

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: P963678

Luminaire Tested: **NAV-SB3A-830-U-T4FT-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P963678  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 9385.9 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

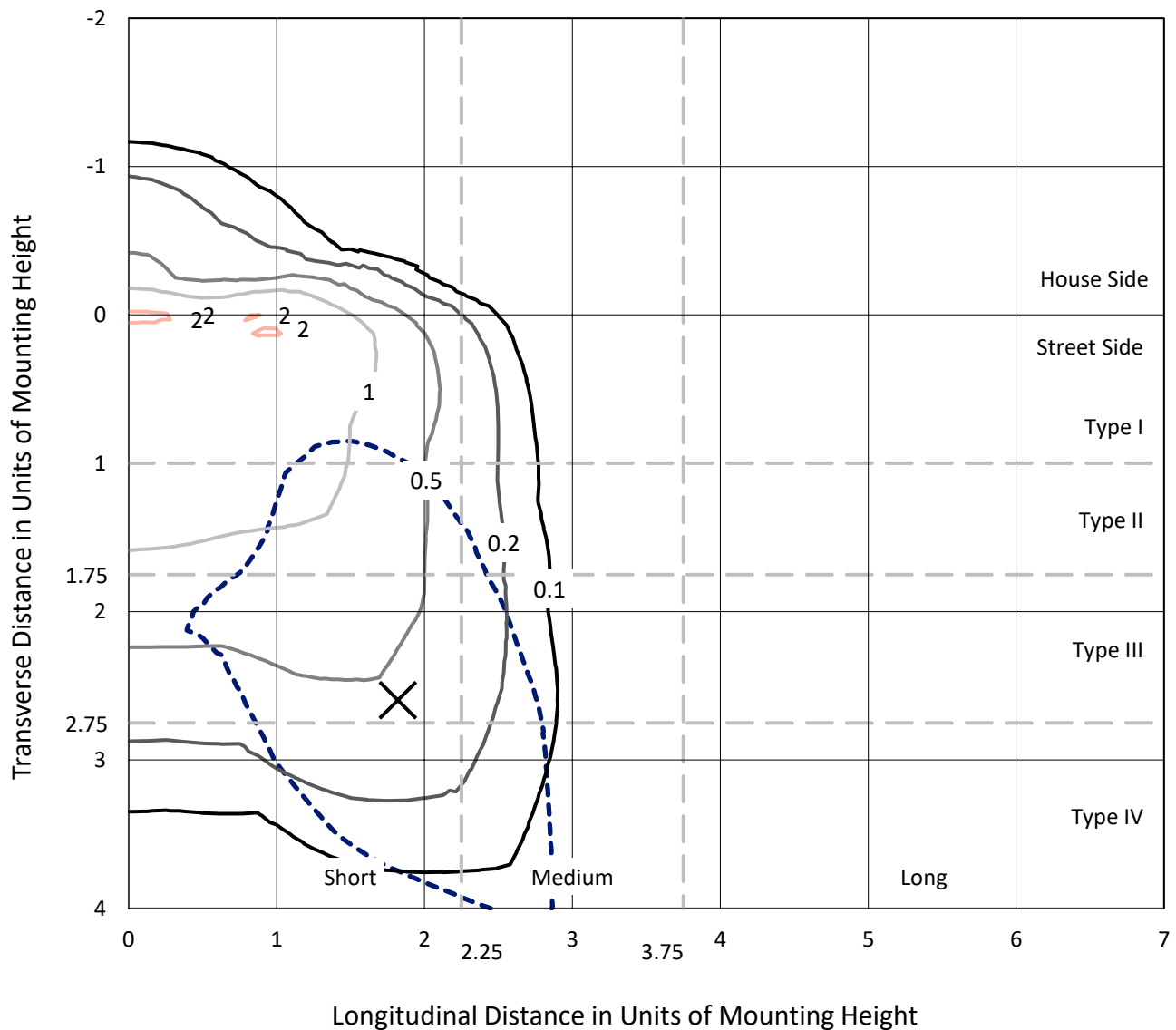
Input Watts (W): 84.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

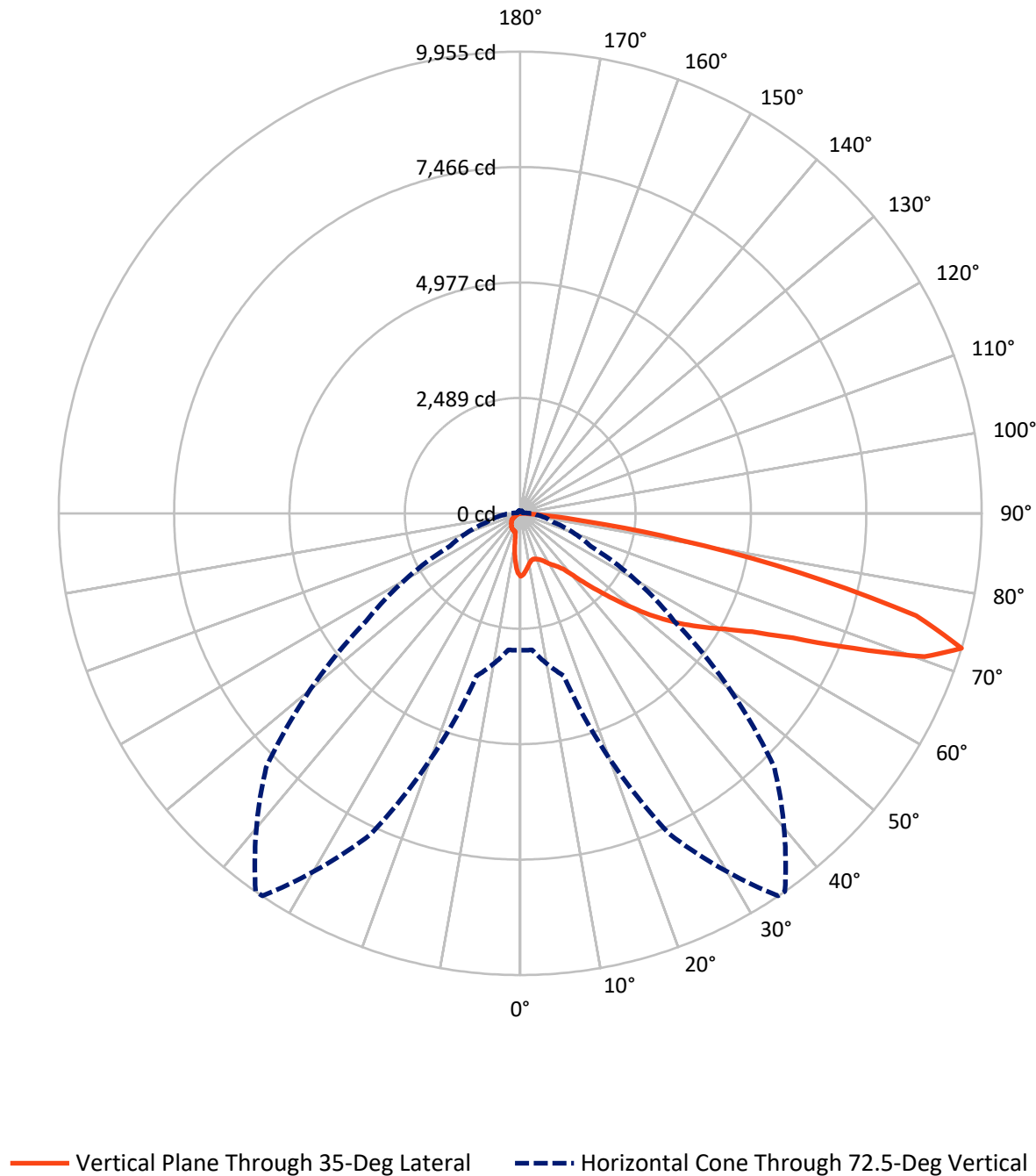
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
Type IV - 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    | 1056.4   | 0.0    | 1056.4 |
|                    | % Fixture | 11.3     | 0.0    | 11.3   |
| <b>Street Side</b> | Lumens    | 8329.6   | 0.0    | 8329.6 |
|                    | % Fixture | 88.7     | 0.0    | 88.7   |
| <b>Total</b>       | Lumens    | 9385.9   | 0.0    | 9385.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 111.8  | 1.2       |
| 10°-20°   | 261.5  | 2.8       |
| 20°-30°   | 424.8  | 4.5       |
| 30°-40°   | 708.8  | 7.6       |
| 40°-50°   | 1341.0 | 14.3      |
| 50°-60°   | 2130.9 | 22.7      |
| 60°-70°   | 2636.1 | 28.1      |
| 70°-80°   | 1638.6 | 17.5      |
| 80°-90°   | 132.4  | 1.4       |
| 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°    | 9385.9 | 100.0     |
| 0°-180°   | 9385.9 | 100.0     |

**Coefficient of Utilization**



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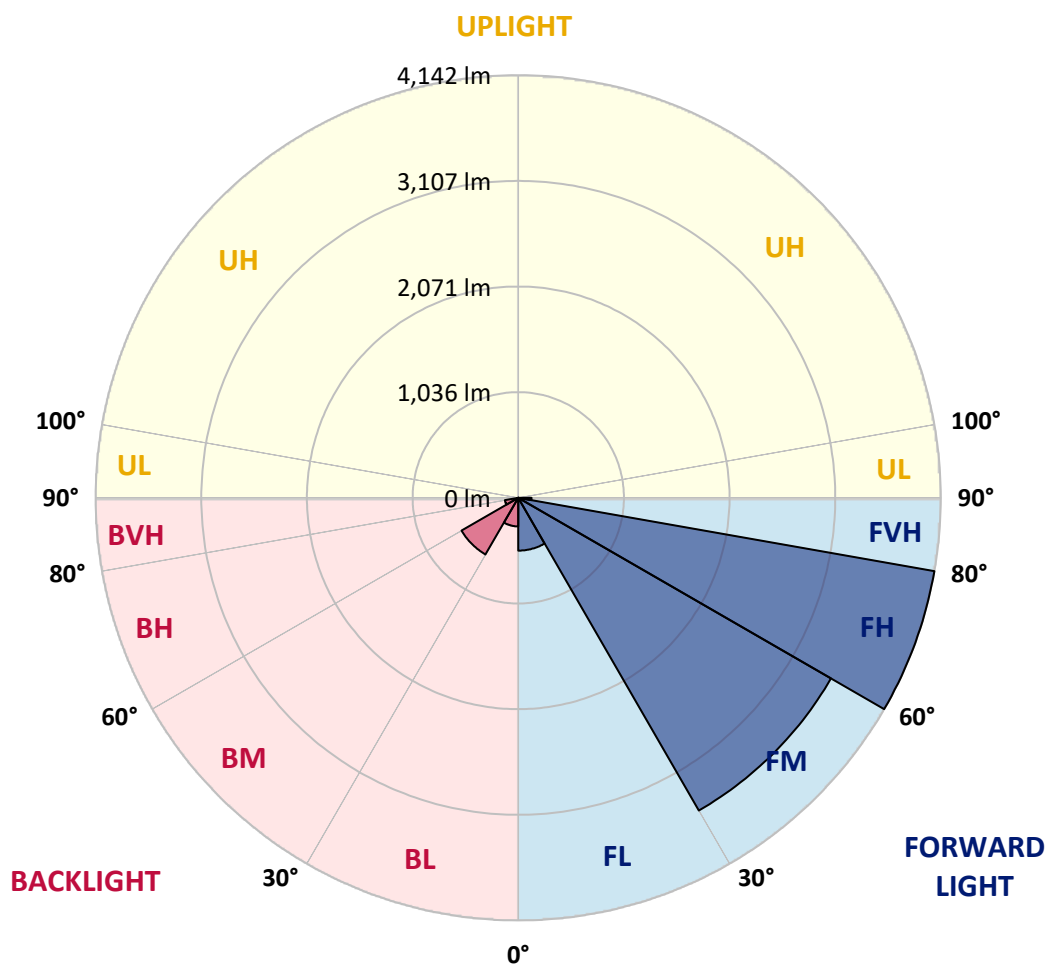
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 517.4  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 3539.4 | 37.7      |                         |      |         |
| FH   | (60°-80°)   | 4142.1 | 44.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 130.6  | 1.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 280.7  | 3.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 641.3  | 6.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 132.6  | 1.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.8    | 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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 34°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 |
| 2.5°  | 1299.8 | 1310.8 | 1312.9 | 1316.3 | 1316.3 | 1320.4 | 1327.4 | 1336.9 | 1352.8 | 1361.0 | 1366.5 |
| 5°    | 1198.0 | 1206.3 | 1216.6 | 1224.9 | 1240.7 | 1242.7 | 1269.6 | 1295.7 | 1332.1 | 1359.7 | 1378.9 |
| 7.5°  | 1095.5 | 1105.2 | 1118.9 | 1138.9 | 1159.5 | 1165.7 | 1206.3 | 1250.3 | 1308.1 | 1359.7 | 1391.9 |
| 10°   | 1023.4 | 1024.1 | 1036.4 | 1056.4 | 1089.4 | 1097.0 | 1146.5 | 1209.0 | 1281.2 | 1351.4 | 1404.4 |
| 12.5° | 982.8  | 987.6  | 993.1  | 1008.2 | 1039.9 | 1044.7 | 1097.7 | 1171.2 | 1254.4 | 1346.5 | 1418.8 |
| 15°   | 982.8  | 986.3  | 989.6  | 997.2  | 1022.6 | 1026.7 | 1073.6 | 1147.2 | 1240.7 | 1348.7 | 1442.2 |
| 17.5° | 993.1  | 998.6  | 995.8  | 1004.8 | 1031.6 | 1034.3 | 1075.6 | 1140.2 | 1239.9 | 1361.7 | 1477.9 |
| 20°   | 1017.8 | 1021.9 | 1016.5 | 1021.9 | 1048.8 | 1054.3 | 1097.0 | 1153.3 | 1251.6 | 1384.4 | 1522.6 |
| 22.5° | 1057.1 | 1059.1 | 1046.0 | 1050.2 | 1077.7 | 1084.6 | 1134.1 | 1190.4 | 1279.9 | 1420.9 | 1582.5 |
| 25°   | 1106.6 | 1110.7 | 1090.7 | 1095.5 | 1121.7 | 1130.0 | 1187.1 | 1246.2 | 1324.6 | 1471.1 | 1658.9 |
| 27.5° | 1163.7 | 1165.7 | 1148.5 | 1147.8 | 1181.5 | 1193.2 | 1251.0 | 1315.0 | 1384.4 | 1534.3 | 1755.1 |
| 30°   | 1229.0 | 1235.1 | 1218.6 | 1216.0 | 1258.6 | 1268.1 | 1325.2 | 1399.5 | 1472.4 | 1629.2 | 1891.9 |
| 32.5° | 1280.5 | 1285.4 | 1275.7 | 1282.6 | 1325.9 | 1333.5 | 1415.3 | 1519.2 | 1610.7 | 1764.0 | 2078.3 |
| 35°   | 1354.8 | 1357.6 | 1335.6 | 1348.0 | 1397.5 | 1416.8 | 1538.4 | 1687.0 | 1784.6 | 1933.3 | 2321.8 |
| 37.5° | 1623.7 | 1623.7 | 1530.2 | 1469.0 | 1516.5 | 1533.6 | 1706.9 | 1898.1 | 1999.3 | 2160.2 | 2628.5 |
| 40°   | 1995.8 | 1989.6 | 1852.8 | 1727.5 | 1721.4 | 1755.1 | 1947.0 | 2164.3 | 2276.4 | 2432.5 | 2973.7 |
| 42.5° | 2392.7 | 2383.0 | 2196.6 | 2072.9 | 2052.2 | 2063.8 | 2224.1 | 2492.4 | 2606.5 | 2764.7 | 3345.1 |
| 45°   | 2744.7 | 2742.0 | 2571.4 | 2405.0 | 2367.9 | 2405.0 | 2570.1 | 2876.0 | 2957.9 | 3124.4 | 3715.8 |
| 47.5° | 3039.7 | 3039.7 | 2915.3 | 2806.7 | 2787.4 | 2809.4 | 3038.4 | 3301.8 | 3294.2 | 3507.4 | 4076.8 |
| 50°   | 3379.5 | 3376.8 | 3258.5 | 3211.7 | 3231.6 | 3262.6 | 3577.6 | 3750.2 | 3642.2 | 3883.6 | 4399.4 |
| 52.5° | 3617.4 | 3633.9 | 3593.4 | 3585.9 | 3687.6 | 3741.2 | 4125.0 | 4189.0 | 3953.7 | 4240.5 | 4640.8 |
| 55°   | 3805.9 | 3825.2 | 3871.9 | 3924.9 | 4120.9 | 4191.0 | 4655.2 | 4605.0 | 4214.4 | 4550.1 | 4779.8 |
| 57.5° | 4072.7 | 4045.3 | 4117.4 | 4222.0 | 4539.0 | 4623.7 | 5169.0 | 4997.8 | 4424.2 | 4801.1 | 4794.8 |
| 60°   | 4396.6 | 4400.8 | 4413.1 | 4545.3 | 4956.5 | 5065.1 | 5675.2 | 5369.2 | 4559.0 | 4955.2 | 4627.1 |
| 62.5° | 4785.9 | 4792.1 | 4817.6 | 5020.4 | 5517.0 | 5619.5 | 6214.4 | 5673.1 | 4620.9 | 4911.8 | 4193.8 |
| 65°   | 4759.1 | 4785.2 | 5069.2 | 5763.2 | 6369.0 | 6470.2 | 6843.6 | 5886.3 | 4527.3 | 4515.6 | 3414.6 |
| 67.5° | 4335.4 | 4378.1 | 4853.4 | 6650.4 | 7653.8 | 7766.5 | 7604.3 | 5928.3 | 4123.7 | 3511.5 | 2227.5 |
| 70°   | 3779.8 | 3795.0 | 4366.4 | 7448.2 | 9141.4 | 9255.5 | 8285.1 | 5466.8 | 3129.2 | 1958.7 | 997.9  |
| 72.5° | 2951.8 | 2955.2 | 3625.7 | 7633.2 | 9948.8 | 9954.9 | 7750.7 | 4058.3 | 1682.8 | 752.3  | 346.7  |
| 75°   | 2108.6 | 2087.9 | 2428.4 | 6190.3 | 8752.8 | 8822.9 | 5810.6 | 1903.6 | 643.0  | 355.6  | 172.6  |
| 77.5° | 1130.7 | 1153.3 | 1374.1 | 3671.1 | 6046.6 | 6166.2 | 3170.4 | 548.8  | 327.4  | 242.1  | 114.2  |
| 80°   | 349.3  | 368.6  | 563.2  | 1680.8 | 3424.9 | 3497.1 | 1175.4 | 244.2  | 228.4  | 172.6  | 74.9   |
| 82.5° | 110.1  | 114.2  | 262.7  | 706.3  | 1421.6 | 1454.6 | 340.4  | 138.3  | 156.1  | 114.2  | 44.0   |
| 85°   | 31.7   | 32.3   | 117.0  | 263.4  | 351.5  | 358.3  | 95.6   | 53.6   | 89.4   | 70.8   | 22.7   |
| 87.5° | 3.5    | 11.0   | 44.0   | 44.0   | 31.0   | 30.2   | 10.4   | 11.7   | 25.4   | 8.9    | 4.1    |
| 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°    | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 | 1360.4 |
| 2.5°  | 1363.0 | 1363.8 | 1354.8 | 1339.7 | 1323.2 | 1309.4 | 1292.2 | 1278.5 | 1268.8 | 1266.1 | 1270.9 |
| 5°    | 1372.7 | 1367.9 | 1342.4 | 1296.4 | 1241.4 | 1193.9 | 1140.9 | 1099.0 | 1071.5 | 1059.7 | 1063.9 |
| 7.5°  | 1387.1 | 1373.4 | 1317.7 | 1226.9 | 1121.7 | 1028.2 | 933.3  | 859.7  | 812.9  | 789.6  | 792.9  |
| 10°   | 1399.5 | 1372.1 | 1276.4 | 1126.5 | 965.6  | 823.9  | 696.0  | 607.3  | 557.7  | 534.3  | 535.0  |
| 12.5° | 1411.2 | 1371.3 | 1222.8 | 1007.6 | 789.6  | 616.2  | 497.2  | 453.3  | 439.4  | 434.6  | 433.3  |
| 15°   | 1433.3 | 1373.4 | 1155.4 | 871.4  | 614.2  | 465.6  | 422.3  | 421.6  | 424.4  | 422.9  | 422.3  |
| 17.5° | 1463.5 | 1375.4 | 1079.0 | 726.9  | 473.9  | 410.6  | 408.5  | 414.7  | 418.8  | 416.8  | 416.0  |
| 20°   | 1502.6 | 1383.7 | 997.9  | 583.8  | 407.1  | 396.8  | 401.6  | 407.1  | 410.6  | 407.1  | 406.4  |
| 22.5° | 1557.7 | 1398.2 | 909.2  | 469.0  | 385.8  | 388.6  | 392.7  | 398.9  | 402.3  | 397.5  | 396.8  |
| 25°   | 1625.1 | 1420.9 | 821.8  | 407.8  | 375.5  | 378.9  | 385.1  | 392.0  | 396.2  | 391.3  | 390.6  |
| 27.5° | 1712.5 | 1457.3 | 741.4  | 394.1  | 365.2  | 367.3  | 376.2  | 386.5  | 392.0  | 385.8  | 385.8  |
| 30°   | 1839.0 | 1517.1 | 671.9  | 400.3  | 359.0  | 354.1  | 366.5  | 381.0  | 387.1  | 381.7  | 381.0  |
| 32.5° | 2006.8 | 1601.8 | 629.2  | 409.9  | 356.3  | 339.1  | 350.8  | 369.3  | 379.7  | 376.2  | 376.2  |
| 35°   | 2226.9 | 1730.3 | 612.7  | 420.9  | 354.1  | 323.3  | 331.5  | 351.5  | 369.3  | 372.8  | 372.8  |
| 37.5° | 2493.7 | 1909.2 | 617.6  | 425.7  | 348.0  | 310.2  | 314.3  | 331.5  | 354.9  | 365.9  | 368.6  |
| 40°   | 2797.0 | 2117.5 | 645.1  | 420.9  | 341.1  | 299.2  | 299.8  | 312.9  | 333.5  | 350.0  | 355.6  |
| 42.5° | 3110.0 | 2361.0 | 696.0  | 403.0  | 335.0  | 289.6  | 287.5  | 296.4  | 310.2  | 321.8  | 326.7  |
| 45°   | 3407.7 | 2611.3 | 746.2  | 378.2  | 327.4  | 279.9  | 275.1  | 278.5  | 281.3  | 286.1  | 288.8  |
| 47.5° | 3667.7 | 2787.4 | 731.7  | 355.6  | 317.0  | 268.9  | 260.7  | 259.3  | 251.0  | 250.3  | 249.7  |
| 50°   | 3847.1 | 2825.9 | 650.0  | 332.8  | 302.0  | 256.6  | 243.4  | 235.2  | 220.8  | 213.9  | 214.5  |
| 52.5° | 3904.2 | 2673.9 | 530.9  | 310.2  | 277.2  | 240.1  | 221.4  | 208.4  | 190.5  | 184.3  | 183.6  |
| 55°   | 3828.6 | 2376.2 | 424.4  | 282.7  | 242.7  | 218.0  | 197.4  | 180.2  | 165.7  | 158.2  | 158.2  |
| 57.5° | 3643.6 | 1997.2 | 335.6  | 250.3  | 206.3  | 193.2  | 172.6  | 155.4  | 143.1  | 135.5  | 134.1  |
| 60°   | 3336.9 | 1585.9 | 265.5  | 211.9  | 176.1  | 166.5  | 145.1  | 134.1  | 123.1  | 114.2  | 112.1  |
| 62.5° | 2871.3 | 1132.0 | 208.4  | 167.8  | 147.2  | 136.1  | 123.8  | 115.5  | 102.5  | 90.1   | 88.0   |
| 65°   | 2240.6 | 692.6  | 160.9  | 123.1  | 118.3  | 112.7  | 105.3  | 97.7   | 81.8   | 69.5   | 67.4   |
| 67.5° | 1413.3 | 328.0  | 114.9  | 92.9   | 93.6   | 90.8   | 87.3   | 81.2   | 69.5   | 58.4   | 57.1   |
| 70°   | 622.4  | 158.9  | 75.6   | 70.8   | 69.5   | 69.5   | 72.3   | 70.1   | 59.1   | 48.8   | 46.7   |
| 72.5° | 211.9  | 85.3   | 56.4   | 53.6   | 50.2   | 49.5   | 60.5   | 58.4   | 47.5   | 37.8   | 35.8   |
| 75°   | 110.7  | 57.1   | 41.3   | 38.5   | 30.2   | 36.5   | 48.2   | 45.4   | 33.7   | 24.8   | 22.7   |
| 77.5° | 72.3   | 40.6   | 28.2   | 24.8   | 17.2   | 24.1   | 35.8   | 31.7   | 20.0   | 12.4   | 11.0   |
| 80°   | 45.4   | 26.9   | 16.5   | 11.7   | 8.3    | 13.0   | 19.3   | 13.7   | 7.6    | 2.8    | 2.0    |
| 82.5° | 24.1   | 13.7   | 6.1    | 4.1    | 3.5    | 4.1    | 4.8    | 3.5    | 1.3    | 0.0    | 0.0    |
| 85°   | 9.6    | 4.8    | 2.0    | 1.3    | 0.7    | 0.0    | 1.3    | 0.7    | 0.0    | 0.0    | 0.0    |
| 87.5° | 3.5    | 0.7    | 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)