

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: P965136

Luminaire Tested: **NAV-SB3D-740-U-T4FT**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965136  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-740-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32724.1 lumens  
Efficiency: N/A  
Efficacy: 150.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

Input Watts (W): 218.1  
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



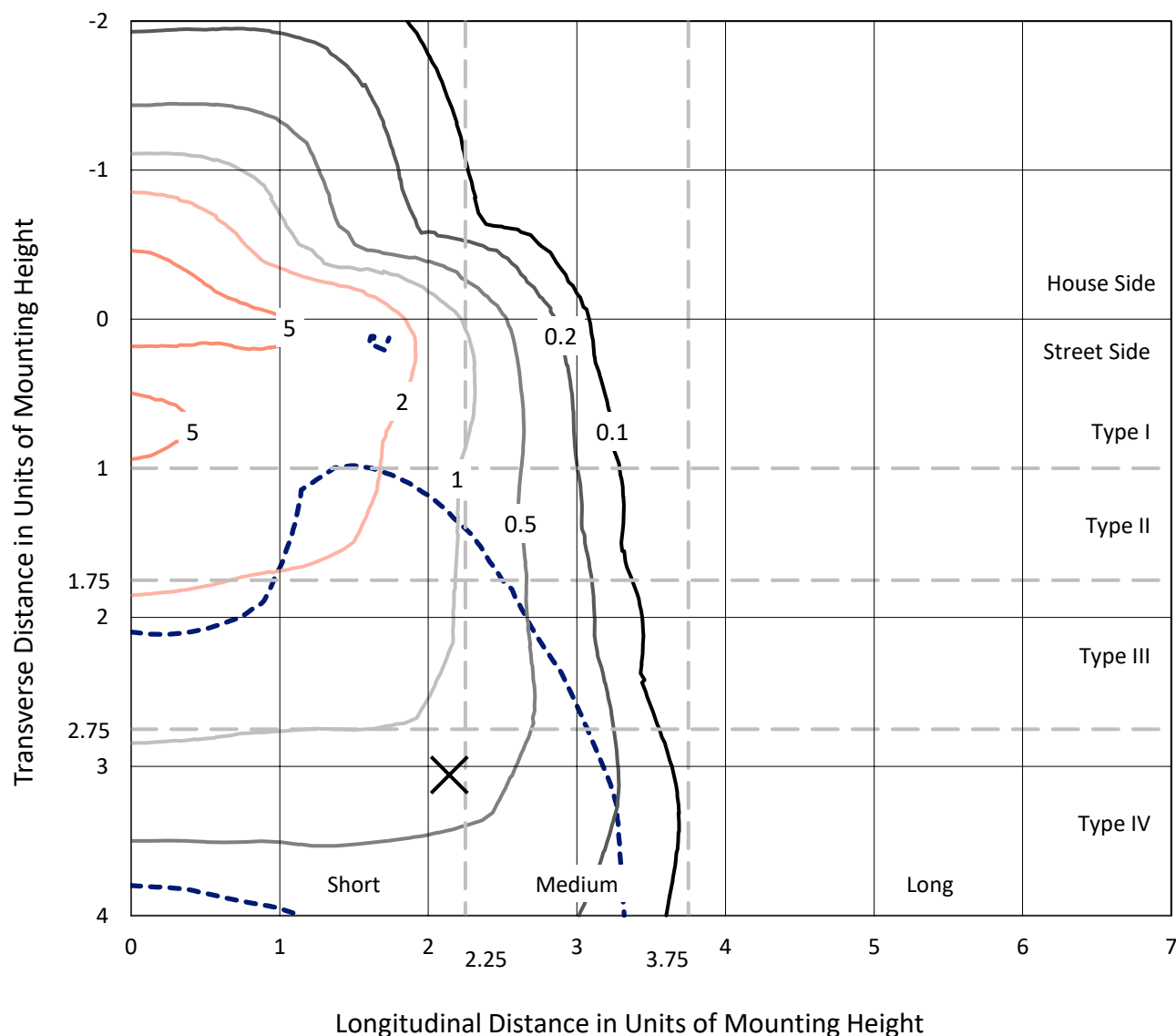
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

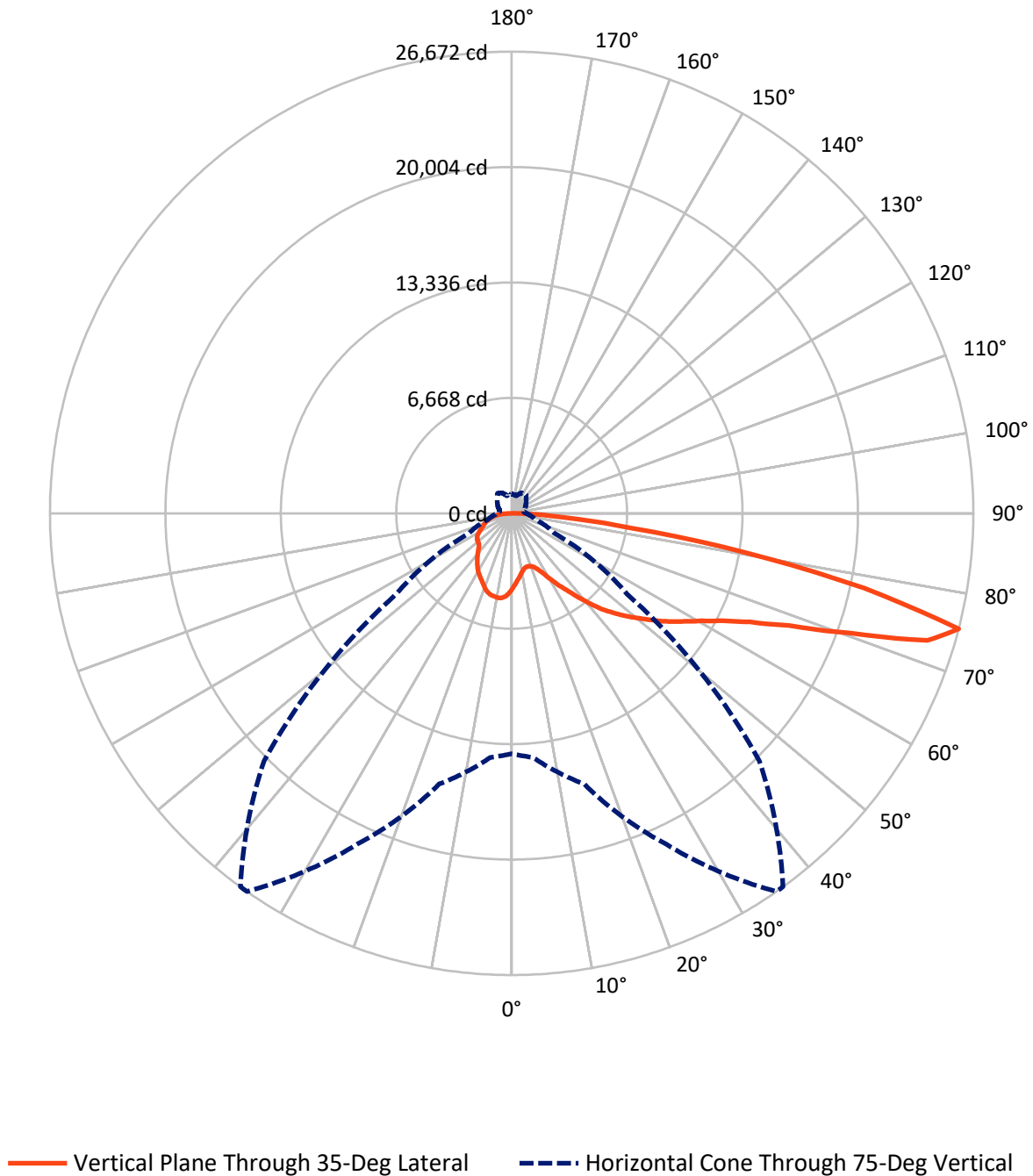


Based on 25 foot mounting height. Maximum calculated value = 7.7 fc

Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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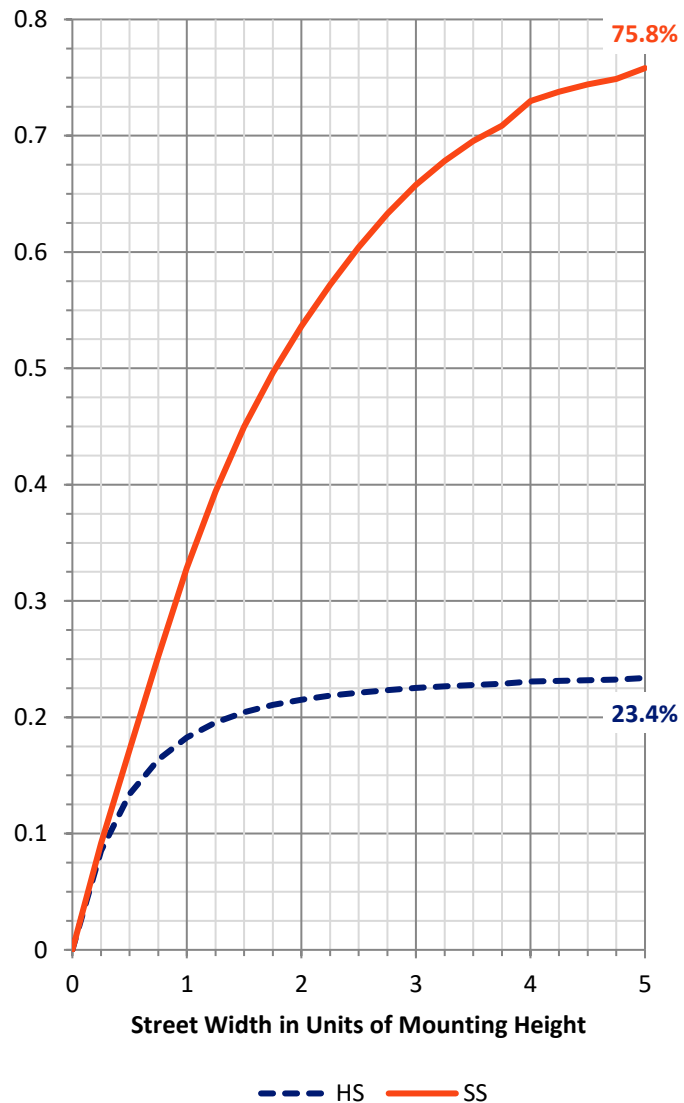
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7787.5   | 0.0    | 7787.5  |
|                    | % Fixture | 23.8     | 0.0    | 23.8    |
| <b>Street Side</b> | Lumens    | 24936.6  | 0.0    | 24936.6 |
|                    | % Fixture | 76.2     | 0.0    | 76.2    |
| <b>Total</b>       | Lumens    | 32724.1  | 0.0    | 32724.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 412.9   | 1.3       |
| 10°-20°   | 1190.9  | 3.6       |
| 20°-30°   | 1999.8  | 6.1       |
| 30°-40°   | 3108.0  | 9.5       |
| 40°-50°   | 4613.1  | 14.1      |
| 50°-60°   | 6368.7  | 19.5      |
| 60°-70°   | 7726.7  | 23.6      |
| 70°-80°   | 6385.5  | 19.5      |
| 80°-90°   | 918.4   | 2.8       |
| 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°    | 32724.1 | 100.0     |
| 0°-180°   | 32724.1 | 100.0     |

**Coefficient of Utilization**



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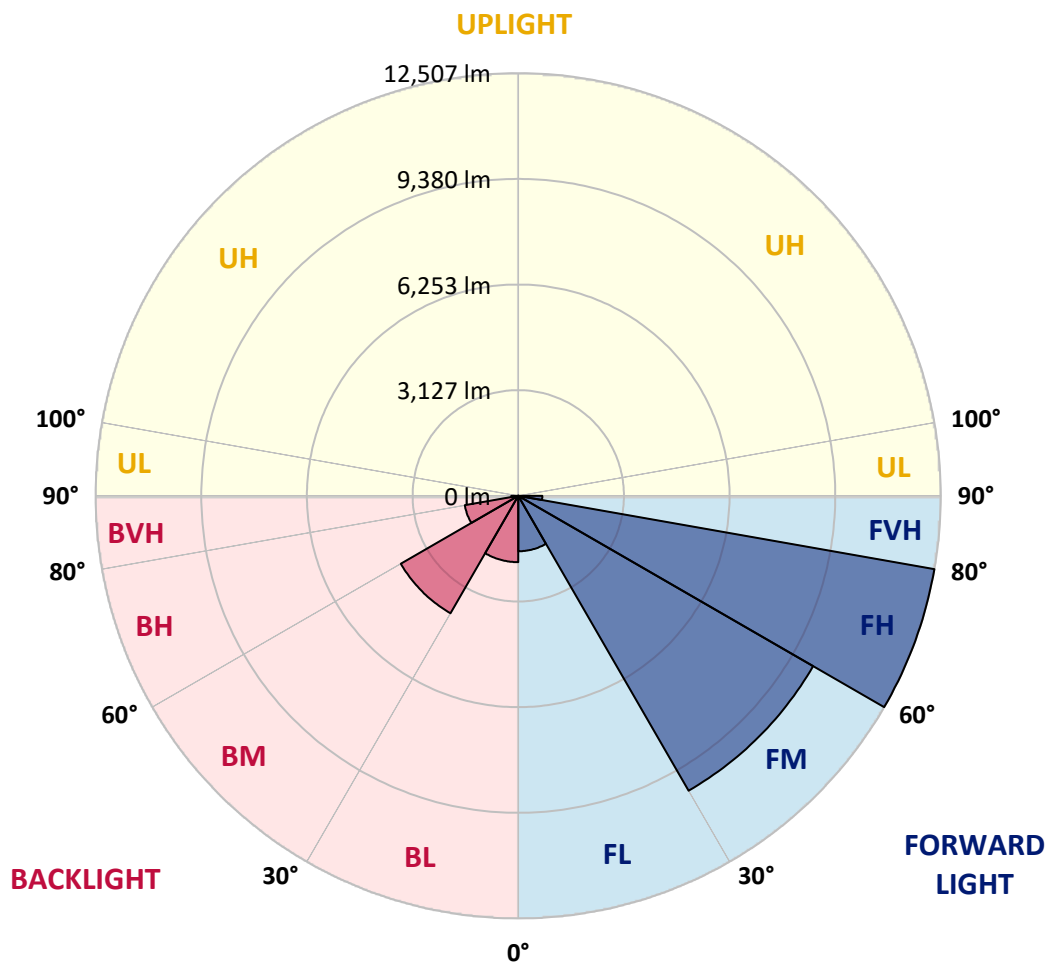
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1641.1  | 5.0       |                         |      |         |
| FM   | (30°-60°)   | 10077.3 | 30.8      |                         |      |         |
| FH   | (60°-80°)   | 12506.7 | 38.2      |                         |      | G5      |
| FVH  | (80°-90°)   | 711.6   | 2.2       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1962.6  | 6.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 4012.6  | 12.3      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1605.5  | 4.9       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 206.8   | 0.6       |                         |      | G2/225  |
| 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°     | 36°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  | 4360.8  |
| 2.5°  | 4021.1  | 4045.8  | 4056.4  | 4051.1  | 4077.7  | 4074.2  | 4111.3  | 4157.3  | 4221.0  | 4282.9  | 4373.1  |
| 5°    | 3711.4  | 3738.0  | 3761.0  | 3782.2  | 3833.5  | 3849.5  | 3907.8  | 3996.3  | 4113.0  | 4231.6  | 4380.1  |
| 7.5°  | 3423.1  | 3446.2  | 3481.5  | 3520.5  | 3607.1  | 3623.1  | 3720.3  | 3858.3  | 4021.1  | 4194.4  | 4399.6  |
| 10°   | 3187.9  | 3210.8  | 3248.0  | 3292.2  | 3400.1  | 3419.6  | 3543.4  | 3727.4  | 3939.7  | 4159.0  | 4420.8  |
| 12.5° | 3087.0  | 3094.1  | 3115.3  | 3159.6  | 3253.2  | 3265.6  | 3401.9  | 3612.4  | 3860.0  | 4132.5  | 4452.7  |
| 15°   | 3081.7  | 3095.8  | 3097.7  | 3120.6  | 3198.4  | 3203.7  | 3329.4  | 3538.1  | 3810.5  | 4127.2  | 4500.5  |
| 17.5° | 3134.8  | 3145.4  | 3129.4  | 3143.6  | 3209.1  | 3217.9  | 3317.0  | 3502.7  | 3794.7  | 4150.2  | 4581.9  |
| 20°   | 3276.3  | 3285.1  | 3237.4  | 3217.9  | 3265.6  | 3272.7  | 3370.0  | 3525.7  | 3810.5  | 4198.0  | 4693.3  |
| 22.5° | 3577.0  | 3582.4  | 3465.5  | 3386.0  | 3389.5  | 3393.1  | 3477.9  | 3619.5  | 3872.4  | 4284.6  | 4834.8  |
| 25°   | 4045.8  | 4042.3  | 3856.6  | 3702.6  | 3614.2  | 3594.7  | 3651.4  | 3771.6  | 3976.8  | 4399.6  | 5017.1  |
| 27.5° | 4594.3  | 4567.7  | 4382.0  | 4152.0  | 3959.2  | 3930.9  | 3918.5  | 3969.7  | 4125.4  | 4551.8  | 5239.9  |
| 30°   | 5213.4  | 5188.7  | 4988.8  | 4687.9  | 4420.8  | 4374.9  | 4258.2  | 4231.6  | 4346.5  | 4758.8  | 5549.6  |
| 32.5° | 5892.7  | 5876.8  | 5638.0  | 5273.5  | 4916.2  | 4863.1  | 4666.7  | 4596.0  | 4686.2  | 5071.9  | 5981.2  |
| 35°   | 6462.3  | 6448.2  | 6250.0  | 5875.0  | 5438.0  | 5372.6  | 5172.7  | 5093.1  | 5139.1  | 5473.4  | 6545.4  |
| 37.5° | 6977.2  | 6970.1  | 6800.3  | 6504.9  | 6053.6  | 5974.1  | 5749.4  | 5722.9  | 5714.1  | 6002.4  | 7230.1  |
| 40°   | 7454.8  | 7437.1  | 7260.2  | 7104.5  | 6770.1  | 6697.7  | 6499.5  | 6476.5  | 6409.3  | 6653.4  | 8004.9  |
| 42.5° | 7983.7  | 7937.7  | 7681.2  | 7608.7  | 7518.5  | 7458.3  | 7339.8  | 7343.3  | 7194.8  | 7387.6  | 8825.8  |
| 45°   | 8415.4  | 8388.8  | 8125.3  | 8082.8  | 8180.1  | 8155.3  | 8257.9  | 8284.5  | 7996.1  | 8157.1  | 9678.5  |
| 47.5° | 8878.9  | 8854.2  | 8631.2  | 8601.1  | 8864.7  | 8871.8  | 9234.4  | 9243.3  | 8778.0  | 8956.8  | 10532.9 |
| 50°   | 9450.3  | 9414.9  | 9193.7  | 9230.9  | 9526.3  | 9552.9  | 10216.3 | 10156.1 | 9498.1  | 9768.7  | 11380.3 |
| 52.5° | 9827.1  | 9848.3  | 9800.5  | 9860.7  | 10264.0 | 10288.8 | 11182.1 | 11028.3 | 10210.9 | 10570.1 | 12211.7 |
| 55°   | 10104.9 | 10147.3 | 10295.9 | 10433.9 | 11042.4 | 11067.2 | 12093.3 | 11857.9 | 10801.9 | 11313.1 | 12993.7 |
| 57.5° | 10462.2 | 10402.0 | 10679.8 | 10948.6 | 11781.9 | 11847.4 | 12979.6 | 12657.5 | 11325.4 | 11953.4 | 13529.7 |
| 60°   | 10975.2 | 10932.8 | 11148.6 | 11546.6 | 12609.8 | 12714.2 | 13917.1 | 13377.6 | 11709.4 | 12461.2 | 13634.0 |
| 62.5° | 12015.4 | 11909.3 | 11942.9 | 12294.9 | 13653.5 | 13791.6 | 14975.0 | 14005.6 | 11900.5 | 12659.4 | 13075.1 |
| 65°   | 13570.4 | 13388.1 | 13218.4 | 13462.5 | 15123.7 | 15259.9 | 16169.2 | 14499.1 | 11829.6 | 12275.5 | 11590.8 |
| 67.5° | 15528.7 | 15348.4 | 15139.6 | 15369.6 | 17289.0 | 17396.8 | 17642.7 | 14776.9 | 11272.4 | 10796.5 | 8967.3  |
| 70°   | 17143.8 | 17076.7 | 17326.1 | 18272.6 | 20747.4 | 20751.0 | 19532.1 | 14546.9 | 9745.7  | 7654.7  | 5188.7  |
| 72.5° | 16929.8 | 16889.1 | 18203.6 | 21129.6 | 25106.4 | 25012.7 | 21320.6 | 12806.1 | 6564.9  | 3453.2  | 1944.2  |
| 75°   | 13888.9 | 14152.4 | 16188.6 | 21078.3 | 26672.0 | 26659.6 | 20225.6 | 8141.2  | 2715.5  | 1431.2  | 1004.8  |
| 77.5° | 7447.8  | 7865.2  | 10509.9 | 15562.4 | 20821.7 | 21134.9 | 14219.6 | 2848.2  | 1165.8  | 916.4   | 695.3   |
| 80°   | 2428.9  | 2793.3  | 4189.1  | 7923.6  | 13529.7 | 13471.4 | 6094.3  | 1118.1  | 797.9   | 649.2   | 481.1   |
| 82.5° | 1031.4  | 1073.8  | 1871.6  | 3741.6  | 6943.6  | 6835.6  | 1940.6  | 642.2   | 560.8   | 444.0   | 297.2   |
| 85°   | 403.3   | 451.1   | 826.2   | 1730.1  | 3007.4  | 2942.0  | 700.6   | 318.5   | 359.2   | 290.1   | 176.9   |
| 87.5° | 132.6   | 161.0   | 295.4   | 592.7   | 935.8   | 902.2   | 171.6   | 109.7   | 155.7   | 132.6   | 63.7    |
| 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°    | 4360.8  | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 | 4360.8 |
| 2.5°  | 4397.9  | 4426.2 | 4459.8 | 4509.3 | 4551.8 | 4587.2 | 4624.3 | 4647.3 | 4656.2 | 4682.7 | 4680.9 |
| 5°    | 4429.7  | 4491.7 | 4574.8 | 4656.2 | 4735.7 | 4783.5 | 4826.0 | 4847.2 | 4866.7 | 4880.8 | 4884.3 |
| 7.5°  | 4482.7  | 4562.4 | 4693.3 | 4799.5 | 4866.7 | 4905.5 | 4933.8 | 4926.8 | 4933.8 | 4937.4 | 4942.8 |
| 10°   | 4528.8  | 4640.2 | 4795.9 | 4896.7 | 4948.1 | 4949.8 | 4942.8 | 4918.0 | 4905.5 | 4907.4 | 4910.9 |
| 12.5° | 4583.6  | 4707.4 | 4875.5 | 4960.4 | 4974.5 | 4935.7 | 4905.5 | 4863.1 | 4847.2 | 4840.2 | 4836.6 |
| 15°   | 4657.9  | 4799.5 | 4962.2 | 4994.0 | 4958.6 | 4909.1 | 4857.8 | 4788.8 | 4753.4 | 4725.1 | 4734.0 |
| 17.5° | 4748.1  | 4903.8 | 5029.4 | 5006.4 | 4930.4 | 4849.0 | 4765.8 | 4661.5 | 4588.9 | 4558.9 | 4560.6 |
| 20°   | 4873.8  | 5013.5 | 5080.7 | 4979.9 | 4864.9 | 4741.0 | 4599.6 | 4472.2 | 4404.9 | 4374.9 | 4371.3 |
| 22.5° | 5025.9  | 5160.4 | 5130.2 | 4933.8 | 4771.2 | 4573.0 | 4396.1 | 4302.3 | 4268.7 | 4247.5 | 4251.0 |
| 25°   | 5208.1  | 5323.0 | 5165.6 | 4866.7 | 4617.2 | 4350.1 | 4213.9 | 4183.8 | 4167.9 | 4152.0 | 4152.0 |
| 27.5° | 5445.1  | 5507.0 | 5192.1 | 4767.6 | 4376.6 | 4113.0 | 4063.5 | 4068.8 | 4063.5 | 4037.0 | 4042.3 |
| 30°   | 5758.2  | 5745.8 | 5216.9 | 4606.7 | 4100.6 | 3899.0 | 3902.5 | 3925.5 | 3929.0 | 3911.4 | 3920.2 |
| 32.5° | 6170.5  | 6044.8 | 5229.3 | 4397.9 | 3837.1 | 3711.4 | 3715.0 | 3739.8 | 3757.4 | 3727.4 | 3741.6 |
| 35°   | 6669.4  | 6393.3 | 5209.9 | 4136.1 | 3633.6 | 3532.8 | 3506.2 | 3513.3 | 3518.6 | 3490.3 | 3509.8 |
| 37.5° | 7251.4  | 6784.3 | 5123.2 | 3845.9 | 3465.5 | 3357.7 | 3301.0 | 3253.2 | 3225.0 | 3198.4 | 3216.1 |
| 40°   | 7889.9  | 7210.7 | 4964.0 | 3562.9 | 3278.1 | 3171.9 | 3087.0 | 2996.8 | 2901.3 | 2865.9 | 2881.8 |
| 42.5° | 8558.6  | 7649.4 | 4771.2 | 3292.2 | 3062.2 | 2975.6 | 2885.4 | 2754.4 | 2611.1 | 2538.6 | 2547.4 |
| 45°   | 9252.2  | 8098.7 | 4581.9 | 3025.1 | 2841.1 | 2804.0 | 2699.5 | 2542.1 | 2386.4 | 2294.5 | 2287.4 |
| 47.5° | 9931.4  | 8523.3 | 4304.1 | 2756.2 | 2634.1 | 2674.8 | 2593.5 | 2448.4 | 2275.0 | 2130.0 | 2114.1 |
| 50°   | 10580.7 | 8921.3 | 3849.5 | 2483.8 | 2466.0 | 2635.9 | 2558.1 | 2349.3 | 2151.2 | 1965.4 | 1949.4 |
| 52.5° | 11224.7 | 9243.3 | 3267.4 | 2236.0 | 2375.8 | 2625.2 | 2512.1 | 2282.1 | 2039.7 | 1845.1 | 1823.9 |
| 55°   | 11771.3 | 9409.6 | 2706.6 | 2023.8 | 2245.0 | 2535.0 | 2457.2 | 2202.5 | 1882.3 | 1675.3 | 1657.6 |
| 57.5° | 12082.6 | 9275.1 | 2239.6 | 1815.1 | 2064.5 | 2386.4 | 2363.4 | 2032.7 | 1694.7 | 1535.6 | 1514.3 |
| 60°   | 11948.2 | 8730.2 | 1857.5 | 1632.8 | 1892.9 | 2225.5 | 2200.7 | 1864.6 | 1551.4 | 1401.1 | 1379.9 |
| 62.5° | 11206.9 | 7691.8 | 1555.0 | 1473.6 | 1737.2 | 2061.0 | 2037.9 | 1735.4 | 1441.8 | 1296.7 | 1273.8 |
| 65°   | 9713.8  | 6257.1 | 1319.7 | 1340.9 | 1579.7 | 1862.8 | 1896.5 | 1627.5 | 1355.0 | 1213.6 | 1190.5 |
| 67.5° | 7408.8  | 4532.3 | 1135.7 | 1226.0 | 1425.9 | 1668.2 | 1765.6 | 1549.7 | 1282.6 | 1148.1 | 1126.9 |
| 70°   | 4222.7  | 2574.0 | 980.1  | 1114.5 | 1289.7 | 1487.8 | 1664.7 | 1487.8 | 1204.7 | 1093.3 | 1079.1 |
| 72.5° | 1600.9  | 1181.7 | 847.4  | 1003.1 | 1158.8 | 1335.7 | 1553.2 | 1390.5 | 1114.5 | 1031.4 | 1017.2 |
| 75°   | 854.4   | 720.0  | 712.9  | 872.2  | 1008.4 | 1187.1 | 1413.5 | 1295.0 | 1047.2 | 1089.8 | 1125.1 |
| 77.5° | 582.0   | 509.5  | 596.1  | 746.5  | 843.9  | 1022.5 | 1264.8 | 1149.8 | 907.5  | 903.9  | 833.2  |
| 80°   | 403.3   | 360.9  | 484.7  | 601.5  | 652.8  | 859.8  | 1103.9 | 987.2  | 739.4  | 689.9  | 659.9  |
| 82.5° | 242.3   | 235.2  | 362.6  | 449.4  | 461.8  | 663.4  | 914.6  | 827.9  | 605.1  | 527.2  | 530.7  |
| 85°   | 132.6   | 139.7  | 231.8  | 263.6  | 268.9  | 463.5  | 716.5  | 640.4  | 465.2  | 390.9  | 394.5  |
| 87.5° | 37.1    | 47.8   | 84.9   | 104.3  | 129.1  | 240.6  | 426.3  | 380.4  | 233.5  | 162.8  | 162.8  |
| 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)