

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: P969405

Luminaire Tested: **NAV-SB5D-760-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969405  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-760-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 56776.8 lumens  
Efficiency: N/A  
Efficacy: 155.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9  
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

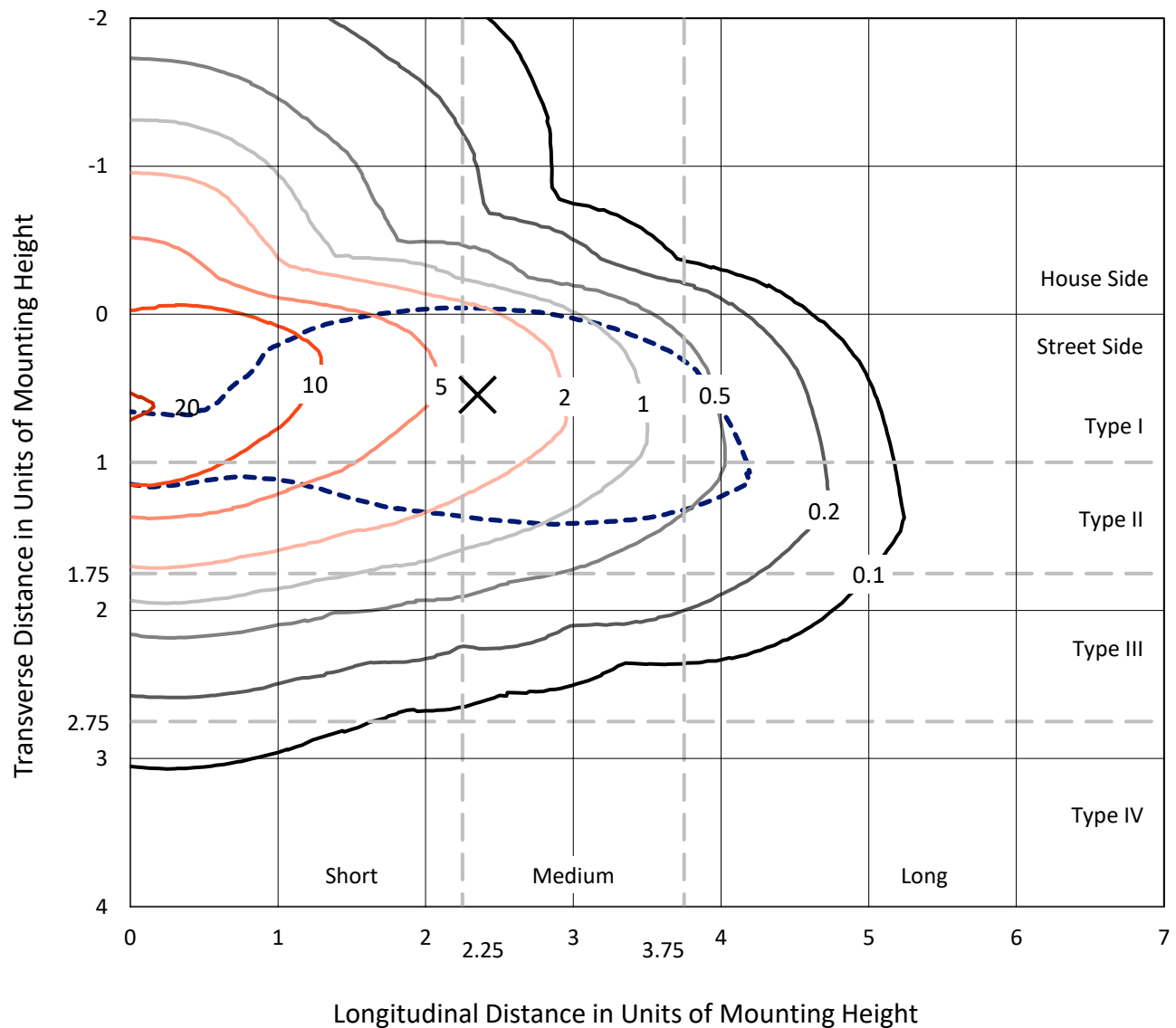


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## Iso-Footcandle Lines of Horizontal Illumination

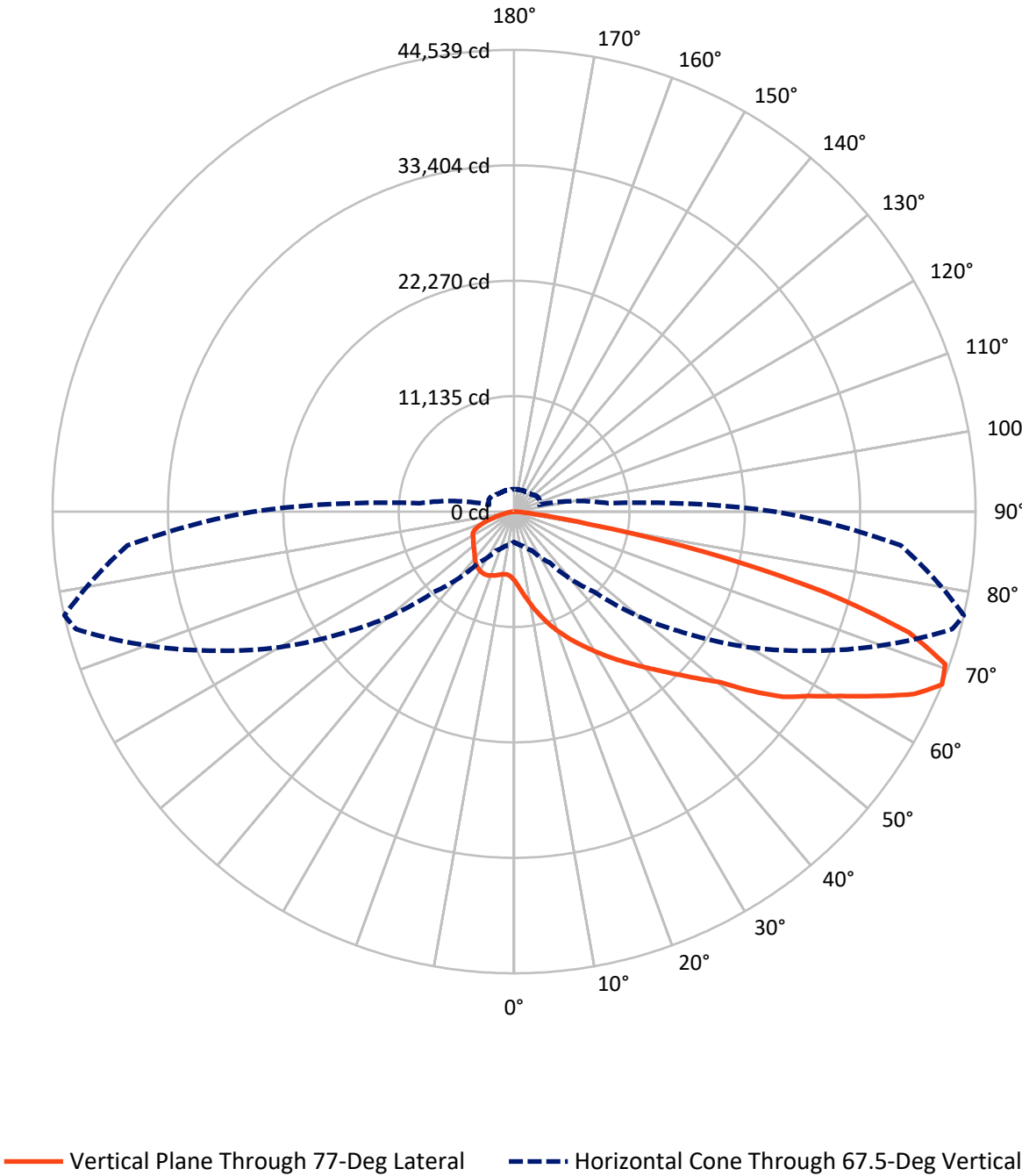
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.8 fc  
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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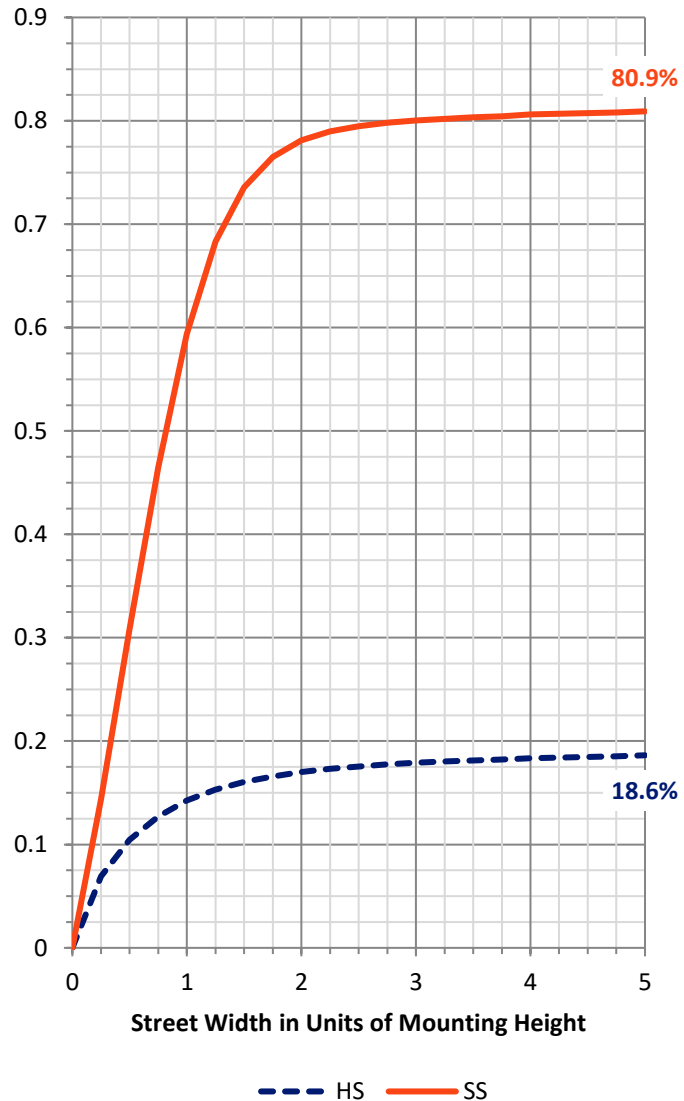
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10739.9  | 0.0    | 10739.9 |
|                    | % Fixture | 18.9     | 0.0    | 18.9    |
| <b>Street Side</b> | Lumens    | 46036.9  | 0.0    | 46036.9 |
|                    | % Fixture | 81.1     | 0.0    | 81.1    |
| <b>Total</b>       | Lumens    | 56776.8  | 0.0    | 56776.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 714.0   | 1.3       |
| 10°-20°   | 2565.3  | 4.5       |
| 20°-30°   | 4843.5  | 8.5       |
| 30°-40°   | 7802.8  | 13.7      |
| 40°-50°   | 10672.8 | 18.8      |
| 50°-60°   | 12038.9 | 21.2      |
| 60°-70°   | 11236.9 | 19.8      |
| 70°-80°   | 6159.7  | 10.8      |
| 80°-90°   | 743.0   | 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°    | 56776.8 | 100.0     |
| 0°-180°   | 56776.8 | 100.0     |

**Coefficient of Utilization**



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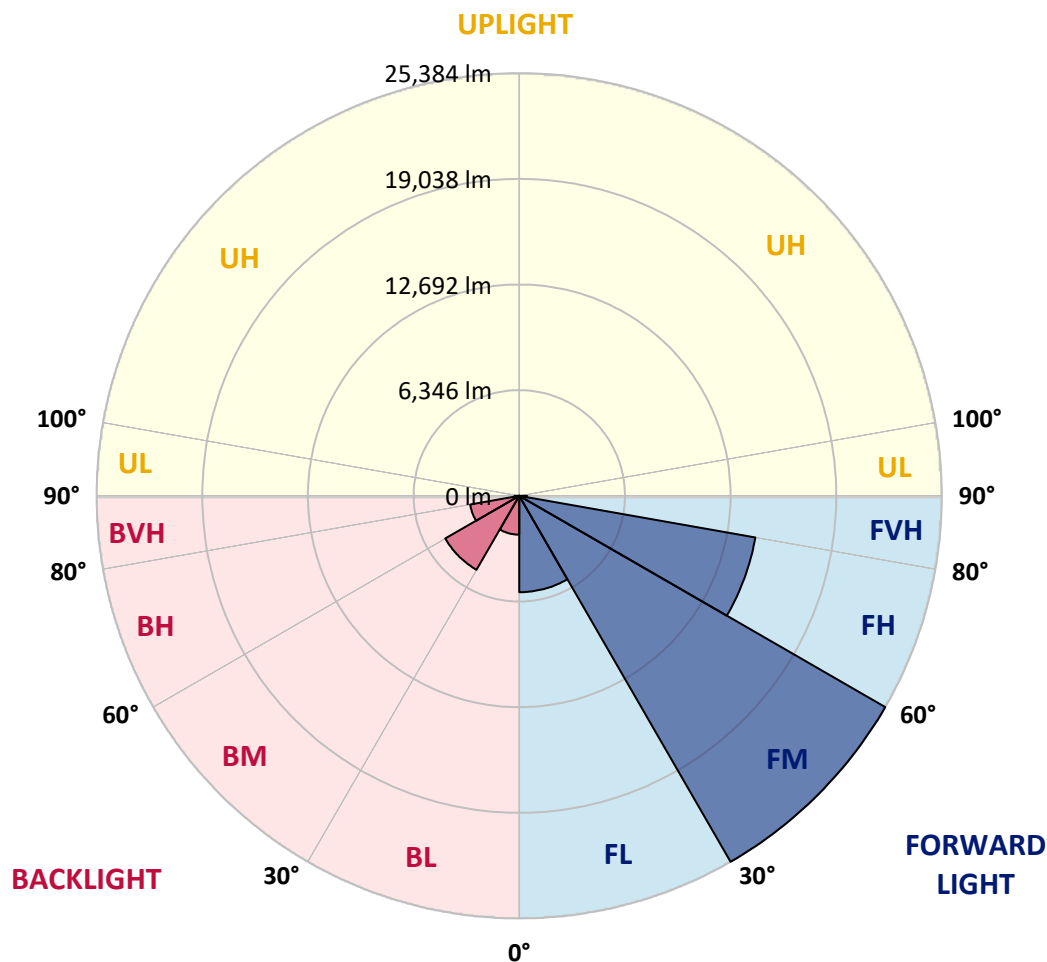
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 5787.7  | 10.2      |                         |      |         |
| FM   | (30°-60°)   | 25384.3 | 44.7      |                         |      |         |
| FH   | (60°-80°)   | 14400.3 | 25.4      |                         |      | G5      |
| FVH  | (80°-90°)   | 464.7   | 0.8       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2335.1  | 4.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 5130.2  | 9.0       | B4/8500                 |      |         |
| BH   | (60°-80°)   | 2996.3  | 5.3       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 278.3   | 0.5       |                         |      | 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°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  | 6661.7  |
| 2.5°  | 8341.0  | 8399.7  | 8326.4  | 8326.4  | 8080.2  | 7951.2  | 7705.0  | 7517.5  | 7180.4  | 7121.8  | 6899.1  |
| 5°    | 9859.2  | 9932.5  | 9829.9  | 9785.9  | 9495.8  | 9229.1  | 8815.8  | 8408.4  | 7807.6  | 7746.0  | 7221.4  |
| 7.5°  | 11034.4 | 11128.2 | 11037.3 | 10990.5 | 10732.6 | 10433.6 | 9950.0  | 9381.4  | 8534.5  | 8414.3  | 7655.2  |
| 10°   | 11992.8 | 12007.5 | 11978.2 | 11995.7 | 11793.4 | 11547.3 | 11052.0 | 10389.6 | 9331.6  | 9167.5  | 8179.8  |
| 12.5° | 12535.0 | 12602.4 | 12661.0 | 12766.5 | 12731.3 | 12578.9 | 12133.4 | 11342.1 | 10175.7 | 9964.6  | 8751.3  |
| 15°   | 12789.9 | 12907.2 | 13039.1 | 13282.4 | 13478.6 | 13516.8 | 13176.8 | 12365.0 | 11034.4 | 10779.4 | 9328.7  |
| 17.5° | 12880.8 | 12992.2 | 13200.3 | 13551.9 | 13974.0 | 14258.3 | 14105.8 | 13358.5 | 11884.4 | 11591.3 | 9935.3  |
| 20°   | 13341.0 | 13373.2 | 13499.2 | 13833.3 | 14290.6 | 14762.4 | 14876.6 | 14314.0 | 12725.5 | 12394.3 | 10562.5 |
| 22.5° | 14325.7 | 14261.2 | 14296.4 | 14448.8 | 14777.0 | 15234.3 | 15495.1 | 15158.0 | 13590.1 | 13209.1 | 11195.6 |
| 25°   | 15952.3 | 15764.7 | 15577.1 | 15401.3 | 15568.3 | 15826.3 | 16122.2 | 16002.1 | 14495.7 | 14012.1 | 11834.5 |
| 27.5° | 18006.8 | 17778.2 | 17364.9 | 16787.6 | 16585.3 | 16676.2 | 16808.1 | 16784.6 | 15333.9 | 14844.5 | 12493.9 |
| 30°   | 20029.0 | 19762.3 | 19269.9 | 18434.6 | 17901.2 | 17661.0 | 17561.3 | 17493.9 | 16245.3 | 15723.7 | 13159.3 |
| 32.5° | 21643.9 | 21432.9 | 20949.3 | 20014.4 | 19240.6 | 18830.3 | 18499.1 | 18258.8 | 17197.9 | 16676.2 | 13862.6 |
| 35°   | 23056.6 | 22860.2 | 22306.3 | 21286.3 | 20445.2 | 20008.5 | 19574.7 | 19061.8 | 18188.5 | 17661.0 | 14618.8 |
| 37.5° | 24346.1 | 24149.7 | 23390.6 | 22329.7 | 21482.7 | 21180.8 | 20794.0 | 19923.5 | 19182.1 | 18683.8 | 15418.9 |
| 40°   | 25160.8 | 25116.9 | 24407.6 | 23206.0 | 22326.8 | 22177.3 | 22048.4 | 20922.9 | 20284.0 | 19820.9 | 16298.1 |
| 42.5° | 25369.0 | 25465.6 | 24902.9 | 23915.2 | 23077.1 | 22956.8 | 23258.8 | 22054.2 | 21520.8 | 21078.2 | 17294.6 |
| 45°   | 24867.7 | 25146.1 | 24776.9 | 24105.7 | 23610.5 | 23546.0 | 24331.4 | 23291.0 | 22889.5 | 22485.0 | 18496.2 |
| 47.5° | 23598.7 | 24070.6 | 23918.2 | 23824.4 | 23754.1 | 24032.5 | 25275.2 | 24604.0 | 24439.9 | 24088.1 | 19867.8 |
| 50°   | 21037.2 | 21931.1 | 22197.8 | 22789.8 | 23469.7 | 24410.6 | 26133.8 | 26037.2 | 26251.1 | 25896.4 | 21538.3 |
| 52.5° | 16608.8 | 17839.7 | 19387.2 | 20870.1 | 22596.3 | 24284.5 | 27077.5 | 28094.5 | 28997.2 | 28803.8 | 24193.7 |
| 55°   | 13710.2 | 14264.1 | 15454.0 | 18173.9 | 20902.4 | 23754.1 | 27502.5 | 29756.3 | 31722.8 | 31549.9 | 26207.1 |
| 57.5° | 11482.9 | 11978.2 | 12710.8 | 14982.2 | 18340.8 | 22549.5 | 27766.3 | 30770.4 | 33589.8 | 33572.1 | 28194.2 |
| 60°   | 9094.2  | 9618.8  | 10369.1 | 11978.2 | 15348.6 | 20468.6 | 27707.7 | 31925.1 | 35972.5 | 36119.1 | 30618.0 |
| 62.5° | 6397.9  | 6975.2  | 7807.6  | 9308.2  | 12291.7 | 17772.3 | 26511.9 | 32760.3 | 38777.3 | 39175.8 | 33534.1 |
| 65°   | 4205.7  | 4586.7  | 5213.9  | 6509.3  | 9158.7  | 14305.2 | 24228.8 | 32868.8 | 41778.4 | 42452.4 | 36271.5 |
| 67.5° | 2948.4  | 3094.9  | 3464.2  | 4167.5  | 6037.5  | 10970.0 | 20591.7 | 31746.3 | 43780.1 | 44539.2 | 37458.4 |
| 70°   | 2300.7  | 2373.9  | 2561.5  | 2842.8  | 3792.4  | 7376.8  | 15779.4 | 28827.2 | 43352.3 | 44143.6 | 36218.7 |
| 72.5° | 1987.1  | 2057.4  | 2127.8  | 2163.0  | 2543.9  | 4554.5  | 10688.6 | 24102.8 | 39322.4 | 39858.8 | 31491.3 |
| 75°   | 1802.5  | 1820.0  | 1878.6  | 1866.9  | 1940.2  | 2954.3  | 6169.3  | 17561.3 | 31025.3 | 30840.7 | 23247.0 |
| 77.5° | 1515.3  | 1538.6  | 1635.4  | 1620.7  | 1723.3  | 2019.4  | 3203.3  | 11333.3 | 20114.0 | 18859.6 | 12939.4 |
| 80°   | 1283.7  | 1295.4  | 1400.9  | 1383.3  | 1497.6  | 1462.5  | 1635.4  | 5776.6  | 8531.5  | 7227.3  | 3730.9  |
| 82.5° | 445.5   | 550.9   | 1069.7  | 1102.0  | 1143.0  | 885.1   | 943.7   | 2356.4  | 2605.4  | 1995.9  | 782.5   |
| 85°   | 216.9   | 231.5   | 545.1   | 773.8   | 770.8   | 445.5   | 460.1   | 841.1   | 820.6   | 644.7   | 260.9   |
| 87.5° | 35.2    | 44.0    | 64.5    | 301.9   | 240.4   | 117.3   | 158.3   | 164.1   | 169.9   | 146.6   | 58.6    |
| 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°    | 6661.7  | 6661.7  | 6661.7 | 6661.7 | 6661.7 | 6661.7 | 6661.7 | 6661.7 | 6661.7 | 6661.7 | 6661.7 |
| 2.5°  | 6735.0  | 6588.4  | 6280.7 | 5996.4 | 5773.6 | 5559.7 | 5439.6 | 5337.0 | 5278.3 | 5266.7 | 5266.7 |
| 5°    | 6916.7  | 6614.8  | 6055.0 | 5583.2 | 5275.5 | 5046.8 | 4926.7 | 4850.5 | 4812.4 | 4788.9 | 4785.9 |
| 7.5°  | 7177.5  | 6735.0  | 5937.8 | 5401.4 | 5079.1 | 4915.0 | 4853.4 | 4841.7 | 4838.7 | 4841.7 | 4850.5 |
| 10°   | 7538.0  | 6931.4  | 5926.0 | 5357.5 | 5087.9 | 4997.0 | 4994.1 | 4997.0 | 5008.8 | 5011.6 | 5014.6 |
| 12.5° | 7927.8  | 7133.6  | 5973.0 | 5395.6 | 5199.2 | 5149.4 | 5140.6 | 5137.7 | 5146.4 | 5152.4 | 5155.2 |
| 15°   | 8352.7  | 7400.2  | 6052.1 | 5477.6 | 5322.3 | 5269.5 | 5260.8 | 5243.2 | 5240.2 | 5237.3 | 5234.4 |
| 17.5° | 8789.5  | 7664.0  | 6140.0 | 5565.5 | 5401.4 | 5328.2 | 5296.0 | 5254.9 | 5222.7 | 5213.9 | 5222.7 |
| 20°   | 9232.0  | 7924.9  | 6201.6 | 5609.5 | 5407.3 | 5304.7 | 5240.2 | 5169.9 | 5114.2 | 5082.0 | 5093.7 |
| 22.5° | 9703.9  | 8197.4  | 6239.7 | 5597.8 | 5354.6 | 5213.9 | 5096.6 | 5014.6 | 4929.6 | 4873.9 | 4876.8 |
| 25°   | 10164.0 | 8434.8  | 6236.7 | 5536.2 | 5252.0 | 5073.2 | 4923.7 | 4818.2 | 4701.0 | 4642.3 | 4642.3 |
| 27.5° | 10606.5 | 8648.7  | 6163.4 | 5427.8 | 5105.4 | 4906.2 | 4727.4 | 4601.3 | 4487.0 | 4431.4 | 4428.4 |
| 30°   | 11063.7 | 8827.5  | 6049.1 | 5269.5 | 4932.5 | 4712.7 | 4516.4 | 4407.9 | 4305.3 | 4252.6 | 4249.6 |
| 32.5° | 11518.0 | 8991.7  | 5887.9 | 5073.2 | 4733.2 | 4522.2 | 4328.8 | 4229.2 | 4167.5 | 4167.5 | 4170.5 |
| 35°   | 11998.6 | 9106.0  | 5674.0 | 4844.6 | 4522.2 | 4320.0 | 4167.5 | 4108.9 | 4103.1 | 4067.9 | 4059.1 |
| 37.5° | 12505.7 | 9179.2  | 5413.1 | 4610.1 | 4314.1 | 4123.6 | 4076.7 | 4006.4 | 3947.8 | 3871.5 | 3859.8 |
| 40°   | 13039.1 | 9252.5  | 5099.6 | 4366.9 | 4094.4 | 3988.8 | 3968.3 | 3874.5 | 3707.4 | 3519.8 | 3493.5 |
| 42.5° | 13686.8 | 9302.3  | 4774.2 | 4123.6 | 3862.8 | 3827.7 | 3856.9 | 3695.7 | 3429.0 | 3288.3 | 3291.3 |
| 45°   | 14437.0 | 9384.4  | 4475.4 | 3883.3 | 3625.4 | 3625.4 | 3748.5 | 3537.5 | 3317.6 | 3229.8 | 3244.4 |
| 47.5° | 15410.1 | 9574.9  | 4196.9 | 3619.5 | 3405.6 | 3464.2 | 3508.2 | 3346.9 | 3223.8 | 3115.4 | 3112.5 |
| 50°   | 16816.9 | 10032.1 | 3909.7 | 3352.8 | 3238.5 | 3355.7 | 3294.2 | 3200.5 | 3056.9 | 2968.9 | 2960.1 |
| 52.5° | 18563.6 | 10301.8 | 3654.7 | 3112.5 | 3094.9 | 3212.1 | 3124.2 | 3036.3 | 2927.8 | 2810.7 | 2787.2 |
| 55°   | 19753.5 | 10351.6 | 3440.7 | 2936.6 | 2998.2 | 2986.4 | 2954.3 | 2875.1 | 2816.5 | 2661.1 | 2664.1 |
| 57.5° | 21084.0 | 10451.2 | 3264.9 | 2831.2 | 2936.6 | 2807.7 | 2796.0 | 2728.5 | 2652.4 | 2546.8 | 2511.7 |
| 60°   | 22675.6 | 10606.5 | 3112.5 | 2790.2 | 2883.9 | 2690.4 | 2631.9 | 2605.4 | 2529.3 | 2476.5 | 2491.2 |
| 62.5° | 24410.6 | 10747.2 | 2957.1 | 2796.0 | 2822.3 | 2576.1 | 2488.3 | 2479.5 | 2432.5 | 2415.0 | 2415.0 |
| 65°   | 25594.6 | 10363.3 | 2763.7 | 2790.2 | 2725.7 | 2459.0 | 2347.6 | 2344.6 | 2306.6 | 2300.7 | 2297.7 |
| 67.5° | 25181.4 | 9147.0  | 2502.8 | 2708.0 | 2625.9 | 2341.7 | 2218.6 | 2206.9 | 2157.0 | 2160.0 | 2160.0 |
| 70°   | 23112.2 | 7412.0  | 2142.5 | 2505.8 | 2502.8 | 2236.2 | 2083.8 | 2045.7 | 1978.2 | 1990.0 | 2001.7 |
| 72.5° | 19231.9 | 5492.3  | 1658.9 | 2168.8 | 2306.6 | 2139.5 | 1928.4 | 1866.9 | 1782.0 | 1793.6 | 1790.7 |
| 75°   | 13889.1 | 3733.9  | 1207.4 | 1650.0 | 2007.6 | 2025.2 | 1776.0 | 1670.5 | 1567.9 | 1585.6 | 1591.4 |
| 77.5° | 7107.1  | 2116.0  | 888.1  | 1137.1 | 1576.8 | 1840.5 | 1638.4 | 1497.6 | 1474.2 | 1638.4 | 1614.9 |
| 80°   | 2318.2  | 1061.0  | 615.5  | 797.1  | 1034.5 | 1506.4 | 1436.1 | 1274.9 | 1269.1 | 1307.2 | 1122.5 |
| 82.5° | 691.7   | 448.4   | 395.6  | 524.6  | 571.5  | 1154.8 | 1239.7 | 964.2  | 829.4  | 873.4  | 902.7  |
| 85°   | 237.4   | 216.9   | 225.7  | 260.9  | 272.5  | 677.0  | 867.6  | 638.9  | 603.7  | 665.3  | 656.5  |
| 87.5° | 55.7    | 76.2    | 64.5   | 58.6   | 58.6   | 164.1  | 337.0  | 266.7  | 369.3  | 246.2  | 237.4  |
| 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)