

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: P196280

Luminaire Tested: **NAV-AF-02-D-UNV-T2R-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196280  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24459)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-02-D-UNV-T2R-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10549.7 lumens  
Efficiency: N/A  
Efficacy: 124.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

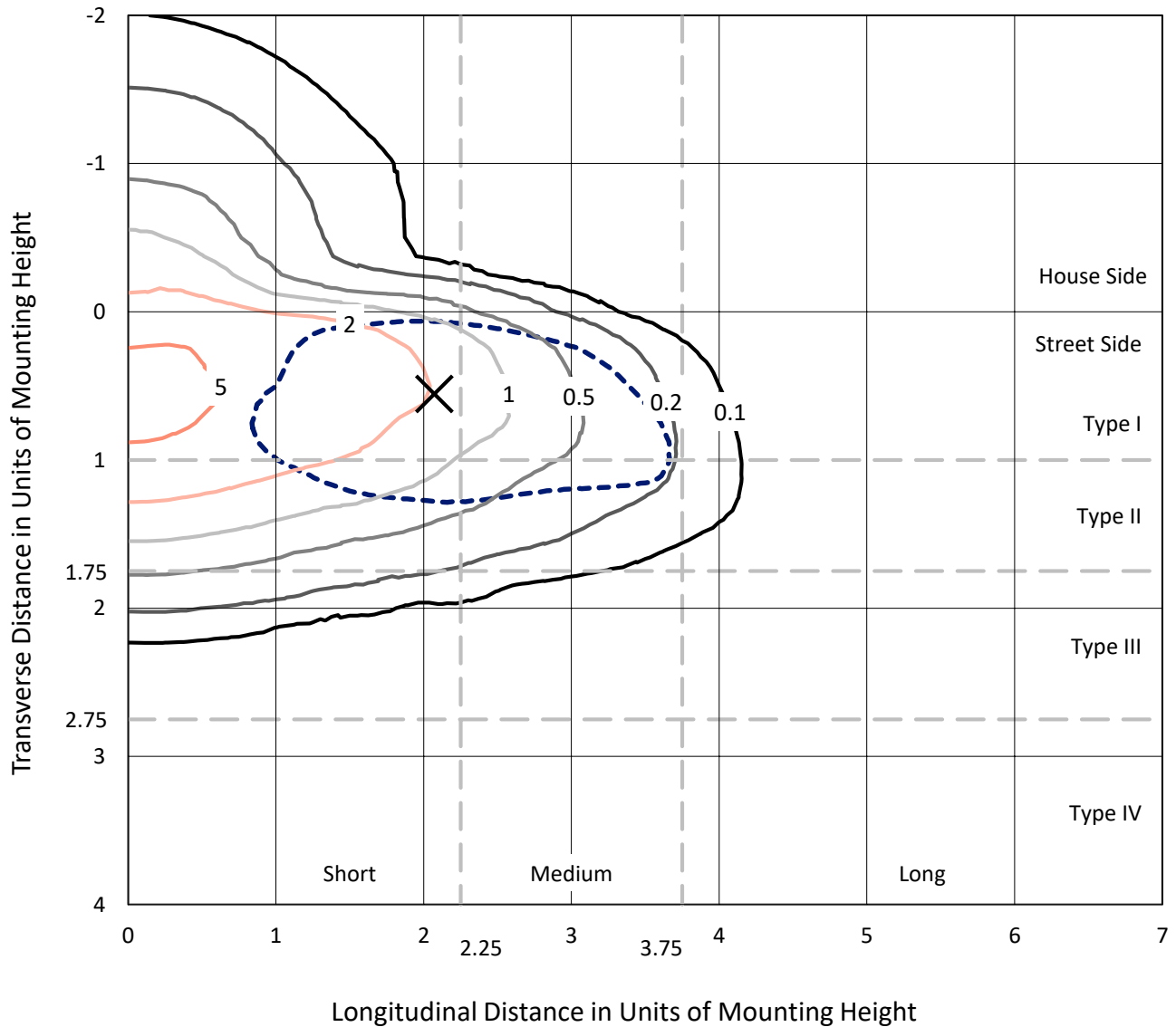
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

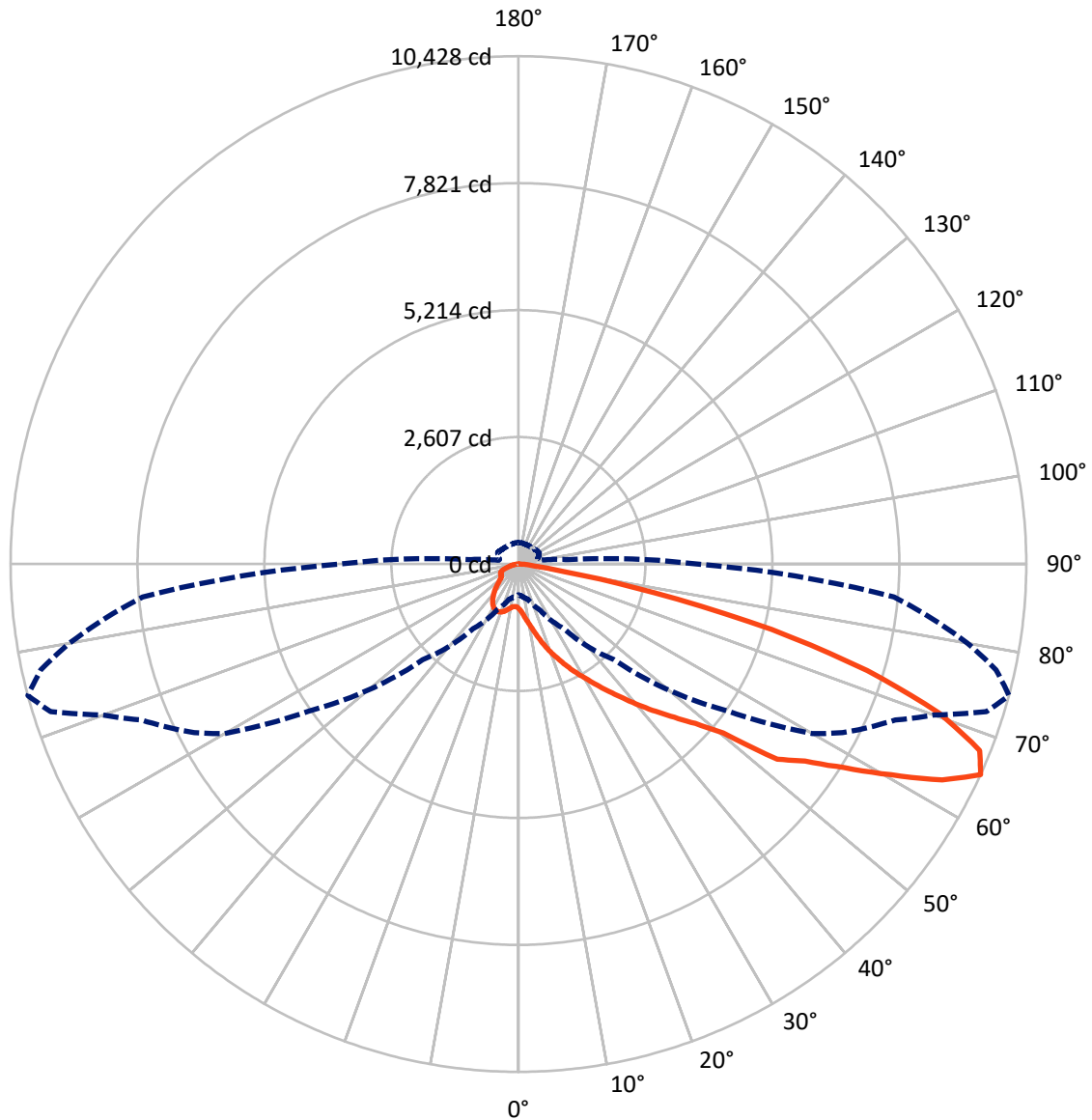
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1585.2   | 0.0    | 1585.2  |
|                    | % Fixture | 15.0     | 0.0    | 15.0    |
| <b>Street Side</b> | Lumens    | 8964.4   | 0.0    | 8964.4  |
|                    | % Fixture | 85.0     | 0.0    | 85.0    |
| <b>Total</b>       | Lumens    | 10549.7  | 0.0    | 10549.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 107.9   | 1.0       |
| 10°-20°   | 412.2   | 3.9       |
| 20°-30°   | 831.8   | 7.9       |
| 30°-40°   | 1412.6  | 13.4      |
| 40°-50°   | 1970.3  | 18.7      |
| 50°-60°   | 2414.8  | 22.9      |
| 60°-70°   | 2272.0  | 21.5      |
| 70°-80°   | 996.3   | 9.4       |
| 80°-90°   | 131.8   | 1.2       |
| 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°    | 10549.7 | 100.0     |
| 0°-180°   | 10549.7 | 100.0     |



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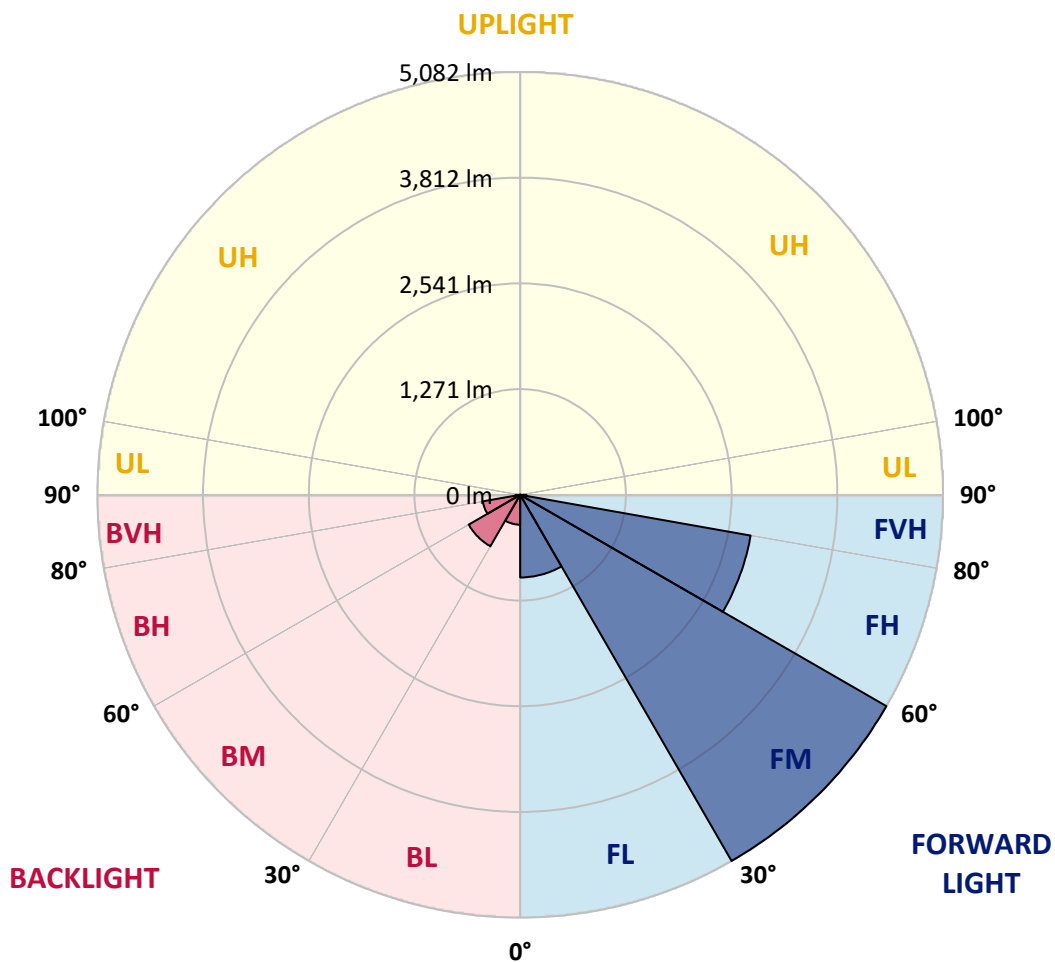
CATALOG NUMBER: NAV-AF-02-D-UNV-T2R-800

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 993.0  | 9.4       |                         |      |         |
| FM   | (30°-60°)   | 5082.4 | 48.2      |                         |      |         |
| FH   | (60°-80°)   | 2812.6 | 26.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 76.4   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 358.9  | 3.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 715.3  | 6.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 455.6  | 4.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 55.4   | 0.5       |                         |      | G1/100  |
| 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 Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 57.5°  | 60°    | 62.5°  | 65°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  |
| 2.5°  | 1150.9 | 1137.5 | 1138.9 | 1120.1 | 1092.6 | 1062.3 | 1037.6 | 1024.2 | 1012.7 | 1009.3 | 990.5  |
| 5°    | 1505.4 | 1488.5 | 1482.5 | 1439.6 | 1375.2 | 1298.6 | 1222.7 | 1193.3 | 1169.1 | 1154.3 | 1118.1 |
| 7.5°  | 1795.3 | 1786.5 | 1778.5 | 1738.9 | 1675.1 | 1577.1 | 1454.9 | 1411.4 | 1371.1 | 1326.8 | 1283.2 |
| 10°   | 1992.6 | 1989.2 | 1985.9 | 1958.3 | 1905.3 | 1820.0 | 1688.6 | 1640.9 | 1590.6 | 1534.2 | 1477.1 |
| 12.5° | 2141.5 | 2141.5 | 2144.2 | 2121.4 | 2089.2 | 2023.4 | 1904.0 | 1859.7 | 1808.7 | 1749.7 | 1684.5 |
| 15°   | 2241.6 | 2244.3 | 2258.4 | 2265.0 | 2248.2 | 2206.0 | 2101.2 | 2062.4 | 2014.0 | 1955.7 | 1891.2 |
| 17.5° | 2308.0 | 2313.4 | 2334.2 | 2356.3 | 2377.7 | 2363.0 | 2285.2 | 2249.0 | 2205.3 | 2151.6 | 2091.2 |
| 20°   | 2462.3 | 2455.6 | 2456.3 | 2449.6 | 2481.2 | 2492.5 | 2449.6 | 2419.4 | 2384.5 | 2335.5 | 2280.5 |
| 22.5° | 2786.5 | 2773.7 | 2740.9 | 2657.0 | 2618.8 | 2614.7 | 2589.2 | 2573.0 | 2546.2 | 2515.3 | 2460.3 |
| 25°   | 3209.3 | 3194.6 | 3129.4 | 2991.2 | 2877.0 | 2771.7 | 2724.7 | 2714.7 | 2697.2 | 2676.4 | 2636.9 |
| 27.5° | 3646.2 | 3630.0 | 3546.2 | 3371.7 | 3222.7 | 3009.9 | 2863.6 | 2850.2 | 2834.2 | 2825.4 | 2806.7 |
| 30°   | 4030.7 | 4013.3 | 3930.8 | 3753.6 | 3573.7 | 3320.0 | 3051.0 | 3003.9 | 2976.4 | 2979.1 | 2968.4 |
| 32.5° | 4368.3 | 4352.9 | 4260.3 | 4079.7 | 3897.2 | 3650.9 | 3293.9 | 3220.7 | 3159.0 | 3136.2 | 3144.2 |
| 35°   | 4651.6 | 4637.4 | 4536.1 | 4354.2 | 4170.4 | 3965.7 | 3606.6 | 3496.5 | 3395.9 | 3332.8 | 3325.4 |
| 37.5° | 4818.0 | 4809.9 | 4738.8 | 4584.5 | 4401.9 | 4251.6 | 3956.9 | 3834.7 | 3686.5 | 3594.5 | 3554.2 |
| 40°   | 4808.6 | 4817.3 | 4805.2 | 4735.4 | 4593.9 | 4484.4 | 4322.0 | 4201.3 | 4056.2 | 3919.3 | 3837.5 |
| 42.5° | 4671.7 | 4683.8 | 4738.1 | 4774.3 | 4736.1 | 4669.7 | 4640.8 | 4550.9 | 4420.7 | 4275.7 | 4162.3 |
| 45°   | 4483.8 | 4494.5 | 4564.9 | 4695.9 | 4805.2 | 4824.0 | 4920.0 | 4875.0 | 4765.0 | 4641.4 | 4516.6 |
| 47.5° | 4195.8 | 4216.6 | 4298.5 | 4506.6 | 4767.0 | 4948.2 | 5154.2 | 5175.0 | 5111.3 | 5009.3 | 4892.5 |
| 50°   | 3779.1 | 3806.6 | 3921.4 | 4217.3 | 4622.0 | 5075.7 | 5502.6 | 5581.7 | 5556.2 | 5452.8 | 5334.7 |
| 52.5° | 3352.2 | 3379.7 | 3532.8 | 3847.5 | 4388.5 | 5128.1 | 5845.4 | 6048.1 | 6194.5 | 6301.2 | 6321.9 |
| 55°   | 2907.9 | 2938.8 | 3106.6 | 3469.0 | 4077.1 | 5061.6 | 6090.4 | 6320.6 | 6468.9 | 6580.3 | 6625.3 |
| 57.5° | 2406.6 | 2441.6 | 2603.9 | 2970.3 | 3636.8 | 4794.5 | 6362.9 | 6689.1 | 6909.8 | 7081.7 | 7178.4 |
| 60°   | 1831.5 | 1875.1 | 2043.5 | 2412.6 | 3058.3 | 4283.1 | 6484.4 | 6966.9 | 7317.9 | 7575.6 | 7728.6 |
| 62.5° | 1161.0 | 1205.3 | 1380.5 | 1763.7 | 2399.9 | 3584.4 | 6140.8 | 6844.8 | 7443.4 | 7824.6 | 8105.1 |
| 65°   | 633.5  | 652.9  | 750.3  | 1038.9 | 1618.1 | 2781.1 | 5269.6 | 6099.9 | 6962.2 | 7502.4 | 7933.3 |
| 67.5° | 475.2  | 477.8  | 487.9  | 558.3  | 861.7  | 1877.8 | 4120.0 | 4880.4 | 5838.1 | 6533.4 | 7048.1 |
| 70°   | 416.1  | 416.1  | 417.5  | 418.1  | 467.8  | 1017.4 | 2791.2 | 3491.1 | 4369.0 | 5072.3 | 5712.0 |
| 72.5° | 373.2  | 369.1  | 367.8  | 359.7  | 366.4  | 521.5  | 1519.4 | 2148.3 | 2888.5 | 3677.7 | 4274.4 |
| 75°   | 322.1  | 321.5  | 321.5  | 313.4  | 317.4  | 367.1  | 659.1  | 1030.8 | 1604.6 | 2339.5 | 2926.8 |
| 77.5° | 278.5  | 273.8  | 274.5  | 269.8  | 282.5  | 281.2  | 312.7  | 424.8  | 698.7  | 1228.9 | 1716.1 |
| 80°   | 229.6  | 226.2  | 228.2  | 225.5  | 245.6  | 208.1  | 210.7  | 259.7  | 347.0  | 538.9  | 759.7  |
| 82.5° | 169.8  | 171.1  | 183.9  | 182.5  | 206.7  | 140.2  | 154.4  | 194.0  | 233.5  | 268.4  | 292.0  |
| 85°   | 99.3   | 101.4  | 132.2  | 138.9  | 151.7  | 73.9   | 94.6   | 115.4  | 130.2  | 144.3  | 150.4  |
| 87.5° | 10.7   | 14.1   | 73.9   | 75.8   | 67.8   | 22.2   | 38.3   | 48.3   | 51.7   | 55.0   | 48.3   |
| 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):**

|       | 67.5°  | 70°    | 72.5°   | 75°     | 77.5°   | 80°    | 85°    | 90°    | 95°    | 100°   | 102.5° |
|-------|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 0°    | 914.1  | 914.1  | 914.1   | 914.1   | 914.1   | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  | 914.1  |
| 2.5°  | 984.5  | 975.8  | 966.4   | 961.1   | 951.7   | 943.6  | 928.8  | 916.8  | 903.4  | 894.0  | 889.9  |
| 5°    | 1100.0 | 1079.1 | 1057.0  | 1041.0  | 1020.8  | 1003.3 | 969.8  | 929.5  | 916.8  | 889.9  | 883.2  |
| 7.5°  | 1250.3 | 1212.7 | 1175.2  | 1144.3  | 1109.4  | 1080.5 | 1024.2 | 951.7  | 942.2  | 899.3  | 889.9  |
| 10°   | 1426.8 | 1371.8 | 1316.0  | 1268.5  | 1217.4  | 1173.1 | 1089.9 | 987.9  | 977.8  | 922.8  | 913.4  |
| 12.5° | 1624.1 | 1557.0 | 1485.2  | 1414.0  | 1353.7  | 1291.3 | 1177.8 | 1044.2 | 1028.2 | 963.1  | 950.3  |
| 15°   | 1827.5 | 1755.0 | 1671.8  | 1585.9  | 1511.4  | 1428.9 | 1285.8 | 1118.1 | 1088.5 | 1012.0 | 994.6  |
| 17.5° | 2028.1 | 1949.6 | 1862.4  | 1766.4  | 1679.2  | 1580.5 | 1402.7 | 1200.6 | 1149.6 | 1060.4 | 1038.2 |
| 20°   | 2222.1 | 2142.3 | 2050.3  | 1956.3  | 1847.6  | 1734.8 | 1522.2 | 1281.9 | 1204.0 | 1100.6 | 1071.7 |
| 22.5° | 2398.6 | 2330.2 | 2238.2  | 2130.1  | 2020.1  | 1893.3 | 1643.6 | 1363.1 | 1251.7 | 1131.5 | 1094.6 |
| 25°   | 2584.5 | 2522.1 | 2430.8  | 2326.8  | 2198.6  | 2057.7 | 1769.1 | 1440.2 | 1289.9 | 1148.3 | 1102.6 |
| 27.5° | 2772.4 | 2718.7 | 2632.8  | 2523.4  | 2385.8  | 2229.4 | 1896.6 | 1511.4 | 1320.7 | 1153.7 | 1098.6 |
| 30°   | 2973.1 | 2931.5 | 2852.3  | 2730.2  | 2591.2  | 2418.1 | 2035.5 | 1581.2 | 1340.3 | 1146.3 | 1080.5 |
| 32.5° | 3163.0 | 3161.6 | 3091.2  | 2964.3  | 2814.6  | 2624.1 | 2181.9 | 1651.7 | 1350.3 | 1125.5 | 1048.9 |
| 35°   | 3360.3 | 3387.8 | 3334.8  | 3214.0  | 3056.3  | 2844.9 | 2343.6 | 1726.8 | 1351.0 | 1088.5 | 1008.0 |
| 37.5° | 3584.4 | 3633.4 | 3610.0  | 3495.2  | 3329.4  | 3096.6 | 2533.4 | 1811.3 | 1346.9 | 1037.6 | 948.3  |
| 40°   | 3839.4 | 3906.5 | 3905.9  | 3809.3  | 3632.1  | 3378.4 | 2754.3 | 1906.0 | 1337.5 | 973.7  | 877.8  |
| 42.5° | 4131.4 | 4211.3 | 4233.4  | 4138.1  | 3958.9  | 3686.5 | 3007.3 | 2010.0 | 1322.8 | 910.7  | 803.3  |
| 45°   | 4465.6 | 4536.1 | 4577.7  | 4489.1  | 4309.3  | 4022.0 | 3297.9 | 2128.1 | 1304.7 | 829.5  | 718.1  |
| 47.5° | 4823.3 | 4905.3 | 4967.7  | 4891.8  | 4699.8  | 4404.5 | 3642.2 | 2280.5 | 1297.9 | 736.9  | 626.1  |
| 50°   | 5267.0 | 5351.5 | 5486.4  | 5452.2  | 5346.9  | 5109.2 | 4370.4 | 2640.2 | 1300.7 | 649.0  | 549.0  |
| 52.5° | 6367.6 | 6561.5 | 6732.0  | 6656.1  | 6405.8  | 5998.5 | 4962.2 | 2840.2 | 1244.2 | 577.1  | 495.3  |
| 55°   | 6699.8 | 6920.0 | 7171.6  | 7140.1  | 6899.8  | 6489.1 | 5430.0 | 3007.3 | 1189.9 | 524.8  | 460.4  |
| 57.5° | 7281.0 | 7540.7 | 7892.4  | 7885.6  | 7591.0  | 7128.6 | 6032.0 | 3207.3 | 1166.4 | 494.6  | 442.9  |
| 60°   | 7896.4 | 8227.3 | 8713.2  | 8789.0  | 8468.9  | 7987.7 | 6743.4 | 3452.9 | 1169.7 | 477.8  | 432.9  |
| 62.5° | 8346.1 | 8831.2 | 9538.0  | 9764.8  | 9387.6  | 8857.4 | 7481.7 | 3698.6 | 1149.6 | 458.4  | 420.8  |
| 65°   | 8373.6 | 9072.2 | 10074.8 | 10427.9 | 10046.0 | 9364.8 | 7742.0 | 3650.2 | 1028.8 | 432.2  | 401.3  |
| 67.5° | 7702.4 | 8612.5 | 9830.6  | 10217.8 | 9827.2  | 9052.1 | 7285.7 | 3191.2 | 836.3  | 386.6  | 367.8  |
| 70°   | 6415.2 | 7471.6 | 8736.0  | 9167.5  | 8844.7  | 8060.1 | 6340.8 | 2548.9 | 624.8  | 326.1  | 317.4  |
| 72.5° | 4957.5 | 5942.7 | 7091.1  | 7490.4  | 7243.4  | 6553.5 | 5001.2 | 1857.7 | 446.3  | 264.4  | 257.7  |
| 75°   | 3544.2 | 4383.1 | 5216.6  | 5369.0  | 5125.4  | 4491.8 | 3244.9 | 1160.3 | 312.7  | 216.8  | 207.4  |
| 77.5° | 2194.5 | 2740.2 | 3039.5  | 2843.5  | 2532.8  | 2105.3 | 1320.7 | 573.2  | 208.1  | 176.5  | 167.2  |
| 80°   | 973.7  | 1142.9 | 1067.0  | 950.9   | 750.9   | 617.5  | 403.3  | 254.3  | 134.2  | 136.3  | 130.8  |
| 82.5° | 327.5  | 346.3  | 336.9   | 334.9   | 302.0   | 264.4  | 171.1  | 110.1  | 75.2   | 87.3   | 85.2   |
| 85°   | 159.7  | 167.2  | 167.8   | 173.8   | 151.0   | 117.4  | 46.3   | 43.6   | 32.2   | 47.0   | 49.0   |
| 87.5° | 48.3   | 49.0   | 44.3    | 48.3    | 39.0    | 26.8   | 8.7    | 12.1   | 6.0    | 11.5   | 11.5   |
| 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):**

|       | 105°   | 107.5° | 110°   | 112.5° | 115°  | 117.5° | 120°  | 122.5° | 125°  | 127.5° | 130°  |
|-------|--------|--------|--------|--------|-------|--------|-------|--------|-------|--------|-------|
| 0°    | 914.1  | 914.1  | 914.1  | 914.1  | 914.1 | 914.1  | 914.1 | 914.1  | 914.1 | 914.1  | 914.1 |
| 2.5°  | 882.5  | 879.8  | 875.1  | 869.8  | 868.4 | 861.7  | 859.7 | 856.3  | 854.4 | 851.0  | 848.3 |
| 5°    | 874.5  | 869.8  | 864.4  | 858.4  | 858.4 | 848.9  | 845.0 | 840.9  | 840.9 | 834.8  | 832.2 |
| 7.5°  | 882.5  | 876.5  | 870.4  | 865.1  | 867.1 | 856.3  | 852.3 | 848.3  | 847.6 | 841.6  | 838.9 |
| 10°   | 905.3  | 899.3  | 891.9  | 886.6  | 884.5 | 875.9  | 871.1 | 865.1  | 861.0 | 857.0  | 853.0 |
| 12.5° | 940.2  | 932.2  | 922.8  | 911.3  | 906.6 | 899.3  | 891.9 | 883.8  | 874.5 | 870.4  | 864.4 |
| 15°   | 981.8  | 968.4  | 955.6  | 941.6  | 928.8 | 921.5  | 911.3 | 898.7  | 885.9 | 880.6  | 872.5 |
| 17.5° | 1016.1 | 1002.0 | 983.9  | 967.1  | 944.3 | 938.3  | 924.1 | 908.7  | 887.9 | 885.9  | 873.8 |
| 20°   | 1044.9 | 1023.5 | 1001.3 | 981.2  | 946.2 | 943.0  | 925.5 | 907.4  | 877.8 | 877.8  | 863.1 |
| 22.5° | 1061.0 | 1031.5 | 1005.4 | 978.5  | 934.9 | 932.2  | 912.1 | 890.6  | 854.4 | 855.7  | 837.6 |
| 25°   | 1063.8 | 1028.2 | 995.2  | 963.1  | 912.7 | 908.1  | 882.5 | 859.1  | 819.5 | 816.7  | 798.0 |
| 27.5° | 1053.0 | 1011.4 | 973.1  | 934.2  | 879.8 | 869.8  | 841.6 | 813.3  | 774.5 | 767.7  | 747.7 |
| 30°   | 1028.2 | 979.2  | 936.2  | 891.3  | 834.2 | 818.1  | 788.6 | 759.7  | 720.2 | 711.4  | 692.6 |
| 32.5° | 988.6  | 932.8  | 885.2  | 840.3  | 777.1 | 757.0  | 727.5 | 698.7  | 660.4 | 653.7  | 636.2 |
| 35°   | 936.2  | 873.8  | 823.5  | 775.8  | 712.7 | 691.9  | 663.7 | 638.2  | 603.3 | 600.7  | 588.6 |
| 37.5° | 870.4  | 805.4  | 751.7  | 706.0  | 646.3 | 635.6  | 606.7 | 587.9  | 559.0 | 561.7  | 555.7 |
| 40°   | 796.0  | 729.5  | 678.5  | 638.2  | 586.6 | 577.1  | 559.8 | 545.6  | 520.8 | 528.1  | 528.9 |
| 42.5° | 720.8  | 654.4  | 608.0  | 571.8  | 527.5 | 521.5  | 509.4 | 501.3  | 482.5 | 497.3  | 503.3 |
| 45°   | 635.6  | 573.8  | 534.2  | 506.7  | 473.8 | 473.8  | 467.8 | 467.1  | 454.4 | 475.2  | 481.2 |
| 47.5° | 553.0  | 504.7  | 477.2  | 460.4  | 437.6 | 448.4  | 446.3 | 451.6  | 442.2 | 463.7  | 469.1 |
| 50°   | 490.6  | 457.1  | 440.3  | 432.2  | 416.1 | 432.9  | 436.9 | 444.3  | 436.2 | 455.0  | 459.0 |
| 52.5° | 451.0  | 428.8  | 419.4  | 417.5  | 406.0 | 426.9  | 433.5 | 440.3  | 430.9 | 448.4  | 447.6 |
| 55°   | 428.8  | 414.1  | 410.7  | 414.7  | 406.0 | 426.2  | 432.9 | 437.6  | 429.5 | 441.6  | 440.9 |
| 57.5° | 420.8  | 412.8  | 414.7  | 420.8  | 414.7 | 431.5  | 434.9 | 440.3  | 432.2 | 437.6  | 440.3 |
| 60°   | 420.1  | 420.1  | 428.2  | 436.2  | 432.2 | 444.3  | 446.3 | 445.6  | 438.2 | 438.9  | 440.3 |
| 62.5° | 416.1  | 426.2  | 439.6  | 452.3  | 451.0 | 465.7  | 467.1 | 458.4  | 452.3 | 445.6  | 443.7 |
| 65°   | 403.3  | 420.1  | 439.6  | 457.1  | 459.7 | 482.5  | 485.2 | 476.5  | 472.5 | 461.0  | 452.3 |
| 67.5° | 375.1  | 396.6  | 419.4  | 440.9  | 445.6 | 476.5  | 482.5 | 485.9  | 487.9 | 480.5  | 469.1 |
| 70°   | 327.5  | 349.6  | 373.2  | 397.9  | 404.7 | 438.9  | 451.6 | 467.1  | 479.2 | 489.9  | 485.9 |
| 72.5° | 266.5  | 286.5  | 306.7  | 329.5  | 339.6 | 375.1  | 391.9 | 418.8  | 437.6 | 465.1  | 476.5 |
| 75°   | 211.4  | 223.5  | 235.6  | 249.7  | 257.7 | 292.6  | 313.4 | 345.7  | 371.1 | 409.4  | 434.9 |
| 77.5° | 166.4  | 172.5  | 178.5  | 184.5  | 187.9 | 207.4  | 224.1 | 256.4  | 285.9 | 334.2  | 371.8 |
| 80°   | 128.2  | 131.6  | 132.2  | 134.2  | 132.9 | 142.3  | 148.3 | 167.8  | 193.2 | 240.9  | 285.2 |
| 82.5° | 82.6   | 85.2   | 86.5   | 89.9   | 83.3  | 95.3   | 99.3  | 101.4  | 114.8 | 149.7  | 181.2 |
| 85°   | 46.3   | 47.0   | 47.7   | 49.0   | 39.6  | 51.7   | 52.4  | 49.0   | 47.7  | 61.8   | 69.8  |
| 87.5° | 11.5   | 10.7   | 11.5   | 11.5   | 4.7   | 10.7   | 10.7  | 7.4    | 5.3   | 10.0   | 8.1   |
| 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):**

|       | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 914.1 | 914.1 | 914.1 | 914.1 | 914.1 | 914.1 |
| 2.5°  | 842.3 | 840.9 | 841.6 | 838.2 | 836.9 | 837.6 |
| 5°    | 828.8 | 826.1 | 826.1 | 824.1 | 821.4 | 821.4 |
| 7.5°  | 834.8 | 829.5 | 827.5 | 823.5 | 819.5 | 820.1 |
| 10°   | 844.2 | 834.8 | 828.2 | 822.1 | 817.4 | 817.4 |
| 12.5° | 850.3 | 833.5 | 823.5 | 815.4 | 810.1 | 810.1 |
| 15°   | 851.6 | 826.1 | 811.4 | 802.7 | 797.3 | 797.3 |
| 17.5° | 843.6 | 811.4 | 792.6 | 781.2 | 775.2 | 776.5 |
| 20°   | 823.5 | 783.9 | 761.7 | 749.6 | 743.6 | 744.3 |
| 22.5° | 792.0 | 746.2 | 720.8 | 706.7 | 700.6 | 700.6 |
| 25°   | 749.0 | 699.3 | 671.8 | 660.4 | 655.0 | 655.0 |
| 27.5° | 700.0 | 649.0 | 624.8 | 616.1 | 612.7 | 612.7 |
| 30°   | 645.0 | 602.6 | 585.2 | 579.2 | 573.8 | 573.8 |
| 32.5° | 598.6 | 568.5 | 562.4 | 554.3 | 540.2 | 539.6 |
| 35°   | 561.7 | 558.3 | 553.7 | 529.5 | 509.4 | 506.7 |
| 37.5° | 541.6 | 561.7 | 532.2 | 490.6 | 474.4 | 473.8 |
| 40°   | 530.8 | 549.6 | 498.7 | 478.5 | 476.5 | 476.5 |
| 42.5° | 505.3 | 518.7 | 496.6 | 485.2 | 485.2 | 485.9 |
| 45°   | 478.5 | 489.9 | 501.3 | 491.2 | 494.6 | 495.3 |
| 47.5° | 459.7 | 482.5 | 501.3 | 492.7 | 499.3 | 503.3 |
| 50°   | 442.2 | 475.8 | 491.2 | 491.2 | 498.7 | 499.3 |
| 52.5° | 438.2 | 466.5 | 481.9 | 489.3 | 489.9 | 486.5 |
| 55°   | 438.9 | 459.0 | 474.4 | 483.9 | 479.9 | 479.9 |
| 57.5° | 438.2 | 455.0 | 468.4 | 471.8 | 473.8 | 473.8 |
| 60°   | 438.9 | 449.7 | 460.4 | 459.0 | 465.7 | 465.7 |
| 62.5° | 440.9 | 442.2 | 447.6 | 446.3 | 456.3 | 456.3 |
| 65°   | 445.6 | 432.9 | 429.5 | 430.9 | 442.9 | 442.2 |
| 67.5° | 454.4 | 420.1 | 409.4 | 410.1 | 427.5 | 424.8 |
| 70°   | 467.1 | 402.6 | 386.6 | 382.6 | 412.0 | 407.3 |
| 72.5° | 471.2 | 382.6 | 357.0 | 353.0 | 370.4 | 357.0 |
| 75°   | 452.3 | 366.4 | 325.5 | 312.1 | 304.7 | 300.6 |
| 77.5° | 403.3 | 356.4 | 292.6 | 264.4 | 253.0 | 250.3 |
| 80°   | 334.2 | 335.5 | 249.7 | 216.1 | 251.0 | 250.3 |
| 82.5° | 252.4 | 289.9 | 200.0 | 187.2 | 181.9 | 151.7 |
| 85°   | 122.1 | 218.1 | 153.6 | 128.9 | 77.1  | 73.1  |
| 87.5° | 10.7  | 91.2  | 88.6  | 57.7  | 26.2  | 24.9  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)