

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: P966213

Luminaire Tested: **NAV-SB4B-750-U-T2U-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P966213  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-750-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 18703.2 lumens  
Efficiency: N/A  
Efficacy: 127.2 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): 147  
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



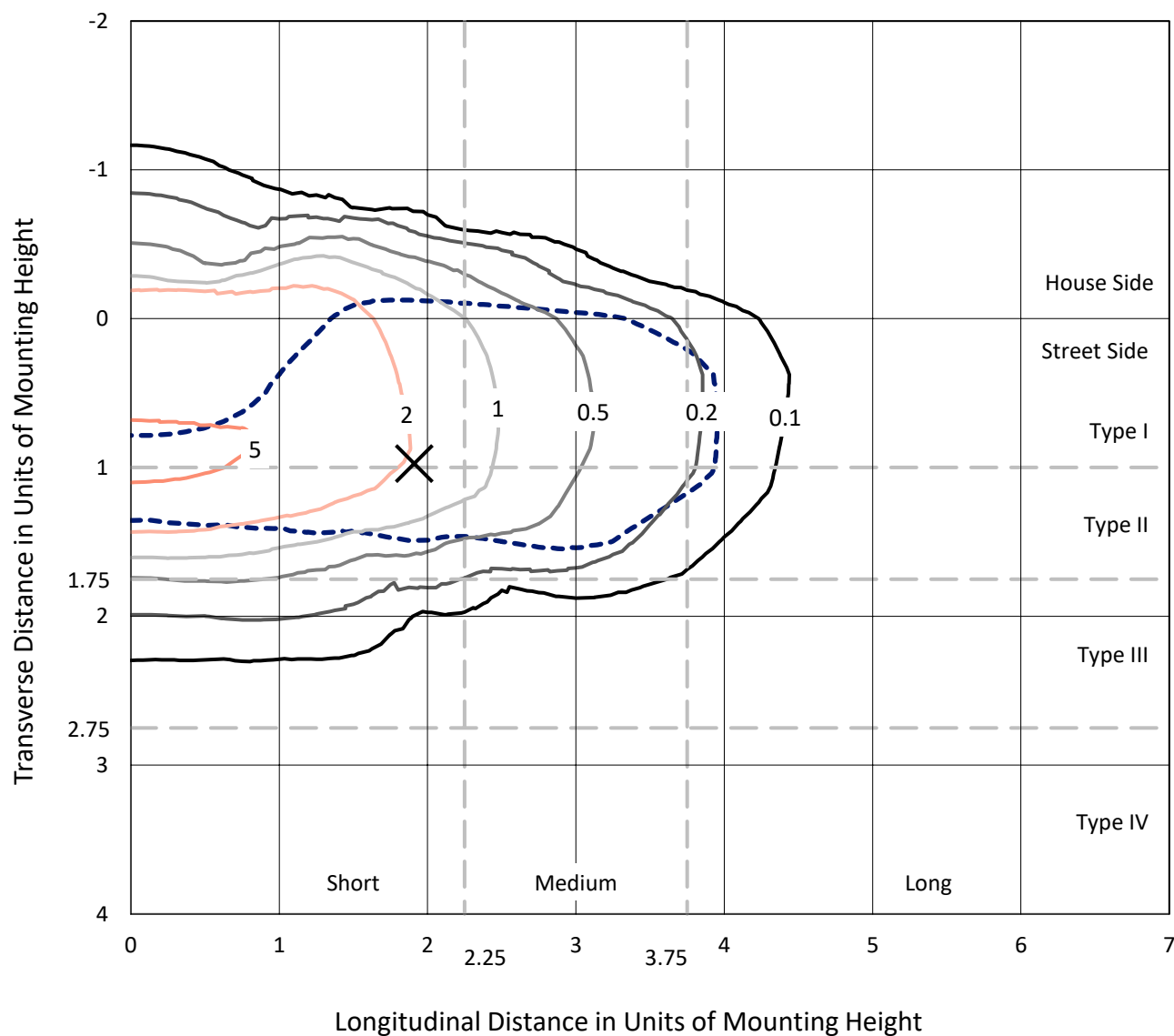
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

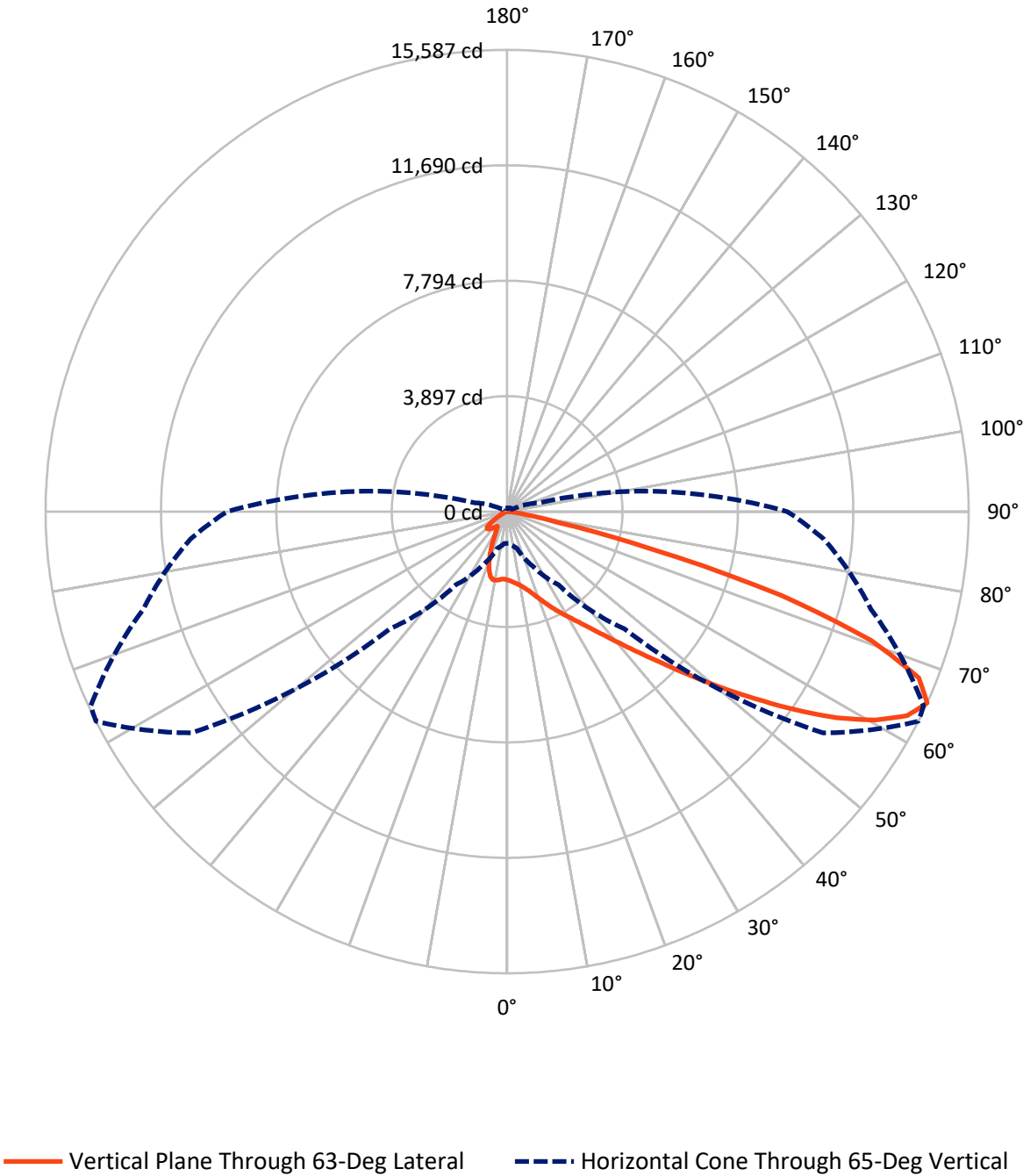


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc

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    | 2749.2   | 0.0    | 2749.2  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 15953.9  | 0.0    | 15953.9 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 18703.2  | 0.0    | 18703.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 217.5   | 1.2       |
| 10°-20°   | 603.5   | 3.2       |
| 20°-30°   | 1050.8  | 5.6       |
| 30°-40°   | 1893.9  | 10.1      |
| 40°-50°   | 3756.2  | 20.1      |
| 50°-60°   | 5116.5  | 27.4      |
| 60°-70°   | 4084.0  | 21.8      |
| 70°-80°   | 1848.1  | 9.9       |
| 80°-90°   | 132.8   | 0.7       |
| 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°    | 18703.2 | 100.0     |
| 0°-180°   | 18703.2 | 100.0     |

**Coefficient of Utilization**



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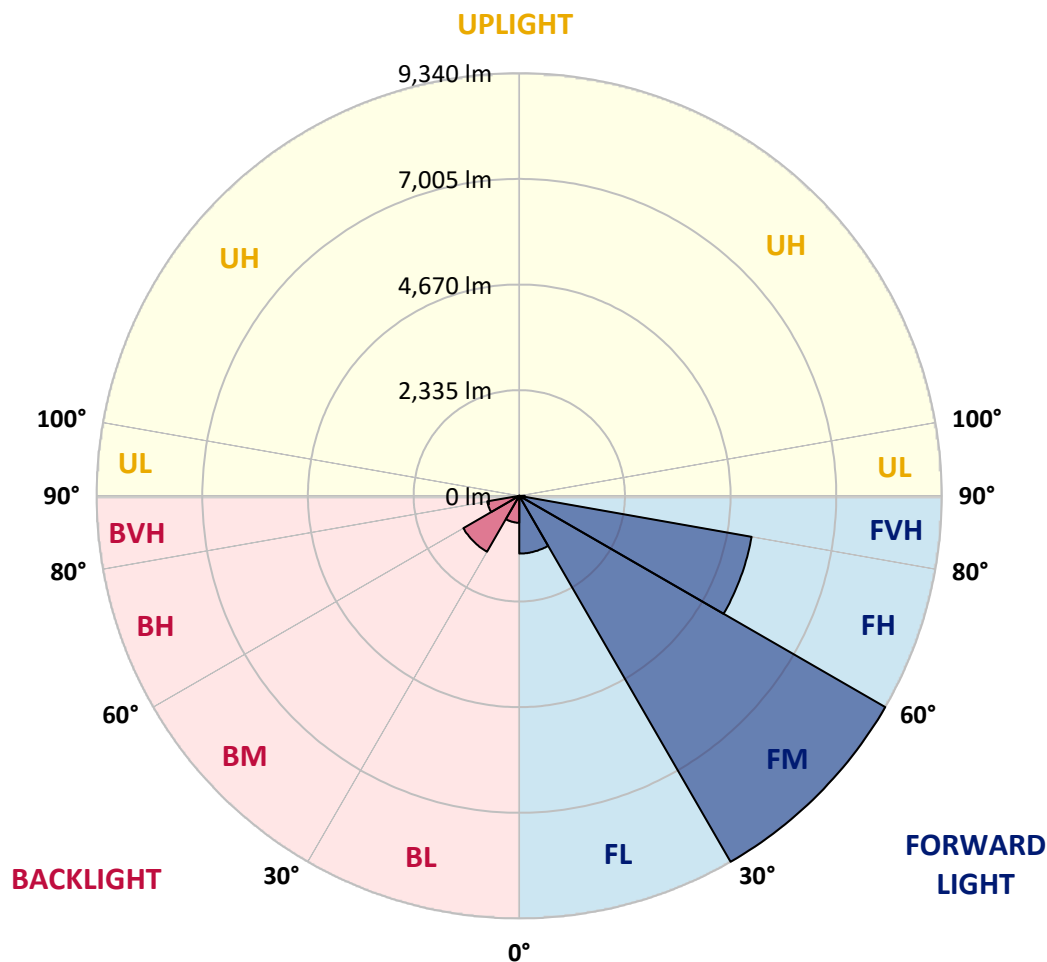
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1276.7 | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 9339.9 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 5214.4 | 27.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 123.0  | 0.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 595.0  | 3.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1426.7 | 7.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 717.7  | 3.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 9.9    | 0.1       |                         |      | 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°     | 63°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  | 2308.3  |
| 2.5°  | 2362.3  | 2356.0  | 2365.0  | 2361.1  | 2358.5  | 2353.4  | 2350.7  | 2348.2  | 2343.0  | 2339.3  | 2323.8  |
| 5°    | 2368.8  | 2365.0  | 2373.9  | 2381.7  | 2389.4  | 2397.1  | 2401.0  | 2406.1  | 2401.0  | 2390.7  | 2375.2  |
| 7.5°  | 2314.8  | 2312.2  | 2331.5  | 2354.6  | 2389.4  | 2419.0  | 2451.2  | 2469.1  | 2470.5  | 2466.6  | 2449.9  |
| 10°   | 2310.9  | 2304.5  | 2323.8  | 2352.1  | 2397.1  | 2449.9  | 2506.4  | 2545.1  | 2550.2  | 2566.9  | 2549.0  |
| 12.5° | 2371.3  | 2365.0  | 2391.9  | 2422.8  | 2469.1  | 2524.5  | 2594.0  | 2648.0  | 2655.8  | 2678.9  | 2666.0  |
| 15°   | 2473.0  | 2464.0  | 2494.8  | 2534.8  | 2594.0  | 2657.0  | 2730.4  | 2779.3  | 2785.6  | 2814.0  | 2790.9  |
| 17.5° | 2591.4  | 2582.4  | 2618.5  | 2660.9  | 2725.2  | 2811.5  | 2896.3  | 2950.4  | 2958.1  | 2976.1  | 2933.7  |
| 20°   | 2743.2  | 2731.6  | 2759.9  | 2798.6  | 2866.7  | 2969.7  | 3071.3  | 3148.5  | 3147.3  | 3147.3  | 3077.8  |
| 22.5° | 2919.5  | 2901.5  | 2926.0  | 2956.8  | 3021.2  | 3145.9  | 3281.0  | 3372.5  | 3372.5  | 3336.4  | 3221.9  |
| 25°   | 3108.6  | 3090.7  | 3117.6  | 3145.9  | 3202.6  | 3344.1  | 3502.4  | 3615.6  | 3620.7  | 3559.0  | 3376.2  |
| 27.5° | 3345.4  | 3322.2  | 3342.8  | 3376.2  | 3409.8  | 3553.9  | 3741.7  | 3873.0  | 3875.5  | 3780.3  | 3522.9  |
| 30°   | 3800.9  | 3735.3  | 3670.9  | 3634.9  | 3650.3  | 3793.2  | 3993.9  | 4139.3  | 4152.2  | 4020.9  | 3682.5  |
| 32.5° | 4634.6  | 4621.8  | 4395.3  | 4099.4  | 3945.0  | 4050.5  | 4275.7  | 4450.7  | 4458.3  | 4289.8  | 3889.7  |
| 35°   | 5930.3  | 5915.0  | 5550.8  | 4987.2  | 4484.2  | 4395.3  | 4617.9  | 4825.1  | 4820.0  | 4629.5  | 4158.6  |
| 37.5° | 7477.0  | 7462.8  | 6982.9  | 6228.9  | 5414.4  | 4916.4  | 5059.3  | 5276.7  | 5308.9  | 5059.3  | 4506.0  |
| 40°   | 8798.4  | 8745.6  | 8442.0  | 7715.0  | 6649.6  | 5781.1  | 5687.2  | 5831.3  | 5864.7  | 5568.8  | 4947.4  |
| 42.5° | 9799.4  | 9754.4  | 9600.0  | 9145.8  | 8144.8  | 7060.1  | 6427.1  | 6482.3  | 6519.7  | 6164.6  | 5454.3  |
| 45°   | 10318.0 | 10307.7 | 10369.4 | 10327.0 | 9668.2  | 8629.9  | 7484.7  | 7254.3  | 7268.5  | 6824.7  | 6029.5  |
| 47.5° | 10391.3 | 10386.2 | 10668.0 | 11066.8 | 10978.1 | 10400.4 | 8842.2  | 8216.8  | 8166.6  | 7569.6  | 6654.8  |
| 50°   | 9959.0  | 9948.8  | 10489.1 | 11236.7 | 11853.0 | 11887.7 | 10383.6 | 9301.5  | 9190.9  | 8340.3  | 7307.1  |
| 52.5° | 8578.3  | 8575.8  | 9463.6  | 10707.9 | 12160.5 | 13189.9 | 11907.0 | 10492.9 | 10307.7 | 9156.1  | 7996.7  |
| 55°   | 6600.7  | 6648.4  | 7666.1  | 9136.8  | 11599.5 | 13816.5 | 13274.8 | 11815.7 | 11531.4 | 9977.0  | 8632.4  |
| 57.5° | 4675.8  | 4745.3  | 5751.5  | 7061.3  | 9859.9  | 13446.0 | 14199.9 | 13141.0 | 12834.7 | 10795.3 | 9277.1  |
| 60°   | 2511.7  | 2573.4  | 3580.8  | 5144.2  | 7335.4  | 12064.0 | 14687.6 | 14291.3 | 14001.8 | 11572.6 | 9858.7  |
| 62.5° | 1496.4  | 1517.0  | 1933.9  | 3321.0  | 4961.5  | 9216.6  | 14480.4 | 15167.5 | 14929.5 | 12224.9 | 10364.3 |
| 65°   | 1074.4  | 1078.2  | 1288.0  | 2027.9  | 3012.2  | 5599.7  | 13027.7 | 15587.0 | 15513.7 | 12716.4 | 10738.7 |
| 67.5° | 904.6   | 902.0   | 989.4   | 1347.2  | 2052.3  | 2805.0  | 9984.7  | 14993.8 | 15305.2 | 13027.7 | 10951.0 |
| 70°   | 775.9   | 779.7   | 882.6   | 986.9   | 1542.7  | 1587.8  | 4964.1  | 13054.8 | 13718.7 | 13110.1 | 10938.2 |
| 72.5° | 577.7   | 590.6   | 685.8   | 899.4   | 1164.5  | 1092.4  | 1713.9  | 9679.8  | 10880.3 | 12352.3 | 10370.7 |
| 75°   | 407.8   | 414.3   | 482.5   | 756.6   | 868.5   | 795.2   | 874.9   | 5003.9  | 6542.8  | 9470.1  | 8488.3  |
| 77.5° | 314.0   | 325.5   | 365.4   | 528.8   | 855.7   | 558.4   | 535.3   | 1731.8  | 2660.9  | 5720.6  | 5819.7  |
| 80°   | 169.8   | 190.4   | 263.7   | 382.1   | 600.9   | 395.0   | 265.1   | 689.6   | 902.0   | 2675.0  | 2244.0  |
| 82.5° | 87.5    | 97.8    | 184.0   | 275.3   | 342.2   | 344.8   | 131.2   | 286.9   | 371.9   | 826.0   | 307.5   |
| 85°   | 34.7    | 42.4    | 123.5   | 151.8   | 176.3   | 169.8   | 59.1    | 115.8   | 133.9   | 229.0   | 93.9    |
| 87.5° | 7.7     | 12.9    | 45.0    | 34.7    | 33.4    | 36.0    | 14.1    | 27.1    | 25.7    | 27.1    | 16.7    |
| 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°    | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 | 2308.3 |
| 2.5°  | 2322.4 | 2317.3 | 2303.2 | 2287.7 | 2269.8 | 2259.4 | 2253.0 | 2251.7 | 2242.7 | 2236.2 | 2242.7 |
| 5°    | 2361.1 | 2356.0 | 2328.9 | 2296.7 | 2262.0 | 2235.0 | 2209.3 | 2186.1 | 2152.6 | 2146.2 | 2143.6 |
| 7.5°  | 2438.3 | 2424.1 | 2380.4 | 2336.6 | 2271.0 | 2192.5 | 2097.4 | 1988.0 | 1890.1 | 1860.6 | 1846.4 |
| 10°   | 2533.5 | 2514.2 | 2458.9 | 2381.7 | 2236.2 | 2022.6 | 1792.3 | 1578.8 | 1409.0 | 1361.3 | 1343.3 |
| 12.5° | 2641.5 | 2624.8 | 2551.5 | 2408.6 | 2090.9 | 1703.6 | 1351.1 | 1086.0 | 921.3  | 880.1  | 868.5  |
| 15°   | 2770.3 | 2745.8 | 2644.2 | 2367.5 | 1831.0 | 1294.4 | 927.7  | 770.7  | 711.6  | 703.9  | 696.1  |
| 17.5° | 2906.6 | 2866.7 | 2726.5 | 2219.5 | 1481.0 | 919.9  | 716.7  | 671.7  | 646.0  | 638.2  | 634.4  |
| 20°   | 3031.4 | 2980.0 | 2775.4 | 1995.7 | 1106.6 | 716.7  | 642.1  | 612.4  | 589.3  | 580.3  | 575.1  |
| 22.5° | 3156.3 | 3082.9 | 2775.4 | 1690.7 | 829.9  | 635.6  | 589.3  | 562.3  | 535.3  | 523.7  | 517.2  |
| 25°   | 3286.3 | 3188.5 | 2726.5 | 1351.1 | 667.8  | 582.9  | 539.2  | 509.5  | 486.4  | 472.2  | 467.1  |
| 27.5° | 3412.3 | 3277.2 | 2614.6 | 1029.3 | 594.5  | 536.6  | 492.8  | 464.5  | 442.6  | 432.3  | 432.3  |
| 30°   | 3531.9 | 3364.7 | 2457.5 | 781.0  | 546.8  | 491.5  | 450.4  | 425.9  | 404.1  | 393.7  | 395.0  |
| 32.5° | 3694.1 | 3475.4 | 2290.4 | 640.7  | 505.6  | 449.1  | 411.7  | 388.6  | 369.3  | 361.5  | 361.5  |
| 35°   | 3919.3 | 3638.7 | 2146.2 | 629.1  | 470.9  | 414.3  | 377.0  | 355.2  | 335.8  | 329.4  | 329.4  |
| 37.5° | 4238.4 | 3902.6 | 2070.3 | 706.4  | 442.6  | 383.5  | 348.7  | 325.5  | 307.5  | 302.4  | 301.0  |
| 40°   | 4632.1 | 4260.2 | 2111.5 | 783.6  | 423.3  | 356.4  | 323.0  | 299.8  | 284.3  | 277.9  | 276.6  |
| 42.5° | 5099.2 | 4701.6 | 2339.3 | 842.8  | 410.4  | 333.2  | 298.5  | 272.8  | 262.5  | 259.9  | 259.9  |
| 45°   | 5635.8 | 5186.7 | 2687.9 | 905.8  | 389.9  | 311.4  | 274.1  | 254.8  | 247.0  | 245.8  | 244.5  |
| 47.5° | 6245.6 | 5719.3 | 3091.9 | 984.3  | 369.3  | 290.8  | 254.8  | 241.9  | 235.4  | 232.9  | 232.9  |
| 50°   | 6850.4 | 6255.9 | 3507.6 | 1028.1 | 352.6  | 271.5  | 239.3  | 229.0  | 223.9  | 222.6  | 222.6  |
| 52.5° | 7483.4 | 6807.8 | 3843.3 | 986.9  | 338.4  | 256.0  | 226.4  | 218.7  | 213.6  | 212.3  | 212.3  |
| 55°   | 8086.8 | 7254.3 | 3901.3 | 837.6  | 310.1  | 240.6  | 212.3  | 208.5  | 202.0  | 202.0  | 200.7  |
| 57.5° | 8606.7 | 7478.3 | 3492.1 | 615.0  | 281.8  | 217.4  | 198.1  | 194.3  | 189.1  | 187.9  | 186.5  |
| 60°   | 9084.1 | 7413.9 | 2695.6 | 414.3  | 250.9  | 194.3  | 180.1  | 177.5  | 172.4  | 165.9  | 164.7  |
| 62.5° | 9352.9 | 7130.8 | 1843.9 | 270.2  | 220.1  | 169.8  | 159.6  | 158.3  | 146.7  | 133.9  | 131.2  |
| 65°   | 9454.6 | 6549.2 | 1150.3 | 196.9  | 184.0  | 145.3  | 137.7  | 135.1  | 118.4  | 104.2  | 102.9  |
| 67.5° | 9365.8 | 5592.0 | 580.3  | 155.7  | 145.3  | 121.0  | 113.3  | 113.3  | 101.7  | 88.8   | 87.5   |
| 70°   | 9010.7 | 4192.0 | 244.5  | 124.8  | 111.9  | 92.7   | 92.7   | 97.8   | 86.2   | 72.1   | 70.7   |
| 72.5° | 8240.0 | 2820.4 | 130.0  | 95.2   | 83.6   | 65.6   | 76.0   | 79.7   | 68.2   | 54.0   | 54.0   |
| 75°   | 6550.6 | 1720.3 | 90.1   | 70.7   | 52.8   | 46.3   | 57.9   | 60.5   | 46.3   | 36.0   | 34.7   |
| 77.5° | 4480.3 | 988.2  | 60.5   | 45.0   | 33.4   | 27.1   | 39.9   | 37.3   | 24.5   | 16.7   | 18.0   |
| 80°   | 1967.4 | 411.7  | 34.7   | 20.6   | 12.9   | 10.2   | 14.1   | 10.2   | 7.7    | 5.1    | 5.1    |
| 82.5° | 230.3  | 96.5   | 12.9   | 7.7    | 5.1    | 2.6    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 47.6   | 11.6   | 6.5    | 2.6    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 9.0    | 2.6    | 1.3    | 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)