

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: P963085

Luminaire Tested: **NAV-SB2D-760-U-T3-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P963085  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-760-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 17307.1 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

Input Watts (W): 147.6  
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

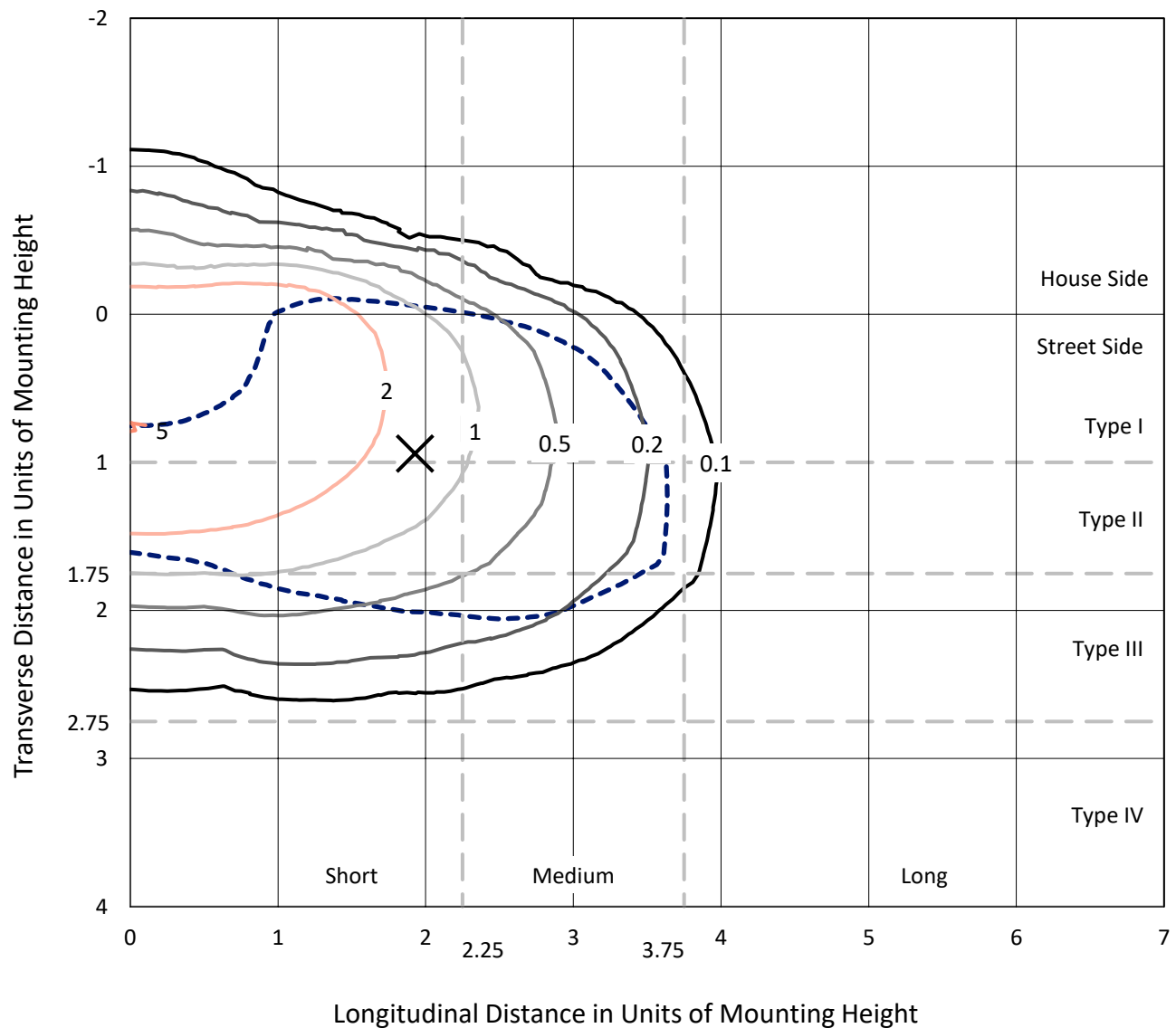


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

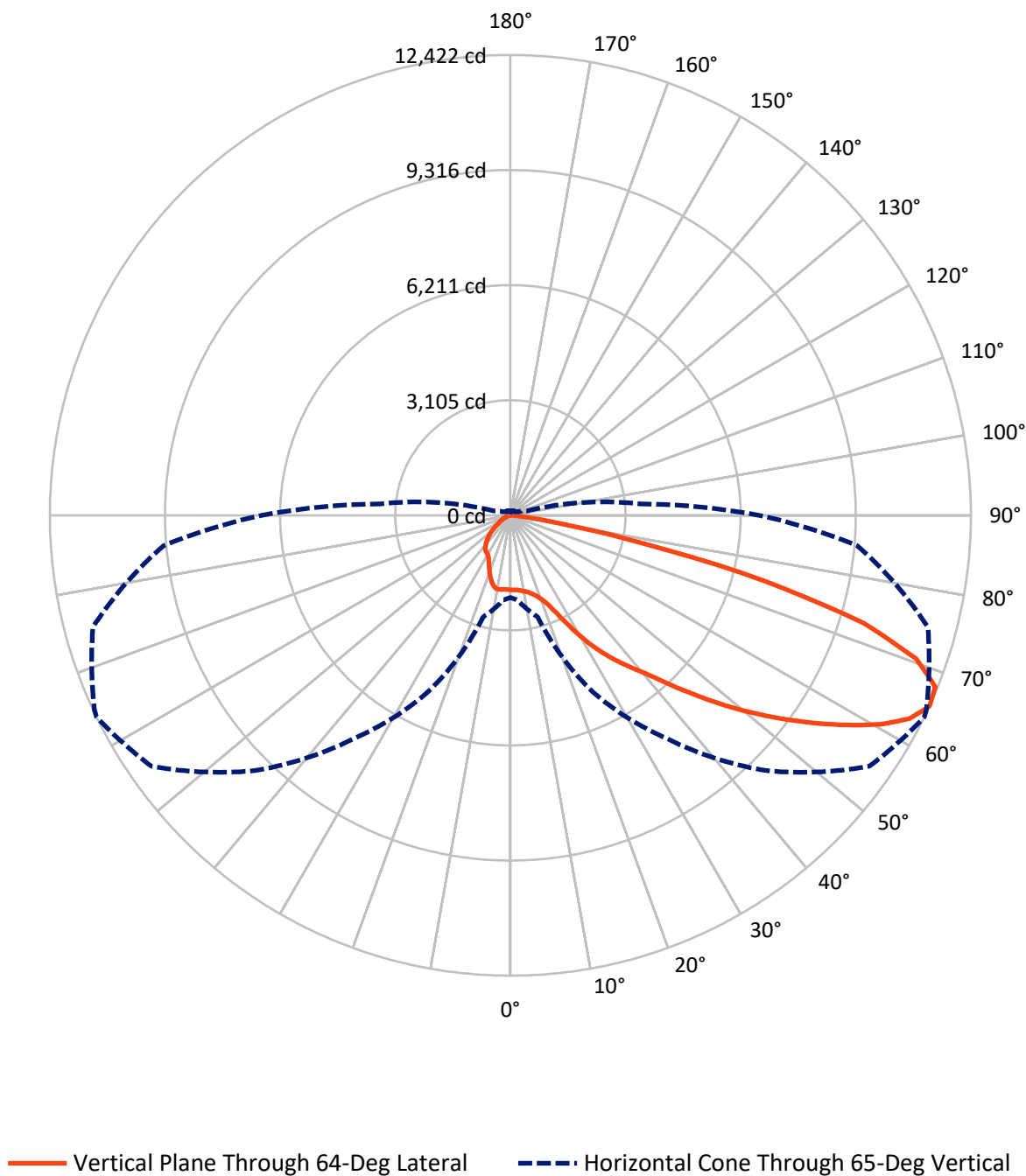


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2314.5   | 0.0    | 2314.5  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 14992.7  | 0.0    | 14992.7 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | Lumens    | 17307.1  | 0.0    | 17307.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 185.7   | 1.1       |
| 10°-20°   | 503.7   | 2.9       |
| 20°-30°   | 954.5   | 5.5       |
| 30°-40°   | 1931.5  | 11.2      |
| 40°-50°   | 3290.3  | 19.0      |
| 50°-60°   | 4474.6  | 25.9      |
| 60°-70°   | 4201.8  | 24.3      |
| 70°-80°   | 1683.4  | 9.7       |
| 80°-90°   | 81.6    | 0.5       |
| 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°    | 17307.1 | 100.0     |
| 0°-180°   | 17307.1 | 100.0     |

**Coefficient of Utilization**



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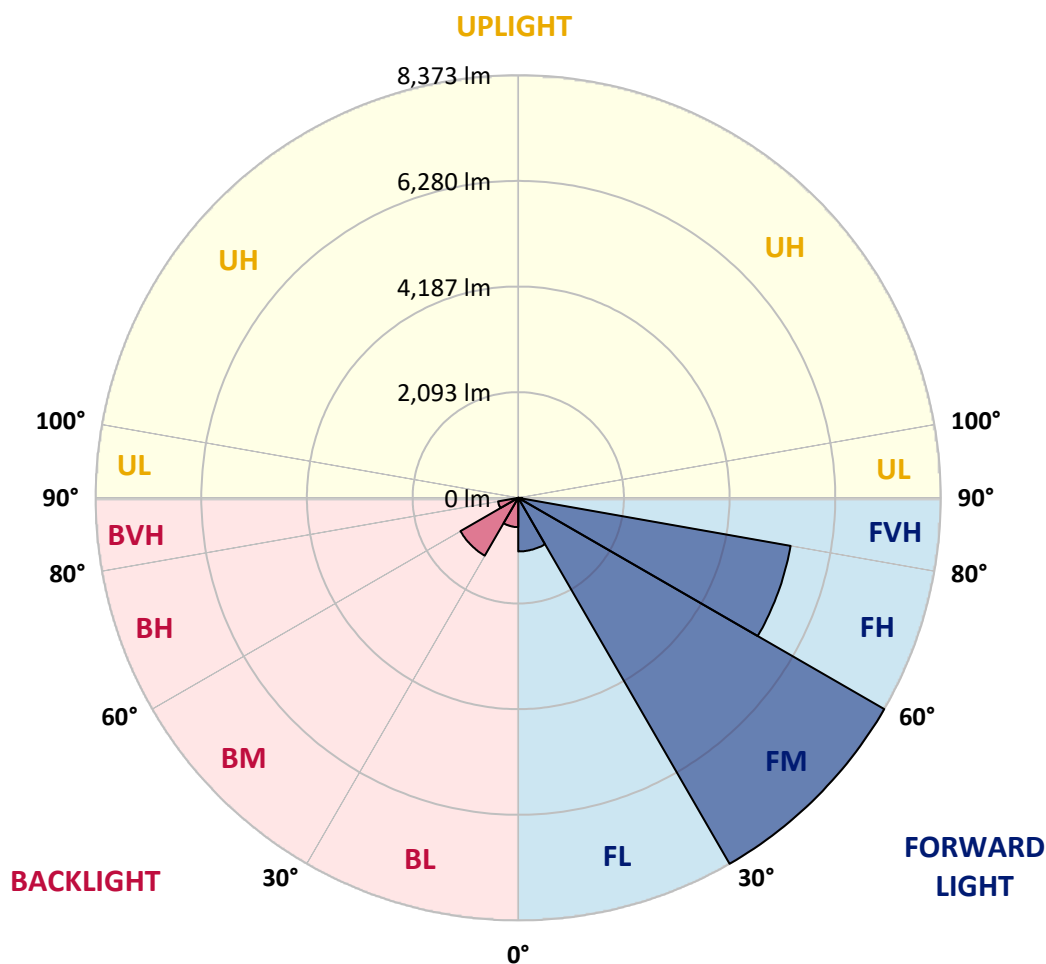
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1062.9 | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 8373.2 | 48.4      |                         |      |         |
| FH   | (60°-80°)   | 5479.0 | 31.7      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 77.6   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 581.1  | 3.4       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1323.2 | 7.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 406.2  | 2.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 4.0    | 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 III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 64°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0  | 2013.0  | 2013.0  | 2013.0  | 2013.0  | 2013.0 |
| 2.5°  | 2006.0 | 2020.0 | 2016.5 | 2013.0 | 2011.9 | 2014.1  | 2015.4  | 2014.1  | 2014.1  | 2014.1  | 2015.4 |
| 5°    | 1967.8 | 1979.4 | 1979.4 | 1987.5 | 1999.1 | 2013.0  | 2023.5  | 2025.8  | 2028.1  | 2031.5  | 2030.4 |
| 7.5°  | 1894.6 | 1903.9 | 1910.9 | 1937.6 | 1966.6 | 2003.7  | 2035.0  | 2051.3  | 2053.6  | 2066.4  | 2071.0 |
| 10°   | 1844.8 | 1856.4 | 1868.0 | 1895.8 | 1937.6 | 1993.3  | 2046.6  | 2086.1  | 2091.9  | 2122.1  | 2136.0 |
| 12.5° | 1842.4 | 1854.0 | 1869.1 | 1899.3 | 1948.0 | 2007.2  | 2072.1  | 2129.0  | 2139.5  | 2183.6  | 2212.6 |
| 15°   | 1866.8 | 1880.8 | 1894.6 | 1931.8 | 1984.0 | 2055.9  | 2125.5  | 2196.3  | 2206.7  | 2269.5  | 2300.7 |
| 17.5° | 1916.7 | 1935.3 | 1945.7 | 1982.9 | 2038.5 | 2118.6  | 2210.2  | 2291.5  | 2300.7  | 2373.8  | 2413.3 |
| 20°   | 2015.4 | 2037.4 | 2040.9 | 2071.0 | 2125.5 | 2211.4  | 2320.5  | 2421.4  | 2433.0  | 2516.6  | 2560.7 |
| 22.5° | 2219.5 | 2250.8 | 2223.0 | 2238.1 | 2286.8 | 2372.7  | 2491.1  | 2618.7  | 2634.9  | 2730.0  | 2769.4 |
| 25°   | 2579.2 | 2623.3 | 2551.3 | 2525.8 | 2546.7 | 2636.0  | 2784.5  | 2945.8  | 2964.4  | 3041.0  | 3060.6 |
| 27.5° | 3285.7 | 3229.0 | 3119.9 | 3013.1 | 2950.5 | 3001.5  | 3168.6  | 3368.2  | 3391.3  | 3465.6  | 3442.4 |
| 30°   | 4062.0 | 4012.1 | 3864.8 | 3628.0 | 3479.6 | 3471.4  | 3625.7  | 3848.5  | 3875.2  | 3945.9  | 3875.2 |
| 32.5° | 4839.3 | 4791.8 | 4631.7 | 4340.5 | 4082.9 | 3955.3  | 4062.0  | 4309.1  | 4323.0  | 4368.2  | 4263.8 |
| 35°   | 5603.9 | 5555.2 | 5395.1 | 5096.9 | 4780.2 | 4490.1  | 4469.2  | 4747.7  | 4752.3  | 4799.9  | 4644.4 |
| 37.5° | 6373.1 | 6332.6 | 6162.0 | 5869.6 | 5557.5 | 5157.2  | 4963.5  | 5163.0  | 5168.9  | 5215.2  | 5054.0 |
| 40°   | 6921.9 | 6939.4 | 6822.2 | 6595.9 | 6327.9 | 5890.5  | 5518.1  | 5605.1  | 5570.3  | 5648.0  | 5551.7 |
| 42.5° | 7393.0 | 7427.8 | 7325.7 | 7212.0 | 7056.5 | 6671.3  | 6204.9  | 6189.9  | 6134.1  | 6175.9  | 6076.1 |
| 45°   | 7800.2 | 7829.3 | 7737.5 | 7710.9 | 7707.4 | 7437.1  | 6955.5  | 6865.0  | 6787.3  | 6779.2  | 6659.7 |
| 47.5° | 7949.9 | 8005.6 | 8045.0 | 8134.4 | 8308.4 | 8194.7  | 7731.8  | 7591.4  | 7504.3  | 7440.6  | 7251.5 |
| 50°   | 8006.8 | 8065.9 | 8200.5 | 8460.3 | 8872.3 | 8921.0  | 8504.5  | 8346.7  | 8240.0  | 8123.9  | 7845.5 |
| 52.5° | 7930.2 | 8035.8 | 8216.7 | 8654.2 | 9251.6 | 9503.4  | 9245.9  | 9107.8  | 8986.0  | 8796.9  | 8383.8 |
| 55°   | 7478.8 | 7584.4 | 7954.5 | 8651.8 | 9440.8 | 9911.9  | 9946.6  | 9885.2  | 9748.3  | 9450.1  | 8818.9 |
| 57.5° | 6527.4 | 6684.1 | 7270.0 | 8357.1 | 9437.3 | 10263.4 | 10633.6 | 10677.6 | 10524.4 | 10097.5 | 9161.1 |
| 60°   | 5209.5 | 5421.7 | 6136.5 | 7703.9 | 9146.1 | 10453.7 | 11235.6 | 11456.1 | 11293.7 | 10735.6 | 9438.5 |
| 62.5° | 3635.0 | 3881.0 | 4557.4 | 6680.6 | 8480.1 | 10316.7 | 11675.4 | 12082.6 | 11959.6 | 11306.5 | 9545.2 |
| 65°   | 2217.2 | 2296.1 | 2841.4 | 5257.0 | 7347.7 | 9743.6  | 11811.2 | 12421.5 | 12380.8 | 11655.7 | 9387.5 |
| 67.5° | 1476.9 | 1543.1 | 1699.8 | 3604.8 | 5703.7 | 8598.4  | 11486.3 | 12362.2 | 12373.8 | 11598.8 | 8809.7 |
| 70°   | 889.9  | 946.8  | 1048.9 | 2096.5 | 3696.5 | 6805.9  | 10480.3 | 11608.1 | 11675.4 | 10838.9 | 7714.4 |
| 72.5° | 366.6  | 404.9  | 497.7  | 950.3  | 1914.4 | 4319.6  | 8345.6  | 9966.4  | 10123.0 | 9113.6  | 5920.6 |
| 75°   | 207.7  | 227.4  | 292.3  | 476.8  | 830.8  | 2013.0  | 5055.1  | 7075.1  | 7306.0  | 6281.5  | 3561.9 |
| 77.5° | 138.1  | 147.4  | 189.1  | 308.6  | 467.6  | 686.9   | 2160.4  | 3686.0  | 4127.0  | 3430.8  | 1541.9 |
| 80°   | 92.9   | 101.0  | 130.0  | 206.5  | 304.0  | 294.7   | 688.0   | 1365.6  | 1680.0  | 1178.8  | 375.9  |
| 82.5° | 62.6   | 63.9   | 92.9   | 135.7  | 192.6  | 142.7   | 203.1   | 424.7   | 533.7   | 341.1   | 142.7  |
| 85°   | 36.0   | 34.8   | 68.5   | 78.9   | 85.9   | 59.1    | 61.5    | 127.6   | 167.1   | 143.9   | 81.2   |
| 87.5° | 4.6    | 7.0    | 26.6   | 20.9   | 11.6   | 12.8    | 12.8    | 22.0    | 32.5    | 34.8    | 17.4   |
| 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°    | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 | 2013.0 |
| 2.5°  | 2015.4 | 2014.1 | 2010.6 | 2007.2 | 1999.1 | 1994.4 | 1996.8 | 1994.4 | 1993.3 | 1994.4 | 1999.1 |
| 5°    | 2030.4 | 2026.9 | 2017.6 | 2006.0 | 1989.8 | 1970.0 | 1957.3 | 1938.8 | 1921.4 | 1910.9 | 1913.3 |
| 7.5°  | 2071.0 | 2067.5 | 2054.8 | 2022.3 | 1970.0 | 1887.7 | 1812.3 | 1746.2 | 1696.3 | 1667.3 | 1668.4 |
| 10°   | 2136.0 | 2130.2 | 2110.5 | 2038.5 | 1901.6 | 1721.8 | 1572.1 | 1448.0 | 1366.7 | 1328.5 | 1325.0 |
| 12.5° | 2212.6 | 2205.6 | 2170.7 | 2023.5 | 1771.7 | 1490.9 | 1284.3 | 1146.3 | 1070.9 | 1037.2 | 1033.8 |
| 15°   | 2303.1 | 2293.7 | 2225.3 | 1951.5 | 1582.6 | 1235.6 | 1046.5 | 943.3  | 894.5  | 864.4  | 865.5  |
| 17.5° | 2415.6 | 2399.3 | 2266.0 | 1843.6 | 1377.2 | 1040.7 | 900.4  | 822.6  | 779.7  | 750.7  | 748.4  |
| 20°   | 2561.8 | 2535.1 | 2298.5 | 1714.8 | 1188.1 | 917.8  | 801.8  | 736.8  | 704.3  | 678.8  | 674.1  |
| 22.5° | 2766.0 | 2727.7 | 2337.8 | 1575.6 | 1054.6 | 833.0  | 728.7  | 681.0  | 654.4  | 625.4  | 620.7  |
| 25°   | 3018.9 | 2973.6 | 2386.6 | 1446.8 | 963.0  | 759.9  | 675.3  | 635.8  | 604.4  | 570.8  | 567.3  |
| 27.5° | 3372.8 | 3291.6 | 2444.6 | 1341.2 | 884.1  | 697.3  | 626.5  | 582.4  | 546.4  | 518.6  | 512.8  |
| 30°   | 3767.3 | 3633.8 | 2495.7 | 1277.5 | 812.2  | 639.3  | 562.7  | 518.6  | 484.9  | 465.2  | 461.8  |
| 32.5° | 4140.9 | 3959.9 | 2529.3 | 1249.6 | 747.2  | 573.2  | 493.1  | 445.6  | 420.0  | 414.2  | 417.7  |
| 35°   | 4493.6 | 4254.6 | 2525.8 | 1222.9 | 689.2  | 507.1  | 424.7  | 375.9  | 356.2  | 359.7  | 359.7  |
| 37.5° | 4899.6 | 4568.9 | 2501.4 | 1181.1 | 641.6  | 446.7  | 365.5  | 322.6  | 305.1  | 306.3  | 311.0  |
| 40°   | 5371.8 | 4932.1 | 2486.3 | 1102.2 | 589.4  | 391.0  | 316.7  | 282.0  | 269.2  | 264.6  | 263.3  |
| 42.5° | 5875.4 | 5283.7 | 2488.7 | 1012.9 | 524.4  | 341.1  | 283.1  | 254.1  | 242.5  | 239.0  | 237.8  |
| 45°   | 6381.2 | 5618.9 | 2492.2 | 920.0  | 455.9  | 302.8  | 258.7  | 234.4  | 227.4  | 222.7  | 222.7  |
| 47.5° | 6856.9 | 5904.4 | 2427.2 | 820.3  | 388.7  | 273.8  | 239.0  | 222.7  | 217.0  | 211.2  | 211.2  |
| 50°   | 7300.2 | 6094.6 | 2270.6 | 704.3  | 335.3  | 250.6  | 224.0  | 212.3  | 206.5  | 200.7  | 200.7  |
| 52.5° | 7644.8 | 6124.9 | 2011.9 | 584.8  | 298.2  | 233.2  | 214.6  | 204.2  | 197.2  | 191.5  | 190.2  |
| 55°   | 7797.9 | 5935.8 | 1644.0 | 473.3  | 269.2  | 218.1  | 205.4  | 195.0  | 186.8  | 181.0  | 179.8  |
| 57.5° | 7758.4 | 5537.8 | 1282.1 | 380.6  | 241.3  | 203.1  | 193.7  | 186.8  | 177.5  | 168.2  | 167.1  |
| 60°   | 7564.7 | 5005.3 | 966.5  | 316.7  | 215.8  | 186.8  | 181.0  | 175.2  | 162.5  | 148.5  | 146.2  |
| 62.5° | 7229.4 | 4335.8 | 689.2  | 262.2  | 188.0  | 168.2  | 165.9  | 161.2  | 142.7  | 117.2  | 114.9  |
| 65°   | 6716.6 | 3522.4 | 464.1  | 218.1  | 161.2  | 147.4  | 148.5  | 140.4  | 116.0  | 87.0   | 84.7   |
| 67.5° | 5967.0 | 2575.7 | 297.0  | 178.7  | 134.6  | 123.0  | 124.1  | 119.5  | 98.6   | 74.2   | 70.7   |
| 70°   | 5012.1 | 1705.5 | 193.7  | 135.7  | 107.9  | 95.1   | 102.1  | 103.2  | 83.5   | 60.4   | 58.0   |
| 72.5° | 3674.4 | 1007.1 | 135.7  | 101.0  | 78.9   | 66.1   | 83.5   | 85.9   | 67.3   | 45.2   | 42.9   |
| 75°   | 2094.2 | 478.1  | 102.1  | 73.1   | 48.7   | 46.4   | 65.0   | 65.0   | 46.4   | 30.1   | 27.9   |
| 77.5° | 879.4  | 199.6  | 72.0   | 47.6   | 27.9   | 26.6   | 44.1   | 40.6   | 23.2   | 13.9   | 13.9   |
| 80°   | 254.1  | 89.4   | 38.3   | 23.2   | 11.6   | 10.5   | 17.4   | 12.8   | 5.8    | 2.4    | 2.4    |
| 82.5° | 99.7   | 39.5   | 15.1   | 9.3    | 4.6    | 4.6    | 2.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 59.1   | 16.2   | 7.0    | 3.5    | 1.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 15.1   | 3.5    | 2.4    | 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)