street Side</b> | Lumens    | 27580.3  | 0.0    | 27580.3 |
|                    | % Fixture | 81.9     | 0.0    | 81.9    |
| <b>Total</b>       | Lumens    | 33673.3  | 0.0    | 33673.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 782.9   | 2.3       |
| 10°-20°   | 1976.2  | 5.9       |
| 20°-30°   | 3153.4  | 9.4       |
| 30°-40°   | 4992.7  | 14.8      |
| 40°-50°   | 7641.8  | 22.7      |
| 50°-60°   | 8185.1  | 24.3      |
| 60°-70°   | 5149.3  | 15.3      |
| 70°-80°   | 1522.7  | 4.5       |
| 80°-90°   | 269.2   | 0.8       |
| 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°    | 33673.3 | 100.0     |
| 0°-180°   | 33673.3 | 100.0     |

**Coefficient of Utilization**



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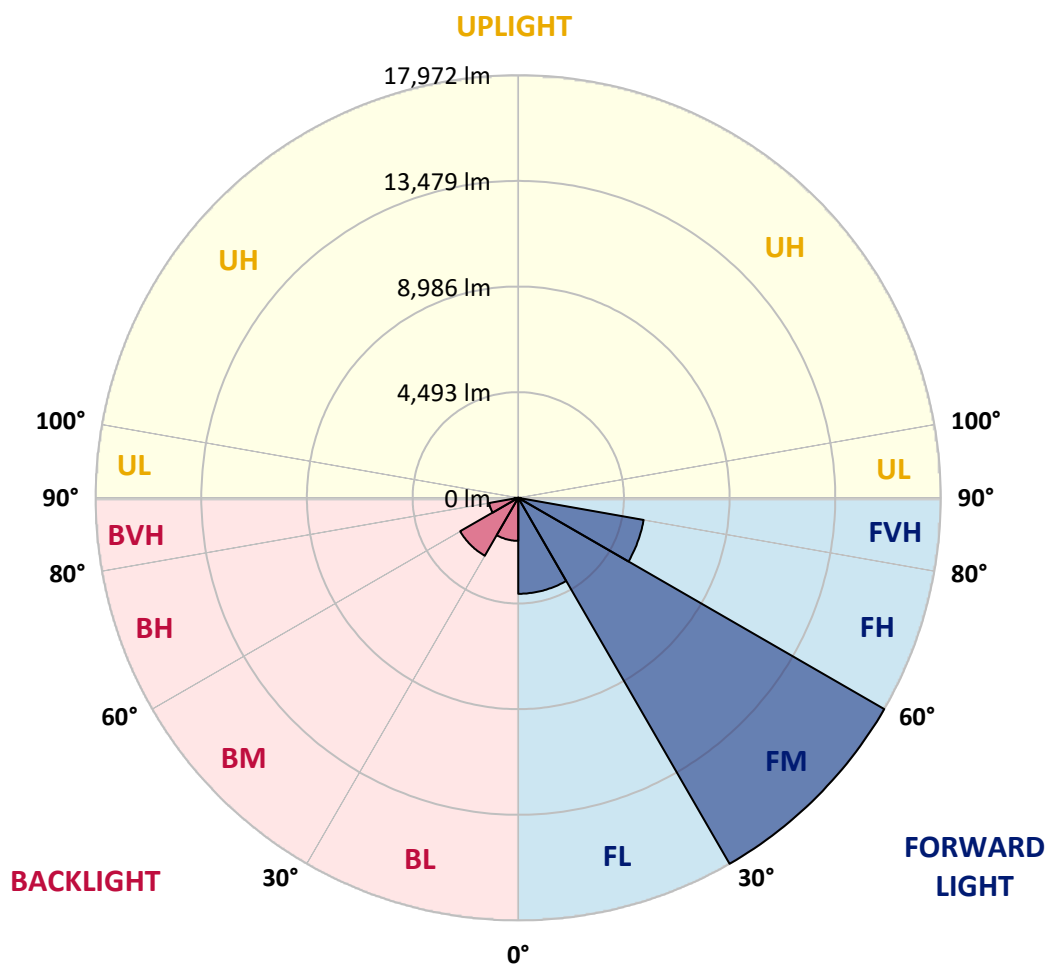
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 4081.2  | 12.1      |                         |      |         |
| FM   | (30°-60°)   | 17971.7 | 53.4      |                         |      |         |
| FH   | (60°-80°)   | 5413.6  | 16.1      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 113.8   | 0.3       |                         |      | G2/225  |
| BL   | (0°-30°)    | 1831.4  | 5.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2847.8  | 8.5       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1258.3  | 3.7       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 155.5   | 0.5       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4  | 8437.4 |
| 2.5°  | 9680.3  | 9673.3  | 9711.7  | 9581.1  | 9492.3  | 9372.2  | 9213.8  | 9011.9  | 8794.3  | 8564.5  | 8465.3 |
| 5°    | 10552.5 | 10491.5 | 10531.6 | 10434.1 | 10336.6 | 10155.6 | 9920.6  | 9591.5  | 9189.4  | 8731.7  | 8487.9 |
| 7.5°  | 10414.9 | 10373.2 | 10475.9 | 10562.9 | 10636.0 | 10613.4 | 10441.1 | 10096.4 | 9577.6  | 8912.7  | 8559.3 |
| 10°   | 9306.1  | 9259.0  | 9403.6  | 9704.7  | 10146.9 | 10531.6 | 10740.5 | 10526.3 | 9974.5  | 9111.1  | 8629.0 |
| 12.5° | 8327.8  | 8305.2  | 8400.9  | 8644.5  | 9135.5  | 9873.5  | 10702.1 | 10902.3 | 10387.0 | 9346.2  | 8723.0 |
| 15°   | 7910.0  | 7882.1  | 7943.0  | 8066.6  | 8380.0  | 9067.6  | 10354.0 | 11160.0 | 10792.6 | 9617.7  | 8872.6 |
| 17.5° | 7817.8  | 7786.4  | 7812.6  | 7876.9  | 8078.8  | 8602.8  | 9828.3  | 11287.1 | 11215.7 | 9920.6  | 8998.0 |
| 20°   | 7988.3  | 7962.2  | 7965.7  | 7962.2  | 8103.2  | 8519.3  | 9462.7  | 11238.3 | 11584.8 | 10199.1 | 9119.8 |
| 22.5° | 8400.9  | 8357.3  | 8359.1  | 8266.8  | 8343.4  | 8665.5  | 9367.0  | 11107.7 | 11913.7 | 10442.8 | 9212.1 |
| 25°   | 9072.8  | 8994.5  | 9010.2  | 8775.1  | 8754.2  | 8992.7  | 9516.7  | 11006.8 | 12241.0 | 10637.8 | 9229.5 |
| 27.5° | 9991.9  | 9903.1  | 9856.2  | 9506.3  | 9339.2  | 9457.5  | 9821.3  | 11041.6 | 12550.8 | 10806.6 | 9185.9 |
| 30°   | 11140.8 | 11032.9 | 10937.2 | 10441.1 | 10138.2 | 10094.6 | 10294.8 | 11271.4 | 12916.4 | 10984.2 | 9111.1 |
| 32.5° | 12549.1 | 12423.7 | 12249.7 | 11591.7 | 11165.2 | 10937.2 | 10907.5 | 11680.5 | 13344.6 | 11210.4 | 9072.8 |
| 35°   | 14225.5 | 14061.8 | 13814.6 | 12963.4 | 12423.7 | 11957.2 | 11715.2 | 12270.6 | 13931.3 | 11551.6 | 9116.3 |
| 37.5° | 15952.3 | 15767.8 | 15541.5 | 14528.4 | 13865.1 | 13177.5 | 12700.6 | 13071.3 | 14712.8 | 12014.6 | 9231.3 |
| 40°   | 17545.0 | 17337.9 | 17127.2 | 16225.5 | 15513.6 | 14685.0 | 13906.9 | 14084.4 | 15668.6 | 12568.2 | 9426.2 |
| 42.5° | 18485.1 | 18331.9 | 18251.8 | 17764.4 | 17214.4 | 16373.6 | 15407.4 | 15285.5 | 16742.6 | 13205.4 | 9649.0 |
| 45°   | 18443.3 | 18380.6 | 18627.8 | 18829.8 | 18699.2 | 18232.7 | 17165.6 | 16613.7 | 17820.1 | 13757.1 | 9854.5 |
| 47.5° | 17458.0 | 17499.8 | 18051.6 | 19186.6 | 19686.1 | 19929.9 | 19167.4 | 17917.6 | 18756.6 | 14169.7 | 9946.7 |
| 50°   | 14777.2 | 14812.1 | 16089.8 | 18537.3 | 19940.4 | 21313.7 | 21153.6 | 19190.0 | 19482.5 | 14422.2 | 9925.8 |
| 52.5° | 12655.3 | 12677.9 | 13226.3 | 16612.0 | 19101.3 | 22010.1 | 22943.2 | 20389.5 | 20013.4 | 14491.8 | 9809.1 |
| 55°   | 9532.4  | 9610.7  | 10225.2 | 13033.0 | 16918.3 | 21458.3 | 24032.9 | 21625.3 | 20349.4 | 14498.7 | 9687.3 |
| 57.5° | 5568.7  | 5654.0  | 6412.9  | 8846.5  | 13149.6 | 19534.8 | 24198.2 | 22722.1 | 20577.5 | 14443.1 | 9614.2 |
| 60°   | 2727.7  | 2764.3  | 3095.1  | 4649.6  | 8108.5  | 15828.7 | 22868.3 | 23252.9 | 20704.5 | 14413.4 | 9610.7 |
| 62.5° | 1838.2  | 1833.0  | 1846.9  | 2294.4  | 3995.0  | 10169.5 | 20097.0 | 22323.5 | 20636.6 | 14300.3 | 9575.9 |
| 65°   | 1580.7  | 1561.5  | 1509.2  | 1610.2  | 2069.8  | 4651.2  | 15527.5 | 19548.7 | 20119.6 | 14016.6 | 9337.4 |
| 67.5° | 1366.5  | 1368.3  | 1370.0  | 1338.6  | 1477.9  | 2146.4  | 9488.8  | 15398.7 | 18264.0 | 12672.7 | 8418.3 |
| 70°   | 1131.5  | 1147.2  | 1154.1  | 1154.1  | 1204.6  | 1408.2  | 4050.7  | 10554.2 | 14406.5 | 9936.2  | 6780.3 |
| 72.5° | 1030.5  | 997.4   | 1000.9  | 983.5   | 983.5   | 1072.4  | 1631.1  | 5982.9  | 9076.3  | 5589.5  | 4137.8 |
| 75°   | 840.8   | 861.7   | 865.2   | 853.0   | 812.9   | 818.2   | 967.9   | 2510.1  | 3883.6  | 2318.7  | 2045.4 |
| 77.5° | 725.9   | 725.9   | 732.9   | 724.2   | 692.8   | 612.7   | 645.9   | 973.0   | 1321.2  | 950.5   | 1021.8 |
| 80°   | 583.1   | 581.4   | 611.0   | 628.4   | 579.6   | 452.6   | 412.6   | 537.9   | 586.6   | 417.8   | 530.9  |
| 82.5° | 283.7   | 301.1   | 419.5   | 478.7   | 440.4   | 327.3   | 252.5   | 334.3   | 313.3   | 184.5   | 238.5  |
| 85°   | 165.3   | 156.6   | 188.0   | 266.3   | 252.5   | 181.0   | 121.9   | 174.0   | 163.6   | 94.0    | 95.7   |
| 87.5° | 52.2    | 48.8    | 38.3    | 90.5    | 73.1    | 50.5    | 33.1    | 50.5    | 45.3    | 20.9    | 20.9   |
| 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°    | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 | 8437.4 |
| 2.5°  | 8341.7 | 8136.2 | 7932.6 | 7746.3 | 7633.2 | 7560.1 | 7487.0 | 7405.2 | 7373.8 | 7326.8 |
| 5°    | 8258.1 | 7861.2 | 7507.9 | 7203.3 | 6926.4 | 6708.8 | 6489.6 | 6312.0 | 6231.9 | 6285.8 |
| 7.5°  | 8209.4 | 7634.9 | 7090.1 | 6531.3 | 5993.4 | 5563.5 | 5189.2 | 4926.4 | 4808.0 | 4837.6 |
| 10°   | 8165.9 | 7379.1 | 6548.7 | 5666.2 | 4893.2 | 4360.6 | 3977.6 | 3777.4 | 3702.6 | 3718.3 |
| 12.5° | 8125.8 | 7091.9 | 5895.9 | 4734.9 | 3913.2 | 3561.6 | 3451.9 | 3453.6 | 3467.6 | 3478.0 |
| 15°   | 8118.9 | 6745.4 | 5166.5 | 3920.2 | 3384.0 | 3361.4 | 3479.8 | 3554.6 | 3594.7 | 3606.9 |
| 17.5° | 8108.5 | 6331.1 | 4423.3 | 3364.9 | 3255.2 | 3408.4 | 3518.1 | 3566.8 | 3598.2 | 3599.9 |
| 20°   | 8066.6 | 5805.4 | 3737.4 | 3100.3 | 3227.3 | 3359.6 | 3427.5 | 3465.8 | 3492.0 | 3500.7 |
| 22.5° | 7937.8 | 5220.5 | 3203.0 | 2981.9 | 3116.0 | 3222.1 | 3302.2 | 3345.7 | 3361.4 | 3371.8 |
| 25°   | 7706.4 | 4566.0 | 2833.9 | 2868.8 | 2961.0 | 3095.1 | 3159.5 | 3168.2 | 3162.9 | 3178.6 |
| 27.5° | 7403.5 | 3864.5 | 2604.2 | 2715.5 | 2833.9 | 2948.8 | 2983.7 | 2978.4 | 2968.0 | 2985.4 |
| 30°   | 7037.9 | 3234.3 | 2458.0 | 2543.2 | 2705.2 | 2809.6 | 2840.9 | 2828.7 | 2807.9 | 2827.0 |
| 32.5° | 6651.4 | 2719.0 | 2337.8 | 2423.1 | 2599.0 | 2701.7 | 2733.0 | 2720.8 | 2705.2 | 2720.8 |
| 35°   | 6291.0 | 2358.7 | 2226.4 | 2343.0 | 2515.4 | 2616.3 | 2656.4 | 2658.1 | 2658.1 | 2677.3 |
| 37.5° | 5960.4 | 2148.1 | 2134.2 | 2292.6 | 2458.0 | 2548.5 | 2606.0 | 2609.3 | 2534.5 | 2539.7 |
| 40°   | 5654.0 | 2059.3 | 2092.4 | 2259.5 | 2402.2 | 2489.3 | 2492.8 | 2297.8 | 2160.3 | 2156.8 |
| 42.5° | 5403.3 | 2041.9 | 2104.5 | 2256.0 | 2362.2 | 2365.7 | 2120.2 | 1968.8 | 1930.5 | 1932.2 |
| 45°   | 5168.3 | 2036.7 | 2132.4 | 2256.0 | 2303.0 | 2043.6 | 1878.3 | 1838.2 | 1841.7 | 1855.7 |
| 47.5° | 4905.4 | 2015.8 | 2137.6 | 2224.7 | 2132.4 | 1817.3 | 1768.6 | 1751.2 | 1744.2 | 1747.7 |
| 50°   | 4618.2 | 1940.9 | 2071.5 | 2162.0 | 1840.0 | 1719.8 | 1659.0 | 1653.7 | 1662.4 | 1667.7 |
| 52.5° | 4315.4 | 1819.1 | 1958.4 | 2048.9 | 1705.9 | 1634.6 | 1566.7 | 1578.9 | 1617.1 | 1629.3 |
| 55°   | 4116.9 | 1676.4 | 1808.6 | 1822.6 | 1611.9 | 1554.5 | 1497.0 | 1524.9 | 1596.2 | 1618.9 |
| 57.5° | 4064.6 | 1524.9 | 1638.1 | 1622.4 | 1491.8 | 1484.8 | 1450.1 | 1474.5 | 1565.0 | 1598.0 |
| 60°   | 4049.0 | 1389.1 | 1471.0 | 1458.8 | 1375.2 | 1408.2 | 1399.5 | 1411.7 | 1443.1 | 1453.6 |
| 62.5° | 3927.2 | 1281.1 | 1321.2 | 1303.8 | 1270.8 | 1328.2 | 1349.1 | 1323.0 | 1347.4 | 1359.6 |
| 65°   | 3617.3 | 1194.1 | 1175.1 | 1162.9 | 1176.7 | 1229.0 | 1270.8 | 1218.5 | 1241.2 | 1276.0 |
| 67.5° | 3105.5 | 1075.7 | 1023.6 | 1037.5 | 1081.0 | 1108.8 | 1162.9 | 1103.6 | 1122.8 | 1181.9 |
| 70°   | 2511.9 | 926.1  | 879.0  | 919.1  | 960.9  | 1018.3 | 1027.0 | 987.0  | 1032.3 | 1098.4 |
| 72.5° | 1777.4 | 774.6  | 741.6  | 823.4  | 837.3  | 912.1  | 893.0  | 873.8  | 936.5  | 959.2  |
| 75°   | 1232.5 | 624.9  | 605.8  | 668.4  | 718.9  | 783.3  | 769.4  | 792.0  | 924.3  | 934.8  |
| 77.5° | 779.8  | 485.6  | 473.4  | 513.5  | 583.1  | 654.6  | 677.1  | 934.8  | 1578.9 | 1641.5 |
| 80°   | 452.6  | 362.0  | 348.2  | 379.5  | 440.4  | 506.6  | 652.8  | 1147.2 | 1041.0 | 1028.8 |
| 82.5° | 252.5  | 249.0  | 231.5  | 240.3  | 294.2  | 365.5  | 922.6  | 807.7  | 656.3  | 677.1  |
| 85°   | 118.4  | 146.3  | 125.4  | 120.1  | 165.3  | 428.2  | 616.2  | 461.2  | 306.4  | 299.4  |
| 87.5° | 31.4   | 27.9   | 27.9   | 31.4   | 69.6   | 369.0  | 245.5  | 196.7  | 116.6  | 113.2  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)