

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: P510213

Luminaire Tested: **VERD-M-CA4-230-727-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510213  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-230-727-U-T2  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 2700K, 1050mA LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27441 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

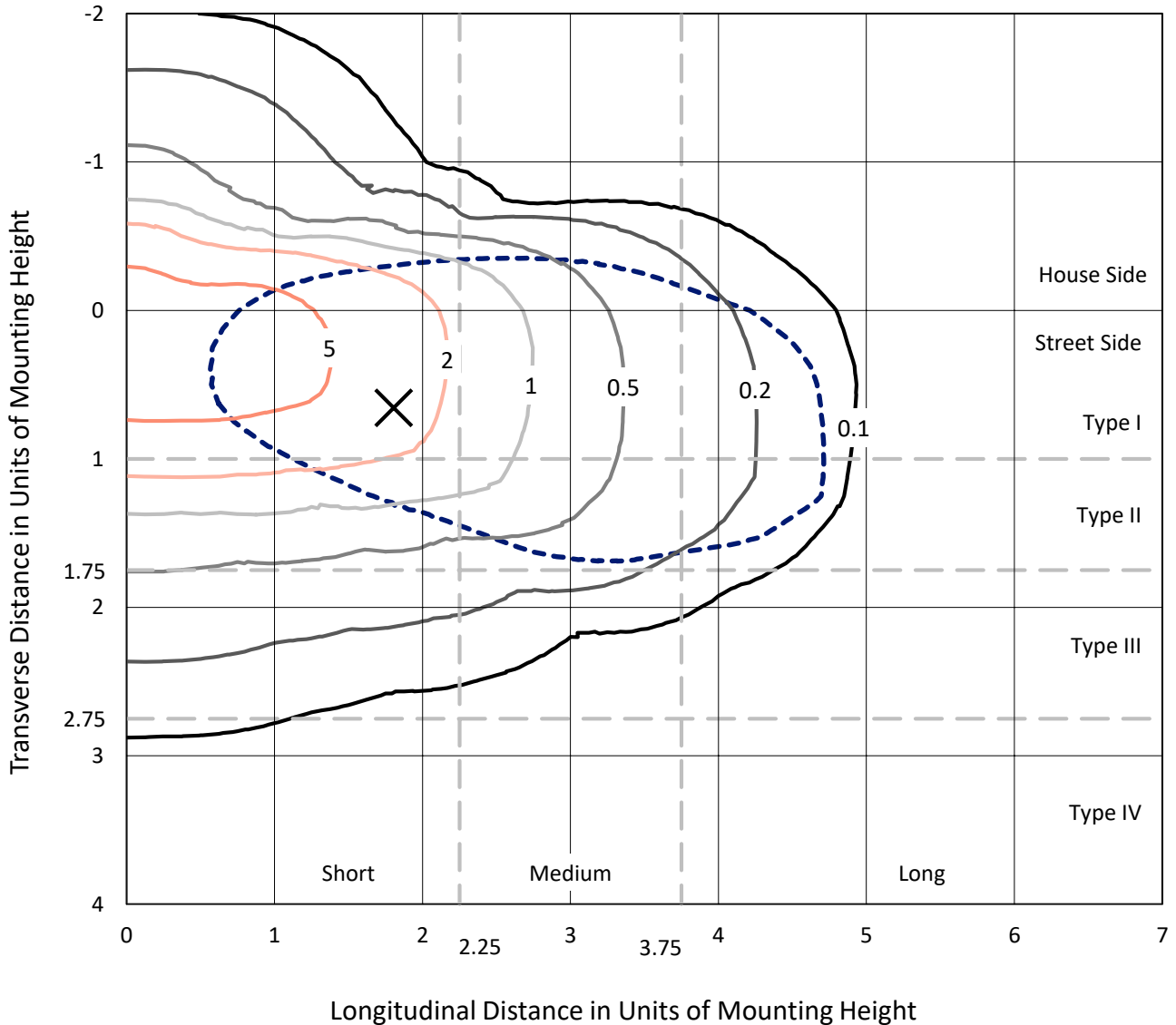
Input Watts (W): 233.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

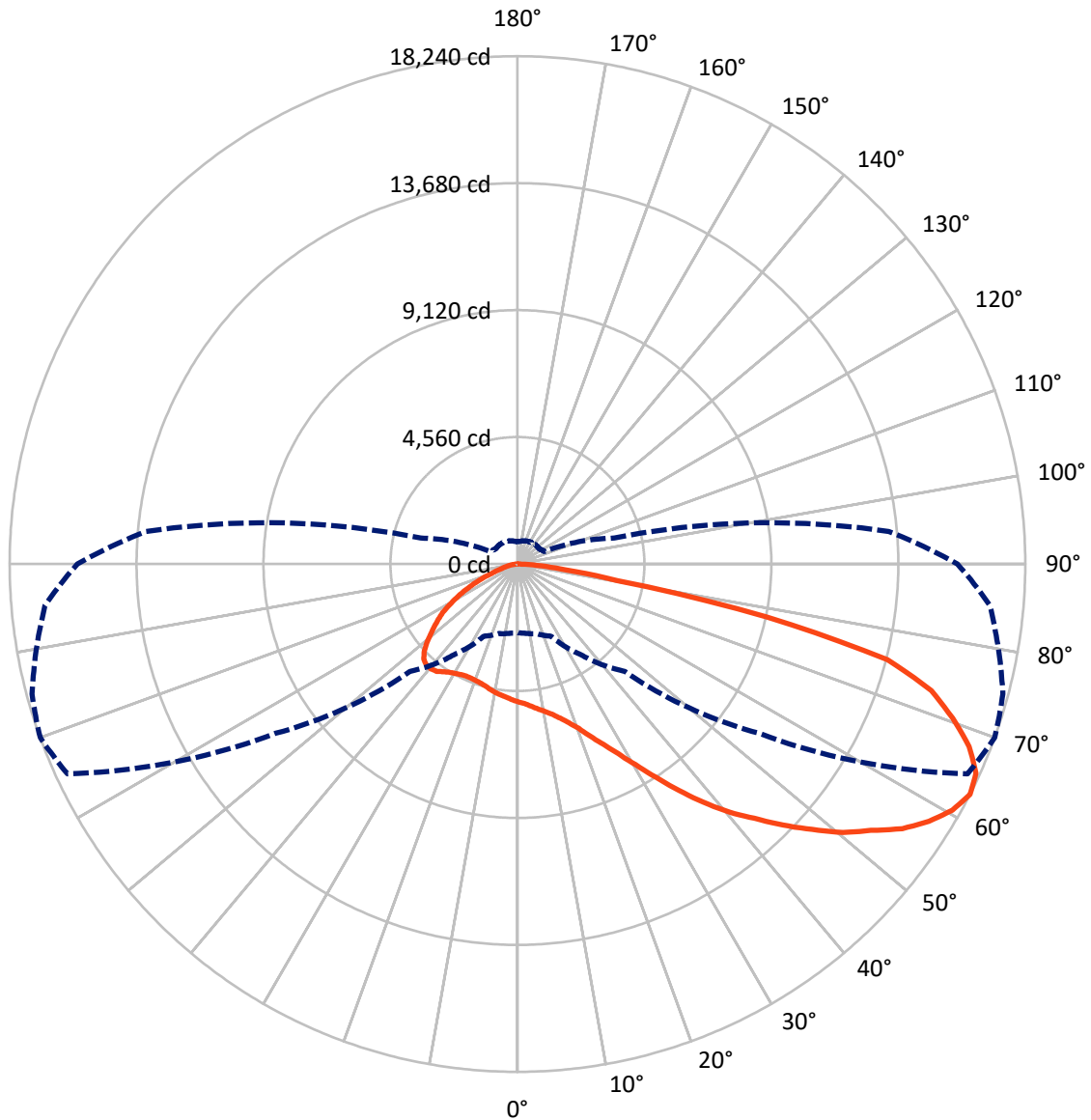
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7104.6   | 0.0    | 7104.6  |
|                    | % Fixture | 25.9     | 0.0    | 25.9    |
| <b>Street Side</b> | Lumens    | 20336.4  | 0.0    | 20336.4 |
|                    | % Fixture | 74.1     | 0.0    | 74.1    |
| <b>Total</b>       | Lumens    | 27441.0  | 0.0    | 27441.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 475.7   | 1.7       |
| 10°-20°   | 1444.6  | 5.3       |
| 20°-30°   | 2451.8  | 8.9       |
| 30°-40°   | 3547.6  | 12.9      |
| 40°-50°   | 4655.3  | 17.0      |
| 50°-60°   | 5439.6  | 19.8      |
| 60°-70°   | 5458.9  | 19.9      |
| 70°-80°   | 3478.5  | 12.7      |
| 80°-90°   | 488.8   | 1.8       |
| 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°    | 27441.0 | 100.0     |
| 0°-180°   | 27441.0 | 100.0     |

**Coefficient of Utilization**



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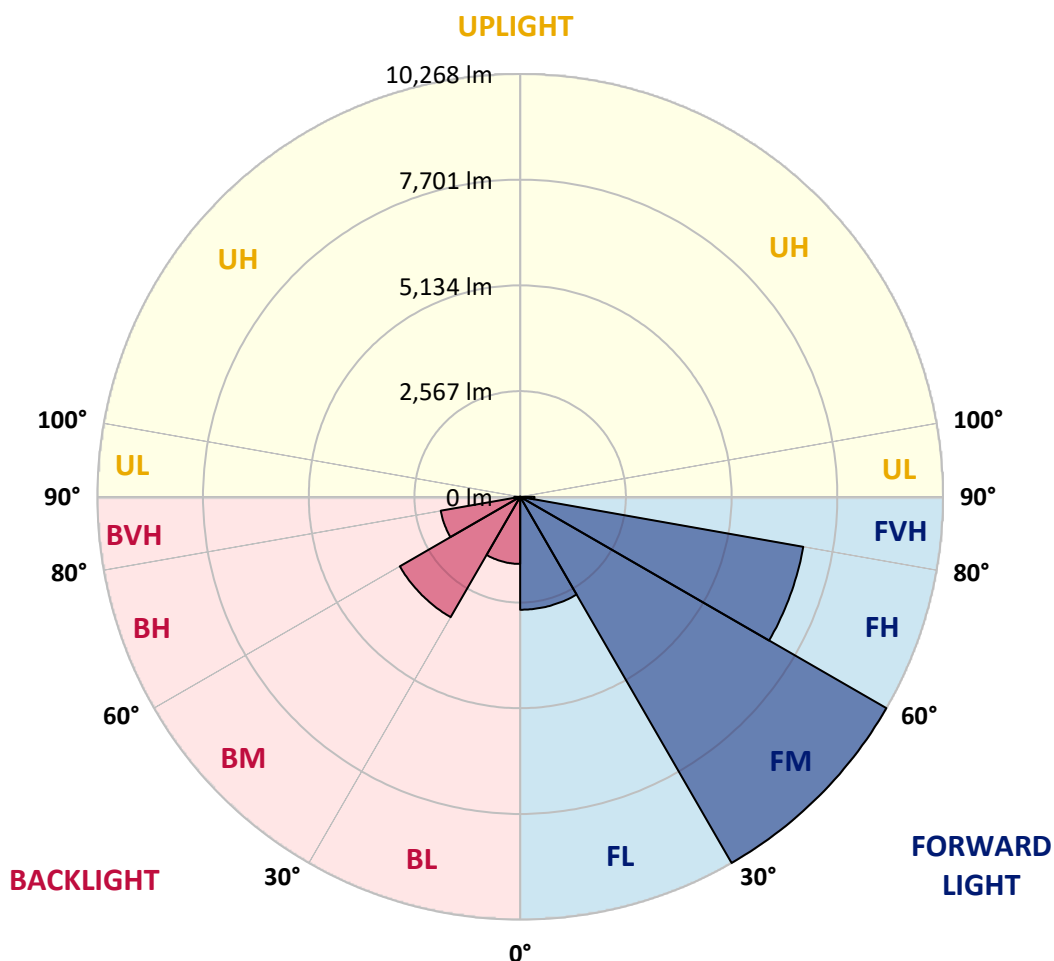
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2742.7  | 10.0      |                         |      |         |
| FM (30°-60°)   | 10268.1 | 37.4      |                         |      |         |
| FH (60°-80°)   | 6980.7  | 25.4      |                         |      | G3/7500 |
| FVH (80°-90°)  | 344.8   | 1.3       |                         |      | G3/500  |
| BL (0°-30°)    | 1629.4  | 5.9       | B3/2500                 |      |         |
| BM (30°-60°)   | 3374.5  | 12.3      | B3/5000                 |      |         |
| BH (60°-80°)   | 1956.7  | 7.1       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 144.0   | 0.5       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

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

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 70°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7  | 4952.7  | 4952.7  | 4952.7  | 4952.7  |
| 2.5°  | 5142.4 | 5197.0 | 5189.6 | 5156.1 | 5179.6 | 5115.2 | 5091.6  | 5055.6  | 5018.4  | 5006.0  | 4985.0  |
| 5°    | 5385.5 | 5457.4 | 5443.8 | 5399.1 | 5397.9 | 5306.1 | 5254.1  | 5185.8  | 5128.8  | 5084.2  | 5018.4  |
| 7.5°  | 5612.4 | 5695.5 | 5683.1 | 5639.7 | 5637.2 | 5531.8 | 5423.9  | 5317.3  | 5251.6  | 5194.5  | 5074.2  |
| 10°   | 5853.0 | 5916.2 | 5905.1 | 5849.3 | 5838.1 | 5735.2 | 5608.7  | 5474.8  | 5378.1  | 5298.7  | 5127.6  |
| 12.5° | 6075.0 | 6141.9 | 6146.9 | 6077.4 | 6060.1 | 5949.7 | 5839.4  | 5662.0  | 5536.8  | 5446.3  | 5194.5  |
| 15°   | 6282.0 | 6361.4 | 6346.5 | 6277.1 | 6258.5 | 6146.9 | 6039.0  | 5875.3  | 5745.1  | 5618.6  | 5303.7  |
| 17.5° | 6448.2 | 6523.9 | 6505.3 | 6474.3 | 6464.3 | 6377.5 | 6288.2  | 6110.9  | 5995.6  | 5833.2  | 5472.3  |
| 20°   | 6562.3 | 6633.0 | 6640.4 | 6631.7 | 6688.8 | 6606.9 | 6557.3  | 6432.1  | 6305.6  | 6159.3  | 5702.9  |
| 22.5° | 6606.9 | 6691.3 | 6763.2 | 6819.0 | 6936.8 | 6924.4 | 6915.7  | 6843.8  | 6719.8  | 6506.5  | 6008.0  |
| 25°   | 6620.6 | 6704.9 | 6816.5 | 6954.1 | 7165.0 | 7240.6 | 7295.2  | 7312.5  | 7177.4  | 7008.7  | 6387.4  |
| 27.5° | 6623.1 | 6713.6 | 6827.7 | 7049.6 | 7370.8 | 7599.0 | 7729.2  | 7789.9  | 7714.3  | 7580.4  | 6903.3  |
| 30°   | 6571.0 | 6664.0 | 6810.3 | 7106.7 | 7532.0 | 7906.5 | 8122.3  | 8391.4  | 8359.1  | 8246.3  | 7549.4  |
| 32.5° | 6420.9 | 6505.3 | 6707.4 | 7096.8 | 7692.0 | 8221.5 | 8557.5  | 9023.8  | 9132.9  | 9059.7  | 8294.6  |
| 35°   | 6151.8 | 6254.8 | 6516.4 | 7014.9 | 7778.8 | 8527.8 | 9069.7  | 9795.1  | 9992.2  | 9997.2  | 9208.5  |
| 37.5° | 5880.3 | 5958.4 | 6265.9 | 6861.1 | 7827.1 | 8799.3 | 9555.8  | 10567.6 | 10854.1 | 10860.3 | 9968.7  |
| 40°   | 5591.3 | 5663.3 | 6001.8 | 6655.3 | 7777.5 | 9012.6 | 10008.4 | 11310.4 | 11720.9 | 11682.4 | 10715.2 |
| 42.5° | 5216.9 | 5296.2 | 5632.3 | 6375.0 | 7653.5 | 9177.5 | 10468.4 | 12090.4 | 12484.7 | 12528.1 | 11493.9 |
| 45°   | 4896.9 | 4960.2 | 5254.1 | 5937.3 | 7426.6 | 9266.8 | 10900.0 | 12922.5 | 13373.8 | 13328.0 | 12324.8 |
| 47.5° | 4502.6 | 4596.8 | 4910.6 | 5581.4 | 7018.6 | 9244.5 | 11312.9 | 13745.8 | 14248.1 | 14205.9 | 13045.2 |
| 50°   | 3473.4 | 3582.5 | 4311.6 | 5208.2 | 6497.8 | 9069.7 | 11687.4 | 14533.3 | 15157.0 | 15046.7 | 13807.9 |
| 52.5° | 3154.7 | 3185.7 | 3475.8 | 4779.1 | 5984.4 | 8672.8 | 11962.7 | 15527.8 | 15897.3 | 15853.9 | 14580.4 |
| 55°   | 2960.0 | 3019.5 | 3152.2 | 3937.1 | 5523.1 | 8028.0 | 12153.6 | 16358.6 | 16775.3 | 16571.9 | 15279.8 |
| 57.5° | 2788.9 | 2831.0 | 2988.5 | 3370.4 | 4992.4 | 7140.2 | 12097.8 | 17059.2 | 17431.2 | 17147.3 | 15963.0 |
| 60°   | 2606.6 | 2633.8 | 2791.3 | 3076.5 | 4419.5 | 6159.3 | 11531.1 | 17782.2 | 17947.1 | 17686.7 | 16540.9 |
| 62.5° | 2465.2 | 2491.2 | 2585.5 | 2859.5 | 3973.1 | 5457.4 | 10603.6 | 17833.0 | 18239.8 | 18050.0 | 17032.0 |
| 65°   | 2284.2 | 2301.5 | 2419.3 | 2635.1 | 3558.9 | 5039.5 | 9786.4  | 17355.6 | 18098.4 | 18051.3 | 17220.4 |
| 67.5° | 2084.5 | 2105.6 | 2217.2 | 2369.7 | 3029.4 | 4547.2 | 8419.9  | 17097.7 | 17500.7 | 17546.6 | 16867.0 |
| 70°   | 1850.1 | 1865.0 | 1980.3 | 2090.7 | 2591.7 | 3991.7 | 6693.7  | 16109.4 | 16579.3 | 16578.1 | 15775.8 |
| 72.5° | 1597.2 | 1595.9 | 1710.0 | 1826.6 | 2171.3 | 3353.1 | 5240.4  | 14302.6 | 15546.4 | 15453.4 | 14223.3 |
| 75°   | 1316.9 | 1335.5 | 1445.9 | 1537.7 | 1806.7 | 2718.2 | 3649.4  | 10360.5 | 13724.8 | 13852.5 | 12275.2 |
| 77.5° | 842.0  | 854.4  | 916.4  | 1010.6 | 1263.6 | 2077.1 | 2380.9  | 5757.5  | 9163.9  | 11053.7 | 9662.4  |
| 80°   | 615.1  | 621.3  | 675.8  | 730.4  | 840.7  | 1264.8 | 1210.3  | 2502.4  | 3632.1  | 5426.4  | 5927.4  |
| 82.5° | 419.1  | 420.4  | 463.8  | 476.2  | 482.4  | 570.4  | 574.1   | 1217.7  | 1729.9  | 2037.4  | 2617.7  |
| 85°   | 277.8  | 230.6  | 179.8  | 238.1  | 244.3  | 209.6  | 204.6   | 549.3   | 858.1   | 1029.2  | 969.7   |
| 87.5° | 62.0   | 60.8   | 70.7   | 71.9   | 69.4   | 59.5   | 49.6    | 84.3    | 129.0   | 127.7   | 163.7   |
| 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°    | 4952.7  | 4952.7  | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 | 4952.7 |
| 2.5°  | 4965.1  | 4958.9  | 4924.2 | 4851.0 | 4801.4 | 4750.6 | 4722.1 | 4704.7 | 4710.9 | 4682.4 | 4670.0 |
| 5°    | 4977.5  | 4946.5  | 4848.6 | 4761.8 | 4683.6 | 4595.6 | 4522.4 | 4512.5 | 4527.4 | 4501.3 | 4486.5 |
| 7.5°  | 5009.8  | 4944.0  | 4818.8 | 4670.0 | 4539.8 | 4456.7 | 4351.3 | 4298.0 | 4294.3 | 4268.2 | 4273.2 |
| 10°   | 5028.4  | 4942.8  | 4775.4 | 4595.6 | 4443.1 | 4295.5 | 4182.7 | 4123.1 | 4119.4 | 4082.2 | 4073.5 |
| 12.5° | 5079.2  | 4956.4  | 4724.6 | 4505.1 | 4335.2 | 4138.0 | 4019.0 | 3964.4 | 3958.2 | 3906.1 | 3886.3 |
| 15°   | 5157.3  | 4987.4  | 4671.2 | 4399.7 | 4180.2 | 3995.4 | 3852.8 | 3779.6 | 3768.5 | 3707.7 | 3686.6 |
| 17.5° | 5281.3  | 5075.5  | 4655.1 | 4304.2 | 4045.0 | 3842.9 | 3675.5 | 3596.1 | 3531.6 | 3498.2 | 3469.6 |
| 20°   | 5448.7  | 5184.6  | 4673.7 | 4214.9 | 3875.1 | 3642.0 | 3433.7 | 3329.5 | 3284.9 | 3230.3 | 3234.0 |
| 22.5° | 5686.8  | 5355.7  | 4706.0 | 4145.5 | 3721.4 | 3427.5 | 3193.1 | 3076.5 | 2995.9 | 2950.1 | 2952.5 |
| 25°   | 6021.6  | 5613.7  | 4769.2 | 4079.7 | 3554.0 | 3193.1 | 2916.6 | 2754.1 | 2672.3 | 2642.5 | 2611.5 |
| 27.5° | 6444.5  | 5922.4  | 4919.2 | 3999.1 | 3355.5 | 2927.7 | 2621.4 | 2431.7 | 2348.6 | 2304.0 | 2297.8 |
| 30°   | 6987.6  | 6327.9  | 5095.3 | 3939.6 | 3147.2 | 2596.6 | 2255.6 | 2105.6 | 2032.4 | 1969.2 | 1939.4 |
| 32.5° | 7649.8  | 6900.8  | 5291.3 | 3880.1 | 2889.3 | 2225.9 | 1917.1 | 1801.8 | 1685.2 | 1604.6 | 1608.3 |
| 35°   | 8418.6  | 7524.6  | 5582.7 | 3804.4 | 2586.7 | 1879.9 | 1666.6 | 1517.8 | 1408.7 | 1355.4 | 1330.6 |
| 37.5° | 9144.1  | 8164.4  | 5924.9 | 3727.6 | 2248.2 | 1655.5 | 1419.8 | 1282.2 | 1197.9 | 1157.0 | 1165.6 |
| 40°   | 9878.2  | 8824.1  | 6220.0 | 3539.1 | 1868.7 | 1452.1 | 1175.6 | 1097.4 | 1064.0 | 1031.7 | 1035.4 |
| 42.5° | 10535.4 | 9349.9  | 6435.8 | 3329.5 | 1603.4 | 1219.0 | 1002.0 | 1019.3 | 1039.2 | 1020.6 | 1015.6 |
| 45°   | 11219.9 | 9965.0  | 6625.5 | 2972.4 | 1381.4 | 1035.4 | 958.6  | 1006.9 | 1050.3 | 1047.8 | 1041.6 |
| 47.5° | 11906.9 | 10535.4 | 6644.1 | 2498.7 | 1179.3 | 973.4  | 957.3  | 993.3  | 1050.3 | 1060.2 | 1052.8 |
| 50°   | 12614.9 | 11133.1 | 6535.0 | 1940.7 | 1093.7 | 980.9  | 958.6  | 964.8  | 1028.0 | 1039.2 | 1035.4 |
| 52.5° | 13399.9 | 11779.1 | 6265.9 | 1475.6 | 1060.2 | 993.3  | 962.3  | 953.6  | 989.6  | 1009.4 | 1013.1 |
| 55°   | 14121.6 | 12292.5 | 5761.2 | 1303.3 | 1035.4 | 994.5  | 989.6  | 961.0  | 962.3  | 952.4  | 977.2  |
| 57.5° | 14728.0 | 12782.3 | 5188.3 | 1209.0 | 1013.1 | 983.4  | 1002.0 | 948.6  | 933.8  | 892.8  | 882.9  |
| 60°   | 15355.4 | 13180.4 | 4382.3 | 1144.6 | 987.1  | 969.7  | 971.0  | 927.6  | 890.3  | 830.8  | 813.5  |
| 62.5° | 15800.6 | 13391.2 | 3599.8 | 1068.9 | 951.1  | 948.6  | 930.0  | 897.8  | 864.3  | 812.2  | 804.8  |
| 65°   | 15929.6 | 13279.6 | 2765.3 | 989.6  | 904.0  | 913.9  | 880.4  | 835.8  | 696.9  | 632.4  | 632.4  |
| 67.5° | 15503.0 | 12592.6 | 2047.3 | 897.8  | 846.9  | 866.8  | 801.1  | 658.5  | 586.5  | 548.1  | 554.3  |
| 70°   | 14333.6 | 11482.8 | 1333.0 | 763.9  | 765.1  | 781.2  | 660.9  | 592.7  | 524.5  | 501.0  | 513.4  |
| 72.5° | 12771.2 | 9837.2  | 879.2  | 608.9  | 644.8  | 617.5  | 603.9  | 545.6  | 484.9  | 457.6  | 466.3  |
| 75°   | 10524.2 | 7767.6  | 610.1  | 478.7  | 417.9  | 527.0  | 536.9  | 458.8  | 411.7  | 499.7  | 519.6  |
| 77.5° | 8314.5  | 5399.1  | 503.5  | 334.8  | 308.8  | 389.4  | 430.3  | 425.3  | 680.8  | 799.8  | 791.1  |
| 80°   | 4944.0  | 3108.8  | 410.5  | 231.9  | 218.2  | 250.5  | 338.5  | 488.6  | 762.6  | 572.9  | 545.6  |
| 82.5° | 2242.0  | 1413.6  | 218.2  | 121.5  | 142.6  | 166.2  | 253.0  | 607.6  | 499.7  | 367.1  | 346.0  |
| 85°   | 875.5   | 461.3   | 86.8   | 53.3   | 49.6   | 62.0   | 115.3  | 292.6  | 200.9  | 162.4  | 162.4  |
| 87.5° | 112.8   | 83.1    | 24.8   | 18.6   | 16.1   | 19.8   | 37.2   | 162.4  | 94.2   | 79.4   | 76.9   |
| 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)