

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: P966740

Luminaire Tested: **NAV-SB4C-750-U-T2U-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P966740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4C-750-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 24874.7 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G3

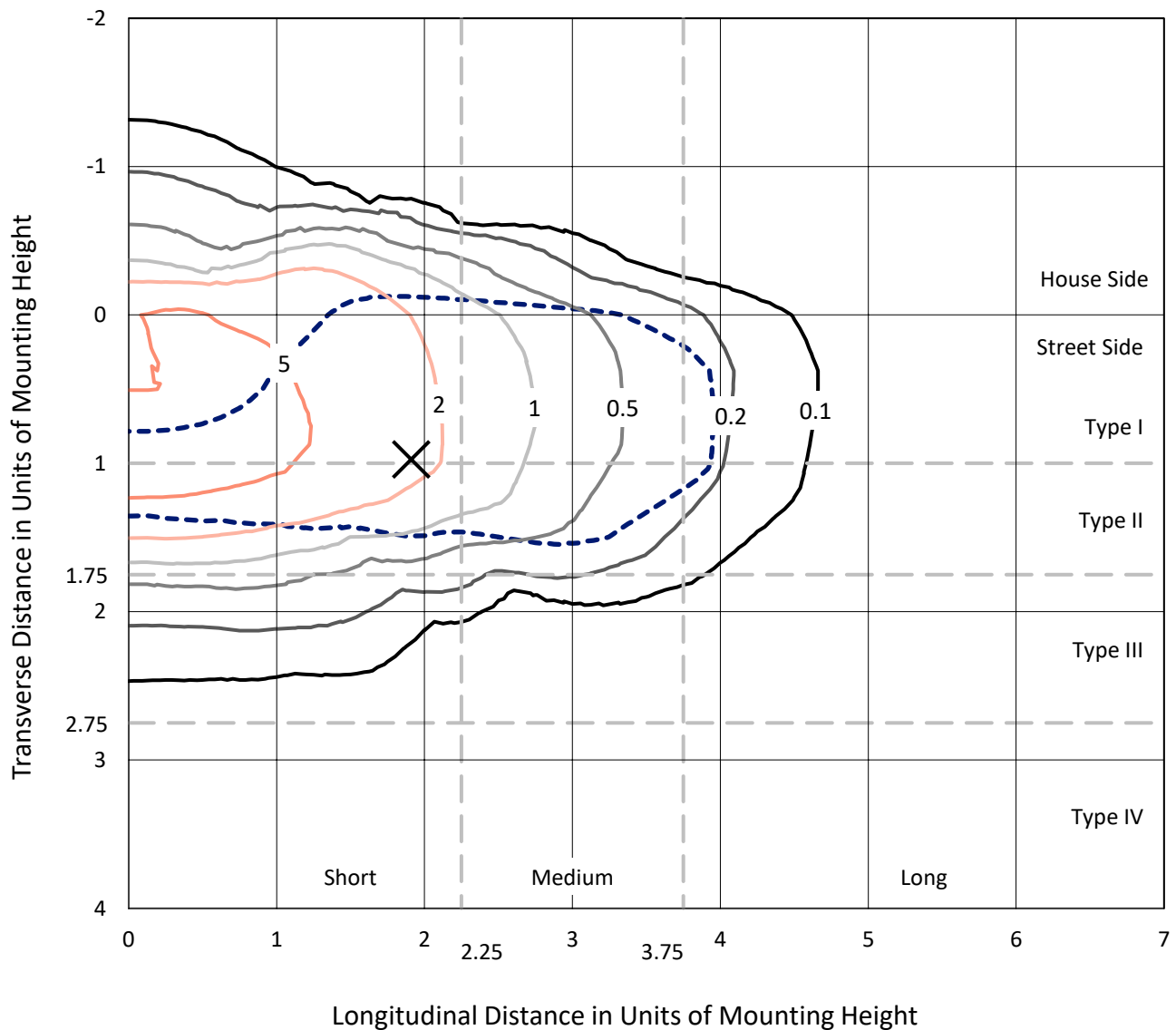
Input Watts (W): 200.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

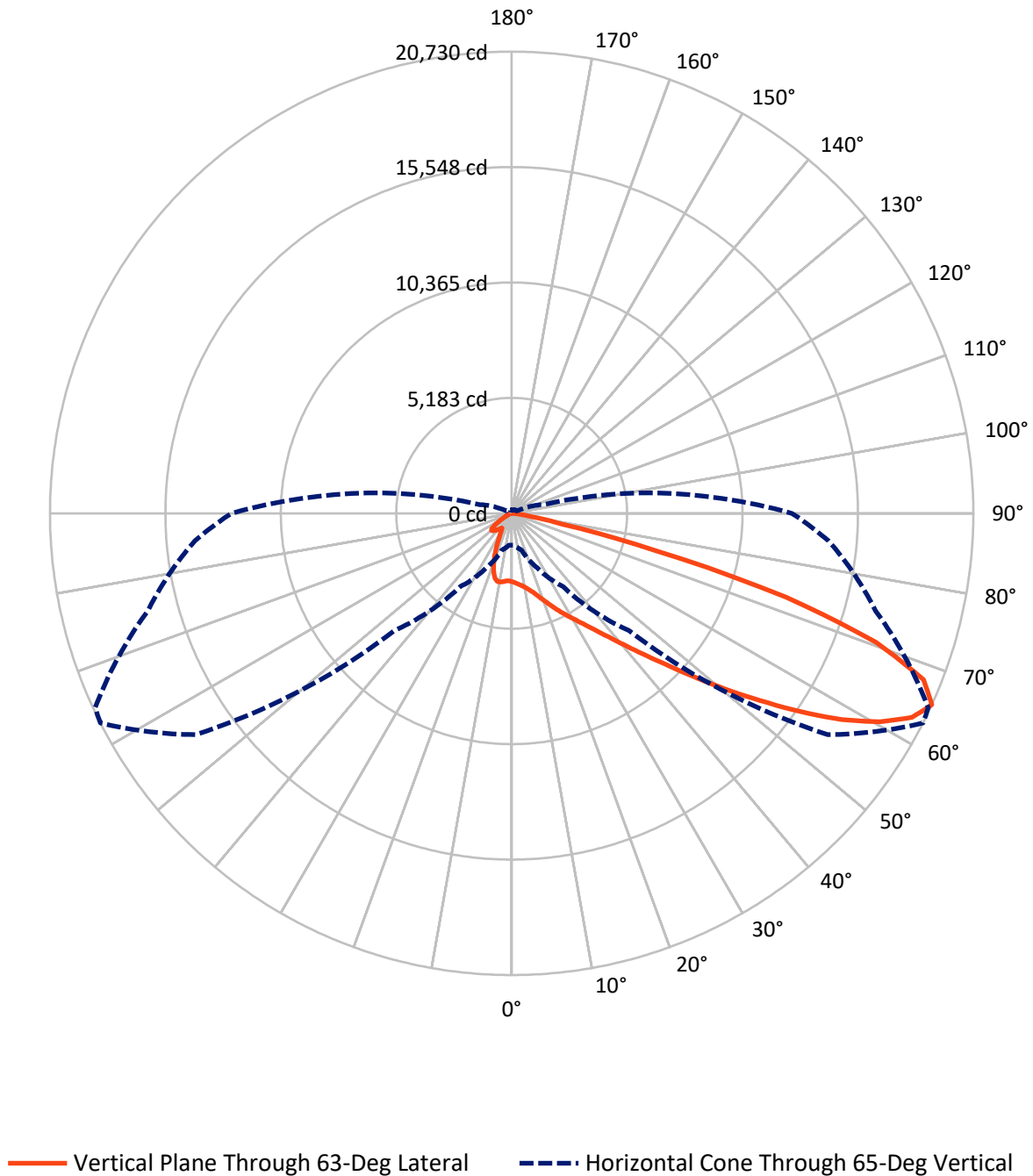
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc  
Type II - Short - N/A

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## Luminous Intensity Polar Plot



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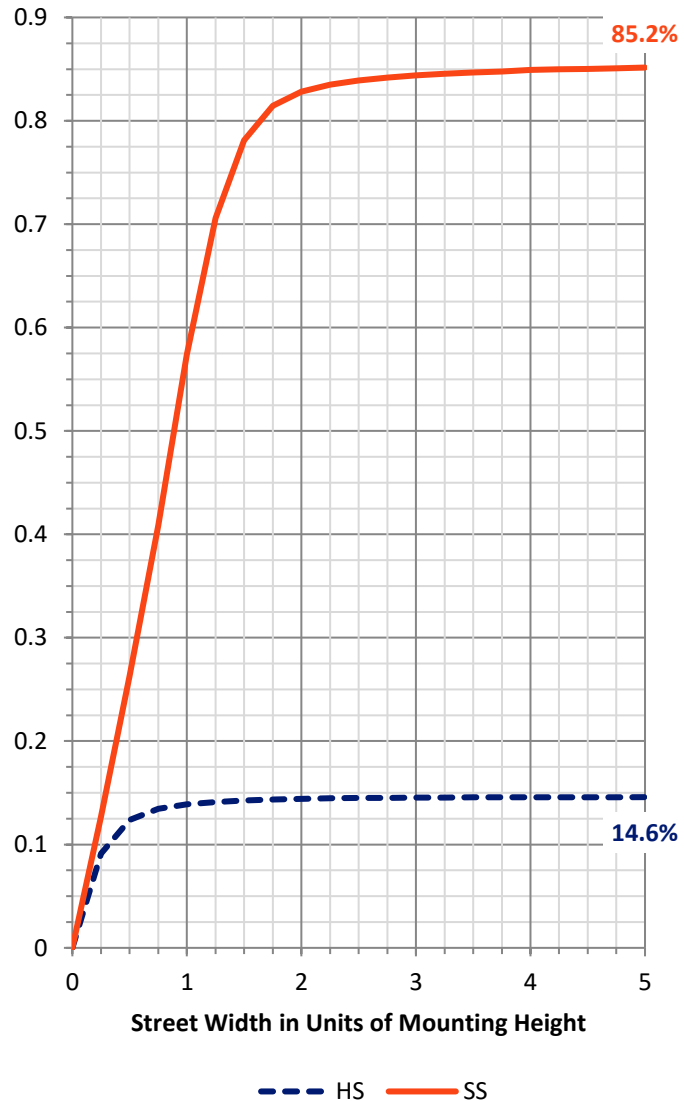
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3656.4   | 0.0    | 3656.4  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 21218.3  | 0.0    | 21218.3 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 24874.7  | 0.0    | 24874.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 289.3   | 1.2       |
| 10°-20°   | 802.6   | 3.2       |
| 20°-30°   | 1397.5  | 5.6       |
| 30°-40°   | 2518.8  | 10.1      |
| 40°-50°   | 4995.6  | 20.1      |
| 50°-60°   | 6804.8  | 27.4      |
| 60°-70°   | 5431.6  | 21.8      |
| 70°-80°   | 2457.9  | 9.9       |
| 80°-90°   | 176.7   | 0.7       |
| 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°    | 24874.7 | 100.0     |
| 0°-180°   | 24874.7 | 100.0     |

**Coefficient of Utilization**



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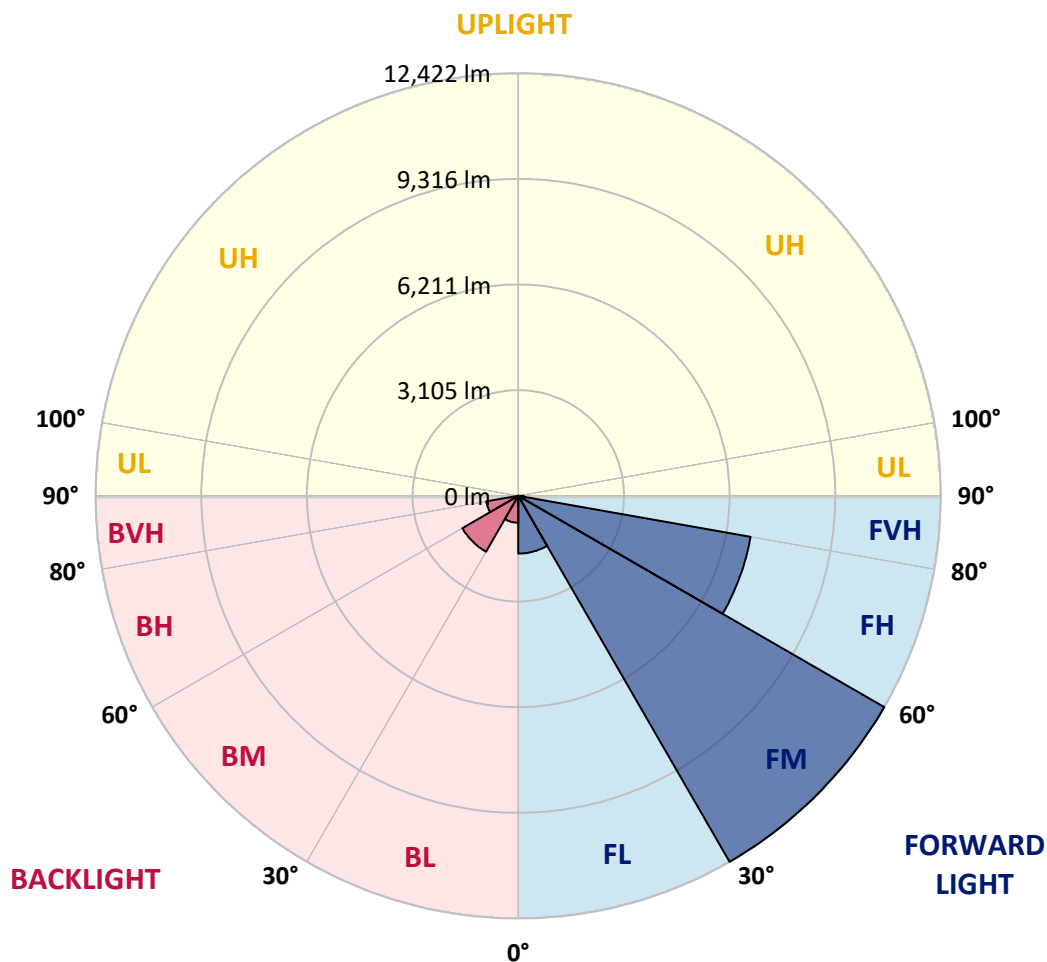
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1698.0  | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 12421.8 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 6935.0  | 27.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 163.6   | 0.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 791.3   | 3.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1897.4  | 7.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 954.5   | 3.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 13.1    | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 63°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  | 3070.0  |
| 2.5°  | 3141.8  | 3133.3  | 3145.3  | 3140.2  | 3136.7  | 3129.9  | 3126.5  | 3123.1  | 3116.2  | 3111.1  | 3090.6  |
| 5°    | 3150.4  | 3145.3  | 3157.3  | 3167.6  | 3177.8  | 3188.1  | 3193.2  | 3200.0  | 3193.2  | 3179.5  | 3158.9  |
| 7.5°  | 3078.6  | 3075.1  | 3100.8  | 3131.6  | 3177.8  | 3217.2  | 3259.9  | 3283.9  | 3285.6  | 3280.5  | 3258.3  |
| 10°   | 3073.5  | 3064.9  | 3090.6  | 3128.2  | 3188.1  | 3258.3  | 3333.5  | 3384.9  | 3391.7  | 3414.0  | 3390.0  |
| 12.5° | 3153.8  | 3145.3  | 3181.2  | 3222.3  | 3283.9  | 3357.5  | 3449.9  | 3521.8  | 3532.0  | 3562.9  | 3545.8  |
| 15°   | 3289.0  | 3277.0  | 3318.1  | 3371.2  | 3449.9  | 3533.8  | 3631.3  | 3696.4  | 3704.9  | 3742.6  | 3711.7  |
| 17.5° | 3446.5  | 3434.5  | 3482.4  | 3538.9  | 3624.5  | 3739.1  | 3852.1  | 3923.9  | 3934.2  | 3958.1  | 3901.7  |
| 20°   | 3648.4  | 3633.0  | 3670.6  | 3722.0  | 3812.7  | 3949.6  | 4084.8  | 4187.4  | 4185.8  | 4185.8  | 4093.3  |
| 22.5° | 3882.9  | 3858.9  | 3891.4  | 3932.5  | 4018.0  | 4184.0  | 4363.7  | 4485.2  | 4485.2  | 4437.3  | 4285.0  |
| 25°   | 4134.4  | 4110.5  | 4146.4  | 4184.0  | 4259.4  | 4447.6  | 4658.0  | 4808.7  | 4815.4  | 4733.3  | 4490.3  |
| 27.5° | 4449.3  | 4418.5  | 4445.8  | 4490.3  | 4534.8  | 4726.5  | 4976.4  | 5150.9  | 5154.3  | 5027.7  | 4685.5  |
| 30°   | 5055.1  | 4967.8  | 4882.3  | 4834.3  | 4854.8  | 5044.8  | 5311.8  | 5505.2  | 5522.3  | 5347.7  | 4897.7  |
| 32.5° | 6163.9  | 6146.8  | 5845.7  | 5452.1  | 5246.8  | 5387.1  | 5686.5  | 5919.3  | 5929.5  | 5705.4  | 5173.2  |
| 35°   | 7887.2  | 7866.7  | 7382.4  | 6632.9  | 5963.8  | 5845.7  | 6141.7  | 6417.2  | 6410.3  | 6157.2  | 5530.8  |
| 37.5° | 9944.1  | 9925.4  | 9287.0  | 8284.3  | 7201.0  | 6538.8  | 6728.7  | 7017.9  | 7060.7  | 6728.7  | 5992.9  |
| 40°   | 11701.6 | 11631.5 | 11227.6 | 10260.8 | 8843.8  | 7688.7  | 7563.8  | 7755.5  | 7799.9  | 7406.3  | 6579.8  |
| 42.5° | 13033.0 | 12973.1 | 12767.7 | 12163.7 | 10832.3 | 9389.7  | 8547.8  | 8621.4  | 8671.0  | 8198.7  | 7254.0  |
| 45°   | 13722.6 | 13709.0 | 13791.1 | 13734.6 | 12858.4 | 11477.4 | 9954.4  | 9648.1  | 9667.0  | 9076.6  | 8019.0  |
| 47.5° | 13820.2 | 13813.3 | 14188.0 | 14718.6 | 14600.5 | 13832.2 | 11759.8 | 10928.1 | 10861.4 | 10067.3 | 8850.7  |
| 50°   | 13245.2 | 13231.5 | 13950.2 | 14944.5 | 15764.2 | 15810.4 | 13809.9 | 12370.7 | 12223.5 | 11092.4 | 9718.2  |
| 52.5° | 11409.0 | 11405.6 | 12586.4 | 14241.1 | 16173.2 | 17542.2 | 15836.0 | 13955.4 | 13709.0 | 12177.3 | 10635.5 |
| 55°   | 8778.8  | 8842.1  | 10195.7 | 12151.7 | 15427.1 | 18375.6 | 17655.1 | 15714.6 | 15336.4 | 13269.1 | 11480.9 |
| 57.5° | 6218.8  | 6311.1  | 7649.4  | 9391.5  | 13113.4 | 17882.7 | 18885.5 | 17477.2 | 17069.8 | 14357.5 | 12338.2 |
| 60°   | 3340.4  | 3422.6  | 4762.5  | 6841.7  | 9755.9  | 16044.8 | 19534.0 | 19007.0 | 18622.0 | 15391.1 | 13111.7 |
| 62.5° | 1990.2  | 2017.6  | 2572.0  | 4416.7  | 6598.6  | 12257.8 | 19258.5 | 20172.4 | 19855.8 | 16258.8 | 13784.2 |
| 65°   | 1429.0  | 1434.1  | 1713.0  | 2697.0  | 4006.1  | 7447.4  | 17326.6 | 20730.2 | 20632.7 | 16912.4 | 14282.2 |
| 67.5° | 1203.0  | 1199.6  | 1316.0  | 1791.7  | 2729.5  | 3730.6  | 13279.4 | 19941.4 | 20355.5 | 17326.6 | 14564.5 |
| 70°   | 1031.9  | 1037.0  | 1173.9  | 1312.5  | 2051.8  | 2111.7  | 6602.0  | 17362.5 | 18245.5 | 17436.1 | 14547.4 |
| 72.5° | 768.3   | 785.5   | 912.1   | 1196.2  | 1548.7  | 1452.8  | 2279.4  | 12873.8 | 14470.4 | 16428.2 | 13792.8 |
| 75°   | 542.4   | 551.0   | 641.8   | 1006.2  | 1155.1  | 1057.6  | 1163.7  | 6655.1  | 8701.7  | 12594.9 | 11289.2 |
| 77.5° | 417.6   | 433.0   | 486.0   | 703.4   | 1138.0  | 742.7   | 711.9   | 2303.4  | 3538.9  | 7608.3  | 7740.1  |
| 80°   | 225.9   | 253.3   | 350.9   | 508.2   | 799.2   | 525.3   | 352.5   | 917.3   | 1199.6  | 3557.7  | 2984.5  |
| 82.5° | 116.3   | 130.1   | 244.7   | 366.2   | 455.2   | 458.6   | 174.6   | 381.6   | 494.6   | 1098.6  | 409.0   |
| 85°   | 46.2    | 56.5    | 164.3   | 201.9   | 234.4   | 225.9   | 78.7    | 154.1   | 177.9   | 304.6   | 124.9   |
| 87.5° | 10.2    | 17.1    | 59.9    | 46.2    | 44.5    | 47.9    | 18.9    | 36.0    | 34.2    | 36.0    | 22.2    |
| 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°    | 3070.0  | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 | 3070.0 |
| 2.5°  | 3088.8  | 3082.0 | 3063.2 | 3042.6 | 3018.6 | 3005.0 | 2996.4 | 2994.7 | 2982.7 | 2974.1 | 2982.7 |
| 5°    | 3140.2  | 3133.3 | 3097.3 | 3054.6 | 3008.4 | 2972.5 | 2938.3 | 2907.4 | 2862.9 | 2854.4 | 2850.9 |
| 7.5°  | 3242.9  | 3224.0 | 3165.8 | 3107.7 | 3020.4 | 2916.0 | 2789.3 | 2643.9 | 2513.8 | 2474.5 | 2455.7 |
| 10°   | 3369.5  | 3343.9 | 3270.3 | 3167.6 | 2974.1 | 2690.1 | 2383.7 | 2099.7 | 1873.8 | 1810.6 | 1786.6 |
| 12.5° | 3513.2  | 3490.9 | 3393.5 | 3203.5 | 2780.8 | 2265.8 | 1796.8 | 1444.3 | 1225.3 | 1170.6 | 1155.1 |
| 15°   | 3684.4  | 3651.9 | 3516.7 | 3148.7 | 2435.1 | 1721.5 | 1233.8 | 1025.0 | 946.3  | 936.0  | 925.8  |
| 17.5° | 3865.8  | 3812.7 | 3626.1 | 2951.9 | 1969.6 | 1223.5 | 953.1  | 893.3  | 859.1  | 848.8  | 843.7  |
| 20°   | 4031.7  | 3963.3 | 3691.2 | 2654.1 | 1471.7 | 953.1  | 853.9  | 814.6  | 783.7  | 771.8  | 765.0  |
| 22.5° | 4197.7  | 4100.2 | 3691.2 | 2248.6 | 1103.7 | 845.3  | 783.7  | 747.8  | 711.9  | 696.5  | 687.9  |
| 25°   | 4370.6  | 4240.5 | 3626.1 | 1796.8 | 888.2  | 775.2  | 717.0  | 677.6  | 646.9  | 628.0  | 621.2  |
| 27.5° | 4538.3  | 4358.6 | 3477.3 | 1369.0 | 790.6  | 713.6  | 655.4  | 617.8  | 588.7  | 575.0  | 575.0  |
| 30°   | 4697.4  | 4474.9 | 3268.5 | 1038.7 | 727.2  | 653.7  | 598.9  | 566.4  | 537.3  | 523.7  | 525.3  |
| 32.5° | 4913.0  | 4622.1 | 3046.1 | 852.2  | 672.5  | 597.3  | 547.6  | 516.8  | 491.2  | 480.8  | 480.8  |
| 35°   | 5212.5  | 4839.4 | 2854.4 | 836.8  | 626.3  | 551.0  | 501.4  | 472.3  | 446.6  | 438.1  | 438.1  |
| 37.5° | 5636.9  | 5190.3 | 2753.5 | 939.5  | 588.7  | 509.9  | 463.7  | 433.0  | 409.0  | 402.1  | 400.5  |
| 40°   | 6160.6  | 5666.0 | 2808.2 | 1042.1 | 563.0  | 474.1  | 429.6  | 398.7  | 378.2  | 369.6  | 367.9  |
| 42.5° | 6781.7  | 6252.9 | 3111.1 | 1120.8 | 545.9  | 443.2  | 397.0  | 362.7  | 349.1  | 345.6  | 345.6  |
| 45°   | 7495.3  | 6898.1 | 3574.8 | 1204.7 | 518.5  | 414.1  | 364.5  | 338.9  | 328.5  | 326.9  | 325.1  |
| 47.5° | 8306.5  | 7606.5 | 4112.2 | 1309.1 | 491.2  | 386.7  | 338.9  | 321.7  | 313.1  | 309.8  | 309.8  |
| 50°   | 9110.8  | 8320.1 | 4664.9 | 1367.4 | 468.9  | 361.1  | 318.3  | 304.6  | 297.8  | 296.0  | 296.0  |
| 52.5° | 9952.8  | 9054.3 | 5111.6 | 1312.5 | 450.1  | 340.5  | 301.1  | 290.9  | 284.0  | 282.4  | 282.4  |
| 55°   | 10755.3 | 9648.1 | 5188.5 | 1114.1 | 412.5  | 320.0  | 282.4  | 277.3  | 268.7  | 268.7  | 266.9  |
| 57.5° | 11446.7 | 9945.9 | 4644.4 | 817.9  | 374.7  | 289.2  | 263.5  | 258.4  | 251.5  | 249.9  | 248.2  |
| 60°   | 12081.6 | 9860.3 | 3585.1 | 551.0  | 333.7  | 258.4  | 239.5  | 236.2  | 229.3  | 220.8  | 219.0  |
| 62.5° | 12439.2 | 9483.8 | 2452.2 | 359.4  | 292.6  | 225.9  | 212.2  | 210.5  | 195.1  | 177.9  | 174.6  |
| 65°   | 12574.4 | 8710.3 | 1529.9 | 261.8  | 244.7  | 193.4  | 183.1  | 179.7  | 157.4  | 138.6  | 136.9  |
| 67.5° | 12456.3 | 7437.2 | 771.8  | 207.0  | 193.4  | 160.8  | 150.6  | 150.6  | 135.2  | 118.1  | 116.3  |
| 70°   | 11984.0 | 5575.3 | 325.1  | 165.9  | 148.8  | 123.2  | 123.2  | 130.1  | 114.7  | 95.8   | 94.1   |
| 72.5° | 10958.9 | 3751.1 | 172.8  | 126.6  | 111.2  | 87.2   | 101.0  | 106.1  | 90.7   | 71.9   | 71.9   |
| 75°   | 8712.1  | 2288.0 | 119.8  | 94.1   | 70.2   | 61.6   | 77.0   | 80.5   | 61.6   | 47.9   | 46.2   |
| 77.5° | 5958.6  | 1314.3 | 80.5   | 59.9   | 44.5   | 36.0   | 53.1   | 49.6   | 32.5   | 22.2   | 24.0   |
| 80°   | 2616.5  | 547.6  | 46.2   | 27.4   | 17.1   | 13.7   | 18.9   | 13.7   | 10.2   | 6.9    | 6.9    |
| 82.5° | 306.3   | 128.3  | 17.1   | 10.2   | 6.9    | 3.4    | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 63.3    | 15.4   | 8.5    | 3.4    | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 12.0    | 3.4    | 1.7    | 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)