

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: P971585

Luminaire Tested: **NAV-SB6D-830-U-T4W-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P971585  
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-SB6D-830-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(6) 80 CRI, 3000K, 900mA 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: 43778.8 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

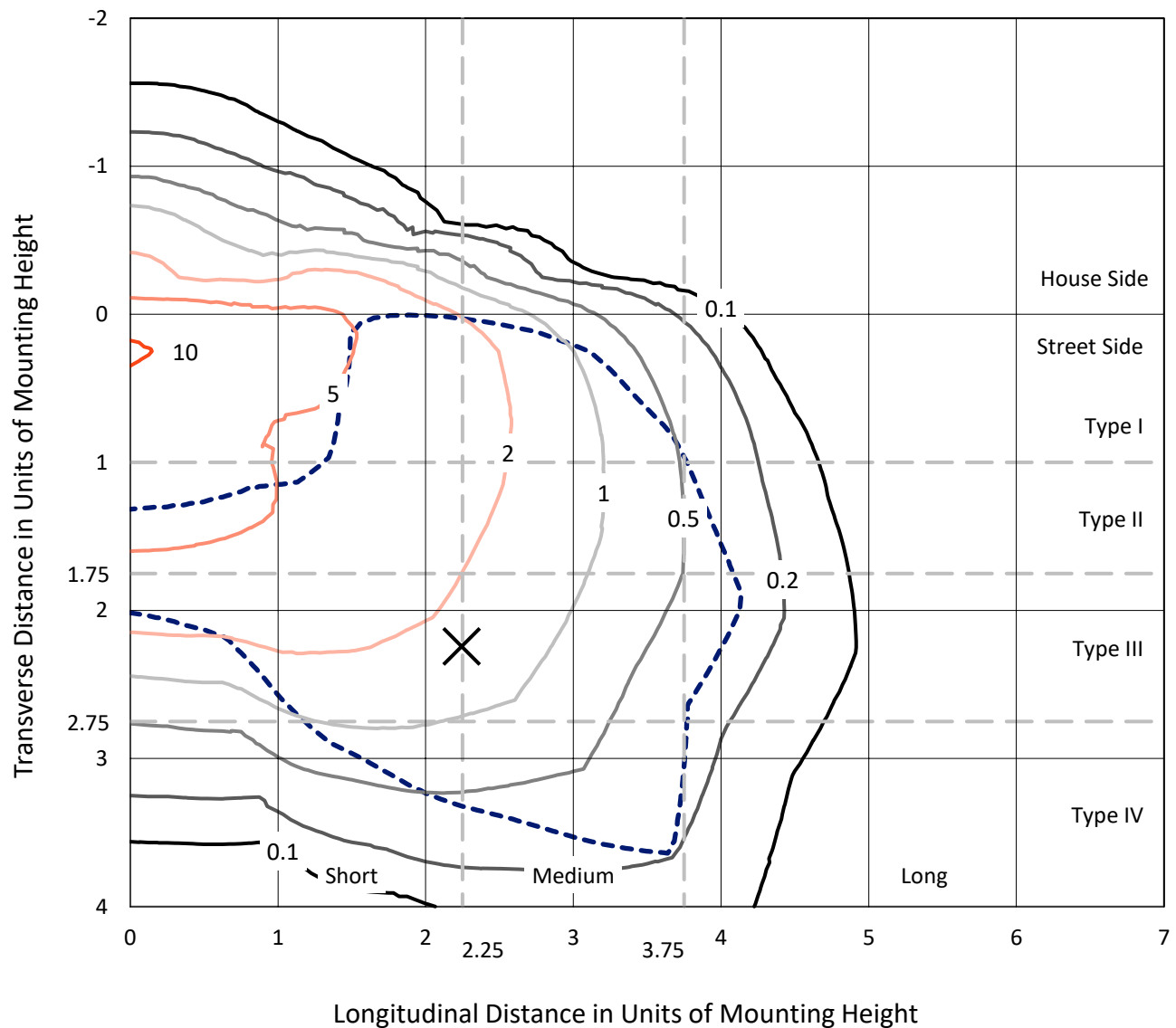
Input Watts (W): 440.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

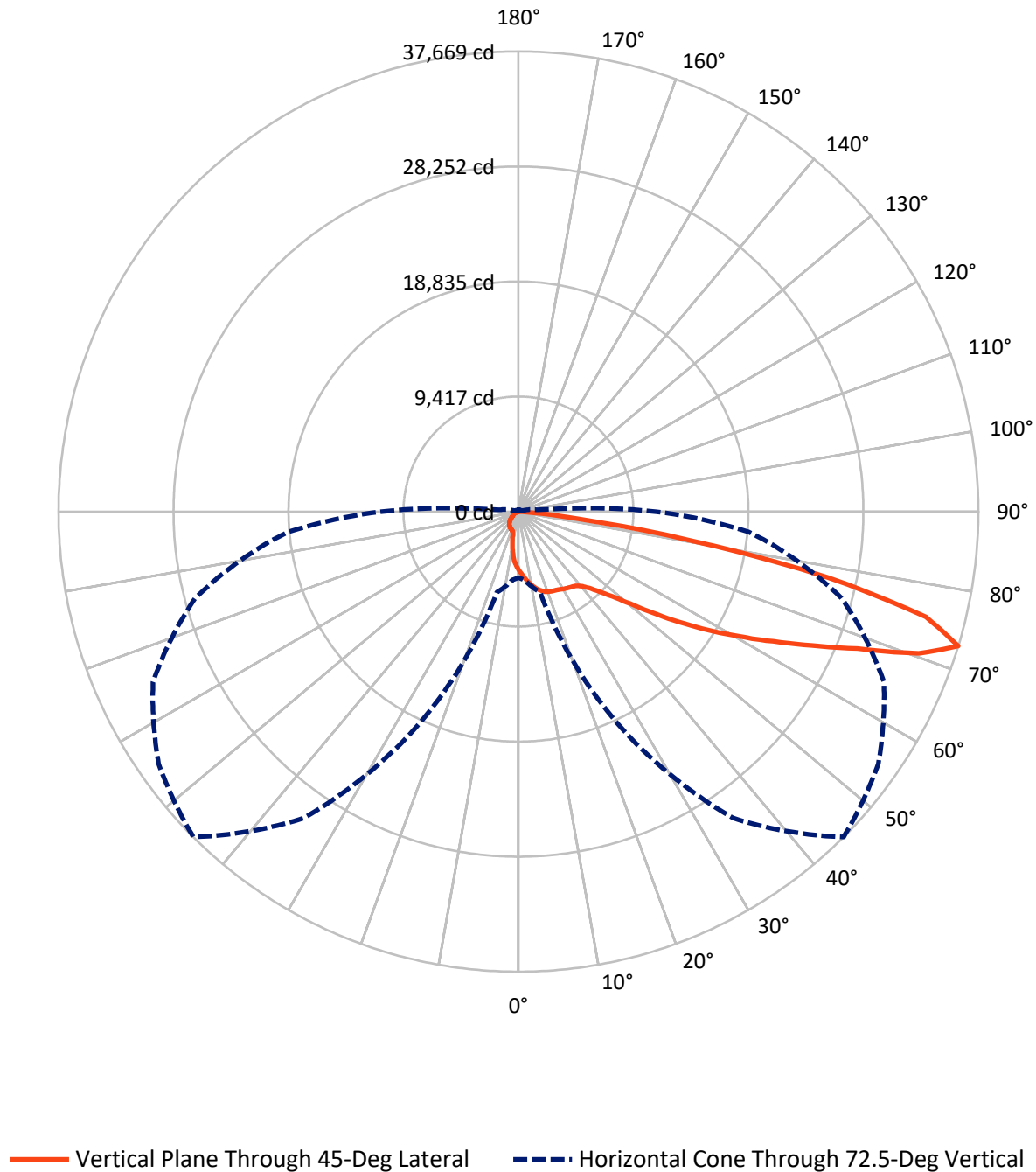
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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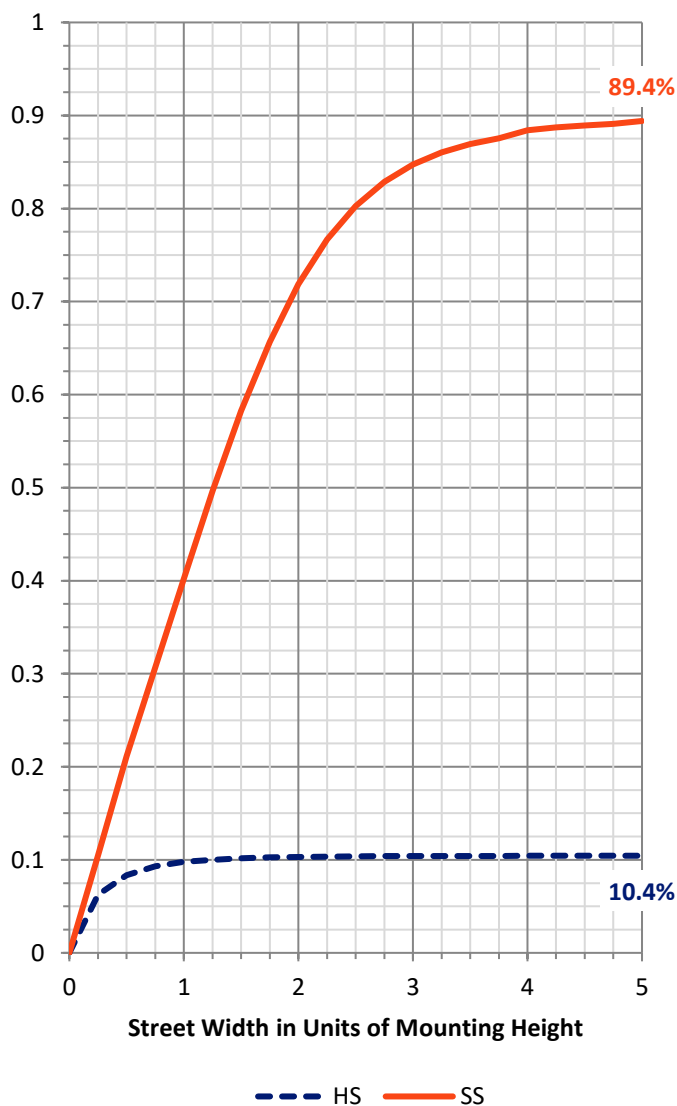
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4599.9   | 0.0    | 4599.9  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 39178.8  | 0.0    | 39178.8 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 43778.8  | 0.0    | 43778.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 451.9   | 1.0       |
| 10°-20°   | 1320.7  | 3.0       |
| 20°-30°   | 2168.7  | 5.0       |
| 30°-40°   | 3075.8  | 7.0       |
| 40°-50°   | 5084.0  | 11.6      |
| 50°-60°   | 9132.8  | 20.9      |
| 60°-70°   | 12681.3 | 29.0      |
| 70°-80°   | 9198.6  | 21.0      |
| 80°-90°   | 665.0   | 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°    | 43778.8 | 100.0     |
| 0°-180°   | 43778.8 | 100.0     |

**Coefficient of Utilization**



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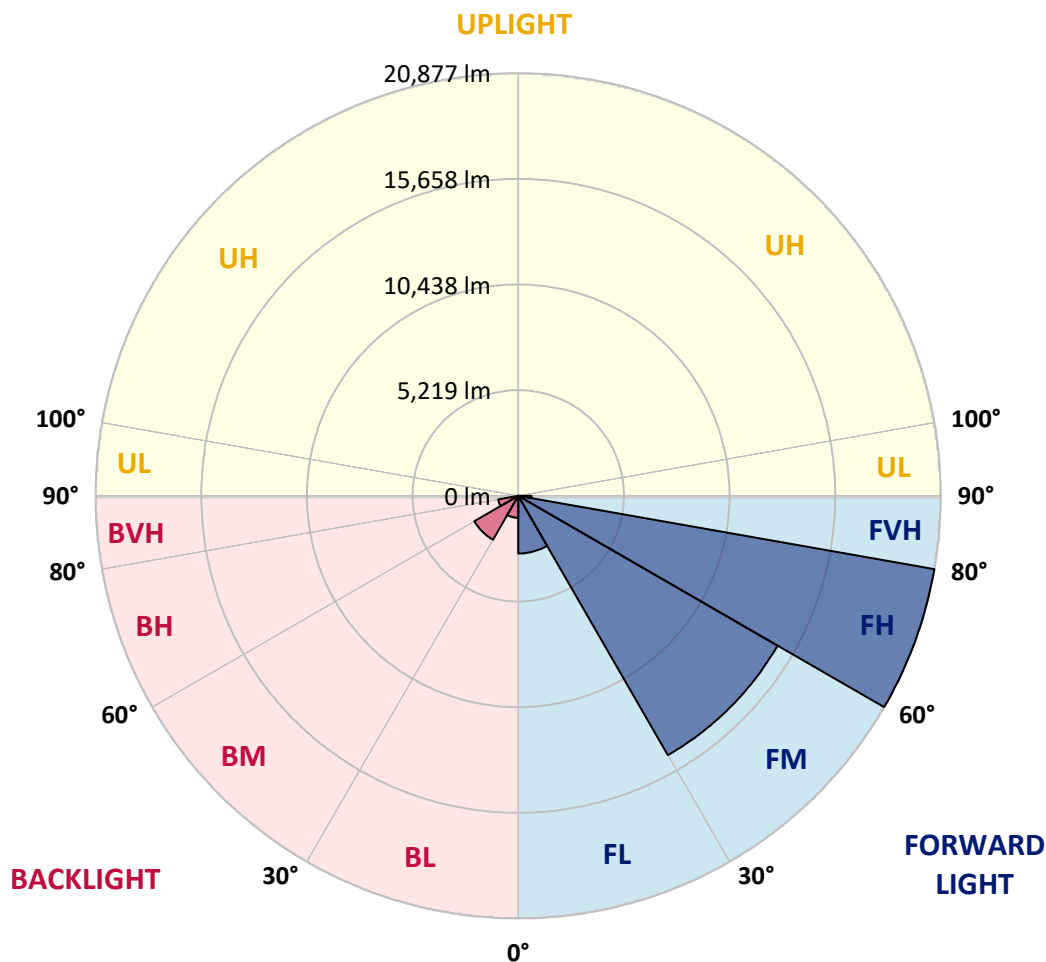
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2851.7  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 14790.8 | 33.8      |                         |      |         |
| FH   | (60°-80°)   | 20876.9 | 47.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 659.4   | 1.5       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1089.5  | 2.5       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2501.7  | 5.7       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1003.1  | 2.3       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 5.6     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  | 4796.1  |
| 2.5°  | 5238.3  | 5247.3  | 5241.3  | 5205.5  | 5145.7  | 5112.8  | 5094.9  | 5035.1  | 4996.3  | 4927.6  | 4855.8  |
| 5°    | 5719.4  | 5755.3  | 5734.4  | 5662.6  | 5549.0  | 5468.4  | 5444.5  | 5322.0  | 5211.4  | 5083.0  | 4933.5  |
| 7.5°  | 6230.4  | 6248.3  | 6209.4  | 6116.9  | 5964.5  | 5827.0  | 5806.1  | 5635.8  | 5459.5  | 5262.2  | 5059.0  |
| 10°   | 6672.6  | 6693.6  | 6633.8  | 6499.3  | 6326.0  | 6155.6  | 6125.8  | 5937.5  | 5728.4  | 5486.3  | 5226.4  |
| 12.5° | 7043.2  | 7064.1  | 6986.4  | 6825.1  | 6633.8  | 6457.5  | 6427.6  | 6230.4  | 6000.3  | 5731.4  | 5408.6  |
| 15°   | 7324.0  | 7362.9  | 7258.3  | 7085.0  | 6878.9  | 6702.6  | 6687.6  | 6493.4  | 6269.2  | 5970.4  | 5626.7  |
| 17.5° | 7488.4  | 7527.3  | 7428.7  | 7219.5  | 7043.2  | 6893.7  | 6875.8  | 6714.5  | 6505.3  | 6218.5  | 5838.9  |
| 20°   | 7515.3  | 7551.2  | 7446.6  | 7264.3  | 7117.9  | 6998.4  | 6989.4  | 6872.8  | 6720.4  | 6445.5  | 6069.0  |
| 22.5° | 7434.6  | 7479.4  | 7383.8  | 7237.4  | 7135.8  | 7073.1  | 7061.1  | 6995.4  | 6908.7  | 6675.6  | 6284.2  |
| 25°   | 7351.0  | 7386.9  | 7315.1  | 7186.6  | 7132.9  | 7126.8  | 7135.8  | 7123.9  | 7105.9  | 6908.7  | 6535.2  |
| 27.5° | 7344.9  | 7383.8  | 7303.1  | 7180.6  | 7150.7  | 7213.5  | 7222.5  | 7279.2  | 7294.2  | 7120.9  | 6777.2  |
| 30°   | 7395.8  | 7422.6  | 7344.9  | 7216.5  | 7201.5  | 7344.9  | 7348.0  | 7449.6  | 7473.5  | 7300.2  | 7016.3  |
| 32.5° | 7506.4  | 7536.2  | 7458.5  | 7270.3  | 7249.4  | 7449.6  | 7458.5  | 7593.0  | 7631.8  | 7491.4  | 7267.2  |
| 35°   | 7766.3  | 7802.2  | 7712.5  | 7419.7  | 7344.9  | 7548.2  | 7575.1  | 7733.4  | 7811.1  | 7694.6  | 7527.3  |
| 37.5° | 8414.7  | 8310.2  | 8187.7  | 7721.5  | 7563.2  | 7703.6  | 7748.4  | 7933.7  | 8071.2  | 7936.7  | 7838.1  |
| 40°   | 10025.4 | 9696.7  | 9314.2  | 8235.5  | 7945.6  | 8035.3  | 8071.2  | 8256.4  | 8444.7  | 8313.2  | 8265.4  |
| 42.5° | 12442.9 | 12054.4 | 11438.8 | 9418.8  | 8522.4  | 8567.2  | 8594.0  | 8755.4  | 9021.3  | 8916.8  | 8928.8  |
| 45°   | 14597.3 | 14456.9 | 13829.4 | 11438.8 | 9601.1  | 9380.0  | 9412.8  | 9496.5  | 9888.0  | 9849.1  | 9926.8  |
| 47.5° | 16252.8 | 16172.1 | 15688.0 | 13757.7 | 11423.9 | 10375.0 | 10467.6 | 10506.5 | 11071.2 | 11208.7 | 11417.9 |
| 50°   | 17525.8 | 17495.9 | 17062.6 | 15819.5 | 13805.5 | 11842.2 | 11875.1 | 11791.4 | 12637.1 | 12977.7 | 13375.2 |
| 52.5° | 18727.1 | 18828.6 | 18508.9 | 17735.0 | 16348.4 | 13763.6 | 13757.7 | 13363.2 | 14504.7 | 15018.7 | 15697.1 |
| 55°   | 19811.7 | 19847.6 | 19880.5 | 19689.2 | 18906.3 | 15951.0 | 15894.3 | 15248.8 | 16671.1 | 17203.1 | 17938.1 |
| 57.5° | 20830.8 | 20845.6 | 21138.5 | 21529.9 | 21568.8 | 18299.7 | 18195.2 | 17421.2 | 19037.8 | 19417.3 | 19868.5 |
| 60°   | 21515.1 | 21583.7 | 22202.3 | 23290.0 | 23765.1 | 20723.1 | 20666.4 | 19877.5 | 21446.3 | 21622.6 | 21538.9 |
| 62.5° | 20528.9 | 20947.3 | 22507.2 | 24664.6 | 25838.9 | 23409.6 | 23382.6 | 22641.5 | 23980.3 | 23836.9 | 23119.7 |
| 65°   | 16617.4 | 17325.6 | 20068.8 | 25593.9 | 27874.0 | 26409.7 | 26448.6 | 25659.6 | 26583.0 | 26116.9 | 24404.6 |
| 67.5° | 11624.1 | 12371.1 | 15616.3 | 25668.7 | 30147.9 | 29932.8 | 30156.9 | 28919.8 | 29347.1 | 28301.3 | 24709.4 |
| 70°   | 8038.3  | 8423.8  | 10536.4 | 24061.0 | 31919.9 | 34785.6 | 34779.7 | 32923.9 | 32096.2 | 29296.3 | 23155.6 |
| 72.5° | 5405.6  | 5605.8  | 6843.0  | 19088.6 | 30617.1 | 37669.3 | 37495.9 | 35983.9 | 33022.5 | 27398.8 | 18918.3 |
| 75°   | 2280.0  | 2426.4  | 3167.5  | 10727.6 | 24222.3 | 34462.9 | 33993.7 | 31800.4 | 29341.1 | 21574.8 | 11803.4 |
| 77.5° | 723.1   | 785.9   | 1249.1  | 3839.9  | 13342.3 | 25904.7 | 25408.6 | 19859.6 | 19665.3 | 10823.3 | 4314.9  |
| 80°   | 343.7   | 400.5   | 702.2   | 1541.9  | 5250.3  | 14089.3 | 14020.7 | 9009.4  | 8459.6  | 2922.5  | 866.5   |
| 82.5° | 149.4   | 176.3   | 388.5   | 824.7   | 2348.7  | 5026.2  | 5127.8  | 3065.9  | 2537.0  | 1108.6  | 266.0   |
| 85°   | 47.8    | 62.7    | 179.3   | 379.5   | 992.1   | 1249.1  | 1234.1  | 729.1   | 1021.9  | 603.6   | 92.7    |
| 87.5° | 0.0     | 0.0     | 59.8    | 86.6    | 101.6   | 71.8    | 80.7    | 62.7    | 283.9   | 167.4   | 32.9    |
| 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°    | 4796.1  | 4796.1  | 4796.1 | 4796.1 | 4796.1 | 4796.1 | 4796.1 | 4796.1 | 4796.1 | 4796.1 | 4796.1 |
| 2.5°  | 4820.0  | 4772.2  | 4688.5 | 4610.8 | 4542.1 | 4473.3 | 4431.5 | 4371.7 | 4365.8 | 4365.8 | 4380.7 |
| 5°    | 4852.9  | 4775.2  | 4625.7 | 4467.4 | 4285.1 | 4111.8 | 3938.5 | 3771.1 | 3717.4 | 3678.5 | 3696.4 |
| 7.5°  | 4948.5  | 4825.9  | 4589.8 | 4288.1 | 3941.4 | 3562.0 | 3296.0 | 3009.1 | 2898.6 | 2838.7 | 2847.8 |
| 10°   | 5085.9  | 4918.6  | 4560.0 | 4031.1 | 3469.3 | 2952.3 | 2572.9 | 2262.1 | 2142.6 | 2091.7 | 2091.7 |
| 12.5° | 5238.3  | 5032.1  | 4506.2 | 3711.3 | 2952.3 | 2333.8 | 1963.3 | 1819.8 | 1801.8 | 1801.8 | 1801.8 |
| 15°   | 5420.6  | 5169.6  | 4413.5 | 3334.8 | 2411.5 | 1846.7 | 1715.2 | 1721.2 | 1739.1 | 1751.1 | 1751.1 |
| 17.5° | 5608.8  | 5316.0  | 4267.2 | 2913.5 | 1933.4 | 1661.4 | 1664.4 | 1673.4 | 1688.4 | 1700.3 | 1700.3 |
| 20°   | 5812.1  | 5462.4  | 4072.9 | 2465.2 | 1658.4 | 1607.6 | 1616.6 | 1625.5 | 1637.5 | 1643.5 | 1646.5 |
| 22.5° | 6030.2  | 5599.9  | 3842.8 | 2026.0 | 1565.8 | 1562.8 | 1565.8 | 1574.8 | 1589.7 | 1589.7 | 1595.7 |
| 25°   | 6263.3  | 5752.3  | 3579.8 | 1706.2 | 1518.0 | 1518.0 | 1524.0 | 1529.9 | 1541.9 | 1541.9 | 1544.9 |
| 27.5° | 6502.3  | 5892.7  | 3301.9 | 1538.9 | 1476.2 | 1473.2 | 1473.2 | 1482.1 | 1488.1 | 1491.1 | 1494.1 |
| 30°   | 6765.3  | 6057.0  | 3024.1 | 1503.1 | 1443.3 | 1428.3 | 1419.4 | 1425.4 | 1431.3 | 1434.4 | 1440.3 |
| 32.5° | 7034.3  | 6215.5  | 2776.0 | 1518.0 | 1410.4 | 1383.5 | 1353.6 | 1347.7 | 1347.7 | 1359.7 | 1368.6 |
| 35°   | 7333.1  | 6388.7  | 2584.7 | 1568.8 | 1392.5 | 1317.8 | 1270.0 | 1243.1 | 1246.1 | 1264.0 | 1272.9 |
| 37.5° | 7691.6  | 6597.9  | 2444.3 | 1613.7 | 1380.6 | 1243.1 | 1165.4 | 1132.5 | 1111.6 | 1132.5 | 1126.6 |
| 40°   | 8160.7  | 6905.7  | 2342.7 | 1649.5 | 1365.6 | 1156.4 | 1051.9 | 998.0  | 959.2  | 971.2  | 965.1  |
| 42.5° | 8851.1  | 7389.8  | 2303.9 | 1652.5 | 1332.7 | 1054.8 | 935.3  | 863.6  | 806.8  | 809.9  | 797.9  |
| 45°   | 9819.2  | 8154.8  | 2504.1 | 1613.7 | 1261.1 | 944.2  | 812.8  | 717.2  | 681.3  | 672.3  | 660.4  |
| 47.5° | 11146.0 | 9269.4  | 2967.3 | 1533.0 | 1156.4 | 836.7  | 693.3  | 612.5  | 585.7  | 570.7  | 561.8  |
| 50°   | 12923.9 | 10700.7 | 3481.2 | 1443.3 | 1051.9 | 735.1  | 594.6  | 543.9  | 525.9  | 511.0  | 508.0  |
| 52.5° | 14985.8 | 12153.0 | 3902.6 | 1353.6 | 947.3  | 645.4  | 531.9  | 502.0  | 487.1  | 475.1  | 472.1  |
| 55°   | 16877.3 | 13154.0 | 3878.7 | 1258.0 | 845.6  | 573.7  | 487.1  | 469.1  | 451.2  | 439.3  | 433.3  |
| 57.5° | 18054.7 | 13294.5 | 3197.4 | 1153.4 | 729.1  | 516.9  | 445.3  | 433.3  | 412.4  | 397.4  | 394.4  |
| 60°   | 18595.6 | 12493.6 | 2241.2 | 1016.0 | 612.5  | 463.2  | 400.5  | 394.4  | 367.6  | 346.7  | 340.6  |
| 62.5° | 18694.2 | 11005.5 | 1494.1 | 845.6  | 511.0  | 412.4  | 355.6  | 346.7  | 310.8  | 274.9  | 257.0  |
| 65°   | 18293.8 | 8877.9  | 1033.9 | 660.4  | 436.2  | 358.5  | 304.8  | 286.9  | 248.0  | 212.2  | 200.2  |
| 67.5° | 17026.8 | 6233.3  | 720.2  | 475.1  | 370.5  | 283.9  | 242.0  | 236.1  | 206.2  | 176.3  | 167.4  |
| 70°   | 14705.0 | 3553.0  | 481.1  | 355.6  | 292.8  | 194.2  | 191.3  | 197.2  | 167.4  | 143.4  | 131.5  |
| 72.5° | 11274.5 | 1625.5  | 298.8  | 259.9  | 200.2  | 131.5  | 152.4  | 155.4  | 128.5  | 107.6  | 95.6   |
| 75°   | 6636.8  | 696.3   | 188.3  | 167.4  | 101.6  | 86.6   | 110.6  | 113.6  | 86.6   | 68.8   | 59.8   |
| 77.5° | 2259.1  | 262.9   | 119.5  | 98.6   | 50.8   | 47.8   | 71.8   | 71.8   | 47.8   | 26.9   | 20.9   |
| 80°   | 513.9   | 98.6    | 59.8   | 38.8   | 23.9   | 20.9   | 23.9   | 20.9   | 12.0   | 3.0    | 0.0    |
| 82.5° | 146.5   | 38.8    | 23.9   | 15.0   | 8.9    | 8.9    | 3.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 41.8    | 17.9    | 5.9    | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 17.9    | 3.0     | 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)