

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: P963576

Luminaire Tested: **NAV-SB3A-750-U-T2R-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P963576  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-750-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 12357.4 lumens  
Efficiency: N/A  
Efficacy: 145.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 84.7  
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

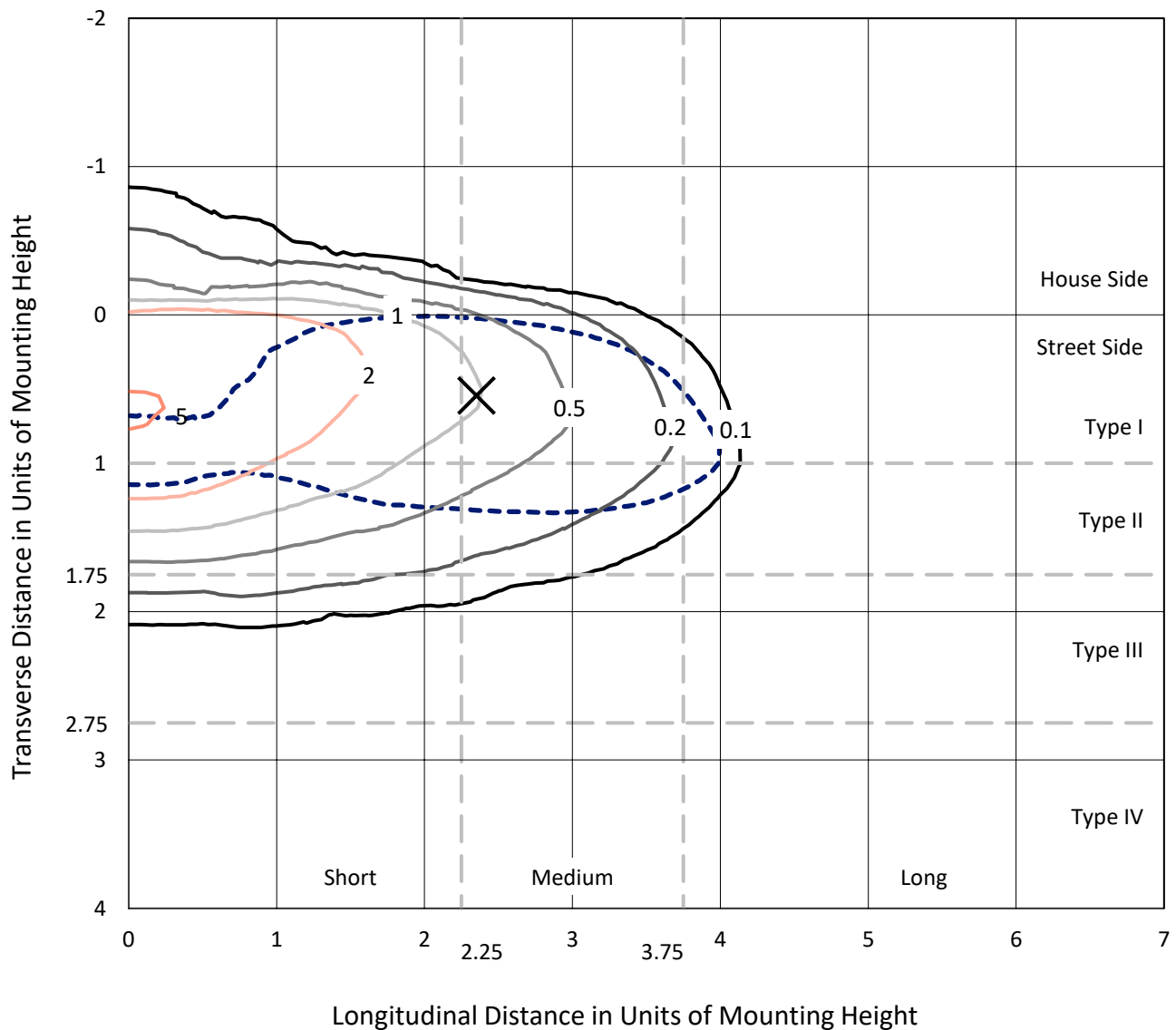


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## Iso-Footcandle Lines of Horizontal Illumination

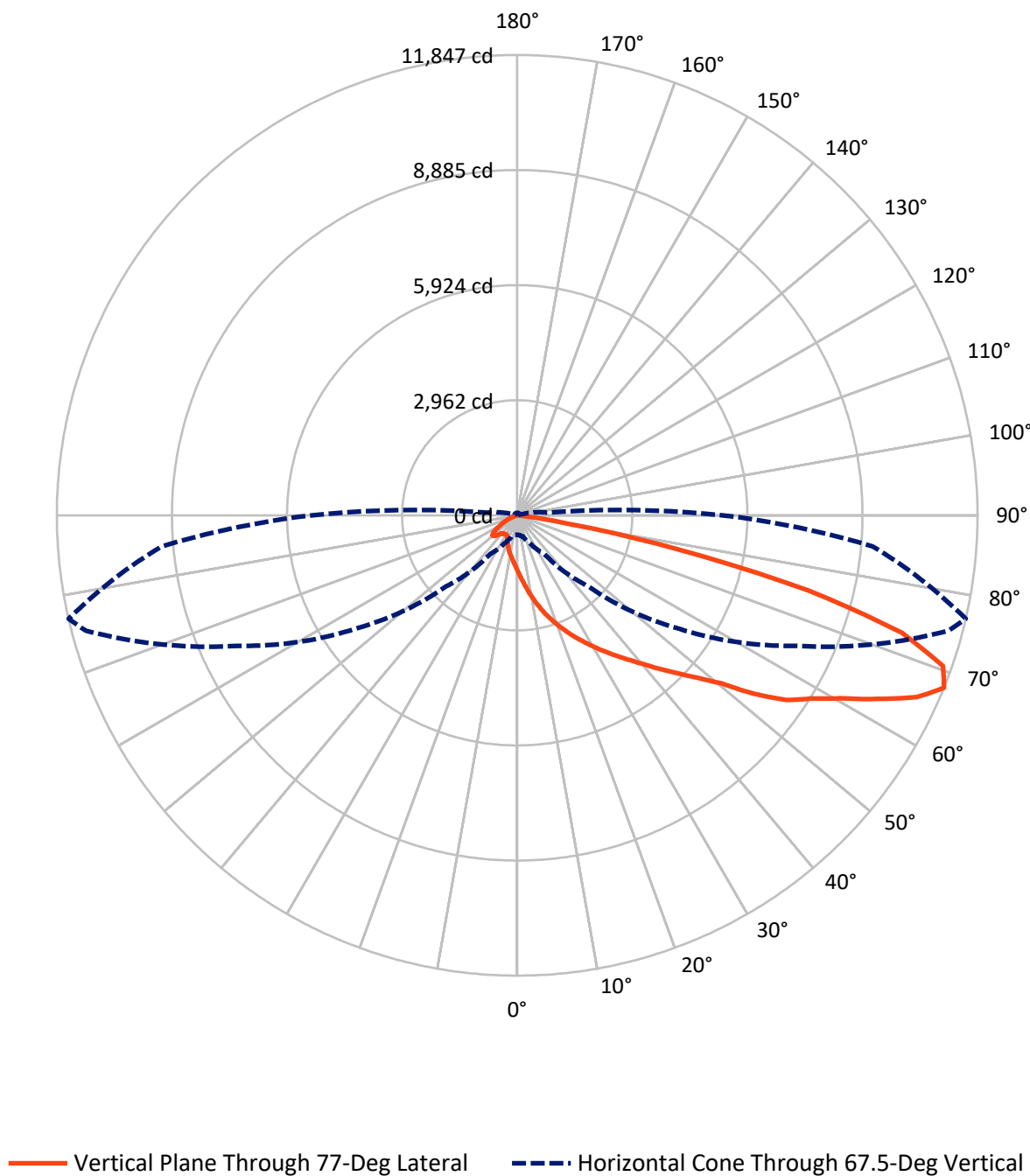
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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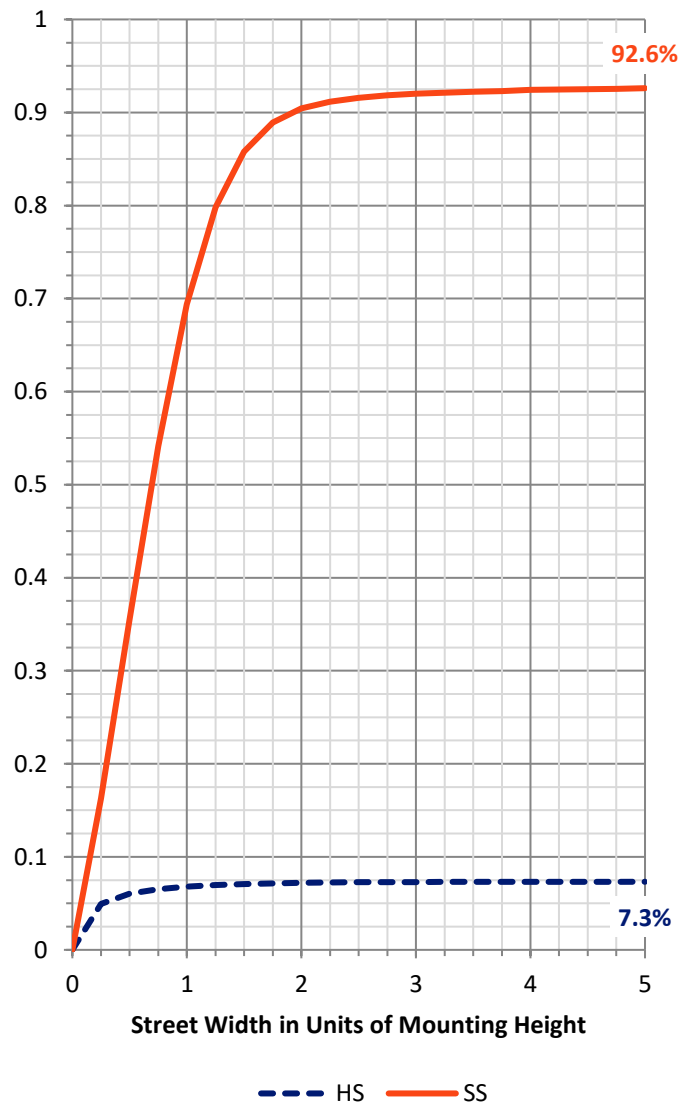
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 909.1    | 0.0    | 909.1   |
|                    | % Fixture | 7.4      | 0.0    | 7.4     |
| <b>Street Side</b> | Lumens    | 11448.3  | 0.0    | 11448.3 |
|                    | % Fixture | 92.6     | 0.0    | 92.6    |
| <b>Total</b>       | Lumens    | 12357.4  | 0.0    | 12357.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 145.4   | 1.2       |
| 10°-20°   | 509.3   | 4.1       |
| 20°-30°   | 982.9   | 8.0       |
| 30°-40°   | 1706.3  | 13.8      |
| 40°-50°   | 2477.5  | 20.0      |
| 50°-60°   | 2845.1  | 23.0      |
| 60°-70°   | 2470.0  | 20.0      |
| 70°-80°   | 1163.4  | 9.4       |
| 80°-90°   | 57.5    | 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°    | 12357.4 | 100.0     |
| 0°-180°   | 12357.4 | 100.0     |

**Coefficient of Utilization**



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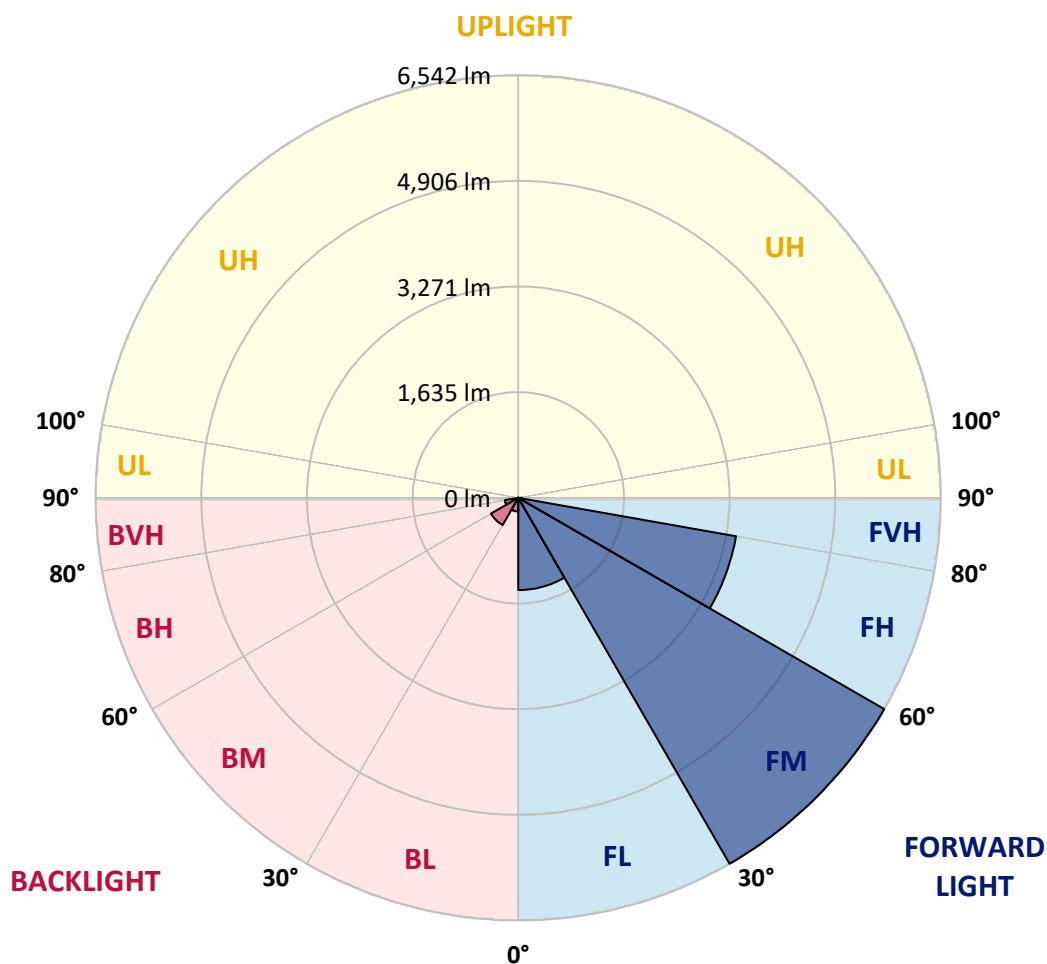
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1427.1 | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 6541.7 | 52.9      |                         |      |         |
| FH   | (60°-80°)   | 3423.0 | 27.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 56.5   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 210.5  | 1.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 487.1  | 3.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 210.5  | 1.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.1    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 77°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0°    | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0  | 1425.0  | 1425.0 |
| 2.5°  | 1972.9 | 1985.1 | 1967.5 | 1933.8 | 1883.1 | 1850.1 | 1769.6 | 1693.6 | 1609.1  | 1582.3  | 1497.9 |
| 5°    | 2405.0 | 2415.6 | 2395.7 | 2358.8 | 2291.4 | 2226.9 | 2121.0 | 1962.2 | 1797.1  | 1744.2  | 1594.6 |
| 7.5°  | 2724.9 | 2731.0 | 2723.3 | 2689.6 | 2625.1 | 2552.2 | 2434.1 | 2246.1 | 2001.3  | 1943.0  | 1713.5 |
| 10°   | 2955.1 | 2975.1 | 2972.8 | 2959.7 | 2916.7 | 2857.7 | 2731.8 | 2517.7 | 2230.0  | 2154.8  | 1847.8 |
| 12.5° | 3107.8 | 3130.0 | 3143.2 | 3172.3 | 3170.0 | 3132.4 | 3021.9 | 2795.5 | 2457.8  | 2369.6  | 1999.0 |
| 15°   | 3152.3 | 3176.1 | 3226.0 | 3293.5 | 3353.4 | 3372.6 | 3295.1 | 3067.9 | 2708.8  | 2596.0  | 2153.9 |
| 17.5° | 3127.0 | 3163.9 | 3223.7 | 3330.3 | 3461.5 | 3548.2 | 3539.8 | 3331.1 | 2936.7  | 2807.8  | 2305.9 |
| 20°   | 3183.0 | 3218.3 | 3265.1 | 3354.9 | 3507.7 | 3664.9 | 3727.8 | 3582.8 | 3163.0  | 3028.1  | 2465.5 |
| 22.5° | 3493.0 | 3486.8 | 3491.5 | 3506.1 | 3597.3 | 3753.1 | 3882.8 | 3811.5 | 3387.1  | 3249.0  | 2634.4 |
| 25°   | 3984.2 | 3956.5 | 3909.7 | 3830.6 | 3807.7 | 3882.8 | 4017.9 | 4014.1 | 3623.5  | 3475.4  | 2807.0 |
| 27.5° | 4547.4 | 4542.8 | 4433.0 | 4242.8 | 4135.3 | 4106.2 | 4170.6 | 4211.3 | 3857.5  | 3699.4  | 2980.4 |
| 30°   | 5086.9 | 5099.1 | 4951.1 | 4739.2 | 4542.0 | 4427.7 | 4369.4 | 4398.5 | 4095.4  | 3941.1  | 3159.3 |
| 32.5° | 5556.4 | 5569.5 | 5408.4 | 5160.5 | 4916.5 | 4778.3 | 4655.5 | 4583.5 | 4354.8  | 4186.7  | 3355.6 |
| 35°   | 5953.2 | 5966.2 | 5781.3 | 5507.3 | 5247.2 | 5122.1 | 4983.2 | 4786.0 | 4615.7  | 4459.2  | 3574.4 |
| 37.5° | 6307.7 | 6303.9 | 6056.0 | 5779.8 | 5524.2 | 5425.2 | 5352.3 | 5035.4 | 4884.2  | 4733.0  | 3816.9 |
| 40°   | 6517.2 | 6533.3 | 6321.5 | 6016.9 | 5769.0 | 5696.8 | 5692.2 | 5344.7 | 5194.3  | 5047.7  | 4082.4 |
| 42.5° | 6578.6 | 6606.9 | 6453.5 | 6203.3 | 5978.5 | 5900.2 | 6020.7 | 5679.2 | 5554.9  | 5412.2  | 4382.4 |
| 45°   | 6468.1 | 6495.7 | 6425.9 | 6252.5 | 6121.2 | 6070.6 | 6303.1 | 6026.1 | 5940.2  | 5798.9  | 4720.8 |
| 47.5° | 6145.8 | 6180.3 | 6197.3 | 6160.4 | 6158.8 | 6210.3 | 6556.3 | 6391.4 | 6397.5  | 6253.2  | 5112.9 |
| 50°   | 5522.0 | 5580.2 | 5735.3 | 5865.7 | 6067.5 | 6320.8 | 6802.6 | 6787.3 | 6913.1  | 6788.9  | 5624.0 |
| 52.5° | 4387.8 | 4470.6 | 5004.8 | 5361.6 | 5815.0 | 6300.1 | 7073.5 | 7422.6 | 7817.9  | 7636.0  | 6344.5 |
| 55°   | 3526.0 | 3526.0 | 3960.4 | 4628.0 | 5322.4 | 6163.4 | 7191.7 | 7835.5 | 8434.1  | 8391.1  | 6851.8 |
| 57.5° | 2874.5 | 2909.1 | 3186.1 | 3776.2 | 4609.5 | 5838.1 | 7264.6 | 8094.9 | 8930.5  | 8899.0  | 7347.5 |
| 60°   | 1774.2 | 1848.6 | 2372.0 | 2954.4 | 3798.4 | 5258.8 | 7218.6 | 8357.3 | 9532.9  | 9558.2  | 7944.5 |
| 62.5° | 999.1  | 1026.7 | 1260.0 | 2125.5 | 2953.5 | 4479.9 | 6866.4 | 8503.9 | 10303.4 | 10410.8 | 8559.9 |
| 65°   | 689.8  | 703.7  | 793.5  | 1323.0 | 2047.3 | 3566.7 | 6178.0 | 8412.6 | 11075.3 | 11292.5 | 9081.7 |
| 67.5° | 501.1  | 508.0  | 564.1  | 808.0  | 1214.7 | 2586.0 | 5099.1 | 7952.2 | 11484.3 | 11847.3 | 9181.4 |
| 70°   | 385.2  | 389.8  | 430.5  | 531.1  | 717.5  | 1596.1 | 3703.3 | 7036.7 | 11188.1 | 11621.7 | 8670.4 |
| 72.5° | 313.0  | 317.6  | 349.1  | 392.9  | 475.8  | 943.8  | 2244.5 | 5714.6 | 9880.6  | 10348.6 | 7381.2 |
| 75°   | 263.9  | 270.1  | 298.5  | 326.9  | 372.9  | 606.2  | 1052.8 | 3979.6 | 7430.3  | 7737.3  | 5132.9 |
| 77.5° | 146.6  | 135.1  | 242.5  | 270.9  | 314.6  | 383.7  | 492.6  | 2342.0 | 4161.4  | 4246.6  | 2277.5 |
| 80°   | 91.3   | 94.4   | 192.6  | 217.9  | 241.7  | 193.4  | 225.6  | 901.7  | 1442.7  | 1370.5  | 441.3  |
| 82.5° | 5.3    | 12.3   | 148.1  | 157.3  | 165.7  | 82.9   | 85.2   | 306.2  | 347.6   | 319.2   | 78.3   |
| 85°   | 0.0    | 0.0    | 67.5   | 54.5   | 57.5   | 23.8   | 24.6   | 71.3   | 46.8    | 50.6    | 15.4   |
| 87.5° | 0.0    | 0.0    | 0.0    | 1.5    | 0.0    | 2.3    | 4.6    | 6.1    | 2.3     | 3.1     | 5.3    |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 | 1425.0 |
| 2.5°  | 1444.2 | 1390.4 | 1281.5 | 1174.9 | 1088.1 | 1007.6 | 950.0  | 895.5  | 867.9  | 866.3  | 864.8  |
| 5°    | 1487.9 | 1375.1 | 1157.2 | 964.5  | 809.5  | 685.2  | 604.6  | 547.1  | 517.9  | 508.0  | 506.5  |
| 7.5°  | 1549.3 | 1379.8 | 1048.2 | 780.4  | 597.8  | 491.1  | 445.1  | 426.6  | 420.6  | 413.6  | 412.0  |
| 10°   | 1626.8 | 1390.4 | 950.8  | 628.4  | 471.2  | 417.5  | 399.0  | 391.3  | 386.7  | 382.1  | 380.6  |
| 12.5° | 1713.5 | 1400.5 | 854.0  | 521.8  | 414.4  | 386.7  | 373.7  | 364.5  | 358.3  | 353.0  | 351.5  |
| 15°   | 1798.0 | 1406.6 | 753.6  | 447.4  | 385.2  | 363.0  | 349.1  | 339.2  | 330.8  | 324.6  | 323.8  |
| 17.5° | 1881.6 | 1415.0 | 659.2  | 402.8  | 361.4  | 339.2  | 325.3  | 313.0  | 306.2  | 299.3  | 298.5  |
| 20°   | 1974.5 | 1413.5 | 570.1  | 371.4  | 337.6  | 315.4  | 300.8  | 289.3  | 282.4  | 274.7  | 274.0  |
| 22.5° | 2060.4 | 1405.8 | 491.9  | 344.5  | 313.0  | 291.6  | 275.5  | 263.9  | 257.1  | 250.9  | 250.2  |
| 25°   | 2159.4 | 1399.6 | 426.6  | 320.0  | 290.1  | 268.5  | 250.9  | 240.2  | 232.5  | 227.1  | 226.4  |
| 27.5° | 2254.5 | 1390.4 | 379.0  | 297.8  | 267.8  | 247.1  | 230.2  | 217.9  | 211.0  | 207.2  | 207.2  |
| 30°   | 2348.2 | 1388.2 | 361.4  | 276.2  | 247.8  | 227.1  | 210.2  | 198.7  | 193.4  | 191.9  | 191.1  |
| 32.5° | 2460.9 | 1394.3 | 369.1  | 268.5  | 229.4  | 208.7  | 192.6  | 184.2  | 178.8  | 178.8  | 178.8  |
| 35°   | 2581.4 | 1392.8 | 380.6  | 275.5  | 217.2  | 190.3  | 178.0  | 172.6  | 167.3  | 167.3  | 167.3  |
| 37.5° | 2732.5 | 1395.0 | 389.8  | 287.0  | 212.6  | 175.0  | 168.1  | 161.1  | 158.1  | 158.1  | 158.1  |
| 40°   | 2958.1 | 1471.1 | 385.2  | 296.9  | 211.0  | 164.2  | 150.4  | 148.1  | 145.8  | 145.8  | 145.8  |
| 42.5° | 3234.4 | 1636.0 | 391.3  | 297.8  | 210.2  | 156.5  | 138.2  | 142.7  | 137.4  | 136.6  | 135.8  |
| 45°   | 3536.8 | 1816.3 | 430.5  | 281.7  | 209.5  | 152.7  | 132.0  | 137.4  | 128.9  | 128.9  | 128.9  |
| 47.5° | 3836.8 | 1995.2 | 470.4  | 258.6  | 207.2  | 151.9  | 126.6  | 123.5  | 121.3  | 122.0  | 122.0  |
| 50°   | 4250.4 | 2140.9 | 485.7  | 227.1  | 201.8  | 150.4  | 116.6  | 117.4  | 115.8  | 117.4  | 117.4  |
| 52.5° | 4700.9 | 2171.7 | 467.3  | 191.9  | 186.4  | 145.8  | 109.8  | 112.9  | 112.0  | 113.6  | 113.6  |
| 55°   | 4981.7 | 2138.7 | 386.0  | 159.6  | 162.7  | 127.4  | 102.8  | 109.0  | 109.0  | 109.0  | 109.0  |
| 57.5° | 5271.8 | 1998.2 | 274.0  | 129.7  | 135.1  | 104.3  | 96.7   | 105.2  | 104.3  | 103.6  | 103.6  |
| 60°   | 5480.5 | 1771.1 | 180.3  | 106.7  | 107.4  | 85.9   | 89.8   | 99.0   | 98.2   | 94.4   | 94.4   |
| 62.5° | 5636.3 | 1520.2 | 115.8  | 90.5   | 82.1   | 77.5   | 82.1   | 89.8   | 86.7   | 78.3   | 76.8   |
| 65°   | 5618.6 | 1172.5 | 89.0   | 77.5   | 67.5   | 67.5   | 71.3   | 78.3   | 69.1   | 55.2   | 53.7   |
| 67.5° | 5290.9 | 793.5  | 73.7   | 65.2   | 56.8   | 56.1   | 59.0   | 65.2   | 59.0   | 46.8   | 45.3   |
| 70°   | 4705.5 | 518.8  | 59.0   | 50.6   | 45.3   | 41.4   | 47.6   | 56.1   | 49.9   | 37.6   | 36.1   |
| 72.5° | 3819.2 | 316.1  | 44.5   | 36.8   | 33.0   | 26.9   | 37.6   | 46.0   | 39.9   | 27.7   | 26.1   |
| 75°   | 2470.9 | 161.1  | 30.6   | 23.8   | 17.6   | 16.1   | 27.7   | 34.5   | 27.7   | 16.9   | 14.6   |
| 77.5° | 945.4  | 67.5   | 16.9   | 10.8   | 9.2    | 7.7    | 15.4   | 20.7   | 11.5   | 3.8    | 3.1    |
| 80°   | 181.8  | 28.4   | 8.4    | 5.3    | 4.6    | 3.1    | 2.3    | 1.5    | 0.0    | 0.0    | 0.0    |
| 82.5° | 31.5   | 9.2    | 3.1    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 10.8   | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 3.8    | 0.0    | 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)