

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: P964103

Luminaire Tested: **NAV-SB3B-750-U-T2R-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P964103  
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-SB3B-750-U-T2R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 5000K, 450mA 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: 15512.3 lumens  
Efficiency: N/A  
Efficacy: 142.1 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): 109.2  
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

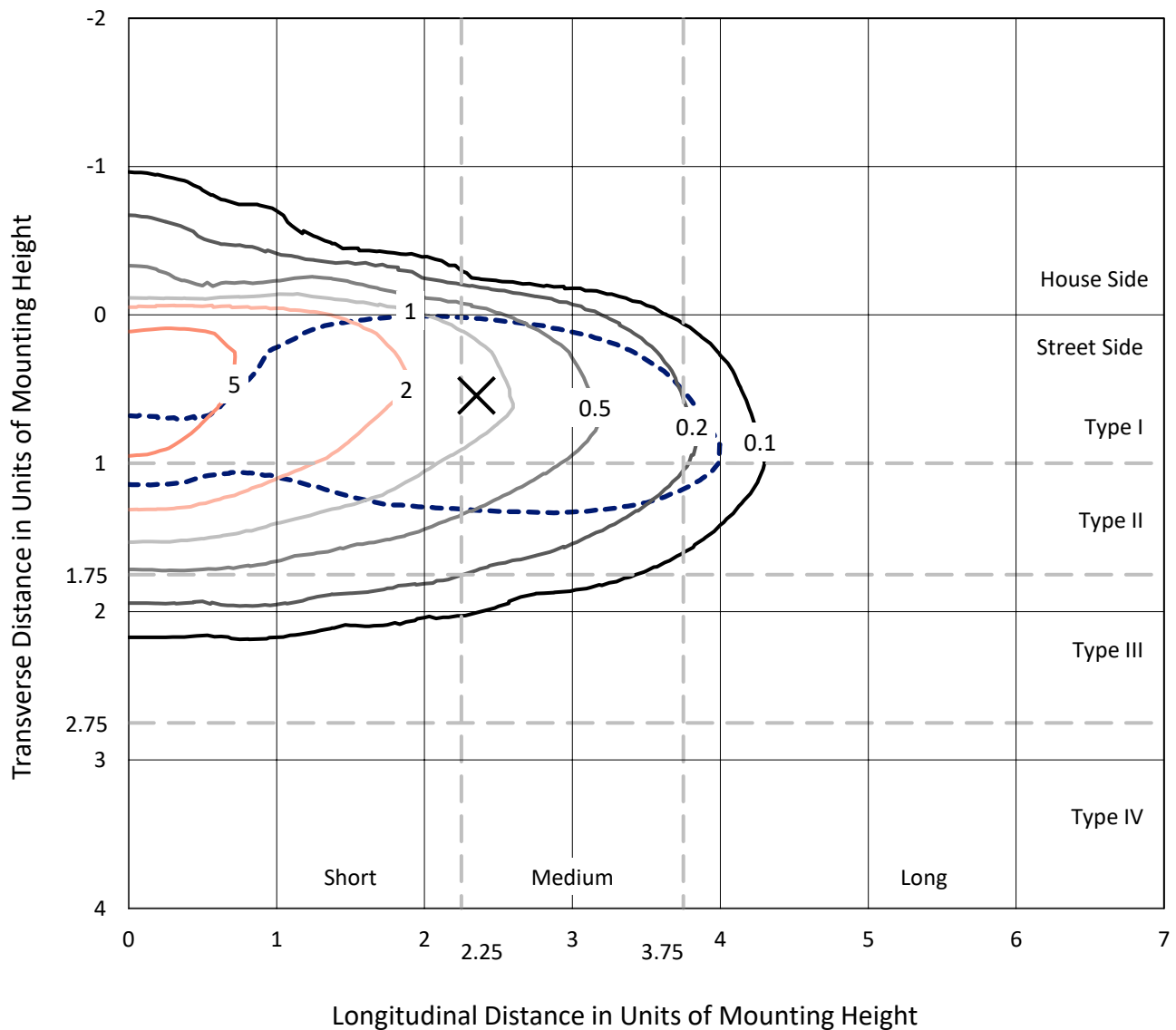


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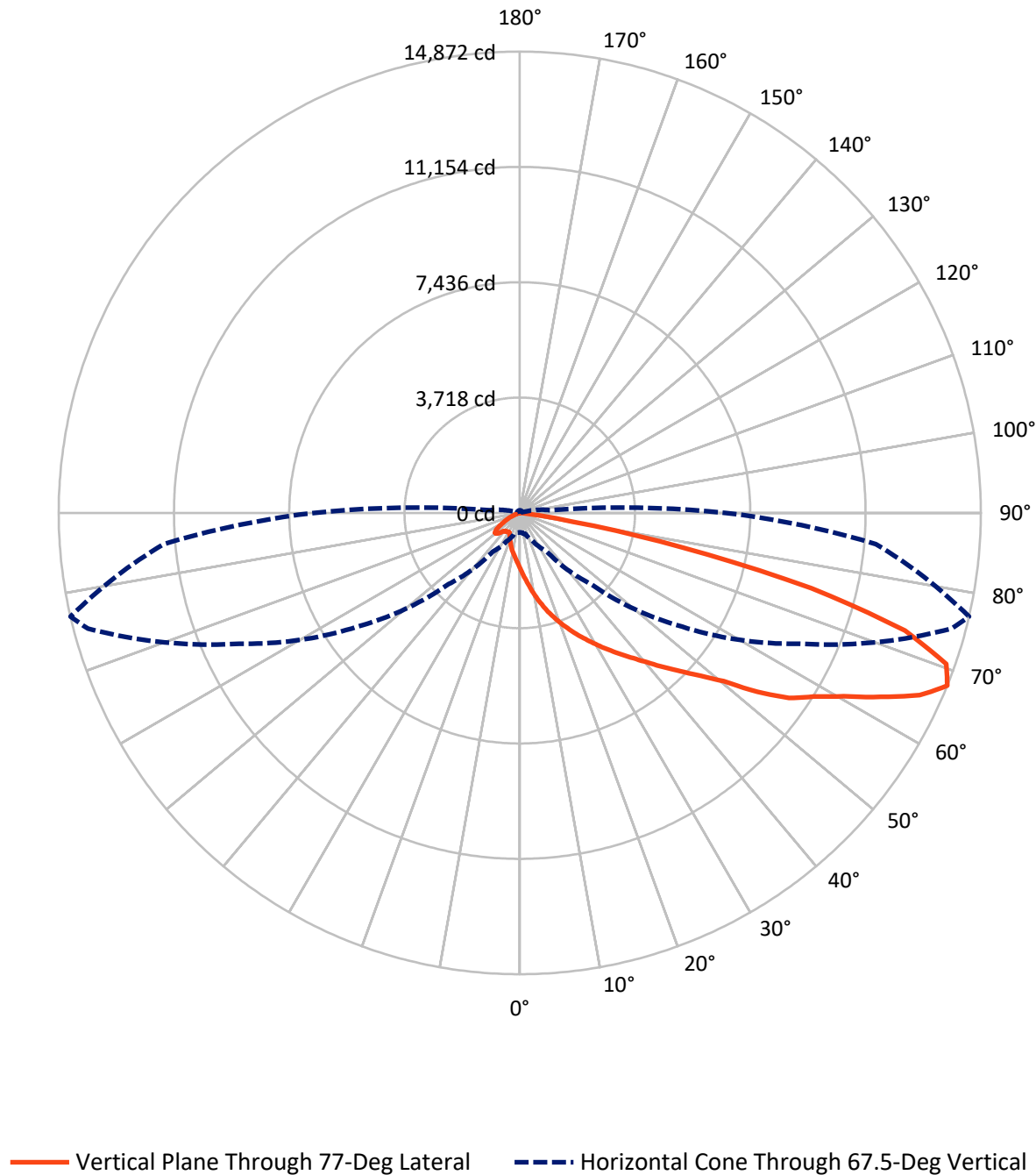
## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd



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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1141.3   | 0.0    | 1141.3  |
|                    | % Fixture | 7.4      | 0.0    | 7.4     |
| <b>Street Side</b> | Lumens    | 14371.1  | 0.0    | 14371.1 |
|                    | % Fixture | 92.6     | 0.0    | 92.6    |
| <b>Total</b>       | Lumens    | 15512.3  | 0.0    | 15512.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 182.6   | 1.2       |
| 10°-20°   | 639.4   | 4.1       |
| 20°-30°   | 1233.8  | 8.0       |
| 30°-40°   | 2141.9  | 13.8      |
| 40°-50°   | 3110.0  | 20.0      |
| 50°-60°   | 3571.4  | 23.0      |
| 60°-70°   | 3100.7  | 20.0      |
| 70°-80°   | 1460.4  | 9.4       |
| 80°-90°   | 72.2    | 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°    | 15512.3 | 100.0     |
| 0°-180°   | 15512.3 | 100.0     |

**Coefficient of Utilization**



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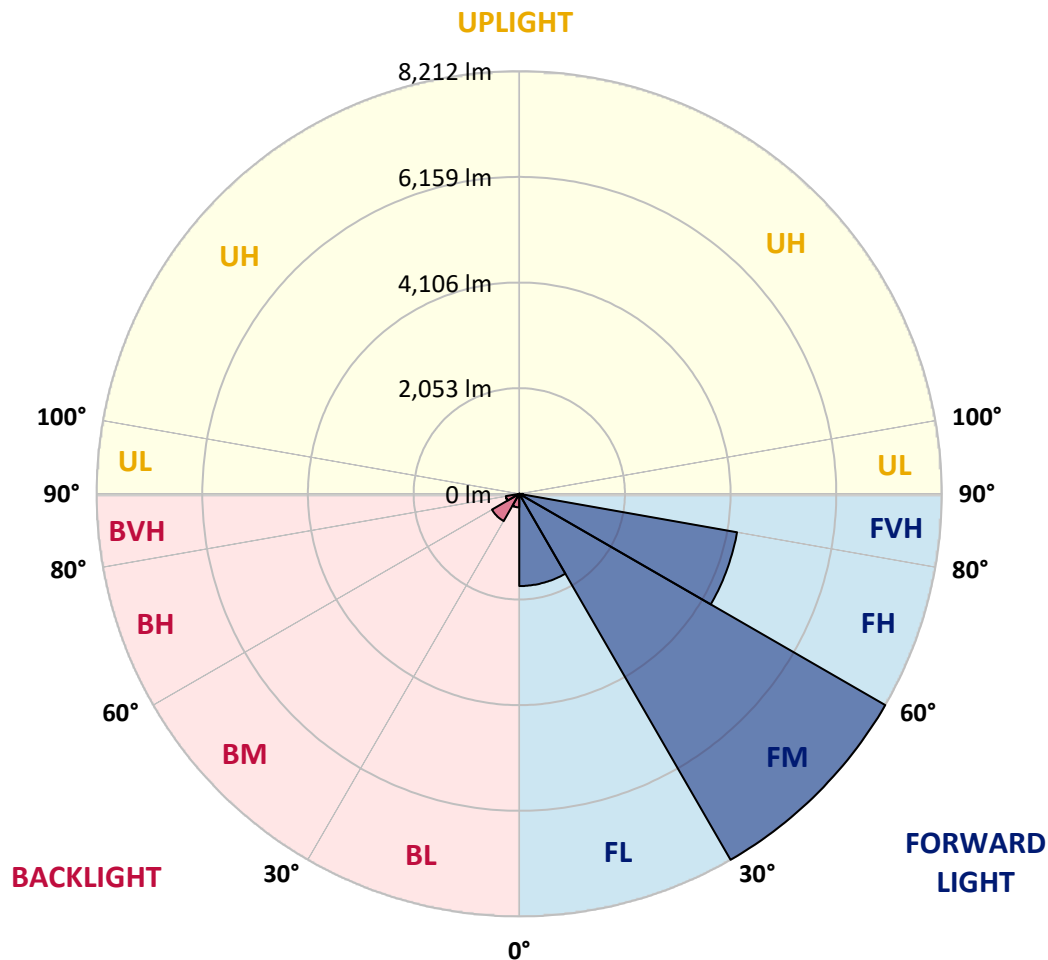
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1791.5 | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 8211.8 | 52.9      |                         |      |         |
| FH   | (60°-80°)   | 4296.9 | 27.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 70.9   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 264.2  | 1.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 611.5  | 3.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 264.2  | 1.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.3    | 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°    | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8  | 1788.8  | 1788.8  | 1788.8  |
| 2.5°  | 2476.6 | 2492.0 | 2469.8 | 2427.4 | 2363.9 | 2322.4 | 2221.3 | 2126.0  | 2020.0  | 1986.2  | 1880.4  |
| 5°    | 3018.9 | 3032.4 | 3007.4 | 2961.1 | 2876.4 | 2795.4 | 2662.5 | 2463.1  | 2256.0  | 2189.5  | 2001.7  |
| 7.5°  | 3420.6 | 3428.3 | 3418.7 | 3376.2 | 3295.4 | 3203.8 | 3055.5 | 2819.5  | 2512.2  | 2439.0  | 2151.0  |
| 10°   | 3709.6 | 3734.6 | 3731.7 | 3715.3 | 3661.4 | 3587.2 | 3429.2 | 3160.5  | 2799.3  | 2704.9  | 2319.6  |
| 12.5° | 3901.3 | 3929.2 | 3945.5 | 3982.2 | 3979.3 | 3932.1 | 3793.4 | 3509.2  | 3085.4  | 2974.5  | 2509.3  |
| 15°   | 3957.1 | 3987.0 | 4049.6 | 4134.3 | 4209.5 | 4233.6 | 4136.3 | 3851.1  | 3400.3  | 3258.8  | 2704.0  |
| 17.5° | 3925.3 | 3971.6 | 4046.7 | 4180.6 | 4345.4 | 4454.1 | 4443.6 | 4181.6  | 3686.4  | 3524.7  | 2894.6  |
| 20°   | 3995.7 | 4039.9 | 4098.8 | 4211.4 | 4403.1 | 4600.6 | 4679.6 | 4497.5  | 3970.6  | 3801.1  | 3095.0  |
| 22.5° | 4384.8 | 4377.2 | 4382.9 | 4401.2 | 4515.8 | 4711.4 | 4874.2 | 4784.6  | 4251.9  | 4078.5  | 3307.0  |
| 25°   | 5001.3 | 4966.6 | 4907.9 | 4808.7 | 4779.8 | 4874.2 | 5043.7 | 5038.9  | 4548.5  | 4362.7  | 3523.6  |
| 27.5° | 5708.3 | 5702.6 | 5564.8 | 5325.9 | 5191.1 | 5154.5 | 5235.4 | 5286.4  | 4842.4  | 4644.0  | 3741.4  |
| 30°   | 6385.5 | 6400.9 | 6215.1 | 5949.2 | 5701.7 | 5558.1 | 5484.9 | 5521.5  | 5141.0  | 4947.4  | 3965.8  |
| 32.5° | 6975.1 | 6991.4 | 6789.2 | 6478.0 | 6171.7 | 5998.3 | 5844.1 | 5753.6  | 5466.6  | 5255.6  | 4212.4  |
| 35°   | 7473.1 | 7489.5 | 7257.3 | 6913.4 | 6586.9 | 6429.8 | 6255.5 | 6007.9  | 5794.1  | 5597.6  | 4486.9  |
| 37.5° | 7918.1 | 7913.3 | 7602.1 | 7255.4 | 6934.6 | 6810.3 | 6718.9 | 6321.0  | 6131.2  | 5941.5  | 4791.4  |
| 40°   | 8181.1 | 8201.3 | 7935.4 | 7553.0 | 7241.9 | 7151.3 | 7145.6 | 6709.2  | 6520.4  | 6336.4  | 5124.6  |
| 42.5° | 8258.1 | 8293.8 | 8101.2 | 7787.1 | 7504.8 | 7406.6 | 7557.8 | 7129.2  | 6973.2  | 6794.0  | 5501.3  |
| 45°   | 8119.4 | 8154.1 | 8066.4 | 7848.7 | 7684.0 | 7620.5 | 7912.4 | 7564.6  | 7456.7  | 7279.4  | 5926.0  |
| 47.5° | 7714.9 | 7758.2 | 7779.4 | 7733.2 | 7731.3 | 7795.7 | 8230.2 | 8023.1  | 8030.9  | 7849.8  | 6418.3  |
| 50°   | 6931.8 | 7005.0 | 7199.5 | 7363.3 | 7616.6 | 7934.5 | 8539.5 | 8520.2  | 8678.2  | 8522.1  | 7059.9  |
| 52.5° | 5508.0 | 5612.1 | 6282.4 | 6730.4 | 7299.7 | 7908.5 | 8879.5 | 9317.8  | 9813.9  | 9585.6  | 7964.4  |
| 55°   | 4426.3 | 4426.3 | 4971.5 | 5809.5 | 6681.3 | 7737.0 | 9027.8 | 9836.0  | 10587.3 | 10533.4 | 8601.1  |
| 57.5° | 3608.4 | 3651.8 | 3999.6 | 4740.3 | 5786.4 | 7328.6 | 9119.3 | 10161.5 | 11210.6 | 11171.1 | 9223.4  |
| 60°   | 2227.1 | 2320.5 | 2977.5 | 3708.7 | 4768.2 | 6601.3 | 9061.5 | 10491.1 | 11966.8 | 11998.5 | 9972.7  |
| 62.5° | 1254.2 | 1288.8 | 1581.7 | 2668.3 | 3707.6 | 5623.6 | 8619.4 | 10675.0 | 12933.9 | 13068.7 | 10745.4 |
| 65°   | 866.0  | 883.3  | 996.0  | 1660.7 | 2570.0 | 4477.3 | 7755.4 | 10560.4 | 13903.0 | 14175.5 | 11400.4 |
| 67.5° | 629.0  | 637.7  | 708.0  | 1014.3 | 1524.9 | 3246.3 | 6400.9 | 9982.4  | 14416.4 | 14872.0 | 11525.6 |
| 70°   | 483.6  | 489.3  | 540.4  | 666.6  | 900.7  | 2003.6 | 4648.8 | 8833.2  | 14044.6 | 14588.8 | 10884.1 |
| 72.5° | 393.0  | 398.8  | 438.3  | 493.2  | 597.3  | 1184.8 | 2817.6 | 7173.5  | 12403.1 | 12990.7 | 9265.8  |
| 75°   | 331.4  | 339.1  | 374.7  | 410.3  | 468.1  | 761.0  | 1321.6 | 4995.5  | 9327.4  | 9712.7  | 6443.4  |
| 77.5° | 184.0  | 169.5  | 304.4  | 340.0  | 394.9  | 481.6  | 618.4  | 2939.9  | 5223.8  | 5330.7  | 2859.0  |
| 80°   | 114.6  | 118.5  | 241.8  | 273.6  | 303.4  | 242.7  | 283.2  | 1131.8  | 1811.0  | 1720.4  | 553.9   |
| 82.5° | 6.8    | 15.4   | 185.9  | 197.5  | 208.1  | 104.0  | 106.9  | 384.4   | 436.3   | 400.7   | 98.3    |
| 85°   | 0.0    | 0.0    | 84.8   | 68.4   | 72.3   | 29.8   | 30.9   | 89.6    | 58.7    | 63.6    | 19.3    |
| 87.5° | 0.0    | 0.0    | 0.0    | 1.9    | 0.0    | 2.9    | 5.7    | 7.7     | 2.9     | 3.9     | 6.8     |
| 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°    | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 | 1788.8 |
| 2.5°  | 1812.9 | 1745.5 | 1608.6 | 1474.8 | 1365.9 | 1264.7 | 1192.5 | 1124.1 | 1089.5 | 1087.5 | 1085.6 |
| 5°    | 1867.8 | 1726.2 | 1452.6 | 1210.8 | 1016.3 | 860.2  | 759.0  | 686.9  | 650.3  | 637.7  | 635.8  |
| 7.5°  | 1944.8 | 1731.9 | 1315.8 | 979.7  | 750.4  | 616.5  | 558.7  | 535.6  | 527.9  | 519.2  | 517.3  |
| 10°   | 2042.1 | 1745.5 | 1193.5 | 788.9  | 591.4  | 524.0  | 500.9  | 491.3  | 485.4  | 479.7  | 477.8  |
| 12.5° | 2151.0 | 1758.0 | 1072.1 | 655.1  | 520.2  | 485.4  | 469.1  | 457.6  | 449.9  | 443.1  | 441.2  |
| 15°   | 2256.9 | 1765.7 | 946.0  | 561.6  | 483.6  | 455.6  | 438.3  | 425.8  | 415.1  | 407.4  | 406.5  |
| 17.5° | 2361.9 | 1776.3 | 827.5  | 505.7  | 453.7  | 425.8  | 408.5  | 393.0  | 384.4  | 375.7  | 374.7  |
| 20°   | 2478.6 | 1774.4 | 715.8  | 466.3  | 423.8  | 395.9  | 377.6  | 363.2  | 354.4  | 344.8  | 343.9  |
| 22.5° | 2586.4 | 1764.7 | 617.5  | 432.6  | 393.0  | 366.0  | 345.8  | 331.4  | 322.7  | 315.0  | 314.1  |
| 25°   | 2710.6 | 1757.1 | 535.6  | 401.7  | 364.1  | 337.1  | 315.0  | 301.6  | 291.9  | 285.2  | 284.1  |
| 27.5° | 2830.1 | 1745.5 | 475.9  | 373.7  | 336.2  | 310.2  | 288.9  | 273.6  | 264.9  | 260.0  | 260.0  |
| 30°   | 2947.6 | 1742.6 | 453.7  | 346.8  | 311.1  | 285.2  | 263.9  | 249.5  | 242.7  | 240.8  | 239.8  |
| 32.5° | 3089.2 | 1750.3 | 463.3  | 337.1  | 288.0  | 262.0  | 241.8  | 231.1  | 224.5  | 224.5  | 224.5  |
| 35°   | 3240.4 | 1748.3 | 477.8  | 345.8  | 272.6  | 238.9  | 223.4  | 216.8  | 210.0  | 210.0  | 210.0  |
| 37.5° | 3430.3 | 1751.2 | 489.3  | 360.3  | 266.8  | 219.7  | 210.9  | 202.3  | 198.4  | 198.4  | 198.4  |
| 40°   | 3713.5 | 1846.6 | 483.6  | 372.8  | 264.9  | 206.1  | 188.8  | 185.9  | 183.1  | 183.1  | 183.1  |
| 42.5° | 4060.2 | 2053.7 | 491.3  | 373.7  | 263.9  | 196.5  | 173.4  | 179.2  | 172.4  | 171.5  | 170.5  |
| 45°   | 4439.7 | 2280.1 | 540.4  | 353.5  | 263.0  | 191.7  | 165.6  | 172.4  | 161.8  | 161.8  | 161.8  |
| 47.5° | 4816.4 | 2504.5 | 590.5  | 324.6  | 260.0  | 190.8  | 159.0  | 155.1  | 152.2  | 153.1  | 153.1  |
| 50°   | 5335.5 | 2687.5 | 609.8  | 285.2  | 253.4  | 188.8  | 146.4  | 147.4  | 145.4  | 147.4  | 147.4  |
| 52.5° | 5901.0 | 2726.1 | 586.6  | 240.8  | 234.1  | 183.1  | 137.8  | 141.6  | 140.6  | 142.6  | 142.6  |
| 55°   | 6253.6 | 2684.7 | 484.5  | 200.4  | 204.2  | 159.9  | 129.0  | 136.7  | 136.7  | 136.7  | 136.7  |
| 57.5° | 6617.7 | 2508.4 | 343.9  | 162.8  | 169.5  | 131.0  | 121.4  | 131.9  | 131.0  | 130.1  | 130.1  |
| 60°   | 6879.7 | 2223.2 | 226.3  | 133.9  | 134.9  | 107.9  | 112.7  | 124.2  | 123.3  | 118.5  | 118.5  |
| 62.5° | 7075.3 | 1908.2 | 145.4  | 113.7  | 103.1  | 97.3   | 103.1  | 112.7  | 108.9  | 98.3   | 96.4   |
| 65°   | 7053.1 | 1471.9 | 111.7  | 97.3   | 84.8   | 84.8   | 89.6   | 98.3   | 86.7   | 69.4   | 67.4   |
| 67.5° | 6641.8 | 996.0  | 92.5   | 81.9   | 71.2   | 70.3   | 74.2   | 81.9   | 74.2   | 58.7   | 56.8   |
| 70°   | 5906.8 | 651.2  | 74.2   | 63.6   | 56.8   | 52.0   | 59.8   | 70.3   | 62.6   | 47.2   | 45.3   |
| 72.5° | 4794.2 | 396.9  | 55.9   | 46.2   | 41.4   | 33.7   | 47.2   | 57.8   | 50.1   | 34.6   | 32.8   |
| 75°   | 3101.8 | 202.3  | 38.5   | 29.8   | 22.1   | 20.2   | 34.6   | 43.4   | 34.6   | 21.2   | 18.3   |
| 77.5° | 1186.7 | 84.8   | 21.2   | 13.5   | 11.6   | 9.6    | 19.3   | 26.0   | 14.5   | 4.8    | 3.9    |
| 80°   | 228.3  | 35.7   | 10.6   | 6.8    | 5.7    | 3.9    | 2.9    | 1.9    | 0.0    | 0.0    | 0.0    |
| 82.5° | 39.5   | 11.6   | 3.9    | 1.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 13.5   | 1.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 4.8    | 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)