

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: P968175

Luminaire Tested: **NAV-SB5B-722-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968175  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-722-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

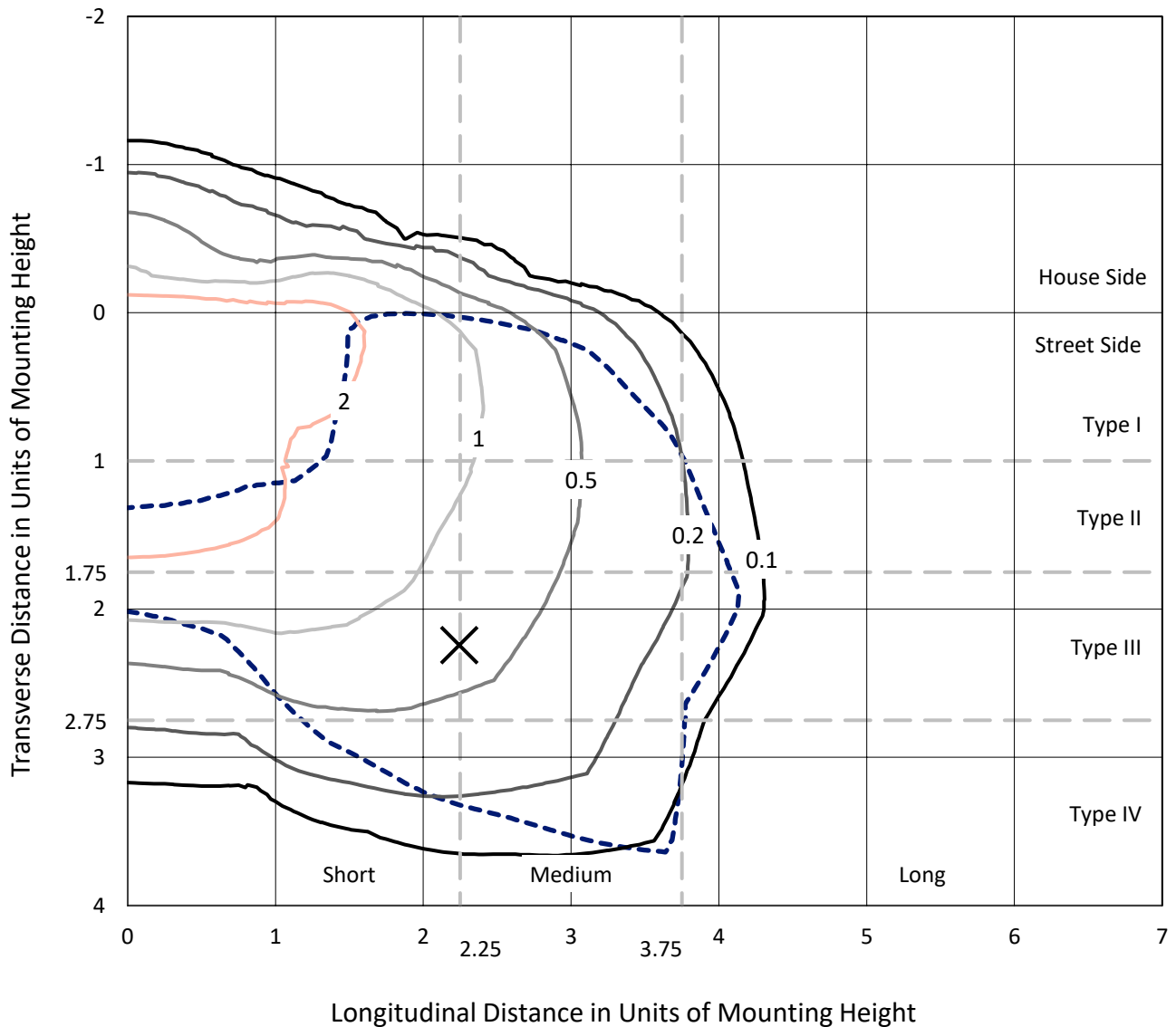
Lumens per Lamp: N/A  
Luminaire Lumens: 18552.5 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 182.7  
Input Voltage (V): NR  
Input Current (Ain): 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

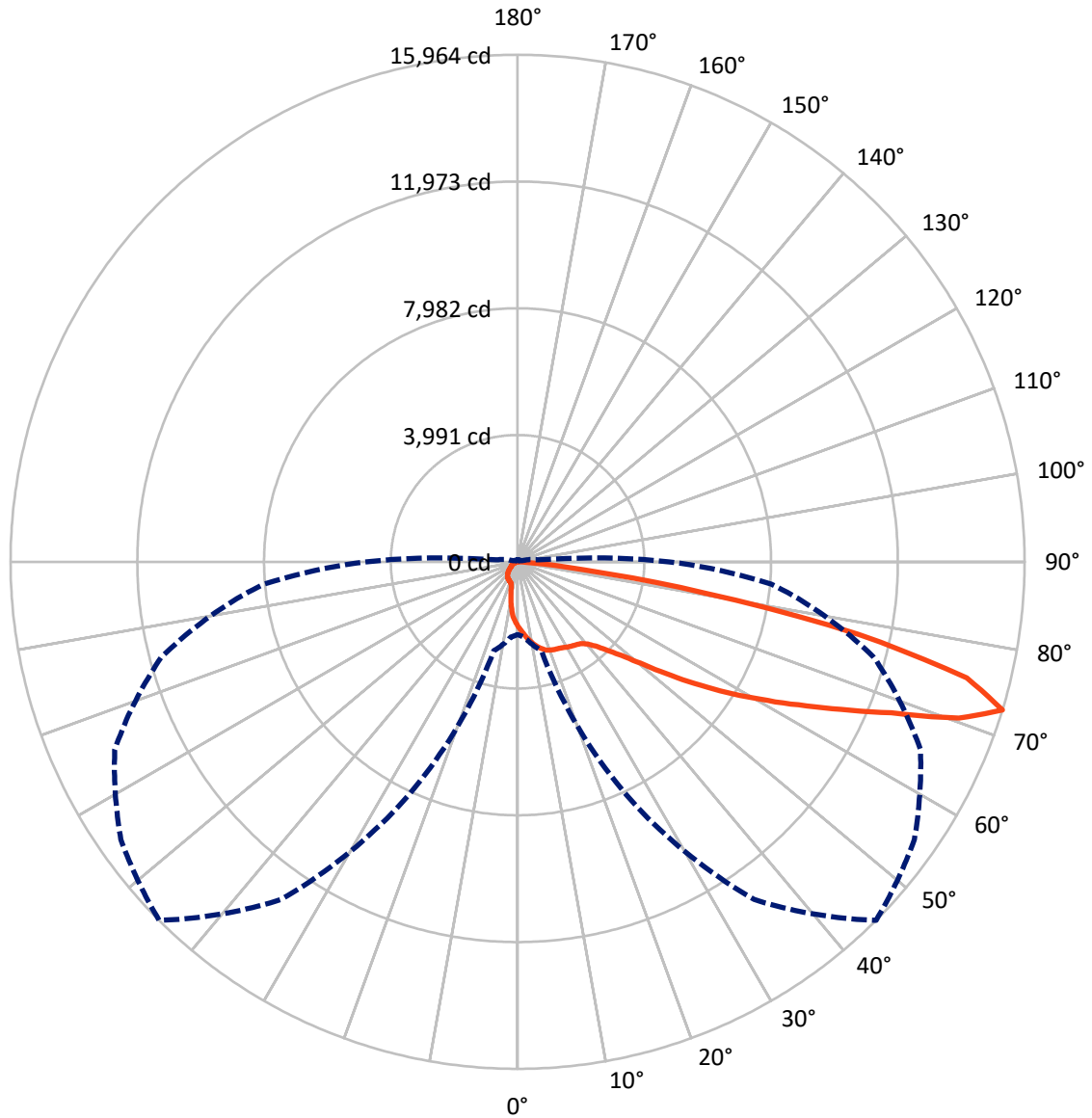
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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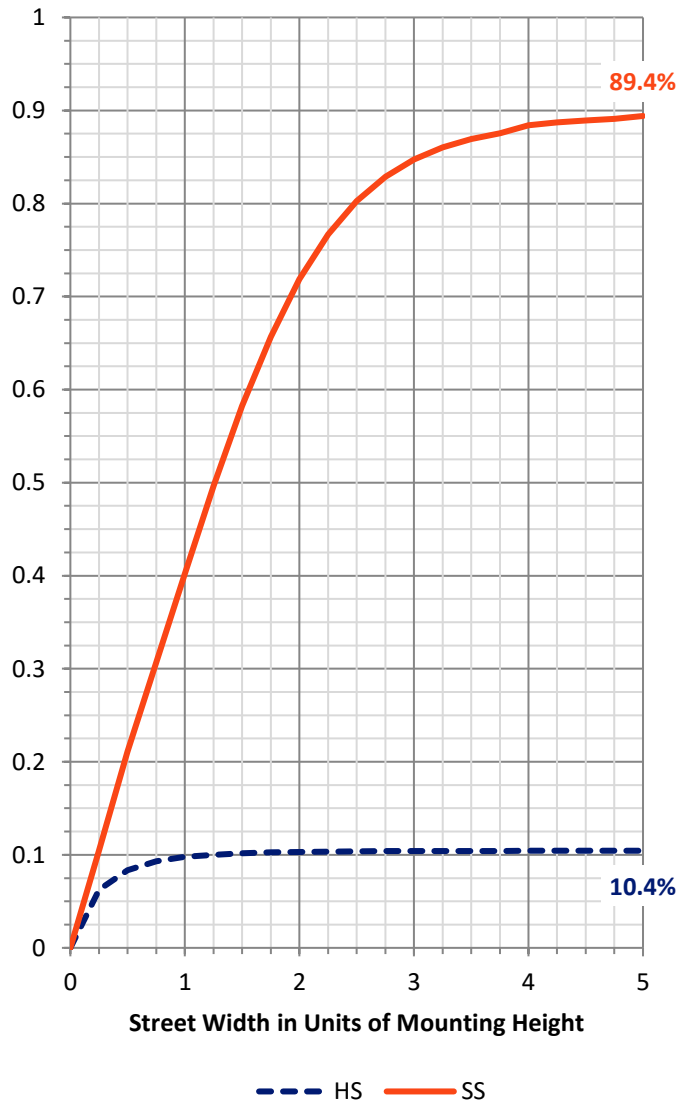
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1949.3   | 0.0    | 1949.3  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 16603.1  | 0.0    | 16603.1 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 18552.5  | 0.0    | 18552.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 191.5   | 1.0       |
| 10°-20°   | 559.7   | 3.0       |
| 20°-30°   | 919.1   | 5.0       |
| 30°-40°   | 1303.4  | 7.0       |
| 40°-50°   | 2154.5  | 11.6      |
| 50°-60°   | 3870.3  | 20.9      |
| 60°-70°   | 5374.1  | 29.0      |
| 70°-80°   | 3898.2  | 21.0      |
| 80°-90°   | 281.8   | 1.5       |
| 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°    | 18552.5 | 100.0     |
| 0°-180°   | 18552.5 | 100.0     |

**Coefficient of Utilization**

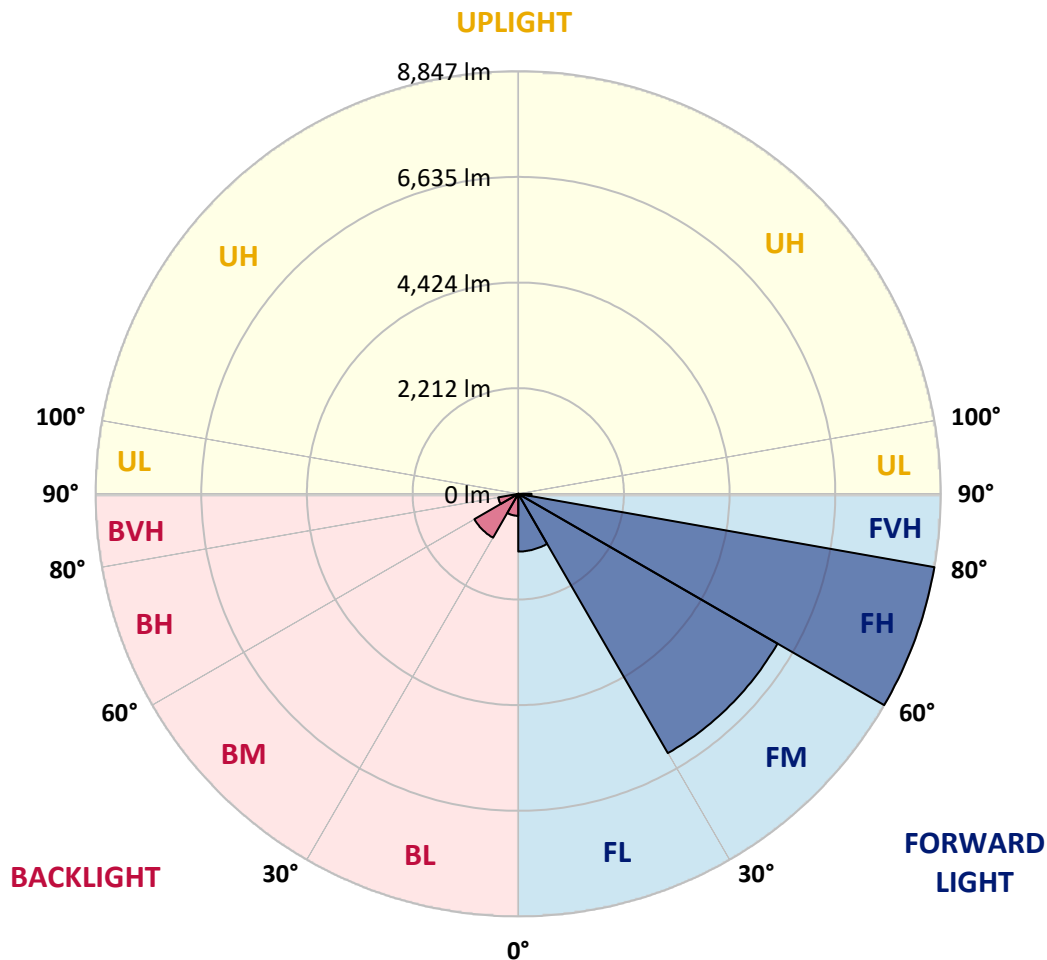


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1208.5 | 6.5       |                         |      |          |
| FM (30°-60°)   | 6268.0 | 33.8      |                         |      |          |
| FH (60°-80°)   | 8847.2 | 47.7      |                         |      | G4/12000 |
| FVH (80°-90°)  | 279.5  | 1.5       |                         |      | G3/500   |
| BL (0°-30°)    | 461.7  | 2.5       | B1/500                  |      |          |
| BM (30°-60°)   | 1060.2 | 5.7       | B2/2500                 |      |          |
| BH (60°-80°)   | 425.1  | 2.3       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 2.4    | 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-G4**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2032.5 | 2032.5 | 2032.5 | 2032.5  | 2032.5  | 2032.5  | 2032.5  | 2032.5  | 2032.5  | 2032.5  | 2032.5  |
| 2.5°  | 2219.8 | 2223.6 | 2221.2 | 2205.9  | 2180.6  | 2166.7  | 2159.1  | 2133.7  | 2117.3  | 2088.2  | 2057.8  |
| 5°    | 2423.7 | 2439.0 | 2430.1 | 2399.7  | 2351.6  | 2317.4  | 2307.3  | 2255.3  | 2208.5  | 2154.0  | 2090.7  |
| 7.5°  | 2640.3 | 2647.9 | 2631.5 | 2592.2  | 2527.6  | 2469.3  | 2460.5  | 2388.4  | 2313.6  | 2230.0  | 2143.9  |
| 10°   | 2827.8 | 2836.6 | 2811.3 | 2754.3  | 2680.8  | 2608.6  | 2596.0  | 2516.2  | 2427.6  | 2325.0  | 2214.8  |
| 12.5° | 2984.8 | 2993.6 | 2960.7 | 2892.3  | 2811.3  | 2736.5  | 2723.8  | 2640.3  | 2542.8  | 2428.8  | 2292.1  |
| 15°   | 3103.8 | 3120.2 | 3075.9 | 3002.4  | 2915.1  | 2840.4  | 2834.0  | 2751.7  | 2656.8  | 2530.1  | 2384.5  |
| 17.5° | 3173.4 | 3189.9 | 3148.1 | 3059.4  | 2984.8  | 2921.5  | 2913.9  | 2845.5  | 2756.8  | 2635.3  | 2474.5  |
| 20°   | 3184.9 | 3200.0 | 3155.7 | 3078.5  | 3016.4  | 2965.7  | 2961.9  | 2912.5  | 2848.0  | 2731.5  | 2571.9  |
| 22.5° | 3150.6 | 3169.6 | 3129.1 | 3067.1  | 3024.0  | 2997.4  | 2992.4  | 2964.5  | 2927.8  | 2829.0  | 2663.1  |
| 25°   | 3115.2 | 3130.4 | 3100.0 | 3045.6  | 3022.7  | 3020.2  | 3024.0  | 3018.9  | 3011.3  | 2927.8  | 2769.4  |
| 27.5° | 3112.6 | 3129.1 | 3094.9 | 3043.0  | 3030.3  | 3057.0  | 3060.8  | 3084.8  | 3091.1  | 3017.7  | 2872.0  |
| 30°   | 3134.1 | 3145.6 | 3112.6 | 3058.2  | 3051.8  | 3112.6  | 3114.0  | 3157.0  | 3167.1  | 3093.7  | 2973.3  |
| 32.5° | 3181.0 | 3193.7 | 3160.8 | 3080.9  | 3072.1  | 3157.0  | 3160.8  | 3217.8  | 3234.2  | 3174.7  | 3079.7  |
| 35°   | 3291.2 | 3306.4 | 3268.4 | 3144.3  | 3112.6  | 3198.7  | 3210.2  | 3277.2  | 3310.2  | 3260.8  | 3189.9  |
| 37.5° | 3566.0 | 3521.7 | 3469.7 | 3272.2  | 3205.1  | 3264.6  | 3283.6  | 3362.1  | 3420.3  | 3363.3  | 3321.6  |
| 40°   | 4248.5 | 4109.2 | 3947.2 | 3490.0  | 3367.2  | 3405.2  | 3420.3  | 3498.8  | 3578.7  | 3522.9  | 3502.6  |
| 42.5° | 5273.0 | 5108.4 | 4847.5 | 3991.5  | 3611.6  | 3630.6  | 3641.9  | 3710.4  | 3823.0  | 3778.8  | 3783.8  |
| 45°   | 6186.1 | 6126.5 | 5860.6 | 4847.5  | 4068.7  | 3975.1  | 3989.0  | 4024.5  | 4190.3  | 4173.8  | 4206.8  |
| 47.5° | 6887.6 | 6853.4 | 6648.3 | 5830.2  | 4841.2  | 4396.7  | 4436.0  | 4452.4  | 4691.7  | 4750.1  | 4838.6  |
| 50°   | 7427.0 | 7414.3 | 7230.8 | 6704.0  | 5850.5  | 5018.5  | 5032.4  | 4997.0  | 5355.3  | 5499.6  | 5668.1  |
| 52.5° | 7936.2 | 7979.2 | 7843.7 | 7515.7  | 6928.1  | 5832.8  | 5830.2  | 5663.0  | 6146.8  | 6364.6  | 6652.0  |
| 55°   | 8395.8 | 8410.9 | 8424.9 | 8343.9  | 8012.1  | 6759.7  | 6735.6  | 6462.1  | 7064.9  | 7290.3  | 7601.8  |
| 57.5° | 8827.6 | 8834.0 | 8958.1 | 9123.9  | 9140.4  | 7755.0  | 7710.7  | 7382.8  | 8067.8  | 8228.6  | 8419.9  |
| 60°   | 9117.6 | 9146.7 | 9408.9 | 9869.8  | 10071.1 | 8782.0  | 8758.0  | 8423.7  | 9088.5  | 9163.2  | 9127.7  |
| 62.5° | 8699.7 | 8877.0 | 9538.0 | 10452.3 | 10950.0 | 9920.5  | 9909.1  | 9595.0  | 10162.4 | 10101.6 | 9797.7  |
| 65°   | 7042.1 | 7342.2 | 8504.7 | 10846.1 | 11812.4 | 11191.9 | 11208.3 | 10874.0 | 11265.3 | 11067.7 | 10342.1 |
| 67.5° | 4926.0 | 5242.7 | 6617.8 | 10877.8 | 12776.0 | 12684.9 | 12779.8 | 12255.6 | 12436.6 | 11993.4 | 10471.3 |
| 70°   | 3406.5 | 3569.8 | 4465.1 | 10196.5 | 13527.0 | 14741.3 | 14738.9 | 13952.5 | 13601.6 | 12415.1 | 9812.8  |
| 72.5° | 2290.8 | 2375.6 | 2899.9 | 8089.3  | 12974.9 | 15963.5 | 15890.0 | 15249.2 | 13994.2 | 11611.0 | 8017.1  |
| 75°   | 966.2  | 1028.3 | 1342.3 | 4546.2  | 10264.9 | 14604.6 | 14405.9 | 13476.3 | 12434.2 | 9142.9  | 5002.0  |
| 77.5° | 306.5  | 333.0  | 529.3  | 1627.3  | 5654.2  | 10977.9 | 10767.6 | 8416.1  | 8333.8  | 4586.7  | 1828.6  |
| 80°   | 145.7  | 169.6  | 297.6  | 653.4   | 2225.0  | 5970.7  | 5941.6  | 3818.0  | 3585.0  | 1238.5  | 367.3   |
| 82.5° | 63.3   | 74.7   | 164.6  | 349.5   | 995.4   | 2130.0  | 2173.0  | 1299.3  | 1075.1  | 469.9   | 112.7   |
| 85°   | 20.3   | 26.5   | 76.0   | 160.8   | 420.5   | 529.3   | 523.0   | 308.9   | 433.1   | 255.8   | 39.3    |
| 87.5° | 0.0    | 0.0    | 25.3   | 36.7    | 43.0    | 30.4    | 34.2    | 26.5    | 120.3   | 70.9    | 13.9    |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 | 2032.5 |
| 2.5°  | 2042.6 | 2022.3 | 1986.9 | 1954.0 | 1924.8 | 1895.7 | 1878.0 | 1852.7 | 1850.1 | 1850.1 | 1856.5 |
| 5°    | 2056.6 | 2023.6 | 1960.3 | 1893.2 | 1815.9 | 1742.5 | 1669.0 | 1598.1 | 1575.3 | 1558.8 | 1566.4 |
| 7.5°  | 2097.0 | 2045.1 | 1945.0 | 1817.2 | 1670.3 | 1509.5 | 1396.8 | 1275.2 | 1228.4 | 1203.0 | 1206.8 |
| 10°   | 2155.3 | 2084.3 | 1932.4 | 1708.3 | 1470.3 | 1251.1 | 1090.3 | 958.6  | 907.9  | 886.4  | 886.4  |
| 12.5° | 2219.8 | 2132.5 | 1909.7 | 1572.8 | 1251.1 | 989.0  | 832.0  | 771.2  | 763.6  | 763.6  | 763.6  |
| 15°   | 2297.1 | 2190.7 | 1870.4 | 1413.3 | 1021.9 | 782.6  | 726.8  | 729.4  | 737.0  | 742.1  | 742.1  |
| 17.5° | 2376.9 | 2252.8 | 1808.3 | 1234.7 | 819.3  | 704.1  | 705.3  | 709.2  | 715.4  | 720.6  | 720.6  |
| 20°   | 2463.0 | 2314.9 | 1726.0 | 1044.7 | 702.8  | 681.3  | 685.1  | 688.9  | 693.9  | 696.5  | 697.7  |
| 22.5° | 2555.4 | 2373.1 | 1628.5 | 858.5  | 663.6  | 662.3  | 663.6  | 667.4  | 673.7  | 673.7  | 676.2  |
| 25°   | 2654.2 | 2437.7 | 1517.1 | 723.0  | 643.3  | 643.3  | 645.9  | 648.3  | 653.4  | 653.4  | 654.7  |
| 27.5° | 2755.5 | 2497.2 | 1399.3 | 652.2  | 625.6  | 624.3  | 624.3  | 628.1  | 630.7  | 631.9  | 633.1  |
| 30°   | 2867.0 | 2566.9 | 1281.6 | 636.9  | 611.6  | 605.3  | 601.5  | 604.0  | 606.6  | 607.8  | 610.4  |
| 32.5° | 2980.9 | 2633.9 | 1176.4 | 643.3  | 597.7  | 586.3  | 573.7  | 571.1  | 571.1  | 576.2  | 579.9  |
| 35°   | 3107.6 | 2707.4 | 1095.4 | 664.8  | 590.1  | 558.4  | 538.2  | 526.7  | 528.1  | 535.7  | 539.5  |
| 37.5° | 3259.5 | 2796.1 | 1035.9 | 683.8  | 585.1  | 526.7  | 493.8  | 479.9  | 471.1  | 479.9  | 477.4  |
| 40°   | 3458.4 | 2926.5 | 992.8  | 699.0  | 578.7  | 490.1  | 445.8  | 422.9  | 406.5  | 411.5  | 409.0  |
| 42.5° | 3750.9 | 3131.7 | 976.3  | 700.3  | 564.8  | 447.0  | 396.4  | 365.9  | 341.9  | 343.2  | 338.1  |
| 45°   | 4161.2 | 3455.8 | 1061.2 | 683.8  | 534.4  | 400.2  | 344.4  | 303.9  | 288.7  | 285.0  | 279.8  |
| 47.5° | 4723.4 | 3928.2 | 1257.5 | 649.6  | 490.1  | 354.5  | 293.8  | 259.6  | 248.2  | 241.9  | 238.1  |
| 50°   | 5476.9 | 4534.7 | 1475.3 | 611.6  | 445.8  | 311.5  | 252.0  | 230.5  | 222.8  | 216.6  | 215.2  |
| 52.5° | 6350.7 | 5150.2 | 1653.8 | 573.7  | 401.4  | 273.6  | 225.4  | 212.8  | 206.4  | 201.3  | 200.1  |
| 55°   | 7152.2 | 5574.4 | 1643.7 | 533.1  | 358.3  | 243.1  | 206.4  | 198.8  | 191.3  | 186.1  | 183.6  |
| 57.5° | 7651.2 | 5633.9 | 1354.9 | 488.8  | 308.9  | 219.0  | 188.7  | 183.6  | 174.8  | 168.4  | 167.2  |
| 60°   | 7880.4 | 5294.5 | 949.8  | 430.6  | 259.6  | 196.3  | 169.6  | 167.2  | 155.8  | 146.9  | 144.3  |
| 62.5° | 7922.2 | 4664.0 | 633.1  | 358.3  | 216.6  | 174.8  | 150.7  | 146.9  | 131.7  | 116.5  | 108.9  |
| 65°   | 7752.5 | 3762.3 | 438.2  | 279.8  | 184.9  | 152.0  | 129.1  | 121.6  | 105.1  | 89.9   | 84.9   |
| 67.5° | 7215.6 | 2641.5 | 305.1  | 201.3  | 157.0  | 120.3  | 102.6  | 100.0  | 87.3   | 74.7   | 70.9   |
| 70°   | 6231.6 | 1505.6 | 203.9  | 150.7  | 124.1  | 82.3   | 81.1   | 83.5   | 70.9   | 60.8   | 55.8   |
| 72.5° | 4777.8 | 688.9  | 126.6  | 110.2  | 84.9   | 55.8   | 64.6   | 65.8   | 54.4   | 45.6   | 40.5   |
| 75°   | 2812.5 | 295.1  | 79.7   | 70.9   | 43.0   | 36.7   | 46.8   | 48.1   | 36.7   | 29.1   | 25.3   |
| 77.5° | 957.4  | 111.4  | 50.6   | 41.8   | 21.5   | 20.3   | 30.4   | 30.4   | 20.3   | 11.4   | 8.8    |
| 80°   | 217.8  | 41.8   | 25.3   | 16.5   | 10.1   | 8.8    | 10.1   | 8.8    | 5.0    | 1.2    | 0.0    |
| 82.5° | 62.0   | 16.5   | 10.1   | 6.4    | 3.8    | 3.8    | 1.2    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 17.7   | 7.6    | 2.6    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 7.6    | 1.2    | 0.0    | 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)