

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: P967300

Luminaire Tested: **NAV-SB4D-760-U-T2**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P967300  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-760-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 43820.8 lumens  
Efficiency: N/A  
Efficacy: 149.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G5

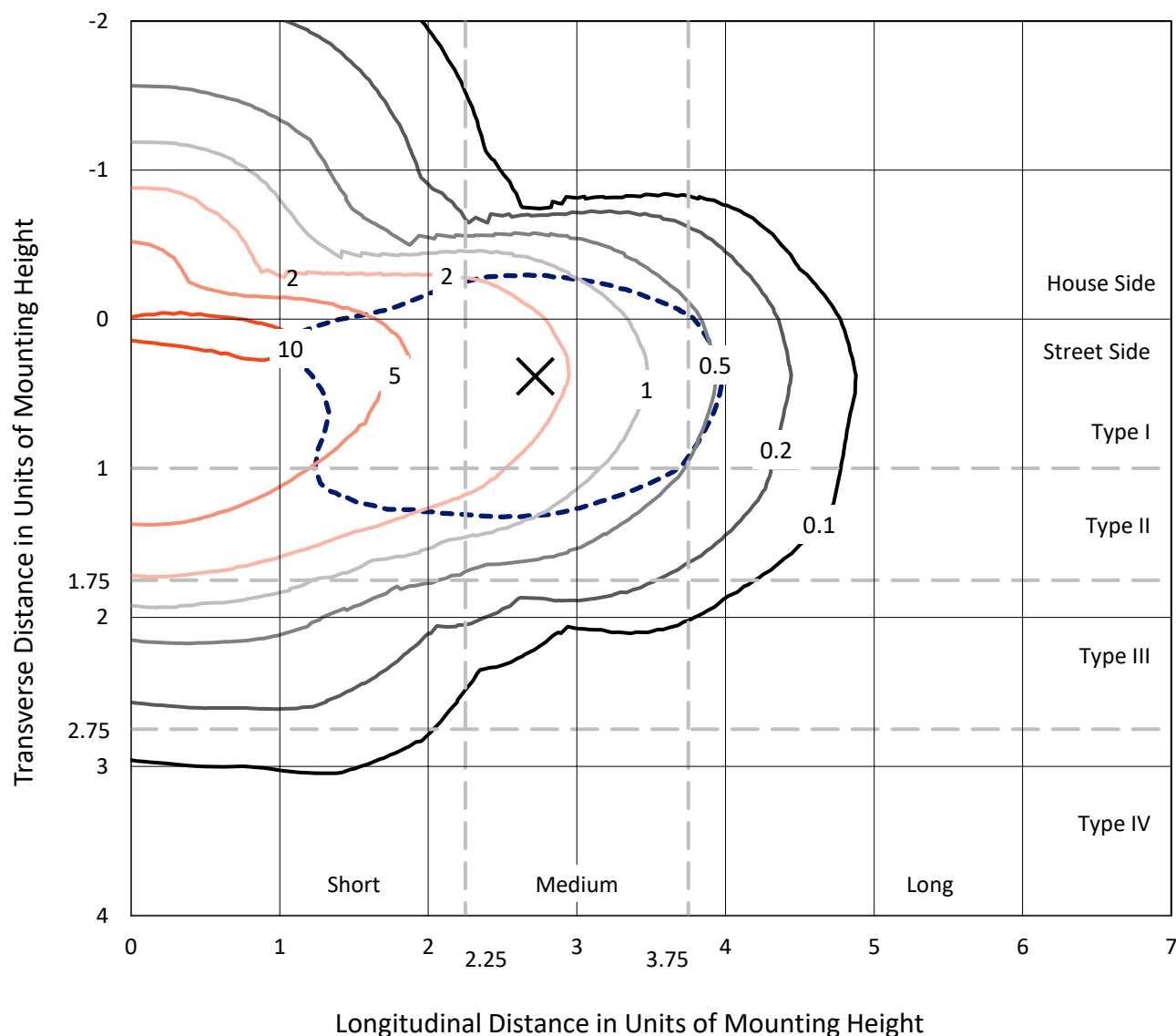
Input Watts (W): 293.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

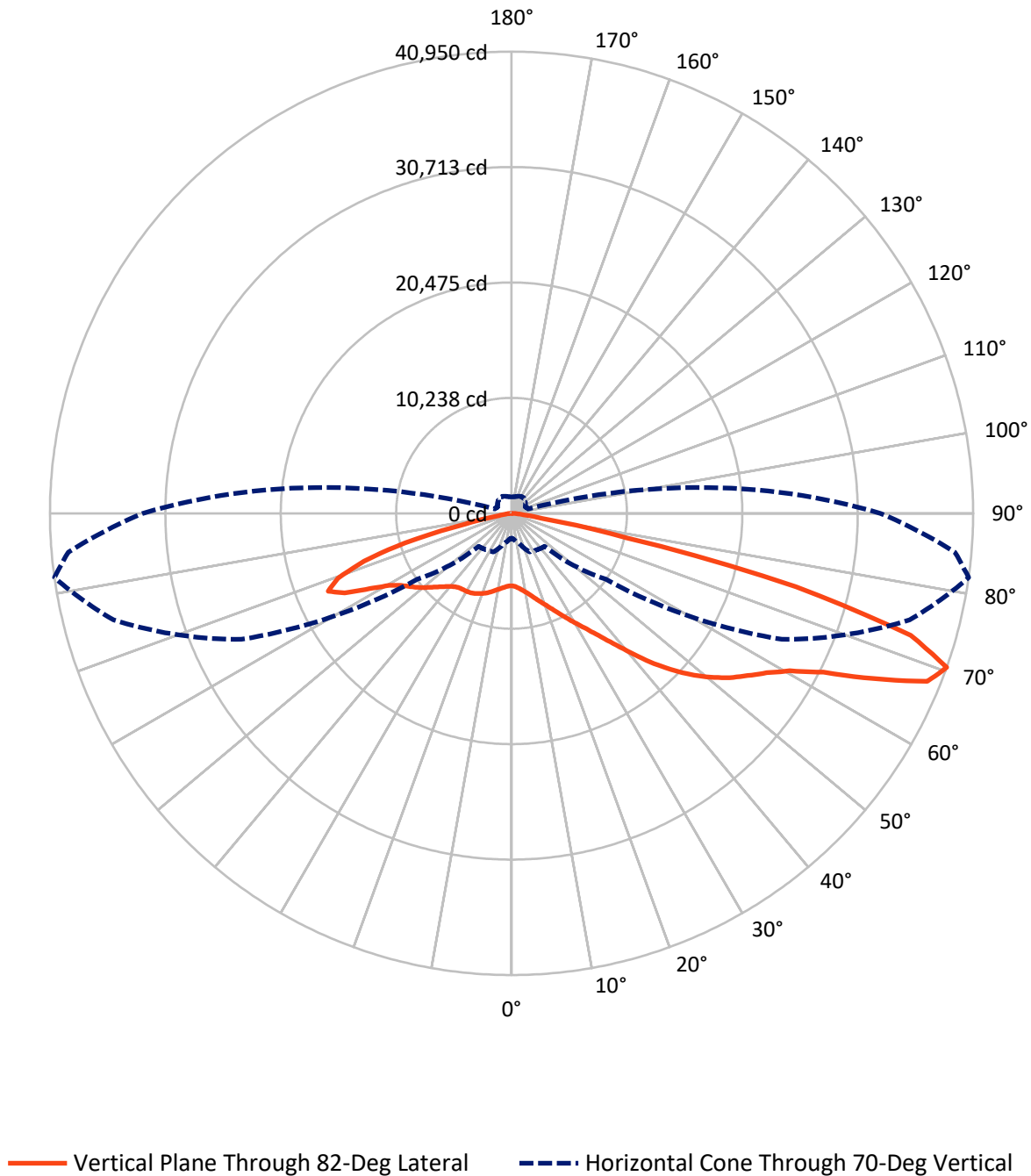
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 fc  
 Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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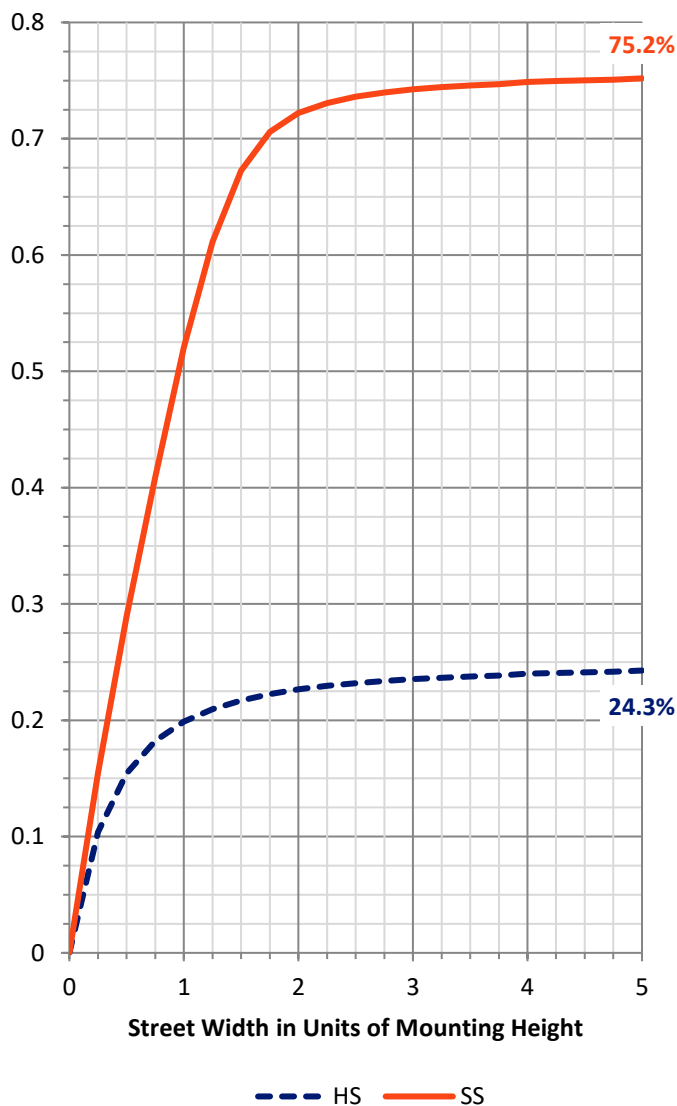
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10802.9  | 0.0    | 10802.9 |
|                    | % Fixture | 24.7     | 0.0    | 24.7    |
| <b>Street Side</b> | Lumens    | 33017.9  | 0.0    | 33017.9 |
|                    | % Fixture | 75.3     | 0.0    | 75.3    |
| <b>Total</b>       | Lumens    | 43820.8  | 0.0    | 43820.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 606.6   | 1.4       |
| 10°-20°   | 1742.8  | 4.0       |
| 20°-30°   | 2915.5  | 6.7       |
| 30°-40°   | 4554.8  | 10.4      |
| 40°-50°   | 7254.1  | 16.6      |
| 50°-60°   | 10094.9 | 23.0      |
| 60°-70°   | 10559.8 | 24.1      |
| 70°-80°   | 5519.1  | 12.6      |
| 80°-90°   | 573.1   | 1.3       |
| 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°    | 43820.8 | 100.0     |
| 0°-180°   | 43820.8 | 100.0     |

**Coefficient of Utilization**



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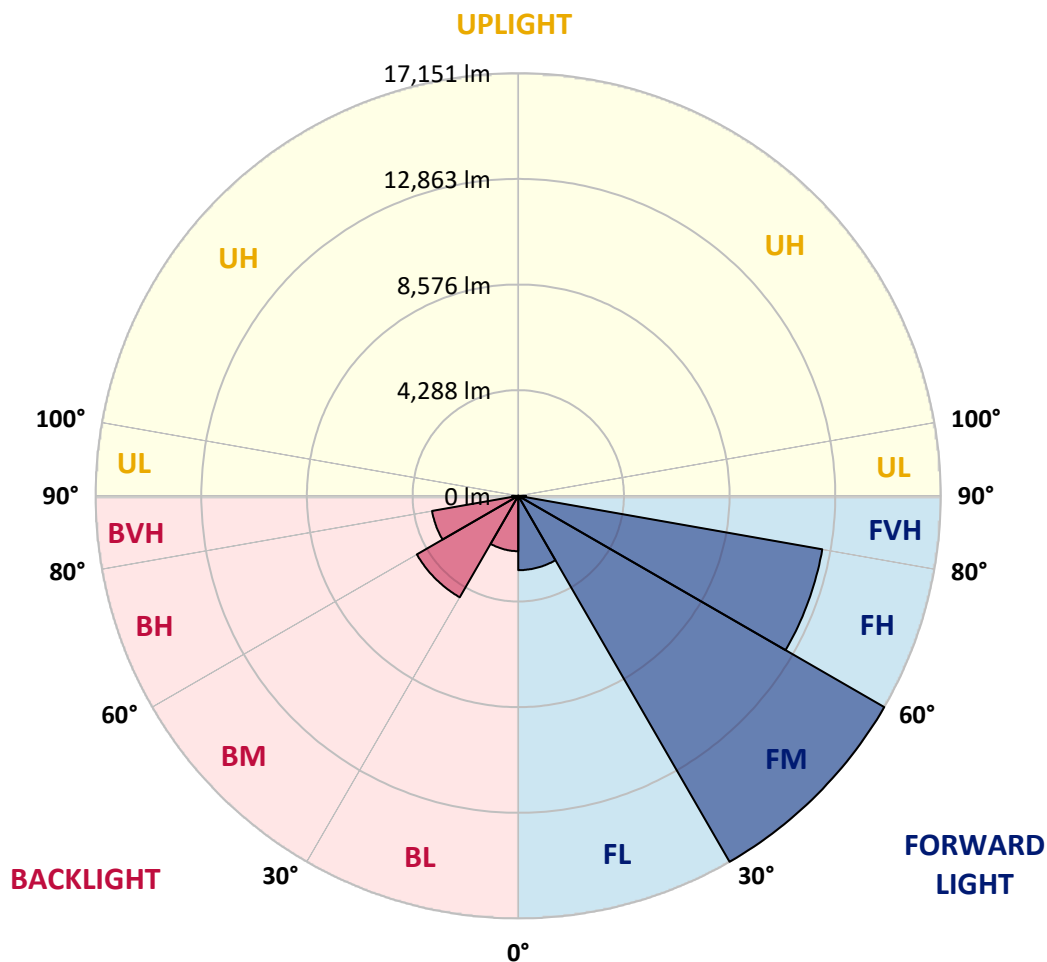
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3017.6  | 6.9       |                         |      |         |
| FM   | (30°-60°)   | 17151.0 | 39.1      |                         |      |         |
| FH   | (60°-80°)   | 12528.5 | 28.6      |                         |      | G5      |
| FVH  | (80°-90°)   | 320.8   | 0.7       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2247.4  | 5.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 4752.8  | 10.8      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 3550.4  | 8.1       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 252.3   | 0.6       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 82°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  | 6424.7  |
| 2.5°  | 6578.1  | 6615.4  | 6603.8  | 6592.1  | 6592.1  | 6575.8  | 6573.5  | 6550.3  | 6531.6  | 6501.4  | 6494.4  |
| 5°    | 6661.9  | 6701.3  | 6696.7  | 6706.1  | 6736.3  | 6743.3  | 6750.2  | 6736.3  | 6699.1  | 6661.9  | 6645.6  |
| 7.5°  | 6587.5  | 6631.6  | 6645.6  | 6701.3  | 6794.4  | 6878.1  | 6940.9  | 6966.4  | 6931.6  | 6878.1  | 6852.5  |
| 10°   | 6336.3  | 6385.1  | 6434.0  | 6566.6  | 6731.6  | 6929.3  | 7096.7  | 7196.6  | 7189.7  | 7138.5  | 7094.3  |
| 12.5° | 5827.1  | 5878.3  | 5982.9  | 6241.0  | 6543.3  | 6892.1  | 7203.6  | 7412.9  | 7485.0  | 7447.8  | 7371.1  |
| 15°   | 5420.2  | 5464.4  | 5543.4  | 5808.5  | 6201.5  | 6731.6  | 7243.2  | 7650.1  | 7833.8  | 7812.9  | 7719.9  |
| 17.5° | 5408.5  | 5427.2  | 5476.0  | 5601.5  | 5903.8  | 6480.5  | 7201.3  | 7882.7  | 8233.7  | 8231.4  | 8115.1  |
| 20°   | 5613.2  | 5620.2  | 5648.1  | 5673.6  | 5845.7  | 6289.8  | 7094.3  | 8075.6  | 8682.5  | 8682.5  | 8556.9  |
| 22.5° | 5896.8  | 5892.2  | 5920.1  | 5896.8  | 5980.6  | 6273.5  | 7026.9  | 8245.3  | 9182.5  | 9219.7  | 9061.5  |
| 25°   | 6322.4  | 6299.1  | 6292.2  | 6238.7  | 6255.0  | 6424.7  | 7101.3  | 8438.3  | 9775.3  | 9852.1  | 9654.5  |
| 27.5° | 6889.7  | 6852.5  | 6826.9  | 6703.7  | 6661.9  | 6736.3  | 7329.2  | 8670.9  | 10435.7 | 10568.3 | 10317.1 |
| 30°   | 7629.2  | 7561.7  | 7524.5  | 7310.6  | 7159.4  | 7171.1  | 7673.4  | 8980.1  | 11126.4 | 11340.3 | 11021.7 |
| 32.5° | 8638.3  | 8533.6  | 8433.7  | 8082.5  | 7805.9  | 7715.2  | 8117.5  | 9408.0  | 11875.0 | 12216.9 | 11807.6 |
| 35°   | 9768.4  | 9684.7  | 9577.7  | 9035.9  | 8610.4  | 8401.1  | 8717.4  | 10005.5 | 12751.7 | 13293.4 | 12761.0 |
| 37.5° | 10856.6 | 10784.5 | 10835.7 | 10105.6 | 9556.8  | 9252.2  | 9503.3  | 10807.8 | 13832.9 | 14632.8 | 13956.2 |
| 40°   | 11982.0 | 11926.2 | 11933.3 | 11235.6 | 10596.1 | 10254.4 | 10456.6 | 11814.7 | 15072.3 | 16225.6 | 15393.1 |
| 42.5° | 13205.1 | 13163.3 | 13023.8 | 12405.3 | 11686.7 | 11368.2 | 11554.2 | 12977.2 | 16402.4 | 18039.3 | 16969.7 |
| 45°   | 14574.7 | 14549.2 | 14418.9 | 13709.7 | 12886.6 | 12528.5 | 12779.6 | 14260.8 | 17739.4 | 19746.0 | 18553.2 |
| 47.5° | 15758.2 | 15779.2 | 15762.9 | 15165.3 | 14312.0 | 13786.5 | 14086.4 | 15600.1 | 18983.4 | 21350.4 | 20071.6 |
| 50°   | 16327.9 | 16437.2 | 16597.6 | 16411.7 | 15881.5 | 15346.7 | 15404.8 | 16892.9 | 20169.2 | 22854.9 | 21527.2 |
| 52.5° | 16030.3 | 16237.2 | 16674.4 | 16972.1 | 17176.6 | 17065.0 | 16909.2 | 18176.5 | 21285.4 | 24212.9 | 22903.7 |
| 55°   | 14921.1 | 15211.8 | 15937.3 | 16655.8 | 17699.8 | 18511.4 | 18716.0 | 19599.5 | 22373.6 | 25408.0 | 24205.9 |
| 57.5° | 12900.5 | 13372.6 | 14023.6 | 15476.9 | 17234.8 | 19211.3 | 20822.7 | 21573.7 | 23526.9 | 26684.6 | 25568.5 |
| 60°   | 9435.8  | 10068.4 | 10877.5 | 13040.0 | 15607.1 | 18836.8 | 22615.4 | 24605.8 | 25166.2 | 28337.9 | 27342.7 |
| 62.5° | 6038.7  | 6429.3  | 7173.4  | 9210.3  | 12161.1 | 16918.5 | 23164.2 | 28396.0 | 27944.9 | 31049.1 | 30002.8 |
| 65°   | 4134.3  | 4385.5  | 5066.8  | 6210.8  | 7861.6  | 12593.6 | 21694.6 | 31237.5 | 32358.2 | 35346.2 | 34550.9 |
| 67.5° | 3004.3  | 3194.9  | 3776.2  | 4778.4  | 5122.5  | 7452.5  | 16834.8 | 31107.2 | 36648.4 | 39773.5 | 38536.4 |
| 70°   | 2190.4  | 2325.2  | 2813.5  | 3776.2  | 3941.3  | 4145.9  | 10198.5 | 26442.7 | 36555.3 | 40950.1 | 39468.9 |
| 72.5° | 1623.0  | 1716.1  | 2043.8  | 2929.9  | 3190.2  | 2799.6  | 5048.1  | 19218.2 | 31411.8 | 37039.0 | 35850.8 |
| 75°   | 1174.2  | 1244.0  | 1485.8  | 2241.6  | 2553.2  | 2132.3  | 2518.2  | 11231.0 | 21910.9 | 26054.5 | 26263.8 |
| 77.5° | 897.6   | 951.0   | 1109.2  | 1641.6  | 2043.8  | 1599.8  | 1562.6  | 5166.7  | 10389.2 | 10440.3 | 11026.3 |
| 80°   | 720.8   | 755.7   | 841.7   | 1155.7  | 1567.2  | 1197.5  | 1018.4  | 2085.8  | 3283.3  | 2778.7  | 2915.8  |
| 82.5° | 530.1   | 588.2   | 711.6   | 811.5   | 1120.7  | 825.4   | 620.8   | 1053.3  | 1248.7  | 1074.3  | 1083.5  |
| 85°   | 302.3   | 341.8   | 430.2   | 581.3   | 716.2   | 504.6   | 355.8   | 467.4   | 581.3   | 476.7   | 425.5   |
| 87.5° | 107.0   | 139.5   | 151.2   | 227.9   | 311.6   | 209.3   | 137.1   | 134.9   | 190.6   | 141.9   | 118.6   |
| 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°    | 6424.7  | 6424.7  | 6424.7 | 6424.7 | 6424.7 | 6424.7 | 6424.7 | 6424.7 | 6424.7 | 6424.7 | 6424.7 |
| 2.5°  | 6471.1  | 6459.5  | 6413.0 | 6350.3 | 6285.2 | 6222.4 | 6201.5 | 6157.3 | 6127.0 | 6110.7 | 6129.4 |
| 5°    | 6601.4  | 6564.2  | 6454.9 | 6315.4 | 6168.9 | 6010.8 | 5899.2 | 5796.9 | 5722.5 | 5652.7 | 5680.5 |
| 7.5°  | 6787.4  | 6722.4  | 6534.0 | 6289.8 | 6029.4 | 5766.6 | 5571.3 | 5422.5 | 5322.5 | 5257.4 | 5271.4 |
| 10°   | 7003.6  | 6903.7  | 6615.4 | 6250.2 | 5848.0 | 5471.3 | 5241.1 | 5113.2 | 5050.5 | 5015.5 | 5024.9 |
| 12.5° | 7252.5  | 7110.6  | 6699.1 | 6159.6 | 5571.3 | 5141.1 | 4983.0 | 4945.8 | 4948.2 | 4950.4 | 4955.2 |
| 15°   | 7559.4  | 7361.8  | 6766.5 | 5961.9 | 5210.9 | 4887.7 | 4859.7 | 4920.2 | 4983.0 | 5013.3 | 5010.9 |
| 17.5° | 7905.8  | 7626.8  | 6778.1 | 5636.4 | 4857.5 | 4724.9 | 4813.3 | 4943.5 | 5038.8 | 5080.7 | 5089.9 |
| 20°   | 8277.9  | 7896.6  | 6694.4 | 5176.0 | 4566.8 | 4592.4 | 4750.5 | 4918.0 | 5022.5 | 5076.0 | 5089.9 |
| 22.5° | 8703.4  | 8184.9  | 6494.4 | 4692.3 | 4329.6 | 4448.2 | 4634.2 | 4797.0 | 4906.3 | 4959.8 | 4973.7 |
| 25°   | 9189.4  | 8508.1  | 6180.5 | 4285.4 | 4125.0 | 4285.4 | 4471.5 | 4606.3 | 4694.7 | 4743.5 | 4757.4 |
| 27.5° | 9728.9  | 8845.2  | 5761.9 | 3962.2 | 3945.9 | 4118.0 | 4271.5 | 4376.1 | 4422.7 | 4459.9 | 4473.8 |
| 30°   | 10270.6 | 9152.2  | 5255.1 | 3718.1 | 3790.1 | 3952.9 | 4062.2 | 4108.7 | 4122.7 | 4129.6 | 4145.9 |
| 32.5° | 10856.6 | 9417.3  | 4722.6 | 3515.7 | 3641.3 | 3792.5 | 3857.6 | 3878.5 | 3813.4 | 3769.2 | 3783.2 |
| 35°   | 11565.8 | 9701.0  | 4201.8 | 3355.3 | 3494.8 | 3625.1 | 3646.0 | 3627.4 | 3550.7 | 3460.0 | 3464.6 |
| 37.5° | 12442.5 | 10054.4 | 3785.5 | 3241.4 | 3357.7 | 3443.7 | 3418.2 | 3413.5 | 3420.4 | 3313.5 | 3320.5 |
| 40°   | 13516.7 | 10514.8 | 3480.9 | 3153.0 | 3246.1 | 3264.6 | 3192.6 | 3232.1 | 3267.0 | 3104.2 | 3108.8 |
| 42.5° | 14709.6 | 11070.5 | 3287.9 | 3092.6 | 3153.0 | 3108.8 | 2997.2 | 3041.5 | 3036.8 | 2822.8 | 2820.5 |
| 45°   | 15925.6 | 11675.1 | 3220.4 | 3048.5 | 3067.0 | 2978.6 | 2855.4 | 2867.0 | 2769.3 | 2576.3 | 2583.3 |
| 47.5° | 17134.8 | 12323.9 | 3262.4 | 3011.2 | 2960.1 | 2860.1 | 2764.7 | 2713.6 | 2569.4 | 2425.3 | 2425.3 |
| 50°   | 18320.6 | 13005.1 | 3415.8 | 2936.8 | 2813.5 | 2755.4 | 2685.7 | 2595.0 | 2441.5 | 2318.2 | 2309.0 |
| 52.5° | 19420.6 | 13691.1 | 3587.9 | 2813.5 | 2629.8 | 2664.7 | 2620.5 | 2516.0 | 2364.8 | 2239.2 | 2241.6 |
| 55°   | 20462.3 | 14377.1 | 3655.3 | 2643.8 | 2457.7 | 2585.7 | 2560.1 | 2367.1 | 2185.7 | 2083.4 | 2074.1 |
| 57.5° | 21597.0 | 15202.5 | 3580.9 | 2427.6 | 2318.2 | 2495.0 | 2397.4 | 2183.5 | 2078.8 | 2002.0 | 1995.1 |
| 60°   | 23168.8 | 16497.7 | 3420.4 | 2160.2 | 2185.7 | 2360.2 | 2192.7 | 2104.3 | 1990.4 | 1904.3 | 1899.7 |
| 62.5° | 25780.1 | 18913.6 | 3162.3 | 1895.1 | 2029.9 | 2160.2 | 2095.1 | 2006.7 | 1890.4 | 1806.8 | 1806.8 |
| 65°   | 29640.0 | 22271.3 | 2676.4 | 1688.2 | 1855.6 | 1964.8 | 1990.4 | 1902.1 | 1781.1 | 1692.8 | 1697.4 |
| 67.5° | 32895.3 | 24378.0 | 2025.3 | 1516.1 | 1676.5 | 1806.8 | 1878.8 | 1792.7 | 1664.9 | 1578.8 | 1581.2 |
| 70°   | 32716.4 | 22848.0 | 1546.3 | 1346.3 | 1518.4 | 1651.0 | 1743.9 | 1676.5 | 1539.3 | 1458.0 | 1464.9 |
| 72.5° | 29058.7 | 19113.6 | 1251.0 | 1174.2 | 1357.9 | 1488.2 | 1599.8 | 1548.6 | 1409.1 | 1330.0 | 1330.0 |
| 75°   | 21348.2 | 13567.8 | 999.9  | 999.9  | 1157.9 | 1318.5 | 1441.7 | 1409.1 | 1281.2 | 1225.4 | 1209.1 |
| 77.5° | 8998.8  | 5692.2  | 783.6  | 830.1  | 962.7  | 1132.4 | 1285.9 | 1297.4 | 1185.9 | 1255.6 | 1139.4 |
| 80°   | 2392.7  | 1569.6  | 597.6  | 653.4  | 755.7  | 934.8  | 1118.5 | 1113.8 | 992.9  | 927.7  | 862.6  |
| 82.5° | 911.5   | 618.5   | 425.5  | 460.4  | 546.4  | 716.2  | 885.9  | 913.8  | 792.9  | 685.9  | 685.9  |
| 85°   | 351.1   | 265.1   | 262.7  | 276.8  | 318.6  | 474.4  | 669.6  | 692.9  | 597.6  | 506.9  | 523.2  |
| 87.5° | 90.7    | 79.0    | 97.7   | 93.0   | 146.5  | 253.5  | 383.7  | 397.6  | 365.1  | 211.6  | 302.3  |
| 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)