

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: STREETWORKS

Report Number: P510062

Luminaire Tested: **VERD-M-CA4-200-722-U-T3-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510062  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-200-722-U-T3-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 2200K, 910mA LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21896 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

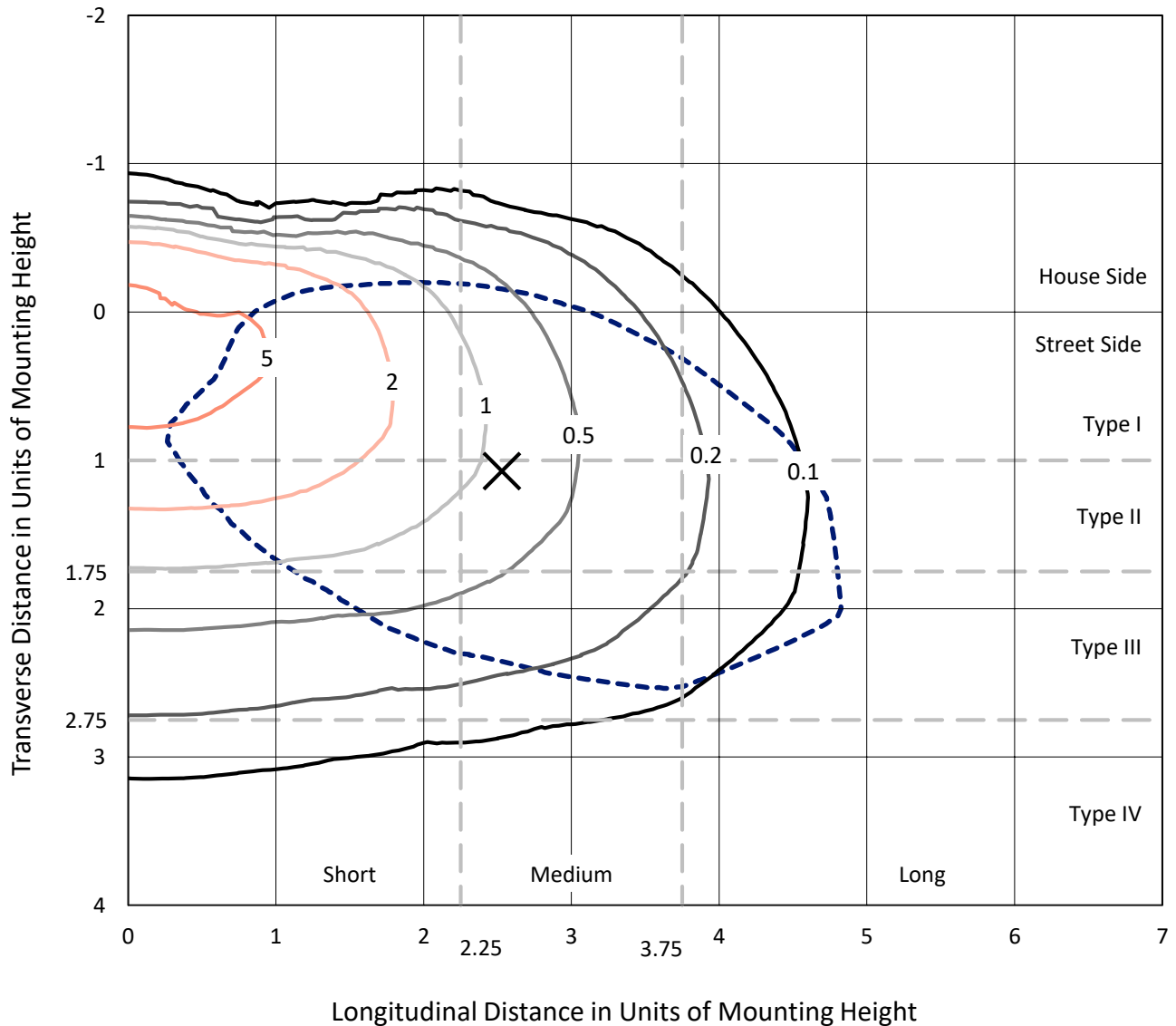
Input Watts (W): 201.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

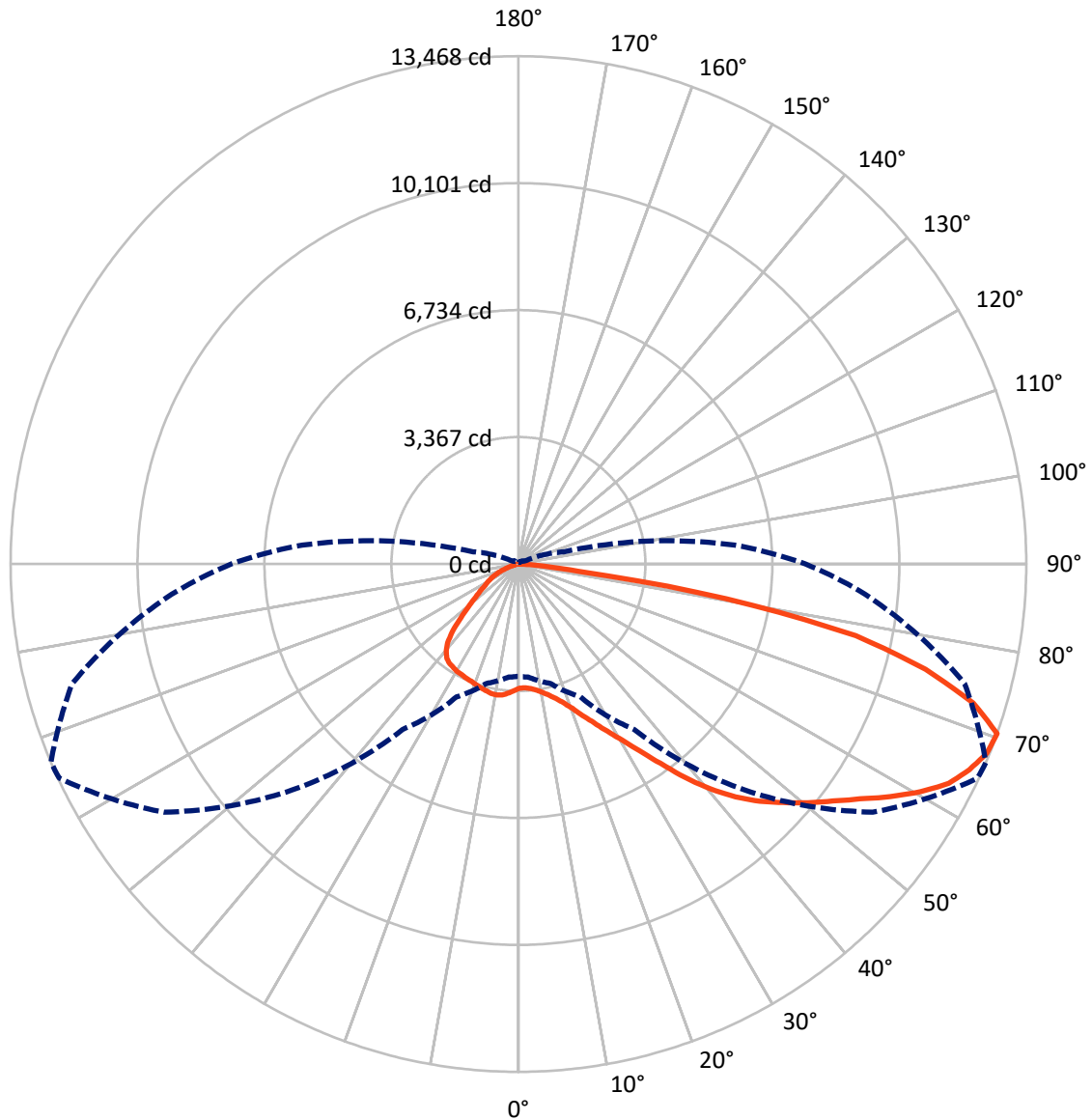
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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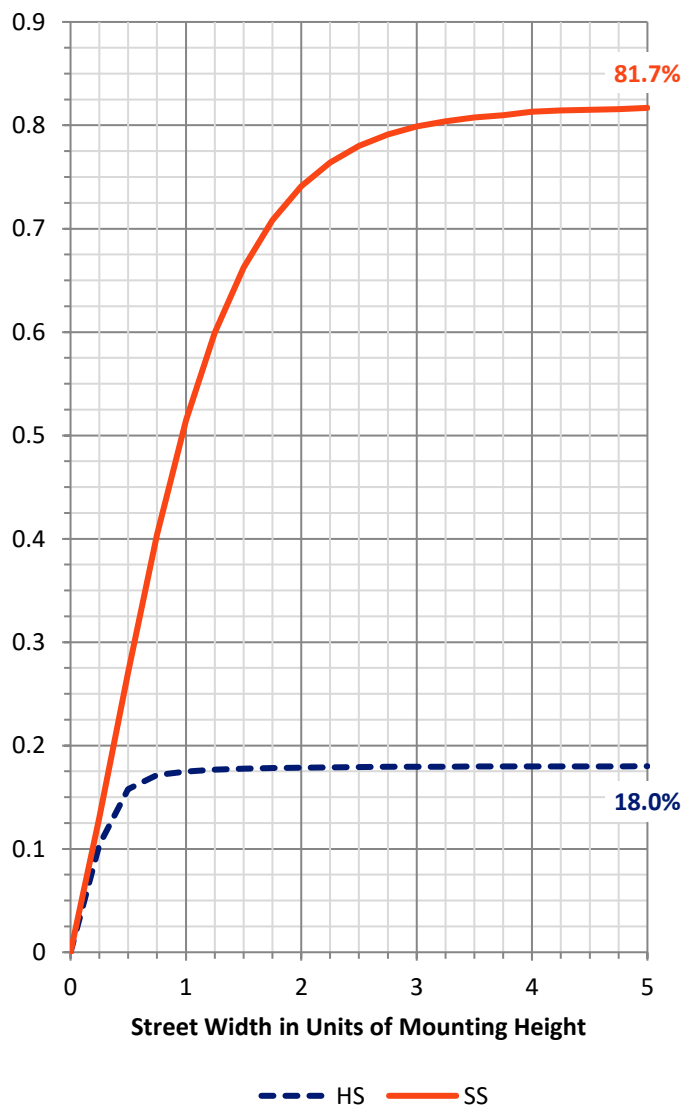
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3989.6   | 0.0    | 3989.6  |
|                    | % Fixture | 18.2     | 0.0    | 18.2    |
| <b>Street Side</b> | Lumens    | 17906.4  | 0.0    | 17906.4 |
|                    | % Fixture | 81.8     | 0.0    | 81.8    |
| <b>Total</b>       | Lumens    | 21896.0  | 0.0    | 21896.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 328.1   | 1.5       |
| 10°-20°   | 1023.8  | 4.7       |
| 20°-30°   | 1776.3  | 8.1       |
| 30°-40°   | 2638.1  | 12.0      |
| 40°-50°   | 3619.4  | 16.5      |
| 50°-60°   | 4444.8  | 20.3      |
| 60°-70°   | 4765.3  | 21.8      |
| 70°-80°   | 3025.1  | 13.8      |
| 80°-90°   | 275.3   | 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°    | 21896.0 | 100.0     |
| 0°-180°   | 21896.0 | 100.0     |

**Coefficient of Utilization**



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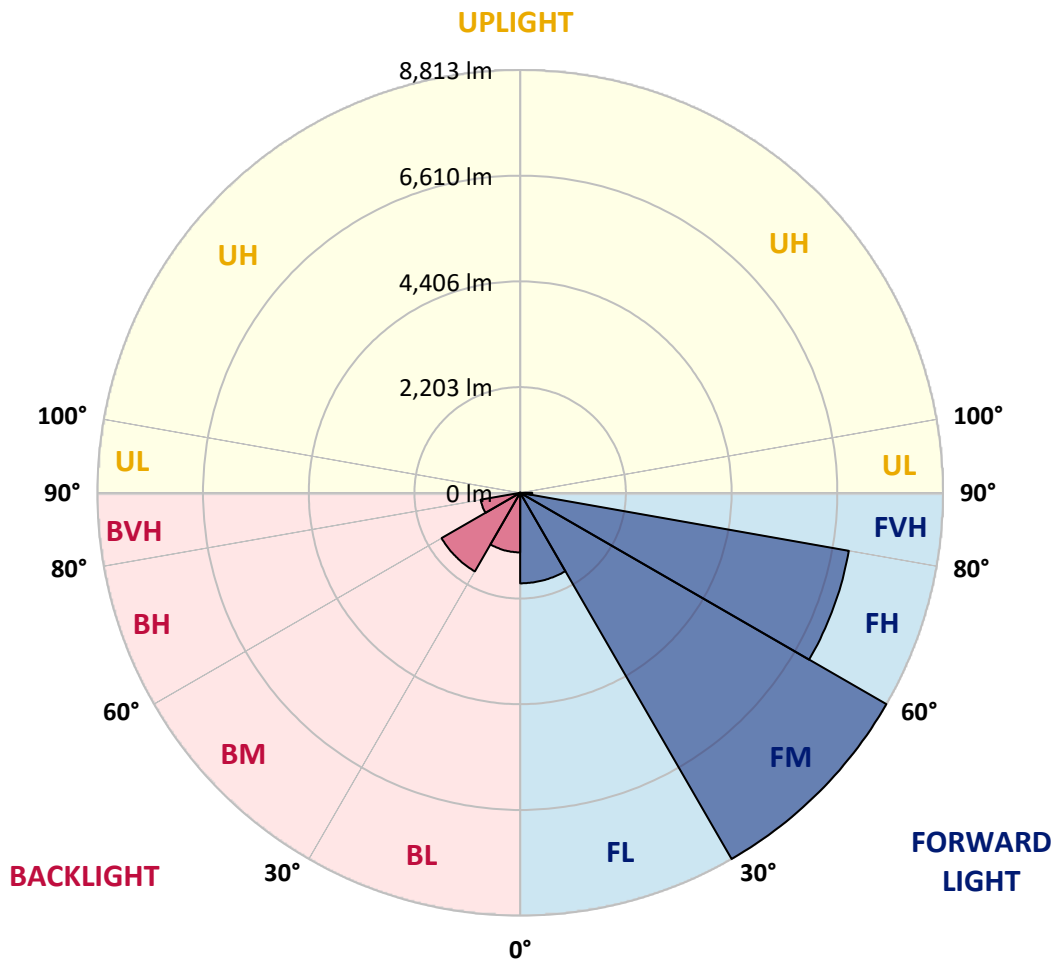
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1886.5 | 8.6       |                         |      |         |
| FM (30°-60°)   | 8812.9 | 40.2      |                         |      |         |
| FH (60°-80°)   | 6955.8 | 31.8      |                         |      | G3/7500 |
| FVH (80°-90°)  | 251.1  | 1.1       |                         |      | G3/500  |
| BL (0°-30°)    | 1241.6 | 5.7       | B3/2500                 |      |         |
| BM (30°-60°)   | 1889.3 | 8.6       | B2/2500                 |      |         |
| BH (60°-80°)   | 834.5  | 3.8       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 24.2   | 0.1       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 67°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0°    | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7  | 3293.7  | 3293.7  | 3293.7  | 3293.7 |
| 2.5°  | 3264.0 | 3294.7 | 3276.7 | 3274.6 | 3295.8 | 3275.6 | 3289.4  | 3286.2  | 3284.1  | 3287.3  | 3309.5 |
| 5°    | 3349.8 | 3385.8 | 3361.5 | 3354.0 | 3365.7 | 3329.7 | 3326.5  | 3319.1  | 3317.0  | 3318.0  | 3349.8 |
| 7.5°  | 3469.5 | 3511.9 | 3502.4 | 3483.3 | 3476.9 | 3417.6 | 3407.0  | 3380.5  | 3372.0  | 3374.2  | 3405.9 |
| 10°   | 3658.1 | 3700.5 | 3681.4 | 3639.0 | 3612.5 | 3544.7 | 3506.6  | 3472.7  | 3455.7  | 3457.9  | 3491.8 |
| 12.5° | 3899.6 | 3939.9 | 3908.1 | 3830.8 | 3815.9 | 3706.8 | 3647.5  | 3575.4  | 3563.8  | 3546.8  | 3582.9 |
| 15°   | 4127.4 | 4162.4 | 4147.5 | 4075.5 | 4035.2 | 3906.0 | 3796.9  | 3707.9  | 3697.3  | 3681.4  | 3680.3 |
| 17.5° | 4379.5 | 4414.5 | 4386.9 | 4334.0 | 4281.0 | 4127.4 | 4009.8  | 3895.4  | 3867.8  | 3854.1  | 3804.3 |
| 20°   | 4648.6 | 4703.7 | 4698.4 | 4655.0 | 4591.4 | 4411.3 | 4245.0  | 4115.7  | 4086.1  | 4060.7  | 3955.8 |
| 22.5° | 4926.2 | 4998.2 | 4982.3 | 4959.0 | 4932.5 | 4730.2 | 4536.3  | 4386.9  | 4364.7  | 4310.7  | 4145.4 |
| 25°   | 5233.4 | 5283.2 | 5271.5 | 5283.2 | 5265.2 | 5086.1 | 4874.3  | 4692.0  | 4662.4  | 4611.5  | 4358.3 |
| 27.5° | 5531.1 | 5583.0 | 5603.1 | 5578.8 | 5590.4 | 5462.2 | 5211.2  | 5048.0  | 5019.4  | 4926.2  | 4614.7 |
| 30°   | 5800.2 | 5864.8 | 5893.4 | 5904.0 | 5943.2 | 5810.8 | 5625.4  | 5427.3  | 5417.7  | 5322.4  | 4952.7 |
| 32.5° | 6015.2 | 6087.3 | 6157.2 | 6202.7 | 6265.2 | 6207.0 | 6022.6  | 5902.9  | 5904.0  | 5818.2  | 5460.1 |
| 35°   | 6171.0 | 6253.6 | 6355.3 | 6476.1 | 6607.4 | 6583.1 | 6473.9  | 6476.1  | 6493.0  | 6521.6  | 6107.4 |
| 37.5° | 6343.6 | 6410.4 | 6530.1 | 6698.5 | 6898.8 | 6949.6 | 6934.8  | 7103.2  | 7185.9  | 7236.7  | 6676.3 |
| 40°   | 6446.4 | 6514.2 | 6663.6 | 6890.3 | 7181.6 | 7303.5 | 7440.1  | 7735.7  | 7843.7  | 7790.8  | 7162.6 |
| 42.5° | 6333.0 | 6393.4 | 6653.0 | 7045.0 | 7413.6 | 7690.1 | 7934.8  | 8367.1  | 8445.5  | 8272.8  | 7572.5 |
| 45°   | 6185.8 | 6264.2 | 6537.5 | 7087.3 | 7619.1 | 8069.4 | 8449.7  | 8916.9  | 8975.2  | 8730.5  | 7934.8 |
| 47.5° | 6065.0 | 6133.9 | 6452.8 | 7041.8 | 7808.8 | 8458.2 | 8902.1  | 9436.0  | 9450.8  | 9148.9  | 8309.9 |
| 50°   | 5910.3 | 5994.0 | 6326.7 | 6985.6 | 7923.2 | 8802.5 | 9316.3  | 9920.1  | 9953.0  | 9582.2  | 8627.7 |
| 52.5° | 5748.3 | 5829.8 | 6174.1 | 6893.5 | 8005.8 | 9088.5 | 9746.4  | 10435.0 | 10438.2 | 10040.9 | 8966.7 |
| 55°   | 5508.8 | 5595.7 | 5977.1 | 6760.0 | 8031.3 | 9278.2 | 10178.6 | 10960.5 | 10993.3 | 10506.0 | 9273.9 |
| 57.5° | 5255.6 | 5329.8 | 5739.8 | 6552.3 | 7937.0 | 9457.2 | 10622.5 | 11544.2 | 11634.2 | 11030.4 | 9537.7 |
| 60°   | 4919.8 | 4994.0 | 5427.3 | 6280.1 | 7736.7 | 9658.5 | 11131.0 | 12247.6 | 12257.2 | 11455.2 | 9729.5 |
| 62.5° | 4558.6 | 4623.2 | 5021.5 | 5853.1 | 7426.3 | 9735.8 | 11567.5 | 12810.2 | 12809.1 | 11833.4 | 9824.8 |
| 65°   | 4129.5 | 4156.0 | 4561.7 | 5328.7 | 6944.3 | 9622.5 | 11760.3 | 13181.0 | 13144.9 | 12105.7 | 9793.0 |
| 67.5° | 3621.0 | 3649.6 | 3956.8 | 4677.2 | 6245.1 | 9179.6 | 11674.5 | 13360.0 | 13396.0 | 12348.3 | 9655.3 |
| 70°   | 2976.9 | 3010.8 | 3278.8 | 3886.9 | 5354.2 | 8473.0 | 11473.2 | 13437.3 | 13468.1 | 12250.8 | 9230.5 |
| 72.5° | 2197.2 | 2242.7 | 2406.9 | 2893.2 | 4063.8 | 7119.1 | 10541.0 | 12590.9 | 12607.8 | 11437.2 | 8345.9 |
| 75°   | 1364.5 | 1448.2 | 1602.9 | 1922.8 | 2636.8 | 4992.9 | 9010.1  | 11256.0 | 11150.1 | 10201.9 | 6906.2 |
| 77.5° | 545.6  | 559.4  | 636.7  | 900.5  | 1286.1 | 2599.7 | 6531.2  | 8947.6  | 9150.0  | 8162.6  | 4939.9 |
| 80°   | 317.8  | 315.7  | 333.7  | 419.5  | 551.9  | 888.8  | 2540.4  | 5019.4  | 5594.7  | 4483.3  | 2222.6 |
| 82.5° | 256.4  | 246.8  | 246.8  | 269.1  | 264.8  | 374.0  | 832.7   | 1466.2  | 1608.2  | 1427.0  | 632.5  |
| 85°   | 134.5  | 131.4  | 107.0  | 132.4  | 132.4  | 186.5  | 319.9   | 415.3   | 438.6   | 382.4   | 237.3  |
| 87.5° | 33.9   | 33.9   | 33.9   | 41.3   | 32.8   | 39.2   | 54.0    | 65.7    | 67.8    | 55.1    | 35.0   |
| 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°    | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 | 3293.7 |
| 2.5°  | 3318.0 | 3327.6 | 3364.6 | 3359.3 | 3365.7 | 3365.7 | 3376.3 | 3387.9 | 3422.9 | 3402.8 | 3394.3 |
| 5°    | 3356.2 | 3375.2 | 3421.8 | 3438.8 | 3464.2 | 3467.4 | 3488.6 | 3496.0 | 3534.1 | 3512.9 | 3512.9 |
| 7.5°  | 3429.3 | 3451.5 | 3494.9 | 3501.3 | 3512.9 | 3492.8 | 3498.1 | 3474.8 | 3500.2 | 3474.8 | 3475.9 |
| 10°   | 3511.9 | 3526.7 | 3556.4 | 3514.0 | 3496.0 | 3448.3 | 3437.7 | 3380.5 | 3400.6 | 3367.8 | 3359.3 |
| 12.5° | 3591.3 | 3586.0 | 3563.8 | 3488.6 | 3438.8 | 3360.4 | 3327.6 | 3250.2 | 3246.0 | 3202.5 | 3194.1 |
| 15°   | 3666.6 | 3629.5 | 3557.4 | 3440.9 | 3356.2 | 3247.0 | 3168.6 | 3083.9 | 3054.2 | 3004.4 | 3000.2 |
| 17.5° | 3758.7 | 3695.2 | 3567.0 | 3395.4 | 3256.6 | 3097.7 | 2986.4 | 2891.1 | 2829.6 | 2784.1 | 2783.0 |
| 20°   | 3871.0 | 3773.6 | 3571.2 | 3343.4 | 3153.8 | 2950.4 | 2794.7 | 2673.9 | 2586.0 | 2528.8 | 2527.7 |
| 22.5° | 4011.9 | 3879.5 | 3610.4 | 3284.1 | 3022.4 | 2772.4 | 2578.6 | 2369.9 | 2249.1 | 2132.6 | 2111.4 |
| 25°   | 4177.2 | 3986.5 | 3644.3 | 3253.4 | 2893.2 | 2587.0 | 2298.9 | 1993.8 | 1806.3 | 1713.0 | 1678.1 |
| 27.5° | 4409.2 | 4164.5 | 3694.1 | 3195.1 | 2771.4 | 2358.2 | 1938.7 | 1606.0 | 1380.4 | 1300.9 | 1300.9 |
| 30°   | 4677.2 | 4389.1 | 3787.3 | 3160.2 | 2601.9 | 2037.2 | 1543.5 | 1186.5 | 976.8  | 857.0  | 853.9  |
| 32.5° | 5086.1 | 4657.1 | 3872.1 | 3085.0 | 2396.3 | 1687.6 | 1116.6 | 764.9  | 596.4  | 522.3  | 518.0  |
| 35°   | 5674.1 | 5167.7 | 4008.7 | 3009.7 | 2098.7 | 1256.4 | 708.7  | 438.6  | 340.1  | 297.7  | 295.6  |
| 37.5° | 6239.8 | 5654.0 | 4303.3 | 2860.4 | 1676.0 | 789.2  | 393.0  | 253.2  | 207.6  | 202.3  | 200.2  |
| 40°   | 6638.2 | 6073.5 | 4510.9 | 2632.6 | 1190.8 | 418.5  | 227.8  | 183.3  | 180.1  | 178.0  | 176.9  |
| 42.5° | 7072.5 | 6385.0 | 4658.1 | 2342.3 | 706.6  | 242.6  | 185.4  | 165.3  | 160.0  | 157.8  | 157.8  |
| 45°   | 7425.3 | 6684.8 | 4685.7 | 1927.0 | 356.0  | 200.2  | 169.5  | 150.4  | 144.1  | 148.3  | 149.4  |
| 47.5° | 7750.5 | 6967.6 | 4592.5 | 1449.2 | 240.5  | 186.5  | 158.9  | 139.8  | 135.6  | 146.2  | 146.2  |
| 50°   | 8028.1 | 7207.0 | 4378.5 | 1081.6 | 225.7  | 175.9  | 148.3  | 129.2  | 128.2  | 137.7  | 138.8  |
| 52.5° | 8304.6 | 7399.9 | 4041.6 | 816.8  | 214.0  | 164.2  | 137.7  | 119.7  | 116.5  | 122.9  | 123.9  |
| 55°   | 8523.9 | 7468.7 | 3791.6 | 608.1  | 205.5  | 153.6  | 128.2  | 110.2  | 102.8  | 101.7  | 103.8  |
| 57.5° | 8644.6 | 7408.3 | 3546.8 | 447.1  | 196.0  | 144.1  | 118.7  | 97.5   | 85.8   | 85.8   | 85.8   |
| 60°   | 8646.8 | 7335.2 | 3285.2 | 353.8  | 185.4  | 133.5  | 108.1  | 83.7   | 72.0   | 69.9   | 69.9   |
| 62.5° | 8623.5 | 7204.9 | 2904.9 | 307.2  | 173.7  | 125.0  | 94.3   | 71.0   | 62.5   | 59.3   | 59.3   |
| 65°   | 8520.7 | 6959.1 | 2444.0 | 262.7  | 160.0  | 118.7  | 80.5   | 63.6   | 56.1   | 51.9   | 51.9   |
| 67.5° | 8200.8 | 6498.3 | 1881.5 | 228.8  | 147.3  | 104.9  | 73.1   | 57.2   | 49.8   | 45.6   | 44.5   |
| 70°   | 7613.9 | 5753.6 | 1241.6 | 194.9  | 134.5  | 93.2   | 66.7   | 51.9   | 44.5   | 40.3   | 39.2   |
| 72.5° | 6629.7 | 4682.5 | 624.0  | 165.3  | 115.5  | 85.8   | 60.4   | 45.6   | 38.1   | 33.9   | 33.9   |
| 75°   | 5195.3 | 3250.2 | 340.1  | 131.4  | 91.1   | 75.2   | 53.0   | 38.1   | 32.8   | 29.7   | 29.7   |
| 77.5° | 3185.6 | 1611.3 | 232.0  | 101.7  | 68.9   | 61.4   | 42.4   | 31.8   | 28.6   | 27.5   | 27.5   |
| 80°   | 1162.2 | 527.6  | 155.7  | 72.0   | 51.9   | 47.7   | 33.9   | 27.5   | 26.5   | 26.5   | 26.5   |
| 82.5° | 419.5  | 268.0  | 104.9  | 48.7   | 32.8   | 36.0   | 27.5   | 23.3   | 22.2   | 23.3   | 24.4   |
| 85°   | 172.7  | 117.6  | 38.1   | 27.5   | 18.0   | 19.1   | 17.0   | 15.9   | 17.0   | 18.0   | 18.0   |
| 87.5° | 26.5   | 23.3   | 13.8   | 13.8   | 10.6   | 9.5    | 7.4    | 8.5    | 10.6   | 12.7   | 12.7   |
| 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)